

**Commissioners Court -- NOVEMBER 1, 2022
NOTICE OF A MEETING OF THE
COMMISSIONERS COURT OF HAYS COUNTY, TEXAS**



This Notice is posted pursuant to the Texas Open Meetings Act. (VERNON'S TEXAS CODES ANN. GOV. CODE CH.551). The Hays County Commissioners Court will hold a meeting at **9:00 A.M.** on NOVEMBER 1, 2022, in the Hays County Courthouse, Room 301, San Marcos, Texas. An Open Meeting will be held concerning the following subjects:

A. **CALL TO ORDER**

B. **INVOCATION**

C. **PLEDGE OF ALLEGIANCE - Pledge of Allegiance to the American Flag & Pledge of Allegiance to the Texas Flag**

D. **ROLL CALL**

E.

PUBLIC COMMENTS
At this time 3-MINUTE comments will be taken from the audience on Non-Agenda related topics. To address the Court, please submit a Public Participation/ Witness Form to the County Clerk. Please Complete the Public Participation/ Witness Form in its Entirety. NO ACTION MAY BE TAKEN BY THE COURT DURING PUBLIC COMMENTS .

F.

PRESENTATIONS & PROCLAMATIONS
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1. Adopt a Proclamation observing the first Saturday of every November as Harvey E. Miller Day of Service. **INGALSBE**
2. Adopt a Proclamation recognizing Native American Heritage Month. **BECERRA**
3. Presentation to the recipient of the Honorary 4-H Award. **SMITH**
4. Presentation by Ardurra regarding use of American Rescue Plan Act (ARPA) funds for the Kyle Area Senior Zone (KASZ). **INGALSBE**
5. Presentation by Ardurra regarding use of American Rescue Plan Act (ARPA) funds for the Wimberley Education Foundation. **SHELL**
6. Presentation by Ardurra regarding use of American Rescue Plan Act (ARPA) funds for Burke Center for Youth. **SMITH**
7. Presentation by Ardurra regarding use of American Rescue Plan Act (ARPA) funds for Gunner Thames Memorial Foundation. **SMITH**
8. Presentation by Ardurra regarding use of American Rescue Plan Act (ARPA) funds for the Dripping Springs Education Foundation. **SMITH**
9. Presentation by Ardurra regarding use of American Rescue Plan Act (ARPA) funds for Hill Country Rally for Kids, Inc. **SMITH**

G.

CONSENT ITEMS

The following may be acted upon in one motion.

A Commissioner, the County Judge, or a Citizen may request items be pulled for separate discussion and/or action.

1. Approve payments of County invoices. **VILLARREAL-ALONZO**
2. Approve the payment of Juror checks. **VILLARREAL-ALONZO**
3. Approve the payment of United Healthcare claims. **VILLARREAL-ALONZO**
4. Approve the payment of the November 15, 2022 payroll disbursements in an amount not to exceed \$3,300,000.00 effective November 15, 2022 and post totals for wages, withholdings, deductions and benefits on the Hays County website once finalized. **BECERRA/RICHEY**
5. Approve Commissioners Court Minutes of October 25, 2022. **BECERRA/CARDENAS**.
6. Approve the reappointment Fred Rothert to the Plum Creek Conservation District, a four-year term ending December 31, 2026. **JONES**
7. Approve the reappointment of Karen Brown, Jodi Steen, Erica Gallardo, Dixie Camp and Karen Housewright to the board of the Hays County Child Protective Board, three-year terms ending December 31, 2025. **BECERRA**
8. Approve specifications for IFB 2023-B02 RM 2770 Roadway Improvements and authorize Purchasing to solicit for bids and advertise. **SMITH/BORCHERDING**
9. Authorize the submission of a grant application to the Texas Department of Emergency Management, Hazard Mitigation Grant Program in the amount of \$146,058.00. **SHELL/T.CRUMLEY/MIKE JONES**
10. Authorize the County Judge to execute a \$900.00 Subscription Support Agreement with Dover Fueling Solutions for the Transportation Department related to the OPW fuel system and amend the budget accordingly. **SHELL/BORCHERDING**
11. Authorize the County Judge to execute Contract Amendment #4 with Pritchard Industries, SW, formerly known as PBS of Texas, related to Countywide Janitorial Services pursuant to RFP 2020-P02 and amend the budget accordingly. **INGALSBE/T.CRUMLEY**
12. Authorize the County Judge to execute a General and No Litigation Certificate of Hays related to the issuance of bonds by Capital Area Housing Finance Corporation for Blanco Basin, located in San Marcos, Hays County, Texas and Farm Street Village, located in Bastrop, Bastrop County, Texas. **BECERRA**
13. Ratify the execution of the venue rental agreement between the Hays County Health Department and Dripping Springs Ranch Park for the rental of the venue used for the 2022 New Parents Preparedness Forum. **INGALSBE/T.CRUMLEY**
14. Authorize the Office of Emergency Services to accept and utilize insurance proceeds for Water & Earth Technologies to repair Low Water Crossing equipment located at Windy Hill Rd at Andrews Branch; authorize a discretionary exemption pursuant to Texas Local Government Code, Ch. 262.024(a)(7)(D) and amend the budget accordingly. **BECERRA/MIKE JONES**
15. Authorize the Sheriff's Office to add a \$45.00 telephone allowance for the Corrections Officer slot number 0605-017 effective November 1, 2022. **INGALSBE/CUTLER**
16. Approve out-of-state travel for Detectives Chase Fuller, Zach Miller, Nelson Wray and Eric Zediker to attend the International Crimes Against Children Conference on December 12-14, 2022 in Orlando, Florida. **INGALSBE/CUTLER**
17. Approve Utility Permits. **JONES/INGALSBE/BORCHERDING**

18. Amend the Department of Public Safety, License & Weight Division's county operating budget for travel expenses related to Records Management training. **INGALSBE/HORNER**
19. Approve renewal of IFB 2020-B02 Hauling Solid Waste with JJ's waste and Recycling of Texas, LLC. and Texas Disposal Systems for one (1) additional year as stated in the original bid. **SHELL/SMITH/T.CRUMLEY**

H.

ACTION ITEMS

I.

ROADS

1. Discussion and possible action to consider the acceptance of road construction & surface drainage improvements, release of the subdivision bond #08BSBIW4813 in the amount of \$4,800,135.72, acceptance of the 2-year maintenance bond #PB03016800900 in the amount of \$401,852.15, and acceptance of the 1-year revegetation bond #PB03016800899 in the amount of \$36,288.00 for Sunset Oaks subd., Section 1, Phase 2. **INGALSBE/BORCHERDING**

J.

SUBDIVISIONS

1. PLN-2023-NP; Anthem, Ph 1C-3 Subdivision (1 Lot). Discussion and possible action to approve final plat and accept fiscal surety for street and drainage improvements. **SMITH/MACHACEK**
2. PLN-2024-NP; Anthem, Ph 1C-2 Subdivision (2 Lots). Discussion and possible action to approve final plat and accept fiscal surety for street and drainage improvements. **SMITH/MACHACEK**
3. PLN-2035-NP - Anthem, Phase 2 Subdivision (81 Lots). Discussion and possible action to approve final plat and accept fiscal surety for street and drainage improvements. **SMITH/MACHACEK**
4. PLN-2036-NP; Anthem, Phase 3 Subdivision (74 Lots). Discussion and possible action to approve final plat and accept fiscal surety for street and drainage improvements. **SMITH/MACHACEK**

K.

MISCELLANEOUS

1. Discussion and possible action to appoint Arthur Ardolino to the Hays County Child Protective Board, a three-year term ending December 31, 2025. **BECERRA**
2. Discussion and possible action to authorize the County Judge to execute an Amendment to the License and Services Agreement with Tyler Technologies, Inc. related to the Jury Manager Software module. **INGALSBE/McGILL**
3. Discussion and possible action to authorize the execution of a contract between Hays County and Halff and Associates, Inc. for engineering services related to the Onion Creek Watershed Hydraulic Study and amend the budget accordingly. **JONES/SMITH/T.CRUMLEY/PACHECO**
4. Discussion and possible action to authorize the County Judge to execute a contract for the Development Services Department between Hays County and ESRI, Inc. for a Small Government Term Enterprise License Agreement; authorize a discretionary exemption pursuant to Texas Local Government Code, Ch. 262.024(a)(7) (D) and amend the budget accordingly. **BECERRA/PACHECO**

L.

EXECUTIVE SESSIONS
The Commissioners Court will announce that it will go into Executive Session, if necessary, pursuant to Chapter 551 of the Texas Government Code, to receive advice from Legal Counsel to discuss matters of land acquisition, litigation and personnel matters as specifically listed on this agenda. The Commissioners Court may also announce it will go into Executive Session, if necessary, to receive advice from Legal Counsel regarding any other item on this agenda.

1. Executive Session pursuant to Sections 551.071 and 551.087 of the Texas Government Code: consultation with counsel and deliberation regarding economic development negotiations associated with Project Shamrock. Possible action may follow in open court. **INGALSBE**

M.

STANDING AGENDA ITEMS

The Commissioners Court utilizes Standing Agenda Items to address issues that are frequently or periodically discussed in court. This section allows the Court to open the item when a need for discussion arises.

1. Discussion and possible action related to the burn ban. **BECERRA**
2. Discussion related to the Hays County inmate population, to include current population counts and costs. **BECERRA**
3. Discussion of issues related to the Hays County Jail, and the planning of projects pertaining to the public safety facilities needs within the County. Possible action may follow. **INGALSBE/CUTLER**
4. Discussion and possible action regarding Hays County's use of federal or other grant funding related to COVID-19 response including but not limited to the American Rescue Plan Act (ARPA) and the Emergency Rental Assistance Program (ERAP). **BECERRA**

N. **ADJOURNMENT**

Posted by 5:00 o'clock P.M. on the 28th day of October, 2022
COMMISSIONERS COURT, HAYS COUNTY, TEXAS

CLERK OF THE COURT

Hays County encourages compliance with the Americans with Disabilities Act (ADA) in the conduct of all public meetings. To that end, persons with disabilities who plan to attend this meeting and who may need auxiliary aids such as an interpreter for a person who is hearing impaired are requested to contact the Hays County Judge's Office at (512) 393-2205 as soon as the meeting is posted (72 hours before the meeting) or as soon as practical so that appropriate arrangements can be made. While it would be helpful to receive as much advance notice as possible, Hays County will make every reasonable effort to accommodate any valid request regardless of when it is received. Braille is not available.



AGENDA ITEM REQUEST FORM

Hays County Commissioners Court

Date: 11/01/2022

Requested By: Jonafa Banbury / The Dunbar Heritage Association

Sponsor: Commissioner Ingalsbe

Agenda Item

Adopt a Proclamation observing the first Saturday of every November as Harvey E. Miller Day of Service. **INGALSBE**

Summary

Please refer to the attached proclamation.

Attachments

Proclamation - Harvey E. Miller Day



**PROCLAMATION OBSERVING THE FIRST SATURDAY OF EVERY NOVEMBER
AS HARVEY E. MILLER DAY OF SERVICE**

**STATE OF TEXAS §
 §
COUNTY OF HAYS §**

WHEREAS, The Dunbar Heritage Association and the Miller Family will observe the 2nd Annual Harvey Miller Day of Service, on Saturday November 5, 2022 as a day of service in honor of trailblazer, civil rights hero, community builder, youth worker, and historian Harvey E. Miller, “The Good-Looking Fella,” in recognition of his 54 years of service to the Hays County community; and

WHEREAS, Harvey Edward (Ercie) Miller was born on November 4, 1929 in Rocky Hollow outside of Georgetown Texas, the oldest of 10 children born to Frank and Elnora Sedwick Miller, and Harvey accepted Jesus as his Lord and Savior at a young age-though he was renowned as a prankster among his family and friends; and

WHEREAS, this exceptional citizen attended the Carver School in Georgetown and married his high school sweetheart, Ara Belle Jefferson, on July 7, 1948, and they brought into this world four beloved daughters, Chrystal (Chris) and Linda, both now deceased, Mittie (Kathie) and Tricia; and

WHEREAS, Harvey Miller and his family moved to San Marcos in 1966 where he had a distinguished career at Gary Job Corps Center for more than 35 years until his retirement, and Ara Belle Miller was the first African American nurse at the Hays County Health Department; and

WHEREAS, Mr. Miller helped to start a group called the Bridge Builders to improve race relations in the late 1960s and to transform the old Dunbar School site (the negro school) into a park and recreation center and became its first director.

WHEREAS, Harvey Miller initiated the annual Juneteenth Celebration commemorating the freeing of Texas slaves in 1865. He also helped Hays County residents understand and appreciate the significant contributions and legacy of African Americans citizens in our community and across Texas through his dedication, wisdom, and courage to speak to his mind; and

WHEREAS, this wonderful citizen is known for his support for the Greater Bethel Baptist Church and as the founder of the Dunbar Heritage Association, was the recipient in 2008 “Spirit of San Marcos Award,” and named “Outstanding Senior Volunteer” by The San Marcos Senior Citizen Advisory Board; and

WHEREAS, Deacon Harvey Miller, age 90, went to be with the Lord on September 1, 2020. He passed away peacefully in his San Marcos home surrounded by family and friends.

WHEREAS, Now, the extended family and friends of Harvey Miller will honor his legacy, and celebrate his 93rd birthday with the 2nd Annual Harvey Miller Day of Service on the first Saturday in November to honor this exceptional leader, father, grandfather, and great-grandfather;

NOW, THEREFORE, BE IT RESOLVED that the Hays County Commissioners Court does hereby proclaim the first Saturday of every November as:

“HARVEY E. MILLER DAY OF SERVICE”

And call upon the citizens of Hays County to recognize the immeasurable contributions of this highly esteemed citizen and honor him by serving the community.

ADOPTED THIS THE 1ST DAY OF NOVEMBER 2022

**Ruben Becerra
Hays County Judge**

**Debbie Gonzales Ingalsbe
Commissioner, Pct. 1**

**Mark Jones
Commissioner, Pct. 2**

**Lon A. Shell
Commissioner, Pct. 3**

**Walt Smith
Commissioner, Pct. 4**

ATTEST:

**Elaine H. Cárdenas, MBA, PhD
Hays County Clerk**



AGENDA ITEM REQUEST FORM

Hays County Commissioners Court

Date: 11/01/2022

Requested By:

Sponsor: Judge Becerra

Agenda Item

Adopt a Proclamation recognizing Native American Heritage Month. **BECERRA**

Summary

See attached proclamation.

Attachments

Proclamation - Native American Month



PROCLAMATION RECOGNIZING NATIVE AMERICAN HERITAGE MONTH

STATE OF TEXAS §
 §
COUNTY OF HAYS §

WHEREAS, the Coahuiltecan people who are currently labeled Hispanic have lived in this space now called Hays County for thousands of years, and this Ancient Indigenous Civilization thrived long before Texas and the United States were formed; and

WHEREAS, the area surrounding the headwaters of the San Marcos River is acknowledged by archeologists as the longest, continuously inhabited site in North America and for over 13,000 years has been the homeland of many Indigenous communities including the Coahuiltecan people; and

WHEREAS, Red Fox James, a Native American presumed to be from the Blackfoot Tribe of Montana, rode horseback from state to state seeking approval for a day to honor Indians, and on December 14, 1915, presented the endorsements of twenty-four state governments at the White House, yet there is no record, however, of such a national day being proclaimed; and

WHEREAS, Sherman Coolidge, President of the Congress of the American Indian Association, made an official declaration in 1915, also advocating for Native American Citizenship which Congress finally passed in June 1924 through the Indian Citizen Act, giving citizenship to all Native Americans born in the U.S.; and

WHEREAS, following previous efforts, in 1976 President Gerald Ford declared the first *Native American Awareness Week*, and in 1990 President George H. W. Bush approved a joint resolution designating November 1990 “National American Indian Heritage Month”, with similar proclamations having been issued each year since 1994; and

WHEREAS, November is a time to remember that American history began long before settlers stepped foot on the continent, and also a time to celebrate the many cultures and contributions of the country’s Indigenous peoples; and

WHEREAS, a worldwide movement of reparation has begun, to actively compensate Indigenous People for the destruction of their culture, suppression of their history, and theft of their land; and

WHEREAS, *Indigenous Cultures Institute* has existed since 2006 and is providing year-round programming for our community, such as the annual Sacred Springs Powwow, Indigenous Arts Summer Encounter, Repatriation, Yana Wana’s Legend of the Bluebonnet play for youth, Xinachtli Teaching Curriculum, Coahuiltecan Language Program, and the upcoming Indigenous Cultures Center; and

WHEREAS, *Indigenous Cultures Institute*, in collaboration with the *Council for the Indigenous and Tejano Community*, is making an effort to restore and elevate that culture and history;

NOW, THEREFORE, I, Ruben Becerra, Hays County Judge, and the Hays County Commissioners invite all to celebrate the significant contributions the first Americans made to the establishment and growth of the United States, and do hereby proclaim the celebration of November 2022 as

“NATIVE AMERICAN HERITAGE MONTH”

AND DO HEREBY CALL upon all citizens of Hays County to recognize and honor this enduring community of citizens.

ADOPTED THIS THE 1st DAY OF NOVEMBER 2022

Ruben Becerra
Hays County Judge

Debbie Gonzales Ingalsbe
Commissioner, Pct. 1

Mark Jones
Commissioner, Pct. 2

Lon A. Shell
Commissioner, Pct. 3

Walt Smith
Commissioner, Pct. 4

ATTEST:

Elaine H. Cárdenas, MBA, PhD
Hays County Clerk



AGENDA ITEM REQUEST FORM

Hays County Commissioners Court

Date: 11/01/2022

Requested By:

Sponsor: Commissioner Smith

Agenda Item

Presentation to the recipient of the Honorary 4-H Award. **SMITH**

Summary

Recipient will be announced during the presentation.



AGENDA ITEM REQUEST FORM

Hays County Commissioners Court

Date: 11/01/2022

Requested By:

Sponsor: Commissioner Ingalsbe

Agenda Item

Presentation by Ardurra regarding use of American Rescue Plan Act (ARPA) funds for the Kyle Area Senior Zone (KASZ). **INGALSBE**

Summary

Attachments

ARPA Agreement KASZ
ARPA Supplemental Conditions
KASZ PW

**HAYS COUNTY SOCIAL SERVICE FUNDING AGREEMENT
WITH KYLE AREA SENIOR ZONE**

This Social Service Funding Agreement ("the Agreement"), is made by and between **Hays County, Texas** (the "County") located at 712 S. Stagecoach Trail, Suite 1071, Texas 78666, and the **Kyle Area Senior Zone (KASZ)** (the "Agency"), a non-profit corporation, located at 101 S. Burleson Street, Kyle, Texas 78640 .

RECITALS

WHEREAS, on March 13, 2020, a Declaration of State of Disaster was issued by Governor Abbott certifying that the novel coronavirus (COVID-19), which has been recognized globally as a contagious respiratory virus, posed an imminent threat of disaster for all counties in Texas; and

WHEREAS, on April 12, 2020, Governor Abbott determined that that state of disaster continues to exist due to COVID-19 and issued a Proclamation renewing the disaster declaration for all counties; and

WHEREAS, on May 12, 2020, Governor Abbott determined that the state of disaster continues to exist due to COVID-19 and issued a Proclamation further renewing the disaster declaration for all counties; and

WHEREAS, as a result of COVID-19 and the response measures taken, the Agency is in need of assistance to meet the additional needs and services of the community, specifically funds to assist in the payment of programs, services, capital expenditures, or other assistance that is provided to a disproportionately impacted population affected by the COVID-19 pandemic by KASZ; and

WHEREAS, the Agency would like to request funding from the County made available under Sections 602(b) and 603(b) of the Social Security Act (the Act) as added by section 9901 of the American Rescue Plan Act ("ARPA Act");

WHEREAS, the County seeks to implement funding derived from the ARPA Act after March 2, 2021 in order to maximize benefits for Hays County residents; and

WHEREAS, the County desires to engage the Agency as a subrecipient to assist the County in utilizing the ARPA Act funds.

NOW, THEREFORE, WITNESSETH:

Recitals. The recitals to this Agreement are hereby incorporated for all purposes.

1. **Effective Date.** The effective date of this Agreement ("Effective Date") is the date this Agreement has been finally approved by the County. Agency understands that this Agreement is dependent upon the approval of the County.
2. **Term.** The initial term of this Agreement is from the Effective Date to provide ARPA Act funding through December 31, 2024. Unless terminated by either party pursuant to paragraph 4.6, the Agreement will automatically renew for purposes of administering ARPA Act Funds, until December 31, 2024. After 2024, the contract must be revisited by County's governing body.

I.

GENERAL OVERVIEW

- 1.1 Purpose. The County has in good faith determined that this Agreement serves a public purpose. This public purpose includes, but is not limited to, the Agency's efforts to meet the additional needs and services of the community, specifically staffing costs, unemployment insurance costs, professional fees, additional contract services, supplies and related equipment and additional financial assistance, all incurred due to the impact of COVID-19 or in the delivery of public health and safety operations for Hays County residents.
- 1.2 Use of Funds. The Agency understands that the funds provided to it by the County will be used solely for the program services as more particularly described in Exhibit "A", attached hereto and incorporated herein ("Allowable Expenditures").
- 1.3 Distribution of ARPA Act Funds. The County will pay ARPA Act funds during the period that begins on the Effective Date and ends on December 31, 2024. All funding will comply with ARPA program guidelines and services described in Exhibit A as attached.

The Agency agrees to accept the not to exceed amount of \$106,000.00 that will be disbursed from ARPA Act Funds.

II.

AGENCY PERFORMANCE REQUIREMENTS

- 2.1 Subrecipient Status. The County and the Agency agree that the Agency is a Subrecipient as described in 2 C.F.R. §§ 200.93. A Subrecipient is a non-Federal agency that receives a subaward from a pass-through entity to carry out a part of a Federal program. The Agency, as a subrecipient, will be responsible for administering the expenditures of the ARPA Act funds consistent with the terms and conditions of this Agreement and the Act. As a Subrecipient, the Agency will be responsible for, among other things, determining eligibility for distribution of Federal funds, making programmatic decisions, and taking responsibility for compliance with the ARPA Act and other federal laws.
- 2.2 Single Audit Act. The Allowable Expenditures are considered to be federal financial assistance subject to the Single Audit Act (31 U.S.C. §§ 7501-7507) and the related provisions of the Uniform Guidance, 2 C.F.R. §§ 200.303 regarding internal controls, §§ 200.330 through 200.332 regarding subrecipient monitoring and management, and subpart F regarding audit requirements. The Agency agrees to comply with the above.
- 2.3 Allowable Expenditures. The Agency agrees to comply with all applicable federal, state and local laws and regulations governing the expenditure of funds under this Agreement. The Agency shall submit to the County Auditor's office all necessary invoicing and appropriate documentation evidencing expenditures and that said expenditures are Allowable Expenditures. Allowable Expenditures are limited to those expenditures shown on Exhibit "A", attached hereto and incorporated herein. Despite this agreed upon payment, Agency agrees to return to the County the amount representing the prorated amount of the funds unearned if Agency's project progress

is insufficient or this agreement is terminated for any reason or if Agency fails in any other respect under this agreement.

- 2.4 County Audit. The Agency agrees to allow the County to review Agency records to determine their compliance with the terms of this Agreement. Agency, during normal business hours shall allow County reasonable access to its records and books and all other relevant records related to the administrative services provided for in this Agreement.

III.

COUNTY PERFORMANCE REQUIREMENTS

- 3.1 County Payment Responsibility. After receipt of the Agency's invoices, the County will endeavor to pay the Allowable Expenditures as soon as possible, but in any event no more than once monthly. The County shall have no obligation to pay Agency any Allowable Expenses over \$106,000 from ARPA Act Funds.

IV.

ADDITIONAL REQUIREMENTS RELATED TOTHE AMERICAN RESCUE PLAN ACT (ARPA) (C.F.D.A. 21027)

- 4.1 Use of Funds
- a. Recipient understands and agrees that the funds disbursed under this award may only be used in compliance with section 603(c) of the Social Security Act (the Act), Treasury's regulations implementing that section, and guidance issued by Treasury regarding the foregoing.
 - b. Recipient will determine prior to engaging in any project using this assistance that it has the institutional, managerial, and financial capability to ensure proper planning, management, and completion of such project.
- 4.2 Scope of Activities; Budget.
- a. Activities. The Agency shall provide and administer the ARPA Act activities with the provisions of this Agreement (hereinafter "Activities").
 - i. Such Activities shall include those activities included in the ARPA Act funds budget attached to this Agreement as Exhibit A.
 - ii. The Agency shall make no unauthorized changes in the ARPA Act Activities as approved by the County; however, amounts allocated to line items within the total amount of the Budget may be transferred without formal amendment among items upon written request by the Agency and approval by the County. All other changes must be amended in accordance with Section V of this Agreement.
 - b. Budget. The Agency has submitted for approval to the County a detailed ARPA Act funds budget; which, in its approved form, is attached hereto as Exhibit A (hereinafter "Budget"). The County and the Agency may mutually agree to revise said budget from time to time in accordance with existing County policies. The County will pay to Agency ARPA Act funds consistent with

Agency's Budget and in accordance with applicable County procedures, if any.

Except for lump sum advance payments authorized by the federal regulations and approved by the County, all payments made by Agency will be made for eligible expenses actually incurred and shall not exceed actual cash requirements.

- 4.3 Period of Performance The period of performance for this award begins on the date hereof and ends on December 31, 2026. As set forth in Treasury's implementing regulations, Recipient may use award funds to cover eligible costs incurred during the period that begins on December 21, 2021, and ends on December 31, 2026.
- 4.4 Reporting Recipient agrees to comply with any reporting obligations established by Treasury as they relate to this award.
- 4.5 Payment
- a. Amount of Grant. The amount to be paid to the Agency for the provision and administration of Activities under this Agreement shall be the total budget amount included in the ARPA funds budget attached to this contract as Exhibit A, payable as follows: drawdowns for the payment of eligible expenses shall be made upon Exhibit C, reviewed and approved by Hays County Program Manager for eligibility under the ARPA and for compliance with the terms of this Agreement.
 - b. Vouchers; Voucher Review, Approval and Audit. Payments shall be made to the Agency as a reimbursement and shall be expressly contingent upon (i) the Agency submitting a request on Exhibit C, that (a) states costs of programs, services, capital expenditures, or other assistance that is provided to a disproportionately impacted population affected by the COVID-19 pandemic by KASZ, (b) certifies that the activities performed and the payment requested are in accordance with the terms of this Agreement, and (c) is accompanied by documentation satisfactory to the County supporting the amount claimed, including, where applicable, copy of Payroll Reports that show Salary and Fringe Benefits for Staff, Contracts for Professional Services, Invoices and Proof of Payment for Professional Services, Contractual Services, and Administrative Costs paid by the Agency during the preceding month, and (ii) review, approval and audit of the Exhibit C by the County Program Manager and/or the County Auditor or his or her duly designated representative (the "Auditor"). Drawdowns for the payment of eligible expenses shall be made against the activities specified herein and in accordance with applicable performance requirements.
- 4.6 Insurance Payments Funds may be used to pay for Insurance Premiums for Hays County Residents who are uninsured.
- 4.7 Maintenance of and Access to Records
- a. Recipient shall maintain records and financial documents sufficient to evidence compliance with section 603(c) of the Act, Treasury's regulations implementing that section, and guidance issued by Treasury regarding the foregoing.
 - b. The Treasury Office of Inspector General and the Government Accountability Office, or their authorized representatives, shall have the right of access to records (electronic and otherwise) of Recipient in order to conduct audits or other investigations.
 - c. Records shall be maintained by Recipient for a period of five (5) years after all funds have been expended or returned to Treasury, whichever is later.
- 4.8 Pre-award Costs. Pre-award costs, as defined in 2 C.F.R. § 200.458, may not be paid with funding from

this award.

- 4.9 Administrative Costs Recipient may use funds provided under this award to cover both direct and indirect costs.
- 4.10 Cost Sharing. Cost sharing or matching funds are not required to be provided by Recipient.
- 4.11 Conflicts of Interest Recipient understands and agrees it must maintain a conflict of interest policy consistent with 2 C.F.R. § 200.318(c) and that such conflict-of-interest policy is applicable to each activity funded under this award. Recipient and subrecipients must disclose in writing to Treasury or the pass-through entity, as appropriate, any potential conflict of interest affecting the awarded funds in accordance with 2 C.F.R. § 200.112.
- 4.12 Compliance with Applicable Law and Regulations
- a. Recipient agrees to comply with the requirements of section 603 of the Act, regulations adopted by Treasury pursuant to section 603(f) of the Act, and guidance issued by Treasury regarding the foregoing. Recipient also agrees to comply with all other applicable federal statutes, regulations, and executive orders, and Recipient shall provide for such compliance by other parties in any agreements it enters into with other parties relating to this award.
- b. Federal regulations applicable to this award include, without limitation, the following:
- i. Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards, 2 C.F.R. Part 200, other than such provisions as Treasury may determine are inapplicable to this Award and subject to such exceptions as may be otherwise provided by Treasury. Subpart F - Audit Requirements of the Uniform Guidance, implementing the Single Audit Act, shall apply to this award.
 - ii. Universal Identifier and System for Award Management (SAM), 2 C.F.R. Part 25, pursuant to which the award term set forth in Appendix A to 2 C.F.R. Part 25 is hereby incorporated by reference.
 - iii. Reporting Subaward and Executive Compensation Information, 2 C.F.R. Part 170, pursuant to which the award term set forth in Appendix A to 2 C.F.R. Part 170 is hereby incorporated by reference.
 - iv. OMB Guidelines to Agencies on Governmentwide Debarment and Suspension (Nonprocurement), 2 C.F.R. Part 180, including the requirement to include a term or condition in all lower tier covered transactions (contracts and subcontracts described in 2 C.F.R. Part 180, subpart B) that the award is subject to 2 C.F.R. Part 180 and Treasury's implementing regulation at 31 C.F.R. Part 19.
 - v. Recipient Integrity and Performance Matters, pursuant to which the award term set forth in 2 C.F.R. Part 200, Appendix XII to Part 200 is hereby incorporated by reference.
 - vi. Governmentwide Requirements for Drug-Free Workplace, 31 C.F.R. Part 20.
 - vii. New Restrictions on Lobbying, 31 C.F.R. Part 21.
 - viii. Uniform Relocation Assistance and Real Property Acquisitions Act of 1970 (42 U.S.C. §§ 4601-4655) and implementing regulations.

ix. Generally applicable federal environmental laws and regulations.

c. Statutes and regulations prohibiting discrimination applicable to this award include, without limitation, the following:

- i. Title VI of the Civil Rights Act of 1964 (42 U.S.C. §§ 2000d et seq.) and Treasury's implementing regulations at 31 C.F.R. Part 22, which prohibit discrimination on the basis of race, color, or national origin under programs or activities receiving federal financial assistance;
- ii. The Fair Housing Act, Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§ 3601 et seq.), which prohibits discrimination in housing on the basis of race, color, religion, national origin, sex, familial status, or disability;
- iii. Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. § 794), which prohibits discrimination on the basis of disability under any program or activity receiving federal financial assistance;
- iv. The Age Discrimination Act of 1975, as amended (42 U.S.C. §§ 6101 et seq.), and Treasury's implementing regulations at 31 C.F.R. Part 23, which prohibit discrimination on the basis of age in programs or activities receiving federal financial assistance; and
- v. Title II of the Americans with Disabilities Act of 1990, as amended (42 U.S.C. §§ 12101 et seq.), which prohibits discrimination on the basis of disability under programs, activities, and services provided or made available by state and local governments or instrumentalities or agencies thereto.

4.13 Remedial Actions In the event of Recipient's noncompliance with section 603 of the Act, other applicable laws, Treasury's implementing regulations, guidance, or any reporting or other program requirements, Treasury may impose additional conditions on the receipt of a subsequent tranche of future award funds, if any, or take other available remedies as set forth in 2 C.F.R. § 200.339. In the case of a violation of section 603(c) of the Act regarding the use of funds, previous payments shall be subject to recoupment as provided in section 603(e) of the Act.

4.14 Hatch Act Recipient agrees to comply, as applicable, with requirements of the Hatch Act (5 U.S.C. §§ 1501-1508 and 7324-7328), which limit certain political activities of State or local government employees whose principal employment is in connection with an activity financed in whole or in part by this federal assistance.

4.15 False Statements Recipient understands that making false statements or claims in connection with this award is a violation of federal law and may result in criminal, civil, or administrative sanctions, including fines, imprisonment, civil damages and penalties, debarment from participating in federal awards or contracts, and/or any other remedy available by law.

4.16 Publications, Any publications produced with funds from this award must display the following language: "This project [is being] [was] supported, in whole or in part, by federal award number [enter project FAIN] awarded to [name of Recipient] by the U.S. Department of the Treasury."

4.17 Debts Owed the Federal Government

- a. Any funds paid to Recipient (1) in excess of the amount to which Recipient is finally determined

to be authorized to retain under the terms of this award; (2) that are determined by the Treasury Office of Inspector General to have been misused; or (3) that are determined by Treasury to be subject to a repayment obligation pursuant to section 603(e) of the Act and have not been repaid by Recipient shall constitute a debt to the federal government.

- b. Any debts determined to be owed the federal government must be paid promptly by Recipient. A debt is delinquent if it has not been paid by the date specified in Treasury's initial written demand for payment, unless other satisfactory arrangements have been made or if the Recipient knowingly or improperly retains funds that are a debt as defined in paragraph 14(a). Treasury will take any actions available to it to collect such a debt.

4.18 Disclaimer

- a. The United States expressly disclaims any and all responsibility or liability to Recipient or third persons for the actions of Recipient or third persons resulting in death, bodily injury, property damages, or any other losses resulting in any way from the performance of this award or any other losses resulting in any way from the performance of this award or any contract, or subcontract under this award.
- b. The acceptance of this award by Recipient does not in any way establish an agency relationship between the United States and Recipient.

4.19 Protections for Whistleblowers.

- a. In accordance with 41 U.S.C. § 4712, Recipient may not discharge, demote, or otherwise discriminate against an employee in reprisal for disclosing to any of the list of persons or entities provided below, information that the employee reasonably believes is evidence of gross mismanagement of a federal contract or grant, a gross waste of federal funds, an abuse of authority relating to a federal contract or grant, a substantial and specific danger to public health or safety, or a violation of law, rule, or regulation related to a federal contract (including the competition for or negotiation of a contract) or grant.
- b. The list of persons and entities referenced in the paragraph above includes the following:
 - i. A member of Congress or a representative of a committee of Congress;
 - ii. An Inspector General;
 - iii. The Government Accountability Office;
 - iv. A Treasury employee responsible for contract or grant oversight or management;
 - v. An authorized official of the Department of Justice or other law enforcement agency;
 - vi. A court or grand jury; or
 - vii. A management official or other employee of Recipient, contractor, or subcontractor who has the responsibility to investigate, discover, or address misconduct.
- c. Recipient shall inform its employees in writing of the rights and remedies provided under this section, in the predominant native language of the workforce.

4.20 Increasing Seat Belt Use in the United States. Pursuant to Executive Order 13043, 62 FR 19217 (Apr. 18, 1997), Recipient should encourage its contractors to adopt and enforce on-the-job seat belt policies and programs for their employees when operating company-owned, rented or personally owned vehicles.

- 4.21 Reducing Text Messaging While Driving Pursuant to Executive Order 13513, 74 FR 51225 (Oct. 6, 2009), Recipient should encourage its employees, subrecipients, and contractors to adopt and enforce policies that ban text messaging while driving, and Recipient should establish workplace safety policies to decrease accidents caused by distracted drivers.

V

GENERAL CONDITIONS

- 5.1. Amendments or Modifications. No amendments or modifications to this Agreement may be made, nor any provision waived, unless in writing signed by a person duly authorized to sign agreements on behalf of each party.
- 5.2. Relationship of Parties. In performing this Agreement, both the County and Agency will act in an individual capacity, and not as agents, representatives, employees, employers, partners, joint-venturers, or associates of one another. The employees or agents of either party may not be, nor be construed to be, the employees or agents of the other party for any purpose.
- 5.3. Captions. The captions in this Agreement are for convenience only and are not a part of this Agreement. The captions do not in any way limit or amplify the terms and provisions of this Agreement.
- 5.4. Venue and Law. Venue for any legal action related to this Agreement is in Hays County, Texas. This Agreement is subject to all legal requirements of County, State and Federal laws, and Agency agrees that it will promptly comply with all such applicable laws, regulations, orders and rules of the State, County and other applicable governmental agencies. This Agreement shall be governed by and construed in accordance with the laws and court decisions of the State of Texas without regard, however, to the conflicts of laws provisions of Texas law.
- 5.5. Sole Agreement. This Agreement constitutes the sole Agreement between County and Agency. Any prior agreements, promises, negotiations, or representations, verbal or otherwise, not expressly stated in this Agreement, are of no force and effect.
- 5.6. Termination: This Agreement may be terminated at any time at the option of either party, without future or prospective liability for performance upon giving thirty (30) days written notice thereof.
- 5.7. Survival of terms of Agreement and obligations of parties. The terms of this Agreement and the obligation of the parties relating to Section 14 shall survive the termination of this Agreement.
- 5.8. Public Information Act Requirements. The requirements of Subchapter J, Chapter 552, Government Code, may apply to this contract and the Agency agrees that the contract can be terminated if the Agency knowingly or intentionally fails to comply with a requirement of that subchapter.
- 5.9. Certificate of Interested Parties. Agency agrees to comply with Texas Government Code Section 2252.908, as it may be amended, and to complete Form 1295 "Certificate of Interested Parties" as part of this Agreement if required by said statute.

5.10 Notices. Notices required by this Agreement are as follows:

County;

County Judge
111 E. San Antonio St., Ste. 300
San Marcos, Texas 78666

and

County Auditor
712 S. Stagecoach Trail, Suite 1071
San Marcos, Texas 78666

Agency:

Kyle Area Senior Zone (KASZ)
101 S. Burleson Street
Kyle, Texas 78640
Attention: Betty Conley

5.11 Procurement. The Parties recognize that Agency's status as a Subrecipient satisfies procurement requirements under 2 C.F.R. Part 200. However, should the laws of the State of Texas also or instead be applied to this Agreement, then the Parties agree that the Hays County Commissioners Court, by way of approving this Agreement, has granted an exemption to competitive procurement pursuant to Texas Local Government Code §262.024(a)(4) and §262.024(a)(2).

(SIGNATURE PAGE FOLLOWS)

HAYS COUNTY, TEXAS.

By: _____
Ruben Becerra
Hays County Judge

_____ Date

ATTEST:

By: _____
Elaine H. Cardenas MBA PhD

_____ Date

Kyle Area Senior Zone (KASZ)

By: _____
Betty Conley
Interim President

_____ Date

**SUPPLEMENT OF FEDERALLY REQUIRED CONTRACT PROVISIONS PURSUANT
TO THE AMERICAN RESCUE PLAN ACT**

The County of Hays (the “County”) is the recipient of American Rescue Plan Act (“ARPA”) funds from the United States Department of the Treasury (the “U.S. Treasury”). The County will be utilizing ARPA funds to pay for eligible expenses incurred under an agreement dated as of [INSERT DATE] [AS AMENDED], by and between the Agency] and the County (the “Agreement”). Since the County will be utilizing ARPA funds to pay for expenses incurred under the Agreement, the Contractor shall comply with the following federally required supplementary conditions (the “Supplementary Conditions”) which are hereby incorporated into the Agreement.

Notwithstanding anything to the contrary in the Agreement, except as expressly provided under the terms of these Supplementary Conditions, the terms of these Supplementary Conditions shall be deemed to control in the event of a conflict with other provisions contained in the Agreement. The Contractor shall not perform any act, fail to perform any act, or refuse to comply with any County requests that would cause the County to be in violation of these Supplementary Conditions.

SUPPLEMENTARY CONDITIONS

The following terms and conditions apply to the Agreement.

GENERAL CONDITIONS

1. **PROVISIONS REQUIRED BY LAW DEEMED INSERTED.** Each and every provision of law and clause required by law to be inserted in the Agreement and/or these Supplementary Conditions, including, but not limited to all federal laws, regulations, executive orders, policies, procedures, and directives applicable to the receipt of ARPA funds, shall be deemed to be inserted herein and the Agreement and Supplementary Conditions shall be read and enforced as though it were included herein, and if through mistake or otherwise any such provision is not inserted, or is not correctly inserted, then upon the application of either party the Agreement and/or Supplementary Conditions shall forthwith be supplemented to make such insertion or correction.
2. **STATUTORY AND REGULATORY COMPLIANCE.** Contractor shall comply with all laws and regulations applicable to the ARPA funds, including but not limited to the applicable Office of Management and Budget Circulars, which may impact the administration of ARPA funds and/or set forth certain cost principles, including the allowability of certain expenses.
3. **BREACH OF CONTRACT TERMS.** The County reserves its right to all administrative, contractual, or legal remedies, including but not limited to suspension or termination of the Agreement, in instances where the Contractor or any of its subcontractors violate or breach any Agreement term. If the Contractor or any of its subcontractors violate or breach any Agreement term, they shall be subject to such sanctions and penalties as may be appropriate. The duties and obligations imposed by these Supplementary Conditions and the Agreement and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law.
4. **ADMINISTRATIVE, COST, AUDIT AND PROGRAM REQUIREMENTS.** The Contractor must comply with the most recent version (unless a specific version is noted) of the Administrative Requirements, Cost Principles, and Audit requirements, and to the extent necessary cooperate and maintain information and documentation to allow County to comply with the applicable regulations governing use of the ARPA funds, including, but not limited to, 2 CFR Part 200 – Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards. Failure to do so may result in disallowance of costs upon audit. The Contractor, and, if applicable, subcontractors, shall only use ARPA funds for eligible ARPA activities as described under subsection (c)(1) of Section 603 of Title VI of the Social Security Act, as added by Section 9901 of ARPA, Section 35(b) of the ARPA Interim Final Rule (and final rule when effective), and all other applicable laws and regulations governing the use of ARPA funds.

5. RECORDS AND REPORTING REQUIREMENTS. The Contractor shall establish and maintain complete records, including accurate books, records, documents, accounts, financial records, supporting documents, statistical records, and all other evidence and records pertinent to performance of work done for the County under the Agreement (the “Records”) consistent with generally accepted bookkeeping practices. Contractor shall retain the Records in accordance with Section 16 below. The County and any person or entity authorized to conduct an examination shall have access to the Records during normal business hours at an office of the Contractor within the County of Hays or, if no such office is available, at a mutually agreeable and reasonable venue within the County of Hays, for the term specified above for the purposes of inspection, auditing and copying. Nothing contained herein shall diminish, or in any way adversely affect, the County’s right to discovery in any pending or future litigation. The Contractor shall complete and submit all reports, in such form and according to such schedule, as may be required by the County. The Contractor shall cooperate with all County efforts to comply with ARPA related requirements and regulations pertaining to recordkeeping and reporting.

6. RIGHTS TO INVENTIONS MADE UNDER A CONTRACT OR AGREEMENT. Contracts or agreements for the performance of experimental, developmental, or research work shall provide for the rights of the Federal Government and the County in any resulting invention in accordance with 37 C.F.R. Part 401, “Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements,” and any implementing regulations issued by the U.S. Treasury.

7. DEBARMENT AND SUSPENSION. The Agreement is a covered transaction for purposes of 2 C.F.R. Part 180 and 2 C.F.R. Part 3000. As such the Contractor is required to verify that the Contractor and none of its principals (defined at 2 C.F.R. § 180.995), or its affiliates (defined at 2 C.F.R. § 180.905) are excluded (defined at 2 C.F.R. § 180.940) or disqualified (defined at 2 C.F.R. § 180.935). The Contractor must comply with 2 C.F.R. Part 180, subpart C and 2 C.F.R. Part 3000, subpart C and must include a requirement to comply with these regulations in any lower tier covered transaction (e.g., subcontract) it enters into. This certification is a material representation of fact relied upon by the County. If it is later determined that the Contractor did not comply with 2 C.F.R. Part 180, subpart C and 2 C.F.R. Part 3000, subpart C, in addition to remedies available to the County, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment. The Contractor agrees to comply with the requirements of 2 C.F.R. Part 180, subpart C and 2 C.F.R. Part 3000, subpart C throughout the period of the Agreement. The Contractor further agrees to include a provision requiring such compliance in its lower tier covered transactions.

8. CONFLICTS OF INTEREST. The Contractor shall notify the County as soon as possible if the Agreement or any aspect related to the anticipated work under this Agreement raises an actual or potential conflict of interest (as described in 2 C.F.R. Part 200). The Contractor shall explain the actual or potential conflict in writing in sufficient detail so that the County is able to assess such actual or potential conflict. The Contractor shall provide the County any additional information necessary for the County to fully assess and address such actual or potential conflict of interest. The Contractor shall accept any reasonable conflict mitigation strategy employed by the County, including but not limited to the use of an independent subcontractor(s) to perform the portion of work that gives rise to the actual or potential conflict. If requested by the County,

Contractor shall sign a certification affirming that it has no conflict of interest arising from performance of work on a specific task.

9. SUBCONTRACTING. The Contractor represents to the County that all work shall be performed by personnel experienced in the appropriate and applicable profession and areas of expertise, taking into account the nature of the work to be performed under the Agreement. The Contractor will include these Supplementary Conditions in every subcontract issued by it so that such provisions will be binding upon each of its subcontractors as well as the requirement to flow down such terms to all lower-tiered subcontractors.

10. ASSIGNABILITY. The Contractor shall not assign any interest in the Agreement, and shall not transfer any interest in the same (whether by assignment or novation) without prior written approval of the County.

11. INDEMNIFICATION. The Contractor shall indemnify, defend, and hold harmless the County and their agents and employees from and against any and all claims, actions, suits, charges, and judgments arising from or related to the negligence or willful misconduct of the Contractor in the performance of the services called for in the Agreement.

12. TERMINATION. If the Agreement does not include termination provisions elsewhere, the following termination provisions apply:

- A. **TERMINATION FOR CAUSE (Applicable to contracts exceeding \$10,000).** If, through any cause, the Contractor shall fail to fulfill in a timely and proper manner his obligations under the Agreement, or if the Contractor shall violate any of the covenants, agreements, or stipulations of the Agreement, the County shall thereupon have the right to terminate the Agreement by giving written notice to the Contractor of such termination and specifying the effective date thereof, at least five (5) days before the effective date of such termination. In such event, all finished or unfinished documents, data, studies, surveys, drawings, maps, models, photographs, and reports prepared by the Contractor under the Agreement shall, at the option of the County, become the County's property and the Contractor shall be entitled to receive just and equitable compensation for any work satisfactorily completed hereunder. Notwithstanding the above, the Contractor shall not be relieved of liability to the County for damages sustained by the County by virtue of any breach of the Agreement by the Contractor, and the County may withhold any payments to the Contractor for the purpose of set-off until such time as the exact amount of damages due the County from the Contractor is determined.
- B. **TERMINATION FOR CONVENIENCE (Applicable to contracts exceeding \$10,000).** The County may terminate the Agreement at any time by giving at least ten (10) days' notice in writing to the Contractor. If the Agreement is terminated by the County as provided herein, the Contractor will be paid for the time provided and expenses incurred up to the termination date.

13. LOBBYING (Applicable to Agreements exceeding \$100,000). The Contractor certifies, to the best of its knowledge and belief, that:

- A. No federal appropriated funds have been paid or will be paid, by or on behalf of the Contractor, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.
- B. If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant, loan, or cooperative agreement, the Contractor shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- C. The Contractor shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by the Byrd Anti-Lobbying Amendment (31 U.S.C. § 1352). Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

15. AUDIT / ACCESS TO RECORDS. The County, U.S. Treasury, the Comptroller General of the United States, the Office of the Hays County Auditor, pertinent federal agencies, and other designated entities, or any of their duly authorized representatives, shall have, at any time and from time to time during normal business hours, access to any work product, books, documents, papers, and records of the Contractor which are directly pertinent to the Agreement, for the purpose of inspection, audits, examinations, and making excerpts, copies and transcriptions. Such audits may include review of the Contractor's accounting, financial, and reporting practices to determine compliance with the Agreement and reporting requirements; maintenance of accurate and reliable original accounting records in accordance with governmental accounting standards as well as generally accepted accounting principles; and specific compliance with allowable cost and expenditure documentation standards prescribed by applicable federal, State, and County guidelines. The Contractor agrees to provide the above referenced entities or their authorized representatives access to construction or other work sites pertaining to the work being completed under the Agreement. The foregoing is not intended to limit the County's right to audit and/or access Contractor records that may be provided under the Agreement.

16. MAINTENANCE/RETENTION OF RECORDS. Contractor shall retain all financial records, supporting documents, statistical records, and all other records pertinent to the Agreement (collectively, the "Records") (i) for three (3) years from the time of closeout of ARPA funds to the

County that are applicable to the Agreement or for the period provided in other applicable laws and program requirements, such as 2 C.F.R. Part 200, (ii) for six (6) years after the closeout of the Agreement, (iii) for the minimum retention period that may be provided under the Agreement, or (iv) as long as required by state law, whichever may be longer.

17. COPYRIGHT. Any creative or literary work developed or commissioned by the Contractor with ARPA funding provided by the County under the Agreement shall become the property of the County, entitling the County to assert a copyright therein, unless the parties have expressly agreed otherwise in a written instrument signed by them or if the ARPA funding provisions provide otherwise.

- A. If the County shares its right to copyright such work with the Contractor, the County and U.S. Treasury reserves a royalty-free, nonexclusive, and irrevocable license to reproduce, publish or otherwise use, and to authorize others to use: (a) the copyright in any work developed using ARPA funding provided by the County under the Agreement; and (b) any rights of copyright to which the Contractor, sub-Contractor, or a contractor purchases ownership with ARPA funding support provided by the County under the Agreement.
- B. The Contractor shall submit one copy of all reports and publications resulting from the Agreement to the County within thirty (30) calendar days of completion. Any document generated pursuant to the ARPA funding must contain the following language:

“This project was supported by ARPA funding administered by the County of Hays, Texas and the U.S. Department of the Treasury. Points of view in this document are those of the author and do not necessarily represent the official position or policies of the County of Hays, New York or the U.S. Department of the Treasury.”

18. COUNTY SEAL, LOGO, AND FLAGS. The Contractor shall not use the County seal(s), logos, crests, or reproductions of flags or likenesses of County agency officials without specific County pre-approval.

19. NO OBLIGATION BY FEDERAL GOVERNMENT. The Federal Government is not a party to the Agreement or these Supplementary Conditions and is not subject to any obligations or liabilities to the County, Contractor, or any other party pertaining to any matter resulting from the Agreement.

20. PROGRAM FRAUD AND FALSE OR FRAUDULENT STATEMENTS OR RELATED ACTS. The Contractor acknowledges that 31 U.S.C. Chap. 38 (Administrative Remedies for False Claims and Statements) applies to the Contractor’s actions pertaining to the Agreement.

21. PROHIBITION ON CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT.

- A. The Contractor and/or applicable subcontractor is prohibited from obligating or expending loan or grant funds to:

1. procure or obtain;
 2. extend or renew a contract to procure or obtain; or
 3. enter into a contract (or extend or renew a contract) to procure or obtain equipment, services, or systems that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. As described in Public Law 115–232, section 889, covered telecommunications equipment is telecommunications equipment produced by Huawei Technologies Company or ZTE Corporation (or any subsidiary or affiliate of such entities).
 - I. For the purpose of public safety, security of government facilities, physical security surveillance of critical infrastructure, and other national security purposes, video surveillance and telecommunications equipment produced by Hytera Communications Corporation, Hangzhou Hikvision Digital Technology Company, or Dahua Technology Company (or any subsidiary or affiliate of such entities).
 - II. Telecommunications or video surveillance services provided by such entities or using such equipment.
 - III. Telecommunications or video surveillance equipment or services produced or provided by an entity that the Secretary of Defense, in consultation with the Director of the National Intelligence or the Director of the Federal Bureau of Investigation, reasonably believes to be an entity owned or controlled by, or otherwise connected to, the government of a covered foreign country.
- B. In implementing the prohibition under Public Law 115–232, section 889, subsection (f), paragraph (1), heads of executive agencies administering loan, grant, or subsidy programs shall prioritize available funding and technical support to assist affected businesses, institutions and organizations as is reasonably necessary for those affected entities to transition from covered communications equipment and services, to procure replacement equipment and services, and to ensure that communications service to users and customers is sustained.
- C. The Contractor and/or applicable subcontractor’s attention is directed to Public Law 115–232, section 889 for additional information.
- D. The Contractor and/or applicable subcontractor’s attention is directed to 2 CFR § 200.471.

22. DOMESTIC PREFERENCES FOR PROCUREMENTS.

- A. As appropriate and to the extent consistent with law, the Contractor and applicable subcontractors should, to the greatest extent practicable under a Federal award, provide a preference for the purchase, acquisition, or use of goods, products, or materials produced in the United States (including but not limited to iron, aluminum, steel, cement, and other manufactured products). The requirements of this section must be included in all subawards including all contracts and purchase orders for work or products under this award.
- B. For purposes of this section:
 - 1. “Produced in the United States” means, for iron and steel products, that all manufacturing processes, from the initial melting stage through the application of coatings, occurred in the United States.
 - 2. “Manufactured products” means items and construction materials composed in whole or in part of nonferrous metals such as aluminum; plastics and polymer-based products such as polyvinyl chloride pipe; aggregates such as concrete; glass, including optical fiber; and lumber.

CIVIL RIGHTS AND DIVERSITY PROVISIONS

23. SMALL AND MINORITY FIRMS, WOMEN’S BUSINESS ENTERPRISES, AND LABOR SURPLUS AREA FIRMS. The Contractor will comply with the small and minority firms, women’s business enterprise, and labor surplus area requirements as set forth at 2 C.F.R. Part 200. Contractor will use its best efforts to afford small businesses, minority business enterprises, and women’s business enterprises the maximum practicable opportunity to participate in the performance of the Agreement. As used in these Supplementary Conditions, the terms “small business” means a business that meets the criteria set forth in Section 3(a) of the Small Business Act, as amended (15 U.S.C. § 632), and “minority and women’s business enterprise” means a business at least fifty-one (51) percent owned and controlled by minority group members or women. For the purpose of this definition, “minority group members” are Afro-Americans, Spanish-speaking, Spanish surnamed, or Spanish-heritage Americans, Asian-Americans, and American Indians. The County may rely on written representations by businesses regarding their status as minority and female business enterprises in lieu of an independent investigation.

The Contractor will take necessary affirmative steps to assure that minority firms, women’s business enterprises, and labor surplus area firms are used in subcontracting when possible. Steps include:

- A. Placing qualified small and minority businesses and women’s business enterprises on solicitation lists;

- B. Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;
- C. Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority business, and women's business enterprises;
- D. Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority business, and women's business enterprises; and
- E. Using the services and assistance of the Small Business Administration, and the Minority Business Development Agency of the Department of Commerce.

24. TITLES VI AND VIII OF THE CIVIL RIGHTS ACT OF 1964 AND EXECUTIVE ORDER 11063. The Contractor shall comply with the provisions of Titles VI and VIII of the Civil Rights Act of 1964 and with Executive Order 11063. No person shall, on the grounds of race, color, religion, sex, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance. No person shall, on the grounds of race, color, religion, sex, or national origin, be discriminated against in the sale, rental, or financing of dwellings. To the extent that any such sale, lease or other transfer of land shall occur, Contractor, in undertaking its obligation to carry out the program assisted hereunder, will not itself so discriminate.

25. SECTION 504 OF THE REHABILITATION ACT OF 1973 AND THE AMERICANS WITH DISABILITIES ACT OF 1990. The Contractor shall comply with section 504 of the Rehabilitation Act of 1973 (29 U.S.C. § 794), as amended, and any applicable regulations, and with the Americans with Disabilities Act of 1990 (42 U.S.C. § 126), as amended, and any applicable regulations. The Contractor agrees that no qualified individual with handicaps shall, solely on the basis of handicap, be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any program or activity that receives federal financial assistance.

26. AGE DISCRIMINATION ACT OF 1975. The Contractor shall comply with the Age Discrimination Act of 1975 (42 U.S.C. § 6101 et seq.), as amended, and any applicable regulations. No person in the United States shall, on the basis of age, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under, any program or activity receiving federal financial assistance.

27. NONDISCRIMINATION. The Contractor shall comply with all federal, state, and local statutory, regulatory and constitutional non-discrimination provisions. Except as otherwise provided under 41 CFR Part 60, if the Agreement meets the definition of "federally assisted construction contract" in 41 CFR Part 60-1.3, the Contractor shall comply with and must include in each non-exempt subcontract the following equal opportunity clause provided under 41 CFR § 60-1.4(b), in accordance with Executive Order 11246, "Equal Employment Opportunity" (30 FR 12319, 12935, 3 CFR Part, 1964-1965 Comp., p. 339), as amended by Executive Order 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and

implementing regulations at 41 CFR part 60, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor":

- A. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, gender identity, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, sexual orientation, gender identity, or national origin. Such action shall include, but not be limited to the following: Employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
- B. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, sexual orientation, gender identity, or national origin.
- C. The Contractor will not discharge or in any other manner discriminate against any employee or applicant for employment because such employee or applicant has inquired about, discussed, or disclosed the compensation of the employee or applicant or another employee or applicant. This provision shall not apply to instances in which an employee who has access to the compensation information of other employees or applicants as a part of such employee's essential job functions discloses the compensation of such other employees or applicants to individuals who do not otherwise have access to such information, unless such disclosure is in response to a formal complaint or charge, in furtherance of an investigation, proceeding, hearing, or action, including an investigation conducted by the employer, or is consistent with the Contractor's legal duty to furnish information.
- D. The Contractor will send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- E. The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- F. The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to its books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.

- G. In the event of the Contractor's noncompliance with the nondiscrimination clauses of these Supplementary Conditions or with any of the said rules, regulations, or orders, the Agreement may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- H. The Contractor will include the portion of the sentence immediately preceding paragraph (A) and the provisions of paragraphs (A) through (H) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance; *provided*, however, that in the event a Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the administering agency, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

With respect to construction contracts and subcontracts exceeding \$10,000, The Contractor shall comply with Executive Order 11246 of September 24, 1965, entitled "Equal Employment Opportunity," as amended by Executive Order 11375 of October 13, 1967; Executive Order 11478 of August 8, 1969; Executive Order 12107 of December 28, 1978; Executive Order 12086 of October 5, 1978; and as supplemented in Department of Labor regulations (41 C.F.R. Part 60). Contractor shall include the following specifications, which are required pursuant to 41 C.F.R. 60-4.3 in all Federal and federally assisted construction contracts in excess of \$10,000 to be performed in geographical areas designated by the Director (as such term is defined below) pursuant to and as referenced in 41 C.F.R. 60-4.6 and in construction subcontracts in excess of \$10,000 necessary in whole or in part to the performance of nonconstruction Federal contracts and subcontracts covered under the Executive Order 11246. For the purposes of the Equal Opportunity Construction Contract Specifications and Clause below, the term "Construction Work" means the construction, rehabilitation, alteration, conversion, extension, demolition or repair of buildings, highways, or other changes or improvements to real property, including facilities providing utility services. The term also includes the supervision, inspection, and other onsite functions incidental to the actual construction.

29. SECTION 503 OF THE REHABILITATION ACT OF 1973 (Applicable to contracts exceeding \$10,000). The Contractor shall comply with section 503 of the Rehabilitation Act of 1973 (29 U.S.C. § 793), as amended, and any applicable regulations.

- A. The Contractor will not discriminate against any employee or applicant for employment because of physical or mental disability in regard to any position for which the employee or applicant for employment is qualified. The Contractor agrees to take affirmative action

to employ, advance in employment and otherwise treat qualified individuals with disabilities without discrimination based on their physical or mental disability in all employment practices, including the following:

1. Recruitment, advertising, and job application procedures;
 2. Hiring, upgrading, promotion, award of tenure, demotion, transfer, layoff, termination, right of return from layoff and rehiring;
 3. Rates of pay or any other form of compensation and changes in compensation;
 4. Job assignments, job classifications, organizational structures, position descriptions, lines of progression, and seniority lists;
 5. Leaves of absence, sick leave, or any other leave;
 6. Fringe benefits available by virtue of employment, whether or not administered by the Contractor;
 7. Selection and financial support for training, including apprenticeship, professional meetings, conferences, and other related activities, and selection for leaves of absence to pursue training;
 8. Activities sponsored by the Contractor including social or recreational programs; and
 9. Any other term, condition, or privilege of employment.
- B. The Contractor agrees to comply with the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the Rehabilitation Act of 1973.
- C. In the event of the Contractor's noncompliance with the requirements of this clause, actions for noncompliance may be taken in accordance with the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the Rehabilitation Act of 1973.
- D. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices in a form to be prescribed by the Deputy Assistant Secretary for Federal Contract Compliance Programs, provided by or through the contracting officer. Such notices shall state the rights of applicants and employees as well as the Contractor's obligation under the law to take affirmative action to employ and advance in employment qualified employees and applicants with disabilities. The Contractor must ensure that applicants and employees with disabilities are informed of the contents of the notice (e.g., the Contractor may have the notice read to a visually disabled individual, or may lower the posted notice so that it might be read by a person in a wheelchair).
- E. The Contractor will notify each labor organization or representative of workers with which it has a collective bargaining agreement or other contract understanding, that the Contractor is bound by the terms of section 503 of the Rehabilitation Act of 1973, as amended, and is committed to take affirmative action to employ and advance in employment individuals with physical or mental disabilities.
- F. The Contractor will include the provisions of this clause in every subcontract or purchase order in excess of \$10,000, unless exempted by the rules, regulations, or orders of the Secretary issued pursuant to section 503 of the Rehabilitation Act of 1973, as amended, so

that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the Deputy Assistant Secretary for Federal Contract Compliance Programs may direct to enforce such provisions, including action for noncompliance.

DRAFT



HCTX111_Kyle Area Senior Zone

HAYS COUNTY ARPA SLFRF PROJECT

HCTX110_Kyle Area Senior Zone

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1 KYLE AREA SENIOR ZONE

1.1 DESIGNATING A PUBLIC HEALTH IMPACT

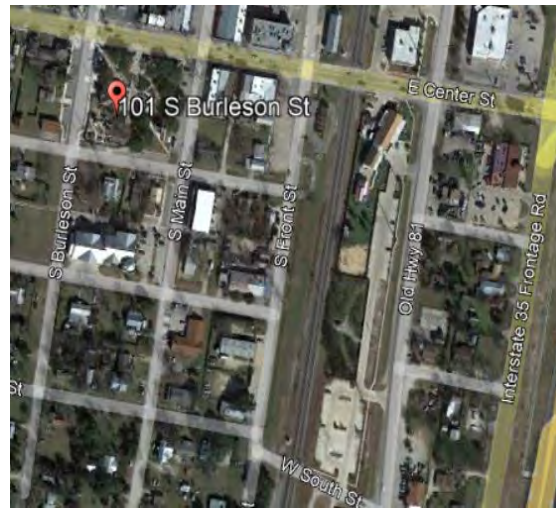
The Kyle Area Senior Zone, Inc. (KASZ) was formed in 2006 as a 501(c)(3) nonprofit public charity that normally receives a substantial part of their support from contributions and grants.

KASZ began and continues to operate in the Krug Activity Center (KAC), which is the former Kyle City Hall building, at 101 S Burleson St, Kyle, TX in 2007.

This building was constructed in 1912 on a parcel of land in a section designated for a public square in the original plan of Kyle and was added to the National Register of Historic Places on May 22, 2002¹.

The building serves as office and event space and is the location for a variety of social, educational, physical, mental, and recreational activities for senior residents (50 years and up), or younger adults with disabilities, in the Cities of Kyle, Buda, San Marcos, and Wimberley in Hays County. The building's Adell Hurst room is also available for a fee to area residents to host hourly or day long events².

Figure 1: Current Location of KASZ Office



The COVID-19 pandemic has disproportionately affected the senior population, i.e., people 50 years and older, by way of increased hospitalization infection and death³. Social isolation deemed necessary by family members and/or by living facilities as a health protective measure during the pandemic exacerbated this known existing barrier to health and well-being of people 50 years and older⁴.

When the pandemic prevented in-person gathering(s), KASZ ensured members maintained social connection(s) by increasing the use of technology and communications through emails and telephone chains, Zoom web meeting activities, web page, Facebook and printed monthly newsletters.

1.2 DESIGNING A RESPONSE TO A PANDEMIC HARM

KASZ resumed in-person events with precautions, i.e., purchase and use of extra sanitation and PPE products, as restrictions on group size(s) lessened in Texas in September 2020⁵ as part of the pandemic recovery process. Membership grew as five to ten new members joined each week.

¹ [Kyle City Hall - Wikipedia](#)

² [Special Event Facility Rental | City of Kyle, Texas - Official Website](#)

³ [Risk for COVID-19 Infection, Hospitalization, and Death By Age Group | CDC](#)

⁴ [Loneliness and Social Isolation Linked to Serious Health Conditions \(cdc.gov\)](#)

⁵ [Executive Order GA-30 Relating to the continued response to the COVID-19 disaster as Texas reopens](#)

KASZ offers members activities Monday to Sunday, such as painting, and exercise classes, and also hosts annual events, such as a pancake breakfast and silent auction. There are also special activities each weekday, such as a Tuesday Luncheon with information, speakers, and performances, and Friday movie night in conjunction with the Kyle Public Library.

The KAC allows KASZ to host a maximum of 75 people at a time for dancing events, and 125 people at a time, for seated events, due to maximum occupancy restrictions. KASZ's Profit and Loss Statement for October 2022 documents that they currently have 160 members (membership fees \$1,600; membership fee = \$10 per year). That means that to ensure public health and safety, only 46.7% to 78.1% of KASZ's members are allowed to participate in activities hosted within the existing building at any one time, i.e., 21.9% to 53.3% of its members are unable to participate.

Additionally, KAC's kitchen is substandard in terms of size and equipment needed to prepare food on-site for the popular Tuesday luncheon event so KASZ brings in food from local restaurants, caterers, and food trucks.

All events and services are provided by volunteers; KASZ currently has no full-time, paid staff. They do however hire independent contractors to provide exercise classes on-site.

KASZ membership numbers and attendance at events support the need for a larger facility for which to serve the needs of area people aged 50 and older. American Community Survey data supports this need as well. In the years 2019, 2020, and 2021, the County's population of people aged 50 and over remained around 27%, with the majority of residents being aged 50 to 64 years. There were increases in seven of the eight age groups in 2021 as the county population increased as a whole⁶.

Table 1: Hays County - Percent of Population Aged 50 to 85 years plus, 2019-2021

Age Group(s) (Years)	2019	2020	2021
50-54	11,961	11,840	13,994
55-59	12,338	12,063	12,678
60-64	11,422	10,950	13,220
65-69	8,910	8,855	8,970
70-74	7,685	7,226	11,300
75-79	3,335	3,892	4,918
80-84	3,742	2,421	1,813
85 yrs +	1,985	2,118	2,928
Yearly Sum	61,378	59,365	69,821
Total Population	230,191	222,827	255,397
% of Population	26.66%	26.64%	27.34%

The City of Kyle and Hays County are aware of KASZ's need for a new larger facility. A city-owned 4.5-acre parcel at 255 Creekside Trail, approximately 1.5 miles southeast of KAC, will serve as the site of a new 1-story, 38,726 sq ft. improved senior community center. The location of the new facility will be adjacent to the Rosalio Tobias Elementary school which will allow KASZ to enact its motto of "bridging generations, leaving a legacy" by continuing to offer intergenerational programs to connect all segments

⁶ American Community Survey 1-Year Estimates Subject Tables, 2019 -2021 [S0101: Census Bureau Table](#)

of the society. They anticipate being able to offer programs to connect seniors with families and children.

City staff and planners reviewed and approved “shovel ready” construction documents prepared by an architect. The \$600,000 cost of these documents is being shared by Hays County, City of Kyle, and KASZ each contributing \$200,000. The City and County have appropriated their contributions. KASZ has raised \$162,000 and is actively seeking the remaining \$38,000 in funding to complete its portion of the cost of the construction documents for the new facility.

The size of the new facility would allow more members to attend already popular events, while allowing more programs and events to be offered, and larger spaces overall, including a kitchen, dining room, storage and outdoor areas.

An additional \$8,000 in operational funds would support the increased cost for congregate meals for seniors, programs supplies and technology support.

Management of such a facility and programming would be best served by a full-time paid Director position. With start-up funds to cover a salary of \$60,000 for the first year, a Director would be able to help run programs, manage operations and seek future funding through private and public grants.

Hays County would be able to enhance the health and well-being of its citizens aged 50 and up by providing a new and improved community center for this population through a Subrecipient Agreement of \$106,000 with KASZ.

Figure 2: Site of KASZ's New Facility at 255 Creekside Trail



1.3 PROGRAM SUMMARY

Through a subrecipient agreement for the amount of \$106,000, KASZ would be able to obtain the construction ready documents for the New and Improved Senior Community Center, support operations, and provide one year's salary for a Director to assist with programs, operations and seek future funding for use with supporting their future salary as well as the continued operation of the new facility.

As the subrecipient, KASZ, will be responsible for collecting and managing all eligibility documentation. The subrecipient agreement ensures access to KASZ's records pertaining to this program. Audits will be performed by the Hays County to determine compliance with program requirements. Oversight of spending and program progress will be monitored through submission of KASZ's general ledger. KASZ will earn an administrative fee that is not to exceed 10% of the ARPA SLFRF monies.

2 COMPARATIVE ANALYSIS

2.1 REASONABLENESS & PROPORTIONALITY

KASZ has been operated and managed on 100% volunteer efforts since it began in 2006.

Hiring a Director for the annual salary of \$60,000 to assist with management and operation of the New and Improved Senior Community Center would be KASZ's first ever paid employee. The average non-profit Executive Director salary in Texas is \$83,876, with a range of \$73,319 to \$97,810, as of September 26, 2022⁷. Funding the first year of a Director position with \$60,000 salary is reasonable.

KASZ currently has a total of 77 volunteers. Of these, 26 assist the City with things such as events (10), city phones/library and the Philomena assisted living and memory care facility (16) and nine (9) are Board Members. The efforts of the remaining 42 volunteers' time donated is directly related to the operation and maintenance of KAC, including Culinary (15), Membership/Business (5), Facilitators (9), and Setup/Clean-up/Maintenance (13). These 42 Volunteers donate a total of 127 hours per week of their time to these activities that are essential to the success of KASZ.

Operation and maintenance of the new facility would continue to primarily rely on the effort and enthusiasm of volunteers.

The current estimated national value of each volunteer hour is \$29.95 per hour⁸. Applying this value to the number of KASZ's volunteers and their corresponding hours in anticipation of a similar effort being put forth in 2023 results in \$3,803.65 per week, \$15,214.60 per month, and \$182,575.20 per year.

Continued reliance on volunteer hours will save the City of Kyle a minimum of \$182,575.20 per year compared to hiring staff to assist the Director with operation and management of the proposed new facility.

Public and community facilities, such as the proposed new and improved Senior Community Center are some of the most expensive to build, with an average cost of \$403 per square foot (for this type of building) across the United States as a whole⁹. Applying this cost to the proposed 38,726 square foot new facility we get an estimated cost for construction of \$15 million. Commercial Architectural fees for this type of building is 4.5% of the cost of construction¹⁰, which is \$675,000 for a project such as the one proposed by KASZ. The \$600,00 cost KASZ will be paying the blueprints for the proposed new facility is reasonable.

⁷ [Nonprofit Executive Director Salary in Texas | Salary.com](#)

⁸ [Value of Volunteer Time Report | Independent Sector Resources](#)

⁹ [2022 Guide to US Building Commercial Construction Cost per Square Foot \(levelset.com\)](#)

¹⁰ [Commercial Architectural Fees | Architectural Fees](#) for a \$15M estimated cost of construction

3 ELIGIBILITY

3.1 FINAL RULE¹¹

A recipient may use funds to respond to the public health emergency or its negative economic impacts on a beneficiary or class of beneficiaries for one or more of the following purposes, including:

A program, service, capital expenditure, or other assistance that is provided to a disproportionately impacted household, population, or community, including Investments in communities to promote improved health outcomes and public safety such as parks, and recreation facilities.

The definition of disproportionately impacted in Title 31 Part 35.6(b)(2) includes non-profit organizations, i.e., KASZ, and populations on Supplemental Security Income (SSI), i.e., the population they serve.

Hays County awarding \$106,000 to KASZ as a subrecipient of ARPA SLRFR monies is an enumerated eligible use as the county would be investing in the community to promote improved health outcomes and public safety by investing in a new and improved senior community center; KASZ would be providing the service of procuring the construction ready architectural blueprints, and operating and managing the new facility on behalf of the county.

3.2 COMPENSATION – FRINGE BENEFITS ¹²

General. Compensation for personal services includes all remuneration, paid currently or accrued, for services of employees rendered during the period of performance under the Federal award, including but not necessarily limited to wages and salaries. Compensation for personal services may also include fringe benefits which are addressed in § 200.431. Costs of compensation are allowable to the extent that they satisfy the specific requirements of this part, and that the total compensation for individual employees:

- 1) Is reasonable for the services rendered and conforms to the established written policy of the non-Federal entity consistently applied to both Federal and non-Federal activities;
- 2) Follows an appointment made in accordance with a non-Federal entity's laws and/or rules or written policies and meets the requirements of Federal statute, where applicable; and
- 3) Is determined and supported as provided in paragraph (i) of this section, when applicable.

¹¹ [31 CFR 35.6\(b\)](#)

¹² 2 CFR 200.431(a)



AGENDA ITEM REQUEST FORM

Hays County Commissioners Court

Date: 11/01/2022

Requested By:

Sponsor: Commissioner Shell

Agenda Item

Presentation by Ardurra regarding use of American Rescue Plan Act (ARPA) funds for the Wimberley Education Foundation. **SHELL**

Summary

Attachments

ARPA - Wimberley Education Foundation
Wimberley Education Foundation PW

HAYS COUNTY AMERICAN RESCUE PLAN RECOVERY GRANT AGREEMENT

PLEASE READ THIS ENTIRE AGREEMENT CAREFULLY, CONSULT WITH YOUR COUNSEL AS APPROPRIATE, AND DO NOT SIGN IT IF YOU HAVE ANY QUESTIONS, AS YOUR SIGNATURE BELOW BINDS YOU TO EACH OF THE REPRESENTATIONS AND OBLIGATIONS DETAILED IN THIS AGREEMENT.

This Agreement is entered into by and between Hays County (“Hays County”) and Chris Smith, Principal Information Officer, of The Wimberley Education Foundation, (“Beneficiary”), located at 951 FM2325, Wimberley, TX 78676 on the date below written.

SECTION 1 – FUNDING

The parties acknowledge that funding for this Agreement comes solely as a grant made of a sum not to exceed \$21,600 in funds received from Hays County allocation of American Rescue Plan (ARP) State and Local Fiscal Recovery Fund (SLFRF), CSLFRF Assistance Listing Number Hays County ALN 21.027. As such, ARP funding must be administered by Hays County for utilization in accordance with eligible ARP activities as described under subsection (c)(1) of Section 603 of Title VI of the Social Security Act, as added by Section 9901 of ARP. Hays County does not have any obligation or commitment whatsoever (1) to provide Beneficiary with funds from any other source, or (2) to provide any sum in excess of the amount above set forth allocated hereunder by Hays County. Any public mention of the Grant shall acknowledge Hays County as Funder. Printed copies of said acknowledgement shall be provided to Hays County.

SECTION 2 - EXPENDITURES ELIGIBLE FOR GRANT

Grant funds may be used to mitigate Beneficiary’s financial hardship from the increased costs and revenue loss as a result of the public health emergency or its negative economic impacts. Through the grant the Beneficiary will be able to recover the recover decreased revenue.

SECTION 3 – BENEFICIARY REPRESENTATIONS AND OBLIGATIONS

Funds are provided to Beneficiary to support continued operations of Beneficiary’s current Hays County business/special-purpose unit of local government /non-profit entity (501(c)(3) and 501(c)(19) organizations only).

Beneficiary acknowledges that the use of Grant funds can only be used for working capital to mitigate and recover from the extraordinary expenses and revenue loss resulting from the shutdowns and other direct and indirect impacts of COVID-19. The use of grant funds for prohibited expenses or investments may result in an action to recover funds misspent, with interest and such costs as may be allowable by law.

Grantee certifies, warrants and represents that Beneficiary is in full compliance with and not delinquent in payment of any taxation to which Beneficiary is subject, Beneficiary is a special-purpose unit of local government or a 501(c)(3) or a 501(c)(19) or is a small business that has no more than five hundred (500) full-time equivalent employees as of October 11, 2022 or is a small business concern as defined in section 3 of the Small Business Act (15 U.S.C. 632), and that Beneficiary fully qualifies for receipt of federal funds originally disbursed to Hays County to address negative economic impacts associated with the COVID-19 pandemic.

Beneficiary will provide and cooperate with any information and documentation requests necessary to evaluate compliance with this Agreement, including, without limitation, applicable Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (2 CFR part 200). Additionally, Beneficiary will provide and cooperate with any information and documentation requests necessary to support subrecipient compliance with administration of ARP funding, including reporting requirements contained in subsection (d) of Section 603 of Title VI of the Social Security Act.

By signing below, *Beneficiary certifies that all of the following statements are true:*

- The business/special-purpose unit of local government /non-profit (501(c)(3) or 501(c)(19) entity only) is located in Hays County and has a valid license or authorization to operate in the State of Texas.
- The Beneficiary is either:
 - A special-purpose unit of local government
 - A 501(c)(3); or
 - A 501(c)(19); or
 - A small business concern as defined in section 3 of the Small Business Act (15 U.S.C. 632); or
 - A small business that has no more than 500 payroll employees as of July 14th, 2022.
- The Beneficiary experienced a financial loss or hardship due to the COVID-19 crisis and the working capital need to be supported by this grant is connected to the COVID-19 emergency and subsequent recovery.
- Beneficiary agrees and certifies that the funds will be spent for working capital expenses, and are not required to be used to pay for governmental related expenses (i.e. taxes, licenses, or governmental fees.)
- The working capital will be used to continue operations of the business/special-purpose unit of local government /non-profit entity.
- Beneficiary will return any unused funds to Hays County if the business awarded goes out of business before all of the funds are spent.
- Beneficiary has not been suspended or debarred in connection with any federal procurement.
- Beneficiary is not actively pursuing a bankruptcy declaration.
- Beneficiary does not have any Federal, State or Local Tax Liens.
- Beneficiary is not any of the following:
 - K-12 School
 - College or university

- Library
 - A nonprofit *other than* a 501(c)(3) or (19).
- Additionally, by signing below:
 - Beneficiary certifies that it has not received Funding (private, state, or federal) for the same expenses covered by the proceeds of this grant.
 - Beneficiary certifies that 55 employees were employed by the business/special-purpose unit of local government/non-profit as of September 20, 2022.

SECTION 4 - NONDISCRIMINATION CLAUSE

During the performance of this Agreement, Beneficiary covenants and agrees to comply with all federal and state nondiscrimination laws, including but not limited to, 42 U.S.C. 12101 et seq., the Americans with Disabilities Act (ADA).

SECTION 5 – MISCELLANEOUS

A. Compliance with Laws: Beneficiary covenants and agrees to comply with all existing applicable laws, ordinances, codes, regulations, and lawful orders of local, state and federal governments (including the publicly available terms of the Grant), all as now in effect or hereafter amended.

B. Unilateral Termination: Notwithstanding any other provisions of this Agreement, either party may terminate this Agreement by providing written notice of such termination, specifying the effective date thereof, at least thirty (30) days prior to such date.

C. Survival: The terms, conditions and obligations undertaken by the parties herein that by their sense and context are intended to survive the completion of performance or earlier termination of the Agreement shall so survive. Termination shall not in any event terminate this Agreement with respect to any actions or omissions by Beneficiary made or taken before such termination.

D. Defense and Indemnity: Beneficiary agrees to defend, indemnify and hold Hays County, its officers, directors, agents, employees and assigns from and against any and all claims, suits, judgments or orders resulting or alleged to have resulted from this Grant Agreement or Beneficiary's performance or lack thereof hereunder.

E. No Third-Party Beneficiary: This Agreement shall not be construed as a third-party beneficiary contract, being exclusively between the named parties herein, and is not entered into for the benefit of Beneficiary's creditors irrespective of status.

F. Dispute Resolution: Except as otherwise provided herein, if a bona fide dispute arises among the parties, their respective chief executives will confer in an effort to negotiate a resolution within ten (10) business days such dispute arises. This effort shall precede any judicial or quasi-judicial action with respect thereto, provided that the failure or refusal of any party to participate in such negotiate shall eliminate this condition precedent to judicial or quasi-judicial action.

G. Governing Law and Venue. This Agreement shall be construed and enforced in accordance with the laws of the State of Texas, to the jurisdiction of which the parties hereby submit. Venue in any suit arising out of this Agreement shall lie in a District Court in Hays County, Texas, or in the United States District Court—Western District, Austin Division, if applicable.

H. Assignment: Neither this Agreement nor any right or claim hereunder shall be transferred or assigned by Beneficiary without the prior consent of Hays County which consent may be withheld for any reason deemed sufficient by Hays County.

I. Notices: Notices may be hand delivered or emailed. In each case when delivered, or sent first class US Mail postage prepaid effective three business days after mailing, and in any case to the person and address indicated below or if different, to the address indicated in the last notice provided by the other party.

J. Severability: If any term or condition hereof, or application thereof to any person or circumstance is held invalid, such invalidity shall not affect any other terms, conditions or applications of the Agreement that can be given effect without such term, condition or application, to which end the terms hereof are declared severable.

K. Integration: This Agreement and any exhibits hereto represent the entire agreement between the parties. No other understandings, oral or written in any form, shall be binding upon any party hereto, provided that Beneficiary's application for the Grant shall remain effective for purposes of inducing the Grant.

L. Public Disclosure: The transaction evidenced by this Agreement is subject to such publicity & public records accessibility as Hays County, or their designees may from time to time determine. This right shall expressly survive termination of this Agreement for any reason. Beneficiary understands that any assurance in any form to the contrary is unauthorized and void.

All of the above is understood and confirmed as accurate and the Beneficiary as eligible and agreed to as a condition of accepting the Grant under this Agreement created September 20, 2022 through December 31, 2026.

SECTION 6 – PAYMENT

A. Amount of Grant: The amount to be paid to the Beneficiary for the provision and administration of Eligible Activities under this Grant Agreement shall be the total budget amount included in the Section 1 of this Grant Agreement, payable as follows: Fifty percent (50%) of the total amount of SLFRF Funds (Initial Payment) authorized under this Grant Agreement shall be payable upon execution of this Agreement and the remaining fifty percent (50%) of the SLFRF Funds authorized under this Agreement (Final Payment), shall be payable upon verification of completed project work, validation of actual expenditures and subject to compliance with the voucher procedures as described below.

B. Vouchers; Voucher Review, Approval and Audit: Initial Payment and Final Payment shall be made to the Beneficiary as authorized in Section 6 (A) above and shall be expressly

contingent upon (i) the Beneficiary submitting a claim voucher (the “Voucher”) in a form satisfactory to the County, that (a) states with reasonable specificity the Eligible Activities performed and the payment requested as reimbursement for such Eligible Activities, (b) certifies that the Eligible Activities performed and the payment requested are in accordance with the terms of this Grant Agreement, and (c) is accompanied by documentation satisfactory to the County supporting the amount claimed, including, where applicable, a certified payroll statement setting forth the names, positions and salaries paid by the Beneficiary during the preceding month, and (ii) review, approval and audit of the Voucher by the County Auditor or his or her duly designated representative (the “Auditor”). Drawdowns for the payment of eligible expenses shall be made against the Eligible Activities specified herein and in accordance with applicable performance requirements.

(SIGNATURES TO FOLLOW ON NEXT PAGE)

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed on the dates written below.

BENEFICIARY: Wimberley Education Foundation

Owner Name: Chris Smith

Owner Title: Principal Information Officer

SIGNATURE: _____

DATE: _____

Hays County

Ruben Becerra

Hays County Judge

SIGNATURE: _____

DATE: _____



HCTX111_Wimberley Education Foundation

HAYS COUNTY ARPA SLFRF PROJECT

HCTX111_Wimberley Education Foundation

1	Wimberley Education Foundation	2
1.1	Designating a Public Health Impact	2
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DRAFT

1 WIMBERLEY EDUCATION FOUNDATION

1.1 DESIGNATING A PUBLIC HEALTH IMPACT

Wimberley Education Foundation (WEF) is a 501(c)(3) non-profit organization that generates and distributes resources to or on behalf of the Wimberley Independent School District (WISD) to enrich teaching, inspire learning and maximize opportunities needed to meet the district's stated mission and promote excellence in education for all students in the WISD. WISD operates one primary school (students pre-k to 2nd grade), one elementary school (students 3rd to 5th grade), one junior high school (students 6th to 8th grade), and one high school (students 9th to 12th grade).

WEF operates via their location within WISD's Central Office at 951 FM2325, Wimberley, TX 78676¹. WEF coordinates efforts to achieve its mission by directing resources toward the following goals:

- Encourage all students to work toward their highest potential
- Innovative Teaching Grants
- Recognize staff for exemplary teaching
- Building community awareness for WEF
- Inspire parents and community to participate with the school district in enriching education

Tax exempt organizations are not required to file Form 990 or Form 990-EZ when their gross receipts are normally not more than \$50,000, i.e., WEF. Therefore, WEF's Profit and Loss statements for 2019 and 2020 were used to determine pandemic-induced revenue loss.

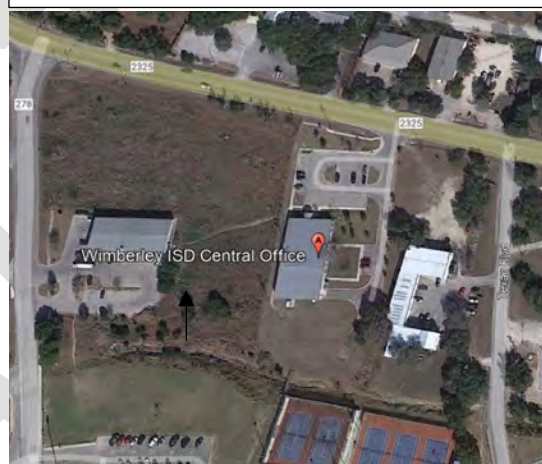
WEF experienced a revenue loss of \$29, 273.34 in 2019 and \$19,415.98 in 2020 due to a decrease in contributions and grants, and fund raising.

1.2 DESIGNING A RESPONSE TO A PANDEMIC HARM

WEF hosts two fund raising events per year, the proceeds of which fund two rounds of teacher grants, one in October and one in the Spring. The Spring awards consist of "mini-grants" and "innovative grants". COVID-19 group and crowd restrictions prohibited WEF from being able to host these annual fund-raising events in 2020. WEF was able to host an outdoor drive-in night during Halloween weekend. The funds from the outdoor event were combined with reserves to fund the October and Spring grants. However, WEF was unable to fund any "innovative grants" in Spring 2020.

Under the Coronavirus State and Local Fiscal Recovery Funds (SLFRF) Responding to the public health emergency or its negative economic impacts eligible use category, Hays County will mitigate WEF's financial hardship from the revenue loss. Through a grant of \$21,600 WEF will be able to:

Figure 1. WEF Office Location



¹ Figure 1 Google Earth Imagery

- Recover decreased revenue

The Final Rule enumerated Assistance to Nonprofits, defining them as 501(c)(3)s or (19)s, as an eligible use in which recipients could consider declines in revenues, e.g., from donations and fees, or increased costs, e.g., uncompensated increases in service need, or technical assistance, as impacts of the pandemic.

1.3 PROGRAM SUMMARY

WEF provided their profit and loss statements for 2019, and 2020 to support their eligibility as a beneficiary of ARPA SLFRF. WEF's funding of teacher grants for 2020 was reduced as a result of COVID 19 group and crowd restrictions, which curtailed the size of fundraising events. The validation and cost reasonableness analysis determined WEF can demonstrate a pandemic related harm up to \$21,600 the for the first year of the pandemic. Additional analysis would be needed to confirm continued harm into subsequent years. WEF's initial award is \$21,600

2 COMPARATIVE ANALYSIS

2.1 REASONABLENESS & PROPORTIONALITY

Due to the pandemic WEF saw a reduction in its revenue, which is primarily funded by contributions and grants.

The ARPA SLFRF grant is critical to help WEF bridge recover lost revenue experienced as a result of the COVID-19 pandemic. Table 1 shows there was an 84% drop in revenue from 2019 to 2020. Further, using the 5.2% growth rate provided by 31 CFR Part 35² to count projected annual growth in accordance with the US Treasury's revenue loss calculation, WEF's loss of revenue is \$21,630.55 for 2020.

Table 1: Profit and Revenue Loss

	2019	2020
Contributions and grants	42,587.98	23,172.00
Total Revenue	42,587.98	23,172.00
Total Expenses	54,345.00	19,903.00
Revenue less expenses	(11,757.02)	3,269.00
		(19,415.98)
		-84%
Projected Growth		\$44,802.55
Revenue Loss		(21,630.55)

² 31 CFR Part 35 Final Rule, C. Revenue Loss, Step 2, Footnote 282, "the final rule updates the percentage to 5.2% as shown in Step 2".

WEF hosts a Fall event and a Spring raffle each year to fund two rounds of teacher grants. The Spring awards consist of “mini-grants” and “innovative grants”.

COVID-19 group and crowd restrictions prohibited WEF from being able to host these annual fund-raising events in 2020. WEF was able to host an outdoor drive-in night during Halloween weekend which raised approximately \$7,000. The funds from the outdoor event were combined with reserves to fund the October and Spring grants. However, WEF was unable to fund any “innovative grants” in Spring 2020. Table 2 shows the number and award amount for each cycle from 2019 to 2021, including a forced reduction in the number and amount(s) of awards for 2020.

Table 2: WEF Teacher Grant Award Number and Amount for 2019 to 2021

Award Cycle	2019	2020	2021
Spring	9,171.42	3,637.37	5,498.05
October	23,437.78	9,553.23	35,172.84
Total Award	32,609.20	13,190.60	40,670.89
Spring Grants	19	9	13
October Grants	15	9	17
Total Grants	34.00	18.00	30.00

3 ELIGIBILITY

3.1 FINAL RULE³

Nonprofits eligible for assistance are those that experienced negative economic impacts or disproportionate impacts of the pandemic and meet the definition of “specifically those that are 501(c)(3) or 501(c)(19) tax exempt organizations”.

Recipients can identify nonprofits impacted by the pandemic, and measures to respond, in many ways; for example, recipients could consider:

- Decreased revenue, e.g., from reduced contributions

When a recipient provides funds to address that impact, it is then providing direct assistance to the nonprofit as a beneficiary under Subsection (c)(1) of Sections 602 and 603 of Title VI of the Social Security Act, amended by ARPA. Assistance to nonprofits that experienced negative economic impacts includes the following enumerated uses:

³ 31 CFR Part 35 - PANDEMIC RELIEF PROGRAMS Subpart A— CORONAVIRUS STATE AND LOCAL FISCAL RECOVERY FUNDS

- Loans or grants to mitigate financial hardship

3.1.1 Disproportionately Impacted Communities

“The final rule streamlines and aligns services and standards that are generally applicable or are provided for public health purposes. Under this approach, eligible uses to respond to the public health emergency are organized based on the type of public health problem: 1) COVID-19 mitigation and prevention, 2) medical expenses, 3) behavioral health care, and 4) preventing and responding to violence. Under this approach, eligible uses to respond to the negative economic impacts of the public health emergency are organized based on the type of beneficiary: 1) assistance to households, 2) assistance to small businesses, and 3) assistance to nonprofits”. These categories include enumerated eligible uses for impacted and disproportionately impacted beneficiaries⁴

⁴ 31 CFR Part 35 Final Rule A. Public Health and Negative Economic Impacts 1. General Provisions: Structure and Standards, Rule Structure



AGENDA ITEM REQUEST FORM

Hays County Commissioners Court

Date: 11/01/2022

Requested By:

Sponsor:

Commissioner Smith

Agenda Item

Presentation by Ardurra regarding use of American Rescue Plan Act (ARPA) funds for Burke Center for Youth. **SMITH**

Summary

Attachments

ARPA Agreement - Burke Center
Burke Center PW

HAYS COUNTY AMERICAN RESCUE PLAN RECOVERY GRANT AGREEMENT

PLEASE READ THIS ENTIRE AGREEMENT CAREFULLY, CONSULT WITH YOUR COUNSEL AS APPROPRIATE, AND DO NOT SIGN IT IF YOU HAVE ANY QUESTIONS, AS YOUR SIGNATURE BELOW BINDS YOU TO EACH OF THE REPRESENTATIONS AND OBLIGATIONS DETAILED IN THIS AGREEMENT.

This Agreement is entered into by and between Hays County (“Hays County”) and Steven Fournier, Principal Officer of The Burke Foundation, Inc., (“Beneficiary”), located at PO BOX 40, Driftwood, TX 78619 on the date below written.

SECTION 1 – FUNDING

The parties acknowledge that funding for this Agreement comes solely as a grant made of a sum not to exceed \$50,000 in funds received from Hays County allocation of American Rescue Plan (ARP) State and Local Fiscal Recovery Fund (SLFRF), CSLFRF Assistance Listing Number Hays County ALN 21.027. As such, ARP funding must be administered by Hays County for utilization in accordance with eligible ARP activities as described under subsection (c)(1) of Section 603 of Title VI of the Social Security Act, as added by Section 9901 of ARP. Hays County does not have any obligation or commitment whatsoever (1) to provide Beneficiary with funds from any other source, or (2) to provide any sum in excess of the amount above set forth allocated hereunder by Hays County. Any public mention of the Grant shall acknowledge Hays County as Funder. Printed copies of said acknowledgement shall be provided to Hays County.

SECTION 2 - EXPENDITURES ELIGIBLE FOR GRANT

Grant funds may be used to mitigate Beneficiary’s financial hardship from the increased costs and revenue loss as a result of the public health emergency or its negative economic impacts. Through the grant the Beneficiary will be able to recover the recover decreased revenue.

SECTION 3 – BENEFICIARY REPRESENTATIONS AND OBLIGATIONS

Funds are provided to Beneficiary to support continued operations of Beneficiary’s current Hays County business/special-purpose unit of local government /non-profit entity (501(c)(3) and 501(c)(19) organizations only).

Beneficiary acknowledges that the use of Grant funds can only be used for working capital to mitigate and recover from the extraordinary expenses and revenue loss resulting from the shutdowns and other direct and indirect impacts of COVID-19. The use of grant funds for prohibited expenses or investments may result in an action to recover funds misspent, with interest and such costs as may be allowable by law.

Grantee certifies, warrants and represents that Beneficiary is in full compliance with and not delinquent in payment of any taxation to which Beneficiary is subject, Beneficiary is a special-purpose unit of local government or a 501(c)(3) or a 501(c)(19) or is a small business that has no more than five hundred (500) full-time equivalent employees as of October 11, 2022 or is a small business concern as defined in section 3 of the Small Business Act (15 U.S.C. 632), and that Beneficiary fully qualifies for receipt of federal funds originally disbursed to Hays County to address negative economic impacts associated with the COVID-19 pandemic.

Beneficiary will provide and cooperate with any information and documentation requests necessary to evaluate compliance with this Agreement, including, without limitation, applicable Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (2 CFR part 200). Additionally, Beneficiary will provide and cooperate with any information and documentation requests necessary to support subrecipient compliance with administration of ARP funding, including reporting requirements contained in subsection (d) of Section 603 of Title VI of the Social Security Act.

By signing below, *Beneficiary certifies that all of the following statements are true:*

- The business/special-purpose unit of local government /non-profit (501(c)(3) or 501(c)(19) entity only) is located in Hays County and has a valid license or authorization to operate in the State of Texas.
- The Beneficiary is either:
 - A special-purpose unit of local government
 - A 501(c)(3); or
 - A 501(c)(19); or
 - A small business concern as defined in section 3 of the Small Business Act (15 U.S.C. 632); or
 - A small business that has no more than 500 payroll employees as of July 14th, 2022.
- The Beneficiary experienced a financial loss or hardship due to the COVID-19 crisis and the working capital need to be supported by this grant is connected to the COVID-19 emergency and subsequent recovery.
- Beneficiary agrees and certifies that the funds will be spent for working capital expenses, and are not required to be used to pay for governmental related expenses (i.e. taxes, licenses, or governmental fees.)
- The working capital will be used to continue operations of the business/special-purpose unit of local government /non-profit entity.
- Beneficiary will return any unused funds to Hays County if the business awarded goes out of business before all of the funds are spent.
- Beneficiary has not been suspended or debarred in connection with any federal procurement.
- Beneficiary is not actively pursuing a bankruptcy declaration.
- Beneficiary does not have any Federal, State or Local Tax Liens.
- Beneficiary is not any of the following:
 - K-12 School
 - College or university

- Library
 - A nonprofit *other than* a 501(c)(3) or (19).
- Additionally, by signing below:
 - Beneficiary certifies that it has not received Funding (private, state, or federal) for the same expenses covered by the proceeds of this grant.
 - Beneficiary certifies that (insert number) employees were employed by the business/special-purpose unit of local government/non-profit as of September 20, 2022.

SECTION 4 - NONDISCRIMINATION CLAUSE

During the performance of this Agreement, Beneficiary covenants and agrees to comply with all federal and state nondiscrimination laws, including but not limited to, 42 U.S.C. 12101 et seq., the Americans with Disabilities Act (ADA).

SECTION 5 – MISCELLANEOUS

A. Compliance with Laws: Beneficiary covenants and agrees to comply with all existing applicable laws, ordinances, codes, regulations, and lawful orders of local, state and federal governments (including the publicly available terms of the Grant), all as now in effect or hereafter amended.

B. Unilateral Termination: Notwithstanding any other provisions of this Agreement, either party may terminate this Agreement by providing written notice of such termination, specifying the effective date thereof, at least thirty (30) days prior to such date.

C. Survival: The terms, conditions and obligations undertaken by the parties herein that by their sense and context are intended to survive the completion of performance or earlier termination of the Agreement shall so survive. Termination shall not in any event terminate this Agreement with respect to any actions or omissions by Beneficiary made or taken before such termination.

D. Defense and Indemnity: Beneficiary agrees to defend, indemnify and hold Hays County, its officers, directors, agents, employees and assigns from and against any and all claims, suits, judgments or orders resulting or alleged to have resulted from this Grant Agreement or Beneficiary's performance or lack thereof hereunder.

E. No Third-Party Beneficiary: This Agreement shall not be construed as a third-party beneficiary contract, being exclusively between the named parties herein, and is not entered into for the benefit of Beneficiary's creditors irrespective of status.

F. Dispute Resolution: Except as otherwise provided herein, if a bona fide dispute arises among the parties, their respective chief executives will confer in an effort to negotiate a resolution within ten (10) business days such dispute arises. This effort shall precede any judicial or quasi-judicial action with respect thereto, provided that the failure or refusal of any party to

participate in such negotiate shall eliminate this condition precedent to judicial or quasi-judicial action.

G. **Governing Law and Venue.** This Agreement shall be construed and enforced in accordance with the laws of the State of Texas, to the jurisdiction of which the parties hereby submit. Venue in any suit arising out of this Agreement shall lie in a District Court in Hays County, Texas, or in the United States District Court—Western District, Austin Division, if applicable.

H. **Assignment:** Neither this Agreement nor any right or claim hereunder shall be transferred or assigned by Beneficiary without the prior consent of Hays County which consent may be withheld for any reason deemed sufficient by Hays County.

I. **Notices:** Notices may be hand delivered or emailed. In each case when delivered, or sent first class US Mail postage prepaid effective three business days after mailing, and in any case to the person and address indicated below or if different, to the address indicated in the last notice provided by the other party.

J. **Severability:** If any term or condition hereof, or application thereof to any person or circumstance is held invalid, such invalidity shall not affect any other terms, conditions or applications of the Agreement that can be given effect without such term, condition or application, to which end the terms hereof are declared severable.

K. **Integration:** This Agreement and any exhibits hereto represent the entire agreement between the parties. No other understandings, oral or written in any form, shall be binding upon any party hereto, provided that Beneficiary's application for the Grant shall remain effective for purposes of inducing the Grant.

L. **Public Disclosure:** The transaction evidenced by this Agreement is subject to such publicity & public records accessibility as Hays County, or their designees may from time to time determine. This right shall expressly survive termination of this Agreement for any reason. Beneficiary understands that any assurance in any form to the contrary is unauthorized and void.

All of the above is understood and confirmed as accurate and the Beneficiary as eligible and agreed to as a condition of accepting the Grant under this Agreement created September 20, 2022 through December 31, 2026.

SECTION 6 – PAYMENT

A. **Amount of Grant:** The amount to be paid to the Beneficiary for the provision and administration of Eligible Activities under this Grant Agreement shall be the total budget amount included in the Section 1 of this Grant Agreement, payable as follows: Fifty percent (50%) of the total amount of SLFRF Funds (Initial Payment) authorized under this Grant Agreement shall be payable upon execution of this Agreement and the remaining fifty percent (50%) of the SLFRF Funds authorized under this Agreement (Final Payment), shall be payable upon verification of completed project work, validation of actual expenditures and subject to compliance with the voucher procedures as described below.

B. Vouchers; Voucher Review, Approval and Audit: Initial Payment and Final Payment shall be made to the Beneficiary as authorized in Section 6 (A) above and shall be expressly contingent upon (i) the Beneficiary submitting a claim voucher (the “Voucher”) in a form satisfactory to the County, that (a) states with reasonable specificity the Eligible Activities performed and the payment requested as reimbursement for such Eligible Activities, (b) certifies that the Eligible Activities performed and the payment requested are in accordance with the terms of this Grant Agreement, and (c) is accompanied by documentation satisfactory to the County supporting the amount claimed, including, where applicable, a certified payroll statement setting forth the names, positions and salaries paid by the Beneficiary during the preceding month, and (ii) review, approval and audit of the Voucher by the County Auditor or his or her duly designated representative (the “Auditor”). Drawdowns for the payment of eligible expenses shall be made against the Eligible Activities specified herein and in accordance with applicable performance requirements.

(SIGNATURES TO FOLLOW ON NEXT PAGE)

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed on the dates written below.

BENEFICIARY: The Burke Foundation, Inc.

Owner Name: Steven Fournier

Owner Title: Executive Director

SIGNATURE: _____

DATE: _____

Hays County

Ruben Becerra

Hays County Judge

SIGNATURE: _____

DATE: _____



HCTX111_Burke Center for Youth

HAYS COUNTY ARPA SLFRF PROJECT

HCTX111_Burke Center for Youth

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DRAFT

1 BURKE CENTER FOR YOUTH

1.1 DESIGNATING A PUBLIC HEALTH IMPACT

Burke Center for Youth (BCFY) is a 501(c)(3) non-profit organization that normally receives a substantial part of their support from a governmental unit or from the general public to provide therapeutic experiences and treatment services at Pathfinders Ranch at 20800 FM 150 W, Driftwood, TX 78619 to young men and boys from all parts of Texas. The BCFY also provides foster and adoption services through its child placement agency offices in Corpus Christi, TX, Lardeo, TX, and Harlingen, TX¹.

BCFY's Form-990 for the years 2019² (\$6,464,994) and 2020 (\$4,571,184) document a \$1.89M decrease in gross revenue due to a pandemic-related decrease in contributions and grants, and fund raising.

Uncertainty of COVID-19 resulted in the handling of regulatory activities that required on site presence to be handled through alternative methods or delayed as of March 23, 2020, and an estimated 90% of current foster families unwilling to take in new foster children. Texas Department of Family and Protective Service (TX DFPS) had to create the "Children Without Placement" (or CWOP) program to provide safe, stable, housing using a combination of offices, hotels, and rented properties. The Texas Department of Family Services and Protective Services Children Without Placement - September 2021 report, shows "Monthly Count of Children Without Placement FY20 Q1 0 FY21 Q4" ranged from 10 children per month in Dec 2019 to 416 children per month in July 2021. These numbers dropped to 169 children in CWOP in September 2021, with the most recent count 61 children remaining in CWOP as of ³. September 2, 2022,⁴.

Figure 1. Location of BCFY's Pathfinders



1.2 DESIGNING A RESPONSE TO A PANDEMIC HARM

Under the Coronavirus State and Local Fiscal Recovery Funds (SLFRF) Responding to the public health emergency or its negative economic impacts eligible use category, Hays County will mitigate BCFY's financial hardship from the revenue loss. Through a grant of \$50,000 BCFY will be able to:

- Recover decreased revenue

The Final Rule enumerated Assistance to Nonprofits, defining them as 501(c)(3)s or (19)s, as an eligible use in which recipients could consider declines in revenues, e.g., from donations and fees, or increased

¹ Figure 1 Google Earth Imagery

² Fiscal Year runs from 01/01 to 12/31 of each year

³ TX. Dept. Family and Protective Services CWOP - September 2021

⁴ TX Dept. of Family and Protective Services Presentation to House Committee on Appropriations CWOP Sept. 8, 2022

costs, e.g., uncompensated increases in service need, or technical assistance, as impacts of the pandemic.

1.3 PROGRAM SUMMARY

BCFY provided their Form-990s for 2018, 2019, and 2020 to support their eligibility of as a beneficiary under the SLFRF. Documentation supporting the pandemic-induced increase in costs associated with fuel used for transportation (vehicles and mileage), childcare food related expenses, and insurance (facility, automobile, liability, commercial, and professional) was also supplied. A cost analysis of the price increase(s) and decrease in revenue was completed to determine cost reasonableness and proportionality to the harm experienced.

BCFY's Pathfinders Ranch is within Hays County. BCFY's three child placement agency offices, that coordinate foster and adoption services throughout the state of Texas, are located in the cities of Corpus Christi, Laredo and Harlingen, TX, which are respectively located in the counties of Nueces, Webb and Cameron. BCFY is not the beneficiary of an SLFRF grant from another county or counties for the same economic harm.

The validation and cost reasonableness analysis determined BCFY can demonstrate a pandemic related harm up to \$2,229,989 the first year of the pandemic. Additional analysis would be needed to confirm continued harm into subsequent years. BCFY's initial award is \$50,000.

2 COMPARATIVE ANALYSIS

2.1 REASONABLENESS & PROPORTIONALITY

During the COVID-19 pandemic BCFY experienced a decrease in revenue, which is primarily funded by contributions and grants. General and professional liability insurance costs increased \$10,165.42 in 2020 (\$103,561.22) from 2019 (\$93,396.13) and food costs increased \$1,770.66 in 2020 (\$61,750.76) from 2019 (\$59,980.10). The cost(s) of fuel used for transportation, childcare food related expenses, and the insurance (facility, automobile, liability, commercial, and professional) all, respectively increased in 2022 compared to 2020 by 63%, 37%, and 29%.

BCFY also had to delay or transfer handling of regulatory activities that required on site presence to alternative methods. An estimated 90% of current foster families became unwilling to take in new foster children. TX DFPS had to create the "Children Without Placement" (or CWOP) program to provide safe, stable, housing using a combination of offices, hotels, and rented properties. As of August 2022, TX DFPS reported 61 children remain in the CWOP program. Now that on-site presence to handle regulatory activities has resumed, children at CWOP locations plus foster homes are all now the responsibility of BCFY staff.

BCFY is a 501(c)(3) Public Charity that normally receives a substantial part of its support from a governmental unit or from the general public. Due to the pandemic BCFY saw a reduction in its revenue for Fiscal Year 2020; the Fiscal Year runs January 01 to Dec 31 of the same year ⁵.

Table 1: Form-990 Revenue Loss

	2019	2020
8 Contributions and grants	3,094,734	1,045,555
9 Program service revenue	3,316,855	3,489,199
10 Investment income	27,529	15,790
11 Other revenue	25,876	20,640
12 Total revenue	6,464,994	4,571,184
		(1,893,810)
		-41%
Projected Growth		\$6,801,173.69
Revenue Loss		(2,229,989.69)

The ARPA SLFRF grant is critical to help BCFY bridge the gap between these necessary expenses and lost revenue experienced as a result of the COVID-19 pandemic. Table 1 shows there was 41% drop in revenue from 2019 to 2020. Further, using the 5.2% growth rate provided by 31 CFR Part 35 used to count projected annual growth in accordance with the US Treasury's revenue loss calculation, BCFY's loss of revenue is \$2,229,989.69 for Fiscal Year 2020.

3 ELIGIBILITY

3.1 FINAL RULE⁶

Nonprofits eligible for assistance are those that experienced negative economic impacts or disproportionate impacts of the pandemic and meet the definition of "specifically those that are 501(c)(3) or 501(c)(19) tax exempt organizations".

Recipients can identify nonprofits impacted by the pandemic, and measures to respond, in many ways; for example, recipients could consider:

- Decreased revenue, e.g., from reduced contributions
- Increased costs (e.g., uncompensated increases in service need)
- Capacity to weather financial hardship

⁵ CDC Museum COVID-19 Timeline

⁶ 31 CFR Part 35 - PANDEMIC RELIEF PROGRAMS Subpart A— CORONAVIRUS STATE AND LOCAL FISCAL RECOVERY FUNDS

When a recipient provides funds to address that impact, it is then providing direct assistance to the nonprofit as a beneficiary under Subsection (c)(1) of Sections 602 and 603 of Title VI of the Social Security Act, amended by ARPA. Assistance to nonprofits that experienced negative economic impacts includes the following enumerated uses:

- Loans or grants to mitigate financial hardship

3.1.1 Disproportionately Impacted Communities

“The final rule streamlines and aligns services and standards that are generally applicable or are provided for public health purposes. Under this approach, eligible uses to respond to the public health emergency are organized based on the type of public health problem: 1) COVID-19 mitigation and prevention, 2) medical expenses, 3) behavioral health care, and 4) preventing and responding to violence. Under this approach, eligible uses to respond to the negative economic impacts of the public health emergency are organized based on the type of beneficiary: 1) assistance to households, 2) assistance to small businesses, and 3) assistance to nonprofits”. These categories include enumerated eligible uses for impacted and disproportionately impacted beneficiaries⁷

⁷ 31 CFR Part 35 Final Rule A. Public Health and Negative Economic Impacts 1. General Provisions: Structure and Standards, Rule Structure



AGENDA ITEM REQUEST FORM

Hays County Commissioners Court

Date: 11/01/2022

Requested By:

Sponsor: Commissioner Smith

Agenda Item

Presentation by Ardurra regarding use of American Rescue Plan Act (ARPA) funds for Gunner Thames Memorial Foundation. **SMITH**

Summary

Attachments

ARPA - Agreement Gunner Thames
Gunner Thames PW

HAYS COUNTY AMERICAN RESCUE PLAN RECOVERY GRANT AGREEMENT

PLEASE READ THIS ENTIRE AGREEMENT CAREFULLY, CONSULT WITH YOUR COUNSEL AS APPROPRIATE, AND DO NOT SIGN IT IF YOU HAVE ANY QUESTIONS, AS YOUR SIGNATURE BELOW BINDS YOU TO EACH OF THE REPRESENTATIONS AND OBLIGATIONS DETAILED IN THIS AGREEMENT.

This Agreement is entered into by and between Hays County (“Hays County”) and Eddie Odell, President of Gunner Thames Memorial Foundation (“Beneficiary”), located at 1194 Rutherford, Dr, Driftwood, TX 78619 on the date below written.

SECTION 1 – FUNDING

The parties acknowledge that funding for this Agreement comes solely as a grant made of a sum not to exceed \$50,000 in funds received from Hays County allocation of American Rescue Plan (ARP) State and Local Fiscal Recovery Fund (SLFRF), CSLFRF Assistance Listing Number Hays County ALN 21.027. As such, ARP funding must be administered by Hays County for utilization in accordance with eligible ARP activities as described under subsection (c)(1) of Section 603 of Title VI of the Social Security Act, as added by Section 9901 of ARP. Hays County does not have any obligation or commitment whatsoever (1) to provide Beneficiary with funds from any other source, or (2) to provide any sum in excess of the amount above set forth allocated hereunder by Hays County. Any public mention of the Grant shall acknowledge Hays County as Funder. Printed copies of said acknowledgement shall be provided to Hays County.

SECTION 2 - EXPENDITURES ELIGIBLE FOR GRANT

Grant funds may be used to mitigate Beneficiary’s financial hardship from the increased costs and revenue loss as a result of the public health emergency or its negative economic impacts. Through the grant the Beneficiary will be able to recover the recover decreased revenue.

SECTION 3 – BENEFICIARY REPRESENTATIONS AND OBLIGATIONS

Funds are provided to Beneficiary to support continued operations of Beneficiary’s current Hays County business/special-purpose unit of local government /non-profit entity (501(c)(3) and 501(c)(19) organizations only).

Beneficiary acknowledges that the use of Grant funds can only be used for working capital to mitigate and recover from the extraordinary expenses and revenue loss resulting from the shutdowns and other direct and indirect impacts of COVID-19. The use of grant funds for prohibited expenses or investments may result in an action to recover funds misspent, with interest and such costs as may be allowable by law.

Grantee certifies, warrants and represents that Beneficiary is in full compliance with and not delinquent in payment of any taxation to which Beneficiary is subject, Beneficiary is a special-purpose unit of local government or a 501(c)(3) or a 501(c)(19) or is a small business that has no more than five hundred (500) full-time equivalent employees as of October 11, 2022 or is a small business concern as defined in section 3 of the Small Business Act (15 U.S.C. 632), and that Beneficiary fully qualifies for receipt of federal funds originally disbursed to Hays County to address negative economic impacts associated with the COVID-19 pandemic.

Beneficiary will provide and cooperate with any information and documentation requests necessary to evaluate compliance with this Agreement, including, without limitation, applicable Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (2 CFR part 200). Additionally, Beneficiary will provide and cooperate with any information and documentation requests necessary to support subrecipient compliance with administration of ARP funding, including reporting requirements contained in subsection (d) of Section 603 of Title VI of the Social Security Act.

By signing below, *Beneficiary certifies that all of the following statements are true:*

- The business/special-purpose unit of local government /non-profit (501(c)(3) or 501(c)(19) entity only) is located in Hays County and has a valid license or authorization to operate in the State of Texas.
- The Beneficiary is either:
 - A special-purpose unit of local government
 - A 501(c)(3); or
 - A 501(c)(19); or
 - A small business concern as defined in section 3 of the Small Business Act (15 U.S.C. 632); or
 - A small business that has no more than 500 payroll employees as of July 14th, 2022.
- The Beneficiary experienced a financial loss or hardship due to the COVID-19 crisis and the working capital need to be supported by this grant is connected to the COVID-19 emergency and subsequent recovery.
- Beneficiary agrees and certifies that the funds will be spent for working capital expenses, and are not required to be used to pay for governmental related expenses (i.e. taxes, licenses, or governmental fees.)
- The working capital will be used to continue operations of the business/special-purpose unit of local government /non-profit entity.
- Beneficiary will return any unused funds to Hays County if the business awarded goes out of business before all of the funds are spent.
- Beneficiary has not been suspended or debarred in connection with any federal procurement.
- Beneficiary is not actively pursuing a bankruptcy declaration.
- Beneficiary does not have any Federal, State or Local Tax Liens.
- Beneficiary is not any of the following:
 - K-12 School
 - College or university

- Library
- A nonprofit *other than* a 501(c)(3) or (19).
- Additionally, by signing below:
 - Beneficiary certifies that it has not received Funding (private, state, or federal) for the same expenses covered by the proceeds of this grant.
 - Beneficiary certifies that 0 employees were employed by the business/special-purpose unit of local government/non-profit as of September 20, 2022.

SECTION 4 - NONDISCRIMINATION CLAUSE

During the performance of this Agreement, Beneficiary covenants and agrees to comply with all federal and state nondiscrimination laws, including but not limited to, 42 U.S.C. 12101 et seq., the Americans with Disabilities Act (ADA).

SECTION 5 – MISCELLANEOUS

A. Compliance with Laws: Beneficiary covenants and agrees to comply with all existing applicable laws, ordinances, codes, regulations, and lawful orders of local, state and federal governments (including the publicly available terms of the Grant), all as now in effect or hereafter amended.

B. Unilateral Termination: Notwithstanding any other provisions of this Agreement, either party may terminate this Agreement by providing written notice of such termination, specifying the effective date thereof, at least thirty (30) days prior to such date.

C. Survival: The terms, conditions and obligations undertaken by the parties herein that by their sense and context are intended to survive the completion of performance or earlier termination of the Agreement shall so survive. Termination shall not in any event terminate this Agreement with respect to any actions or omissions by Beneficiary made or taken before such termination.

D. Defense and Indemnity: Beneficiary agrees to defend, indemnify and hold Hays County, its officers, directors, agents, employees and assigns from and against any and all claims, suits, judgments or orders resulting or alleged to have resulted from this Grant Agreement or Beneficiary's performance or lack thereof hereunder.

E. No Third-Party Beneficiary: This Agreement shall not be construed as a third-party beneficiary contract, being exclusively between the named parties herein, and is not entered into for the benefit of Beneficiary's creditors irrespective of status.

F. Dispute Resolution: Except as otherwise provided herein, if a bona fide dispute arises among the parties, their respective chief executives will confer in an effort to negotiate a resolution within ten (10) business days such dispute arises. This effort shall precede any judicial or quasi-judicial action with respect thereto, provided that the failure or refusal of any party to participate in such negotiate shall eliminate this condition precedent to judicial or quasi-judicial action.

G. Governing Law and Venue. This Agreement shall be construed and enforced in accordance with the laws of the State of Texas, to the jurisdiction of which the parties hereby submit. Venue in any suit arising out of this Agreement shall lie in a District Court in Hays County, Texas, or in the United States District Court—Western District, Austin Division, if applicable.

H. Assignment: Neither this Agreement nor any right or claim hereunder shall be transferred or assigned by Beneficiary without the prior consent of Hays County which consent may be withheld for any reason deemed sufficient by Hays County.

I. Notices: Notices may be hand delivered or emailed. In each case when delivered, or sent first class US Mail postage prepaid effective three business days after mailing, and in any case to the person and address indicated below or if different, to the address indicated in the last notice provided by the other party.

J. Severability: If any term or condition hereof, or application thereof to any person or circumstance is held invalid, such invalidity shall not affect any other terms, conditions or applications of the Agreement that can be given effect without such term, condition or application, to which end the terms hereof are declared severable.

K. Integration: This Agreement and any exhibits hereto represent the entire agreement between the parties. No other understandings, oral or written in any form, shall be binding upon any party hereto, provided that Beneficiary's application for the Grant shall remain effective for purposes of inducing the Grant.

L. Public Disclosure: The transaction evidenced by this Agreement is subject to such publicity & public records accessibility as Hays County, or their designees may from time to time determine. This right shall expressly survive termination of this Agreement for any reason. Beneficiary understands that any assurance in any form to the contrary is unauthorized and void.

All of the above is understood and confirmed as accurate and the Beneficiary as eligible and agreed to as a condition of accepting the Grant under this Agreement created September 20, 2022 through December 31, 2026.

SECTION 6 – PAYMENT

A. Amount of Grant: The amount to be paid to the Beneficiary for the provision and administration of Eligible Activities under this Grant Agreement shall be the total budget amount included in the Section 1 of this Grant Agreement, payable as follows: Fifty percent (50%) of the total amount of SLFRF Funds (Initial Payment) authorized under this Grant Agreement shall be payable upon execution of this Agreement and the remaining fifty percent (50%) of the SLFRF Funds authorized under this Agreement (Final Payment), shall be payable upon verification of completed project work, validation of actual expenditures and subject to compliance with the voucher procedures as described below.

B. Vouchers; Voucher Review, Approval and Audit: Initial Payment and Final Payment shall be made to the Beneficiary as authorized in Section 6 (A) above and shall be expressly

contingent upon (i) the Beneficiary submitting a claim voucher (the “Voucher”) in a form satisfactory to the County, that (a) states with reasonable specificity the Eligible Activities performed and the payment requested as reimbursement for such Eligible Activities, (b) certifies that the Eligible Activities performed and the payment requested are in accordance with the terms of this Grant Agreement, and (c) is accompanied by documentation satisfactory to the County supporting the amount claimed, including, where applicable, a certified payroll statement setting forth the names, positions and salaries paid by the Beneficiary during the preceding month, and (ii) review, approval and audit of the Voucher by the County Auditor or his or her duly designated representative (the “Auditor”). Drawdowns for the payment of eligible expenses shall be made against the Eligible Activities specified herein and in accordance with applicable performance requirements.

(SIGNATURES TO FOLLOW ON NEXT PAGE)

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed on the dates written below.

BENEFICIARY: Gunner Thames Memorial Foundation

Owner Name: Eddie Odell

Owner Title: President

SIGNATURE: _____

DATE: _____

Hays County

Ruben Becerra

Hays County Judge

SIGNATURE: _____

DATE: _____



HCTX111_Gunner Thames Memorial Foundation

HAYS COUNTY ARPA SLFRF PROJECT

HCTX111_Gunner Thames Memorial Foundation

1	Gunner Thames Memorial Foundation.....	2
1.1	Designating a Public Health Impact	2
1.2	Designing a response to a pandemic harm.....	2
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1 GUNNER THAMES MEMORIAL FOUNDATION

1.1 DESIGNATING A PUBLIC HEALTH IMPACT

Gunner Thames Memorial Foundation (GTM) is a 501(c)(3) non-profit organization that raises funds to distribute to deserving kids in the form of scholarships, 4-H/Future Farmers of America (FFA) Projects, and families in crisis in Hays County.

GTM coordinates their activities via their office located at 1184 Rutherford Dr, Driftwood, TX 78619¹.

GTM hosts an annual Labor Day weekend rodeo each year at the Wimberley VFW Post #6441 rodeo grounds at 401 Jacobs Well Road, Wimberley, TX. All monies raised are used to provide educational and other scholarships for deserving Texas High School Rodeo Association Athletes, support the Hays County Texas youth via 4H, Future Farmers of America (FFA), and provides funds to aid families in crisis situations.

GTM funds are commonly awarded as 1) support for the Hays County Livestock show in the form of add-ons and purchase of animals (Level 1), and 2) scholarships to students, purchase of animals for children to raise for coming year, and helping families in need (Level 2).

In years prior to 2020 the event raised over \$100, 000 and was able to assist approximately 600 children. In 2020, COVID-19 group and crowd restrictions prohibited GTM from hosting this event, consequently reducing their fund raising to \$0. However, GTM used reserve funds to give \$40,787 back to the community.

Figure 1. GTM Foundation Office Location



1.2 DESIGNING A RESPONSE TO A PANDEMIC HARM

GTM's Form-990 for the years 2019 (\$13,773.00) and 2020 (\$-37,477.00) document a \$51,250.00 decrease in gross revenue due to a pandemic-related decrease in contributions and grants, and fund raising.

Under the Coronavirus State and Local Fiscal Recovery Funds (SLFRF) Responding to the public health emergency or its negative economic impacts eligible use category, Hays County will mitigate GTM's financial hardship from the revenue loss. Through a grant of \$50,000 GTM will be able to:

- Recover decreased revenue

The Final Rule enumerated Assistance to Nonprofits, defining them as 501(c)(3)s or (19)s, as an eligible use in which recipients could consider declines in revenues, e.g., from donations and fees, or increased

¹ Figure 1 Google Earth Imagery

costs, e.g., uncompensated increases in service need, or technical assistance, as impacts of the pandemic.

1.3 PROGRAM SUMMARY

GTM provided their Form-990s for 2018, 2019, and 2020 to support their eligibility of as a beneficiary under the SLFRF. In 2020, GTM's funding scholarships and providing monies for use by 4H and in support of families in crisis was made possible using reserves as contributions, grants and fund raising were reduced to \$0 due to COVID-19 group and crowd restrictions prohibited hosting their annual Labor Day Rodeo.

The validation and cost reasonableness analysis determined GTM can demonstrate a pandemic related harm up to \$50,000 the first year of the pandemic. Additional analysis would be needed to confirm continued harm into subsequent years. GTM's initial award is \$50,000.

2 COMPARATIVE ANALYSIS

2.1 REASONABLENESS & PROPORTIONALITY

Due to the pandemic GTM saw a reduction in its revenue, which is primarily funded by contributions and grants.

The ARPA SLFRF grant is critical to help GTM recover lost revenue experienced as a result of the COVID-19 pandemic. Table 1 shows there was an 137% drop in revenue from 2019 to 2020. Further, using the 5.2% growth rate provided by 31 CFR Part 35² to count projected annual growth in accordance with the US Treasury's revenue loss calculation, GTM's loss of revenue is \$50,300.38 for 2020.

Table 1: Revenue Loss

	2019	2020
Contributions and grants	13,605.00	0.00
Gaming and Fundraising	168.00	(37,477.00)
Total Revenue	13,773.00	(37,477.00)
		(51,250.00)
		137%
Projected Growth		\$12,823.38
Revenue Loss		(50,300.38)

All monies raised are used to provide educational and other scholarships for deserving Texas High School Rodeo Association Athletes, support the Hays County Texas youth via 4H & Future Farmers of America (FFA), and provides funds to aid families in crisis situations.

² 31 CFR Part 35 Final Rule, C. Revenue Loss, Step 2, Footnote 282, "the final rule updates the percentage to 5.2% as shown in Step 2".

GTM funds are commonly awarded as 1) support for the Hays County Livestock show in the form of additions and purchase of animals (Level 1), and 2) scholarships to students, purchase of animals for children to raise for coming year, and helping families in need (Level 2).

Table 2 shows the award amount from GTM to the community for the years 2018 to 2020, including a forced reduction in the total amount of awards for 2020.

Table 2: GTM Award Amounts for 2018 to 2020

Award Type	2018	2019	2020
Level 1	31,000	35,650	0.00
Level 2	40,959	41,394	0.00
Total Award(\$)	71,959	77,044	40,787

3 ELIGIBILITY

3.1 FINAL RULE³

Nonprofits eligible for assistance are those that experienced negative economic impacts or disproportionate impacts of the pandemic and meet the definition of “specifically those that are 501(c)(3) or 501(c)(19) tax exempt organizations”.

Recipients can identify nonprofits impacted by the pandemic, and measures to respond, in many ways; for example, recipients could consider:

- Decreased revenue, e.g., from reduced contributions

When a recipient provides funds to address that impact, it is then providing direct assistance to the nonprofit as a beneficiary under Subsection (c)(1) of Sections 602 and 603 of Title VI of the Social Security Act, amended by ARPA. Assistance to nonprofits that experienced negative economic impacts includes the following enumerated uses:

- Loans or grants to mitigate financial hardship

3.1.1 Disproportionately Impacted Communities

“The final rule streamlines and aligns services and standards that are generally applicable or are provided for public health purposes. Under this approach, eligible uses to respond to the public health emergency are organized based on the type of public health problem: 1) COVID-19 mitigation and prevention, 2) medical expenses, 3) behavioral health care, and 4) preventing and responding to violence. Under this approach, eligible uses to respond to the negative economic impacts of the public health emergency are organized based on the type of beneficiary: 1) assistance to households, 2)

³ 31 CFR Part 35 - PANDEMIC RELIEF PROGRAMS Subpart A— CORONAVIRUS STATE AND LOCAL FISCAL RECOVERY FUNDS

assistance to small businesses, and 3) assistance to nonprofits”. These categories include enumerated eligible uses for impacted and disproportionately impacted beneficiaries⁴

DRAFT

⁴ 31 CFR Part 35 Final Rule A. Public Health and Negative Economic Impacts 1. General Provisions: Structure and Standards, Rule Structure



AGENDA ITEM REQUEST FORM

Hays County Commissioners Court

Date: 11/01/2022

Requested By:

Sponsor: Commissioner Smith

Agenda Item

Presentation by Ardurra regarding use of American Rescue Plan Act (ARPA) funds for the Dripping Springs Education Foundation. **SMITH**

Summary

Attachments

ARPA Agreement DSEF
DSEF PW

HAYS COUNTY AMERICAN RESCUE PLAN RECOVERY GRANT AGREEMENT

PLEASE READ THIS ENTIRE AGREEMENT CAREFULLY, CONSULT WITH YOUR COUNSEL AS APPROPRIATE, AND DO NOT SIGN IT IF YOU HAVE ANY QUESTIONS, AS YOUR SIGNATURE BELOW BINDS YOU TO EACH OF THE REPRESENTATIONS AND OBLIGATIONS DETAILED IN THIS AGREEMENT.

This Agreement is entered into by and between Hays County (“Hays County”) and Max Hunsicker Principal Officer of Dripping Springs Education Foundation (“Beneficiary”), located at PO Box 479, New Dripping Springs, TX 78620 on the date below written.

SECTION 1 – FUNDING

The parties acknowledge that funding for this Agreement comes solely as a grant made of a sum not to exceed \$100,000 in funds received from Hays County allocation of American Rescue Plan (ARP) State and Local Fiscal Recovery Fund (SLFRF), CSLFRF Assistance Listing Number Hays County ALN 21.027. As such, ARP funding must be administered by Hays County for utilization in accordance with eligible ARP activities as described under subsection (c)(1) of Section 603 of Title VI of the Social Security Act, as added by Section 9901 of ARP. Hays County does not have any obligation or commitment whatsoever (1) to provide Beneficiary with funds from any other source, or (2) to provide any sum in excess of the amount above set forth allocated hereunder by Hays County. Any public mention of the Grant shall acknowledge Hays County as Funder. Printed copies of said acknowledgement shall be provided to Hays County.

SECTION 2 - EXPENDITURES ELIGIBLE FOR GRANT

Grant funds may be used to mitigate Beneficiary’s financial hardship from the increased costs and revenue loss as a result of the public health emergency or its negative economic impacts. Through the grant the Beneficiary will be able to recover the recover decreased revenue.

SECTION 3 – BENEFICIARY REPRESENTATIONS AND OBLIGATIONS

Funds are provided to Beneficiary to support continued operations of Beneficiary’s current Hays County business/special-purpose unit of local government /non-profit entity (501(c)(3) and 501(c)(19) organizations only).

Beneficiary acknowledges that the use of Grant funds can only be used for working capital to mitigate and recover from the extraordinary expenses and revenue loss resulting from the shutdowns and other direct and indirect impacts of COVID-19. The use of grant funds for prohibited expenses or investments may result in an action to recover funds misspent, with interest and such costs as may be allowable by law.

Grantee certifies, warrants and represents that Beneficiary is in full compliance with and not delinquent in payment of any taxation to which Beneficiary is subject, Beneficiary is a special-purpose unit of local government or a 501(c)(3) or a 501(c)(19) or is a small business that has no more than five hundred (500) full-time equivalent employees as of October 11, 2022 or is a small business concern as defined in section 3 of the Small Business Act (15 U.S.C. 632), and that Beneficiary fully qualifies for receipt of federal funds originally disbursed to Hays County to address negative economic impacts associated with the COVID-19 pandemic.

Beneficiary will provide and cooperate with any information and documentation requests necessary to evaluate compliance with this Agreement, including, without limitation, applicable Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (2 CFR part 200). Additionally, Beneficiary will provide and cooperate with any information and documentation requests necessary to support subrecipient compliance with administration of ARP funding, including reporting requirements contained in subsection (d) of Section 603 of Title VI of the Social Security Act.

By signing below, *Beneficiary certifies that all of the following statements are true:*

- The business/special-purpose unit of local government /non-profit (501(c)(3) or 501(c)(19) entity only) is located in Hays County and has a valid license or authorization to operate in the State of Texas.
- The Beneficiary is either:
 - A special-purpose unit of local government
 - A 501(c)(3); or
 - A 501(c)(19); or
 - A small business concern as defined in section 3 of the Small Business Act (15 U.S.C. 632); or
 - A small business that has no more than 500 payroll employees as of October 26th, 2022.
- The Beneficiary experienced a financial loss or hardship due to the COVID-19 crisis and the working capital need to be supported by this grant is connected to the COVID-19 emergency and subsequent recovery.
- Beneficiary agrees and certifies that the funds will be spent for working capital expenses, and are not required to be used to pay for governmental related expenses (i.e. taxes, licenses, or governmental fees.)
- The working capital will be used to continue operations of the business/special-purpose unit of local government /non-profit entity.
- Beneficiary will return any unused funds to Hays County if the business awarded goes out of business before all of the funds are spent.
- Beneficiary has not been suspended or debarred in connection with any federal procurement.
- Beneficiary is not actively pursuing a bankruptcy declaration.
- Beneficiary does not have any Federal, State or Local Tax Liens.
- Beneficiary is not any of the following:
 - K-12 School
 - College or university

- Library
 - A nonprofit *other than* a 501(c)(3) or (19).
- Additionally, by signing below:
 - Beneficiary certifies that it has not received Funding (private, state, or federal) for the same expenses covered by the proceeds of this grant.
 - Beneficiary certifies that (insert #) employees were employed by the business/special-purpose unit of local government/non-profit as of September 20, 2022.

SECTION 4 - NONDISCRIMINATION CLAUSE

During the performance of this Agreement, Beneficiary covenants and agrees to comply with all federal and state nondiscrimination laws, including but not limited to, 42 U.S.C. 12101 et seq., the Americans with Disabilities Act (ADA).

SECTION 5 – MISCELLANEOUS

A. Compliance with Laws: Beneficiary covenants and agrees to comply with all existing applicable laws, ordinances, codes, regulations, and lawful orders of local, state and federal governments (including the publicly available terms of the Grant), all as now in effect or hereafter amended.

B. Unilateral Termination: Notwithstanding any other provisions of this Agreement, either party may terminate this Agreement by providing written notice of such termination, specifying the effective date thereof, at least thirty (30) days prior to such date.

C. Survival: The terms, conditions and obligations undertaken by the parties herein that by their sense and context are intended to survive the completion of performance or earlier termination of the Agreement shall so survive. Termination shall not in any event terminate this Agreement with respect to any actions or omissions by Beneficiary made or taken before such termination.

D. Defense and Indemnity: Beneficiary agrees to defend, indemnify and hold Hays County, its officers, directors, agents, employees and assigns from and against any and all claims, suits, judgments or orders resulting or alleged to have resulted from this Grant Agreement or Beneficiary's performance or lack thereof hereunder.

E. No Third-Party Beneficiary: This Agreement shall not be construed as a third-party beneficiary contract, being exclusively between the named parties herein, and is not entered into for the benefit of Beneficiary's creditors irrespective of status.

F. Dispute Resolution: Except as otherwise provided herein, if a bona fide dispute arises among the parties, their respective chief executives will confer in an effort to negotiate a resolution within ten (10) business days such dispute arises. This effort shall precede any judicial or quasi-judicial action with respect thereto, provided that the failure or refusal of any party to

participate in such negotiate shall eliminate this condition precedent to judicial or quasi-judicial action.

G. **Governing Law and Venue.** This Agreement shall be construed and enforced in accordance with the laws of the State of Texas, to the jurisdiction of which the parties hereby submit. Venue in any suit arising out of this Agreement shall lie in a District Court in Hays County, Texas, or in the United States District Court—Western District, Austin Division, if applicable.

H. **Assignment:** Neither this Agreement nor any right or claim hereunder shall be transferred or assigned by Beneficiary without the prior consent of Hays County which consent may be withheld for any reason deemed sufficient by Hays County.

I. **Notices:** Notices may be hand delivered or emailed. In each case when delivered, or sent first class US Mail postage prepaid effective three business days after mailing, and in any case to the person and address indicated below or if different, to the address indicated in the last notice provided by the other party.

J. **Severability:** If any term or condition hereof, or application thereof to any person or circumstance is held invalid, such invalidity shall not affect any other terms, conditions or applications of the Agreement that can be given effect without such term, condition or application, to which end the terms hereof are declared severable.

K. **Integration:** This Agreement and any exhibits hereto represent the entire agreement between the parties. No other understandings, oral or written in any form, shall be binding upon any party hereto, provided that Beneficiary's application for the Grant shall remain effective for purposes of inducing the Grant.

L. **Public Disclosure:** The transaction evidenced by this Agreement is subject to such publicity & public records accessibility as Hays County, or their designees may from time to time determine. This right shall expressly survive termination of this Agreement for any reason. Beneficiary understands that any assurance in any form to the contrary is unauthorized and void.

All of the above is understood and confirmed as accurate and the Beneficiary as eligible and agreed to as a condition of accepting the Grant under this Agreement created September 20, 2022 through December 31, 2026.

SECTION 6 – PAYMENT

A. **Amount of Grant:** The amount to be paid to the Beneficiary for the provision and administration of Eligible Activities under this Grant Agreement shall be the total budget amount included in the Section 1 of this Grant Agreement, payable as follows: Fifty percent (50%) of the total amount of SLFRF Funds (Initial Payment) authorized under this Grant Agreement shall be payable upon execution of this Agreement and the remaining fifty percent (50%) of the SLFRF Funds authorized under this Agreement (Final Payment), shall be payable upon verification of completed project work, validation of actual expenditures and subject to compliance with the voucher procedures as described below.

B. Vouchers; Voucher Review, Approval and Audit: Initial Payment and Final Payment shall be made to the Beneficiary as authorized in Section 6 (A) above and shall be expressly contingent upon (i) the Beneficiary submitting a claim voucher (the “Voucher”) in a form satisfactory to the County, that (a) states with reasonable specificity the Eligible Activities performed and the payment requested as reimbursement for such Eligible Activities, (b) certifies that the Eligible Activities performed and the payment requested are in accordance with the terms of this Grant Agreement, and (c) is accompanied by documentation satisfactory to the County supporting the amount claimed, including, where applicable, a certified payroll statement setting forth the names, positions and salaries paid by the Beneficiary during the preceding month, and (ii) review, approval and audit of the Voucher by the County Auditor or his or her duly designated representative (the “Auditor”). Drawdowns for the payment of eligible expenses shall be made against the Eligible Activities specified herein and in accordance with applicable performance requirements.

(SIGNATURES TO FOLLOW ON NEXT PAGE)

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed on the dates written below.

BENEFICIARY: Dripping Springs Education Foundation

Owner Name: Max Hunsicker

Owner Title: Principal Officer

SIGNATURE: _____

DATE: _____

Hays County

Ruben Becerra

Hays County Judge

SIGNATURE: _____

DATE: _____



HCTX111_Dripping Springs Education Foundation

HAYS COUNTY ARPA SLFRF PROJECT

HCTX111_Dripping Springs Education Foundation

1	Dripping Springs Education Foundation (DSEF)	2
1.1	Designating a Public Health Impact	2
1.2	Designing a response to a pandemic harm.....	2
1.3	Program Summary	2
2	Comparative Analysis.....	3
2.1	Reasonableness & Proportionality.....	3
3	Eligibility	4
3.1	Final Rule.....	4

1 DRIPPING SPRINGS EDUCATION FOUNDATION (DSEF)

1.1 DESIGNATING A PUBLIC HEALTH IMPACT

Dripping Springs Education Foundation (DSEF) is a 501(c)(3) non-profit organization that raises private-sector funds to support academic goals and achievement at every school in the Dripping Springs Independent School District (DSISD). DSISD enrolls 8,400 students and operates five elementary schools, two middle schools and one high school, plus a central administration/child development center and transportation service center. DSEF's efforts maintain district funding levels to maintain excellence and academic competitiveness in Dripping Springs schools.

Through its office within DSISD Administration building, at 510 West Mercer Street, Dripping Springs TX 78620¹, DSEF coordinates efforts that support four main programs: 1) Innovative Teaching Grants, 2) Student Leadership Grants, 3) Mental Health Services, and 4) the Nick LeFevre Community Youth Fund.

DSEF's Form-990 from the 2019² to 2020 document a decrease in gross revenue due to the pandemic in the amount of -\$22,808.

Figure 1. DSEF's Office Location



1.2 DESIGNING A RESPONSE TO A PANDEMIC HARM

Under the Coronavirus State and Local Fiscal Recovery Funds (SLFRF) Responding to the public health emergency or its negative economic impacts eligible use category, Hays County will mitigate DSEF's financial hardship from revenue loss. Through a grant of \$22,808 DSEF will be able to:

- Recover decreased revenue

The Final Rule enumerated Assistance to Nonprofits, defining them as 501(c)(3)s or (19)s, as an eligible use in which recipients could consider declines in revenues, e.g., from donations and fees, or increased costs, e.g., uncompensated increases in service need, or technical assistance, as impacts of the pandemic.

1.3 PROGRAM SUMMARY

DSEF provided their Form-990s for 2018, 2019, and 2020 to support their eligibility as a beneficiary of Hays County ARPA SLFRF monies. Decreased funding and uncertainty of COVID-19 resulted in suspension of the Innovative Teaching Grants and Student Leadership Grants programs for 2020-2021 school year.

¹ Figure 1 – Google Earth Imagery V7.3.4 released May 12, 2022, accessed Oct 4, 2022

² Fiscal Year 2019 runs from 7/1/2019 – 6/30/2020

The validation and cost reasonableness analysis determined DSEF can demonstrate a pandemic related harm up to \$22,808 for the first year of the pandemic. Additional analysis would be needed to confirm continued harm into subsequent years. DSEF's initial award is \$22,808.

2 COMPARATIVE ANALYSIS

2.1 REASONABLENESS & PROPORTIONALITY

During the COVID pandemic DSEF experienced a decrease in revenue, which is primarily funded by contributions and grants. Gross revenue from Fiscal Year 2019 to 2020 decreased by \$12,279.00. This, combined with mandated cessation of physical presence of teachers and students on campuses and uncertainty of COVID-19, resulted in the suspension of the Innovative Teaching Grants and Student Leadership Grants programs for 2020-2021 school year. For comparison: 2019-2020 school year combined budget for both programs = \$50,000, 2022-2023 budget for Innovative Teaching Grants = \$42,000 and Student Leadership Grants = \$20,000 (Total \$62,000).

Table 1 shows there was a 3% drop in revenue from 2019 to 2020. Further, using the 5.2% growth rate provided by 31 CFR Part 35³ to count projected annual growth in accordance with the US Treasury's revenue loss calculation, DSEF's loss of revenue is \$22,808 for 2020.

Table 1: Form-990 Revenue Loss

	2019	2020
Contributions and grants	365,537	363,589
Investment Income	534	92
Other Revenue	44,079	34,190
Total Revenue	410,150	397,871
Change from Prev Year		(12,279)
		-3%
Projected Growth		\$420,679
Revenue Loss		(22,808)

³ 31 CFR Part 35 Final Rule, C. Revenue Loss, Step 2, Footnote 282, "the final rule updates the percentage to 5.2% as shown in Step 2".

Below is an example of an awarded project from Student Leadership Grants programs for 2022:

“Saturdays” - \$1000.00

Bring together the community of mentally and physically disabled teenagers and young adults in Dripping Springs, initially focusing on those who are a part of the DSISD life skills and 18+ programs. Many of these individuals rarely interact with others out of a school setting, especially with others who share their conditions. Allowing these students to get together in a safe location where they can be free of judgement will help them develop their social skills while increasing feelings of belonging and community.

Below is an example of an awarded project from the Innovative Teaching Grants for 2021; applications are being received for the 2022-2023 award cycle until October 5, 2022:

School Counseling Library and Supplies, Cypress Elementary - \$6,893.00

School Counselors use a huge variety of curriculum, books and supplies to help all students. We use these items as tools on a daily basis for our students and staff. Starting a new school such as Cypress Springs requires a large amount to purchase beyond initial set up. Being able to have the right tools gives all of us an opportunity to connect with our students based on their need at the moment. Included are 2 sensory paths for school wide use including our behavior, focus and OT units

o Amount: \$6,893.00

3 ELIGIBILITY

3.1 FINAL RULE⁴

Nonprofits eligible for assistance are those that experienced negative economic impacts or disproportionate impacts of the pandemic and meet the definition of “specifically those that are 501(c)(3) or 501(c)(19) tax exempt organizations”.

Recipients can identify nonprofits impacted by the pandemic, and measures to respond, in many ways; for example, recipients could consider:

- Decreased revenue, e.g., from reduced contributions

When a recipient provides funds to address that impact, it is then providing direct assistance to the nonprofit as a beneficiary under Subsection (c)(1) of Sections 602 and 603 of Title VI of the Social Security Act, amended by ARPA. Direct assistance may take the form of:

- Loans or grants to mitigate financial hardship⁵

⁴ 31 CFR Part 35 - PANDEMIC RELIEF PROGRAMS Subpart A— CORONAVIRUS STATE AND LOCAL FISCAL RECOVERY FUNDS

⁵ 31 CFR Part 35 – Final Rule A. Public Health and Negative Economic Impacts 1. Final Rule Structure, c. Assistance to Nonprofits

3.1.1 Disproportionately Impacted Communities

“A recipient may determine that nonprofits offering after-school programs within its jurisdiction were disproportionately impacted by the pandemic due to the previous in-person, indoors nature of the work and the nonprofits’ reliance on fees received for services (e.g., attendance fees). The recipient might then design an intervention to assist those nonprofits in adapting their programming (e.g., to outdoor or online venues), their revenue structure (e.g., adapting the fee for service structure or developing expertise in digital donation campaigns), or both” ⁶. This scenario applies to DSEF as mandated cessation of physical presence of teachers and students on campuses resulted in a net revenue of \$-2337, prompting them to design the intervention of suspending the Innovative Teaching Grant and Student Leadership programs for FY 2020-2021.

⁶ IBID



AGENDA ITEM REQUEST FORM

Hays County Commissioners Court

Date: 11/01/2022

Requested By:

Sponsor:

Commissioner Smith

Agenda Item

Presentation by Ardurra regarding use of American Rescue Plan Act (ARPA) funds for Hill Country Rally for Kids, Inc. **SMITH**

Summary

Attachments

ARPA Agreement HCR
Hill Country Rally for Kids PW

HAYS COUNTY AMERICAN RESCUE PLAN RECOVERY GRANT AGREEMENT

PLEASE READ THIS ENTIRE AGREEMENT CAREFULLY, CONSULT WITH YOUR COUNSEL AS APPROPRIATE, AND DO NOT SIGN IT IF YOU HAVE ANY QUESTIONS, AS YOUR SIGNATURE BELOW BINDS YOU TO EACH OF THE REPRESENTATIONS AND OBLIGATIONS DETAILED IN THIS AGREEMENT.

This Agreement is entered into by and between Hays County (“Hays County”) and Robert O’Boyle Principal Officer of Hill Country Rally for Kids, Inc. (“Beneficiary”), located at 720 Brazos St., Austin, TX 78701 on the date below written.

SECTION 1 – FUNDING

The parties acknowledge that funding for this Agreement comes solely as a grant made of a sum not to exceed \$50,000 in funds received from Hays County allocation of American Rescue Plan (ARP) State and Local Fiscal Recovery Fund (SLFRF), CSLFRF Assistance Listing Number Hays County ALN 21.027. As such, ARP funding must be administered by Hays County for utilization in accordance with eligible ARP activities as described under subsection (c)(1) of Section 603 of Title VI of the Social Security Act, as added by Section 9901 of ARP. Hays County does not have any obligation or commitment whatsoever (1) to provide Beneficiary with funds from any other source, or (2) to provide any sum in excess of the amount above set forth allocated hereunder by Hays County. Any public mention of the Grant shall acknowledge Hays County as Funder. Printed copies of said acknowledgement shall be provided to Hays County.

SECTION 2 - EXPENDITURES ELIGIBLE FOR GRANT

Grant funds may be used to mitigate Beneficiary’s financial hardship from the increased costs and revenue loss as a result of the public health emergency or its negative economic impacts. Through the grant the Beneficiary will be able to recover the recover decreased revenue.

SECTION 3 – BENEFICIARY REPRESENTATIONS AND OBLIGATIONS

Funds are provided to Beneficiary to support continued operations of Beneficiary’s current Hays County business/special-purpose unit of local government /non-profit entity (501(c)(3) and 501(c)(19) organizations only).

Beneficiary acknowledges that the use of Grant funds can only be used for working capital to mitigate and recover from the extraordinary expenses and revenue loss resulting from the shutdowns and other direct and indirect impacts of COVID-19. The use of grant funds for prohibited expenses or investments may result in an action to recover funds misspent, with interest and such costs as may be allowable by law.

Grantee certifies, warrants and represents that Beneficiary is in full compliance with and not delinquent in payment of any taxation to which Beneficiary is subject, Beneficiary is a special-purpose unit of local government or a 501(c)(3) or a 501(c)(19) or is a small business that has no more than five hundred (500) full-time equivalent employees as of October 11, 2022 or is a small business concern as defined in section 3 of the Small Business Act (15 U.S.C. 632), and that Beneficiary fully qualifies for receipt of federal funds originally disbursed to Hays County to address negative economic impacts associated with the COVID-19 pandemic.

Beneficiary will provide and cooperate with any information and documentation requests necessary to evaluate compliance with this Agreement, including, without limitation, applicable Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards (2 CFR part 200). Additionally, Beneficiary will provide and cooperate with any information and documentation requests necessary to support subrecipient compliance with administration of ARP funding, including reporting requirements contained in subsection (d) of Section 603 of Title VI of the Social Security Act.

By signing below, *Beneficiary certifies that all of the following statements are true:*

- The business/special-purpose unit of local government /non-profit (501(c)(3) or 501(c)(19) entity only) is located in Hays County and has a valid license or authorization to operate in the State of Texas.
- The Beneficiary is either:
 - A special-purpose unit of local government
 - A 501(c)(3); or
 - A 501(c)(19); or
 - A small business concern as defined in section 3 of the Small Business Act (15 U.S.C. 632); or
 - A small business that has no more than 500 payroll employees as of October 26th, 2022.
- The Beneficiary experienced a financial loss or hardship due to the COVID-19 crisis and the working capital need to be supported by this grant is connected to the COVID-19 emergency and subsequent recovery.
- Beneficiary agrees and certifies that the funds will be spent for working capital expenses, and are not required to be used to pay for governmental related expenses (i.e. taxes, licenses, or governmental fees.)
- The working capital will be used to continue operations of the business/special-purpose unit of local government /non-profit entity.
- Beneficiary will return any unused funds to Hays County if the business awarded goes out of business before all of the funds are spent.
- Beneficiary has not been suspended or debarred in connection with any federal procurement.
- Beneficiary is not actively pursuing a bankruptcy declaration.
- Beneficiary does not have any Federal, State or Local Tax Liens.
- Beneficiary is not any of the following:
 - K-12 School
 - College or university

- Library
- A nonprofit *other than* a 501(c)(3) or (19).
- Additionally, by signing below:
 - Beneficiary certifies that it has not received Funding (private, state, or federal) for the same expenses covered by the proceeds of this grant.
 - Beneficiary certifies that 0 employees were employed by the business/special-purpose unit of local government/non-profit as of September 20, 2022.

SECTION 4 - NONDISCRIMINATION CLAUSE

During the performance of this Agreement, Beneficiary covenants and agrees to comply with all federal and state nondiscrimination laws, including but not limited to, 42 U.S.C. 12101 et seq., the Americans with Disabilities Act (ADA).

SECTION 5 – MISCELLANEOUS

A. Compliance with Laws: Beneficiary covenants and agrees to comply with all existing applicable laws, ordinances, codes, regulations, and lawful orders of local, state and federal governments (including the publicly available terms of the Grant), all as now in effect or hereafter amended.

B. Unilateral Termination: Notwithstanding any other provisions of this Agreement, either party may terminate this Agreement by providing written notice of such termination, specifying the effective date thereof, at least thirty (30) days prior to such date.

C. Survival: The terms, conditions and obligations undertaken by the parties herein that by their sense and context are intended to survive the completion of performance or earlier termination of the Agreement shall so survive. Termination shall not in any event terminate this Agreement with respect to any actions or omissions by Beneficiary made or taken before such termination.

D. Defense and Indemnity: Beneficiary agrees to defend, indemnify and hold Hays County, its officers, directors, agents, employees and assigns from and against any and all claims, suits, judgments or orders resulting or alleged to have resulted from this Grant Agreement or Beneficiary's performance or lack thereof hereunder.

E. No Third-Party Beneficiary: This Agreement shall not be construed as a third-party beneficiary contract, being exclusively between the named parties herein, and is not entered into for the benefit of Beneficiary's creditors irrespective of status.

F. Dispute Resolution: Except as otherwise provided herein, if a bona fide dispute arises among the parties, their respective chief executives will confer in an effort to negotiate a resolution within ten (10) business days such dispute arises. This effort shall precede any judicial or quasi-judicial action with respect thereto, provided that the failure or refusal of any party to participate in such negotiate shall eliminate this condition precedent to judicial or quasi-judicial action.

G. Governing Law and Venue. This Agreement shall be construed and enforced in accordance with the laws of the State of Texas, to the jurisdiction of which the parties hereby submit. Venue in any suit arising out of this Agreement shall lie in a District Court in Hays County, Texas, or in the United States District Court—Western District, Austin Division, if applicable.

H. Assignment: Neither this Agreement nor any right or claim hereunder shall be transferred or assigned by Beneficiary without the prior consent of Hays County which consent may be withheld for any reason deemed sufficient by Hays County.

I. Notices: Notices may be hand delivered or emailed. In each case when delivered, or sent first class US Mail postage prepaid effective three business days after mailing, and in any case to the person and address indicated below or if different, to the address indicated in the last notice provided by the other party.

J. Severability: If any term or condition hereof, or application thereof to any person or circumstance is held invalid, such invalidity shall not affect any other terms, conditions or applications of the Agreement that can be given effect without such term, condition or application, to which end the terms hereof are declared severable.

K. Integration: This Agreement and any exhibits hereto represent the entire agreement between the parties. No other understandings, oral or written in any form, shall be binding upon any party hereto, provided that Beneficiary's application for the Grant shall remain effective for purposes of inducing the Grant.

L. Public Disclosure: The transaction evidenced by this Agreement is subject to such publicity & public records accessibility as Hays County, or their designees may from time to time determine. This right shall expressly survive termination of this Agreement for any reason. Beneficiary understands that any assurance in any form to the contrary is unauthorized and void.

All of the above is understood and confirmed as accurate and the Beneficiary as eligible and agreed to as a condition of accepting the Grant under this Agreement created September 20, 2022 through December 31, 2026.

SECTION 6 – PAYMENT

A. Amount of Grant: The amount to be paid to the Beneficiary for the provision and administration of Eligible Activities under this Grant Agreement shall be the total budget amount included in the Section 1 of this Grant Agreement, payable as follows: Fifty percent (50%) of the total amount of SLFRF Funds (Initial Payment) authorized under this Grant Agreement shall be payable upon execution of this Agreement and the remaining fifty percent (50%) of the SLFRF Funds authorized under this Agreement (Final Payment), shall be payable upon verification of completed project work, validation of actual expenditures and subject to compliance with the voucher procedures as described below.

B. Vouchers; Voucher Review, Approval and Audit: Initial Payment and Final Payment shall be made to the Beneficiary as authorized in Section 6 (A) above and shall be expressly

contingent upon (i) the Beneficiary submitting a claim voucher (the “Voucher”) in a form satisfactory to the County, that (a) states with reasonable specificity the Eligible Activities performed and the payment requested as reimbursement for such Eligible Activities, (b) certifies that the Eligible Activities performed and the payment requested are in accordance with the terms of this Grant Agreement, and (c) is accompanied by documentation satisfactory to the County supporting the amount claimed, including, where applicable, a certified payroll statement setting forth the names, positions and salaries paid by the Beneficiary during the preceding month, and (ii) review, approval and audit of the Voucher by the County Auditor or his or her duly designated representative (the “Auditor”). Drawdowns for the payment of eligible expenses shall be made against the Eligible Activities specified herein and in accordance with applicable performance requirements.

(SIGNATURES TO FOLLOW ON NEXT PAGE)

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed on the dates written below.

BENEFICIARY: Hill Country Rally for Kids

Owner Name: Robert O'Boyle

Owner Title: Principal Officer

SIGNATURE: _____

DATE: _____

Hays County

Ruben Becerra

Hays County Judge

SIGNATURE: _____

DATE: _____



HCTX111_Hill Country Rally for Kids

HAYS COUNTY ARPA SLFRF PROJECT

HCTX111_Hill Country Rally for Kids

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2	Comparative Analysis.....	3
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DRAFT

1 HILL COUNTRY RALLY FOR KIDS

1.1 DESIGNATING A PUBLIC HEALTH IMPACT

Hill Country Rally for Kids, Inc. (HCR) is a 501(c)(3) non-profit organization that raises awareness and contributes donations to other local charities, i.e., other 501(c)(3) non-profit organizations, that support youth programs in the Hill Country area of Texas.

HCR coordinates their activities via their office located at 4189 US-290 in Dripping Springs, TX 78620¹.

HCR hosts six events per year; one raffle for which tickets can be purchased on-line and five in-person events. HCR has no paid employees, and their directors are responsible for assisting with organizing and hosting all events. HCR directors are exclusive to HCR, they are not members of any of the other local charities to which HCR contributes donations.

In 2019, HCR was able to raise \$290,793 and donate a total \$161,500 to 11 local charities. In 2020, COVID-19 group and crowd restrictions forced HCR to cancel events or hold them on a much smaller scale, consequently reducing their fund raising to \$43,627. However, HCR used reserve funds to donate over \$149,983 to 12 local charities.

Figure 1. Hill Country Rally Office Location



1.2 DESIGNING A RESPONSE TO A PANDEMIC HARM

HCR's Form-990 for the years 2019 (\$290,793) and 2020 (\$43,627) document a \$247,166 decrease in gross revenue due to a pandemic-related decrease in contributions and grants, and fund raising.

Under the Coronavirus State and Local Fiscal Recovery Funds (SLFRF) Responding to the public health emergency or its negative economic impacts eligible use category, Hays County will mitigate HCR's financial hardship from the revenue loss. Through a grant of \$50,000 HCR will be able to:

- Recover decreased revenue

The Final Rule enumerated Assistance to Nonprofits, defining them as 501(c)(3)s or (19)s, as an eligible use in which recipients could consider declines in revenues, e.g., from donations and fees, or increased costs, e.g., uncompensated increases in service need, or technical assistance, as impacts of the pandemic.

¹ Figure 1 Google Earth Imagery

1.3 PROGRAM SUMMARY

HCR provided their Form-990s for 2018, 2019, and 2020 to support their eligibility of as a beneficiary under the SLFRF. In 2020, HCR's donations to other local charities were made possible using reserves as contributions, grants and fund raising were reduced to \$43,627 due to COVID-19 group and crowd restrictions cancelling or greatly reducing the size of their five in-person annual events.

The validation and cost reasonableness analysis determined HCR can demonstrate a pandemic related harm up to \$262,287 the first year of the pandemic. Additional analysis would be needed to confirm continued harm into subsequent years. HCR's initial award is \$50,000.

2 COMPARATIVE ANALYSIS

2.1 REASONABLENESS & PROPORTIONALITY

Due to the pandemic HCR saw a reduction in its revenue, which is primarily funded by contributions and grants.

The ARPA SLFRF grant is critical to help HCR recover lost revenue experienced as a result of the COVID-19 pandemic. Table 1 shows there was an 567% drop in revenue from 2019 to 2020. Further, using the 5.2% growth rate provided by 31 CFR Part 35² to count projected annual growth in accordance with the US Treasury's revenue loss calculation, HCR's loss of revenue is \$262,287 for 2020.

Table 1: Revenue Loss

	2019	2020
Contributions and grants	290,793	43,627
Grants Paid	161,500	149,983
Total Revenue	290,793	43,627
		(247,166)
		-567%
Projected Growth		\$305,914
Revenue Loss		(262,287)

HCR hosts six events per year; one raffle for which tickets can be purchased on-line to win a golf cart or a Jeep, and five in-person events. Their popular in-person events are a Gala with silent auction, "Pull for Dripping" which is a clay shoot with BBQ luncheon, BBW cook off, "Drives for Dripping" golf Tournament, and Car and Motorcycle show.

HCR has been able to donate proceeds from these events to at least 10 other local organizations that support youth programs in central Texas. HCR has no paid employees, and their directors are

² 31 CFR Part 35 Final Rule, C. Revenue Loss, Step 2, Footnote 282, "the final rule updates the percentage to 5.2% as shown in Step 2".

responsible for assisting with organizing and hosting all events. HCR directors are exclusive to HCR, they are not members of any of the other local charities to which HCR contributes donations

Table 2 shows the number of other non-profit organizations and corresponding award amount(s) from HCR for the years 2018 to 2020, including a forced reduction in the total amount of awards for 2020.

Table 2: HCR Award Amounts for 2018 to 2020

	2018	2019	2020
# NPO Assisted	10	11	12
Total Donated	119,000	161,500	149,983
Total Amount			430,483

3 ELIGIBILITY

3.1 FINAL RULE³

Nonprofits eligible for assistance are those that experienced negative economic impacts or disproportionate impacts of the pandemic and meet the definition of “specifically those that are 501(c)(3) or 501(c)(19) tax exempt organizations”.

Recipients can identify nonprofits impacted by the pandemic, and measures to respond, in many ways; for example, recipients could consider:

- Decreased revenue, e.g., from reduced contributions

When a recipient provides funds to address that impact, it is then providing direct assistance to the nonprofit as a beneficiary under Subsection (c)(1) of Sections 602 and 603 of Title VI of the Social Security Act, amended by ARPA. Assistance to nonprofits that experienced negative economic impacts includes the following enumerated uses:

- Loans or grants to mitigate financial hardship

3.1.1 Disproportionately Impacted Communities

“The final rule streamlines and aligns services and standards that are generally applicable or are provided for public health purposes. Under this approach, eligible uses to respond to the public health emergency are organized based on the type of public health problem: 1) COVID-19 mitigation and prevention, 2) medical expenses, 3) behavioral health care, and 4) preventing and responding to violence. Under this approach, eligible uses to respond to the negative economic impacts of the public health emergency are organized based on the type of beneficiary: 1) assistance to households, 2)

³ 31 CFR Part 35 - PANDEMIC RELIEF PROGRAMS Subpart A— CORONAVIRUS STATE AND LOCAL FISCAL RECOVERY FUNDS

assistance to small businesses, and 3) assistance to nonprofits”. These categories include enumerated eligible uses for impacted and disproportionately impacted beneficiaries⁴

DRAFT

⁴ 31 CFR Part 35 Final Rule A. Public Health and Negative Economic Impacts 1. General Provisions: Structure and Standards, Rule Structure



AGENDA ITEM REQUEST FORM

Hays County Commissioners Court

Date: 11/01/2022

Requested By:

Britney Richey, Hays County Treasurer

Sponsor:

Judge Becerra

Agenda Item

Approve the payment of the November 15, 2022 payroll disbursements in an amount not to exceed \$3,300,000.00 effective November 15, 2022 and post totals for wages, withholdings, deductions and benefits on the Hays County website once finalized. **BECERRA/RICHEY**

Summary



AGENDA ITEM REQUEST FORM

Hays County Commissioners Court

Date: 11/01/2022

Requested By:

Elaine Cardenas

Sponsor:

Judge Becerra

Agenda Item

Approve Commissioners Court Minutes of October 25, 2022. **BECERRA/CARDENAS**.

Summary

Attachments

10/25/2022 Minutes

HAYS COUNTY COMMISSIONERS' COURT MINUTES



OCTOBER 25, 2022

STATE OF TEXAS *
COUNTY OF HAYS *

ON THIS THE 25th DAY OF OCTOBER A.D., 2022, THE COMMISSIONERS' COURT OF HAYS COUNTY, TEXAS, MET IN REGULAR MEETING. THE FOLLOWING MEMBERS WERE PRESENT, TO-WIT:

RUBEN BECERRA
DEBBIE GONZALES INGALSBE
MARK JONES
LON A. SHELL
WALT SMITH
ELAINE H. CÁRDENAS

COUNTY JUDGE
COMMISSIONER, PCT. 1
COMMISSIONER, PCT. 2
COMMISSIONER, PCT. 3
COMMISSIONER, PCT. 4
COUNTY CLERK

Clerk's Note: For complete transcript go to Hays County Website
<https://hayscountytexas.com/commissioners-court/court-video/>
Transcript can be translated into any language through Google.com.

THE FOLLOWING PROCEEDINGS WERE HAD, THAT IS:

Pastor Darius Todd gave the invocation. Judge Becerra led the court in the Pledge of Allegiance to the United States and Texas flags. Judge Becerra called the meeting to order.

PUBLIC COMMENTS

David Boyd made a public comment concerning election integrity. Nancy Herlin made a public comment concerning traffic and safety issues on FM 1826. Glenn Richter made a public comment concerning traffic and safety issues on FM 1826. Bob Alexander made a public comment concerning traffic and safety issues on FM 1826. Bill Brock made a public comment concerning traffic and safety issues on FM 1826. Laura Nunn made a public comment concerning election integrity. Jordan Buckley made a public comment in favor of a Public Defender's Office (PDO). Madeline Brock made a public comment concerning traffic and safety issues on FM 1826. Lisa Krohn made a public comment concerning election integrity. Dan Lyon made a public comment concerning political ads and county spending. Erin Ckudre made a public comment in favor of a PDO. Eric Martinez made a public comment in favor of a PDO. Elle Cross made a public comment in favor of a PDO. Sam Benavides made a public comment in favor of a PDO. Sarah Minion made a public comment in favor of a PDO. Jesmeen Grewal made a public comment in favor of a PDO. Karen Munoz made a public comment in favor of a PDO. Erica Galeon made a public comment in favor of a PDO. Elaine Cardenas, County Clerk, read emailed public comments from the following individuals: V.A. Wilder emailed a public comment in favor of poll watchers. Amy Kamp emailed a public comment in favor of a PDO.

38141 Adopt a Proclamation recognizing Kaare & Brenda Remme as Community Resource of the Year.

Lee Ikels, Chair of the Hays County Child Protective Board, stated he is proud to present the Remmes with this award.

A motion was made by Commissioner Ingalsbe, seconded by Commissioner Jones to adopt a Proclamation recognizing Kaare & Brenda Remme as Community Resource of the Year.

AYE: Commissioner Ingalsbe, Commissioner Jones, Commissioner Shell, Commissioner Smith, Judge Becerra
5 - 0 Passed - Unanimously

38142 Adopt a Proclamation recognizing Derrell and Mary Moore as Foster Parents of the Year.

Lee Ikels, Chair of the Hays County Child Protective Board, spoke about the caseworkers and foster parents in Hays County and thanked the court for the recognition. Commissioner Smith spoke about the possible use of ARPA funds for Foster Village in Dripping Springs. Commissioner Shell thanked Ikels and the Child Protective Board for their service.

A motion was made by Commissioner Ingalsbe, seconded by Commissioner Jones to adopt a Proclamation recognizing Derrell and Mary Moore as Foster Parents of the Year.

AYE: Commissioner Ingalsbe, Commissioner Jones, Commissioner Shell, Commissioner Smith, Judge Becerra
5 - 0 Passed - Unanimously

Clerk's Note Agenda Item #F-3 RE: *Presentation to the recipient of the Honorary 4-H Award.* - WAS PULLED.

38143 Approve payments of County invoices.

A motion was made by Commissioner Ingalsbe, seconded by Commissioner Shell to approve payments of County invoices.

AYE: Commissioner Ingalsbe, Commissioner Jones, Commissioner Shell, Commissioner Smith, Judge Becerra
5 - 0 Passed - Unanimously

38144 Approve the payment of Juror checks.

A motion was made by Commissioner Ingalsbe, seconded by Commissioner Shell to approve the payment of Juror checks.

AYE: Commissioner Ingalsbe, Commissioner Jones, Commissioner Shell, Commissioner Smith, Judge Becerra
5 - 0 Passed - Unanimously

38145 Approve the payment of United Healthcare claims.

A motion was made by Commissioner Ingalsbe, seconded by Commissioner Shell to approve the payment of United Healthcare claims.

AYE: Commissioner Ingalsbe, Commissioner Jones, Commissioner Shell, Commissioner Smith, Judge Becerra
5 - 0 Passed - Unanimously

38146 Approve Commissioners Court Minutes of September 20, 2022, September 27, 2022 and October 11, 2022.

A motion was made by Commissioner Ingalsbe, seconded by Commissioner Shell to approve Commissioners Court Minutes of September 20, 2022, September 27, 2022 and October 11, 2022.

AYE: Commissioner Ingalsbe, Commissioner Jones, Commissioner Shell, Commissioner Smith, Judge Becerra
5 - 0 Passed - Unanimously

38147 Approve the payment of the October 31, 2022 payroll disbursements in an amount not to exceed \$4,300,000.00 effective October 31, 2022 and post totals for wages, withholdings, deductions and benefits on the Hays County website once finalized.

A motion was made by Commissioner Ingalsbe, seconded by Commissioner Shell to approve the payment of the October 31, 2022 payroll disbursements in an amount not to exceed \$4,300,000.00 effective October 31, 2022 and post totals for wages, withholdings, deductions and benefits on the Hays County website once finalized.

AYE: Commissioner Ingalsbe, Commissioner Jones, Commissioner Shell, Commissioner Smith, Judge Becerra
5 - 0 Passed - Unanimously

38148 Authorize a renewal contract with West Thomson Reuters for legal research resources for the Office of the Hays County Criminal District Attorney and authorize a discretionary exemption pursuant to Texas Local Government Code, Ch. 262.024 (a)(7)(B).

A motion was made by Commissioner Ingalsbe, seconded by Commissioner Shell to authorize a renewal contract with West Thomson Reuters for legal research resources for the Office of the Hays County Criminal District Attorney and authorize a discretionary exemption pursuant to Texas Local Government Code, Ch. 262.024 (a)(7)(B).

AYE: Commissioner Ingalsbe, Commissioner Jones, Commissioner Shell, Commissioner Smith, Judge Becerra
5 - 0 Passed - Unanimously

38149 Authorize the County Judge to execute an Interlocal Agreement between Hays County and the Texas A&M AgriLife Extension Service for the Feral Hog Abatement Program in the amount of \$7,500.00.

A motion was made by Commissioner Ingalsbe, seconded by Commissioner Shell to authorize the County Judge to execute an Interlocal Agreement between Hays County and the Texas A&M AgriLife Extension Service for the Feral Hog Abatement Program in the amount of \$7,500.00.

AYE: Commissioner Ingalsbe, Commissioner Jones, Commissioner Shell, Commissioner Smith, Judge Becerra
5 - 0 Passed - Unanimously

38150 Authorize the Parks Department to purchase two 12x24 metal utility sheds for the storage of tools and supplies at Sentinel Peak in the amount of \$9,320.00 (\$4,660 each) and amend the budget accordingly.

A motion was made by Commissioner Ingalsbe, seconded by Commissioner Shell to authorize the Parks Department to purchase two 12x24 metal utility sheds for the storage of tools and supplies at Sentinel Peak in the amount of \$9,320.00 (\$4,660 each) and amend the budget accordingly.

AYE: Commissioner Ingalsbe, Commissioner Jones, Commissioner Shell, Commissioner Smith, Judge Becerra
5 - 0 Passed - Unanimously

38151 Authorize Building Maintenance to purchase three (3) new Automated External Defibrillators (AEDs) for Hays County buildings in the amount of \$6,535.02 and amend the budget accordingly.

A motion was made by Commissioner Ingalsbe, seconded by Commissioner Shell to authorize Building Maintenance to purchase three (3) new Automated External Defibrillators (AEDs) for Hays County buildings in the amount of \$6,535.02 and amend the budget accordingly.

AYE: Commissioner Ingalsbe, Commissioner Jones, Commissioner Shell, Commissioner Smith, Judge Becerra
5 - 0 Passed - Unanimously

38152 Authorize the acceptance of a grant award from the Office of the Governor, State Homeland Security Grant Program in the amount of \$10,000.00 related to HazMat equipment monitoring.

A motion was made by Commissioner Ingalsbe, seconded by Commissioner Shell to authorize the acceptance of a grant award from the Office of the Governor, State Homeland Security Grant Program in the amount of \$10,000.00 related to HazMat equipment monitoring.

AYE: Commissioner Ingalsbe, Commissioner Jones, Commissioner Shell, Commissioner Smith, Judge Becerra
5 - 0 Passed - Unanimously

38153 Authorize the Local Health Department to purchase a year subscription to Jotform in the amount of \$15,000.00 for questionnaire and survey services needed by the Health Department and amend the budget accordingly.

A motion was made by Commissioner Ingalsbe, seconded by Commissioner Shell to authorize the Local Health Department to purchase a year subscription to Jotform in the amount of \$15,000.00 for questionnaire and survey services needed by the Health Department and amend the budget accordingly.

AYE: Commissioner Ingalsbe, Commissioner Jones, Commissioner Shell, Commissioner Smith, Judge Becerra
5 - 0 Passed - Unanimously

38154 Approve specifications for IFB 2023-B06 Culverts and authorize Purchasing to solicit for bids and advertise.

A motion was made by Commissioner Ingalsbe, seconded by Commissioner Shell to approve specifications for IFB 2023-B06 Culverts and authorize Purchasing to solicit for bids and advertise.

AYE: Commissioner Ingalsbe, Commissioner Jones, Commissioner Shell, Commissioner Smith, Judge Becerra
5 - 0 Passed - Unanimously

38155 Approve specifications for IFB 2023-B05 Road Building Materials - Cold Mix and authorize Purchasing to solicit for bids and advertise.

A motion was made by Commissioner Ingalsbe, seconded by Commissioner Shell to approve specifications for IFB 2023-B05 Road Building Materials - Cold Mix and authorize Purchasing to solicit for bids and advertise.

AYE: Commissioner Ingalsbe, Commissioner Jones, Commissioner Shell, Commissioner Smith, Judge Becerra

5 - 0 Passed - Unanimously

38156 Approve specifications for IFB 2023-B04 Road Building Materials - Hot Mix and authorize Purchasing to solicit for bids and advertise.

A motion was made by Commissioner Ingalsbe, seconded by Commissioner Shell to approve specifications for IFB 2023-B04 Road Building Materials - Hot Mix and authorize Purchasing to solicit for bids and advertise.

AYE: Commissioner Ingalsbe, Commissioner Jones, Commissioner Shell, Commissioner Smith, Judge Becerra

5 - 0 Passed - Unanimously

Amend the County Judge's operating budget for \$370.25 in travel expenses related to assessment of the Haskell County Detention Contract for outsourcing inmates at the Hays County Jail.

Commissioner Smith asked for clarification on the purpose of the visit and who traveled with the Judge, and expressed concerns about using County funds to reimburse outside organizations. Judge Becerra stated he traveled with volunteers for his office and spoke about his visit to the facility. Commissioner Shell stated he uses his travel allowance instead of amending the budget, and asked Judge Becerra to do the same.

A motion was made by Commissioner Ingalsbe, seconded by Commissioner Shell to amend the County Judge's operating budget for \$370.25 in travel expenses related to assessment of the Haskell County Detention Contract for outsourcing inmates at the Hays County Jail.

AYE: Commissioner Ingalsbe, Judge Becerra

NAY: Commissioner Jones, Commissioner Shell, Commissioner Smith

2 - 3 Failed

38157 Authorize the County Judge to execute a contract amendment to the Texas Water Development Board, Flood Infrastructure Fund Grant Agreement for the Onion Creek Watershed Study.

Commissioner Smith thanked Development Services and Countywide Operations staff for their work and spoke about the importance of the study and working with other groups.

A motion was made by Commissioner Ingalsbe, seconded by Commissioner Shell to authorize the County Judge to execute a contract amendment to the Texas Water Development Board, Flood Infrastructure Fund Grant Agreement for the Onion Creek Watershed Study.

AYE: Commissioner Ingalsbe, Commissioner Jones, Commissioner Shell, Commissioner Smith, Judge Becerra

5 - 0 Passed - Unanimously

38158 Amend the Transportation Department's budget for road-building materials valued at \$33,500.00 to receive approximately 320 tons of Limestone Rock Asphalt, Type II, Grade DS material from the Texas Department of Transportation through their FY 2023 County Assist Surplus Program and add to the department's inventory.

A motion was made by Commissioner Ingalsbe, seconded by Commissioner Shell to amend the Transportation Department's budget for road-building materials valued at \$33,500.00 to receive approximately 320 tons of Limestone Rock Asphalt, Type II, Grade DS material from the Texas Department of Transportation through their FY 2023 County Assist Surplus Program and add to the department's inventory.

AYE: Commissioner Ingalsbe, Commissioner Jones, Commissioner Shell, Commissioner Smith, Judge Becerra

5 - 0 Passed - Unanimously

38159 Approve the reappointment of Jerry Borcharding, Director of Transportation, as the primary voting member on the Technical Advisory Committee of CAMPO, and Winton Porterfield, Hays County Planner, as the alternate voting member.

A motion was made by Commissioner Ingalsbe, seconded by Commissioner Shell to approve the reappointment of Jerry Borcharding, Director of Transportation, as the primary voting member on the Technical Advisory Committee of CAMPO, and Winton Porterfield, Hays County Planner, as the alternate voting member.

AYE: Commissioner Ingalsbe, Commissioner Jones, Commissioner Shell, Commissioner Smith, Judge Becerra

5 - 0 Passed - Unanimously

38160 Approve the appointment of Angela Kennedy, City of Buda Engineer, to replace John Nett, as the primary voting member on the Technical Advisory Committee of CAMPO, and appoint Aaron Reed, City of Dripping Springs Public Works Director, as the alternate voting member for the remainder of 2022 and all of 2023.

Commissioner Jones thanked John Nett for his service and stated these are good replacements.

A motion was made by Commissioner Ingalsbe, seconded by Commissioner Shell to approve the appointment of Angela Kennedy, City of Buda Engineer, to replace John Nett, as the primary voting member on the Technical Advisory Committee of CAMPO, and appoint Aaron Reed, City of Dripping Springs Public Works Director, as the alternate voting member for the remainder of 2022 and all of 2023.

AYE: Commissioner Ingalsbe, Commissioner Jones, Commissioner Shell, Commissioner Smith, Judge Becerra
5 - 0 Passed - Unanimously

38161 Authorize payment to John M. Warren, Inc. for 30 Breakaway Safety Vests in which no purchase order was issued as required per the Hays County Purchasing Policy.

A motion was made by Commissioner Ingalsbe, seconded by Commissioner Shell to authorize payment to John M. Warren, Inc. for 30 Breakaway Safety Vests in which no purchase order was issued as required per the Hays County Purchasing Policy.

AYE: Commissioner Ingalsbe, Commissioner Jones, Commissioner Shell, Commissioner Smith, Judge Becerra
5 - 0 Passed - Unanimously

38162 Authorize acceptance of separate donations each in the amount of \$10,000.00 to the Hays County Fire Marshal's Office and to the Office of Emergency Management, from the Estate of Franklin Sears; amend the budget accordingly; and authorize execution of documents incidental to probate of the Sears estate, with guidance from the Office of General Counsel.

Commissioner Ingalsbe thanked the Sears family for their donations.

A motion was made by Commissioner Ingalsbe, seconded by Commissioner Shell to authorize acceptance of separate donations each in the amount of \$10,000.00 to the Hays County Fire Marshal's Office and to the Office of Emergency Management, from the Estate of Franklin Sears; amend the budget accordingly; and authorize execution of documents incidental to probate of the Sears estate, with guidance from the Office of General Counsel.

AYE: Commissioner Ingalsbe, Commissioner Jones, Commissioner Shell, Commissioner Smith, Judge Becerra
5 - 0 Passed - Unanimously

38163 Approve the appointment of Raschell D. Jarden to the Board of Emergency Services District #9 to replace Bruce Schneider, for a term ending December 31, 2024.

Commissioner Jones thanked Bruce Schneider for his service and stated this is a good replacement.

A motion was made by Commissioner Ingalsbe, seconded by Commissioner Shell to approve the appointment of Raschell D. Jarden to the Board of Emergency Services District #9 to replace Bruce Schneider, for a term ending December 31, 2024.

AYE: Commissioner Ingalsbe, Commissioner Jones, Commissioner Shell, Commissioner Smith, Judge Becerra
5 - 0 Passed - Unanimously

38164 Amend the Sheriff Drug Forfeiture Fund for the purchase of computer equipment valued at \$7,526.00 for Crime Analyst positions.

A motion was made by Commissioner Ingalsbe, seconded by Commissioner Shell to amend the Sheriff Drug Forfeiture Fund for the purchase of computer equipment valued at \$7,526.00 for Crime Analyst positions.

AYE: Commissioner Ingalsbe, Commissioner Jones, Commissioner Shell, Commissioner Smith, Judge Becerra
5 - 0 Passed - Unanimously

38165 Approve specifications for IFB 2023-B08 Emulsion Oils and authorize Purchasing to solicit for bids and advertise.

A motion was made by Commissioner Ingalsbe, seconded by Commissioner Shell to approve specifications for IFB 2023-B08 Emulsion Oils and authorize Purchasing to solicit for bids and advertise.

AYE: Commissioner Ingalsbe, Commissioner Jones, Commissioner Shell, Commissioner Smith, Judge Becerra
5 - 0 Passed - Unanimously

38166 Authorize the Information Technology Department to purchase laptops and accessories for the Justice of the Peace Pct. 2, 4 and 5 Offices and amend the budget accordingly.

A motion was made by Commissioner Ingalsbe, seconded by Commissioner Shell to authorize the Information Technology Department to purchase laptops and accessories for the Justice of the Peace Pct. 2, 4 and 5 Offices and amend the budget accordingly.

AYE: Commissioner Ingalsbe, Commissioner Jones, Commissioner Shell, Commissioner Smith, Judge Becerra
5 - 0 Passed - Unanimously

Receive Responses from the Hays County Elections Administrator related to citizen queries about elections.

Judge Becerra spoke about the need to address the public's concerns over elections. Elaine Cardenas, County Clerk, read aloud the Hays County Elections Office's responses to citizen comments regarding the 2020 election. Mark Kennedy, General Counsel, spoke about creating a public record of these responses and possibly posting them on the County website. Commissioner Ingalsbe gave support for putting the responses online. Commissioner Jones spoke about keeping an open dialogue and asked about oversight of elections. Commissioner Shell spoke about identifying issues and making changes. Commissioner Smith spoke about needing more staff to complete the information requests the Elections Office has been receiving and making that information more easily accessible. No action taken.

38167 Authorize General Counsel to execute and record a Special Warranty Deed related to the roadway(s) and easement(s) at Sentinel Peak Preserve.

A motion was made by Commissioner Ingalsbe, seconded by Commissioner Shell to authorize General Counsel to execute and record a Special Warranty Deed related to the roadway(s) and easement(s) at Sentinel Peak Preserve.

AYE: Commissioner Ingalsbe, Commissioner Jones, Commissioner Shell, Commissioner Smith, Judge Becerra
5 - 0 Passed - Unanimously

38168 Authorize the Director of Countywide Operations to work with the Sheriff's Office to identify and reserve space for use by the Hays County Brown Santa Program.

A motion was made by Commissioner Ingalsbe, seconded by Commissioner Shell to authorize the Director of Countywide Operations to work with the Sheriff's Office to identify and reserve space for use by the Hays County Brown Santa Program.

AYE: Commissioner Ingalsbe, Commissioner Jones, Commissioner Shell, Commissioner Smith, Judge Becerra
5 - 0 Passed - Unanimously

38169 Hold a public hearing with possible action to establish a 4-way stop location on Crosswinds Parkway at the intersection with Gulfstream Trail in Crosswinds subdivision.

Judge Becerra opened the public hearing at 11:40 a.m. No comments were made. Judge Becerra closed the public hearing at 11:40 a.m. Commissioner Ingalsbe stated this will improve traffic and safety.

A motion was made by Commissioner Ingalsbe, seconded by Commissioner Jones to establish a 4-way stop location on Crosswinds Parkway at the intersection with Gulfstream Trail in Crosswinds subdivision.

AYE: Commissioner Ingalsbe, Commissioner Jones, Commissioner Shell, Commissioner Smith, Judge Becerra
5 - 0 Passed - Unanimously

38170 Discussion and possible action to consider the release of the revegetation bond #PB03016800693M in the amount of \$19,781.95 for 6 Creeks subdivision, Phase 1, Section 4A.

A motion was made by Commissioner Shell, seconded by Commissioner Smith to release the revegetation bond #PB03016800693M in the amount of \$19,781.95 for 6 Creeks subdivision, Phase 1, Section 4A.

AYE: Commissioner Ingalsbe, Commissioner Jones, Commissioner Shell, Commissioner Smith, Judge Becerra
5 - 0 Passed - Unanimously

38171 Discussion and possible action to authorize the County Judge to execute the 7th Letter Amendment for a time extension to a Professional Services Agreement (PSA) between Hays County and Lockwood, Andrews and Newman, Inc. executed on or about October 31, 2017 for Right of Way Service for Dacy Lane, Phase II from Amberwood Loop to Hillside Terrace, road widening and realignment project.

Commissioner Ingalsbe stated this is for a time extension and no additional funds are required.

A motion was made by Commissioner Ingalsbe, seconded by Commissioner Jones to authorize the County Judge to execute the 7th Letter Amendment for a time extension to a Professional Services Agreement (PSA) between Hays County and Lockwood, Andrews and Newman, Inc. executed on or about October 31, 2017 for Right of Way Service for Dacy Lane, Phase II from Amberwood Loop to Hillside Terrace, road widening and realignment project.

AYE: Commissioner Ingalsbe, Commissioner Jones, Commissioner Shell, Commissioner Smith, Judge Becerra
5 - 0 Passed - Unanimously

38172 Discussion and possible action to consider the acceptance of road construction & surface drainage improvements, release of the Letter of Credit #SBP702766 in the amount of \$1,042,313.95, acceptance of the 2-year maintenance bond #PB03016800753M in the amount of \$168,217.11, and acceptance of the 1-year revegetation bond #PB03016800753M2 in the amount of \$129,173.00 for Parten Ranch subd., Phase 4.

A motion was made by Commissioner Smith, seconded by Commissioner Shell to accept road construction & surface drainage improvements, release the Letter of Credit #SBP702766 in the amount of \$1,042,313.95, accept the 2-year maintenance bond #PB03016800753M in the amount of \$168,217.11, and accept the 1-year revegetation bond #PB03016800753M2 in the amount of \$129,173.00 for Parten Ranch subd., Phase 4.

AYE: Commissioner Ingalsbe, Commissioner Jones, Commissioner Shell, Commissioner Smith, Judge Becerra
5 - 0 Passed - Unanimously

38173 Discussion and possible action to authorize the Court to execute a Contract Amendment No. 7 in the amount of \$200,000.00 to the Professional Service Agreement between Hays County and Johnson, Mirmiran, & Thompson, Inc. for professional design services on the FM 110 Middle project in Precinct 1, as part of the TxDOT/Hays County Partnership Program; authorize a discretionary exemption pursuant to Texas Local Government Code Ch. 262.024(a)(4) and amend the budget accordingly.

Dan Lyon made a public comment concerning costs and time extensions. Commissioner Ingalsbe stated this will authorize FEMA permitting and explained unforeseen issues sometimes come up as the project progresses. Commissioner Shell clarified that there was no bid for this project, just a cost estimate.

A motion was made by Commissioner Ingalsbe, seconded by Commissioner Jones to authorize the Court to execute a Contract Amendment No. 7 in the amount of \$200,000.00 to the Professional Service Agreement between Hays County and Johnson, Mirmiran, & Thompson, Inc. for professional design services on the FM 110 Middle project in Precinct 1, as part of the TxDOT/Hays County Partnership Program; authorize a discretionary exemption pursuant to Texas Local Government Code Ch. 262.024(a)(4) and amend the budget accordingly.

AYE: Commissioner Ingalsbe, Commissioner Jones, Commissioner Shell, Commissioner Smith, Judge Becerra
5 - 0 Passed - Unanimously

38174 Discussion and possible action to accept Subdivision Bond No. 7901017121 for street and drainage improvements in the amount of \$1,238,375.00 for the Crosswinds, Phase 6A subdivision.

A motion was made by Commissioner Ingalsbe, seconded by Commissioner Jones to accept Subdivision Bond No. 7901017121 for street and drainage improvements in the amount of \$1,238,375.00 for the Crosswinds, Phase 6A subdivision.

AYE: Commissioner Ingalsbe, Commissioner Jones, Commissioner Shell, Commissioner Smith, Judge Becerra
5 - 0 Passed - Unanimously

38175 Discussion and possible action to authorize the County Judge to execute a Professional Services Agreement between Hays County and Pape Dawson Engineering for development of Plans, Specifications, and Estimates for improvements to Beback Inn Road in Pct. 1.

A motion was made by Commissioner Ingalsbe, seconded by Commissioner Jones to authorize the County Judge to execute a Professional Services Agreement between Hays County and Pape Dawson Engineering for development of Plans, Specifications, and Estimates for improvements to Beback Inn Road in Pct. 1.

AYE: Commissioner Ingalsbe, Commissioner Jones, Commissioner Shell, Commissioner Smith, Judge Becerra

5 - 0 Passed - Unanimously

38176 PLN-2011-NP; Weber Estate, Lot 1; Discussion and possible action to approve the final plat.

Colby Machacek, County Planner with Development Services, provided background on the property and stated it has full staff recommendation.

A motion was made by Commissioner Smith, seconded by Commissioner Shell to approve the final plat of Weber Estate, Lot 1.

AYE: Commissioner Ingalsbe, Commissioner Jones, Commissioner Shell, Commissioner Smith, Judge Becerra

5 - 0 Passed - Unanimously

38177 PLN-1902-PC; Wimberley Campfire 2, Edgewater Section, Lots 267 and 268, Amended; Discussion and possible action to consider granting a variance to Table 10-1 of the Hays County On-Site Sewage Facility Rules.

Colby Machacek, County Planner with Development Services, provided background on the property and explained the variance request. He stated the project is also under review by the City of Wimberley. Commissioner Shell stated this reduces potential development density.

A motion was made by Commissioner Shell, seconded by Commissioner Smith to grant a variance to Table 10-1 of the Hays County On-Site Sewage Facility Rules to Wimberley Campfire 2, Edgewater Section, Lots 267 and 268, Amended.

AYE: Commissioner Ingalsbe, Commissioner Jones, Commissioner Shell, Commissioner Smith, Judge Becerra

5 - 0 Passed - Unanimously

38178 PLN-2055-PC; Call for a Public Hearing on November 15th 2022, followed by discussion and possible action regarding the Indian Hills Ranch, Lot 9, Replat.

A motion was made by Commissioner Smith, seconded by Commissioner Shell to call for a Public Hearing on November 15th 2022, followed by discussion and possible action regarding the Indian Hills Ranch, Lot 9, Replat.

AYE: Commissioner Ingalsbe, Commissioner Jones, Commissioner Shell, Commissioner Smith, Judge Becerra

5 - 0 Passed - Unanimously

38179 Discussion and possible action to authorize the County Judge to execute the Hays County American Rescue Plan Recovery Grant Agreement between Hays County and the Court Appointed Special Advocates (CASA) of Central Texas Inc. regarding recovery assistance for direct or indirect impacts of COVID-19 and amend the budget accordingly.

Commissioner Smith thanked Commissioner Shell for matching the \$50,000 funding from the Precinct 4 allocation with funds from the Precinct 3 allocation, and spoke about possible additional funding in the future.

A motion was made by Commissioner Smith, seconded by Commissioner Shell to authorize the County Judge to execute the Hays County American Rescue Plan Recovery Grant Agreement between Hays County and the Court Appointed Special Advocates (CASA) of Central Texas Inc. regarding recovery assistance for direct or indirect impacts of COVID-19 and amend the budget accordingly.

AYE: Commissioner Ingalsbe, Commissioner Jones, Commissioner Shell, Commissioner Smith, Judge Becerra

5 - 0 Passed - Unanimously

Clerk's Note Agenda Item #K-2 RE: *Discussion and possible action to authorize the County Judge to execute an Amendment to the License and Services Agreement with Tyler Technologies, Inc. for the Jury Manager Software.*
- WAS PULLED.

38180 Discussion and possible action to authorize renewal of Hays County Auto Liability, Auto Physical Damage, General Liability, Law Enforcement Liability, and Public Official Liability coverage. The annual renewal premium is \$499,084.00.

Shari Miller, Director of Human Resources, spoke about the annual renewal of coverage and the addition of Auto Physical Damage coverage. Lisa McCaig, Texas Association of Counties (TAC) Risk Management Consultant, thanked Shari Miller for her and her staff's work and stated the cost savings offsets the cost in premiums. Commissioner Shell asked for details on savings and spending. Vickie Dorsett, Hays County Budget Officer, spoke about damaged vehicles in recent years and the cost of repairs.

A motion was made by Commissioner Ingalsbe, seconded by Commissioner Shell to authorize renewal of Hays County Auto Liability, Auto Physical Damage, General Liability, Law Enforcement Liability, and Public Official Liability coverage. The annual renewal premium is \$499,084.00.

AYE: Commissioner Ingalsbe, Commissioner Jones, Commissioner Shell, Commissioner Smith, Judge Becerra
5 - 0 Passed - Unanimously

Update to the Commissioners Court regarding the proposed Hays County Public Defender's Office.

Commissioner Ingalsbe stated they are close to finalizing the contract and are hopeful for action in the next month. Commissioner Shell gave background on the process of creating a Public Defender's Office (PDO), including funding, RFPs, the choice to use a non-profit, and planning how the office will operate and integrate with the courts. He spoke about the importance of indigent defense and an efficient criminal justice system. Mark Kennedy, General Counsel, spoke about what still needs to be done before finalizing the contract. The court discussed when they expect the process to be finished and making edits to the contract after it is finalized. Commissioner Smith clarified that the vote to use Neighborhood Defender Service was unanimous and the reason he did not support a PDO at the beginning of the process was due to concerns about implementation. No action taken.

Clerk's Note: Executive Session began at 12:02 p.m. and resumed back into open court at 12:10 p.m.

38181 Executive Session pursuant to Sections 551.071 and 551.072 of the Texas Government Code: consultation with counsel and deliberation regarding the purchase, exchange, lease and/or value of Right of Way located at or near Windy Hill Road in Pct. 2. Possible discussion and/or action may follow in open court.

A motion was made by Commissioner Jones, seconded by Commissioner Ingalsbe to authorize execution of a Purchase Agreement for Parcel 19 on Windy Hill Road, between Hays County and Ana Posada, as presented in Executive Session.

AYE: Commissioner Ingalsbe, Commissioner Jones, Commissioner Shell, Commissioner Smith, Judge Becerra
5 - 0 Passed - Unanimously

Clerk's Note Agenda Item #M-1 RE: *Discussion and possible action related to the burn ban. - WAS PULLED.*

Discussion related to the Hays County inmate population, to include current population counts and costs.

Judge Becerra read the Sheriff's update of the inmate population. Current maximum jail capacity is 410 inmates. Jail Standards recommends holding 10% open, lowering current capacity to 368 inmates. The jail's daily average was 615 for the week of October 16, 2022 with a peak of 619 inmates on October 16, 2022. The estimated cost for outsourcing inmates this week was \$134,823. The average number of outsourced males is 218 and females is 16. This week's inmates were housed in the following counties: Atascosa, Blanco, Burnet, Comal, Fort Bend, Haskell, Lee, and Maverick. The number of "paper-ready" inmates who are now wardens of the state is 34. No action taken.

Clerk's Note Agenda Item #M-3 RE: *Discussion of issues related to the Hays County Jail, and the planning of projects pertaining to the public safety facilities needs within the County. Possible action may follow. - WAS PULLED.*

Clerk's Note Agenda Item #M-4 RE: *Discussion and possible action regarding Hays County's use of federal or other grant funding related to COVID-19 response including but not limited to the American Rescue Plan Act (ARPA) and the Emergency Rental Assistance Program (ERAP). - WAS PULLED.*

ADJOURNMENT

A motion was made by Commissioner Jones, seconded by Judge Becerra to adjourn court at 12:11 p.m.

I, ELAINE H. CÁRDENAS, COUNTY CLERK and EXOFFICIO CLERK OF THE COMMISSIONERS' COURT, do hereby certify that the foregoing contains a true and accurate record of the proceedings had by the Hays County Commissioners' Court on OCTOBER 25, 2022.



Elaine H. Cardenas
ELAINE H. CÁRDENAS, COUNTY CLERK AND EXOFFICIO
CLERK OF THE COMMISSIONERS' COURT OF
HAYS COUNTY, TEXAS



AGENDA ITEM REQUEST FORM

Hays County Commissioners Court

Date: 11/01/2022

Requested By:

Mark Jones

Sponsor:

Commissioner Jones

Agenda Item

Approve the reappointment Fred Rothert to the Plum Creek Conservation District, a four-year term ending December 31, 2026. JONES

Summary



AGENDA ITEM REQUEST FORM

Hays County Commissioners Court

Date: 11/01/2022

Requested By:

Sponsor:

Judge Becerra

Agenda Item

Approve the reappointment of Karen Brown, Jodi Steen, Erica Gallardo, Dixie Camp and Karen Housewright to the board of the Hays County Child Protective Board, three-year terms ending December 31, 2025. **BECERRA**

Summary



AGENDA ITEM REQUEST FORM

Hays County Commissioners Court

Date: 11/01/2022

Requested By:

Jerry Borcharding

Sponsor:

Commissioner Smith

Agenda Item

Approve specifications for IFB 2023-B02 RM 2770 Roadway Improvements and authorize Purchasing to solicit for bids and advertise. **SMITH/BORCHERDING**

Summary

The proposed project will reconstruct the existing road at the FM 2770 at Flint Hills Driveway intersection. The project consists of, but is not limited to, construction of left turn lane and paved shoulders, earthwork, drainage structures, pavement markings, and erosion control facilities.

Attachments

Attachment A - Technical Specifications

IFB 2023-B02 Solicitation

Attachment B - Construction Plans



Items 1L–9L

Local Government General Requirements and
Covenants

Item 1L

Abbreviations and Definitions



1. APPLICABILITY

Wherever the following terms are used in these specifications or other Contract documents, the intent and meaning will be interpreted as shown below.

2. ABBREVIATIONS

AAR	Association of American Railroads
AASHTO	American Association of State Highway and Transportation Officials
ACI	American Concrete Institute
ACPA	American Concrete Pipe Association
AI	Asphalt Institute
AIA	American Institute of Architects
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
AITC	American Institute of Timber Construction
ALSC	American Lumber Standard Committee, Inc.
AMRL	AASHTO Materials Reference Laboratory
ANLA	American Nursery and Landscape Association
ANSI	American National Standards Institute
APA	The Engineered Wood Association
API	American Petroleum Institute
APWA	American Public Works Association
AREMA	American Railway Engineering and Maintenance-of-Way Association
ASBI	American Segmental Bridge Institute
ASCE	American Society of Civil Engineers
ASLA	American Society of Landscape Architects
ASME	American Society of Mechanical Engineers
ASNT	American Society for Nondestructive Testing
ASTM	American Society for Testing and Materials
AWC	American Wood Council
AWG	American Wire Gage
AWPA	American Wood Protection Association
AWPI	American Wood Preservers Institute
AWS	American Welding Society
AWWA	American Water Works Association
BMP	Best Management Practices
CFR	Code of Federal Regulations
CMP	Corrugated Metal Pipe
COE	U.S. Army Corps of Engineers
CRSI	Concrete Reinforcing Steel Institute
DBE	Disadvantaged Business Enterprise
DMS	Departmental Material Specification
EIA	Electronic Industries Alliance
EPA	United States Environmental Protection Agency
FHWA	Federal Highway Administration, U.S. Department of Transportation
FSS	Federal Specifications and Standards (General Services Administration)
GSA	United States General Services Administration
HUB	Historically Underutilized Business
ICEA	Insulated Cable Engineers Association
IEEE	Institute of Electrical and Electronics Engineers
IESNA	Illuminating Engineering Society of North America

IMSA	International Municipal Signal Association
ISO	International Organization for Standardization
ITS	Intelligent Transportation System
ITE	Institute of Transportation Engineers
LG	Local Government
LRFD	Load and Resistance Factor Design
MASH	Manual for Assessing Safety Hardware
MPL	Material Producer List (TxDOT document)
NCHRP	National Cooperative Highway Research Program
NCR	Nonconformance Report (TxDOT form)
NEC	National Electrical Code (Published by NFPA)
NEMA	National Electrical Manufacturers Association
NEPA	National Environmental Policy Act
NESC	National Electrical Safety Code
NFPA	National Fire Protection Association
NIST	National Institute of Standards and Technology
NRM	Nonhazardous Recyclable Material
NRMCA	National Ready Mixed Concrete Association
NSBA	National Steel Bridge Alliance
NTPEP	National Transportation Product Evaluation Program
OSHA	Occupational Safety & Health Administration, U.S. Department of Labor
PCA	Portland Cement Association
PCI	Precast/Prestressed Concrete Institute
PE	Professional Engineer
PPI	Plastics Pipe Institute
PS&E	Plans, Specifications, and Estimates
PSL	Project-Specific Location
PTI	Post-Tension Institute
QA	Quality Assurance
QC	Quality Control
RCP	Reinforced Concrete Pipe
RPLS	Registered Public Land Surveyor
RRC	Railroad Commission of Texas
SBE	Small Business Enterprise
SFPA	Southern Forest Products Association
SI	International System of Units
SPIB	Southern Pine Inspection Bureau
SSPC	The Society for Protective Coatings
TAC	Texas Administrative Code
TCEQ	Texas Commission on Environmental Quality
TDLR	Texas Department of Licensing and Regulation
TGC	Texas Government Code
TMUTCD	Texas Manual on Uniform Traffic Control Devices
TxDOT	Texas Department of Transportation
UL	Underwriters Laboratory, Inc.
USC	United States Code
WRI	Wire Reinforcement Institute
WWPA	Western Wood Products Association

3. DEFINITIONS

- 3.1. **Abrasive Blasting.** Spraying blasts of pressurized air combined with abrasive media.
- 3.2. **Actual Cost.** Contractor's actual cost to provide labor, material, equipment, and project overhead necessary for the work.
- 3.3. **Addendum.** Change in bid documents developed between advertising and bid submittal deadline.

- 3.4. **Additive Alternate.** A bid item contained in the bid documents that is not a regular item or a replacement alternate bid item. The additive alternate items include work that may be added to the base bid work.
- 3.5. **Deductive Alternate.** A bid item contained in the bid documents that is not a regular item or a replacement alternate bid item. The deductive alternate items include work that may be deducted from the base bid work.
- 3.6. **Advertisement.** The public announcement required by law inviting bids for work to be performed or materials to be furnished.
- 3.7. **Affiliates.** Two or more firms are affiliated if they share common officers, directors, or stockholders; a family member of an officer, director, or stockholder of one firm serves in a similar capacity in another of the firms; an individual who has an interest in, or controls a part of, one firm either directly or indirectly also has an interest in, or controls a part of, another of the firms; the firms are so closely connected or associated that one of the firms, either directly or indirectly, controls or has the power to control another firm; one firm controls or has the power to control another of the firms; or the firms are closely allied through an established course of dealings, including, but not limited to, the lending of financial assistance.
- 3.8. **Air Blasting.** Spraying blasts of pressurized air free of oil and moisture.
- 3.9. **Air Temperature.** The temperature measured in degrees Fahrenheit (°F) in the shade, not in the direct rays of the sun, and away from artificial heat.
- 3.10. **Anticipated Profit.** Profit for work not performed.
- 3.11. **Apparent Low Bidder.** The Bidder determined to have the numerically lowest total bid as a result of the tabulation of bids by the Owner.
- 3.12. **Architect of Record.** A person registered as an architect or licensed as a landscape architect, in accordance with State law, exercising overall responsibility for the design or a significant portion of the design and performs certain Contract administration responsibilities as described in the Contract; or a firm employed by the Owner to provide professional architectural services.
- 3.13. **Arterial Highway.** A highway used primarily for through traffic and usually on a continuous route.
- 3.14. **Notice of Award.** The Owner's acceptance of a Contractor's bid for a proposed Contract that authorizes the Owner to enter into a Contract.
- 3.15. **Base Bid.** The total bid amount without additive alternates.
- 3.16. **Bid.** The offer from the Bidder for performing the work described in the bid documents, submitted on the prescribed bid form, considering addenda issued and giving unit bid prices for performing the work described in the bid documents.
- 3.17. **Bid Bond.** The security executed by the Contractor and the Surety furnished to the Owner to guarantee payment of liquidated damages if the Contractor fails to enter into an awarded Contract.
- 3.18. **Bid Documents.** The complete set of documents necessary for a Bidder to submit a bid. The documents may include plans, specifications, special specifications, special provisions, addenda, and the prescribed form a Bidder is to submit as the Bid. Other terms used may include general conditions, proposal, instructions to bidders, and construction specifications.
- 3.19. **Bid Error.** A mathematical mistake made by a Bidder in the unit price entered into the bid documents.
- 3.20. **Bid Form.** The portion of the bid documents that a prospective Bidder must submit to the Owner for their bid to be considered.

- 3.21. **Bidder.** An individual, partnership, limited liability company, corporation, or joint venture submitting a bid for a proposed Contract.
- 3.22. **Blast Cleaning.** Using one of the blasting methods, including, but not limited to, water blasting, low-pressure water blasting, high-pressure water blasting, abrasive blasting, water-abrasive blasting, shot blasting, slurry blasting, water injected abrasive blasting, and brush blasting.
- 3.23. **Bridge.** A structure, including supports, erected over a depression or an obstruction (e.g., water, a highway, or a railway) having a roadway or track for carrying traffic or other moving loads, and having an opening measured along the center of the roadway of more than 20 ft. between faces of abutments, spring lines of arches, or extreme ends of the openings for multiple box culverts.
- 3.24. **Brush Blasting.** Sweeping lightly with an abrasive blast to remove loose material.
- 3.25. **Building Contract.** A Contract entered under State law for the construction or maintenance of an Owner building or appurtenance facilities. Building Contracts are considered to be construction Contracts.
- 3.26. **Certificate of Insurance.** A form approved by the Owner covering insurance requirements stated in the Contract.
- 3.27. **Change Order.** Written order to the Contractor detailing changes to the specified work, item quantities or any other modification to the Contract.
- 3.28. **Concrete Construction Joint.** A joint formed by placing plastic concrete in direct contact with concrete that has attained its initial set.
- 3.29. **Concrete Repair Manual.** TxDOT manual specifying methods and procedures for concrete repair as an extension of the standard specifications.
- 3.30. **ConcreteWorks®.** TxDOT-owned software for concrete heat analysis. Software is available on the TxDOT's website.
- 3.31. **Construction Contract.** A Contract entered under State law for the construction, reconstruction, or maintenance of a segment of the Owner's transportation system.
- 3.32. **Consultant.** The licensed professional engineer or engineering firm, or the architect or architectural firm, registered in the State of Texas and under Contract to the Owner to perform professional services. The consultant may be the Engineer or architect of record or may provide services through and be subcontracted to the Engineer or architect of record.
- 3.33. **Contract.** The agreement between the Owner and the Contractor establishing the obligations of the parties for furnishing of materials and performance of the work prescribed in the Contract documents.
- 3.34. **Contract Documents.** Elements of the Contract, including, but not limited to, the plans, specifications incorporated by reference, special provisions, special specifications, Contract bonds, change orders, addendums, and supplemental agreements.
- 3.35. **Contract Time.** The number of days specified for completion of the work, including authorized additional working days.
- 3.36. **Contractor.** The individual, partnership, limited liability company, corporation, or joint venture and all principals and representatives with which the Contract is made by the Owner.
- 3.37. **Controlled Access Highway.** Any highway to or from which access is denied or controlled, in whole or in part, from or to abutting land or intersecting streets, roads, highways, alleys, or other public or private ways.

- 3.38. **Control of Access.** The condition in which the right to access of owners or occupants of abutting land or other persons in connection with a highway is fully or partially controlled by public authority.
- 3.39. **Control Point.** An established point shown on the plans to provide vertical and horizontal references for geometric control for construction.
- 3.40. **Cross-Sections.** Graphic representations of the original ground and the proposed facility, at right angles to the centerline or base line.
- 3.41. **Culvert.** Any buried structure providing an opening under a roadway for drainage or other purposes. Culverts may also be classified as bridges. (See Section 1.3.23., "Bridge.")
- 3.42. **Cycle.** The activity necessary for performing the specified work within the right of way project limits once.
- 3.43. **Daily Road-User Cost.** Damages based on the estimated daily cost of inconvenience to the traveling public resulting from the work.
- 3.44. **Date of Written Authorization.** Date of the written Notice to Proceed authorizing the Contractor to begin work.
- 3.45. **Debar (Debarment).** Action taken by the Owner, State, or federal government pursuant to regulation that prohibits a person or company from entering into a Contract, or from participating as a subcontractor, or supplier of materials or equipment used in a highway improvement Contract as defined in local, state, or federal law.
- 3.46. **Detour.** A temporary traffic route around a closed portion of a road.
- 3.47. **Department.** When used in the context of the party with whom the Contractor has a Construction Contract, Department refers to Owner. When used in other contexts such as technical specifications, refers to the Texas Department of Transportation.
- 3.48. **Departmental Material Specifications.** Reference specifications for various materials published by TxDOT's Construction Division with a DMS-XXXXX numbering system.
- 3.49. **Direct Traffic Culvert.** Concrete box culvert whose top slab is used as the final riding surface or is to have an overlay or other riding surface treatment.
- 3.50. **Disadvantaged Business Enterprise.** A small business certified through the Texas Unified Certification Program in accordance with 49 CFR Part 26, that is at least 51% owned by one or more socially and economically disadvantaged individuals, or in the case of a publicly owned business, in which is at least 51% of the stock is owned by one or more socially and economically disadvantaged individuals, and whose management and daily business operations are controlled by one or more of the individuals who own it.
- 3.51. **Divided Highway.** A highway with separate roadways intended to move traffic in opposite directions.
- 3.52. **Easement.** A real property right acquired by one party to use land belonging to another party for a specified purpose.
- 3.53. **Engineer.** The Professional Engineer licensed in Texas who represents the interests of the Owner.
- 3.54. **Entity.** Political subdivision for which the project is designed and constructed. Either a Municipality (City) or a County or other entity organized under the authority of State of Texas statutes. May also be referred to as an Owner.
- 3.55. **Expressway.** A divided arterial highway for through traffic with full or partial control of access and generally with grade separations at intersections.

- 3.56. **Family Member.** A family member of an individual is the individual's parent, parent's spouse, step-parent, step-parent's spouse, sibling, sibling's spouse, spouse, child, child's spouse, spouse's child, spouse's child's spouse, grandchild, grandparent, uncle, uncle's spouse, aunt, aunt's spouse, first cousin, or first cousin's spouse.
- 3.57. **Force Account.** Payment for directed work based on the actual cost of labor, equipment, and materials furnished with markups for project overhead and profit.
- 3.58. **Freeway.** An expressway with full control of access.
- 3.59. **Frontage Road.** A local street or road auxiliary to and located along an arterial highway for service to abutting property and adjacent areas and for control of access (sometimes known as a service road, access road, or insulator road).
- 3.60. **Hazardous Materials or Waste.** Hazardous materials or waste include, but are not limited to, explosives, compressed gas, flammable liquids, flammable solids, combustible liquids, oxidizers, poisons, radioactive materials, corrosives, etiologic agents, and other material classified as hazardous by 40 CFR 261, or applicable state and federal regulations.
- 3.61. **High-Pressure Water Blasting.** Water blasting with pressures between 5,000 and 10,000 psi.
- 3.62. **Highway, Street, or Road.** General terms denoting a public way for purposes of vehicular travel, including the entire area within the right of way. Recommended usage in urban areas is highway or street; in rural areas, highway or road.
- 3.63. **Historically Underutilized Business.** A corporation, sole proprietorship, partnership, or joint venture formed for the purpose of making a profit certified by the Texas Comptroller of Public Accounts, and 51% owned by one or more persons who are economically disadvantaged because of their identification as members of certain groups, including African Americans, Hispanic Americans, Asian-Pacific Americans, Native Americans, or women, and have a proportionate interest and demonstrate active participation in the control, operation, and management of the business' affairs. Individuals meeting the HUB definition are required to be residents of the State of Texas. Businesses that do not have their primary headquarters in the State of Texas are not eligible for HUB certification.
- 3.64. **Incentive/Disincentive Provisions.** An adjustment to the Contract price of a predetermined amount for each day the work is completed ahead of or behind the specified milestone, phase, or Contract completion dates. The amount of the incentive/disincentive is determined based on estimated costs for engineering, traffic control, delays to the motorists, and other items involved in the Contract.
- 3.65. **Independent Assurance Tests.** Tests used to evaluate the sampling and testing techniques and equipment used in the acceptance program. The tests are performed by the Owner or the Owner's representative and are not used for acceptance purposes.
- 3.66. **Inspector.** The person assigned by the Owner to inspect any or all parts of the work and the materials used for compliance with the Contract.
- 3.67. **Intelligent Transportation System.** An integrated system that uses video and other electronic detection devices to monitor traffic flows.
- 3.68. **Intersection.** The general area where 2 or more highways, streets, or roads join or cross, including the roadway and roadside facilities for traffic movements within it.
- 3.69. **Island.** An area within a roadway from which vehicular traffic is intended to be excluded, together with any area at the approach occupied by protective deflecting or warning devices.
- 3.70. **Joint Venture.** Any combination of individuals, partnerships, limited liability companies, or corporations submitting a single bid form.

- 3.71. **Lane Rental.** A method to assess the Contractor daily or hourly rental fees for each lane, shoulder, or combination of lanes and shoulders taken out of service.
- 3.72. **Letting.** The receipt, opening, tabulation, and determination of the apparent low Bidder.
- 3.73. **Letting Official.** The Owner representative empowered by the Owner to officially receive bids and close the receipt of bids at a letting.
- 3.74. **Licensed Professional Engineer.** A person who has been duly licensed by the Texas Board of Professional Engineers to engage in the practice of engineering in the State of Texas; also referred to as a Professional Engineer.
- 3.75. **Limits of Construction.** An area with established boundaries, identified within the highway right of way and easements, where the Contractor is permitted to perform the work.
- 3.76. **Local Street or Road.** A street or road primarily for access to residence, business, or other abutting property.
- 3.77. **Low-Pressure Water Blasting.** Water blasting with pressures between 3,000 and 5,000 psi.
- 3.78. **Major Item.** An item of work included in the Contract that has a total cost equal to or greater than 5% of the original Contract or \$100,000 whichever is less. A major item at the time of bid will remain a major item. An item not originally a major item does not become one through the course of the Contract.
- 3.79. **Material Producer List.** TxDOT-maintained list of approved products. Referenced as "Department's MPL".
- 3.80. **Materially Unbalanced Bid.** A bid that generates a reasonable doubt that award to the Bidder submitting a mathematically unbalanced bid will result in the lowest ultimate cost to the Owner.
- 3.81. **Mathematically Unbalanced Bid.** A bid containing bid prices that do not reflect reasonable actual costs plus a reasonable proportionate share of the Bidder's anticipated profit, overhead costs, and other indirect costs.
- 3.82. **Median.** The portion of a divided highway separating the traffic lanes in opposite directions.
- 3.83. **Milestone Date.** The date that a specific portion of the work is to be completed, before the completion date for all work under the Contract.
- 3.84. **Monolithic Concrete Placement.** The placement of plastic concrete in such manner and sequence to prevent a construction joint.
- 3.85. **National Holidays.** January 1, the last Monday in May, July 4, the first Monday in September, the fourth Thursday in November, and December 24 or December 25.
- 3.86. **Nonhazardous Recyclable Material.** A material recovered or diverted from the nonhazardous waste stream for the purposes of reuse or recycling in the manufacture of products that may otherwise be produced using raw or virgin materials.
- 3.87. **Nonresident Bidder.** A Bidder whose principal place of business is not in Texas. This includes a Bidder whose ultimate parent company or majority owner does not have its principal place of business in Texas.
- 3.88. **Nonresponsive Bid.** A bid that does not meet the criteria for acceptance contained in the bid documents.
- 3.89. **Non-Site-Specific Contracts.** Contracts in which a geographic region is specified for the work and for which work orders, with or without plans, further detail the limits and work to be performed.
- 3.90. **Notice to Proceed.** Written notification to the Contractor authorizing work to begin.

- 3.91. **Notification.** Either written or oral instruction to the Contractor concerning the work. Voice mail is oral notification.
- 3.92. **Owner,** Political subdivision for whom the project is designed and constructed. Either a Municipality (City), a County or other entity organized under the authority of State of Texas statutes. May also be referred to as an **Entity.**
- 3.93. **Pavement.** That part of the roadway having a constructed surface for the use of vehicular traffic.
- 3.94. **Pavement Structure.** Combination of surface course and base course placed on a subgrade to support the traffic load and distribute it to the roadbed.
- 3.94.1. **Surface Course.** Pavement structure layers designed to accommodate the traffic load. The top layer resists skidding, traffic abrasion, and the disintegrating effects of climate and is sometimes called the wearing course.
- 3.94.2. **Base Course.** One or more layers of specified material thickness placed on a subgrade to support a surface course.
- 3.94.3. **Subgrade.** The top surface of a roadbed upon which the pavement structure, shoulders, and curbs are constructed.
- 3.94.4. **Subgrade Treatment.** Modifying or stabilizing material in the subgrade.
- 3.95. **Payment Bond.** The security executed by the Contractor and the Surety, furnished to the Owner to guarantee payment of all legal debts of the Contractor pertaining to the Contract.
- 3.96. **Performance Bond.** The security executed by the Contractor and the Surety, furnished to the Owner to guarantee the completion of the work in accordance with the terms of the Contract.
- 3.97. **Plans.** The approved drawings, including true reproductions of the drawings that show the location, character, dimensions, and details of the work and are a part of the Contract.
- 3.98. **Power of Attorney for Surety Bonds.** An instrument under corporate seal appointing an attorney-in-fact to act on behalf of a Surety in signing bonds.
- 3.99. **Qualification.** The process for determining a Contractor's eligibility to be awarded a construction contract
- 3.100. **Prequalification.** The process for determining a Contractor's eligibility to bid work.
- 3.101. **Prequalification Statement.** The forms on which required information is furnished concerning the Contractor's ability to perform and finance the work.
- 3.102. **Prequalified Contractor.** A contractor that is approved to bid on TxDOT contracts by satisfying their Prequalification Process.
- 3.103. **Post Qualification.** The owner will determine if contractors are qualified to bid on the project after bids are open. The bid documents will identify the minimum requirements that contractor must meet to be qualified for the project. Unqualified contractors' bids will be considered non-responsive and not accepted.
- 3.104. **Project-Specific Location.** A material source, plant, waste site, parking area, storage area, field office, staging area, haul road, or other similar location either outside the project limits or within the project limits but not specifically addressed in the Contract.
- 3.105. **Proposal Guaranty.** The security furnished by the Bidder as a guarantee that the Bidder will enter into a Contract if awarded the work.

- 3.106. **Quality Assurance.** Sampling, testing, inspection, and other activities conducted by the Engineer to determine payment and make acceptance decisions.
- 3.107. **Quality Control.** Sampling, testing, and other process control activities conducted by the Contractor to monitor production and placement operations.
- 3.108. **Ramp.** A section of highway for the primary purpose of making connections with other highways.
- 3.109. **Referee Tests.** Tests requested to resolve differences between Contractor and Owner test results. The referee laboratory is the Owners .
- 3.110. **Regular Item.** A bid item contained in the bid documents and not designated as an additive alternate or replacement alternate bid item.
- 3.111. **Rental Rate Blue Book for Construction Equipment.** Publication containing equipment rental rates.
- 3.112. **Replacement Alternate.** A bid item identified on the bid documents that a Bidder may substitute for a specific regular item of work.
- 3.113. **Responsive Bid.** A bid that meets all requirements of the advertisement and the bid documents for acceptance.
- 3.114. **Right of Way.** A general term denoting land or property devoted to transportation purposes.
- 3.115. **Roadbed.** The graded portion of a highway prepared as foundation for the pavement structure and shoulders. On divided highways, the depressed median type and the raised median type highways are considered to have 2 roadbeds. Highways with a flush median are considered to have 1 roadbed. Frontage roads are considered separate roadbeds.
- 3.116. **Road Master.** A railroad maintenance official in charge of a division of railway.
- 3.117. **Roadside.** The areas between the outside edges of the shoulders and the right of way boundaries. Unpaved median areas between inside shoulders of divided highways and areas within interchanges are included.
- 3.118. **Roadway.** The portion of the highway (including shoulders) used by the traveling public.
- 3.119. **Sandblasting, Dry.** Spraying blasts of pressurized air combined with sand.
- 3.120. **Sandblasting, Wet.** Spraying blasts of pressurized water combined with sand.
- 3.121. **Shoulder.** That portion of the roadway contiguous with the traffic lanes for accommodation of stopped vehicles for emergency use or for lateral support of base and surface courses.
- 3.122. **Shot Blasting.** Spraying blasts of pressurized air combined with metal shot.
- 3.123. **Sidewalk.** Portion of the right of way constructed exclusively for pedestrian use.
- 3.124. **Slurry Blasting.** Spraying blasts of pressurized air combined with a mixture of water and abrasive media.
- 3.125. **Special Provisions.** Additions or revisions to these standard specifications or special specifications.
- 3.126. **Special Specifications.** Supplemental specifications applicable to the Contract not covered by these standard specifications.
- 3.127. **Specifications.** Directives or requirements issued or made pertaining to the method and manner of performing the work or to quantities and qualities of materials to be furnished under the Contract. References to DMSs, ASTM or AASHTO specifications, or TxDOT bulletins and manuals, imply the latest standard or

tentative standard in effect on the date of the bid. The Owner will consider incorporation of subsequent changes to these documents in accordance with Item 4L, "Scope of Work."

- 3.128. **Small Business Enterprise.** A firm (including affiliates) whose annual gross receipts do not exceed the U.S. Small Business Administration's size standards for 4 consecutive years.
- 3.129. **State.** The State of Texas.
- 3.130. **State Holiday.** A holiday authorized by the State Legislature excluding optional state holidays and not listed in Section 1.3.85., "National Holidays." A list of state holidays can be found on the TxDOT's website.
- 3.131. **Station.** A unit of measurement consisting of 100 horizontal feet.
- 3.132. **Subcontract.** The agreement between the Contractor and subcontractor establishing the obligations of the parties for furnishing of materials and performance of the work prescribed in the Contract documents.
- 3.133. **Subcontractor.** An individual, partnership, limited liability company, corporation, or any combination thereof that the Contractor sublets, or proposes to sublet, any portion of a Contract, excluding a material supplier, a hauling firm hauling only from a commercial source to the project, truck owner-operator, wholly-owned subsidiary, or specialty-type businesses such as security companies and rental companies.
- 3.134. **Subsidiary.** Materials, labor, or other elements that because of their nature or quantity have not been identified as a separate item and are included within the items on which they necessarily depend.
- 3.135. **Substructure.** The part of the structure below the bridge seats, but not including bearings, drilled shafts, or piling. Parapets, back walls, wing walls of the abutments, and drainage structures are considered parts of the substructure.
- 3.136. **Superintendent.** The representative of the Contractor who is available at all times and able to receive instructions from the Owner or authorized Owner representatives and to act for the Contractor.
- 3.137. **Superstructure.** The part of the structure above the bridge seats or above the springing lines of arches and including the bearings. Flatwork construction may be considered superstructure.
- 3.138. **Supplemental Agreement.** Written agreement entered into between the Contractor and the Owner and approved by the Surety, covering alterations and changes in the Contract. A supplemental agreement is used by the Owner whenever the modifications include assignment of the Contract from one party to another or other cases as desired by the Owner.
- 3.139. **Surety.** The corporate body or bodies authorized to do business in Texas bound with and for the Contractor for the faithful performance of the work covered by the Contract and for the payment for all labor and material supplied in the prosecution of the work.
- 3.140. **Surplus Materials.** Any debris or material related to the Contract but not incorporated into the work.
- 3.141. **Suspension.** Action taken by the Owner, State, or federal government pursuant to regulation that prohibits a person or company from entering into a Contract, or from participating as a subcontractor, or supplier of materials or equipment used in a contract
- 3.142. **Tex –XXX-X.** TxDOT material test methods found on TxDOT's Construction Division Web Site.
- 3.143. **Traffic Lane.** The strip of roadway intended to accommodate the forward movement of a single line of vehicles.
- 3.144. **Traveled Way.** The portion of the roadway for the movement of vehicles, exclusive of shoulders and auxiliary lanes.

- 3.145. **Truck Owner-Operator.** An individual who owns and operates 1 truck for hire.
- 3.146. **UT-Bridge.** TxDOT-owned software for steel girder erection. Software is available on TxDOT's website.
- 3.147. **UT-Lift.** TxDOT-owned software for steel girder erection. Software is available on TxDOT's website.
- 3.148. **Utility.** Privately, publicly, or cooperatively owned lines, facilities, and systems for producing, transmitting, or distributing communications, power, heat, gas, oil, water, waste, or storm water that are not connected with the highway drainage, signal systems, or other products that directly or indirectly serve the public; the utility company.
- 3.149. **Verification Tests.** Tests used to verify accuracy of QC and QA and mixture design testing.
- 3.150. **Water-Abrasive Blasting.** Spraying blasts of pressurized water combined with abrasive media.
- 3.151. **Water Blasting.** Spraying blasts of pressurized water of at least 3,000 psi.
- 3.152. **Water-Injected Abrasive Blasting.** Abrasive blasting with water injected into the abrasive/air stream at the nozzle.
- 3.153. **Wholly-Owned Subsidiary.** A legal entity owned entirely by the Contractor or subcontractor.
- 3.154. **Work.** The furnishing of all labor, materials, equipment, and other incidentals necessary for the successful completion of the Contract.
- 3.155. **Written Notice.** Written notice is considered to have been duly given if delivered in person to the individual or member to whom it is intended or if sent by regular, registered, or certified mail and delivered to the last known business address; sent by facsimile to the last known phone number; or sent by e-mail to the last known address. The date of the letter will serve as the beginning day of notice. Unclaimed mail or failure to provide current mailing address will not be considered a failure to provide written notice.

Item 2L

Instructions to Bidders



1. INTRODUCTION

Instructions to the Contractor in these specifications are generally written in active voice, imperative mood. The subject of imperative sentences is understood to be "the Contractor." The Owner's responsibilities are generally written in passive voice, indicative mood. Phrases such as "as approved," "unless otherwise approved," "upon approval," "as directed," "as verified," "as ordered," and "as determined" refer to actions of the Engineer unless otherwise stated, and it is understood that the directions, orders, or instructions to which they relate are within the limitations of and authorized by the Contract.

2. ELIGIBILITY OF BIDDERS

- Bidders on this project must be prequalified through TxDOT. Refer to TxDOT's web site for prequalification requirements. Assure prequalification documents are submitted to TxDOT at least 14 days before bid opening.
- Comply with all technical prequalification requirements in the bid documents.
- Not on the TxDOT list of currently debarred/sanctioned contractors
- Provide suitable evidence of prior experience for similar work and be able to provide written documentation of successfully complete similar contracts
- Contractor must confirm prequalification for all subcontractors and materials suppliers of greater than \$10,000.
- **SYSTEM FOR AWARD MANAGEMENT:** Respondent and its Principals may not be debarred or suspended nor otherwise on the Excluded Parties List System (EPLS) in the System for Award Management (SAM). Include verification that the company as well as the company's principals are not listed (are not debarred) through the System for Award Management (www.SAM.gov). Enclose a printout of the Entity Registration page that shows your firm is in active status and is not expired.

3. ISSUING BID DOCUMENTS

Bid Documents may be obtained at:

www.bidnetdirect.com/hayscounty
<https://www.sanmarcostx.gov/Bids.aspx>
<http://www.txsmartbuy.com/sp>

The Department will not issue a proposal form if one or more of the following apply:

- the Bidder is suspended or debarred by the Commission, Department, or any federal agency,
- the Bidder has not fulfilled the requirements for prequalification,
- the Bidder does not have the available bidding capacity,
- the Bidder is prohibited from rebidding a specific proposal form due to a bid error on the original proposal form,
- the Bidder failed to enter into a Contract on the original award,
- the Bidder was defaulted or terminated on the original Contract, unless the Department terminated in the best interest of the State or the public,
- the Bidder or a subsidiary or affiliate of the Bidder has received compensation from the Department to participate in the preparation of the plans or specifications on which the bid or Contract is based, or
- the Bidder is ineligible to bid on any proposed Contract in accordance with Article 7.16., "Responsibility for Damage Claims."

4. INTERPRETING ESTIMATED QUANTITIES

The quantities listed in the bid documents are approximate and will be used for the comparison of bids. Payments will be made for actual quantities of work performed in accordance with the Contract.

5. EXAMINING DOCUMENTS AND WORK LOCATIONS

Examine the bid documents and specified work locations before submitting a bid for the work. Submitting a bid will be considered evidence that the Bidder has performed this examination. Borings, soil profiles, water elevations, and underground utilities shown on the plans were obtained for the use of the Owner in the preparation of plans. This information is provided for the Bidder's information only and the Owner makes no representation as to the accuracy of the data. Be aware of the difficulty of accurately classifying all material encountered in making foundation investigations, the possible erosion of stream channels and banks after survey data have been obtained, and the unreliability of water elevations other than for the date recorded.

Oral explanations, instructions, or consideration for Contractor-proposed changes in the bid documents given during the bidding process are not binding. Only requirements included in the bid documents and Owner-issued addenda are binding. Request explanations of documents at least ten(10) days prior to the bid opening.

Immediately notify the Owner of any error, omission, or ambiguity discovered in any part of the bid documents. The Owner will issue addenda when appropriate.

6. PREPARING THE BID

Prepare the bid form furnished by the Owner. Informational bid forms printed from the Owner's website will not be accepted. Bids MUST be legible and of a quality that can be reproduced.

Specify a unit price in dollars and cents for each regular item, additive alternate item, deductive alternate item or replacement alternate item for which an estimated quantity is given.

When "Working Days" is an item, submit the number of working days to be used to complete the Contract or phases of the Contract.

The Owner will not accept an incomplete bid. A bid that has one or more of the deficiencies listed below is considered incomplete:

- the bid form was not signed,
- all certifications were not acknowledged,
- a regular item, additive alternate item or deductive alternate item is left blank,
- a regular item and the corresponding replacement alternate item are left blank, or
- the bid form submitted had the incorrect number of items.

7. NONRESPONSIVE BID

The Owner will not accept a nonresponsive bid. A bid that has one or more of the deficiencies listed below is considered nonresponsive:

- The bid was not in the hands of the Letting Official or submitted electronically at the time and location specified in the advertisement.
- The bid form was signed by a person who was not authorized to bind the Bidder or Bidders.
- The bid guaranty did not comply with the requirements contained in this Item.
- The bid was in a form other than the official bid form issued by the Owner.
- The Bidder modified the bid in a manner that altered the conditions or requirements for work as stated in the bid documents.

- The Bidder bid more than the maximum or less than the minimum number of allowable working days when working days was an item.
- The Bidder did not meet the requirements of the technical qualification.
- The bidder is not prequalified by TxDOT
- The bidder does not meet the Owner's qualification requirements.
- The bidder did not include the Vendor Reference Form, minimum of three (3) references.
- The Bidder did not include a Bid Bond of 5% of the total bid amount.

8. SUBMITTAL OF BIDS

8.1. **Electronic Bids.** When electronic bidding is available, the Bidder is responsible for taking the appropriate measures to submit a bid. These measures include, but are not limited to, acquiring hardware, software, and Internet connectivity needed for submitting a bid via the Owner's bidding system. If an electronic bid is submitted by the due date and time, then a hard copy **MUST** also be received in the Purchasing Office within 24 hours of the bid due date.

8.1.1. **Bid Form.** Use the bid form in the project manual to submit all bids. When regular bid items have corresponding replacement alternate items, select the bid item or group of items to be used for the bid tabulation. Acknowledge all addenda listed in the Owner's bidding system.

The electronic bid form may not contain the special provisions, special specifications, general notes, and other Contract documents. These documents are included by reference.

8.1.2. **Bid Guaranty.** Provide a bid guaranty in the amount indicated on the bid form. Use an electronic bid bond or printed bid bond by a surety company. Guaranty checks will not be accepted.

Use the most current version of the electronic bond accepted by the Owner. For a joint venture, the bond must be in the name of all joint venture participants. Enter the bond authorization code into the Owner's bidding system.

It is the Bidder's responsibility to ensure the electronic bid bond is issued in the name or names of the Bidder or Bidders.

8.1.3. **Submittal of Bid.** Submit the bid using the Owner's bidding system.

Mailed or Dropped off Bids:

- One (1) original Bid with required forms manually signed by the Vendor with original signatures
- One (1) digital copy of the full Bid with all required forms on a thumb drive

Electronic Bid:

- Upload Bid with required forms manually signed by the Vendor. (through BidNet Direct)
- One (1) original Bid with required forms manually signed by the Vendor, delivered to the Hays County Purchasing Office. Either the original or Electronic Bid (through BidNet Direct) **MUST** be received by the due date and time to be considered responsive.

8.1.4. **Revising the Bid Form.** Make desired changes as allowed by the Owner's bidding system up until the time and date set for the opening of bids. Any interlineations, alteration, or erasure made before receiving time must be initialed by the signer of the Bid, guaranteeing authenticity. The last bid submitted will be used for tabulation purposes.

8.1.5. **Withdrawing a Bid.** Submit an electronic or written request to withdraw a bid before the time and date set for the opening. The Owner will not accept oral requests. An electronic request must be made using the Owner's bidding system.

A written request must be signed and submitted to the Letting Official with proof of identification. The request must be made by a person authorized to bind the Bidder or Bidders. In the case of joint venture, the Owner

will accept a request from any person authorized to bind a party to the joint venture. The Owner may require written delegation of authority to withdraw a bid when the individual sent to withdraw the bid is not authorized to bind the Bidder or Bidders.

- 8.2. **Printed Bid.** Respondent must provide its total bid amount by completing the mandatory Schedule of Rate and Prices form included in Section 4: Forms. Refer to section 13 Technical Specifications for descriptions of the reference numbers contained in the Schedule of Rates and Prices. Hays County is exempt from federal excise and state sales tax; therefore, tax must not be included in this bid.

- 8.2.1. **Bid Form.** Mark all entries in ink. As an alternative to hand writing the unit prices in the bid form, submit a typed bid form. A typed bid form is also accepted with the proper formatting.

When regular bid items have corresponding replacement alternate items, select the bid item or group of items to be used for the bid tabulation. Acknowledge all addenda by checking the appropriate box on the addendum acknowledgement page. Provide the complete and correct name of the Bidder submitting the bid. A person authorized to bind the Bidder must sign the bid form. In the case of a joint venture, provide the complete and correct name of all Bidders submitting the bid. In the case of a joint venture, the person signing the bid form must be authorized to bind all joint venture participants.

If a bid form contains both regular items for domestic steel or iron materials and replacement alternate items for foreign steel or iron materials, the Bidder must either:

- submit unit bid prices for domestic items only, or
- submit unit bid prices for both the domestic and foreign items.

- 8.2.2. **Bid Guaranty.** Provide a bid guaranty in the amount of 5% of the total bid amount. An electronic bid bond or printed bond by a authorized surety company, as a guarantee that the bidder will enter into a contract and execute performance and payment bonds, as stipulated above, within ten (10) days after notice of award of contract to the bidder. Ensure the electronic bid bond meets the requirements of Section 2.8.1.2., "Bid Guaranty," and submit the electronic bid bond with the printed bid in the same sealed envelope, no checks will be accepted.

- 8.2.3. **Bid Bond.** Use the bid bond form provided by the Owner. Submit the bid bond with the powers of attorney attached and in the amount specified. The bond must be dated on or before the date of the bid opening, bear the impressed seal of the Surety, and be signed by the Bidder or Bidders and an authorized individual of the Surety. As an alternative for joint venture Bidders, each of the Bidders may submit a separate bid bond completed as outlined in this section. Bid bonds will only be accepted from Sureties authorized to execute a bond under and in accordance with State law.

- 8.2.4. **Submittal of Bid.** Place the completed bid form, the bid guaranty, Schedule of Rates and Prices, and Vendor Reference Form in a sealed envelope marked to indicate the contents.

When submitting by mail or delivery service, place the envelope in another sealed envelope and address as indicated in the official advertisement or in the bid documents. It is the Bidder's responsibility to ensure that the sealed bid arrives at the location described on or before the time and date set for the bid opening. To be accepted, the bid must be in the hands of the Letting Official by that time of opening regardless of the method chosen for delivery.

- 8.2.5. **Altering Bids.** Any interlineations, alteration, or erasure made before receiving time must be initialed by the signer of the bid, guaranteeing authenticity.

- 8.2.6. **Sales Tax.** Hays County is by statute, exempt from the State Sales Tax and Federal Excise Tax.

- 8.2.7. **Per Unit Basis.** Prices must be good from the date of bid opening through the completion of the project. Bids that do not state a fixed price will not be considered.

- 8.2.8. **Withdrawing a Bid.** Submit a written request to withdraw a bid before the time and date set for the opening. The Owner will not accept oral requests. A written request must be signed and submitted to the Letting Official with proof of identification. The request must be made by a person authorized to bind the Bidder or Bidders. In the case of joint venture, the Owner will accept a request from any person authorized to bind a party to the joint venture. The Owner may require written delegation of authority to withdraw a bid when the individual sent to withdraw the bid is not authorized to bind the Bidder or Bidders.

9. **OPENING AND READING OF BIDS**

At the time, date, and location specified in the official advertisement, the Owner will publicly open and read bids.

10. **TABULATING BIDS**

- 10.1. **Official Total Bid Amount.** The Owner will sum the products of the quantities and the unit prices bid in the bid form to determine the official total bid amount, except as provided in Section 2.11., "Consideration of Unit Prices." The official total bid amount is the basis for determining the apparent low Bidder. The total bid amounts will be compared and the results made public.

- 10.2. **Consideration of Bid Format.** When a Bidder submits both an electronic bid and a printed bid that is responsive, the unit bid prices in the printed bid will be used to determine the total bid amount. If the printed bid is incomplete or nonresponsive, the electronic bid will be used in the tabulation of the total bid amount.

If a bidder submits 2 or more printed bids, all responsive bids will be tabulated. The bid with the lowest tabulation will be used to determine the total bid amount.

- 10.3. **Rounding of Unit Prices.** The Owner will round off all unit bids involving fractional parts of a cent to the nearest one-tenth cent (\$0.001) in determining the amount of the bid as well as computing the amount due for payment of each item under the Contract. For rounding purposes, entries of five-hundredths of a cent (\$0.0005) or more will be rounded up to the next highest tenth of a cent, while entries less than five-hundredths of a cent will be rounded down to the next lowest tenth of a cent.

- 10.4. **Interpretation of Unit Prices.** The Owner will make a documented determination of the unit bid price if a unit bid price is illegible or conflicting in the case of replacement alternate items. The Owner's determination will be final.

- 10.5. **Consideration of Unit Prices.**

- 10.5.1. **A + B Bidding.** The official total bid amount will be determined by the summation of the Contract amount and the time element. The Owner will use the following formula to make the calculation:

$$A + B1 + B2 + BX + \dots + BT$$

The Contract amount, equal to A in the formula, is determined by the summation of the products of the approximate quantities shown in the bid and the unit bid prices bid. The time element, equal to B1, B2, BX (when phases are included as bid components), and BT (substantial completion of the project when included as a bid component), of the bid is determined by multiplying the number of working days bid to substantially complete the project, or phases, by the daily road-user cost (RUC) provided on the bid documents. When partial days are bid they will be rounded up to the nearest whole day.

The formula above determines the low Bidder and establishes the Contract time.

- 10.5.2. **"Buy America."** Comply with Buy America in accordance with Section 6.1.1.. For a Bidder who proposes to use foreign steel or iron materials to be considered the apparent low Bidder, their total bid must be at least 25% lower than the next lowest bid if that bid proposes to use domestic steel or iron materials.

This requirement does not apply to minimal use of steel or iron materials provided that the total cost of all foreign source items used in the project, as delivered to the project site, is less than \$2,500 or one-tenth-of-one-percent (1/10 of 1%) of the Contract amount, whichever is greater

11. CONSIDERATION OF BID ERRORS.

The Owner will consider a claim of a bid error by the apparent low Bidder if the following requirements have been met:

- Submit written notification to the Owner within 5 business days after the date the bid is opened.
- Identify the items of work involved and include bidding documentation. The Owner may request clarification of submitted documentation.

The Owner will evaluate the claim of an error by the apparent low Bidder by considering the following:

- The bid error relates to a material item of work.
- The bid error amount is a significant portion of the total bid.
- The bid error occurred despite the exercise of ordinary care.
- The delay of the proposed work will not impact cost and safety to the public.

Acceptance of the bid error claim by the Owner will result in the rejection of the bid of the apparent low bidder and the Owner may consider the second responsive bid. The erring Contractor will not be allowed to bid the project if it is relet. Rejection of bids due to the Contractor's bid error may result in the application of sanctions by the Owner.

12. TIE BIDS

If the official total bid amount for 2 or more Bidders is equal and those bids are the lowest submitted, each tie Bidder will be given an opportunity to withdraw their bid. If 2 or more tie Bidders do not withdraw their bids, the low Bidder will be determined by a coin toss. If all tie Bidders request to withdraw their bids, no withdrawals will be allowed and the low Bidder will be determined by a coin toss. The Letting Official will preside over the proceedings for the coin toss.

13. DOCUMENTS AND DESIGN

Ownership of Documents. All drawings, specifications and copies thereof furnished by the Engineer of Record shall not be reused on other work, and, with the exception of the signed contract sets, are to be returned to the Engineer of Record on request, at the completion of the work. All models, drawings, specifications and copies thereof are the property of the County.

Adequacy of Design. It is understood that the County believes it has employed competent engineers and designers. It is therefore agreed that the County and Engineer shall be responsible for the adequacy of the design, sufficiency of the Contract Documents, the safety of the structure and the practicability of the operations of the completed project provided that the Contractor has complied with the requirements of the said Contract Documents, all approved modifications thereof, and additions and alterations thereto approved in writing by the County. The burden of proof of such compliance shall be upon the Contractor to show that it has complied with the said requirements of the Contract Documents, approved modifications thereof, and all approved additions and alterations thereto.

The paper copies of the Contract Documents are considered to be the official contract documents. Any request by the Contractor and use thereof of electronic or digital information, including engineering design and survey files, shall be at the sole risk and legal responsibility of the Contractor. Neither the County nor the Engineer of Record makes any warranty or representation as to the compatibility of the files provided with other software programs, nor shall they be held responsible for subsequent uses of the data by the Contractor or anyone who may obtain the data from the Contractor. THE CONTRACTOR SHALL, TO THE FULLEST EXTENT PERMITTED BY LAW, INDEMNIFY AND HOLD THE COUNTY ITS AGENTS,

EMPLOYEES, OR REPRESENTATIVES AND THE ENGINEER OF RECORD HARMLESS FROM ANY AND ALL CLAIMS, SUITS, LIABILITY, DEMANDS OR COSTS ARISING OUT OF OR RESULTING FROM SUCH USE. Because data stored on electronic media can deteriorate undetected or be modified undetected, neither the County nor the Engineer of Record can be held liable for the completeness or correctness of the electronic data once in possession of the Contractor.

Item 3L

Award and Execution of Contract



1. AWARD OF CONTRACT

The Owner will award, reject, or defer the Contract within 60 days after the opening of the bid. The Owner reserves the right to reject any or all bids and to waive technicalities in the best interest of the Owner. The Owner reserves the right to award a contract for named project to a bidder on the basis of total low bid/or the best value for the County. Bidders must bid on all items in order to be considered responsive. The Owner reserves the right to accept in part or in whole any bids submitted and waive any technicalities for the best interest of the Owner.

1.1. **Award.** The Owner will award the Contract to the low Bidder as determined by Article 2.11., "Tabulating Bids." The Owner may award a Contract to the second lowest Bidder when the following requirements have been met:

- The low Bidder withdraws its bid.
- The low Bidder fails to enter into a contract with the Owner after Award
- The second low Bidder's unit bid prices are reasonable.

1.2. **Rejection.** The Owner will reject the Contract if:

- Collusion may have existed among the Bidders. Collusion participants will not be allowed to bid future bids for the same Contract.
- The low bid is mathematically and materially unbalanced. The Bidder will not be allowed to bid future bids for the same Contract.
- The lowest bid is higher than the Owner's estimate and re-advertising for bids may result in a lower bid.
- Rejection of the Contract is in the best interest of the Owner.

1.3. **Deferral.** The Owner may defer the award or rejection of the Contract when deferral is in the best interest of the Owner.

2. RESCINDING OF AWARD

The Owner reserves the right to cancel the award of any Contract before Contract execution with no compensation due when the cancellation is in the best interest of the Owner. The Owner will return the bid guaranty to the Contractor.

3. DISADVANTAGED BUSINESS ENTERPRISE (DBE)/HISTORICALLY UNDERUTILIZED BUSINESS/SMALL BUSINESS ENTERPRISE (SBE)

Submit all DBE/HUB/SBE information in the time frame specified when required by the bid documents.

4. EXECUTION OF CONTRACT

Provide the following within 10 days after written notification of award of the Contract:

4.1. **Contract.** Executed by Contractor and Surety.

4.2.

Bonds. Executed performance bond and payment bond in the full amount of the Contract price with powers of attorney. Provide bonds in accordance with Table 1. Furnish the payment and performance bonds as a guaranty for the protection of the claimants and the Owner for labor and materials and the faithful performance of the work.

Table 1
Bonding Requirements

Contract Amount	Required Bonds
Less than \$25,000	None
\$25,000 to \$100,000	Payment
More than \$100,000	Performance and Payment

Unless otherwise specified, the cost of the premium for the performance and payment bonds shall be included in the price bid by the Contractor for the Work subject of the Contract Documents, and no extra payment for such bonds will be made by the County.

Chapter 262.032 and Chapter 2253.021 of the Texas Government Code governs the requirements for performance bonds and payment bonds for government entities making public work contracts. A performance bond is required if the contract is in excess of \$50,000 and is to be made for the full amount of the contract. The bonds are to be executed within ten (10) days after receipt of written notification of award of contract prior to beginning work on the project and must be executed by a corporate surety or sureties in accordance with the Texas Insurance Code. In the event the bond exceeds \$100,000.00, the surety must also (1) hold a certificate of authority from the United States secretary of the treasury to qualify as a surety on obligations permitted or required under federal law; or (2) have obtained reinsurance for any liability in excess of \$100,000.00 from a reinsurer that is authorized and admitted as are insurer in this state and is the holder of a certificate of authority from the United States secretary of the treasury to qualify as a surety or reinsurer on obligations permitted or required under federal law.

In determining whether the surety or reinsurer holds a valid certificate of authority the County may rely on the list of companies holding certificates of authority as published in the Federal Register covering the date on which the bond is to be executed. If the public works contract is less than \$50,000 the performance bond will not be required as long as the contract provides that payment is not due until the work is completed and accepted by the county. The purpose of a performance bond is for the protection of the government entity and is conditioned on the faithful performance of the work being done in accordance with the plans, specifications and Contract Documents. The payment bond is for the protection of persons supplying labor and materials to the contractor to ensure payment.

4.3.

Insurance. Submit a Certificate of Insurance showing coverages in accordance with Contract requirements.

Insurances must cover the contracted work for the duration of the Contract and must remain in effect until final acceptance. Failure to obtain and maintain insurance for the contracted work may result in suspension of work or default of the Contract. If the insurance expires and coverage lapses for any reason, stop all work until the Owner receives an acceptable Certificate of Insurance.

Provide the Owner with a Certificate of Insurance verifying the types and amounts of coverage shown in Table 2. The Certificate of Insurance must be in a form approved by the Owner. Any Certificate of Insurance provided must be available for public inspection.

Table 2
Insurance Requirements

Type of Insurance	Amount of Coverage
Commercial General Liability Insurance	Not Less Than: \$600,000 each occurrence
Business Automobile Policy	Not Less Than: \$600,000 combined single limit
Workers' Compensation	Not Less Than: Statutory
All Risk Builder's Risk Insurance (For building-facilities Contracts only)	100% of Contract Price

By signing the Contract, the Contractor certifies compliance with all applicable laws, rules, and regulations pertaining to workers' compensation insurance. This certification includes all subcontractors. Pay all deductibles stated in the policy. Subcontractors must meet the requirements of Table 2 either through their own coverage or through the Contractor's coverage.

The Workers' Compensation policy must include a waiver of subrogation endorsement in favor of the Owner.

For building-facilities Contracts, provide All Risk Builder's Risk Insurance to protect the Owner against loss by storm, fire or extended coverage perils on work and materials intended for use on the project including the adjacent structure. Name the Owner under the Lost Payable Clause.

For Contracts with railroad requirements, see project-specific details for additional insurance requirements.

Provide a substitute Surety on the Contract bonds in the original full Contract amount within 15 days of notification if the Surety is declared bankrupt or insolvent, the Surety's underwriting limitation drops below the Contract amount or the Surety's right to do business is terminated by the Owner. The substitute Surety must be authorized by the laws of the State and acceptable to the Owner. Work will be suspended until a substitute Surety is provided. Working day charges will be suspended for 15 days or until an acceptable Surety is provided, whichever is sooner.

The work performed under this section will not be measured or paid for directly but will be subsidiary to pertinent items.

4.4. **Business Ownership Information.** Submit the names and social security numbers of all individuals owning 25% or more of the firm, or firms in the case of a joining venture, on the Department's form.

4.5. **List of Quoting Suppliers and Subcontractors.** For a construction Contract, submit a list of all suppliers and subcontractors that quoted on the Contract. Include names, addresses, telephone numbers, and types of work required.

The Inspector shall promptly notify the Contractor, in writing, if the County, after due investigation, has objection to any Subcontractor on such list and does not accept such Subcontractor.

The Contractor shall not contract with any Subcontractor or any person or organization (including those who are to furnish materials or equipment fabricated to a special design) proposed for portions of the Work designated in the Contract Documents or in the Instructions to Bidders or, if none is so designated, with any Subcontractor proposed for the principal portions of the Work who has been rejected by the County. The Contractor will not be required to contract with any Subcontractor or person or organization against whom the Contractor has a reasonable objection.

If the County refuses to accept any Subcontractor or person or organization on a list submitted by the Contractor in response to the requirements of the Contract Documents or the Instructions to Bidders, the Contractor shall submit an acceptable substitute and the Contract Price shall be increased or decreased by the difference in cost occasioned by such substitution and an appropriate change order shall be issued;

however, no increase in the Contract Price shall be allowed for any such substitution unless the Contractor has acted promptly and responsively in submitting for acceptance any list or lists of names as required by the Contract Documents or the Instructions to Bidders.

If the County requires a change of any proposed Subcontractor or person or organization previously accepted by them, the Contract Price shall be increased or decreased by the difference in cost occasioned by such change and an appropriate change order shall be issued.

The Contractor shall not make any substitution for any Subcontractor or person or organization that has been accepted by the County, unless the substitution is acceptable to the County.

- 4.6. **Railroad Documents.** Provide all required documents for satisfaction of railroad requirements for projects that have work which involves railroad right of way.

5. FAILURE TO ENTER CONTRACT

If the Contractor fails to comply with all of the requirements in Article 3.4., "Execution of Contract," the bid guaranty will become the property of the Owner, not as a penalty, but as liquidated damages. The Contractor forfeiting the bid guaranty will not be considered in future bids for the same work unless there has been a substantial change in design of the work.

6. APPROVAL AND EXECUTION OF CONTRACT

The Contract will be approved and signed under authority of the Owner.

7. RETURN OF BID GUARANTY

Bid bonds will not be returned.

8. BEGINNING OF WORK

Do not begin work until authorized in writing by the Owner.

When callout work is required, provide a method of contact available from 8 A.M. until 5 P.M. every work day and 24 hr. a day, 7 days a week for projects with emergency mobilization, unless otherwise shown on the plans. The time of notice will be the transmission time of the notice sent, provided orally, or provided in person by the Owner's representative.

Verify all quantities of materials shown on the plans before ordering.

For projects with alternate bid items, the work order will identify the base bid work and additive or deductive alternate work to be performed. The Owner makes no guarantee that the additive or deductive alternate work will be required.

9. ASSIGNMENT OF CONTRACT

Do not assign, sell, transfer, or otherwise dispose of the Contract or any portion rights, title, or interest (including claims) without the approval of the Owner or designated representative. The Owner must deem any proposed assignment justified and legally acceptable before the assignment can take place.

10. EXCLUDED PARTIES

The Contractor certifies by signing the Contract that the Contractor will not enter into any subcontract with a subcontractor that is debarred or suspended by the Owner or by any state or federal agency.

11.

INDEMNIFICATION

The contractor shall defend, indemnify and hold harmless the county, the inspector, the gec and the engineer of record and their respective officers, agents and employees, from and against all damages, claims, losses, demands, suits, judgments and costs, including reasonable attorneys' fees and expenses, arising out of or resulting from the performance of the work, provided that any such damage, claim, loss, demand, suit, judgment, cost or expense:

- Is attributable to bodily injury, sickness, disease or death of any person including contractor's employees and any subcontractor's employees and any sub-subcontractor's employees, or to injury to or destruction of tangible property including contractor's property (other than the work itself) and the property of any subcontractor of sub- subcontractor including the loss of use resulting therefrom; and,
- Is caused in whole or in part by any intentional or negligent act or omission of the contractor, any subcontractor, any sub-subcontractor or anyone directly or indirectly employed by any one of them or anyone for whose acts any of them may be liable.

The obligation of the contractor under this paragraph shall not extend to the liability of the inspector, the engineer, the gec, the engineer of record their agents or employees arising out of the preparation of maps, plans, reports, surveys, change orders, designs or specifications, or the approval of maps, plans, reports, surveys, change orders, designs or specifications or the issuance of or the failure to give directions or instructions by the inspector, its agents or employees, provided such is the sole cause of the injury or damage.

In any and all claims against the county, the inspector the gec or the engineer of record or any of their agents or employees by any employee of the contractor, any subcontractor, any sub- subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligations under the contract documents shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the contractor or any subcontractor or sub-subcontractor under workers' compensation acts, disability benefit acts or other employee benefit acts.

12.

INSPECTION AND AUDIT

Contractor's records shall be subject to audit and such records shall include, but not be limited to accounting records, written policies and procedures; subcontract files (including proposals of successful and unsuccessful bidders, bid recaps, etc.); original estimates; estimating work sheets; correspondence; change order files (including documentation covering negotiated settlements); back charge logs and supporting documentation; general ledger entries detailing cash and trade discounts earned, insurance rebates and dividends; and any other Contractor records which may have a bearing on matters of interest to the County in connection with the contractor's work for the County. All of the foregoing, hereinafter referred to as "records," shall be open to inspection and subject to audit and/or reproduction by County or its authorized representative to the extent necessary to adequately permit evaluation and verification of:

- Contractor compliance with the Contract Documents,
- compliance with County's business ethics policies,
- compliance by other contractors or subcontractors with contracts with County or Contractor, and
- compliance with provisions for pricing change orders, invoices or claims submitted by the Contractor or any of its payees.

Other specific records subject to audit include all information, materials and data of every kind and character such as documents, subscriptions, recordings, computerized information, agreements, purchase orders, leases, contracts, commitments, arrangements, notes, daily diaries, superintendent reports, drawings, receipts, vouchers and memoranda, and any and all other agreements, sources of information that may, in County's judgment, have any bearing on or pertain to any matters, rights, duties or obligations under or covered by the Contract Documents. Such records subject to audit shall also include those records

necessary to evaluate and verify direct and indirect costs, (including overhead allocations) as they may apply to costs associated with this Project. In those situations where Contractor's records have been generated from computerized data (whether mainframe, mini-computer, or PC based computer systems), Contractor agrees to provide County's representatives with extracts of data files in computer readable format on data disks or suitable alternative computer data exchange formats.

The County or its designee shall be entitled to audit all of the Contractor's records for a period of three (3) years after final payment or a longer period if required by law.

Contractor shall require all payees (including those entering into lump sum subcontracts and lump sum major material purchase orders), to comply with the provisions of this article by insertion of the requirements hereof in a written contract agreement between Contractor and payee. Requirements to include flow-down audit provisions in contracts with payees will apply to Subcontractors, Sub-Subcontractors, material suppliers, etc. when working under any type of contract including lump sum agreement, unit price agreements, time and material agreements, cost plus agreements, or other agreements. Contractor will cooperate fully and will cause all payees to cooperate fully in furnishing or in making available to County from time to time whenever requested in an expeditious manner any and all such information, materials and data required by this article.

County's agent or its authorized representative shall have access to the Contractor's facilities, shall be allowed to interview all current or former employees to discuss matters pertinent to the performance of the Work, shall have access to all necessary records, and shall be provided adequate and appropriate work space, in order to conduct audits in compliance with this article.

Item 4L

Scope of Work



1. CONTRACT INTENT

The intent of the Contract is to describe the completed work to be performed. Furnish materials, supplies, tools, equipment, labor, and other incidentals necessary for the proper prosecution and completion of the work in accordance with Contract documents.

The proposed project will reconstruct the existing road at the FM 2770 at Flint Hills Driveway intersection. The project consists of, but is not limited to, construction of left turn lane and paved shoulders, earthwork, drainage structures, pavement markings, and erosion control facilities.

2. PRECONSTRUCTION CONFERENCE

Before starting work, schedule and attend a preconstruction conference with the Owner. Failure to schedule and attend a preconstruction conference is not grounds for delaying the beginning of working day charges.

Work with the Owner to resolve all issues during the course of the Contract. Refer to Article 4.7., "Dispute or Claims Procedure," for all unresolved issues.

3. PARTNERING

The intent of this Article is to promote an environment of trust, mutual respect, integrity, and fair-dealing between the Owner and the Contractor.

Informal partnering does not make use of a facilitator, while formal partnering uses the services of a facilitator (internal or external).

- 3.1. **Procedures for Partnering Meetings and Format.** Informal partnering is required, unless formal partnering is mutually agreed to instead of the informal partnering.
- 3.2. **Facilitators.** The facilitator is to act as a neutral party seeking to initiate cooperative working relationships. This individual must have the technical knowledge and ability to lead and guide discussions. Choose either an internal or external facilitator. The facilitator must be acceptable to the Engineer.
 - 3.2.1. **Internal Facilitators.** An Owner or Contractor internal (staff) facilitator may be selected as the facilitator at no additional cost to either party.
 - 3.2.2. **External Facilitators.** A private firm or individual that is independent of the Contractor and the Owner may be selected as the facilitator. Submit the facilitator's name and estimated fees for approval before contracting with the facilitator.
- 3.3. **Meetings and Arrangements.** Coordinate with the Engineer for meeting dates and times, locations including third party facilities, and other needs and appurtenances, including, but not limited to, audio or visual equipment. Make all meeting arrangements for formal partnering. Use Owner facilities or facilities in the vicinity of the project if available. Submit the estimated meeting costs for approval before finalizing arrangements.

Coordinate facilitator discussions before the partnering meeting to allow the facilitator time to prepare an appropriate agenda. Prepare a list of attendees with job titles and include critical Contractor, subcontractor, and supplier staff in the list. Provide the facilitator the list of attendees and invite the attendees listed.

The Owner will invite and provide a list of attendees that includes, but is not limited to, Owner, TxDOT, other local governments, law enforcement, railroad, and utility representatives.

Participate in additional partnering meetings as mutually agreed.

- 3.4. **Payment.** Expenses for labor, Contractor equipment, or overhead will not be allowed. Markups as prescribed in Article 9.7., "Payment for Extra Work and Force Account Method," will not be allowed.

Informal partnering will be conducted with each party responsible for their own costs.

For formal partnering using internal facilitators, the Contractor will be responsible for arrangements and for expenses incurred by its internal facilitator, including, but not limited to, meals, travel, and lodging. Owner facilitators, if available, may be used at no additional cost.

For formal partnering using external facilitators, submit an invoice to the Engineer for reimbursement. The Owner will reimburse the Contractor for half of the eligible expenses as approved. For external facilitators not approved by the Owner but used at the Contractor's option, the Contractor will be responsible for all costs of the external facilitator.

For meeting facilities and appurtenances, submit an invoice to the Engineer for reimbursement. The Owner will reimburse the Contractor for half of the eligible expenses as approved.

4. CHANGES IN THE WORK

The Engineer reserves the right to make changes in the work including addition, reduction, or elimination of quantities and alterations needed to complete the Contract. Perform the work as altered. These changes will not invalidate the Contract nor release the Surety. The Contractor is responsible for notifying the sureties of any changes to the Contract.

If the changes in quantities or the alterations do not significantly change the character of the work under the Contract, the altered work will be paid for at the Contract unit price. If the changes in quantities or the alterations significantly change the character of the work, the Contract will be amended by a change order. If no unit prices exist, this will be considered extra work and the Contract will be amended by a change order. Provide cost justification as requested, in an acceptable format. Payment will not be made for anticipated profits on work that is eliminated.

Agree on the scope of work and the basis of payment for the change order before beginning the work. If there is no agreement, the Engineer may order the work to proceed under Article 9.7., "Payment for Extra Work and Force Account Method," or by making an interim adjustment to the Contract. In the case of an adjustment, the Engineer will consider modifying the compensation after the work is performed.

A significant change in the character of the work occurs when:

- the character of the work for any item as altered differs materially in kind or nature from that in the Contract or
- a major item of work varies by more or less than 25% from the original Contract quantity.

When the quantity of work to be done under any major item of the Contract is more than 125% of the original quantity stated in the Contract, then either party to the Contract may request an adjustment to the unit price on the portion of the work that is above 125%.

When the quantity of work to be done under any major item of the Contract is less than 75% of the original quantity stated in the Contract, then either party to the Contract may request an adjustment to the unit price. When mutually agreed, the unit price may be adjusted by multiplying the Contract unit price by the factor in Table 1. If an adjusted unit price cannot be agreed upon, the Engineer may determine the unit price by multiplying the Contract unit price by the factor in Table 1.

Table 1
Quantity-Based Price Adjustment Factors

% of Original Quantity	Factor
≥ 50 and < 75	1.05
≥ 25 and < 50	1.15
< 25	1.25

If the changes require additional working days to complete the Contract, Contract working days will be adjusted in accordance with Item 8, "Prosecution and Progress."

5. DIFFERING SITE CONDITIONS

During the progress of the work, differing subsurface or latent physical conditions may be encountered at the site. The 2 types of differing site conditions are defined as:

- those that differ materially from those indicated in the Contract and
- unknown physical conditions of an unusual nature differing materially from those ordinarily encountered and generally recognized as inherent in the work provided for in the Contract.

Notify the Engineer in writing when differing site conditions are encountered. The Engineer will notify the Contractor when the Owner discovers differing site conditions. Unless directed otherwise, do not work on the affected items and leave the site undisturbed. The Engineer will investigate the conditions and determine whether differing site conditions exist. If the differing site conditions cause an increase or decrease in the cost or number of working days specified for the performance of the Contract, the Engineer will make adjustments, excluding the loss of anticipated profits, in accordance with the Contract. Additional compensation will be made only if the required written notice has been provided.

6. REQUESTS FOR ADDITIONAL COMPENSATION

Notify the Engineer in writing of any intent to request additional compensation once there is knowledge of the basis for the request. An assessment of damages is not required to be part of this notice but is desirable. The intent of the written notice requirement is to provide the Owner an opportunity to evaluate the request and to keep an accurate account of the actual costs that may arise. Minimize impacts and costs.

If written notice is not given, the Contractor waives the right to additional compensation unless the circumstances could have reasonably prevented the Contractor from knowing the cost impact before performing the work. Notice of the request and the documentation of the costs will not be construed as proof or substantiation of the validity of the request. Submit the request in enough detail to enable the Owner to determine the basis for entitlement, adjustment in the number of working days specified in the Contract, and compensation.

The Owner will not consider fees and interest on requests for additional compensation. Fees include, but are not limited to: preparation, attorney, printing, shipping, and various other fees.

Damages occur when impacts that are the responsibility of the Owner result in additional costs to the Contractor that could not have been reasonably anticipated at the time of letting. Costs of performing additional work are not considered damages. For Contractor damages, the intent is to reimburse the Contractor for actual expenses arising out of a compensable impact. No profit or markups, other than labor burden, will be allowed. For damages, labor burden will be reimbursed at 35% unless the Contractor can justify higher actual cost. Justification for a higher percentage must be in accordance with the methodology provided by the Owner, submitted separately for project overhead labor and direct labor, and determined and submitted by a Certified Public Accountant (CPA). Submit CPA-prepared labor burden rates directly to the Owner.

If the Contractor requests compensation for delay damages and the delay is determined to be compensable, then standby equipment costs and project overhead compensation will be based on the duration of the compensable delay and will be limited as follows:

- 6.1. **Standby Equipment Costs.** Payment will be made in accordance with Section 9.7.1.4.3., "Standby Equipment Costs."
- 6.2. **Project Overhead.** Project overhead is defined as the administrative and supervisory expenses incurred at the work locations. When delay to project completion occurs, reimbursement for project overhead for the Contractor will be made using the following options:
- reimbursed at 6% (computed as daily cost by dividing 6% of the original Contract amount by the number of original Contract work days), or
 - actual documented costs for the impacted period.
- Project overhead for delays impacting subcontractors will be determined from actual documented costs submitted by the Contractor.
- Time extensions and suspensions alone will not be justification for reimbursement for project overhead.
- 6.3. **Home Office Overhead.** The Owner will not compensate the Contractor for home office overhead.

7. **DISPUTE OR CLAIMS PROCEDURE**

The dispute resolution policy promotes a cooperative attitude between the Engineer and Contractor. Emphasis is placed on resolving issues while they are still current, at the project office, and in an informal manner. Open sharing of information is encouraged by all parties involved so the information provided completely and accurately reflects the issues and facts. If information is not shared, decisions may be limited to relying on the documentation that is available for review.

The Inspector initially shall determine all claims, disputes and other matters in question between the Contractor and the County relating to execution or progress of the Work or interpretation of the Contract Documents. The Inspector's decision shall be rendered in writing to the GEC for review within a reasonable time, which shall not be construed to be less than ten (10) days.

In the event the issue cannot be resolved in the timeframe established by the County or renders any decision which, in the opinion of either party hereto, is not in accordance with the meaning and intent of the Contract Documents, either party may file with the Inspector its written objection to the decision within thirty (30) days of such decision by the Inspector, and by such action may reserve the right to submit the question so raised to litigation as hereinafter provided.

The Contractor shall continue performance of the Work during all disputes or disagreements with the County. The production or delivery of goods, the furnishing of services and the construction of projects or facilities shall not be delayed, prejudiced or postponed pending resolution of any disputes or disagreements, except as the County may otherwise agree in writing.

File a claim after completion of the Contract or when required for orderly performance of the Contract. For a claim resulting from enforcement of a warranty period, file the claim no later than one year after expiration of the warranty period. For all other claims, file the claim no later than the date the County issues notice to the Contractor that they are in default, the date the County terminates the Contract, or one year after the date of final acceptance of the Contract. It is the Contractor's responsibility to submit requests in a timely manner.

Item 5L

Control of the Work



1. AUTHORITY OF ENGINEER

The Engineer has the authority to observe, test, inspect, approve, and accept the work on behalf of the Owner. The Engineer decides all questions about the quality and acceptability of materials, work performed, work progress, Contract interpretations, and acceptable Contract fulfillment. The Engineer has the authority to enforce and make effective these decisions.

The Engineer acts as a referee in all questions arising under the terms of the Contract. The Engineer's decisions will be final and binding.

2. PLANS AND WORKING DRAWINGS

When required, provide working drawings to supplement the plans with all necessary details not included on the Contract plans. Prepare and furnish working drawings in a timely manner and obtain approval, if required, before the beginning of the associated work. For all working drawing submittal requirements, the Engineer may allow electronic and other alternative submission procedures. Have a licensed professional engineer sign, seal, and date the working drawings as indicated in Table 1.

Prepare working drawings using United States standard measures in the English language. The routing of submittals for review and approval will be established at the preconstruction conference. The Contractor is responsible for the accuracy, coordination, and conformity of the various components and details of the working drawings. Owner approval of the Contractor's working drawings will not relieve the Contractor of any responsibility under the Contract. The work performed under this article will not be measured or paid for directly but will be subsidiary to pertinent items.

It shall be the Contractor's responsibility to fully and completely review all shop drawings to ascertain their effect on its ability to perform the required work in accordance with the Contract Documents and within the time for completion thereof. Any shop drawings which are required for temporary supports must be signed and sealed by an Engineer registered in the State of Texas.

Such review by the Engineer of Record shall be for the sole purpose of determining the sufficiency of said shop drawings or schedules to result in finished improvements in conformity with the plans and specifications, and shall not relieve the Contractor of its duties and obligations, as an independent contractor, set forth in the Contract Documents. It is hereby expressly understood and agreed that the Engineer of Record does not assume any duty to pass upon the propriety or adequacy of such drawings or schedules, or any means or methods reflected thereby, in relation to the safety of either person or property during the Contractor's performance hereunder.

Table 1
Signature and Approval Requirements for Working Drawings

Working Drawings For		Requires Licensed Professional Engineer's Signature, Seal, and Date	Requires Owner Approval
1. Alternate or optional designs submitted by Contractor		Yes	Yes
2. Supplementary shop and fabrication drawings for structural Items		No unless required on the plans	See applicable Item
3. Contractor-proposed temporary facilities that affect the public safety, not included on the plans		Yes	Yes
4. Form and falsework details	Bridges, retaining walls, and other major structures	Yes unless otherwise shown on the plans	No ¹
	Minor structures	No unless otherwise shown on the plans	No
5. Erection drawings		Yes	No ^{1,2}
6. Contractor-proposed major modifications to traffic control plan		Yes	Yes

1. The Engineer may require that the Contractor have a licensed professional engineer certify that the temporary works are constructed according to the sealed drawings.
2. Approval is required for items spanning over live traffic or where safety of the traveling public is affected, in the opinion of the Engineer.

3. CONFORMITY WITH PLANS, SPECIFICATIONS, AND SPECIAL PROVISIONS

Furnish materials and perform work in reasonably close conformity with the lines, grades, cross-sections, dimensions, details, gradations, physical and chemical characteristics of materials, and other requirements shown in the Contract (including additional plans for non-site-specific work). Reasonably close conformity limits will be as defined in the respective items of the Contract or, if not defined, as determined by the Engineer. Obtain approval before deviating from the plans and approved working drawings. Do not perform work beyond the lines and grades shown on the plans or any extra work without the Engineer's approval. Work performed beyond the lines and grades shown on the plans or any extra work performed without approval is considered unauthorized and excluded from pay consideration. The Owner will not pay for material rejected due to improper fabrication, excess quantity, or any other reasons within the Contractor's control.

- 3.1. **Acceptance of Defective or Unauthorized Work.** When work fails to meet Contract requirements, but is adequate to serve the design purpose, the Engineer will decide the extent to which the work will be accepted and remain in place. The Engineer will document the basis of acceptance by a letter and may adjust the Contract price.
- 3.2. **Correction of Defective or Unauthorized Work.** When work fails to meet Contract requirements and is inadequate to serve the design purpose it will be considered defective. Correct, or remove and replace, the work at the Contractor's expense, as directed.

The Engineer has the authority to correct or to remove and replace defective or unauthorized work. The cost may be deducted from any money due or to become due to the Contractor.

4. COORDINATION OF PLANS, SPECIFICATIONS, AND SPECIAL PROVISIONS

The specifications, accompanying plans (including additional plans for non-site-specific work), special provisions, change orders, and supplemental agreements are intended to work together and be interpreted as a whole.

Numerical dimensions govern over scaled dimensions. In the event of any conflict between the terms set forth in the Contract, Standard Specifications, Special Provisions and Special Conditions, the following shall serve as a guide in determining which of said documents shall control over the other (listed in descending order of most controlling to least controlling): Special Conditions, Special Provisions, Standard Specifications/General Requirements and Covenants and the Contract. Job-specific plan sheets govern over standard plan sheets.

However, in the case of conflict between plans (including general notes) and specifications regarding responsibilities for hazardous materials and traffic control in Items 1L through 9L and Item 502, "Barricades, Signs, and Traffic Handling," special provisions govern over standard specifications and special specifications, which govern over the plans.

Notify the Engineer promptly of any omissions, errors, or discrepancies discovered so that necessary corrections and interpretations can be made. Failure to promptly notify the Engineer will constitute a waiver of all claims for misunderstandings or ambiguities that result from the errors, omissions, or discrepancies discovered.

5. COOPERATION OF CONTRACTOR

Cooperate with the Engineer. Respond promptly to instructions from the Engineer. Provide all information necessary to administer the Contract.

Designate in writing a competent, English-speaking Superintendent employed by the Contractor. The Superintendent must be experienced with the work being performed and capable of reading and understanding the Contract. Ensure the Superintendent is available at all times and able to receive instructions from the Engineer or authorized Owner representatives and to act for the Contractor. The Engineer may suspend work without suspending working day charges if a Superintendent is not available or does not meet the above criteria.

At the written request of the Engineer, immediately remove from the project any employee or representative of the Contractor or a subcontractor who, in the opinion of the Engineer, does not perform work in a proper and skillful manner or who is disrespectful, intemperate, disorderly, uncooperative, or otherwise objectionable. Do not reinstate these individuals without the written consent of the Engineer.

Furnish suitable machinery, equipment, and construction forces for the proper prosecution of the work. Provide adequate lighting to address quality requirements and inspection of nighttime work.

The Engineer may suspend the work without suspending working day charges until the Contractor complies with this requirement. All work associated with fulfilling this requirement is subsidiary to the various items of the Contract and no direct compensation will be made.

6. COOPERATING WITH UTILITIES

Use established safety practices when working near utilities. Consult with the appropriate utilities before beginning work. Notify the Engineer immediately of utility conflicts. The Engineer will decide whether to adjust utilities or adjust the work to eliminate or lessen the conflict. Unless otherwise shown on the plans, the Engineer will make necessary arrangements with the utility owner when utility adjustments are required.

Use work procedures that protect utilities or appurtenances that remain in place during construction. Cooperate with utilities to remove and rearrange utilities to avoid service interruption or duplicate work by the utilities. Allow utilities access to the right of way.

Immediately notify the appropriate utility of service interruptions resulting from damage due to construction activities. Cooperate with utilities until service is restored. Maintain access to active fire hydrants at all times unless approved by the Engineer.

7. COOPERATION BETWEEN CONTRACTORS

Cooperate and coordinate with other Contractors working within the limits or adjacent to the limits.

8. COOPERATION WITH RAILROADS

Plan and prosecute portions of the work involving a railway to avoid interference with or hindrance to the railroad company.

If the work is on railroad right of way, do not interfere with the operation of the railroad company's trains or other property.

8.1. **Project-Specific Information.** Refer to project-specific plan sheets in the Contract for specific information concerning the work to be completed by both the Contractor and the railroad within railroad right of way; railroad right of way locations impacted by construction; percentage of Contract work at each location; train movements at each location; and requirements for railroad insurance, flagging, and Right of Entry (ROE) Agreements.

8.2. **Right of Entry Agreement (if required).** The process for obtaining a fully executed ROE Agreement will be as follows:

- The Owner will send the unexecuted ROE Agreement to the Contractor with the unexecuted construction Contract.
- Partially execute the ROE Agreement and return it to the Department with the required insurance attached.
- The Owner will coordinate with the railroad company regarding the further execution of the ROE Agreement and associated fees. The Owner will pay any ROE Agreement fees directly to the railroad company.
- Once the Owner has received the fully-executed ROE Agreement from the railroad company, the Owner will forward the fully-executed ROE Agreement to the Contractor.

9. CONSTRUCTION SURVEYING

Use Method A unless otherwise specified in the Contract. Upon request, the Engineer will allow the Contractor to copy available earthwork cross-sections, computer printouts or data files, and other information necessary to establish and control work. Maintain the integrity of control points. Preserve all control points, stakes, marks, and right of way markers. Assume cost and responsibility of replacing disturbed control points, stakes, marks, and right of way markers damaged by the Contractor's or its subcontractor operations. If the Owner repairs disturbed control points, stakes, marks, or right of way markers, the cost of repair may be deducted from money due or to become due to the Contractor. Replace right of way markers under the direction of a RPLS. This work will be subsidiary to pertinent items.

The Engineer reserves the right to make measurements and surveys to determine the accuracy of the work and determine pay quantities. The Engineer's measurements and surveys do not relieve the Contractor's responsibility for accuracy of work. Allow the Engineer adequate time to verify the surveying.

9.1. **Method A.** The Engineer will set control points for establishing lines, slopes, grades, and centerlines and for providing both vertical and horizontal control. At a minimum, provide a controlling pair of monument points at both the beginning and end of construction project for projects less than 2 miles in length. For projects greater than 2 miles in length, monuments will be set in pairs of 2 at a minimum of 2 miles based on the overall length of the project. Use these control points as reference to perform the work.

Furnish materials, equipment, and qualified workforce necessary for the construction survey work. Place construction points, stakes, and marks at intervals sufficient to control work to established tolerances. Place

construction stakes at intervals of no more than 100 ft., or as directed. Place stakes and marks so as not to interfere with normal maintenance operations.

9.2. **Method B.** The Engineer will set adequate control points, stakes, and marks to establish lines, slopes, grades, and centerlines. Furnish additional work, stakes, materials, and templates necessary for marking and maintaining points and lines.

9.3. **Method C.** Set adequate control points, stakes, and marks to establish lines, slopes, grades, and centerlines.

10. INSPECTION

Inspectors are authorized representatives of the Engineer. Inspectors are authorized to examine all work performed and materials furnished, including preparation, fabrication, and material manufacture. Inspectors inform the Contractor of failures to meet Contract requirements. Inspectors may reject work or materials and may suspend work until any issues can be referred to and decided by the Engineer. Inspectors cannot alter, add, or waive Contract provisions, issue instructions contrary to the Contract, act as foremen for the Contractor, or interfere with the management of the work. Inspection, or lack of inspection, will not relieve the Contractor from obligation to provide materials or perform the work in accordance with the Contract.

Provide safe access to all parts of the work and provide information and assistance to the Engineer to allow a complete and detailed inspection. Give the Engineer sufficient notice to inspect the work. Work performed without suitable inspection, as determined by the Engineer, may be ordered removed and replaced at Contractor's expense. Remove or uncover portions of finished work as directed. Once inspected, restore work to Contract requirements. If the uncovered work is acceptable, the costs to uncover, remove, and replace or make good the parts removed will be paid for in accordance with Article 4.4., "Changes in the Work." If the work is unacceptable, assume all costs associated with repair or replacement, including the costs to uncover, remove, and replace or make good the parts removed.

When a government entity, utility, railroad company, or other entity accepts or pays a portion of the Contract, that organization's representatives may inspect the work but cannot direct the Contractor. The right of inspection does not make that entity a party to the Contract and does not interfere with the rights of the parties to the Contract.

10.1 **County-Inspector Relationship.** The Inspector will be the County's contracted consultant during construction. The duties, responsibilities and limitations of authority of the Inspector as the County's representative during construction are as set forth in the Contract Documents and/or the Agreement for Construction Engineering and Inspection Services and shall not be extended or limited without written consent of the County or the Inspector. The Inspector will advise and consult with the County and the GEC, and all of the County's instructions to the Contractor shall be issued through the Inspector.

The Contractor is and at all times shall remain an independent contractor, solely responsible for the manner and method of completing its work under the Contract Documents, with full power and authority to select the means, method and manner of performing such work, so long as such methods do not adversely affect the completed improvements, the County and the Inspector being interested only in the result obtained and conformity of such completed improvements with the Contract Documents.

Likewise, the Contractor shall be solely responsible for the safety of itself, its employees and other persons, as well as for the protection and safety of the improvements being erected and its property or any other person's property, as a result of its operations under the Contract Documents. Engineering construction drawings and specifications, as well as any additional information concerning the Work to be performed passing from or through the Inspector, shall not be interpreted as requiring or allowing the Contractor to deviate from the Contract documents, the plans and specifications; the intent of such drawings, specifications and any other such information being to define with specificity the agreement of the parties as to the Work the Contractor is to perform.

- 10.2 **Professional Inspection by the Construction Inspector.** The Inspector shall be on the jobsite when work is being performed to provide construction engineering inspections of the Work performed by the Contractor. In addition to performing material testing on behalf of the County, the Inspector shall review the progress of the executed Work and to determine if such Work meets the essential performance and design features and the technical and functional engineering requirements of the Contract Documents; provided and except, however, that the Inspector shall not be responsible, directly or indirectly, for the Contractor's construction means, methods, techniques, sequences, quality, procedures, programs, safety precautions or lack of same incident thereto or in connection therewith. Notwithstanding any other provision of the Contract Documents, the Engineer and the Inspector shall not be responsible or liable for any acts, errors, omissions or negligence of the Contractor, any Subcontractor or any of the Contractor's or Subcontractor's agents, servants or employees or any other person, firm or corporation performing or attempting to perform any of the Work.

11. **FINAL CLEANUP**

Upon completion of the work, remove litter, debris, objectionable material, temporary structures, excess materials, and equipment from the work locations. Clean and restore property damaged by the Contractor's operations during the prosecution of the work. Leave the work locations in a neat and presentable condition. This work will not be paid for directly but will be considered subsidiary to items of the Contract.

Remove from the right of way cofferdams, construction buildings, material and fabrication plants, temporary structures, excess materials, and debris resulting from construction. Where work is in a stream, remove debris to the ground line of the bed of the stream. Leave stream channels and rights of way in a neat and presentable condition. Clean structures to the flow line or the elevation of the outfall channel, whichever is higher. Dispose of all excess material in accordance with federal, state, and local regulations.

In the event the Contractor fails or refuses to clean and remove surplus materials and debris as provided above, the County or the Inspector may do so, or cause same to be done, at the Contractor's expense, and the reasonable cost thereof shall be deducted from any amounts that are owing to the Contractor.

12. **FINAL ACCEPTANCE**

- 12.1. Final acceptance is made when all work is complete and the Engineer, in writing, accepts all work for the work locations in the Contract. Final acceptance relieves the Contractor from further Contract responsibilities.

- 12.1.1. **Work Completed.** Work completed must include work for vegetative establishment and maintenance, test, and performance periods and work to meet the requirements of Article 5.11., "Final Cleanup."

- 12.1.2. **Punch List.** The Contractor shall notify the Inspector in writing when, in the Contractor's opinion, the Work has been "Substantially Completed" and when so notifying the Inspector, the Contractor shall furnish to the Inspector, in writing, a detailed list of unfinished work, also known as the Punch List. The Inspector, in cooperation with TxDOT, will review the Punch List and will add any items that the Contractor failed to include on said list. The fact that a structure or facility has been "Substantially Completed" shall not excuse the Contractor from performing all of the Work undertaken, whether such work is of a minor or major nature. Furthermore, the Contractor shall remain obligated to fully complete the Work and perform its obligations under the Contract Documents after the Work has been Substantially Completed.

- 12.1.3. **Final Completion and Acceptance.** The Contractor shall have a specified time period for completion of the Punch List items, as set forth in Section XI of the Special Conditions, "Completion of Work on Time." Within ten (10) days after the Contractor has given the Inspector written notice that the Punch List has been completed, the Inspector shall inspect the Work and within said time, if the Work is found to be completed in accordance with the Contract Documents, the Inspector, with the concurrence of TxDOT, shall issue to the Contractor its Certificate of Completion. In the event the Punch List has not been completed, the Inspector shall advise the Contractor, in writing, of the Inspector's basis for deeming the Punch List incomplete. Following the Contractor's receipt of the Inspector's notice that the Punch List is incomplete, the Contractor shall complete the remaining items prior to the expiration of the above referenced specified time period for completion of the Punch List items. Upon satisfactory completion of the Punch List and the issuance of the

Certificate of Completion, it shall be the Contractor's responsibility to submit the contract close-out documents, which shall include the record drawings, Form FHWA-47 and Affidavit of All Bills Paid, and thereupon it shall be the duty of the County to issue a Certificate of Acceptance (Final Acceptance) to the Contractor.

- 12.1.4. **Final Measurement.** Final measurements and pay quantity adjustments may be made after final acceptance.
- 12.1.5. **Removal of Traffic Control Devices.** Remove construction traffic control devices and advance warning signs upon final acceptance or as directed.

Item 6L

Control of Materials



1. SOURCE CONTROL

Use only materials that meet Contract requirements. Unless otherwise specified or approved, use new materials for the work. Secure the Engineer's approval of the proposed source of materials to be used before their delivery. Materials can be approved at a supply source or staging area but may be reinspected in accordance with Article 6.4., "Sampling, Testing, and Inspection."

- 1.1. **Buy America.** Comply with the latest provisions of Buy America as listed at 23 CFR 635.410. Use steel or iron materials manufactured in the United States except when:
- the cost of materials, including delivery, does not exceed 0.1% of the total Contract cost or \$2,500, whichever is greater;
 - the Contract contains a replacement alternate item for a foreign source steel or iron product and the Contract is awarded based on the replacement alternate item; or
 - the materials are temporarily installed.

Provide a notarized original of the TxDOT FORM D-9-USA-1 (or equivalent) with the proper attachments for verification of compliance.

Manufacturing is any process that modifies the chemical content, physical shape or size, or final finish of a product. Manufacturing begins with initial melting and mixing and continues through fabrication (cutting, drilling, welding, bending, etc.) and coating (paint, galvanizing, epoxy, etc.).

- 1.2. **Convict Produced Materials.** Materials produced by convict labor may only be incorporated in the work if such materials have been:
- produced by convicts who are on parole, supervised release, or probation from prison; or
 - produced in a qualified prison facility.

A "qualified prison facility" means any prison facility in which convicts, during the 12-month period ending July 1, 1987, produced materials for use in federal-aid highway construction projects.

2. MATERIAL QUALITY

Correct or remove materials that fail to meet Contract requirements or that do not produce satisfactory results. Reimburse the Owner for cost incurred if additional sampling and testing is required by a change of source.

Materials not meeting Contract requirements will be rejected, unless the Engineer approves corrective actions. Upon rejection, immediately remove and replace rejected materials.

If the Contractor does not comply with this article, the Owner may have defective material removed and replaced. The cost of testing, removal, and replacement will be deducted from the estimate.

3. MANUFACTURER WARRANTIES

Transfer to the Owner warranties and guarantees required by the Contract or received as part of normal trade practice.

4. **SAMPLING, TESTING, AND INSPECTION**

Incorporate into the work only material that has been inspected, tested, and accepted by the Engineer. Remove, at the Contractor's expense, materials from the work locations that are used without prior testing and approval or written permission.

Unless otherwise mutually agreed, the material requirements and standard test methods in effect at the time the proposed Contract is advertised govern. Unless otherwise noted, the Engineer will perform testing at Owner's expense. In addition to facilities and equipment required by the Contract, furnish facilities and calibrated equipment required for tests to control the manufacture of construction items. If requested, provide a complete written statement of the origin, composition, and manufacture of materials.

All materials used are subject to inspection or testing at any time during preparation or use. Material which has been tested and approved at a supply source or staging area may be reinspected or tested before or during incorporation into the work, and rejected if it does not meet Contract requirements. Copies of test results are to be made available upon request. Do not use material that, after approval, becomes unfit for use.

Unless otherwise noted in the Contract, all testing must be performed within the United States and witnessed by the Engineer. If materials or processes require testing outside the contiguous 48 United States, reimburse the Owner for inspection expenses.

5. **PLANT INSPECTION AND TESTING**

The Engineer may, but is not obligated to, inspect materials at the acquisition or manufacturing source. Material samples will be obtained and tested for compliance with quality requirements.

If inspection is at the plant, meet the following conditions unless otherwise specified:

- Cooperate fully and assist the Engineer during the inspection.
- Ensure the Engineer has full access to all parts of the plant used to manufacture or produce materials.
- In accordance with pertinent items and the Contract, provide a facility at the plant for use by the Engineer as an office or laboratory.
- Provide and maintain adequate safety measures and restroom facilities.
- Furnish and calibrate scales, measuring devices, and other necessary equipment.

The Engineer may provide inspection for periods other than daylight hours if:

- continuous production of materials for Owner use is necessary due to the production volume being handled at the plant, and
- the lighting is adequate to allow satisfactory inspection.

6. **STORAGE OF MATERIALS**

Store and handle materials to preserve their quality and fitness for the work. Store materials so that they can be easily inspected and retested. Place materials under cover, on wooden platforms, or on other hard, clean surfaces as necessary or when directed.

Obtain approval to store materials on the right of way. Storage space off the right of way is at the Contractor's expense.

7. OWNER-FURNISHED MATERIAL

The Owner will supply materials as shown in the Contract documents. The cost of handling and placing materials supplied by the Owner will not be paid for directly but is subsidiary to the item in which they are used. Assume responsibility for materials upon receipt.

8. USE OF MATERIALS FOUND ON THE RIGHT OF WAY

Material found in the excavation areas and meeting the Owner's specifications may be used in the work. This material will be paid for at the Contract bid price for excavation and under the item for which the material is used.

Do not excavate or remove any material from within the right of way that is not within the limits of the excavation without written permission. If excavation is allowed within a right of way project-specific location (PSL), replace the removed material with suitable material at no cost to the Owner as directed.

9. RECYCLED MATERIALS

The Owner will not allow hazardous wastes, as defined in 30 TAC 335, proposed for recycling to be used on the project. Use nonhazardous recyclable materials (NRMs) only if the specification for the item does not disallow or restrict use. Determine if NRMs are regulated under 30 TAC 312, 330, 332, 334, or 335, and comply with all general prohibitions and requirements. Use NRMs in accordance with DMS-11000, "Evaluating and Using Nonhazardous Recyclable Materials Guidelines," and furnish all documentation required by that specification.

10. HAZARDOUS MATERIALS

Use materials that are free of hazardous materials as defined in Item 1L, "Abbreviations and Definitions."

Notify the Engineer immediately when a visual observation or odor indicates that materials in required material sources or on sites owned or controlled by the owner may contain hazardous materials. Except when the contract includes bid items for the contractor to remove hazardous materials, the Engineer is responsible for testing and removing or disposing of hazardous materials not introduced by the Contractor on sites owned or controlled by the Owner as indicated below.

The plans will indicate locations where paint on steel is suspected to contain hazardous materials and where regulated asbestos containing materials have been found. The Engineer may suspend work wholly or in part during the testing, removal, or disposition of hazardous materials on sites owned or controlled by the Owner, except in the case of when the contract includes removing and disposing of hazardous materials.

When a visual observation or odor indicates that materials delivered to the work locations by the Contractor may contain hazardous materials, have an approved commercial laboratory test the materials for contamination. Remove, remediate, and dispose of any of these materials found to be contaminated. Testing, removal, and disposition of hazardous materials introduced onto the work locations by the Contractor will be at the Contractor's expense. Working day charges will not be suspended and extensions of working days will not be granted for activities related to handling hazardous material delivered by the Contractor.

10.1. **Painted Steel Requirements.** Paint containing hazardous materials will be removed as shown on the plans.

10.1.1. **Paint Removed by Third Party.** The Owner may provide a third party to remove paint containing hazardous materials where paint must be removed to perform work or to allow dismantling of the steel.

10.1.2. **Paint Removed by the Contractor.** This work may only be performed by a firm or company with one of the following certifications:

- SSPC-QP2 certification for lead painting operations, or
- Certified Lead Firm by the Texas Department of State Health Services.

Maintain certification for the duration of the work. Provide copies of audits or certification if requested.

Comply with worker and public safety regulations, including, but not limited to, OSHA 29 CFR Parts 1910.1025, 1926.62, and 1926.63. Monitor permissible exposure limits in accordance with OSHA requirements.

Remove paint containing hazardous materials from designated areas shown on the plans or as directed. Comply with access limitations shown on the plans.

Provide power hand tools, equipped with high-efficiency particulate air filter vacuums to mechanically remove paint.

Contain, collect, store, transport, and dispose of all waste generated by cleaning operation in accordance with local, state, and federal requirements including 40 CFR 302. Properly characterize and dispose of all wastes. Manage any hazardous wastes in accordance with regulatory requirements and dispose in a facility authorized to accept such wastes. Provide copies of disposal manifests.

The work performed, materials furnished, equipment, labor, tools, and incidentals will be paid for in accordance with Item 446, "Field Cleaning and Painting Steel."

- 10.2. **Removal and Disposal of Painted Steel.** Painted steel will be disposed of at a steel recycling or smelting facility unless otherwise shown on the plans. If the paint contains hazardous materials, maintain and make available to the Engineer invoices and other records obtained from the facility showing the received weight of the steel and the facility name.

For steel that is dismantled by unbolting, no paint stripping will be required. Use care to not damage existing paint. When dismantling is performed using flame or saw-cutting methods to remove steel elements coated with paint containing hazardous materials, the plans will show stripping locations.

The work provided, materials furnished, equipment, labor, tools, and incidentals will be paid for in accordance with Item 496, "Removing Structures," and Item 497, "Sale of Salvagable Material."

- 10.3. **Asbestos Requirements.** The plans will indicate locations or elements where asbestos containing materials (ACM) have been found. At locations where previously unknown ACM has been found, the Owner will arrange for abatement by a third party. For work at these locations, notify the Engineer of proposed dates of demolition or removal of structural elements with ACM at least 60 days before work is to begin to allow the Owner enough time to abate the asbestos.

- 10.4. **Work Performed by a Third Party.** When the work for removal of paint or asbestos abatement is to be provided by a third party, coordinate and cooperate with the third party and the Owner. Continue other work detailed on the plans not directly involved in the paint removal or asbestos abatement work. Provide notice to the Owner regarding the progress of the work to allow the Owner enough time to schedule the third party work.

11. SURPLUS MATERIALS

Take ownership of surplus materials unless otherwise shown on the plans or as directed by the Engineer. Remove and dispose of materials in accordance with federal, state, and local regulations. If requested, provide an appropriate level of documentation to verify proper disposal. When materials are disposed of on private property, provide written authorization from the property owner for the use of the property for this purpose upon request.

Item 7L

Legal Relations and Responsibilities



1. SAFETY

- 1.1. **Point of Contact.** Designate a Contractor Safety Point of Contact (CSPOC). The Owner will assign an Owner employee for their point of contact designated as Owner's Safety Point of Contact OSPOC. The CSPOC will ensure that the Contractor's and Subcontractor's employees' use the appropriate personal protection equipment (hard hats, safety vests, protective toe footwear, etc.).

The CSPOC will ensure that crew leaders and foremen (including subcontractors) have attended the required training.

- 1.2. **Safety Preconstruction Meeting.** In cooperation with the Engineer, schedule and attend a safety preconstruction meeting (may be a part of the preconstruction conference in Article 4.2., "Preconstruction Conference." Attendees for this safety preconstruction meeting will be:

- the Contractor,
- subcontractors,
- Owner,
- local law enforcement, and
- other personnel that play an active role on the project.

- 1.3. **Public Safety and Convenience.** Ensure the safety and convenience of the public and property as provided in the Contract and as directed by the Engineer. Keep existing roadways open to traffic or construct and maintain detours and temporary structures for safe public travel. Manage construction to minimize disruption to traffic. Maintain the roadway in a good and passable condition, including proper drainage and provide for ingress and egress to adjacent property.

Store all equipment not in use in a manner and at locations that will not interfere with the safe passage of traffic.

Provide qualified flaggers in accordance with Item 502.2.2., "Flaggers," for the safety and convenience of the traveling public and workers, as directed.

If the Engineer determines that any of the requirements of this article have not been met, the Engineer may take any necessary corrective action. This will not change the legal responsibilities set forth in the Contract. The cost to the Owner for this work will be deducted from any money due or to become due to the Contractor.

- 1.4. **Use of Blue Warning Lights.** Texas Transportation Code 547.105 authorizes the use of warning lights to promote safety and provides an effective means of gaining the travelling public's attention as they drive in areas where construction crews are present. In order to influence the public to move over when high risk construction activities are taking place, minimize the utilization of blue warning lights. These lights must be used only while performing work on or near the travel lanes or shoulder where the travelling public encounters construction crews that are not protected by a standard work zone set up such as a lane closure, shoulder closure, or one-way traffic control. Refrain from leaving the warning lights engaged while travelling from one work location to another or while parked on the right of way away from the pavement or a work zone.

- 1.5. **Barricades, Warning and Detour Signs, and Traffic Handling.** Provide, install, move, replace, maintain, clean, and remove all traffic control devices in accordance with the traffic control devices specifications and as shown on the plans and as directed. If details are not shown on the plans, provide devices and work in

accordance with the TMUTCD and as directed by the Engineer. When authorized or directed by the Engineer, provide additional signs or traffic control devices not required by the plans.

If an unexpected situation arises that causes the Contractor to believe that the traffic control should be changed, make all reasonable efforts to promptly contact the Engineer. Take prudent actions until the Engineer can be contacted.

The Engineer may authorize or direct in writing the removal or relocation of project limit advance warning signs. When project limit advance warning signs are removed before final acceptance, traffic control in accordance with the TMUTCD may be used for minor operations as approved. Removal or relocation of project limit advance warning signs does not imply final acceptance.

2. LAWS TO BE OBSERVED

Comply with all federal, state, and local laws, ordinances, and regulations that affect the performance of the work. Indemnify and save harmless the Owner and its representatives against any claim arising from violation by the Contractor of any law, ordinance, or regulation.

This Contract is between the Owner and the Contractor only. No person or entity may claim third-party beneficiary status under this Contract or any of its provisions, nor may any non-party sue for personal injuries or property damage under this Contract.

3. PERMITS, LICENSES, AND TAXES

Procure all permits and licenses; pay all charges, fees, and taxes; and give all notices necessary and incidental to the due and lawful prosecution of work, except for permits provided by the Owner and as specified in Article 7.6., "Preservation of Cultural and Natural Resources and the Environment."

4. PATENTED DEVICES, MATERIAL, AND PROCESSES

Indemnify and save harmless the Owner from any claims for infringement from the Contractor's use of any patented design, device, material, process, trademark, or copyright selected by the Contractor and used in connection with the work. Indemnify and save harmless the Owner against any costs, expenses, or damages that it may be obliged to pay, by reason of this infringement, at any time during the prosecution or after the completion of the work.

5. PERSONAL LIABILITY OF PUBLIC OFFICIALS

Owner employees are agents and representatives of the Owner and will incur no liability, personal or otherwise, in carrying out the provisions of the Contract or in exercising any power or authority granted under the Contract.

6. PRESERVATION OF CULTURAL AND NATURAL RESOURCES AND THE ENVIRONMENT

If the Contractor initiates changes to the Contract and the Owner approves the changes, the Contractor is responsible for obtaining clearances and coordinating with the appropriate regulatory agencies.

6.1. **Cultural Resources.** Cease all work immediately if a site, building, or location of historical, archeological, educational, or scientific interest is discovered within the right of way. The site, building, or location will be investigated and evaluated by the Owner.

6.2. **Texas Pollutant Discharge Elimination System (TPDES) Permits and Storm Water Pollution Prevention Plans (SWP3).** The Owner will file the Notice of Intent (NOI) and the Notice of Termination (NOT) for work shown on the plans in the right of way. Adhere to all requirements of the SWP3.

- 6.3. **Work in Waters of the United States.** For work in the right of way, the Owner will obtain any required Section 404 permits from the U.S. Army Corps of Engineers before work begins. Adhere to all agreements, mitigation plans, and standard best management practices required by the permit. When Contractor-initiated changes in the construction method changes the impacts to waters of the U.S., obtain new or revised Section 404 permits.
- 6.4. **Work in Navigable Waters of the United States.** For work in the right of way, the Owner will obtain any required Section 9 permits from the U.S. Coast Guard before work begins. Adhere to the stipulations of the permits and associated best management practices. When Contractor-initiated changes in the construction method changes the impacts to navigable waters of the U.S., obtain new or revised Section 9 permits.
- 6.5. **Work Over the Recharge or Contributing Zone of Protected Aquifers.** Make every reasonable effort to minimize the degradation of water quality resulting from impacts relating to work over the recharge or contributing zones of protected aquifers, as defined and delineated by the TCEQ. Use best management practices and perform work in accordance with Contract requirements.
- 6.6. **Project-Specific Locations.** For all project-specific locations (PSLs) on or off the right of way (material sources, waste sites, parking areas, storage areas, field offices, staging areas, haul roads, etc.), signing the Contract certifies compliance with all applicable laws, rules, and regulations pertaining to the preservation of cultural resources, natural resources, and the environment as issued by the following or other agencies:
- Occupational Safety and Health Administration,
 - Texas Commission on Environmental Quality,
 - Texas Department of Transportation,
 - Texas Historical Commission,
 - Texas Parks and Wildlife Department,
 - Texas Railroad Commission,
 - U.S. Army Corps of Engineers,
 - U.S. Department of Energy,
 - U.S. Department of Transportation,
 - U.S. Environmental Protection Agency,
 - U.S. Federal Emergency Management Agency, and
 - U.S. Fish and Wildlife Service.

All subcontractors must also comply with applicable environmental laws, rules, regulations, and requirements in the Contract. Maintain documentation of certification activities including environmental consultant reports, Contractor documentation on certification decisions and contacts, and correspondence with the resource agencies. Provide documentation upon request.

Obtain written approval from the Engineer for all PSLs in the right of way not specifically addressed on the plans. Prepare an SWP3 for all Contractor facilities, such as asphalt or concrete plants located within public right of way. Comply with all TCEQ permit requirements for portable facilities, such as concrete batch plants, rock crushers, asphalt plants, etc. Address all environmental issues, such as Section 404 permits, wetland delineation, endangered species consultation requirements, or archeological and historic site impacts. Obtain all permits and clearances in advance.

7. AGRICULTURAL IRRIGATION

Regulate the sequence of work and make provisions as necessary to provide for agricultural irrigation or drainage during the work. Meet with the Irrigation District or land owner to determine the proper time and sequence when irrigation demands will permit shutting-off water flows to perform work.

Unless otherwise provided on the plans, the work performed under this article will not be measured or paid for directly but will be subsidiary to pertinent items.

8. SANITARY PROVISIONS

Provide and maintain adequate, neat, and sanitary toilet accommodations for employees, including Owner employees, in compliance with the requirements and regulations of the Texas Department of Health or other authorities with jurisdiction.

9. ABATEMENT AND MITIGATION OF EXCESSIVE OR UNNECESSARY NOISE

Minimize noise throughout all phases of the Contract. Exercise particular and special efforts to avoid the creation of unnecessary noise impact on adjacent noise sensitive receptors in the placement of non-mobile equipment such as air compressors, generators, pumps, etc. Place mobile and stationary equipment to cause the least disruption of normal adjacent activities.

All equipment associated with the work must be equipped with components to suppress excessive noise and these components must be maintained in their original operating condition considering normal depreciation. Noise-attenuation devices installed by the manufacturer such as mufflers, engine covers, insulation, etc. must not be removed nor rendered ineffectual nor be permitted to remain off the equipment while the equipment is in use.

10. USING EXPLOSIVES

Do not endanger life or property. The contractor is required to submit a written Blasting Plan if required by the plans or requested by the Engineer. The Owner retains the right to reject the blasting plan. Store all explosives securely and clearly mark all storage places with "DANGER – EXPLOSIVES." Store, handle, and use explosives and highly flammable material in compliance with federal, state, and local laws, ordinances, and regulations. Assume liability for property damage, injury, or death resulting from the use of explosives.

Give at least a 48-hr. advance notice to the appropriate Road Master before doing any blasting work involving the use of electric blasting caps within 200 ft. of any railroad track.

11. RESPONSIBILITY FOR HAZARDOUS MATERIALS

Indemnify and save harmless the Owner and its agents and employees from all suits, actions, or claims and from all liability and damages for any injury or damage to any person or property arising from the generation or disposition of hazardous materials introduced by the Contractor on any work done by the Contractor on Owner-owned or controlled sites. Indemnify and save harmless the Owner and its representatives from any liability or responsibility arising out of the Contractor's generation or disposition of any hazardous materials obtained, processed, stored, shipped, etc., on sites not owned or controlled by the Owner. Reimburse the Owner for all payments, fees, or restitution the Owner is required to make as a result of the Contractor's actions.

12. ASBESTOS CONTAINING MATERIAL

In Texas, the Department of State Health Services (DSHS), Asbestos Programs Branch, is responsible for administering the requirements of the National Emissions Standards for Hazardous Air Pollutants, 40 CFR, Subpart M (NESHAP) and the Texas Asbestos Health Protection Rules (TAHPR). Based on EPA guidance and regulatory background information, bridges are considered to be a regulated "facility" under NESHAP. Therefore, federal standards for demolition and renovation apply.

Provide notice to the Owner of demolition or renovation to the structures listed on the plans at least 30 calendar days before initiating demolition or renovation of each structure or load bearing member. Provide the scheduled start and completion date of structure demolition, renovation, or removal.

When demolition, renovation, or removal of load-bearing members is planned for several phases, provide the start and completion dates identified by separate phases.

DSHS requires that notifications be postmarked at least 10 working days before initiating demolition or renovation. If the date of actual demolition, renovation, or removal is changed, the Owner will be required to notify DSHS at least 10 days in advance of the work. This notification is also required when a previously scheduled (notification sent to DSHS) demolition, renovation, or removal is delayed. Therefore, if the date of actual demolition, renovation, or removal is changed, provide the Engineer, in writing, the revised dates in enough time to allow for the Owner's notification to DSHS to be postmarked at least 10 days in advance of the actual work.

Failure to provide the above information may require the temporary suspension of work under Article 8.4., "Temporary Suspension of Work or Working Day Charges," due to reasons under the control of the Contractor. The Owner retains the right to determine the actual advance notice needed for the change in date to address post office business days and staff availability.

13. RESTORING SURFACES OPENED BY PERMISSION

Do not authorize anyone to make an opening in the highway for utilities, drainage, or any other reason without written permission by the Engineer. Repair all openings as directed by the Engineer. Payment for repair of surfaces opened by permission will be made in accordance with pertinent items or Article 4.4., "Changes in the Work." Costs associated with openings made with Contractor authorization but without Owner approval will not be paid.

14. PROTECTING ADJACENT PROPERTY

Protect adjacent property from damage. If any damage results from an act or omission on the part of or on behalf of the Contractor, take corrective action to restore the damaged property to a condition similar or equal to that existing before the damage was done.

15. RESPONSIBILITY FOR DAMAGE CLAIMS

Indemnify and save harmless the Owner and its agents and employees from all suits, actions, or claims and from all liability and damages for any injury or damage to any person or property due to the Contractor's negligence in the performance of the work and from any claims arising or amounts recovered under any laws, including workers' compensation and the Texas Tort Claims Act. Indemnify and save harmless the Owner and assume responsibility for all damages and injury to property of any character occurring during the prosecution of the work resulting from any act, omission, neglect, or misconduct on the Contractor's part in the manner or method of executing the work; from failure to properly execute the work; or from defective work or material.

Pipelines and other underground installations that may or may not be shown on the plans may be located within the right of way. Indemnify and save harmless the Owner from any suits or claims resulting from damage by the Contractor's operations to any pipeline or underground installation. Make available the scheduled sequence of work to the respective utility owners so that they may coordinate and schedule adjustments of their utilities that conflict with the proposed work.

16. HAULING AND LOADS ON ROADWAYS AND STRUCTURES

Comply with federal and state laws concerning legal gross and axle weights. Except for the designated Interstate system, vehicles with a valid yearly overweight tolerance permit may haul materials to the work locations at the permitted load. Provide copies of the yearly overweight tolerance permits to the Engineer upon request. Construction equipment is not exempt from oversize or overweight permitting requirements on roadways open to the traveling public.

Protect existing bridges and other structures that will remain in use by the traveling public during and after the completion of the Contract. Construction traffic on roadways, bridges, and culverts within the limits of the work, including any structures under construction that will remain in service during and after completion of the Contract is subject to legal size and weight limitations.

Additional temporary fill may be required by the Engineer for hauling purposes for the protection of certain structures. This additional fill will not be paid directly but will be subsidiary.

Replace or restore to original condition any structure damaged by the Contractor's operations.

The Engineer may allow equipment with oversize or non-divisible overweight loads to operate without a permit within the work locations on pavement structures not open to the traveling public. Submit Contractor-proposed changes to traffic control plans for approval, in accordance with Item 502, "Barricades, Signs, and Traffic Handling." The following sections further address overweight allowances. The Owner will make available to the Contractor any available plans and material reports for existing structures.

- 16.1. **Overweight Construction Traffic Crossing Structures.** The Engineer may allow crossing of a structure not open to the public within the work locations, when divisible or non-divisible loads exceed legal weight limitations, including limits for load-posted bridges. Obtain written permission to make these crossings. Submit for approval a structural analysis by a licensed professional engineer indicating that the excessive loads should be allowed. Provide a manufacturer's certificate of equipment weight that includes the weight distribution on the various axles and any additional parts such as counterweights, the configuration of the axles, or other information necessary for the analysis. Submit the structural analysis and supporting documentation sufficiently in advance of the move to allow for review. Permission may be granted if the Engineer finds that no damage or overstresses in excess of those normally allowed for occasional overweight loads will result to structures that will remain in use after Contract completion. Provide temporary matting or other protective measures as directed.

Schedule loads so that only one vehicle is on any span or continuous unit at any time. Use barricades, fences, or other positive methods to prevent other vehicular access to structures at any time the overweight load is on any span or continuous unit.

- 16.2. **Construction Equipment Operating on Structures.** Cranes and other construction equipment used to perform construction operations that exceed legal weight limits may be allowed on structures. Before any operation that may require placement of equipment on a structure, submit for approval a detailed structural analysis prepared by a licensed professional engineer.

Submit the structural analysis and supporting documentation sufficiently in advance of the use to allow for review and approval. Include all axle loads and configurations, spacing of tracks or wheels, tire loads, outrigger placements, center of gravity, equipment weight, and predicted loads on tires and outriggers for all planned movements, swings, or boom reaches. The analysis must demonstrate that no overstresses will occur in excess of those normally allowed for occasional overweight loads.

- 16.3. **Loads on Structures.** Do not store or stockpile material on bridge structures without written permission. If required, submit a structural analysis and supporting documentation by a licensed professional engineer for review. Permission may be granted if the Engineer finds that no damage or overstresses in excess of those normally allowed for occasional overweight loads will result to structures that will remain in use after Contract completion. Provide temporary matting or other protective measures as directed.

- 16.4. **Hauling Divisible Overweight Loads on Pavement Within the Work Locations.** The Engineer may allow divisible overweight loads on pavement structures within the work locations not open to the traveling public. Obtain written approval before hauling the overweight loads. Include calculations to demonstrate that there will be no damage or overstress to the pavement structure.

17. CONTRACTOR'S RESPONSIBILITY FOR WORK

Until final acceptance of the Contract, take every precaution against injury or damage to any part of the work by the action of the elements or by any other cause, whether arising from the execution or from the nonexecution of the work. Protect all materials to be used in the work at all times, including periods of suspension.

When any roadway or portion of the roadway is in suitable condition for travel, it may be opened to traffic as directed. Opening of the roadway to traffic does not constitute final acceptance.

Repair damage to all work until final acceptance. Repair damage to existing facilities in accordance with the Contract or as directed. Repair damage to existing facilities or work caused by Contractor operations at the Contractor's expense. Repair work for damage that was not due to the Contractor's operations will not be paid for except as provided below.

- 17.1. **Reimbursable Repair.** Except for damage to appurtenances listed in Section 7.17.2.1., "Unreimbursed Repair," the Contractor will be reimbursed for repair of damage caused by:
- motor vehicle, watercraft, aircraft, or railroad-train incident;
 - vandalism; or
 - Acts of God, such as earthquake, tidal wave, tornado, hurricane, or other cataclysmic phenomena of nature.

17.2. **Appurtenances.**

- 17.2.1. **Unreimbursed Repair.** Except for destruction (not reusable) due to hurricanes, reimbursement will not be made for repair of damage to the following temporary appurtenances, regardless of cause:
- signs,
 - barricades,
 - changeable message signs, and
 - other work zone traffic control devices.

Crash cushion attenuators and guardrail end treatments are the exception to the above listing and are to be reimbursed in accordance with Section 7.17.2.2., "Reimbursed Repair."

For the devices listed in this section, reimbursement may be made for damage due to hurricanes. Where the Contractor retains replaced appurtenances after completion of the project, the Owner will limit the reimbursement to the cost that is above the salvage value at the end of the project.

- 17.2.2. **Reimbursed Repair.** Reimbursement will be made for repair of damage due to the causes listed in Section 7.17.1., "Reimbursable Repair," to appurtenances (including temporary and permanent crash cushion attenuators and guardrail end treatments).

- 17.3. **Roadways and Structures.** Until final acceptance, the Contractor is responsible for all work constructed under the Contract. The Owner will not reimburse the Contractor for repair work to new construction, unless the failure or damage is due to one of the causes listed in Section 7.17.1., "Reimbursable Repair."

The Owner will be responsible for the cost for repair of damage to existing roadways and structures not caused by the Contractor's operations.

- 17.4. **Detours.** The Contractor will be responsible for the cost of maintenance of detours constructed under the Contract, unless the failure or damage is due to one of the causes listed in Section 7.17.1., "Reimbursable Repair." The Engineer may consider failures beyond the Contractor's control when determining reimbursement for repairs to detours constructed. The Owner will be responsible for the cost of maintenance of existing streets and roadways used for detours or handling traffic.

- 17.5. **Relief from Maintenance.** The Engineer may relieve the Contractor from responsibility of maintenance as outlined in this section. This relief does not release the Contractor from responsibility for defective materials or work or constitute final acceptance.

- 17.5.1. **Isolated Work Locations.** For isolated work locations, when all work is completed, including work for Article 5.11., "Final Cleanup," the Engineer may relieve the Contractor from responsibility for maintenance.

- 17.5.2. **Work Except for Vegetative Establishment and Test Periods.** When all work for all or isolated work locations has been completed, including work for Article 5.11., "Final Cleanup," with the exception of vegetative establishment and maintenance periods and test and performance periods, the Engineer may relieve the Contractor from responsibility for maintenance of completed portions of work.
- 17.5.3. **Work Suspension.** When all work is suspended for an extended period of time, the Engineer may relieve the Contractor from responsibility for maintenance of completed portions of work during the period of suspension.
- 17.5.4. **When Directed by the Engineer.** The Engineer may relieve the Contractor from the responsibility for maintenance when directed.
- 17.6. **Basis of Payment.** When reimbursement for repair work is allowed and performed, payment will be made in accordance with pertinent items or Article 4.4., "Changes in the Work."

18. ELECTRICAL REQUIREMENTS

18.1. Definitions.

18.1.1. **Electrical Work.** Electrical work is work performed for:

- Item 610, "Roadway Illumination Assemblies,"
- Item 614, "High Mast Illumination Assemblies,"
- Item 616, "Performance Testing of Lighting Systems,"
- Item 617, "Temporary Roadway Illumination,"
- Item 618, "Conduit,"
- Item 620, "Electrical Conductors,"
- Item 621, "Tray Cable,"
- Item 622, "Duct Cable,"
- Item 628, "Electrical Services,"
- Item 680, "Highway Traffic Signals,"
- Item 681, "Temporary Traffic Signals,"
- Item 684, "Traffic Signal Cables,"
- Item 685, "Roadside Flashing Beacon Assemblies,"
- other items that involve either the distribution of electrical power greater than 50 volts or the installation of conduit and duct banks,
- the installation of conduit and wiring associated with Item 624, "Ground Boxes," and Item 656, "Foundations for Traffic Control Devices," and
- the installation of the conduit system for communication and fiber optic cable.

Electrical work does not include the installation of communications or fiber optic cable, or the connections for low voltage and inherently power limited circuits such as electronic or communications equipment. Assembly and placement of poles, structures, cabinets, enclosures, manholes, or other hardware will not be considered electrical work as long as no wiring, wiring connections, or conduit work is done at the time of assembly and placement.

18.1.2. **Specialized Electrical Work.** Specialized electrical work is work that includes the electrical service and feeders, sub-feeders, branch circuits, controls, raceways, and enclosures for the following:

- pump stations,
- moveable bridges,
- ferry slips,
- motor control centers,
- facilities required under Item 504, "Field Office and Laboratory,"

- rest area or other public buildings,
- weigh-in-motion stations,
- electrical services larger than 200 amps,
- electrical services with main or branch circuit breaker sizes not shown in the Contract, and
- any 3-phase electrical power.

18.1.3. **Certified Person.** A certified person is a person who has passed the test from the TxDOT course TRF450, "TxDOT Roadway Illumination and Electrical Installations," or other courses as approved by the Owner. Submit a current and valid certification upon request.

18.1.4. **Licensed Electrician.** A licensed electrician is a person with a current and valid unrestricted master electrical license, or unrestricted journeyman electrical license that is supervised or directed by an unrestricted master electrician. An unrestricted master electrician need not be on the work locations at all times electrical work is being done, but the unrestricted master electrician must approve work performed by the unrestricted journeyman. Licensed electrician requirements by city ordinances do not apply to on state system work.

The unrestricted journeyman and unrestricted master electrical licenses must be issued by the Texas Department of Licensing and Regulation or by a city in Texas with a population of 50,000 or greater that issues licenses based on passing a written test and demonstrating experience.

The Engineer may accept other states' electrical licenses. Submit documentation of the requirements for obtaining that license. Acceptance of the license will be based on sufficient evidence that the license was issued based on:

- passing a test based on the NEC similar to that used by Texas licensing officials, and
- sufficient electrical experience commensurate with general standards for an unrestricted master and unrestricted journeyman electrician in the State of Texas.

18.2. **Work Requirements.** The qualifications required to perform electrical work and specialized electrical work are listed in Table 2.

Table 2
Work Requirements

Type of Work	Qualifications to Perform Work
Electrical work with plans	Licensed electrician, certified person, or workers directly supervised by a licensed electrician or certified person
Electrical work without plans	Licensed electrician or workers directly supervised by a licensed electrician
Specialized electrical work	Licensed electrician or workers directly supervised by a licensed electrician
Replace lamps, starting aids, and changing fixtures	Licensed electrician, certified person, or workers directly supervised by a licensed electrician or certified person
Conduit in precast section with approved working drawings	Inspection by licensed electrician or certified person
Conduit in cast-in-place section	Inspection by licensed electrician or certified person
All other electrical work (troubleshooting, repairs, component replacement, etc.)	Licensed electrician or workers directly supervised by a licensed electrician

A licensed electrician must be physically present during all electrical work when Table 2 states that workers are to be directly supervised by a licensed electrician or certified person.

A non-certified person may install conduit in cast-in-place concrete sections if the work is verified by a certified person before concrete placement.

When the plans specify IMSA certification, the requirements of Table 2 will still apply to the installation of the conduit, ground boxes, electrical services, pole grounding, and electrical conductors installed under Item 620, "Electrical Conductors."

Item 8L

Prosecution and Progress



1. PROSECUTION OF WORK

Working day charges will begin 90 calendar days after the date of the written authorization to begin work, or on the first day that all utility relocations are complete, if this occurs during the 90 day period.

Prosecute the work continuously to completion within the working days specified except for as follows: The County may suspend work under this contract due to utility relocations and/or adjustments for a maximum of 90 calendar days. The suspension may be used at one time or broken into no more than 4 suspensions totaling a maximum of 90 calendar days. The Engineer and the Contractor may mutually agree, in writing, to increase or decrease this maximum number of days. The Contractor shall not be entitled to additional compensation due to delays within these 90 calendar days.

2. SUBCONTRACTING

Do not sublet any portion of a construction Contract without the Engineer's written approval. A subcontract does not relieve any responsibility under the Contract and bonds. Ensure that all subcontracted work complies with all governing labor provisions. All work performed for the Contractor by a Subcontractor shall be pursuant to an appropriate written agreement between the Contractor and the Subcontractor (and where appropriate between subcontractors and Sub-contractors) which shall contain provisions that:

- preserve and protect the rights of the County, the Inspector, and the Engineer of Record under the contract with respect to the Work to be performed under the subcontract so that the subcontracting thereof will not prejudice such rights;
- require that such work be performed in accordance with the requirements of the Contract Documents;
- require submission to the Contractor of the applications for payment under each subcontract to which the Contractor is a party, in reasonable time to enable the Contractor to apply for payment in accordance with the Contract Documents;
- require that all claims for additional costs, extensions of time, damages for delays or otherwise with respect to subcontracted portions of the Work shall be submitted to the Contractor (via any Subcontractor or Sub-subcontractor where appropriate) in sufficient time so that the Contractor may comply in the manner provided in the Contract Documents for like claims by the Contractor upon the County;
- obligate each subcontractor specifically to consent to the provisions of this article.

A copy of all such signed subcontract agreements shall be filed by the Contractor with the Inspector before the Subcontractor shall be allowed to commence work.

The Contractor certifies by signing the Contract that the Contractor will not enter into any subcontract with a subcontractor that is debarred or suspended by the Owner, or any state or federal agency.

For federally funded Contracts, ensure the required federal documents are physically attached to each subcontract agreement including all tiered subcontract agreements.

For all DBE/HUB/SBE subcontracts including all tiered DBE/HUB/SBE subcontracts, submit a copy of the executed subcontract agreement.

Submit a copy of the executed non-DBE subcontracts including all tiered non-DBE subcontracts when requested.

- 2.1. **Construction Contracts.** Perform work with own organization on at least 30% of the total original Contract cost (25% if the Contractor is an SBE on a wholly State or local funded Contract) excluding any items determined to be specialty items. Specialty items are those that require highly specialized knowledge, abilities, or equipment not usually available in the contracting firm expected to bid on the proposed Contract as a whole.

Specialty items will be shown on the plans or as directed by the Engineer. Bid cost of specialty items performed by subcontractors will be deducted from the total original Contract cost before computing the required amount of work to be performed by the Contractor's own organization.

The term "perform work with own organization" includes only:

- workers employed and paid directly by the Contractor or wholly owned subsidiary;
- equipment owned by the Contractor or wholly owned subsidiary;
- rented or leased equipment operated by the Contractor's employees or wholly owned subsidiary's employees;
- materials incorporated into the work if the majority of the value of the work involved in incorporating the material is performed by the Contractor's own organization, including a wholly owned subsidiary's organization; and
- labor provided by staff leasing firms licensed under Chapter 91 of the Texas Labor Code for nonsupervisory personnel if the Contractor or wholly owned subsidiary maintains direct control over the activities of the leased employees and includes them in the weekly payrolls.

When staff leasing firms provide materials or equipment, they are considered subcontractors. In these instances, submit staff leasing firms for approval as a subcontractor.

Copies of cancelled checks and certified statements may be required to verify compliance with the requirements of this section.

- 2.2. **Payments to Subcontractors.** Report payments for DBE/HUB/SBE subcontracts including tiered DBE/HUB/SBE subcontracts in the manner as prescribed by the Owner.

- 2.3. **Payment Records.** Make payment records, including copies of cancelled checks, available for inspection by the Owner. Submit payment records upon request. Retain payment records for a period of 3 yr. following completion of the Contract work or as specified by the Owner.

Failure to submit this information to the Engineer by the 20th day of each month will result in the Owner taking actions, including, but not limited to, withholding estimates and suspending the work. This work will not be measured or paid for directly but will be subsidiary to pertinent items.

3. COMPUTATION OF CONTRACT TIME FOR COMPLETION

Upon request, the Engineer will provide the conceptual time determination schedule to the Contractor for informational purposes only. The schedules assume generic resources, production rates, sequences of construction and average weather conditions based on historic data. The Owner will not adjust the number of working days and milestones, if any, due to differences in opinion regarding any assumptions made in the preparation of the schedule or for errors, omissions, or discrepancies found in the Owner's conceptual time schedule.

The number of working days is established by the Contract. Working day charges will begin 30 calendar days after the date of the written authorization to begin work. Working day charges will continue in accordance with the Contract. The Engineer may consider increasing the number of working days under extraordinary circumstances.

- 3.1. **Working Day Charges.** Working days will be charged in accordance with Section 8.3.1.4., "Standard Workweek," unless otherwise shown in the Contract documents. Working days will be computed and charged in accordance with one of the following:
- 3.1.1. **Five-Day Workweek.** Working days will be charged Monday through Friday, excluding national holidays, regardless of weather conditions or material availability. The Contractor has the option of working on Saturdays. Provide sufficient advance notice when scheduling work on Saturdays. Work on Sundays and national holidays will not be permitted without written permission. If work requiring an Inspector to be present is performed on a Saturday, Sunday, or national holiday, and weather and other conditions permit the performance of work for 7 hr. between 7 A.M. and 6 P.M., a working day will be charged.
- 3.1.2. **Six-Day Workweek.** Working days will be charged Monday through Saturday, excluding national holidays, regardless of weather conditions or material availability. Work on Sundays and national holidays will not be permitted without written permission. If work requiring an Inspector to be present is performed on a Sunday or a national holiday, and weather or other conditions permit the performance of work for 7 hr. between 7 A.M. and 6 P.M., a working day will be charged.
- 3.1.3. **Seven-Day Workweek.** Working days will be charged Monday through Sunday, excluding national holidays, regardless of weather conditions or material availability. Work on national holidays will not be permitted without written permission. If work is performed on any of these holidays requiring an Inspector to be present, and weather or other conditions permit the performance of work for 7 hr. between 7 A.M. and 6 P.M., a working day will be charged.
- 3.1.4. **Standard Workweek.** Working days will be charged Monday through Friday, excluding national or state holidays, if weather or other conditions permit the performance of the principal unit of work underway, as determined by the Engineer, for a continuous period of at least 7 hr. between 7 A.M. and 6 P.M., unless otherwise shown in the Contract. The Contractor has the option of working on Saturdays or state holidays. Provide sufficient advance notice to the Engineer when scheduling work on Saturdays. Work on Sundays and national holidays will not be permitted without written permission. If work requiring an Inspector to be present is performed on a Saturday, Sunday, or holiday, and weather or other conditions permit the performance of work for 7 hr. between 7 A.M. and 6 P.M., a working day will be charged.
- Should the Contractor be delayed in the completion of the Work by any act or neglect of the County, the Inspector or the Engineer of Record, or of any employee of either, or by other contractors employed by the County, or by changes ordered in the Work, or by strikes, lockouts, fires, and unusual delays by common carriers, or unavoidable cause or causes beyond the Contractor's control, or by any cause which the Inspector shall decide justifies the delay, then an extension of time shall be allowed for completing the Work, sufficient to compensate for the delay, the amount of the extension to be determined by the Inspector; provided, however, before the Inspector may decide whether or not to allow such an extension of time, the Contractor must tender a prompt written request for an extension of time wherein the Contractor shall give the Inspector a written description of the cause of such delay.
- No claims shall be made by the Contractor for damages resulting from hindrances or delays from any cause (except where the Work is stopped by order of and for the convenience of the County) during the progress of any portion of the Work embraced in the Contract Documents. In case said work shall be stopped by the act of the County, then such expense, as in the sole judgment of the Inspector is caused by such stoppage of said work, shall be paid by the County to the Contractor.
- 3.1.5. **Calendar Day.** Working days will be charged Sunday through Saturday, including all holidays, regardless of weather conditions, material availability, or other conditions not under the control of the Contractor.

- 3.1.6. **Other.** Working days will be charged as shown in the Contract documents.
- 3.2. **Restricted Work Hours.** Restrictions on Contractor work hours and the related definition for working day charges are as prescribed in this article unless otherwise shown in the Contract documents.
- 3.3. **Nighttime Work.** Nighttime work is allowed only when shown in the Contract documents or as directed. Nighttime work is defined as work performed from 30 min. after sunset to 30 min. before sunrise.
- 3.3.1. **Five-, Six-, and Seven-Day Workweeks.** Nighttime work that extends past midnight will be assigned to the following day for the purposes of approval for allowing work on Sundays or national holidays.
- 3.3.2. **Standard Workweek.**
- 3.3.2.1. **Nighttime Work Only.** When nighttime work is allowed or required and daytime work is not allowed, working day charges will be made when weather and other conditions permit the performance of the principal unit of work underway, as determined by the Engineer, for a continuous period of at least 7 hr. for the nighttime period, as defined in Section 8.3.3., "Nighttime Work," unless otherwise shown in the Contract documents.
- 3.3.2.2. **Nighttime Work and Daytime Work Requiring Inspector.** When nighttime work is performed or required and daytime work is allowed, working day charges will be made when weather and other conditions permit the performance of the principal unit of work underway, as determined by the Engineer, for a continuous period of at least 7 hr. for the nighttime period, as defined in Section 8.3.3., "Nighttime Work," or for a continuous period of at least 7 hr. for the alternative daytime period unless otherwise shown in the Contract documents. Only one day will be charged for each 24-hr. time period. When the Engineer agrees to restrict work hours to the nighttime period only, working day charges will be in accordance with Section 8.3.3.2.1., "Nighttime Work Only."
- 3.4. **Time Statements.** The Engineer will furnish the Contractor a monthly time statement. Review the monthly time statement for correctness. Report protests in writing, no later than 30 calendar days after receipt of the time statement, providing a detailed explanation for each day protested. Not filing a protest within 30 calendar days will indicate acceptance of the working day charges and future consideration of that statement will not be permitted.

4. **TEMPORARY SUSPENSION OF WORK OR WORKING DAY CHARGES**

The Engineer may suspend the work, wholly or in part, and will provide notice and reasons for the suspension in writing. Suspend and resume work only as directed in writing.

When part of the work is suspended, the Engineer may suspend working day charges only when conditions not under the control of the Contractor prohibit the performance of critical activities. When all of the work is suspended for reasons not under the control of the Contractor, the Engineer will suspend working day charges.

5. **PROJECT SCHEDULES**

Prepare, maintain, and submit project schedules. Project schedules are used to convey the Contractor's intended work plan to the Owner. Prepare project schedules with a level of effort sufficient for the work being performed. Project schedules will not be used as a basis to establish the amount of work performed or for the preparation of the progress payments.

- 5.1. **Project Scheduler.** Designate an individual who will develop and maintain the progress schedule. The Project Scheduler will be prepared to discuss, in detail, the proposed sequence of work and methods of operation, and how that information will be communicated through the Progress Schedule at the Preconstruction Meeting. This individual will also attend the project meetings and make site visits to prepare, develop, and maintain the progress schedules.

5.2. **Construction Details.** Before starting work, prepare and submit a progress schedule based on the sequence of work and traffic control plan shown in the Contract documents. At a minimum, prepare the progress schedule as a Bar Chart or Critical Path Method (CPM), as shown on the plans. Include all planned work activities and sequences and show Contract completion within the number of working days specified. Incorporate major material procurements, known utility relocations, and other activities that may affect the completion of the Contract in the progress schedule. Show a beginning date, ending date, and duration in whole working days for each activity. Do not use activities exceeding 20 working days, except for agreed upon activities. Show an estimated production rate per working day for each work activity.

5.3. **Schedule Format.** Format all project schedules according to the following:

- Begin the project schedule on the date of the start of Contract time or start of activities affecting work on the project;
- Show the sequence and interdependence of activities required for complete performance of the work. If using a CPM schedule, show a predecessor and a successor for each activity; and
- Ensure all work sequences are logical and show a coordinated plan of the work.

CPM schedules must also include:

- Clearly and accurately identify the critical path as the longest continuous path;
- Provide a legend for all abbreviations, run date, data date, project start date, and project completion date in the title block of each schedule submittal; and
- Through the use of calendars, incorporate seasonal weather conditions into the schedule for work (e.g., earthwork, concrete paving, structures, asphalt, drainage, etc.) that may be influenced by temperature or precipitation. Also, incorporate non-work periods such as holidays, weekends, or other non-work days as identified in the Contract.

5.4. **Activity Format.** For each activity on the project schedule provide:

- A concise description of the work represented by the activity;
- An activity duration in whole working days;
- Code activities so that organized plots of the schedule may be produced.

CPM schedules must also include the quantity of work and estimated production rate for major items of work. Provide enough information for review of the work being performed.

5.5. **Schedule Types.**

5.5.1. **Bar Chart.** Seven calendar days before the preconstruction meeting, prepare and submit a hard copy of the schedule using the bar chart method.

5.5.1.1. **Progress Schedule Reviews.** Update the project schedule and submit a hard copy when changes to the schedule occur or when requested.

5.5.2. **Critical Path Method.** Prepare and submit the schedule using the CPM.

5.5.2.1. **Preliminary Schedule.** Seven calendar days before the preconstruction meeting, submit both the plotted and electronic copies of the project schedule showing work to be performed within the first 90 calendar days of the project.

5.5.2.2. **Baseline Schedule.** The baseline schedule will be considered the Contractor's plan to successfully construct the project within the time frame and construction sequencing indicated in the Contract. Submit both plotted and electronic copies of the baseline schedule. Submit 2 plots of the schedule: one organized with the activities logically grouped using the activity coding; and the other plot showing only the critical path determined by the longest path, not based on critical float.

Develop and submit the baseline schedule for review within the first 45 calendar days of the project unless the time for submission is extended.

- 5.5.2.2.1. **Review.** Within 15 calendar days of receipt of the schedule, the Engineer will evaluate, and inform the Contractor if the schedule has been accepted. If the schedule is not accepted, the Engineer will provide comments to the Contractor for incorporation. Provide a revised schedule based on the Engineer's comments, or reasons for not doing so within 10 calendar days. The Engineer's review and acceptance of the project schedule is for conformance to the requirements of the Contract documents only and does not relieve the Contractor of any responsibility for meeting the interim milestone dates (if specified) or the Contract completion date. Review and acceptance does not expressly or by implication warrant, acknowledge, or admit the reasonableness of the logic or durations of the project schedule. If the Contractor fails to define any element of work, activity, or logic and the Engineer's review does not detect this omission or error, the Contractor is responsible for correcting the error or omission.

Submit an acceptable baseline schedule before the 90th calendar day of the project unless the time for submission is extended.

- 5.5.2.3. **Progress Schedule.** Maintain the project schedule for use by both the Contractor and the Engineer. Submit both the plotted and electronic copy as it will become an as-built record of the daily progress achieved on the project. If continuous progress of an activity is interrupted for any reason except non-work periods (such as holidays, weekend, or interference from temperature or precipitation), then the activity will show the actual finish date as that date of the start of the interruption and the activity will be broken into a subsequent activity (or activities, based on the number of interruptions) similarly numbered with successive alpha character as necessary. The original duration of the subsequent activity will be that of the remaining duration of the original activity. Relationships of the subsequent activity will match those of the original activity so that the integrity of the project schedule logic is maintained. Once established, the original durations and actual dates of all activities must remain unchanged. Revisions to the schedule may be made as necessary.

The project schedule must be revised when changes in construction phasing and sequencing occur or other changes that cause deviation from the original project schedule occur. Any revisions to the schedule must be listed in the monthly update narrative with the purpose of the revision and description of the impact on the project schedule's critical path and project completion date. Create the schedule revision using the latest update before the start of the revision.

Monthly updating of the project schedule will include updating of:

- The actual start dates for activities started;
- The actual finish dates for activities completed;
- The percentage of work completed and remaining duration for each activity started but not yet completed; and
- The calendars to show days actual work was performed on the various work activities.

The cut-off day for recording monthly progress will be the last day of each month. Submit the updated project schedule no later than the 20th calendar day of the following month. The Engineer will evaluate the updated schedule within 5 calendar days of receipt and inform the Contractor if it has or has not been accepted. If the schedule is not accepted, the Engineer will provide comments to the Contractor for incorporation. Provide a revised schedule based on the Engineer's comments, or reasons for not doing so within 5 calendar days.

Provide a brief narrative in a bulleted statement format for major items that have impacted the schedule. Notify the Engineer if resource-leveling is being used.

- 5.5.2.3.1. **Project Schedule Summary Report (PSSR).** When shown on the plans, provide the PSSR instead of the narrative required in Section 8.5.5.2.3., "Progress Schedule." The PSSR includes a listing of major items that have impacted the schedule as well as a summary of progress in days ahead or behind schedule. Include an explanation of the project progress for the period represented on the form provided by the Owner.

- 5.5.3. **Notice of Potential Time Impact.** Submit a "Notice of Potential Time Impact" when a Contract time extension or adjustment of milestone dates may be justified or when directed.

Failure to provide this notice in the time frames outlined above will compromise the Owner's ability to mitigate the impacts and the Contractor forfeits the right to request a time extension or adjustment of milestone dates unless the circumstances are such that the Contractor could not reasonably have had knowledge of the impact at the time.

- 5.5.4. **Time Impact Analysis.** When directed, provide a time impact analysis. A time impact analysis is an evaluation of the effects of impacts on the project. A time impact analysis consists of the following steps:

- **Step 1.** Establish the status of the project immediately before the impact.
- **Step 2.** Predict the effect of the impact on the schedule update used in Step 1.
- **Step 3.** Track the effects of the impact on the schedule during its occurrence.
- **Step 4.** Establish the status of the project after the impact's effect has ended and provide details identifying any mitigating actions or circumstances used to keep the project ongoing during the impact period.

Determine the time impact by comparing the status of the work before the impact (Step 1) to the prediction of the effect of the impact (Step 2), if requested, and to actual effects of the impact once it is complete (Step 4). Unless otherwise approved, Steps 1, 3, and 4, must be completed before consideration of a Contract time extension or adjustment of a milestone date will be provided. Time extensions will only be considered when delays that affect milestone dates or the Contract completion date are beyond the Contractor's control. Submit Step 4 no later than 15 calendar days after the impact's effects have ended or when all the information on the effect has been realized.

Submit one electronic backup copy of the complete time impact analysis and a copy of the full project schedule incorporating the time impact analysis. If the project schedule is revised after the submittal of a time impact analysis, but before its approval, indicate in writing the need for any modification to the time impact analysis.

The Engineer will review the time impact analysis upon completion of step 4. If this review detects revisions or changes to the schedule that had not been performed and identified in a narrative, the Engineer may reject the time impact analysis. If the Engineer is in agreement with the time impact analysis, a change order may be issued to grant additional working days, or to adjust interim milestones. Once a change order has been executed, incorporate the time impact analysis into the project schedule. The time impact analysis may also be used to support the settlement of disputes and claims. Compensation related to the time impact analysis may be provided at the completion of the analysis or the completion of the project to determine the true role the impact played on the final completion.

The work performed under this article will not be measured or paid for directly but will be subsidiary to pertinent items.

6. **FAILURE TO COMPLETE WORK ON TIME**

The time established for the completion of the work is an essential element of the Contract. If the Contractor fails to complete the work within the number of working days specified, working days will continue to be charged. Failure to complete the Contract, a separate work order, or callout work within the number of working days specified, including any approved additional working days, will result in liquidated damages for each working day charged over the number of working days specified in the Contract. The dollar amount specified in the Contract will be deducted from any money due or to become due the Contractor for each working day the Contract remains incomplete. This amount will be assessed not as a penalty but as liquidated damages.

Liquidated Damages. If work is not substantially complete within the contract time, the Contractor shall pay to the Owner as fixed, agreed, and liquidated damages (it being impossible to determine the actual damages

occasioned by the delay) the amount of \$750 (seven hundred fifty dollars) for each calendar day of delay, until the work is completed. The Contractor and Contractor's sureties shall be liable to the Owner for the amount thereof.

Excusable Delays. The right of the Contractor to proceed shall not be terminated nor shall the Contractor be charged with liquidated damages for any delays in the completion of the work due to:

- Any acts of the Government, including controls or restrictions upon or requisitioning of materials, equipment, tools, or labor by reason of war, national defense, or any other national emergency;
- Any acts of the County;
- Causes not reasonably foreseeable by the parties to this Contract at the time of execution which are beyond the control and without the fault or negligence of the Contractor, including, but not restricted to, acts of God, terrorism, war, acts of another Contractor in the performance of some other contract with the County, fires, floods, epidemics, quarantine, restrictions, strikes, freight embargoes, and weather of unusual severity such as hurricanes, tornadoes, cyclones and other extreme weather conditions;

Provided, however, that the Contractor promptly notifies the City/County within ten (10) days in writing of the cause of the delay. Upon receipt of such notification, the City/County shall ascertain the facts and the cause and extent of delay. If, upon the basis of the facts and the terms of this contract, the delay is properly excusable, the County shall extend the time for completing the work for a period of time commensurate with the period of excusable delay.

7. DEFAULT OF THE CONTRACT

7.1. **Declaration of Default.** The Engineer may declare the Contractor to be in default of the Contract if the Contractor:

- fails to begin the work within the number of days specified,
- fails to prosecute the work to assure completion within the number of days specified,
- is uncooperative, disruptive or threatening,
- fails to perform the work in accordance with the Contract requirements,
- neglects or refuses to remove and replace rejected materials or unacceptable work,
- discontinues the prosecution of the work without the Engineer's approval,
- makes an unauthorized assignment,
- fails to resume work that has been discontinued within a reasonable number of days after notice to do so,
- fails to conduct the work in an acceptable manner, or
- commits fraud or other unfixable conduct as determined by the Owner.

If any of these conditions occur, the Engineer will give notice in writing to the Contractor and the Surety of the intent to declare the Contractor in default. If the Contractor does not proceed as directed within 10 days after the notice, the Owner will provide written notice to the Contractor and the Surety to declare the Contractor to be in default of the Contract. The Owner will also provide written notice of default to the Surety. If the Contractor provides the Owner written notice of voluntary default of the Contract, the Owner may waive the 10 day notice of intent to declare the Contractor in default and immediately provide written notice of default to the Contractor and the Surety. Working day charges will continue until completion of the Contract. The Owner may suspend work in accordance with Section 8.4., "Temporary Suspension of Work or Working Day Charges," to investigate apparent fraud or other unfixable conduct before defaulting the Contractor. The Contractor may be subject to sanctions under the state and/or federal laws and regulations.

The Owner will determine the method used for the completion of the remaining work as follows:

- **Contracts without Performance Bonds.** The Owner will determine the most expeditious and efficient way to complete the work, and recover damages from the Contractor.

- **Contracts with Performance Bonds.** The Owner will, without violating the Contract, demand that the Contractor's Surety complete the remaining work in accordance with the terms of the original Contract. A completing Contractor will be considered a subcontractor of the Surety. The Owner reserves the right to approve or reject proposed subcontractors. Work may resume after the Owner receives and approves Certificates of Insurance as required in Section 3.4.3., "Insurance." Certificates of Insurance may be issued in the name of the completing Contractor. The Surety is responsible for making every effort to expedite the resumption of work and completion of the Contract. The Owner may complete the work using any or all materials at the work locations that it deems suitable and acceptable. Any costs incurred by the Owner for the completion of the work under the Contract will be the responsibility of the Surety. In case the surety should fail to commence compliance within ten (10) days after service of the herein above provided notice of abandonment and notice for completion, then the County may provide for completion of the Work in either of the following elective manners:
 - The County may thereupon employ such force of men and use such machinery, equipment, tools, materials and supplies as the County may deem necessary to complete the Work and charge the expense of such labor, machinery, equipment, tools, materials and supplies to the Contractor, and expense so charged shall be deducted and paid by the County out of such monies as may be due, or that may thereafter at any time become due to the Contractor under and by virtue of the Contract Documents. In case such expense is less than the sum which would have been payable under the Contract Documents if the same had been completed by the Contractor, the County will be entitled to retain the difference. In case such expense is greater than the sum which would have been payable under the Contract Documents if the same had been completed by the Contractor, then the Contractor and/or its surety shall pay the amount of such excess to the County, or
 - The County, under sealed bids, after twenty-one (21) days notice published one or more times in a newspaper having general circulation in the area of the location of the Project, may let a contract for the completion of the Work under substantially the same terms and conditions which are provided in the Contract Documents. In case there is any increase in cost to the County under the new contract as compared to what would have been the cost under the Contract Documents, such increase shall be charged to the Contractor and the surety shall be and remain bound therefor. However, should the cost to complete any such contract prove to be less than what would have been the cost to complete under the Contract Documents, the County shall be entitled to retain the difference.

When the Work shall have reached Final Completion, the Contractor and its surety shall be so notified and Certificates of Completion and Acceptance, as provided in Section 5.12.2.2.b. herein above, shall be issued. A complete itemized statement of the contract accounts, certified by the Inspector as being correct, shall then be prepared and delivered to the Contractor and its surety, whereupon the Contractor and/or its surety, or the County as the case may be, shall pay the balance due as reflected by said statement within fifteen (15) days after the date of such Certificate of Completion.

In the event the statement of accounts shows that the cost to complete the Work is less than that which would have been the cost to the County had the Work been completed by the Contractor under the terms of the Contract Documents, or when the Contractor and/or its surety shall pay the balance shown to be due by them to the County, then all machinery, equipment, tools, materials or supplies left on the site of the Project shall be turned over to the Contractor and/or its surety.

Should the cost to complete the Work exceed the amount the County would have been obligated to pay the Contractor had the Work been completed by the Contractor under the terms of the Contract Documents, and should the Contractor and/or its surety fail to pay the amount due the County within the time designated hereinabove, and should there remain any machinery, equipment, tools, materials or supplies on the site of the Project, notice thereof, together with an

itemized list of such equipment and materials, shall be mailed to the Contractor and its surety at the respective addresses designated in the Contract Documents. After properly tendering such notice, such property shall be held at the risk of the Contractor and its surety subject only to the duty of the County to exercise ordinary care to protect such property. After fifteen (15) days from the date of said notice, the County may sell such machinery, equipment, tools, materials or supplies and apply the net sum derived from such sale to the credit of the Contractor and its surety. Such sale may be made at either public or private sale, with or without notice, as the County may elect. The County shall release, to their proper owners, any machinery, equipment, tools, materials, or supplies, which remain on the Project and which belong to persons other than the Contractor or its surety. The books on all operations provided herein shall be opened to the Contractor and its surety.

From the time of notification of the default until work resumes (either by the Surety or the Owner), the Owner will maintain traffic control devices and will do any other work it deems necessary, unless otherwise agreed upon by the Owner and the Surety. All costs associated with this work will be deducted from money due to the Surety.

The Owner will hold all money earned but not disbursed by the date of default. Upon resumption of the work after the default, all payments will be made to the Surety. All costs and charges incurred by the Owner as a result of the default, including the cost of completing the work under the Contract, costs of maintaining traffic control devices, costs for other work deemed necessary, and any applicable liquidated damages or disincentives will be deducted from money due the Contractor for completed work. If these costs exceed the sum that would have been payable under the Contract, the Surety will be liable and pay the Owner the balance of these costs in excess of the Contract price. In case the costs incurred by the Owner are less than the amount that would have been payable under the Contract if the work had been completed by the Contractor, the Owner will be entitled to retain the difference.

Comply with Article 8.2., "Subcontracting," and abide by the DBE/HUB/SBE commitments previously approved by the Owner .

No markups as defined in Article 9.7., "Payment for Extra Work and Force Account Method," will be allowed for the Surety.

7.2. **Wrongful Default.** Submit a written request to the Owner within 14 calendar days of receipt of the notice of default for consideration of wrongful default.

The Owner will determine if the Contractor has been wrongfully defaulted, and will proceed with the following:

- If the Owner determines the default is proper, the default will remain. If the Contractor is in disagreement, the Contractor may file a claim in accordance with Article 4.7., "Dispute or Claims Procedure."
- If the Owner determines it was a wrongful default, the Owner will terminate the Contract for convenience, in accordance with Article 8.8., "Termination of the Contract."

8. TERMINATION OF THE CONTRACT

The Owner may terminate the Contract in whole or in part whenever:

- the Contractor is prevented from proceeding with the work as a direct result of an executive order of the President of the United States or the Governor of the State;
- the Contractor is prevented from proceeding with the work due to a national emergency, or when the work to be performed under the Contract is stopped, directly or indirectly, because of the freezing or diversion of materials, equipment or labor as the result of an order or a proclamation of the President of the United States;
- the Contractor is prevented from proceeding with the work due to an order of any federal authority;

- the Contractor is prevented from proceeding with the work by reason of a preliminary, special, or permanent restraining court order where the issuance of the restraining order is primarily caused by acts or omissions of persons or agencies other than the Contractor; or
- the Owner determines that termination of the Contract is in the best interest of the Owner or the public. This includes, but is not limited to, the discovery of significant hazardous material problems, right of way acquisition problems, or utility conflicts that would cause substantial delays or expense to the Contract.

8.1. **Procedures and Submittals.** The Engineer will provide written notice to the Contractor of termination specifying the extent of the termination and the effective date. Upon notice, immediately proceed in accordance with the following:

- stop work as specified in the notice;
- place no further subcontracts or orders for materials, services, or facilities, except as necessary to complete a critical portion of the Contract, as approved;
- terminate all subcontracts to the extent they relate to the work terminated;
- complete performance of the work not terminated;
- settle all outstanding liabilities and termination settlement proposals resulting from the termination for public convenience of the Contract;
- create an inventory report, including all acceptable materials and products obtained for the Contract that have not been incorporated in the work that was terminated (include in the inventory report a description, quantity, location, source, cost, and payment status for each of the acceptable materials and products); and
- take any action necessary, or that the Engineer may direct, for the protection and preservation of the materials and products related to the Contract that are in the possession of the Contractor and in which the Owner has or may acquire an interest.

8.2. **Settlement Provisions.** Within 60 calendar days of the date of the notice of termination, submit a final termination settlement proposal, unless otherwise approved. The Engineer will prepare a change order that reduces the affected quantities of work and adds acceptable costs for termination. No claim for loss of anticipated profits will be considered. The Owner will pay reasonable and verifiable termination costs including:

- all work completed at the unit bid price and partial payment for incomplete work;
- the percentage of Item 500, "Mobilization," equivalent to the percentage of work complete or actual cost that can be supported by cost records, whichever is greater;
- expenses necessary for the preparation of termination settlement proposals and support data;
- the termination and settlement of subcontracts;
- storage, transportation, restocking, and other costs incurred necessary for the preservation, protection, or disposition of the termination inventory; and
- other expenses acceptable to the Owner.

8.3. **Termination for Convenience.** In connection with the Work outlined in the Contract Documents, it is agreed and fully understood by Contractor, that the County may cancel or indefinitely suspend further work hereunder or terminate the Contract for the convenience of the County, upon fifteen (15) days written notice to Contractor. In the event the County terminates the Contract for convenience, it is hereby understood and acknowledged by the Contractor that immediately upon receipt of the County's notice of termination, all work and labor being performed under the Contract Documents shall cease. Contractor shall invoice the County for all work satisfactorily completed and shall be compensated in accordance with the terms of the Contractor Documents for work accomplished prior to the receipt of said notice. No amount shall be due for lost or anticipated profits. However, no cost incurred after the effective date of the notice of termination shall be

treated as reimbursable costs unless it relates to carrying out the un-terminated portion or taking closeout measures.

9.

WORKERS AND EQUIPMENT

Furnish suitable machinery, equipment, and construction forces for the proper prosecution of the work. Provide adequate lighting to address quality requirements and inspection of nighttime work. At the written request of the Engineer, immediately remove from the work locations any employee or representative of the Contractor or a subcontractor who, in the opinion of the Engineer, does not perform work in a proper and skillful manner or who is disrespectful, intemperate, disorderly, uncooperative, or otherwise objectionable. Do not reinstate these individuals without the written consent of the Engineer. The Engineer may suspend the work without suspending working day charges until the Contractor complies with these requests. No illegal alien may be employed by any Contractor for work on this Project, and a penalty of \$500.00 per day will be assessed for each day and for each illegal alien who works for the Contractor at this Project.

Item 9L

Measurement and Payment

1. MEASUREMENT OF QUANTITIES

The Engineer will measure all completed work using United States standard measures, unless otherwise specified.

- 1.1. **Linear Measurement.** Unless otherwise specified, all longitudinal measurements for surface areas will be made along the actual surface of the roadway and not horizontally. No deduction will be made for structures in the roadway with an area of 9 sq. ft. or less. For all transverse measurements for areas of base courses, surface courses, and pavements, the dimensions to be used in calculating the pay areas will be the neat dimensions and will not exceed those shown on the plans, unless otherwise directed.

- 1.2. **Volume Measurement.** Transport materials measured for payment by volume in approved hauling vehicles. Display a unique identification mark on each vehicle. Furnish information necessary to calculate the volume capacity of each vehicle. The Engineer may require verification of volume through weight measurement. Use body shapes that allow the capacity to be verified. Load and level the load to the equipment's approved capacity. Loads not hauled in approved vehicles may be rejected.

- 1.3. **Weight Measurement.** Transport materials measured for payment by weight or truck measure in approved hauling vehicles. Furnish certified measurements, tare weights, and legal gross weight calculations for all haul units. Affix a permanent, legible number on the truck and on the trailer to correspond with the certified information. Furnish certified weights of loaded haul units transporting material if requested.

The material will be measured at the point of delivery. The cost of supplying these volume and weight capacities is subsidiary to the pertinent item. For measurement by the ton, in the field, provide measurements in accordance with Item 520, "Weighing and Measuring Equipment," except for items where ton measurements are measured by standard tables.

The Engineer may reject loads and suspend hauling operations for overloading.

- 1.3.1. **Hauling on Routes Accessible to the Traveling Public.** For payment purposes on haul routes accessible to the traveling public, the net weight of the load will be calculated as follows:
- If the gross vehicle weight is less than the maximum allowed by state law, including applicable yearly weight tolerance permit, the net weight of the load will be determined by deducting the tare weight of the vehicle from the gross weight.
 - If the gross vehicle weight is more than the maximum allowed by state law, including applicable yearly weight tolerance permit, the net weight of the load will be determined by deducting the tare weight of the vehicle from the maximum gross weight allowed.
- 1.3.2. **Hauling on Routes Not Accessible to the Traveling Public.** For payment purposes on haul routes that are not accessible to the traveling public where advance permission is obtained in writing from the Engineer:
- If the gross vehicle weight is less than the maximum allowed, including applicable yearly weight tolerance permit, the net weight of the load will be determined by deducting the tare weight of the vehicle from the gross weight.
 - If the gross vehicle weight is more than the maximum allowed, the net weight of the load will be determined by deducting the tare weight of the vehicle from the maximum gross weight allowed.

2. PLANS QUANTITY MEASUREMENT

Plans quantities may or may not represent the exact quantity of work performed or material moved, handled, or placed during the execution of the Contract. The estimated bid quantities are designated as final payment quantities, unless revised by the governing specifications or this article.

If the quantity measured as outlined under "Measurement" varies by more than 5% (or as stipulated under "Measurement" for specific Items) from the total estimated quantity for an individual item originally shown in the Contract, an adjustment may be made to the quantity of authorized work done for payment purposes.

When quantities are revised by a change in design approved by the Owner, by change order, or to correct an error on the plans, the plans quantity will be increased or decreased by the amount involved in the change, and the 5% variance will apply to the new plans quantity.

If the total Contract quantity multiplied by the unit bid price for an individual item is less than \$250 and the item is not originally a plans quantity item, then the item may be paid as a plans quantity item if the Engineer and Contractor agree in writing to fix the final quantity as a plans quantity.

For Contracts with callout work and work orders, plans quantity measurement requirements are not applicable.

3. ADJUSTMENT OF QUANTITIES

The party to the Contract requesting the adjustment will provide field measurements and calculations showing the revised quantity. When approved, this revised quantity will constitute the final quantity for which payment will be made. Payment for revised quantity will be made at the unit price bid for that item, except as provided for in Article 4.4., "Changes in the Work."

4. SCOPE OF PAYMENT

Payment of the Contract unit price is full compensation for all materials, equipment, labor, tools, and supplies necessary to complete the item of work under the Contract. Until final acceptance in accordance with Article 5.12., "Final Acceptance," assume liability for completing the work according to the Contract documents and any loss or damage arising from the performance of the work or from the action of the elements, infringement of patent, trademark, or copyright, except as provided elsewhere in the Contract.

The Owner will only pay for material incorporated into the work in accordance with the Contract. Payment of progress estimates will in no way affect the Contractor's obligation under the Contract to repair or replace any defective parts in the construction or to replace any defective materials used in the construction and to be responsible for all damages due to defects if the defects and damages are discovered on or before final inspection and acceptance of the work.

5. PROGRESS PAYMENTS

On or before the first Wednesday of each month, the Contractor shall submit to the Inspector a statement showing the total value of the Work performed up to and including the last day of the preceding month. The statement shall also include the value of all sound materials delivered on the job site and to be included in the Work and all partially completed work whether bid as a lump sum or a unit item which, in the opinion of the Inspector, is acceptable. The Inspector shall either examine and approve by signature or modify and approve such modified statement.

The Inspector shall review the Contractor's applications for payment and supporting data, determine the amount owed to the Contractor and recommend, in writing to the GEC for review, payment to the Contractor in such amounts; such recommendation of payment to the Contractor constitutes a representation to the County of the Inspector's professional judgment that the Work has progressed to the point indicated to the

best of its knowledge, information and belief, but such recommendation of an application for payment to the Contractor shall not be deemed as a representation by the Inspector that the Inspector has made any examination to determine how or for what purpose the Contractor has used the monies paid on account of the Contract Price.

The County shall then pay the Contractor, within 30 days of the statement submittal, the total amount of the approved statement, and further less all previous payments and all further sums that may be retained by the County under the terms of the Contract Documents and/or under state or federal law. It is understood, however, that in case the whole work be near completion and some unexpected and unusual delay occurs due to no fault or neglect on the part of the Contractor, then the County may, upon written recommendation of the Inspector, pay a reasonable and equitable portion of the retained percentage to the Contractor, if any; or the Contractor, at the County's option, may be relieved of the obligation to fully complete the Work and, thereupon, the Contractor shall receive payment of the balance due Contractor under the contract subject to the conditions stated under Article 9.8.

As a minimum, invoices shall be on the form provided by the County and include: (1) Name, address, and telephone number of Contractor and similar information in the event the payment is to be made to a different address, (2) County contract number, (3) Identification of items or service as outlined in the Contract Documents, (4) Quantity or quantities, applicable unit prices, total prices, and total amount and (5) Any additional payment information which may be called for by the Contract Documents.

Payment inquiries should be directed to the GEC.

6. PAYMENT FOR MATERIAL ON HAND (MOH)

If payment for MOH is desired, request compensation for the invoice cost of acceptable nonperishable materials that have not been used in the work before the request, and that have been delivered to the work location or are in acceptable storage places. Nonperishable materials are those that do not have a shelf life or whose characteristics do not materially change when exposed to the elements. Include only materials that have been sampled, tested, approved, or certified, and are ready for incorporation into the work. Only materials which are completely constructed or fabricated on the Contractor's order for a specific Contract and are so marked and on which an approved test report has been issued are eligible. Payment for MOH may include the following types of items: concrete traffic barrier, precast concrete box culverts, concrete piling, reinforced concrete pipe, and illumination poles. Any repairs required after fabricated materials have been approved for storage will require approval of the Engineer before being made and will be made at the Contractor's expense. Include only those materials that have an invoice cost of at least \$1,000 in the request for MOH payment.

If the request is acceptable, the Engineer will include payment for MOH in a progress payment. Payment for MOH does not constitute acceptance of the materials. Payment will not exceed the actual cost of the material as established by invoice, or the total cost for the associated item less reasonable placement costs, whichever is less. Materials for which the Contractor does not have a paid invoice within 60 days will not be eligible for payment and will be removed from the estimate. Payment may be limited to a portion of the invoice cost or unit price if shown elsewhere in the Contract. Payment for precast products fabricated or constructed by the Contractor for which invoices or freight bills are not available may be made based on statements of actual cost.

Submit the request on forms provided by the Owner. These forms may be electronically reproduced, provided they are in the same format and contain all the required information and certifications. Continue to submit monthly MOH forms until the total value of MOH is \$0.

By submitting a request for MOH payment, the Contractor expressly authorizes the Owner to audit MOH records, and to perform process reviews of the record-keeping system. If the Owner determines noncompliance with any of the requirements of this provision, the Owner may exclude payment for any or all MOH for the duration of the Contract.

Maintain all records relating to MOH payment until final acceptance. Provide these records to the Engineer upon request.

7. PAYMENT FOR EXTRA WORK AND FORCE ACCOUNT METHOD

Payment for extra work directed, performed, and accepted will be made in accordance with Article 4.4., "Changes in the Work." Payment for extra work may be established by agreed unit prices or by Force Account Method.

Agreed unit prices are unit prices that include markups and are comparable to recent bid prices for the same character of work. These unit prices may be established without additional breakdown justification.

When using Force Account Method, determine an estimated cost for the proposed work and establish labor and equipment rates and material costs. Maintain daily records of extra work and provide copies of these records daily, signed by the Contractor's representative, for verification by the Engineer. Request payment for the extra work no later than the 10th day of the month following the month in which the work was performed. Include copies of all applicable invoices. If the extra work to be performed has an estimated cost of less than \$10,000, submit for approval and payment an invoice of actual cost for materials, equipment, labor, tools, and incidentals necessary to complete the extra work.

7.1. **Markups.** Payment for extra work may include markups as compensation for the use of small tools, overhead expense, and profit.

7.1.1. **Labor.** Compensation will be made for payroll rates for each hour that the labor, foremen, or other approved workers are actually engaged in the work. In no case will the rate of wages be less than the minimum shown in the Contract for a particular category. An additional 25% of this sum will be paid as compensation for overhead, superintendence, profit, and small tools.

7.1.2. **Insurance and Taxes.** An additional 55% of the labor cost, excluding the 25% compensation provided in Section 9.7.1.1., "Labor," will be paid as compensation for labor insurance and labor taxes including the cost of premiums on non-project-specific liability (excluding vehicular) insurance, workers compensation insurance, Social Security, unemployment insurance taxes, and fringe benefits.

7.1.3. **Materials.** Compensation will be made for materials associated with the work based on actual delivered invoice costs, less any discount. An additional 25% of this sum will be paid as compensation for overhead and profit.

7.1.4. **Equipment.** Payment will be made for the established equipment hourly rates for each hour that the equipment is involved in the work. An additional 15% of this sum will be paid as compensation for overhead and profit not included in the rates.

Transportation cost for mobilizing equipment will be included if the equipment is mobilized from an off-site location.

7.1.4.1. **Contractor-Owned Equipment.** For Contractor-owned machinery, trucks, power tools, or other equipment, use the FHWA rental rates found in the *Rental Rate Blue Book* multiplied by the regional adjustment factor and the rate adjustment factor to establish hourly rates. Use the rates in effect for each section of the *Rental Rate Blue Book* at the time of use.

If a rate has not been established for a particular piece of equipment in the *Rental Rate Blue Book*, the Engineer will allow a reasonable hourly rate. This price will include operating costs.

Payment for equipment will be made for the actual hours used in the work. The Owner reserves the right to withhold payment for low production or lack of progress. Payment will not be made for time lost for equipment breakdowns, time spent to repair equipment, or time after equipment is no longer needed.

If equipment is used intermittently while dedicated solely to the work, payment will be made for the duration the equipment is assigned to the work but no more than 8 hours will be paid during a 24-hour day, nor more than 40 hours per week, nor more than 176 hours per month, except when time is computed using a six-day or seven-day workweek. When using a six-day workweek, no more than 8 hours will be paid during a 24-hour day, nor more than 48 hours per week, nor more than 211 hours per month. When using a seven-day workweek, no more than 8 hours will be paid during a 24-hour day, nor more than 56 hours per week, nor more than 246 hours per month.

- 7.1.4.2. **Equipment Not Owned by the Contractor.** For equipment rented from a third party not owned by the Contractor, payment will be made at the invoice daily rental rate for each day the equipment is needed for the work. The Owner reserves the right to limit the daily rate to comparable *Rental Rate Blue Book* rates. When the invoice specifies that the rental rate does not include fuel, lubricants, repairs, and servicing, the *Rental Rate Blue Book* hourly operating cost for each hour the equipment is operated will be added.

When the invoice specifies equipment operators as a component of the equipment rental, payment will be made at the invoice rate for each operator for each day the equipment is needed for the work.

- 7.1.4.3. **Standby Equipment Costs.** Payment for standby equipment will be made in accordance with Section 9.7.1.4., "Equipment," except that:

- 7.1.4.3.1. **Contractor-Owned Equipment.** For Contractor-owned machinery, trucks, power tools, or other equipment:
- Standby will be paid at 50% (to remove operating cost) of the FHWA rental rates found in the *Rental Rate Blue Book* multiplied by the regional adjustment factor and the rate adjustment factor.
 - Standby costs will not be allowed during periods when the equipment would have otherwise been idle.

- 7.1.4.3.2. **Equipment Not Owned by the Contractor.** For equipment rented from a third party not owned by the Contractor:
- Standby will be paid at the invoice daily rental rate, excluding operating cost, which includes fuel, lubricants, repairs, and servicing. The Owner reserves the right to limit the daily standby rate to comparable FHWA rental rates found in the *Rental Rate Blue Book* multiplied by the regional adjustment factor and the rate adjustment factor.
 - Standby will be paid for equipment operators when included on the invoice and equipment operators are actually on standby.
 - Standby costs will not be allowed during periods when the equipment would have otherwise been idle.

- 7.1.5. **Subcontracting.** An additional 5% of the actual invoice cost will be paid to the Contractor as compensation for administrative cost, superintendence, and profit.

- 7.1.6. **Law Enforcement.** An additional 5% of the actual invoice cost will be paid as compensation for administrative costs, superintendence, and profit.

- 7.1.7. **Railroad Flaggers.** An additional 5% of the actual invoice cost will be paid as compensation for administrative cost, superintendence, and profit.

- 7.1.8. **Bond Cost.** An additional 1% of the total compensation provided in Article 9.7., "Payment for Extra Work and Force Account Method," will be paid for the increase in bond.

8. RETAINAGE

The Owner will withhold 5% retainage on the Contractor. The Contractor may withhold retainage on subcontractors in accordance with state and federal regulations.

PAYMENT PROVISIONS FOR SUBCONTRACTORS

For the purposes of this article only, the term subcontractor includes suppliers and the term work includes materials provided by suppliers at a location approved by the Engineer.

These requirements apply to all tiers of subcontractors. Incorporate the provisions of this article into all subcontract or material purchase agreements.

Pay subcontractors for work performed within 10 days after receiving payment for the work performed by the subcontractor. Also, pay any retainage on a subcontractor's work within 10 days after satisfactory completion of all of the subcontractor's work. Completed subcontractor work includes vegetative establishment, test, maintenance, performance, and other similar periods that are the responsibility of the subcontractor.

For the purpose of this section, satisfactory completion is accomplished when:

- the subcontractor has fulfilled the Contract requirements of both the Owner and the subcontract for the subcontracted work, including the submittal of all information required by the specifications and the Owner; and
- the work done by the subcontractor has been inspected, approved, and paid by the Owner.

Provide a certification of prompt payment in accordance with the Owner's prompt payment procedure to certify that all subcontractors and suppliers were paid from the previous months payments and retainage was released for those whose work is complete. Submit the completed form each month and the month following the month when final acceptance occurred at the end of the project.

The inspection and approval of a subcontractor's work does not eliminate the Contractor's responsibilities for all the work as defined in Article 7.17., "Contractor's Responsibility for Work."

The Owner may pursue actions against the Contractor, including withholding of estimates and suspending the work, for noncompliance with the subcontract requirements of this section upon receipt of written notice with sufficient details showing the subcontractor has complied with contractual obligations.

THE CONTRACTOR AGREES THAT IT WILL INDEMNIFY, DEFEND AND SAVE HARMLESS THE COUNTY, THE INSPECTOR, THE GEC AND THE ENGINEER OF RECORD, AS WELL AS ANY OF THEIR AGENTS, REPRESENTATIVES, OFFICERS OR EMPLOYEES FROM ALL CLAIMS GROWING OUT THE LAWFUL DEMANDS OF SUBCONTRACTORS, LABORERS, WORKERS, MECHANICS, MATERIALMEN AND FURNISHERS OF MACHINERY, MACHINERY PARTS, EQUIPMENT, POWER TOOLS, AND ALL SUPPLIES, INCLUDING COMMISSARY, INCURRED IN THE FURTHERANCE OF THE PERFORMANCE OF THE WORK SUBJECT OF THE CONTRACT DOCUMENTS.

When so desired by the County, the Contractor shall furnish satisfactory evidence that all obligations of the nature hereinabove designated have been paid, discharged or waived. If the Contractor fails to furnish such evidence to County's complete satisfaction, then the County may either pay directly any unpaid bills of which the County has written notice of, or may withhold from the Contractor's unpaid compensation a sum of money deemed reasonably sufficient to liquidate any and all such lawful claims. When satisfactory evidence is furnished that all liabilities have been fully discharged, payments to the Contractor shall be resumed in full in accordance with the terms of the Contract Documents, but in no event shall the provisions of this sentence be construed to impose any obligation upon the County by either the Contractor or its surety.

FINAL PAYMENT

When the Contract has been completed, all work has been approved, final acceptance has been made in accordance with Article 5.12., "Final Acceptance," and Contractor submittals have been received, the Engineer will prepare a final estimate for payment showing the total quantity of work completed and the money owed the Contractor. The final payment will reflect the entire sum due, less any sums previously paid.

At the County's sole discretion, this payment may include payment for work remaining to be performed in association with the removal of temporary erosion controls or the establishment of permanent stabilization measures. On or after the 30th day, and before the 35th day after the date of the Certificate of Acceptance, the balance due the Contractor under the terms of the Contract Documents shall be paid. Neither the Certificate of Acceptance nor the Final Payment, nor any provision in the Contract Documents, shall relieve the Contractor of the obligation for fulfillment of any warranty which may be required.

The County may, on account of subsequently discovered evidence, withhold or nullify the whole or part of any certificate to such extent as may be necessary to protect itself from loss on account of:

- Defective work not remedied or other obligations hereunder not completed.
- Claims filed or reasonable evidence indicating the probable or potential filing of claims.
- Failure of the Contractor to make payments properly to Subcontractors or for material or labor.
- Damage to the County or another contractor's work, material or equipment.
- Reasonable doubt that the Work can be completed for the unpaid balance of the contract amount or Contract Price.
- Reasonable indication that the Work will not be completed within the contract time.
- Other causes affecting the performance of the Work subject of the Contract Documents.

When the above grounds are removed or the Contractor provides a surety bond satisfactory to the County, which will protect the County in the amount withheld, payment shall be made for amounts withheld because of them.

Should the County fail to make payment to the Contractor of the sum named in any partial or final statement, when such payment is due, then the County shall pay to the Contractor, in addition to the sum shown as due by such statement, interest thereon in accordance with Texas Government Code Section 2251.025. More specifically, the rate of interest that shall accrue on a late payment is the rate in effect on September 1 of County's fiscal year in which the payment becomes due. The said rate in effect on September 1 shall be equal to the sum of one percent (1%); and (2) the prime rate published in the Wall Street Journal on the first day of July of the preceding fiscal year that does not fall on a Saturday or Sunday. County's payment of the amount due plus said interest shall fully liquidate any injury to the Contractor growing out of such delay in payment. It is expressly agreed that delay by the County in making payment to the Contractor of the sum named in any partial or final statement shall not constitute, on the part of the County, a breach under the Contract Documents, nor shall it serve as an abandonment by the County. Furthermore, any delay by the County in making payment to the Contractor of the sum named in any partial or final statement shall not, to any extent or for any time, relieve the Contractor of its obligations to fully and completely perform pursuant to the terms of the Contract Documents.

Item 100

Preparing Right of Way



1. DESCRIPTION

Prepare the right of way and designated easements for construction operations by removing and disposing of all obstructions when removal of such obstructions is not specifically shown on the plans to be paid by other Items.

2. CONSTRUCTION

Protect designated features on the right of way and prune trees and shrubs as directed. Do not park equipment, service equipment, store materials, or disturb the root area under the branches of trees designated for preservation. Treat cuts on trees with an approved tree wound dressing within 20 min. of making a pruning cut or otherwise causing damage to the tree when shown on the plans. Follow all local and state regulations when burning. Pile and burn brush at approved locations as directed. Coordinate work with state and federal authorities when working in state or national forests or parks. Test, remove, and dispose of hazardous materials in accordance with Article 6.10., "Hazardous Materials."

Clear areas shown on the plans of all obstructions, except those landscape features that are to be preserved. Such obstructions include remains of houses and other structures, foundations, floor slabs, concrete, brick, lumber, plaster, septic tank drain fields, basements, abandoned utility pipes or conduits, equipment, fences, retaining walls, and other items as specified on the plans. Remove vegetation and other landscape features not designated for preservation, curb and gutter, driveways, paved parking areas, miscellaneous stone, sidewalks, drainage structures, manholes, inlets, abandoned railroad tracks, scrap iron, and debris, whether above or below ground. Removal of live utility facilities is not included in this Item. Remove culverts, storm sewers, manholes, and inlets in proper sequence to maintain traffic and drainage.

Notify the Engineer in writing when items not shown on the plans and not reasonably detectable (buried with no obvious indication of presence) are encountered and required to be removed. These items will be handled in accordance with Article 4.5., "Differing Site Conditions."

Remove obstructions not designated for preservation to 2 ft. below natural ground in areas receiving embankment. Remove obstructions to 2 ft. below the excavation level in areas to be excavated. Remove obstructions to 1 ft. below natural ground in all other areas. Cut trees and stumps off to ground level when allowed by the plans or directed. Plug the remaining ends of abandoned underground structures over 3 in. in diameter with concrete to form a tight closure. Backfill, compact, and restore areas where obstructions have been removed unless otherwise directed. Use approved material for backfilling. Dispose of wells in accordance with Item 103, "Disposal of Wells."

Accept ownership, unless otherwise directed, and dispose of removed materials and debris at locations off the right of way in accordance with local, state, and federal requirements.

3. MEASUREMENT

This Item will be measured by the acre; by the 100-ft. station, regardless of the width of the right of way; or by each tree removed.

4. PAYMENT

For "acre" and "station" measurement, the work performed in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Preparing Right of Way." For "each" measurement, the work performed in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Preparing Right of Way (Tree)" of the diameter specified. This price is full compensation for pruning of designated trees and shrubs; removal and disposal of structures and obstructions; backfilling of holes; furnishing and placing concrete for plugs; and equipment, labor, tools, and incidentals.

Total payment of this Item will not exceed 10% of the original contract amount until final acceptance. The remainder will be paid on the estimate after the final acceptance under Article 5.12., "Final Acceptance."

Item 104

Removing Concrete



1. DESCRIPTION

Break, remove, and salvage or dispose of existing hydraulic cement concrete.

2. CONSTRUCTION

Remove existing hydraulic cement concrete from locations shown on the plans. Avoid damaging concrete that will remain in place. Saw-cut and remove the existing concrete to neat lines. Replace any concrete damaged by the Contractor at no expense to the Department. Accept ownership and properly dispose of broken concrete in accordance with federal, state, and local regulations unless otherwise shown on the plans.

3. MEASUREMENT

Removing concrete pavement, floors, porches, patios, riprap, medians, foundations, sidewalks, driveways, and other appurtenances will be measured by the square yard (regardless of thickness) or by the cubic yard of calculated volume, in its original position.

Removing curb, curb and gutter, and concrete traffic barrier will be measured by the foot in its original position. The removal of monolithic concrete curb or dowelled concrete curb will be included in the concrete pavement measurement.

Removing retaining walls will be measured by the square yard along the front face from the top of the wall to the top of the footing.

This is a plans quantity measurement item. The quantity to be paid is the quantity shown in the proposal, unless modified by Article 9.2., "Plans Quantity Measurement." Additional measurements or calculations will be made if adjustments of quantities are required.

4. PAYMENT

The work performed and materials furnished in accordance with this item and measured as provided under "Measurement" will be paid for at the unit price bid for "Removing Concrete" of the type specified. This price is full compensation for breaking the concrete; loading, hauling, and salvaging or disposing of the material; and equipment, labor, tools, and incidentals.

Removing retaining wall footings will not be paid for directly but will be considered subsidiary to this item.

Item 110

Excavation



1. DESCRIPTION

Excavate areas as shown on the plans or as directed. Remove materials encountered to the lines, grades, and typical sections shown on the plans and cross-sections.

2. CONSTRUCTION

Accept ownership of unsuitable or excess material and dispose of material in accordance with local, state, and federal regulations at locations outside the right of way.

Maintain drainage in the excavated area to avoid damage to the roadway section. Correct any damage to the subgrade caused by weather at no additional cost to the Department.

Shape slopes to avoid loosening material below or outside the proposed grades. Remove and dispose of slides as directed.

2.1. **Rock Cuts.** Excavate to finish subgrade. Manipulate and compact subgrade in accordance with Section 132.3.4., "Compaction Methods," unless excavation is to clean homogenous rock at finish subgrade elevation. Use approved embankment material compacted in accordance with Section 132.3.4., "Compaction Methods," to replace undercut material at no additional cost if excavation extends below finish subgrade.

2.2. **Earth Cuts.** Excavate to finish subgrade. Scarify subgrade to a uniform depth at least 6 in. below finish subgrade elevation in areas where base or pavement structure will be placed on subgrade. Manipulate and compact subgrade in accordance with Section 132.3.4., "Compaction Methods."

Take corrective measures as directed if unsuitable material is encountered below subgrade elevations.

2.3. **Subgrade Tolerances.** Excavate to within 1/2 in. in cross-section and 1/2 in. in 16 ft. measured longitudinally for turnkey construction. Excavate to within 0.1 ft. in cross-section and 0.1 ft. in 16 ft. measured longitudinally for staged construction.

3. MEASUREMENT

This Item will be measured by the cubic yard in its original position as computed by the method of average end areas.

This is a plans quantity measurement Item. The quantity to be paid is the quantity shown in the proposal unless modified by Article 9.2., "Plans Quantity Measurement." Additional measurements or calculations will be made if adjustments of quantities are required.

Limits of measurement for excavation in retaining wall areas will be as shown on the plans.

Shrinkage or swelling factors will not be considered in determining the calculated quantities.

4. PAYMENT

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Excavation (Roadway)," "Excavation (Channel)," "Excavation (Special)," or "Excavation (Roadway and Channel)." This price is full compensation for

authorized excavation; drying; undercutting subgrade and reworking or replacing the undercut material in rock cuts; hauling; disposal of material not used elsewhere on the project; scarification and compaction; and equipment, labor, materials, tools, and incidentals.

Drying required deeper than 6 in. below subgrade elevation will be paid for in accordance with Article 9.7., "Payment for Extra Work and Force Account Method." Excavation and replacement of unsuitable material below subgrade elevations will be performed and paid for in accordance with the applicable bid items. However, if Item 132, "Embankment," is not included in the Contract, payment for replacement of unsuitable material will be paid for in accordance with Article 9.7., "Payment for Extra Work and Force Account Method."

When a slide not due to the Contractor's negligence or operation occurs, payments for removal and disposal of the slide material will be in accordance with Article 9.7., "Payment for Extra Work and Force Account Method." Excavation in backfill areas of retaining walls will not be measured or paid for directly but will be subsidiary to pertinent Items.

Item 132

Embankment



1. DESCRIPTION

Furnish, place, and compact materials for construction of roadways, embankments, levees, dikes, or any designated section of the roadway where additional material is required.

2. MATERIALS

Furnish approved material capable of forming a stable embankment from required excavation in the areas shown on the plans or from sources outside the right of way. Provide one or more of the following types as shown on the plans:

- **Type A.** Granular material that is free from vegetation or other objectionable material and meets the requirements of Table 1.

Table 1
Testing Requirements

Property	Test Method	Specification Limit
Liquid limit	Tex-104-E	≤ 45
Plasticity index (PI)	Tex-106-E	≤ 15
Bar linear shrinkage	Tex-107-E	≥ 2

Perform the Linear Shrinkage test only as indicated in [Tex-104-E](#).

- **Type B.** Materials such as rock, loam, clay, or other approved materials.
- **Type C.** Material meeting the specification requirements shown on the plans. Type C may be further designated as Type C1, C2, etc.
- **Type D.** Material from required excavation areas shown on the plans.

Meet the requirements of the pertinent retaining wall Items for retaining wall backfill material.

3. CONSTRUCTION

Meet the requirements of Item 7, "Legal Relations and Responsibilities," when off right of way sources are used. Notify the Engineer before opening a material source to allow for required testing. Complete preparation of the right of way in accordance with Item 100, "Preparing Right of Way," for areas to receive embankment.

Backfill tree-stump holes or other minor excavations with approved material and tamp. Restore the ground surface, including any material disked loose or washed out, to its original slope. Compact the ground surface by sprinkling in accordance with Item 204, "Sprinkling," and by rolling using equipment complying with Item 210, "Rolling," when directed.

Scarify and loosen the unpaved surface areas, except rock, to a depth of at least 6 in. unless otherwise shown on the plans. Bench slopes before placing material. Begin placement of material at the toe of slopes. Do not place trees, stumps, roots, vegetation, or other objectionable material in the embankment. Simultaneously recompact scarified material with the placed embankment material. Do not exceed the layer depth specified in Section 132.3.4., "Compaction Methods."

Construct embankments to the grade and sections shown on the plans. Construct the embankment in layers approximately parallel to the finished grade for the full width of the individual roadway cross-sections unless otherwise shown on the plans. Ensure that each section of the embankment conforms to the detailed sections or slopes. Maintain the finished section, density, and grade until the project is accepted.

- 3.1. **Earth Embankments.** Earth embankment is mainly composed of material other than rock. Construct embankments in successive layers, evenly distributing materials in lengths suited for sprinkling and rolling.

Treat material in accordance with Item 260, "Lime Treatment (Road-Mixed)" or Item 275, "Cement Treatment (Road-Mixed)" when required. Obtain approval to incorporate rock and broken concrete produced by the construction project in the lower layers of the embankment. Place the rock and concrete outside the limits of the completed roadbed when the size of approved rock or broken concrete exceeds the layer thickness requirements in Section 132.3.4., "Compaction Methods." Cut and remove all exposed reinforcing steel from the broken concrete.

Move the material dumped in piles or windrows by blading or by similar methods and incorporate it into uniform layers. Featheredge or mix abutting layers of dissimilar material for at least 100 ft. to ensure there are no abrupt changes in the material. Break down clods or lumps of material and mix embankment until a uniform material is attained.

Apply water free of industrial wastes and other objectionable matter to achieve the uniform moisture content specified for compaction.

Roll and sprinkle each embankment layer in accordance with Section 132.3.4.1., "Ordinary Compaction," when ordinary compaction is specified. Compact the layer to the required density in accordance with Section 132.3.4.2., "Density Control," when density control is specified.

- 3.2. **Rock Embankments.** Rock embankment is mainly composed of rock. Construct rock embankments in successive layers for the full width of the roadway cross-section with a depth of 18 in. or less. Increase the layer depth for large rock sizes as approved. Do not exceed a depth of 2-1/2 ft. in any case. Fill voids created by the large stone matrix with smaller stones during the placement and filling operations.

Ensure the depth of the embankment layer is greater than the maximum dimension of any rock. Do not place rock greater than 2 ft. in its maximum dimension, unless otherwise approved. Construct the final layer with graded material so that the density and uniformity is in accordance with Section 132.3.4., "Compaction Methods." Break up exposed oversized material as approved.

Roll and sprinkle each embankment layer in accordance with Section 132.3.4.1., "Ordinary Compaction," when ordinary compaction is specified. Compact each layer to the required density in accordance with Section 132.3.4.2., "Density Control," when density control is specified. Proof-roll each rock layer as directed, where density testing is not possible, in accordance with Item 216, "Proof Rolling," to ensure proper compaction.

- 3.3. **Embankments Adjacent to Culverts and Bridges.** Compact embankments adjacent to culverts and bridges in accordance with Item 400, "Excavation and Backfill for Structures."

- 3.4. **Compaction Methods.** Begin rolling longitudinally at the sides and proceed toward the center, overlapping on successive trips by at least 1/2 the width of the roller. Begin rolling at the lower side and progress toward the high side on super elevated curves. Alternate roller trips to attain slightly different lengths. Compact embankments in accordance with Section 132.4.1., "Ordinary Compaction," or Section 132.3.4.2., "Density Control," as shown on the plans.

- 3.4.1. **Ordinary Compaction.** Use approved rolling equipment complying with Item 210, "Rolling," to compact each layer. Use specific equipment when required by the plans or the Engineer. Do not allow the loose depth of any layer to exceed 8 in., unless otherwise approved. Bring each layer to the moisture content directed

before and during rolling operations. Compact each layer until there is no evidence of further consolidation. Maintain a level layer to ensure uniform compaction. Recompact and refinish the subgrade at no additional expense to the Department if the required stability or finish is lost for any reason.

- 3.4.2. **Density Control.** Compact each layer to the required density using equipment complying with Item 210, "Rolling." Determine the maximum lift thickness based on the ability of the compacting operation and equipment to meet the required density. Do not exceed layer thickness of 16 in. loose or 12 in. compacted material unless otherwise approved. Maintain a level layer to ensure uniform compaction.

The Engineer will use [Tex-114-E](#) to determine the maximum dry density (D_a) and optimum moisture content (W_{opt}). Meet the requirements for field density and moisture content in Table 2 unless otherwise shown on the plans.

Table 2
Field Density Control Requirements

Description	Density	Moisture Content
	Tex-115-E	
$PI \leq 15$	$\geq 98\% D_a$	
$15 < PI \leq 35$	$\geq 98\% D_a$ and $\leq 102\% D_a$	$\geq W_{opt.}$
$PI > 35$	$\geq 95\% D_a$ and $\leq 100\% D_a$	$\geq W_{opt.}$

Each layer is subject to testing by the Engineer for density and moisture content. During compaction, the moisture content of the soil should not exceed the value shown on the moisture-density curve, above optimum, required to achieve:

- 98% dry density for soils with a PI greater than 15 but less than or equal to 35 or
- 95% dry density for soils with PI greater than 35.

Remove small areas of the layer to allow for density tests as required. Replace the removed material and recompact at no additional expense to the Department. Proof-roll in accordance with Item 216, "Proof Rolling," when shown on the plans or as directed. Correct soft spots as directed.

- 3.5. **Maintenance of Moisture and Reworking.** Maintain the density and moisture content once all requirements in Table 2 are met. Maintain the moisture content no lower than 4% below optimum for soils with a PI greater than 15. Rework the material to obtain the specified compaction when the material loses the required stability, density, moisture, or finish. Alter the compaction methods and procedures on subsequent work to obtain specified density as directed.
- 3.6. **Acceptance Criteria.**
- 3.6.1. **Grade Tolerances.**
- 3.6.1.1. **Staged Construction.** Grade to within 0.1 ft. in the cross-section and 0.1 ft. in 16 ft. measured longitudinally.
- 3.6.1.2. **Turnkey Construction.** Grade to within 1/2 in. in the cross-section and 1/2 in. in 16 ft. measured longitudinally.
- 3.6.2. **Gradation Tolerances.** Ensure no more than 1 of the 5 most recent gradation tests is outside the specified limits on any individual sieve by more than 5% when gradation requirements are shown on the plans.
- 3.6.3. **Density Tolerances.** Ensure no more than 1 of the 5 most recent density tests for compaction work is outside the specified density limits, and no test is outside the limits by more than 3 pcf.
- 3.6.4. **Plasticity Tolerances.** Ensure no more than 1 of the 5 most recent PI tests for material is outside the specified limit by more than 2 points.

4. MEASUREMENT

Embankment will be measured by the cubic yard. Measurement will be further defined for payment as follows:

- 4.1. **Final.** The cubic yard will be measured in its final position using the average end area method. The volume is computed between the original ground surface or the surface upon which the embankment is to be constructed and the lines, grades, and slopes of the embankment. In areas of salvaged topsoil, payment for embankment will be made in accordance with Item 160, "Topsoil." Shrinkage or swell factors will not be considered in determining the calculated quantities.
- 4.2. **Original.** The cubic yard will be measured in its original and natural position using the average end area method.
- 4.3. **Vehicle.** The cubic yard will be measured in vehicles at the point of delivery.

When measured by the cubic yard in its final position, this is a plans quantity measurement Item. The quantity to be paid is the quantity shown in the proposal, unless modified by Article 9.2., "Plans Quantity Measurement." Additional measurements or calculations will be made if adjustments of quantities are required.

Shrinkage or swell factors are the Contractor's responsibility. When shown on the plans, factors are for informational purposes only.

Measurement of retaining wall backfill in embankment areas is paid for as embankment unless otherwise shown on the plans. Limits of measurement for embankment in retaining wall areas are shown on the plans.

5. PAYMENT

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Embankment (Final)," "Embankment (Original)," or "Embankment (Vehicle)" of the compaction method and type specified. This price is full compensation for furnishing embankment; hauling; placing, compacting, finishing, and reworking; disposal of waste material; and equipment, labor, tools, and incidentals.

When proof rolling is directed, it will be paid for in accordance with Item 216, "Proof Rolling."

All sprinkling and rolling, except proof rolling, will not be paid for directly but will be considered subsidiary to this Item, unless otherwise shown on the plans.

Where subgrade is constructed under this Contract, correction of soft spots in the subgrade will be at the Contractor's expense. Where subgrade is not constructed under this Contract, correction of soft spots in the subgrade will be paid in accordance with Article 9.7., "Payment for Extra Work and Force Account Method."

Item 160

Topsoil



1. DESCRIPTION

Furnish and place topsoil to the depths and on the areas shown on the plans.

2. MATERIALS

Use easily cultivated, fertile topsoil that is free from objectionable material and resists erosion. Obtain topsoil from the right of way at sites of proposed excavation or embankment when specified on the plans, or as directed. Secure additional topsoil, if necessary, from approved sources outside the right of way in accordance with the requirements of Article 7.7., "Preservation of Cultural and Natural Resources and the Environment." Ensure that the topsoil obtained from sites outside the right of way has a pH of 5.5 to 8.5, per [Tex-128-E](#). Topsoil is subject to testing by the Engineer. Furnish water in accordance with Article 168.2., "Materials."

3. CONSTRUCTION

Remove and dispose of objectionable material from the topsoil source before beginning the work. Stockpile topsoil, when necessary, in a windrow at designated locations along the right of way line or as directed. Keep source and stockpile areas drained during the period of topsoil removal and leave them in a neat condition when removal is complete. Cultivate the area to a depth of 4 in. before placing topsoil. Spread the topsoil to a uniform loose cover at the thickness specified. Place and shape the topsoil as directed. Water and roll the topsoil with a light roller or other suitable equipment.

4. MEASUREMENT

This Item will be measured by the 100-ft. station along the baseline of each roadbed, by the square yard complete in place, or by the cubic yard in vehicles at the point of delivery.

5. PAYMENT

The work performed and the materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Furnishing and Placing Topsoil" of the depth specified on the plans (except for measurement by the cubic yard). This price is full compensation for securing necessary sources and royalties; furnishing topsoil; excavation, loading, hauling, stockpiling and placing; watering; rolling; and equipment, labor, materials, tools, and incidentals. Limits of excavation and embankment for payment are shown in Figure 1.

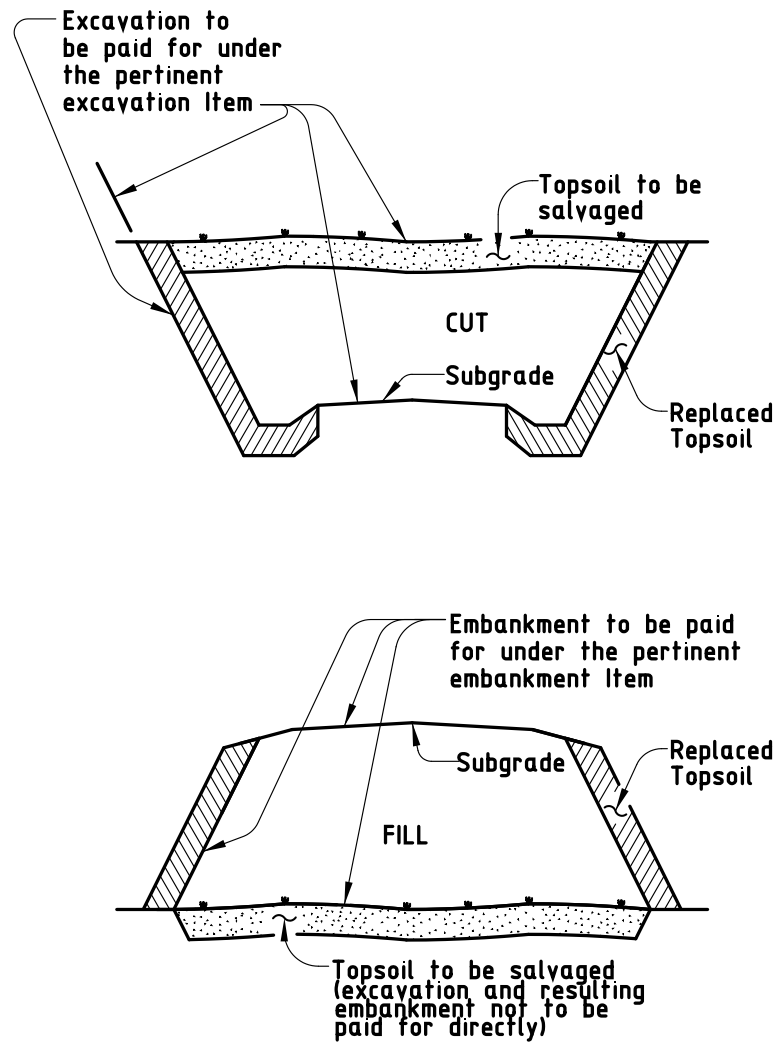


Figure 1
Roadway Cross-Sections Showing Payment for Excavation and Embankment

Item 164

Seeding for Erosion Control



1. DESCRIPTION

Provide and install temporary or permanent seeding for erosion control as shown on the plans or as directed.

2. MATERIALS

- 2.1. **Seed.** Provide seed from the previous season's crop meeting the requirements of the Texas Seed Law, including the testing and labeling for pure live seed (PLS = Purity × Germination). Furnish seed of the designated species, in labeled unopened bags or containers to the Engineer before planting. Use within 12 mo. from the date of the analysis. When Buffalograss is specified, use seed that is treated with KNO₃ (potassium nitrate) to overcome dormancy.

Use Tables 1–4 to determine the appropriate seed mix and rates as specified on the plans. If a plant species is not available by the producers, the other plant species in the recommended seed mixture will be increased proportionally by the PLS/acre of the missing plant species.

Table 1
Permanent Rural Seed Mix

District and Planting Dates	Clay Soils Species and Rates (lb. PLS/acre)		Sandy Soils Species and Rates (lb. PLS/acre)	
1 (Paris) Feb. 1–May 15	Green Sprangletop	0.3	Green Sprangletop	0.3
	Sideoats Grama (Haskell)	3.2	Bermudagrass	1.5
	Bermudagrass	1.8	Bahiagrass (Pensacola)	6.0
	Little Bluestem (Native)	1.7	Sand Lovegrass	0.6
	Illinois Bundleflower	1.0	Weeping Lovegrass (Ermelo)	0.8
			Partridge Pea	1.0
2 (Ft. Worth) Feb. 1–May 15	Green Sprangletop (Van Horn)	1.0	Green Sprangletop (Van Horn)	1.0
	Sideoats Grama (Haskell)	1.0	Hooded Windmillgrass (Mariah)	0.2
	Texas Grama (Atascosa)	1.0	Shortspike Windmillgrass (Welder)	0.2
	Hairy Grama (Chaparral)	0.4	Hairy Grama (Chaparral)	0.4
	Shortspike Windmillgrass (Welder)	0.2	Slender Grama (Dilley)	1.0
	Little Bluestem (OK Select)	0.8	Sand Lovegrass (Mason)	0.2
	Purple Prairie Clover (Cuero)	0.6	Sand Dropseed (Borden County)	0.2
	Engelmann Daisy (Eldorado)	0.75	Partridge Pea (Comanche)	0.6
	Illinois Bundleflower	1.3	Little Bluestem (OK Select)	0.8
	Awnless Bushsunflower (Plateau)	0.2	Engelmann Daisy (Eldorado)	0.75
			Purple Prairie Clover	0.3
3 (Wichita Falls) Feb. 1–May 15	Green Sprangletop (Van Horn)	0.6	Green Sprangletop (Van Horn)	1.0
	Sideoats Grama (Haskell)	1.0	Hooded Windmillgrass (Mariah)	0.2
	Texas Grama (Atascosa)	1.0	Shortspike Windmillgrass (Welder)	0.2
	Hairy Grama (Chaparral)	0.4	Hairy Grama (Chaparral)	0.4
	Shortspike Windmillgrass (Welder)	0.2	Sand Lovegrass (Mason)	0.2
	Little Bluestem (OK Select)	0.8	Sand Dropseed (Borden County)	0.2
	Blue Grama (Hachita)	0.4	Partridge Pea (Comanche)	0.6
	Western Wheatgrass (Barton)	1.2	Little Bluestem (OK Select)	0.8
	Galleta Grass (Viva)	0.6	Engelmann Daisy (Eldorado)	0.75
	Engelmann Daisy (Eldorado)	0.75	Purple Prairie Clover (Cuero)	0.3
	Awnless Bushsunflower (Plateau)	0.2		
4 (Amarillo) Feb. 15–May 15	Green Sprangletop	0.3	Green Sprangletop	0.3
	Sideoats Grama (Haskell)	3.6	Weeping Lovegrass (Ermelo)	0.8
	Blue Grama (Hachita)	1.2	Blue Grama (Hachita)	1.0
	Buffalograss (Texoka)	1.6	Sand Dropseed (Borden Co.)	0.3
	Illinois Bundleflower	1.0	Sand Bluestem	1.8
			Purple Prairie Clover	0.5

Table 1 (continued)

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District and Planting Dates	Permanent Rural Seed Mix		Sandy Soils	
	Clay Soils			
	Species and Rates (lb. PLS/acre)		Species and Rates (lb. PLS/acre)	
5 (Lubbock) Feb. 15–May 15	Green Sprangletop	0.3	Green Sprangletop	0.3
	Sideoats Grama (El Reno)	3.6	Weeping Lovegrass (Ermelo)	0.8
	Blue Grama (Hachita)	1.2	Blue Grama (Hachita)	1.0
	Buffalograss (Texoka)	1.6	Sand Dropseed (Borden Co.)	0.3
	Illinois Bundleflower	1.0	Sand Bluestem	1.8
			Purple Prairie Clover	0.5
6 (Odessa) Feb. 1–May 15	Green Sprangletop (Van Horn)	1.0	Green Sprangletop (Van Horn)	1.0
	Sideoats Grama (South Texas)	1.0	Hooded Windmillgrass (Mariah)	0.2
	Blue Grama (Hachita)	0.4	Blue Grama (Hachita)	0.4
	Galleta Grass (Viva)	0.6	Hairy Grama (Chaparral)	0.4
	Shortspike Windmillgrass (Welder)	0.2	Sand Lovegrass (Mason)	0.2
	Pink Pappusgrass (Maverick)	0.6	Sand Dropseed (Borden County)	0.2
	Alkali Sacaton (Saltalk)	0.2	Indian Ricegrass (Rim Rock)	1.6
	Plains Bristlegrass (Catarina Blend)	0.2	Sand Bluestem (Cottle County)	1.2
	False Rhodes Grass (Kinney)	0.1	Little Bluestem (Pastura)	0.8
	Whiplash Pappusgrass (Webb)	0.6	Purple Prairie Clover (Cuero)	0.3
	Arizona Cottontop (La Salle)	0.2		
7 (San Angelo) Feb. 1–May 1	Green Sprangletop (Van Horn)	1.0	Green Sprangletop (Van Horn)	1.0
	Sideoats Grama (Haskell)	1.0	Hooded Windmillgrass (Mariah)	0.2
	Texas Grama (Atascosa)	1.0	Shortspike Windmillgrass (Welder)	0.2
	Hairy Grama (Chaparral)	0.4	Hairy Grama (Chaparral)	0.4
	Shortspike Windmillgrass (Welder)	0.2	Sand Lovegrass (Mason)	0.2
	Little Bluestem (OK Select)	0.4	Sand Dropseed (Borden County)	0.2
	Blue Grama (Hachita)	0.4	Sand Bluestem (Cottle County)	1.2
	Western Wheatgrass (Barton)	1.2	Partridge Pea (Comanche)	0.6
	Galleta Grass (Viva)	0.6	Little Bluestem (OK Select)	0.8
	Engelmann Daisy (Eldorado)	0.75	Engelmann Daisy (Eldorado)	0.75
	Illinois Bundleflower (Sabine)	1.0	Purple Prairie Clover (Cuero)	0.3
8 (Abilene) Feb. 1–May 15	Green Sprangletop (Van Horn)	1.0	Green Sprangletop (Van Horn)	1.0
	Sideoats Grama (Haskell)	1.0	Hooded Windmillgrass (Mariah)	0.2
	Texas Grama (Atascosa)	1.0	Shortspike Windmillgrass (Welder)	0.2
	Hairy Grama (Chaparral)	0.4	Hairy Grama (Chaparral)	0.4
	Shortspike Windmillgrass (Welder)	0.2	Sand Lovegrass (Mason)	0.2
	Little Bluestem (OK Select)	0.4	Sand Dropseed (Borden County)	0.2
	Blue Grama (Hachita)	0.4	Sand Bluestem (Cottle County)	1.2
	Western Wheatgrass (Barton)	1.2	Partridge Pea (Comanche)	0.6
	Galleta Grass (Viva)	0.6	Little Bluestem (OK Select)	0.8
	Engelmann Daisy (Eldorado)	0.75	Engelmann Daisy (Eldorado)	0.75
	Illinois Bundleflower (Sabine)	1.0	Purple Prairie Clover (Cuero)	0.3
9 (Waco) Feb. 1–May 15	Green Sprangletop (Van Horn)	1.0	Green Sprangletop (Van Horn)	1.0
	Sideoats Grama (Haskell)	1.0	Hooded Windmillgrass (Mariah)	0.2
	Texas Grama (Atascosa)	1.0	Shortspike Windmillgrass (Welder)	0.2
	Hairy Grama (Chaparral)	0.4	Hairy Grama (Chaparral)	0.4
	Shortspike Windmillgrass (Welder)	0.2	Slender Grama (Dilley)	1.0
	Little Bluestem (OK Select)	0.8	Sand Lovegrass (Mason)	0.2
	Purple Prairie Clover (Cuero)	0.6	Sand Dropseed (Borden County)	0.2
	Engelmann Daisy (Eldorado)	0.75	Partridge Pea (Comanche)	0.6
	Illinois Bundleflower	1.3	Little Bluestem (OK Select)	0.8
	Awnless Bushsunflower (Plateau)	0.2	Engelmann Daisy (Eldorado)	0.75
			Purple Prairie Clover	0.3
10 (Tyler) Feb. 1–May 15	Green Sprangletop	0.3	Green Sprangletop	0.3
	Bermudagrass	1.8	Bermudagrass	1.8
	Bahiagrass (Pensacola)	9.0	Bahiagrass (Pensacola)	9.0
	Sideoats Grama (Haskell)	2.7	Weeping Lovegrass (Ermelo)	0.5
	Illinois Bundleflower	1.0	Sand Lovegrass	0.5
			Lance-Leaf Coreopsis	1.0
11 (Lufkin) Feb. 1–May 15	Green Sprangletop	0.3	Green Sprangletop	0.3
	Bermudagrass	1.8	Bermudagrass	2.1
	Bahiagrass (Pensacola)	9.0	Bahiagrass (Pensacola)	9.0
	Sideoats Grama (Haskell)	2.7	Sand Lovegrass	0.5
	Illinois Bundleflower	1.0	Lance-Leaf Coreopsis	1.0

Table 1 (continued)

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District and Planting Dates	Permanent Rural Seed Mix Clay Soils		Sandy Soils	
	Species and Rates (lb. PLS/acre)		Species and Rates (lb. PLS/acre)	
12 (Houston) Jan. 15–May 15	Green Sprangletop	0.3	Green Sprangletop	0.3
	Bermudagrass	2.1	Bermudagrass	2.4
	Sideoats Grama (Haskell)	3.2	Bahiagrass (Pensacola)	10.5
	Little Bluestem (Native)	1.4	Weeping Lovegrass (Ermelo)	1.0
	Illinois Bundleflower	1.0	Lance-Leaf Coreopsis	1.0
13 (Yoakum) Jan. 15–May 15	Green Sprangletop (Van Horn)	1.0	Green Sprangletop (Van Horn)	1.0
	Sideoats Grama (South Texas)	1.0	Hooded Windmillgrass (Mariah)	0.4
	Texas Grama (Atascosa)	1.5	Slender Grama (Dilley)	1.0
	Slender Grama (Dilley)	1.0	Hairy Grama (Chaparral)	0.8
	Shortspike Windmillgrass (Welder)	0.3	Shortspike Windmillgrass (Welder)	0.2
	Halls Panicum (Oso)	0.2	Purple Prairie Clover (Cuero)	0.6
	Plains Bristlegrass (Catarina Blend)	0.2	Partridge Pea (Comanche)	0.6
	Canada Wildrye (Lavaca)	2.0	Englemann Daisy (Eldorado)	1.0
	Illinois Bundleflower (Sabine)	1.3		
	Purple Prairie Clover (Cuero)	0.6		
14 (Austin) Feb. 1–May 15	Green Sprangletop (Van Horn)	1.0	Green Sprangletop (Van Horn)	1.0
	Sideoats Grama (South Texas)	1.0	Hooded Windmillgrass (Mariah)	0.2
	Texas Grama (Atascosa)	1.0	Shortspike Windmillgrass (Welder)	0.2
	Hairy Grama (Chaparral)	0.4	Hairy Grama (Chaparral)	0.4
	Shortspike Windmillgrass (Welder)	0.2	Slender Grama (Dilley)	1.0
	Little Bluestem (OK Select)	0.8	Sand Lovegrass (Mason)	0.2
	Purple Prairie Clover (Cuero)	0.6	Sand Dropseed (Borden County)	0.2
	Englemann Daisy (Eldorado)	0.75	Partridge Pea (Comanche)	0.6
	Illinois Bundleflower (Sabine)	1.3	Little Bluestem (OK Select)	0.8
	Awnless Bushsunflower (Plateau)	0.2	Englemann Daisy (Eldorado)	0.75
			Purple Prairie Clover	0.3
15 (San Antonio) Feb. 1–May 1	Green Sprangletop (Van Horn)	1.0	Green Sprangletop (Van Horn)	1.0
	Sideoats Grama (South Texas)	1.0	Slender Grama (Dilley)	2.0
	Texas Grama (Atascosa)	1.0	Hairy Grama (Chaparral)	0.6
	Slender Grama (Dilley)	1.0	Shortspike Windmillgrass (Welder)	0.4
	Shortspike Windmillgrass (Welder)	0.2	Pink Pappusgrass (Maverick)	0.6
	Pink Pappusgrass (Maverick)	0.6	Plains Bristlegrass (Catarina Blend)	0.2
	Halls Panicum (Oso)	0.2	Hooded Windmillgrass (Mariah)	0.3
	Plains Bristlegrass (Catarina Blend)	0.2	Multi-flowered False Rhoades Grass	0.1
	False Rhodes Grass (Kinney)	0.1	(Hidalgo)	0.2
	Hooded Windmillgrass (Mariah)	0.2	Arizona Cottontop (La Salle)	
	Arizona Cottontop (La Salle)	0.2		
16 (Corpus Christi) Jan. 1–May 1	Green Sprangletop (Van Horn)	1.0	Green Sprangletop (Van Horn)	1.0
	Sideoats Grama (South Texas)	1.0	Slender Grama (Dilley)	2.0
	Texas Grama (Atascosa)	1.0	Hairy Grama (Chaparral)	0.6
	Slender Grama (Dilley)	1.0	Shortspike Windmillgrass (Welder)	0.4
	Shortspike Windmillgrass (Welder)	0.2	Pink Pappusgrass (Maverick)	0.6
	Pink Pappusgrass (Maverick)	0.6	Plains Bristlegrass (Catarina Blend)	0.2
	Halls Panicum (Oso)	0.2	Hooded Windmillgrass (Mariah)	0.3
	Plains Bristlegrass (Catarina Blend)	0.2	Multi-flowered False Rhodes Grass	0.1
	False Rhodes Grass (Kinney)	0.1	(Hidalgo)	0.2
	Hooded Windmillgrass (Mariah)	0.2	Arizona Cottontop (La Salle)	
	Arizona Cottontop (La Salle)	0.2		
17 (Bryan) Feb. 1–May 15	Green Sprangletop	0.3	Green Sprangletop	0.3
	Bermudagrass	1.5	Bermudagrass	1.5
	Sideoats Grama (Haskell)	3.6	Bahiagrass (Pensacola)	7.5
	Little Bluestem (Native)	1.7	Weeping Lovegrass (Ermelo)	0.6
	Illinois Bundleflower	1.0	Sand Lovegrass	0.6
			Lance-Leaf Coreopsis	1.0

Table 1 (continued)

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District and Planting Dates	Permanent Rural Seed Mix		Sandy Soils	
	Clay Soils		Species and Rates (lb. PLS/acre)	
18 (Dallas) Feb. 1–May 15	Green Sprangletop (Van Horn)	1.0	Green Sprangletop (Van Horn)	1.0
	Sideoats Grama (Haskell)	1.0	Hooded Windmillgrass (Mariah)	0.2
	Texas Grama (Atascosa)	1.0	Shortspike Windmillgrass (Welder)	0.2
	Hairy Grama (Chaparral)	0.4	Hairy Grama (Chaparral)	0.4
	Shortspike Windmillgrass (Welder)	0.2	Slender Grama (Dilley)	1.0
	Little Bluestem (OK Select)	0.8	Sand Lovegrass (Mason)	0.2
	Purple Prairie Clover (Cuero)	0.6	Sand Dropseed (Borden County)	0.2
	Engelmann Daisy (Eldorado)	0.75	Partridge Pea (Comanche)	0.6
	Illinois Bundleflower	1.3	Little Bluestem (OK Select)	0.8
	Awnless Bushsunflower (Plateau)	0.2	Engelmann Daisy (Eldorado)	0.75
			Purple Prairie Clover	0.3
19 (Atlanta) Feb. 1–May 15	Green Sprangletop	0.3	Green Sprangletop	0.3
	Bermudagrass	2.4	Bermudagrass	2.1
	Sideoats Grama (Haskell)	4.5	Bahiagrass (Pensacola)	7.5
	Illinois Bundleflower	1.0	Sand Lovegrass	0.6
			Lance-Leaf Coreopsis	1.0
20 (Beaumont) Jan. 15–May 15	Green Sprangletop	0.3	Green Sprangletop	0.3
	Bermudagrass	2.7	Bermudagrass	2.1
	Sideoats Grama (Haskell)	4.1	Bahiagrass (Pensacola)	7.5
	Illinois Bundleflower	1.0	Sand Lovegrass	0.6
			Lance-Leaf Coreopsis	1.0
21 (Pharr) Jan. 15–May 15	Green Sprangletop (Van Horn)	1.0	Green Sprangletop (Van Horn)	1.0
	Sideoats Grama (South Texas)	1.0	Slender Grama (Dilley)	2.0
	Texas Grama (Atascosa)	1.0	Hairy Grama (Chaparral)	0.6
	Slender Grama (Dilley)	1.0	Shortspike Windmillgrass (Welder)	0.4
	Shortspike Windmillgrass (Welder)	0.2	Pink Pappusgrass (Maverick)	0.6
	Pink Pappusgrass (Maverick)	0.6	Plains Bristlegrass (Catarina Blend)	0.2
	Halls Panicum (Oso)	0.2	Hooded Windmillgrass (Mariah)	0.3
	Plains Bristlegrass (Catarina Blend)	0.2	Multi-flowered False Rhoades Grass	0.1
	False Rhodes Grass (Kinney)	0.1	(Hidalgo)	0.2
	Hooded Windmillgrass (Mariah)	0.2	Arizona Cottontop (La Salle)	
	Arizona Cottontop (La Salle)	0.2		
22 (Laredo) Jan. 15–May 1	Green Sprangletop (Van Horn)	1.0	Green Sprangletop (Van Horn)	1.0
	Sideoats Grama (South Texas)	1.0	Slender Grama (Dilley)	2.0
	Texas Grama (Atascosa)	1.0	Hairy Grama (Chaparral)	0.6
	Slender Grama (Dilley)	1.0	Shortspike Windmillgrass (Welder)	0.4
	Shortspike Windmillgrass (Welder)	0.2	Pink Pappusgrass (Maverick)	0.6
	Pink Pappusgrass (Maverick)	0.6	Plains Bristlegrass (Catarina Blend)	0.2
	Halls Panicum (Oso)	0.2	Hooded Windmillgrass (Mariah)	0.3
	Plains Bristlegrass (Catarina Blend)	0.2	Multi-flowered False Rhoades Grass	0.1
	False Rhodes Grass (Kinney)	0.1	(Hidalgo)	0.2
	Hooded Windmillgrass (Mariah)	0.2	Arizona Cottontop (La Salle)	
	Arizona Cottontop (La Salle)	0.2		
23 (Brownwood) Feb. 1–May 15	Green Sprangletop (Van Horn)	0.6	Green Sprangletop (Van Horn)	1.0
	Sideoats Grama (Haskell)	1.0	Hooded Windmillgrass (Mariah)	0.2
	Texas Grama (Atascosa)	1.0	Shortspike Windmillgrass (Welder)	0.2
	Hairy Grama (Chaparral)	0.4	Hairy Grama (Chaparral)	0.4
	Shortspike Windmillgrass (Welder)	0.2	Sand Lovegrass (Mason)	0.2
	Little Bluestem (OK Select)	0.8	Sand Dropseed (Borden County)	0.2
	Blue Grama (Hachita)	0.4	Partridge Pea (Comanche)	0.6
	Western Wheatgrass (Barton)	1.2	Little Bluestem (OK Select)	0.8
	Galleta Grass (Viva)	0.6	Engelmann Daisy (Eldorado)	0.75
	Engelmann Daisy (Eldorado)	0.75	Purple Prairie Clover (Cuero)	0.3
	Awnless Bushsunflower (Plateau)	0.2		

Table 2 (continued)

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District and Planting Dates	Permanent Urban Seed Mix		Sandy Soils	
	Clay Soils			
	Species and Rates (lb. PLS/acre)		Species and Rates (lb. PLS/acre)	
24 (El Paso) Feb. 1–May 15	Green Sprangletop (Van Horn)	1.0	Green Sprangletop (Van Horn)	1.0
	Sideoats Grama (South Texas)	1.0	Hooded Windmillgrass (Mariah)	0.2
	Blue Grama (Hachita)	0.4	Blue Grama (Hachita)	0.4
	Galleta Grass (Viva)	0.6	Hairy Grama (Chaparral)	0.4
	Shortspike Windmillgrass (Welder)	0.2	Sand Lovegrass (Mason)	0.2
	Pink Pappusgrass (Maverick)	0.6	Sand Dropseed (Borden County)	0.2
	Alkali Sacaton (Saltalk)	0.2	Indian Ricegrass (Rim Rock)	1.6
	Plains Bristlegrass (Catarina Blend)	0.2	Sand Bluestem (Cottle County)	1.2
	False Rhodes Grass (Kinney)	0.1	Little Bluestem (Pastura)	0.8
	Whiplash Pappusgrass (Webb)	0.6	Purple Prairie Clover (Cuero)	0.3
	Arizona Cottontop (La Salle)	0.2		
25 (Childress) Feb. 1–May 15	Green Sprangletop	0.3	Green Sprangletop	0.3
	Sideoats Grama (El Reno)	2.7	Weeping Lovegrass (Ermelo)	1.2
	Blue Grama (Hachita)	0.9	Sand Dropseed (Borden Co.)	0.5
	Western Wheatgrass	2.1	Sand Lovegrass	0.8
	Galleta	1.6	Purple Prairie Clover	0.5
	Illinois Bundleflower	1.0		

Table 2
Permanent Urban Seed Mix

District and Planting Dates	Clay Soils		Sandy Soils	
	Species and Rates (lb. PLS/acre)		Species and Rates (lb. PLS/acre)	
1 (Paris) Feb. 1–May 15	Green Sprangletop	0.3	Green Sprangletop	0.3
	Bermudagrass	2.4	Bermudagrass	5.4
	Sideoats Grama (Haskell)	4.5		
2 (Ft. Worth) Feb. 1–May 15	Green Sprangletop	0.3	Green Sprangletop	0.3
	Sideoats Grama (El Reno)	3.6	Sideoats Grama (El Reno)	3.6
	Bermudagrass	2.4	Bermudagrass	2.1
	Buffalograss (Texoka)	1.6	Sand Dropseed (Borden Co.)	0.3
3 (Wichita Falls) Feb. 1–May 15	Green Sprangletop	0.3	Green Sprangletop	0.3
	Sideoats Grama (El Reno)	4.5	Sideoats Grama (El Reno)	3.6
	Bermudagrass	1.8	Bermudagrass	1.8
	Buffalograss (Texoka)	1.6	Sand Dropseed (Borden Co.)	0.4
4 (Amarillo) Feb. 15–May 15	Green Sprangletop	0.3	Green Sprangletop	0.3
	Sideoats Grama (El Reno)	3.6	Sideoats Grama (El Reno)	2.7
	Blue Grama (Hachita)	1.2	Blue Grama (Hachita)	0.9
	Buffalograss (Texoka)	1.6	Sand Dropseed (Borden Co.)	0.4
			Buffalograss (Texoka)	1.6
5 (Lubbock) Feb. 15–May 15	Green Sprangletop	0.3	Green Sprangletop	0.3
	Sideoats Grama (El Reno)	3.6	Sideoats Grama (El Reno)	2.7
	Blue Grama (Hachita)	1.2	Blue Grama (Hachita)	0.9
	Buffalograss (Texoka)	1.6	Sand Dropseed (Borden Co.)	0.4
			Buffalograss (Texoka)	1.6
6 (Odessa) Feb. 1–May 15	Green Sprangletop	0.3	Green Sprangletop	0.3
	Sideoats Grama (Haskell)	3.6	Sideoats Grama (Haskell)	2.7
	Blue Grama (Hachita)	1.2	Sand Dropseed (Borden Co.)	0.4
	Buffalograss (Texoka)	1.6	Blue Grama (Hachita)	0.9
			Buffalograss (Texoka)	1.6
7 (San Angelo) Feb. 1–May 1	Green Sprangletop	0.3	Green Sprangletop	0.3
	Sideoats Grama (Haskell)	7.2	Sideoats Grama (Haskell)	3.2
	Buffalograss (Texoka)	1.6	Sand Dropseed (Borden Co.)	0.3
			Blue Grama (Hachita)	0.9
			Buffalograss (Texoka)	1.6
8 (Abilene) Feb. 1–May 15	Green Sprangletop	0.3	Green Sprangletop	0.3
	Sideoats Grama (Haskell)	3.6	Sand Dropseed (Borden Co.)	0.3
	Blue Grama (Hachita)	1.2	Sideoats Grama (Haskell)	3.6
	Buffalograss (Texoka)	1.6	Blue Grama (Hachita)	0.8
			Buffalograss (Texoka)	1.6
9 (Waco) Feb. 1–May 15	Green Sprangletop	0.3	Green Sprangletop	0.3
	Bermudagrass	1.8	Buffalograss (Texoka)	1.6
	Buffalograss (Texoka)	1.6	Bermudagrass	3.6
	Sideoats Grama (Haskell)	4.5	Sand Dropseed (Borden Co.)	0.4

District and Planting Dates	Clay Soils Species and Rates (lb. PLS/acre)	Sandy Soils Species and Rates (lb. PLS/acre)
10 (Tyler) Feb. 1–May 15	Green Sprangletop 0.3 Bermudagrass 2.4 Sideoats Grama (Haskell) 4.5	Green Sprangletop 0.3 Bermudagrass 5.4
11 (Lufkin) Feb. 1–May 15	Green Sprangletop 0.3 Bermudagrass 2.4 Sideoats Grama (Haskell) 4.5	Green Sprangletop 0.3 Bermudagrass 5.4
12 (Houston) Jan. 15–May 15	Green Sprangletop 0.3 Sideoats Grama (Haskell) 4.5 Bermudagrass 2.4	Green Sprangletop 0.3 Bermudagrass 5.4
13 (Yoakum) Jan. 15–May 15	Green Sprangletop 0.3 Sideoats Grama (South Texas) 4.5 Bermudagrass 2.4	Green Sprangletop 0.3 Bermudagrass 5.4
14 (Austin) Feb. 1–May 15	Green Sprangletop 0.3 Bermudagrass 2.4 Sideoats Grama (South Texas) 3.6 Buffalograss (Texoka) 1.6	Green Sprangletop 0.3 Bermudagrass 4.8 Buffalograss (Texoka) 1.6
15 (San Antonio) Feb. 1–May 1	Green Sprangletop 0.3 Sideoats Grama (South Texas) 3.6 Bermudagrass 2.4 Buffalograss (Texoka) 1.6	Green Sprangletop 0.3 Bermudagrass 4.8 Buffalograss (Texoka) 1.6
16 (Corpus Christi) Jan. 1–May 1	Green Sprangletop 0.3 Sideoats Grama (South Texas) 3.6 Bermudagrass 2.4 Buffalograss (Texoka) 1.6	Green Sprangletop 0.3 Bermudagrass 4.8 Buffalograss (Texoka) 1.6
17 (Bryan) Feb. 1–May 15	Green Sprangletop 0.3 Bermudagrass 2.4 Sideoats Grama (Haskell) 4.5	Green Sprangletop 0.3 Bermudagrass 5.4
18 (Dallas) Feb. 1–May 15	Green Sprangletop 0.3 Sideoats Grama (El Reno) 3.6 Buffalograss (Texoka) 1.6 Bermudagrass 2.4	Green Sprangletop 0.3 Buffalograss (Texoka) 1.6 Bermudagrass 3.6 Sand Dropseed (Borden Co.) 0.4
19 (Atlanta) Feb. 1–May 15	Green Sprangletop 0.3 Bermudagrass 2.4 Sideoats Grama (Haskell) 4.5	Green Sprangletop 0.3 Bermudagrass 5.4
20 (Beaumont) Jan. 15–May 15	Green Sprangletop 0.3 Bermudagrass 2.4 Sideoats Grama (Haskell) 4.5	Green Sprangletop 0.3 Bermudagrass 5.4
21 (Pharr) Jan. 15–May 15	Green Sprangletop 0.3 Sideoats Grama (South Texas) 3.6 Buffalograss (Texoka) 1.6 Bermudagrass 2.4	Green Sprangletop 0.3 Buffalograss (Texoka) 1.6 Bermudagrass 3.6 Sand Dropseed (Borden Co.) 0.4
22 (Laredo) Jan. 15–May 1	Green Sprangletop 0.3 Sideoats Grama (South Texas) 4.5 Buffalograss (Texoka) 1.6 Bermudagrass 1.8	Green Sprangletop 0.3 Buffalograss (Texoka) 1.6 Bermudagrass 3.6 Sand Dropseed 0.4
23 (Brownwood) Feb. 1–May 15	Green Sprangletop 0.3 Sideoats Grama (Haskell) 3.6 Bermudagrass 1.2 Blue Grama (Hachita) 0.9	Green Sprangletop 0.3 Buffalograss (Texoka) 1.6 Bermudagrass 3.6 Sand Dropseed (Borden Co.) 0.4
24 (El Paso) Feb. 1–May 15	Green Sprangletop 0.3 Sideoats Grama (South Texas) 3.6 Blue Grama (Hachita) 1.2 Buffalograss (Texoka) 1.6	Green Sprangletop 0.3 Buffalograss (Texoka) 1.6 Sand Dropseed (Borden Co.) 0.4 Blue Grama (Hachita) 1.8
25 (Childress) Feb. 1–May 15	Green Sprangletop 0.3 Sideoats Grama (El Reno) 3.6 Blue Grama (Hachita) 1.2 Buffalograss (Texoka) 1.6	Green Sprangletop 0.3 Sand Dropseed (Borden Co.) 0.4 Buffalograss (Texoka) 1.6 Bermudagrass 1.8

Table 3
Temporary Cool Season Seeding

Districts	Dates	Seed Mix and Rates (lb. PLS/acre)
Paris (1), Amarillo (4), Lubbock (5), Dallas (18)	September 1–November 30	Tall Fescue 4.5 Western Wheatgrass 5.6 Wheat (Red, Winter) 34
Odessa (6), San Angelo (7), El Paso (24)	September 1–November 30	Western Wheatgrass 8.4 Wheat (Red, Winter) 50
Waco (9), Tyler (10), Lufkin (11), Austin (14), San Antonio (15), Bryan (17), Atlanta (19)	September 1–November 30	Tall Fescue 4.5 Oats 24 Wheat 34
Houston (12), Yoakum (13), Corpus Christi (16), Beaumont (20), Pharr (21), Laredo (22)	September 1–November 30	Oats 72
Ft. Worth (2), Wichita Falls (3), Abilene (8), Brownwood (23), Childress (25)	September 1–November 30	Tall Fescue 4.5 Western Wheatgrass 5.6 Cereal Rye 34

Table 4
Temporary Warm Season Seeding

Districts	Dates	Seed Mix and Rates (lb. PLS/acre)
All	May 1–August 31	Foxtail Millet 34

- 2.2. **Fertilizer.** Use fertilizer in conformance with Article 166.2., "Materials."
- 2.3. **Vegetative Watering.** Use water that is clean and free of industrial wastes and other substances harmful to the growth of vegetation.
- 2.4. **Mulch.**
- 2.4.1. **Straw or Hay Mulch.** Use straw or hay mulch in conformance with Section 162.2.5., "Mulch."
- 2.4.2. **Cellulose Fiber Mulch.** Use only cellulose fiber mulches that are on the Approved Products List, *Erosion Control Approved Products*. (<http://www.txdot.gov/business/resources/erosion-control.html>) Submit one full set of manufacturer's literature for the selected material. Keep mulch dry until applied. Do not use molded or rotted material.
- 2.5. **Tacking Methods.** Use a tacking agent applied in accordance with the manufacturer's recommendations or a crimping method on all straw or hay mulch operations. Use tacking agents as approved or as specified on the plans.

3. CONSTRUCTION

Cultivate the area to a depth of 4 in. before placing the seed unless otherwise directed. Use approved equipment to vertically track the seedbed as shown on the plans or as directed. Cultivate the seedbed to a depth of 4 in. or mow the area before placement of the permanent seed when performing permanent seeding after an established temporary seeding. Plant the seed specified and mulch, if required, after the area has been completed to lines and grades as shown on the plans.

- 3.1. **Broadcast Seeding.** Distribute the seed or seed mixture uniformly over the areas shown on the plans using hand or mechanical distribution or hydro-seeding on top of the soil unless otherwise directed. Apply the mixture to the area to be seeded within 30 min. of placement of components in the equipment when seed and water are to be distributed as a slurry during hydro-seeding. Roll the planted area with a light roller or other suitable equipment. Roll sloped areas along the contour of the slopes.
- 3.2. **Straw or Hay Mulch Seeding.** Plant seed according to Section 164.3.1., "Broadcast Seeding." Apply straw or hay mulch uniformly over the seeded area immediately after planting the seed or seed mixture. Apply

straw mulch at 2 to 2.5 tons per acre. Apply hay mulch at 1.5 to 2 tons per acre. Use a tacking method over the mulched area.

- 3.3. **Cellulose Fiber Mulch Seeding.** Plant seed in accordance with Section 164.3.1., "Broadcast Seeding." Apply cellulose fiber mulch uniformly over the seeded area immediately after planting the seed or seed mixture at the following rates.

- Sandy soils with slopes of 3:1 or less—2,500 lb. per acre.
- Sandy soils with slopes greater than 3:1—3,000 lb. per acre.
- Clay soils with slopes of 3:1 or less—2,000 lb. per acre.
- Clay soils with slopes greater than 3:1—2,300 lb. per acre.

Cellulose fiber mulch rates are based on dry weight of mulch per acre. Mix cellulose fiber mulch and water to make a slurry and apply uniformly over the seeded area using suitable equipment.

- 3.4. **Drill Seeding.** Plant seed or seed mixture uniformly over the area shown on the plans at a depth of 1/4 to 1/3 in. using a pasture or rangeland type drill unless otherwise directed. Plant seed along the contour of the slopes.

- 3.5. **Straw or Hay Mulching.** Apply straw or hay mulch uniformly over the area as shown on the plans. Apply straw mulch at 2 to 2.5 tons per acre. Apply hay mulch at 1.5 to 2 tons per acre. Use a tacking method over the mulched area.

Apply fertilizer in conformance with Article 166.3., "Construction." Seed and fertilizer may be distributed simultaneously during "Broadcast Seeding" operations, provided each component is applied at the specified rate. Apply half of the required fertilizer during the temporary seeding operation and the other half during the permanent seeding operation when temporary and permanent seeding are both specified for the same area.

Water the seeded areas at the rates and frequencies as shown on the plans or as directed.

4. MEASUREMENT

This Item will be measured by the square yard or by the acre.

5. PAYMENT

The work performed and the materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Broadcast Seeding (Perm)" of the rural or urban seed mixture and sandy or clay soil specified, "Broadcast Seeding (Temp)" of warm or cool season specified, "Straw or Hay Mulch Seeding (Perm)" of the rural or urban seed mixture and sandy or clay soil specified, "Straw or Hay Mulch Seeding (Temp)" of warm or cool season specified, "Cellulose Fiber Mulch Seeding (Perm)" of the rural or urban seed mixture and sandy or clay soil specified, "Cellulose Fiber Mulch Seeding (Temp)" of warm or cool season specified, "Drill Seeding (Perm)" of the rural or urban seed mixture and sandy or clay soil specified, "Drill Seeding (Temp)" of warm or cool season specified, and "Straw or Hay Mulching." This price is full compensation for furnishing materials, including water for hydro-seeding and hydro-mulching operations, mowing, labor, equipment, tools, supplies, and incidentals. Fertilizer will not be paid for directly but will be subsidiary to this Item. Water for irrigating the seeded area, when specified, will be paid for under Item 168, "Vegetative Watering."

Item 166

Fertilizer



1. DESCRIPTION

Provide and distribute fertilizer over areas specified on the plans.

2. MATERIALS

Use a complete fertilizer containing nitrogen (N), phosphoric acid (P), and potash (K) nutrients unless otherwise specified on the plans. Ensure at least 50% of the nitrogen component is a slow-release sulfur-coated urea. Ensure that fertilizer is in an acceptable condition for distribution in containers labeled with the analysis. Fertilizer is subject to testing by the Texas A&M Feed and Fertilizer Control Service in accordance with the Texas Fertilizer Law.

3. CONSTRUCTION

Deliver and apply the complete fertilizer uniformly at a rate equal to 60 lb. of nitrogen per acre or at the analysis and rate specified on the plans.

Apply fertilizer as a dry material and do not mix with water to form a slurry.

Incorporate fertilizer during seedbed preparation as specified on the plans.

4. MEASUREMENT

When fertilizer is specified on the plans to be a pay item, measurement will be by the acre of surface area covered or by the ton (2,000 lb.). Measurement by the ton will use guaranteed weight of bags or containers as shown by the manufacturer or certified scales meeting the requirements of Item 520, "Weighing and Measuring Equipment," unless otherwise approved.

5. PAYMENT

Unless otherwise specified on the plans, the work performed, materials furnished, equipment, labor, tools, and incidentals will not be paid for directly but will be subsidiary to pertinent bid items.

When fertilizer is specified on the plans to be a pay item, the work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Fertilizer." This price is full compensation for furnishing materials and performing operations.

Item 168

Vegetative Watering



1. DESCRIPTION

Provide and distribute water to promote growth of vegetation as directed.

2. MATERIALS

Use water that is clean and free of industrial wastes and other substances harmful to the growth of vegetation.

3. CONSTRUCTION

Apply water when directed. Furnish and operate equipment to distribute water at a uniform and controllable rate. Ensure that watering does not erode soil or plantings. Apply water in the required quantity where shown on the plans or as directed.

4. MEASUREMENT

This Item will be measured by the 1,000 gal. as applied.

5. PAYMENT

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Vegetative Watering." This price is full compensation for furnishing and operating watering equipment and measuring devices and for furnishing and applying water, including hauling, equipment, labor, and incidentals.

Item 169

Soil Retention Blankets



1. DESCRIPTION

Provide and install soil retention blankets (SRB) as shown on the plans or as directed.

2. MATERIALS

Provide only SRB that meet the requirements of [DMS-6370](#), "Soil Retention Blankets," and are on the Approved Products List, *Erosion Control Approved Products*. (<http://www.txdot.gov/business/resources/erosion-control.html>) Use material of the following class and type as shown on the plans and provide a copy of the manufacturer's label for the selected product.

2.1. Class 1: Slope Protection.

2.1.1. Type A. Slopes 3:1 or flatter—clay soils,

2.1.2. Type B. Slopes 3:1 or flatter—sandy soils,

2.1.3. Type C. Slopes steeper than 3:1—clay soils, and

2.1.4. Type D. Slopes steeper than 3:1—sandy soils.

2.2. Class 2: Flexible Channel Liners.

2.2.1. Type E. Biodegradable materials with shear stress less than 2.0 psf,

2.2.2. Type F. Biodegradable materials with shear stress less than 4.0 psf,

2.2.3. Type G. Nonbiodegradable materials with shear stress less than 6.0 psf, and

2.2.4. Type H. Nonbiodegradable materials with shear stress less than 8.0 lb. psf.

3. CONSTRUCTION

Provide a copy of the manufacturer's installation instructions to the Engineer before placement of the material. Place the SRB within 24 hr. after the seeding or sodding operation, or when directed. Install and anchor the SRB in strict accordance with the recommendations contained within the manufacturer's published literature. Installation includes the repair of ruts, reseeding or resodding, and the removal of rocks, clods, and other foreign materials which may prevent contact of the blanket with the soil.

4. MEASUREMENT

This Item will be measured by the square yard of surface area covered.

5. PAYMENT

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Soil Retention Blankets" of the class and type specified. This price is full compensation for equipment, materials, labor, tools, and incidentals.

Item 247

Flexible Base



1. DESCRIPTION

Construct a foundation course composed of flexible base.

2. MATERIALS

Furnish uncontaminated materials of uniform quality that meet the requirements of the plans and specifications. Notify the Engineer of the proposed material sources and of changes to material sources. The Engineer may sample and test project materials at any time before compaction throughout the duration of the project to assure specification compliance. Use [Tex-100-E](#) material definitions.

- 2.1. **Aggregate.** Furnish aggregate of the type and grade shown on the plans and meeting the requirements of Table 1. Each source must meet Table 1 requirements for liquid limit, plasticity index, and wet ball mill for the grade specified. Do not use additives, such as but not limited to lime, cement, or fly ash to modify aggregates to meet the requirements of Table 1 unless shown on the plans.

Table 1
Material Requirements

Property	Test Method	Grade 1–2	Grade 3	Grade 4 ²	Grade 5
Sampling	Tex-400-A				
Master gradation sieve size (cumulative % retained)	Tex-110-E			As shown on the plans	
2-1/2"		0	0		0
1-3/4"		0–10	0–10		0–5
7/8"		10–35	–		10–35
3/8"		30–65	–		35–65
#4		45–75	45–75		45–75
#40		65–90	50–85		70–90
Liquid Limit, % Max	Tex-104-E	40	40	As shown on the plans	35
Plasticity Index, Max ¹	Tex-106-E	10	12	As shown on the plans	10
Plasticity index, Min ¹		As shown on the plans	As shown on the plans	As shown on the plans	As shown on the plans
Wet ball mill, % Max	Tex-116-E	40	–	As shown on the plans	40
Wet ball mill, % Max increase passing the #40 sieve		20	–	As shown on the plans	20
Min compressive strength, psi	Tex-117-E			As shown on the plans	
lateral pressure 0 psi		35	–		–
lateral pressure 3 psi		–	–		90
lateral pressure 15 psi		175	–		175

- Determine plastic index in accordance with [Tex-107-E](#) (linear shrinkage) when liquid limit is unattainable as defined in [Tex-104-E](#).
- Grade 4 may be further designated as Grade 4A, Grade 4B, etc.

- 2.1.1. **Material Tolerances.** The Engineer may accept material if no more than 1 of the 5 most recent gradation tests has an individual sieve outside the specified limits of the gradation.

When target grading is required by the plans, no single failing test may exceed the master grading by more than 5 percentage points on sieves No. 4 and larger or 3 percentage points on sieves smaller than No. 4.

The Engineer may accept material if no more than 1 of the 5 most recent plasticity index tests is outside the specified limit. No single failing test may exceed the allowable limit by more than 2 points.

- 2.1.2. **Material Types.** Do not use fillers or binders unless approved. Furnish the type specified on the plans in accordance with the following:
- 2.1.2.1. **Type A.** Crushed stone produced and graded from oversize quarried aggregate that originates from a single, naturally occurring source. Do not use gravel or multiple sources.
- 2.1.2.2. **Type B.** Crushed or uncrushed gravel. Blending of 2 or more sources is allowed.
- 2.1.2.3. **Type C.** Crushed gravel with a minimum of 60% of the particles retained on a No. 4 sieve with 2 or more crushed faces as determined by [Tex-460-A](#), Part I. Blending of 2 or more sources is allowed.
- 2.1.2.4. **Type D.** Type A material or crushed concrete. Crushed concrete containing gravel will be considered Type D material. Crushed concrete must meet the requirements in Section 247.2.1.3.2., "Recycled Material (Including Crushed Concrete) Requirements," and be managed in a way to provide for uniform quality. The Engineer may require separate dedicated stockpiles in order to verify compliance.
- 2.1.2.5. **Type E.** Caliche, iron ore or as otherwise shown on the plans.
- 2.1.3. **Recycled Material.** Reclaimed asphalt pavement (RAP) and other recycled materials may be used when shown on the plans. Request approval to blend 2 or more sources of recycled materials.
- 2.1.3.1. **Limits on Percentage.** Do not exceed 20% RAP by weight, when RAP is allowed, unless otherwise shown on the plans. The percentage limitations for other recycled materials will be as shown on the plans.
- 2.1.3.2. **Recycled Material (Including Crushed Concrete) Requirements.**
- 2.1.3.2.1. **Contractor-Furnished Recycled Materials.** Provide recycled materials, other than RAP, that have a maximum sulfate content of 3,000 ppm when tested in accordance with [Tex-145-E](#). When the Contractor furnishes the recycled materials, including crushed concrete, the final product will be subject to the requirements of Table 1 for the grade specified. Certify compliance with [DMS-11000](#), "Evaluating and Using Nonhazardous Recyclable Materials Guidelines," for Contractor furnished recycled materials. In addition, recycled materials must be free from reinforcing steel and other objectionable material and have at most 1.5% deleterious material when tested in accordance with [Tex-413-A](#). For RAP, do not exceed a maximum percent loss from decantation of 5.0% when tested in accordance with [Tex-406-A](#). Test RAP without removing the asphalt.
- 2.1.3.2.2. **Department-Furnished Required Recycled Materials.** When the Department furnishes and requires the use of recycled materials, unless otherwise shown on the plans:
- Department-required recycled material will not be subject to the requirements in Table 1,
 - Contractor-furnished materials are subject to the requirements in Table 1 and this Item,
 - the final product, blended, will be subject to the requirements in Table 1, and
 - for final product, unblended (100% Department-furnished required recycled material), the liquid limit, plasticity index, wet ball mill, and compressive strength is waived.

Crush Department-furnished RAP so that 100% passes the 2 in. sieve. The Contractor is responsible for uniformly blending to meet the percentage required.

2.1.3.2.3. **Department-Furnished and Allowed Recycled Materials.** When the Department furnishes and allows the use of recycled materials or allows the Contractor to furnish recycled materials, the final blended product is subject to the requirements of Table 1 and the plans.

2.1.3.3. **Recycled Material Sources.** Department-owned recycled material is available to the Contractor only when shown on the plans. Return unused Department-owned recycled materials to the Department stockpile location designated by the Engineer unless otherwise shown on the plans.

The use of Contractor-owned recycled materials is allowed when shown on the plans. Contractor-owned surplus recycled materials remain the property of the Contractor. Remove Contractor-owned recycled materials from the project and dispose of them in accordance with federal, state, and local regulations before project acceptance. Do not intermingle Contractor-owned recycled material with Department-owned recycled material unless approved.

2.2. **Water.** Furnish water free of industrial wastes and other objectionable matter.

2.3. **Material Sources.** Expose the vertical faces of all strata of material proposed for use when non-commercial sources are used. Secure and process the material by successive vertical cuts extending through all exposed strata, when directed.

3. EQUIPMENT

Provide machinery, tools, and equipment necessary for proper execution of the work.

3.1. Provide rollers in accordance with Item 210, "Rolling." Provide proof rollers in accordance with Item 216, "Proof Rolling," when required.

3.2. When ride quality measurement is required, provide a high speed or lightweight inertial profiler certified at the Texas A&M Transportation Institute. Provide equipment certification documentation. Display a current decal on the equipment indicating the certification expiration date.

4. CONSTRUCTION

Construct each layer uniformly, free of loose or segregated areas, and with the required density and moisture content. Provide a smooth surface that conforms to the typical sections, lines, and grades shown on the plans or as directed.

Stockpile base material temporarily at an approved location before delivery to the roadway. Build stockpiles in layers no greater than 2 ft. thick. Stockpiles must have a total height between 10 and 16 ft. unless otherwise approved. After construction and acceptance of the stockpile, loading from the stockpile for delivery is allowed. Load by making successive vertical cuts through the entire depth of the stockpile.

Do not add or remove material from temporary stockpiles that require sampling and testing before delivery unless otherwise approved. Charges for additional sampling and testing required as a result of adding or removing material will be deducted from the Contractor's estimates.

Haul approved flexible base in clean trucks. Deliver the required quantity to each 100-ft. station or designated stockpile site as shown on the plans. Prepare stockpile sites as directed. When delivery is to the 100-ft. station, manipulate in accordance with the applicable Items.

4.1. **Preparation of Subgrade or Existing Base.** Remove or scarify existing asphalt concrete pavement in accordance with Item 105, "Removing Treated and Untreated Base and Asphalt Pavement," when shown on

the plans or as directed. Shape the subgrade or existing base to conform to the typical sections shown on the plans or as directed.

When new base is required to be mixed with existing base, deliver, place, and spread the new flexible base in the required amount per station. Manipulate and thoroughly mix the new base with existing material to provide a uniform mixture to the specified depth before shaping.

Proof roll the roadbed in accordance with Item 216, "Proof Rolling," before pulverizing or scarifying when shown on the plans or directed. Correct soft spots as directed.

- 4.2. **Placing.** Spread and shape flexible base into a uniform layer with an approved spreader the same day as delivered unless otherwise approved. Construct layers to the thickness shown on the plans. Maintain the shape of the course. Control dust by sprinkling, as directed. Correct or replace segregated areas as directed, at no additional expense to the Department.

Place successive base courses and finish courses using the same construction methods required for the first course.

- 4.3. **Compaction.** Compact using density control unless otherwise shown on the plans. Multiple lifts are permitted when shown on the plans or approved. Bring each layer to the moisture content directed. When necessary, sprinkle the material in accordance with Item 204, "Sprinkling."

Begin rolling longitudinally at the sides and proceed towards the center, overlapping on successive trips by at least 1/2 the width of the roller unit. Begin rolling at the low side and progress toward the high side on superelevated curves. Offset alternate trips of the roller. Operate rollers at a speed between 2 and 6 mph as directed.

Rework, recompact, and refinish material that fails to meet or that loses required moisture, density, stability, or finish requirements before the next course is placed or the project is accepted. Continue work until specification requirements are met. Perform the work at no additional expense to the Department.

Before final acceptance, the Engineer will select the locations of tests and measure the flexible base depth in accordance with [Tex-140-E](#). Correct areas deficient by more than 1/2 in. in thickness by scarifying, adding material as required, reshaping, recompact, and refinish at the Contractor's expense.

- 4.3.1. **Ordinary Compaction.** Roll with approved compaction equipment as directed. Correct irregularities, depressions, and weak spots immediately by scarifying the areas affected, adding or removing approved material as required, reshaping, and recompact.

- 4.3.2. **Density Control.** Compact to at least 100% of the maximum dry density determined by [Tex-113-E](#), unless otherwise shown on the plans. Maintain moisture during compaction within ± 2 percentage points of the optimum moisture content as determined by [Tex-113-E](#). Measure the moisture content of the material in accordance with [Tex-115-E](#) or [Tex-103-E](#) during compaction daily and report the results the same day to the Engineer, unless otherwise shown on the plans or directed. Do not achieve density by drying the material after compaction.

The Engineer will determine roadway density and moisture content of completed sections in accordance with [Tex-115-E](#). The Engineer may accept the section if no more than 1 of the 5 most recent density tests is below the specified density and the failing test is no more than 3 pcf below the specified density.

- 4.4. **Finishing.** After completing compaction, clip, skin, or tight-blade the surface with a maintainer or subgrade trimmer to a depth of approximately 1/4 in. Remove loosened material and dispose of it at an approved location. Seal the clipped surface immediately by rolling with a pneumatic tire roller until a smooth surface is

attained. Add small increments of water as needed during rolling. Shape and maintain the course and surface in conformity with the typical sections, lines, and grades as shown on the plans or as directed.

Correct grade deviations greater than 1/4 in. in 16 feet measured longitudinally or greater than 1/4 in. over the entire width of the cross-section in areas where surfacing is to be placed. Correct by loosening and adding, or removing material. Reshape and re-compact in accordance with Section 247.4.3., "Compaction."

- 4.5. **Curing.** Cure the finished section until the moisture content is at least 2 percentage points below optimum or as directed before applying the next successive course or prime coat.

- 4.6. **Ride Quality.** This section applies to the final travel lanes that receive a 1 or 2 course surface treatment for the final surface, unless otherwise shown on the plans. Measure ride quality of the base course after placement of the prime coat and before placement of the surface treatment, unless otherwise approved. Use a certified profiler operator from the Department's MPL. When requested, furnish the Engineer documentation for the person certified to operate the profiler.

Provide all profile measurements to the Engineer in electronic data files within 3 days after placement of the prime coat using the format specified in [Tex-1001-S](#). The Engineer will use Department software to evaluate longitudinal profiles to determine areas requiring corrective action. Correct 0.1-mi.sections having an average international roughness index (IRI) value greater than 100.0 in. per mile to an IRI value of 100.0 in. per mile or less for each wheel path, unless otherwise shown on the plans.

Re-profile and correct sections that fail to maintain ride quality until placement of the next course, as directed. Correct re-profiled sections until specification requirements are met, as approved. Perform this work at no additional expense to the Department.

5. MEASUREMENT

Flexible base will be measured as follows:

- **Flexible Base (Complete In Place).** The ton, square yard, or any cubic yard method.
- **Flexible Base (Roadway Delivery).** The ton or any cubic yard method.
- **Flexible Base (Stockpile Delivery).** The ton, cubic yard in vehicle, or cubic yard in stockpile.

Measurement by the cubic yard in final position and square yard is a plans quantity measurement. The quantity to be paid for is the quantity shown in the proposal unless modified by Article 9.2., "Plans Quantity Measurement." Additional measurements or calculations will be made if adjustments of quantities are required.

Measurement is further defined for payment as follows.

- 5.1. **Cubic Yard in Vehicle.** By the cubic yard in vehicles of uniform capacity at the point of delivery.
- 5.2. **Cubic Yard in Stockpile.** By the cubic yard in the final stockpile position by the method of average end areas.
- 5.3. **Cubic Yard in Final Position.** By the cubic yard in the completed and accepted final position. The volume of base course is computed in place by the method of average end areas between the original subgrade or existing base surfaces and the lines, grades, and slopes of the accepted base course as shown on the plans.
- 5.4. **Square Yard.** By the square yard of surface area in the completed and accepted final position. The surface area of the base course is based on the width of flexible base as shown on the plans.

- 5.5. **Ton.** By the ton of dry weight in vehicles as delivered. The dry weight is determined by deducting the weight of the moisture in the material at the time of weighing from the gross weight of the material. The Engineer will determine the moisture content in the material in accordance with [Tex-103-E](#) from samples taken at the time of weighing.

When material is measured in trucks, the weight of the material will be determined on certified scales, or the Contractor must provide a set of standard platform truck scales at a location approved by the Engineer. Scales must conform to the requirements of Item 520, "Weighing and Measuring Equipment."

6. PAYMENT

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for the types of work shown below. No additional payment will be made for thickness or width exceeding that shown on the typical section or provided on the plans for cubic yard in the final position or square yard measurement.

Sprinkling and rolling, except proof rolling, will not be paid for directly but will be subsidiary to this Item unless otherwise shown on the plans. When proof rolling is shown on the plans or directed, it will be paid for in accordance with Item 216, "Proof Rolling."

Where subgrade is constructed under this Contract, correction of soft spots in the subgrade will be at the Contractor's expense. Where subgrade is not constructed under this Contract, correction of soft spots in the subgrade will be paid in accordance with pertinent Items or Article 4.4., "Changes in the Work."

- 6.1. **Flexible Base (Complete In Place).** Payment will be made for the type and grade specified. For cubic yard measurement, "In Vehicle," "In Stockpile," or "In Final Position" will be specified. For square yard measurement, a depth will be specified. This price is full compensation for furnishing materials, temporary stockpiling, assistance provided in stockpile sampling and operations to level stockpiles for measurement, loading, hauling, delivery of materials, spreading, blading, mixing, shaping, placing, compacting, reworking, finishing, correcting locations where thickness is deficient, curing, furnishing scales and labor for weighing and measuring, and equipment, labor, tools, and incidentals.
- 6.2. **Flexible Base (Roadway Delivery).** Payment will be made for the type and grade specified. For cubic yard measurement, "In Vehicle," "In Stockpile," or "In Final Position" will be specified. The unit price bid will not include processing at the roadway. This price is full compensation for furnishing materials, temporary stockpiling, assistance provided in stockpile sampling and operations to level stockpiles for measurement, loading, hauling, delivery of materials, furnishing scales and labor for weighing and measuring, and equipment, labor, tools, and incidentals.
- 6.3. **Flexible Base (Stockpile Delivery).** Payment will be made for the type and grade specified. For cubic yard measurement, "In Vehicle" or "In Stockpile" will be specified. The unit price bid will not include processing at the roadway. This price is full compensation for furnishing and disposing of materials, preparing the stockpile area, temporary or permanent stockpiling, assistance provided in stockpile sampling and operations to level stockpiles for measurement, loading, hauling, delivery of materials to the stockpile, furnishing scales and labor for weighing and measuring, and equipment, labor, tools, and incidentals.

Item 310

Prime Coat



1. DESCRIPTION

Prepare and treat existing or newly constructed surface with an asphalt binder or other specialty prime coat binder material. Apply blotter material as required.

2. MATERIALS

- 2.1. **Binder.** Use material of the type and grade shown on the plans in accordance with Item 300, "Asphalts, Oils, and Emulsions," or as listed in the Department's MPL for prime coat binders.
- 2.2. **Blotter.** Use either base course sweepings obtained from cleaning the base or native sand as blotter materials unless otherwise shown on the plans or approved.

3. EQUIPMENT

Provide applicable equipment in accordance with Article 316.3., "Equipment."

4. CONSTRUCTION

- 4.1. **General.** Apply the mixture when the air temperature is at or above 60°F, or above 50°F and rising. Measure the air temperature in the shade away from artificial heat. The Engineer will determine when weather conditions are suitable for application.

Do not permit traffic, hauling, or placement of subsequent courses over freshly constructed prime coats. Maintain the primed surface until placement of subsequent courses or acceptance of the work.
- 4.2. **Surface Preparation.** Prepare the surface by sweeping or other approved methods. Lightly sprinkle the surface with water before applying bituminous material, when directed, to control dust and ensure absorption.
- 4.3. **Application.**
 - 4.3.1. **Binder.** The Engineer will select the application temperature within the limits recommended in Item 300, "Asphalts, Oils, and Emulsions," or by the material manufacturer. Apply material within 15°F of the selected temperature but do not exceed the maximum allowable temperature.

Distribute the material smoothly and evenly at the rate selected by the Engineer. Roll the freshly applied prime coat with a pneumatic-tire roller to ensure penetration when directed.
 - 4.3.2. **Blotter.** Spread blotter material before allowing traffic to use a primed surface. Apply blotter material to primed surface at the specified rate when "Prime Coat and Blotter" is shown on the plans as a bid item or as directed. Apply blotter to spot locations when "Prime Coat" is shown on the plans as a bid item or as directed to accommodate traffic movement through the work area. Remove blotter material before placing the surface. Dispose of blotter material according to applicable state and federal requirements.

5. MEASUREMENT

This Item will be measured by the gallon of binder placed and accepted.

6. PAYMENT

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Prime Coat" or "Prime Coat and Blotter" of the type and grade of binder specified. This price is full compensation for cleaning and sprinkling the area to be primed; materials, including blotter material; and rolling, equipment, labor, tools, and incidentals.

Item 464

Reinforced Concrete Pipe



1. DESCRIPTION

Furnish and install reinforced concrete pipe, materials for precast concrete pipe culverts, or precast concrete storm drain mains, laterals, stubs, and inlet leads.

2. MATERIALS

- 2.1. **Fabrication.** Fabrication plants must be approved by the Construction Division in accordance with [DMS-7310](#), "Reinforced Concrete Pipe and Machine-Made Precast Concrete Box Culvert Fabrication and Plant Qualification," before furnishing precast reinforced concrete pipe for Department projects. The Department's MPL has a list of approved reinforced concrete pipe plants.

Furnish material and fabricate reinforced concrete pipe in accordance with [DMS-7310](#), "Reinforced Concrete Pipe and Machine-Made Precast Concrete Box Culvert Fabrication and Plant Qualification."

- 2.2. **Design.**

- 2.2.1. **General.** The class and D-load equivalents are shown in Table 1. Furnish arch pipe in accordance with ASTM C506 and the dimensions shown in Table 2. Furnish horizontal elliptical pipe in accordance with ASTM C507 and the dimensions shown in Table 3. For arch pipe and horizontal elliptical pipe the minimum height of cover required is 1 ft.

Table 1
Circular Pipe
ASTM C76 & ASTM C655

Class	D-Load
I	800
II	1,000
III	1,350
IV	2,000
V	3,000

Table 2
Arch Pipe

Design Size	Equivalent Diameter (in.)	Rise (in.)	Span (in.)
1	18	13-1/2	22
2	21	15-1/2	26
3	24	18	28-1/2
4	30	22-1/2	36-1/4
5	36	26-5/8	43-3/4
6	42	31-5/16	51-1/8
7	48	36	58-1/2
8	54	40	65
9	60	45	73
10	72	54	88

Table 3
Horizontal Elliptical Pipe

Design Size	Equivalent Diameter (in.)	Rise (in.)	Span (in.)
1	18	14	23
2	24	19	30
3	27	22	34
4	30	24	38
5	33	27	42
6	36	29	45
7	39	32	49
8	42	34	53
9	48	38	60
10	54	43	68

- 2.2.2. **Jacking, Boring, or Tunneling.** Design pipe for jacking, boring, or tunneling considering the specific installation conditions such as the soil conditions, installation methods, anticipated deflection angles, and jacking stresses. Provide design notes and drawings signed and sealed by a Texas licensed professional engineer when requested.
- 2.3. **Marking.** Furnish each section of reinforced concrete pipe marked with the following information specified in [DMS-7310](#), "Reinforced Concrete Pipe and Machine-Made Precast Concrete Box Culvert Fabrication and Plant Qualification."
- class or D-load of pipe,
 - ASTM designation,
 - date of manufacture,
 - pipe size,
 - name or trademark of fabricator and plant location,
 - designated fabricator's approval stamp,
 - pipe to be used for jacking and boring (when applicable), and
 - designation "SR" for pipe meeting sulfate-resistant concrete plan requirements (when applicable).
- Clearly mark 1 end of each section during the process of manufacture or immediately thereafter for pipe with elliptical reinforcement. Mark the pipe on the inside and outside of opposite walls to show the location of the top or bottom of the pipe as it should be installed unless the external shape of the pipe is such that the correct position of the top and bottom is obvious. Mark the pipe section by indenting or painting with waterproof paint.
- 2.4. **Inspection.** Provide access for inspection of the finished pipe at the project site before and during installation.
- 2.5. **Causes for Rejection.** Individual section of pipe may be rejected for any of the conditions stated in the Annex of [DMS-7310](#), "Reinforced Concrete Pipe and Machine-Made Precast Concrete Box Culvert Fabrication and Plant Qualification."
- 2.6. **Repairs.** Make repairs if necessary as stated in the Annex of [DMS-7310](#), "Reinforced Concrete Pipe and Machine-Made Precast Concrete Box Culvert Fabrication and Plant Qualification."
- 2.7. **Jointing Materials.** Use any of the following materials for the making of joints unless otherwise shown on the plans. Furnish a manufacturer's certificate of compliance for all jointing materials except mortar.
- 2.7.1. **Mortar.** Provide mortar for joints that meets the requirements of Section 464.3.3., "Jointing."
- 2.7.2. **Cold-Applied, Plastic Asphalt Sewer Joint Compound.** Provide a material that consists of natural or processed asphalt base, suitable volatile solvents, and inert filler. Ensure the consistency is such that the ends of the pipe can be coated with a layer of the compound up to 1/2 in. thick by means of a trowel. Provide

a joint compound that cures to a firm, stiff plastic condition after application. Provide a material of a uniform mixture. Stir any small separation found in the container into a uniform mix before using.

Provide a material that meets the requirements of Table 4 when tested in accordance with [Tex-526-C](#).

Table 4
Cold-Applied, Plastic Asphalt Sewer Joint Compound Material Requirements

Composition	Analysis
Asphalt base, 100%–% volatiles–% ash, % by weight	28–45
Volatiles, 212°F evaporation, 24 hr., % by weight	10–26
Mineral matter, determined as ash, % by weight	30–55
Consistency, cone penetration, 150 g, 5 sec., 77°F	150–275

- 2.7.3. **Rubber Gaskets.** Provide gaskets that conform to ASTM C1619 Class A or C. Meet the requirements of ASTM C443 for design of the pipe joints and permissible variations in dimensions.
- 2.7.4. **Pre-Formed Flexible Joint Sealants.** Pre-formed flexible joint sealants may be used for sealing joints of tongue-and-groove concrete pipe. Provide flexible joint sealants that meet the requirements of ASTM C990. Use flexible joint sealants that do not depend on oxidizing, evaporating, or chemical action for its adhesive or cohesive strength. Supply in extruded rope form of suitable cross-section. Provide a size of the pre-formed flexible joint sealant in accordance with the manufacturer's recommendations and large enough to properly seal the joint. Protect flexible joint sealants with a suitable wrapper able to maintain the integrity of the jointing material when the wrapper is removed.

3. CONSTRUCTION

- 3.1. **Excavation, Shaping, Bedding, and Backfill.** Excavate, shape, bed, and backfill in accordance with Item 400, "Excavation and Backfill for Structures," except where jacking, boring, or tunneling methods are permitted. Jack, bore, or tunnel the pipe in accordance with Item 476, "Jacking, Boring, or Tunneling Pipe or Box." Immediate backfilling is permitted if joints consist of materials other than mortar. Take special precautions in placing and compacting the backfill to avoid any movement of the pipe or damage to the joints. Do not use heavy earth-moving equipment to haul over the structure until a minimum of 4 ft. of permanent or temporary compacted fill has been placed over the structure unless otherwise shown on the plans or permitted in writing. Remove and replace pipe damaged by the Contractor at no expense to the Department.
- 3.2. **Laying Pipe.** Start the laying of pipe on the bedding at the outlet end with the spigot or tongue end pointing downstream, and proceed toward the inlet end with the abutting sections properly matched, true to the established lines and grades unless otherwise authorized. Fit, match, and lay the pipe to form a smooth, uniform conduit. Cut cross trenches in the foundation to allow the barrel of the pipe to rest firmly upon the bedding where bell-and-spigot pipe is used. Cut cross trenches no more than 2 in. larger than the bell ends of the pipe. Lower sections of pipe into the trench without damaging the pipe or disturbing the bedding and the sides of the trench. Carefully clean the ends of the pipe before the pipe is placed. Prevent the earth or bedding material from entering the pipe as it is laid. Lay the pipe in the trench, when elliptical pipe with circular reinforcing or circular pipe with elliptical reinforcing is used, so the markings for the top or bottom are not more than 5° from the vertical plane through the longitudinal axis of the pipe. Remove and re-lay, without extra compensation, pipe that is not in alignment or shows excessive settlement after laying.
- Lay multiple lines of reinforced concrete pipe with the centerlines of the individual barrels parallel. Use the clear distances between outer surfaces of adjacent pipes shown in Table 5 unless otherwise shown on the plans. Use the equivalent diameter from Table 2 or Table 3 for arch pipe or horizontal elliptical pipe to determine the clear distance requirement in Table 5.

Table 5
Minimum Clear Distance between Pipes

Equivalent Diameter	Min Clear Distance
18 in.	9 in.
24 in.	11 in.
30 in.	1 ft. 1 in.
36 in.	1 ft. 3 in.
42 in.	1 ft. 5 in.
48 in.	1 ft. 7 in.
54 in.	1 ft. 11 in.
60 to 84 in.	2 ft.

- 3.3. **Jointing.** Make available an appropriate rolling device similar to an automobile mechanic's "creeper" for conveyance through small-size pipe structures.
- 3.3.1. **Joints Sealed with Hydraulic Cement Mortar.** Use Type S mortar meeting the requirements of ASTM C270. Clean and wet the pipe ends before making the joint. Plaster the lower half of the bell or groove and the upper half of the tongue or spigot with mortar. Pack mortar into the joint from both inside and outside the pipe after the pipes are tightly jointed. Finish the inside smooth and flush with adjacent joints of pipe. Form a bead of semicircular cross-section over tongue-and-groove joints outside the pipe, extending at least 1 in. on each side of the joint. Form the mortar for bell-and-spigot joints to a 45° fillet between the outer edge of the bell and the spigot. Cure mortar joints by keeping the joints wet for at least 48 hr. or until the backfill has been completed, whichever comes first. Place fill or backfill once the mortar jointing material has cured for at least 6 hr. Conduct jointing only when the atmospheric temperature is above 40°F. Protect mortared joints against freezing by backfilling or other approved methods for at least 24 hr.
- Driveway culverts do not require mortar banding on the outside of the pipe.
- Furnish pipes, with approval, that are large enough for a person to enter with the groove between 1/2 in. and 3/4 in. longer than the tongue. Such pipe may be laid and backfilled without mortar joints. Clean the space on the interior of the pipe between the end of the tongue and the groove of all foreign material, thoroughly wet and fill with mortar around the entire circumference of the pipe, and finish flush after the backfilling has been completed.
- 3.3.2. **Joints Using Cold-Applied, Plastic Asphalt Sewer Joint Compound.** Ensure both ends of the pipes are clean and dry. Trowel or otherwise place a 1/2-in. thick layer of the compound in the groove end of the pipe covering at least 2/3 of the joint face around the entire circumference. Shove home the tongue end of the next pipe with enough pressure to make a tight joint. Remove any excess mastic projecting into the pipe after the joint is made. Backfill after the joint has been inspected and approved.
- 3.3.3. **Joints Using Rubber Gaskets.** Make the joint assembly according to the recommendations of the gasket manufacturer. Make joints watertight when using rubber gaskets. Backfill after the joint has been inspected and approved.
- 3.3.4. **Joints Using Pre-Formed Flexible Joint Sealants.** Install pre-formed flexible joint sealants in accordance with the manufacturer's recommendations. Place the joint sealer so no dirt or other deleterious materials come in contact with the joint sealing material. Pull or push home the pipe with enough force to properly seal the joint. Remove any joint material pushed out into the interior of the pipe that would tend to obstruct the flow. Store pre-formed flexible joint sealants in an area warmed naturally or artificially to above 70°F in an approved manner when the atmospheric temperature is below 60°F. Apply flexible joint sealants to pipe joints immediately before placing pipe in trench, and connect pipe to previously laid pipe. Backfill after the joint has been inspected and approved.
- 3.4. **Connections and Stub Ends.** Make connections of concrete pipe to existing pipes, pipe storm drains, or storm drain appurtenances as shown on the plans.

Mortar or concrete the bottom of existing structures if necessary to eliminate any drainage pockets created by the connections. Repair any damage to the existing structure resulting from making the connections.

Make connections between concrete pipe and corrugated metal pipe with a suitable concrete collar and a minimum thickness of 4 in. unless otherwise shown on the plans.

Finish stub ends for connections to future work not shown on the plans by installing watertight plugs into the free end of the pipe.

Fill lift holes with concrete, mortar, or precast concrete plugs after the pipe is in place.

4. MEASUREMENT

This Item will be measured by the foot. Measurement will be made between the ends of the pipe barrel along the flow line, not including safety end treatments. Safety end treatments will be measured in accordance with Item 467, "Safety End Treatment." Pipe that will be jacked, bored, or tunneled will be measured in accordance with Item 476, "Jacking, Boring, or Tunneling Pipe or Box." Measurement of spurs, branches, or new connecting pipe will be made from the intersection of the flow line with the outside surface of the pipe into which it connects. Where inlets, headwalls, catch basins, manholes, junction chambers, or other structures are included in lines of pipe, the length of pipe tying into the structure wall will be included for measurement, but no other portion of the structure length or width will be included.

For multiple pipes, the measured length will be the sum of the lengths of the barrels.

This is a plans quantity measurement Item. The quantity to be paid is the quantity shown in the proposal unless modified by Article 9.2., "Plans Quantity Measurement." Additional measurements or calculations will be made if adjustments of quantities are required.

5. PAYMENT

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Reinforced Concrete Pipe," "Reinforced Concrete Pipe (Arch)," or "Reinforced Concrete Pipe (Elliptical)" of the size and D-load specified or of the size and class specified. This price is full compensation for constructing, furnishing, transporting, placing, and joining pipes; shaping the bed; cutting pipes on skew or slope; connecting to new or existing structures; breaking back, removing, and disposing of portions of the existing structure; replacing portions of the existing structure; cutting pipe ends on skew or slope; and equipment, labor, tools, and incidentals.

Protection methods for excavations greater than 5 ft. deep will be measured and paid for as required under Item 402, "Trench Excavation Protection," or Item 403, "Temporary Special Shoring." Excavation, shaping, bedding, and backfill will be paid for in accordance with Item 400, "Excavation and Backfill for Structures." When jacking, boring, or tunneling is used at the Contractor's option, payment will be made under this Item. When jacking, boring or tunneling is required, payment will be made under Item 476, "Jacking, Boring or Tunneling Pipe or Box."

Item 467

Safety End Treatment



1. DESCRIPTION

Furnish, construct, and install safety end treatments for drainage structures, or install or replace pipe runners or pipe runner assemblies on existing drainage structures.

2. MATERIALS

2.1. **General.** Furnish materials in accordance with the following.

- Item 420, "Concrete Substructures,"
- Item 421, "Hydraulic Cement Concrete,"
- Item 432, "Riprap,"
- Item 440, "Reinforcement for Concrete,"
- Item 442, "Metal for Structures,"
- Item 445, "Galvanizing,"
- Item 460, "Corrugated Metal Pipe," and
- Item 464, "Reinforced Concrete Pipe."

Use Class C concrete for cast-in-place and precast concrete units unless otherwise shown on the plans. Furnish cast-in-place or precast safety end treatments unless otherwise shown on the plans. Furnish Class B concrete for concrete riprap unless otherwise shown on the plans. Provide galvanized steel for prefabricated metal end sections in accordance with Item 460, "Corrugated Metal Pipe."

Furnish pipe runners in accordance with the following:

- ASTM A1085;
- ASTM A53, Type E or S, Grade B;
- ASTM A500, Grade B; or
- API 5L, Grade X42.

Furnish plates and angles in accordance with ASTM A36. Furnish nuts and bolts in accordance with ASTM A307. Galvanize pipes, plates, angles, nuts, and bolts in accordance with Item 445, "Galvanizing."

2.2. **Fabrication.** Fabricate cast-in-place concrete units and precast units in accordance with Item 420, "Concrete Substructures." Provide either prefabricated metal end sections or mitered CMP when specified for the pipe structure unless otherwise shown on the plans.

Provide one of the following when reinforced concrete pipe (RCP) is specified for the pipe structure, unless otherwise shown on the plans:

- mitered RCP or
- precast safety end treatment (SET) units. Provide riprap only if the plans specifically require it for this alternative.

2.2.1. **SET Types.**

2.2.1.1. **Type I.** Provide Type I SET consisting of reinforced concrete headwalls or wingwalls and pipe runners in accordance with the details shown on the plans when required.

- 2.2.1.2. **Type II.** Provide Type II SET in accordance with the details shown on the plans consisting of the following:
- CMP or RCP mitered to the proper slope, concrete riprap and pipe runners, when required;
 - prefabricated metal end sections, concrete riprap and pipe runners, when required; or
 - precast SET units, concrete riprap, when required, and pipe runners, when required.
- 2.2.2. **Lifting Holes.** Provide no more than 4 lifting holes in each section for precast units. Lifting holes may be cast, cut into fresh concrete after form removal, or drilled. Provide lifting holes large enough for adequate lifting devices based on the size and weight of the section. The maximum hole diameter is 3 in. at the inside surface of the wall and 4 in. at the outside surface. Cut no more than 1 longitudinal wire or 2 circumferential wires per layer of reinforcing steel when locating lift holes. Repair spalled areas around lifting holes.
- 2.2.3. **Marking.** Clearly mark the following on each precast unit, mitered CMP, mitered RCP, or metal end section before shipment from the casting or fabrication yard:
- the date of manufacture,
 - the name or trademark of the manufacturer, and
 - the type and size designation.
- 2.2.4. **Storage and Shipment.** Store precast units on a level surface. Do not place any loads on precast units until the design strength is reached. Do not ship units until design strength requirements have been met.
- 2.2.5. **Causes for Rejection.** Precast units may be rejected for not meeting any one of the specification requirements. Individual units may also be rejected for fractures or cracks passing through the wall or surface defects indicating honeycombed or open texture surfaces. Remove rejected units from the project and replace with acceptable units meeting the requirements of this Item.
- 2.2.6. **Defects and Repairs.** Occasional imperfections in manufacture or accidental damage sustained during handling may be repaired. The repaired units will be acceptable if they conform to the requirements of this Item and the repairs are sound and properly finished and cured in conformance with pertinent specifications. Repair damaged galvanizing in accordance with Section 445.3.5., "Repairs."

3. CONSTRUCTION

- 3.1. **General.** Remove portions of existing structures in accordance with Section 420.4.8., "Extending Existing Substructures." Drill, dowel, and grout in accordance with Item 420, "Concrete Substructures." Furnish concrete riprap in accordance with Item 432, "Riprap."
- Provide riprap on all prefabricated metal end sections.
- 3.2. **Excavation, Shaping, Bedding, and Backfill.** Excavate, shape, bed, and backfill in accordance with Item 400, "Excavation and Backfill for Structures." Take special precautions in placing and compacting the backfill to avoid any movement or damage to the units. Bed precast units on foundations of firm and stable material accurately shaped to conform to the bases of the units.
- 3.3. **Placement of Precast Units.** Provide adequate means to lift and place the precast units. Fill lifting holes with mortar or concrete and cure. Precast concrete or mortar plugs may be used.
- 3.4. **Connections.** Make connections to new or existing structures in accordance with the details shown on the plans. Furnish jointing material in accordance with Item 464, "Reinforced Concrete Pipe."
- Also remove a length of the existing pipe from the headwall to the joint when removing existing headwalls as shown on the plans or as approved. Re-lay the removed pipe if approved, or furnish and lay a length of new pipe.
- 3.5. **Install or Replace Pipe Runners or Assemblies.** Install or replace individual pipe runners or pipe runner assemblies on existing drainage structures as indicated on the plans.

4. MEASUREMENT

SETs of all types will be measured by each barrel of each structure end.

Pipe runners or pipe runner assemblies installed or replaced on existing structure will be measured by each installed or replaced on each structure end.

5. PAYMENT

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for the various designations of "Safety End Treatment" specified as follows:

- SET (Type I) (Barrel Span) (Wall Height) (Slope, Horizontal:Vertical) (Orientation, Cross or Parallel)
- SET (Type I) (Pipe Diameter or Design) (Slope, Horizontal:Vertical) (Orientation, Cross or Parallel)
- SET (Type II) (Pipe Diameter or Design) (Pipe Material) (Slope, Horizontal:Vertical) (Orientation, Cross or Parallel)
- SET (Pipe Runner)
- SET (Pipe Runner Assembly)

For payment purposes, the wingwall heights of Type I SETs for box culverts will be rounded to the nearest foot.

This price is full compensation for constructing, furnishing, transporting, and installing the end treatments; pipe runners, or pipe runner assemblies, connecting to existing structure; breaking back, removing and disposing of portions of the existing structure, removing and disposing of existing pipe runner or pipe runner assemblies, and replacing portions of the existing structure as required to make connections; excavation and backfill; furnishing concrete, reinforcing steel, corrugated metal pipe or reinforced concrete pipe, and pipe runners; and concrete riprap, nuts, bolts, plates, angles, equipment, labor, tools, and incidentals.

The removal and re-laying of existing pipe or the furnishing of new pipe to replace existing pipe will not be paid for directly but will be considered subsidiary to this Item.

The mitered length of CMP or RCP that is a part of the SET (Type II) will not be paid for directly but will be considered subsidiary to this Item. The limits for payment for pipe will be as shown on the plans and paid for in accordance with the pertinent bid item.

The limits of riprap to be included in the price bid for each SET will be shown on the plans. Any riprap placed beyond the limits shown will be paid in accordance with Item 432, "Riprap." Riprap between multiple precast SET units will be required as shown on the plans and is included in the price bid for SET.

When precast SETs are provided as an option to mitered RCP, riprap aprons will not be required unless the plans specifically require riprap aprons for precast SET units. The plans will show the limits of the riprap to be included with the precast SET for payment.

Item 500

Mobilization



1. DESCRIPTION

Establish and remove offices, plants, and facilities. Move personnel, equipment, and supplies to and from the project or the vicinity of the project site to begin work or complete work on Contract Items. Bonds and insurance are required for performing mobilization.

For Contracts with emergency mobilization, provide a person and method of contact available 24 hrs. a day, 7 days a week unless otherwise shown on the plans. The time of notice will be the transmission time of the written notice or notice provided orally by the Department's representative.

2. MEASUREMENT

This Item will be measured by the lump sum or each as the work progresses. Mobilization is calculated on the base bid only and will not be paid for separately on any additive alternate items added to the Contract.

3. PAYMENT

For this Item, the adjusted Contract amount will be calculated as the total Contract amount less the lump sum for mobilization. Except for Contracts with callout or emergency work, mobilization will be paid in partial payments as follows:

- Payment will be made upon presentation of a paid invoice for the payment or performance bonds and required insurance,
- Payment will be made upon verification of documented expenditures for plant and facility setup. The combined amount for all these facilities will be no more than 10% of the mobilization lump sum or 1% of the total Contract amount, whichever is less,
- When 1% of the adjusted Contract amount for construction Items is earned, 50% of the mobilization lump sum bid or 5% of the total Contract amount, whichever is less, will be paid. Previous payments under this Item will be deducted from this amount,
- When 5% of the adjusted Contract amount for construction Items is earned, 75% of the mobilization lump sum bid or 10% of the total Contract amount, whichever is less, will be paid. Previous payments under the Item will be deducted from this amount,
- When 10% of the adjusted Contract amount for construction Items is earned, 90% of the mobilization lump sum bid or 10% of the total Contract amount, whichever is less, will be paid. Previous payments under this Item will be deducted from this amount,
- Upon final acceptance, 97% of the mobilization lump sum bid will be paid. Previous payments under this Item will be deducted from this amount, and
- Payment for the remainder of the lump sum bid for "Mobilization" will be made after all submittals are received, final quantities have been determined and when any separate vegetative establishment and maintenance, test, and performance periods provided for in the Contract have been successfully completed.

For projects with extended maintenance or performance periods, payment for the remainder of the lump sum bid for "Mobilization" will be made 6 months after final acceptance.

For Contracts with callout or emergency work, "Mobilization," will be paid as follows:

- Payment will be made upon presentation of a paid invoice for the payment of performance bonds and required insurance,
- Mobilization for callout work will be paid for each callout work request, and
- Mobilization for emergency work will be paid for each emergency work request.

Item 502

Barricades, Signs, and Traffic Handling



1. DESCRIPTION

Provide, install, move, replace, maintain, clean, and remove all traffic control devices shown on the plans and as directed.

2. CONSTRUCTION

Comply with the requirements of Article 7.2., "Safety."

Implement the traffic control plan (TCP) shown on the plans.

Install traffic control devices straight and plumb. Make changes to the TCP only as approved. Minor adjustments to meet field conditions are allowed.

Submit Contractor-proposed TCP changes, signed and sealed by a licensed professional engineer, for approval. The Engineer may develop, sign, and seal Contractor-proposed changes. Changes must conform to guidelines established in the TMUTCD using approved products from the Department's Compliant Work Zone Traffic Control Device List.

Maintain traffic control devices by taking corrective action when notified. Corrective actions include, but are not limited to, cleaning, replacing, straightening, covering, and removing devices. Maintain the devices such that they are properly positioned and spaced, legible, and have retroreflective characteristics that meet requirements day or night and in all weather conditions.

The Engineer may authorize or direct in writing the removal or relocation of project limit advance warning signs. When project limit advance warning signs are removed before final acceptance, provide traffic control in accordance with the TMUTCD for minor operations as approved.

Remove all traffic control devices upon completion of the work as shown on the plans or as directed.

3. MEASUREMENT

Barricades, Signs, and Traffic Handling will be measured by the month. Law enforcement personnel with patrol vehicles will be measured by the hour for each person.

4. PAYMENT

- 4.1. **Barricades, Signs, and Traffic Handling.** Except for Contracts with callout work and work orders, the work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Barricades, Signs, and Traffic Handling." This price is full compensation for installation, maintenance, adjustments, replacements, removal, materials, equipment, labor, tools, and incidentals.

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Barricades, Signs, and Traffic Handling." This price is full compensation for installation, maintenance, adjustments, replacements, removal, materials, equipment, labor, tools, and incidentals.

When the plans establish pay items for particular work in the TCP, that work will be measured and paid under pertinent Items.

- 4.1.1. **Initiation of Payment.** Payment for this Item will begin on the first estimate after barricades, signs, and traffic handling devices have been installed in accordance with the TCP and construction has begun.
- 4.1.2. **Paid Months.** Monthly payment will be made each succeeding month for this Item provided the barricades, signs, and traffic handling devices have been installed and maintained in accordance with the TCP until the Contract amount has been paid.

If, within the time frame established by the Engineer, the Contractor fails to provide or properly maintain signs and barricades in compliance with the Contract requirements, as determined by the Engineer, the Contractor will be considered in noncompliance with this Item. No payment will be made for the months in question, and the total final payment quantity will be reduced by the number of months the Contractor was in noncompliance.
- 4.1.3. **Maximum Total Payment Before Acceptance.** The total payment for this Item will not exceed 10% of the total Contract amount before final acceptance in accordance with Article 5.12., "Final Acceptance." The remaining balance will be paid in accordance with Section 502.4.1.5., "Balance Due."
- 4.1.4. **Total Payment Quantity.** The quantity paid under this Item will not exceed the total quantity shown on the plans except as modified by change order and as adjusted by Section 502.4.1.2., "Paid Months." An overrun of the plans quantity for this Item will not be allowed for approving designs; testing; material shortages; closed construction seasons; curing periods; establishment, performance, test, and maintenance periods; failure to complete the work in the number of months allotted; nor delays caused directly or indirectly by requirements of the Contract.
- 4.1.5. **Balance Due.** The remaining unpaid months of barricades less non-compliance months will be paid on final acceptance of the project, if all work is complete and accepted in accordance with Article 5.12., "Final Acceptance."
- 4.1.6. **Contracts with Callout Work and Work Orders.** The work performed and the materials furnished with this Item and measured as provided under "Measurement," will be considered subsidiary to pertinent Items, except for federally funded Contracts.
- 4.2. **Law Enforcement Personnel.** The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement," will be paid by Contractor force account for "Law Enforcement Personnel." This price is full compensation for furnishing all labor, materials, supplies, equipment, patrol vehicle, fees, and incidentals necessary to complete the work as directed.

Item 506

Temporary Erosion, Sedimentation, and Environmental Controls



1. DESCRIPTION

Install, maintain, and remove erosion, sedimentation, and environmental control measures to prevent or reduce the discharge of pollutants in accordance with the Storm Water Pollution Prevention Plan (SWP3) on the plans and the Texas Pollutant Discharge Elimination System (TPDES) General Permit TXR150000. Control measures are defined as Best Management Practices used to prevent or reduce the discharge of pollutants. Control measures include, but are not limited to, rock filter dams, temporary pipe slope drains, temporary paved flumes, construction exits, earthwork for erosion control, pipe, construction perimeter fence, sandbags, temporary sediment control fence, biodegradable erosion control logs, vertical tracking, temporary or permanent seeding, and other measures. Erosion and sediment control devices must be selected from the *Erosion Control Approved Products* or *Sediment Control Approved Products* lists. Perform work in a manner to prevent degradation of receiving waters, facilitate project construction, and comply with applicable federal, state, and local regulations. Ensure the installation and maintenance of control measures is performed in accordance with the manufacturer's or designer's specifications.

Provide the Contractor Certification of Compliance before performing SWP3 or soil disturbing activities. By signing the Contractor Certification of Compliance, the Contractor certifies they have read and understand the requirements applicable to this project pertaining to the SWP3, the plans, and the TPDES General Permit TXR150000. The Contractor is responsible for any penalties associated with non-performance of installation or maintenance activities required for compliance. Ensure the most current version of the certificate is executed for this project.

2. MATERIALS

Furnish materials in accordance with the following:

- Item 161, "Compost,"
- Item 432, "Riprap," and
- Item 556, "Pipe Underdrains."

2.1. Rock Filter Dams.

2.1.1. Aggregate. Furnish aggregate with approved hardness, durability, cleanliness, and resistance to crumbling, flaking, and eroding. Provide the following:

- Types 1, 2, and 4 Rock Filter Dams. Use 3 to 6 in. aggregate.
- Type 3 Rock Filter Dams. Use 4 to 8 in. aggregate.

2.1.2. Wire. Provide minimum 20 gauge galvanized wire for the steel wire mesh and tie wires for Types 2 and 3 rock filter dams. Type 4 dams require:

- a double-twisted, hexagonal weave with a nominal mesh opening of 2-1/2 × 3-1/4 in.;
- minimum 0.0866 in. steel wire for netting;
- minimum 0.1063 in. steel wire for selvages and corners; and
- minimum 0.0866 in. for binding or tie wire.

2.1.3. Sandbag Material. Furnish sandbags meeting Section 506.2.8., "Sandbags," except that any gradation of aggregate may be used to fill the sandbags.

- 2.2. **Temporary Pipe Slope Drains.** Provide corrugated metal pipe, polyvinyl chloride (PVC) pipe, flexible tubing, watertight connection bands, grommet materials, prefabricated fittings, and flared entrance sections that conform to the plans. Recycled and other materials meeting these requirements are allowed if approved.
- Furnish concrete in accordance with Item 432, "Riprap."
- 2.3. **Temporary Paved Flumes.** Furnish asphalt concrete, hydraulic cement concrete, or other comparable non-erodible material that conforms to the plans. Provide rock or rubble with a minimum diameter of 6 in. and a maximum volume of 1/2 cu. ft. for the construction of energy dissipaters.
- 2.4. **Construction Exits.** Provide materials that meet the details shown on the plans and this Section.
- 2.4.1. **Rock Construction Exit.** Provide crushed aggregate for long- and short-term construction exits. Furnish aggregates that are clean, hard, durable, and free from adherent coatings such as salt, alkali, dirt, clay, loam, shale, soft or flaky materials, and organic and injurious matter. Use 4- to 8-in. aggregate for Type 1. Use 2- to 4-in. aggregate for Type 3.
- 2.4.2. **Timber Construction Exit.** Furnish No. 2 quality or better railroad ties and timbers for long-term construction exits, free of large and loose knots and treated to control rot. Fasten timbers with nuts and bolts or lag bolts, of at least 1/2 in. diameter, unless otherwise shown on the plans or allowed. Provide plywood or pressed wafer board at least 1/2 in. thick for short-term exits.
- 2.4.3. **Foundation Course.** Provide a foundation course consisting of flexible base, bituminous concrete, hydraulic cement concrete, or other materials as shown on the plans or directed.
- 2.5. **Embankment for Erosion Control.** Provide rock, loam, clay, topsoil, or other earth materials that will form a stable embankment to meet the intended use.
- 2.6. **Pipe.** Provide pipe outlet material in accordance with Item 556, "Pipe Underdrains," and details shown on the plans.
- 2.7. **Construction Perimeter Fence.**
- 2.7.1. **Posts.** Provide essentially straight wood or steel posts that are at least 60 in. long. Furnish soft wood posts with a minimum diameter of 3 in., or use nominal 2 × 4 in. boards. Furnish hardwood posts with a minimum cross-section of 1-1/2 × 1-1/5 in. Furnish T- or L-shaped steel posts with a minimum weight of 1.25 lb. per foot.
- 2.7.2. **Fence.** Provide orange construction fencing as approved.
- 2.7.3. **Fence Wire.** Provide 14 gauge or larger galvanized smooth or twisted wire. Provide 16 gauge or larger tie wire.
- 2.7.4. **Flagging.** Provide brightly-colored flagging that is fade-resistant and at least 3/4 in. wide to provide maximum visibility both day and night.
- 2.7.5. **Staples.** Provide staples with a crown at least 1/2 in. wide and legs at least 1/2 in. long.
- 2.7.6. **Used Materials.** Previously used materials meeting the applicable requirements may be used if approved.
- 2.8. **Sandbags.** Provide sandbag material of polypropylene, polyethylene, or polyamide woven fabric with a minimum unit weight of 4 oz. per square yard, a Mullen burst-strength exceeding 300 psi, and an ultraviolet stability exceeding 70%.

Use natural coarse sand or manufactured sand meeting the gradation given in Table 1 to fill sandbags. Filled sandbags must be 24 to 30 in. long, 16 to 18 in. wide, and 6 to 8 in. thick.

Table 1
Sand Gradation

Sieve Size	Retained (% by Weight)
#4	Maximum 3%
#100	Minimum 80%
#200	Minimum 95%

Aggregate may be used instead of sand for situations where sandbags are not adjacent to traffic. The aggregate size must not exceed 3/8 in.

- 2.9. **Temporary Sediment Control Fence.** Provide a net-reinforced fence using woven geo-textile fabric. Logos visible to the traveling public will not be allowed.
- 2.9.1. **Fabric.** Provide fabric materials in accordance with [DMS-6230](#), "Temporary Sediment Control Fence Fabric."
- 2.9.2. **Posts.** Provide essentially straight wood or steel posts with a minimum length of 48 in., unless otherwise shown on the plans. Furnish soft wood posts at least 3 in. in diameter, or use nominal 2 × 4 in. boards. Furnish hardwood posts with a minimum cross-section of 1-1/2 × 1-1/2 in. Furnish T- or L-shaped steel posts with a minimum weight of 1.25 lb. per foot.
- 2.9.3. **Net Reinforcement.** Provide net reinforcement of at least 12.5 gauge (SWG) galvanized welded wire mesh, with a maximum opening size of 2 × 4 in., at least 24 in. wide, unless otherwise shown on the plans.
- 2.9.4. **Staples.** Provide staples with a crown at least 3/4 in. wide and legs 1/2 in. long.
- 2.9.5. **Used Materials.** Use recycled material meeting the applicable requirements if approved.
- 2.10. **Biodegradable Erosion Control Logs.**
- 2.10.1. **Core Material.** Furnish core material that is biodegradable or recyclable. Use compost, mulch, aspen excelsior wood fibers, chipped site vegetation, agricultural rice or wheat straw, coconut fiber, 100% recyclable fibers, or any other acceptable material unless specifically called out on the plans. Permit no more than 5% of the material to escape from the containment mesh. Furnish compost meeting the requirements of Item 161, "Compost."
- 2.10.2. **Containment Mesh.** Furnish containment mesh that is 100% biodegradable, photodegradable, or recyclable such as burlap, twine, UV photodegradable plastic, polyester, or any other acceptable material.
- Furnish biodegradable or photodegradable containment mesh when log will remain in place as part of a vegetative system.
- Furnish recyclable containment mesh for temporary installations.
- 2.10.3. **Size.** Furnish biodegradable erosion control logs with diameters shown on the plans or as directed. Stuff containment mesh densely so logs do not deform.

3. QUALIFICATIONS, TRAINING, AND EMPLOYEE REQUIREMENTS

- 3.1. **Contractor Responsible Person Environmental (CRPE) Qualifications and Responsibilities.** Provide and designate in writing at the preconstruction conference a CRPE and alternate CRPE who have overall responsibility for the storm water management program. The CRPE will implement storm water and erosion control practices; will oversee and observe storm water control measure monitoring and management; will monitor the project site daily and produce daily monitoring reports as long as there are BMPs in place or soil disturbing activities are evident to ensure compliance with the SWP3 and TPDES General Permit TXR150000. During time suspensions when work is not occurring or on contract non-work days, daily inspections are not required unless a rain event has occurred. The CRPE will provide recommendations on how to improve the effectiveness of control measures. Attend the Department's preconstruction conference

for the project. Ensure training is completed as identified in Section 506.3.3., "Training," by all applicable personnel before employees work on the project. Document and submit a list, signed by the CRPE, of all applicable Contractor and subcontractor employees who have completed the training. Include the employee's name, the training course name, and date the employee completed the training. Provide the most current list at the preconstruction conference or before SWP3 or soil disturbing activities. Update the list as needed and provide the updated list when updated.

- 3.2. **Contractor Superintendent Qualifications and Responsibilities.** Provide a superintendent that is competent, has experience with and knowledge of storm water management, and is knowledgeable of the requirements and the conditions of the TPDES General Permit TXR150000. The superintendent will manage and oversee the day to day operations and activities at the project site; work with the CRPE to provide effective storm water management at the project site; represent and act on behalf of the Contractor; and attend the Department's preconstruction conference for the project.
- 3.3. **Training.** All Contractor and subcontractor employees involved in soil disturbing activities, small or large structures, storm water control measures, and seeding activities must complete training as prescribed by the Department.

4. CONSTRUCTION

- 4.1. **Contractor Responsibilities.** Implement the SWP3 for the project site in accordance with the plans and specifications, TPDES General Permit TXR150000, and as directed. Coordinate storm water management with all other work on the project. Develop and implement an SWP3 for project-specific material supply plants within and outside of the Department's right of way in accordance with the specific or general storm water permit requirements. Prevent water pollution from storm water associated with construction activity from entering any surface water or private property on or adjacent to the project site.
- 4.2. **Implementation.** The CRPE, or alternate CRPE, must be accessible by phone and able to respond to project-related storm water management or other environmental emergencies 24 hr. per day.
- 4.2.1. **Commencement.** Implement the SWP3 as shown and as directed. Contractor-proposed recommendations for changes will be allowed as approved. Conform to the established guidelines in the TPDES General Permit TXR150000 to make changes. Do not implement changes until approval has been received and changes have been incorporated into the plans. Minor adjustments to meet field conditions are allowed and will be recorded in the SWP3.
- 4.2.2. **Phasing.** Implement control measures before the commencement of activities that result in soil disturbance. Phase and minimize the soil disturbance to the areas shown on the plans. Coordinate temporary control measures with permanent control measures and all other work activities on the project to assure economical, effective, safe, and continuous water pollution prevention. Provide control measures that are appropriate to the construction means, methods, and sequencing allowed by the Contract. Exercise precaution throughout the life of the project to prevent pollution of ground waters and surface waters. Schedule and perform clearing and grubbing operations so that stabilization measures will follow immediately thereafter if project conditions permit. Bring all grading sections to final grade as soon as possible and implement temporary and permanent control measures at the earliest time possible. Implement temporary control measures when required by the TPDES General Permit TXR150000 or otherwise necessitated by project conditions.

Do not prolong final grading and shaping. Preserve vegetation where possible throughout the project, and minimize clearing, grubbing, and excavation within stream banks, bed, and approach sections.
- 4.3. **General.**
- 4.3.1. **Temporary Alterations or Control Measure Removal.** Altering or removal of control measures is allowed when control measures are restored within the same working day.

- 4.3.2. **Stabilization.** Initiate stabilization for disturbed areas no more than 14 days after the construction activities in that portion of the site have temporarily or permanently ceased. Establish a uniform vegetative cover or use another stabilization practice in accordance with the TPDES General Permit TXR150000.
- 4.3.3. **Finished Work.** Remove and dispose of all temporary control measures upon acceptance of vegetative cover or other stabilization practice unless otherwise directed. Complete soil disturbing activities and establish a uniform perennial vegetative cover. A project will not be considered for acceptance until a vegetative cover of 70% density of existing adjacent undisturbed areas is obtained or equivalent permanent stabilization is obtained in accordance with the TPDES General Permit TXR150000. An exception will be allowed in arid areas as defined in the TPDES General Permit TXR150000.
- 4.3.4. **Restricted Activities and Required Precautions.** Do not discharge onto the ground or surface waters any pollutants such as chemicals, raw sewage, fuels, lubricants, coolants, hydraulic fluids, bitumens, or any other petroleum product. Operate and maintain equipment on-site to prevent actual or potential water pollution. Manage, control, and dispose of litter on-site such that no adverse impacts to water quality occur. Prevent dust from creating a potential or actual unsafe condition, public nuisance, or condition endangering the value, utility, or appearance of any property. Wash out concrete trucks only as described in the TPDES General Permit TXR150000. Use appropriate controls to minimize the offsite transport of suspended sediments and other pollutants if it is necessary to pump or channel standing water (i.e., dewatering). Prevent discharges that would contribute to a violation of Edwards Aquifer Rules, water quality standards, the impairment of a listed water body, or other state or federal law.
- 4.4. **Installation, Maintenance, and Removal Work.** Perform work in accordance with the SWP3, according to manufacturers' guidelines, and in accordance with the TPDES General Permit TXR150000. Install and maintain the integrity of temporary erosion and sedimentation control devices to accumulate silt and debris until soil disturbing activities are completed and permanent erosion control features are in place or the disturbed area has been adequately stabilized as approved.

The Department will inspect and document the condition of the control measures at the frequency shown on the plans and will provide the Construction SWP3 Field Inspection and Maintenance Reports to the Contractor. Make corrections as soon as possible before the next anticipated rain event or within 7 calendar days after being able to enter the worksite for each control measure. The only acceptable reason for not accomplishing the corrections with the time frame specified is when site conditions are "Too Wet to Work." Take immediate action if a correction is deemed critical as directed. When corrections are not made within the established time frame, all work will cease on the project and time charges will continue while the control measures are brought into compliance. Commence work once the Engineer reviews and documents the project is in compliance. Commencing work does not release the Contractor of the liability for noncompliance of the SWP3, plans, or TPDES General Permit TXR150000.

The Engineer may limit the disturbed area if the Contractor cannot control soil erosion and sedimentation resulting from the Contractor's operations. Implement additional controls as directed.

Remove devices upon approval or as directed. Finish-grade and dress the area upon removal. Stabilize disturbed areas in accordance with the permit, and as shown on the plans or directed. Materials removed are considered consumed by the project. Retain ownership of stockpiled material and remove it from the project when new installations or replacements are no longer required.

- 4.4.1. **Rock Filter Dams for Erosion Control.** Remove trees, brush, stumps, and other objectionable material that may interfere with the construction of rock filter dams. Place sandbags as a foundation when required or at the Contractor's option.

Place the aggregate to the lines, height, and slopes specified, without undue voids for Types 1, 2, 3, and 5. Place the aggregate on the mesh and then fold the mesh at the upstream side over the aggregate and secure it to itself on the downstream side with wire ties, or hog rings for Types 2 and 3, or as directed. Place rock filter dams perpendicular to the flow of the stream or channel unless otherwise directed. Construct filter dams according to the following criteria unless otherwise shown on the plans:

- 4.4.1.1. **Type 1 (Non-Reinforced).**
- **Height.** At least 18 in. measured vertically from existing ground to top of filter dam.
 - **Top Width.** At least 2 ft.
 - **Slopes.** No steeper than 2:1.
- 4.4.1.2. **Type 2 (Reinforced).**
- **Height.** At least 18 in. measured vertically from existing ground to top of filter dam.
 - **Top Width.** At least 2 ft.
 - **Slopes.** No steeper than 2:1.
- 4.4.1.3. **Type 3 (Reinforced).**
- **Height.** At least 36 in. measured vertically from existing ground to top of filter dam.
 - **Top Width.** At least 2 ft.
 - **Slopes.** No steeper than 2:1.
- 4.4.1.4. **Type 4 (Sack Gabions).** Unfold sack gabions and smooth out kinks and bends. Connect the sides by lacing in a single loop—double loop pattern on 4- to 5-in. spacing for vertical filling. Pull the end lacing rod at one end until tight, wrap around the end, and twist 4 times. Fill with stone at the filling end, pull the rod tight, cut the wire with approximately 6 in. remaining, and twist wires 4 times.
- Place the sack flat in a filling trough, fill with stone, connect sides, and secure ends as described above for horizontal filling.
- Lift and place without damaging the gabion. Shape sack gabions to existing contours.
- 4.4.1.5. **Type 5.** Provide rock filter dams as shown on the plans.
- 4.4.2. **Temporary Pipe Slope Drains.** Install pipe with a slope as shown on the plans or as directed. Construct embankment for the drainage system in 8-in. lifts to the required elevations. Hand-tamp the soil around and under the entrance section to the top of the embankment as shown on the plans or as directed. Form the top of the embankment or earth dike over the pipe slope drain at least 1 ft. higher than the top of the inlet pipe at all points. Secure the pipe with hold-downs or hold-down grommets spaced a maximum of 10 ft. on center. Construct the energy dissipaters or sediment traps as shown on the plans or as directed. Construct the sediment trap using concrete or rubble riprap in accordance with Item 432, "Riprap," when designated on the plans.
- 4.4.3. **Temporary Paved Flumes.** Construct paved flumes as shown on the plans or as directed. Provide excavation and embankment (including compaction of the subgrade) of material to the dimensions shown on the plans unless otherwise indicated. Install a rock or rubble riprap energy dissipater, constructed from the materials specified above, to a minimum depth of 9 in. at the flume outlet to the limits shown on the plans or as directed.
- 4.4.4. **Construction Exits.** Prevent traffic from crossing or exiting the construction site or moving directly onto a public roadway, alley, sidewalk, parking area, or other right of way areas other than at the location of construction exits when tracking conditions exist. Construct exits for either long- or short-term use.
- 4.4.4.1. **Long-Term.** Place the exit over a foundation course as required. Grade the foundation course or compacted subgrade to direct runoff from the construction exits to a sediment trap as shown on the plans or as directed. Construct exits with a width of at least 14 ft. for one-way and 20 ft. for two-way traffic for the full width of the exit, or as directed.
- 4.4.4.1.1. **Type 1.** Construct to a depth of at least 8 in. using crushed aggregate as shown on the plans or as directed.
- 4.4.4.1.2. **Type 2.** Construct using railroad ties and timbers as shown on the plans or as directed.

- 4.4.4.2. **Short-Term.**
- 4.4.4.2.1. **Type 3.** Construct using crushed aggregate, plywood, or wafer board. This type of exit may be used for daily operations where long-term exits are not practical.
- 4.4.4.2.2. **Type 4.** Construct as shown on the plans or as directed.
- 4.4.5. **Earthwork for Erosion Control.** Perform excavation and embankment operations to minimize erosion and to remove collected sediments from other erosion control devices.
- 4.4.5.1. **Excavation and Embankment for Erosion Control Features.** Place earth dikes, swales, or combinations of both along the low crown of daily lift placement, or as directed, to prevent runoff spillover. Place swales and dikes at other locations as shown on the plans or as directed to prevent runoff spillover or to divert runoff. Construct cuts with the low end blocked with undisturbed earth to prevent erosion of hillsides. Construct sediment traps at drainage structures in conjunction with other erosion control measures as shown on the plans or as directed.
- Create a sediment basin, where required, providing 3,600 cu. ft. of storage per acre drained, or equivalent control measures for drainage locations that serve an area with 10 or more disturbed acres at one time, not including offsite areas.
- 4.4.5.2. **Excavation of Sediment and Debris.** Remove sediment and debris when accumulation affects the performance of the devices, after a rain, and when directed.
- 4.4.6. **Construction Perimeter Fence.** Construct, align, and locate fencing as shown on the plans or as directed.
- 4.4.6.1. **Installation of Posts.** Embed posts 18 in. deep or adequately anchor in rock, with a spacing of 8 to 10 ft.
- 4.4.6.2. **Wire Attachment.** Attach the top wire to the posts at least 3 ft. from the ground. Attach the lower wire midway between the ground and the top wire.
- 4.4.6.3. **Flag Attachment.** Attach flagging to both wire strands midway between each post. Use flagging at least 18 in. long. Tie flagging to the wire using a square knot.
- 4.4.7. **Sandbags for Erosion Control.** Construct a berm or dam of sandbags that will intercept sediment-laden storm water runoff from disturbed areas, create a retention pond, detain sediment, and release water in sheet flow. Fill each bag with sand so that at least the top 6 in. of the bag is unfilled to allow for proper tying of the open end. Place the sandbags with their tied ends in the same direction. Offset subsequent rows of sandbags 1/2 the length of the preceding row. Place a single layer of sandbags downstream as a secondary debris trap. Place additional sandbags as necessary or as directed for supplementary support to berms or dams of sandbags or earth.
- 4.4.8. **Temporary Sediment-Control Fence.** Provide temporary sediment-control fence near the downstream perimeter of a disturbed area to intercept sediment from sheet flow. Incorporate the fence into erosion-control measures used to control sediment in areas of higher flow. Install the fence as shown on the plans, as specified in this Section, or as directed.
- 4.4.8.1. **Installation of Posts.** Embed posts at least 18 in. deep, or adequately anchor, if in rock, with a spacing of 6 to 8 ft. and install on a slight angle toward the runoff source.
- 4.4.8.2. **Fabric Anchoring.** Dig trenches along the uphill side of the fence to anchor 6 to 8 in. of fabric. Provide a minimum trench cross-section of 6 × 6 in. Place the fabric against the side of the trench and align approximately 2 in. of fabric along the bottom in the upstream direction. Backfill the trench, then hand-tamp.
- 4.4.8.3. **Fabric and Net Reinforcement Attachment.** Attach the reinforcement to wooden posts with staples, or to steel posts with T-clips, in at least 4 places equally spaced unless otherwise shown on the plans. Sewn

vertical pockets may be used to attach reinforcement to end posts. Fasten the fabric to the top strand of reinforcement by hog rings or cord every 15 in. or less.

- 4.4.8.4. **Fabric and Net Splices.** Locate splices at a fence post with a minimum lap of 6 in. attached in at least 6 places equally spaced unless otherwise shown on the plans. Do not locate splices in concentrated flow areas.

Requirements for installation of used temporary sediment-control fence include the following:

- fabric with minimal or no visible signs of biodegradation (weak fibers),
- fabric without excessive patching (more than 1 patch every 15 to 20 ft.),
- posts without bends, and
- backing without holes.

- 4.4.9. **Biodegradable Erosion Control Logs.** Install biodegradable erosion control logs near the downstream perimeter of a disturbed area to intercept sediment from sheet flow. Incorporate the biodegradable erosion control logs into the erosion measures used to control sediment in areas of higher flow. Install, align, and locate the biodegradable erosion control logs as specified below, as shown on the plans, or as directed.

Secure biodegradable erosion control logs in a method adequate to prevent displacement as a result of normal rain events, prevent damage to the logs, and as approved, such that flow is not allowed under the logs. Temporarily removing and replacing biodegradable erosion logs as to facilitate daily work is allowed at the Contractor's expense.

- 4.4.10. **Vertical Tracking.** Perform vertical tracking on slopes to temporarily stabilize soil. Provide equipment with a track undercarriage capable of producing a linear soil impression measuring a minimum of 12 in. long × 2 to 4 in. wide × 1/2 to 2 in. deep. Do not exceed 12 in. between track impressions. Install continuous linear track impressions where the 12 in. length impressions are perpendicular to the slope. Vertical tracking is required on projects where soil disturbing activities have occurred unless otherwise approved.

- 4.5. **Monitoring and Documentation.** Monitor the control measures on a daily basis as long as there are BMPs in place and/or soil disturbing activities are evident to ensure compliance with the SWP3 and TPDES General Permit TXR150000. During time suspensions when work is not occurring or contract non-work days, daily inspections are not required unless a rain event has occurred. Monitoring will consist of, but is not limited to, observing, inspecting, and documenting site locations with control measures and discharge points to provide maintenance and inspection of controls as described in the SWP3. Keep written records of daily monitoring. Document in the daily monitoring report the control measure condition, the date of inspection, required corrective actions, responsible person for making the corrections, and the date corrective actions were completed. Maintain records of all monitoring reports at the project site or at an approved place. Provide copies within 7 days. Together, the CRPE and an Engineer's representative will complete the Construction Stage Gate Checklist on a periodic basis as directed.

5. MEASUREMENT

- 5.1. **Rock Filter Dams.** Installation or removal of rock filter dams will be measured by the foot or by the cubic yard. The measured volume will include sandbags, when used.
- 5.1.1. **Linear Measurement.** When rock filter dams are measured by the foot, measurement will be along the centerline of the top of the dam.
- 5.1.2. **Volume Measurement.** When rock filter dams are measured by the cubic yard, measurement will be based on the volume of rock computed by the method of average end areas.
- 5.1.2.1. **Installation.** Measurement will be made in final position.
- 5.1.2.2. **Removal.** Measurement will be made at the point of removal.

- 5.2. **Temporary Pipe Slope Drains.** Temporary pipe slope drains will be measured by the foot.
- 5.3. **Temporary Paved Flumes.** Temporary paved flumes will be measured by the square yard of surface area. The measured area will include the energy dissipater at the flume outlet.
- 5.4. **Construction Exits.** Construction exits will be measured by the square yard of surface area.
- 5.5. **Earthwork for Erosion and Sediment Control.**
- 5.5.1. **Equipment and Labor Measurement.** Equipment and labor used will be measured by the actual number of hours the equipment is operated and the labor is engaged in the work.
- 5.5.2. **Volume Measurement.**
- 5.5.2.1. **In Place.**
- 5.5.2.1.1. **Excavation.** Excavation will be measured by the cubic yard in its original position and the volume computed by the method of average end areas.
- 5.5.2.1.2. **Embankment.** Embankment will be measured by the cubic yard in its final position by the method of average end areas. The volume of embankment will be determined between:
- the original ground surfaces or the surface upon that the embankment is to be constructed for the feature and
 - the lines, grades and slopes of the accepted embankment for the feature.
- 5.5.2.2. **In Vehicles.** Excavation and embankment quantities will be combined and paid for under "Earthwork (Erosion and Sediment Control, In Vehicle)." Excavation will be measured by the cubic yard in vehicles at the point of removal. Embankment will be measured by the cubic yard in vehicles measured at the point of delivery. Shrinkage or swelling factors will not be considered in determining the calculated quantities.
- 5.6. **Construction Perimeter Fence.** Construction perimeter fence will be measured by the foot.
- 5.7. **Sandbags for Erosion Control.** Sandbags will be measured as each sandbag or by the foot along the top of sandbag berms or dams.
- 5.8. **Temporary Sediment-Control Fence.** Installation or removal of temporary sediment-control fence will be measured by the foot.
- 5.9. **Biodegradable Erosion Control Logs.** Installation or removal of biodegradable erosion control logs will be measured by the foot along the centerline of the top of the control logs.
- 5.10. **Vertical Tracking.** Vertical tracking will not be measured or paid for directly but is considered subsidiary to this Item.

6. PAYMENT

The following will not be paid for directly but are subsidiary to pertinent Items:

- erosion-control measures for Contractor project-specific locations (PSLs) inside and outside the right of way (such as construction and haul roads, field offices, equipment and supply areas, plants, and material sources);
- removal of litter, unless a separate pay item is shown on the plans;
- repair to devices and features damaged by Contractor operations;
- added measures and maintenance needed due to negligence, carelessness, lack of maintenance, and failure to install permanent controls;

- removal and reinstallation of devices and features needed for the convenience of the Contractor;
- finish grading and dressing upon removal of the device; and
- minor adjustments including but not limited to plumbing posts, reattaching fabric, minor grading to maintain slopes on an erosion embankment feature, or moving small numbers of sandbags.

Stabilization of disturbed areas will be paid for under pertinent Items except vertical tacking which is subsidiary.

Furnishing and installing pipe for outfalls associated with sediment traps and ponds will not be paid for directly but is subsidiary to the excavation and embankment under this Item.

6.1. **Rock Filter Dams.** The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid as follows:

6.1.1. **Installation.** Installation will be paid for as "Rock Filter Dams (Install)" of the type specified. This price is full compensation for furnishing and operating equipment, finish backfill and grading, lacing, proper disposal, labor, materials, tools, and incidentals.

6.1.2. **Removal.** Removal will be paid for as "Rock Filter Dams (Remove)." This price is full compensation for furnishing and operating equipment, proper disposal, labor, materials, tools, and incidentals.

When the Engineer directs that the rock filter dam installation or portions thereof be replaced, payment will be made at the unit price bid for "Rock Filter Dams (Remove)" and for "Rock Filter Dams (Install)" of the type specified. This price is full compensation for furnishing and operating equipment, finish backfill and grading, lacing, proper disposal, labor, materials, tools, and incidentals.

6.2. **Temporary Pipe Slope Drains.** The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Temporary Pipe Slope Drains" of the size specified. This price is full compensation for furnishing materials, removal and disposal, furnishing and operating equipment, labor, tools, and incidentals.

Removal of temporary pipe slope drains will not be paid for directly but is subsidiary to the installation Item. When the Engineer directs that the pipe slope drain installation or portions thereof be replaced, payment will be made at the unit price bid for "Temporary Pipe Slope Drains" of the size specified, which is full compensation for the removal and reinstallation of the pipe drain.

Earthwork required for the pipe slope drain installation, including construction of the sediment trap, will be measured and paid for under "Earthwork for Erosion and Sediment Control."

Riprap concrete or stone, when used as an energy dissipater or as a stabilized sediment trap, will be measured and paid for in accordance with Item 432, "Riprap."

6.3. **Temporary Paved Flumes.** The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Temporary Paved Flume (Install)" or "Temporary Paved Flume (Remove)." This price is full compensation for furnishing and placing materials, removal and disposal, equipment, labor, tools, and incidentals.

When the Engineer directs that the paved flume installation or portions thereof be replaced, payment will be made at the unit prices bid for "Temporary Paved Flume (Remove)" and "Temporary Paved Flume (Install)." These prices are full compensation for the removal and replacement of the paved flume and for equipment, labor, tools, and incidentals.

Earthwork required for the paved flume installation, including construction of a sediment trap, will be measured and paid for under "Earthwork for Erosion and Sediment Control."

- 6.4. **Construction Exits.** Contractor-required construction exits from off right of way locations or on-right of way PSLs will not be paid for directly but are subsidiary to pertinent Items.

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" for construction exits needed on right of way access to work areas required by the Department will be paid for at the unit price bid for "Construction Exits (Install)" of the type specified or "Construction Exits (Remove)." This price is full compensation for furnishing and placing materials, excavating, removal and disposal, cleaning vehicles, labor, tools, and incidentals.

When the Engineer directs that a construction exit or portion thereof be removed and replaced, payment will be made at the unit prices bid for "Construction Exit (Remove)" and "Construction Exit (Install)" of the type specified. These prices are full compensation for the removal and replacement of the construction exit and for equipment, labor, tools, and incidentals.

Construction of sediment traps used in conjunction with the construction exit will be measured and paid for under "Earthwork for Erosion and Sediment Control."

- 6.5. **Earthwork for Erosion and Sediment Control.**

- 6.5.1. **Initial Earthwork for Erosion and Sediment Control.** The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Excavation (Erosion and Sediment Control, In Place)," "Embankment (Erosion and Sediment Control, In Place)," "Excavation (Erosion and Sediment Control, In Vehicle)," "Embankment (Erosion and Sediment Control, (In Vehicle)," or "Earthwork (Erosion and Sediment Control, In Vehicle)."

This price is full compensation for excavation and embankment including hauling, disposal of material not used elsewhere on the project; embankments including furnishing material from approved sources and construction of erosion-control features; and equipment, labor, tools, and incidentals.

Sprinkling and rolling required by this Item will not be paid for directly but will be subsidiary to this Item.

- 6.5.2. **Maintenance Earthwork for Erosion and Sediment Control for Cleaning and Restoring Control Measures.** The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid under a Contractor Force Account Item from invoice provided to the Engineer.

This price is full compensation for excavation, embankment, and re-grading including removal of accumulated sediment in various erosion control installations as directed, hauling, and disposal of material not used elsewhere on the project; excavation for construction of erosion-control features; embankments including furnishing material from approved sources and construction of erosion-control features; and equipment, labor, tools, and incidentals.

Earthwork needed to remove and obliterate erosion-control features will not be paid for directly but is subsidiary to pertinent Items unless otherwise shown on the plans.

Sprinkling and rolling required by this Item will not be paid for directly but will be subsidiary to this Item.

- 6.6. **Construction Perimeter Fence.** The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Construction Perimeter Fence." This price is full compensation for furnishing and placing the fence; digging, fence posts, wire, and flagging; removal and disposal; and materials, equipment, labor, tools, and incidentals.

Removal of construction perimeter fence will not be paid for directly but is subsidiary to the installation Item. When the Engineer directs that the perimeter fence installation or portions thereof be removed and replaced, payment will be made at the unit price bid for "Construction Perimeter Fence," which is full compensation for the removal and reinstallation of the construction perimeter fence.

- 6.7. **Sandbags for Erosion Control.** Sandbags will be paid for at the unit price bid for "Sandbags for Erosion Control" (of the height specified when measurement is by the foot). This price is full compensation for materials, placing sandbags, removal and disposal, equipment, labor, tools, and incidentals.
- Removal of sandbags will not be paid for directly but is subsidiary to the installation Item. When the Engineer directs that the sandbag installation or portions thereof be replaced, payment will be made at the unit price bid for "Sandbags for Erosion Control," which is full compensation for the reinstallation of the sandbags.
- 6.8. **Temporary Sediment-Control Fence.** The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid as follows:
- 6.8.1. **Installation.** Installation will be paid for as "Temporary Sediment-Control Fence (Install)." This price is full compensation for furnishing and operating equipment finish backfill and grading, lacing, proper disposal, labor, materials, tools, and incidentals.
- 6.8.2. **Removal.** Removal will be paid for as "Temporary Sediment-Control Fence (Remove)." This price is full compensation for furnishing and operating equipment, proper disposal, labor, materials, tools, and incidentals.
- 6.9. **Biodegradable Erosion Control Logs.** The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid as follows:
- 6.9.1. **Installation.** Installation will be paid for as "Biodegradable Erosion Control Logs (Install)" of the size specified. This price is full compensation for furnishing and operating equipment finish backfill and grading, staking, proper disposal, labor, materials, tools, and incidentals.
- 6.9.2. **Removal.** Removal will be paid for as "Biodegradable Erosion Control Logs (Remove)." This price is full compensation for furnishing and operating equipment, proper disposal, labor, materials, tools, and incidentals.
- 6.10. **Vertical Tracking.** Vertical tracking will not be measured or paid for directly but is considered subsidiary to this Item.

Item 530

Intersections, Driveways, and Turnouts



1. DESCRIPTION

Construct and pave intersections, driveways, and turnouts. Pave existing intersections, driveways, and turnouts.

Intersections are considered to be areas off the travel lanes and shoulders of the Contract highway on the intersecting highway on the state system. The intersecting on-system highway work will be paid for under this Item only when shown on the plans.

Driveways are defined as private (residential or commercial) and public (county road and city street) access areas off the travel lanes and shoulders.

Turnouts include but are not limited to mailbox and litter barrel widenings.

2. MATERIALS

Furnish materials that meet the following:

- Item 247, "Flexible Base"
- Item 260, "Lime Treatment (Road-Mixed)"
- Item 263, "Lime Treatment (Plant-Mixed)"
- Item 275, "Cement Treatment (Road-Mixed)"
- Item 276, "Cement Treatment (Plant-Mixed)"
- Item 292, "Asphalt Treatment (Plant-Mixed)"
- Item 316, "Seal Coat"
- Item 330, "Limestone Rock Asphalt Pavement"
- Item 334, "Hot-Mix Cold-Laid Asphalt Concrete Pavement"
- Item 340, "Dense-Graded Hot-Mix Asphalt (Small Quantity)"
- Item 360, "Concrete Pavement"
- Item 421, "Hydraulic Cement Concrete"
- Item 440, "Reinforcement for Concrete"

3. CONSTRUCTION

Construct and pave intersections, driveways, and turnouts, and pave existing intersections, driveways, and turnouts as shown on the plans or as directed. Place materials in accordance with construction Articles of pertinent Items. Provide uninterrupted access to adjacent property unless otherwise directed. Ensure that abrupt elevation changes in driveway or turnout areas that serve as sidewalks do not exceed 1/4 in. and that the sidewalk area cross slope does not exceed 2%. Ready-mix concrete and hand finishing will be permitted when concrete pavement is specified unless otherwise shown on the plans for intersections.

4. MEASUREMENT

This Item will be measured by the square yard of the final pavement surface.

5. PAYMENT

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Intersections," "Driveways," "Turnouts," "Intersections, Driveways, and Turnouts," or "Driveways and Turnouts" of the surface specified.

This price is full compensation for furnishing and operating equipment; excavation and embankment; base and pavement materials; and labor, materials, tools and incidentals. Drainage structures will be measured and paid for in accordance with the pertinent bid items.

Item 560

Mailbox Assemblies



1. DESCRIPTION

Install, remove, temporarily relocate, or replace mailbox assemblies of the type specified.

2. MATERIAL

Furnish mailbox assemblies in accordance with the plans. An assembly does not include the mailbox unless shown otherwise on the plans. Provide new mailbox assemblies for permanent installations.

3. CONSTRUCTION

Temporarily relocate mailbox assemblies as shown on the plans or as directed. Furnish and install approved mailbox assemblies and mount mailboxes on those assemblies. Maintain mailbox assemblies in a serviceable condition. Furnish and install additional mailbox assemblies as directed. Relocate mailbox and assemblies to permanent locations upon completion of construction work.

4. MEASUREMENT

This Item will be measured by each permanent mailbox assembly installed.

5. PAYMENT

The work performed, materials furnished, and measured according to "Measurement" will be paid at the unit price bid for "Mailbox Installation (Single)," of the type specified; "Mailbox Installation (Double)," of the type specified; or "Mailbox Installation (Multiple)," of the type specified. This price is full compensation for installing mailboxes and reflectors in permanent locations, materials, equipment, labor, tools, and incidentals. Removing existing or installing and moving temporary mailbox assemblies will not be paid directly but will be subsidiary to pertinent Items.

Item 644

Small Roadside Sign Assemblies



1. DESCRIPTION

- **Installation.** Furnish, fabricate, and erect small roadside sign assemblies or bridge mounted clearance sign assemblies consisting of the signs, sign supports, foundations (when required), and associated mounting hardware.
- **Relocation.** Relocate existing small roadside sign assemblies or bridge mounted clearance sign assemblies, and furnish and fabricate material as required.
- **Removal.** Remove existing small roadside sign assemblies or bridge mounted clearance sign assemblies.

2. MATERIALS

Furnish all materials unless otherwise shown on the plans. Furnish only new materials. Furnish and fabricate materials that comply with the following Items and details shown on the plans:

- Item 421, "Hydraulic Cement Concrete"
- Item 440, "Reinforcement for Concrete"
- Item 441, "Steel Structures"
- Item 442, "Metal for Structures"
- Item 445, "Galvanizing"
- Item 636, "Signs"
- Item 643, "Sign Identification Decals"
- Item 656, "Foundations for Traffic Control Devices"

Use galvanized steel, stainless steel, dichromate sealed aluminum, or other materials shown on the plans for pipe, bolts, nuts, washers, lock washers, screws, and other sign assembly hardware. When dissimilar metals are used, select or insulate metals to prevent corrosion.

3. CONSTRUCTION

Construct foundations in accordance with Item 656, "Foundations for Traffic Control Devices." Plumb sign supports. Do not spring or rake posts to secure proper alignment. Use established safety practices when working near underground or overhead utilities. Consult the appropriate utility company before beginning work.

- 3.1. **Fabrication.** Fabricate sign supports in accordance with Item 441, "Steel Structures." Ensure all components fit properly.

Verify the length of each post for each sign before fabrication to meet field conditions and sign-mounting heights shown on the plans.

Hot-dip galvanize fabricated parts in accordance with Item 445, "Galvanizing." Punch or drill any holes in steel parts or members before galvanizing. Repair galvanizing for any steel part or member damaged during assembly, transit, erection; or for any steel part or member welded, when permitted, after galvanizing. Perform all galvanizing repairs in accordance with Section 445.3.5., "Repairs."

- 3.2. **Installation.** Locate and install sign supports as shown on the plans, unless directed to shift the sign supports within design guidelines to secure a more desirable location or avoid conflict with utilities and underground appurtenances. Stake sign support locations for verification by the Engineer.
- Install stub posts of the type, spacing, orientation, and projection shown on the plans. Remove and replace posts damaged during installation at the Contractor's expense.
- Connect the upper post sections to the stub post sections as shown on the plans. Torque connection bolts as shown on the plans.
- Attach signs to supports in accordance with the plans and pertinent Items.
- 3.3. **Relocation.** Reuse the existing signs as required unless otherwise shown on the plans. Furnish and install new stub posts in new foundations for relocated sign assemblies. Erect the new supports on the new stub posts, and attach the existing signs to the supports in accordance with the plans and pertinent Items. Remove existing foundations to be abandoned in accordance with Section 644.3.4., "Removal."
- 3.4. **Removal.** Remove abandoned concrete foundations to 2 ft. below finish grade unless otherwise shown on the plans. Cut off and remove steel protruding from the remaining concrete. Backfill the remaining hole with material equal in composition and density to the surrounding area. Replace any surfacing with like material to equivalent condition.
- 3.5. **Handling and Storage.** Handle and store existing signs or portions of signs removed so they are not damaged. Prevent any damage to the various sign assembly components. Replace any portion of the sign damaged by the Contractor designated for reuse or salvage, including messages removed.
- Stockpile all removed sign components that will be reused or become the property of the Department at designated locations. Accept ownership of unsalvageable materials, and dispose of them in accordance with federal, state, and local regulations.
- 3.6. **Cleaning.** Wash the entire sign after installation with a biodegradable cleaning solution acceptable to the sign face materials manufacturer to remove dirt, grease, oil smears, streaks, finger marks, and other foreign materials.

4. MEASUREMENT

This Item will be measured as each small roadside assembly or bridge mounted clearance sign assembly installed, removed, or relocated.

5. PAYMENT

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Install Small Roadside Sign Assemblies" of the type specified, "Install Bridge Mounted Clearance Sign Assemblies" of the type specified, "Relocate Small Roadside Sign Assemblies" of the type specified, "Relocate Bridge Mounted Clearance Sign Assemblies" of the type specified, "Remove Small Roadside Sign Assemblies," or "Remove Bridge Mounted Clearance Sign Assemblies."

- 5.1. **Installation.** This price is full compensation for furnishing, fabricating, galvanizing, and erecting the supports; constructing foundations including concrete (when required); furnishing complete signs including sign connections and all hardware; attaching the signs to the supports; preparing and cleaning the signs; and materials, equipment, labor, tools, and incidentals.
- 5.2. **Relocation.** This price is full compensation for removing existing sign assemblies and related materials; furnishing and installing new stub posts and new sign supports; constructing foundations including concrete

(when required); and new hardware; reinstallation of signs; preparing and cleaning the signs; salvaging; disposal of unsalvageable materials; removing existing foundations, backfilling, and surface placement; and materials, equipment, labor, tools, and incidentals.

- 5.3. **Removal.** This price is full compensation for removing existing sign assemblies and related materials; salvaging; disposal of unsalvageable materials; removing existing foundations, backfilling, and surface placement; and materials, equipment, labor, tools, and incidentals.

Item 662

Work Zone Pavement Markings



1. DESCRIPTION

Furnish, place, and maintain work zone pavement markings.

2. MATERIALS

Provide thermoplastic, paint and beads, raised pavement markers (RPMs), prefabricated pavement markings, temporary flexible reflective roadway marker tabs, or other approved materials for work zone pavement markings.

Supply materials meeting:

- [DMS-4200](#), "Pavement Markers (Reflectorized),"
- [DMS-4300](#), "Traffic Buttons,"
- [DMS-8200](#), "Traffic Paint,"
- [DMS-8220](#), "Hot Applied Thermoplastic,"
- [DMS-8240](#), "Permanent Prefabricated Pavement Markings,"
- [DMS-8241](#), "Temporary (Removable) Prefabricated Pavement Markings,"
- [DMS-8242](#), "Temporary Flexible, Reflective Roadway Marker Tabs," and
- [DMS-8290](#), "Glass Traffic Beads."

2.1. **Nonremovable Markings.** Use hot-applied thermoplastic or permanent prefabricated pavement markings for nonremovable markings. Paint and beads or other materials are not allowed for nonremovable markings unless shown on the plans.

2.2. **Removable and Short-Term Markings.** Use RPMs, removable prefabricated pavement markings, temporary flexible reflective roadway marker tabs, or other approved materials for removable and short-term markings. Do not use hot-applied thermoplastic or traffic paint for removable markings. Use removable prefabricated pavement markings on the final pavement surface when the plans specify removable markings.

3. CONSTRUCTION

Apply pavement markings in accordance with the following Items.

- Item 666, "Retroreflectorized Pavement Markings"
- Item 668, "Prefabricated Pavement Markings"
- Item 672, "Raised Pavement Markers"

3.1. **Placement.** Install longitudinal markings on pavement surfaces before opening to traffic. Maintain lane alignment traffic control devices and operations until markings are installed. Install markings in proper alignment in accordance with the TMUTCD and as shown on the plans. Short-term markings will be allowed when standard markings (removable or nonremovable) cannot be placed before opening to traffic, if shown on the plans or directed.

When short-term markings are allowed for opening to traffic, place standard longitudinal markings no later than 14 calendar days after the placement of the surface. When inclement weather prohibits placement of markings, the 14-day period may be extended until weather permits proper application.

Place standard longitudinal markings no sooner than 3 calendar days after the placement of a surface treatment, unless otherwise shown on the plans.

Apply thermoplastic markings to a minimum thickness of 0.060 in. (60 mils). When paint and beads are allowed, apply to a minimum dry thickness of 0.012 in. (12 mils).

Place short-term markings in proper alignment with the location of the final pavement markings. Remove and replace short-term markings not in alignment at the Contractor's expense.

For removable placements, use of RPMs to simulate longitudinal markings is at the Contractor's option. Use side-by-side RPMs to simulate longitudinal lines wider than 4 in. Do not use RPMs for words, symbols, shapes, or diagonal or transverse lines.

- 3.2. **Marking Removal.** Remove markings that conflict with succeeding markings in accordance with Item 677, "Eliminating Existing Pavement Markings and Markers." Remove short-term markings that interfere or conflict with final marking placement immediately before placing final pavement markings, unless otherwise directed. Remove the remainder of the short-term markings before final acceptance.

Remove all temporary markings with minimal damage to the roadway to the satisfaction of the Engineer.

- 3.3. **Performance Requirements.** Ensure all markings are visible from a distance at least 300 ft. in daylight conditions and at least 160 ft. in nighttime conditions when illuminated by automobile low-beam headlights. Determine visibility distances using an automobile traveling on the roadway under dry conditions.

Maintain the markings for 30 calendar days after installation. The end of the 30-day maintenance period does not relieve the Contractor from the performance deficiencies requiring corrective action identified during the 30-day period. Remove and replace markings at the Contractor's expense if they fail to meet the requirements of this Item during the 30-day period. The 30-calendar day performance requirement will begin again after replacement of the markings.

Ensure daytime and nighttime reflected color of the markings are distinctly white or yellow. Ensure markings exhibit uniform retroreflective characteristics.

4. MEASUREMENT

This Item will be measured by the foot or each word, shape, symbol, or temporary flexible reflective roadway marker tab. Each stripe will be measured separately. RPMs used to simulate a marking will be measured by the foot of marking or each RPM.

This is a plans quantity measurement Item. The quantity to be paid is the quantity shown in the proposal, unless modified by Article 9.2., "Plans Quantity Measurement." Additional measurements or calculations will be made if adjustments of quantities are required.

5. PAYMENT

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Work Zone Pavement Markings" of the type and color specified and the shape, width, and size specified as applicable. This price is full compensation for furnishing, placing, maintaining, and removing work zone pavement markings and for materials, equipment, labor, tools, and incidentals.

Elimination of nonremovable markings will be paid for under Item 677, "Eliminating Existing Pavement Markings and Markers." Removal of short-term and removable markings will not be paid for directly but will be subsidiary to this Item.

Type II work zone pavement markings (paint and beads) used as a sealer for Type I pavement markings (thermoplastic) will be paid for under this Item.

Item 666

Retroreflectorized Pavement Markings



1. DESCRIPTION

Furnish and place retroreflectorized, non-retroreflectorized (shadow) and profile pavement markings.

2. MATERIALS

2.1. Type I Marking Materials. Furnish in accordance with [DMS-8220](#), "Hot Applied Thermoplastic."

Furnish pavement marking material used for Type I profile markings and shadow markings that have been approved by the Construction Division, and in accordance with [DMS-8220](#), "Hot Applied Thermoplastic."

2.2. Type II Marking Materials. Furnish in accordance with [DMS-8200](#), "Traffic Paint."

2.3. Glass Traffic Beads. Furnish drop-on glass beads in accordance with [DMS-8290](#), "Glass Traffic Beads" or as approved. Furnish a double-drop of Type II and Type III drop-on glass beads where each type bead is applied separately in equal portions (by weight), unless otherwise approved. Apply the Type III beads before applying the Type II beads.

2.4. Labeling. Use clearly marked containers that indicate color, mass, material type, manufacturer, and batch number.

3. EQUIPMENT

3.1. General Requirements. Use equipment that:

- is maintained in satisfactory condition,
- meets or exceeds the requirements of the National Board of Fire Underwriters and the Texas Railroad Commission for this application,
- applies beads by an automatic bead dispenser attached to the pavement marking equipment in such a manner that the beads are dispensed uniformly and almost instantly upon the marking as the marking is being applied to the road surface. The bead dispenser must have an automatic cut-off control, synchronized with the cut-off of the pavement marking equipment,
- has an automatic cut-off device with manual operating capabilities to provide clean, square marking ends,
- is capable of producing the types and shapes of profiles specified, and
- can provide continuous mixing and agitation of the pavement marking material. The use of pans, aprons, or similar appliances which the die overruns will not be permitted for longitudinal striping applications.

Provide a hand-held thermometer capable of measuring the temperature of the marking material when applying Type I material.

When pavement markings are required to meet minimum retroreflectivity requirements on the plans:

- Use a mobile retroreflectometer approved by the Construction Division and certified by the Texas A&M Transportation Institute Mobile Retroreflectometer Certification Program.
- Use a portable retroreflectometer that:
 - uses 30-meter geometry and meets the requirements described in ASTM E1710;

- has either an internal global positioning system (GPS) or the ability to be linked with an external GPS with a minimum accuracy rating of 16 ft. 5 in., in accordance with the circular error probability (CEP) method (CEP is the radius of the circle with its origin at a known position that encompasses 50% of the readings returned from the GPS instrument);
- can record and print the GPS location and retroreflectivity reading for each location where readings are taken.

3.2.

Material Placement Requirements. Use equipment that can place:

- at least 40,000 ft. of 4-in. solid or broken non-profile markings per working day at the specified thickness;
- at least 15,000 ft. of solid or broken profile pavement markings per working day at the specified thickness;
- linear non-profile markings up to 8 in. wide in a single pass;
- non-profile pavement markings other than solid or broken lines at an approved production rate;
- a centerline and no-passing barrier-line configuration consisting of 1 broken line and 2 solid lines at the same time to the alignment, spacing, and thickness for non-profile pavement markings shown on the plans;
- solid and broken lines simultaneously;
- white line from both sides;
- lines with clean edges, uniform cross-section with a tolerance of $\pm 1/8$ in. per 4 in. width, uniform thickness, and reasonably square ends;
- skip lines between 10 and 10-1/2 ft., a stripe-to-gap ratio of 10 to 30, and a stripe-gap cycle between 39-1/2 ft. and 40-1/2 ft., automatically;
- beads uniformly and almost instantly on the marking as the marking is being applied;
- beads uniformly during the application of all lines (each line must have an equivalent bead yield rate and embedment); and
- double-drop bead applications using both Type II and Type III beads from separate independent bead applicators, unless otherwise approved by the Engineer.

4.

CONSTRUCTION

Place markings before opening to traffic unless short-term or work zone markings are allowed.

4.1.

General. Obtain approval for the sequence of work and estimated daily production. Minimize interference to roadway operations when placing markings on roadways open to traffic. Use traffic control as shown on the plans or as approved. Protect all markings placed under open-traffic conditions from traffic damage and disfigurement.

Establish guides to mark the lateral location of pavement markings as shown on the plans or as directed, and have guide locations verified. Use material for guides that will not leave a permanent mark on the roadway.

Apply markings on pavement that is completely dry and passes the following tests:

- **Type I Marking Application**—Place a sample of Type I marking material on a piece of tarpaper placed on the pavement. Allow the material to cool to ambient temperature, and then inspect the underside of the tarpaper in contact with the pavement. Pavement will be considered dry if there is no condensation on the tarpaper.
- **Type II Marking Application**—Place a 1-sq. ft. piece of clear plastic on the pavement, and weight down the edges. The pavement is considered dry if, when inspected after 15 min., no condensation has occurred on the underside of the plastic.

Apply markings:

- that meet the requirements of [Tex-828-B](#),
- that meet minimum retroreflectivity requirements when specified on the plans (applies to Type I markings only),
- using widths and colors shown on the plans,
- at locations shown on the plans,
- in proper alignment with the guides without deviating from the alignment more than 1 in. per 200 ft. of roadway or more than 2 in. maximum,
- without abrupt deviations,
- free of blisters and with no more than 5% by area of holes or voids,
- with uniform cross-section, density and thickness,
- with clean and reasonably square ends,
- that are retroreflectorized with drop-on glass beads, and
- using personnel skilled and experienced with installation of pavement markings.

Remove all applied markings that are not in alignment or sequence as stated on the plans, or in the specifications, at the Contractor's expense in accordance with Item 677, "Eliminating Existing Pavement Markings and Markers," except for measurement and payment.

- 4.2. **Surface Preparation.** Prepare surfaces in accordance with this Section unless otherwise shown on the plans.
- 4.2.1. **Cleaning for New Asphalt Surfaces and Retracing of All Surfaces.** Air blast or broom the pavement surface for new asphalt surfaces (less than 3 years old) and for retracing of all surfaces to remove loose material, unless otherwise shown on the plans. A sealer for Type I markings is not required unless otherwise shown on the plans.
- 4.2.2. **Cleaning for Old Asphalt and Concrete Surfaces (Excludes Retracing).** Clean old asphalt surfaces (more than 3 years old) and all concrete surfaces in accordance with Item 678, "Pavement Surface Preparation for Markings," to remove curing membrane, dirt, grease, loose and flaking existing construction markings, and other forms of contamination.
- 4.2.3. **Sealer for Type I Markings.** Apply a pavement sealer to old asphalt surfaces (more than 3 years old) and to all concrete surfaces before placing Type I markings on locations that do not have existing markings, unless otherwise approved. The pavement sealer may be either a Type II marking or an acrylic or epoxy sealer as recommended by the Type I marking manufacturer unless otherwise shown on the plans. Follow the manufacturer's directions for application of acrylic or epoxy sealers. Clean sealer that becomes dirty after placement by washing or in accordance with Section 666.4.2.1., "Cleaning for New Asphalt Surfaces and Retracing of All Surfaces," as directed. Place the sealer in the same configuration and color (unless clear) as the Type I markings unless otherwise shown on the plans.
- 4.3. **Application.** Apply markings during good weather unless otherwise directed. If markings are placed at Contractor option when inclement weather is impending and the markings are damaged by subsequent precipitation, the Contractor is responsible for all required replacement costs.
- 4.3.1. **Type I Markings.** Place the Type I marking after the sealer cures. Apply within the temperature limits recommended by the material manufacturer. Flush the spray head if spray application operations cease for 5 min or longer by spraying marking material into a pan or similar container until the material being applied is at the recommended temperature.

Apply on clean, dry pavements passing the moisture test described in Section 666.4.1., "General," and with a surface temperature above 50°F when measured in accordance with [Tex-829-B](#).

- 4.3.1.1. **Non-Profile Pavement Markings.** Apply Type I non-profile markings with a minimum thickness of:
- 0.100 in. (100 mils) for new markings and retracing water-based markings on surface treatments involving Item 316, "Seal Coat,"
 - 0.060 in. (60 mils) for retracing on thermoplastic pavement markings, or
 - 0.090 in. (90 mils) for all other Type I markings.
- The maximum thickness for Type I non-profile markings is 0.180 in. (180 mils). Measure thickness for markings in accordance with [Tex-854-B](#) using the tape method.
- 4.3.1.2. **Profile Pavement Markings.** Apply Type I profile markings with a minimum thickness of:
- 0.060 in. (60 mil) for edgeline markings, or
 - 0.090 in. (90 mil) for gore and centerline/no-passing barrier line markings.
- In addition, at a longitudinal spacing indicated on the plans, the markings must be profiled in a vertical manner such that the profile is transverse to the longitudinal marking direction. The profile must not be less than 0.30 in. (300 mil) nor greater than 0.50 in. (500 mil) in height when measured above the normal top surface plane of the roadway. The transverse width of the profile must not be less than 3.25 in., and the longitudinal width not less than 1 in., when measured at the top surface plane of the profile bar. The profile may be either a 1 or 2 transverse bar profile. When the 2 transverse bar profile is used, the spacing between the bases of the profile bars must not exceed 0.50 in. The above transverse bar width is for each 4 in. of line width.
- 4.3.2. **Type II Markings.** Apply on surfaces with a minimum surface temperature of 50°F. Apply at least 20 gal. per mile on concrete and asphalt surfaces and at least 22 gal. per mile on surface treatments for a solid 4-in. line. Adjust application rates proportionally for other widths. When Type II markings are used as a sealer for Type I markings, apply at least 15 gal. per mile using Type II drop-on beads.
- 4.3.3. **Bead Coverage.** Provide a uniform distribution of beads across the surface of the stripe for Type I and Type II markings, with 40% to 60% bead embedment.
- 4.4. **Retroreflectivity Requirements.** When specified on the plans, Type I markings must meet the following minimum retroreflectivity values for edgeline markings, centerline or no passing barrier-line, and lane lines when measured any time after 3 days, but not later than 10 days after application:
- White markings: 250 millicandelas per square meter per lux (mcd/m²/lx)
 - Yellow markings: 175 mcd/m²/lx
- 4.5. **Retroreflectivity Measurements.** Use a mobile retroreflectometer for projects requiring minimum retroreflectivity requirements to measure retroreflectivity for Contracts totaling more than 200,000 ft. of pavement markings, unless otherwise shown on the plans. For Contracts with less than 200,000 ft. of pavement markings or Contracts with callout work, mobile or portable retroreflectometers may be used at the Contractor's discretion.
- 4.5.1. **Mobile Retroreflectometer Measurements.** Provide mobile measurements averages for every 0.1 miles unless otherwise specified or approved. Take measurements on each section of roadway for each series of markings (i.e., edgeline, center skip line, each line of a double line, etc.) and for each direction of traffic flow. Measure each line in both directions for centerlines on two-way roadways (i.e., measure both double solid lines in both directions and measure all center skip lines in both directions). Furnish measurements in compliance with Special Specification, "Mobile Retroreflectivity Data Collection for Pavement Markings," unless otherwise approved. The Engineer may require an occasional field comparison check with a portable retroreflectometer meeting the requirements listed above to ensure accuracy. Use all equipment in accordance with the manufacturer's recommendations and directions. Inform the Engineer at least 24 hr. before taking any measurements.

A marking meets the retroreflectivity requirements if:

- the combined average retroreflectivity measurement for a one-mile segment meets the minimum retroreflectivity values specified, and
- no more than 30% of the retroreflectivity measurement values are below the minimum retroreflectivity requirements value within the one-mile segment.

The Engineer may accept failing one-mile segments if no more than 20% of the retroreflectivity measurements within that mile segment are below the minimum retroreflectivity requirement value.

The one-mile segment will start from the beginning of the data collection and end after a mile worth of measurements have been taken; each subsequent mile of measurements will be a new segment. Centerlines with 2 stripes (either solid or broken) will result in 2 miles of data for each mile segment. Each centerline stripe must be tested for compliance as a stand-alone stripe.

Restripe at the Contractor's expense with a minimum of 0.060 in. (60 mils) of Type I marking if the marking fails retroreflectivity requirements. Take measurements every 0.1 miles a minimum of 10 days after this second application within that mile segment for that series of markings.

If the markings do not meet minimum retroreflectivity after 10 days of this second application, the Engineer may require removal of all existing markings, a new application as initially specified, and a repeat of the application process until minimum retroreflectivity requirements are met.

- 4.5.2. **Portable Retroreflectometer Measurements.** Take a minimum of 20 measurements for each 1-mi. section of roadway for each series of markings (i.e., edgeline, center skip line, each line of a double line, etc.) and direction of traffic flow when using a portable reflectometer. Measure each line in both directions for centerlines on two-way roadways (i.e., measure both double solid lines in both directions and measure all center skip lines in both directions). The spacing between each measurement must be at least 100 ft. The Engineer may decrease the mileage frequency for measurements if the previous measurements provide satisfactory results. The Engineer may require the original number of measurements if concerns arise.

Restripe once at the Contractor's expense with a minimum of 0.060 in. (60 mils) of Type I marking material if the average of these measurements fails. Take a minimum of 10 more measurements after 10 days of this second application within that mile segment for that series of markings. Restripe again at the Contractor's expense with a minimum of 0.060 in. (60 mils) of Type I marking material if the average of these measurements fall below the minimum retroreflectivity requirements. If the markings do not meet minimum retroreflectivity after this third application, the Engineer may require removal of all existing markings, a new application as initially specified, and a repeat of the application process until minimum retroreflectivity requirements are met.

- 4.5.3. **Traffic Control.** Provide traffic control, as required, when taking retroreflectivity measurements after marking application. On low volume roadways (as defined on the plans), refer to the figure, "Temporary Road Closure" in Part 6 of the *Texas Manual on Uniform Traffic Control Devices* for the minimum traffic control requirements. For all other roadways, the minimum traffic control requirements will be as shown on the Traffic Control Plan (TCP) standard sheets TCP (3-1) and TCP (3-2). The lead vehicle will not be required on divided highways. The TCP and traffic control devices must meet the requirements listed in Item 502, "Barricades, Signs, and Traffic Handling." Time restrictions that apply during striping application will also apply during the retroreflectivity inspections except when using the mobile retroreflectometer unless otherwise shown on the plans or approved.

- 4.6. **Performance Period.** All markings must meet the requirements of this specification for at least 30 calendar days after installation. Unless otherwise directed, remove pavement markings that fail to meet requirements, and replace at the Contractor's expense. Replace failing markings within 30 days of notification. All replacement markings must also meet all requirements of this Item for a minimum of 30 calendar days after installation.

5. MEASUREMENT

This Item will be measured by the foot; by each word, symbol, or shape; or by any other unit shown on the plans. Each stripe will be measured separately.

This is a plans quantity measurement item. The quantity to be paid is the quantity shown in the proposal unless modified by Article 9.2., "Plans Quantity Measurement." Additional measurements or calculations will be made if adjustments of quantities are required.

Acrylic or epoxy sealer, or Type II markings when used as a sealer for Type I markings, will be measured by the foot; by each word, symbol, or shape; or by any other unit shown on the plans.

6. PAYMENT

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Pavement Sealer" of the size specified, "Retroreflectorized Pavement Markings" of the type and color specified and the shape, width, size, and thickness specified as applicable, "Retroreflectorized Pavement Markings with Retroreflective Requirements" of the types, colors, sizes, widths, and thicknesses specified or "Retroreflectorized Profile Pavement Markings" of the various types, colors, shapes, sizes, and widths specified.

This price is full compensation for application of pavement markings, materials, equipment, labor, tools, and incidentals.

Surface preparation of new concrete and asphalt concrete pavements more than 3 years old, where no stripe exists, will be paid for under Item 678, "Pavement Surface Preparation for Markings." Surface preparation of all other asphalt and old concrete pavement, except for sealing, will not be paid for directly but is subsidiary to this Item.

Work zone pavement markings (Type II, paint and beads) used as a sealer for Type I markings (thermoplastic) will be paid for under Item 662, "Work Zone Pavement Markings."

If the Engineer requires that markings be placed in inclement weather, repair or replacement of markings damaged by the inclement weather will be paid for in addition to the original plans quantity.

Item 672

Raised Pavement Markers



1. DESCRIPTION

Furnish and install raised pavement markers (RPMs).

2. MATERIALS

2.1. **Markers.** Furnish RPMs in accordance with the following Department Material Specifications:

- **Reflectorized Pavement Markers.** [DMS-4200](#), "Pavement Markers (Reflectorized)," types I-A, I-C, I-R, II-A-A, and II-C- R.
- **Traffic Buttons.** [DMS-4300](#), "Traffic Buttons," types I-A, I-C, I-R, II-A-A, II-C- R, W, Y and B. Round or oval unless otherwise specified on the plans.
- **Plowable Reflectorized Pavement Markers.** [DMS-4210](#), "Snowplowable Pavement Markers," types I-A, I-C, I-R, II-A-A, and II-C- R.

The following are descriptions for each type of RPM:

- **Type I-A.** The approach face must retro-reflect amber light. The body, other than the retro-reflective face, must be yellow.
- **Type I-C.** The approach face must retro-reflect white light. The body, other than the retro-reflective face, must be white or silver-white.
- **Type I-R.** The trailing face must retro-reflect red light. The body, other than the retro-reflective face, must be white or silver-white, except for I-R plowable markers which may be black.
- **Type II-A-A.** The 2 retro-reflective faces (approach and trailing) must retro-reflect amber light. The body, other than the retro-reflective faces, must be yellow.
- **Type II-C-R.** Contain 2 retro-reflective faces with an approach face that must retro-reflect white light and a trailing face that must retro-reflect red light. The body, other than the retro-reflective faces, must be white or silver-white.
- **Type W.** Must have a white body and no reflective faces.
- **Type Y.** Must have a yellow body and no reflective faces.
- **Type B.** Must have a black body and no reflective faces.

2.2. **Adhesives.** Furnish adhesives that conform to the following requirements:

- [DMS-6100](#), "Epoxy and Adhesives," Type II—Traffic Marker Adhesives.
- [DMS-6130](#), "Bituminous Adhesive for Pavement Markers."
- The Contractor may propose alternate adhesive materials for consideration and approval.

2.3. **Sampling.** The Engineer will sample in accordance with [Tex-729-I](#).

3. CONSTRUCTION

Remove existing RPMs in accordance with Item 677, "Eliminating Existing Pavement Markings and Markers," except for measurement and payment. Furnish RPMs for each class from the same manufacturer. Prepare all surfaces in accordance with Item 678, "Pavement Surface Preparation for Markings," when shown on the

plans. Ensure the bond surfaces are free of dirt, curing compound, grease, oil, moisture, loose or unsound pavement markings, and any other material that would adversely affect the adhesive bond.

Establish pavement marking guides to mark the lateral location of RPMs as shown on the plans and as directed. Do not make permanent marks on the roadway for the guides.

Place RPMs in proper alignment with the guides. Acceptable placement deviations are shown on the plans.

Remove RPMs placed out of alignment or sequence, as shown on the plans or stated in this specification, at Contractor's expense, in accordance with Item 677, "Eliminating Existing Pavement Markings and Markers" (except for measurement and payment).

Use the following adhesive materials for placement of reflectorized pavement markers, and traffic buttons unless otherwise shown on the plans:

- standard or flexible bituminous adhesive for applications on bituminous pavements, and
- epoxy adhesive or flexible bituminous adhesive for applications on hydraulic cement concrete pavements.

Use epoxy adhesive for plowable reflectorized pavement markers.

Apply enough adhesives to:

- ensure that 100% of the bonding area of RPMs is in contact with the adhesive, and
- ensure that RPMs, except for plowable markers, are seated on a continuous layer of adhesive and not in contact with the pavement surface.

Apply adhesives in accordance with manufacturer's recommendations unless otherwise required by this Article. Apply bituminous adhesive only when pavement temperature and RPM temperature are 40°F or higher. Do not heat bituminous adhesive above 400°F. Machine agitate bituminous adhesive continuously before application to ensure even heat distribution.

Machine-mix epoxy adhesive. Apply epoxy adhesive only when pavement temperature is 50°F or higher.

Furnish RPMs free of rust, scale, dirt, oil, grease, moisture, and contaminants that might adversely affect the adhesive bond.

Place RPMs immediately after the adhesive is applied and ensure proper bonding. Do not use adhesives or any other material that impairs the functional retro-reflectivity of the RPMs.

Provide a 30-day performance period that begins the day following written acceptance for each separate location. The date of written acceptance will be the last calendar day of each month for the RPMs installed that month for the completed separate project locations. This written acceptance does not constitute final acceptance.

Replace all missing, broken or non-reflective RPMs. Visual evaluations will be used for these determinations. Upon request, the Engineer will allow a Contractor representative to accompany the Engineer on these evaluations.

The Engineer may exclude RPMs from the replacement provisions of the performance, provided the Engineer determines the failure is a result of causes other than defective material or inadequate installation procedures. Examples of outside causes are extreme wear at intersections, damage by snow or ice removal, and pavement failure.

Replace all missing or non-reflective RPMs identified during the performance period within 30 days after notification. The end of the performance period does not relieve the Contractor from the performance deficiencies requiring corrective action identified during the performance period.

4. MEASUREMENT

This Item will be measured by each RPM.

This is a plans quantity measurement Item. The quantity to be paid is the quantity shown in the proposal, unless modified by Article 9.2., "Plans Quantity Measurement." Additional measurements or calculations will be made if adjustments are required.

5. PAYMENT

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Reflectorized Pavement Marker," "Traffic Button," or "Plowable Reflectorized Pavement Marker" of the types specified. This price is full compensation for removing existing markers; furnishing and installing RPMs; and materials, equipment, labor, tools, and incidentals.

No additional payment will be made for replacement of RPMs failing to meet the performance requirements.

Item 677

Eliminating Existing Pavement Markings and Markers



1. DESCRIPTION

Eliminate existing pavement markings and raised pavement markers (RPMs).

2. MATERIALS

Furnish surface treatment materials in accordance with the following Items:

- Item 300, "Asphalts, Oils, and Emulsions"
- Item 302, "Aggregates for Surface Treatments"
- Item 316, "Seal Coat"

Use approved patching materials for repairing damaged surfaces.

Use a commercial abrasive blasting medium capable of producing the specified surface cleanliness. Use potable water when water is required.

3. EQUIPMENT

Furnish and maintain equipment in good working condition. Use moisture and oil traps in air compression equipment to remove all contaminants from the blasting air and prevent the deposition of moisture, oil, or other contaminants on the roadway surface.

4. CONSTRUCTION

Eliminate existing pavement markings and markers on both concrete and asphaltic surfaces in such a manner that color and texture contrast of the pavement surface will be held to a minimum. Remove all markings and markers with minimal damage to the roadway to the satisfaction of the Engineer. Repair damage to asphaltic surfaces, such as spalling, shelling, etc., greater than 1/4 in. deep resulting from the removal of pavement markings and markers. Dispose of markers in accordance with federal, state, and local regulations. Use any of the following methods unless otherwise shown on the plans:

- 4.1. **Surface Treatment Method.** Apply surface treatment material at rates shown on the plans, or as directed. Place a surface treatment a minimum of 2 ft. wide to cover the existing marking. Place a surface treatment, thin overlay, or microsurfacing a minimum of one lane in width in areas where directional changes of traffic are involved or other areas as directed.
- 4.2. **Burn Method.** Use an approved burning method. For thermoplastic pavement markings or prefabricated pavement markings, heat may be applied to remove the bulk of the marking material before blast cleaning. When using heat, avoid spalling pavement surfaces. Sweeping or light blast cleaning may be used to remove minor residue.
- 4.3. **Blasting Method.** Use a blasting method such as water blasting, abrasive blasting, water abrasive blasting, shot blasting, slurry blasting, water-injected abrasive blasting, or brush blasting as approved. Remove pavement markings on concrete surfaces by a blasting method.

- 4.4. **Mechanical Method.** Use any mechanical method except grinding. Flail milling is acceptable in the removal of markings on asphalt and concrete surfaces.

5. MEASUREMENT

This Item will be measured by each word, symbol, or shape eliminated; by the foot of marking eliminated; or by any other unit shown on the plans.

This is a plans quantity measurement Item. The quantity to be paid is the quantity shown in the proposal unless modified by Article 9.2., "Plans Quantity Measurement." Additional measurements or calculations will be made if adjustments of quantities are required.

6. PAYMENT

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Eliminating Existing Pavement Markings and Markers" of the type and width as applicable. This price is full compensation for the elimination method used and materials, equipment, tools, labor, and incidentals. Removal of RPMs will not be paid for directly but will be subsidiary to the pertinent bid items.

Special Specification 3076

Dense-Graded Hot-Mix Asphalt



1. DESCRIPTION

Construct a hot-mix asphalt (HMA) pavement layer composed of a compacted, dense-graded mixture of aggregate and asphalt binder mixed hot in a mixing plant. Payment adjustments will apply to HMA placed under this specification unless the HMA is deemed exempt in accordance with Section 3076.4.9.4., "Exempt Production."

2. MATERIALS

Furnish uncontaminated materials of uniform quality that meet the requirements of the plans and specifications.

Notify the Engineer of all material sources and before changing any material source or formulation. The Engineer will verify that the specification requirements are met when the Contractor makes a source or formulation change, and may require a new laboratory mixture design, trial batch, or both. The Engineer may sample and test project materials at any time during the project to verify specification compliance in accordance with Item 6, "Control of Materials."

- 2.1. **Aggregate.** Furnish aggregates from sources that conform to the requirements shown in Table 1 and as specified in this Section. Aggregate requirements in this Section, including those shown in Table 1, may be modified or eliminated when shown on the plans. Additional aggregate requirements may be specified when shown on the plans. Provide aggregate stockpiles that meet the definitions in this Section for coarse, intermediate, or fine aggregate. Aggregate from reclaimed asphalt pavement (RAP) is not required to meet Table 1 requirements unless otherwise shown on the plans. Supply aggregates that meet the definitions in [Tex-100-E](#) for crushed gravel or crushed stone. The Engineer will designate the plant or the quarry as the sampling location. Provide samples from materials produced for the project. The Engineer will establish the Surface Aggregate Classification (SAC) and perform Los Angeles abrasion, magnesium sulfate soundness, and Micro-Deval tests. Perform all other aggregate quality tests listed in Table 1. Document all test results on the mixture design report. The Engineer may perform tests on independent or split samples to verify Contractor test results. Stockpile aggregates for each source and type separately. Determine aggregate gradations for mixture design and production testing based on the washed sieve analysis given in [Tex-200-F](#), Part II.

- 2.1.1. **Coarse Aggregate.** Coarse aggregate stockpiles must have no more than 20% material passing the No. 8 sieve. Aggregates from sources listed in the Department's *Bituminous Rated Source Quality Catalog* (BRSQC) are preapproved for use. Use only the rated values for hot-mix listed in the BRSQC. Rated values for surface treatment (ST) do not apply to coarse aggregate sources used in hot-mix asphalt.

For sources not listed on the Department's BRSQC:

- build an individual stockpile for each material;
- request the Department test the stockpile for specification compliance; and
- once approved, do not add material to the stockpile unless otherwise approved.

Provide aggregate from non-listed sources only when tested by the Engineer and approved before use. Allow 30 calendar days for the Engineer to sample, test, and report results for non-listed sources.

Provide coarse aggregate with at least the minimum SAC shown on the plans. SAC requirements only apply to aggregates used on the surface of travel lanes. SAC requirements apply to aggregates used on surfaces other than travel lanes when shown on the plans. The SAC for sources on the Department's *Aggregate Quality Monitoring Program* (AQMP) ([Tex-499-A](#)) is listed in the BRSQC.

- 2.1.1.1. **Blending Class A and Class B Aggregates.** Class B aggregate meeting all other requirements in Table 1 may be blended with a Class A aggregate to meet requirements for Class A materials, unless otherwise shown on the plans. Ensure that at least 50% by weight, or volume if required, of the material retained on the No. 4 sieve comes from the Class A aggregate source when blending Class A and B aggregates to meet a Class A requirement unless otherwise shown on the plans. Blend by volume if the bulk specific gravities of the Class A and B aggregates differ by more than 0.300. Coarse aggregate from RAP and Recycled Asphalt Shingles (RAS) will be considered as Class B aggregate for blending purposes.

The Engineer may perform tests at any time during production, when the Contractor blends Class A and B aggregates to meet a Class A requirement, to ensure that at least 50% by weight, or volume if required, of the material retained on the No. 4 sieve comes from the Class A aggregate source. The Engineer will use the Department's mix design template, when electing to verify conformance, to calculate the percent of Class A aggregate retained on the No. 4 sieve by inputting the bin percentages shown from readouts in the control room at the time of production and stockpile gradations measured at the time of production. The Engineer may determine the gradations based on either washed or dry sieve analysis from samples obtained from individual aggregate cold feed bins or aggregate stockpiles. The Engineer may perform spot checks using the gradations supplied by the Contractor on the mixture design report as an input for the template; however, a failing spot check will require confirmation with a stockpile gradation determined by the Engineer.

- 2.1.1.2. **Micro-Deval Abrasion.** The Engineer will perform a minimum of one Micro-Deval abrasion test in accordance with [Tex-461-A](#) for each coarse aggregate source used in the mixture design that has a Rated Source Soundness Magnesium (RSSM) loss value greater than 15 as listed in the BRSQC. The Engineer will perform testing before the start of production and may perform additional testing at any time during production. The Engineer may obtain the coarse aggregate samples from each coarse aggregate source or may require the Contractor to obtain the samples. The Engineer may waive all Micro-Deval testing based on a satisfactory test history of the same aggregate source.

The Engineer will estimate the magnesium sulfate soundness loss for each coarse aggregate source, when tested, using the following formula:

$$Mg_{est.} = (RSSM)(MD_{act.}/RSMD)$$

where:

$Mg_{est.}$ = magnesium sulfate soundness loss

$MD_{act.}$ = actual Micro-Deval percent loss

$RSMD$ = Rated Source Micro-Deval

When the estimated magnesium sulfate soundness loss is greater than the maximum magnesium sulfate soundness loss specified, the coarse aggregate source will not be allowed for use unless otherwise approved. The Engineer will consult the Soils and Aggregates Section of the Materials and Tests Division, and additional testing may be required before granting approval.

- 2.1.2. **Intermediate Aggregate.** Aggregates not meeting the definition of coarse or fine aggregate will be defined as intermediate aggregate. Supply intermediate aggregates, when used that are free from organic impurities. The Engineer may test the intermediate aggregate in accordance with [Tex-408-A](#) to verify the material is free from organic impurities. Supply intermediate aggregate from coarse aggregate sources, when used that meet the requirements shown in Table 1 unless otherwise approved.

Test the stockpile if 10% or more of the stockpile is retained on the No. 4 sieve, and verify that it meets the requirements in Table 1 for crushed face count ([Tex-460-A](#)) and flat and elongated particles ([Tex-280-F](#)).

2.1.3.

Fine Aggregate. Fine aggregates consist of manufactured sands, screenings, and field sands. Fine aggregate stockpiles must meet the gradation requirements in Table 2. Supply fine aggregates that are free from organic impurities. The Engineer may test the fine aggregate in accordance with [Tex-408-A](#) to verify the material is free from organic impurities. Unless otherwise shown on the plans, up to 10% of the total aggregate may be field sand or other uncrushed fine aggregate. Use fine aggregate, with the exception of field sand, from coarse aggregate sources that meet the requirements shown in Table 1 unless otherwise approved.

Test the stockpile if 10% or more of the stockpile is retained on the No. 4 sieve and verify that it meets the requirements in Table 1 for crushed face count ([Tex-460-A](#)) and flat and elongated particles ([Tex-280-F](#)).

Table 1
Aggregate Quality Requirements

Property	Test Method	Requirement
Coarse Aggregate		
SAC	Tex-499-A (AQMP)	As shown on the plans
Deleterious material, %, Max	Tex-217-F , Part I	1.5
Decantation, %, Max	Tex-217-F , Part II	1.5
Micro-Deval abrasion, %	Tex-461-A	Note 1
Los Angeles abrasion, %, Max	Tex-410-A	40
Magnesium sulfate soundness, 5 cycles, %, Max	Tex-411-A	30
Crushed face count, ² %, Min	Tex-460-A , Part I	85
Flat and elongated particles @ 5:1, %, Max	Tex-280-F	10
Fine Aggregate		
Linear shrinkage, %, Max	Tex-107-E	3
Sand equivalent, %, Min	Tex-203-F	45

1. Used to estimate the magnesium sulfate soundness loss in accordance with Section 3076.2.1.1.2., "Micro-Deval Abrasion."
2. Only applies to crushed gravel.

Table 2
Gradation Requirements for Fine Aggregate

Sieve Size	% Passing by Weight or Volume
3/8"	100
#8	70–100
#200	0–30

2.2.

Mineral Filler. Mineral filler consists of finely divided mineral matter such as agricultural lime, crusher fines, hydrated lime, or fly ash. Mineral filler is allowed unless otherwise shown on the plans. Use no more than 2% hydrated lime or fly ash unless otherwise shown on the plans. Use no more than 1% hydrated lime if a substitute binder is used unless otherwise shown on the plans or allowed. Test all mineral fillers except hydrated lime and fly ash in accordance with [Tex-107-E](#) to ensure specification compliance. The plans may require or disallow specific mineral fillers. Provide mineral filler, when used, that:

- is sufficiently dry, free-flowing, and free from clumps and foreign matter as determined by the Engineer;
- does not exceed 3% linear shrinkage when tested in accordance with [Tex-107-E](#); and
- meets the gradation requirements in Table 3, unless otherwise shown on the plans.

Table 3
Gradation Requirements for Mineral Filler

Sieve Size	% Passing by Weight or Volume
#8	100
#200	55–100

2.3.

Baghouse Fines. Fines collected by the baghouse or other dust-collecting equipment may be reintroduced into the mixing drum.

2.4.

Asphalt Binder. Furnish the type and grade of performance-graded (PG) asphalt specified on the plans.

- 2.5. **Tack Coat.** Furnish CSS-1H, SS-1H, or a PG binder with a minimum high-temperature grade of PG 58 for tack coat binder in accordance with Item 300, "Asphalts, Oils, and Emulsions." Specialized tack coat materials listed on the Department's MPL are allowed or required when shown on the plans. Do not dilute emulsified asphalts at the terminal, in the field, or at any other location before use.
- 2.6. **Additives.** Use the type and rate of additive specified when shown on the plans. Additives that facilitate mixing, compaction, or improve the quality of the mixture are allowed when approved. Provide the Engineer with documentation such as the bill of lading showing the quantity of additives used in the project unless otherwise directed.
- 2.6.1. **Lime and Liquid Antistripping Agent.** When lime or a liquid antistripping agent is used, add in accordance with Item 301, "Asphalt Antistripping Agents." Do not add lime directly into the mixing drum of any plant where lime is removed through the exhaust stream unless the plant has a baghouse or dust collection system that reintroduces the lime into the drum.
- 2.6.2. **Warm Mix Asphalt (WMA).** Warm Mix Asphalt (WMA) is defined as HMA that is produced within a target temperature discharge range of 215°F and 275°F using approved WMA additives or processes from the Department's MPL.
- WMA is allowed for use on all projects and is required when shown on the plans. When WMA is required, the maximum placement or target discharge temperature for WMA will be set at a value below 275°F.
- Department-approved WMA additives or processes may be used to facilitate mixing and compaction of HMA produced at target discharge temperatures above 275°F; however, such mixtures will not be defined as WMA.
- 2.6.3. **Compaction Aid.** Compaction Aid is defined as a chemical warm mix additive that is used to produce an asphalt mixture at a discharge temperature greater than 275°F.
- Compaction Aid is allowed for use on all projects and is required when shown on the plans.
- 2.7. **Recycled Materials.** Use of RAP and RAS is permitted unless otherwise shown on the plans. Use of RAS is restricted to only intermediate and base mixes unless otherwise shown on the plans. Do not exceed the maximum allowable percentages of RAP and RAS shown in Table 4. The allowable percentages shown in Table 4 may be decreased or increased when shown on the plans. Determine the asphalt binder content and gradation of the RAP and RAS stockpiles for mixture design purposes in accordance with [Tex-236-F](#), Part I. The Engineer may verify the asphalt binder content of the stockpiles at any time during production. Perform other tests on RAP and RAS when shown on the plans. Asphalt binder from RAP and RAS is designated as recycled asphalt binder. Calculate and ensure that the ratio of the recycled asphalt binder to total binder does not exceed the percentages shown in Table 5 during mixture design and HMA production when RAP or RAS is used. Use a separate cold feed bin for each stockpile of RAP and RAS during HMA production.
- Surface, intermediate, and base mixes referenced in Tables 4 and 5 are defined as follows:
- **Surface.** The final HMA lift placed at the top of the pavement structure or placed directly below mixtures produced in accordance with Items 316, 342, 347, or 348;
 - **Intermediate.** Mixtures placed below an HMA surface mix and less than or equal to 8.0 in. from the riding surface; and
 - **Base.** Mixtures placed greater than 8.0 in. from the riding surface. Unless otherwise shown on the plans, mixtures used for bond breaker are defined as base mixtures.
- 2.7.1. **RAP.** RAP is salvaged, milled, pulverized, broken, or crushed asphalt pavement. Fractionated RAP is defined as a stockpile that contains RAP material with a minimum of 95.0% passing the 3/8-in. or 1/2-in. sieve, before burning in the ignition oven, unless otherwise approved. The Engineer may allow the Contractor to use an alternate to the 3/8-in. or 1/2-in. screen to fractionate the RAP.

Use of Contractor-owned RAP including HMA plant waste is permitted unless otherwise shown on the plans. Department-owned RAP stockpiles are available for the Contractor's use when the stockpile locations are shown on the plans. If Department-owned RAP is available for the Contractor's use, the Contractor may use Contractor-owned fractionated RAP and replace it with an equal quantity of Department-owned RAP. Department-owned RAP generated through required work on the Contract is available for the Contractor's use when shown on the plans. Perform any necessary tests to ensure Contractor- or Department-owned RAP is appropriate for use. The Department will not perform any tests or assume any liability for the quality of the Department-owned RAP unless otherwise shown on the plans. The Contractor will retain ownership of RAP generated on the project when shown on the plans.

Do not use Department- or Contractor-owned RAP contaminated with dirt or other objectionable materials. Do not use Department- or Contractor-owned RAP if the decantation value exceeds 5% and the plasticity index is greater than 8. Test the stockpiled RAP for decantation in accordance with [Tex-406-A](#), Part I. Determine the plasticity index in accordance with [Tex-106-E](#) if the decantation value exceeds 5%. The decantation and plasticity index requirements do not apply to RAP samples with asphalt removed by extraction or ignition.

Do not intermingle Contractor-owned RAP stockpiles with Department-owned RAP stockpiles. Remove unused Contractor-owned RAP material from the project site upon completion of the project. Return unused Department-owned RAP to the designated stockpile location.

Table 4
Maximum Allowable Amounts of RAP¹

Maximum Allowable Fractionated RAP (%)		
Surface	Intermediate	Base
15.0	25.0	30.0

1. Must also meet the recycled binder to total binder ratio shown in Table 5.

2.7.2.

RAS. Use of post-manufactured RAS or post-consumer RAS (tear-offs) is not permitted in surface mixtures unless otherwise shown on the plans. RAS may be used in intermediate and base mixtures unless otherwise shown on the plans. Up to 3% RAS may be used separately or as a replacement for fractionated RAP in accordance with Table 4 and Table 5. RAS is defined as processed asphalt shingle material from manufacturing of asphalt roofing shingles or from re-roofing residential structures. Post-manufactured RAS is processed manufacturer's shingle scrap by-product. Post-consumer RAS is processed shingle scrap removed from residential structures. Comply with all regulatory requirements stipulated for RAS by the TCEQ. RAS may be used separately or in conjunction with RAP.

Process the RAS by ambient grinding or granulating such that 100% of the particles pass the 3/8 in. sieve when tested in accordance with [Tex-200-F](#), Part I. Perform a sieve analysis on processed RAS material before extraction (or ignition) of the asphalt binder.

Add sand meeting the requirements of Table 1 and Table 2 or fine RAP to RAS stockpiles if needed to keep the processed material workable. Any stockpile that contains RAS will be considered a RAS stockpile and be limited to no more than 3.0% of the HMA mixture in accordance with Table 4.

Certify compliance of the RAS with [DMS-11000](#), "Evaluating and Using Nonhazardous Recyclable Materials Guidelines." Treat RAS as an established nonhazardous recyclable material if it has not come into contact with any hazardous materials. Use RAS from shingle sources on the Department's MPL. Remove substantially all materials before use that are not part of the shingle, such as wood, paper, metal, plastic, and felt paper. Determine the deleterious content of RAS material for mixture design purposes in accordance with [Tex-217-F](#), Part III. Do not use RAS if deleterious materials are more than 0.5% of the stockpiled RAS unless otherwise approved. Submit a sample for approval before submitting the mixture design. The Department will perform the testing for deleterious material of RAS to determine specification compliance.

2.8.

Substitute Binders. Unless otherwise shown on the plans, the Contractor may use a substitute PG binder listed in Table 5 instead of the PG binder originally specified, if using recycled materials, and if the substitute PG binder and mixture made with the substitute PG binder meet the following:

- the substitute binder meets the specification requirements for the substitute binder grade in accordance with Section 300.2.10., "Performance-Graded Binders;" and
- the mixture has less than 10.0 mm of rutting on the Hamburg Wheel test ([Tex-242-F](#)) after the number of passes required for the originally specified binder. Use of substitute PG binders may only be allowed at the discretion of the Engineer if the Hamburg Wheel test results are between 10.0 mm and 12.5 mm.

Table 5
Allowable Substitute PG Binders and Maximum Recycled Binder Ratios

Originally Specified PG Binder	Allowable Substitute PG Binder for Surface Mixes	Allowable Substitute PG Binder for Intermediate and Base Mixes	Maximum Ratio of Recycled Binder ¹ to Total Binder (%)		
			Surface	Intermediate	Base
76-22 ^{4,5}	70-22	70-22	10.0	20.0	25.0
70-22 ^{2,5}	N/A	64-22	10.0	20.0	25.0
64-22 ^{2,3}	N/A	N/A	10.0	20.0	25.0
76-28 ^{4,5}	70-28	70-28	10.0	20.0	25.0
70-28 ^{2,5}	N/A	64-28	10.0	20.0	25.0
64-28 ^{2,3}	N/A	N/A	10.0	20.0	25.0

1. Combined recycled binder from RAP and RAS. RAS is not permitted in surface mixtures unless otherwise shown on the plans.
2. Binder substitution is not allowed for surface mixtures.
3. Binder substitution is not allowed for intermediate and base mixtures.
4. Use no more than 10.0% recycled binder in surface mixtures when using this originally specified PG binder.
5. Use no more than 20.0% recycled binder when using this originally specified PG binder for intermediate mixtures. Use no more than 25.0% recycled binder when using this originally specified PG binder for base mixtures.

3.

EQUIPMENT

Provide required or necessary equipment in accordance with Item 320, "Equipment for Asphalt Concrete Pavement."

4.

CONSTRUCTION

Produce, haul, place, and compact the specified paving mixture. In addition to tests required by the specification, Contractors may perform other QC tests as deemed necessary. At any time during the project, the Engineer may perform production and placement tests as deemed necessary in accordance with Item 5, "Control of the Work." Schedule and participate in a mandatory pre-paving meeting with the Engineer on or before the first day of paving unless otherwise shown on the plans.

4.1.

Certification. Personnel certified by the Department-approved hot-mix asphalt certification program must conduct all mixture designs, sampling, and testing in accordance with Table 6. Supply the Engineer with a list of certified personnel and copies of their current certificates before beginning production and when personnel changes are made. Provide a mixture design developed and signed by a Level 2 certified specialist. Provide Level 1A certified specialists at the plant during production operations. Provide Level 1B certified specialists to conduct placement tests. Provide AGG101 certified specialists for aggregate testing.

Table 6
Test Methods, Test Responsibility, and Minimum Certification Levels

Test Description	Test Method	Contractor	Engineer	Level ¹
1. Aggregate and Recycled Material Testing				
Sampling	Tex-221-F	✓	✓	1A/AGG101
Dry sieve	Tex-200-F , Part I	✓	✓	1A/AGG101
Washed sieve	Tex-200-F , Part II	✓	✓	1A/AGG101
Deleterious material	Tex-217-F , Parts I & III	✓	✓	AGG101
Decantation	Tex-217-F , Part II	✓	✓	AGG101
Los Angeles abrasion	Tex-410-A		✓	TxDOT
Magnesium sulfate soundness	Tex-411-A		✓	TxDOT
Micro-Deval abrasion	Tex-461-A		✓	AGG101
Crushed face count	Tex-460-A	✓	✓	AGG101
Flat and elongated particles	Tex-280-F	✓	✓	AGG101
Linear shrinkage	Tex-107-E	✓	✓	AGG101
Sand equivalent	Tex-203-F	✓	✓	AGG101
Organic impurities	Tex-408-A	✓	✓	AGG101
2. Asphalt Binder & Tack Coat Sampling				
Asphalt binder sampling	Tex-500-C , Part II	✓	✓	1A/1B
Tack coat sampling	Tex-500-C , Part III	✓	✓	1A/1B
3. Mix Design & Verification				
Design and JMF changes	Tex-204-F	✓	✓	2
Mixing	Tex-205-F	✓	✓	2
Molding (TGC)	Tex-206-F	✓	✓	1A
Molding (SGC)	Tex-241-F	✓	✓	1A
Laboratory-molded density	Tex-207-F , Parts I & VI	✓	✓	1A
Rice gravity	Tex-227-F , Part II	✓	✓	1A
Ignition oven correction factors ²	Tex-236-F , Part II	✓	✓	2
Indirect tensile strength	Tex-226-F	✓	✓	1A
Hamburg Wheel test	Tex-242-F	✓	✓	1A
Boil test	Tex-530-C	✓	✓	1A
4. Production Testing				
Selecting production random numbers	Tex-225-F , Part I		✓	1A
Mixture sampling	Tex-222-F	✓	✓	1A/1B
Molding (TGC)	Tex-206-F	✓	✓	1A
Molding (SGC)	Tex-241-F	✓	✓	1A
Laboratory-molded density	Tex-207-F , Parts I & VI	✓	✓	1A
Rice gravity	Tex-227-F , Part II	✓	✓	1A
Gradation & asphalt binder content ²	Tex-236-F , Part I	✓	✓	1A
Control charts	Tex-233-F	✓	✓	1A
Moisture content	Tex-212-F , Part II	✓	✓	1A/AGG101
Hamburg Wheel test	Tex-242-F	✓	✓	1A
Micro-Deval abrasion	Tex-461-A		✓	AGG101
Boil test	Tex-530-C	✓	✓	1A
Abson recovery	Tex-211-F		✓	TxDOT
5. Placement Testing				
Selecting placement random numbers	Tex-225-F , Part II		✓	1B
Trimming roadway cores	Tex-251-F , Parts I & II	✓	✓	1A/1B
In-place air voids	Tex-207-F , Parts I & VI	✓	✓	1A
In-place density (nuclear method)	Tex-207-F , Part III	✓		1B
Establish rolling pattern	Tex-207-F , Part IV	✓		1B
Control charts	Tex-233-F	✓	✓	1A
Ride quality measurement	Tex-1001-S	✓	✓	Note 3
Segregation (density profile)	Tex-207-F , Part V	✓	✓	1B
Longitudinal joint density	Tex-207-F , Part VII	✓	✓	1B
Thermal profile	Tex-244-F	✓	✓	1B
Shear Bond Strength Test	Tex-249-F		✓	TxDOT

- Level 1A, 1B, AGG101, and 2 are certification levels provided by the Hot Mix Asphalt Center certification program.
- Refer to Section 3076.4.9.2.3., "Production Testing," for exceptions to using an ignition oven.
- Profiler and operator are required to be certified at the Texas A&M Transportation Institute facility when Surface Test Type B is specified.

4.2.

Reporting and Responsibilities. Use Department-provided templates to record and calculate all test data, including mixture design, production and placement QC/QA, control charts, thermal profiles, segregation density profiles, and longitudinal joint density. Obtain the current version of the templates at <http://www.txdot.gov/inside-txdot/forms-publications/consultants-contractors/forms/site-manager.html> or from the Engineer. The Engineer and the Contractor will provide any available test results to the other party when requested. The maximum allowable time for the Contractor and Engineer to exchange test data is as given in Table 7 unless otherwise approved. The Engineer and the Contractor will immediately report to the other party any test result that requires suspension of production or placement, a payment adjustment less than 1.000, or that fails to meet the specification requirements. Record and electronically submit all test results and pertinent information on Department-provided templates.

Subsequent sublots placed after test results are available to the Contractor, which require suspension of operations, may be considered unauthorized work. Unauthorized work will be accepted or rejected at the discretion of the Engineer in accordance with Article 5.3., "Conformity with Plans, Specifications, and Special Provisions."

Table 7
Reporting Schedule

Reporting Schedule			
Description	Reported By	Reported To	To Be Reported Within
Production Quality Control			
Gradation ¹	Contractor	Engineer	1 working day of completion of the subplot
Asphalt binder content ¹			
Laboratory-molded density ²			
Moisture content ³			
Boil test ³			
Production Quality Assurance			
Gradation ³	Engineer	Contractor	1 working day of completion of the subplot
Asphalt binder content ³			
Laboratory-molded density ¹			
Hamburg Wheel test ⁴			
Boil test ³			
Binder tests ⁴			
Placement Quality Control			
In-place air voids ²	Contractor	Engineer	1 working day of completion of the lot
Segregation ¹			
Longitudinal joint density ¹			
Thermal profile ¹			
Placement Quality Assurance			
In-place air voids ¹	Engineer	Contractor	1 working day after receiving the trimmed cores ⁵
Segregation ³			1 working day of completion of the lot
Longitudinal joint density ³			
Thermal profile ³			
Aging ratio ⁴			
Payment adjustment summary	Engineer	Contractor	2 working days of performing all required tests and receiving Contractor test data

1. These tests are required on every subplot.
2. Optional test. When performed on split samples, report the results as soon as they become available.
3. To be performed at the frequency specified in Table 16 or as shown on the plans.
4. To be reported as soon as the results become available.
5. 2 days are allowed if cores cannot be dried to constant weight within 1 day.

The Engineer will use the Department-provided template to calculate all payment adjustment factors for the lot. Sublot samples may be discarded after the Engineer and Contractor sign off on the payment adjustment summary documentation for the lot.

Use the procedures described in [Tex-233-F](#) to plot the results of all quality control (QC) and quality assurance (QA) testing. Update the control charts as soon as test results for each subplot become available. Make the control charts readily accessible at the field laboratory. The Engineer may suspend production for failure to update control charts.

- 4.3. **Quality Control Plan (QCP).** Develop and follow the QCP in detail. Obtain approval for changes to the QCP made during the project. The Engineer may suspend operations if the Contractor fails to comply with the QCP.

Submit a written QCP before the mandatory pre-paving meeting. Receive approval of the QCP before beginning production. Include the following items in the QCP:

- 4.3.1. **Project Personnel.** For project personnel, include:

- a list of individuals responsible for QC with authority to take corrective action;
- current contact information for each individual listed; and
- current copies of certification documents for individuals performing specified QC functions.

- 4.3.2. **Material Delivery and Storage.** For material delivery and storage, include:

- the sequence of material processing, delivery, and minimum quantities to assure continuous plant operations;
- aggregate stockpiling procedures to avoid contamination and segregation;
- frequency, type, and timing of aggregate stockpile testing to assure conformance of material requirements before mixture production; and
- procedure for monitoring the quality and variability of asphalt binder.

- 4.3.3. **Production.** For production, include:

- loader operation procedures to avoid contamination in cold bins;
- procedures for calibrating and controlling cold feeds;
- procedures to eliminate debris or oversized material;
- procedures for adding and verifying rates of each applicable mixture component (e.g., aggregate, asphalt binder, RAP, RAS, lime, liquid antistripping, WMA);
- procedures for reporting job control test results; and
- procedures to avoid segregation and drain-down in the silo.

- 4.3.4. **Loading and Transporting.** For loading and transporting, include:

- type and application method for release agents; and
- truck loading procedures to avoid segregation.

- 4.3.5. **Placement and Compaction.** For placement and compaction, include:

- proposed agenda for mandatory pre-paving meeting, including date and location;
- proposed paving plan (e.g., paving widths, joint offsets, and lift thicknesses);
- type and application method for release agents in the paver and on rollers, shovels, lutes, and other utensils;
- procedures for the transfer of mixture into the paver, while avoiding segregation and preventing material spillage;
- process to balance production, delivery, paving, and compaction to achieve continuous placement operations and good ride quality;
- paver operations (e.g., operation of wings, height of mixture in auger chamber) to avoid physical and thermal segregation and other surface irregularities; and
- procedures to construct quality longitudinal and transverse joints.

4.4. Mixture Design.

4.4.1. **Design Requirements.** The Contractor will design the mixture using a Superpave Gyratory Compactor (SGC). A Texas Gyratory Compactor (TGC) may be used when shown on the plans. Use the dense-graded design procedure provided in [Tex-204-F](#). Design the mixture to meet the requirements listed in Tables 1, 2, 3, 4, 5, 8, 9, and 10.

4.4.1.1. **Design Number of Gyration (N_{design}) When The SGC Is Used.** Design the mixture at 50 gyrations (N_{design}). Use a target laboratory-molded density of 96.0% to design the mixture; however, adjustments can be made to the N_{design} value as noted in Table 9. The N_{design} level may be reduced to at least 35 gyrations at the Contractor's discretion.

Use an approved laboratory from the Department's MPL to perform the Hamburg Wheel test, and provide results with the mixture design, or provide the laboratory mixture and request that the Department perform the Hamburg Wheel test. The Engineer will be allowed 10 working days to provide the Contractor with Hamburg Wheel test results on the laboratory mixture design.

The Engineer will provide the mixture design when shown on the plans. The Contractor may submit a new mixture design at any time during the project. The Engineer will verify and approve all mixture designs (JMF1) before the Contractor can begin production.

Provide the Engineer with a mixture design report using the Department-provided template. Include the following items in the report:

- the combined aggregate gradation, source, specific gravity, and percent of each material used;
- asphalt binder content and aggregate gradation of RAP and RAS stockpiles;
- the target laboratory-molded density (or N_{design} level when using the SGC);
- results of all applicable tests;
- the mixing and molding temperatures;
- the signature of the Level 2 person or persons that performed the design;
- the date the mixture design was performed; and
- a unique identification number for the mixture design.

Table 8
Master Gradation Limits (% Passing by Weight or Volume) and VMA Requirements

Sieve Size	B Fine Base	C Coarse Surface	D Fine Surface	F Fine Mixture
2"	—	—	—	—
1-1/2"	100.0 ¹	—	—	—
1"	98.0–100.0	100.0 ¹	—	—
3/4"	84.0–98.0	95.0–100.0	100.0 ¹	—
1/2"	—	—	98.0–100.0	100.0 ¹
3/8"	60.0–80.0	70.0–85.0	85.0–100.0	98.0–100.0
#4	40.0–60.0	43.0–63.0	50.0–70.0	70.0–90.0
#8	29.0–43.0	32.0–44.0	35.0–46.0	38.0–48.0
#30	13.0–28.0	14.0–28.0	15.0–29.0	12.0–27.0
#50	6.0–20.0	7.0–21.0	7.0–20.0	6.0–19.0
#200	2.0–7.0	2.0–7.0	2.0–7.0	2.0–7.0
Design VMA, % Minimum				
—	13.0	14.0	15.0	16.0
Production (Plant-Produced) VMA, % Minimum				
—	12.5	13.5	14.5	15.5

1. Defined as maximum sieve size. No tolerance allowed.

Table 9
Laboratory Mixture Design Properties

Mixture Property	Test Method	Requirement
Target laboratory-molded density, % (SGC)	Tex-207-F	96.0
Design gyrations (N _{design} for SGC)	Tex-241-F	50 ¹
Indirect tensile strength (dry), psi	Tex-226-F	85–200 ²
Boil test ³	Tex-530-C	–

1. Adjust within a range of 35–100 gyrations when shown on the plans or specification or when mutually agreed between the Engineer and Contractor.
2. The Engineer may allow the IDT strength to exceed 200 psi if the corresponding Hamburg Wheel rut depth is greater than 3.0 mm and less than 12.5 mm.
3. Used to establish baseline for comparison to production results. May be waived when approved.

Table 10
Hamburg Wheel Test Requirements

High-Temperature Binder Grade	Test Method	Minimum # of Passes @ 12.5 mm ¹ Rut Depth, Tested @ 50°C
PG 64 or lower	Tex-242-F	10,000 ²
PG 70		15,000 ³
PG 76 or higher		20,000

1. When the rut depth at the required minimum number of passes is less than 3 mm, the Engineer may require the Contractor to increase the target laboratory-molded density (TGC) by 0.5% to no more than 97.5% or lower the N_{design} level (SGC) to at least 35 gyrations.
2. May be decreased to at least 5,000 passes when shown on the plans.
3. May be decreased to at least 10,000 passes when shown on the plans.

4.4.1.2. **Target Laboratory-Molded Density When The TGC Is Used.** Design the mixture at a 96.5% target laboratory-molded density. Increase the target laboratory-molded density to 97.0% or 97.5% at the Contractor's discretion or when shown on the plans or specification.

4.4.2. **Job-Mix Formula Approval.** The job-mix formula (JMF) is the combined aggregate gradation, target laboratory-molded density (or N_{design} level), and target asphalt percentage used to establish target values for hot-mix production. JMF1 is the original laboratory mixture design used to produce the trial batch. When WMA is used, JMF1 may be designed and submitted to the Engineer without including the WMA additive. When WMA is used, document the additive or process used and recommended rate on the JMF1 submittal. The Engineer and the Contractor will verify JMF1 based on plant-produced mixture from the trial batch unless otherwise approved. The Engineer may accept an existing mixture design previously used on a Department project and may waive the trial batch to verify JMF1. The Department may require the Contractor to reimburse the Department for verification tests if more than 2 trial batches per design are required.

4.4.2.1. **Contractor's Responsibilities.**

4.4.2.1.1. **Providing Gyratory Compactor.** Use a SGC calibrated in accordance with [Tex-241-F](#) to design the mixture in accordance with [Tex-204-F](#), Part IV, for molding production samples. Locate the SGC, if used, at the Engineer's field laboratory and make the SGC available to the Engineer for use in molding production samples. Furnish a TGC calibrated in accordance with [Tex-914-K](#) when shown on the plans to design the mixture in accordance with [Tex-204-F](#), Part I, for molding production samples.

4.4.2.1.2. **Gyratory Compactor Correlation Factors.** Use [Tex-206-F](#), Part II, to perform a gyratory compactor correlation when the Engineer uses a different gyratory compactor. Apply the correlation factor to all subsequent production test results.

4.4.2.1.3. **Submitting JMF1.** Furnish a mix design report (JMF1) with representative samples of all component materials and request approval to produce the trial batch. Provide approximately 10,000 g of the design mixture if opting to have the Department perform the Hamburg Wheel test on the laboratory mixture, and request that the Department perform the test.

- 4.4.2.1.4. **Supplying Aggregates.** Provide approximately 40 lb. of each aggregate stockpile unless otherwise directed.
- 4.4.2.1.5. **Supplying Asphalt.** Provide at least 1 gal. of the asphalt material and enough quantities of any additives proposed for use.
- 4.4.2.1.6. **Ignition Oven Correction Factors.** Determine the aggregate and asphalt correction factors from the ignition oven in accordance with [Tex-236-F](#), Part II. Provide correction factors that are not more than 12 months old. Provide the Engineer with split samples of the mixtures before the trial batch production, including all additives (except water), and blank samples used to determine the correction factors for the ignition oven used for QA testing during production. Correction factors established from a previously approved mixture design may be used for the current mixture design if the mixture design and ignition oven are the same as previously used, unless otherwise directed.
- 4.4.2.1.7. **Boil Test.** Perform the test and retain the tested sample from [Tex-530-C](#) until completion of the project or as directed. Use this sample for comparison purposes during production. The Engineer may waive the requirement for the boil test.
- 4.4.2.1.8. **Trial Batch Production.** Provide a plant-produced trial batch upon receiving conditional approval of JMF1 and authorization to produce a trial batch, including the WMA additive or process if applicable, for verification testing of JMF1 and development of JMF2. Produce a trial batch mixture that meets the requirements in Table 4, Table 5, and Table 11. The Engineer may accept test results from recent production of the same mixture instead of a new trial batch.
- 4.4.2.1.9. **Trial Batch Production Equipment.** Use only equipment and materials proposed for use on the project to produce the trial batch.
- 4.4.2.1.10. **Trial Batch Quantity.** Produce enough quantity of the trial batch to ensure that the mixture meets the specification requirements.
- 4.4.2.1.11. **Number of Trial Batches.** Produce trial batches as necessary to obtain a mixture that meets the specification requirements.
- 4.4.2.1.12. **Trial Batch Sampling.** Obtain a representative sample of the trial batch and split it into 3 equal portions in accordance with [Tex-222-F](#). Label these portions as "Contractor," "Engineer," and "Referee." Deliver samples to the appropriate laboratory as directed.
- 4.4.2.1.13. **Trial Batch Testing.** Test the trial batch to ensure the mixture produced using the proposed JMF1 meets the mixture requirements in Table 11. Ensure the trial batch mixture is also in compliance with the Hamburg Wheel requirement in Table 10. Use a Department-approved laboratory to perform the Hamburg Wheel test on the trial batch mixture or request that the Department perform the Hamburg Wheel test. The Engineer will be allowed 10 working days to provide the Contractor with Hamburg Wheel test results on the trial batch. Provide the Engineer with a copy of the trial batch test results.
- 4.4.2.1.14. **Development of JMF2.** Evaluate the trial batch test results after the Engineer grants full approval of JMF1 based on results from the trial batch, determine the optimum mixture proportions, and submit as JMF2. Adjust the asphalt binder content or gradation to achieve the specified target laboratory-molded density. The asphalt binder content established for JMF2 is not required to be within any tolerance of the optimum asphalt binder content established for JMF1; however, mixture produced using JMF2 must meet the voids in mineral aggregates (VMA) requirements for production shown in Table 8. If the optimum asphalt binder content for JMF2 is more than 0.5% lower than the optimum asphalt binder content for JMF1, the Engineer may perform or require the Contractor to perform [Tex-226-F](#) on Lot 1 production to confirm the indirect tensile strength does not exceed 200 psi. Verify that JMF2 meets the mixture requirements in Table 5.
- 4.4.2.1.15. **Mixture Production.** Use JMF2 to produce Lot 1 as described in Section 3076.4.9.3.1.1., "Lot 1 Placement," after receiving approval for JMF2 and a passing result from the Department's or a Department-approved

laboratory's Hamburg Wheel test on the trial batch. If desired, proceed to Lot 1 production, once JMF2 is approved, at the Contractor's risk without receiving the results from the Department's Hamburg Wheel test on the trial batch.

Notify the Engineer if electing to proceed without Hamburg Wheel test results from the trial batch. Note that the Engineer may require up to the entire subplot of any mixture failing the Hamburg Wheel test to be removed and replaced at the Contractor's expense.

4.4.2.1.16. **Development of JMF3.** Evaluate the test results from Lot 1, determine the optimum mixture proportions, and submit as JMF3 for use in Lot 2.

4.4.2.1.17. **JMF Adjustments.** If JMF adjustments are necessary to achieve the specified requirements, make the adjustments before beginning a new lot. The adjusted JMF must:

- be provided to the Engineer in writing before the start of a new lot;
- be numbered in sequence to the previous JMF;
- meet the mixture requirements in Table 4 and Table 5;
- meet the master gradation limits shown in Table 8; and
- be within the operational tolerances of JMF2 listed in Table 11.

4.4.2.1.18. **Requesting Referee Testing.** Use referee testing, if needed, in accordance with Section 3076.4.9.1., "Referee Testing," to resolve testing differences with the Engineer.

Table 11
Operational Tolerances

Description	Test Method	Allowable Difference Between Trial Batch and JMF1 Target	Allowable Difference from Current JMF Target	Allowable Difference between Contractor and Engineer ¹
Individual % retained for #8 sieve and larger	Tex-200-F or Tex-236-F	Must be Within Master Grading Limits in Table 8	±5.0 ^{2,3}	±5.0
Individual % retained for sieves smaller than #8 and larger than #200			±3.0 ^{2,3}	±3.0
% passing the #200 sieve			±2.0 ^{2,3}	±1.6
Asphalt binder content, %	Tex-236-F	±0.5	±0.3 ³	±0.3
Laboratory-molded density, %	Tex-207-F	±1.0	±1.0	±1.0
In-place air voids, %		N/A	N/A	±1.0
Laboratory-molded bulk specific gravity		N/A	N/A	±0.020
VMA, %, min	Tex-204-F	Note ⁴	Note ⁴	N/A
Theoretical maximum specific (Rice) gravity	Tex-227-F	N/A	N/A	±0.020

1. Contractor may request referee testing only when values exceed these tolerances.
2. When within these tolerances, mixture production gradations may fall outside the master grading limits; however, the % passing the #200 will be considered out of tolerance when outside the master grading limits.
3. Only applies to mixture produced for Lot 1 and higher.
4. Test and verify that Table 8 requirements are met.

4.4.2.2. **Engineer's Responsibilities.**

4.4.2.2.1. **Gyratory Compactor.** For SGC mixtures designed in accordance with [Tex-204-F](#), Part IV, the Engineer will use a Department SGC, calibrated in accordance with [Tex-241-F](#), to mold samples for laboratory mixture design verification. For molding trial batch and production specimens, the Engineer will use the Contractor-provided SGC at the field laboratory or provide and use a Department SGC at an alternate location. The Engineer will make the Contractor-provided SGC in the Department field laboratory available to the Contractor for molding verification samples.

For TGC mixtures designed in accordance with [Tex-204-F](#), Part I, the Engineer will use a Department TGC, calibrated in accordance with [Tex-914-K](#), to mold samples for trial batch and production testing. The Engineer will make the Department TGC and the Department field laboratory available to the Contractor for molding verification samples, if requested by the Contractor.

4.4.2.2.2. **Conditional Approval of JMF1 and Authorizing Trial Batch.** The Engineer will review and verify conformance of the following information within 2 working days of receipt:

- the Contractor's mix design report (JMF1);
- the Contractor-provided Hamburg Wheel test results;
- all required materials including aggregates, asphalt, additives, and recycled materials; and
- the mixture specifications.

The Engineer will grant the Contractor conditional approval of JMF1 if the information provided on the paper copy of JMF1 indicates that the Contractor's mixture design meets the specifications. When the Contractor does not provide Hamburg Wheel test results with laboratory mixture design, 10 working days are allowed for conditional approval of JMF1. The Engineer will base full approval of JMF1 on the test results on mixture from the trial batch.

Unless waived, the Engineer will determine the Micro-Deval abrasion loss in accordance with Section 3076.2.1.1.2., "Micro-Deval Abrasion." If the Engineer's test results are pending after two working days, conditional approval of JMF1 will still be granted within two working days of receiving JMF1. When the Engineer's test results become available, they will be used for specification compliance.

After conditionally approving JMF1, including either Contractor- or Department-supplied Hamburg Wheel test results, the Contractor is authorized to produce a trial batch.

4.4.2.2.3. **Hamburg Wheel Testing of JMF1.** If the Contractor requests the option to have the Department perform the Hamburg Wheel test on the laboratory mixture, the Engineer will mold samples in accordance with [Tex-242-F](#) to verify compliance with the Hamburg Wheel test requirement in Table 10.

4.4.2.2.4. **Ignition Oven Correction Factors.** The Engineer will use the split samples provided by the Contractor to determine the aggregate and asphalt correction factors for the ignition oven used for QA testing during production in accordance with [Tex-236-F](#), Part II. Provide correction factors that are not more than 12 months old.

4.4.2.2.5. **Testing the Trial Batch.** Within 1 full working day, the Engineer will sample and test the trial batch to ensure that the mixture meets the requirements in Table 11. If the Contractor requests the option to have the Department perform the Hamburg Wheel test on the trial batch mixture, the Engineer will mold samples in accordance with [Tex-242-F](#) to verify compliance with the Hamburg Wheel test requirement in Table 10.

The Engineer will have the option to perform the following tests on the trial batch:

- [Tex-226-F](#), to verify that the indirect tensile strength meets the requirement shown in Table 9; and
- [Tex-530-C](#), to retain and use for comparison purposes during production.

4.4.2.2.6. **Full Approval of JMF1.** The Engineer will grant full approval of JMF1 and authorize the Contractor to proceed with developing JMF2 if the Engineer's results for the trial batch meet the requirements in Table 11. The Engineer will notify the Contractor that an additional trial batch is required if the trial batch does not meet these requirements.

4.4.2.2.7. **Approval of JMF2.** The Engineer will approve JMF2 within one working day if the mixture meets the requirements in Table 5 and the gradation meets the master grading limits shown in Table 8. The asphalt binder content established for JMF2 is not required to be within any tolerance of the optimum asphalt binder content established for JMF1; however, mixture produced using JMF2 must meet the VMA requirements shown in Table 8. If the optimum asphalt binder content for JMF2 is more than 0.5% lower than the optimum asphalt binder content for JMF1, the Engineer may perform or require the Contractor to perform [Tex-226-F](#) on Lot 1 production to confirm the indirect tensile strength does not exceed 200 psi.

4.4.2.2.8. **Approval of Lot 1 Production.** The Engineer will authorize the Contractor to proceed with Lot 1 production (using JMF2) as soon as a passing result is achieved from the Department's or a Department-approved laboratory's Hamburg Wheel test on the trial batch. The Contractor may proceed at its own risk with Lot 1 production without the results from the Hamburg Wheel test on the trial batch.

If the Department's or Department-approved laboratory's sample from the trial batch fails the Hamburg Wheel test, the Engineer will suspend production until further Hamburg Wheel tests meet the specified values. The Engineer may require up to the entire subplot of any mixture failing the Hamburg Wheel test be removed and replaced at the Contractor's expense.

4.4.2.2.9. **Approval of JMF3 and Subsequent JMF Changes.** JMF3 and subsequent JMF changes are approved if they meet the mixture requirements shown in Table 4, Table 5, and the master grading limits shown in Table 8, and are within the operational tolerances of JMF2 shown in Table 11.

4.5. **Production Operations.** Perform a new trial batch when the plant or plant location is changed. Take corrective action and receive approval to proceed after any production suspension for noncompliance to the specification. Submit a new mix design and perform a new trial batch when the asphalt binder content of:

- any RAP stockpile used in the mix is more than 0.5% higher than the value shown on the mixture design report; or
- RAS stockpile used in the mix is more than 2.0% higher than the value shown on the mixture design report.

4.5.1. **Storage and Heating of Materials.** Do not heat the asphalt binder above the temperatures specified in Item 300, "Asphalts, Oils, and Emulsions," or outside the manufacturer's recommended values. Provide the Engineer with daily records of asphalt binder and hot-mix asphalt discharge temperatures (in legible and discernible increments) in accordance with Item 320, "Equipment for Asphalt Concrete Pavement," unless otherwise directed. Do not store mixture for a period long enough to affect the quality of the mixture, nor in any case longer than 12 hr. unless otherwise approved.

4.5.2. **Mixing and Discharge of Materials.** Notify the Engineer of the target discharge temperature and produce the mixture within 25°F of the target. Monitor the temperature of the material in the truck before shipping to ensure that it does not exceed the maximum production temperatures listed in Table 12 (or 275°F for WMA). The Department will not pay for or allow placement of any mixture produced above the maximum production temperatures listed in Table 12.

Table 12
Maximum Production Temperature

High-Temperature Binder Grade ¹	Maximum Production Temperature
PG 64	325°F
PG 70	335°F
PG 76	345°F

1. The high-temperature binder grade refers to the high-temperature grade of the virgin asphalt binder used to produce the mixture.

Produce WMA within the target discharge temperature range of 215°F and 275°F when WMA is required. Take corrective action any time the discharge temperature of the WMA exceeds the target discharge range. The Engineer may suspend production operations if the Contractor's corrective action is not successful at controlling the production temperature within the target discharge range. Note that when WMA is produced, it may be necessary to adjust burners to ensure complete combustion such that no burner fuel residue remains in the mixture.

Control the mixing time and temperature so that substantially all moisture is removed from the mixture before discharging from the plant. Determine the moisture content, if requested, by oven-drying in accordance with

[Tex-212-F](#), Part II, and verify that the mixture contains no more than 0.2% of moisture by weight. Obtain the sample immediately after discharging the mixture into the truck, and perform the test promptly.

- 4.6. **Hauling Operations.** Clean all truck beds before use to ensure that mixture is not contaminated. Use a release agent shown on the Department's MPL to coat the inside bed of the truck when necessary.

Use equipment for hauling as defined in Section 3076.4.7.3.3., "Hauling Equipment." Use other hauling equipment only when allowed.

- 4.7. **Placement Operations.** Collect haul tickets from each load of mixture delivered to the project and provide the Department's copy to the Engineer approximately every hour, or as directed. Use a hand-held thermal camera or infrared thermometer, when a thermal imaging system is not used, to measure and record the internal temperature of the mixture as discharged from the truck or Material Transfer Device (MTD) before or as the mix enters the paver and an approximate station number or GPS coordinates on each ticket. Calculate the daily yield and cumulative yield for the specified lift and provide to the Engineer at the end of paving operations for each day unless otherwise directed. The Engineer may suspend production if the Contractor fails to produce and provide haul tickets and yield calculations by the end of paving operations for each day.

Prepare the surface by removing raised pavement markers and objectionable material such as moisture, dirt, sand, leaves, and other loose impediments from the surface before placing mixture. Remove vegetation from pavement edges. Place the mixture to meet the typical section requirements and produce a smooth, finished surface with a uniform appearance and texture. Offset longitudinal joints of successive courses of hot-mix by at least 6 in. Place mixture so that longitudinal joints on the surface course coincide with lane lines and are not placed in the wheel path, or as directed. Ensure that all finished surfaces will drain properly. Place the mixture at the rate or thickness shown on the plans. The Engineer will use the guidelines in Table 13 to determine the compacted lift thickness of each layer when multiple lifts are required. The thickness determined is based on the rate of 110 lb./sq. yd. for each inch of pavement unless otherwise shown on the plans.

Table 13
Compacted Lift Thickness and Required Core Height

Mixture Type	Compacted Lift Thickness Guidelines		Minimum Untrimmed Core Height (in.) Eligible for Testing
	Minimum (in.)	Maximum (in.)	
B	2.50	5.00	1.75
C	2.00	4.00	1.50
D	1.50	3.00	1.25
F	1.25	2.50	1.25

- 4.7.1. **Weather Conditions.**

- 4.7.1.1. **When Using a Thermal Imaging System.** Place mixture when the roadway surface is dry and the roadway surface temperature is at or above the temperatures listed in Table 14A. The Engineer may restrict the Contractor from paving surface mixtures if the ambient temperature is likely to drop below 32°F within 12 hr. of paving. Place mixtures only when weather conditions and moisture conditions of the roadway surface are suitable as determined by the Engineer. Provide output data from the thermal imaging system to demonstrate to the Engineer that no recurring severe thermal segregation exists in accordance with Section 3076.4.7.3.1.2., "Thermal Imaging System."

Table 14A
Minimum Pavement Surface Temperatures

High-Temperature Binder Grade ¹	Minimum Pavement Surface Temperatures (°F)	
	Subsurface Layers or Night Paving Operations	Surface Layers Placed in Daylight Operations
PG 64	35	40
PG 70	45 ²	50 ²
PG 76	45 ²	50 ²

1. The high-temperature binder grade refers to the high-temperature grade of the virgin asphalt binder used to produce the mixture.
2. Contractors may pave at temperatures 10°F lower than these values when a chemical WMA additive is used as a compaction aid in the mixture or when using WMA.

4.7.1.2.

When Not Using a Thermal Imaging System. When using a thermal camera instead of the thermal imaging system, place mixture when the roadway surface temperature is at or above the temperatures listed in Table 14B unless otherwise approved or as shown on the plans. Measure the roadway surface temperature with a hand-held thermal camera or infrared thermometer. The Engineer may allow mixture placement to begin before the roadway surface reaches the required temperature if conditions are such that the roadway surface will reach the required temperature within 2 hr. of beginning placement operations. Place mixtures only when weather conditions and moisture conditions of the roadway surface are suitable as determined by the Engineer. The Engineer may restrict the Contractor from paving if the ambient temperature is likely to drop below 32°F within 12 hr. of paving.

Table 14B
Minimum Pavement Surface Temperatures

High-Temperature Binder Grade ¹	Minimum Pavement Surface Temperatures (°F)	
	Subsurface Layers or Night Paving Operations	Surface Layers Placed in Daylight Operations
PG 64	45	50
PG 70	55 ²	60 ²
PG 76	60 ²	60 ²

1. The high-temperature binder grade refers to the high-temperature grade of the virgin asphalt binder used to produce the mixture.
2. Contractors may pave at temperatures 10°F lower than these values when a chemical WMA additive is used as a compaction aid in the mixture, when using WMA, or utilizing a paving process with equipment that eliminates thermal segregation. In such cases, for each sublot and in the presence of the Engineer, use a hand-held thermal camera operated in accordance with [Tex-244-F](#) to demonstrate to the satisfaction of the Engineer that the uncompacted mat has no more than 10°F of thermal segregation.

4.7.2.

Tack Coat.

4.7.2.1.

Application. Clean the surface before placing the tack coat. The Engineer will set the rate between 0.04 and 0.10 gal. of residual asphalt per square yard of surface area. Apply a uniform tack coat at the specified rate unless otherwise directed. Apply the tack coat in a uniform manner to avoid streaks and other irregular patterns. Apply the tack coat to all surfaces that will come in contact with the subsequent HMA placement, unless otherwise directed. Allow adequate time for emulsion to break completely before placing any material. Prevent splattering of tack coat when placed adjacent to curb, gutter, and structures. Do not dilute emulsified asphalts at the terminal, in the field, or at any other location before use.

4.7.2.2.

Sampling. The Engineer will obtain at least one sample of the tack coat binder per project in accordance with [Tex-500-C](#), Part III, and test it to verify compliance with Item 300, "Asphalts, Oils, and Emulsions." The Engineer will notify the Contractor when the sampling will occur and will witness the collection of the sample from the asphalt distributor immediately before use.

For emulsions, the Engineer may test as often as necessary to ensure the residual of the emulsion is greater than or equal to the specification requirement in Item 300, "Asphalts, Oils, and Emulsions."

- 4.7.3. **Lay-Down Operations.** Use the placement temperatures in Table 15 to establish the minimum placement temperature of the mixture delivered to the paver.

Table 15
Minimum Mixture Placement Temperature

High-Temperature Binder Grade ¹	Minimum Placement Temperature (Before Entering Paver) ^{2,3}
PG 64	260°F
PG 70	270°F
PG 76	280°F

1. The high-temperature binder grade refers to the high-temperature grade of the virgin asphalt binder used to produce the mixture.
2. Minimum placement temperatures may be reduced 10°F if using a chemical WMA additive as a compaction aid.
3. When using WMA, the minimum placement temperature is 215°F.

- 4.7.3.1. **Thermal Profile.** Use a hand-held thermal camera or a thermal imaging system to obtain a continuous thermal profile in accordance with [Tex-244-F](#). Thermal profiles are not applicable in areas described in Section 3076.4.9.3.1.4., "Miscellaneous Areas."
- 4.7.3.1.1. **Thermal Segregation.**
- 4.7.3.1.1.1. **Moderate.** Any areas that have a temperature differential greater than 25°F, but not exceeding 50°F, are deemed as moderate thermal segregation.
- 4.7.3.1.1.2. **Severe.** Any areas that have a temperature differential greater than 50°F are deemed as severe thermal segregation.
- 4.7.3.1.2. **Thermal Imaging System.** Review the output results when a thermal imaging system is used, and provide the automated report described in [Tex-244-F](#) to the Engineer daily unless otherwise directed. Modify the paving process as necessary to eliminate any recurring (moderate or severe) thermal segregation identified by the thermal imaging system. The Engineer may suspend paving operations if the Contractor cannot successfully modify the paving process to eliminate recurring severe thermal segregation. Density profiles are not required and not applicable when using a thermal imaging system. Provide the Engineer with electronic copies of all daily data files that can be used with the thermal imaging system software to generate temperature profile plots daily or upon completion of the project or as requested by the Engineer.
- 4.7.3.1.3. **Thermal Camera.** When using a thermal camera instead of the thermal imaging system, take immediate corrective action to eliminate recurring moderate thermal segregation when a hand-held thermal camera is used. Evaluate areas with moderate thermal segregation by performing density profiles in accordance with Section 3076.4.9.3.3.2., "Segregation (Density Profile)." Provide the Engineer with the thermal profile of every subplot within one working day of the completion of each lot. When requested by the Engineer, provide the thermal images generated using the thermal camera. Report the results of each thermal profile in accordance with Section 3076.4.2., "Reporting and Responsibilities." The Engineer will use a hand-held thermal camera to obtain a thermal profile at least once per project. No production or placement payment adjustments greater than 1.000 will be paid for any subplot that contains severe thermal segregation. Suspend operations and take immediate corrective action to eliminate severe thermal segregation unless otherwise directed. Resume operations when the Engineer determines that subsequent production will meet the requirements of this Section. Evaluate areas with severe thermal segregation by performing density profiles in accordance with Section 3076.4.9.3.3.2., "Segregation (Density Profile)." Remove and replace the material in any areas that have both severe thermal segregation and a failing result for Segregation (Density Profile) unless otherwise directed. The subplot in question may receive a production and placement payment adjustment greater than 1.000, if applicable, when the defective material is successfully removed and replaced.
- 4.7.3.2. **Windrow Operations.** Operate windrow pickup equipment so that when hot-mix is placed in windrows, substantially all the mixture deposited on the roadbed is picked up and loaded into the paver.

4.7.3.3. **Hauling Equipment.** Use belly dumps, live bottom, or end dump trucks to haul and transfer mixture; however, with exception of paving miscellaneous areas, end dump trucks are only allowed when used in conjunction with an MTD with remixing capability or when a thermal imaging system is used unless otherwise allowed.

4.7.3.4. **Screed Heaters.** Turn off screed heaters to prevent overheating of the mat if the paver stops for more than 5 min. The Engineer may evaluate the suspect area in accordance with Section 3076.4.9.3.3.4., "Recovered Asphalt Dynamic Shear Rheometer (DSR)," if the screed heater remains on for more than 5 min. while the paver is stopped.

4.8. **Compaction.** Compact the pavement uniformly to contain between 3.8% and 8.5% in-place air voids. Take immediate corrective action to bring the operation within 3.8% and 8.5% when the in-place air voids exceed the range of these tolerances. The Engineer will allow paving to resume when the proposed corrective action is likely to yield between 3.8% and 8.5% in-place air voids.

Obtain cores in areas placed under Exempt Production, as directed, at locations determined by the Engineer. The Engineer may test these cores and suspend operations or require removal and replacement if the in-place air voids are less than 2.7% or more than 9.9%. Areas defined in Section 3076.4.9.3.1.4., "Miscellaneous Areas," are not subject to in-place air void determination.

Furnish the type, size, and number of rollers required for compaction as approved. Use additional rollers as required to remove any roller marks. Use only water or an approved release agent on rollers, tamps, and other compaction equipment unless otherwise directed.

Use the control strip method shown in [Tex-207-F](#), Part IV, on the first day of production to establish the rolling pattern that will produce the desired in-place air voids unless otherwise directed.

Use tamps to thoroughly compact the edges of the pavement along curbs, headers, and similar structures and in locations that will not allow thorough compaction with rollers. The Engineer may require rolling with a trench roller on widened areas, in trenches, and in other limited areas.

Complete all compaction operations before the pavement temperature drops below 160°F unless otherwise allowed. The Engineer may allow compaction with a light finish roller operated in static mode for pavement temperatures below 160°F.

Allow the compacted pavement to cool to 160°F or lower before opening to traffic unless otherwise directed. Sprinkle the finished mat with water or limewater, when directed, to expedite opening the roadway to traffic.

4.9. **Acceptance Plan.** Payment adjustments for the material will be in accordance with Article 3076.6., "Payment."

Sample and test the hot-mix on a lot and subplot basis. Suspend production until test results or other information indicates to the satisfaction of the Engineer that the next material produced or placed will result in payment factors of at least 1.000, if the production payment factor given in Section 3076.6.1., "Production Payment Adjustment Factors," for two consecutive lots or the placement pay factor given in Section 3076.6.2., "Placement Payment Adjustment Factors," for two consecutive lots is below 1.000.

4.9.1. **Referee Testing.** The Materials and Tests Division is the referee laboratory. The Contractor may request referee testing if a "remove and replace" condition is determined based on the Engineer's test results, or if the differences between Contractor and Engineer test results exceed the maximum allowable difference shown in Table 11 and the differences cannot be resolved. The Contractor may also request referee testing if the Engineer's test results require suspension of production and the Contractor's test results are within specification limits. Make the request within five working days after receiving test results and cores from the Engineer. Referee tests will be performed only on the subplot in question and only for the particular tests in question. Allow 10 working days from the time the referee laboratory receives the samples for test results to

be reported. The Department may require the Contractor to reimburse the Department for referee tests if more than three referee tests per project are required and the Engineer's test results are closer to the referee test results than the Contractor's test results.

The Materials and Tests Division will determine the laboratory-molded density based on the molded specific gravity and the maximum theoretical specific gravity of the referee sample. The in-place air voids will be determined based on the bulk specific gravity of the cores, as determined by the referee laboratory and the Engineer's average maximum theoretical specific gravity for the lot. With the exception of "remove and replace" conditions, referee test results are final and will establish payment adjustment factors for the subplot in question. The Contractor may decline referee testing and accept the Engineer's test results when the placement payment adjustment factor for any subplot results in a "remove and replace" condition. Placement sublots subject to be removed and replaced will be further evaluated in accordance with Section 3076.6.2.2., "Placement Sublots Subject to Removal and Replacement."

4.9.2. **Production Acceptance.**

4.9.2.1. **Production Lot.** A production lot consists of four equal sublots. The default quantity for Lot 1 is 1,000 tons; however, when requested by the Contractor, the Engineer may increase the quantity for Lot 1 to no more than 4,000 tons. The Engineer will select subsequent lot sizes based on the anticipated daily production such that approximately three to four sublots are produced each day. The lot size will be between 1,000 tons and 4,000 tons. The Engineer may change the lot size before the Contractor begins any lot.

If the optimum asphalt binder content for JMF2 is more than 0.5% lower than the optimum asphalt binder content for JMF1, the Engineer may perform or require the Contractor to perform [Tex-226-F](#) on Lot 1 to confirm the indirect tensile strength does not exceed 200 psi. Take corrective action to bring the mixture within specification compliance if the indirect tensile strength exceeds 200 psi unless otherwise directed.

4.9.2.1.1. **Incomplete Production Lots.** If a lot is begun but cannot be completed, such as on the last day of production or in other circumstances deemed appropriate, the Engineer may close the lot. Adjust the payment for the incomplete lot in accordance with Section 3076.6.1., "Production Payment Adjustment Factors." Close all lots within five working days unless otherwise allowed.

4.9.2.2. **Production Sampling.**

4.9.2.2.1. **Mixture Sampling.** Obtain hot-mix samples from trucks at the plant in accordance with [Tex-222-F](#). The sampler will split each sample into three equal portions in accordance with [Tex-200-F](#) and label these portions as "Contractor," "Engineer," and "Referee." The Engineer will perform or witness the sample splitting and take immediate possession of the samples labeled "Engineer" and "Referee." The Engineer will maintain the custody of the samples labeled "Engineer" and "Referee" until the Department's testing is completed.

4.9.2.2.1.1. **Random Sample.** At the beginning of the project, the Engineer will select random numbers for all production sublots. Determine sample locations in accordance with [Tex-225-F](#). Take one sample for each subplot at the randomly selected location. The Engineer will perform or witness the sampling of production sublots.

4.9.2.2.1.2. **Blind Sample.** For one subplot per lot, the Engineer will obtain and test a "blind" sample instead of the random sample collected by the Contractor. Test either the "blind" or the random sample; however, referee testing (if applicable) will be based on a comparison of results from the "blind" sample. The location of the Engineer's "blind" sample will not be disclosed to the Contractor. The Engineer's "blind" sample may be randomly selected in accordance with [Tex-225-F](#) for any subplot or selected at the discretion of the Engineer. The Engineer will use the Contractor's split sample for sublots not sampled by the Engineer.

4.9.2.2.2. **Informational Shear Bond Strength Testing.** Select one random subplot from Lot 2 or higher for shear bond strength testing. Obtain full depth cores in accordance with [Tex-249-F](#). Label the cores with the Control Section Job (CSJ), producer of the tack coat, mix type, shot rate, lot, and subplot number and provide to the

Engineer. The Engineer will ship the cores to the Materials and Tests Division or district laboratory for shear bond strength testing. Results from these tests will not be used for specification compliance.

- 4.9.2.2.3. **Asphalt Binder Sampling.** Obtain a 1-qt. sample of the asphalt binder witnessed by the Engineer for each lot of mixture produced. The Contractor will notify the Engineer when the sampling will occur. Obtain the sample at approximately the same time the mixture random sample is obtained. Sample from a port located immediately upstream from the mixing drum or pug mill and upstream from the introduction of any additives in accordance with [Tex-500-C](#), Part II. Label the can with the corresponding lot and subplot numbers, producer, producer facility location, grade, district, date sampled, and project information including highway and CSJ. The Engineer will retain these samples for one year. The Engineer may also obtain independent samples. If obtaining an independent asphalt binder sample and upon request of the Contractor, the Engineer will split a sample of the asphalt binder with the Contractor.

At least once per project, the Engineer will collect split samples of each binder grade and source used. The Engineer will submit one split sample to MTD to verify compliance with Item 300, "Asphalts, Oils, and Emulsions" and will retain the other split sample for one year.

- 4.9.2.3. **Production Testing.** The Contractor and Engineer must perform production tests in accordance with Table 16. The Contractor has the option to verify the Engineer's test results on split samples provided by the Engineer. Determine compliance with operational tolerances listed in Table 11 for all sublots.

Take immediate corrective action if the Engineer's laboratory-molded density on any subplot is less than 95.0% or greater than 97.0% to bring the mixture within these tolerances. The Engineer may suspend operations if the Contractor's corrective actions do not produce acceptable results. The Engineer will allow production to resume when the proposed corrective action is likely to yield acceptable results.

The Engineer may allow alternate methods for determining the asphalt binder content and aggregate gradation if the aggregate mineralogy is such that [Tex-236-F](#), Part I does not yield reliable results. Provide evidence that results from [Tex-236-F](#), Part I are not reliable before requesting permission to use an alternate method unless otherwise directed. Use the applicable test procedure as directed if an alternate test method is allowed.

Table 16
Production and Placement Testing Frequency

Description	Test Method	Minimum Contractor Testing Frequency	Minimum Engineer Testing Frequency
Individual % retained for #8 sieve and larger	Tex-200-F or Tex-236-F	1 per subplot	1 per 12 sublots ¹
Individual % retained for sieves smaller than #8 and larger than #200			
% passing the #200 sieve			
Laboratory-molded density	Tex-207-F	N/A	1 per subplot ¹
Laboratory-molded bulk specific gravity			
In-place air voids			
VMA	Tex-204-F	1 per subplot	1 per project
Segregation (density profile) ²	Tex-207-F , Part V		
Longitudinal joint density	Tex-207-F , Part VII		
Moisture content	Tex-212-F , Part II	When directed	1 per project
Theoretical maximum specific (Rice) gravity	Tex-227-F	N/A	
Asphalt binder content	Tex-236-F	1 per subplot	
Hamburg Wheel test	Tex-242-F	N/A	
Recycled Asphalt Shingles (RAS) ³	Tex-217-F , Part III	N/A	
Thermal profile ²	Tex-244-F	1 per subplot	
Asphalt binder sampling and testing	Tex-500-C , Part II	1 per lot (sample only) ⁴	
Tack coat sampling and testing	Tex-500-C , Part III	N/A	
Boil test ⁵	Tex-530-C	1 per lot	
Shear Bond Strength Test ⁶	Tex-249-F	1 per project (sample only)	

1. For production defined in Section 3076.4.9.4., "Exempt Production," the Engineer will test one per day if 100 tons or more are produced. For Exempt Production, no testing is required when less than 100 tons are produced.
2. Not required when a thermal imaging system is used.
3. Testing performed by the Materials and Tests Division or designated laboratory.
4. Obtain witnessed by the Engineer. The Engineer will retain these samples for one year.
5. The Engineer may reduce or waive the sampling and testing requirements based on a satisfactory test history.
6. Testing performed by the Materials and Tests Division or District for informational purposes only.

4.9.2.4. **Operational Tolerances.** Control the production process within the operational tolerances listed in Table 11. When production is suspended, the Engineer will allow production to resume when test results or other information indicates the next mixture produced will be within the operational tolerances.

4.9.2.4.1. **Gradation.** Suspend operation and take corrective action if any aggregate is retained on the maximum sieve size shown in Table 8. A subplot is defined as out of tolerance if either the Engineer's or the Contractor's test results are out of operational tolerance. Suspend production when test results for gradation exceed the operational tolerances in Table 11 for three consecutive sublots on the same sieve or four consecutive sublots on any sieve unless otherwise directed. The consecutive sublots may be from more than one lot.

4.9.2.4.2. **Asphalt Binder Content.** A subplot is defined as out of operational tolerance if either the Engineer's or the Contractor's test results exceed the values listed in Table 11. No production or placement payment adjustments greater than 1.000 will be paid for any subplot that is out of operational tolerance for asphalt binder content. Suspend production and shipment of the mixture if the Engineer's or the Contractor's asphalt binder content deviates from the current JMF by more than 0.5% for any subplot.

4.9.2.4.3. **Voids in Mineral Aggregates (VMA).** The Engineer will determine the VMA for every subplot. For sublots when the Engineer does not determine asphalt binder content, the Engineer will use the asphalt binder content results from QC testing performed by the Contractor to determine VMA.

Take immediate corrective action if the VMA value for any subplot is less than the minimum VMA requirement for production listed in Table 8. Suspend production and shipment of the mixture if the Engineer's VMA results on two consecutive sublots are below the minimum VMA requirement for production listed in Table 8. No production or placement payment adjustments greater than 1.000 will be paid for any subplot that does not

meet the minimum VMA requirement for production listed in Table 8 based on the Engineer's VMA determination.

Suspend production and shipment of the mixture if the Engineer's VMA result is more than 0.5% below the minimum VMA requirement for production listed in Table 8. In addition to suspending production, the Engineer may require removal and replacement or may allow the subplot to be left in place without payment.

- 4.9.2.4.4. **Hamburg Wheel Test.** The Engineer may perform a Hamburg Wheel test at any time during production, including when the boil test indicates a change in quality from the materials submitted for JMF1. In addition to testing production samples, the Engineer may obtain cores and perform Hamburg Wheel tests on any areas of the roadway where rutting is observed. Suspend production until further Hamburg Wheel tests meet the specified values when the production or core samples fail the Hamburg Wheel test criteria in Table 10. Core samples, if taken, will be obtained from the center of the finished mat or other areas excluding the vehicle wheel paths. The Engineer may require up to the entire subplot of any mixture failing the Hamburg Wheel test to be removed and replaced at the Contractor's expense.

If the Department's or Department approved laboratory's Hamburg Wheel test results in a "remove and replace" condition, the Contractor may request that the Department confirm the results by re-testing the failing material. The Materials and Tests Division will perform the Hamburg Wheel tests and determine the final disposition of the material in question based on the Department's test results.

- 4.9.2.5. **Individual Loads of Hot-Mix.** The Engineer can reject individual truckloads of hot-mix. When a load of hot-mix is rejected for reasons other than temperature, contamination, or excessive uncoated particles, the Contractor may request that the rejected load be tested. Make this request within 4 hr. of rejection. The Engineer will sample and test the mixture. If test results are within the operational tolerances shown in Table 11, payment will be made for the load. If test results are not within operational tolerances, no payment will be made for the load.

4.9.3. **Placement Acceptance.**

- 4.9.3.1. **Placement Lot.** A placement lot consists of four placement sublots. A placement subplot consists of the area placed during a production subplot.

- 4.9.3.1.1. **Lot 1 Placement.** Placement payment adjustments greater than 1.000 for Lot 1 will be in accordance with Section 3076.6.2., "Placement Payment Adjustment Factors"; however, no placement adjustment less than 1.000 will be assessed for any subplot placed in Lot 1 when the in-place air voids are greater than or equal to 2.7% and less than or equal to 9.9%. Remove and replace any subplot with in-place air voids less than 2.7% or greater than 9.9%.

- 4.9.3.1.2. **Incomplete Placement Lots.** An incomplete placement lot consists of the area placed as described in Section 3076.4.9.2.1.1., "Incomplete Production Lots," excluding areas defined in Section 3076.4.9.3.1.4., "Miscellaneous Areas." Placement sampling is required if the random sample plan for production resulted in a sample being obtained from an incomplete production subplot.

- 4.9.3.1.3. **Shoulders, Ramps, Etc.** Shoulders, ramps, intersections, acceleration lanes, deceleration lanes, and turn lanes are subject to in-place air void determination and payment adjustments unless designated on the plans as not eligible for in-place air void determination. Intersections may be considered miscellaneous areas when determined by the Engineer.

- 4.9.3.1.4. **Miscellaneous Areas.** Miscellaneous areas include areas that typically involve significant handwork or discontinuous paving operations, such as temporary detours, driveways, mailbox turnouts, crossovers, gores, spot level-up areas, and other similar areas. Temporary detours are subject to in-place air void determination when shown on the plans. Miscellaneous areas also include level-ups and thin overlays when the layer thickness specified on the plans is less than the minimum untrimmed core height eligible for testing shown in Table 13. The specified layer thickness is based on the rate of 110 lb./sq. yd. for each inch of

pavement unless another rate is shown on the plans. When “level up” is listed as part of the item bid description code, a payment adjustment factor of 1.000 will be assigned for all placement sublots as described in Article 3076.6, “Payment.” Miscellaneous areas are not eligible for random placement sampling locations. Compact miscellaneous areas in accordance with Section 3076.4.8., “Compaction.” Miscellaneous areas are not subject to in-place air void determination, thermal profiles testing, segregation (density profiles), or longitudinal joint density evaluations.

4.9.3.2.

Placement Sampling. The Engineer will select random numbers for all placement sublots at the beginning of the project. The Engineer will provide the Contractor with the placement random numbers immediately after the subplot is completed. Mark the roadway location at the completion of each subplot and record the station number. Determine one random sample location for each placement subplot in accordance with [Tex-225-F](#). Adjust the random sample location by no more than necessary to achieve a 2-ft. clearance if the location is within 2 ft. of a joint or pavement edge.

Shoulders, ramps, intersections, acceleration lanes, deceleration lanes, and turn lanes are always eligible for selection as a random sample location; however, if a random sample location falls on one of these areas and the area is designated on the plans as not subject to in-place air void determination, cores will not be taken for the subplot and a 1.000 pay factor will be assigned to that subplot.

Provide the equipment and means to obtain and trim roadway cores on site. On-site is defined as in close proximity to where the cores are taken. Obtain the cores within one working day of the time the placement subplot is completed unless otherwise approved. Obtain two 6-in. diameter cores side-by-side from within 1 ft. of the random location provided for the placement subplot. For Type D and Type F mixtures, 4-in. diameter cores are allowed. Mark the cores for identification, measure and record the untrimmed core height, and provide the information to the Engineer. The Engineer will witness the coring operation and measurement of the core thickness. Visually inspect each core and verify that the current paving layer is bonded to the underlying layer. Take corrective action if an adequate bond does not exist between the current and underlying layer to ensure that an adequate bond will be achieved during subsequent placement operations.

Trim the cores immediately after obtaining the cores from the roadway in accordance with [Tex-251-F](#) if the core heights meet the minimum untrimmed value listed in Table 13. Trim the cores on site in the presence of the Engineer. Use a permanent marker or paint pen to record the lot and subplot numbers on each core as well as the designation as Core A or B. The Engineer may require additional information to be marked on the core and may choose to sign or initial the core. The Engineer will take custody of the cores immediately after witnessing the trimming of the cores and will retain custody of the cores until the Department’s testing is completed. Before turning the trimmed cores over to the Engineer, the Contractor may wrap the trimmed cores or secure them in a manner that will reduce the risk of possible damage occurring during transport by the Engineer. After testing, the Engineer will return the cores to the Contractor.

The Engineer may have the cores transported back to the Department’s laboratory at the HMA plant via the Contractor’s haul truck or other designated vehicle. In such cases where the cores will be out of the Engineer’s possession during transport, the Engineer will use Department-provided security bags and the Roadway Core Custody protocol located at <http://www.txdot.gov/business/specifications.htm> to provide a secure means and process that protects the integrity of the cores during transport.

Decide whether to include the pair of cores in the air void determination for that subplot if the core height before trimming is less than the minimum untrimmed value shown in Table 13. Trim the cores as described above before delivering to the Engineer if electing to have the cores included in the air void determination. Deliver untrimmed cores to the Engineer and inform the Engineer of the decision to not have the cores included in air void determination if electing to not have the cores included in air void determination. The placement pay factor for the subplot will be 1.000 if cores will not be included in air void determination.

Instead of the Contractor trimming the cores on site immediately after coring, the Engineer and the Contractor may mutually agree to have the trimming operations performed at an alternate location such as a field laboratory or other similar location. In such cases, the Engineer will take possession of the cores

immediately after they are obtained from the roadway and will retain custody of the cores until testing is completed. Either the Department or Contractor representative may perform trimming of the cores. The Engineer will witness all trimming operations in cases where the Contractor representative performs the trimming operation.

Dry the core holes and tack the sides and bottom immediately after obtaining the cores. Fill the hole with the same type of mixture and properly compact the mixture. Repair core holes with other methods when approved.

4.9.3.3. **Placement Testing.** Perform placement tests in accordance with Table 16. After the Engineer returns the cores, the Contractor may test the cores to verify the Engineer's test results for in-place air voids. The allowable differences between the Contractor's and Engineer's test results are listed in Table 11.

4.9.3.3.1. **In-Place Air Voids.** The Engineer will measure in-place air voids in accordance with [Tex-207-F](#) and [Tex-227-F](#). Before drying to a constant weight, cores may be pre-dried using a CoreDry or similar vacuum device to remove excess moisture. The Engineer will average the values obtained for all sublots in the production lot to determine the theoretical maximum specific gravity. The Engineer will use the average air void content for in-place air voids.

The Engineer will use the vacuum method to seal the core if required by [Tex-207-F](#). The Engineer will use the test results from the unsealed core to determine the placement payment adjustment factor if the sealed core yields a higher specific gravity than the unsealed core. After determining the in-place air void content, the Engineer will return the cores and provide test results to the Contractor.

4.9.3.3.2. **Segregation (Density Profile).** Test for segregation using density profiles in accordance with [Tex-207-F](#), Part V when using a thermal camera instead of the thermal imaging system. Density profiles are not required and are not applicable when using a thermal imaging system. Density profiles are not applicable in areas described in Section 3076.4.9.3.1.4., "Miscellaneous Areas."

Perform a minimum of one density profile per subplot. Perform additional density profiles when any of the following conditions occur, unless otherwise approved:

- the paver stops due to lack of material being delivered to the paving operations and the temperature of the uncompacted mat before the initial break down rolling is less than the temperatures shown in Table 17;
- areas that are identified by either the Contractor or the Engineer with thermal segregation;
- any visibly segregated areas that exist.

Table 17
Minimum Uncompacted Mat Temperature Requiring a Segregation Profile

High-Temperature Binder Grade¹	Minimum Temperature of the Uncompacted Mat Allowed Before Initial Break Down Rolling^{2,3,4}
PG 64	<250°F
PG 70	<260°F
PG 76	<270°F

1. The high-temperature binder grade refers to the high-temperature grade of the virgin asphalt binder used to produce the mixture.
2. Segregation profiles are required in areas with moderate and severe thermal segregation as described in Section 3076.4.7.3.1.3.
3. Minimum uncompacted mat temperature requiring a segregation profile may be reduced 10°F if using a chemical WMA additive as a compaction aid.
4. When using WMA, the minimum uncompacted mat temperature requiring a segregation profile is 215°F.

Provide the Engineer with the density profile of every subplot in the lot within one working day of the completion of each lot. Report the results of each density profile in accordance with Section 3076.4.2., "Reporting and Responsibilities."

The density profile is considered failing if it exceeds the tolerances in Table 18. No production or placement payment adjustments greater than 1.000 will be paid for any subplot that contains a failing density profile. When a hand-held thermal camera is used instead of a thermal imaging system, the Engineer will measure the density profile at least once per project. The Engineer's density profile results will be used when available. The Engineer may require the Contractor to remove and replace the area in question if the area fails the density profile and has surface irregularities as defined in Section 3076.4.9.3.3.5., "Irregularities." The subplot in question may receive a production and placement payment adjustment greater than 1.000, if applicable, when the defective material is successfully removed and replaced.

Investigate density profile failures and take corrective actions during production and placement to eliminate the segregation. Suspend production if 2 consecutive density profiles fail unless otherwise approved. Resume production after the Engineer approves changes to production or placement methods.

Table 18
Segregation (Density Profile) Acceptance Criteria

Mixture Type	Maximum Allowable Density Range (Highest to Lowest)	Maximum Allowable Density Range (Average to Lowest)
Type B	8.0 pcf	5.0 pcf
Type C, Type D & Type F	6.0 pcf	3.0 pcf

4.9.3.3.3. Longitudinal Joint Density.

4.9.3.3.3.1. Informational Tests. Perform joint density evaluations while establishing the rolling pattern and verify that the joint density is no more than 3.0 pcf below the density taken at or near the center of the mat. Adjust the rolling pattern, if needed, to achieve the desired joint density. Perform additional joint density evaluations, at least once per subplot, unless otherwise directed.

4.9.3.3.3.2. Record Tests. Perform a joint density evaluation for each subplot at each pavement edge that is or will become a longitudinal joint. Joint density evaluations are not applicable in areas described in Section 3076.4.9.3.1.4., "Miscellaneous Areas." Determine the joint density in accordance with [Tex-207-E](#), Part VII. Record the joint density information and submit results on Department forms to the Engineer. The evaluation is considered failing if the joint density is more than 3.0 pcf below the density taken at the core random sample location and the correlated joint density is less than 90.0%. The Engineer will make independent joint density verification at least once per project and may make independent joint density verifications at the random sample locations. The Engineer's joint density test results will be used when available.

Provide the Engineer with the joint density of every subplot in the lot within one working day of the completion of each lot. Report the results of each joint density in accordance with Section 3076.4.2., "Reporting and Responsibilities."

Investigate joint density failures and take corrective actions during production and placement to improve the joint density. Suspend production if the evaluations on two consecutive sublots fail unless otherwise approved. Resume production after the Engineer approves changes to production or placement methods.

4.9.3.3.4. **Recovered Asphalt Dynamic Shear Rheometer (DSR).** The Engineer may take production samples or cores from suspect areas of the project to determine recovered asphalt properties. Asphalt binders with an aging ratio greater than 3.5 do not meet the requirements for recovered asphalt properties and may be deemed defective when tested and evaluated by the Materials and Tests Division. The aging ratio is the DSR value of the extracted binder divided by the DSR value of the original unaged binder. Obtain DSR values in accordance with AASHTO T 315 at the specified high temperature performance grade of the asphalt. The Engineer may require removal and replacement of the defective material at the Contractor's expense. The asphalt binder will be recovered for testing from production samples or cores in accordance with [Tex-211-F](#).

4.9.3.3.5. **Irregularities.** Identify and correct irregularities including segregation, rutting, raveling, flushing, fat spots, mat slippage, irregular color, irregular texture, roller marks, tears, gouges, streaks, uncoated aggregate particles, or broken aggregate particles. The Engineer may also identify irregularities, and in such cases, the Engineer will promptly notify the Contractor. If the Engineer determines that the irregularity will adversely affect pavement performance, the Engineer may require the Contractor to remove and replace (at the Contractor's expense) areas of the pavement that contain irregularities. The Engineer may also require the Contractor to remove and replace (at the Contractor's expense) areas where the mixture does not bond to the existing pavement.

If irregularities are detected, the Engineer may require the Contractor to immediately suspend operations or may allow the Contractor to continue operations for no more than one day while the Contractor is taking appropriate corrective action.

4.9.4. **Exempt Production.** The Engineer may deem the mixture as exempt production for the following conditions:

- anticipated daily production is less than 500 tons;
- total production for the project is less than 5,000 tons;
- when mutually agreed between the Engineer and the Contractor; or
- when shown on the plans.

For exempt production, the Contractor is relieved of all production and placement sampling and testing requirements, except for coring operations when required by the Engineer. The production and placement pay factors are 1.000 if the specification requirements listed below are met, all other specification requirements are met, and the Engineer performs acceptance tests for production and placement listed in Table 16 when 100 tons or more per day are produced.

- produce, haul, place, and compact the mixture in compliance with the specification and as directed;
- control mixture production to yield a laboratory-molded density that is within $\pm 1.0\%$ of the target laboratory-molded density as tested by the Engineer;
- compact the mixture in accordance with Section 3076.4.8., "Compaction;" and
- when a thermal imaging system is not used, the Engineer may perform segregation (density profiles) and thermal profiles in accordance with the specification.

4.9.5. **Ride Quality.** Measure ride quality in accordance with Item 585, "Ride Quality for Pavement Surfaces," unless otherwise shown on the plans.

5. MEASUREMENT

- 5.1. **Dense Graded Hot-Mix Asphalt.** Hot mix will be measured by the ton of composite hot-mix, which includes asphalt, aggregate, and additives. Measure the weight on scales in accordance with Item 520, "Weighing and Measuring Equipment."
- 5.2. **Tack Coat.** Tack coat will be measured at the applied temperature by strapping the tank before and after road application and determining the net volume in gallons from the calibrated distributor. The Engineer will witness all strapping operations for volume determination. All tack, including emulsions, will be measured by the gallon applied.

The Engineer may allow the use of a metering device to determine asphalt volume used and application rate if the device is accurate within 1.5% of the strapped volume.

6. PAYMENT

The work performed and materials furnished in accordance with this Item and measured as provided under Section 3076.5.1, "Measurement," will be paid for at the unit bid price for "Dense Graded Hot-Mix Asphalt" of the mixture type, SAC, and binder specified. These prices are full compensation for surface preparation, materials, placement, equipment, labor, tools, and incidentals.

The work performed and materials furnished in accordance with this Item and measured as provided under Article 3076.5.2, "Measurement," will be paid for at the unit bid price for "Tack Coat" of the tack coat provided. These prices are full compensation for materials, placement, equipment, labor, tools, and incidentals. Payment adjustments will be applied as determined in this Item; however, a payment adjustment factor of 1.000 will be assigned for all placement sublots for "level ups" only when "level up" is listed as part of the item bid description code. A payment adjustment factor of 1.000 will be assigned to all production and placement sublots when "exempt" is listed as part of the item bid description code, and all testing requirements are met.

Payment for each subplot, including applicable payment adjustments greater than 1.000, will only be paid for sublots when the Contractor supplies the Engineer with the required documentation for production and placement QC/QA, thermal profiles, segregation density profiles, and longitudinal joint densities in accordance with Section 3076.4.2., "Reporting and Responsibilities." When a thermal imaging system is used, documentation is not required for thermal profiles or segregation density profiles on individual sublots; however, the thermal imaging system automated reports described in [Tex-244-F](#) are required.

Trial batches will not be paid for unless they are included in pavement work approved by the Department.

Payment adjustment for ride quality will be determined in accordance with Item 585, "Ride Quality for Pavement Surfaces."

- 6.1. **Production Payment Adjustment Factors.** The production payment adjustment factor is based on the laboratory-molded density using the Engineer's test results. The bulk specific gravities of the samples from each subplot will be divided by the Engineer's maximum theoretical specific gravity for the subplot. The individual sample densities for the subplot will be averaged to determine the production payment adjustment factor in accordance with Table 19 for each subplot, using the deviation from the target laboratory-molded density defined in Table 9. The production payment adjustment factor for completed lots will be the average of the payment adjustment factors for the four sublots sampled within that lot.

Table 19
Production Payment Adjustment Factors for Laboratory-Molded Density¹

Absolute Deviation from Target Laboratory-Molded Density	Production Payment Adjustment Factor (Target Laboratory-Molded Density)
0.0	1.050
0.1	1.050
0.2	1.050
0.3	1.044
0.4	1.038
0.5	1.031
0.6	1.025
0.7	1.019
0.8	1.013
0.9	1.006
1.0	1.000
1.1	0.965
1.2	0.930
1.3	0.895
1.4	0.860
1.5	0.825
1.6	0.790
1.7	0.755
1.8	0.720
> 1.8	Remove and replace

1. If the Engineer's laboratory-molded density on any subplot is less than 95.0% or greater than 98.0%, take immediate corrective action to bring the mixture within these tolerances. The Engineer may suspend operations if the Contractor's corrective actions do not produce acceptable results. The Engineer will allow production to resume when the proposed corrective action is likely to yield acceptable results.

- 6.1.1. **Payment for Incomplete Production Lots.** Production payment adjustments for incomplete lots, described under Section 3076.4.9.2.1.1., "Incomplete Production Lots," will be calculated using the average production payment factors from all sublots sampled.

A production payment factor of 1.000 will be assigned to any lot when the random sampling plan did not result in collection of any samples within the first subplot.

- 6.1.2. **Production Sublots Subject to Removal and Replacement.** If after referee testing, the laboratory-molded density for any subplot results in a "remove and replace" condition as listed in Table 19, the Engineer may require removal and replacement or may allow the subplot to be left in place without payment. The Engineer may also accept the subplot in accordance with Section 3076.5.3.1., "Acceptance of Defective or Unauthorized Work." Replacement material meeting the requirements of this Item will be paid for in accordance with this Section.

- 6.2. **Placement Payment Adjustment Factors.** The placement payment adjustment factor is based on in-place air voids using the Engineer's test results. The bulk specific gravities of the cores from each subplot will be divided by the Engineer's average maximum theoretical specific gravity for the lot. The individual core densities for the subplot will be averaged to determine the placement payment adjustment factor in accordance with Table 20 for each subplot that requires in-place air void measurement. A placement payment adjustment factor of 1.000 will be assigned to the entire subplot when the random sample location falls in an area designated on the plans as not subject to in-place air void determination. A placement payment adjustment factor of 1.000 will be assigned to quantities placed in areas described in Section 3076.4.9.3.1.4., "Miscellaneous Areas." The placement payment adjustment factor for completed lots will be the average of the placement payment adjustment factors for up to four sublots within that lot.

Table 20
Placement Payment Adjustment Factors for In-Place Air Voids

In-Place Air Voids	Placement Pay Adjustment Factor	In-Place Air Voids	Placement Pay Adjustment Factor
< 2.7	Remove and Replace	6.4	1.042
2.7	0.710	6.5	1.040
2.8	0.740	6.6	1.038
2.9	0.770	6.7	1.036
3.0	0.800	6.8	1.034
3.1	0.830	6.9	1.032
3.2	0.860	7.0	1.030
3.3	0.890	7.1	1.028
3.4	0.920	7.2	1.026
3.5	0.950	7.3	1.024
3.6	0.980	7.4	1.022
3.7	0.998	7.5	1.020
3.8	1.002	7.6	1.018
3.9	1.006	7.7	1.016
4.0	1.010	7.8	1.014
4.1	1.014	7.9	1.012
4.2	1.018	8.0	1.010
4.3	1.022	8.1	1.008
4.4	1.026	8.2	1.006
4.5	1.030	8.3	1.004
4.6	1.034	8.4	1.002
4.7	1.038	8.5	1.000
4.8	1.042	8.6	0.998
4.9	1.046	8.7	0.996
5.0	1.050	8.8	0.994
5.1	1.050	8.9	0.992
5.2	1.050	9.0	0.990
5.3	1.050	9.1	0.960
5.4	1.050	9.2	0.930
5.5	1.050	9.3	0.900
5.6	1.050	9.4	0.870
5.7	1.050	9.5	0.840
5.8	1.050	9.6	0.810
5.9	1.050	9.7	0.780
6.0	1.050	9.8	0.750
6.1	1.048	9.9	0.720
6.2	1.046	> 9.9	Remove and Replace
6.3	1.044		

6.2.1.

Payment for Incomplete Placement Lots. Payment adjustments for incomplete placement lots described under Section 3076.4.9.3.1.2., "Incomplete Placement Lots," will be calculated using the average of the placement payment factors from all sublots sampled and sublots where the random location falls in an area designated on the plans as not eligible for in-place air void determination.

If the random sampling plan results in production samples, but not in placement samples, the random core location and placement adjustment factor for the sublot will be determined by applying the placement random number to the length of the sublot placed.

If the random sampling plan results in placement samples, but not in production samples, no placement adjustment factor will apply for that sublot placed.

A placement payment adjustment factor of 1.000 will be assigned to any lot when the random sampling plan did not result in collection of any production samples.

- 6.2.2. **Placement Sublots Subject to Removal and Replacement.** If after referee testing, the placement payment adjustment factor for any subplot results in a “remove and replace” condition as listed in Table 20, the Engineer will choose the location of two cores to be taken within 3 ft. of the original failing core location. The Contractor will obtain the cores in the presence of the Engineer. The Engineer will take immediate possession of the untrimmed cores and submit the untrimmed cores to the Materials and Tests Division, where they will be trimmed if necessary and tested for bulk specific gravity within 10 working days of receipt.

The bulk specific gravity of the cores from each subplot will be divided by the Engineer's average maximum theoretical specific gravity for the lot. The individual core densities for the subplot will be averaged to determine the new payment adjustment factor of the subplot in question. If the new payment adjustment factor is 0.700 or greater, the new payment adjustment factor will apply to that subplot. If the new payment adjustment factor is less than 0.700, no payment will be made for the subplot. Remove and replace the failing subplot, or the Engineer may allow the subplot to be left in place without payment. The Engineer may also accept the subplot in accordance with Section 3076.5.3.1., “Acceptance of Defective or Unauthorized Work.” Replacement material meeting the requirements of this Item will be paid for in accordance with this Section.

- 6.3. **Total Adjusted Pay Calculation.** Total adjusted pay (TAP) will be based on the applicable payment adjustment factors for production and placement for each lot.

$$TAP = (A+B)/2$$

where:

$A = \text{Bid price} \times \text{production lot quantity} \times \text{average payment adjustment factor for the production lot}$

$B = \text{Bid price} \times \text{placement lot quantity} \times \text{average payment adjustment factor for the placement lot} + (\text{bid price} \times \text{quantity placed in miscellaneous areas} \times 1.000)$

Production lot quantity = Quantity actually placed - quantity left in place without payment

Placement lot quantity = Quantity actually placed - quantity left in place without payment - quantity placed in miscellaneous areas

Special Specification 3081

Thin Overlay Mixtures



1. DESCRIPTION

Construct a thin surface course composed of a compacted mixture of aggregate and asphalt binder mixed hot in a mixing plant. Produce a thin overlay mixture (TOM) with a minimum lift thickness of 1/2 in. for a Type F mixture and 3/4 in. for a Type C mixture.

2. MATERIALS

Furnish uncontaminated materials of uniform quality that meet the requirements of the plans and specifications.

Notify the Engineer of all material sources and before changing any material source or formulation. The Engineer will verify that the specification requirements are met when the Contractor makes a source or formulation change, and may require a new laboratory mixture design, trial batch, or both. The Engineer may sample and test project materials at any time during the project to verify specification compliance in accordance with Item 6, "Control of Materials."

2.1. **Aggregate.** Furnish aggregates from sources that conform to the requirements in accordance with Table 1 and as specified in this Section. Aggregate requirements in this Section, including those shown in Table 1, may be modified or eliminated when shown on the plans. Additional aggregate requirements may be specified when shown on the plans. Provide aggregate stockpiles that meet the definitions in this Section for coarse, intermediate, or fine aggregate. Do not use reclaimed asphalt pavement (RAP) or recycled asphalt shingles (RAS). Supply aggregates that meet the definitions in accordance with [Tex-100-E](#) for crushed gravel or crushed stone. The Engineer will designate the plant or the quarry as the sampling location. Provide samples from materials produced for the project. The Engineer will establish the Surface Aggregate Classification (SAC) and perform Los Angeles abrasion, magnesium sulfate soundness, and Micro-Deval tests. Perform all other aggregate quality tests in accordance with Table 1. Document all test results on the mixture design report. The Engineer may perform tests on independent or split samples to verify Contractor test results. Stockpile aggregates for each source and type separately. Determine aggregate gradations for mixture design and production testing based on the washed sieve analysis in accordance with [Tex-200-F](#), Part II.

2.1.1. **Coarse Aggregate.** Coarse aggregate stockpiles must have no more than 20% material passing the No. 8 sieve. Aggregates from sources listed in the Department's *Bituminous Rated Source Quality Catalog* (BRSQC) are preapproved for use. Use only the rated values for hot-mix listed in the BRSQC. Rated values for surface treatment (ST) do not apply to coarse aggregate sources used in hot-mix asphalt.

For sources not listed on the Department's BRSQC:

- build an individual stockpile for each material;
- request the Department test the stockpile for specification compliance;
- approved only when tested by the Engineer;
- once approved, do not add material to the stockpile unless otherwise approved; and
- allow 30 calendar days for the Engineer to sample, test, and report results.

2.1.1.1. **Blending Class A and Class B Aggregates.** Class B aggregate meeting all other requirements in blending Class A and B aggregates to meet a Class A requirement, ensure that at least 50% by weight, or volume if required, of all aggregates used in the mixture design retained on the No. 8 sieve comes from the Class A

aggregate source, unless otherwise shown on the plans. Blend by volume if the bulk specific gravities of the Class A and B aggregates differ by more than 0.300. Class B aggregate may be disallowed when shown on the plans.

The Engineer may perform tests at any time during production, when the Contractor blends Class A and B aggregates to meet a Class A requirement, to ensure that at least 50% by weight, or volume if required, of the material retained on the No. 8 sieve comes from the Class A aggregate source. The Engineer will use the Department's mix design template, when electing to verify conformance, to calculate the percent of Class A aggregate retained on the No. 8 sieve by inputting the bin percentages shown from readouts in the control room at the time of production and stockpile gradations measured at the time of production. The Engineer may determine the gradations based on either washed or dry sieve analysis from samples obtained from individual aggregate cold feed bins or aggregate stockpiles. The Engineer may perform spot checks using the gradations supplied by the Contractor on the mixture design report as an input for the template; however, a failing spot check will require confirmation with a stockpile gradation determined by the Engineer.

- 2.1.1.2. **Micro-Deval Abrasion.** The Engineer will perform a minimum of one Micro-Deval abrasion test in accordance with [Tex-461-A](#) for each coarse aggregate source used in the mixture design that has a Rated Source Soundness Magnesium (RSSM) loss value greater than 15 as listed in the BRSQC, unless otherwise directed. The Engineer will perform testing before the start of production and may perform additional testing at any time during production. The Engineer may obtain the coarse aggregate samples from each coarse aggregate source or may require the Contractor to obtain the samples. The Engineer may waive all Micro-Deval testing based on a satisfactory test history of the same aggregate source.

The Engineer will estimate the magnesium sulfate soundness loss for each coarse aggregate source, when tested, using the following formula:

$$Mg_{est.} = (RSSM)(MD_{act}/RSMD)$$

where:

Mg_{est} = magnesium sulfate soundness loss

RSSM = Rated Source Soundness Magnesium

MD_{act} = actual Micro-Deval percent loss

RSMD = Rated Source Micro-Deval

When the estimated magnesium sulfate soundness loss is greater than the maximum magnesium sulfate soundness loss specified, the coarse aggregate source will not be allowed for use unless otherwise approved. The Engineer will consult the Soils and Aggregates Section of the Materials and Tests Division, and additional testing may be required before granting approval.

- 2.1.2. **Intermediate Aggregate.** Aggregates not meeting the definition of coarse or fine aggregate will be defined as intermediate aggregate. Supply intermediate aggregates, when used that are free from organic impurities. The Engineer may test the intermediate aggregate in accordance with [Tex-408-A](#) to verify the material is free from organic impurities. Supply intermediate aggregate from coarse aggregate sources, when used that meet the requirements in accordance with Table 1 unless otherwise approved.

If 10% or more of the stockpile is retained on the No. 4 sieve, verify that it meets the requirements in accordance with Table 1 for crushed face count ([Tex-460-A](#)) and flat and elongated particles ([Tex-280-F](#)).

- 2.1.3. **Fine Aggregate.** Fine aggregates consist of manufactured sands and screenings. Natural sands are not allowed in any mixture. Fine aggregate stockpiles must meet the fine aggregate properties in accordance with Table 1 and the gradation requirements in accordance with Table 2. Supply fine aggregates that are free from organic impurities. The Engineer may test the fine aggregate in accordance with [Tex-408-A](#) to verify the material is free from organic impurities. Use fine aggregate from coarse aggregate sources that meet the requirements in accordance with Table 1 unless otherwise approved.

If 10% or more of the stockpile is retained on the No. 4 sieve, verify that it meets the requirements in accordance with Table 1 for crushed face count ([Tex-460-A](#)) and flat and elongated particles ([Tex-280-F](#)).

Table 1
Aggregate Quality Requirements

Property	Test Method	Requirement
Coarse Aggregate		
SAC	Tex-499-A	A ¹
Deleterious material, %, Max	Tex-217-F , Part I	1.5
Decantation, %, Max	Tex-217-F , Part II	1.5
Micro-Deval abrasion, %	Tex-461-A	Note ^r
Los Angeles abrasion, %, Max	Tex-410-A	30
Magnesium sulfate soundness, 5 cycles, %, Max	Tex-411-A	20
Crushed face count, ³ %, Min	Tex-460-A , Part I	95
Flat and elongated particles @ 5:1, %, Max	Tex-280-F	10
Fine Aggregate		
Linear shrinkage, %, Max	Tex-107-E	3
Sand equivalent, %, Min	Tex-203-F	45

1. Surface Aggregate Classification of "A" is required unless otherwise shown on the plans.
2. Used to estimate the magnesium sulfate soundness loss in accordance with Section 3081.2.1.1.2., "Micro-Deval Abrasion."
3. Only applies to crushed gravel.

Table 2
Gradation Requirements for Fine Aggregate

Sieve Size	% Passing by Weight or Volume
3/8"	100
#8	70–100
#200	0–30

- 2.2. **Mineral Filler.** Mineral filler consists of finely divided mineral matter such as agricultural lime, crusher fines, or hydrated lime. Mineral filler is allowed unless otherwise shown on the plans. Fly ash is not permitted unless otherwise shown on the plans. Use no more than 2% hydrated lime unless otherwise shown on the plans. Test all mineral fillers except hydrated lime and fly ash in accordance with [Tex-107-E](#) to ensure specification compliance. The plans may require or disallow specific mineral fillers. Provide mineral filler, when used, that:
- is sufficiently dry, free-flowing, and free from clumps and foreign matter as determined by the Engineer;
 - does not exceed 3% linear shrinkage when tested in accordance with [Tex-107-E](#); and
 - meets the gradation requirements in Table 3, unless otherwise shown on the plans.

Table 3
Gradation Requirements for Mineral Filler

Sieve Size	% Passing by Weight or Volume
#8	100
#200	55–100

- 2.3. **Baghouse Fines.** Fines collected by the baghouse or other dust-collecting equipment may be reintroduced into the mixing drum.
- 2.4. **Asphalt Binder.** Furnish performance-graded (PG) asphalt binder with a high temperature grade of PG 76 unless otherwise shown in the plans and a low temperature grade as shown on the plans, in accordance with Section 300.2.10., "Performance-Graded Binders."
- 2.5. **Tack Coat.** Furnish CSS-1H, SS-1H, EBL, or a PG binder with a minimum high-temperature grade of PG 58 for tack coat binder in accordance with Item 300, "Asphalts, Oils, and Emulsions." Specialized tack coat materials listed on the Department's Tracking Resistant Asphalt Interlayer (TRAIL) MPL may be allowed or required when shown on the plans. Do not dilute emulsified asphalts at the terminal, in the field, or at any other location before use.

- 2.6. **Additives.** Provide the Engineer with documentation such as the bill of lading showing the quantity of additives used in the project unless otherwise directed.
- 2.6.1. **Lime and Liquid Antistripping Agent.** When lime or a liquid antistripping agent is used, add in accordance with Item 301, "Asphalt Antistripping Agents." Use no more than 1% hydrated lime when using crushed gravel. Do not add lime directly into the mixing drum of any plant where lime is removed through the exhaust stream unless the plant has a baghouse or dust collection system that reintroduces the lime into the drum.
- 2.6.2. **Compaction Aid.** Compaction Aid is defined as a department-approved chemical warm mix additive denoted as "chemical additive" on the Department's materials producer list (MPL) that is used to facilitate mixing and compaction of HMA.
- Compaction Aid is allowed for use on all projects. Compaction aid is required when shown on the plans or as required in Section 3081.4.7.1., "Weather Conditions."
- Warm mix foaming processes, denoted as "foaming process" on the Department-approved MPL, may be used to facilitate mixing and compaction of HMA; however warm mix foaming processes are not defined as a Compaction Aid.
- 2.7. **Recycled Materials.** Recycled materials are not allowed for use.

3. EQUIPMENT

Provide required or necessary equipment in accordance with Item 320, "Equipment for Asphalt Concrete Pavement."

4. CONSTRUCTION

- Produce, haul, place, and compact the specified paving mixture. In addition to tests required by the specification, Contractors may perform other QC tests as deemed necessary. At any time during the project, the Engineer may perform production and placement tests as deemed necessary in accordance with Item 5, "Control of the Work." Schedule and participate in a mandatory pre-paving meeting with the Engineer on or before the first day of paving unless otherwise shown on the plans.
- 4.1. **Certification.** Personnel certified by the Department-approved hot-mix asphalt certification program must conduct all mixture designs, sampling, and testing in accordance with Table 4. Supply the Engineer with a list of certified personnel and copies of their current certificates before beginning production and when personnel changes are made. Provide a mixture design developed and signed by a Level 2 certified specialist. Provide Level 1A certified specialists at the plant during production operations. Provide Level 1B certified specialists to conduct placement tests. Provide AGG101 certified specialists for aggregate testing.

Table 4
Test Methods, Test Responsibility, and Minimum Certification Levels

Test Description	Test Method	Contractor	Engineer	Level ¹
1. Aggregate Testing				
Sampling	Tex-221-F	✓	✓	1A/AGG101
Dry sieve	Tex-200-F , Part I	✓	✓	1A/AGG101
Washed sieve	Tex-200-F , Part II	✓	✓	1A/AGG101
Deleterious material	Tex-217-F , Part I	✓	✓	AGG101
Decantation	Tex-217-F , Part II	✓	✓	AGG101
Los Angeles abrasion	Tex-410-A		✓	Department
Magnesium sulfate soundness	Tex-411-A		✓	Department
Micro-Deval abrasion	Tex-461-A		✓	AGG101
Crushed face count	Tex-460-A	✓	✓	AGG101
Flat and elongated particles	Tex-280-F	✓	✓	AGG101
Sand equivalent	Tex-203-F	✓	✓	AGG101
Organic impurities	Tex-408-A	✓	✓	AGG101
Methylene blue test	Tex-252-F		✓	Department
2. Asphalt Binder & Tack Coat Sampling				
Asphalt binder sampling	Tex-500-C , Part II	✓	✓	1A/1B
Tack coat sampling	Tex-500-C , Part III	✓	✓	1A/1B
3. Mix Design & Verification				
Design and JMF changes	Tex-204-F	✓	✓	2
Mixing	Tex-205-F	✓	✓	2
Molding (TGC)	Tex-206-F	✓	✓	1A
Molding (SGC)	Tex-241-F	✓	✓	1A
Laboratory-molded density	Tex-207-F , Parts I & VI	✓	✓	1A
Rice gravity	Tex-227-F , Part II	✓	✓	1A
Drain-down	Tex-235-F	✓	✓	1A
Ignition oven correction factors ²	Tex-236-F , Part II	✓	✓	2
Indirect tensile strength	Tex-226-F	✓	✓	1A
Overlay test	Tex-248-F		✓	Department
Hamburg Wheel test	Tex-242-F	✓	✓	1A
Boil test ⁴	Tex-530-C	✓	✓	1A
4. Production Testing				
Selecting production random numbers	Tex-225-F , Part I		✓	1A
Mixture sampling	Tex-222-F	✓	✓	1A/1B
Molding (TGC)	Tex-206-F	✓	✓	1A
Molding (SGC)	Tex-241-F	✓	✓	1A
Laboratory-molded density	Tex-207-F , Parts I & VI	✓	✓	1A
Rice gravity	Tex-227-F , Part II	✓	✓	1A
Gradation & asphalt binder content ²	Tex-236-F , Part I	✓	✓	1A
Drain-down	Tex-235-F	✓	✓	1A
Control charts	Tex-233-F	✓	✓	1A
Moisture content	Tex-212-F , Part II	✓	✓	1A/AGG101
Hamburg Wheel test	Tex-242-F	✓	✓	1A
Overlay test	Tex-248-F	✓	✓	Department
Micro-Deval abrasion	Tex-461-A		✓	AGG101
Boil test ⁴	Tex-530-C	✓	✓	1A
Abson recovery	Tex-211-F		✓	Department
5. Placement Testing				
Establish rolling pattern	Tex-207-F , Part IV	✓		1B
In-place density (nuclear method)	Tex-207-F , Part III	✓		1B
Control charts	Tex-233-F	✓	✓	1A
Ride quality measurement	Tex-1001-S	✓	✓	Note 3
Thermal profile	Tex-244-F	✓	✓	1B
Water flow test	Tex-246-F	✓	✓	1B

1. Level 1A, 1B, AGG101, and 2 are certification levels provided by the Hot Mix Asphalt Center certification program.
2. Refer to Section 3081.4.9.2.3., "Production Testing," for exceptions to using an ignition oven.
3. Profiler and operator are required to be certified at the Texas A&M Transportation Institute facility when Surface Test Type B is specified.
4. When shown on the plans.

4.2.

Reporting and Responsibilities. Use Department-provided templates to record and calculate all test data, including mixture design, production and placement QC/QA, control charts, and thermal profiles. Obtain the current version of the templates at <https://www.txdot.gov/inside-txdot/forms-publications/consultants-contractors/forms/site-manager.html> or from the Engineer. The Engineer and the Contractor will provide any available test results to the other party when requested. The maximum allowable time for the Contractor and Engineer to exchange test data is as given in Table 5 unless otherwise approved. The Engineer and the Contractor will immediately report to the other party any test result that requires suspension of production or placement or that fails to meet the specification requirements. Record and electronically submit all test results and pertinent information on Department-provided templates.

Subsequent sublots placed after test results are available to the Contractor, which require suspension of operations, may be considered unauthorized work. Unauthorized work will be accepted or rejected at the discretion of the Engineer in accordance with Section 5.3., "Conformity with Plans, Specifications, and Special Provisions."

Table 5
Reporting Schedule

Description		Reported By	Reported To	To Be Reported Within
Production Quality Control				
Gradation ¹	Contractor	Engineer	1 working day of completion of the subplot	
Asphalt binder content ¹				
Laboratory-molded density ²				
Moisture content ³				
Boil test ⁵				
Production Quality Assurance				
Gradation ³	Engineer	Contractor	1 working day of completion of the subplot	
Asphalt binder content ³				
Laboratory-molded density ¹				
Hamburg Wheel test ⁴				
Overlay test ⁴				
Boil test ⁵				
Binder tests ⁴				
Placement Quality Control				
Thermal profile ¹	Contractor	Engineer	1 working day of completion of the lot	
Water flow ¹				
Placement Quality Assurance				
Thermal profile ³	Engineer	Contractor	1 working day of completion of the lot	
Aging ratio ⁴				
Water flow				

1. These tests are required on every subplot.
2. Optional test. When performed on split samples, report the results as soon as they become available.
3. To be performed at the frequency specified and in accordance with Table 13 or as shown on the plans.
4. To be reported as soon as the results become available.
5. When shown on the plans.

Use the procedures described in [Tex-233-F](#) to plot the results of all quality control (QC) and quality assurance (QA) testing. Update the control charts as soon as test results for each subplot become available. Make the control charts readily accessible at the field laboratory. The Engineer may suspend production for failure to update control charts.

4.3.

Quality Control Plan (QCP). Develop and follow the QCP in detail. Obtain approval for changes to the QCP made during the project. The Engineer may suspend operations if the Contractor fails to comply with the QCP.

Submit a written QCP before the mandatory pre-paving meeting. Receive approval of the QCP before pre-paving meeting. Include the following items in the QCP:

- 4.3.1. **Project Personnel.** For project personnel, include:
- a list of individuals responsible for QC with authority to take corrective action;
 - current contact information for each individual listed; and
 - current copies of certification documents for individuals performing specified QC functions.
- 4.3.2. **Material Delivery and Storage.** For material delivery and storage, include:
- the sequence of material processing, delivery, and minimum quantities to assure continuous plant operations;
 - aggregate stockpiling procedures to avoid contamination and segregation;
 - frequency, type, and timing of aggregate stockpile testing to assure conformance of material requirements before mixture production; and
 - procedure for monitoring the quality and variability of asphalt binder.
- 4.3.3. **Production.** For production, include:
- loader operation procedures to avoid contamination in cold bins;
 - procedures for calibrating and controlling cold feeds;
 - procedures to eliminate debris or oversized material;
 - procedures for adding and verifying rates of each applicable mixture component (e.g., aggregate, asphalt binder, lime, liquid antistrip, compaction aid, foaming process);
 - procedures for reporting job control test results; and
 - procedures to avoid segregation and drain-down in the silo.
- 4.3.4. **Loading and Transporting.** For loading and transporting, include:
- type and application method for release agents; and
 - truck loading procedures to avoid segregation.
- 4.3.5. **Placement and Compaction.** For placement and compaction, include:
- proposed agenda for mandatory pre-paving meeting, including date and location;
 - proposed paving plan (e.g., production rate, paving widths, joint offsets, and lift thicknesses);
 - type and application method for release agents in the paver and on rollers, shovels, lutes, and other utensils;
 - procedures for the transfer of mixture into the paver, while avoiding physical and thermal segregation and preventing material spillage;
 - process to balance production, delivery, paving, and compaction to achieve continuous placement operations and good ride quality;
 - paver operations (e.g., speed, operation of wings, height of mixture in auger chamber) to avoid physical and thermal segregation and other surface irregularities; and
 - procedures to construct quality longitudinal and transverse joints.
- 4.4. **Mixture Design.**
- 4.4.1. **Design Requirements.** The Contractor may design the mixture using a Texas Gyrotory Compactor (TGC) or a Superpave Gyrotory Compactor (SGC) unless otherwise shown on the plans. Use the typical weight design example given in [Tex-204-F](#), Part I, when using a TGC. Use the Superpave mixture design procedure provided in [Tex-204-F](#), Part IV, when using a SGC. Design the mixture to meet the requirements in accordance with Tables 1, 2, 3, 6, and 7.
- 4.4.1.1. **Target Laboratory-Molded Density When the TGC Is Used.** Design the mixture at a 97.5% target laboratory-molded density or in accordance with Table 7.

4.4.1.2.

Design Number of Gyration (N_{design}) When the SGC Is Used. Design the mixture at 50 gyrations (N_{design}). Use a target laboratory-molded density of 96.0% to design the mixture; however, adjustments can be made to the N_{design} value as noted in Table 7. The N_{design} level may be reduced to no less than 35 gyrations at the Contractor's discretion.

Use an approved laboratory from the Department's MPL to perform the Hamburg Wheel test, and the Department will perform the Overlay test and provide results with the mixture design, or provide the laboratory mixture and request that the Department perform the Hamburg Wheel test and Overlay test. The Engineer will be allowed 10 working days to provide the Contractor with Hamburg Wheel test and Overlay test results on the laboratory mixture design.

The Engineer will provide the mixture design when shown on the plans. The Contractor may submit a new mixture design at any time during the project. The Engineer will verify and approve all mixture designs (JMF 1) before the Contractor can begin production.

Provide the Engineer with a mixture design report using the Department-provided template. Include the following items in the report:

- the combined aggregate gradation, source, specific gravity, and percent of each material used;
- the target laboratory-molded density (or N_{design} level when using the SGC);
- results of all applicable tests;
- the mixing and molding temperatures;
- the signature of the Level 2 person or persons that performed the design;
- the date the mixture design was performed; and
- a unique identification number for the mixture design.

Table 6
Master Gradation Limits (% Passing by Weight or Volume) and Volumetric Requirements

Sieve Size	Coarse (TOM-C)	Fine (TOM-F)
1/2"	100.0 ¹	100.0 ¹
3/8"	95.0–100.0	98.0–100.0
#4	40.0–60.0	70.0–95.0
#8	17.0–27.0	40.0–65.0
#16	5.0–27.0	20.0–45.0
#30	5.0–27.0	10.0–35.0
#50	5.0–27.0	10.0–20.0
#200	5.0–9.0	2.0–12.0
Asphalt Binder Content, ² % Min		
-	6.0	6.5
Design VMA, ³ % Min		
-	16.0	16.5
Production (Plant-Produced) VMA, ³ % Min		
-	15.5	16.0

1. Defined as maximum sieve size. No tolerance allowed.
2. Unless otherwise shown on the plans or approved by the Engineer.
3. Voids in Mineral Aggregates (VMA).

Table 7
Mixture Design Properties

Mixture Property	Test Method	Requirement
Target laboratory-molded density, % (TGC)	Tex-207-F	97.5 ¹
Design gyrations (N _{design} for SGC)	Tex-241-F	50 ²
Hamburg Wheel test, passes at 12.5 mm rut depth for PG 76 mixtures	Tex-242-F	20,000 Min
Overlay test, Critical Fracture Energy, lb.-in/sq. in	Tex-248-F	1.5 Min
Overlay test, Crack Progression Rate	Tex-248-F	0.40 Max
Drain-down, %	Tex-235-F	0.20 Max

1. Unless otherwise shown on the plans or approved by the Engineer. Laboratory-molded density requirement using the TGC may be waived when approved by the Engineer.

2. May be adjusted within the range of 35–100 gyrations when shown on the plans or specification or when mutually agreed between the Engineer and Contractor. Laboratory-molded density requirement using the SGC may be waived when approved by the Engineer.

- 4.4.1 Job-Mix Formula Approval.** The job-mix formula (JMF) is the combined aggregate gradation, target laboratory-molded density (or Ndesign level), and target asphalt percentage used to establish target values for hot-mix production. JMF 1 is the original laboratory mixture design used to produce the trial batch. When a compaction aid or foaming process is used, JMF 1 may be designed and submitted to the Engineer without including the compaction aid or foaming process. When a compaction aid or foaming process is used, document the compaction aid or foaming process used and recommended rate on the JMF1 submittal. The Engineer and the Contractor will verify JMF 1 based on plant-produced mixture from the trial batch unless otherwise approved. The Engineer may accept an existing mixture design previously used on a Department project and may waive the trial batch to verify JMF 1. The Department may require the Contractor to reimburse the Department for verification tests if more than two trial batches per design are required.
- 4.4.2.1 Contractor's Responsibilities.**
- 4.4.2.1.1 Providing Gyratory Compactor.** Use a TGC calibrated in accordance with [Tex-914-K](#) when electing or required to design the mixture in accordance with [Tex-204-F](#), Part I, for molding production samples. Furnish an SGC calibrated in accordance with [Tex-241-F](#) when electing or required to design the mixture in accordance with [Tex-204-F](#), Part IV, for molding production samples. Locate the SGC if used, at the Engineer's field laboratory or make the SGC available to the Engineer for use in molding production samples.
- 4.4.2.1.2 Gyratory Compactor Correlation Factors.** Use [Tex-206-F](#), Part II, to perform a gyratory compactor correlation when the Engineer uses a different gyratory compactor. Apply the correlation factor to all subsequent production test results.
- 4.4.2.1.3 Submitting JMF1.** Furnish a mix design report (JMF1) with representative samples of all component materials and request approval to produce the trial batch. Provide approximately 25 lb. of the design mixture if opting to have the Department perform the Hamburg Wheel test on the laboratory mixture, and request that the Department perform the test. Provide approximately 60 lb. of the design mixture to perform the Overlay test.
- 4.4.2.1.4 Supplying Aggregates.** Provide approximately 40 lb. of each aggregate stockpile unless otherwise directed.
- 4.4.2.1.5 Supplying Asphalt.** Provide at least 1 gal. of the asphalt material and enough quantities of any additives proposed for use.
- 4.4.2.1.6 Ignition Oven Correction Factors.** Determine the aggregate and asphalt correction factors from the ignition oven in accordance with [Tex-236-F](#), Part II. Provide correction factors that are not more than 12 mo. old. Provide the Engineer with split samples of the mixtures before the trial batch production, including all additives (except water), and blank samples used to determine the correction factors for the ignition oven used for QA testing during production. Correction factors established from a previously approved mixture design may be used for the current mixture design if the mixture design and ignition oven are the same as previously used and the correction factors are not more than 12 mo. old, unless otherwise directed.
- 4.4.2.1.7 Boil Test.** When shown on the plans, perform the test and retain the tested sample from [Tex-530-C](#) until completion of the project or as directed. Use this sample for comparison purposes during production.
- 4.4.2.1.8 Trial Batch Production.** Provide a plant-produced trial batch upon receiving conditional approval of JMF 1 and authorization to produce a trial batch, including the compaction aid or foaming process, if applicable, for verification testing of JMF 1 and development of JMF 2. Produce a trial batch mixture that meets the requirements in accordance with Table 8. The Engineer may accept test results from recent production of the same mixture instead of a new trial batch.

- 4.4.2.1.9. **Trial Batch Production Equipment.** Use only equipment and materials proposed for use on the project to produce the trial batch.
- 4.4.2.1.10. **Trial Batch Quantity.** Produce enough quantity of the trial batch to ensure that the mixture meets the specification requirements.
- 4.4.2.1.11. **Number of Trial Batches.** Produce trial batches as necessary to obtain a mixture that meets the specification requirements.
- 4.4.2.1.12. **Trial Batch Sampling.** Obtain a representative sample of the trial batch and split it into three equal portions in accordance with [Tex-222-F](#). Label these portions as "Contractor," "Engineer," and "Referee." Deliver samples to the appropriate laboratory as directed.
- 4.4.2.1.13. **Trial Batch Testing.** Test the trial batch to ensure the mixture produced using the proposed JMF1 meets the mixture requirements in accordance with Table 8. Ensure the trial batch mixture is also in compliance with the requirements in accordance with Tables 6 and 7. Use a Department-approved laboratory listed on the MPL to perform the Hamburg Wheel test on the trial batch mixture or request that the Department perform the Hamburg Wheel test. Provide approximately 25 lb. of the trial batch mixture if opting to have the Department perform the Hamburg Wheel test, and request that the Department perform the test. Obtain and provide approximately 60 lb. of trial batch mixture in sealed containers, boxes, or bags labeled with the CSJ, mixture type, lot, and subplot number in accordance with [Tex-222-F](#) for the Overlay test. The Engineer will be allowed 10 working days to provide the Contractor with Hamburg Wheel test and Overlay test results on the trial batch. Provide the Engineer with a copy of the trial batch test results.
- 4.4.2.1.14. **Development of JMF2.** Evaluate the trial batch test results after the Engineer grants full approval of JMF1 based on results from the trial batch, determine the optimum mixture proportions, and submit as JMF2. Adjust the asphalt binder content or gradation to achieve the specified target laboratory-molded density. The mixture produced using JMF2 must meet the requirements in accordance with Tables 6 and 7. Verify that JMF2 meets the operation tolerances of JMF1 in accordance with Table 8.
- 4.4.2.1.15. **Mixture Production.** Use JMF2 to produce Lot 1 after receiving approval for JMF2 and a passing result from the Department's or a Department-approved laboratory's Hamburg Wheel test and the Department's Overlay test on the trial batch. If desired, proceed to Lot 1 production, once JMF2 is approved, at the Contractor's risk without receiving the results from either the Department's Hamburg Wheel test or Overlay test on the trial batch.
- Notify the Engineer if electing to proceed without Hamburg Wheel test and Overlay test results from the trial batch. Note that the Engineer may require up to the entire subplot of any mixture failing the Hamburg Wheel test or Overlay test to be removed and replaced at the Contractor's expense.
- 4.4.2.1.16. **Development of JMF3.** Evaluate the test results from Lot 1, determine the optimum mixture proportions, and submit as JMF3 for use in Lot 2.
- 4.4.2.1.17. **JMF Adjustments.** If JMF adjustments are necessary to achieve the specified requirements, make the adjustments before beginning a new lot. The adjusted JMF must:
- be provided to the Engineer in writing before the start of a new lot;
 - be numbered in sequence to the previous JMF;
 - meet the master gradation limits in accordance with Table 6; and
 - be within the operational tolerances of JMF2 in accordance with Table 8.
- 4.4.2.1.18. **Requesting Referee Testing.** Use referee testing, if needed, in accordance with Section 3081.4.9.1., "Referee Testing," to resolve testing differences with the Engineer.

Table 8
Operational Tolerances

Description	Test Method	Allowable Difference between JMF2 and JMF1 Target ¹	Allowable Difference from Current JMF and JMF2 ²	Allowable Difference between Contractor and Engineer ³
Individual % retained for #8 sieve and larger	Tex-200-F or Tex-236-F	Must be Within Master Grading Limits in accordance with Table 6	±3.0 ^{4,5}	±5.0
Individual % retained for sieves smaller than #8 and larger than #200			±3.0 ^{4,5}	±3.0
% passing the #200 sieve			±2.0 ^{4,5}	±1.6
Asphalt binder content, % ⁶	Tex-236-F	±0.3	±0.3 ⁵	±0.3
Laboratory-molded density, %	Tex-207-F	±1.0	±1.0	±1.0
Laboratory-molded bulk specific gravity		N/A	N/A	±0.020
VMA, % Min	Tex-204-F	Note 7	Note 7	N/A
Theoretical Max specific (Rice) gravity	Tex-227-F	N/A	N/A	±0.020
Drain-down, %	Tex-235-F	Note 8	Note 8	N/A

1. JMF1 is the approved laboratory mixture design used for producing the trial batch. JMF2 is the approved mixture design developed from the trial batch used to produce Lot 1.
2. Current JMF is JMF3 or higher. JMF3 is the approved mix design used to produce Lot 2.
3. Contractor may request referee testing only when values exceed these tolerances.
4. When within these tolerances, mixture production gradations may fall outside the master grading limits; however, the % passing the #200 will be considered out of tolerance when outside the master grading limits.
5. Only applies to mixture produced for Lot 1 and higher.
6. Binder content is not allowed to be outside the limits in accordance with Table 6. May be obtained from asphalt meter readouts as determined by the Engineer.
7. Verify that Table 6 requirements are met.
8. Verify that Table 7 requirements are met.

4.4.2.2.

Engineer's Responsibilities.

4.4.2.2.1.

Gyratory Compactor. For mixtures designed in accordance with [Tex-204-F](#), Part I, the Engineer will use a Department TGC, calibrated in accordance with [Tex-914-K](#), to mold samples for trial batch and production testing.

For mixtures designed in accordance with [Tex-204-F](#), Part IV, the Engineer will use a Department SGC, calibrated in accordance with [Tex-241-F](#), to mold samples for laboratory mixture design verification. For molding trial batch and production specimens, the Engineer will use the Contractor-provided SGC at the field laboratory or provide and use a Department SGC at an alternate location.

4.4.2.2.2.

Conditional Approval of JMF1 and Authorizing Trial Batch. The Engineer will review and verify conformance of the following information within two working days of receipt:

- the Contractor's mix design report (JMF1);
- the Department-provided Overlay test results;
- the Contractor-provided Hamburg Wheel test results;
- all required materials including aggregates, asphalt, and additives; and
- the mixture specifications.

The Engineer will grant the Contractor conditional approval of JMF1 if the information provided on the paper copy of JMF1 indicates that the Contractor's mixture design meets the specifications. When the Contractor does not provide Hamburg Wheel test and department provided Overlay test results with laboratory mixture design, 10 working days are allowed for conditional approval of JMF1. The Engineer will base full approval of JMF1 on test results on mixture from the trial batch.

Unless waived, the Engineer will determine the Micro-Deval abrasion loss in accordance with

Section 3081.2.1.1., "Micro-Deval Abrasion." If the Engineer's test results are pending after two working days, conditional approval of JMF 1 will still be granted within two working days of receiving JMF 1. When the Engineer's test results become available, they will be used for specification compliance.

The Contractor is authorized to produce a trial batch after the Engineer grants conditional approval of JMF 1.

4.4.2.2.3. **Hamburg Wheel and Overlay Testing of JMF1.** If the Contractor requests the option to have the Department perform the Hamburg Wheel test on the laboratory mixture, the Engineer will mold samples in accordance with [Tex-242-F](#) to verify compliance with the Hamburg Wheel test requirement in Table 7. The Engineer will perform the Overlay test and mold samples in accordance with [Tex-248-F](#) to verify compliance with the Overlay test requirements in Table 7. The Engineer will be allowed 10 working days to provide the Contractor with Hamburg Wheel and Overlay test results on the laboratory mixture design.

4.4.2.2.4. **Ignition Oven Correction Factors.** The Engineer will use the split samples provided by the Contractor to determine the aggregate and asphalt correction factors for the ignition oven used for QA testing during production in accordance with [Tex-236-F](#), Part II. Provide correction factors that are not more than 12 months old.

4.4.2.2.5. **Testing the Trial Batch.** Within one full working day, the Engineer will sample and test the trial batch to ensure that the mixture meets the requirements in accordance with Table 8. The Engineer will mold samples in accordance with [Tex-242-F](#) if the Contractor requests the option to have the Department perform the Hamburg Wheel test on the trial batch mixture to verify compliance with Hamburg Wheel test requirements in Table 7. The Engineer will mold samples for the Overlay test in accordance with [Tex-248-F](#) to verify compliance with the Overlay test requirement in Table 7.

The Engineer will have the option to perform [Tex-530-C](#) on the trial batch when shown on the plans. These results may be retained and used for comparison purposes during production.

4.4.2.2.6. **Full Approval of JMF1.** The Engineer will grant full approval of JMF 1 and authorize the Contractor to proceed with developing JMF2 if the Engineer's results for the trial batch meet the requirements in accordance with Tables 6 and 7. The Engineer will notify the Contractor that an additional trial batch is required if the trial batch does not meet these requirements.

4.4.2.2.7. **Approval of JMF2.** The Engineer will approve JMF2 within one working day if the mixture meets the requirements in accordance with Table 6, 7, and 8.

4.4.2.2.8. **Approval of Lot 1 Production.** The Engineer will authorize the Contractor to proceed with Lot 1 production (using JMF2) as soon as a passing result is achieved from the Department's or a Department-approved laboratory's Hamburg Wheel test and the Department's Overlay test on the trial batch. The Contractor may proceed at its own risk with Lot 1 production without the results from the Hamburg Wheel test or Overlay test on the trial batch.

If the Department's or Department-approved laboratory's sample from the trial batch fails the Hamburg Wheel test or Overlay test, the Engineer will suspend production until further Hamburg Wheel tests or Overlay tests meet the specified values. The Engineer may require up to the entire subplot of any mixture failing the Hamburg Wheel test or Overlay test to be removed and replaced at the Contractor's expense.

4.4.2.2.9. **Approval of JMF3 and Subsequent JMF Changes.** JMF3 and subsequent JMF changes are approved if they meet the master grading limits and asphalt binder content shown in Table 6 and are within the operational tolerances of JMF 2 shown in accordance with Table 8.

4.5. **Production Operations.** Perform a new trial batch when the plant or plant location is changed. Take corrective action and receive approval to proceed after any production suspension for noncompliance to the specification.

4.5.1. **Storage and Heating of Materials.** Do not heat the asphalt binder above the temperatures specified in Item 300, "Asphalts, Oils, and Emulsions," or outside the manufacturer's recommended values. Provide the Engineer with daily records of asphalt binder and hot-mix asphalt discharge temperatures (in legible and discernible increments) in accordance with Item 320, "Equipment for Asphalt Concrete Pavement," unless otherwise directed. Do not store mixture for a period long enough to affect the quality of the mixture, nor in any case longer than 12 hr. unless otherwise approved.

4.5.2. **Mixing and Discharge of Materials.** Notify the Engineer of the target discharge temperature and produce the mixture within 25°F of the target. Monitor the temperature of the material in the truck before shipping to ensure that it does not exceed the maximum production temperatures in accordance with Table 9. The Department will not pay for or allow placement of any mixture produced above the maximum production temperatures listed in Table 9.

Table 9
Maximum Production Temperature

High-Temperature Binder Grade ¹	Max Production Temperature
PG 76	345°F

1. The high-temperature binder grade refers to the high-temperature grade of the virgin asphalt binder used to produce the mixture.

Control the mixing time and temperature so that substantially all moisture is removed from the mixture before discharging from the plant. Determine the moisture content, if requested, by oven-drying in accordance with [Tex-212-F](#), Part II, and verify that the mixture contains no more than 0.2% of moisture by weight. Obtain the sample immediately after discharging the mixture into the truck and perform the test promptly.

4.6. **Hauling Operations.** Clean all truck beds before use to ensure that mixture is not contaminated. Use a release agent shown on the Department's MPL to coat the inside bed of the truck when necessary. Do not use diesel or any release agent not shown on the Department's MPL.

Use equipment for hauling as defined in Section 3081.4.7.3.3., "Hauling Equipment." Use other hauling equipment only when allowed.

4.7. **Placement Operations.** Collect haul tickets from each load of mixture delivered to the project and provide the Department's copy to the Engineer approximately every hour, or as directed. Use a hand-held thermal camera or infrared thermometer, when a thermal imaging system is not used, to measure and record the internal temperature of the mixture as discharged from the truck or Material Transfer Device (MTD) before or as the mix enters the paver and an approximate station number or GPS coordinates on each ticket. Calculate the daily yield and cumulative yield for the specified lift and provide to the Engineer at the end of paving operations for each day unless otherwise directed. The Engineer may suspend production if the Contractor fails to produce and provide haul tickets and yield calculations by the end of paving operations for each day.

Prepare the surface by removing raised pavement markers and objectionable material such as moisture, dirt, sand, leaves, and other loose impediments from the surface before placing mixture. Remove vegetation from pavement edges. Place the mixture to meet the typical section requirements and produce a smooth, finished surface with a uniform appearance and texture. Place mixture so that longitudinal joints on the surface course coincide within 6-in. of lane lines and are not placed in the wheel path, or as directed, and offset longitudinal joints of successive courses of hot-mix by at least 6-in. Ensure that all finished surfaces will drain properly. Place the mixture at the rate or thickness shown on the plans. The Engineer will use the guidelines in Table 10 to determine the compacted lift thickness. The thickness determined is based on the rate of 110–115 lb. per square inch. for each inch of pavement unless otherwise shown on the plans.

Table 10
Compacted Lift Thickness

Mixture Type	Compacted Lift Thickness ¹	
	Min (in.)	Max (in.)
TOM-C	0.75	1.25
TOM-F	0.5	1.00

1. Compacted target lift thickness will be specified on the plans.

4.7.1. Weather Conditions.

4.7.1.1. **When Using a Thermal Imaging System.** The Contractor may pave any time the roadway is dry and the roadway surface temperature is at least 60°F unless otherwise approved or as shown on the plans; however, the Engineer may restrict the Contractor from paving surface mixtures if the ambient temperature is likely to drop below 32°F within 12 hr. of paving. Place mixtures only when weather conditions and moisture conditions of the roadway surface are suitable as determined by the Engineer. Provide output data from the thermal imaging system to demonstrate to the Engineer that no recurring severe thermal segregation exists in accordance with Section 3081.4.7.3.1.2., "Thermal Imaging System."

Produce mixture with a target discharge temperature higher than 300°F and with a compaction aid to facilitate compaction when the air temperature is 70°F and falling

4.7.1.2. **When Not Using a Thermal Imaging System.** When using a thermal camera instead the thermal imaging system, place mixture when the roadway surface temperature is at or above 70°F unless otherwise approved or as shown on the plans. Measure the roadway surface temperature with a hand-held thermal camera or infrared thermometer. Place mixtures only when weather conditions and moisture conditions of the roadway surface are suitable as determined by the Engineer. The Engineer may restrict the Contractor from paving if the air temperature is 70°F and falling.

Produce mixture with a target discharge temperature higher than 300°F and with a compaction aid to facilitate compaction when the air temperature is 70°F and falling.

4.7.2. Tack Coat.

4.7.2.1. **Application.** Clean the surface before placing the tack coat. The Engineer will set the rate between 0.04 and 0.10 gal. of residual asphalt per square yard of surface area, unless otherwise specified on the plans. Apply a uniform tack coat at the specified rate unless otherwise directed. Apply the tack coat in a uniform manner to avoid streaks and other irregular patterns. Apply the tack coat to all surfaces that will come in contact with the subsequent HMA placement unless otherwise directed. Apply adequate overlap of the tack coat in the longitudinal direction during placement of the mat to ensure bond of adjacent mats, unless otherwise directed. Allow adequate time for emulsion to break completely before placing any material. Prevent splattering of tack coat when placed adjacent to curb, gutter, and structures. The Engineer may suspend paving operations until there is adequate coverage. Do not dilute emulsified asphalts at the terminal, in the field, or at any other location before use.

4.7.2.2. **Sampling.** The Engineer will obtain at least one sample of the tack coat binder per project in accordance with [Tex-500-C](#), Part III, and test it to verify compliance with Item 300, "Asphalts, Oils, and Emulsions." The Engineer will notify the Contractor when the sampling will occur and will witness the collection of the sample from the asphalt distributor immediately before use. Label the can with the corresponding lot and subplot numbers, producer, producer facility, grade, district, date sampled, and project information including highway and CSJ. For emulsions, the Engineer may test as often as necessary to ensure the residual of the emulsion is greater than or equal to the specification requirement in Item 300, "Asphalts, Oils, and Emulsions."

4.7.3. **Lay-Down Operations.** Use the placement temperatures in accordance with Table 11 to establish the minimum placement temperature of mixture delivered to the paving operation.

Table 11
Minimum Mixture Placement Temperature

High-Temperature Binder Grade ¹	Min Placement Temperature (Before Entering Paving Operation) ^{2,3}
PG 76	280°F

1. The high-temperature binder grade refers to the high-temperature grade of the virgin asphalt binder used to produce the mixture.
2. The mixture temperature must be measured using a hand-held thermal camera or infrared thermometer nearest to the point of entry of the paving operation.
3. Minimum placement temperatures may be reduced 10°F if using a compaction aid.

4.7.3.1. **Thermal Profile.** Use a hand-held thermal camera or a thermal imaging system to obtain a continuous thermal profile in accordance with [Tex-244-F](#).

4.7.3.1.1. **Thermal Segregation.**

4.7.3.1.1.1. **Moderate.** Any areas that have a temperature differential greater than 25°F, but not exceeding 50°F.

4.7.3.1.1.2. **Severe.** Any areas that have a temperature differential greater than 50°F.

4.7.3.1.2. **Thermal Imaging System.** Review the output results when a thermal imaging system is used, and provide the report described in accordance with [Tex-244-F](#) to the Engineer daily. Modify the paving process as necessary to eliminate any recurring (moderate or severe) thermal segregation identified by the thermal imaging system.

The Engineer may suspend subsequent paving operations if the Contractor cannot successfully modify the paving process to eliminate recurring severe or moderate thermal segregation.

Provide the Engineer with electronic copies of all daily data files that can be used with the thermal imaging system software to generate temperature profile plots daily or as requested by the Engineer.

4.7.3.1.3. **Thermal Camera.** When using a thermal camera instead of the thermal imaging system, take immediate corrective action to eliminate recurring moderate thermal segregation when a hand-held thermal camera is used. Evaluate areas with moderate thermal segregation by performing water flow testing in accordance with [Tex-246-F](#) and verify the water flow is greater than 120 sec. Provide the Engineer with the thermal profile of every subplot within one working day of the completion of each lot. When requested by the Engineer, provide the electronic files generated using the thermal camera. Report the results of each thermal profile in accordance with Section 3081.4.2., "Reporting and Responsibilities." The Engineer will use a hand-held thermal camera to obtain a thermal profile at least once per project, unless the thermal imaging system is used. Suspend operations and take immediate corrective action to eliminate severe thermal segregation unless otherwise directed. Resume operations when the Engineer determines that subsequent production will meet the requirements of this Section. Evaluate areas with severe thermal segregation by performing water flow testing in accordance with [Tex-246-F](#) and verify the water flow is greater than 120 sec. Remove and replace the material in any areas that have both severe thermal segregation and a failing result for water flow test unless otherwise directed.

4.7.3.2. **Windrow Operations.** Operate windrow pickup equipment so that when hot-mix is placed in windrows, substantially all the mixture deposited on the roadbed is picked up and loaded into the paver.

4.7.3.3. **Hauling Equipment.** Use belly dumps, live bottom, or end dump trucks to haul and transfer mixture. End dump trucks are only allowed when used in conjunction with an MTD with remixing capability unless otherwise allowed.

4.7.3.4. **Screed Heaters.** Turn off screed heaters to prevent overheating of the mat if the paver stops for more than 5 min. The Engineer may evaluate the suspect area in accordance with Section 3081.4.9.3.1.1., "Recovered Asphalt Dynamic Shear Rheometer (DSR)," if the screed heater remains on for more than 5 min. while the paver is stopped.

4.8.

Compaction. Roll the freshly placed mixture with as many steel-wheeled rollers as necessary to ensure adequate compaction without excessive breakage of the aggregate and to provide a smooth surface and uniform texture. Operate each roller in static mode for TOM-F mixtures only. Do not use pneumatic-tire rollers. Use the control strip method given in accordance with [Tex-207-F](#), Part IV, to establish the rolling pattern. Thoroughly moisten the roller drums with a soap and water solution to prevent adhesion. Use only water or an approved release agent on rollers, tamps, and other compaction equipment unless otherwise directed.

Use tamps to thoroughly compact the edges of the pavement along curbs, headers, and similar structures and in locations that will not allow thorough compaction with rollers. The Engineer may require rolling with a trench roller on widened areas, in trenches, and in other limited areas.

Use [Tex-246-F](#) to measure water flow to verify the mixture is adequately compacted. Measure the water flow once per subplot at locations directed by the Engineer. Take additional water flow measurements when the minimum temperature of the uncompacted mat is below the temperature requirements in accordance with Table 12.

Table 12
Minimum Uncompacted Mat Temperature Requiring Additional Water Flow Measurements

High-Temperature Binder Grade ¹	Min Temperature of the Uncompacted Mat Allowed Before Initial Break Down Rolling ^{2,3}
PG 76	<270°F

1. The high-temperature binder grade refers to the high-temperature grade of the virgin asphalt binder used to produce the mixture.
2. The surface of the uncompacted mat must be measured using a hand-held thermometer or infrared thermometer.
3. Minimum uncompacted mat temperature requiring a water flow measurement may be reduced 10°F if using a compaction aid.

Use [Tex-246-F](#) to measure water flow to verify the mixture is adequately compacted at confined longitudinal joints as directed by the Engineer.

The water flow rate should be greater than 120 sec. Investigate the cause of the water flow rate test failures and take corrective actions during production and placement to ensure the water flow rate is greater than 120 sec. Suspend production if two consecutive water flow rate tests fail unless otherwise approved. Resume production after the Engineer approves changes to production or placement methods.

Complete all compaction operations before the pavement temperature drops below 180°F unless otherwise allowed. The Engineer may allow compaction with a light finish roller operated in static mode for pavement temperatures below 180°F when approved.

Allow the compacted pavement to cool to 160°F or lower before opening to traffic unless otherwise directed. Sprinkle the finished mat with water or limewater, when directed, to expedite opening the roadway to traffic.

4.9.

Acceptance Plan. Sample and test the hot-mix asphalt on a lot and subplot basis.

4.9.1.

Referee Testing. The Materials and Tests Division is the referee laboratory. The Contractor may request referee testing if the differences between Contractor and Engineer test results exceed the maximum allowable difference in accordance with Table 8 and the differences cannot be resolved. The Contractor may also request referee testing if the Engineer's test results require suspension of production and the Contractor's test results are within specification limits. Make the request within five working days after receiving test results from the Engineer. Referee tests will be performed only on the subplot in question and only for the particular tests in question. Allow 10 working days from the time the referee laboratory receives the samples for test results to be reported. The Department may require the Contractor to reimburse the Department for referee tests if more than three referee tests per project are required and the Engineer's test results are closer to the referee test results than the Contractor's test results.

The Materials and Tests Division will determine the laboratory-molded density based on the molded specific gravity and the maximum theoretical specific gravity of the referee sample.

4.9.2. **Production Acceptance.**

4.9.2.1. **Production Lot.** A production lot consists of four equal sublots. The default quantity for Lot 1 is 500 ton; however, when requested by the Contractor, the Engineer may increase the quantity for Lot 1 to no more than 2,000 ton. The Engineer will select subsequent lot sizes based on the anticipated daily production such that approximately three to four sublots are produced each day. The lot size will be between 500 ton and 2,000 ton. The Engineer may change the lot size before the Contractor begins any lot.

4.9.2.1.1. **Incomplete Production Lots.** If a lot is begun but cannot be completed, such as on the last day of production or in other circumstances deemed appropriate, the Engineer may close the lot. Close all lots within five working days unless otherwise allowed.

4.9.2.2. **Production Sampling.**

4.9.2.2.1. **Mixture Sampling.** Obtain hot-mix samples from trucks at the plant in accordance with [Tex-222-F](#). The sampler will split each sample into three equal portions in accordance with [Tex-200-F](#) and label these portions as "Contractor," "Engineer," and "Referee." The Engineer will perform or witness the sample splitting and take immediate possession of the samples labeled "Engineer" and "Referee." The Engineer will maintain the custody of the samples labeled "Engineer" and "Referee" until the Department's testing is completed.

4.9.2.2.1.1. **Random Sample.** At the beginning of the project, the Engineer will select random numbers for all production sublots. Determine sample locations in accordance with [Tex-225-F](#). Take one sample for each subplot at the randomly selected location. The Engineer will perform or witness the sampling of production sublots.

4.9.2.2.1.2. **Blind Sample.** For one subplot per lot, the Engineer will obtain and test a "blind" sample instead of the random sample collected by the Contractor. Test either the "blind" or the random sample; however, referee testing (if applicable) will be based on a comparison of results from the "blind" sample. The location of the Engineer's "blind" sample will not be disclosed to the Contractor. The Engineer's "blind" sample may be randomly selected in accordance with [Tex-225-F](#) for any subplot or selected at the discretion of the Engineer. The Engineer will use the Contractor's split sample for sublots not sampled by the Engineer.

4.9.2.2.2. **Informational Methylene Blue Testing.** During the project and at random, obtain and provide the Engineer with approximately 50 lb. of each fine aggregate and approximately 20 lb. of all mineral fillers used to produce the mixture. Label the samples with the Control Section Job (CSJ), mixture type, and approximate lot and subplot number corresponding to when the sample was taken. The Engineer will ship the samples to the Materials and Tests Division for Methylene Blue testing in accordance with [Tex-252-F](#). Results from these tests will not be used for specification compliance.

4.9.2.2.3. **Asphalt Binder Sampling.** Obtain a 1-qt. sample of the asphalt binder witnessed by the Engineer for each lot of mixture produced. The Contractor will notify the Engineer when the sampling will occur. Obtain the sample at approximately the same time the mixture random sample is obtained. Sample from a port located immediately upstream from the mixing drum or pug mill and upstream from the introduction of any additives in accordance with [Tex-500-C](#), Part II. Label the can with the corresponding lot and subplot numbers, producer, producer facility location, grade, district, date sampled, and project information including highway and CSJ. The Engineer will retain these samples for one year. The Engineer may also obtain independent samples. If obtaining an independent asphalt binder sample and upon request of the Contractor, the Engineer will split a sample of the asphalt binder with the Contractor.

At least once per project, the Engineer will collect split samples of each binder grade and source used. The Engineer will submit one split sample to the Materials and Tests Division to verify compliance with Item 300, "Asphalts, Oils, and Emulsions," and will retain the other split sample for 1 yr.

4.9.2.3. **Production Testing.** The Contractor and Engineer must perform production tests in accordance with Table 13. The Contractor has the option to verify the Engineer's test results on split samples provided by the Engineer. Determine compliance with operational tolerances listed in accordance with Table 8 for all sublots. Take immediate corrective action if the Engineer's laboratory-molded density on any subplot is less than 95.0% or greater than 98.0% when using the SGC or less than 96.5% or greater than 98.5% when using the TGC, to bring

the mixture within these tolerances. The Engineer may suspend operations if the Contractor's corrective actions do not produce acceptable results. The Engineer will allow production to resume when the proposed corrective action is likely to yield acceptable results.

The Engineer may allow alternate methods for determining the asphalt binder content and aggregate gradation if the aggregate mineralogy is such that [Tex-236-F](#), Part I does not yield reliable results. Provide evidence that results from [Tex-236-F](#), Part I are not reliable before requesting permission to use an alternate method unless otherwise directed. Use the applicable test procedure as directed if an alternate test method is allowed.

Table 13
Production and Placement Testing Frequency

Description	Test Method	Min Contractor Testing	Min Engineer Testing
Individual % retained for #8 sieve and larger	Tex-200-F or Tex-236-F	1 per subplot	1 per 12 sublots ¹
Individual % retained for sieves smaller than #8 and larger than #200			
% passing the #200 sieve			
Laboratory-molded density	Tex-207-F Tex-204-F	N/A	1 per subplot ¹
Laboratory-molded bulk specific gravity			
VMA			
Moisture content	Tex-212-F , Part II	When directed	
Theoretical maximum specific (Rice) gravity	Tex-227-F , Part II	N/A	1 per subplot ¹
Asphalt binder content ²	Tex-236-F , Part I	1 per subplot	1 per lot ¹
Overlay test ³	Tex-248-F	N/A	1 per project
Hamburg Wheel test	Tex-242-F	N/A	1 per project
Thermal profile	Tex-244-F	1 per subplot ^{4,5,6}	1 per project ⁵
Asphalt binder sampling and testing	Tex-500-C , Part II	1 per lot (sample only) ⁷	1 per project
Tack coat sampling and testing	Tex-500-C , Part III	N/A	1 per project
Boil test ⁸	Tex-530-C	1 per subplot ⁹	1 per project
Water flow	Tex-246-F		
Methylene blue test ¹⁰	Tex-252-F	1 per project (sample only)	

1. For production defined in Section 3081.4.9.4., "Exempt Production," the Engineer will test one per day if 100 ton or more are produced. For Exempt Production, no testing is required with less than 100 ton are produced.
2. May be obtained from asphalt flow meter readout as determined by the Engineer.
3. Testing performed by the Materials and Tests Division on sample obtained from Lot 2 or higher.
4. To be performed in the presence of the Engineer when a thermal camera is used, unless otherwise approved.
5. Not required when a thermal imaging system is used.
6. When using the thermal imaging system, the test report must include the temperature measurements taken in accordance with [Tex-244-F](#).
7. Obtain samples witnessed by the Engineer. The Engineer will retain these samples for 1 yr.
8. When shown on the plans.
9. To be performed in the presence of the Engineer, unless otherwise directed.
10. Testing performed by the Materials and Tests Division for informational purposes only.

4.9.2.4. **Operational Tolerances.** Control the production process within the operational tolerances in accordance with Table 8. When production is suspended, the Engineer will allow production to resume when test results or other information indicates the next mixture produced will be within the operational tolerances.

4.9.2.4.1. **Gradation.** Suspend operation and take corrective action if any aggregate is retained on the maximum sieve size in accordance with Table 6. A subplot is defined as out of tolerance if either the Engineer's or the Contractor's test results are out of operational tolerance. Suspend production when test results for gradation exceed the operational tolerances in accordance with Table 8 for three consecutive sublots on the same sieve or four consecutive sublots on any sieve unless otherwise directed. The consecutive sublots may be from more than one lot.

4.9.2.4.2. **Asphalt Binder Content.** A subplot is defined as out of operational tolerance if either the Engineer's or the Contractor's test results exceed the values in accordance with Table 8. Suspend production when two or

more sublots within a lot are out of operational tolerance or below the minimum asphalt binder content specified in accordance with Table 6 unless otherwise directed. Suspend production and shipment of mixture if the Engineer's or Contractor's asphalt binder content deviates from the current JMF by more than 0.5% for any subplot or is less than the minimum asphalt content allowed in accordance with Table 6.

- 4.9.2.4.3. **Voids in Mineral Aggregates (VMA).** The Engineer will determine the VMA for every subplot. For sublots when the Engineer does not determine asphalt binder content, the Engineer will use the asphalt binder content results from QC testing performed by the Contractor to determine VMA.

Take immediate corrective action if the VMA value for any subplot is less than the minimum VMA requirement for production in accordance with Table 6. Suspend production and shipment of the mixture if the Engineer's VMA results on two consecutive sublots are below the minimum VMA requirement for production in accordance with Table 6.

Suspend production and shipment of the mixture if the Engineer's VMA result is more than 0.5% below the minimum VMA requirement for production in accordance with Table 6. In addition to suspending production, the Engineer may require removal and replacement or may allow the subplot to be left in place without payment.

- 4.9.2.4.4. **Hamburg Wheel.** The Engineer may perform a Hamburg Wheel on plant produced mixture at any time during production. In addition to testing production samples, the Engineer may obtain cores and perform the Hamburg Wheel test on any area of the roadway where rutting is observed. Suspend production until further Hamburg Wheel meet the specified values when the production or core samples fail to meet the Hamburg Wheel criteria in accordance with Table 7. Core samples, if taken, will be obtained from the center of the finished mat or other areas excluding the vehicle wheel paths. The Engineer may require up to the entire subplot of any mixture failing the Hamburg Wheel to be removed and replaced at the Contractor's expense.

If the Department's or Department-approved laboratory's Hamburg Wheel test results in a "remove and replace" condition, the Contractor may request that the Department confirm the results by re-testing the failing material. The Materials and Tests Division will perform the Hamburg Wheel and determine the final disposition of the material in question based on the Department's test results.

- 4.9.2.5. **Individual Loads of Hot-Mix.** The Engineer can reject individual truckloads of hot-mix. When a load of hot-mix is rejected for reasons other than temperature, contamination, or excessive uncoated particles, the Contractor may request that the rejected load be tested. Make this request within 4 hr. of rejection. The Engineer will sample and test the mixture. If test results are within the operational tolerances in accordance with Table 8, payment will be made for the load. If test results are not within operational tolerances, no payment will be made for the load.

- 4.9.3. **Placement Acceptance.**

- 4.9.3.1. **Placement Lot.** A placement lot consists of four placement sublots. A placement subplot consists of the area placed during a production subplot.

- 4.9.3.1.1. **Recovered Asphalt Dynamic Shear Rheometer (DSR).** The Engineer may take production samples or cores from suspect areas of the project to determine recovered asphalt properties. Asphalt binders with an aging ratio greater than 3.5 do not meet the requirements for recovered asphalt properties and may be deemed defective when tested and evaluated by the Materials and Tests Division. The aging ratio is the DSR value of the extracted binder divided by the DSR value of the original unaged binder. Obtain DSR values in accordance with AASHTO T 315 at the specified high temperature performance grade of the asphalt. The Engineer may require removal and replacement of the defective material at the Contractor's expense. The asphalt binder will be recovered for testing from production samples or cores in accordance with [Tex-211-F](#).

- 4.9.3.1.2. **Irregularities.** Identify and correct irregularities including segregation, rutting, raveling, flushing, fat spots, mat slippage, irregular color, irregular texture, roller marks, tears, gouges, streaks, uncoated aggregate particles, or broken aggregate particles. The Engineer may also identify irregularities, and in such cases, the Engineer will promptly notify the Contractor. The Engineer may require the Contractor to remove and replace (at the

Contractor's expense) areas of the pavement that contain irregularities if the Engineer determines that the irregularity will adversely affect pavement performance. The Engineer may also require the Contractor to remove and replace (at the Contractor's expense) areas where the mixture does not bond to the existing pavement.

The Engineer may require the Contractor to immediately suspend operations if irregularities are detected or may allow the Contractor to continue operations for no more than one day while the Contractor is taking appropriate corrective action.

4.9.4. **Exempt Production.** When the anticipated daily production is less than 100 ton, all QC and QA sampling and testing are waived. The Engineer may deem the mixture as exempt production for the following conditions:

- anticipated daily production is more than 100 ton but less than 250 ton;
- total production for the project is less than 2,500 ton;
- when mutually agreed between the Engineer and the Contractor; or
- when shown on the plans.

For exempt production, the Contractor is relieved of all production and placement sampling and testing requirements. All other specification requirements apply, and the Engineer will perform acceptance tests for production and placement in accordance with Table 13.

For exempt production:

- produce, haul, place, and compact the mixture as directed by the Engineer; and
- control mixture production to yield a laboratory-molded density that is within $\pm 1.0\%$ of the target density as tested by the Engineer.

4.9.5. **Ride Quality.** Measure ride quality in accordance with Item 585, "Ride Quality for Pavement Surfaces," unless otherwise shown on the plans.

5. MEASUREMENT

5.1. **TOM Hot-Mix Asphalt.** TOM hot-mix will be measured by the ton of composite mixture, which includes asphalt, aggregate, and additives. Measure the weight on scales in accordance with Item 520, "Weighing and Measuring Equipment."

5.2. **Tack Coat.** Tack coat will be measured at the applied temperature by strapping the tank before and after road application and determining the net volume in gallons from the calibrated distributor. The Engineer will witness all strapping operations for volume determination. All tack, including emulsions, will be measured by the gallon applied.

The Engineer may allow the use of a metering device to determine asphalt volume used and application rate if the device is accurate within 1.5% of the strapped volume.

6. PAYMENT

The work performed and materials furnished in accordance with this Item and measured as provided under Section 3081.5.1., "TOM Hot-Mix Asphalt," will be paid for at the unit bid price for "Thin Overlay Mixture" of the mixture type, SAC, and binder specified. These prices are full compensation for surface preparation, removing pavement marking and markers, materials, placement, equipment, labor, tools, and incidentals.

The work performed and materials furnished in accordance with this Item and measured as provided under Section 3081.5.2., "Tack Coat," will be paid for at the unit bid price for "Tack Coat" of the tack coat provided. These prices are full compensation for materials, placement, equipment, labor, tools, and incidentals.

Trial batches will not be paid for unless they are included in pavement work approved by the Department.

Payment adjustment for ride quality will be determined in accordance with Item 585, "Ride Quality for Pavement Surfaces."

Special Specification 3084

Bonding Course

1.	DESCRIPTION
	Construct a bonding course where improved bonding is needed using a Tracking-Resistant Asphalt Interlayer (TRAIL) or a Spray Applied Underseal Membrane, applied before the placement of a new hot-mix asphalt concrete pavement.
2.	MATERIALS
2.1.	Furnish the materials for one of the following two options:
2.1.1.	TRAIL. Furnish asphalt material described as “tack” for typical use in the TRAIL Material Producer List. Do not dilute emulsified asphalts at the terminal, in the field, or at any other location before use.
2.1.2.	Spray Applied Underseal Membrane. Furnish asphalt material meeting the requirements of Special Specification 3002, “Spray Applied Underseal Membrane.” Do not dilute emulsified asphalts at the terminal, in the field, or at any other location before use.
2.2.	Furnish the material for applying tack coat to all miscellaneous contact surfaces when approved by the Engineer:
2.2.1.	Miscellaneous Tack. Furnish TRAIL asphalt, CSS-1H, SS-1H, or a PG binder with a minimum high-temperature of PG 58 for tack coat binder in accordance with Item 300, “Asphalts, Oils, and Emulsions.” Do not dilute emulsified asphalts at the terminal, in the field, or at any other location before use.
2.3.	Sampling. The Engineer will witness the collection of at least one sample of each asphalt binder per project in accordance with Tex-500-C, Part III, and test it to verify compliance with Item 300, “Asphalts, Oils, and Emulsions” or Special Specification 3002, “Spray Applied Underseal Membrane.”
3.	EQUIPMENT
3.1.	TRAIL. Provide the equipment recommended by the producer.
3.2.	Spray Applied Underseal Membrane. Provide in accordance with Special Specification 3002, “Spray Applied Underseal Membrane.”
4.	CONSTRUCTION
4.1.	Preparation. Remove existing raised pavement markers. Repair any damage incurred by removal as directed. Remove dirt, dust, or other harmful material before sealing. When shown on the plans, remove vegetation and blade pavement edges. When approved by the Engineer, apply a thin, uniform coating of Miscellaneous Tack to all miscellaneous contact surfaces such as curbs, structures, and manholes. Prevent splattering of the tack coat when placed adjacent to curb, gutter, and structures.
4.2.	Test Strips. When required by the Engineer, perform a test strip of TRAIL at a location on or near the project as directed. Allow the strip to cure for a maximum of 30 min. Drive over the test strip with equipment used during laid-down construction to simulate the effect of paving equipment. There should be no evidence of tracking or picking up of the TRAIL material on the wheels of the equipment.

- 4.3. **TRAIL.** Perform the following construction methods when applying a TRAIL for a bonding course:
- 4.3.1. **Placement.** Uniformly apply the TRAIL material to all areas where mix will be placed, including joints, at the rate shown on the plans or as directed, within 15°F of the approved temperature, and not above the maximum allowable temperature. Unless otherwise directed, uniformly apply the TRAIL material at a minimum rate specified on the plans. The Engineer may adjust the application rate, taking into consideration the existing pavement surface conditions.
- 4.4. **Spray Applied Underseal Membrane.** Place in accordance with Special Specification 3002, "Spray Applied Underseal Membrane."
- 4.4.1. **Placement.** Do not allow any loose mixture onto the prepared surface before application of the membrane. Unless otherwise directed, uniformly apply the membrane to all areas where mix will be placed, including joints, at the rate shown on the plans. Unless otherwise directed, uniformly apply the membrane at the minimum rate specified on the plans. The Engineer may adjust the application rate, taking into consideration the existing pavement surface conditions.
- 4.5. **Informational Shear Test.** Obtain one set of full depth core specimens per project in accordance with Tex-249-F within one working day of the time the lot placement is completed. The Engineer will select the core locations. Provide the cores to the Engineer in a container labeled with the Control-Section-Job (CSJ) and lot number. The district will determine the shear bond strength between the two bonded pavement layers in accordance with Tex-249-F. Results from these tests will not be used for specification compliance.
- 4.6. **Quality Control.** Stop application if it is not uniform due to streaking, ridging, pooling, or flowing off the roadway surface. Verify equipment condition, operating procedures, application temperature, and material properties. Determine and correct the cause of non-uniform application.
- The Engineer may perform independent tests to confirm contractor compliance and may require testing differences or failing results to be resolved before resuming production.
- The Engineer may stop the application and require construction of test strips at the Contractor's expense if any of the following occurs:
- Non-uniformity of application continues after corrective action;
 - Evidence of tracking or picking up of the TRAIL;
 - In 3 consecutive shots, application rate differs by more than 0.02 gal. per square yard from the rate directed; or
 - Any shot differs by more than 0.04 gal. per square yard from the rate directed.
- The Engineer will approve the test strip location. The Engineer may require additional test strips until surface treatment application meets specification requirements.

5. MEASUREMENT

- 5.1. **Volume.** The asphalt material, including all components, will be measured at the applied temperature by strapping the tank before and after road application and determining the net volume from the calibrated distributor. The Engineer will witness all strapping operations for volume determination. All asphalt material, including emulsions, will be measured by the gallon applied.
- The Engineer may allow the use of a metering device to determine the asphalt volume used and application rate if the device is accurate to within 1.5% of the strapped volume.

6. PAYMENT

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit bid price for "Bonding Course." These prices are full compensation

for all materials, Miscellaneous Tack used for miscellaneous contact surfaces, equipment, labor, tools, and incidentals necessary to complete the work.

Special Specification 3085

Underseal Course

1.	DESCRIPTION
	Construct an underseal course where sealing of the underlying surface is needed using a Tracking-Resistant Asphalt Interlayer (TRAIL), a Spray Applied Underseal Membrane, or a single layer of Seal Coat, applied before the placement of a new hot-mix asphalt concrete pavement.
2.	MATERIALS
2.1.	Furnish the materials for one of the following three options:
2.1.1.	TRAIL. Furnish asphalt material described as "seal" for typical use in the TRAIL Material Producer List.
2.1.2.	Spray Applied Underseal Membrane. Furnish asphalt material meeting the requirements of Special Specification 3002, "Spray Applied Underseal Membrane." Do not dilute emulsified asphalts at the terminal, in the field, or at any other location before use.
2.1.3.	Seal Coat. Furnish asphalt and aggregate materials meeting the requirements of Item 316, "Seal Coat." Use a polymer modified asphalt or emulsion and aggregate as shown on the plans. Do not dilute emulsified asphalts at the terminal, in the field, or at any other location before use.
2.2.	Furnish the material for applying tack coat to all miscellaneous contact surfaces when approved by the Engineer:
2.2.1.	Miscellaneous Tack. Furnish TRAIL asphalt, CSS-1H, SS-1H, or a PG binder with a minimum high-temperature of PG 58 for tack coat binder in accordance with Item 300, "Asphalts, Oils, and Emulsions." Do not dilute emulsified asphalts at the terminal, in the field, or at any other location before use.
2.3.	Sampling. The Engineer will witness the collection of at least one sample of each asphalt binder per project in accordance with Tex-500-C, Part III, and test it to verify compliance with Item 300, "Asphalts, Oils, and Emulsions" or Special Specification 3002, "Spray Applied Underseal Membrane."
	The Engineer will sample and test the type and grade of the aggregate as shown on the plans at the frequency listed in the Department's <i>Guide Schedule of Sampling and Testing</i> in accordance with Item 302, "Aggregates for Surface Treatments."
3.	EQUIPMENT
3.1.	TRAIL. Provide the equipment recommend by the producer.
3.2.	Spray Applied Underseal Membrane. Provide in accordance with Special Specification 3002, "Spray Applied Underseal Membrane."
3.3.	Seal Coat. Provide in accordance with Item 316, "Seal Coat."
4.	CONSTRUCTION
4.1.	Preparation. Remove existing raised pavement markers. Repair any damage incurred by removal as directed. Remove dirt, dust, or other harmful material before sealing. When shown on the plans, remove

vegetation and blade pavement edges. When approved by the Engineer, apply a thin, uniform coating of Miscellaneous Tack to all miscellaneous contact surfaces such as curbs, structures, and manholes. Prevent splattering of the tack coat when placed adjacent to curb, gutter, and structures.

- 4.2. **TRAIL.** Perform the following construction methods when applying a TRAIL for an underseal course:
 - 4.2.1. **Placement.** Uniformly apply the TRAIL material to all areas where mix will be placed, including joints, at the rate shown on the plans or as directed, within 15°F of the approved temperature, and not above the maximum allowable temperature. Unless otherwise directed, uniformly apply the TRAIL material at the minimum rate specified on the plans. The Engineer may adjust the application rate taking into consideration the existing pavement surface conditions.
- 4.3. **Spray Applied Underseal Membrane.** Place in accordance with Special Specification 3002, "Spray Applied Underseal Membrane."
 - 4.3.1. **Placement.** Do not allow any loose mixture onto the prepared surface before application of the membrane. Unless otherwise directed, uniformly apply the membrane to all areas where mix will be placed, including joints, at the rate shown on the plans. Unless otherwise directed, uniformly apply the membrane at the minimum rate specified on the plans. The Engineer may adjust the application rate, taking into consideration the existing pavement surface conditions.
- 4.4. **Seal Coat.** Place in accordance with Item 316, "Seal Coat."
 - 4.4.1. **Placement.** Unless otherwise directed, apply the asphalt material and aggregate at the minimum rate shown on the plans. The Engineer may adjust the application rate, taking into consideration the existing pavement surface conditions.
- 4.5. **Informational Shear Test.** Obtain one set of full depth core specimens per project in accordance with Tex-249-F within one working day of the time the lot placement is completed. The Engineer will select the core locations. Provide the cores to the Engineer in a container labeled with the Control-Section-Job (CSJ) and lot number. The district will determine the shear bond strength between the two bonded pavement layers in accordance with Tex-249-F. Results from these tests will not be used for specification compliance.
- 4.6. **Nonuniform Application.** Stop application if it is not uniform due to streaking, ridging, pooling, or flowing off the roadway surface. Verify equipment condition, operating procedures, application temperature, and material properties. Determine and correct the cause of non-uniform application.
- 4.7. **Test Strips.** The Engineer may perform independent tests to confirm contractor compliance and may require testing differences or failing results to be resolved before resuming production.

The Engineer may stop the application and require construction of test strips at the Contractor's expense if any of the following occurs:

- Non-uniformity of application continues after corrective action;
- Evidence of tracking or picking up of the TRAIL;
- In 3 consecutive shots, application rate differs by more than 0.03 gal. per square yard from the rate directed; or
- Any shot differs by more than 0.05 gal. per square yard from the rate directed.

The Engineer will approve the test strip location. The Engineer may require additional test strips until surface treatment application meets specification requirements.

5. MEASUREMENT

5.1. Asphalt Material.

- 5.1.1. **Volume.** The asphalt material, including all components, will be measured at the applied temperature by strapping the tank before and after road application and determining the net volume from the calibrated distributor. The Engineer will witness all strapping operations for volume determination. All asphalt material, including emulsions, will be measured by the gallon applied.

The Engineer may allow the use of a metering device to determine the asphalt volume used and application rate if the device is accurate to within 1.5% of the strapped volume.

- 5.2. **Aggregate.** The work performed, materials furnished, equipment, labor, tools, and incidentals will not be paid for directly but will be subsidiary.
- 5.3. **Quantity Adjustments.** Quantity based price adjustment factors are not applicable to compensate for over and under runs resulting from the method chosen.

6. PAYMENT

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Underseal Course." These prices are full compensation for surface preparation; furnishing, preparing, hauling, Miscellaneous Tack used for all miscellaneous contact surfaces, and placing materials; removing existing pavement markers and excess aggregate; rolling; cleaning up stockpiles; and equipment, labor, tools, and incidentals.

Special Provision to Special Specification 3096

Asphalts, Oils, and Emulsions



Special Specification 3096, "Asphalt, Oils, and Emulsions," is amended with respect to the clause cited below. No other clause or requirements of this Item are waived or changed.

Section 3096.2.10, "Performance-Graded Binders." Table 17 is supplemented by the following:

Table 17A High Performance-Graded (HPG) Binder	
Test Method and Property	HPG
Original Binder	
Flash Point, AASHTO T 48, Min. °C	230
Viscosity, AASHTO T 316, Max. 5.0 Pa-s, test temperature, °C ¹	135
Polymer Separation, Tex-540-C, Max. %	4.0
Polymer Content, Tex-533-C ² , Min. %	7.5
Rolling Thin-Film Oven (AASHTO T 240)	
Mass Change, AASHTO T 240, Max. %	1.0
Multiple Stress Creep Recovery, AASHTO T 350: Jnr, at 3.2 kPa, Max. 0.10 kPa ⁻¹ , % Recovery, at 3.2 kPa, Min. 90.0%, Test temperature, °C	76
Pressure Aging Vessel (PAV) Residue (AASHTO R 28)	
PAV aging temperature, °C	100
Dynamic shear, AASHTO 315: G* sin(δ), Max. 4,000 kPa Test temperature @ 10 rad/sec., °C	25
Bending Beam, AASHTO T 313 ³ : S @ 60 sec, Max. 300 MPa, m-value @ 60 sec, Min. 0.300, Test temperature, °C	-18

1. This requirement may be waived at the Department's discretion if the supplier warrants that the asphalt binder can be adequately pumped, mixed, and compacted at temperatures that meet all applicable safety, environmental, and constructability requirements.
2. In Tex-533-C, the SBS peak is changed to 699 cm⁻¹, representing the polystyrene band.
3. Silicone beam molds, as described in AASHTO T313, are acceptable for use.

Special Provision to Special Specification 3096

Asphalts, Oils, and Emulsions



Special Specification 3096, "Asphalts, Oils, and Emulsions," is amended with respect to the clause cited below. No other clause or requirements of this Item are waived or changed.

Section 2.4., "Emulsified Asphalt," Table 7 is supplemented by the following.

Table 7A
Surface Performance-Grade Emulsified Asphalt

Grade	Test Procedure	HFRS-2(SPG xy) ¹		CRS-2(SPG xy)		CHFRS-2(SPG xy)	
		Min	Max	Min	Max	Min	Max
Tests on emulsions:							
Viscosity, Saybolt Furol at 50°C, SFs ²	T 72	150	400	150	400	150	400
Storage stability test, 24 h., % ²	T 59		1		1		1
Demulsibility, 35 mL, 0.02 N CaCl ₂ , %	T 59	60					
Demulsibility, 35 mL, 0.8% dioctyl sodium sulfosuccinate, %	T 59			60		60	
Particle charge test	T 59			positive		positive	
Sieve test, % ²	T 59		0.10		0.10		0.10
Residue recovery	PP 72, Procedure B						
Residue, %		65		65		65	
Tests on recovered residue:							
Residue properties		Meet the SPG in Table 17A, except the Max phase angle is 84 ³					
Solubility in trichloroethylene, %	T 44	97.5		97.5			
Float test, 60°C, sec. ⁴	T 50	1,200				1,200	

1. X is the average 7-day maximum pavement surface design temperature, and y is the minimum pavement surface design temperature used in Table 17A.
2. This test requirement on representative samples is waived if successful application of the material has been achieved in the field.
3. Meet original performance properties and PAV residue requirements only
4. If float test is less than 1,200 sec. using PP 72, Procedure B, for residue recovery, then use T 59 for residue recovery.

Section 2.10., “Performance-Graded Binders,” is supplemented by the following.

Table 17B
Surface Performance Grade (SPG) Specification

Surface Performance Grade	SPG 67				SPG 73				SPG 79			
	-13	-19	-25	-31	-13	-19	-25	-31	-13	-19	-25	-31
Average 7-day Max pavement surface design temperature ¹ , °C	< 67				< 73				< 79			
Min pavement surface design temperature ¹ , °C	> -13	> -19	> -25	> -31	> -13	> -19	> -25	> -31	> -13	> -19	> -25	> -31
Original Binder												
Flash point temp, T 48, Min, °C	230											
Viscosity, T 316 ² : Max 0.15 Pa*s, test temp., °C	205											
Original Performance Properties												
Dynamic Shear, T 315: G*/sinδ, Min 0.65 kPa, Test temp @ 10 rad/s, °C	67				73				79			
Phase angle ³ (δ), Max, @ temp. where G*/sinδ = 0.65 kPa	–	80	80	80	80	80	80	80	80	80	80	80
Pressure Aging Vessel (PAV) Residue (R 28)												
PAV aging temperature, °C	100				100				100			
Creep stiffness, T 313: S, Max 500 MPa, Test temp. @ 8 sec., °C	-13	-19	-25	-31	-13	-19	-25	-31	-13	-19	-25	-31

1. Temperatures are at the surface of the pavement structure. These may be determined from experience or may be estimated using equations developed by SHRP or LTPP but modified to represent surface temperatures. Surface-grade high temperatures are generally 3°C to 4°C greater than those determined for Superpave PG binders.
2. The referee method will be AASHTO T 316 using a #21 spindle at 50 r/min, however alternate methods may be used for routine testing and quality assurance.
3. Phase angle is determined at the temperature where G*/sin δ = 0.65 kPa. For routine testing and quality assurance, the phase angle can be interpolated from testing at two temperatures, one above and one below where G*/sin δ = 0.65 kPa.

Special Specification 6001

Portable Changeable Message Sign



1. DESCRIPTION

Furnish, operate, and maintain portable trailer mounted changeable message sign (PCMS) units.

2. MATERIALS

Furnish new or used material in accordance with the requirements of this Item and the details shown on the plans. Provide a self-contained PCMS unit with the following:

- Sign controller
- Changeable Message Sign
- Trailer
- Power source

Paint the exterior surfaces of the power supply housing, supports, trailer, and sign with Federal Orange No. 22246 or Federal Yellow No. 13538 of Federal Standard 595C, except paint the sign face assembly flat black.

2.1. **Sign Controller.** Provide a controller with permanent storage of a minimum of 75 pre-programmed messages. Provide an external input device for random programming and storage of a minimum of 75 additional messages. Provide a controller capable of displaying up to 3 messages sequentially. Provide a controller with adjustable display rates. Enclose sign controller equipment in a lockable enclosure.

2.2. **Changeable Message Sign.** Provide a sign capable of being elevated to at least 7 ft. above the roadway surface from the bottom of the sign. Provide a sign capable of being rotated 360° and secured against movement in any position.

Provide a sign with 3 separate lines of text and 8 characters per line minimum. Provide a minimum 18 in. character height. Provide a 5 × 7 character pixel matrix. Provide a message legibility distance of 600 ft. for nighttime conditions and 800 ft. for normal daylight conditions. Provide for manual and automatic dimming light sources.

The following are descriptions for 3 screen types of PCMS:

- **Character Modular Matrix.** This screen type comprises of character blocks.
- **Continuous Line Matrix.** This screen type uses proportionally spaced fonts for each line of text.
- **Full Matrix.** This screen type uses proportionally spaced fonts, varies the height of characters, and displays simple graphics on the entire sign.

2.3. **Trailer.** Provide a 2 wheel trailer with square top fenders, 4 leveling jacks, and trailer lights. Do not exceed an overall trailer width of 96 in. Shock mount the electronics and sign assembly.

2.4. **Power Source.** Provide a diesel generator, solar powered power source, or both. Provide a backup power source as necessary.

2.5. **Cellular Telephone.** When shown on the plans, provide a cellular telephone connection to communicate with the PCMS unit remotely.

3. CONSTRUCTION

Place or relocate PCMS units as shown on the plans or as directed. The plans will show the number of PCMS units needed, for how many days, and for which construction phases.

Maintain the PCMS units in good working condition. Repair damaged or malfunctioning PCMS units as soon as possible. PCMS units will remain the property of the Contractor.

4. MEASUREMENT

This Item will be measured by each PCMS or by the day used. All PCMS units must be set up on a work area and operational before a calendar day can be considered measurable. When measurement by the day is specified, a day will be measured for each PCMS set up and operational on the worksite.

5. PAYMENT

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Portable Changeable Message Sign." This price is full compensation for PCMS units; set up; relocating; removing; replacement parts; batteries (when required); fuel, oil, and oil filters (when required); cellular telephone charges (when required); software; and equipment, materials, tools, labor, and incidentals.

Special Specification 6185

Truck Mounted Attenuator (TMA) and Trailer Attenuator (TA)



1. DESCRIPTION

Furnish, operate, maintain and remove upon completion of work, Truck Mounted Attenuator (TMA) or Trailer Attenuator (TA).

2. MATERIALS

Furnish, operate and maintain new or used TMAs or TAs. Assure used attenuators are in good working condition and are approved for use. A list of approved TMA/TA units can be found in the Department's Compliant Work Zone Traffic Control Devices List. The host vehicle for the TMA and TA must weigh a minimum of 19,000 lbs. Host vehicles may be ballasted to achieve the required weight. Any weight added to the host vehicle must be properly attached or contained within it so that it does not present a hazard and that proper energy dissipation occurs if the attenuator is impacted from behind by a large truck. The weight of a TA will not be considered in the weight of the host vehicle but the weight of a TMA may be included in the weight of the host vehicle. Upon request, provide either a manufacturer's curb weight or a certified scales weight ticket to the Engineer.

3. CONSTRUCTION

Place or relocate TMA/TAs as shown on the plans or as directed. The plans will show the number of TMA/TAs needed, for how many days or hours, and for which construction phases.

Maintain the TMA/TAs in good working condition. Replace damaged TMA/TAs as soon as possible.

4. MEASUREMENT

4.1. **Truck Mounted Attenuator/Trailer Attenuator (Stationary).** This Item will be measured by the each or by the day. TMA/TAs must be set up in a work area and operational before a calendar day can be considered measurable. When measurement by the day is specified, a day will be measured for each TMA/TA set up and operational on the worksite.

4.2. **Truck Mounted Attenuator/Trailer Attenuator (Mobile Operation).** This Item will be measured by the hour. The time begins once the TMA/TA is ready for operation at the predetermined site and stops when notified by the Engineer. A minimum of 4 hr. will be paid each day for each operating TMA/TA used in a mobile operation.

5. PAYMENT

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Truck Mounted Attenuators/Trailer Attenuators (Stationary)," or "Truck Mounted Attenuators/Trailer Attenuators (Mobile Operation)." This price is full compensation for furnishing TMA/TA: set up; relocating; removing; operating; fuel; and equipment, materials, tools, labor, and incidentals.

Special Provision to Item 000

Nondiscrimination



1. DESCRIPTION

All recipients of federal financial assistance are required to comply with various nondiscrimination laws including Title VI of the Civil Rights Act of 1964, as amended, (Title VI). Title VI forbids discrimination against anyone in the United States on the grounds of race, color, or national origin by any agency receiving federal funds.

Owner, as a recipient of Federal financial assistance, and under Title VI and related statutes, ensures that no person shall on the grounds of race, religion (where the primary objective of the financial assistance is to provide employment per 42 U.S.C. § 2000d-3), color, national origin, sex, age or disability be excluded from participation in, be denied the benefits of, or otherwise be subjected to discrimination under any of Owner's programs or activities.

2. DEFINITION OF TERMS

Where the term "contractor" appears in the following six nondiscrimination clauses, the term "contractor" is understood to include all parties to contracts or agreements with the Owner.

3. NONDISCRIMINATION PROVISIONS

During the performance of this contract, the contractor agrees as follows:

- 3.1. **Compliance with Regulations.** The Contractor shall comply with the Regulations relative to nondiscrimination in Federally-assisted programs of the Department of Transportation (hereinafter, "DOT") Title 49, Code of Federal Regulations, Part 21, as they may be amended from time to time, (hereinafter referred to as the Regulations), which are herein incorporated by reference and made a part of this contract.
- 3.2. **Nondiscrimination.** The contractor, with regard to the work performed by it during the contract, shall not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor shall not participate either directly or indirectly in the discrimination prohibited by section 21.5 of the Regulations, including employment practices when the contract covers a program set forth in Appendix B of the Regulations.
- 3.3. **Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations either by competitive bidding or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials or leases of equipment, each potential subcontractor or supplier shall be notified by the contractor of the contractor's obligations under this contract and the Regulations relative to nondiscrimination on the grounds of race, color, or national origin.
- 3.4. **Information and Reports:** The contractor shall provide all information and reports required by the Regulations or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Owner or the Texas Department of Transportation to be pertinent to ascertain compliance with such Regulations, orders and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information the contractor shall so certify to the Owner or the Texas Department of Transportation as appropriate, and shall set forth what efforts it has made to obtain the information.

- 3.5. **Sanctions for Noncompliance.** In the event of the contractor's noncompliance with the nondiscrimination provisions of this contract, the Owner shall impose such contract sanctions as it, the Owner may determine to be appropriate, including, but not limited to:
- withholding of payments to the contractor under the contract until the contractor complies, and/or
 - cancellation, termination or suspension of the contract, in whole or in part.
- 3.6. **Incorporation of Provisions.** The contractor shall include the provisions of paragraphs (3.1) through (3.6) in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations, or directives issued pursuant thereto. The contractor shall take such action with respect to any subcontract or procurement as the Owner may direct as a means of enforcing such provisions including sanctions for non-compliance: provided, however that, in the event a contractor becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the contractor may request the Owner to enter into such litigation to protect the interests of the Owner, and, in addition, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

Special Provision to Item 000

Special Labor Provisions for State Projects



1. GENERAL

This is a "Public Works" Project, as provided under Government Code Title 10, Chapter 2258, "Prevailing Wage Rates," and is subject to the provisions of the Statute. No provisions in the Contract are intended to be in conflict with the provisions of the Statute.

The Owner has ascertained and indicated in the special provisions the regular rate of per diem wages prevailing in each locality for each craft or type of worker. Apply the wage rates contained in the specifications as minimum wage rates for the Contract.

2. MINIMUM WAGES, HOURS AND CONDITIONS OF EMPLOYMENT

All workers necessary for the satisfactory completion of the work are within the purview of the Contract.

Whenever and wherever practical, give local citizens preference in the selection of labor.

Do not require any worker to lodge, board or trade at a particular place, or with a particular person as a condition of employment.

Do not charge or accept a fee of any from any person who obtains work on the project. Do not require any person who obtains work on the project to pay any fee to any other person or agency obtaining employment for the person on the project.

Do not charge for tools or equipment used in connection with the duties performed, except for loss or damage of property. Do not charge for necessary camp water.

Do not charge for any transportation furnished to any person employed on the project.

The provisions apply where work is performed by piece work, station work, etc. The minimum wage paid will be exclusive of equipment rental on any shipment which the worker or subcontractor may furnish in connection with his work.

Take responsibility for carrying out the requirements of this specification and ensure that each subcontractor working on the project complies with its provisions.

Any form of subterfuge, coercion or deduction designed to evade, reduce or discount the established minimum wage scales will be considered a violation of the Contract.

The Fair Labor Standards Acts (FLSA) established one and one-half (1-1/2) pay for overtime in excess of 40 hours worked in 1 week. Do not consider time consumed by the worker in going to and returning from the place of work as part of the hours of work. Do not require or permit any worker to work in excess of 40 hours in 1 week, unless the worker receives compensation at a rate not less than 1-1/2 times the basic rate of pay for all hours worked in excess of 40 hours in the workweek.

The general rates of per diem wages prevailing in this locality for each class and type of workers whose services are considered necessary to fulfill the Contract are indicated in the special provisions, and these rates govern as minimum wage rates on this Contract. A penalty of \$60.00 per calendar day or portion of a calendar day for each worker that is paid less than the stipulated general rates of per diem wages for any work done under the Contract will be deducted. The Owner, upon receipt of a complaint by a worker, will

determine within 30 days whether good cause exists to believe that the Contractor or a subcontractor has violated wage rate requirements and notify the parties involved of the findings. Make every effort to resolve the alleged violation within 14 days after notification. The next alternative is submittal to binding arbitration in accordance with the provisions of the Texas General Arbitration Act (Art. 224 et seq., Revised Statutes).

Notwithstanding any other provision of the Contract, covenant and agree that the Contractor and its subcontractors will pay each of their employees and contract labor engaged in any way in work under the Contract, a wage not less than what is generally known as the "federal minimum wage" as set out in 29 U.S.C. 206 as that Statute may be amended from time to time.

Pay any worker employed whose position is not listed in the Contract, a wage not less than the per diem wage rate established in the Contract for a worker whose duties are most nearly comparable.

3. **RECORD AND INSPECTIONS**

Keep copies of weekly payrolls for review. Require subcontractors to keep copies of weekly payrolls for review. Show the name, occupation, number of hours worked each day and per diem wage paid each worker together with a complete record of all deductions made from such wages. Keep records for a period of 3 years from the date of completion of the Contract.

Where the piece-work method is used, indicate on the payroll for each person involved:

- Quantity of piece work performed.
- Price paid per piece-work unit.
- Total hours employed.

The Owner may require the Contractor to file an affidavit for each payroll certifying that payroll is a true and accurate report of the full wages due and paid to each person employed.

Post or make available to employees the prevailing wage rates from the Contract. Require subcontractors to post or make available to employees the prevailing wage rates from the Contract.

Special Provision 000

Certificate of Interested Parties (Form 1295)



Submit a notarized Form 1295, "Certificate of Interested Parties," in the following instances:

- at Contract execution for Contracts awarded by the Commission;
- at Contract execution for Contracts awarded by the District Engineer or Chief Engineer with an award amount of \$1,000,000 or more; at any time an existing Contract awarded by the District Engineer or Chief Engineer increases in value to \$1,000,000 or more due to changes in the Contract; at any time there is an increase of \$1,000,000 or more to an existing Contract (change orders, extensions, and renewals); or
- at any time there is a change to the information in Form 1295, when the form was filed for an existing Contract.

Form 1295 and instructions on completing and filing the form are available on the Texas Ethics Commission website.

Special Provision to Item 247

Flexible Base



Item 247, "Flexible Base" of the Standard Specifications, is hereby amended with respect to the clauses cited below, and no other clauses or requirements of this Item are waived or changed hereby.

Section 2.4., "Certification." This section is added.

Personnel certified by the Department-approved soils and base certification program must conduct all sampling, field testing, and laboratory testing required by the following:

- Section 2.1, "Aggregate,"
- Section 2.1.3.2, "Recycled Material (Including Crushed Concrete) Requirements,"
- Section 4.3, "Compaction," for measuring flexible base depth, and
- Section 4.3.2, "Density Control," for determining the roadway density and moisture content.

Supply the Engineer with a list of certified personnel and copies of their current certificates before laboratory and field testing is performed and when personnel changes are made. At any time during the project, the Engineer may perform production tests as deemed necessary in accordance with Item 5, "Control of the Work."

Section 2.5., "Reporting and Responsibilities." This section is added.

Use Department-provided templates to record and calculate all test data. Obtain the current version of the templates at <http://www.txdot.gov/inside-txdot/forms-publications/consultants-contractors/forms/site-manager.html> or from the Engineer. The Engineer and the Contractor will provide any available test results to the other party when requested. Record and electronically submit all test results and pertinent information on Department-provided templates.

Section 2.6., "Sampling." This section is added.

The Engineer will sample flexible base from stockpiles located at the production site or at the project location in accordance with [Tex-400-A](#), Section 5.3. The Engineer will label the sample containers as "Engineer," "Contractor" or "Supplier," and "CST/M&P." Witness the sampling and take immediate possession of the sample containers labeled "Contractor" or "Supplier." The Engineer will maintain custody of the samples labeled "CST/M&P" until testing and reporting is completed.

Section 2.7., "Referee Testing." This section is added.

CST/M&P is the referee laboratory. The Contractor may request referee testing when the Engineer's test results fail to meet any of the material requirements listed in Table 1. Make the request via email within 5 working days after receiving test results from the Engineer. Submit test reports signed and sealed by a licensed professional engineer from a commercial laboratory listed on the Department's Material Producer List (MPL) of laboratories approved to perform compaction and triaxial compression testing located at <http://ftp.dot.state.tx.us/pub/txdot-info/cmd/mpl/complabs.pdf>. Submit completed test reports electronically on Department-provided templates in their original format. The referee laboratory will report test results to the Engineer within the allowable number of working days listed in Table 2 from the time the referee laboratory receives the samples. It is at the discretion of the Engineer or the referee laboratory to deny a referee request upon review of the test reports provided by the Contractor.

Table 2
Number of Allowable Working Days to Report Referee Test Results

Material Property	Test Method	Working Days
Gradation	Tex-110-E, Part I	5
Liquid Limit (Multi-Point Method)	Tex-104-E, Part I	5
Plasticity Index	Tex-106-E	5
Wet Ball Mill Value	Tex-116-E, Parts I and II	5
Wet Ball Mill, % Increase passing #40 sieve		
Compressive Strength ¹	Tex-117-E, Part II	6
Compressive Strength ²	Tex-117-E	12

1. Moisture-Density curve provided by the District
2. Moisture-Density curve determined by the referee laboratory

Section 4.6., “Ride Quality.” This section is voided and replaced by the following.

Measurement of ride quality only applies to the final travel lanes that receive a 1- or 2-course surface treatment for the final riding surface, unless otherwise shown on the plans. Measure the ride quality of the base course either before or after the application of the prime coat, as directed, and before placement of the surface treatment. Use a certified profiler operator from the Department’s MPL. When requested, furnish the Engineer documentation for the person certified to operate the profiler.

Provide all profile data to the Engineer in electronic data files within 3 days of measuring the ride quality using the format specified in [Tex-1001-S](#). The Engineer will use Department software to evaluate longitudinal profiles to determine areas requiring corrective action. Correct 0.1-mi.sections for each wheel path having an average international roughness index (IRI) value greater than 100 in. per mile to an IRI value of 100 in. per mile or less, unless otherwise shown on the plans.

Re-profile and correct sections that fail to maintain ride quality, as directed. Correct re-profiled sections until specification requirements are met, as approved. Perform this work at no additional expense to the Department.

Special Provision to Item 300 Asphalt, Oils, and Emulsions



Item 300, "Asphalt, Oils, and Emulsions" of the Standard Specifications is replaced by Special Specification [3096](#), "Asphalts, Oils, and Emulsions." All Item 300 Special Provisions are no longer available, beginning with the April 2022 letting.

Special Provision to Item 347

Thin Overlay Mixture (TOM)



Item 347, "Thin Overlay Mixture (TOM)" of the Standard Specifications is replaced by Special Specification [3081](#), "Thin Overlay Mixture (TOM)". All Item 347 Special Provisions and bid codes are no longer available, beginning with the April 2022 letting.

Special Provision to Item 302

Aggregates for Surface Treatments



Item 302, "Aggregates for Seal Coats," of the Standard Specifications, is hereby amended with respect to the clauses cited below, and no other clauses or requirements of this Item are waived or changed hereby.

Section 2.1., "Aggregate." Tables 2 and 3 are voided and replaced by the following.

Table 2
Aggregate Gradation Requirements (Cumulative % Retained¹)

Sieve	Grade								
	1	2	3S ²	Non-Lightweight	Lightweight	4S ²	4	5S ²	5
1"	-	-	-	-	-	-	-	-	-
7/8"	0-2	0	-	-	-	-	-	-	-
3/4"	20-35	0-2	0	0	0	-	-	-	-
5/8"	85-100	20-40	0-5	0-5	0-2	0	0	-	-
1/2"	-	80-100	55-85	20-40	10-25	0-5	0-5	0	0
3/8"	95-100	95-100	95-100	80-100	60-80	60-85	20-40	0-5	0-5
1/4"	-	-	-	95-100	95-100	-	-	65-85	-
#4	-	-	-	-	-	95-100	95-100	95-100	50-80
#8	99-100	99-100	99-100	98-100	98-100	98-100	98-100	98-100	98-100

1. Round test results to the nearest whole number.
2. Single-size gradation.

Table 3
Aggregate Quality Requirements

Property	Test Method	Requirement ¹	
		Minimum	Maximum
SAC	AQMP	As shown on the plans	
Deleterious Material ² , %	Tex-217-F , Part I	-	2.0
Decantation, %	Tex-406-A	-	1.5
Flakiness Index, %	Tex-224-F	-	17
Gradation	Tex-200-F , Part I	Table 2 Requirements	
Los Angeles Abrasion, %	Tex-410-A	-	35
Magnesium Sulfate Soundness, 5 Cycle, %	Tex-411-A	-	25
Micro-Deval Abrasion, %	Tex-461-A	Note 3	
Coarse Aggregate Angularity ⁴ , 2 Crushed Faces, %	Tex-460-A , Part I	85	-
Additional Requirements for Lightweight Aggregate			
Dry Loose Unit Wt., lb./cu. ft.	Tex-404-A	35	60
Pressure Slaking, %	Tex-431-A	-	6.0
Freeze-Thaw Loss, %	Tex-432-A	-	10.0
Water Absorption, 24hr., %	Tex-433-A	-	12.0

1. Material requirements are listed below, unless otherwise shown on the plans.
2. Not required for lightweight aggregate.
3. Used to estimate the magnesium sulfate soundness loss in accordance with Section 2.1.1.
4. Only required for crushed gravel.

Section 2.1.1., “Micro-Deval Abrasion,” is added.

The Engineer will perform a minimum of one Micro-Deval abrasion test in accordance with [Tex-461-A](#) for each coarse aggregate source per project that has a Rated Source Soundness Magnesium (RSSM) loss value greater than 15 as listed in the BRSQC. The Engineer may waive all Micro-Deval testing based on a satisfactory test history of the same aggregate source.

The Engineer will estimate the magnesium sulfate soundness loss for each coarse aggregate source, when tested, using the following formula.

$$Mg_{est.} = (RSSM)(MD_{act.}/RSMD)$$

where:

$Mg_{est.}$ = magnesium sulfate soundness loss

$MD_{act.}$ = actual Micro-Deval percent loss

$RSMD$ = Rated Source Micro-Deval

When the estimated magnesium sulfate soundness loss is greater than the maximum magnesium sulfate soundness loss specified, the coarse aggregate source will not be allowed for use unless otherwise approved by the Engineer. The Engineer may require additional testing before granting approval.

Section 2.2., “Precoating.” The third paragraph is voided and replaced by the following.

The Engineer retains the right to remove precoat material from aggregate samples in accordance with [Tex-210-F](#), or as recommended by the Construction Division, and test the aggregate to verify compliance with Table 2 and Table 3 requirements. Gradation testing may be performed with precoat intact.

Section 2.3., “Sampling,” is added.

Personnel who conduct sampling and witnessing of sampling must be certified by the Department-approved certification program. Supply the Engineer with a list of certified personnel and copies of their current certificates before beginning construction and when personnel changes are made. At any time during the project, the Engineer may perform production tests as deemed necessary in accordance with Item 5, “Control of the Work.”

The Engineer will sample aggregate from stockpiles located at the production site, intermediate distribution site, or project location in accordance with [Tex-221-F](#), Section 3.2.3. The Engineer will split each sample into 2 equal portions in accordance with [Tex-200-F](#), Section 3.3, and label these portions “Engineer” and “Contractor” or “Supplier.” Witness the sampling and splitting, and take immediate possession of the samples labeled “Contractor” or “Supplier”.

Section 2.4., “Reporting and Responsibilities,” is added.

The Engineer will provide test results to the Contractor and Supplier within 10 working days from the date the stockpile was sampled for sources listed on the Department’s Bituminous Rated Source Quality Catalog (BRSQC), unless otherwise directed. The Engineer will provide test results for the LA Abrasion ([Tex-410-A](#)) and Magnesium Sulfate Soundness ([Tex-411-A](#)) tests within 30 calendar days for sources not listed on the BRSQC, or for sources not meeting the requirements of Section 2.1.1., “Micro-Deval Abrasion.” The Engineer will report to the other party within 24 hours when any test result does not meet the requirements listed in Table 2 or Table 3.

Special Provision to Item 421

Hydraulic Cement Concrete



Item 421, "Hydraulic Cement Concrete" of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Article 421.2, "Materials," the second sentence of the first paragraph is voided and replaced by the following.

Provide aggregates from sources listed in the Department's Concrete Rated Source Quality Catalog (CRSQC).

Article 421.2.2, Supplementary Cementing Materials (SCM), is voided and replaced with the following.

Supplementary Cementing Materials (SCM).

- **Fly Ash.** Furnish fly ash, Modified fly ash (MFA), and Ground Bottom Ash (GBA) conforming to [DMS-4610](#), "Fly Ash."
- **Slag Cement.** Furnish Slag Cement conforming to [DMS-4620](#), "Slag Cement."
- **Silica Fume.** Furnish silica fume conforming to [DMS-4630](#), "Silica Fume."
- **Metakaolin.** Furnish metakaolin conforming to [DMS-4635](#), "Metakaolin."

Article 421.3.1.3, "Agitators and Truck and Stationary Mixers," the first paragraph is voided and replaced by the following.

Provide stationary and truck mixers capable of combining the ingredients of the concrete into a thoroughly mixed and uniform mass and capable of discharging the concrete so that the requirements of Tex-472-A are met.

Article 421.3.1.3, "Agitators and Truck and Stationary Mixers," is supplemented with the following.

Truck mixers with automated water and chemical admixture measurement and slump and slump flow monitoring equipment meeting the requirement of ASTM C 94 will be allowed. Provide data every 6 mo. substantiating the accuracy of slump, slump flow, temperature, water, and chemical admixture measurements. The slump measured by the automated system must be within 1 in. of the slump measured in accordance with Tex-415-A. The concrete temperature measured by the automated system must be within 1°F of concrete temperature measured in accordance with Tex-422-A. The Engineer will not use the automated measurements for acceptance.

Article 421.4.2, “Mix Design Proportioning,” Table 8 is voided and replaced by the following.

Table 8
Concrete Classes

Class of Concrete	Design Strength, ¹ Min f'_c (psi)	Max w/cm Ratio	Coarse Aggregate Grades ^{2,3,4}	Cement Types	Mix Design Options	Exceptions to Mix Design Options	General Usage ⁵
A	3,000	0.60	1–4, 8	I, II, I/II, IL, IP, IS, IT, V	1, 2, 4, & 7	When the cementitious material content does not exceed 520 lb./cu. yd., any fly ash listed in the MPL may be used at a cement replacement of 20% to 50%.	Curb, gutter, curb & gutter, conc. retards, sidewalks, driveways, back-up walls, anchors, non-reinforced drilled shafts
B	2,000	0.60	2–7				Riprap, traffic signal controller foundations, small roadside signs, and anchors
C ⁶	3,600	0.45	1–6	I, II, I/II, IP, IL, IS, IT, V	1–8		Drilled shafts, bridge substructure, bridge railing, culverts except top slab of direct traffic culverts, headwalls, wing walls, inlets, manholes, concrete traffic barrier
E	3,000	0.50	2–5	I, II, I/II, IL, IP, IS, IT, V	1–8	When the cementitious material content does not exceed 520 lb./cu. yd., any fly ash listed in the MPL may be used at a cement replacement of 20% to 50%..	Seal concrete
F ⁶	Note ⁷	0.45	2–5	I, II, I/II, IP, IL, IS, IT, V			Railroad structures; occasionally for bridge piers, columns, bents, post-tension members
H ⁶	Note ⁷	0.45	3–6	I, II, I/II, III, IP, IL, IS, IT, V	1–4	Do not use Type III cement in mass placement concrete. Up to 20% of blended cement may be replaced with listed SCMs when Option 4 is used for precast concrete. Options 6, 7, & 8 allowed for cast-in-place Class H concrete.	Precast concrete, post-tension members
S ⁶	4,000	0.45	2–5	I, II, I/II, IP, IL, IS, IT, V	1–8		Bridge slabs, top slabs of direct traffic culverts, approach slabs
P	See Item 360, “Concrete Pavement.”	0.50	2–3	I, II, I/II, IL, IP, IS, IT, V	1–8	When the cementitious material content does not exceed 520 lb./cu. yd., any fly ash listed in the MPL may be used at a cement replacement of 20% to 50%..	Concrete pavement
CO ⁶	4,600	0.40	6	I, II, I/II, IP, IL, IS, IT, V	1–8		Bridge deck concrete overlay
LMC ⁶	4,000	0.40	6–8				Latex-modified concrete overlay
SS ⁶	3,600	0.45	4–6		1–8	Use a minimum cementitious material content of 658 lb./cu. yd. of concrete. Limit the alkali loading to 4.0 lbs./cu. yd. or less when using option 7.	Slurry displacement shafts, underwater drilled shafts
K ⁶	Note ⁷	0.40	Note ⁷	I, II, I/II, III, IP, IL, IS, IT, V	1–8		Note ⁷
HES	Note ⁷	0.45	Note ⁷	I, IL, II, I/II, III		Mix design options do not apply. 700 lb. of cementitious material per cubic yard limit does not apply.	Concrete pavement, concrete pavement repair

Class of Concrete	Design Strength, ¹ Min f'_c (psi)	Max w/cm Ratio	Coarse Aggregate Grades ^{2,3,4}	Cement Types	Mix Design Options	Exceptions to Mix Design Options	General Usage ⁵
"X" (HPC) 6,8,9	Note ¹⁰	0.45	Note ¹⁰	I, II, I/II, III IP, IL, IS, IT, V	1–4, & 8	Maximum fly ash replacement for Option 3 may be increased to 50%. Up to 20% of a blended cement may be replaced with listed SCMs for Option 4. Do not use Option 8 for precast concrete.	
"X" (SRC) 6,8,9	Note ¹⁰	0.45	Note ¹⁰	I/II, II, IP, IL, IS, IT, V	1–4, & 7	When using fly ash, only use fly ashes allowed for SRC as listed in the Fly Ash MPL. Type III-MS may be used where allowed. Type I and Type III cements may be used when fly ashes allowed for SRC as listed in the Fly Ash MPL are used, and with a maximum w/cm of 0.40. Up to 20% of blended cement may be replaced with listed SCMs when Option 4 is used for precast concrete. Do not use Option 7 for precast concrete ¹¹ .	

- Design strength must be attained within 56 days.
- Do not use Grade 1 coarse aggregate except in massive foundations with 4 in. minimum clear spacing between reinforcing steel bars, unless otherwise permitted. Do not use Grade 1 aggregate in drilled shafts.
- Use Grade 8 aggregate in extruded curbs unless otherwise approved.
- Other grades of coarse aggregate may be used in non-structural concrete classes when allowed by the Engineer.
- For information only.
- Structural concrete classes.
- As shown on the plans or specified.
- "X" denotes class of concrete shown on the plans or specified.
- (HPC): High Performance Concrete, (SRC): Sulfate Resistant Concrete.
- Same as class of concrete shown on the plans.
- Option 7 will be allowed for precast concrete products included in Items 462, 464, and 465.

Article 421.4.2.2, "Aggregates," is supplemented by the following.

Use the following equation to determine if the aggregate combination meets the sand equivalency requirement when blending fine aggregate or using an intermediate aggregate:

$$\frac{(SE_1 \times P_1) + (SE_2 \times P_2) + (SE_{ia} \times P_{ia})}{100} \geq 80\%$$

where:

SE_1 = sand equivalency (%) of fine aggregate 1

SE_2 = sand equivalency (%) of fine aggregate 2

SE_{ia} = sand equivalency (%) of intermediate aggregate passing the 3/8 in. sieve

P_1 = percent by weight of fine aggregate 1 of the fine aggregate blend

P_2 = percent by weight of fine aggregate 2 of the fine aggregate blend

P_{ia} = percent by weight of intermediate aggregate passing the 3/8 in. sieve

Article 421.4.2.5, "Slump," the second paragraph is voided and not replaced. Table 9 is voided and replaced with below:

Table 9
Placement Slump Requirements

General Usage	Placement Slump Range, ^{1,2} in.
Walls (over 9 in. thick), caps, columns, piers	3 to 7
Bridge slabs, top slabs of direct traffic culverts, approach slabs, concrete overlays, latex-modified concrete for bridge deck overlays	3 to 6
Inlets, manholes, walls (less than 9 in. thick), bridge railing, culverts, concrete traffic barrier, concrete pavement (formed)	4 to 6
Precast concrete	4 to 9
Underwater concrete placements	6 to 8-1/2
Drilled shafts, slurry displaced and underwater drilled shafts	See Item 416, "Drilled Shaft Foundations."
Curb, gutter, curb and gutter, concrete retards, sidewalk, driveways, seal concrete, anchors, riprap, small roadside sign foundations, concrete pavement repair, concrete repair	As approved

1. Maximum slump values may be increase above these values shown using chemical admixtures, provided the admixture treated concrete has the same or lower water-to-cementitious ratio and does not exhibit segregation or excessive bleeding. Request approval to increase slump limits in advance for proper evaluation by the Engineer.
2. For fiber reinforced concrete, perform slump before addition of fibers.

Article 421.2.6, "Mix Design Options", is voided and replaced with the following.

Option 1. Replace cement with at least the minimum dosage listed in the Fly Ash MPL for the fly ash used in the mixture. Do not replace more than 50% of the cement with fly ash.

Option 2. Replace 35% to 50% of the cement with slag cement.

Option 3. Replace 35% to 50% of the cement with a combination of fly ash, slag cement, MFAmetakaoilin, or at least 3% silica fume; however, no more than 35% may be fly ash, and no more than 10% may be silica fume.

Option 4. Use Type IP, Type IS, or Type IT cement as allowed in Table 8 for each class of concrete. Up to 10% of a Type IP, Type IS, or Type IT cement may be replaced with fly ash, slag cement, or silica fume. Use no more than 10% silica fume in the final cementitious material mixture if the Type IT cement contains silica fume, and silica fume is used to replace the cement.

Option 5. Option 5 is left intentionally blank.

Option 6. Use a lithium nitrate admixture at a minimum dosage determined by testing conducted in accordance with Tex-471-A. Before use of the mix, provide an annual certified test report signed and sealed by a licensed professional engineer, from a laboratory on the Department's MPL, certified by the Construction Division as being capable of testing according to Tex-471-A.

Option 7. Ensure the total alkali contribution from the cement in the concrete does not exceed 3.5 lb. per cubic yard of concrete when using hydraulic cement not containing SCMs calculated as follows:

$$\text{lb. alkali per cu. yd.} = \frac{(\text{lb. cement per cu. yd.}) \times \left(\% \text{Na}_2\text{O equivalent in cement} \right)}{100}$$

In the above calculation, use the maximum cement alkali content reported on the cement mill certificate.

Option 8. Use Table 10 when deviating from Options 1–3 or when required by the Fly Ash MPL. Perform required testing annually, and submit results to the Engineer. Laboratories performing ASTM C1260, ASTM C1567, and ASTM C1293 testing must be listed on the Department's MPL. Before use of the mix, provide a certified test report signed and sealed by a licensed professional engineer demonstrating the proposed mixture conforms to the requirements of Table 10.

Provide a certified test report signed and sealed by a licensed professional engineer, when HPC is required, and less than 20% of the cement is replaced with SCMs, demonstrating ASTM C1202 test results indicate the permeability of the concrete is less than 1,500 coulombs tested immediately after either of the following curing schedules:

- Moisture cure specimens 56 days at 73°F.
- Moisture cure specimens 7 days at 73°F followed by 21 days at 100°F.

Table 10
Option 8 Testing and Mix Design Requirements

Scenario	ASTM C1260 Result		Testing Requirements for Mix Design Materials or Prescriptive Mix Design Options
	Mix Design Fine Aggregate	Mix Design Coarse Aggregate	
A	> 0.10%	> 0.10%	Determine the dosage of SCMs needed to limit the 14-day expansion of each aggregate ¹ to 0.10% when tested individually in accordance with ASTM C1567.
B	≤ 0.10%	≤ 0.10%	Use the minimum replacement listed in the Fly Ash MPL, or When Option 8 is listed on the MPL, use a minimum of 40% fly ash with a maximum CaO ² content of 25%, or Use any ternary combination which replaces 35% to 50% of cement.
	≤ 0.10%	ASTM C1293 1 yr. Expansion ≤ 0.04%	Use a minimum of 20% of any fly ash; or Use any ternary combination which replaces 20% to 50% of cement.
C	≤ 0.10%	> 0.10%	Determine the dosage of SCMs needed to limit the 14-day expansion of coarse and intermediate ¹ aggregate to 0.10% when tested individually in accordance with ASTM C1567.
D	> 0.10%	≤ 0.10%	Use the minimum replacement listed in the Fly Ash MPL, or When Option 8 is listed on the MPL, use a minimum of 40% fly ash with a maximum CaO ² content of 25%, or Use any ternary combination which replaces 35% to 50% of cement.
	> 0.10%	ASTM C1293 1 yr. Expansion ≤ 0.04%	Determine the dosage of SCMs needed to limit the 14-day expansion of each fine aggregate to 0.10% when individually tested in accordance with ASTM C1567.

1. Intermediate size aggregates will fall under the requirements of mix design coarse aggregate.
2. Average the CaO content from the previous ten values as listed on the test certificate.

Article 421.4.2.7, “Optimized Aggregate Gradation (OAG) Concrete,” the first sentence of the first paragraph is voided and replaced by the following.

The gradations requirements in Table 4 and Table 6 do not apply when OAG concrete is specified or used by the Contractor unless otherwise shown on the plans.

The fineness modulus for fine aggregate listed in Table 5, does not apply when OAG Concrete is used,

Article 421.4.6.2, Delivering Concrete,” the third paragraph is supplemented by the following.

When truck mixers are equipped with automated water or chemical admixture measurement and slump or slump flow monitoring equipment, the addition of water or chemical admixtures during transit is allowed. Reports generated by this equipment must be submitted to the Engineer daily.

Article 421.4.6.2, “Delivering Concrete,” the fifth paragraph is voided and replaced with the following. Begin the discharge of concrete delivered in truck mixers within the times listed in Table 14. Concrete delivered after these times, and concrete that has not begun to discharge within these times will be rejected

Article 421.4.8.3, “Testing of Fresh Concrete,” is voided and replaced with the following.

Testing Concrete. The Engineer, unless specified in other Items or shown on the plans, will test the fresh and hardened concrete in accordance with the following methods:

- Slump. Tex-415-A;
- Air Content. Tex-414-A or Tex-416-A;
- Temperature. Tex-422-A;
- Making and Curing Strength Specimens. Tex-447-A;
- Compressive Strength. Tex-418-A;
- Flexural Strength. Tex-448-A; and
- Maturity. Tex-426-A.

Flexural strength and maturity specimens will not be made unless specified in other items or shown on the plans.

Concrete with slump less than minimum required after all addition of water withheld will be rejected, unless otherwise allowed by the Engineer. Concrete with slump exceeding maximum allowed may be used at the contractor's option. If used, Engineer will make, test, and evaluate strength specimens as specified in Article 421.5., "Acceptance of Concrete." Acceptance of concrete not meeting air content or temperature requirements will be determined by Engineer. Fresh concrete exhibiting segregation and excessive bleeding will be rejected.

Article 421.4.8.3.1. "Job-Control Testing," is voided and not replaced.

Special Provision to Item 427

Surface Finishes for Concrete



Item 427, "Surface Finishes for Concrete" of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Article 427.2.1 "Coatings," is supplemented with the following:

Epoxy Waterproofing. Provide Type X Epoxy per [DMS-6100](#) "Epoxies and Adhesives." Match color of coating with Federal Standard 595C color 35630, concrete gray, unless otherwise shown on the plans.

Article 427.4.2.2 "Application," is supplemented with the following:

Epoxy Waterproofing. Mix epoxy per manufacturer's instructions. Apply the coating on a dry surface at a maximum application rate of 100 sq. ft per gallon. Apply a thin uniform film of mixed epoxy to the substrate by the use of a short nap roller or brush. The epoxy may be sprayed following the thinning requirements of the manufacturer. No more than 15% reduction is permitted.

Match the color of the applied coating with the color standard shown on the plans. Apply when ambient temperature is between 50°F and 100°F.

Article 427.6 "Payment," the second paragraph is voided and replaced in its entirety with:

When a surface finish for concrete is specified as a pay item, the work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Adhesive Grout Finish," "Concrete Paint Finish," "Opaque Sealer Finish," "Silicone Resin Paint Finish," "Epoxy Waterproof Finish," or "Blast Finish." This price is full compensation for materials; cleaning and preparing surfaces; application of materials; and equipment, labor, tools, and incidentals.

Special Provision to Item 464

Reinforced Concrete Pipe



Item 464, "Reinforced Concrete Pipe," of the Standard Specifications, is hereby amended with respect to the clauses cited below, and no other clauses or requirements of this Item are waived or changed hereby.

Section 2.1., "Fabrication." The section is voided and replaced with the following.

Fabrication plants must be approved by the Materials and Tests Division in accordance with DMS-7305, "Fabrication and Qualification Procedure for Multi-Project Fabrication Plants of Precast Concrete Drainage Structures," before furnishing precast reinforced concrete pipe for Departmental projects. The Department's MPL has a list of approved reinforced concrete pipe plants.

Furnish material and fabricate reinforced concrete pipe in accordance with DMS-7305, "Fabrication and Qualification Procedure for Multi-Project Fabrication Plants of Precast Concrete Drainage Structures."

Section 2.3., "Marking." The first paragraph is voided and replaced with the following.

Furnish each section of reinforced concrete pipe marked with the following information specified in DMS-7305, "Fabrication and Qualification Procedure for Multi-Project Fabrication Plants of Precast Concrete Drainage Structures."

- Class or D-Load of pipe,
- ASTM designation,
- Date of manufacture,
- Pipe size,
- Name or trademark of fabricator and plant location,
- Designation "TX" for precast units fabricated per DMS-7305;
- Designated fabricator's approval stamp for each approved unit,
- Pipe to be used for jacking and boring (when applicable), and
- Designation "SR" for pipe meeting sulfate-resistant concrete plan requirements (when applicable).

Section 2.5., "Causes for Rejection." The section is voided and replaced with the following.

Individual sections of pipe may be rejected for any of the conditions stated in the Annex of DMS-7305, "Fabrication and Qualification Procedure for Multi-Project Fabrication Plants of Precast Concrete Drainage Structures."

Section 2.6., "Repairs." The section is voided and replaced with the following:

Make repairs, if necessary, as stated in the Annex of DMS-7305, "Fabrication and Qualification Procedure for Multi-Project Fabrication Plants of Precast Concrete Drainage Structures."

Special Provision to Item 502

Barricades, Signs and Traffic Handling



Item 502, "Barricades, Signs and Traffic Handling" of the Standard Specifications, is hereby amended with respect to the clauses cited below, and no other clauses or requirements of this Item are waived or changed hereby.

Article 502.1., "Description," is supplemented by the following:

Temporary work-zone (TWZ) traffic control devices manufactured after December 31, 2019, must have been successfully tested to the crashworthiness requirements of the 2016 edition of the Manual for Assessing Safety Hardware (MASH). Such devices manufactured on or before this date and successfully tested to NCHRP Report 350 or the 2009 edition of MASH may continue to be used throughout their normal service lives. An exception to the manufacture date applies when, based on the project's date of letting, a category of MASH-2016 compliant TWZ traffic control devices are not approved, or are not self-certified after the December 31, 2019, date. In such case, devices that meet NCHRP-350 or MASH-2009 may be used regardless of the manufacture date.

Such TWZ traffic control devices include: portable sign supports, barricades, portable traffic barriers designated exclusively for use in temporary work zones, crash cushions designated exclusively for use in temporary work zones, longitudinal channelizers, truck and trailer mounted attenuators. Category I Devices (i.e., lightweight devices) such as cones, tubular markers and drums without lights or signs attached however, may be self-certified by the vendor or provider, with documentation provided to Department or as are shown on Department's Compliant Work Zone Traffic Control Device List.

Article 502.4., "Payment," is supplemented by the following:

Truck mounted attenuators and trailer attenuators will be paid for under Special Specification, "Truck Mounted Attenuator (TMA) and Trailer Attenuator (TA)." Portable Changeable Message Signs will be paid for under Special Specification, "Portable Changeable Message Sign." Portable Traffic Signals will be paid for under Special Specification, "Portable Traffic Signals."

Special Provision to Item 636

Signs



Item 636, "Signs" of the Standard Specifications, is hereby amended with respect to the clauses cited below, and no other clauses or requirements of this Item are waived or changed hereby.

Section 636.3.1, "Fabrication." is deleted.

Section 636.3.1.2, "Sheeting Application." The last sentence of the fourth paragraph is voided and replaced by the following.

Do not splice sheeting or overlay films for signs fabricated with ink or with colored transparent films.

Special Provision to Item 643

Sign Identification Decals



Item 643, "Sign Identification Decals," of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Article 2. "Materials." The sign identification decal design shown in Figure 1 and the description for each row in Table 1 are supplemented by the following.

Texas Department of Transportation													
C	Fabrication Date											T	1
J	F	M	A	M	J	J	A	S	O	N	D		2
	201		202		203		204		205				3
	0	1	2	3	4	5	6	7	8	9			4
Sheeting MFR - Substrate													
A	B	C	D	E	F	G	H	J	K	L	M		5
Film MFR													
A	B	C	D	E	F	G	H	J	K	L	M		6
Sheeting MFR - Legend													
A	B	C	D	E	F	G	H	J	K	L	M		7
Installation Date													
				0	1	2	3						8
	0	1	2	3	4	5	6	7	8	9			9
J	F	M	A	M	J	J	A	S	O	N	D		10
	201		202		203		204		205				11
	0	1	2	3	4	5	6	7	8	9			12
Name of Sign Fabricator Physical Address City, State, Zip Code													13

Figure 1
Decal Design (Row numbers explained in Table 1)

Table 1
Decal Description
Row Explanation

1	– Sign fabricator
2	– Month fabricated
3	– First 3 digits of year fabricated
4	– Last digit of year fabricated
5	– Manufacturer of the sheeting applied to the substrate
6	– Film (colored transparent or non-reflective black) manufacturer
7	– Manufacturer of the sheeting for the legend
8	– Tens digit of date installed
9	– Ones digit of date installed
10	– Month installed
11	– First 3 digits of year installed
12	– Last digit of year installed
13	– Name of sign fabricator and physical location of sign shop

Special Provision to Item 666

Retroreflectorized Pavement Markings



Item 666, "Retroreflectorized Pavement Markings," of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Section 2.3., "Glass Traffic Beads." The first paragraph is voided and replaced by the following:

Furnish drop-on glass beads in accordance with DMS-8290, "Glass Traffic Beads," or as approved. Furnish a double-drop of Type II and Type III drop-on glass beads for longitudinal pavement markings where each type bead is applied separately in equal portions (by weight), unless otherwise approved. Apply the Type III beads before applying the Type II beads. Furnish Type II beads for work zone pavement markings and transverse markings or symbols.

Section 4.3.1., "Type I Markings.," is supplemented by the following:

4.3.1.3. Spot Striping. Perform spot striping on a callout basis with a minimum callout quantity as shown on the plans.

Section 4.3.2., "Type II Markings.," is supplemented by the following:

4.3.2.1. Spot Striping. Perform spot striping on a callout basis with a minimum callout quantity as shown on the plans.

Section 4.4., "Retroreflectivity Requirements.," is voided and replaced by the following.

Type I markings for Contracts totaling more than 20,000 ft. of pavement markings must meet the following minimum retroreflectivity values for all longitudinal edgeline, centerline or no passing barrier-line, and lane line markings when measured any time after 3 days, but not later than 10 days after application.

- White markings: 250 millicandelas per square meter per lux (mcd/m²/lx)
- Yellow markings: 175 mcd/m²/lx

Retroreflectivity requirements for Type I markings are not required for Contracts with less than 20,000 ft. of pavement markings or Contracts with callout work, unless otherwise shown on the plans.

Section 4.5., "Retroreflectivity Measurements.," is voided and replaced by the following:

Use a mobile retroreflectometer to measure retroreflectivity for Contracts totaling more than 50,000 ft. of pavement markings, unless otherwise shown on the plans. For Contracts with less than 50,000 ft. of pavement markings, mobile or portable retroreflectometers may be used at the Contractor's discretion. Coordinate with and obtain authorization from the Engineer before starting any retroreflectivity data collection.

Section 4.5.1., "Mobile Retroreflectometer Measurements." The last paragraph is voided and replaced by the following.

Restripe again at the Contractor's expense with a minimum of 0.060 in. (60 mils) of Type I marking material if the average of these measurements falls below the minimum retroreflectivity requirements. Take measurements every 0.1 miles a minimum of 10 days after this third application within that mile segment for that series of markings. If the markings do not meet minimum retroreflectivity after this third application, the Engineer may require removal of all existing markings, a new application as initially specified, and a repeat of the application process until minimum retroreflectivity requirements are met.

Section 4.5.2., "Portable Retroreflectometer Measurements." The first and second paragraphs are voided and replaced by the following.

Provide portable measurement averages for every 1.0 mile unless otherwise specified or approved. Take a minimum of 20 measurements for each 1-mi. section of roadway for each series of markings (e.g., edgeline, center skip line, each line of a double line) and direction of traffic flow when using a portable reflectometer. Measure each line in both directions for centerlines on two-way roadways (i.e., measure both double solid lines in both directions and measure all center skip lines in both directions). The spacing between each measurement must be at least 100 ft. The Engineer may decrease the mileage frequency for measurements if the previous measurements provide satisfactory results. The Engineer may require the original number of measurements if concerns arise.

Restripe at the Contractor's expense with a minimum of 0.060 in. (60 mils) of Type I marking material if the averages of these measurements fail. Take a minimum of 10 more measurements after 10 days of this second application within that mile segment for that series of markings. Restripe again at the Contractor's expense with a minimum of 0.060 in. (60 mils) of Type I marking material if the average of these measurements falls below the minimum retroreflectivity requirements. If the markings do not meet minimum retroreflectivity after this third application, the Engineer may require removal of all existing markings, a new application as initially specified, and a repeat of the application process until minimum retroreflectivity requirements are met.

Section 4.6. "Performance Period." The first sentence is voided and replaced by the following:

All longitudinal markings must meet the minimum retroreflectivity requirements within the time frame specified. All markings must meet all other performance requirements of this specification for at least 30 calendar days after installation.

Article 6. "Payment." The first two paragraphs are voided and replaced by the following.

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Pavement Sealer" of the size specified; "Retroreflectorized Pavement Markings" of the type and color specified and the shape, width, size, and thickness (Type I markings only) specified, as applicable; "Retroreflectorized Pavement Markings with Retroreflective Requirements" of the types, colors, sizes, widths, and thicknesses specified; "Retroreflectorized Profile Pavement Markings" of the various types, colors, shapes, sizes, and widths specified; or "Reflectorized Pavement Marking (Call Out)" of the shape, width, size, and thickness (Type I markings only) specified, as applicable; or "Pavement Sealer (Call Out)" of the size specified.

This price is full compensation for materials, application of pavement markings, equipment, labor, tools, and incidentals.

Special Provision to Item 680

Highway Traffic Signals



Item 680, "Highway Traffic Signals" of the Standard Specifications is amended with respect to the clauses cited below. No other clauses or requirements of this Item are waived or changed.

Article 680.3.1.1.2,"Conduit," The fourth sentence of the first paragraph is voided and replaced by the following.

Seal the ends of each conduit with approved sealant, after all cables and conductors are installed.

Special Provision to Special Specification 6185

Truck Mounted Attenuator (TMA) and Trailer Attenuator (TA)



Item 6185, "Truck Mounted Attenuator (TMA) and Trailer Attenuator (TA)" of the Standard Specifications, is hereby amended with respect to the clauses cited below, and no other clauses or requirements of this Item are waived or changed hereby.

Article 4. "Measurement", is voided and replaced by the following:

- 4.1. **Truck Mounted Attenuator/Trailer Attenuator (Stationary).** This Item will be measured by the day. TMA/TAs must be set up in a work area and operational before a calendar day can be considered measureable. A day will be measured for each TMA/TA set up and operational on the worksite.
- 4.2. **Truck Mounted Attenuator/Trailer Attenuator (Mobile Operation).** This Item will be measured by the hour or by the day. The time begins once the TMA/TA is ready for operation at the predetermined site and stops when notified by the Engineer. When measurement by the hour is specified, a minimum of 4 hr. will be paid each day for each operating TMA/TA used in a mobile operation. When measurement by the day is specified, a day will be measured for each TMA/TA set up and operational on the worksite.

Special Provision to Item 000

Schedule of Liquidated



The Dollar Amount of Daily Contract Administration Liquidated Damage per Working Day is \$610.00/Day.



HAYS COUNTY
PROJECT CONSTRUCTION MANUAL

FOR
FM 2770 ROADWAY IMPROVEMENTS
TxDOT Project Number: CC 3210-01-018
CSJ: 3210-01-018

Bid No. IFB2023-B02
Bid Date: November 28, 2022
Bid Time: 12:00 PM CST

Hays County, Texas
Purchasing Department
712 South Stagecoach Trail, Suite 1071
San Marcos, TX 78667

November 3, 2022

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SECTION 1
IFB SUBMITTAL CHECKLIST

IFB Submittal Checklist

This checklist is provided for convenience and identifies documents that must be submitted with the bid/proposal in order to be considered responsive. Any bids/proposals received without these requisite documents may be deemed nonresponsive and may not be considered for contract award.

The following forms **MUST** be returned for the bid/proposal to be considered responsive:

- ___ 1. Completed Bid Form
- ___ 2. Completed Schedule of Rates and Prices
- ___ 3. Vendor References Completed
- ___ 4. Bid Bond for 5% of total bid amount

Required Forms by Hays County:

- ___ 1. Conflict of Interest Questionnaire Completed and Signed
- ___ 2. Certificate of Interested Parties – Form 1295 filed online with the Texas Ethics Commission and Signed
- ___ 3. Code of Ethics for Hays County Signed
- ___ 4. Hays County Practices Related to Historically Underutilized Businesses Signed
- ___ 5. Hays County House Bill 89 Verification Signed and Notarized
- ___ 6. Hays County Purchasing Department Senate Bill 252 Certification Signed
- ___ 7. Vendor/Bidder's Affirmation Completed and Signed
- ___ 8. Related Party Disclosure Form Completed and Signed
- ___ 9. Debarment & Licensing Certification Signed and Notarized
- ___ 10. Federal Affirmation and Solicitation Acceptance
- ___ 11. System for Award Management (www.SAM.gov) Entity Registration Page
- ___ 12. Any addenda applicable to this solicitation

Hays County will accept bids, by the stated due date by one of the following methods:

- ___ 1. Electronic Submission of Bid Packet through BidNet Direct and one (1) hard copy delivered in a sealed envelope with the Solicitation Number and Vendor's name on the outermost envelope addressed to:
Hays County Purchasing, 712 S Stagecoach Trail, Suite 1071, San Marcos, TX 78666

OR

- ___ 2. One (1) original bid packet and one (1) digital copy on a thumb drive in a sealed envelope with the Solicitation Number and Vendor's Name on the outermost envelope, addressed to:
Hays County Purchasing, 712 S Stagecoach Trail, Suite 1071, San Marcos, TX 78666

SECTION 2
INVITATION FOR BIDS

**PUBLIC NOTICE HAYS
COUNTY INVITATION FOR
BIDS**

Hays County will be accepting sealed Bids for:

FM 2770 Roadway Improvements, Bid No. IFB 2023-B02

Sealed Bids will be received by Hays County, through either hardcopy at the Purchasing Office, Hays County Government Center, 712 South Stagecoach Trail, Suite 1071, San Marcos, TX 78666 or electronically through www.bidnetdirect.com/hayscounty (the BidNet Direct website) until 12:00 PM local time on MONDAY, November 28, 2022, at which time and place the bids will be publicly opened and read.

Bids received after the time and date set for submission will be returned unopened.

DETAIL SUMMARY

- | | |
|--------------------------------------|--|
| 1. Issuing Office: | Hays County Auditor
Purchasing Office
712 S. Stagecoach Trail, Suite 1071
San Marcos, TX 78666 |
| 2. Responses to Solicitation: | Sealed bids marked with Solicitation Number and Respondent Name on the outermost envelope: One (1) original and one (1) digital copy on a thumb drive
OR
Electronic bid packets can be submitted through BidNet Direct and one (1) hard copy is required to be received. |
| 3. Deadline for Responses: | In issuing office or submitted to BidNet Direct no later than:
November 28, 2022; 12:00 p.m. Central Time (CT) |
| 4. Pre-Bid Meeting: | Recommended
November 9, 2022; 10:00 a.m. Central Time (CT)
Hays County Transportation Department
2171 Yarrington Road, San Marcos, TX 78666 |
| 5. Bonding Requirements: | Bid Bond: 5% of total bid amount due at bid submittal
Performance and Payment Bonds: 100% of Contract Price within 10 days of award |
| 6. Retainage | The owner will withhold 5% retainage of the Contractor. The Contractor may withhold retainage on subcontractors in accordance with state and federal regulations. |
| 7. Initial Contract Term: | 57 standard workweek days |
| 8. Optional Contract Terms: | None |
| 9. Designated Contact: | Hays County Purchasing
Email: purchasing@co.hays.tx.us |

10. Questions & Answers:

Questions regarding this solicitation must be made in writing and submitted to the designated contact above no later than November 16, 2022; 5:00 p.m. CT. Telephone inquiries will not be accepted. Questions may be submitted by email to the purchasing address above. Answers to questions will be provided in the form of an addendum after the question deadline has passed. All addenda will be posted on CivicPlus, BidNet Direct and ESBD websites.

11. Addenda

Any interpretations, corrections or changes to this IFB and specifications will be made by addenda. Sole issuing authority of addenda shall be vested in the Hays County Purchasing Office. It is the Respondent's responsibility to acknowledge receipt of all addenda with bid submission.

12. Contact with County Staff:

Upon issuance of this solicitation, employees and representatives of Hays County, other than the Purchasing Office staff identified as the Designated Contact above, will not discuss the contents of this solicitation with any Respondent or its representatives. Failure of a Respondent or any of its representatives to observe this restriction may result in disqualification of any related offer. This restriction does not preclude discussions between affected parties for the purpose of conducting business unrelated to this procurement.

13. Websites:

Plans, Specifications, and Bidding documents for pre-qualified bidders and interested non-bidders may be secured from the following websites:

www.bidnetdirect.com/hayscounty,

<http://www.txsmartbuy.com/sp>,

<https://www.sanmarcostx.gov/Bids.aspx>

Anticipated Schedule of Events

November 3, 2022	Issuance of IFB
November 9, 2022	Pre-Bid Meeting in-person (10:00 AM, CT)
November 16, 2022	Deadline for Submission of Questions (5:00 PM, CT)
November 28, 2022	Deadline for Submission of Bids (12:00 PM, CT) Late bids will not be accepted
December 2022	Anticipated Contract Award Date

SECTION 3
BID INSTRUCTIONS / REQUIREMENTS

BID INSTRUCTIONS/REQUIREMENTS

A. Scope of Work

The proposed project will reconstruct the existing road at the FM 2770 at Flint Hills Driveway intersection. The project consists of, but is not limited to, construction of left turn lane and paved shoulders, earthwork, drainage structures, pavement markings, and erosion control facilities.

The attachments to this IFB provide specific detail regarding this project and should be thoroughly reviewed prior to bid submittal:

Attachment A: IFB 2023-B02 Technical Specifications

Attachment B: IFB 2023-B02 Construction Plans

B. Qualifications

Prospective bidder shall meet the following requirements:

1. Be qualified via "Confidential Questionnaire" by the Texas Department of Transportation (TxDOT) for bidding on State projects or within the 90-day grace period for the preparation of a new qualification statement, or have submitted the Confidential Questionnaire and have it on file with TxDOT at least 14 days before the date proposals are to be opened;
2. not on the TxDOT list of currently debarred/sanctioned contractors; and
3. Provide suitable evidence of prior experience for similar work and be able to provide written documentation of successfully complete similar contracts.
4. Contractor must confirm prequalification for all subcontractors and materials suppliers of greater than \$10,000.

REFERENCES: Hays County requires respondent to supply with the statement of qualifications, a list of at least three (3) references where like services have been supplied by their company. Include name of company, address, telephone number and name of representative.

RESPONSIBILITY: A prospective respondent must affirmatively demonstrate respondent's responsibility. A prospective respondent must meet the following requirements:

- Have adequate financial resources, or the above ability to obtain such resources as required
- Have a satisfactory record of performance
- Be otherwise qualified and eligible to receive an award

SYSTEM FOR AWARD MANAGEMENT: Respondent and its Principals may not be debarred or suspended nor otherwise on the Excluded Parties List System (EPLS) in the System for Award Management (SAM). Include verification that the company as well as the company's principals are not listed (are not debarred) through the System for Award Management (www.SAM.gov). Enclose a printout of the Entity Registration page that shows your firm is in active status and is not expired.

TIME OF PERFORMANCE: It is imperative that the prospective respondent respond to County requests in a timely manner and comply with required or proposed delivery schedules. Please describe how you intend to respond to and track County requests.

COMPLIANCE WITH LAWS: The successful bidder shall comply with all applicable federal, state and local laws and regulations pertaining to the practice of the profession and the execution of the duties under the bid.

INSURANCE: The successful bidder will be required to furnish proof of insurance for Workers' Compensation, Auto Liability and General Liability before any work may begin. It is the practice of Hays County to encourage local participation and to promote and encourage contracting and subcontracting opportunities for locally owned businesses and labor in all contracts.

The County of Hays does not discriminate on the basis of race, color, national origin, sex, religion, age and disability in employment or the provision of services.

C. Warranty of Performance

The successful respondent expressly warrants that all services specified in the IFB will be performed with care and diligence and in accordance with all specifications of the IFB. The successful bidder agrees to correct any deficiencies in performance of services upon notification by the County and without additional expense to the County.

CONTINUING NON-PERFORMANCE of the bidder, in terms of specifications, shall be basis for the termination of the contract by the County. The County shall not pay for merchandise/services that are unsatisfactory. Failure to perform any provision will constitute a default of contract, in which case, corrective action shall take place within ten (10) days from the date of written notice citing the nature of breach. Failure to take corrective action or to provide a satisfactory written reply excusing such failure within the prescribed ten (10) days will authorize the County to terminate this agreement by written notice.

COMPLIANCE WITH LAWS: The successful Respondents shall comply with all applicable federal, state and local laws and regulations pertaining to the practice of the profession and the execution of the duties under the solicitation. Any contract executed as a result of this IFB shall be governed by the laws of the State of Texas.

LIQUIDATED DAMAGES FOR DELAYS: If the work is not substantially complete within the contract time, the Contractor shall pay to the County as fixed, agreed, and liquidated damages (it being impossible to determine the actual damages occasioned by the delay) the amount of \$750 (seven hundred fifty dollars) for each calendar day of delay, until the work is completed. The Contractor and Contractor's sureties shall be liable to the County for the amount thereof.

EXCUSABLE DELAYS: The right of the Contractor to proceed shall not be terminated nor shall the Contractor be charged with liquidated damages for any delays in the completion of the work due to:

1. Any acts of the Government, including controls or restrictions upon or requisitioning of materials, equipment, tools, or labor by reason of war, national defense, or any other national emergency;
2. Any acts of the County;
3. Causes not reasonably foreseeable by the parties to this Contract at the time of execution which are beyond the control and without the fault or negligence of the Contractor, including, but not restricted to, acts of God, terrorism, war, acts of another Contractor in the performance of some other contract with the County, fires, floods, epidemics, quarantine, restrictions, strikes, freight embargoes, and weather of unusual severity such as hurricanes, tornadoes, cyclones and other extreme weather conditions;

Provided, however, that the Contractor promptly notifies the City/County within ten (10) days in writing of the cause of the delay. Upon receipt of such notification, the City/County shall ascertain the facts and the cause and

extent of delay. If, upon the basis of the facts and the terms of this contract, the delay is properly excusable, the County shall extend the time for completing the work for a period of time commensurate with the period of excusable delay.

SECTION 4

BID FORM

VENDOR/BIDDER'S AFFIRMATION

BID FORM: SCHEDULE OF RATES AND PRICES CONFLICT OF

INTEREST QUESTIONNAIRE

CERTIFICATION OF INTERESTED PARTIES

CODE OF ETHICS FOR HAYS COUNTY

HAYS COUNTY PRACTICES RELATED TO HISTORICALLY UNDERUTILIZED BUSINESSES

HOUSE BILL 89 VERIFICATION

SENATE BILL 252 CERTIFICATION

DEBARMENT AND LICENSING CERTIFICATION

VENDOR REFERENCES

RELATED PARTY DISCLOSURE FORM

FEDERAL AFFIRMATIONS AND SOLICITATION ACCEPTANCE

BID FORM

PROJECT IDENTIFICATION

Project No. IFB 2023-B02 FM 2770 Roadway Improvements

THIS BID IS SUBMITTED TO:

Electronically: BidNet Direct: www.bidnetdirect.com//hayscounty

Manually:

Hays County Purchasing Department
Attn: Stephanie Hunt
712 South Stagecoach Trail, Suite 1071 San
Marcos, Texas 78666

The undersigned BIDDER proposes and agrees, if this Bid is accepted, to enter into an agreement with COUNTY in the form included in the Contract Documents to perform and furnish all Work as specified or indicated in the Contract Documents for the Bid Price and within the Bid Times indicated in this Bid and in accordance with the other terms and conditions of the Contract Documents.

All Bids will be considered non-responsive if the following forms are not signed and submitted with the Bid

BIDDER accepts all of the terms and conditions of the Notice to Bidders and Instructions to Bidders, including without limitation those dealing with the disposition of Bid security. This Bid will remain subject to acceptance for 60 days after the day of Bid opening. BIDDER will sign and deliver the required number of counterparts of the Agreement with the Bonds and other documents required by the Bidding Requirements within 10 working days after the date of COUNTY’s Notice of Award.

This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm, or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization, or corporation; BIDDER has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; BIDDER has not solicited or induced any person, firm, or corporation to refrain from bidding; and BIDDER has not sought by collusion to obtain for itself any advantage over any other Bidder or over COUNTY.

BIDDER will complete the work in accordance with the Contract Documents and the accompanying Schedule of Rates and Prices, and will pay not less than the Prevailing Wage Rates for Hays County, Texas. The work will be completed within **57 standard workweek days** from the date for commencing work as set forth in the "Notice to Proceed" to be issued by the COUNTY.

Communications concerning this Bid shall be addressed to the address of BIDDER indicated below:

Terms used in this Bid which are defined in the General Provisions or Instructions will have the meanings indicated in the General Provisions or Instructions.

SUBMITTED ON _____, 20____.

State Contractor License Number _____

IF BIDDER is:

An Individual

By _____ (SEAL)

(Individual's Name)

(Signature)

doing business as _____

Business address: _____

Phone Number: _____ Fax Number: _____

Email: _____

A Partnership

By _____ (SEAL)

(Firm Name)

(General Partner)

(Signature)

Business address:

Phone Number: _____ Fax Number: _____

Email: _____

A Corporation

By _____ (SEAL)

(Corporate Name)

(State of Incorporation)

By _____ (SEAL)

(Name of Person Authorized to Sign)

(Signature)

(Corporate Seal)

Attest: _____

(Secretary)

Business Address

Phone Number: _____ Fax Number: _____
Email: _____

Date of Qualification to Do Business is _____

A Joint Venture

By _____ (SEAL)
(Name)

(Address)

(Signature)

By _____
(Name)

(Address)

(Signature)

Phone & Fax Numbers, Email & mailing addresses for receipt of official communications:

(Each joint venturer must sign. The manner for signing for each individual, partnership, and corporation that is a party to the joint venture should be in the manner above.)

Vendor/Bidder's Affirmation

1. Vendor/Bidder affirms that they are duly authorized to execute this Contract, that this company, corporation, firm, partnership or individual has not prepared this bid in collusion with any other bidder, and that the contents of this bid as to price, terms or conditions of said bid have not been communicated by the undersigned nor by any employee or agent to any other person engages in this type of business prior to the official opening of this bid.
2. Vendor/Bidder hereby assigns to Purchaser any and all claims for overcharges associated with this Contract which arise under the antitrust laws of the United States, 15 USCA Section 1 et seq., and which arise under the antitrust laws of the State of Texas, Tex. Bus. & Com. Code, Section 15.01, et seq.
3. Pursuant to 262.0276 (a) of the Texas Local Government Code, Vendor/Bidder, hereby affirms that Vendor/Bidder:

_____ Does not own taxable property in Hays County, or;

_____ Does not owe any ad valorem taxes to Hays County or is not otherwise indebted to Hays County

Name of Contracting Company

If taxable property is owned in Hays County, list property ID numbers:

Signature of Company Official Authorizing Bid/Offer

Printed Name

Title

Email Address

Phone

**BID FORM
SCHEDULE OF RATES AND PRICES
HAYS COUNTY, TEXAS**

PROJECT: IFB 2023-B02 FM 2770 Roadway Improvements

Full compensation for compliance with each and every provision of the Request for Bids, the Bid, the Specifications, and the Contract will be considered as included in the unit prices for the work set forth below, and no separate payment will be made for compliance with each and every provision of the Request for Bids, the Bid, the Specifications, and the Contract, unless separate payment is expressly provided for therein.

BID ITEM	TECH SPEC ¹	DESCRIPTION WITH UNIT PRICES IN WORDS	BID QUANTITY	UNIT MEASURE	UNIT COST	AMOUNT BID
1	100 6002	PREPARING ROW at <input type="text"/> Dollars and <input type="text"/> Cents per	15.25	STA		\$ -
2	104 6017	REMOVING CONC (DRIVEWAYS) at <input type="text"/> Dollars and <input type="text"/> Cents per	619	SY		\$ -
3	110 6001	EXCAVATION (ROADWAY) <input type="text"/> <input type="text"/> Dollars and <input type="text"/> Cents per	1917	CY		\$ -
4	132 6004	EMBANKMENT (FINAL) (DENS CONT) (TY B) at <input type="text"/> Dollars and <input type="text"/> Cents per	570	CY		\$ -
5	160 6003	FURNISHING AND PLACING TOPSOIL (4") at <input type="text"/> Dollars and <input type="text"/> Cents per	5761	SY		\$ -
6	164 6035	DRILL SEEDING (PERM) (RURAL) (CLAY) at <input type="text"/> Dollars and <input type="text"/> Cents per	5761	SY		\$ -
7	164 6041	DRILL SEEDING (TEMP) (WARM) at <input type="text"/> Dollars and <input type="text"/> Cents per	5761	SY		\$ -
8	166 6002	FERTILIZER at <input type="text"/> Dollars and <input type="text"/> Cents per	0.37	TON		\$ -

¹Refer to the Technical Specifications section for a description of the specific reference number.

BID FORM
SCHEDULE OF RATES AND PRICES
HAYS COUNTY, TEXAS

PROJECT: IFB 2023-B02 FM 2770 Roadway Improvements

Full compensation for compliance with each and every provision of the Request for Bids, the Bid, the Specifications, and the Contract will be considered as included in the unit prices for the work set forth below, and no separate payment will be made for compliance with each and every provision of the Request for Bids, the Bid, the Specifications, and the Contract, unless separate payment is expressly provided for therein.

BID ITEM	TECH SPEC ¹	DESCRIPTION WITH UNIT PRICES IN WORDS	BID QUANTITY	UNIT MEASURE	UNIT COST	AMOUNT BID
9	168 6001	VEGETATIVE WATERING at Dollars and Cents per	145	MG		\$ -
10	169 6001	SOIL RETENTION BLANKET (CL 1) (TY A) at Dollars and Cents per	160	SY		\$ -
11	247 6366	FL BS (CMP IN PLC) (TY A GR 5) (FNAL POS) at Dollars and Cents per	1353	CY		\$ -
12	310 6001	PRIME COAT (MULTI OPTION) at Dollars and Cents per	813	GAL		\$ -
13	464 6003	RC PIPE (CL III) (18 IN) at Dollars and Cents per	146	LF		\$ -
14	467 6363	SET (TY II) (18 IN) (RCP) (6:1) (P) at Dollars and Cents per	6	EA		\$ -
15	500 6001	MOBILIZATION + CONTENGENCIES at Dollars and Cents per	1	LS		\$ -
16	502 6001	BARRICADES, SIGNS AND TRAFFIC HANDLING at Dollars and Cents per	6	MO		\$ -

¹Refer to the Technical Specifications section for a description of the specific reference number.

BID FORM
SCHEDULE OF RATES AND PRICES
HAYS COUNTY, TEXAS

PROJECT: IFB 2023-B02 FM 2770 Roadway Improvements

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BID ITEM	TECH SPEC ¹	DESCRIPTION WITH UNIT PRICES IN WORDS	BID QUANTITY	UNIT MEASURE	UNIT COST	AMOUNT BID
17	506 6002	ROCK FILTER DAMS (INSTALL) (TY 2) at <input type="text"/> Dollars and <input type="text"/> Cents per	80	LF		\$ -
18	506 6011	ROCK FILTER DAMS (REMOVE) at <input type="text"/> Dollars and <input type="text"/> Cents per	80	LF		\$ -
19	506 6038	TEMP SEDMT CONT FENCE (INSTALL) at <input type="text"/> Dollars and <input type="text"/> Cents per	640	LF		\$ -
20	506 6039	TEMP SEDMT CONT FENCE (REMOVE) at <input type="text"/> Dollars and <input type="text"/> Cents per	640	LF		\$ -
21	530 6004	DRIVEWAYS (CONC) at <input type="text"/> Dollars and <input type="text"/> Cents per	153	SY		\$ -
22	530 6005	DRIVEWAYS (ACP) at <input type="text"/> Dollars and <input type="text"/> Cents per	131	SY		\$ -
23	560 6001	MAILBOX INSTALL-S (TWG-POST) TY 1 at <input type="text"/> Dollars and <input type="text"/> Cents per	2	EA		\$ -
24	644 6001	IN SM RD SN SUP&AM TY 10BWG(1)SA(P) at <input type="text"/> Dollars and <input type="text"/> Cents per	1	EA		\$ -

¹Refer to the Technical Specifications section for a description of the specific reference number.

BID FORM
SCHEDULE OF RATES AND PRICES
HAYS COUNTY, TEXAS

PROJECT: IFB 2023-B02 FM 2770 Roadway Improvements

Full compensation for compliance with each and every provision of the Request for Bids, the Bid, the Specifications, and the Contract will be considered as included in the unit prices for the work set forth below, and no separate payment will be made for compliance with each and every provision of the Request for Bids, the Bid, the Specifications, and the Contract, unless separate payment is expressly provided for therein.

BID ITEM	TECH SPEC ¹	DESCRIPTION WITH UNIT PRICES IN WORDS	BID QUANTITY	UNIT MEASURE	UNIT COST	AMOUNT BID
25	644 6076	REMOVE SM RD SN SUP&AM at Dollars and Cents per	1	EA		\$ -
26	662 6063	WK ZN PAV MRK REMOV (W) 4" (SLD) at Dollars and Cents per	7116	LF		\$ -
27	662 6095	WK ZN PAV MRK REMOV (Y) 4" (SLD) at Dollars and Cents per	7116	LF		\$ -
28	666 6011	REFL PAV MRK TY I (W) 4" (SLD) (90MIL) at Dollars and Cents per	2950	LF		\$ -
29	666 6035	REFL PAV MRK TY I (W) 8" (SLD) (90MIL) at Dollars and Cents per	666	LF		\$ -
30	666 6053	REFL PAV MRK TY I (W) (ARROW) (90MIL) at Dollars and Cents per	4	EA		\$ -
31	666 6077	REFL PAV MRK TY I (W) (WORD) (90MIL) at Dollars and Cents per	4	EA		\$ -
32	666 6170	REFL PAV MRK TY II (W) 4" (SLD) at Dollars and Cents per	2950	EA		\$ -

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BID FORM
SCHEDULE OF RATES AND PRICES
HAYS COUNTY, TEXAS

PROJECT: IFB 2023-B02 FM 2770 Roadway Improvements

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BID ITEM	TECH SPEC ¹	DESCRIPTION WITH UNIT PRICES IN WORDS	BID QUANTITY	UNIT MEASURE	UNIT COST	AMOUNT BID
33	666 6178	REFL PAV MRK TY II (W) 8" (SLD) at <input type="text"/> Dollars and <input type="text"/> Cents per	666	LF		\$ -
34	666 6184	REFL PAV MRK TY II (W) (ARROW) at <input type="text"/> Dollars and <input type="text"/> Cents per	4	EA		\$ -
35	666 6192	REFL PAV MRK TY II (W) (WORD) at <input type="text"/> Dollars and <input type="text"/> Cents per	4	EA		\$ -
36	666 6207	REFL PAV MRK TY II (Y) 4" (SLD) at <input type="text"/> Dollars and <input type="text"/> Cents per	4360	LF		\$ -
37	666 6314	RE PM W/RET REQ TY I TY (Y) 4" (SLD) (90MIL) at <input type="text"/> Dollars and <input type="text"/> Cents per	4360	LF		\$ -
38	672 6007	REFL PAV MRKR TY I-C at <input type="text"/> Dollars and <input type="text"/> Cents per	23	EA		\$ -
39	672 6009	REFL PAV MRKR TY II-A-A at <input type="text"/> Dollars and <input type="text"/> Cents per	109	EA		\$ -
40	677 6001	ELIM EXT PAV MRK & MRKS (4") at <input type="text"/> Dollars and <input type="text"/> Cents per	7232	LF		\$ -

¹Refer to the Technical Specifications section for a description of the specific reference number.

**BID FORM
SCHEDULE OF RATES AND PRICES
HAYS COUNTY, TEXAS**

PROJECT: IFB 2023-B02 FM 2770 Roadway Improvements

Full compensation for compliance with each and every provision of the Request for Bids, the Bid, the Specifications, and the Contract will be considered as included in the unit prices for the work set forth below, and no separate payment will be made for compliance with each and every provision of the Request for Bids, the Bid, the Specifications, and the Contract, unless separate payment is expressly provided for therein.

BID ITEM	TECH SPEC ¹	DESCRIPTION WITH UNIT PRICES IN WORDS	BID QUANTITY	UNIT MEASURE	UNIT COST	AMOUNT BID
41	3076 6003	D-GR HMA TY-B PG64-22 (EXEMPT) at Dollars and Cents per	986	TON		\$ -
42	3076 6051	D-GR HMA TY-D PG76-22 (LEVEL-UP) at Dollars and Cents per	137	TON		\$ -
43	3076 6072	D-GR HMA TY-D PG76-22 (EXEMPT) 	482	TON		\$ -
44	3081 6008	TOM-C PG 76-22 SAC-B at Dollars and Cents per	430	TON		\$ -
45	3084 6001	BONDING COURSE at Dollars and Cents per	840	GAL		\$ -
46	3085 6001	UNDERSEAL COURSE at Dollars and Cents per	1496	GAL		\$ -
47	6001 6001	PORTABLE CHANGEABLE MESSAGE SIGN at Dollars and Cents per	28	DAY		\$ -
48	6185 6002	TMA (STATIONARY) at Dollars and Cents per	20	DAY		\$ -

¹Refer to the Technical Specifications section for a description of the specific reference number.

**BID FORM
SCHEDULE OF RATES AND PRICES
HAYS COUNTY, TEXAS**

PROJECT: IFB 2023-B02 FM 2770 Roadway Improvements

Full compensation for compliance with each and every provision of the Request for Bids, the Bid, the Specifications, and the Contract will be considered as included in the unit prices for the work set forth below, and no separate payment will be made for compliance with each and every provision of the Request for Bids, the Bid, the Specifications, and the Contract, unless separate payment is expressly provided for therein.

TOTAL AMOUNT OF BID

	Dollars and		Cents	\$ -
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NOTE: THE COURT MAY EITHER REJECT ALL BIDS OR AWARD A CONTRACT TO THE LOWEST AND/OR BEST BID.

Acknowledgment of Addenda

Addendum No. 1:

Addendum No. 2:

Addendum No. 3:

¹Refer to the Technical Specifications section for a description of the specific reference number.

CONFLICT OF INTEREST QUESTIONNAIRE

For vendor doing business with local governmental entity

FORM CIQ

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This questionnaire is being filed in accordance with Chapter 176, Local Government Code, by a vendor who has a business relationship as defined by Section 176.001(1-a) with a local governmental entity and the vendor meets requirements under Section 176.006(a).

By law this questionnaire must be filed with the records administrator of the local governmental entity not later

than the 7th business day after the date the vendor becomes aware of facts that require the statement to be filed. See Section 176.006(a-1), Local Government Code.

A vendor commits an offense if the vendor knowingly violates Section 176.006, Local Government Code. An offense

OFFICE USE ONLY

1 Name of vendor who has a business relationship with local governmental entity.

2 ☐ Check this box if you are filing an update to a previously filed questionnaire. (The law requires that you file an updated completed questionnaire with the appropriate filing authority not later than the 7th business day after the date on which you became aware that the originally filed questionnaire was incomplete or inaccurate.)

3 Name of local government officer about whom the information is being disclosed.

Name of Officer

4 Describe each employment or other business relationship with the local government officer, or a family member of the officer, as described by Section 176.003(a)(2)(A). Also describe any family relationship with the local government officer. Complete subparts A and B for each employment or business relationship described. Attach additional pages to this Form CIQ as necessary.

A. Is the local government officer or a family member of the officer receiving or likely to receive taxable income, other than investment income, from the vendor?

☐ Yes ☐ No

B. Is the vendor receiving or likely to receive taxable income, other than investment income, from or at the direction of the local government officer or a family member of the officer AND the taxable income is not received from the local governmental entity?

☐ Yes ☐ No

5 Describe each employment or business relationship that the vendor named in Section 1 maintains with a corporation or other business entity with respect to which the local government officer serves as an officer or director, or holds an ownership interest of one percent or more.

6 ☐ Check this box if the vendor has given the local government officer or a family member of the officer one or more gifts as described in Section 176.003(a)(2)(B), excluding gifts described in Section 176.003(a-1).

7

Signature of vendor doing business with the governmental entity

Date

CONFLICT OF INTEREST QUESTIONNAIRE

For vendor doing business with local governmental entity

A complete copy of Chapter 176 of the Local Government Code may be found at <http://www.statutes.legis.state.tx.us/Docs/LG/htm/LG.176.htm>. For easy reference, below are some of the sections cited on this form.

Local Government Code § 176.001(1-a): "Business relationship" means a connection between two or more parties based on commercial activity of one of the parties. The term does not include a connection based on:

- (A) a transaction that is subject to rate or fee regulation by a federal, state, or local governmental entity or an agency of a federal, state, or local governmental entity;
- (B) a transaction conducted at a price and subject to terms available to the public; or
- (C) a purchase or lease of goods or services from a person that is chartered by a state or federal agency and that is subject to regular examination by, and reporting to, that agency.

Local Government Code § 176.003(a)(2)(A) and (B):

- (a) A local government officer shall file a conflicts disclosure statement with respect to a vendor if:

- (2) the vendor:

(A) has an employment or other business relationship with the local government officer or a family member of the officer that results in the officer or family member receiving taxable income, other than investment income, that exceeds \$2,500 during the 12-month period preceding the date that the officer becomes aware that

- (i) a contract between the local governmental entity and vendor has been executed; or
- (ii) the local governmental entity is considering entering into a contract with the vendor;

(B) has given to the local government officer or a family member of the officer one or more gifts that have an aggregate value of more than \$100 in the 12-month period preceding the date the officer becomes aware that:

- (i) a contract between the local governmental entity and vendor has been executed; or
- (ii) the local governmental entity is considering entering into a contract with the vendor.

Local Government Code § 176.006(a) and (a-1)

- (a) A vendor shall file a completed conflict of interest questionnaire if the vendor has a business relationship with a local governmental entity and:

- (1) has an employment or other business relationship with a local government officer of that local governmental entity, or a family member of the officer, described by Section 176.003(a)(2)(A);
- (2) has given a local government officer of that local governmental entity, or a family member of the officer, one or more gifts with the aggregate value specified by Section 176.003(a)(2)(B), excluding any gift described by Section 176.003(a-1); or
- (3) has a family relationship with a local government officer of that local governmental entity.

(a-1) The completed conflict of interest questionnaire must be filed with the appropriate records administrator not later than the seventh business day after the later of:

- (1) the date that the vendor:

- (A) begins discussions or negotiations to enter into a contract with the local governmental entity; or
- (B) submits to the local governmental entity an application, response to a request for proposals or bids, correspondence, or another writing related to a potential contract with the local governmental entity; or

- (2) the date the vendor becomes aware:

- (A) of an employment or other business relationship with a local government officer, or a family member of the officer, described by Subsection (a);
- (B) that the vendor has given one or more gifts described by Subsection (a); or
- (C) of a family relationship with a local government officer.

Certificate of Interested Parties

In 2015, the Texas Legislature adopted **House Bill 1295**, which added 2252.908 to the Texas Government Code and applies to all contracts entered into on or after January 1, 2016. Section 2252.908 (b)(1)(2) applies only to a contract of a governmental entity or state agency that requires an action or vote by the governing body of the entity or agency before the contract may be signed or that has a value of at least \$1 million. In addition, pursuant to Section 2252.908 (d), a governmental entity or state agency may not enter into a contract described by Subsection (b) with a business entity unless the business entity, in accordance with this section and rules adopted under this section, submits a disclosure of interested parties to the governmental entity or state agency at the time the business entity submits the signed contract to the governmental entity or state agency.

With regard to Hays County purchases, a vendor that is awarded a contract or purchase approved by Hays County Commissioner's Court is required to electronically complete a Form 1295 through the Texas Ethics Commission website (https://www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm) and submit a signed and notarized copy of the form to the County. A contract, including County issued purchase order (if applicable), will not be enforceable or legally binding until the County receives and acknowledges receipt of the properly completed Form 1295 from the awarded vendor.

CODE OF ETHICS FOR HAYS COUNTY

Public employment is a public trust. It is the policy of Hays County to promote and balance the objective of protecting government integrity and the objective of facilitating the recruitment and retention of personnel needed by Hays County. Such a policy implemented by prescribing essential standards of ethical conduct without creating unnecessary obstacles to entering public services.

Public servants must discharge their duties impartially so as to assure fair competitive access to governmental procurement by responsible contractors. Moreover, they should conduct themselves in such a manner as to foster public confidence in the integrity of the Hays County procurement organization.

To achieve the purpose of this article, it is essential that those doing business with Hays County also observe the ethical standards prescribed here.

It shall be a breach of ethics to attempt to influence any public employee, elected official or department head to breach the standards of ethical conduct set forth in this code.

It shall be a breach of ethics for any employee of Hays County or a vendor doing business with the county to participate directly or indirectly in a procurement when the employee or vendor knows that:

The employee or any member of the employee's immediate family, or household has a substantial financial interest pertaining to the procurement. This means ownership of 10% or more of the company involved and/or ownership of stock or other interest or such valued at \$2500.00 or more.

A business or organization in which the employee, or any member of the employee's immediate family, has a financial interest pertaining to the procurement.

Gratuities: It shall be a breach of ethics to offer, give or agree to give any employee of Hays County or for any employee to solicit, demand, accept or agree to accept from a vendor, a gratuity of consequence or any offer of employment in connection with any decision approval, disapproval, recommendation, preparation or any part of a program requirement or purchase request influencing the content of any specification or procurement standard, rendering of advice, investigation, auditing, or in any other advisory capacity in any proceeding or controversy, any particular matter pertaining to any program requirement or a contract or subcontract, or to any solicitation or proposal therefore pending before this government.

Kickbacks: It shall be a breach of ethics for any payment, gratuity or offer of employment to be made by or on behalf of a subcontractor under a contract to the prime contractor or higher tier subcontractor for any contract for Hays County as an inducement for the award of a contract or order.

Contract Clause: The prohibition against gratuities and kickbacks prescribed above shall be conspicuously set forth in every contract and solicitation therefore.

Any effort to influence any employee, elected official, or department head to violate the standards of the code is grounds to void the contract. Please certify, by your signature below, that you understand the ethics policy of Hays County and in no way will attempt to violate the code.

SIGNATURE: _____

PRINT NAME & TITLE: _____

COMPANY NAME: _____

Hays County Practices Related to Historically Underutilized Businesses

1. STATEMENT OF PRACTICES

Hays County will strive to ensure that all businesses, regardless of size, economic, social or ethnic status have an equal opportunity to participate in the County's procurement processes. The County is committed to promote full and equal business opportunity for all businesses to supply the goods and services needed to support the mission and operations of county government, and seeks to encourage the use of certified historically underutilized businesses (HUB's) through the use of race, ethnic and gender neutral means. It is the practice of Hays County to involve certified HUBs to the greatest extent feasible in the County's procurement of goods, equipment, services and construction projects while maintaining competition and quality of work standards. The County affirms the good faith efforts who recognize and practice similar business standards.

2. DEFINITIONS

Historically underutilized businesses (HUBs), also known as a disadvantaged business enterprise (DBE), are generally business enterprises at least 51% of which is owned and the management and daily business operations are controlled by one or more persons who is/are socially and economically disadvantaged because of his/her identification as a member of certain groups, including women, Black Americans, Mexican Americans, and other Americans of Hispanic origin, Asian Americans and American Indians.

Businesses include firms, corporations, sole proprietorships, vendors, suppliers, contractors, subcontractors, professionals and other similar references when referring to a business that provides goods and/or services regardless of the commodity category.

Certified HUB's include business enterprises that meet the definition of a HUB and who meet the certification requirements of certification agencies recognized by Hays County, as expressed below.

Statutory bid limit refers to the Texas Local Government Code provision that requires competitive bidding for many items valued at greater than \$50,000.

3. GUIDELINES

- a. Hays County, its contractors, their subcontractors and suppliers, as well as all vendors of goods, equipment and services, shall not discriminate on the basis of race, color, creed, gender, age, religion, national origin, citizenship, mental or physical disability, veteran's status or political affiliation in the award and/or performance of contracts. All entities doing business or anticipating doing business with the County shall support, encourage and implement affirmative steps toward a common goal of establishing equal opportunity for all citizens and businesses of the County.
- b. Vendors and/or contractors desiring to participate in the HUB program must successfully complete the certification process with the State of Texas or Texas Unified Certification Program. The vendor or contractor is also required to hold a current valid certification (title) from either of these entities.
- c. Vendors and/or contractors must be registered with the State Comptroller's web-based HUB directory and with the Comptroller's Centralized Master Bidder's List (CMBL). Hays

County will solicit bids from certified HUB's for state purchasing and public works contracts.

4. Hays County will actively seek and encourage HUBs to participate in all facets of the procurement process by:
 - a. Continuing to increase and monitor a database of certified HUB vendors, professionals and contractors. The database will be expanded to include products, areas of expertise and capabilities of each HUB firm.
 - b. Continuing to seek new communication links with HUB vendors, professionals and contractors to involve them in the procurement process.
 - c. Continuing to advertise bids on the County's website and in the newspapers including newspapers that target socially and economically disadvantaged communities.
5. As prescribed by law, the purchase of one or more items costing in excess of the statutory bid limit must comply with the competitive bid process. Where possible, those bids will be structured to include and encourage the participation of HUB firms in the procurement process by:
 - a. Division of proposed requisitions into reasonable lots in keeping with industry standards and competitive bid requirements.
 - b. Where feasible, assessment of bond and insurance requirements and the designing of such requirements to reasonably permit more than one business to perform the work.
 - c. Specifications of reasonable, realistic delivery schedules consistent with the County's actual requirements.
 - d. Specifications, terms and conditions reflecting the County's actual requirements are clearly stated, and do not impose unreasonable or unnecessary contract requirements.
6. A HUB practice statement shall be included in all specifications. The County will consider the bidder's responsiveness to the HUB Practices in the evaluation of bids and proposals. Failure to demonstrate a good faith effort to comply with the County's HUB practices may result in a bid or proposal being considered non-responsive to specifications.
7. Nothing in this practice statement shall be construed to require the County to award a contract other than to the lowest responsive bidder as required by law. This practice is narrowly tailored in accordance with applicable law.

Please sign for acknowledgement of the Hays County HUB Practices:

Signature

Date

Hays County House Bill 89 Verification

I, _____ (Person name), the undersigned representative of
 _____ (Company or Business name, hereafter referred to as Company) being an adult over the age
 of eighteen (18) years of age, after being duly sworn by the undersigned notary, do hereby depose and verify under oath that the
 company named above, under the provisions of Subtitle F, Title 10, Government Code Chapter 2270:

1. Does not boycott Israel currently; and
2. Will not boycott Israel during the term of the contract.

Pursuant to Section 2270.001, Texas Government Code:

1. *“Boycott Israel” means refusing to deal with, terminating business activities with, or otherwise taking any action that is intended to penalize, inflict economic harm on, or limit commercial relations specifically with Israel, or with a person or entity doing business in Israel or in an Israeli-controlled territory, but does not include an action made for ordinary business purposes; and*
2. *“Company” means a for-profit sole proprietorship, organization, association, corporation, partnership, joint venture, limited partnership, limited liability partnership, or any limited liability company, including a wholly owned subsidiary, majority-owned subsidiary, parent company or affiliate of those entities or business associations that exist to make a profit.*

Signature of Company Representative

Date _____

On this _____ day of _____, 20____, personally appeared _____, the above-named person, who after by me being duly sworn, did swear and confirm that the above is true and correct.

NOTARY SEAL

Notary Public in and for the State of Texas
(if other than Texas, Write state in here _____)

Date _____

Hays County Purchasing Department Senate Bill 252 Certification

Pursuant to Texas Government Code, Chapter 2252, Section 2252.152 and Section 2252.153, certify that the company named below is not listed on the website of the Comptroller of the State of Texas concerning the listing of companies that are identified under Section 806.051, Section 807.051 or Section 2253.153. I further certify that should the above-named company enter into a contract that is on said listing of companies on the website of the Comptroller of the State of Texas which do business with Iran, Sudan or any Foreign Terrorist Organization, I will immediately notify the Hays County Purchasing Department.

Company Name

Print Name of Company Representative

Signature of Company Representative

Date

CERTIFICATION CHECK PERFORMED BY HAYS COUNTY PURCHASING:

On this day; the Purchasing Representative for Hays County in San Marcos, Texas, pursuant to Texas Government Code, Chapter 2252, Section 2252.152 and Section 2252.153, certify that I did review the website of the Comptroller of the State of Texas concerning the listing of companies that is identified under Section 806.051, Section 807.051 or Section 2253.253 and I have ascertained that the above-named company is not contained on said listing of companies which do business with Iran, Sudan or any Foreign Terrorist Organization.

Print Name of Hays County Purchasing Representative

Signature of Hays County Purchasing Representative

Date

IFB/RFP/RFQ Number

DEBARMENT AND LICENSING CERTIFICATION

STATE OF (_____) §
COUNTY OF HAYS §

I, the undersigned, being duly sworn or under penalty of perjury under the laws of the United States and the State of Texas, certifies that Firm named herein below and its principals:

- a. Are not presently debarred, suspended, proposed for debarment, declared ineligible or voluntarily excluded from covered transactions by any federal department or agency;
- b. Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (federal, state or local) transaction or contract under a public transaction; violation of federal or state antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
- c. Are not presently indicted for or otherwise criminally or civilly charged by a federal, state or local governmental entity with commission of any of the offenses enumerated in paragraph (1)(b) of this certification;
- d. Have not within a three-year period preceding this application/proposal had one or more public (federal, state or local) transactions terminated for cause or default;
- e. Are registered and licensed in the State of Texas to perform the professional services which are necessary for the project; and
- f. Have not been disciplined or issued a formal reprimand by any State agency for professional accreditation within the past three years.

Name of Firm

Signature of Certifying Official

Title of Certifying Official

Printed Name of Certifying Official

Date

Where the Firm is unable to certify to any of the statements in this certification, such Firm shall attach an explanation to this certification.

SUBSCRIBED and sworn to before me the undersigned authority by _____ on this the day of _____, 20____, on behalf of said Firm.

Notary Public in and for the State of Texas
(If other than Texas, Write state in here _____)

My commission expires: _____

Vendor References

List three (3) references of current customers who can verify the quality of service your company provides. The County prefers customers of similar size and scope of work to this proposal/bid. **This form must be returned with your bid/proposal.**

REFERENCE ONE

Company Name: _____

Address: _____

Contact Person and Title: _____

Phone Number: _____

Email: _____

Scope & Duration of Contract: _____

REFERENCE TWO

Company Name: _____

Address: _____

Contact Person and Title: _____

Phone Number: _____

Email: _____

Scope & Duration of Contract: _____

REFERENCE THREE

Company Name: _____

Address: _____

Contact Person and Title: _____

Phone Number: _____

Email: _____

Scope & Duration of Contract: _____

Related Party Disclosure Form

Hays County strives to provide financial transparency to its taxpayers. Completion of this form will allow for added transparency into the procurement process by disclosing Vendor relationships with current or former Hays County employees. The existence of a relationship may not present a legal or ethical conflict for a Vendor. However, disclosure will allow for consideration of potential conflicts and/or ways to eliminate conflicts.

A Vendor who Employs any of the following is required to disclose the relationship on this form:

- Current Hays County employee (including elected or appointed official)(Complete Section A)
- Former Hays County employee who has been separated from Hays County for no less than four (4) years (including elected or appointed official) (Complete Section B)
- Person related within the 2nd degree of consanguinity or affinity to either of the above⁽¹⁾ (Complete Section C)

If no known relationships exist, complete Section D.

This form is required to be completed in full and submitted with the proposal package. A submitted proposal package that does not include this completed form will be considered non-responsive and will not be eligible for an award.

Section A: Current Hays County Employee

Employee Name

Title

Section B: Former Hays County Employee

Employee Name

Title

Date of Separation from County

Section C: Person Related to Current or Former Hays County Employee

Employee or Former Employee Name

Title

Name of Related Person

Title

Relationship

Section D: No Known Relationships

If no relationships in accordance with the above exist or are known to exist, provide a written explanation below:

Attach additional pages if necessary.

I, the undersigned, hereby certify that the information provided is true and complete to the best of my knowledge.

Name of Vendor

Signature of Certifying Official

Title of Certifying Official

Printed Name of Certifying Official

Date

⁽¹⁾A degree of relationship is determined under Texas Government Code Chapter 573. (as outlined below)

Relationship of Consanguinity				
Person	1st Degree	2nd Degree	3rd Degree*	4th Degree*
	child or parent	grandchild, sister, brother or grand-parent	great-grandchild, niece, nephew, aunt,* uncle* or great-grandparent	great-great-grandchild, grandniece, grandnephew, first cousin, great aunt,* great uncle* or great- great-grandparent
* An aunt, uncle, great aunt or great uncle is related to a person by consanguinity only if he or she is the sibling of the person's parent or grandparent.				

Relationship of Affinity		
Person	1st Degree	2nd Degree
	spouse, mother-in-law, father-in-law, son-in-law, daughter-in-law, stepson, stepdaughter, stepmother or stepfather	brother-in-law, sister-in-law, spouse's grandparent, spouse's grandchild, grandchild's spouse or spouse of grandparent

“Vendor” shall mean any individuals or entity that seeks to enter into a contract with Hays County.

“Employs” shall mean any relationship wherein Vendor has made arrangements to compensate an individual, directly or by way of a business organization in which the individual has a sharehold or ownership interest, even if that arrangement is contractual and/or on an hourly-charge basis.

FEDERAL AFFIRMATIONS AND SOLICITATION ACCEPTANCE

In the event federal funds are used for payment of part or all of the consideration due under any contract resulting from this Solicitation Response, Respondent must execute this **Federal Affirmation and Solicitation Acceptance**, which shall constitute an agreement, without exception, to the following affirmations:

1. Debarment and Suspension (2 CFR 180.220)

Respondent certifies, by signing this Attachment, that neither it nor any of its principals or subcontractors are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any federal department or agency. This certification is made pursuant to the OMB guidelines at 2 CFR 180 that implement Executive Order 12549 (3 C.F.R. Part 1986 Comp., p. 189) and 12689 (3 C.F.R. Part 1989 Comp., p. 235), Debarment and Suspension, 28 C.F.R. pt. 67, § 67.510, as published as pt. VII of the May 26, 1988, Federal Register (pp. 19160-19211), and any relevant program-specific regulations. This provision shall be required of every subcontractor receiving any payment in whole or in part from federal funds.

2. Americans with Disabilities Act

Respondent and any potential subcontractors shall comply with all terms, conditions, and requirements of the Americans with Disabilities Act of 1990 (P.L. 101-136), 42 U.S.C. 12101, as amended, and regulations adopted thereunder contained in 28 C.F.R. 26.101-36.999, inclusive, and any relevant program-specific regulations.

3. Discrimination

Respondent and any potential subcontractors shall comply with all Federal statutes relating to nondiscrimination. These include, but are not limited to:

- a. Title VI of the Civil Rights Act of 1964 (P.L. 88-352), which prohibits discrimination on the basis of race, color, or national origin;
- b. Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex;
- c. Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps;
- d. The Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101- 6107), which prohibits discrimination on the basis of age;
- e. The Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse;
- f. The Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism;
- g. Sections 523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee-3), as amended, relating to confidentiality of alcohol and drug abuse patient records;
- h. Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental, or financing of housing;
- i. Any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and
- j. The requirements of any other nondiscrimination statute(s) that may apply to the application.

4. Equal Employment Opportunity

Except as otherwise provided under 41 CFR Part 60, all contracts that meet the definition of “federally assisted construction contract” in 41 CFR Part 60-1.3 must include the equal opportunity clause provided

under 41 CFR 60-1.4(b), in accordance with Executive Order 11246, "Equal Employment Opportunity" (30 FR 12319, 12935, 3 CFR Part, 1964-1965 Comp., p. 339), as amended by Executive Order 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," and implementing regulations at 41 CFR part 60, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor."

5. Wages

Under the Davis Bacon Act, 40 U.S.C. 276a – 276a-5 (40 U.S.C. 3141-3148), as amended, and the regulations adopted thereunder contained in 29 C.F.R. pt. 1 and 5. When required by Federal program legislation, all prime construction contracts in excess of \$2,000 awarded by non-Federal entities must include a provision for compliance with the Davis-Bacon as supplemented by Department of Labor regulations (29 CFR Part 5, "Labor Standards Provisions Applicable to Contracts Covering Federally Financed and Assisted Construction"). Respondent and any potential subcontractors have a duty to and shall pay the prevailing wage rate specified in a wage determination made by the Secretary of Labor. In addition, contractors must be required to pay wages not less than once a week. The non-Federal entity must place a copy of the current prevailing wage determination issued by the Department of Labor in each solicitation. The decision to award a contract or subcontract must be conditioned upon the acceptance of the wage determination. The non-Federal entity must report all suspected or reported violations to the Federal awarding agency.

6. Contract Work Hours and Safety Standards Act (40 U.S.C. 3701-3708)

Where applicable, all contracts awarded by the non-Federal entity in excess of \$100,000 that involve the employment of mechanics or laborers must include a provision for compliance with 40 U.S.C. 3702 and 3704, as supplemented by Department of Labor regulations (29 CFR Part 5). Under 40 U.S.C. 3702 of the Act, each contractor must be required to compute the wages of every mechanic and laborer on the basis of a standard work week of 40 hours. Work in excess of the standard work week is permissible provided that the worker is compensated at a rate of not less than one and a half times the basic rate of pay for all hours worked in excess of 40 hours in the work week. The requirements of 40 U.S.C. 3704 are applicable to construction work and provide that no laborer or mechanic must be required to work in surroundings or under working conditions which are unsanitary, hazardous or dangerous. These requirements do not apply to the purchases of supplies or materials or articles ordinarily available on the open market, or contracts for transportation or transmission of intelligence.

7. Contracts for more than the simplified acquisition threshold currently set at \$150,000, which is the inflation adjusted amount determined by the Civilian Agency Acquisition Council and the Defense Acquisition Regulations Council (Councils) as authorized by 41 U.S.C. 1908, must address administrative, contractual, or legal remedies in instances where contractors violate or breach contract terms, and provide for such sanctions and penalties as appropriate.

8. All contracts in excess of \$10,000 must address termination for cause and for convenience by the non-Federal entity including the manner by which it will be affected and the basis for settlement.

9. Lobbying

If Respondent, in connection with any resulting contract from this Solicitation, is a recipient of a Federal contract, grant, or cooperative agreement exceeding \$100,000 or a Federal loan or loan guarantee exceeding \$150,000, the Contractor shall comply with the requirements of the new restrictions on lobbying contained in Section 1352, Title 31 of the U.S. Code, which are implemented in 15 CFR Part 28. Respondent shall require that the certification language of Section 1352, Title 31 of the U.S. Code be included in the award documents for all subcontracts and require that all subcontractors submit certification and disclosure forms accordingly. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of

any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award. Each tier must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the non-Federal award.

10. Rights to Inventions Made Under a Contract or Agreement

If the Federal award meets the definition of “funding agreement” under 37 CFR § 401.2 (a) and the recipient or subrecipient wishes to enter into a contract with a small business firm or nonprofit organization regarding the substitution of parties, assignment or performance of experimental, developmental, or research work under that “funding agreement,” the recipient or subrecipient must comply with the requirements of 37 CFR Part 401, “Rights to Inventions Made by Nonprofit Organizations and Small Business Firms Under Government Grants, Contracts and Cooperative Agreements,” and any implementing regulations issued by the awarding agency.

11. Minority and Women’s Businesses

Respondent and any potential subcontractors shall take affirmative steps to assure that minority and women's businesses are utilized when possible as sources of supplies, equipment, construction, and services, as detailed in the federal requirements relating to minority and women’s business enterprises: Executive Order 11625 of October 13, 1971, 36 Fed. Reg. 19967, as amended by Executive Order No. 12007 of August 22, 1977, 42 Fed. Reg. 42839; Executive Order No. 12432 of July 14, 1983, 48 Fed. Reg., 32551; and Executive Order No. 12138 of May 18, 1979, 44 Fed. Reg. 29637.

12. Environmental Standards

Respondent and any potential subcontractors shall comply with environmental standards that may be prescribed pursuant to the following:

- a. Institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514;
- b. Notification of violating facilities pursuant to EO 11738;
- c. Protection of wetlands pursuant to EO 11990;
- d. Evaluation of flood hazards in floodplains in accordance with EO 11988;
- e. Assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.);
- f. Conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.);
- g. Contracts and subgrants of amounts in excess of \$150,000 must contain a provision that requires the non- Federal award to agree to comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal awarding agency and the Regional Office of the Environmental Protection Agency (EPA).
- h. Protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and
- i. Protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).
- j. Mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (42 U.S.C. 6201).
- k. A non-Federal entity that is a state agency or agency of a political subdivision of a state and its contractors must comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. The requirements of Section 6002 include procuring only items designated in guidelines of the Environmental Protection Agency (EPA) at 40 CFR part 247 that contain the highest percentage of recovered materials practicable, consistent with maintaining a

satisfactory level of competition, where the purchase price of the item exceeds \$10,000 or the value of the quantity acquired during the preceding fiscal year exceeded

- \$10,000; procuring solid waste management services in a manner that maximizes energy and resource recovery; and establishing an affirmative procurement program for procurement of recovered materials identified in the EPA guidelines.

13. Historic Properties

Respondent and any potential subcontractors shall assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).

14. All Other Federal Laws

Respondent and any potential subcontractors shall comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing the Solicitation.

I have read, understand, and agree to comply with the Federal Affirmations specified above. Checking "YES" indicates acceptance, while checking "NO" denotes non-acceptance.

YES _____ NO _____

Authorized Signature: _____

Printed Name & Title: _____

Respondent's Tax ID: _____ Telephone: _____

If Respondent is a Corporation or other legal entity, please attach a corporate resolution or other appropriate official documentation that states that the person signing this Solicitation Response is an authorized person to sign for and legally bind the corporation or entity.

SECTION 5
STANDARD FORM OF CONTRACT

STANDARD FORM OF CONTRACT
Hays County, Texas

Contract

STATE OF TEXAS

HAYS COUNTY

THIS STANDARD FORM OF CONTRACT (the "Contract") is by and between **HAYS COUNTY, TEXAS**, a political subdivision of the State of Texas (hereinafter called "County") and (hereinafter called Contractor").

The County and Contractor, in consideration of the mutual covenants hereinafter set forth, agrees as follows:

Article 1. Work

Contractor shall complete all Work as specified or indicated in the Contract Documents. The "Project is generally described as follows:

Project No. **IFB 2023-B02 – FM 2770 Roadway Improvements**
(Project Name)

Article 2. Engineer of Record

The Project has been designed by **WSB & Associates, Inc.** who is hereinafter called the "Engineer of Record" and who is to act as the County's design professional.

Article 3. Contract Time

The Work shall be Substantially Completed in **57 Standard Workweek days** (the "Contract Time"). Following Substantial Completion, the Contractor shall proceed expeditiously with adequate forces and shall achieve Final Completion within the time specified in the Special Conditions.

Article 4. Contract Price

County shall pay Contractor for completions of the Work in accordance with the Contract Documents an amount in current funds equal to the sum of the amounts determined pursuant to Paragraph 4.1 below (the "Contract Price")

- 4.1 For all Unit price Work, an amount equal to the sum of the established unit price for each separately identified item of the Unit Price Work times the estimated quantity if that item as indicated in the Bid Form Schedule of Rates and Prices. And as totaled below:

TOTAL OF ALL UNIT PRICES: (written out)

As provided in the Standard Specifications, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by the Engineer of Record.

Article 5. Contractor's Representations

In order to induce County to enter into this Contract, Contractor makes the following representations:

- 5.1 Contractor has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents including the “technical data”.
- 5.2 Contractor has visited the site and become familiar with and is satisfied as to the general, local and site conditions that may affect cost, progress, performance or furnishing of the Work.
- 5.3 Contractor is familiar with and is satisfied as to all federal, state and local Laws and Regulations that may affect cost, progress, performance and furnishing of the Work.
- 5.4 Contractor has carefully studied all reports of explorations and tests of subsurface conditions at or contiguous to the site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the site which has been identified. Contractor acknowledges that such reports and drawings are not Contract Documents and may not be complete for Contractor’s purposes. Contractor acknowledges that the County and Engineer of Record do not assume responsibility for the accuracy or completeness if information and data shown or indicated in the Contract Documents with respect to Underground Facilities at or contiguous to the site.
- 5.5 Contractor has correlated the information known to Contractor, information and observations obtained from visits to the site, reports and drawings identified in the Contract Documents and all additional examinations, investigations, explorations, tests, studies and data with the Contract Documents.
- 5.6 Contractor has given Engineer of Record written notice of all conflicts, errors, ambiguities or discrepancies that Contractor has discovered in the Contract Documents and the written resolution thereof by Engineer of Record is acceptable to Contractor, and the Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of Work.
- 5.7 Contractor represents and agrees that there are no obligations, commitments, or impediments of any kind that will limit or prevent performance of its obligations under the Contract Documents.
- 5.8 Contractor warrants, represents, and agrees that if (i) it is a corporation or limited liability company, then it is a corporation duly organized, validly existing and in good standing to conduct business in the State of Texas, or a foreign corporation or limited liability company duly authorized and in good standing to conduct business in the State of Texas, that it has all necessary corporate power and has received all necessary corporate approvals to execute and deliver this Contract, and the individual executing the Contract on behalf of the Contractor has been duly authorizes to act for and bind Contractor; or (ii) if it is a partnership, limited partnership, or limited liability partnership, then it has necessary partnership power and has secured all necessary approvals to execute and deliver this Contract and perform all its obligations under the Contract Documents; and the individual executing this Contract on behalf of Contractor has been duly authorized to act for and bind Contractor.
- 5.9 Neither the execution and delivery of this Contract by Contractor nor the performance of its obligations under the Contract Documents will result in the violation of any provision, if a corporation, of its articles of incorporation or bylaws, if a limited liability company, of its articles of organization or regulations, or if a partnership, by any partnership agreement by which Contractor is bound, or any agreement by which Contractor is bound or to the best of the Contractor’s knowledge and belief, will conflict with any order or decree of any court of governmental instrumentality relating to Contractor.

Contract
5.10 Except for the obligation of the County to pay Contractor the Contract Price pursuant to the terms of the Contract Documents, and to perform certain other obligations pursuant to the terms and conditions explicitly set forth in the Contract Documents, County shall have no liability to Contractor or to anyone claiming through or under Contractor by reason of the execution or performance of the Contract. Notwithstanding any obligation or liability of County to Contractor, no present or future partner or affiliate of County or any agent, officer, director, or employee of County, or of the various departments comprising Hays County, or anyone claiming through or under Contractor by reason of the execution or performance of this Contract.

Article 6. Contract Documents

The "Contract Documents", which comprise the entire agreement between Hays County and Contractor concerning the Work, consist of the following:

- 6.1 This Standard Form of Contract
- 6.2 Performance Bond
- 6.3 Payment Bond
- 6.4 Maintenance Bond
- 6.5 Certificate of Insurance
- 6.6 Wage Rates
- 6.7 Standard Specifications
- 6.8 Special Provisions
- 6.9 Special Conditions
- 6.10 Technical Specifications
- 6.11 Plan Drawings
- 6.12 Addendum numbers _____ to _____, inclusive
- 6.13 Contractor's Bid Form
- 6.14 Documentation submitted by Contractor prior to Notice of Award
- 6.15 The following which may be delivered or issued after the Effective Date of the Contract and are not attached hereto: All Written Amendments and other documents amending, modifying or supplementing the Contract Documents pursuant to applicable sections in the Standard Specifications.

The documents listed in paragraphs 6.2 et seq. above are attached to this Contract (except as expressly noted otherwise above).

There are no Contract Documents other than those listed above in this Article 6. The Contract Documents may only be amended, modified or supplemented as provided in the Standard Specifications.

Article 7. Miscellaneous

- 7.1 Terms used in this contract which are defined in the Standard Specifications will have the meanings included in the Standard Specifications.
- 7.2 No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.
- 7.3 The County and Contractor each binds itself, its partners, successors, assigns and legal representatives to the other party hereto, its partners, successors, assigns and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.
- 7.4 Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon the County and Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention if the stricken position.
- 7.5 Each Party to this Contract hereby agrees and acknowledges that venue and jurisdiction of any suit, right, or cause of action arising out of or in connections with this Contract shall lie exclusively in Hays County, Texas. Furthermore, this Contract shall be governed by and construed in accordance with the laws of the State of Texas, excluding, however its choice of law rules.
- 7.6 The parties to this Contract agree that during the performance of the services under this Contract they will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The parties to this Contract will take affirmative action to ensure that applicants are employed and that employees are treated during employment, without regard to their race, color, religion, sex or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; termination; rates of pay or other forms of compensation, and selection for training including apprenticeship.
- 7.7 This Contract is for the sole and exclusive benefit of the parties hereto, and nothing in this Contract, express or implied, is intended to confer or shall be construed as conferring upon any other person any rights, remedies or any other type or types of benefits.
- 7.8 Each party to this Contract acknowledges that it and its counsel have reviewed this Contract and that the normal rules of construction are not applicable and there will be no presumption that any ambiguities will be resolved against the drafting party in the interpretation of this Contract.
- 7.9 Each party to the Contract, in the performance of this Contract, shall act in an individual capacity and not as agents, employees, partners, joint ventures or associates of one another. The employees or agents of one party shall not be deemed or construed to be the employees or agents of the other party for any purposes whatsoever.

7.10 Nothing in this Contract shall be deemed to waive, modify or amend any legal defense available at law or in equity to County, its past or present officers, employees, or agents or employees, nor to create any legal rights or claim on behalf of any third party. County does not waive, modify, or alter to any extent whatsoever the availability of the defense of governmental immunity under the laws of the State of Texas and of the United States.

7.11 To the Extent, if any, that any provision in this Contract is in conflict with Tex. Gov't Code 552.001 et seq., as amended (the "Public Information Act"), the same shall be of no force or effect. Furthermore, it is expressly understood and agreed that County, its officers and employees may request advice, decisions and opinions of the Attorney General of the State of Texas in regard to the application of the Public Information Act to any items or data furnished to County as to whether or not the same are available to the public. It is further understood that County's officers and employees shall have the right to rely on the advice, decisions and opinions of the Attorney General, and the County, its officers and employees shall have no liability or obligation to any party hereto for the disclosure to the public, or to any person or persons, of any items or data furnished to County by a party hereto, in reliance of any advice, decision or opinion of the Attorney General of the State of Texas.

7.12 County and Contractor have signed this Contract in triplicate. One counterpart each has been delivered to the County, Contractor and Engineer of Record. All portions of the Contract Documents have been signed, initialed, or identified by County and Contractor or identified by Engineer of Record on their behalf.

7.13 This Contract and Contract Documents represent the entire and integrates agreement between the parties hereto and supersedes all prior negotiations, representations, or agreements, either oral or written. This Contract may be amended only by written instrument signed by each party to this Contract. NO OFFICIAL, EMPLOYEE, AGENT, OR REPRESENTATIVE OF THE COUNTY HAS ANY AUTHORITY, EITHER EXPRESS OR IMPLIES, TO AMEND THIS CONTRACT, EXCEPT PURSUANT TO SUCH EXPRESS AUTHORITY AS MAY BE GRANTED BY THE HAYS COUNTY COMMISSIONERS COURT.

This Contract will be effective on _____, 20____ (which is the "Effective Date" of the Contract)

COUNTY _____ CONTRACTOR _____

By: _____ By: _____

Printed Name: Rueben Becerra, Printed Name: _____

Title: Hays County Judge Title: _____

(CORPORATE SEAL)

Attest: _____

Dr. Elaine H. Cardenas, County Clerk

Attest: _____

**SECTION 6 WAGE
RATES**

The wage rates listed herein are those predetermined by the Secretary of Labor and State Statute and listed in the United States Department of Labor's (USDOL) General Decisions dated **02-25-2022** and are the minimum wages to be paid accordingly for each specified classification. To determine the applicable wage rate zone, a list entitled "TEXAS COUNTIES IDENTIFIED BY WAGE RATE ZONES" is provided in the contract. Any wage rate that is not listed herein and not in the USDOL's general decision, must be submitted to the Engineer for approval. **IMPORTANT NOTICE FOR STATE PROJECTS:** only the controlling wage rate zone applies to the contract. Effective 02-25-2022.

CLASS. #	CLASSIFICATION DESCRIPTION	ZONE TX02 *(TX20220002)	ZONE TX03 *(TX20220003)	ZONE TX04 *(TX20220004)	ZONE TX05 *(TX20220005)	ZONE TX06 *(TX20220006)	ZONE TX07 *(TX20220007)	ZONE TX08 *(TX20220008)	ZONE TX24 *(TX20220024)	ZONE TX25 *(TX20220025)	ZONE TX27 *(TX20220027)	ZONE TX28 *(TX20220028)	ZONE TX29 *(TX20220029)	ZONE TX30 *(TX20220030)	ZONE TX37 *(TX20220037)	ZONE TX38 *(TX20220038)	ZONE TX42 *(TX20220042)
1428	Agricultural Tractor Operator						\$12.69					\$12.35			\$11.75		
1300	Asphalt Distributor Operator	\$14.87	\$13.48	\$13.88	\$15.72	\$15.58	\$15.55	\$15.72	\$13.28	\$15.32	\$15.62	\$14.36	\$14.25	\$14.03	\$13.75	\$14.06	\$14.40
1303	Asphalt Paving Machine Operator	\$13.40	\$12.25	\$12.35	\$13.87	\$14.05	\$14.36	\$14.20	\$13.26	\$13.99	\$14.68	\$12.92	\$13.44	\$12.53	\$14.00	\$14.32	\$12.99
1106	Asphalt Raker	\$12.28	\$10.61	\$12.02	\$14.21	\$11.65	\$12.12	\$11.64	\$11.44	\$12.69	\$12.05	\$11.34	\$11.67	\$11.40	\$12.59	\$12.36	\$11.78
1112	Batching Plant Operator, Asphalt																
1115	Batching Plant Operator, Concrete																
1214	Blaster																
1615	Boom Truck Operator						\$18.36										
1444	Boring Machine Operator																
1305	Broom or Sweeper Operator	\$11.21	\$10.33	\$10.08	\$11.99		\$11.04	\$11.62		\$11.74	\$11.41	\$10.30		\$10.23	\$10.60	\$12.68	\$11.05
1144	Communications Cable Installer																
1124	Concrete Finisher, Paving and Structures	\$13.55	\$12.46	\$13.16	\$12.85	\$12.64	\$12.56	\$12.77	\$12.44	\$14.12	\$13.04	\$13.38	\$12.64	\$12.80	\$12.79	\$12.98	\$13.32
1318	Concrete Pavement Finishing Machine Operator				\$16.05		\$15.48			\$16.05		\$19.31				\$13.07	
1315	Concrete Paving, Curing, Float, Texturing Machine Operator											\$16.34				\$11.71	
1333	Concrete Saw Operator				\$14.67					\$14.48	\$17.33					\$13.99	
1399	Concrete/Gunite Pump Operator																
1344	Crane Operator, Hydraulic 80 tons or less				\$18.22		\$18.36			\$18.12	\$18.04	\$20.21			\$18.63	\$13.86	
1345	Crane Operator, Hydraulic Over 80 Tons																
1342	Crane Operator, Lattice Boom 80 Tons or Less	\$16.82	\$14.39	\$13.85	\$17.27		\$15.87			\$17.27		\$14.67			\$16.42	\$14.97	\$13.87
1343	Crane Operator, Lattice Boom Over 80 Tons				\$20.52		\$19.38			\$20.52		\$17.49			\$25.13	\$15.80	
1306	Crawler Tractor Operator	\$13.96	\$16.63	\$13.62	\$14.26		\$15.67			\$14.07	\$13.15	\$13.38			\$14.60	\$13.68	\$13.50
1351	Crusher or Screen Plant Operator																
1446	Directional Drilling Locator						\$11.67										
1445	Directional Drilling Operator				\$20.32		\$17.24										
1139	Electrician	\$20.96		\$19.87	\$19.80		\$26.35		\$20.27	\$19.80		\$20.92				\$27.11	\$19.87
1347	Excavator Operator, 50,000 pounds or less	\$13.46	\$12.56	\$13.67	\$17.19		\$12.88	\$14.38	\$13.49	\$17.19		\$13.88			\$14.09	\$12.71	\$14.42
1348	Excavator Operator, Over 50,000 pounds		\$15.23	\$13.52	\$17.04		\$17.71			\$16.99	\$18.80	\$16.22				\$14.53	\$13.52
1150	Flagger	\$9.30	\$9.10	\$8.50	\$10.28	\$8.81	\$9.45	\$8.70		\$10.06	\$9.71	\$9.03	\$8.81	\$9.08	\$9.90	\$10.33	\$8.10
1151	Form Builder/Setter, Structures	\$13.52	\$12.30	\$13.38	\$12.91	\$12.71	\$12.87	\$12.38	\$12.26	\$13.84	\$12.98	\$13.07	\$13.61	\$12.82	\$14.73	\$12.23	\$12.25
1160	Form Setter, Paving & Curb	\$12.36	\$12.16	\$13.93	\$11.83	\$10.71	\$12.94			\$13.16	\$12.54	\$11.33	\$10.69		\$13.33	\$12.34	\$13.93
1360	Foundation Drill Operator, Crawler Mounted				\$17.99					\$17.99						\$17.43	
1363	Foundation Drill Operator, Truck Mounted		\$16.86	\$22.05	\$21.51		\$16.93			\$21.07	\$20.20	\$20.76		\$17.54	\$21.39	\$15.89	\$22.05
1369	Front End Loader Operator, 3 CY or Less	\$12.28	\$13.49	\$13.40	\$13.85		\$13.04	\$13.15	\$13.29	\$13.69	\$12.64	\$12.89			\$13.51	\$13.32	\$12.17
1372	Front End Loader Operator, Over 3 CY	\$12.77	\$13.69	\$12.33	\$14.96		\$13.21	\$12.86	\$13.57	\$14.72	\$13.75	\$12.32			\$13.19	\$13.17	\$13.02
1329	Joint Sealer																
1172	Laborer, Common	\$10.30	\$9.86	\$10.08	\$10.51	\$10.71	\$10.50	\$10.24	\$10.58	\$10.72	\$10.45	\$10.30	\$10.25	\$10.03	\$10.54	\$11.02	\$10.15
1175	Laborer, Utility	\$11.80	\$11.53	\$12.70	\$12.17	\$11.81	\$12.27	\$12.11	\$11.33	\$12.32	\$11.80	\$11.53	\$11.23	\$11.50	\$11.95	\$11.73	\$12.37

CLASS. #	CLASSIFICATION DESCRIPTION	ZONE TX02 *(TX20220002)	ZONE TX03 *(TX20220003)	ZONE TX04 *(TX20220004)	ZONE TX05 *(TX20220005)	ZONE TX06 *(TX20220006)	ZONE TX07 *(TX20220007)	ZONE TX08 *(TX20220008)	ZONE TX24 *(TX20220024)	ZONE TX25 *(TX20220025)	ZONE TX27 *(TX20220027)	ZONE TX28 *(TX20220028)	ZONE TX29 *(TX20220029)	ZONE TX30 *(TX20220030)	ZONE TX37 *(TX20220037)	ZONE TX38 *(TX20220038)	ZONE TX42 *(TX20220042)
1346	Loader/Backhoe Operator	\$14.18	\$12.77	\$12.97	\$15.68		\$14.12			\$15.18	\$13.58	\$12.87		\$13.21	\$14.13	\$14.29	\$12.90
1187	Mechanic	\$20.14	\$15.47	\$17.47	\$17.74	\$17.00	\$17.10			\$17.68	\$18.94	\$18.58	\$17.00	\$16.61	\$18.46	\$16.96	\$17.47
1380	Milling Machine Operator	\$15.54	\$14.64	\$12.22	\$14.29		\$14.18			\$14.32	\$14.35	\$12.86			\$14.75	\$13.53	\$12.80
1390	Motor Grader Operator, Fine Grade	\$17.49	\$16.52	\$16.88	\$17.12	\$18.37	\$18.51	\$16.69	\$16.13	\$17.19	\$18.35	\$17.07	\$17.74	\$17.47	\$17.08	\$15.69	\$20.01
1393	Motor Grader Operator, Rough	\$16.15	\$14.62	\$15.83	\$16.20	\$17.07	\$14.63	\$18.50		\$16.02	\$16.44	\$15.12	\$16.85	\$14.47	\$17.39	\$14.23	\$15.53
1413	Off Road Hauler			\$10.08	\$12.26		\$11.88			\$12.25		\$12.23			\$13.00	\$14.60	
1196	Painter, Structures					\$21.29	\$18.34						\$21.29			\$18.62	
1396	Pavement Marking Machine Operator	\$16.42		\$13.10	\$13.55		\$19.17	\$12.01		\$13.63	\$14.60	\$13.17		\$16.65	\$10.54	\$11.18	\$13.10
1443	Percussion or Rotary Drill Operator																
1202	Piledriver															\$14.95	
1205	Pipelayer		\$11.87	\$14.64	\$13.17	\$11.17	\$12.79		\$11.37	\$13.24	\$12.66	\$13.24	\$11.17	\$11.67		\$12.12	\$14.64
1384	Reclaimer/Pulverizer Operator	\$12.85			\$11.90		\$12.88			\$11.01		\$10.46					
1500	Reinforcing Steel Worker	\$13.50	\$14.07	\$17.53	\$16.17		\$14.00			\$16.18	\$12.74	\$15.83		\$17.10		\$15.15	\$17.72
1402	Roller Operator, Asphalt	\$10.95		\$11.96	\$13.29		\$12.78	\$11.61		\$13.08	\$12.36	\$11.68			\$11.71	\$11.95	\$11.50
1405	Roller Operator, Other	\$10.36		\$10.44	\$11.82		\$10.50	\$11.64		\$11.51	\$10.59	\$10.30		\$12.04	\$12.85	\$11.57	\$10.66
1411	Scraper Operator	\$10.61	\$11.07	\$10.85	\$12.88		\$12.27		\$11.12	\$12.96	\$11.88	\$12.43		\$11.22	\$13.95	\$13.47	\$10.89
1417	Self-Propelled Hammer Operator																
1194	Servicer	\$13.98	\$12.34	\$14.11	\$14.74		\$14.51	\$15.56	\$13.44	\$14.58	\$14.31	\$13.83		\$12.43	\$13.72	\$13.97	\$14.11
1513	Sign Erector																
1708	Slurry Seal or Micro-Surfacing Machine Operator																
1341	Small Slipform Machine Operator									\$15.96							
1515	Spreader Box Operator	\$12.60		\$13.12	\$14.71		\$14.04			\$14.73	\$13.84	\$13.68		\$13.45	\$11.83	\$13.58	\$14.05
1705	Structural Steel Welder															\$12.85	
1509	Structural Steel Worker						\$19.29									\$14.39	
1339	Subgrade Trimmer																
1143	Telecommunication Technician																
1145	Traffic Signal/Light Pole Worker						\$16.00										
1440	Trenching Machine Operator, Heavy						\$18.48										
1437	Trenching Machine Operator, Light																
1609	Truck Driver Lowboy-Float	\$14.46	\$13.63	\$13.41	\$15.00	\$15.93	\$15.66			\$16.24	\$16.39	\$14.30	\$16.62	\$15.63	\$14.28	\$16.03	\$13.41
1612	Truck Driver Transit-Mix				\$14.14					\$14.14							
1600	Truck Driver, Single Axle	\$12.74	\$10.82	\$10.75	\$13.04	\$11.61	\$11.79	\$13.53	\$13.16	\$12.31	\$13.40	\$10.30	\$11.61		\$11.97	\$11.46	\$10.75
1606	Truck Driver, Single or Tandem Axle Dump Truck	\$11.33	\$14.53	\$11.95	\$12.95		\$11.68		\$14.06	\$12.62	\$11.45	\$12.28		\$13.08	\$11.68	\$11.48	\$11.10
1607	Truck Driver, Tandem Axle Tractor with Semi Trailer	\$12.49	\$12.12	\$12.50	\$13.42		\$12.81	\$13.16		\$12.86	\$16.22	\$12.50			\$13.80	\$12.27	\$12.50
1441	Tunneling Machine Operator, Heavy																
1442	Tunneling Machine Operator, Light																
1706	Welder		\$14.02		\$14.86		\$15.97		\$13.74	\$14.84					\$13.78		
1520	Work Zone Barricade Servicer	\$10.30	\$12.88	\$11.46	\$11.70	\$11.57	\$11.85	\$10.77		\$11.68	\$12.20	\$11.22	\$11.51	\$12.96	\$10.54	\$11.67	\$11.76

Notes:

*Represents the USDOL wage decision.

Any worker employed on this project shall be paid at the rate of one and one half (1-1/2) times the regular rate for every hour worked in excess of forty (40) hours per week.

For reference, the titles and descriptions for the classifications listed here are detailed further in the AGC of Texas' *Standard Job Classifications and Descriptions for Highway, Heavy, Utilities, and Industrial Construction in Texas* posted on the AGC's Web site for any contractor.

**TEXAS COUNTIES IDENTIFIED BY
WAGE RATE ZONES: 2, 3, 4, 5, 6, 7, 8, 24, 25, 27, 28, 29, 30, 37, 38, 42**

County Name	Zone	County Name	Zone	County Name	Zone	County Name	Zone
Anderson	28	Donley	37	Karnes	27	Reagan	37
Andrews	37	Duval	30	Kaufman	25	Real	37
Angelina	28	Eastland	37	Kendall	7	Red River	28
Aransas	29	Ector	2	Kenedy	30	Reeves	8
Archer	25	Edwards	8	Kent	37	Refugio	27
Armstrong	2	El Paso	24	Kerr	27	Roberts	37
Atascosa	7	Ellis	25	Kimble	37	Robertson	7
Austin	38	Erath	28	King	37	Rockwall	25
Bailey	37	Falls	28	Kinney	8	Runnels	37
Bandera	7	Fannin	28	Kleberg	27	Rusk	4
Bastrop	7	Fayette	27	Knox	37	Sabine	28
Baylor	37	Fisher	37	Lamar	28	San Augustine	28
Bee	27	Floyd	37	Lamb	37	San Jacinto	38
Bell	7	Foard	37	Lampasas	7	San Patricio	29
Bexar	7	Fort Bend	38	LaSalle	30	San Saba	37
Blanco	27	Franklin	28	Lavaca	27	Schleicher	37
Borden	37	Freestone	28	Lee	27	Scurry	37
Bosque	28	Frio	27	Leon	28	Shackelford	37
Bowie	4	Gaines	37	Liberty	38	Shelby	28
Brazoria	38	Galveston	38	Limestone	28	Sherman	37
Brazos	7	Garza	37	Lipscomb	37	Smith	4
Brewster	8	Gillespie	27	Live Oak	27	Somervell	28
Briscoe	37	Glasscock	37	Llano	27	Starr	30
Brooks	30	Goliad	29	Loving	37	Stephens	37
Brown	37	Gonzales	27	Lubbock	2	Sterling	37
Burleson	7	Gray	37	Lynn	37	Stonewall	37
Burnet	27	Grayson	25	Madison	28	Sutton	8
Caldwell	7	Gregg	4	Marion	28	Swisher	37
Calhoun	29	Grimes	28	Martin	37	Tarrant	25
Callahan	25	Guadalupe	7	Mason	27	Taylor	2
Cameron	3	Hale	37	Matagorda	27	Terrell	8
Camp	28	Hall	37	Maverick	30	Terry	37
Carson	2	Hamilton	28	McCulloch	37	Throckmorton	37
Cass	28	Hansford	37	McLennan	7	Titus	28
Castro	37	Hardeman	37	McMullen	30	Tom Green	2
Chambers	38	Hardin	38	Medina	7	Travis	7
Cherokee	28	Harris	38	Menard	37	Trinity	28
Childress	37	Harrison	42	Midland	2	Tyler	28
Clay	25	Hartley	37	Milam	28	Upshur	4
Cochran	37	Haskell	37	Mills	37	Upton	37
Coke	37	Hays	7	Mitchell	37	Uvalde	30
Coleman	37	Hemphill	37	Montague	37	Val Verde	8
Collin	25	Henderson	28	Montgomery	38	Van Zandt	28
Collingsworth	37	Hidalgo	3	Moore	37	Victoria	6
Colorado	27	Hill	28	Morris	28	Walker	28
Comal	7	Hockley	37	Motley	37	Waller	38
Comanche	37	Hood	28	Nacogdoches	28	Ward	37
Concho	37	Hopkins	28	Navarro	28	Washington	28
Cooke	37	Houston	28	Newton	28	Webb	3
Coryell	7	Howard	37	Nolan	37	Wharton	27
Cottle	37	Hudspeth	8	Nueces	29	Wheeler	37
Crane	37	Hunt	25	Ochiltree	37	Wichita	5
Crockett	8	Hutchinson	37	Oldham	37	Wilbarger	37
Crosby	2	Irion	2	Orange	38	Willacy	30
Culberson	8	Jack	28	Palo Pinto	28	Williamson	7
Dallam	37	Jackson	27	Panola	28	Wilson	7
Dallas	25	Jasper	28	Parker	25	Winkler	37
Dawson	37	Jeff Davis	8	Parmer	37	Wise	25
Deaf Smith	37	Jefferson	38	Pecos	8	Wood	28
Delta	25	Jim Hogg	30	Polk	28	Yoakum	37
Denton	25	Jim Wells	27	Potter	2	Young	37
DeWitt	27	Johnson	25	Presidio	8	Zapata	30
Dickens	37	Jones	25	Rains	28	Zavala	30
Dimmit	30			Randall	2		

SECTION 7
PERFORMANCE BOND

PERFORMANCE BOND

STATE OF TEXAS

COUNTY OF _____

KNOW ALL MEN BY THESE PRESENTS: That _____

_____ of the City of _____

County of _____, and State of _____, as principal, and

_____ authorized under the laws of the State of Texas to act as surety on bonds for principals, are held and firmly bound unto Hays County (County), in the penal sum of

_____ Dollars

(\$_____) for the payment whereof, the said Principal and Surety bind themselves, their heirs, administrators, executors, successors, jointly and severally, by these presents:

WHEREAS, the Principal has entered into a certain written Agreement with the County, dated the _____ day of _____, 20_____ (the "Agreement"), to which the said Agreement, along with the Contract Documents referenced therein are hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the said Principal shall faithfully perform said Agreement and shall in all respects duly and faithfully observe and perform all and singular the covenants, conditions and agreements in and by the Agreement agreed and covenanted by the Principal to be observed and performed, and according to the true intent and meaning of said Agreement and the Contract Documents hereto annexed, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions of Chapter 2253 of the Texas Government Code, as amended and all liabilities on this bond shall be determined in accordance with the provisions of said Chapter to the same extent as if it were copied at length herein.

SURETY, for value received, stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Agreement or to the work performed thereunder, or to the Contract Documents referenced therein, shall in anyway affect the obligations on this bond, and it does hereby waive notice of such change, extension of time, alteration or addition to the terms on the Agreement, or to the work to be performed thereunder.

IN WITNESS WHEREOF, the said Principal and Surety have signed and sealed this instrument this _____ day of _____, 20____.

PRINCIPAL

SURETY

SIGNATURE

SIGNATURE

NAME & TITLE

NAME & TITLE

ADDRESS

ADDRESS

() _____
PHONE NUMBER

() _____
PHONE NUMBER

The name and address of the Resident Agency of Surety is:

() _____
PHONE NUMBER

SIGNATURE OF LICENSED LOCAL
RECORDING AGENT appointed to countersign on
behalf of Surety (Required by Art. 21.09 of the
Insurance Code)

I, _____, having executed Bonds
SIGNATURE

for _____ do hereby affirm I have
NAME OF SURETY

verified that said Surety is now certified with Authority from either: (a) the Secretary of the Treasury of the United States if the project funding includes Federal monies; or (b) the State of Texas if none of the project funding is from Federal sources; and further, said Surety is in no way limited or restricted from furnishing Bond in the State of Texas for the amount and under conditions stated herein.

SECTION 8
PAYMENT BOND

PAYMENT BOND

STATE OF TEXAS

COUNTY OF _____

KNOW ALL MEN BY THESE PRESENTS: That _____

_____ of the City of _____

County of _____, and State of _____, as Principal
(hereinafter referred to as the "Principal"), and

_____ authorized under the laws of the State of Texas to act as Surety on bonds for principals (hereinafter referred to as the "Surety"), are held and firmly bound unto Hays County, (hereinafter referred to as the "County"), in the penal sum of

_____ Dollars

(\$ _____) for the payment whereof, the said Principal and Surety bind themselves, their heirs, administrators, executors, successors and assigns, jointly and severally, by these presents:

WHEREAS, the Principal has entered into a certain written agreement with the County, dated the _____ day of _____, 20_____, to _____

_____ (hereinafter referred to as the "Agreement"), which said Agreement and the Contract Documents incorporated therein are hereby referred to and made a part hereof as fully and to the same extent as if copied at length herein.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the said Principal shall pay all claimants supplying labor and material to him or a subcontractor in the prosecution of the Work provided for in said Agreement, then, this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, HOWEVER, that this bond is executed pursuant to the provisions of Chapter 2253 of the Texas Government Code, as amended and all liabilities on this bond shall be determined in accordance with the provisions of said Chapter to the same extent as if it were copied at length herein.

SURETY, for value received, stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Agreement or to the Work performed thereunder, or to the other Contract Documents accompanying the same, shall in anyway affect its obligation on this bond, and it does hereby waive notice of such change, extension of time, alteration or addition to the terms of the Agreement, or to the work to be performed thereunder or to the other Contract Documents accompanying the same.

IN WITNESS WHEREOF, the said Principal and Surety have signed and sealed this instrument this ____day
of _____, 20_____.

PRINCIPAL

SURETY

SIGNATURE

SIGNATURE

NAME & TITLE

NAME & TITLE

ADDRESS

ADDRESS

(_____)_____
PHONE NUMBER

(_____)_____
PHONE NUMBER

The name and address of the Resident Agency of Surety is:

(_____)_____
PHONE NUMBER

SIGNATURE OF LICENSED LOCAL
RECORDING AGENT appointed to countersign on
behalf of Surety (Required by Art. 21.09 of the
Insurance Code)

SECTION 9

CERTIFICATE OF INSURANCE

CERTIFICATE OF INSURANCE

THIS IS TO CERTIFY THAT _____

(Name and address of insured)

is, at the date of this certificate, insured by this Company with respect to the business operations hereinafter described for the types of Insurance and in accordance with the provisions of the standard policies used by this Company, and further hereinafter described. Exceptions to the standard policy noted on reverse side hereof.

POLICY NO.	TYPE OF INSURANCE		LIMITS OF LIABILITY
	EFFECTIVE	EXPIRES	
Workmen's Compensation		1 Person	\$ _____
Public Liability		1 Accident	\$ _____
Contingent Liability		1 Person 1 Accident	\$ _____ \$ _____
Property Damage			
Builder's Risk			
Automobile			
Other			

The foregoing Policies (do) (do not) cover all sub-contractors.

Locations Covered: _____

Descriptions of Operations Covered: _____

The above policies either in the body thereof or by appropriate endorsement provide that they may not be changed or canceled by the insurer in less than five days after the insured has received written notice of such change or cancellation.

Where applicable local laws or regulations require more than five days actual notice of change or cancellation to the assured, the above policies contain such special requirements, either in the body thereof or by appropriate endorsement thereto attached.

(Name of Insurer) _____

By: _____

Phone No. (____) _____

Title: _____

SECTION 10
GENERAL CONDITIONS

General Conditions

THE CONTRACT GENERAL CONDITIONS SHALL BE AS SET FORTH IN THE STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS AND BRIDGES, ADOPTED BY THE TEXAS DEPARTMENT OF TRANSPORTATION NOVEMBER 1, 2014, INCLUSIVE OF ITEMS 1L – 9L GENERAL REQUIRMENTS AND COVENANTS, AND APPLICABLE SPECIAL PROVISIONS (See Section 13 “Technical Specifications”).

SECTION 11
SPECIAL CONDITIONS

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SPECIAL CONDITIONS

I. County

Hays County, a political subdivision of the State of Texas, acting through its County Judge, or his designee, agents or employees, whom Contractor has entered into the Agreement and for whom the Work is to be performed, is referred to as "County". The County shall be contacted through its Purchasing Department for contract related subjects and through the County Engineer's office for design and construction related subjects:

Purchasing Department
Hays County
712 South Stagecoach Trl, Ste 1071
San Marcos, TX 78666

County Engineer
Hays County
2171 Yarrington Road
San Marcos, TX 78667

II. The Construction Inspector

To Be Determined is the "Construction Inspector" referred to herein and in the Contract Documents. The Construction Inspector will be responsible for performing construction engineering and inspection services on the Project.

III. Engineer of Record

WSB & ASSOCIATES, INC is the County's design professional, who shall provide professional engineering services as defined in the Texas Government Code Chapter 2254, Subchapter A, and referred to as the "Engineer of Record" in Article 2 of the "Standard Form of Contract" contained in the Contract Documents. Nothing contained in the Contract Documents shall create any contractual or agency relationship between the Engineer of Record and the Contractor.

IV. Insurance

The Contractor will carry Workmen's Compensation Insurance, Public Liability and Property Damage Insurance, and Automobile Insurance sufficient to provide adequate protection against damage claims which may arise from operations under the Contract Documents, in compliance with the following:

Contractors Insurance: Without limiting any of the other obligations or liabilities of the Contractor, during the term of the Agreement and prior to Final Completion, the Contractor and each subcontractor, at their own expense, shall purchase and maintain the herein stipulated minimum insurance with companies duly approved to do business in the State of Texas and satisfactory to the County. Certificates of each policy shall be delivered to the County before any work is started, along with a written statement from the issuing company stating that said policy shall not be canceled, non-renewed or materially changed without 30 days advance written notice being given to the County. Prior to the effective date of cancellation, Contractor must deliver to the County a replacement certificate of insurance or proof of reinstatement. A model Certificate of Insurance is illustrated herein. Coverage shall be of the following types and not less than the specified amounts:

- (a) workers' compensation as required by Texas law, with the policy endorsed to provide a waiver of subrogation as to the County; employer's liability insurance of not less than \$500,000 for each accident, \$500,000 disease--each employee, \$500,000 disease-policy limit.
- (b) commercial general liability insurance, including independent contractor's liability, completed operations and contractual liability covering, but not limited to, the liability assumed under the indemnification provisions of the Contract Documents, fully insuring Contractor's (or subcontractor's) liability for injury to or death of County's employees and third parties, extended to include personal injury liability coverage with damage to property of third parties, with minimum limits as set forth below:

General Aggregate	\$1,000,000
Operations Aggregate	\$1,000,000
Personal and Advertising Injury	\$600,000
Each Occurrence	\$600,000
Fire Damage (any one fire)	\$50,000
Medical Expense (any one person)	\$5,000

The policy shall include coverage extended to apply to completed operations, asbestos hazards (if this project involves work with asbestos) and XCU (explosion, collapse and underground) hazards. The completed operations coverage must be maintained for a minimum of one year after Final Completion and acceptance of the Work, with evidence of same filed with County.

- (c) comprehensive automobile and truck liability insurance, covering owned, hired and non-owned vehicles, with a combined bodily injury and property damage minimum

limit of \$600,000 per occurrence; or separate limits of \$250,000 for bodily injury (per person), \$500,000 bodily injury (per accident) and \$100,000 for property damage. Such insurance shall include coverage for loading and unloading hazards.

"Umbrella" Liability Insurance: The Contractor shall obtain, pay for and maintain umbrella liability insurance during the contract term, insuring Contractor for an amount of not less than \$1,000,000 per occurrence combined limit for bodily injury and property damage that follows form and applies in excess of the primary liability coverages required herein above. The policy shall provide "drop down" coverage where underlying primary insurance coverage limits are insufficient or exhausted. County and Project Engineer shall be named as additional insured.

Policy Endorsements and Special Conditions

- (a) Each insurance policy to be furnished by Contractor shall include the following conditions by endorsement to the policy:
 - (1) name the County, the Program Manager/GEC, the County's Representatives, the Construction Inspector and the Engineer of Record as an additional insureds to all applicable coverage;
 - (2) each policy shall require that 30 days prior to the cancellation, non-renewal or any material change in coverage, a notice thereof shall be given to County by certified mail.
 - (3) the term "County" shall include all authorities, boards, bureaus, commissions, divisions, departments and offices of the County and individual members, employees and agents thereof in their official capacities, and/or while acting on behalf of the County;
 - (4) the "Program Manager" represents and assists the County in the planning, design, review, and coordination of the design and construction phases of the project.
 - (5) the policy phrase "other insurance" shall not apply to the County where the County is an additional insured on the policy; and
 - (6) all provisions of the Contract Documents concerning liability, duty and standard of care together with the indemnification provision, shall be underwritten by contractual liability coverage sufficient to include such obligations within applicable policies.
- (b) Insurance furnished by the Contractor shall also be in accordance with the following requirements:
 - (1) any policy submitted shall not be subject to limitations, conditions or restrictions deemed inconsistent with the intent of the insurance requirements to be fulfilled by Contractor. The County's decision thereon shall be final;
 - (2) all policies are to be written through companies duly licensed to transact that class of insurance in the State of Texas; and
 - (3) all liability policies required herein shall be written with an "occurrence" basis coverage trigger.
- (c) Contractor agrees to the following:

- (1) Contractor hereby waives subrogation rights for loss or damage to the extent same are covered by insurance. Insurers shall have no right of recovery or subrogation against the County, it being the intention that the insurance policies shall protect all parties to the Agreement and be primary coverage for all losses covered by the policies;
- (2) companies issuing the insurance policies and Contractor shall have no recourse against the County for payment of any premiums or assessments for any deductibles, as all such premiums and deductibles are the sole responsibility and risk of the Contractor;
- (3) approval, disapproval or failure to act by the County regarding any insurance supplied by the Contractor (or any subcontractors) shall not relieve the Contractor of full responsibility or liability for damages and accidents as set forth in the contract documents. Neither shall the bankruptcy, insolvency or denial of liability by the insurance company exonerate the Contractor from liability; and
- (4) no special payments shall be made for any insurance that the Contractor and subcontractors are required to carry; all are included in the contract price and the contract unit prices.

Any of such insurance policies required under the Contract Documents may be written in combination with any of the others, where legally permitted, but none of the specified limits may be lowered thereby.

The Contractor shall furnish the County with satisfactory proof that it has provided adequate insurance coverage in amounts and by approved carriers as required by the Contract Documents.

V. Record ("As-Built") Drawings

The Contractor shall mark all changes and revisions on all of its copies of the working drawings during the course of the Project as they occur. Upon completion of the Project and prior to Final Acceptance and Payment, the Contractor shall submit to the Construction Inspector one set of its working drawings, dated and signed by the Contractor and its project superintendent and labeled as "As-Built", that shows all changes and revisions outlined above and that shows field locations of all above ground appurtenances including, but not limited to valves, fire hydrants and manholes. These as-built drawings shall be forwarded to the GEC and then to the County and become the property of the County. Each appurtenance shall be located by at least two (2) horizontal distances measured from existing, easily identifiable, immovable appurtenances such as fire hydrants or valves. Property pins can be used for as-builts tie-ins provided no existing utilities as previously described are available. Costs for delivering as-built drawings shall be subsidiary to other bid items.

VI. Limit of Financial Resources

The County has a limited amount of financial resources committed to this Project; therefore, it shall be understood by Contractor that the County may be required to change

and/or delete any items which it may feel is necessary to accomplish all or part of the scope of work within its limit of financial resources. Contractor shall be entitled to no claim for damages or anticipated profits on any portion of work that may be omitted. At any time during the duration of the Project, the County reserves the right to omit any work from the Contract Documents. Unit prices for all items previously approved in the Contract Documents shall be used to delete or add work per change order.

VII. Limits of Work and Payment

It shall be the obligation of the Contractor to complete all work included in the Contract Documents, so authorized by the County, as described in the Contract Documents and Technical Specifications. Any question arising as to the limits of work shall be left up to the interpretation of the Engineer and/or Inspector.

VIII. State Sales Tax

On a contract awarded by a governmental entity for the construction of a publicly-owned improvement in a street right-of-way or other easement which has been dedicated to the public and to the Organization which qualifies for exemption pursuant to the provisions of Article 20.04 (F) of the Texas Limited Sales, Excise and Use Tax Act, the Contractor can probably be exempted in the following manner:

The Contractor may buy tax-free any materials incorporated into the project by issuing a resale certificate in lieu of paying the sales tax at the time of purchase. The Contractor may then accept an exemption certificate from the City for the materials.

Even with a separated contract, the rental of equipment and the purchase of items which do not ultimately become part of the physical structure will still be subject to state and local sales taxes.

IX. Completion of Work on Time

The Contractor agrees that time is of the essence and that the definite value of damages which would result from delay would be incapable of ascertainment and uncertain, so that for each day of delay beyond the number of days herein agreed upon for the Substantial Completion of the Work specified in the Contract Documents and contracted for, after due allowance for such extension of time as is provided for under the provisions of the Contract, the County may withhold permanently from the Contractor's total compensation, not as penalty but as liquidated damages, the sum as specified in Special Specification 000-HC01 per calendar day.

Furthermore, it is agreed by the Contractor that the time period between Substantial Completion and Final Completion shall be no longer than **30** working days. This separate time period shall be for completion of the Punch List, as set forth in Technical Specification 5L.12 Final Acceptance. In the event that Contractor fails to attain Final Completion on or

before the expiration of the above said time period, the Contractor shall be subject to the remedies set forth in the Contract Documents. More specifically, the Contractor shall be subject to the terms set forth in Technical Specification 8L.7 Default of Contract. In addition to exercising its rights and remedies under the Contract Documents, the County may also exercise any remedy that may be available to it under the law or in equity.

X. Layout and Construction Stakes

All construction staking shall be performed by the Contractor at the Contractor's expense.

The Contractor shall coordinate with design engineer to identify all necessary elements for station development as well as identify the trees, shrubs, and grass areas designated to remain within the construction limits to prevent damage to these items.

XI. Safety

The Contractor must use methods of construction that meet or exceed Occupational Safety and Health Administration Standards and any other local, state or federal regulations for safety that are in effect. The Contractor will have a trench safety plan prepared and sealed by Contractor's registered professional engineer.

XII. Maintenance Bond Term & Amount - OMITTED

No Maintenance Bond is required.

XIII. Safety Restrictions - Work Near High Voltage Lines

The following procedures shall be followed for work near high voltage lines on the Project.

- (a) A warning sign not less than five (5) inches by seven (7) inches, painted yellow with black letters that are legible at twelve (12) feet shall be placed inside and outside vehicles such as cranes, derricks, power shovels, drilling rigs, pile drivers, hoisting equipment or similar apparatus. The warning sign shall read as follows: "Warning-Unlawful to Operate This Equipment Within Six Feet of High Voltage Lines".
- (b) Equipment that may be operated with ten (10) feet of high voltage lines shall have an insulating cage guard around the boom or arm (except backhoes or dippers), and insulator links on the lift hook connections.
- (c) When necessary to work within six (6) feet of high voltage electrical lines, notify the power company. The electric company will erect temporary mechanical barriers, de-energize the line, or raise or lower the line. All such work done by the power company shall be at the expense of the contractor. The contractor shall maintain an accurate log of all such calls to the electric company.
- (d) No person shall work within six (6) feet of high voltage lines without protection measures having been taken as outlined in Paragraph C.

XIV. Erosion Control

Contractor shall comply with all laws prohibiting the pollution of any lake, stream, river, or wetland by the dumping of any refuse, rubbish, dredge material, or debris therein.

The Contractor will file the Notice of Intent (NOI) and the Notice of Termination (NOT) as the Project's operator. All required Permits and Notices shall be posted by the Contractor at the Project site.

Contractor shall apply temporary and/or permanent erosion and sedimentation controls, as specified in the plans or directed to disturbed roadside areas, fifteen feet and beyond from road pavement, prior to initiating road base operations. Following asphalt paving of road pavement, apply temporary and/or permanent erosion and sedimentation controls to remaining disturbed areas, as specified in the plans or as directed.

Contractor shall be responsible for the maintenance of all temporary and permanent water quality and erosion control measures proposed under the Storm Water Pollution Prevention Plan (SWPPP) or the Water Pollution Abatement Plan (WPAP) for the duration of the Project construction. Upon completion of construction and before the Construction Inspector issues the Certificate of Completion, Contractor shall be responsible for the removal of all temporary measures and the cleaning and resetting of all permanent measures. All costs associated with this work shall be considered subsidiary to other bid items and no additional compensation shall be allowed.

Contractor shall take special precautions during all periods of heavy rainfall and at all locations where storm water, groundwater and/or mud and debris may enter the sewer systems. All mud, stones, and debris that enter the sewer systems due to Contractor's operations, or Contractor's neglect, shall be cleaned from the system by Contractor. It shall be Contractor's responsibility to see that such storm water, groundwater and debris do not enter the sewer system. All costs for such work shall be merged in the unit prices bid and no additional compensation shall be allowed.

If it is necessary in the prosecution of the Work to interrupt existing surface drainage, sewers, or under drainage, temporary drainage shall be provided until permanent drainage work is completed. The construction of all temporary drainage installations shall be considered as incidental to the construction of the Work. Drainage ways shall be kept clear or other satisfactory provisions made for drainage.

Contractor shall be responsible for and shall take all reasonable and necessary precautions to preserve and protect all existing tile drains, sewers, and other subsurface drains, or parts thereof, which may be continued in service without change. Contractor shall repair, at its own expense, any and all damage to such facilities resulting from negligence or carelessness on the part of its operations.

The Construction Inspector shall be responsible for the monitoring and inspection of the erosion control measures by completion of the Construction Pollution Prevention Plan Inspection and Maintenance Report, as required for coverage under the Texas Pollutant Discharge Elimination System (TPDES) General Construction Permit (TXR150000).

XV. Discovery of Hazardous Materials

If, during the course of the Work, the existence of hazardous material, including asbestos containing material, is observed in the work area, the Contractor shall immediately notify the County in writing. The Contractor shall not perform any work pertinent to the hazardous material prior to receipt of special instructions from the County. Asbestos containing material includes transit pipe.

XVI. Submittals – Certificate of Compliance

The Contractor shall submit to the Construction Inspector a Certificate of Compliance from the manufacturer and/or supplier of each and every specified material or manufactured equipment item. The said certificate shall state that the material or the item of equipment to be furnished has been manufactured with materials in accordance with the applicable sections of all required codes, specifications, and standards as required by the specifications.

XVII. Unavailability of Materials

If the Contractor is unable to furnish or use any of the materials or equipment specified because of any order by a governmental agency limiting the manufacture or use, or because of the supply situation in the general market for such material or equipment, the Contractor shall offer substitutes therefor. The substitutes shall be suitable for the purpose, considering the factors of quality, serviceability, appearance, and maintenance. No substitute shall be used until the Engineer has approved it.

No consideration will be given to the use of substitutes on account of market conditions unless the Contractor demonstrates that, for the item in question, the Contractor placed its order without delay, that it has shown due diligence in attempting to locate the item as specified, and that the unavailability is due to market conditions in general throughout the particular industry.

If substitutes are used in the Work, the compensation to be paid to the Contractor shall be subject to review and adjustment. As a general principle, if the Engineer shall determine that the substitute will be less satisfactory, the Contractor shall allow a credit to the County; only under unusual circumstances shall there be an increase in compensation to the Contractor on account of substitution. The basis upon which the amount of price and adjustments will be founded shall be the cost of the appropriate items at the time the bids for the Project were opened.

XVIII. Traffic Control

Access shall be provided for residents and emergency vehicles at all times. When it becomes necessary to restrict access, the Contractor shall notify all applicable agencies (i.e. Fire Department, E.M.S., Public Works, etc.) a minimum of five (5) working days in advance of the proposed restrictions. At the end of each day, two lanes of traffic shall be opened to the public, unless otherwise stated in the Contract Documents.

The Contractor shall coordinate with other contractors working in the area.

XIX. Temporary Traffic Handling Devices

The Contractor shall furnish, erect and maintain all necessary barricades, lights, warning signs and temporary pavement markings as shown on the Plans and/or in accordance with the Texas Manual on Uniform Traffic Control Devices and with the Specifications in the Contract Documents. In addition, the Contractor shall provide flag-persons and take necessary precautionary measures for the protection of persons, property and the Work, when deemed necessary by the County or the Construction Inspector.

The Construction Inspector shall be responsible for the monitoring and inspection of the traffic control measures by completion of the Traffic Control Devices Inspection Report (TCDIR), and the Contractor shall be responsible for compliance with the terms of the TCDIR procedures.

XX. Roadway Signs

All permanent and temporary roadway signage designated in the Contract Documents shall be in accordance with the Texas Manual on Uniform Traffic Control Devices.

XXI. Project Signs

The Contractor shall erect at the site of construction, and maintain during construction, signs satisfactory to the County identifying the Project and indicating that the government is participating in the development of the Project. Two project signs will be required for the Project. The two said signs shall be 8' X 4' and made out of white 10 mm corrugated plastic with pressure sensitive vinyl lettering to include: Hays County / TxDOT Partnership Program with the Hays County Seal, the Project's name, and a brief description relating to the estimated date of completion, contact phone number, website address and the appropriate Hays County Commissioner's name and precinct number. Furnishing, installing and maintaining these signs shall be considered subsidiary to Item 502, "Barricades, Signs and Traffic Handling". Proofs of sign shall be submitted to the Inspector for approval prior to fabrication.

XXII. Permits

The Contractor shall be responsible for obtaining any and all required construction permits. Contractor agrees to comply with all conditions of the permits and to maintain copies of the permits at the site at all times while the Work is in progress. The County shall be responsible for obtaining Section 404 permits from the U.S. Army Corps of Engineers as part of the Project design. When Contractor-initiated changes in the construction method changes the impacts to waters of the U.S., Contractor shall be responsible for obtaining new or revised Section 404 permits.

XXIII. Landscape Restoration

If not designated as a specific pay item in bid package, the Contractor shall take the means necessary to protect all trees, shrubbery and sod. Protection, removal and replacement of existing landscaping will be in accordance with the Contract Documents.

XXIV. Existing Fencing

All fences encountered during construction within the right-of-way (ROW) shall be removed by the Contractor under "Preparing Right-of-Way." Permanent fencing, designating the ROW, will be provided by others, unless otherwise shown in the Contract Documents. The Contractor will be required to coordinate preparing ROW operations and fence removal and installations with the landowners as needed.

XXV. Easements

Any easements, both temporary and permanent, required for the Project will be provided by the County as shown in the Contract Documents. Other easements required or desirable by the Contractor shall be arranged by the Contractor at its sole expense. The easements shall be cleaned after use and restored to their original conditions, or better by the Contractor. In the event additional work is required by the Contractor, it shall be the Contractor's responsibility to obtain written permission from the property owners involved for the use of additional property required. No additional payment will be allowed for this item.

XXVI. Limits of Contractor's Operation

The Contractor shall limit construction operations to within the ROW or the easement unless otherwise directed by the County or its authorized representative.

XXVII. Maintenance of Pedestrian Walkways

The Contractor will be required to maintain clear walkways for pedestrians during construction in a manner to provide access in the most convenient and safest manner consistent with essential construction operations. Specifically, the following will be enforced.

Pedestrian traffic may be blocked at a location where work is actually in progress. Signs, barricades, and warning devices must be placed at nearest crosswalks approaching the construction site from every direction advising pedestrians of the blockage and advising them to use alternate routes.

Access to doorways and pedestrian entrances must be maintained at all times during hours that access is needed by business. Paving by sections or providing temporary access may be required.

No more than one corner of any intersection may be under construction at any one time. Work must be completed and opened for use by pedestrians before starting work on any other corner of an intersection.

The Contractor will be expected to diligently pursue construction from start to completion at every location to avoid prolonged and unnecessary disruptions to pedestrian traffic.

This work shall be considered incidental and not a separate pay item, unless provided otherwise in the Contract Documents.

XXVIII. Spoil

All excavated material unfit for backfill, waste material accumulated on the job, and any material surplus to that needed in the prosecution of the Work shall be removed from the site by the Contractor and properly and legally disposed of at its expense, unless otherwise directed by the Inspector. **THE CONTRACTOR SHALL INDEMNIFY AND SAVE HARMLESS THE COUNTY, ALL OF ITS OFFICERS, AGENTS, AND EMPLOYEES FROM ALL SUITS, ACTIONS, OR CLAIMS OF ANY CHARACTER RESULTING FROM ITS ARRANGEMENTS FOR THE DISPOSAL OF SPOIL.** This shall be incidental and not a separate pay item.

XXIX. Materials Testing

Quality Control testing of all materials, construction items or products incorporated in the work shall be performed by the Contractor at the Contractor's expense.

Quality Assurance sampling and testing for acceptance will be performed by the Inspector in accordance with the Quality Control (QC) / Quality Assurance (QA) program outlined in Appendix A. The cost of such tests will be incurred by the County and coordinated by the Construction Inspector through funds made available to the Construction Inspector under his/her agreement with the County for the professional services related to construction engineering and inspection on the Project.

The Inspector shall furnish for review by the GEC, not later than 10 days after receipt of notice to proceed, a Quality Control Plan consisting of plans, procedures, and organization necessary to produce an end product which complies with the contract documents. The Inspector will be allowed the latitude to develop standards of control subject to approval by the County. As a minimum, the plan shall include description of the type and frequency of inspection staffing, materials handling and construction procedures, calibration and maintenance of equipment, production process control, and testing deemed necessary to assure quality as specified by the Contract Documents.

XXX. Pre-Construction Conference

Before the Project work order is issued, a pre-construction conference shall be held with representatives of the County and the Contractor. The Contractor shall plan to submit a

schedule of operations at the pre-construction conference, unless otherwise notified. See Section XXXVI-Prosecution and Progress for additional construction schedule requirements.

XXXI. Weight Tickets

The Contractor will be responsible for providing asphalt and aggregate tickets for quantity verifications on all asphaltic concrete used for the Project.

XXXII. Confined Space Entry Program

It shall be the responsibility of the Contractor to implement and maintain a variable “Confined Space Entry Program” which must meet OSHA requirements for all its employees and subcontractors at all times during construction. OSHA defines all active sewer manholes, regardless of depth, as “permit required confined spaces”. Contractors shall submit an acceptable “Confined Space Entry Program” for all applicable manholes and maintain an active file for these manholes. The cost of complying with this program shall be subsidiary to the pay items involving work in confined spaces.

XXXIII. Tree and Plant Protection

Scope: Provide complete protection and maintenance of existing trees, shrubs, and grass areas designated to remain within construction limits and/or right-of-way.

Coordination: Coordinate protection of existing trees, shrubs and grass areas with other trades so as to prevent damage to these items.

Payment for Damages: If existing trees, shrubs or grass areas are destroyed, killed or badly damaged as a result of construction observations, Contract sum will be reduced by the amount of assessed damages. Damages will be evaluated by the Construction Inspector, using the following:

Trees: International Shade Tree Conference Standards and following formula – measurement of a cross section of tree trunk will be made at a point 2 feet above existing grade level to determine cross section area in square inches. Assessment for damage will be \$27.00 per square inch.

Shrubs and Grass Areas: An initial fine of \$1,000 shall be imposed for any unauthorized disturbance within the boundaries of the shrub and grass areas to remain within the right-of-way and outside the limits of disturbance. This disturbance includes but is not limited to: parking or intrusion of equipment or vehicles; storage of any materials, and any unauthorized damage and/or removal of vegetation. In addition to the initial fine, a base fine of \$8.00 for every square foot of area of damaged vegetation within any areas designated to remain on the plans shall be imposed. The areas covered under this section include but are not limited to: areas designated to remain or no-work areas. In determining the amount of fine,

the Construction Inspector shall consider the degree and extent of harm caused by the violation, the cost of rectifying the damage, and whether the violation was committed willfully.

Materials: Tree Protection lumber dimensions shall be 4X4 and 2X4 sizes.

Protection: The Contractor shall protect existing trees, shrubs, and grass areas within construction limits from the following damage:

- (1) Compaction of root area by equipment, vehicles or material storage;
- (2) Trunk damage by moving equipment material storage, nailing or bolting;
- (3) Strangling by tying ropes or guy wires to trunks or large branches;
- (4) Poisoning by pouring solvents, gas, paint or other chemicals on or around trees and roots;
- (5) Cutting of roots by excavating or ditching;
- (6) Damage of branches by improper pruning;
- (7) Drought from failure to water or by cutting or changing normal drainage pattern past roots;
- (8) Changes of soil pH factor by disposal of lime base materials such as concrete or plaster;
- (9) Do not cut roots 1-1/2" in diameter or over. Excavation and earthwork within drip line of trees shall be done by hand.

Install barricade protection around trees and shrubs, constructed of 4X4 posts and 2X4 stringers top and bottom. Install protection prior to demolition or excavation operations. Leave protection until construction operations are essentially complete.

Maintenance:

- (1) Water trees and shrubs within construction limits as required to maintain their health during course of construction operations.
- (2) Pruning will be performed by County.

XXXIV. Prosecution and Progress

At the pre-construction meeting, the Contractor shall submit for acceptance a schedule of all planned work activities and sequences that is intended to be followed in order to both substantially and fully complete the Work within the allotted time periods (the "Project Schedule"). The purpose of the County requiring the Project Schedule shall be to:

- (1) Ensure adequate planning during the prosecution and progress of the work in accordance with the allowable number of working/ calendar days and all milestones;
- (2) Assure coordination of the efforts of the Contractor, County, Program Manager/GEC, Construction Inspector, utilities and others that may be involved in the Project;
- (3) Assist the Contractor, County, Program Manager/GEC and Construction Inspector in monitoring the progress of the Work and evaluating proposed changes to the Contract Documents; and
- (4) Assist the County, Program Manager/GEC and Construction Inspector in administering the time requirements set forth in the Contract Documents.

A Type B Schedule will be required on all projects. Following is the schedule requirements:

Type B Schedule:

The Contractor shall create and maintain a Critical Path Method (CPM) Project Schedule showing the manner of prosecution of work that it intends to follow in order to both substantially and fully complete the Work within the allotted time periods. The Project Schedule shall employ computerized CPM for the planning, scheduling and reporting of the work as described in this specification. The CPM Project Schedule shall be prepared using the Precedence Diagram Method (PDM). The Contractor shall create and maintain the schedule using the latest version, at the time of the award of the Project, of Primavera System, Inc. Primavera Project Planner or Suretrak Project Scheduler computer scheduling software, except when a general note requires otherwise. Microsoft Project will not be acceptable. No direct compensation will be allowed for fulfilling these requirements, as such work is considered subsidiary to the various bid items of the Project.

- (1) Personnel. The Contractor shall provide an individual, referred to hereinafter as

the Scheduler, to create and maintain the CPM schedule. He or she shall be proficient in CPM analysis and shall be able to perform required tasks on the specified software. The Scheduler shall be made available for discussion or meetings when requested by the County, Construction Inspector or Program Manager/GEC.

- (2) Schedule. The Project Schedule shall show the sequence and interdependence of activities required for complete performance of the work. The Contractor shall be responsible for assuring all work sequences are logical and show a coordinated plan of the Work.

Each activity on the schedule shall be described by: An activity number utilizing an alphanumeric designation system tied to the traffic control plans, and that is agreeable to the County, Program Manager/GEC, or Construction Inspector; concise description of the Work represented by the activity; and activity durations in whole working days with a maximum of twenty (20) working days. Durations greater than twenty (20) working days may be used for non-construction activities (mobilization, submittal preparation, curing, etc.), and other activities mutually agreeable between the Contractor and County, Program Manager/GEC or Construction Inspector. The Contractor shall provide a legend for all abbreviations. The activities shall be coded so that organized plots of the schedule may be produced. Typical activity coding includes: Traffic control phase, location and work type. If allowed and if the Contractor chooses to use Suretrak Project Manager to create the schedule, the Contractor shall not use the independent activity type. This would cause the schedule to be incompatible with Primavera Project Planner.

The activity durations shall be based on the quantity for the individual work activity divided by a production rate. An estimated production rate for each activity shall also be shown.

The Contractor shall plan and incorporate major resources into the schedule. Major resources are defined as crews and equipment that constrain the Contractor from pursuing available work. The resources shall accurately represent the Contractor's planned equipment and manpower to achieve the productivity rates specified above.

Seasonal weather conditions shall be considered and included in the CPM schedule for all work influenced by temperature and/or precipitation. Seasonal weather conditions shall be determined by an assessment of average historical climatic conditions. Average historical weather data is available through the National Oceanic and Atmospheric Administration (NOAA). These effects will be simulated through the use of work calendars for each major work type (i.e., earthwork, concrete paving, structures, asphalt, drainage, etc.) Project and work calendars should be updated each month to show days actually able to work on the various work activities.

“Total float” is defined as the amount of time between the early start date and the late start date, or the early finish date and the late finish date, for each and every activity in the schedule. Float time in the schedule is a shared commodity between the County and the Contractor.

Only responsible delays in activities that affect milestone dates or the Project’s completion date, as determined by CPM analysis, will be considered for a time extension.

The schedule shall show the sequence and interdependence of activities required for complete performance of the work. The schedule shall be prepared and maintained in accordance with the scheduling requirements stated in this Section and shall include two (2) organized plots with the activities logically grouped using the activity coding. The Contractor shall also provide an electronic copy of the schedule on diskette or CD-ROM.

The schedule shall encompass the time from the start of the Contract Time to the Project’s Final Completion. The longest path through the schedule shall be readily discernable on the plot of the schedule.

- (3) Joint Review, Revision and Acceptance. Within twenty (20) calendar days of receipt of the Contractor's proposed schedule, the County or its authorized agents shall evaluate the schedule for compliance with this specification, and notify the Contractor of the findings. If the County or its authorized personnel request a revision or justification, the Contractor shall provide a satisfactory revision or adequate justification to the satisfaction of the Construction Inspector or County authorized personnel within seven (7) calendar days.

If the Contractor submits a CPM schedule for acceptance which is based on a sequence of work not in the Contract Documents, then the Contractor shall notify the County or its authorized entities in writing, separate from the schedule submittal.

The County's review and acceptance of the Contractor's Project Schedule is for conformance to the requirements of the Contract Documents only. Review and acceptance by the County or other authorized personnel of the Contractor's Project Schedule does not relieve the Contractor of any of its responsibility for the Project Schedule, or of the Contractor's ability to meet interim milestone dates (if specified) and the Final Completion date, nor does such review and acceptance expressly or by implication warrant, acknowledge or admit the reasonableness of the logic, durations, manpower or equipment loading of the Contractor's Project Schedule. In the event the Contractor fails to define any element of work, activity or logic and the County's review does not detect this omission or error, such omission or error,

when discovered by the Contractor or County and its authorized personnel, shall be corrected by the Contractor at the next monthly schedule update and shall not affect the project completion date.

- (4) Updates. The Project Schedule shall be updated on a monthly basis and shall be required as a basis for the pay application approval. The Project Schedule update shall be submitted on the first working day of each month. The Contractor shall meet with the Construction Inspector or County authorized personnel each month at a scheduled update meeting to review actual progress made through the data date of the schedule update. The review of progress will include dates activities actually started and/or completed, and the percentage of work completed or remaining duration on each activity started and/or completed. The percentage of work complete shall be calculated by utilizing the quantity and productivity rate information. The Project Schedule update shall include one (1) copy of the following information:

- a) Electronic copy of the updated schedule including revisions and changes on diskette or CD-ROM or other storage media.
- b) One (1) logically organized plot of the schedule update if requested by the County or its authorized personnel.

- (5) Project Schedule Revisions. If the Contractor desires to make major changes in the Project Schedule, the Contractor shall notify the County or Construction Inspector in writing. The written notification shall include the reason for the proposed revision, what the revision is comprised of, and how the revision was incorporated into the schedule. In addition to the written notification of the revision, the Contractor shall provide an electronic copy and one logically organized plot of the schedule including the revision if requested by the County or Construction Inspector.

Major changes are hereby defined as those that may affect compliance with the requirements of the Contract Documents or those that change the critical path. All other changes may be accomplished through the monthly updating process.

- (6) Time Impact Analysis. The Contractor shall notify the County or Construction Inspector when an impact may justify an extension of Contract Time or adjustment of milestone dates. This notice shall be made in writing as soon as possible, but no later than the end of the next estimate period after the commencement of an impact or the notice for a change is given to the Contractor. Not providing notice to the County or Construction Inspector by the end of the next estimate period will indicate the Contractor's approval of the time charges as shown on that time statement. Future consideration of that statement will not be permitted and the Contractor forfeits its right to subsequently request a time extension or time suspension unless the circumstances are such that the Contractor could not reasonably have knowledge of the impact by the end of the next estimate period.

When changes are initiated or impacts are experienced, the Contractor shall submit to the County or Construction Inspector a written time impact analysis describing the influence of each change or impact.

A time impact analysis is an evaluation of the effects of changes in the construction sequence, contract, plans, or site conditions on the Contractor's plan for constructing the Project, as represented by the Project Schedule. The purpose of the time impact analysis is to determine if the overall Project has been delayed, and if necessary, to provide the Contractor and the County a basis for making adjustments to the time allotted for Substantial Completion and Final Completion.

A time impact analysis shall consist of one or all of the steps listed below.

Step 1. Establish the status of the Project before the impact using the most recent Project Schedule update prior to the impact occurrence.

Step 2. Predict the effect of the impact on the most recent Project Schedule update prior to the impact occurrence. This requires estimating the duration of the impact and inserting the impact into the schedule update. The Contractor shall demonstrate how the impact was inserted into the schedule showing the added or modified activities and the added or modified relationships. Any other changes made to the schedule including modifications to the calendars or constraints shall be noted.

Step 3. Track the effects of the impact on the schedule during its occurrence. Note any changes in sequencing, and mitigation efforts.

Step 4. Compare the status of the Work prior to the impact (Step 1) to the prediction of the effect of the impact (Step 2), and to the status of the work during and after the effects of the impact are over (Step 3). Note that if an impact causes a lack of access to a portion of the Project, the effects of the impact may extend to include a reasonable period for remobilization.

The time impact analysis shall include an electronic copy of the complete schedule prepared in Step 2. If the Project Schedule is revised after the submittal of a time impact analysis but prior to its approval, the Contractor shall promptly indicate in writing to the County or Construction Inspector the need for any modification to its time impact analysis.

Only one (1) copy of each time impact analysis shall be submitted within fourteen

(14) calendar days after the completion of an impact. The County or Construction Inspector may require Step 1 and Step 2 of the time impact analysis be submitted at the commencement of the impact, if needed to make a decision regarding the suspension of Contract Time.

Approval or rejection of each time impact analysis by the County, Construction Inspector or Program Manager/GEC shall be made within fourteen (14) calendar days after receipt unless subsequent meetings and negotiations are necessary.

The time impact analysis shall be incorporated into and attached to any relevant change order(s) and/or supplemental agreement(s).

XXXV. Sanitary Provisions

Provide and maintain adequate, neat, and sanitary toilet accommodations for employees, including County employees and representatives, in compliance with the requirements and regulations of the Texas Department of Health or other authorities having jurisdiction.

XXXVI. Work Near Railroads

(A) General.

If the work crosses or is in close proximity to a railroad, do not interfere with the use or operation of the railroad company's trains or other property. Assign responsible supervisory personnel to ensure that tracks and adjacent areas are clear of debris, road materials, and equipment. It is the Contractor's responsibility to contact the railroad to determine the railroad's requirements for work within the railroad right of way and to comply with the requirements. The County will not reimburse the Contractor for any cost associated with these requirements. If the work requires construction within 25 ft. horizontally of the near rail or if the tracks may be subject to obstruction due to construction operations, notify the Engineer and the Railroad Company at least 3 days before performing work. The railroad company will provide flaggers during this work. If railroad flaggers will be needed longer than 2 consecutive days, request them at least 30 days before performing work within the railroad right of way. Flaggers provided by the railroad company will be paid for by the County. Do not store material or equipment in the Railroad's right of way within 15 ft. of the centerline of any track. Do not place any forms or temporary falsework within 8.5 ft. horizontally from the centerline or 22 ft. vertically above the top of rails of any track, unless otherwise shown in the Contract Documents.

(B) Temporary Crossings.

If a temporary crossing is needed, obtain permission from the railroad company before crossing the tracks. Execute the "Agreement for Contractor's Temporary Crossing" if required by the Railroad Company. The Contractor shall ensure that the tracks are left clear of equipment and debris that would endanger the safe

operation of railroad traffic. Provide a crossing guard on each side of the crossing to direct equipment when hauling across the tracks. The Contractor shall stop construction traffic a safe distance away from the crossing upon the approach of railroad traffic. Work for temporary crossings will not be paid for directly, but shall be subsidiary to items of the Work subject of the Contract Documents. Work performed by the Railroad Company for the temporary crossing, except flaggers, will be at the Contractor's expense.

XXXVII. Clearance of Right of Way and Utilities

The acquisition of right-of-way was not required for this project. All utility adjustments will be completed prior to letting for this project.

SECTION 12
GENERAL NOTES

Refer to Plans for General Notes

SECTION 13
TECHNICAL SPECIFICATIONS

**HAYS COUNTY/
TEXAS DEPARTMENT OF TRANSPORTATION
GOVERNING SPECIFICATIONS**

(STANDARD SPECIFICATIONS, SPECIAL PROVISIONS, AND SPECIAL SPECIFICATIONS)

WHERE DISCREPANCIES OCCUR BETWEEN THE TECHNICAL SPECIFICATIONS, THE FOLLOWING DESCENDING ORDER OF PRIORITY SHALL GOVERN: (1) SPECIAL CONDITIONS, (2) SPECIAL PROVISIONS TO SPECIAL SPECIFICATIONS, (3) SPECIAL SPECIFICATIONS, (4) SPECIAL PROVISIONS, AND (5) STANDARD SPECIFICATIONS.

ALL SPECIFICATIONS AND SPECIAL PROVISIONS APPLICABLE TO THIS PROJECT ARE IDENTIFIED AS FOLLOWS:

STANDARD SPECIFICATIONS: ADOPTED BY THE TEXAS DEPARTMENT OF TRANSPORTATION
NOVEMBER 1, 2014. STANDARD SPECIFICATIONS ARE
INCORPORATED INTO THE CONTRACT BY REFERENCE.

ITEMS 1L – 9L GENERAL REQUIRMENTS AND COVENANTS

ITEM 100	PREPARING RIGHT OF ROW (4L)(5L)(6L)(103)
ITEM 104	REMOVING CONC (DRIVEWAYS) (4L)
ITEM 110	EXCAVATION (9L)(132)
ITEM 132	EMBANKMENT (7L)(9L)(100)(160)(204)(210)(216)(260)(400)
ITEM 160	TOPSOIL (7L)(168)
ITEM 164	SEEDING FOR EROSION CONTROL (162)(166)(168)
ITEM 166	FERTILIZER (520)
ITEM 168	VEGETATIVE WATERING
ITEM 169	SOIL RENTENTION BLANKETS
ITEM 247	FLEXIBLE BASE (4L)(9L)(105)(204)(210)(216)(520)
ITEM 310	PRIME COAT (300)(316)(3096)
ITEM 464	REINFORCED CONCRETE PIPE (9L)(400)(402)(403)(467)(476)
ITEM 467	SAFETY END TREATMENT (400)(420)(421)(432)(440)(442)(445)(460)(464)
ITEM 500	MOBILIZATION
ITEM 502	BARRICADES, SIGNS AND TRAFFIC HANDLING (5L)(9L)
ITEM 506	TEMPORARY EROSION, SEDIMENTATION, AND ENVIRONMENTAL CONTROLS (161)(432)(556)
ITEM 530	INTERSECTIONS, DRIVEWAYS, AND TURNOUTS (247)(260)(263)(275)(276)(292)(316)(330)(334)(340)(360)(421)(440)
ITEM 560	MAILBOX ASSEMBLIES
ITEM 644	SMALL ROADSIDE SIGN ASSEMBLIES (421)(440)(441)(442)(445)(636)(643)(656)
ITEM 662	WORKZONE PAVEMENT MARKINGS (9L)(666)(668)(672)(677)
ITEM 666	REFLECTORIZED PAVEMENT MARKINGS (9L)(316)(502)(662) (677) (678)
ITEM 672	RAISED PAVEMENT MARKERS (9L)(677)(678)
ITEM 677	ELIMINATING EXISTING PAVEMENT MARKINGS AND MARKERS (9L)(300)(302)(316)(3096)

SPECIAL SPECIFICATIONS:

ITEM 3076	DENSE-GRADED HOT-MIX ASPHALT
ITEM 3081	THIN OVERLAY MIXTURES (TOM)
ITEM 3084	BONDING COURSE
ITEM 3085	UNDERSEAL COURSE

ITEM 3096	ASPHALTS, OILS, AND EMULSIONS
ITEM 6001	PORTABLE CHANGEABLE MESSAGE SIGN
ITEM 6185	TRUCK MOUNTED ATTENUATOR (TMA) AND TRAILER ATTENUATOR (TA)

SPECIAL PROVISIONS:

WAGE RATES (See Section 8)

SP000-002L

SP000-008L

SP000-1019

SP247-003

SP300-020

SP302-003

SP347-003

SP421-010

SP464-001

SP502-008

SP506-001L

SP636-001

SP643-001

SP666-007

SP680-006

SP6185-002

HAYS COUNTY SPECIAL PROVISIONS

SPECIAL PROVISION ITEM 000

GENERAL: THE ABOVE-LISTED SPECIFICATION ITEMS ARE THOSE UNDER WHICH PAYMENT IS TO BE MADE. THESE, TOGETHER WITH SUCH OTHER PERTINENT ITEMS, IF ANY, AS MAY BE REFERRED TO IN THE ABOVE-LISTED SPECIFICATION ITEMS, AND INCLUDING THE SPECIAL PROVISIONS AND SPECIAL SPECIFICATIONS LISTED ABOVE, CONSTITUTE THE COMPLETE SPECIFICATIONS FOR THIS PROJECT.

APPENDIX A
QUALITY ASSURANCE PROGRAM
FOR CONSTRUCTION PROJECTS



Quality Assurance Program for Design-Bid-Build Projects

May 2018

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Appendix B – Split Sample Tolerance Limits

Appendix C – IA Annual Report

Appendix D – Material Certification Example Letter for Projects with Federal Oversight

Appendix E – Material Certification Example Letter for Projects with Non-Federal Oversight

Appendix F – Archived Versions

SECTION 1 - INTRODUCTION

1.1 Overview

The Texas Department of Transportation (TxDOT) established the Quality Assurance Program (QAP) for Design-Bid-Build (D-B-B) Projects to ensure that materials and workmanship incorporated into highway construction projects are in reasonable conformity with the requirements of the approved plans and specifications, including any approved changes.

This program conforms to the criteria in 23 CFR 637 B. It consists of an "Acceptance Program" and "Independent Assurance (IA) Program" based on test results obtained by qualified persons and equipment.

The QAP allows for the use of validated Contractor-performed quality control (QC) test results as part of an acceptance decision. It also allows for the use of test results obtained by commercial laboratories in acceptance decisions. The acceptance of all materials and workmanship is the responsibility of the Engineer.

1.2 Support

For more information regarding the information and procedures in the program, contact the Construction Division's Materials and Pavements Section (CST/M&P) Administration at 512/506-5808.

SECTION 2 - ACCEPTANCE PROGRAM

2.1 Overview

Materials incorporated into any highway construction project are subject to verification sampling and testing, as well as quality control (QC) sampling and testing when required by the specifications.

2.2 Sampling and Testing Frequency and Location

Verification sampling and testing will be performed at the location and frequency established in the Department's [Guide Schedule of Sampling and Testing for Design-Bid-Build \(DBB\) Projects](#) (DBB Guide Schedule) or specifications specific to each project.

2.3 Quality Control Sampling and Testing

Contractor-performed QC sampling and testing may be used as part of an acceptance decision when required or allowed by specification.

QC sampling and testing personnel, laboratories, and equipment will be qualified in accordance with [Section 6](#) – Technician Qualification Program and [Section 7](#) – Laboratory Qualification Program and will be evaluated under the Independent Assurance Program, as described in [Section 3](#) of this document.

QC test results will be validated by verification test results obtained from independently taken samples. Qualified TxDOT personnel or their designated agents will perform verification sampling and testing.

2.4 Dispute Resolution

When QC test results are used in the acceptance decision, the CST/M&P central laboratory or an accredited independent laboratory approved by CST/M&P will perform the referee testing. The referee laboratory decision will be final.

SECTION 3 - INDEPENDENT ASSURANCE PROGRAM

3.1 Overview

The Independent Assurance (IA) program evaluates all sampling and testing procedures, personnel, and equipment used as part of an acceptance decision.

The IA program evaluates the qualified sampling and testing personnel and testing equipment and is established using the system approach. The system approach bases frequency of IA activities on time—regardless of the number of tests, quantities of materials, or numbers of projects tested by the individual being evaluated.

3.2 Required Frequencies and Activities

Table 3 gives the frequencies and activities required for evaluating sampling and testing personnel and equipment under the system approach to IA.

Table 1: Frequencies and Activities Required Under IA System Approach

Time	Activity
Prior to performing acceptance sampling and testing	Qualification required under Section 6 and Section 7 of this OAP.
Within 12 months after Observation and Qualification, not to exceed 15 months	Within 48 months after Observation and Qualification, not to exceed 51 months. (Only required for ACI, which has a 5-year certification cycle)
Within 24 months after Observation and Qualification, not to exceed 27 months	
Within 36 months of Qualification. (Only required for certifications issued by TxDOT or TXAPA with a 3-year cycle)	
Within 36 months after Observation and Qualification, not to exceed 39 months. (Only required for ACI, which has a 5-year certification cycle)	

Each qualified technician is required to participate in the first available proficiency or split sample for each test method requiring IA. Results must compare to the IA test results to within the established tolerance.

Each qualified technician is required to participate in one proficiency or split sample test for each test method requiring IA. Results must compare to the IA test results to within the established tolerance.

Qualification is again required under [Section 6](#) and [Section 7](#) of this QAP.

Each qualified technician is required to participate in one proficiency or split sample test for each test method requiring IA. Results must compare to the IA test results to within the established tolerance

Each qualified technician is required to participate in one proficiency or split sample test for each test method requiring IA. Results must compare to the IA test results to within the established

within 60 months of qualification (Only required for certifications issued by ACI with a 5-year cycle)	Qualification is again required under Section 6 and Section 7 of this QAP
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Maintaining technician qualification under the IA system approach requires continuation of the above cycle of qualification and successful split or proficiency sample testing.

3.3 Testing Equipment

CST/M&P will qualify district laboratory testing equipment used for acceptance sampling and testing, in accordance with Section 7 – Laboratory Qualification Program. Any non-TxDOT commercial laboratory used for acceptance sampling and testing must be accredited in accordance with Section 7.3 – Laboratory Qualification Responsibility.

CST/M&P may designate the district laboratory to qualify commercial laboratory testing equipment, used for acceptance sampling and testing, in accordance with corresponding calibration test procedures. CST/M&P or TxDOT district laboratory may hire a third-party entity to perform calibration/verification in accordance with corresponding calibration test procedures.

The qualifying authority will qualify testing equipment in accordance with the following guidelines.

- A. Frequency for qualifying sampling and testing equipment must not exceed 1 year.
- B. Calibration/verification is required whenever the laboratory or equipment is moved.

The qualifying authority will evaluate any equipment used to perform verification and/or QC sampling and testing in making an acceptance decision. This evaluation includes calibration checks and split or proficiency sample tests. The Department test procedures referenced in Section 7.5 – Calibration Standards and Frequencies for Laboratory Equipment give the requirements for, and frequency of, equipment calibrations.

3.4 Testing Personnel

CST/M&P will qualify district and commercial laboratory personnel performing IA activities, in accordance with Section 6 – Technician Qualification Program.

CST/M&P may designate a district laboratory to qualify other Department personnel and accredited commercial laboratory personnel performing IA activities. When a district qualifies commercial laboratory personnel, they must notify CST/M&P in writing.

Individuals performing IA activities will be other than those performing verification or QC testing.

IA personnel will evaluate any individual performing verification or QC sampling and testing. This evaluation includes observations and split or proficiency sample testing.

3.5 Comparing Test Results

Comparison of the split sample test results can be used in the event equipment and procedures issues are suspected. [Appendix B](#) gives the acceptable tolerance limits for comparing test results from split and proficiency samples.

If the comparisons of the test results do not comply with the tolerances, an engineering review of the test procedures and equipment will be performed immediately to determine the source of the discrepancy.

3.6 Annual Report of IA Program Results

CST/M&P will compose and submit an annual report to the Federal Highway Administration (FHWA) summarizing the results of TxDOT's systems approach IA program. See [Appendix C](#) for the annual report form.

This report identifies:

- A. Number of sampling and testing personnel evaluated by the systems approach IA testing;
- B. Number of IA evaluations found to meet tolerances in [Appendix B](#);
- C. Number of IA evaluations found to not meet tolerances in [Appendix B](#); and
- D. Summary of any significant system-wide corrective actions taken.

SECTION 4 - MATERIALS CERTIFICATION

4.1 Overview

The TxDOT District Area Engineer or Director of Construction will submit a materials certification letter, conforming in substance to the examples shown in Appendix D or E, as applicable.

For projects with federal oversight, submit the materials certification letter (Appendix D) to the FHWA division administrator, with a copy to CST/M&P.

For non-federal oversight projects, submit the material certification letter (Appendix E) to the TxDOT District Engineer, with a copy to CST/M&P.

Either letter must be submitted at final acceptance of the project.

SECTION 5 - CONFLICT OF INTEREST

5.1 Overview

To avoid an appearance of a conflict of interest, any qualified non-TxDOT laboratory will perform only one of the following functions on the same project:

- A. Verification sampling and testing;
- B. QC sampling and testing;
- C. IA testing; or
- D. Referee testing.

SECTION 6 - TECHNICIAN QUALIFICATION PROGRAM

6.1 Purpose

This program provides uniform statewide procedures for technician qualification to ensure that tests required by the specifications are performed according to the prescribed sampling and testing methods.

6.2 Technician Qualification

Sampling and testing personnel will be qualified to perform sampling and testing for the acceptance of materials in the areas of soils, bituminous, aggregate, and concrete materials.

The test methods for which individuals can be qualified are included in the following series of the [TxDOT Test Procedures](#).

- [100-E Series \(Soils\)](#)
- [200-F Series \(Bituminous\)](#)
- [400-A Series \(Aggregates and Concrete\)](#)
- [500-C Series \(Asphalt – Tex-500-C and Tex-530-C\)](#)

6.3 Who Must Be Qualified?

Any individual who performs sampling and testing on the materials listed in [Section 6.2](#), for acceptance, must be qualified in each test procedure they perform.

NOTE: Reciprocity may be granted to individuals who have been successfully qualified under another state's program. These situations will be considered on a case-by-case basis and must meet the approval of the Construction Division, Materials and Pavements (CST/M&P) Section Director.

6.4 Who Can Qualify Sampling and Testing Personnel?

The following personnel may qualify an individual to perform the required sampling and testing of materials:

- A. CST/M&P personnel;
- B. Qualified district materials engineer/laboratory supervisor (except as noted below);

- C. Qualified district laboratory personnel who have been authorized by the district materials engineer/laboratory supervisor to qualify others; and
- D. Department-approved entities such as the Texas Asphalt Pavement Association (TXAPA) and the American Concrete Institute (ACI). Certifications received from these institutions may be used to satisfy the written exam and observation part of the Technician Qualification Program.

NOTE: Each district laboratory will maintain a minimum of one individual qualified by CST/M&P or its designated agent, for each test procedure performed within the district. In order to perform testing and qualify district personnel for TxDOT concrete test methods, at least one individual from the district laboratory must have the corresponding ACI Field and Strength certifications issued by CST/M&P.

6.5 Required Certifications for Commercial Laboratory and Contractor Personnel

Non-TxDOT laboratory personnel performing sampling and testing for TxDOT, or as required by specification, must obtain and keep current the following certifications pertinent to their scope of testing:

- A. [ACI Concrete Field Testing Technician – Grade I;](#)
- B. [ACI Concrete Strength Testing Technician;](#)
- C. [TXAPA HMA Level 1A – Plant Production Specialist;](#)
- D. [TXAPA HMA Level 1B – Roadway Specialist;](#)
- E. [TXAPA HMA Level 2 – Mix Design Specialist;](#)
- F. [TXAPA SB 101 – Property Specialist;](#)
- G. [TXAPA SB 102 – Field Specialist;](#)
- H. [TXAPA SB 103 – Materials Analysis Specialist;](#)
- I. [TXAPA SB 201 – Strength Specialist;](#)
- J. [TXAPA SB 202 – Compressive Strength Specialist.](#)

For testing procedures not covered by the above certifications, the following personnel may qualify an individual to perform the required sampling and testing of materials:

- A. District laboratory personnel who have been authorized by CST/M&P to perform technician qualifications; and
- B. CST/M&P personnel.

6.6 Qualification Procedure

To qualify, an authorized evaluator must witness an individual successfully perform the specific test and the necessary calculations required to determine specification compliance. Successful performance is defined as demonstrating the ability to properly perform the key elements for each test method. If the individual fails to demonstrate the ability to perform a test, the individual will be allowed one retest per test method at the evaluator's convenience.

In addition to successful performance of a test method, the individual must pass a written examination (minimum score of 80%) administered by an authorized evaluator. An individual

failing the written examination may request a retest. The retest must be scheduled and administered within 30 days of notification of failure.

Under unique circumstances, the qualification authority may grant a verbal examination upon request. The reason(s) for requesting a verbal examination must be presented and documented prior to the individual being allowed to take the examination. Should the technician fail the retest examination, the technician will not be allowed to test again unless a written notification is received from the technician's employer/supervisor stating that the technician has received additional training. CST/M&P or its representative will determine the adequacy of the additional training. Failure to pass the third written examination will be considered as failing the entire qualification.

Successful qualification is defined as passing both the written and performance examinations.

In addition, the individual must participate in split/proficiency samples administered by the qualifying authority to validate the qualification. CST/M&P determines the qualifying authority for the split/proficiency sample.

Unless otherwise stated, qualification of an individual is valid for not more than 3 years, after which the individual must be re-qualified. Under the IA system approach, annual split/proficiency evaluations will be required as specified in Section 3.2 – Required Frequencies and Activities. Failure to satisfactorily complete annual split or proficiency testing may result in certification revocation.

6.7 Provisional Certifications

In the event the required certifications listed in the Section 6.5 cannot be readily obtained due to course availability, schedule conflicts, or other extenuating circumstances, provisional certifications administered by CST/M&P or TxDOT's district laboratory will be allowed, per the following stipulations:

- A. Provisional certifications must be approved by CST/M&P or TxDOT district laboratory supervisor;
- B. Provisional certifications will be valid for one month after the TXAPA and ACI examination dates; and
- C. The candidate must show evidence of having enrolled in the required ACI or TXAPA course.

6.8 Documentation

CST/M&P and the district materials engineer/laboratory supervisor are responsible for maintaining documentation of all individuals qualified under their authority who perform required tests for acceptance of materials. TxDOT's SiteManager will be the official system of record for qualified/certified TxDOT and commercial laboratory personnel. Issuance of qualification certificates by the TxDOT qualifying authority is not required. A qualification summary listing all tests for which an individual is qualified is available in SiteManager and

may be printed/signed at the district's discretion. Documentation to be maintained in SiteManager, as an attachment, for all qualified personnel includes:

- A. Copies of certificates issued by ACI and TXAPA; or
- B. Copies of certificates issued by CST/M&P or TxDOT district laboratory, if issued; and
- C. Quality Assurance Test (QAT) report with clear identification of technician's name, qualifier's name, score, and date taken; and
- D. Original performance examinations for test procedures administered to each technician by the TxDOT qualifying authority, with clear identification of technician's name, qualifier's name, qualification status, and date;

Documentation retention will be for the life of the qualification, as detailed in the State of Texas Records Retention Schedule.

Results of annual proficiency testing administered by CST/M&P or TXAPA will be stored in their respective central repositories. Annual split sample evaluations should be stored in SiteManager.

6.9 Disqualification

Accusations of misconduct by testing technicians are made to the responsible TxDOT district representative and reported to CST/M&P. Table 2 defines the 3 levels of misconduct: neglect, abuse, and breach of trust.

Table 2 – Levels of Misconduct

Term	Definition
Neglect	Unintentional deviations from testing procedures or specifications

Abuse	Careless or deliberate deviation from testing procedures or specifications
Breach of Trust	<p>Violation of the trust placed in the certified technician including, but not limited to, acts such as:</p> <ul style="list-style-type: none"> • Falsification of records; • Being aware of improprieties in sampling, testing, and/or production by others and not reporting them to appropriate supervisors involved in the project; • Re-sampling and/or retesting without awareness and consent of appropriate supervisors involved in the project; and/or

CST/M&P will investigate accusations of misconduct with the assistance of the responsible district. CST/M&P may impose penalties ranging from a written reprimand to a permanent revocation of the certification, contingent upon the findings of the investigation.

Any technician found guilty of breach of trust will have his/her certification permanently revoked. Any technician with a revoked certification will be removed from the project and will not be allowed to be employed on any TxDOT project statewide.

SECTION 7 - LABORATORY QUALIFICATION PROGRAM

7.1 Purpose

This program provides uniform statewide procedures to ensure that laboratory facilities and equipment are qualified for the performance of required sampling and testing methods.

7.2 Laboratories to be Qualified

All laboratories performing sampling and testing for TxDOT require qualification. These include, but are not limited to the following:

- A. Construction Division, Materials & Pavements (CST/M&P) central laboratory;
- B. District laboratories;
- C. Area/project laboratories (including field laboratories at hot mix and concrete plants);
- D. CST/M&P field laboratories; and
- E. Commercial laboratories.

7.3 Laboratory Qualification Responsibility

CST/M&P central laboratory will be accredited under the AASHTO Accreditation Program (AAP).

CST/M&P is responsible for overseeing the statewide laboratory qualification program and for accrediting district laboratories. At the district level, the district laboratory will be the qualifying authority for area office and commercial laboratories, only in the areas for which the district laboratory is accredited. When a district qualifies a commercial laboratory, they must notify CST/M&P in writing and submit a copy of the laboratory qualification certificate. A directory of all TxDOT-qualified laboratories is available at <https://www.txdot.gov/inside-txdot/division/construction/laboratory-directory.html>.

7.4 Qualification Process

The laboratory qualifying authority will use Form 2682, "Quality System Inspection – Commercial Laboratory," to document the following:

- A. Identify the scope of testing to be performed;
- B. Verify that test methods used to perform tests are available and current;

- C. Document that the laboratory has the required equipment to perform the tests;
- D. Check the calibration/verification records for each piece of equipment, to include:
 - 1. Description of equipment;
 - 2. Identification of any traceable standard used;

3. Frequency of calibration;
 4. Date of calibration;
 5. Date of last calibration;
 6. Date of next calibration;
 7. Calibrating technician;
 8. Procedure used to calibrate/verify equipment; and
 9. Detailed results of calibration; and
- E. Verify that the laboratory has qualified/certified technicians to perform required testing.

In addition, all equipment may be subject to calibration verification or other inspection by the qualifying authority. Laboratories performing acceptance sampling and testing should use results from TxDOT's MPL, and perform materials sampling and testing in accordance with TxDOT's DBB Guide Schedule. Materials that are not monitored or not pre-approved by TxDOT are subject to sampling and testing as part of the acceptance program, except as noted in the DBB Guide Schedule remarks.

NOTE: Project/field laboratories performing Tex-113-E, Tex-117-E, and Tex-242-F tests must be an approved laboratory from TxDOT's MPL.

Laboratories are qualified every 3 years, at a minimum, although accreditation is an ongoing process. Calibration/verification is required whenever laboratory or equipment is moved.

Random audits of laboratory calibration records may be performed at the sole discretion of the qualifying authority.

7.5 Calibration Standards and Frequencies for Laboratory Equipment

The standards for calibration and the frequencies for laboratory equipment calibrations are shown in:

- [Tex-198-E](#), "Minimum Standards for Acceptance of a Laboratory for Soils and Flexible Base Testing,"
- [Tex-237-F](#), "Minimum Standards for Acceptance of a Laboratory for Hot Mix Testing,"
- [Tex-498-A](#), "Minimum Standards for Acceptance of a Laboratory for Concrete and Aggregate Testing," and
- [Tex-900-K Series](#), procedures for calibrating, verifying, and certifying equipment and devices.

7.6 Non-Compliance

A laboratory that does not meet all of the above requirements is subject to disqualification. Any equipment in a qualified laboratory failing to meet specified equipment requirements for

a specific test method will not be used for that test method. CST/M&P or the TxDOT district laboratory responsible for the certification/audit will immediately notify all applicable Area Offices of non-conformance for those test methods.

7.7 Documentation

The qualifying authority is responsible for verifying that laboratories are qualified to perform sampling and testing. Documentation will be required to be kept by the qualifying authority and the qualified laboratory. Calibration records will be maintained for a minimum of 10 years. Upon satisfactory completion of the laboratory qualification process, the qualifying authority will issue a certificate within 14 days covering the scope of testing in which the laboratory has been qualified, with a copy to CST/M&P.

Laboratory qualification documentation to be maintained by the qualifying authority includes:

- A. Availability and calibration/verification records for each piece of equipment,
- B. Personnel qualified/certified to perform required testing, and
- C. Copy of laboratory qualification certificate issued.

7.8 Dispute Resolution

The next higher qualification authority will resolve disputes concerning calibration and verification of equipment. For disputes that cannot be resolved at the district level, CST/M&P will be the final authority.

Appendix A Acronyms and Definitions

The following terms and definitions are referenced in this document and have the meanings set forth below.

AAP	AASHTO Accreditation Program (AASHTO re:source and CCRL)
AASHTO	American Association of State Highway Transportation Officials
ACI	American Concrete Institute
AQMP	Aggregate Quality Monitoring Program
CCRL	Concrete and Cement Reference Laboratory
CE&I	Construction Engineering and Inspection
CFR	Code of Federal Regulations
CST/M&P	Construction Division, Materials and Pavements Section
CMEC	Construction Materials Engineering Council
FHWA	Federal Highway Administration
HMA	Hot-Mix Asphalt
IA	Independent Assurance
L-A-B	Laboratory Accreditation Bureau
MPL	Material Producer List
QAP	Quality Assurance Program
QAT	Quality Assurance Test
QC	Quality Control
	Texas Asphalt Pavement Association
TxDOT	Texas Department of Transportation

Abuse—Careless or deliberate deviation from testing procedures or specifications.

Acceptance Program—All factors that comprise TxDOT’s program to determine the quality of the product as specified in the contract requirements. These factors include verification sampling, testing, and inspection and may include results of QC sampling and testing.

Accredited Laboratories—Laboratories that are recognized by a formal accrediting body as meeting quality system requirements including demonstrated competence to perform standard test procedures.

Breach of Trust—Violation of the trust placed in the certified technician including, but not limited to, acts such as: falsification of records; being aware of improprieties in sampling,

testing, and/or production by others and not reporting them to appropriate supervisors involved in the project; re-sampling and/or retesting without awareness and consent of appropriate supervisors involved in the project; and/or manipulating compensation and/or production.

Certified Technician—A technician certified by some agency as proficient in performing certain duties.

Independent Assurance (IA) Program—Activities that are an unbiased and independent evaluation of all the sampling and testing procedures, equipment and personnel qualifications used in the acceptance program.

Material Producer List (MPL)—TxDOT-approved products and materials from various manufacturers and producers are located at:

<http://www.txdot.gov/business/resources/producer-list.html>

Neglect—Unintentional deviations from testing procedures or specifications.

Proficiency Samples—Homogenous samples that are distributed and tested by 2 or more laboratories and/or personnel. The test results are compared to assure that the laboratories and/or personnel are obtaining the same results.

Qualified Laboratories—Laboratories that are capable as defined by appropriate programs established by TxDOT. As a minimum, the qualification program must include provisions for checking testing equipment, and the laboratory must keep records of calibration checks.

Qualified Sampling and Testing Personnel—Personnel who are capable as defined by appropriate programs established by TxDOT.

Quality Assurance (QA)—All planned and systematic actions necessary to provide confidence that a product or service will satisfy given requirements for quality.

Quality Control (QC)—All Contractor operational techniques and activities performed or conducted to fulfill the Contract requirements.

TxDOT Standard Specifications—the *Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges* adopted by the Texas Department of Transportation, including all revisions thereto applicable on the effective date of the Contract Documents.

Verification Sampling and Testing—Sampling and testing performed to verify the quality of the product.

Appendix B

Split Sample Tolerance Limits

Laboratory Testing Procedures and Tolerance Limits

Test Procedure	Description	Tolerance
Tex-104-E	Liquid Limit of Soils	15% of mean ¹
Tex-105-E	Plastic Limit of Soils	15% of mean ¹
Tex-106-E	Plasticity Index of Soils	20% of mean ¹
Tex-107-E	Bar Linear Shrinkage of Soils	± 2%
Tex-110-E	Particle Size Analysis of Soils, Part I	> No. 4 sieve: ± 5% points
		≤ No. 4 sieve: ± 3% points
Tex-113-E	Moisture-Density Relationship of Base Materials	Density ± 2.0 PCF
		Moisture Content ± 0.5%
Tex-117-E	Triaxial Compression for Disturbed Soils and Base Materials, Part II	Strength ± 15 psi
		Moisture Content ± 0.5%
Tex-200-F	Asphaltic Concrete Combined Aggregate	>5/8" sieve: ± 5.0% points (individual % retained)
		≤5/8" sieve-No. 200: ± 3.0% (individual % retained)
		Passing No. 200: ± 1.6% points
Tex-206-F	Compacting Test Specimens of Bituminous Mixtures	± 1.0% laboratory-molded density in accordance with Tex-207-F
Tex-207-F	Determining Density of Compacted Bituminous Mixtures	Laboratory-Molded Density: ± 1.0%
		Laboratory-Molded Bulk Specific Gravity: ± 0.020
		In-place air voids (cores): ± 1.0%
Tex-227-F	Theoretical Maximum Specific Gravity of Bituminous Mixtures	± 0.020

Tex-236-F	Asphalt Content of Asphalt Paving Mixtures by the Ignition Method	± 0.3%
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Test Procedure	Description	Tolerance
Tex-418-A	Compressive Strength of Cylindrical Concrete Specimens	17% of mean ¹ (4 × 8" specimen)
		14% of mean ¹ (6 × 12" specimen)

1. The difference between compared test results must not exceed the indicated percentage of the mean of the compared test results, where the mean is the average of the two test results.

EXAMPLE: Plasticity Index

Tolerance = 20% of the mean

Technician test value	18
IA technician test value	22
Mean	20
20% difference	4

Both values are within 20% of the mean.

Appendix C

IA Annual Report

{Date}

Thomas L. Smith

Independent Assurance Program Manager
Construction (CST) Division

Texas Department of Transportation
125 East 11th Street

Austin, TX 78701

RE: Annual Report of Independent Assurance (IA) Program Results – {Project Name} Dear Mr.

Smith:

In accordance with the requirements set forth in the TxDOT Quality Assurance Program for Design-Bid- Build Projects, the information below summarizes the results of system approach independent assurance (IA) testing conducted by our firm on the {Project Name} project for calendar year {XXXX}.

Independent Assurance Program Results – {Year}	
IA Activities	{Project Name}
1. Number of personnel evaluated under system approach	
2. Number of IA evaluations meeting tolerance	
3. Number of IA evaluations not meeting tolerance	
4. <u>Corrective actions</u> :	

Appendix C

cc: Brett Haggerty, P.E.
Materials and Pavements Section Director
TxDOT – Construction Division

Appendix D

Materials Certification Example Letter for Projects with Federal Oversight

{Date}

Al Alonzi

FHWA Texas Division Administration
FHWA Texas Division Office

300 East 8th Street
Austin, TX 78701

RE: Materials Certification Letter

Project: SH Contract No.:
 CSJ:
 HWY:
 County:
 Federal-Aid Project No.:

Dear Mr. Alonzi:

This letter is to certify:

The results of the tests used in the acceptance program indicate that the materials incorporated in the construction work, and in the construction operations controlled by sampling and testing, were in conformity with the approved plans and specifications.

Both the Acceptance and Verification results were evaluated by an independent assurance sampling and testing program, the results of which were submitted to FHWA by the department in the Annual Report of Independent Assurance Program Results and independent of this materials certification.

- ☐ Exceptions to the plans and specifications are explained on the back hereof (or on attached sheet).
- ☐ There are no exceptions to the plans and specifications on this project.

Appendix D

Sincerely,

{TxDOT District Area Engineer or Director of Construction}, P.E.

{Title}

cc: Brett Haggerty, P.E.

Materials and Pavements Section Director
TxDOT, Construction Division

Appendix E Materials Certification Example Letter for Projects with Non-Federal Oversight

{Date}

{TxDOT District Engineer}

{Title}

RE: Materials Certification Letter

Project: SH Contract No.:
 CSJ:
 HWY:
 County:

Dear Mr. {District Engineer}:

This letter is to certify:

The results of the tests used in the acceptance program indicate that the materials incorporated in the construction work, and in the construction operations controlled by sampling and testing, were in conformity with the approved plans and specifications.

Both the Acceptance and Verification results were evaluated by an independent assurance sampling and testing program, the results of which were submitted to CST in the Annual Report of Independent Assurance Program Results and independent of this materials certification.

- ☐ Exceptions to the plans and specifications are explained on the back hereof (or on attached sheet).
- ☐ There are no exceptions to the plans and specifications on this project.

Sincerely,

{TxDOT District Area Engineer or Director of Construction}, P.E.

Appendix E

{Title}

cc: Brett Haggerty, P.E.
Materials and Pavements Section Director
TxDOT, Construction Division.

Appendix F Archived Versions

The following archived versions of this document are available.

- Effective January 2016–April 2018:
ftp://ftp.dot.state.tx.us/pub/txdot-info/cst/qap_dbb_0116.pdf

APPENDIX B
GUIDE SCHEDULE OF SAMPLING AND TESTING

GUIDE SCHEDULE OF SAMPLING & TESTING FOR DESIGN-BID-BUILD (DBB) PROJECTS

MAY 2016



Using the Guide Schedule

Research of sampling and testing rates listed for project tests in the following Guide Schedule show that the Department's and the Contractor's risk of either rejecting "good" material or accepting "bad" material range from 20% to 40%.

To reduce this risk, we recommend that the sampling rate be increased during initial production. A four-fold increase in testing frequency will generally reduce risk to approximately 5%. The intent of increasing testing at the start of production is to insure that the Contractor's processes are in control and to establish acceptability requirements early.

There is a need to increase the frequency of testing for high-variability materials and when testing results do not meet specifications. The Engineer may require the Contractor to reimburse the Department for costs resulting from failing test results, in accordance with the specifications.

Materials incorporated in TxDOT projects are subjected to various quality assurance procedures such as testing (as outlined in this document), certification, quality monitoring, approved lists, etc. The Engineer and testing staff should familiarize themselves with materials to be used before work begins by reviewing the specifications and this document. Discuss material testing requirements with the Contractor.

Other testing required by the specifications, but not shown in the Guide Schedule, should be performed at a frequency necessary to provide adequate confidence that materials meet specifications.

NOTE: For projects subject to FHWA construction oversight activities, use the "[Letter of Certification of Materials Used](#)" to document reasons for material acceptance when a test fails. For all other projects, document the justification and explanation for acceptance of materials that fail project tests in the project file.

Assuring the quality of the product and proper incorporation of materials into the project begins with proper sampling practices. Sampling, testing, and construction inspection must be performed collaboratively to assure the specific attributes of the finished product reflect quality workmanship. Sampling guidance for hot-mixed asphalt is contained in Tex-225-F, "Random Selection of Bituminous Mixture Samples," and the respective specification for that material. All remaining materials are covered by method and materials specifications, to which the following applies.

For acceptance testing, especially that which directly determines payment for the Contractor, sampling personnel should provide randomness in sampling by avoiding patterned sampling routines. Examples of such sampling practices are as follows:

- Soils/flexible base: Vary sampling between stockpiling operations, completed stockpile, windrow, and project site. Vary the time of day sampling is performed.
- Aggregates: Sample aggregates nearest the point of incorporation into the work. Vary sampling between stockpiling operations, completed stockpile, belt sampling, and if deemed necessary, railroad cars/trucks. Vary the time of day sampling is performed.

- Concrete (structural and miscellaneous): Always sample as near as practicable to the point of placement. For strength testing, vary the time of day or the number of truck from which the concrete is sampled. Tests for slump, air, and temperature should be done often to ensure the consistent control of the concrete production (not applicable to miscellaneous concrete).

This Guide Schedule is applicable to all contracts associated with the 2014 Standard Specifications.

TABLE I – EMBANKMENTS, SUBGRADES, BACKFILL, AND BASE COURSES

			PROJECT TESTS		
MATERIAL OR PRODUCT	TEST FOR	TEST NUMBER	LOCATION OR TIME OF SAMPLING (D)	FREQUENCY OF SAMPLING (F)	REMARKS
EMBANKMENT (CUTS & FILLS)	Liquid Limit (A)	Tex-104-E	During stockpiling operations, from completed stockpile, or project site (B)	Materials with PI ≤ 15: 10,000 CY	For Type A embankment or when required by the plans. This test may be waived for embankment cuts as directed by the Engineer. Determine a new liquid limit and plasticity index for each different material or notable change in material. Sample in accordance with Tex-100-E.
	Plasticity Index (A)	Tex-106-E		Materials with PI > 15: 5,000 CY	
	Gradation	Tex-110-E		Each 10,000 CY	When shown on plans. This test may be waived for embankment cuts, as directed by the Engineer. Sample in accordance with Tex-100-E.
	Moisture/Density	Tex-114-E		As directed by the Engineer	Not required for ordinary compaction. Determine a new optimum moisture and maximum density for each different material or notable change in material. Sample in accordance with Tex-100-E.
	In-place Density (A)	Tex-115-E	As designated by the Engineer	Fill: each 5,000 CY min. 1 per lift.	Not required for ordinary compaction. Determine a new optimum moisture and maximum density according to Tex-114-E for each different material or notable change in material. Correct the moisture contents measured by nuclear density gauge in Tex-115-E with the moisture contents determined in accordance with Tex-103-E, as necessary for control, for each different material or notable change in material and adjust the density accordingly. Materials such as RAP, gypsum, lime, cement, and iron ore tend to bias the counts for nuclear density gauges.
				Cut: each 6,000 LF	
RETAINING WALL (NON-SELECT BACKFILL)	As shown above for Embankment (Cuts and Fills)		As shown above for Embankment (Cuts and Fills)	As shown above for Embankment (Cuts and Fills)	Sample in accordance with Tex-100-E.

This is a guide for minimum sampling and testing.

Testing frequency may need to be increased for high material variability or when test results approach specification limits.

RETAINING WALL (SELECT BACKFILL)	Gradation	Tex-110-E	During stockpiling operations, from completed stockpile, or project site (B)	Each 5,000 CY	Sample in accordance with Tex-400-A.
	Resistivity (A)	Tex-129-E	During stockpiling operations, from completed stockpile, or project site (B)	Each 5,000 CY	For material with resistivity between 1,500 and 3,000 ohm-cm, determine chloride and sulfate content, as specified in Item 423. Sample in accordance with Tex-400-A.
	pH (A)	Tex-128-E	During stockpiling operations, from completed stockpile, or project site (B)	Each 5,000 CY	Sample in accordance with Tex-400-A.

TABLE I – EMBANKMENTS, SUBGRADES, BACKFILL, AND BASE COURSES

			PROJECT TESTS		
MATERIAL OR PRODUCT	TEST FOR	TEST NUMBER	LOCATION OR TIME OF SAMPLING (D)	FREQUENCY OF SAMPLING (F)	REMARKS
RETAINING WALL (SELECT BACKFILL) (continued)	Soundness	Tex-411-A	During stockpiling operations, or from completed stockpile	1 per source, per project	Test when backfill sources appear to contain particles such as shale, caliche, or other soft, poor-durability particles. Sample in accordance with Tex-400-A.
	In-place Density (A)	Tex-115-E	As designated by the Engineer.	1 per backfill lift, per wall	Not required for rock backfill. For walls greater than 500 ft. in length, perform one test per lift for every 500 ft. in length. (F) Correct the moisture contents measured by nuclear density gauge in Tex-115-E with the moisture contents determined in accordance with Tex-103-E for each different material or notable change in material and adjust the density accordingly.
UNTREATED BASE COURSES	Liquid Limit (A)	Tex-104-E	During stockpiling operations, from completed stockpile, or windrow (B)	Each 5,000 CY	Sample in accordance with Tex-400-A.
	Plasticity Index (A)	Tex-106-E	During stockpiling operations, from completed stockpile, or windrow (B)	Each 5,000 CY	
	Gradation (A)	Tex-110-E	During stockpiling operations, from completed stockpile, or windrow (B)	Each 5,000 CY	Sample in accordance with Tex-400-A.
	Moisture/Density	Tex-113-E	From completed stockpile at the source (E)	Each 20,000 CY	Not required for ordinary compaction. Sample in accordance with Tex-400-A.
	Wet Ball Mill (A)	Tex-116-E	From completed stockpile at the source (E)	Each 20,000 CY	As required by the plans. Sample in accordance with Tex-400-A.

This is a guide for minimum sampling and testing.

Testing frequency may need to be increased for high material variability or when test results approach specification limits.

	Strength (A)	Tex-117-E	From completed stockpile at the source (E)	Each 20,000 CY	As required by the plans. When base material is from a source where the District has a record of satisfactory triaxial results, the frequency of testing may be reduced to one per 30,000 CY. If any one test falls below the minimum value required, the frequency of testing will return to the original frequency of 20,000 CY. Sample in accordance with Tex-400-A.
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TABLE I – EMBANKMENTS, SUBGRADES, BACKFILL, AND BASE COURSES

			PROJECT TESTS		
MATERIAL OR PRODUCT	TEST FOR	TEST NUMBER	LOCATION OR TIME OF SAMPLING (D)	FREQUENCY OF SAMPLING (F)	REMARKS
UNTREATED BASE COURSES	In-place Density (A)	Tex-115-E	As designated by the Engineer	Each 3,000 CY, min. 1 per lift	Correct the moisture contents measured by nuclear density gauge in Tex-115-E with the moisture contents determined in accordance with Tex-103-E, as necessary for control, for each different material or notable change in material and adjust the density accordingly. Materials such as RAP, gypsum, lime, cement, and iron ore tend to bias the counts for nuclear density gauges.
	Thickness (A)	Tex-140-E	As designated by the Engineer	Each 3,000 CY	Not required where survey grade control documents compliance.
TREATED SUBGRADE AND BASE COURSES	SUBGRADE BEFORE TREATMENT	Organic Content	Tex-148-E	As designated by the Engineer	1 per 500 linear feet or 5,000 CY Required for existing subgrade material and material imported from a borrow source. Soil survey and geologic maps may be used to determine sampling locations. Sample in accordance with Tex-100-E.
		Sulfate Content	Tex-145-E	As designated by the Engineer	1 per 500 linear feet or 5,000 CY Required for existing subgrade material and material imported from a borrow source. Soil survey and geologic maps may be used to determine sampling locations. Sample in accordance with Tex-100-E.
		Liquid Limit (A)	Tex-104-E	During stockpiling operations, from completed stockpile, or windrow (B)	Each 5,000 CY When central mix site or plant is used, windrow sampling may be waived. Sample in accordance with Tex-400-A.
		Plasticity Index (A)	Tex-106-E	During stockpiling operations, from completed stockpile, or windrow (B)	Each 5,000 CY

This is a guide for minimum sampling and testing.

Testing frequency may need to be increased for high material variability or when test results approach specification limits.

	NEW BASE MATERIAL	Gradation (A)	Tex-110-E	During stockpiling operations, from completed stockpile, or windrow (B)	Each 5,000 CY	Sample in accordance with Tex-400-A.
		Wet Ball Mill (A)	Tex-116-E	From completed stockpile at the source (E)	Each 20,000 CY	As required by the plans. Sample in accordance with Tex-400-A.

TABLE I – EMBANKMENTS, SUBGRADES, BACKFILL, AND BASE COURSES

				PROJECT TESTS		
MATERIAL OR PRODUCT		TEST FOR	TEST NUMBER	LOCATION OR TIME OF SAMPLING (D)	FREQUENCY OF SAMPLING (F)	REMARKS
TREATED SUBGRADE AND BASE COURSES	NEW BASE MATERIAL	Strength (A)	Tex-117-E	From completed stockpile at the source (E)	Each 20,000 CY	As required by the plans. When base material is from a source where the District has a record of satisfactory triaxial results, the frequency of testing may be reduced to one per 30,000 CY. If any one test falls below the minimum value required, the frequency of testing will return to the original frequency of 20,000 CY.
	LIME	Compliance with DMS-6350	Tex-600-J	During delivery to project	Commercial Lime Slurry: each 200 tons of lime Carbide Lime Slurry: each 100 tons of lime	Sample in accordance with Tex-400-A. Verify the source is listed on the current Material Producer List for Lime. Only materials appearing on the Material Producer List will be accepted. Sample frequency for Carbide Lime Slurry may be increased as directed by the Engineer. For Hydrated Lime and Quick Lime project testing is not required but it is encouraged to sample and test the material at a rate of 1 per project as a best practice.
	CEMENT	Compliance with DMS-4600		Railroad car, truck, or cement bins		Verify the source is listed on the current Material Producer List for Cement. If not, sample and test in accordance with DMS-4600. (C)
	FLY ASH MATERIAL	Compliance with DMS-4615		Project samples at location designated by the Engineer		Verify the source is listed on the current Material Producer List for Fly Ash. Only materials from CST/M&P approved sources appearing on the Material Producer List for Fly Ash will be accepted. Project testing is not required but it is encouraged to sample and test the material at a rate of 1 per project as a best practice. (C)
		Pulverization Gradation	Tex-101-E Part III	Roadway, after pulverization and mixing	As necessary for control	At the beginning of the project, one test must be made for each 4,500 CY or 6,000 tons until the Engineer is satisfied that acceptable pulverization results are being obtained. Sample in accordance with Tex-100-E.

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	COMPLETE MIXTURE	Soil-Cement Testing Soil-Lime Testing	Tex-120-E, Part II, or Tex-121-E, Part II	From roadway windrow after treatment (E)	Each 20,000 CY	Not required for ordinary compaction. Determine a new moisture/density curve for each different or notable change in material. Perform Tex-120-E, Part II, for Cement Treated Material, and Tex-121-E, Part II, for Lime, Lime-Fly Ash, or Fly Ash Treated Material. If Tex-120-E, Part I, Tex-121-E, Part I, or Tex-127-E is performed prior to the project, this test may be waived. Sample in accordance with Tex-100-E.
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TABLE I – EMBANKMENTS, SUBGRADES, BACKFILL, AND BASE COURSES

				PROJECT TESTS		
MATERIAL OR PRODUCT		TEST FOR	TEST NUMBER	LOCATION OR TIME OF SAMPLING (D)	FREQUENCY OF SAMPLING (F)	REMARKS
TREATED SUBGRADE AND BASE COURSES	COMPLETE MIXTURE	Soil-Cement Testing Soil-Lime Testing	Tex-120-E, Part I, Tex-121-E, Part I, or Tex-127-E	From roadway windrow after treatment	As necessary for control	Perform Tex-120-E, Part I, on cement treated material, and Tex-121-E, Part I, for lime-fly ash or fly ash treated material. Verifies the field strength by comparing results from the mix design. Performed at the discretion of Engineer. Sample in accordance with Tex-100-E.
		In-place Density (A)	Tex-115-E	As designated by the Engineer	Each 3,000 CY, min 1 per lift	Determine the appropriate moisture/density curve for each different material or notable change in material. Correct the moisture contents measured by nuclear density gauge in Tex-115-E with the moisture contents determined in accordance with Tex-103-E, as necessary for control, for each different material or notable change in material and adjust the density accordingly. Stabilizers and materials such as RAP, gypsum, and iron ore tend to bias the counts for nuclear density gauges.
		Thickness (A)	Tex-140-E	As designated by the Engineer	Each 3,000 CY	Not required where survey grade control documents are used for compliance
RECLAIMED ASPHALT PAVEMENT (RAP), CRUSHED CONCRETE, and RECYCLED MATERIALS		Sulfate Content	Tex-145-E	During stockpiling operations, from completed stockpile, or windrow	Each 5,000 CY	Required only for contractor furnished recycled material, including crushed concrete. Not required for RAP. Sample in accordance with Tex-400-A.
		Deleterious Material	Tex-413-A		Each 5,000 CY	Required only for contractor furnished recycled material, including crushed concrete. Sample in accordance with Tex-400-A.
		Decantation	Tex-406-A	During stockpiling operations, from completed stockpile, or windrow	Each 5,000 CY	Required only for contractor furnished RAP. Sample in accordance with Tex-400-A.

TABLE I – FOOTNOTES

This is a guide for minimum sampling and testing.

~~Testing frequency may need to be increased for high material variability or when test results approach specification limits.~~

A	When this project acceptance test fails but the product is accepted, document the reasons for acceptance on the Letter of Certification of Materials Used or in the SiteManager Remarks field.
B	Engineer will select any of these locations or any combinations thereof with the provision that the initial sample will be obtained from the completed stockpile at the source and at least one out of ten consecutive samples will be taken at the project site (from the windrow for treated and untreated bases and embankments when possible).
C	Attach the corresponding QM test report for SiteManager projects to satisfy project sampling and testing requirements.

D	<p>For acceptance testing, especially that which directly determines payment for the Contractor, sampling personnel should provide randomness in sampling by avoiding patterned sampling routines. Examples of such sampling practices are as follows:</p> <ul style="list-style-type: none">• Soils/Flexible Base: For gradation, liquid limit, and plastic limit, vary sampling between stockpiling operations, completed stockpile, windrow, and project site. Vary the time of day sampling is performed.• Aggregates: Sample aggregates nearest the point of incorporation into the work. Vary sampling between stockpiling operations, completed stockpile, belt sampling, and if deemed necessary, railroad cars/trucks. Vary the time of day sampling is performed.
E	<p>The Engineer will sample from the completed stockpile at the source and test prior to placement.</p>
F	<p>Each test performed that is based on a quantity of material is considered "or fraction thereof" for calculating number of tests.</p>

TABLE IA – ASPHALT STABILIZED BASE (Plant Mix)

TABLE IA – ASPHALT STABILIZED BASE (Plant Mix)					
			PROJECT TESTS		
MATERIAL OR PRODUCT	TEST FOR	TEST NUMBER	LOCATION OR TIME OF SAMPLING (C)	FREQUENCY OF SAMPLING (D)	REMARKS
AGGREGATE	Gradation (A)	Tex-200-F, Part I	During stockpiling operations, from completed stockpile, or prior to mixing	Each 5,000 CY	Sample in accordance with Tex-400-A.
	Liquid Limit (A)	Tex-104-E	During stockpiling operations, from completed stockpile, or prior to mixing	Each 5,000 CY	Sample in accordance with Tex-400-A.
	Plasticity Index (A)	Tex-106-E	During stockpiling operations, from completed stockpile, or prior to mixing	Each 5,000 CY	
	Wet Ball Mill or L. A. Abrasion (A)	Tex-116-E or Tex-410-A	During stockpiling operations, from completed stockpile, or prior to mixing	Each 20,000 CY	When L. A. Abrasion is specified, tests are not required when the published value of the source, as listed on the current Material Producer List for BRSQC , meets the project specifications. Sample in accordance with Tex-400-A. (B)
	Coarse Aggregate Angularity (A)	Tex-460-A, Part I	During stockpiling operations, from completed stockpile, or prior to mixing	1 per project, per source	Not required for crushed stone sources. Sample in accordance with Tex-400-A.
	Sand Equivalent	Tex-203-F	Hot aggregate bins, feeder belt, or stockpile	1 per project, per source	When designated by the Engineer, test may be run on combined aggregates when multiple sources are used. Sample in accordance with Tex-400-A.
LIME	Compliance with DMS-6350		During delivery to the project	Hydrated Lime: 1 per project Commercial Lime Slurry: each 200 tons of lime (D) Carbide Lime Slurry: each 100 tons of lime (D)	On projects requiring less than 50 tons, material from CST/M&P approved sources may be accepted on the basis of Producer's Certification without sampling.

This is a guide for minimum sampling and testing.

Testing frequency may need to be increased for high material variability or when test results approach specification limits.

				Quick Lime: 1 per project	
RECLAIMED ASPHALT PAVEMENT (RAP), and RECYCLED AGGREGATE	Decantation	Tex-217-F, Part II	During stockpiling operations, from completed stockpile, or prior to mixing	Each 10,000 CY	Sample in accordance with Tex-400-A.

TABLE IA – ASPHALT STABILIZED BASE (Plant Mix)

TABLE IA – ASPHALT STABILIZED BASE (Plant Mix)					
			PROJECT TESTS		
MATERIAL OR PRODUCT	TEST FOR	TEST NUMBER	LOCATION OR TIME OF SAMPLING (C)	FREQUENCY OF SAMPLING (D)	REMARKS
RECYCLED ASPHALT SHINGLES (RAS)	Decantation	Tex-217-F, Part III	During stockpiling operations, from completed stockpile, or prior to mixing	Each 10,000 CY	Sample in accordance with Tex-400-A.
ASPHALT BINDER	Compliance with Item 300 – Binder and Tack Coat		Sampled, tested and preapproved by CST/M&P. Take project samples when designated by the Engineer.	1 each for binder and tack coat per project, per grade, per source	Test at least one sample taken from the project. Sample tack coat at the distributor on the roadway in accordance with Tex-500-C, Part III. Sample binder at hot mix plant in accordance with Tex-500-C, Part II. Binder should arrive on the project pre-approved. If not pre-approved, sample binder before use.
COMPLETE MIXTURE	Laboratory Density (A)	Tex-126-E	Plant Mix (C)	20,000 CY (25,000 tons)	Sample in accordance with Tex-222-F.
	Percent Asphalt (A)	Tex-236-F	Plant Mix (C)	Each 1,500 CY (2,000 tons) or days production	Determine asphalt content correlation factors for ignition oven at a minimum of one per project. Sample in accordance with Tex-222-F.
	Indirect Tensile Strength – Dry	Tex-226-F	Plant Mix	1 per project, per design	Sample in accordance with Tex-222-F.
	Moisture Susceptibility	Tex-530-C	As designated by the Engineer	1 per project, per design	This test may be waived, when shown on the plans. Sample in accordance with Tex-222-F.
ROADWAY	In-Place Air Voids (A)	Tex-207-F	Roadway cores, as designated by the Engineer (C, D)	Each 2,500 CY (3,000 tons) or days production	Not required for ordinary compaction or when air void requirements are waived. Sample in accordance with Tex-222-F.

TABLE IA – FOOTNOTES

A	When this project acceptance test fails but the product is accepted, document the reasons for acceptance on the Letter of Certification of Materials Used or in the SiteManager Remarks field.
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~~Testing frequency may need to be increased for high material variability or when test results approach specification limits.~~

B	Engineer will select any of these locations or any combinations thereof with the provision that at least one out of ten consecutive samples will be taken at the project site (from the windrow for treated and untreated bases and embankments when possible).
C	<p>For acceptance testing, especially that which directly determines payment for the Contractor, sampling personnel should provide randomness in sampling by avoiding patterned sampling routines. Examples of such sampling practices are as follows:</p> <ul style="list-style-type: none">• Soils/flexible base: Vary sampling between stockpiling operations, completed stockpile, windrow, and project site. Vary the time of day sampling is performed.• Aggregates: Sample aggregates nearest the point of incorporation into the work. Vary sampling between stockpiling operations, completed stockpile, belt sampling, and if deemed necessary, railroad cars/trucks. Vary the time of day sampling is performed.
D	Each test performed that is based on a quantity of material is considered "or fraction thereof" for calculating number of tests.

TABLE II – SEAL COAT					
			PROJECT TESTS		
MATERIAL OR PRODUCT	TEST FOR	TEST NUMBER	LOCATION OR TIME OF SAMPLING (C)	FREQUENCY OF SAMPLING (D)	REMARKS
AGGREGATE	Gradation (A)	Tex-200-F, Part I	Stockpile (At source or at point of delivery)	One each 1,000 CY	Rate may be reduced to one each 2,000 CY if the Engineer approves a contractor quality control plan. Sample in accordance with Tex-221-F.
	L. A. Abrasion (A)	Tex-410-A	Stockpile	1 per 20,000 CY	Verify the published value of the source, as listed on the current Material Producer List for BRSQC , meets the project specifications. If not, sample and test at 1 per 20,000 CY prior to use. Sample in accordance with Tex-221-F. (B)
	Magnesium Soundness (A)	Tex-411-A	Stockpile	1 per 20,000 CY	Verify the published value of the source, as listed on the current Material Producer List for BRSQC , meets the project specifications. If not, sample and test at 1 per 20,000 CY prior to use. Sample in accordance with Tex-221-F. (B)
	Surface Aggregate Classification (A)	Tex-612-J, Tex-411-A	Stockpile	1 per 20,000 CY	Verify the published value of the source, as listed on the current Material Producer List for BRSQC , meets the project specifications. If not, sample and test at 1 per 20,000 CY prior to use. Sample in accordance with Tex-221-F. (B)
	Pressure Slake (A)	Tex-431-A	Stockpile	1 per 20,000 CY	Same as above. Required only for lightweight aggregate. Sample in accordance with Tex-221-F.
	Freeze Thaw (A)	Tex-432-A	Stockpile	1 per 20,000 CY	Same as above. Required only for lightweight aggregate. Sample in accordance with Tex-221-F.
	Unit Weight	Tex-404-A	Stockpile	1 per 20,000 CY	Same as above. Required only for lightweight aggregate. Sample in accordance with Tex-221-F.
	24 hr Water Absorption (A)	Tex-433-A	Stockpile	1 per 20,000 CY	Same as above. Required only for lightweight aggregate. Sample in accordance with Tex-221-F.

This is a guide for minimum sampling and testing.

Testing frequency may need to be increased for high material variability or when test results approach specification limits.

Coarse Aggregate Angularity	Tex-460-A	Stockpile	1 per 20,000 CY	Only required for crushed gravel. Sample in accordance with Tex-221-F.
Deleterious Material (A)	Tex-217-F, Part I	Stockpile	1 per 10,000 CY	Not required for lightweight aggregate. Sample in accordance with Tex-221-F.
Decantation (A)	Tex-406-A	Stockpile	1 per 10,000 CY	Sample in accordance with Tex-221-F.
Flakiness Index	Tex-224-F	Stockpile	Frequency as directed by the Engineer	Sample in accordance with Tex-221-F.

TABLE II – SEAL COAT					
			PROJECT TESTS		
MATERIAL OR PRODUCT	TEST FOR	TEST NUMBER	LOCATION OR TIME OF SAMPLING (C)	FREQUENCY OF SAMPLING (D)	REMARKS
	Micro Deval	Tex-461-A	Stockpile	1 per project or as necessary for control	Compare result to published value listed on the current Material Producer List for BRSQC . Submit sample to CST/M&P for Soundness and L.A. Abrasion testing when results differ by more than 3% points, unless otherwise directed by the Engineer. Sample in accordance with Tex-221-F.
	White Rock Count	Tex-220-F	Stockpile		Required only for Limestone Rock Asphalt. Not required when CST/M&P provides inspection at the plant. Sample in accordance with Tex-221-F.
	Naturally Impregnated Bitumen Content	Tex-236-F	Stockpile		Required only for Limestone Rock Asphalt. Not required when CST/M&P provides inspection at the plant. Sample in accordance with Tex-221-F.
PRECOATED AGGREGATE	Asphalt Content	Tex-236-F	Stockpile	Frequency as directed by the Engineer when a target value is specified	Sample in accordance with Tex-221-F.
ASPHALT	Compliance with Item 300		Sampled, tested, and preapproved by CST/M&P. Take project samples when designated by the Engineer from the distributor or transport.	1 per project, per grade, per source	Sample in accordance with Tex-500-C. Binder should arrive on the project pre-approved. If not pre-approved, sample binder before use.

TABLE II – FOOTNOTES	
A	When this project acceptance test fails but the product is accepted, document the reasons for acceptance on the Letter of Certification of Materials Used or in the SiteManager Remarks field.
B	Attach the corresponding QM test report for SiteManager projects to satisfy project sampling and testing requirements.
C	<p>For acceptance testing, especially that which directly determines payment for the Contractor, sampling personnel should provide randomness in sampling by avoiding patterned sampling routines. Examples of such sampling practices are as follows:</p> <ul style="list-style-type: none"> Aggregates: Sample aggregates nearest the point of incorporation into the work. Vary sampling between stockpiling operations, completed stockpile, belt sampling, and if deemed necessary, railroad cars/trucks. Vary the time of day sampling is performed.

This is a guide for minimum sampling and testing.

~~Testing frequency may need to be increased for high material variability or when test results approach specification limits.~~

D	Each test performed that is based on a quantity of material is considered "or fraction thereof" for calculating number of tests.
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TABLE III – HYDRAULIC CEMENT CONCRETE – STRUCTURAL (Classes: C, F, H, S, CO, K, LMC, or SS)					
			PROJECT TESTS		
MATERIAL OR PRODUCT	TEST FOR	TEST NUMBER	LOCATION OR TIME OF SAMPLING (D)	FREQUENCY OF SAMPLING (E)	REMARKS
MINERAL AGGREGATE	COARSE AGGREGATE	Decantation (B)	From stockpile at concrete plant	Each 20,000 CY of concrete (each source)	Sample in accordance with Tex-400-A.
		Sieve Analysis (A) (B)		Each 1,000 CY of concrete (each source)	Sample in accordance with Tex-400-A. Test combined aggregate when used.
		Deleterious Materials (B)		1 per project or as necessary for control	Sample in accordance with Tex-400-A.
		Los Angeles Abrasion (A) (B)		Two, each source	Verify the value of the source, as listed on the current Material Producer list for CRSQC, meets the project specifications. If not, sample and submit to CST/M&P for testing prior to use in accordance with Tex-499-A. Sample in accordance with Tex-400-A. (C)
		5-cycle Magnesium Sulfate Soundness (A) (B)		Two, each source	Verify the value of the source, as listed on the current CRSQC, meets the project specifications. (C)
	FINE AGGREGATE	Sand Equivalent (B)	From stockpile at concrete plant	1 per project or as necessary for control	Sample in accordance with Tex-400-A. Test combined aggregate when used.
		Organic Impurities (B)		1 per project, per source	Sample in accordance with Tex-400-A.
		Sieve Analysis (A) (B)		Each 1,000 CY of concrete (each source)	Sample in accordance with Tex-400-A.
		Fineness Modulus (B)		1 per project or as necessary for control	Sample in accordance with Tex-400-A. Test combined aggregate when used. Test to confirm material variability when strength values are in question.
		Deleterious Material (B)		1 per project or as necessary for control	Sample in accordance with Tex-400-A. Test to confirm material variability when strength values are in question.

This is a guide for minimum sampling and testing.

Testing frequency may need to be increased for high material variability or when test results approach specification limits.

		Acid Insoluble Residue (A) (B)	Tex-612-J		Two, each source	Only for concrete subject to direct traffic. Verify the value of the source, as listed on the current CRSQC, meets the project specifications. If not, sample and submit to CST/M&P for testing prior to use in accordance with Tex-499-A. Sample in accordance with Tex-400-A. (C)
SILICA FUME		Compliance with DMS-4630 (A)		Railroad car, truck, bags or silos	1 per project, per class of concrete (For each type and brand)	Sample in accordance with Tex-320-D.

TABLE III – HYDRAULIC CEMENT CONCRETE – STRUCTURAL (Classes: C, F, H, S, CO, K, LMC, or SS)					
			PROJECT TESTS		
MATERIAL OR PRODUCT	TEST FOR	TEST NUMBER	LOCATION OR TIME OF SAMPLING (D)	FREQUENCY OF SAMPLING (E)	REMARKS
METAKAOLIN	Compliance with DMS-4635 (A)		Railroad car, truck or silos	1 per project, per class of concrete (For each type and brand)	
MIX DESIGN	Compliance with Standard Specification Item 421.4.A		At source (if not approved)	Min. 1 design per class, per source	Verify if cement, fly ash, slag cement, and chemical admixture sources are listed on the Material Producer Lists. If not, sample and submit to CST/M&P for testing. Water testing is contracted by the concrete supplier (commercial lab report to be reviewed by TxDOT). Sample in accordance with Tex-300-D for cement and in accordance with Tex-733-I for fly ash.
JOINT MATERIAL	Compliance with DMS-6300				Sample in accordance with Tex-500-C. Verify the source is listed on the Material Producer List for Joint Sealers . If not, sample and test prior to use in accordance with DMS-6310. (C)
CURING COMPOUND	Compliance with DMS-4650		Sampled at jobsite; tested by CST/M&P. See remarks.	When requested by CST	Only products listed on the Material Producer List for Concrete Curing Compounds will be allowed. When sample is requested by CST, sample in accordance with Tex-718-I. Ensure container has been agitated and mixed prior to sampling. (C)
EVAPORATION RETARDANTS	Compliance with DMS-4650				Only products listed on the Material Producer list for Evaporation Retardants will be allowed. (C)
REINFORCING STEEL	Compliance with the Std. Specifications & Spec. Provisions	As Specified			Only materials from CST/M&P approved sources listed on the Material Producer Lists for Reinforcing Steel Mills and Seven Wire Steel Strand will be allowed. (C)
MECHANICAL COUPLERS	Compliance with DMS-4510	Tex-743-I	Sampled at jobsite; Tested by CST/M&P	3 couplers per lot (500 couplers) for each type, model, bar size and grade	Only materials from CST/M&P approved sources listed on the Material Producer List for Mechanical Couplers will be allowed. (C)
LATEX	Compliance with DMS-4640 for concrete chemical admixtures		Sampled at jobsite.	Min. of 1 test per project	Sample in accordance with Tex-321-E.

This is a guide for minimum sampling and testing.

Testing frequency may need to be increased for high material variability or when test results approach specification limits.

EPOXY	Compliance with DMS-6100, unless otherwise specified		Sampled at jobsite if not pre-approved by CST/M&P.	1 per batch or shipment	Verify the source is listed on the Material Producer List for Epoxy and Adhesives . If not, sample and test prior to use in accordance with DMS-6100. Sample in accordance with Tex-734-I. (C)
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TABLE III – HYDRAULIC CEMENT CONCRETE – STRUCTURAL (Classes: C, F, H, S, CO, K, LMC, or SS)					
			PROJECT TESTS		
MATERIAL OR PRODUCT	TEST FOR	TEST NUMBER	LOCATION OR TIME OF SAMPLING (D)	FREQUENCY OF SAMPLING (E)	REMARKS
CONCRETE	Compressive Strength (A)	Tex-418-A	At point of concrete placement	4 cylinders for each 60 CY per class, per day (For bridge railing and traffic railing, testing may be reduced to 4 cylinders per 180 CY per class regardless of days)	Sampling must be in accordance with Tex-407-A. Test two cylinders at 7 days, and if the average value is below the design strength as defined in Item 421 Table 8, test the remaining 2 cylinders at 28 days. If the average value of the 2 cylinders tested at 7 days meets the minimum design strength listed in Item 421 Table 8, the 2 remaining cylinders are not required to be tested.
CONCRETE	Slump	Tex-415-A		1 test per 4 strength specimens	Sample in accordance with Tex-407-A. Perform slump and temperature tests on the same load from which strength test specimens are made. Perform entrained air test only when entrained air concrete is specified in the plans.
	Entrained Air (A)	Tex-416-A or Tex-414-A			Check temperature of every load for bridge slabs and mass concrete placements.
	Temperature of Concrete (A)	Tex-422-A			Contractor's required testing will be in accordance with specification requirements for the appropriate specification Item #.
	Slab Thickness and Depth of Reinforcement	Tex-423-A, Part II	During dry run and during concrete placement (Bridge decks and direct traffic culverts)	1 per span	Min 6–Max 18 locations per span

TABLE III – FOOTNOTES	
A	When this project acceptance test fails but the product is accepted, document the reasons for acceptance on the Letter of Certification of Materials Used or in the SiteManager Remarks field.
B	These Project Tests may be used for one or more projects being furnished concrete from the same plant during the same period.
C	Attach the corresponding QM test report for SiteManager projects to satisfy project sampling and testing requirements.

Testing frequency may need to be increased for high material variability or when test results approach specification limits.

D	<p>For acceptance testing, especially that which directly determines payment for the Contractor, sampling personnel should provide randomness in sampling by avoiding patterned sampling routines. Examples of such sampling practices are as follows:</p> <ul style="list-style-type: none">• Aggregates: Sample aggregates nearest the point of incorporation into the work. Vary sampling between stockpiling operations, completed stockpile, and if deemed necessary, railroad cars/trucks. Vary the time of day sampling is performed.• Concrete (structural): Always sample as near as practicable to the point of placement. For strength testing, vary the time of day or the number of truck from which the concrete is sampled. Test often for slump, air, and temperature to ensure the consistent control of the concrete production.
E	<p>Each test performed that is based on a quantity of material is considered “or fraction thereof” for calculating number of tests.</p>

TABLE IV – HYDRAULIC CEMENT CONCRETE – NON-STRUCTURAL CONCRETE (Classes: A, B, or E)					
			PROJECT TESTS		
MATERIAL OR PRODUCT	TEST FOR	TEST NUMBER	LOCATION OR TIME OF SAMPLING (B)	FREQUENCY OF SAMPLING (C)	REMARKS
CONCRETE	Compressive Strength (A)	Tex-418-A	At point of concrete placement	2 cylinders per 180 CY, per class	Sampling must be in accordance with Tex-407-A. Strength will be determined by 7-day specimens.
MIX DESIGN	Compliance with the Standard Specification		At source if not approved.	Min. 1 design per class, per source	Verify if cement, fly ash, slag cement, and chemical admixture sources are listed on the Material Producer Lists. If not, sample and submit to CST/M&P for testing. Sample in accordance with Tex-300-D for cement and in accordance with Tex-733-I for fly ash. Water testing is contracted by the concrete supplier (commercial lab report to be reviewed by TxDOT).
SILICA FUME	Compliance with DMS-4630		Railroad car, truck, bags or silos	1 test per project, per class (for each type and brand)	Sample in accordance with Tex-320-D.
METAKAOLIN	Compliance with DMS-4635		Railroad car, truck or silos	1 test per project, per class (for each type and brand)	

TABLE IV – FOOTNOTES	
A	When this project acceptance test fails but the product is accepted, document the reasons for acceptance on the Letter of Certification of Materials Used or in the SiteManager Remarks field.
B	For acceptance testing, especially that which directly determines payment for the Contractor, sampling personnel should provide randomness in sampling by avoiding patterned sampling routines. Examples of such sampling practices are as follows: <ul style="list-style-type: none"> Concrete (miscellaneous): Always sample as near as practicable to the point of placement. For strength testing, vary the time of day or the number of truck from which the concrete is sampled.
C	Each test performed that is based on a quantity of material is considered “or fraction thereof” for calculating number of tests.

TABLE V – HYDRAULIC CEMENT CONCRETE PAVEMENT (Classes: P or HES)

			PROJECT TESTS		
MATERIAL OR PRODUCT	TEST FOR	TEST NUMBER	LOCATION OR TIME OF SAMPLING	FREQUENCY OF SAMPLING (D)	REMARKS
MINERAL AGGREGATE	COARSE AGGREGATE	Decantation	From stockpile at concrete plant	Each 20,000 CY of concrete (each source)	Sample in accordance with Tex-400-A.
		Sieve Analysis (A)		As necessary for control	Sample in accordance with Tex-400-A. Test combined aggregate when used.
		Deleterious Materials		Each 20,000 CY of concrete (each source)	Sample in accordance with Tex-400-A.
		L.A. Abrasion (A)		Two, each source	Verify the value of the source, as listed on the current CRSQC, meets the project specifications. If not, sample and submit to CST/M&P for testing prior to use in accordance with Tex-499-A.
		5-Cycle Magnesium Sulfate Soundness (A)			Sample in accordance with Tex-400-A. (C)
	FINE AGGREGATE	Sand Equivalent	From stockpile at concrete plant	Each 3,000 CY of concrete (Each source or combination of sources)	Sample in accordance with Tex-400-A. Test combined aggregate when used. No less than one per week's production.
		Organic Impurities		1 per project, per source	Sample in accordance with Tex-400-A.
		Sieve Analysis (A)		As necessary for control	Sample in accordance with Tex-400-A. Test combined aggregate when used.
		Fineness Modulus (B)			
		Deleterious Material (B)		Each 20,000 CY of concrete (each source)	Sample in accordance with Tex-400-A.
		Acid Insoluble (A)		1 per project, per source	Verify the value of the source, as listed on the current CRSQC, meets the project specifications. If not, sample and submit to CST/M&P for testing prior to use in accordance with Tex-499-A. Sample in accordance with Tex-400-A. (C)

This is a guide for minimum sampling and testing.

Testing frequency may need to be increased for high material variability or when test results approach specification limits.

MIX DESIGN	Compliance with the Standard Specifications Item 421.4.A		At source, if not approved	Min. 1 design, per class, per source	Verify if cement, fly ash, ground granulated blast furnace slag, and admixture sources are listed on the Material Producer List. If not, sample and submit to CST/M&P for testing. Sample in accordance with Tex-300-D for cement and in accordance with Tex-733-I for fly ash. Water testing is contracted by the concrete supplier (commercial lab report to be reviewed by TxDOT).
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TABLE V – HYDRAULIC CEMENT CONCRETE PAVEMENT (Classes: P or HES)

			PROJECT TESTS		
MATERIAL OR PRODUCT	TEST FOR	TEST NUMBER	LOCATION OR TIME OF SAMPLING	FREQUENCY OF SAMPLING (D)	REMARKS
SILICA FUME	Compliance with DMS-4630		Railroad car, truck, bags or silos	1 per project per class of concrete (For each type and brand)	Sample in accordance with Tex-320-D.
METAKAOLIN	Compliance with DMS-4635		Railroad car, truck or silos	1 per project per class of concrete (For each type and brand)	Sample in accordance with Tex-320-D.
JOINT MATERIAL	Compliance with DMS-6310		Sampled at jobsite if not sampled at source by CST/M&P; tested by CST/M&P. See remarks.	1 per batch or shipment	Sample in accordance with Tex-500-C. Sampling may be waived when the source is listed on the Material Producer List for Joint Sealers . (C)
CURING COMPOUND	Compliance with DMS-4650		Sampled at jobsite; tested by CST/M&P. See remarks.	When requested by CST	Only products listed on the Material Producer List for Concrete Curing Compounds will be allowed. When sample is requested by CST, sample in accordance with Tex-718-I. Ensure container has been agitated and mixed prior to sampling. (C)
EVAPORATION RETARDANTS	Compliance with DMS-4650				Only products listed on the Material Producer List for Evaporation Retardants will be allowed. (C)
REINFORCING STEEL	Compliance with the Std. Specifications & Spec. Provisions	As Specified			Only materials from CST/M&P approved sources listed on the Material Producer List for Reinforcing Steel Mills and Seven Wire Steel Strand will be accepted. (C)
MULTIPLE PIECE TIE BARS	Compliance with DMS-4515	Tex-712-I	Sampled at jobsite if not sampled at source by CST/M&P; tested by CST/M&P. See remarks.	Refer to Tex-711-I for sampling rates	Only materials from CST/M&P approved sources listed on the Material Producer List for Multiple Piece Tie-bars for Concrete Pavements will be allowed. Sample in accordance with Tex-734-I.

This is a guide for minimum sampling and testing.

Testing frequency may need to be increased for high material variability or when test results approach specification limits.

EPOXY	Compliance with DMS-6100		Sampled at jobsite if not pre-approved by CST/M&P. See remarks.	1 batch per shipment	Verify the source is listed on the Material Producer List for Epoxies and Adhesives . If not, sample and test prior to use in accordance with DMS-6100. Sample in accordance with Tex-734-I. (C)
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TABLE V – HYDRAULIC CEMENT CONCRETE PAVEMENT (Classes: P or HES)

			PROJECT TESTS		
MATERIAL OR PRODUCT	TEST FOR	TEST NUMBER	LOCATION OR TIME OF SAMPLING	FREQUENCY OF SAMPLING (D)	REMARKS
CONCRETE	Strength (A) (B)	Tex-448-A or Tex-418-A	At point of concrete placement	2 cylinders for every 10 contractor job control tests	<p>Sample in accordance with Tex-407-A.</p> <p>When the contract requires the project testing to be by the Engineer, the frequency and job control testing will be in accordance with the item of work.</p> <p>Split sample verification testing used when contractor performs job control testing.</p> <p>When job control testing by the contractor is waived by the plans, the frequency of sampling will be one test (2 specimens) for each 3,000 SY of concrete or fraction thereof or per day and split sample verification testing will be waived.</p> <p>Contractor's required testing will be in accordance with specification requirements for the appropriate specification Item #.</p>
	Slump	Tex-415-A	At time and location strength specimens are made	1 test for every 10 contractor job control tests.	<p>Sample in accordance with Tex-407-A.</p> <p>Slump is not required for slip-formed pavement.</p> <p>Perform slump and temperature tests on the same load from which the strength specimens are made.</p> <p>Perform entrained air test only when entrained air concrete is specified in the plans.</p> <p>Contractor's required testing will be in accordance with specification requirements for the appropriate specification Item #.</p>
	Entrained Air (A)	Tex-416-A or Tex-414-A			
	Temperature	Tex-422-A			
	Thickness	Tex-423-A	Center of paving machine	Every 500 feet	Methods other than Tex-423-A may be shown on the plans.

This is a guide for minimum sampling and testing.

Testing frequency may need to be increased for high material variability or when test results approach specification limits.

	Ride Quality Surface Test Type B (A)	Tex-1001-S	Final riding surface of travel lanes		Engineer may verify contractor's results for surface test Type B. For traditional design-bid-build TxDOT projects, CST has contracted with TTI to perform random ride verification at 10% frequency. Results from surface test Type A are not required to be reported.
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This is a guide for minimum sampling and testing.

Testing frequency may need to be increased for high material variability or when test results approach specification limits.

TABLE V – FOOTNOTES	
A	When this project acceptance test fails but the product is accepted, document the reasons for acceptance on the Letter of Certification of Materials Used or in the SiteManager Remarks field.
B	When a project test does not meet the specified strength requirements and a reduced pay factor is assigned, document the analysis on the Letter of Certification of Materials Used.
C	Attach the corresponding QM test report for SiteManager projects to satisfy project sampling and testing requirements.
D	Each test performed that is based on a quantity of material is considered “or fraction thereof” for calculating number of tests.

TABLE VI – ASPHALT CONCRETE PAVEMENT (Items 341, 342, 344, 346, 347 and 348)

(All testing as noted in Table VI may be waived for exempt production as defined by specification.)

			PROJECT TESTS		
MATERIAL OR PRODUCT	TEST FOR	TEST NUMBER	LOCATION (Per Design)	FREQUENCY OF SAMPLING (E)	REMARKS
COARSE AGGREGATE	L. A. Abrasion (A)	Tex-410-A	Stockpile (B)		Verify the published value of the source, as listed on the current Material Producer list for BRSQC , meets the project specifications. If not, sample in accordance with Tex-221-F and submit to CST/M&P for testing prior to use in accordance with Tex-499-A. (C)
	Magnesium Sulfate Soundness (A)	Tex-411-A		1 per project, per source	
	Surface Aggregate Classification (A)	Tex-499-A		1 per project, per source	
	Micro Deval	Tex-461-A		1 per project, per aggregate source	Not required when the Rated Source Soundness Magnesium loss is 15 or less as listed on the current published BRSQC . If testing is required, sample in accordance with Tex-221-F.
COMBINED AGGREGATE	Sand Equivalent	Tex-203-F	Stockpiles, hot bins or feeder belts	1 per project, per source, per design	Does not apply to Item 342. Sample in accordance with Tex-221-F. The timing of when the test is performed is at the discretion of the Engineer.
ASPHALT BINDER	Compliance with Item 300 Binder & Tack Coat (A)		Sampled, tested and pre-approved by CST/M&P. Project test sampled at the Plant for Binder & Road for Tack Coat	1 each for binder and tack coat per project, per grade, per source	Test a minimum of one sample taken from the project. Sample tack coat at the distributor on the roadway in accordance with Tex-500C, Part III. Sample binder at hot mix plant in accordance with Tex-500-C, Part II. Binder should arrive on the project pre-approved. If not pre-approved, sample binder before use.
MIX DESIGN	Compliance with applicable specification	Tex-204-F	At source (if not approved)	Min 1 design per Mix Type and Asphalt Grade	Verify that aggregates, recycled asphalt pavement, recycled asphalt shingles, mineral filler, asphalt binder, anti-stripping additives, and warm mix systems are on the Material Producer List where applicable and that they meet project specification requirements. Project sampling and testing may be conducted on individual materials as necessary for control.

TABLE VI – ASPHALT CONCRETE PAVEMENT (Items 341, 342, 344, 346, 347 and 348)

(All testing as noted in Table VI may be waived for exempt production as defined by specification.)

			PROJECT TESTS		PROJECT INDEPENDENT ASSURANCE TESTS		
MATERIAL OR PRODUCT	TEST FOR	TEST NUMBER	LOCATION	FREQUENCY (Per Design)	LOCATION	FREQUENCY	REMARKS
COMPLETE MIXTURE	Asphalt Content (%) (A)	Tex-236-F	Engineer Truck Sample (D)	Minimum 1 per Lot			Sample in accordance with Tex-222-F. Determine correlation factors for ignition oven using Tex-236-F at a minimum of one per project.
	Voids in Mineral Aggregates (VMA)	Tex-207-F	Truck Sample Plant Produced (D)	1 per Sublot	Truck	1 per 10 Lots only if compactor is shared by Contractor and State	Sample in accordance with Tex-222-F. Does not apply to Item 342, "Permeable Friction Course." Contractor's required testing will be in accordance with specification requirements for the appropriate specification Item #.
	Gradation (A)	Tex-236-F	Engineer Truck Sample (D)	Minimum 1 per 12 Sublots (E)			Sample in accordance with Tex-222-F. Determine correlation factors for ignition oven using Tex-236-F at a minimum of one per project.
	Boil Test	Tex-530-C	Truck Sample	1 per project			Sample in accordance with Tex-222-F. Unless waived by the Engineer.
	Indirect Tensile Strength – Dry	Tex-226-F					Sample in accordance with Tex-222-F. Unless waived by the Engineer. Does not apply to Items 342, 346, and 348.
	Moisture Content	Tex-212-F, Part II	Engineer Truck Sample				Sample in accordance with Tex-222-F.
	Lab Molded Density (A)	Tex-207-F	Truck Sample (D)	1 per Sublot 1 per Lot for Item 347	Truck	1 per 10 Lots only if compactor is shared by Contractor and State	Sample in accordance with Tex-222-F. Contractor's required testing will be in accordance with specification requirements for the appropriate specification Item #.

This is a guide for minimum sampling and testing.

Testing frequency may need to be increased for high material variability or when test results approach specification limits.

	Drain Down Test (A)	Tex-235-F	Engineer Truck Sample	1 per project 1 per Lot for Item 342			Sample in accordance with Tex-222-F. Not required for Item 341 and Item 344.
	Hamburg Wheel Test (A)	Tex-242-F	Engineer Truck Sample	1 per project			Sample in accordance with Tex-222-F. Sample during production. Does not apply to Item 348.
	Overlay Test	Tex-248-F	Engineer Truck Sample	1 per project			Sample in accordance with Tex-222-F. Does not apply to Items 341, 344, and 348.

TABLE VI – ASPHALT CONCRETE PAVEMENT (Items 341, 342, 344, 346, 347, and 348)

(All testing as noted in Table VI may be waived for exempt production as defined by specification.)

			PROJECT TESTS		
MATERIAL OR PRODUCT	TEST FOR	TEST NUMBER	LOCATION	FREQUENCY (Per Design)	REMARKS
ROADWAY	In-Place Air Voids (A)	Tex-207-F	Roadway (D)	2 cores per Sublot	Two cores taken per Sublot and averaged. Sample in accordance with Tex-222-F. Does not apply to Items 342, 347, and 348.
ROADWAY	Segregation Profile (A)	Tex-207-F, Part V	Roadway	1 per project	Not required when Contractor uses thermal imaging system. Does not apply to Items 342, 347, and 348.
	Joint Density (A)	Tex-207-F, Part VII	Roadway	1 per project	
	Thermal Profile	Tex-244-F	Immediately behind paver	1 per project	Not required when Contractor uses thermal imaging system.
	Ride Quality Test Type B (A)	Tex-1001-S	Final riding surface of travel lanes	1 per project	Engineer may verify Contractor's results for surface test Type B. For traditional design-bid-build TxDOT projects, CST has contracted with TTI to perform random ride verification at 10% frequency. Results for surface test Type A are not required to be reported.
	Permeability	Tex-246-F	Roadway	1 per project	Only applies to Items 342, 347, and 348.
FABRIC UNDERSEAL	Compliance with DMS-6220		Sampled, tested, and approved by CST/M&P		Sampling must be in accordance with Tex-735-I. Verify the source is listed on the current Material Producer List for Silt Fence, Filter Fabric, and Fabric Underseals . If not, sample and test prior to use in accordance with DMS-6220.

TABLE VI – FOOTNOTES

A	When this project acceptance test fails but the product is accepted, document the reasons for acceptance on the Letter of Certification of Materials Used or in the SiteManager Remarks field. This letter is required only for Asphalt Content and/or Gradation when production of complete mixture is suspended as required by QC/QA specifications.
B	Sampling may be performed at the plant, quarry, or both. Aggregate properties may be re-tested at any time during the project. These project tests may be used for one or more projects furnishing hot mix with the same aggregate source.
C	Attach the corresponding QM test report for SiteManager projects to satisfy project sampling and testing requirements.

This is a guide for minimum sampling and testing.

~~Testing frequency may need to be increased for high material variability or when test results approach specification limits.~~

D	Perform random sampling as specified in Tex-225-F, “Random Selection of Bituminous Mixture Samples.”
E	Each test performed that is based on a quantity of material is considered “or fraction thereof” for calculating number of tests.

TABLE VII – ASPHALT CONCRETE PAVEMENT (Items 334)

(Refer to DMS-9210, “Limestone Rock Asphalt (LRA),” for testing requirements for Item 330.)

			PROJECT TESTS		
MATERIAL OR PRODUCT	TEST FOR	TEST NUMBER	LOCATION	FREQUENCY (Per Design) (F)	REMARKS
COARSE AGGREGATE	L. A. Abrasion (A)	Tex-410-A	Stockpile (B)	1 per project, per source	Verify the published value of the source, as listed on the current Material Producer List for BRSQC , meets the project specifications. If not, sample in accordance with Tex-221-F and submit to CST/M&P for testing prior to use in accordance with Tex-499-A. (D)
	Magnesium Sulfate Soundness (A)	Tex-411-A			Sample in accordance with Tex-221-F. Testing frequency may be reduced or eliminated based on a satisfactory test history.
	Micro Deval	Tex-461-A			
	Surface Aggregate Classification (A)	Tex-499-A	Stockpile (B)	1 per project, per source	Verify the published value of the source, as listed on the current Material Producer List for BRSQC , meets the project specifications. If not, sample in accordance with Tex-221-F and submit to CST/M&P for testing prior to use in accordance with Tex-499-A. SiteManager Quality Monitoring test documentation is accomplished by attaching an approved mix design.
COMBINED AGGREGATE	Sand Equivalent	Tex-203-F	Stockpiles, hot bins or feeder belts	1 per project, per source	Sample in accordance with Tex-221-F. The timing of when the test is performed is at the discretion of the Engineer.
ASPHALT BINDER	Compliance with Item 300 Binder & Tack Coat (A) (C)		Sampled, tested and pre-approved by CST/M&P. Project test sampled at the Plant for Binder & Road for Tack Coat	1 each for binder and tack coat per project, per grade, per source	Test a minimum of one sample from production. Sample tack coat at the distributor on the roadway in accordance with Tex-500-C, Part III. Sample binder at hot mix plant in accordance with Tex-500-C, Part II. Binder should arrive on the project pre-approved. If not pre-approved, sample binder before use.
MIX DESIGN	Compliance with applicable specification	Tex-204-F	At source (if not approved)	Min 1 design per Mix Type and Asphalt Grade	Verify that aggregates, recycled asphalt pavement, recycled asphalt shingles, mineral filler, asphalt binder, anti-stripping additives, and warm mix systems are on the Material Producer List where applicable and that they meet project specification requirements. Project sampling and testing may be conducted in individual materials as necessary for control.
	Asphalt Content (%) (A)	Tex-236-F	Engineer Truck Sample (E)	Minimum of 1 per 5,000 tons	Sample in accordance with Tex-222-F. Determine correlation factors for ignition oven using Tex-236-F at a minimum of one per project.

This is a guide for minimum sampling and testing.

Testing frequency may need to be increased for high material variability or when test results approach specification limits.

COMPLETE MIXTURE	Voids in Mineral Aggregates (VMA)	Tex-207-F	Truck Sample Plant Produced (E)	1 per 5,000 tons	Sample in accordance with Tex-222-F.
	Gradation (A)	Tex-236-F	Truck Sample	Minimum 1 per 5,000 tons	Sample in accordance with Tex-222-F. Determine correlation factors for ignition oven using Tex-236-F at a minimum of one per project.
	Boil Test	Tex-530-C		1 per project	Sample in accordance with Tex-222-F. The timing of when the test is performed is at the discretion of the Engineer.

TABLE VII – ASPHALT CONCRETE PAVEMENT (Items 334)

(Refer to DMS-9210, “Limestone Rock Asphalt (LRA),” for testing requirements for Item 330.)

			PROJECT TESTS		
MATERIAL OR PRODUCT	TEST FOR	TEST NUMBER	LOCATION	FREQUENCY (Per Design) (F)	REMARKS
COMPLETE MIXTURE	Moisture Content	Tex-212-F, Part II	Truck Sample	1 per 5,000 tons	Sample in accordance with Tex-222-F. Performed by CST/M&P at the point of production for payment calculations.
	Hydrocarbon-Volatile Content	Tex-213-F		1 per 5,000 tons	Sample in accordance with Tex-222-F. The timing of when the test is performed is at the discretion of the Engineer.
	Lab Molded Density (A)	Tex-207-F		1 per 5,000 tons	Sample in accordance with Tex-222-F.
	Hveem Stability (A)	Tex-208-F		1 per 5,000 tons	Sample in accordance with Tex-222-F. The timing of when the test is performed is at the discretion of the Engineer.
ROADWAY	Ride Quality Test Type B (A)	Tex-1001-S	Final riding surface of travel lanes		Engineer may verify Contractor's results for surface test Type B. For traditional design-bid-build TxDOT projects, CST has contracted with TTI to perform random ride verification at 10% frequency. Results from surface test Type A are not required to be reported.

TABLE VII – FOOTNOTES

A	When this project acceptance test fails but the product is accepted, document the reasons for acceptance on the Letter of Certification of Materials Used or in the SiteManager Remarks field.
B	Sampling may be performed at the plant, quarry, or both. Aggregate properties may be re-tested at any time during the project.
C	Or as called for in the Specifications.
D	Attach the corresponding QM test report for SiteManager projects to satisfy project sampling and testing requirements.
E	Perform random sampling as specified in Tex-225-F, “Random Selection of Bituminous Mixture Samples.”
F	Each test performed that is based on a quantity of material is considered “or fraction thereof” for calculating number of tests.

TABLE VIII – ASPHALT CONCRETE PAVEMENT (Item 340)

TABLE VIII – ASPHALT CONCRETE PAVEMENT (Item 340)					
			PROJECT TESTS		
MATERIAL OR PRODUCT	TEST FOR	TEST NUMBER	LOCATION	FREQUENCY	REMARKS
COARSE AGGREGATE	L. A. Abrasion (A)	Tex-410-A	Stockpile (B)	1 per project, per source	Verify the published value of the source, as listed on the current Material Producer List for BRSQC , meets the project specifications. If not, sample in accordance with Tex-221-F and submit to CST/M&P for testing prior to use in accordance with Tex-499-A. (C)
	Magnesium Sulfate Soundness (A)	Tex-411-A			
	Micro Deval	Tex-461-A	Stockpile (B)	1 per project, per source	Sample in accordance with Tex-221-F. Testing frequency may be reduced or eliminated based on a satisfactory test history.
	Surface Aggregate Classification (A)	Tex-499-A	Stockpile (B)	1 per project, per source	Verify the published value of the source, as listed on the current Material Producer list for BRSQC , meets the project specifications. If not, sample in accordance with Tex-221-F and submit to CST/M&P for testing prior to use in accordance with Tex-499-A. (C)
COMBINED AGGREGATE	Sand Equivalent	Tex-203-F	Stockpiles, hot bins or feeder belts	1 per project, per design	Sample in accordance with Tex-221-F.
ASPHALT BINDER	Compliance with Item 300 Binder & Tack Coat (A)		Sampled, tested and pre-approved by CST/M&P. Plant for Binder & Road for Tack Coat	1 each for binder and tack coat per project, per grade, per source	Test a minimum of 1 sample taken from the project. Sample tack coat at the distributor on the roadway in accordance with Tex-500-C, Part III. Sample binder at hot mix plant in accordance with Tex-500-C, Part II. Binder should arrive on the project pre-approved. If not pre-approved, sample binder before use.
MIX DESIGN	Compliance with applicable specification	Tex-204-F	At source (if not approved)	Min. 1 design per Mix Type and Asphalt Grade	Verify that aggregates, recycled asphalt pavement, recycled asphalt shingles, mineral filler, asphalt binder, anti-stripping additives, and warm mix systems are on the Material Producer List where applicable and that they meet project specification requirements. Project sampling and testing may be conducted in individual materials as necessary for control.
	Asphalt Content (%)	Tex-236-F	Truck Sample (D)	Minimum of 1 per day	Sample in accordance with Tex-222-F. Determine correlation factors for ignition oven using Tex-236-F at a minimum of one per project.
	Voids in Mineral Aggregates (VMA)	Tex-207-F	Truck Sample Plant Produced (D)	1 per day	Sample in accordance with Tex-222-F.

This is a guide for minimum sampling and testing.

Testing frequency may need to be increased for high material variability or when test results approach specification limits.

COMPLETE MIXTURE	Gradation (A)	Tex-236-F	Truck Sample	Minimum 1 per day	Sample in accordance with Tex-222-F. Determine correlation factors for ignition oven using Tex-236-F at a minimum of one per project.
	Boil Test	Tex-530-C		1 per project	Sample in accordance with Tex-222-F. Unless waived by the Engineer.
	Indirect Tensile Strength – Dry	Tex-226-F		1 per project, per design	Sample in accordance with Tex-222-F. Unless waived by the Engineer.

TABLE VIII – ASPHALT CONCRETE PAVEMENT (Item 340)

			PROJECT TESTS		
MATERIAL OR PRODUCT	TEST FOR	TEST NUMBER	LOCATION	FREQUENCY	REMARKS
COMPLETE MIXTURE	Lab Molded Density (A)	Tex-207-F	Truck Sample	1 per day	Sample in accordance with Tex-222-F.
	Hamburg Wheel Tracker (A)	Tex-242-F		1 per project	Sample in accordance with Tex-222-F. Sample during production.
ROADWAY	Air Voids (A)	Tex-207-F	Selected by the Engineer (D)	1 per day (2 Cores)	Sample in accordance with Tex-222-F.
	Ride Quality Test Type B (A)	Tex-1001-S	Final riding surface of travel lanes		Engineer may verify Contractor's results for surface test Type B. For traditional design-bid-build TxDOT projects, CST has contracted with TTI to perform random ride verification at 10% frequency. Results from surface test Type A are not required to be reported.
FABRIC UNDERSEAL	Compliance with DMS-6220		Sampled, tested, and approved by CST/M&P		Sample in accordance with Tex-735-I. Verify the source is listed on the current Material Producer List for Silt Fence, Filter Fabric, and Fabric Underseals . If not sample and submit to CST/M&P for testing prior to use in accordance with DMS-6220.

TABLE VIII – FOOTNOTES

A	When this project acceptance test fails but the product is accepted, document the reasons for acceptance on the Letter of Certification of Materials Used or in the SiteManager Remarks field. This letter is required only for Asphalt Content and/or Gradation when production of complete mixture is suspended as required by QC/QA specifications.
B	Sampling may be performed at the plant, quarry, or both. Aggregate properties may be re-tested at any time during the project. These project tests may be used for one or more projects furnishing hot mix with the same aggregate source.
C	Attach the corresponding QM test report for SiteManager projects to satisfy project sampling and testing requirements.
D	Perform random sampling as specified in Tex-225-F, "Random Selection of Bituminous Mixture Samples."

TABLE IX – MICROSURFACING (Item 350)

TABLE IX – MICROSURFACING (Item 350)					
			PROJECT TESTS		
MATERIAL OR PRODUCT	TEST FOR	TEST NUMBER	LOCATION OF SAMPLING	FREQUENCY (Per Design)	REMARKS
AGGREGATE	5-Cycle Magnesium Sulfate Soundness (A)	Tex-411-A	Stockpile (B)	1 per project, per source	Verify the published value of the source, as listed on the current Material Producer list for BRSQC meets the project specifications. If not, sample in accordance with Tex-221-F and submit to CST/M&P for testing at 1 per project, per source. (C)
	Gradation	Tex-200-F, Part II		1 per project, per source	Sample in accordance with Tex-221-F.
	Crushed Face Count	Tex-460-A		1 per project, per source	Sample in accordance with Tex-221-F.
	Acid Insoluble (A)	Tex-612-J		1 per project, per source	Verify the value of the source, as listed on the current BRSQC , meets the project specifications. If not, sample and submit to CST/M&P for testing prior to use in accordance with Tex-499-A. Sample in accordance with Tex-221-F. (C)
	Surface Aggregate Classification	Tex-499-A	Stockpile, or BRSQC (B)	1 per project, per source	Verify the published value of the source, as listed on the current Material Producer list for BRSQC meets the project specifications. If not, sample in accordance with Tex-221-F and submit to CST/M&P for testing at 1 per project, per source. (C)
COMBINED BLEND	Sand Equivalent	Tex-203-F	Stockpile (B)	1 per project, per source	Sample in accordance with Tex-221-F.
ASPHALT BINDER	Compliance with Item 300 Binder & Tack Coat (A)		Sampled, tested, and pre-approved by CST/M&P. Project test sampled at the Plant for Binder & Road for Tack Coat	1 each for binder and tack coat per project, per grade, per source	Test a minimum of one sample during production. Sample tack coat at the distributor on the roadway in accordance with Tex-500-C, Part III. Sample binder at microsurfacing machine in accordance with Tex-500-C, Part III. Binder should arrive on the project pre-approved. If not pre-approved, sample binder before use.
CEMENT	Compliance with DMS-4600				Verify the source is listed on the current Material Producer List for Cement . If not, sample and submit to CST/M&P for testing prior to use in accordance with DMS-4600.
	Asphalt Content	Tex-236-F			Sample in accordance with Tex-222-F. Determine correlation factors for ignition oven using Tex-236-F at a minimum of one per project.

This is a guide for minimum sampling and testing.

Testing frequency may need to be increased for high material variability or when test results approach specification limits.

COMPLETE MIX	Gradation	Tex-200-F, Part II Tex-236-F	During production	1 per day	Sample in accordance with Tex-222-F. Determine correlation factors for ignition oven use at a minimum of one per project.
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This is a guide for minimum sampling and testing.

Testing frequency may need to be increased for high material variability or when test results approach specification limits.

TABLE IX – FOOTNOTES	
A	When this project acceptance test fails but the product is accepted, document the reasons for acceptance on the Letter of Certification of Materials Used or in the SiteManager Remarks field. This letter is required only for Asphalt Content and/or Gradation when production of complete mixture is suspended as required by QC/QA specifications.
B	Sampling may be performed at the plant, quarry, or both. Aggregate properties may be re-tested at any time during the project. These project tests may be used for one or more projects furnishing hot mix with the same aggregate source.
C	Attach the corresponding QM test report for SiteManager projects to satisfy project sampling and testing requirements.
D	Each test performed that is based on a quantity of material is considered “or fraction thereof” for calculating number of tests.

APPENDIX C
AASHTO ACCREDITED LABORATORIES

AASHTO Accredited CMT Laboratories in Texas

* Directory of accredited laboratories and scope of testing is maintained on the AASHTO Materials Reference Laboratory website at: <http://www.amrl.net>. Laboratory must be accredited for each specific test performed.

APPENDIX D
HAYS COUNTY HUB PROGRAM

**HAYS COUNTY
PRACTICES RELATED TO
HISTORICALLY UNDERUTILIZED BUSINESSES**

1. STATEMENT OF PRACTICES

Hays County will strive to ensure that all businesses, regardless of size, economic, social or ethnic status have an equal opportunity to participate in the County's procurement processes. The County is committed to promote full and equal business opportunity for all businesses to supply the goods and services needed to support the mission and operations of county government, and seeks to encourage the use of certified historically underutilized businesses (HUB's) through the use of race, ethnic and gender neutral means. It is the practice of Hays County to involve certified HUBs to the greatest extent feasible in the County's procurement of goods, equipment, services and construction projects while maintaining competition and quality of work standards. The County affirms the good faith efforts who recognize and practice similar business standards.

2. DEFINITIONS

Historically underutilized businesses (HUBs), also known as a disadvantaged business enterprise (DBE), are generally business enterprises at least 51% of which is owned and the management and daily business operations are controlled by one or more persons who is/are socially and economically disadvantaged because of his/her identification as a member of certain groups, including women, Black Americans, Mexican Americans, and other Americans of Hispanic origin, Asian Americans and American Indians.

Businesses include firms, corporations, sole proprietorships, vendors, suppliers, contractors, subcontractors, professionals and other similar references when referring to a business that provides goods and/or services regardless of the commodity category.

Certified HUB's include business enterprises that meet the definition of a HUB and who meet the certification requirements of certification agencies recognized by Hays County, as expressed below.

Statutory bid limit refers to the Texas Local Government Code provision that requires competitive bidding for many items valued at greater than \$50,000.

3. GUIDELINES

- A. Hays County, its contractors, their subcontractors and suppliers, as well as all vendors of goods, equipment and services, shall not discriminate on the basis of race, color, creed, gender, age, religion, national origin, citizenship, mental or physical disability, veteran's status or political affiliation in the award and/or performance of contracts. All entities doing business or anticipating doing business with the County shall support, encourage and implement affirmative steps toward a common goal of establishing equal opportunity for all citizens and businesses of the County.
 - B. Vendors and/or contractors desiring to participate in the HUB program must successfully complete the certification process with the State of Texas or Texas Unified Certification Program. The vendor or contractor is also required to hold a current valid certification (title) from either of these entities.
 - C. Vendors and/or contractors must be registered with the State Comptroller's web-based HUB directory and with the Comptroller's Centralized Master Bidder's List (CMBL). Hays County will solicit bids from certified HUB's for state purchasing and public works contracts.
4. Hays County will actively seek and encourage HUBs to participate in all facets of the procurement process by:
- A. Continuing to increase and monitor a database of certified HUB vendors, professionals and contractors. The database will be expanded to include products, areas of expertise and capabilities of each HUB firm.
 - B. Continuing to seek new communication links with HUB vendors, professionals and contractors to involve them in the procurement process.
 - C. Continuing to advertise bids on the County's website and in the newspapers including newspapers that target socially and economically disadvantaged communities.
5. As prescribed by law, the purchase of one or more items costing in excess of the statutory bid limit must comply with the competitive bid process. Where possible, those bids will be structured to include and encourage the participation of HUB firms in the procurement process by:
- 1. Division of proposed requisitions into reasonable lots in keeping with industry standards and competitive bid requirements.
 - 2. Where feasible, assessment of bond and insurance requirements and the designing of such requirements to reasonably permit more than one business to perform the work.
 - 3. Specifications of reasonable, realistic delivery schedules consistent with the County's actual requirements.
 - 4. Specifications, terms and conditions reflecting the County's actual requirements are clearly stated, and do not impose unreasonable or unnecessary contract requirements.
6. A HUB practice statement shall be included in all specifications. The County will consider the bidder's responsiveness to the HUB Practices in the evaluation of bids and proposals. Failure to demonstrate a good faith effort to comply with the County's HUB practices may result in a bid or proposal being considered non-responsive to specifications.

7. Nothing in this practice statement shall be construed to require the County to award a contract other than to the lowest responsive bidder as required by law. This practice is narrowly tailored in accordance with applicable law.

Please sign for acknowledgment of the Hays County HUB Practices:

Name: _____

Signature: _____

Date: _____

HAYS COUNTY TRANSPORTATION DEPARTMENT

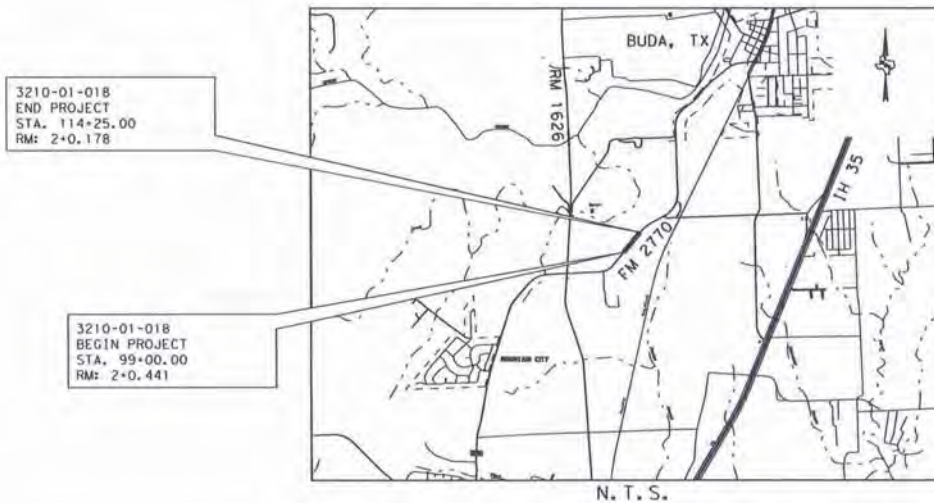
PLANS OF PROPOSED STATE HIGHWAY IMPROVEMENT

FM 2770
HAYS COUNTY
CSJ: 3210-01-018

LIMITS: FROM 2698' NORTH OF FM 1626 TO 4223' NORTH OF FM 1626

FOR THE CONSTRUCTION OF: SAFETY IMPROVEMENTS INCLUDING LEFT TURN LANE
AND PAVED SHOULDERS CONSISTING OF EXCAVATION, EMBANKMENT, FLEXIBLE BASE,
HMACP, DRAINAGE IMPROVEMENTS, AND SIGNING AND PAVEMENT MARKINGS

NET LENGTH OF ROADWAY = 1,525 FT (0.289 MILES)
NET LENGTH OF BRIDGE = 0.00 FT (0.000 MILES)
NET LENGTH OF PROJECT = 1,525 FT (0.289 MILES)



THE CONSTRUCTION WORK WAS PERFORMED IN ACCORDANCE WITH THE
PLANS AND CONTRACT.

EXCEPTIONS: NONE
EQUATIONS: NONE
RAILROAD CROSSINGS: NONE
WATERSHED: BUNTON BRANCH AND MUSTANG BRANCH
AREA OF DISTURBANCE: 1.90 ACRE

REGISTERED ACCESSIBILITY SPECIALIST (RAS) INSPECTION NOT REQUIRED.

REQUIRED SIGNS SHALL BE PLACED IN ACCORDANCE WITH STANDARD
SHEETS BC(1)-21 THRU BC(12)-21 AND THE "TEXAS MANUAL ON UNIFORM
TRAFFIC CONTROL DEVICES."

SPECIFICATIONS ADOPTED BY THE TEXAS DEPARTMENT OF
TRANSPORTATION ON NOVEMBER 1, 2014 AND SPECIFICATION ITEMS
LISTED AND DATED AS FOLLOWS, SHALL GOVERN ON THIS PROJECT:
REQUIRED CONTRACT PROVISIONS FOR ALL STATE CONSTRUCTION CONTRACTS
SP000-008L



WSB & ASSOCIATES, INC.
FIRM # 16649

Daniel A. Rogers



APPROVED BY:
HAYS COUNTY

COMMISSIONER MARK JONES
HAYS COUNTY COMMISSIONER, PRECINCT 2

FINAL SUBMITTAL

DATE: 6/29/2022

RECOMMENDED
FOR LETTING:

AREA ENGINEER

RECOMMENDED
FOR LETTING:

DISTRICT DESIGN ENGINEER

RECOMMENDED
FOR LETTING:

DIRECTOR OF TRANSPORTATION
PLANNING & DEVELOPMENT

SHEET NO.	STATE AID PROJECT NO.	SHEET NO.
6	CC 3210-1-18	1
STATE	STATE	COUNTY
TX	AUS	HAYS
COUNTY	SECTION	SECTION
3210	01	018 FM 2770

FUNCTIONAL CLASSIFICATION = RURAL MAJOR COLLECTOR
DESIGN SPEED = 40 MPH
ADT = 5,250 (2020)
ADT = 6,850 (2040)




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7	TRAFFIC CONTROL PLAN SEQUENCE OF CONSTRUCTION
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THE STANDARD SHEETS LISTED HAVE BEEN SELECTED BY ME OR UNDER MY SUPERVISION AND ARE APPLICABLE TO THIS PROJECT.

Daniel A. Rogers
 DANIEL A. ROGERS, P.E. 6/29/2022
 DATE

			
 HAYS COUNTY			
 WSB & ASSOCIATES, INC. FIRM # 16849			
FM 2770			
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GENERAL NOTES: Version: May 11, 2022

Item	Description	**Rate
**204	Sprinkling (Dart) (Item 132) (Item 247)	30 GAL/CY 30 GAL/CY 30 GAL/CY
**210	Rolling (Flat Wheel) (Item 247) (Item 316)	1 HR/200 TON 1 HR/6000 SY
**210	Rolling (Tamping and Heavy Tamping)	1 HR/200 CY
**210	Rolling (Lt Pneumatic Tire) (Item 132) (Item 247) (Item 316 - Seal Coat) (Item 316 - Two Course)	1 HR/500 CY 1 HR/200 TON 1 HR/6000 SY 1 HR/3000 SY
247	Flexible Base (CMP IN PLC)	132 LB/CF
310	Prime Coat	0.20 GAL/SY
314	Emulsified Asphalt Treatment (SS-1 or MS-2)	0.30 GAL/SY
316	Underseals Asphalts (Multi Option)	0.20 GAL/SY
	Surface Treatments	
	Seal Coat	
	Grade 4	
	Asphalt	0.38 GAL/SY
	Aggregate	1 CY/120 SY
	Grade 5	
	Asphalt	0.32 GAL/SY
	Aggregate	1 CY/150 SY
	Two Course Surface Treatment	
	Asphalt 1st Application	0.28 GAL/SY
	Asphalt 2nd Application	0.24 GAL/SY
	Aggregate 1st Application Grade 4	1 CY/110 SY
	Aggregate 2nd Application Grade 4	1 CY/130 SY
3076, 341/3076, 344/3077	Dense-Graded Hot-Mix Asphalt and Superpave	110 LB/SY/IN
342/3079	Permeable Friction Course (PFC)	90.0 LB/SY/IN
346/3080	Stone-Matrix Asphalt	113 LB/SY/IN
347/3081	Thin Overlay Mixtures (TOM) SAC B SAC A	113.0 LB/SY/IN 116.0 LB/SY/IN
350	Microsurfacing	25 LB/SY
3084	Rolling Course	0.09 GAL/SY
3085	Under Seal Course	0.20 GAL/SY
	Tack Coat	0.08 GAL/SY

** For Informational Purposes Only

General Notes

Sheet A

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GENERAL

References to manufacturer's trade name or catalog numbers are for the purpose of identification only. Similar materials from other manufacturers are permitted if they are of equal quality, comply with the specifications for this project, and are approved.

If work is performed at Contractor's option, when inclement weather is impending, and the work is damaged by subsequent precipitation, the Contractor is responsible for all costs associated with replacing the work, if required.

The roadbed will be free of organic material prior to placing any section of the pavement structure.

Equip all construction equipment used in roadway work with highly visible omnidirectional flashing warning lights.

Provide a smooth, clean sawcut along the existing asphalt or concrete pavement structure, as directed. Consider subsidiary to the pertinent items.

Construct all manholes/valves to final pavement elevations prior to the placement of final surface. If the manholes/valves are going to be exposed to traffic, place temporary asphalt around the manhole/valve to provide a 50:1 taper. The asphalt taper is subsidiary to the ACP work.

Use a self-contained vacuum broom to sweep the roadway and keep it free of sediment as directed. The contractor will be responsible for any sweeping above and beyond the normal maintenance required to keep fugitive sediment off the roadway as directed by the Engineer.

Damage to existing pipes and SET's due to Contractor operations will be repaired at Contractor's expense.

All locations used for storing construction equipment, materials, and stockpiles of any type, within the right of way, will be as directed. Use of right of way for these purposes will be restricted to those locations where driver sight distance to businesses and side street intersections is not obstructed and at other locations where an unsightly appearance will not exist. The Contractor will not have exclusive use of right of way but will cooperate in the use of the right of way with the city/county and various public utility companies as required.

ITEM 5 - CONTROL OF THE WORK




Place construction stakes at intervals of no more than 100 ft. This work is subsidiary.

Precast Alternate Proposals.

When a precast or cast-in-place concrete element is included in the plans, a precast concrete alternate may be submitted in accordance with "Standard Operating Procedure for Alternate

General Notes

Sheet B

			
 HAYS COUNTY			
 WSB & ASSOCIATES, INC. FIRM # 16849			
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Precast Proposal Submission" found online at <https://www.txdot.gov/inside-txdot/forms-publications/consultants-contractors/publications/bridge.html#design>. Acceptance or denial of an alternate is at the sole discretion of the Engineer. Impacts to the project schedule and any additional costs resulting from the use of alternates are the sole responsibility of the Contractor.

Electronic Shop Drawing Submittals.

Submit electronic shop drawing submittals according to the current [Guide to Electronic Shop Drawing Submittal](https://www.txdot.gov/business/resources/specifications/shop-drawings.html) <https://www.txdot.gov/business/resources/specifications/shop-drawings.html> (TxDOT.gov > Business > Resources - General > Shop Drawings). Pre-approved producers can be found online at TxDOT.gov > Business > Resources - Material Producer List. Use the following contact list for all submittals that are not required to be sent to Bridge Division and to copy the Engineer for all submittals to the Bridge Division.

Submittal Contact List

South Austin Mark.Baumann@txdot.gov

AUS_SA-ShopReview@txdot.gov

Alignment and Profile.

Unless shown in the plans, profile and alignment data for roadways being overlaid or widened are for design verification only. Provide survey and construct the roadway in accordance with the typical section. Bid items and data may be provided to adjust cross slope and super elevations.

ITEM 6 - CONTROL OF MATERIALS

Give a minimum of 1 business day notice for materials, which require inspection at the Plant.

ITEM 7 - LEGAL RELATIONS AND RESPONSIBILITIES

Roadway closures during key dates and/or special events are prohibited. See notes for Item 502 for the key dates and/or special events.

Refer to the Environmental Permits, Issues and Commitments (EPIC) plan sheets for additional requirements and permits.

When any abandoned well is encountered, cease construction operations in this area and notify the Engineer who will coordinate the proper plugging procedures. A water well driller licensed in the State of Texas must be used to plug a well.

Perform maintenance of vehicles or equipment at designated maintenance sites. Keep a spill kit on-site during fueling and maintenance. This work is subsidiary.

Maintain positive drainage for permanent and temporary work for the duration of the project. Be responsible for any items associated with the temporary or interim drainage and all related maintenance. This work is subsidiary.

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Suspend all activities near any significant recharge features, such as sinkholes, caves, or any other subterranean openings that are discovered during construction or core sampling. Do not proceed until the designated Geologist or TCEQ representative is present to evaluate and approve remedial action.

Locate aboveground storage tanks kept on-site for construction purposes in a contained area as to not allow any exposure to soils. The containment will be sized to capture 150% of the total capacity of the storage tanks.

Spot-Tailed Earless Lizard

For open trenches and excavated pits, install escape ramps at an angle of less than 45 degrees (1:1) in areas left uncovered. Visually inspect excavation areas for trapped wildlife prior to backfilling. Avoid or minimize disturbing or removing cover objects, such as downed trees, rotting stumps, brush piles, and leaf litter. If avoidance or minimization is not practicable, consider removing cover objects prior to the start of the project and replace them at project completion. Examine heavy equipment stored on site before use, particularly after rain events when reptile and amphibian movements occur more often, to ensure use will not harm individuals that might be seeking temporary refuge. Due to increased activity (mating) of reptiles and amphibian during the spring, construction activities like clearing or grading should attempt to be scheduled outside of the spring (March-May) season. Also, timing ground disturbing activities before October when reptiles and amphibians become less active and may be using burrows in the project area is also encouraged. After project is complete, revegetate disturbed areas with an appropriate locally sourced native seed mix. If erosion control blankets or mats will be used, the product should not contain netting, but should only contain loosely woven natural fiber netting in which the mesh design allows the threads to move, therefore allowing expansion of the mesh openings. Plastic netting should be avoided.

PSL in Edwards Aquifer Recharge and Contributing Zone.

Obtain written approval from the Engineer for all on or off right of way PSLs not specifically addressed in the plans. Provide a signed sketch of the location 30 business days prior to use of the PSL. Include a list of materials, equipment and portable facilities that will be stored at the PSL. TxDOT will coordinate with the necessary agencies. Approval of the PSL is not guaranteed. Un approved PSL is not a compensable impact.




Work within a USACE Jurisdictional Area.

Do not initiate activities within a U.S. Army Corps of Engineers (USACE) jurisdictional area that have not been previously evaluated by the USACE as part of the permit review of this project. Such activities include, but are not limited to, haul roads, equipment staging areas, borrow and disposal sites. Obtain written approval from the Engineer for activities not specifically addressed in the plans. Provide a signed sketch and description of the location 60 business days prior to begin work at the location. Complete and return any forms provided by TxDOT. Approval of the work is not guaranteed. Un approved work is not a compensable impact.

Obtain written approval from the Engineer for temporary fill or crossings not specifically addressed in the plans. Provide a signed sketch of the location 60 business days prior to begin

General Notes

Sheet D

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 HAYS COUNTY				
 WSB & ASSOCIATES, INC. FIRM # 16849				
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DATE: 7/18/2022 SHEET 2 OF 7				
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work at the location. Complete and return any forms provided by TxDOT. Approval of the work is not guaranteed. Unapproved work is not a compensable impact.

Migratory Birds and Bats.

Migratory birds and bats may be nesting within the project limits and concentrated on roadway structures such as bridges and culverts. Remove all old and unoccupied migratory bird nests from any structures, trees, etc. between September 16 and February 28. Prevent migratory birds from re-nesting between March 1 and September 15. Prevention shall include all areas within 25 ft. of proposed work. All methods used for the removal of old nesting areas and the prevention of re-nesting must be submitted to TxDOT 30 business days prior to begin work. This work is subsidiary.

If active nests are encountered on-site during construction, all construction activity within 25 ft. of the nest must stop. Contact the Engineer to determine how to proceed.

Back Up Alarm.

For hours 9 P to 5 A, utilize a non-intrusive, self-adjusting noise level reverse signal alarm. This is not applicable to hotmix or seal coat operations. This is subsidiary.

ITEM 100 - PREPARING RIGHT OF WAY

Prep ROW must not begin until accessible trees designated for preservation have been protected, items listed in the EPIC have been addressed, and SW3P controls installed in accessible areas.

Backfill material will be Type B Embankment using ordinary compaction.

Follow Item 752.4 Work Methods and Item 752 general notes when removing or working on or near trees and brush.

ITEM 110 - EXCAVATION

The Engineer will define unsuitable material.

ITEM 132 - ALL EMBANKMENT

At no time will the retaining wall backfill material exceed the adjacent embankment operation by more than one lift. At no time will the embankment adjacent to the retaining wall backfill exceed the wall backfill by any elevation. Embankment placed over the area of MSE backfill must meet the same backfill requirements for the type specified under Item 423.

The Engineer will define unsuitable material. Material which the Contractor might deem to be unsuitable due to moisture content will not be considered unsuitable material.

Prior to begin embankment of existing area, correct or replace unstable material to a depth of 6 in. below existing grade. Embankment areas will be inspected prior to beginning work.

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Rock or broken concrete produced by the project is allowed in earth embankments. The size of the rock or broken concrete will not exceed the layer thickness requirements in Section 132.3.4., "Compaction Methods." The material will not be placed vertically within 5 ft. of the finished subgrade elevation.

Embankment placed vertically within 5 ft. of the finished subgrade elevation or within the edges of the subgrade and treated with lime, cement, or other calcium based additives must have a sulfate content less than 3000 ppm. Allow 5 business days for testing. Treatment of sulfate material 3000 ppm to 7000 ppm requires 7 days of mellowing and continuous water curing, in accordance TxDOT guidelines for Treatment of Sulfate-Rich Soils and Bases in Pavement Structures (9/2005). Material over 7000 ppm is not allowed.

ITEM 134 - BACKFILLING PAVEMENT EDGES

For all backfill, compact using a light pneumatic roller, install at 3:1 slope to tie into existing terrain, and apply at rate of 0.12 GAL/SY a typical erosion control material per Item 300. If seal coat is final surface, install backfill prior to placing seal coat.

For TY A backfill, furnish flexible base meeting the requirement for any type or grade, except Grade 4, in accordance with Item 247. Compressive strengths and wet ball mill for flexible base are waived for this item. In lieu of flexible base, RAP may be supplied and must be 100% passing a 2.5 in. sieve in accordance to Tex-110-E.

ITEM 160 - TOPSOIL

Off-site topsoil will have a minimum PI of 25.

No Sandy Loam allowed.

Obtain approval of the actual depth of the topsoil sources for both on-site and off-site sources. Construct topsoil stockpiles of no more than five (5) feet in height.

Seed or track slopes within 14 days of placement.

Windrowing of topsoil obtained from the Right of Way (ROW) is not allowed.

ITEM 168 - VEGETATIVE WATERING




Water all areas of project to be seeded or sodded.

Maintain the seedbed in a condition favorable for the growth of grass. Watering can be postponed immediately after a rainfall on the site of ¼ inch or greater, but will be resumed before the soil dries out. Continue watering until final acceptance.

Vegetative watering rates and quantities are based on ¼ inch of watering per week over a 3-month watering cycle. The actual rates used and paid for will be as directed and will be based on prevailing weather conditions to maintain the seedbed.

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 Texas Department of Transportation				
 HAYS COUNTY				
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Obtain water at a source that is metered (furnish a current certification of the meter being used) or furnish the manufacturer's specifications showing the tank capacity for each truck used. Notify the Engineer, each day that watering takes place, before watering, so that meter readings or truck counts can be verified.

ITEM 169 – SOIL RETENTION BLANKETS

Type A blankets containing straw fibers are not allowed. Type B and D blankets shall be a spray type blanket.

ITEM 247 – FLEXIBLE BASE

The layer thickness will be 4 in. to 6 in. unless shown on the plans. Placing in a single layer is allowed when total thickness of base is 8 in. or less. When placed in multiple layers, compact the bottom and middle layers to at least 95% and 98% of the maximum dry density, respectively. When placed in a single layer or the final layer, compact to at least 100%.

Correction of subgrade soft spots is subsidiary.

Complete per plans the subgrade, ditches, slopes, and drainage structures prior to the placement of base.

Do not use a vibratory roller to compact base placed directly on top of a drainage structure.

ITEM 300s – SURFACE COURSES AND PAVEMENTS

Asphalt season is May 1 thru September 15. Emulsified Asphalt season is April 1 thru October 15. The latest work start date for asphalt season is August 1.

If an under seal is not provided, furnish a tack coat. Apply tack coat at 0.08 GAL/SY (residual). Apply non-tracking tack coat using manufacturer recommend rates.

ITEM 310 – PRIME COAT

Apply blotter material to all driveways and intersections. This work is subsidiary.

When Multi Option is allowed, provide MC 30, EC 30 or AE-P. MC 30 is not allowed in Travis County.

Rolling to ensure penetration is required.

ITEM 320 – EQUIPMENT FOR ASPHALT CONCRETE PAVEMENT

Use of motor grader is allowed for placement of mixtures greater than 10 inches from the riding surface, when hot-mix is used in lieu of flexible base, or as allowed.

ITEMS 341, 344, & 3076 THRU 3082 - HOT-MIX ASPHALT PAVEMENT

Core holes may be filled with an Asphaltic patching material meeting the requirements of DMS-9203 or with SCM meeting requirements of DMS-9202.

General Notes

Sheet G

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Sheet:
Control:

Install transverse butt joints with 50 ft. H: 1 in. V transition from the new ACP to the existing surface. Install a butt joint with 24 in. H: 1 in. V transition from the new ACP to a driveway, pullout or intersection. Saw cut the existing pavement at the butt joints. This work is subsidiary.

Use a device to create a maximum 3H:1V notched wedge joint on all longitudinal joints of 2 in. or greater. This work is subsidiary.

Prior to milling, core the existing pavement to verify thickness. This work is subsidiary.

Ensure placement sequence to avoid excess distance of longitudinal joint lap back not to exceed one day's production rates.

Submit any proposed adjustments or changes to a JMF before production of the new JMF.

Tack every layer. Do not dilute tack coat. Apply it evenly through a distributor spray bar.

Provide a minimum transition of 10' for intersections, 10' for commercial driveways, and 6' for residential driveways unless otherwise shown on the plans.

Irregularities will require the replacement of a full lane width using an asphalt paver. Replace the entire sublot if the irregularities are greater than 40% of the sublot area.

Lime or an approved anti-stripping agent must be used when crushed gravel is utilized to meet a SAC "A" requirement.

When using RAP or RAS, include the management methods of processing, stockpiling, and testing the material in the QCP submitted for the project. If RAP and RAS are used in the same mix, the QCP must document that both of these materials have dedicated feeder bins for each recycled material. Blending of RAP and RAS in one feeder bin or in a stockpile is not permitted.

Asphalt content and binder properties of RAP and RAS stockpiles must be documented when recycled asphalt content greater than 20% is utilized.

No RAS is allowed in surface courses.

Department approved warm-mix additives is required for all surface mix application when RAP is used. Dosage rates will be approved during JMF approval.




The Hamburg Wheel Test will have a minimum rut depth of 3mm except for SMA with HPG or PG 76.

ITEMS 3076 & 341/3076 - DENSE-GRADED HOT-MIX ASPHALT

Use the SGC for design and production testing of all mixtures. Design all Type D mixtures as a surface mix, maximum 15% RAP and no RAS. Contractor may not use a substitute PG binder for 76-22. When using substitute binders, mold specimens for mix design and production at the temperature required for the substitute binder used to produce the HMA.

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Sheet H

			
 HAYS COUNTY			
 WSB & ASSOCIATES, INC. FIRM # 16849			
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GENERAL NOTES			
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TEXAS	AUS		HAYS
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The Hamburg Wheel minimum number of passes for PG 64 or lower is reduced to 7,000. The Engineer may accept Hamburg Wheel test results for production and placement if no more than 1 of the 5 most recent tests is below the specified number of passes and the failing test is no more than 2,000 passes below the specified number of passes.

ITEM 502 - BARRICADES, SIGNS, AND TRAFFIC HANDLING

Table 1

Roadway	Limits	Allowable Closure Time
IH 35	All (1 lane closed)	9 P to 5 A
IH 35	All (2 lanes closed, see allowable work below)	9 P to 5 A
IH 35	All (2 lanes closed, all work)	11 P to 5 A
SH 45	US 183 to SH130	8 P to 5 A
LP 1	William Cannon to Parmer Lane	8 P to 5 A
US 183	SH 29 to FM 1327	8 P to 5 A
SH 71	SH 130 to IH 35	8 P to 5 A
SH 71	SH 304 to Tahitian Drive	8 P to 5 A
SH 71	US 290 W to FM 3238	8 P to 5 A
US 290 W	IH 35 to Nutty Brown Rd	8 P to 5 A
US 290 E	IH 35 to SH 95	8 P to 5 A
FM 734	FM 1431 to US 290 E	8 P to 5 A
US 79	IH 35 to Bus 79 in Taylor	8 P to 5 A
RM 1431	Lohmans Ford Rd to IH 35	8 P to 5 A
SH 29	LP 332 western terminus to SH 130	8 P to 5 A
SH 80	Charles Austin to River Road	8 P to 5 A
RM 2222	All	8 P to 5 A
RM 620	All	8 P to 5 A
RM 2244	All	8 P to 5 A
SPUR 69	All	8 P to 5 A
LP 360	All	8 P to 5 A
LP 343	All	8 P to 5 A
LP 275	All	8 P to 5 A
FM 1325	All	8 P to 5 A
All	Within 200' of a signalized intersection	9 P to 5 A
All	All (Full Closure, see allowable work below)	11 P to 4 A

Table 2

Roadway	Limits	Allowable Closure Time
NA	NA	NA

Table 3 (Mobile Operations)

Roadway	Allowable Sun Night thru Fri Noon	Allowable Sat thru Sun Morn
Within Austin City Limits	10 A to 2 P and 7 P to 6 A	7 P to 10 A
Outside Austin City Limits	9 A to 3 P and 7 P to 7 A	6 P to 11 A
IH 35 main lanes	10 P to 5 A	9 P to 9 A
AADT over 50,000	8 P to 6 A	8 P to 10 A

General Notes

Sheet I

For roadways without defined allowable closure times, nighttime lane closures will be allowed from 8 P to 6 A. Unless stated, daytime or Friday night lane closures will not be allowed and one lane in each direction will remain open at all times for all roadways.

Full closures only allowed Friday night thru Monday morning for bridge beam installation, bridge demolition, or OSB truss removal/installation. Full closures only allowed for roadways with frontage roads or if a designated detour route is provided in the plans.

No closures will be allowed on the weekends, working day prior, and working day after the National Holidays defined in the Standard Specifications, Good Friday, and Easter weekend. Closures the Sunday of the Super Bowl will not be allowed from 1 P to 11 P. No closures will be allowed on Friday and the weekends for projects within 20 miles of Formula 1 at COTA, ACL Fest, SXSW, ROT Rally, UT home football games (includes games not on a Friday or weekend), sales tax holiday, Dell Match Play (includes Thursday), Rodeo Austin, or other special events that could be impacted by the construction. All lanes will be open by noon of the day before these special events. Additional key dates or special events include the following:

To account for directional traffic volumes, begin and end times of closures may be shifted equally by the Engineer. The closure duration will remain. Added compensation is not allowed.

Submit an emailed request for a lane closure (LCN) to TxDOT. The email will be submitted in the format provided. Receive concurrence prior to implementation. Submit a cancellation of lane closures a minimum of 18 hours prior to implementation. Blanket requests for extended periods are not allowed. Max duration of a request is 2 weeks prior to requiring resubmittal.

Provide 2 hour notice prior to implementation and immediately upon removal of the closure.

For roadways listed in Table 1: Submit the request 96 hours prior to implementation.

For roadways not listed in Table 1: Submit the request a minimum of 48 hours prior to the closure and by the following deadline immediately prior to the closure: 11A on Tuesday or 11A on Friday. For all roadways: Submit request for traffic detours and full roadway closures 168 hours prior to implementation. Submit request for nighttime work 96 hours to implementation date.




Cancellations of accepted closures (not applicable to full closures or detours) due to weather will not require resubmission in accordance with the above restrictions if the work is completed during the next allowable closure time.

Closures that conflict with adjacent contractor will be prioritized according to critical path work per latest schedule. Conflicting critical path or non-critical work will be approved for first LCN submitted. Denial of a closure due to prioritization or other reasons will not be reason for time suspension, delay, overhead, etc.

Cover, relocate or remove existing signs that conflict with traffic control. Install all permanent signs, delineation, and object markers required for the operation of the roadway before opening to

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traffic. Use of temporary mounts is allowed or may be required until the permanent mounts are installed or not impacted by construction. Maintain the temporary mounts. This work is subsidiary.

Meet with the Engineer prior to lane closures to ensure that sufficient equipment, materials, devices, and workers will be used. Take immediate action to modify traffic control, if at any time the queue becomes greater than 20 minutes. Have a contingency plan of how modification will occur. Consider inclement weather prior to implementing the lane closures. Do not set up traffic control when the pavement is wet.

Place a 28-inch cone, meeting requirements of BC (10), on top of foundations that have protruding studs. This work is subsidiary.

Edge condition treatment types must be in accordance with the TxDOT standard. Installation and removal of a safety slope is subsidiary.

ITEM 506 - TEMPORARY EROSION, SEDIMENTATION, AND ENV CONTROLS
If SW3P plan sheets are not provided, place the control measures as directed.

Install, maintain, remove control measures in areas of the right of way utilized by the Contractor that are outside the limits of disturbance required for construction. Permanently stabilize the area. This work is subsidiary.

Erosion control measures must be initiated immediately in areas where construction activities have ceased and will not resume for a period exceeding 14 calendar days. Vertical track all exposed soil, stockpiles, and slopes. Re-track after each rain event or every 14 days, whichever occurs first. Sheep foot roller is allowed for vertical tracking. This work is subsidiary.

Unless a specific pay item is provided in the plans, the installation of the 6:1 or flatter for RFD side slopes in the safety zone will be subsidiary to pertinent bid items.

ITEM 530 - INTERSECTIONS, DRIVEWAYS, AND TURNOUTS

Notify property owners at least 48 hr. before beginning work on their driveway. Provide a list of each notification and contact before each closure. Only close driveways for reconstruction if duration and alternate access are approved. Install and maintain material across a work zone as temporary access. This work is subsidiary.

Grade breaks must not exceed 8% for permanent or temporary. Sidewalk crossing slope will be 1.5% and 5 ft. wide with width reduction in approved locations.

For ACP or SURF TREAT, the pavement structure will match the adjacent roadway unless detailed on the plans. HMA, including surface, may use a maximum allowable quantity of 40% RAP and 5% RAS for private driveways, public driveways for 2-lane roadways or smaller, and turnouts. Blending of 2 or more sources is allowed.

For CONC, the pavement structure will be 6 in. thick and have 3 in. flexible base bedding unless detailed on the plans. Coarse Aggregate Grades 1-8 may be used for the required Class A concrete.

General Notes

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Control:

Expansion joints will be placed every 20 ft. Construct expansion joints as detailed in the latest Austin District Standard for Sidewalk (MCPSWMD).

ITEM 585 - RIDE QUALITY FOR PAVEMENT SURFACES

Use Surface Test Type B Pay Schedule 3 to evaluate ride quality of travel lanes, including service roads.

ITEMS 600s & 6000s - ITS, LIGHTING, SIGNING, MARKINGS, AND SIGNALS

Meet the requirements of the NEC, Texas MUTCD, TxDOT standards, and TxDOT Standard Specifications. Notify the Engineer if existing elements to remain do not meet code or specification.

ITEM 644 - SMALL ROADSIDE SIGN ASSEMBLIES

Triangular slip base that use set screws to secure the post will require 1 of the set screws to penetrate the post by drilling a hole in the post at the location of the screw. All set screws shall be treated with anti-seize compound.

ITEM 658 - DELINEATOR AND OBJECT MARKER ASSEMBLIES

Flexible posts YFLX and WFLX must be tubular in shape. The "flat" flexible posts are not allowed.

ITEM 662 - WORK ZONE PAVEMENT MARKINGS

Notify the Engineer at least 24 hours in advance of work for this item.

Maintain removable and short-term markings daily. Remove within 48 hours after permanent striping has been completed.

Item 668 is not allowed for use as Item 662.

ITEM 666 - RETROREFLECTORIZED PAVEMENT MARKINGS

Notify the Engineer at least 24 hr. before beginning work.




Place longitudinal markings nightly for IH 35 main lanes or roadways with AADT greater than 100,000. Use of temporary flexible reflective roadway marker tabs is subsidiary and at the Contractor's option. Replace missing or damaged tabs nightly. If using tabs, place longitudinal markings weekly by 5 AM Friday for all weekday work and by 5 AM Monday for all weekend work. Failure to maintain tabs or place longitudinal markings by deadline will require nightly placement of longitudinal markings.

Place longitudinal markings no later than 7 calendar days after placement of the surface for roadways with AADT greater than 20,000.

When the raised portion of a profile marking is placed as a separate operation from the pavement marking, the raised portion must be placed first then covered with TY I.

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Sheet L

 Texas Department of Transportation				
 HAYS COUNTY				
 WSB & ASSOCIATES, INC. FIRM # 16849				
FM 2770				
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When using black shadow to cover existing stripe apply a non-retroreflective angular abrasive bead drop. The marking color shall be adjusted to resemble the pavement color. If Item 677 is not used prior to placement of black shadow, scrape the top of the marking with a blade or large piece of equipment unless surface is a seal coat. The scraping of the marking is subsidiary.

ITEM 677 - ELIMINATING EXISTING PAVEMENT MARKINGS AND MARKERS

Dispose of removed materials and debris at locations off the right of way.

Elimination using a pavement marking will not be allowed in lieu of methods listed in specification.

Remove pavement markings outside the limits of the new surface by a blasting method.

Use a TRAIL or a non-retroreflective paint to cover stripe remnants that remain after elimination. The test requirements for these materials are waived. The paint color shall be adjusted to resemble the existing pavement color. Installation and maintenance is subsidiary.

ITEM 3084 - BONDING COURSE

The minimum application rates are listed in Table BC. Miscellaneous Tack is allowed for use with dense-graded Type B HMA. If a tack bid item is not provided, use bonding course item.

The target shear bond strengths are listed in Table BCS. The informational test cores shall be taken once a shift for first 5 lots of placement or a change to placement method of bonding course, bonding material, or hot mix material. The remaining informational test cores shall be taken once every 3 lots for surface mix. Informational tests are not required for non-surface mix beyond the first 5 lots unless there is a change to placement method of bonding course, bonding material, or hot mix material. Results from these informational tests will not be used for specification compliance.

Table BC

Material	Minimum Application Rate (gal. per square yard)
TRAIL - Emulsified Asphalt	0.06
TRAIL - Hot Asphalt	0.12
Spray Applied Underscal Membrane	0.10

Table BCS (For Informational Tests)

Material	Target Shear Bond Strength (Tex-249-F psi)
SMA - Stone-Matrix Asphalt	60.0
PFC - Permeable Friction Course	N/A
All Other Materials	40.0

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ITEM 6001 - PORTABLE CHANGEABLE MESSAGE SIGN

Provide 2 PCMS. Provide a replacement within 12 hours. PCMS will be available for traffic control, event notices, roadway conditions, service announcements, etc.

Place PCMS 14 calendar days prior to begin work with the location and message to be approved by the engineer.

Place PCMS at time of LCN request. Place the PCMS at the expected end of queue caused by the closure. When the closure is active, revise the message to reflect the actual condition during the closure, such as "RIGHT LN CLOSED XXX FT".

ITEM 6185 - TRUCK MOUNTED ATTENUATOR AND TRAILER ATTENUATOR




The TMA/TA used for installation/removal of traffic control for a work area will be subsidiary to the TMA/TA used to perform the work.

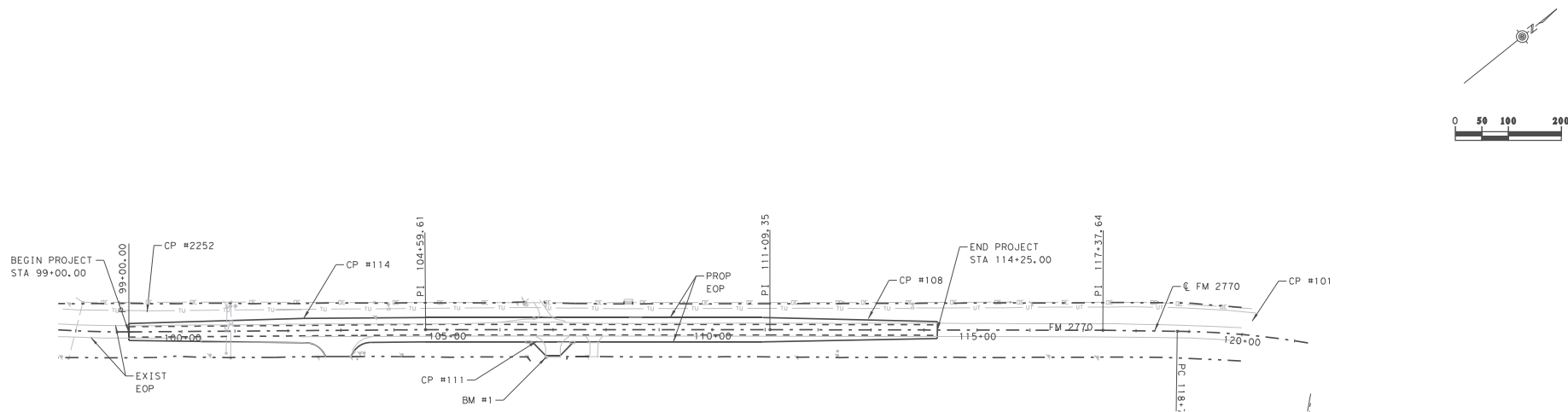
The contractor will be responsible for determining if one or more operations will be ongoing at the same time to determine the total number of TMA/TA required for the work. TMA/TAs paid by the day is full compensation for all worksite locations during an entire day.

TMA/TAs used to protect damaged attenuators will be paid by the day using the force account item for the repair.

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3210	01	018	FM 2770	3G



Chain 2770 contains:
CUR 27701 CL02 CL03 CL04 CUR 27702

Beginning chain 2770 description

Curve Data				

Curve 27701				
P.I. Station	98+13.05	N	13,932,867.1446	E 2,327,190.7745
Delta	4° 32' 30.83"	(LT)		
Degree	2° 36' 37.03"			
Tangent	87.0456			
Length	174.0000			
Radius	2,195.0000			
External	1.7253			
Long Chord	173.9545			
Mtd. Ord.	1.7239			
P.C. Station	97+26.00	N	13,932,803.5578	E 2,327,131.3298
P.T. Station	99+00.00	N	13,932,935.2389	E 2,327,244.9971
C.C.		N	13,934,302.5538	E 2,325,527.8847
Back	N 43° 04' 18.35"	E		
Ahead	N 38° 31' 47.52"	E		
Chord Bear	N 40° 48' 02.93"	E		

Course from PT 27701 to CL02 N 38° 12' 27.84" E Dist 559.6131

Point CL02 N 13,933,374.9680 E 2,327,591.1259 Sta 104+59.61

Course from CL02 to CL03 N 38° 38' 18.38" E Dist 649.7400

Point CL03 N 13,933,882.4810 E 2,327,996.8260 Sta 111+09.35

Course from CL03 to CL04 N 38° 44' 44.49" E Dist 628.2876

Point CL04 N 13,934,372.5023 E 2,328,390.0491 Sta 117+37.64

Course from CL04 to PC 27702 N 39° 22' 03.71" E Dist 140.3197

Curve Data				

Curve 27702				
P.I. Station	120+13.16	N	13,934,585.5060	E 2,328,564.8113
Delta	9° 33' 40.56"	(RT)		
Degree	3° 32' 38.90"			
Tangent	135.2023			
Length	269.7767			
Radius	1,616.6341			
External	5.6438			
Long Chord	269.4638			
Mtd. Ord.	5.6241			
P.C. Station	118+77.96	N	13,934,480.9823	E 2,328,479.0532
P.T. Station	121+47.74	N	13,934,674.3331	E 2,328,666.7397
C.C.		N	13,933,455.5598	E 2,329,728.8589
Back	N 39° 22' 03.71"	E		
Ahead	N 48° 55' 44.27"	E		
Chord Bear	N 44° 08' 53.99"	E		

Ending chain 2770 description

FM 2770 CONTROL POINTS						
NAME	STATION	OFFSET	EASTING	NORTHING	ELEVATION	DESCRIPTION
BM #1	106+86.73	52.44' RT	2327773.89	13933519.62	787.76'	COTTON SPINDLE
CP # 2252	99+34.35	36.94' LT	2327237.37	13932985.27	785.70'	60D NAIL (SET)
CP # 114	102+27.62	19.55' LT	2327432.28	13933204.76	786.67'	IRON ROD (SET)
CP # 111	106+69.43	21.60' RT	2327739.00	13933525.37	788.39'	IRON ROD (SET)
CP # 108	112+94.90	21.04' LT	2328096.38	13934040.45	782.47'	IRON ROD (SET)
CP # 101	120+16.86	27.22' LT	2328552.18	13934603.46	782.51'	IRON ROD (SET)



Daniel A. Rogers

6/29/2022



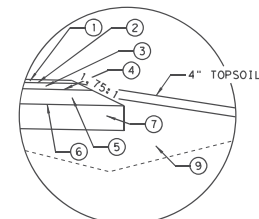
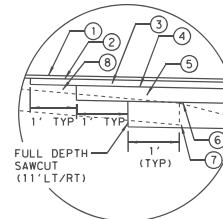
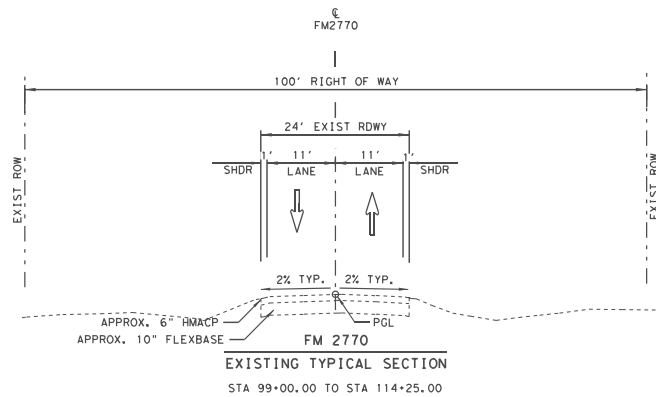
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FIRM # 16849

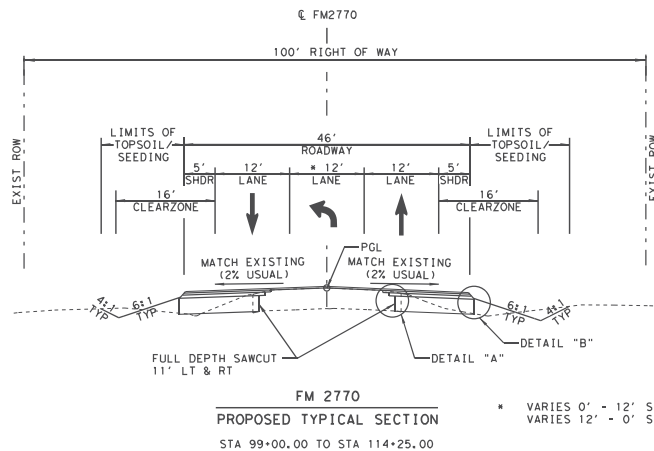
FM 2770

PROJECT LAYOUT

DATE: 6/29/2022			SHEET 1 OF 1	
STATE		STATE DIST. NO.		COUNTY
TEXAS		AUS		HAYS
CONT.	SECT.	JOB	HIGHWAY NO.	SHEET NO.
3210	01	018	FM 2770	4



- ① 1" TOM PG76-22 SAC-B
- ② UNDERSEAL COURSE
- ③ 2" D-GR HMA (TY D)
- ④ BONDING COURSE
- ⑤ 4" D-GR HMA (TY B)
- ⑥ PRIME COAT
- ⑦ 12" FLEX BASE (2 EQUAL LIFTS)
- ⑧ LEVEL UP (TY-D)
- ⑨ TY "B" EMBANKMENT



6/29/2022



HAYS COUNTY



FM 2770

TYPICAL SECTIONS

DATE: 6/29/2022			SHEET 1 OF 1	
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CONT.	SECT.	JOB	HIGHWAY NO.	SHEET NO.
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N. T. S.


SUMMARY OF ROADWAY ITEMS																	
LOCATION	100 6002	104 6017	110 6001	132 6003	247 6366	310 6801	3081 6008	464 6003	467 6363	530 6004	530 6005	560 6001	3076 6003	3076 6051	3076 6072	3084 6001	3085 6001
	PREPARING ROW	REMOVING CONC (DRIVEWAYS)	EXCAVATION (ROADWAY)	EMBANKMENT (FINAL)(ORD COMP)(TY B)	FLBS (CMP IN PLC)(TY A GR 5)(FINAL POS)	PRIME COAT (MULTI OPTION)	TOM-C PG 76-22 SAC B	RC PIPE (CL III)(18 IN)	SET (TY II) (18 IN) (RCP) (6:1) (P)	DRIVEWAYS (CONC)	DRIVEWAYS (ACP)	MAILBOX INSTALL- S (TW3-POST) TY 1	D-GR HMA TY-B PG64-22 (EXEMPT)	D-GR HMA TY-D PG76-22 (LEVEL- LIP)	D-GR HMA TY-D PG76-22 (EXEMPT)	BONDING COURSE	UNDERSEAL COURSE
	STA	SY	CY	CY	CY	GAL	TON	LF	EA	SY	SY	EA	TON	TON	TON	GAL	GAL
P & P SHEET 1	11	619	1655	334	1034	621	320	146	6	153	131	2	750	48	364	633	1111
P & P SHEET 2	4.25		261	236	319	192	110						236	89	119	207	383
PROJECT TOTALS	15	619	1917	570	1353	813	430	146	6	153	131	2	986	137	482	840	1496


SUMMARY OF PAVEMENT MARKING ITEMS												
LOCATION	666 6011	666 6035	666 6053	666 6077	666 6170	666 6178	666 6184	666 6192	666 6207	666 6314	672 6007	672 6009
	REFL PAV MRK TY I (W)4"(SLD)(090MIL)	REFL PAV MRK TYI (W)8"(SLD)(090MIL)	REFL PAV MRK TYI (W)(ARROW)(090MIL)	REFL PAV MRK TYI (W)(WORD)(090MIL)	REFL PAV MRK TY II (W) 4" (SLD)	REFL PAV MRK TY II (W) 8" (SLD)	REFL PAV MRK TY II (W) (ARROW)	REFL PAV MRK TYII (W) (WORD)	REFL PAV MRK TY II (Y) 4" (SLD)	REFL PAV MRK TY I (Y)4"(SLD)(090MIL)	REFL PAV MRKR TY I-C	REFL PAV MR TY II-A-A
	LF	LF	EA	EA	LF	LF	EA	EA	LF	LF	EA	EA
S & S SHEET 1	2950	666	4	4	2950	666	4	4	4360	4360	23	109
PROJECT TOTALS	2950	666	4	4	2950	666	4	4	4360	4360	23	109


SUMMARY OF WORKZONE TRAFFIC CONTROL ITEMS					
LOCATION	662 6013	662 6025	677 6001	6001 6001	6185 6002
	WK 2B PAV MRK REMOV (W)4"(SLD)	WK 2B PAV MRK REMOV (Y)4"(SLD)	ELIM EXT PAV MRK & MARKS (4")	PORTABLE CHANGEABLE MESSAGE SIGN	TMA (STATIONARY)
	LF	LF	LF	DAY	DAY
PHASE 1	3616	3616	7232		
PHASE 2	3500	3500			
PROJECT WIDE				28	20
PROJECT TOTALS	7116	7116	7232	28	20

SUMMARY OF SIGNING ITEMS		
LOCATION	644 6001	644 6076
	IN SM RD SN SUP&AM TY10BWG(1)SA (P)	REMOVE SM RD SN SUP&AM
	EA	EA
S & S SHEET 1 OF 1	1	1
PROJECT TOTALS	1	1

SUMMARY OF EROSION CONTROL ITEMS										
LOCATION	160 6003	164 6039	164 6041	166 6002	168 6001	169 6001	506 6002	506 6011	506 6038	506 6039
	FURNISHING AND PLACING TOPSOIL (4")	DRILL SEEDING (PERM) (URBAN) (CLAY)	DRILL SEEDING (TEMP) (WARM)	FERTILIZER	VEGETATIVE WATERING	SOIL RETENTION BLANKETS (CL 1) (TY A)	ROCK FILTER DAMS (INSTALL) (TY 2)	ROCK FILTER DAMS (REMOVE)	TEMP SEDMT CONT FENCE (INSTALL)	TEMP SEDMT CONT FENCE (REMOVE)
	SY	SY	SY	TON	MG	SY	LF	LF	LF	LF
EC SHEET 1	5761	5761	2881	0.37	145	160	80	80	640	640
PROJECT TOTALS	5761	5761	2881	0.37	145	160	80	80	640	640


 Texas Department of Transportation


HAYS COUNTY


wsb WSB & ASSOCIATES, INC.
FIRM # 16849

FM 2770

 SUMMARY OF
QUANTITIES

DATE: 6/29/2022			SHEET 1 OF 1		
STATE	STATE DIST. NO.	COUNTY			
TEXAS	AUS	HAYS			
CONT.	SECT.	JOB	HIGHWAY NO.	SHEET NO.	
3210	01	018	FM 2770	6	

GENERAL NOTES

THE CONTRACTOR MAY PROPOSE/RECOMMEND SIGNED AND SEALED MODIFICATIONS BY A REGISTERED PROFESSIONAL ENGINEER IN THE STATE OF TEXAS TO THE SEQUENCE OF WORK FOR CONSIDERATION BY THE ENGINEER. ANY MAJOR RECOMMENDED MODIFICATION TO THE SEQUENCE OF WORK BY THE CONTRACTOR SHALL INCLUDE ANY CHANGES TO THE VARIOUS PAY ITEMS, IMPACT TO TRAFFIC, AND EFFECT ON OVERALL PROJECT IN TIME AND COST, ETC. THE CONTRACTOR CANNOT PROCEED WITH ANY CONSTRUCTION OPERATIONS BASED ON A REVISED PHASE/SEQUENCE OF WORK UNTIL THE CONTRACTOR OBTAINS WRITTEN APPROVAL FROM THE ENGINEER.

CONSTRUCT PORTIONS OF THE DRAINAGE SYSTEM AND GRADING TO PREVENT ADVERSE FLOW OR WATER ACCUMULATION.

THE CONTRACTOR MUST MAINTAIN ACCESS TO ALL DRIVEWAYS AND INTERSECTIONS AT ALL TIMES ALONG THE PROJECT. ANY WORK AND MATERIAL USED TO MAINTAIN ACCESS WILL BE SUBSIDIARY TO PERTINENT BID ITEM.

TCP SEQUENCE OF WORK

PHASE 1:

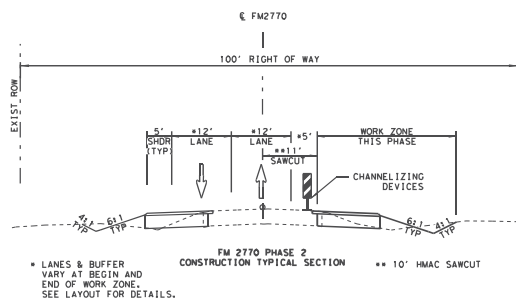
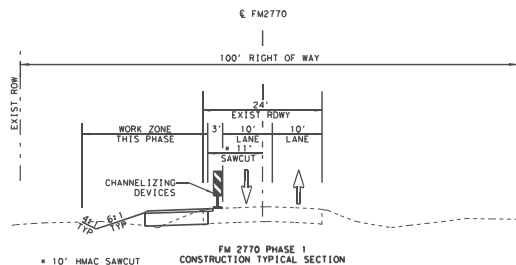
1. INSTALL ADVANCE WARNING SIGNS, AS PER THE ADVANCE WARNING LAYOUT AND THE BC SHEETS PRIOR TO COMMENCING WORK.
2. INSTALL ALL EROSION CONTROL DEVICES. THIS WORK MUST BE DONE BEFORE ANY CLEARING OR CONSTRUCTION CAN TAKE PLACE AND MUST BE APPROVED BEFORE ANY FURTHER WORK CAN BEGIN.
3. PERFORM PAVEMENT REPAIR AND APPLY LEVEL UP PAVEMENT.
4. ELIMINATE EXISTING PAVEMENT MARKINGS, INSTALL WORKZONE PAVEMENT MARKERS AND INSTALL SIGNS AND DEVICES AS PER TRAFFIC CONTROL LAYOUT.
5. CONSTRUCT PROPOSED ELEMENTS WITHIN LIMITS SHOWN ON THE TCP PHASING SHEETS, INCLUDING PAVEMENT, SIGNING, DRAINAGE, TOPSOIL, SEEDING, ETC. CONSTRUCT PAVEMENT UP TO FINAL HMAC COURSE.

PHASE 2:

1. ADJUST WORK ZONE PAVEMENT MARKERS, SIGNS, AND DEVICES AS PER TRAFFIC CONTROL LAYOUT.
2. CONSTRUCT PROPOSED ELEMENTS WITHIN LIMITS SHOWN ON THE TCP PHASING SHEETS, INCLUDING PAVEMENT, SIGNING, DRAINAGE, TOPSOIL, SEEDING, ETC. CONSTRUCT PAVEMENT UP TO FINAL HMAC COURSE.

PHASE 3:

1. INSTALL FINAL PAVEMENT COURSE USING TXDOT STANDARD TCP (7-1)-13.
2. PLACE FINAL STRIPING AND OPEN ROADWAY TO TRAFFIC.
3. PERFORM PROJECT CLEANUP.



Daniel A. Rogers

6/29/2022



HAYS COUNTY



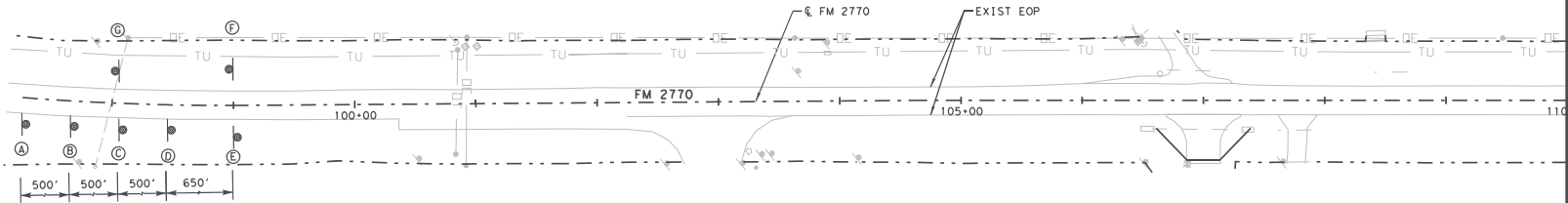
WSB & ASSOCIATES, INC.
FIRM # 16849

FM 2770

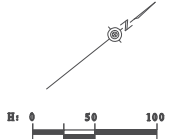
TRAFFIC CONTROL PLAN
SEQUENCE OF CONSTRUCTION

DATE: 6/29/2022		SHEET 1 OF 1	
STATE	STATE DIST. NO.	COUNTY	
TEXAS	AUS	HAYS	
CONT. SECT.	JOB	HIGHWAY NO.	SHEET NO.
3210	01	018	FM 2770 7

MATCHLINE - STA. 110+00.00



MATCHLINE - STA. 110+00.00



<p>OB EY WA RN IN G S I G N S S T A T E L A W</p> <p>R20-3T 48"x42"</p> <p>(A)</p>	<p>STAY ALERT</p> <p>TALK OR TEXT LATER</p> <p>G20-10T 60"x48"</p> <p>(B)</p>	<p>BEGIN WORK ZONE</p> <p>G20-9TP 24"x24"</p> <p>TRAFFIC FINES DOUBLE</p> <p>R20-5T 24"x30"</p> <p>WHEN WORKERS ARE PRESENT</p> <p>R20-50TP PLAQUE 24"x12"</p> <p>(C)</p>	<p>ROAD WORK AHEAD</p> <p>CW20-1D 48"x48"</p> <p>(D)</p>	<p>BEGIN ROAD WORK NEXT X MILE</p> <p>G20-5T 48"x24"</p> <p>NAME ADDRESS CITY STATE CONTRACTOR</p> <p>G20-6T 48"x30"</p> <p>(E)</p>	<p>END ROAD WORK</p> <p>G20-2 48"x24"</p> <p>(F)</p>	<p>END WORK ZONE</p> <p>G20-2bT 48"x24"</p> <p>(G)</p>
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Daniel A. Rogers

6/29/2022



HAYS COUNTY

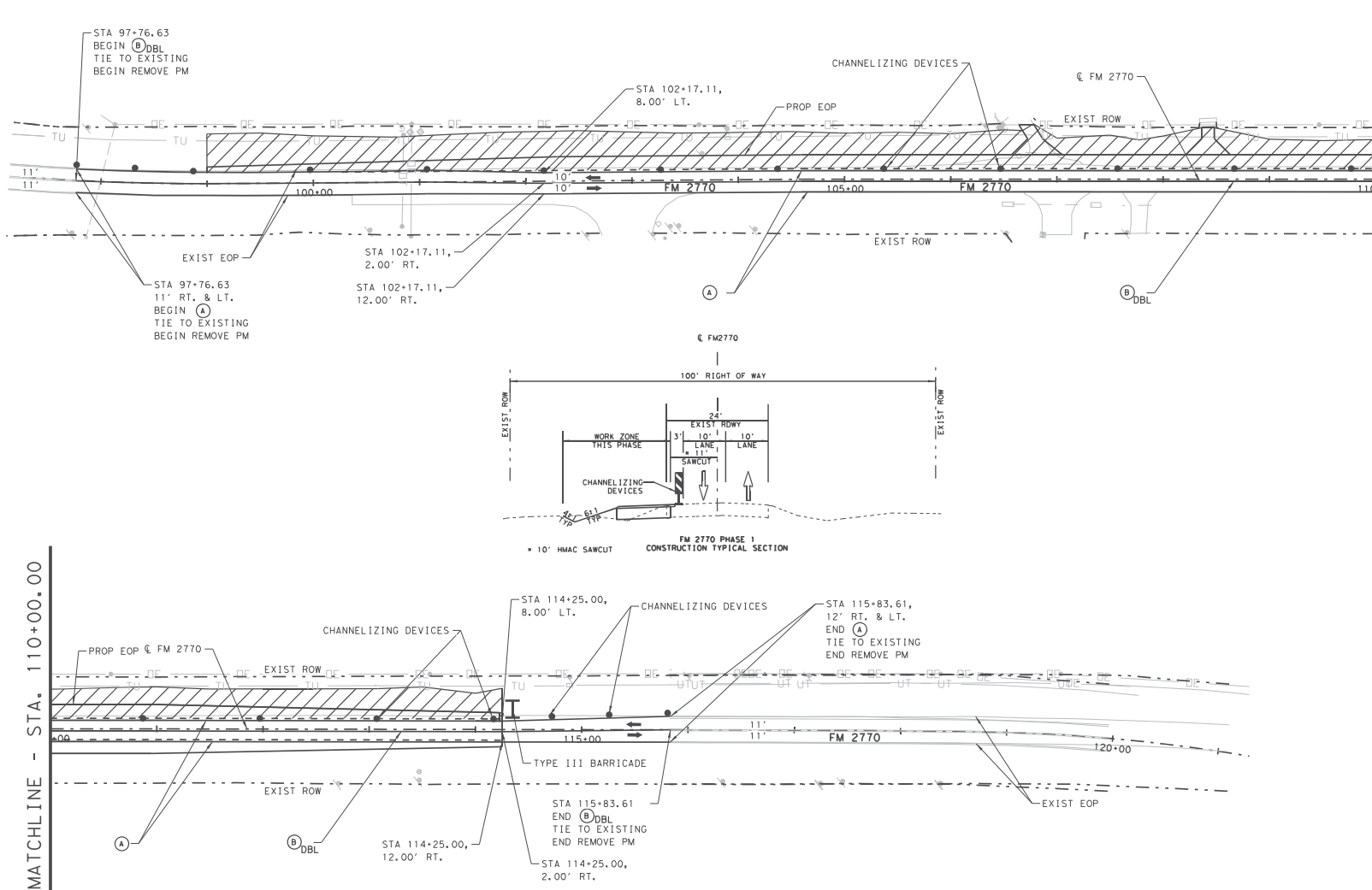


WSB & ASSOCIATES, INC.
FIRM # 16849

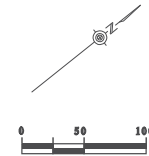
FM 2770

TRAFFIC CONTROL PLAN
ADVANCED WARNING SIGNS

DATE: 6/29/2022				SHEET 1 OF 1	
STATE		STATE DIST.NO.		COUNTY	
TEXAS		AUS		HAYS	
CONT.	SECT.	JOB	HIGHWAY NO.		SHEET NO.
3210	01	018	FM 2770		8



MATCHLINE - STA. 110+00.00



- LEGEND**
- CHANNELIZING DEVICE
55' C-C ON TAPER
110' C-C ON TANGENT
 - ⊥ CONSTRUCTION SIGN
 - III BARRICADE TYPE III
 - ▨ WORKZONE THIS PHASE
 - ▨ CONSTRUCTION PREVIOUS PHASE
 - DIRECTION OF TRAFFIC
 - (A) WK ZN PAV MRK REMOV (W) 4" (SLD)
 - (B) WK ZN PAV MRK REMOV (Y) 4" (SLD)
 - DBL



6/29/2022



HAYS COUNTY

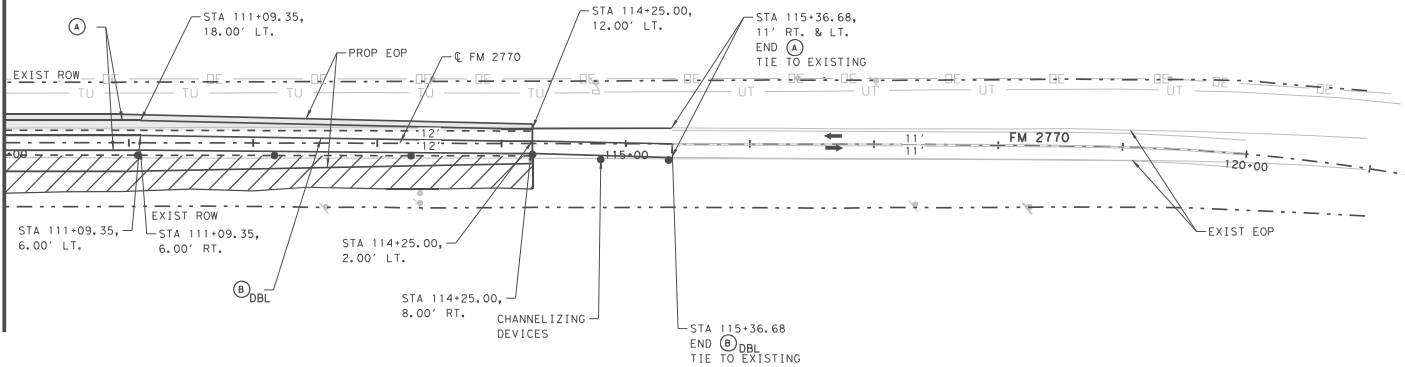
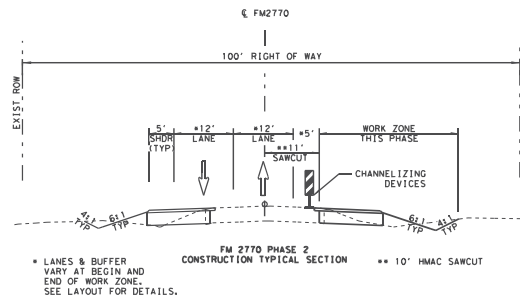
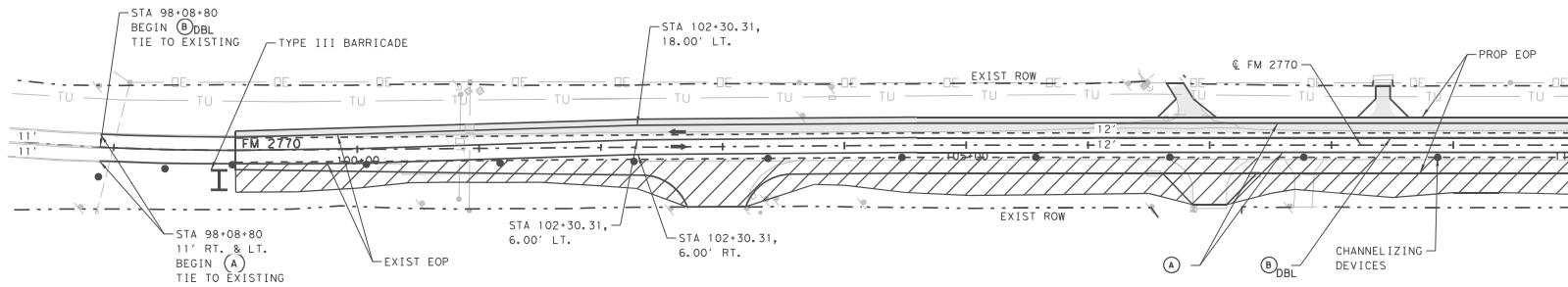
wsb WSB & ASSOCIATES, INC.
FIRM # 16849

FM 2770

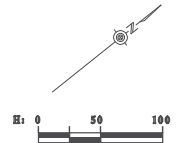
**TRAFFIC CONTROL PLAN
PHASE 1**

DATE: 6/29/2022			SHEET 1 OF 1	
STATE		STATE DIST. NO.		COUNTY
TEXAS		AUS		HAYS
CONT.	SECT.	JOB	HIGHWAY NO.	SHEET NO.
3210	01	018	FM 2770	9

MATCHLINE - STA. 110+00.00



MATCHLINE - STA. 110+00.00



LEGEND

- CHANNELIZING DEVICE
55' C-C ON TAPER
110' C-C ON TANGENT
- CONSTRUCTION SIGN
- BARRICADE TYPE III
- ▨ WORKZONE THIS PHASE
- ▨ CONSTRUCTION PREVIOUS PHASE
- DIRECTION OF TRAFFIC
- (A) WK ZN PAV MRK REMOV (W) 4" (SLD)
- (B) DBL WK ZN PAV MRK REMOV (Y) 4" (SLD)



6/29/2022



HAYS COUNTY

wsb WSB & ASSOCIATES, INC.
FIRM # 16849

FM 2770

TRAFFIC CONTROL PLAN
PHASE 2

DATE: 6/29/2022			SHEET 1 OF 1	
STATE		STATE DIST.NO.		COUNTY
TEXAS		AUS		HAYS
CONT.	SECT.	JOB	HIGHWAY NO.	SHEET NO.
3210	01	018	FM 2770	10

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BARRICADE AND CONSTRUCTION (BC) STANDARD SHEETS GENERAL NOTES:

1. The Barricade and Construction Standard Sheets (BC sheets) are intended to show typical examples for placement of temporary traffic control devices, construction pavement markings, and typical work zone signs. The information contained in these sheets meet or exceed the requirements shown in the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD).
2. The development and design of the Traffic Control Plan (TCP) is the responsibility of the Engineer.
3. The Contractor may propose changes to the TCP that are signed and sealed by a licensed professional engineer for approval. The Engineer may develop, sign and seal Contractor proposed changes.
4. The Contractor is responsible for installing and maintaining the traffic control devices as shown in the plans. The Contractor may not move or change the approximate location of any device without the approval of the Engineer.
5. Geometric design of lane shifts and detours should, when possible, meet the applicable design criteria contained in manuals such as the American Association of State Highway and Transportation Officials (AASHTO), "A Policy on Geometric Design of Highways and Streets," the TxDOT "Roadway Design Manual" or engineering judgment.
6. When projects abut, the Engineer(s) may omit the END ROAD WORK, TRAFFIC FINES DOUBLE, and other advance warning signs if the signing would be redundant and the work areas appear continuous to the motorists. If the adjacent project is completed first, the Contractor shall erect the necessary warning signs as shown on these sheets, the TCP sheets or as directed by the Engineer. The BEGIN ROAD WORK NEXT X MILES sign shall be revised to show appropriate work zone distance.
7. The Engineer may require duplicate warning signs on the median side of divided highways where median width will permit and traffic volumes justify the signing.
8. All signs shall be constructed in accordance with the details found in the "Standard Highway Sign Designs for Texas," latest edition. Sign details not shown in this manual shall be shown in the plans or the Engineer shall provide a detail to the Contractor before the sign is manufactured.
9. The temporary traffic control devices shown in the illustrations of the BC sheets are examples. As necessary, the Engineer will determine the most appropriate traffic control devices to be used.
10. Where highway construction or maintenance work is being undertaken, other than mobile operations as defined by the Texas Manual on Uniform Traffic Control Devices, CSJ limit signs are required. CSJ limit signs are shown on BC(2). The OBEY WARNING SIGNS STATE LAW sign, STAY ALERT TALK OR TEXT LATER and the WORK ZONE TRAFFIC FINES DOUBLE sign with plaque shall be erected in advance of the CSJ limits. The BEGIN ROAD WORK NEXT X MILES, CONTRACTOR and END ROAD WORK signs shall be erected at or near the CSJ limits. For mobile operations, CSJ limit signs are not required.
11. Traffic control devices should be in place only while work is actually in progress or a definite need exists.
12. The Engineer has the final decision on the location of all traffic control devices.
13. Inactive equipment and work vehicles, including workers' private vehicles must be parked away from travel lanes. They should be as close to the right-of-way line as possible, or located behind a barrier or guardrail, or as approved by the Engineer.

WORKER SAFETY NOTES:

1. Workers on foot who are exposed to traffic or to construction equipment within the right-of-way shall wear high-visibility safety apparel meeting the requirements of ISEA "American National Standard for High-Visibility Apparel," or equivalent revisions, and labeled as ANSI 107-2004 standard performance for Class 2 or 3 risk exposure. Class 3 garments should be considered for high traffic volume work areas or night time work.
2. Except in emergency situations, flagger stations shall be illuminated when flagging is used at night.

COMPLIANT WORKZONE TRAFFIC CONTROL DEVICES

1. Only pre-qualified products shall be used. The "Compliant Work Zone Traffic Control Devices List" (CWZTCD) describes pre-qualified products and their sources.
2. Work zone traffic control devices shall be compliant with the Manual for Assessing safety Hardware (MASH).

THE DOCUMENTS BELOW CAN BE FOUND ON-LINE AT
<http://www.txdot.gov>

COMPLIANT WORK ZONE TRAFFIC CONTROL DEVICES LIST (CWZTCD)
DEPARTMENTAL MATERIAL SPECIFICATIONS (DMS)
MATERIAL PRODUCER LIST (MPL)
ROADWAY DESIGN MANUAL - SEE "MANUALS (ONLINE MANUALS)"
STANDARD HIGHWAY SIGN DESIGNS FOR TEXAS (SHSD)
TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD)
TRAFFIC ENGINEERING STANDARD SHEETS

SHEET 1 OF 12



BARRICADE AND CONSTRUCTION GENERAL NOTES AND REQUIREMENTS

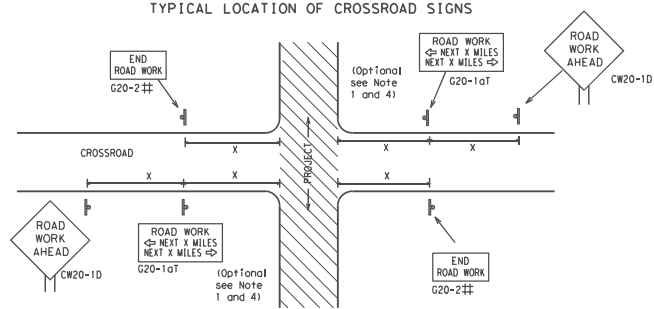
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© TxDOT	November 2002	CONT	SECT	JOB		HIGHWAY			
REVISIONS		3210	01	018		FM2770			
4-03	7-13	DIST		COUNTY		SHEET NO.			
9-07	8-14	AUS		HAYS		11			
5-10	5-21								

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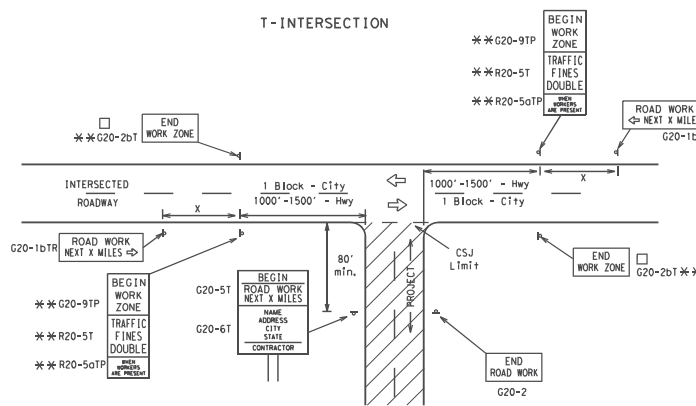
TYPICAL LOCATION OF CROSSROAD SIGNS



May be mounted on back of "ROAD WORK AHEAD" (CW20-1D) sign with approval of Engineer. (See note 2 below)

1. The typical minimum signing on a crossroad approach should be a "ROAD WORK AHEAD" (CW20-1D) sign and a (G20-2) "END ROAD WORK" sign, unless noted otherwise in plans.
2. The Engineer may use the reduced size 36" x 36" "ROAD WORK AHEAD" (CW20-1D) sign mounted back to back with the reduced size 36" x 18" "END ROAD WORK" (G20-2) sign on low volume crossroads (see Note 4 under "Typical Construction Warning Sign Size and Spacing"). See the "Standard Highway Sign Designs for Texas" manual for sign details. The Engineer may omit the advance warning signs on low volume crossroads. The Engineer will determine whether a road is low volume as per TMUTCD Part 5. This information shall be shown in the plans.
3. Based on existing field conditions, the Engineer/Inspector may require additional signs such as FLAGGER AHEAD, LOOSE GRAVEL, or other appropriate signs. When additional signs are required, these signs will be considered part of the minimum requirements. The Engineer/Inspector will determine the proper location and spacing of any sign not shown on the BC sheets, Traffic Control Plan sheets or the Work Zone Standard Sheets.
4. The "ROAD WORK NEXT X MILES" (G20-1aT) sign shall be required at high volume crossroads to advise motorists of the length of construction in either direction from the intersection. The Engineer will determine whether a roadway is considered high volume.
5. Additional traffic control devices may be shown elsewhere in the plans for higher volume crossroads.
6. When work occurs in the intersection area, appropriate traffic control devices, as shown elsewhere in the plans or as determined by the Engineer/Inspector, shall be in place.

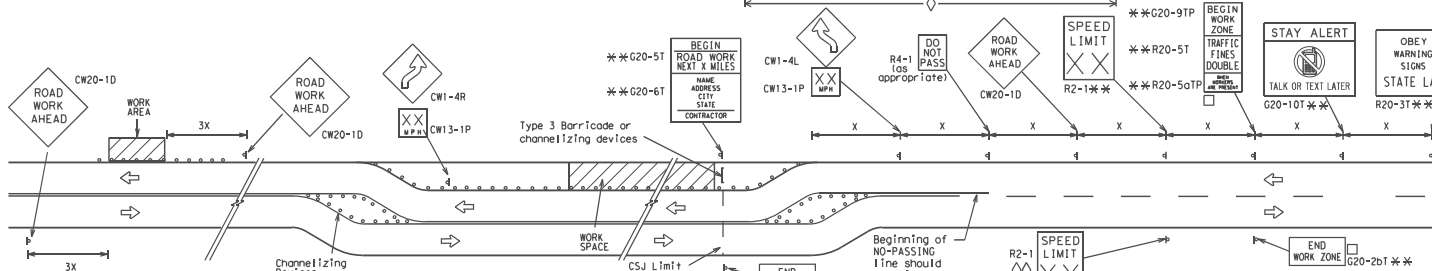
T-INTERSECTION



CSJ LIMITS AT T-INTERSECTION

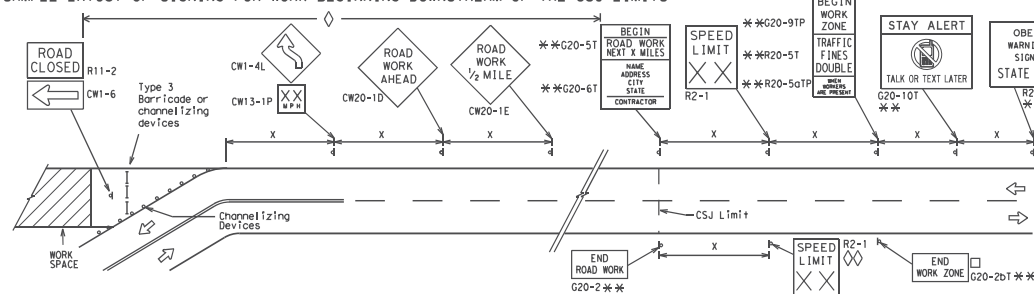
1. The Engineer will determine the types and location of any additional traffic control devices, such as a flagger and accompanying signs, or other signs, that should be used when work is being performed at or near an intersection.
2. If construction closes the road at a T-intersection, the Contractor shall place the "CONTRACTOR NAME" (G20-6T) sign behind the Type 3 Barricades for the road closure (see BC(10) also). The "ROAD WORK NEXT X MILES" left arrow (G20-1bTL) and "ROAD WORK NEXT X MILES" right arrow (G20-1bTR) signs shall be replaced by the detour signing called for in the plans.

WORK AREAS IN MULTIPLE LOCATIONS WITHIN CSJ LIMITS



When extended distances occur between minimal work spaces, the Engineer/Inspector should ensure additional "ROAD WORK AHEAD" (CW20-1D) signs are placed in advance of these work areas to remind drivers they are still within the project limits. See the applicable TCP sheets for exact location and spacing of signs and channelizing devices.

SAMPLE LAYOUT OF SIGNING FOR WORK BEGINNING DOWNSTREAM OF THE CSJ LIMITS



NOTES

The Contractor shall determine the appropriate distance to be placed on the G20-1 series signs and "BEGIN ROAD WORK NEXT X MILES" (G20-5T) sign for each specific project. This distance shall replace the "X" and shall be rounded to the nearest whole mile with the approval of the Engineer. No decimals shall be used.

- The "BEGIN WORK ZONE" (G20-9TP) and "END WORK ZONE" (G20-2bT) shall be used as shown on the sample layout when advance signs are required outside the CSJ Limits. They inform the motorist of entering or leaving a part of the work zone lying outside the CSJ Limits where traffic fines may double if workers are present.

CSJ limit signing is required for highway construction and maintenance work, with the exception of mobile operations.

- ◇ Area for placement of "ROAD WORK AHEAD" (CW20-1D) sign and other signs or devices as called for on the Traffic Control Plan.

- ◇ Contractor will install a regulatory speed limit sign at the end of the work zone.

TYPICAL CONSTRUCTION WARNING SIGN SIZE AND SPACING^{L5-6}

Sign Number or Series	SIZE		SPACING	
	Conventional Road	Expressway/Freeway	Posted Speed	Sign Spacing "X"
CW20 ⁴	48" x 48"	48" x 48"	MPH	Feet (Approx.)
CW21			30	120
CW22			35	160
CW23			40	240
CW1, CW2, CW7, CW9, CW11, CW14	36" x 36"	48" x 48"	45	320
			50	400
			55	500 ²
			60	600 ²
CW3, CW4, CW5, CW6, CW8-3, CW10, CW12	48" x 48"	48" x 48"	65	700 ²
			70	800 ²
			75	900 ²
			80	1000 ²
			*	*
			*	3

* For typical sign spacings on divided highways, expressways and freeways, see Part 6 of the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD) typical application diagrams or TCP Standard Sheets.

△ Minimum distance from work area to first Advance Warning sign nearest the work area and/or distance between each additional sign.

GENERAL NOTES

1. Special or larger size signs may be used as necessary.
2. Distance between signs should be increased as required to have 1500 feet advance warning.
3. Distance between signs should be increased as required to have 1/2 mile or more advance warning.
4. 36" x 36" "ROAD WORK AHEAD" (CW20-1D) signs may be used on low volume crossroads at the discretion of the Engineer as per TMUTCD Part 5. See Note 2 under "Typical Location of Crossroad Signs".
5. Only diamond shaped warning sign sizes are indicated.
6. See sign size listing in "TMUTCD", Sign Appendix or the "Standard Highway Sign Designs for Texas" manual for complete list of available sign design sizes.

LEGEND

—	Type 3 Barricade
○ ○ ○	Channelizing Devices
■	Sign
X	See Typical Construction Warning Sign Size and Spacing chart or the TMUTCD for sign spacing requirements.

SHEET 2 OF 12



BARRICADE AND CONSTRUCTION PROJECT LIMIT

BC(2)-21

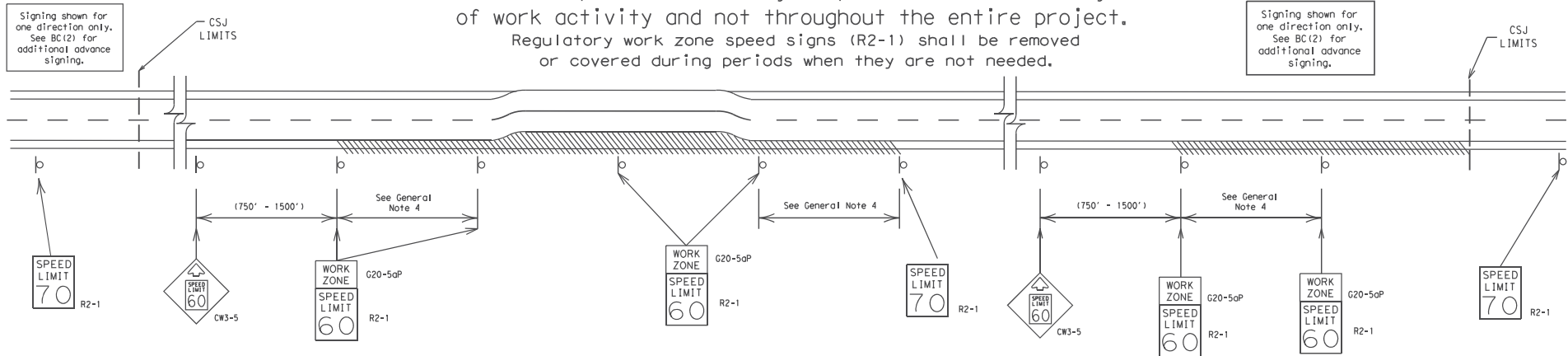
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7-13	5-21	AUS	HAYS						

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TYPICAL APPLICATION OF WORK ZONE SPEED LIMIT SIGNS

Work zone speed limits shall be regulatory, established in accordance with the "Procedures for Establishing Speed Zones," and approved by the Texas Transportation Commission, or by City Ordinance when within Incorporated City Limits.

Reduced speeds should only be posted in the vicinity of work activity and not throughout the entire project. Regulatory work zone speed signs (R2-1) shall be removed or covered during periods when they are not needed.



GUIDANCE FOR USE:

LONG/INTERMEDIATE TERM WORK ZONE SPEED LIMITS

This type of work zone speed limit should be included on the design of the traffic control plans when restricted geometrics with a lower design speed are present in the work zone and modification of the geometrics to a higher design speed is not feasible.

Long/Intermediate Term Work Zone Speed Limit signs, when approved as described above, should be posted and visible to the motorist when work activity is present. Work activity may also be defined as a change in the roadway that requires a reduced speed for motorists to safely negotiate the work area, including:

- rough road or damaged pavement surface
- substantial alteration of roadway geometrics (diversions)
- construction detours
- grade
- width
- other conditions readily apparent to the driver

As long as any of these conditions exist, the work zone speed limit signs should remain in place.

SHORT TERM WORK ZONE SPEED LIMITS

This type of work zone speed limit may be included on the design of the traffic control plans when workers or equipment are not behind concrete barrier, when work activity is within 10 feet of the traveled way or actually in the traveled way.

Short Term Work Zone Speed Limit signs should be posted and visible to the motorists only when work activity is present. When work activity is not present, signs shall be removed or covered.
(See Removing or Covering on BC(4)).

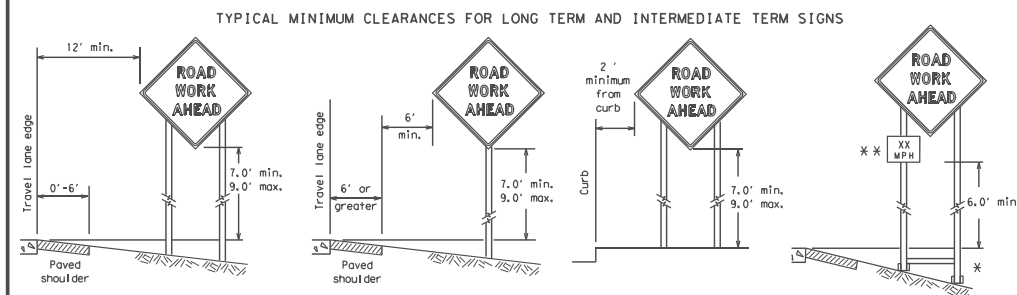
GENERAL NOTES

- Regulatory work zone speed limits should be used only for sections of construction projects where speed control is of major importance.
- Regulatory work zone speed limit signs shall be placed on supports at a 7 foot minimum mounting height.
- Speed zone signs are illustrated for one direction of travel and are normally posted for each direction of travel.
- Frequency of work zone speed limit signs should be:
 - 40 mph and greater 0.2 to 2 miles
 - 35 mph and less 0.2 to 1 mile
- Regulatory speed limit signs shall have black legend and border on a white reflective background (See "Reflective Sheeting" on BC(4)).
- Fabrication, erection and maintenance of the "ADVANCE SPEED LIMIT" (CW3-5) sign, "WORK ZONE" (G20-5aP) plaque and the "SPEED LIMIT" (R2-1) signs shall not be paid for directly, but shall be considered subsidiary to Item 502.
- Turning signs from view, laying signs over or down will not be allowed, unless as otherwise noted under "REMOVING OR COVERING" on BC(4).
- Techniques that may help reduce traffic speeds include but are not limited to:
 - A. Law enforcement.
 - B. Flagger stationed next to sign.
 - C. Portable changeable message sign (PCMS).
 - D. Low-power (drone) radar transmitter.
 - E. Speed monitor trailers or signs.
- Speeds shown on details above are for illustration only. Work Zone Speed Limits should only be posted as approved for each project.
- For more specific guidance concerning the type of work, work zone conditions and factors impacting allowable regulatory construction speed zone reduction see TxDOT form #1204 in the TxDOT e-form system.

SHEET 3 OF 12

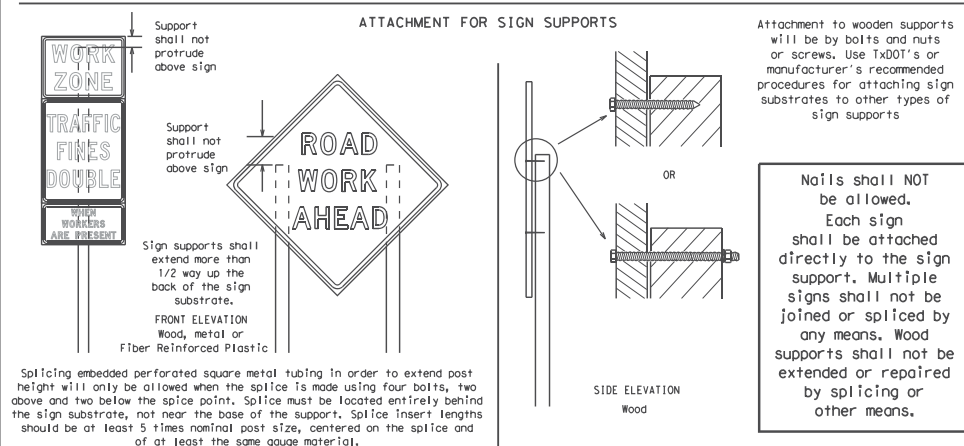
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BARRICADE AND CONSTRUCTION WORK ZONE SPEED LIMIT			
BC (3) -21			
FILE: dc-21.dgn	DN: TxDOT	CK: TxDOT	DR: TxDOT
© TxDOT November 2002	CONT	SECT	JOB
3210	01	018	FM2770
9-07 8-14	DIST	COUNTY	SHEET NO.
7-13 5-21	AUS	HAYS	13

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* When placing skid supports on unlevel ground, the leg post lengths must be adjusted so the sign appears straight and plumb. Objects shall NOT be placed under skids as a means of leveling.

** When plaques are placed on dual-leg supports, they should be attached to the upright nearest the travel lane. Supplemental plaques (advisory or distance) should not cover the surface of the parent sign.



Splicing embedded perforated square metal tubing in order to extend post height will only be allowed when the splice is made using four bolts, two above and two below the splice point. Splice must be located entirely behind the sign substrate, not near the base of the support. Splice Insert lengths should be at least 5 times nominal post size, centered on the splice and of at least the same gauge material.

Nails shall NOT be allowed. Each sign shall be attached directly to the sign support. Multiple signs shall not be joined or spliced by any means. Wood supports shall not be extended or repaired by splicing or other means.

GENERAL NOTES FOR WORK ZONE SIGNS

- Contractor shall install and maintain signs in a straight and plumb condition and/or as directed by the Engineer.
- Wooden sign posts shall be painted white.
- Barricades shall NOT be used as sign supports.
- All signs shall be installed in accordance with the plans or as directed by the Engineer. Signs shall be used to regulate, warn, and guide the traveling public safely through the work zone.
- The Contractor may furnish either the sign design shown in the plans or in the "Standard Highway Sign Designs for Texas" (SHSD). The Engineer/Inspector may require the Contractor to furnish other work zone signs that are shown in the TMDOT but may have been omitted from the plans. Any variation in the plans shall be documented by written agreement between the Engineer and the Contractor's Responsible Person. All changes must be documented in writing before being implemented. This can include documenting the changes in the Inspector's TxDOT diary and having both the Inspector and Contractor initial and date the agreed upon changes.
- The Contractor shall furnish sign supports listed in the "Compliant Work Zone Traffic Control Device List" (CWZTCD) for small roadside signs. Supports for temporary large roadside signs shall meet the requirements detailed on the Temporary Large Roadside Signs (TLRS) standard sheets. The Contractor shall install the sign support in accordance with the manufacturer's recommendations. If there is a question regarding installation procedures, the Contractor shall furnish the Engineer a copy of the manufacturer's installation recommendations so the Engineer can verify the correct procedures are being followed.
- The Contractor is responsible for installing signs on approved supports and replacing signs with damaged or cracked substrates and/or damaged or marred reflective sheeting as directed by the Engineer/Inspector.
- Identification markings may be shown only on the back of the sign substrate. The maximum height of letters and/or company logos used for identification shall be 1 inch.
- The Contractor shall replace damaged wood posts. New or damaged wood sign posts shall not be spliced.

DURATION OF WORK (as defined by the "Texas Manual on Uniform Traffic Control Devices" Part 6)

- The types of sign supports, sign mounting height, the size of signs, and the type of sign substrates can vary based on the type of work being performed. The Engineer is responsible for selecting the appropriate size sign for the type of work being performed. The Contractor is responsible for ensuring the sign support, sign mounting height and substrate meets manufacturer's recommendations in regard to crashworthiness and duration of work requirements.
 - Long-term stationary - work that occupies a location more than 3 days.
 - Intermediate-term stationary - work that occupies a location more than one daylight period up to 3 days, or nighttime work lasting more than one hour.
 - Short-term stationary - daytime work that occupies a location for more than 1 hour in a single daylight period.
 - Short, duration - work that occupies a location up to 1 hour.
 - Mobile - work that moves continuously or intermittently (stopping for up to approximately 15 minutes.)

SIGN MOUNTING HEIGHT

- The bottom of Long-term/Intermediate-term signs shall be at least 7 feet, but not more than 9 feet, above the paved surface, except as shown for supplemental plaques mounted below other signs.
- The bottom of Short-term/Short Duration signs shall be a minimum of 1 foot above the pavement surface but no more than 2 feet above the ground.
- Long-term/Intermediate-term Signs may be used in lieu of Short-term/Short Duration signing.
- Short-term/Short Duration signs shall be used only during daylight and shall be removed at the end of the workday or raised to appropriate Long-term/Intermediate-term sign height.
- Regulatory signs shall be mounted at least 7 feet, but not more than 9 feet, above the paved surface regardless of work duration.

SIZE OF SIGNS

- The Contractor shall furnish the sign sizes shown on BC (2) unless otherwise shown in the plans or as directed by the Engineer.

SIGN SUBSTRATES

- The Contractor shall ensure the sign substrate is installed in accordance with the manufacturer's recommendations for the type of sign support that is being used. The CWZTCD lists each substrate that can be used on the different types and models of sign supports.
- "Mesh" type materials are NOT an approved sign substrate, regardless of the tightness of the weave.
- All wooden individual sign panels fabricated from 2 or more pieces shall have one or more plywood cleat, 1/2" thick by 6" wide, fastened to the back of the sign and extending fully across the sign. The cleat shall be attached to the back of the sign using wood screws that do not penetrate the face of the sign panel. The screws shall be placed on both sides of the splice and spaced at 6" centers. The Engineer may approve other methods of splicing the sign face.

REFLECTIVE SHEETING

- All signs shall be retroreflective and constructed of sheeting meeting the color and retro-reflectivity requirements of DMS-8300 for rigid signs or DMS-8310 for roll-up signs. The web address for DMS specifications is shown on BC(1).
- White sheeting, meeting the requirements of DMS-8300 Type A, shall be used for signs with a white background.
- Orange sheeting, meeting the requirements of DMS-8300 Type B_{FL} or Type C_{FL}, shall be used for rigid signs with orange backgrounds.

SIGN LETTERS

- All sign letters and numbers shall be clear, and open rounded type uppercase alphabet letters as approved by the Federal Highway Administration (FHWA) and as published in the "Standard Highway Sign Design for Texas" manual. Signs, letters and numbers shall be of first class workmanship in accordance with Department Standards and Specifications.

REMOVING OR COVERING

- When sign messages may be confusing or do not apply, the signs shall be removed or completely covered.
- Long-term stationary or intermediate stationary signs installed on square metal tubing may be turned away from traffic 90 degrees when the sign message is not applicable. This technique may not be used for signs installed in the median of divided highways or near any intersections where the sign may be seen from approaching traffic.
- Signs installed on wooden skids shall not be turned at 90 degree angles to the roadway. These signs should be removed or completely covered when not required.
- When signs are covered, the material used shall be opaque, such as heavy mil black plastic, or other materials which will cover the entire sign face and maintain their opaque properties under automobile headlights at night, without damaging the sign sheeting.
- Burlap shall NOT be used to cover signs.
- Duct tape or other adhesive material shall NOT be affixed to a sign face.
- Signs and anchor studs shall be removed and holes backfilled upon completion of work.

SIGN SUPPORT WEIGHTS

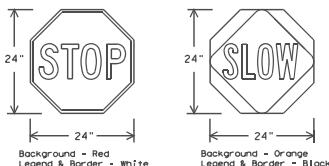
- Where sign supports require the use of weights to keep from turning over, the use of sandbags with dry, clean sand should be used.
- The sandbags will be tied shut to keep the sand from spilling and to maintain a constant weight.
- Rock, concrete, iron, steel or other solid objects shall not be permitted for use as sign supports.
- Sandbags should weigh a minimum of 35 lbs and a maximum of 50 lbs.
- Sandbags shall be made of a durable material that tears upon vehicular impact. Rubber (such as tire inner tubes) shall NOT be used.
- Rubber balls, inflated for channelizing devices should not be used for ballast on portable sign supports. Sign supports designed and manufactured with rubber bases may be used when shown on the CWZTCD list.
- Sandbags shall only be placed along or laid over the base supports of the traffic control device and shall not be suspended above ground level or hung with rope, wire, chains or other fasteners. Sandbags shall be placed along the length of the skids to weigh down the sign support.
- Sandbags shall NOT be placed under the skid and shall not be used to level sign supports placed on slopes.

FLAGS ON SIGNS

- Flags may be used to draw attention to warning signs. When used, the flag shall be 16 inches square or larger and shall be orange or fluorescent, red-orange in color. Flags shall not be allowed to cover any portion of the sign face.

STOP/SLOW PADDLES

- STOP/SLOW paddles are the primary method to control traffic by flaggers. The STOP/SLOW paddle size should be 24" x 24".
- STOP/SLOW paddles shall be retroreflective when used at night.
- STOP/SLOW paddles may be attached to a staff with a minimum length of 6' to the bottom of the sign.
- Any lights incorporated into the STOP or SLOW paddle faces shall only be as specifically described in Section 6E.03 Hand Signaling Devices in the TMDOT.



SHEETING REQUIREMENTS (WHEN USED AT NIGHT)		
USAGE	COLOR	SIGN FACE MATERIAL
BACKGROUND	RED	TYPE B OR C SHEETING
BACKGROUND	ORANGE	TYPE B _{FL} OR C _{FL} SHEETING
LEGEND & BORDER	WHITE	TYPE B OR C SHEETING
LEGEND & BORDER	BLACK	ACRYLIC NON-REFLECTIVE FILM

CONTRACTOR REQUIREMENTS FOR MAINTAINING PERMANENT SIGNS WITHIN THE PROJECT LIMITS

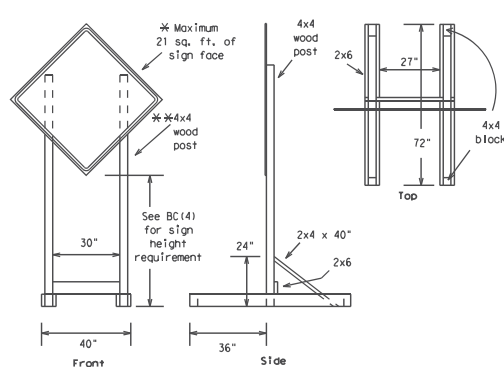
- Permanent signs are used to give notice of traffic laws or regulations, call attention to conditions that are potentially hazardous to traffic operations, show route designations, destinations, directions, distances, services, points of interest, and other geographical, recreational, specific service (L000), or cultural information. Drivers proceeding through a work zone need the same, if not better route guidance as normally installed on a roadway without construction.
- When permanent regulatory or warning signs conflict with work zone conditions, remove or cover the permanent signs until the permanent sign message matches the roadway condition. For details for covering large guide signs see the TS-CD standard.
- When existing permanent signs are moved and relocated due to construction purposes, they shall be visible to motorists at all times.
- If existing signs are to be relocated on their original supports, they shall be installed on crashworthy bases as shown on the SMD Standard sheets. The signs shall meet the required mounting heights shown on the BC sheets or the SMD Standards. This work should be paid for under the appropriate pay item for relocating existing signs.
- If permanent signs are to be removed and relocated using temporary supports, the Contractor shall use crashworthy supports as shown on the BC standard sheets, TLRS standard sheets or the CWZTCD list. The signs shall meet the required mounting heights shown on the BC, or the SMD standard sheets during construction. This work should be paid for under the appropriate pay item for relocating existing signs.
- Any sign or traffic control device that is struck or damaged by the Contractor or his/her construction equipment shall be replaced as soon as possible by the Contractor to ensure proper guidance for the motorists. This will be subsidiary to item 502.

SHEET 4 OF 12

Texas Department of Transportation		Traffic Safety Division Standard	
BARRICADE AND CONSTRUCTION TEMPORARY SIGN NOTES			
BC (4) -21			
FILES	DC-21.dgn	DWG	TxDOT
CONT	NOVEMBER 2002	SECT	HIGHWAY
REVISIONS	3210	01	018
DIST	9-07	8-14	FW2770
AUS	7-13	5-21	COUNTY
			SHEET NO.
			14

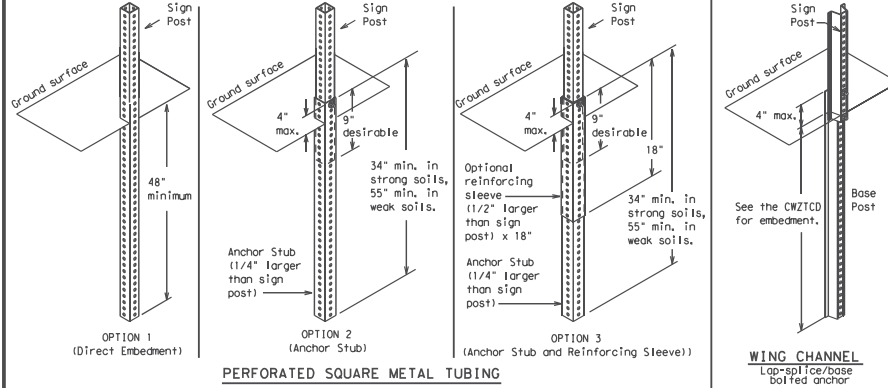
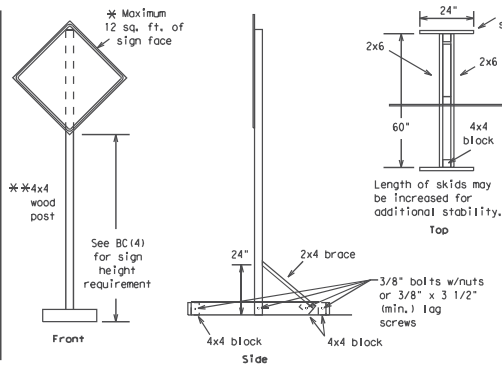
DISCLAIMER: The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by the Texas Department of Transportation for the use of this standard for other formats or for incorrect results or damages resulting from its use.

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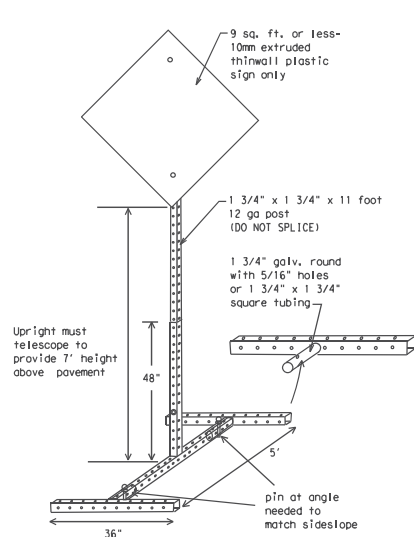
SKID MOUNTED WOOD SIGN SUPPORTS

* LONG/INTERMEDIATE TERM STATIONARY - PORTABLE SKID MOUNTED SIGN SUPPORTS



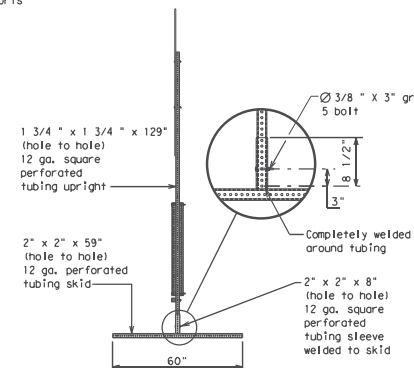
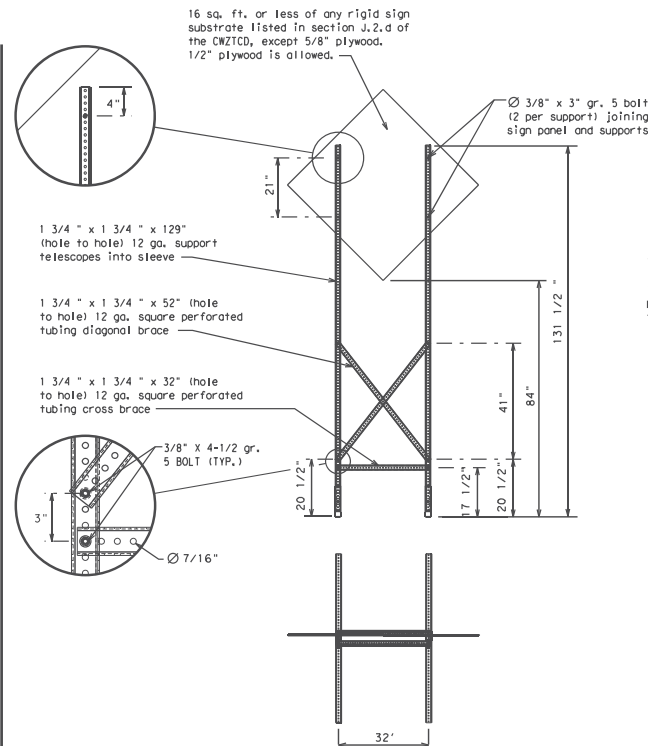
GROUND MOUNTED SIGN SUPPORTS

Refer to the CWZTCD and the manufacturer's installation procedure for each type sign support. The maximum sign square footage shall adhere to the manufacturer's recommendation. Two post installations can be used for larger signs.



SKID MOUNTED PERFORATED SQUARE STEEL TUBING SIGN SUPPORTS

* LONG/INTERMEDIATE TERM STATIONARY - PORTABLE SKID MOUNTED SIGN SUPPORTS



WEDGE ANCHORS

Both steel and plastic Wedge Anchor Systems as shown on the SMD Standard Sheets may be used as temporary sign supports for signs up to 10 square feet of sign face. They may be set in concrete or in sturdy soils if approved by the Engineer. (See web address for "Traffic Engineering Standard Sheets" on BC(1)).

OTHER DESIGNS

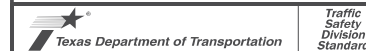
MORE DETAILS OF APPROVED LONG/INTERMEDIATE AND SHORT TERM SUPPORTS CAN BE FOUND ON THE CWZTCD LIST. SEE BC(1) FOR WEBSITE LOCATION.

GENERAL NOTES

1. Nails may be used in the assembly of wooden sign supports, but 3/8" bolts with nuts or 3/8" x 3 1/2" lag screws must be used on every joint for final connection.
2. No more than 2 sign posts shall be placed within a 7 ft. circle, except for specific materials noted on the CWZTCD List.
3. When project is completed, all sign supports and foundations shall be removed from the project site. This will be considered subsidiary to Item 502.

- * See BC(4) for definition of "Work Duration."
- ** Wood sign posts MUST be one piece. Splicing will NOT be allowed. Posts shall be painted white.
- See the CWZTCD for the type of sign substrate that can be used for each approved sign support.

SHEET 5 OF 12



BARRICADE AND CONSTRUCTION TYPICAL SIGN SUPPORT

BC (5) -21

FILE:	DC-21.dgn	DW:	TxDOT	CHK:	TxDOT	DW:	TxDOT	CHK:	TxDOT
© TxDOT	November 2002	CONT	SECT	JOB	HIGHWAY	3210	01	018	FM2770
REVISIONS									
9-07	8-14	DIST	COUNTY						
7-13	5-21	AUS	HAYS						

DISCLAIMER: The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by the Texas Department of Transportation for the use of this standard or for the results or damages resulting from its use.

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WHEN NOT IN USE, REMOVE THE PCMS FROM THE RIGHT-OF-WAY OR PLACE THE PCMS BEHIND BARRIER OR GUARDRAIL WITH SIGN PANEL TURNED PARALLEL TO TRAFFIC

- PORTABLE CHANGEABLE MESSAGE SIGNS**
- The Engineer/Inspector shall approve all messages used on portable changeable message signs (PCMS).
 - Messages on PCMS should contain no more than 8 words (about four to eight characters per word), not including simple words such as "TO," "FOR," "AT," etc.
 - Messages should consist of a single phrase, and two phases that alternate. Three-phase messages are not allowed. Each phase of the message should convey a single thought, and must be understood by itself.
 - Use the word "EXIT" to refer to an exit ramp on a freeway; i.e., "EXIT CLOSED." Do not use the term "RAMP."
 - Always use the route or interstate designation (IH, US, SH, FM) along with the number when referring to a roadway.
 - When in use, the bottom of a stationary PCMS message panel should be a minimum 7 feet above the roadway, where possible.
 - The message term "WEEKEND" should be used only if the work is to start on Saturday morning and end by Sunday evening at midnight. Actual days and hours of work should be displayed on the PCMS if work is to begin on Friday evening and/or continue into Monday morning.
 - The Engineer/Inspector may select one of two options which are available for displaying a two-phase message on a PCMS. Each phase may be displayed for either four seconds each or for three seconds each.
 - Do not "flash" messages or words included in a message. The message should be steady burn or continuous while displayed.
 - Do not present redundant information on a two-phase message; i.e., keeping two lines of the message the same and changing the third line.
 - Do not use the word "Danger" in message.
 - Do not display the message "LANES SHIFT LEFT" or "LANES SHIFT RIGHT" on a PCMS. Drivers do not understand the message.
 - Do not display messages that scroll horizontally or vertically across the face of the sign.
 - The following table lists abbreviated words and two-word phrases that are acceptable for use on a PCMS. Both words in a phrase must be displayed together. Words or phrases not on this list should not be abbreviated, unless shown in the TMLT.
 - PCMS character height should be at least 18 inches for trailer mounted units. They should be visible from at least 1/2 (.5) mile and the text should be legible from at least 600 feet at night and 800 feet in daylight. Truck mounted units must have a character height of 10 inches and must be legible from at least 400 feet.
 - Each line of text should be centered on the message board rather than left or right justified.
 - If disabled, the PCMS should default to an illegible display that will not alarm motorists and will only be used to alert workers that the PCMS has malfunctioned. A pattern such as a series of horizontal solid bars is appropriate.

WORD OR PHRASE	ABBREVIATION	WORD OR PHRASE	ABBREVIATION
Access Road	ACCS RD	Major	MAJ
Alternate	ALT	Miles	MI
Avenue	AVE	Miles Per Hour	MPH
Best Route	BEST RTE	Minor	MNR
Boulevard	BLVD	Monday	MON
Bridge	BRDG	Normal	NORM
Cannot	CANT	North	N
Center	CTR	Northbound	(route) N
Construction Ahead	CONST AHD	Parking	PKING
CROSSING	XING	Right Lane	RT LN
Detour Route	DETOUR RTE	Saturday	SAT
Do Not	DONT	Service Road	SERV RD
East	E	Shoulder	SHLDR
Eastbound	(route) E	Slippery	SLIP
Emergency	EMER	South	S
Emergency Vehicle	EMER VEH	Southbound	(route) S
Entrance, Enter	ENT	Speed	SPD
Express Lane	EXP LN	Street	ST
Expressway	EXPWY	Sunday	SUN
XXXX Feet	XXXX FT	Telephone	PHONE
Foot Ahead	FOG AHD	Temporary	THURS
Freeway	FRWY, FWY	Thursday	THURS
Freeway Blocked	FWY BLKD	To Downtown	TO DOWNTN
Friday	FRI	Traffic	TRAF
Hazardous Driving	HAZ DRIVING	Travelers	TRVLRS
Hazardous Material	HAZMAT	Tuesday	TUES
High Occupancy	HOV	Time Minutes	TIME MIN
Vehicle	HWY	Upper Level	UPPR LEVEL
Hour(s)	HRS, HRS	Vehicles (s)	VEH, VEHs
Information	INFO	Warning	WARN
Left	L	Wednesday	WED
Junction	JCT	Weight Limit	WT LIMIT
Left	L	West	W
Left Lane	LFT LN	Westbound	(route) W
Lane Closed	LN CLSD	Wet Pavement	WET PVMT
Lower Level	LWR LEVEL	Will Not	WONT
Maintenance	MAINT		

Roadway designation = IH-number, US-number, SH-number, FM-number

RECOMMENDED PHASES AND FORMATS FOR PCMS MESSAGES DURING ROADWORK ACTIVITIES

(The Engineer may approve other messages not specifically covered here.)

Phase 1: Condition Lists

Road/Lane/Ramp Closure List

FREEWAY CLOSED X MILE	FRONTAGE ROAD CLOSED
ROAD CLOSED AT SH XXX	SHOULDER CLOSED XXX FT
ROAD CLSD AT FM XXXX	RIGHT LN CLOSED XXX FT
RIGHT X LANES CLOSED	RIGHT X LANES OPEN
CENTER LANE CLOSED	DAYTIME LANE CLOSURES
NIGHT LANE CLOSURES	I-XX SOUTH EXIT CLOSED
VARIOUS LANES CLOSED	EXIT XXX CLOSED X MILE
EXIT CLOSED	RIGHT LN TO BE CLOSED
MALL DRIVEWAY CLOSED	X LANES CLOSED TUE - FRI
XXXXXXXXX BLVD CLOSED	

Other Condition List

ROADWORK XXX FT	ROAD REPAIRS XXXX FT
FLAGGER XXXX FT	LANE NARROWS XXXX FT
RIGHT LN NARROWS XXXX FT	TWO-WAY TRAFFIC XX MILE
MERGING TRAFFIC XXXX FT	CONST TRAFFIC XXX FT
LOOSE GRAVEL XXXX FT	UNEVEN LANES XXXX FT
DETOUR X MILE	ROUGH ROAD XXXX FT
ROADWORK PAST SH XXXX	ROADWORK NEXT FRI-SUN
BUMP XXXX FT	US XXX EXIT X MILES
TRAFFIC SIGNAL XXXX FT	LANES SHIFT *

* LANES SHIFT in Phase 1 must be used with STAY IN LANE in Phase 2.

Phase 2: Possible Component Lists

Action to Take/Effect on Travel List

MERGE RIGHT	FORM X LINES RIGHT
DETOUR NEXT X EXITS	USE XXXXX RD EXIT
USE EXIT XXX	USE EXIT I-XX NORTH
STAY ON US XXX SOUTH	USE I-XX E TO I-XX N
TRUCKS USE US XXX N	WATCH FOR TRUCKS
WATCH FOR TRUCKS	EXPECT DELAYS
EXPECT DELAYS	PREPARE TO STOP
REDUCE SPEED XXX FT	END SHOULDER USE
USE OTHER ROUTES	WATCH FOR WORKERS
STAY IN LANE *	

Location List

AT FM XXXX
BEFORE RAILROAD CROSSING
NEXT X MILES
PAST US XXX EXIT
XXXXXXX TO XXXXXXX
US XXX TO FM XXXX

Warning List

SPEED LIMIT XX MPH
MAXIMUM SPEED XX MPH
MINIMUM SPEED XX MPH
ADVISORY SPEED XX MPH
RIGHT LANE EXIT
USE CAUTION
DRIVE SAFELY
DRIVE WITH CARE

** Advance Notice List

TUE-FRI XX AM-X PM
APR XX-X PM-X AM
BEGINS MONDAY
BEGINS MONDAY XX
MAY X-X XX PM - XX AM
NEXT FRI-SUN
XX AM TO XX PM
NEXT TUE AUG XX
TONIGHT XX PM-XX AM

** See Application Guidelines Note 6.

APPLICATION GUIDELINES

- Only 1 or 2 phases are to be used on a PCMS.
- The 1st phase (or both) should be selected from the "Road/Lane/Ramp Closure List" and the "Other Condition List".
- A 2nd phase can be selected from the "Action to Take/Effect on Travel, Location, General Warning, or Advance Notice Phase Lists".
- A Location Phase is necessary only if a distance or location is not included in the first phase selected.
- If two PCMS are used in sequence, they must be separated by a minimum of 1000 ft. Each PCMS shall be limited to two phases, and should be understandable by themselves.
- For advance notice, when the current date is within seven days of the actual work date, calendar days should be replaced with days of the week. Advance notification should typically be for no more than one week prior to the work.

WORDING ALTERNATIVES


- The words RIGHT, LEFT and ALL can be interchanged as appropriate.
- Roadway designations IH, US, SH, FM and LP can be interchanged as appropriate.
- EAST, WEST, NORTH and SOUTH (or abbreviations E, W, N and S) can be interchanged as appropriate.
- Highway names and numbers replaced as appropriate.
- ROAD, HIGHWAY and FREEWAY can be interchanged as needed.
- AHEAD may be used instead of distances if necessary.
- FT and MI, MILE and MILES interchanged as appropriate.
- AT, BEFORE and PAST interchanged as needed.
- Distances or AHEAD can be eliminated from the message if a location phase is used.

PCMS SIGNS WITHIN THE R.O.W. SHALL BE BEHIND GUARDRAIL OR CONCRETE BARRIER OR SHALL HAVE A MINIMUM OF FOUR (4) PLASTIC DRUMS PLACED PERPENDICULAR TO TRAFFIC ON THE UPSTREAM SIDE OF THE PCMS, WHEN EXPOSED TO ONE DIRECTION OF TRAFFIC. WHEN EXPOSED TO TWO WAY TRAFFIC, THE FOUR DRUMS SHOULD BE PLACED WITH ONE DRUM AT EACH OF THE FOUR CORNERS OF THE UNIT.

FULL MATRIX PCMS SIGNS

- When Full Matrix PCMS signs are used, the character height and legibility/visibility requirements shall be maintained as listed in Note 15 under "PORTABLE CHANGEABLE MESSAGE SIGNS" above.
- When symbol signs, such as the "Flagger Symbol" (CW20-7) are represented graphically on the Full Matrix PCMS sign and, with the approval of the Engineer, it shall maintain the legibility/visibility requirement listed above.
- When symbol signs are represented graphically on the Full Matrix PCMS, they shall only supplement the use of the static sign represented, and shall not substitute for, or replace that sign.
- A full matrix PCMS may be used to simulate a flashing arrow board provided it meets the visibility, flash rate and dimming requirements on BC(7), for the same size arrow.

SHEET 6 OF 12



Texas Department of Transportation

Traffic Safety Division Standard

BARRICADE AND CONSTRUCTION PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)

BC (6) -21

FILES	DC-21.dgn	DWG	TxDOT	CHK TxDOT	DRW	TxDOT	CHK TxDOT
REVISED	NOVEMBER 2002	CONT	SECT	JOB	HIGHWAY		
9-07	8-14	3210	01	018	FM2770		
7-13	5-21	DIST	COUNTY		SHEET NO.		
		AUS	HAYS		16		

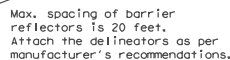
DISCLAIMER:

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2. Color of Barrier Reflectors shall be as specified in the TMUTCD. The cost of the reflectors shall be considered subsidiary to Item 512.



- See D & OM (VIA)



3 Barrier
as per manufacturer's recommendation

END TREATMENTS FOR
CTB'S USED
IN WORK ZONES

End treatments used on CTB's in work zones shall meet the appropriate crashworthy standards as defined in the Manual for Assessing Safety Hardware (MASH). Refer to the CWZTCD List for approved end treatments and manufacturers.

WARNING LIGHTS

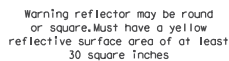
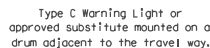
1. Warning lights shall meet the requirements of the TMCUTCD.
2. Warning lights shall NOT be installed on barricades.
3. Type A-Low Intensity Flashing Warning Lights are commonly used with drums. They are intended to warn of or mark a potentially hazardous area. Their use shall be as indicated on this sheet and/or other sheets of the plans by the designation "FL". The type A Warning Lights shall meet the minimum requirements of the Interim ITE Purchase Specifications for Flashing and Steady-Burn Warning Lights.
4. Type-C and Type-D 360 degree Steady Burn Lights are intended to be used in a series for delineation to supplement other traffic control devices. Their use shall be as indicated on this sheet and/or other sheets of the plans by the designation "SB".
5. The Engineer/Inspector or the plans shall specify the location and type of warning lights to be installed on the traffic control devices.
6. When required by the Engineer, the Contractor shall furnish a copy of the warning lights certification. The warning light manufacturer will certify that the warning lights meet the requirements of the Interim ITE Purchase Specifications for Flashing and Steady-Burn Warning Lights.
7. When used to delineate a curve, Type-C and Type-D Steady Burn Lights should only be placed on the outside of the curve, not the inside.
8. The location of warning lights and warning reflectors on drums shall be as shown elsewhere in the plans.

WARNING LIGHTS MOUNTED ON PLASTIC DRUMS

1. Type A flashing warning lights are intended to warn drivers that they are approaching or are in a potentially hazardous area.
2. Type A random flashing warning lights are not intended for delineation and shall not be used in a series.
3. A series of sequential flashing warning lights placed on channelizing devices to form a merging taper to form for delineation. If used, the series shall be used to warn drivers of a merging taper. The series shall be used at the end of the merging taper in order to identify the desired vehicle path. The rate of flashing for each light shall be 65 flashes per minute, plus or minus 10 flashes.
4. Type C and D steady-burn warning lights are intended to be used in a series to delineate the edge of the travel lane on detours, on lane changes, on lane closures, and on other similar conditions.
5. Type A, Type C and Type D warning lights shall be installed at locations as detailed on other sheets in the plans.
6. Warning lights shall not be installed on a drum that has a sign, chevron or vertical panel.
7. The maximum spacing for warning lights on drums should be identical to the channelizing device spacing.

WARNING REFLECTORS MOUNTED ON PLASTIC DRUMS AS A SUBSTITUTE FOR TYPE C (STEADY BURN) WARNING LIGHTS

1. A warning reflector or approved substitute may be mounted on a plastic drum as a substitute for a Type C, steady burn warning light at the discretion of the Contractor unless otherwise noted in the plans.
2. The warning reflector shall be yellow in color and shall be manufactured using a sign substrate approved for use with plastic drums listed on the CDOT list.
3. The warning reflector shall have a minimum retroreflective surface area (one-side) of 30 square inches.
4. Round reflectors shall be fully reflectorized, including the area where attached to the drum.
5. Square substrates must have a minimum of 30 square inches of reflectorized sheeting. They do not have to be reflectorized where it attaches to the drum.
6. The side of the warning reflector facing approaching traffic shall have sheeting meeting the color and retroreflectivity requirements for DMS 8300-type B or Type C.
7. When used near two-way traffic, both sides of the warning reflector shall be reflectorized.
8. The warning reflector should be mounted on the side of the handle nearest approaching traffic.
9. The maximum spacing for warning reflectors should be identical to the channelizing device spacing requirements.

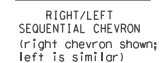
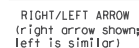


LPCB is approved for use in work zone locations, where the posted speed is 45mph, or less. See Roadway Standard Sheet LPCB.

1. The Flashing Arrow Board should be used for all lane closures on multi-lane roadways, or slow moving maintenance or construction activities on the travel lanes.
2. Flashing Arrow Boards should not be used on two-lane, two-way roadways, detours, diversions or work on shoulders unless the "CAUTION" display (see detail below) is used.
3. The Engineer/Inspector shall choose all appropriate signs, bar codes and/or other traffic control devices that should be used in conjunction with the Flashing Arrow Board.
4. The Flashing Arrow Board should be able to display the following symbol:



05



5. The "CAUTION" display consists of four corner lamps flashing simultaneously, or the Alternating Diamond Caution mode as shown.
6. The straight line caution display is NOT ALLOWED.
7. The Flashing Arrow Board shall be capable of minimum 50 percent dimming from rated lamp voltage.
8. The flashing rate of the lamps shall not be less than 25 nor more than 40 flashes per minute.
9. Minimum lamp "on time" shall be approximately 50 percent for the flashing arrow and equal intervals of 20 percent for each sequential phase of the flashing chevron.
10. The sequential or chevron display is NOT ALLOWED.
11. The flashing arrow display is the TxOT standard; however, the sequential chevron display may be used during daylight operations.
12. The Flashing Arrow Board shall be mounted on a vehicle, trailer or other suitable support.
13. The Flashing Arrow Board shall be used to, laterally shift traffic.
14. A full matrix POMS may be used to simulate a Flashing Arrow Board provided it meets visibility, flash rate and dimming requirements on this sheet for the same size arrow.
15. Minimum mounting height of trailer mounted Arrow Boards should be 7 feet from roadway to bottom of panel.

REQUIREMENTS			
TYPE	MINIMUM SIZE	MINIMUM NUMBER OF PANEL LAMPS	MINIMUM VISIBILITY DISTANCE
B	30 x 60	13	3/4 mile
C	48 x 96	15	1 mile

ATTENTION

Flashing Arrow Boards shall be equipped with automatic dimming devices

WHEN NOT IN USE, REMOVE
THE ARROW BOARD FROM THE
RIGHT-OF-WAY OR PLACE THE
ARROW BOARD BEHIND CONCRETE
TRAFFIC BARRIER OR GUARDRAIL.

FLASHING ARROW BOARDS

SHEET 7 OF 12



Texas Department of Transportation

Traffic
Safety
Division
Standard

TRUCK-MOUNTED ATTENUATORS

1. Truck-mounted attenuators (TMA) used on TxDOT facilities must meet the requirements outlined in the Manual for Assessing Safety Hardware (MASH).
2. Refer to the CWTCDZ for the requirements of Level 2 or Level 3 TMA.
3. Refer to the CWTCDZ for a list of approved TMAs.
4. TMAs are required on freeways unless otherwise noted in the plans.
5. A TMA should be used anytime that it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the work performance.
6. If no reason is given, it should not be required when a work area is spread down the roadway and the crew is on an extended distance from the TMA.

**BARRICADE AND CONSTRUCTION
ARROW PANEL, REFLECTORS,
WARNING LIGHTS & ATTENUATOR**

BC (7) - 21

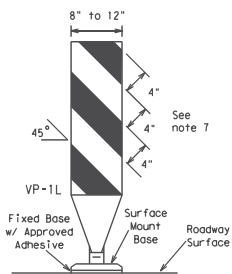
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©	TxDOT November 2002	CONT	SECT	JOB	HIGHWAY				
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7-13	5-21	AUS	HAYS			17			

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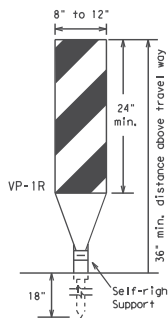
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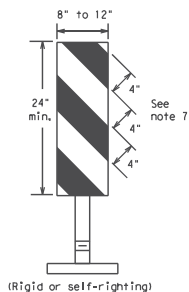
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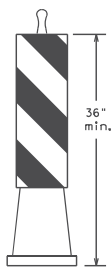
FIXED
(Rigid or self-righting)



DRIVEABLE

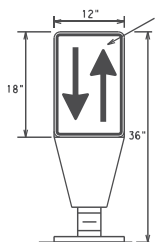


PORTABLE

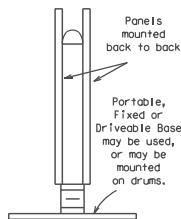


VERTICAL PANELS (VP's)

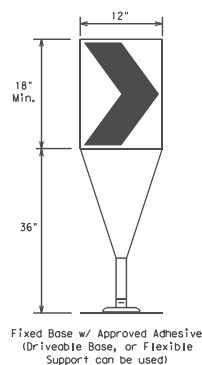
- Vertical Panels (VP's) are normally used to channelize traffic or divide opposing lanes of traffic.
- VP's may be used in daytime or nighttime situations. They may be used at the edge of shoulder drop-offs and other areas such as lane transitions where positive daytime and nighttime delineation is required. The Engineer/Inspector shall refer to the Roadway Design Manual for additional requirements on the use VP's for drop-offs.
- VP's should be mounted back to back if used at the edge of cuts adjacent to two-way two lane roadways. Stripes are to be reflective orange and reflective white and should always slope downward toward the travel lane.
- VP's used on expressways and freeways or other high speed roadways, may have more than 270 square inches of retroreflective area facing traffic.
- Self-righting supports are available with portable base. See "Compliant Work Zone Traffic Control Devices List" (CWZTCD).
- Sheeting for the VP's shall be retroreflective Type A or Type B conforming to Departmental Material Specification DMS-8300, unless noted otherwise.
- Where the height of reflective material on the vertical panel is 36 inches or greater, a panel stripe of 6 inches shall be used.



OPPOSING TRAFFIC LANE DIVIDERS (OTLD)

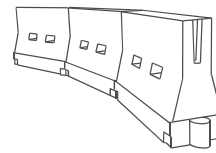


- Opposing Traffic Lane Dividers (OTLD) are delineation devices designed to convert a normal one-way roadway section to two-way operation. OTLD's are used on temporary centerlines. The upward and downward arrows on the sign's face indicate the direction of traffic on either side of the divider. The base is secured to the pavement with an adhesive or rubber weight to minimize movement caused by a vehicle impact or wind gust.
- The OTLD may be used in combination with 42" cones or VP's.
- Spacing between the OTLD shall not exceed 500 feet. 42" cones or VP's placed between the OTLD's should not exceed 100 foot spacing.
- The OTLD shall be orange with a black non-reflective legend. Sheeting for the OTLD shall be retroreflective Type B₁ or Type C₁ conforming to Departmental Material Specification DMS-8300, unless noted otherwise. The legend shall meet the requirements of DMS-8300.



- The chevron shall be a vertical rectangle with a minimum size of 12 by 18 inches.
- Chevrons are intended to give notice of a sharp change of alignment with the direction of travel and provide additional emphasis and guidance for vehicle operators with regard to changes in horizontal alignment of the roadway.
- Chevrons, when used, shall be erected on the outside of a sharp curve or turn, or on the far side of an intersection. They shall be in line with and at right angles to approaching traffic. Spacing should be such that the motorist always has three in view, until the change in alignment eliminates its need.
- To be effective, the chevron should be visible for at least 500 feet.
- Chevrons shall be orange with a black nonreflective legend. Sheeting for the chevron shall be retroreflective Type B₁ or Type C₁ conforming to Departmental Material Specification DMS-8300, unless noted otherwise. The legend shall meet the requirements of DMS-8300.
- For Long Term Stationary use on tapers or transitions on freeways and divided highways, self-righting chevrons may be used to supplement plastic drums but not to replace plastic drums.

CHEVRONS



LONGITUDINAL CHANNELIZING DEVICES (LCD)

- LCDs are crashworthy, lightweight, deformable devices that are highly visible, have good target value and can be connected together. They are not designed to contain or redirect a vehicle on impact.
- LCDs may be used instead of a line of cones or drums.
- LCDs shall be placed in accordance to application and installation requirements specific to the device, and used only when shown on the CWZTCD list.
- LCDs should not be used to provide positive protection for obstacles, pedestrians or workers.
- LCDs shall be supplemented with retroreflective delineation as required for temporary barriers on BC(7) when placed roughly parallel to the travel lanes.
- LCDs used as barricades placed perpendicular to traffic should have at least one row of reflective sheeting meeting the requirements for barricade rails as shown on BC(10). Place reflective sheeting near the top of the LCD along the full length of the device.

WATER BALLASTED SYSTEMS USED AS BARRIERS

- Water ballasted systems used as barriers shall not be used solely to channelize road users, but also to protect the work space per the appropriate Manual for Assessing Safety Hardware (MASH) crashworthiness requirements based on roadway speed and barrier application.
- Water ballasted systems used to channelize vehicular traffic shall be supplemented with retroreflective delineation or channelizing devices to improve daytime/nighttime visibility. They may also be supplemented with pavement markings.
- Water ballasted systems used as barriers shall be placed in accordance to application and installation requirements specific to the device, and used only when shown on the CWZTCD list.
- Water ballasted systems used as barriers should not be used for a merging taper except in low speed (less than 45 MPH) urban areas. When used on a taper in a low speed urban area, the taper shall be delineated and the taper length should be designed to optimize road user operations considering the available geometric conditions.
- When water ballasted systems used as barriers have blunt ends exposed to traffic, they should be attenuated as per manufacturer recommendations or flared to a point outside the clear zone.

If used to channelize pedestrians, longitudinal channelizing devices or water ballasted systems must have a continuous detectable bottom for users of long cones and the top of the unit shall not be less than 32 inches in height.

HOLLOW OR WATER BALLASTED SYSTEMS USED AS LONGITUDINAL CHANNELIZING DEVICES OR BARRIERS

GENERAL NOTES

- Work Zone channelizing devices illustrated on this sheet may be installed in close proximity to traffic and are suitable for use on high or low speed roadways. The Engineer/Inspector shall ensure that spacing and placement is uniform and in accordance with the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD).
- Channelizing devices shown on this sheet may have a driveable, fixed or portable base. The requirement for self-righting channelizing devices must be specified in the General Notes or other plan sheets.
- Channelizing devices on self-righting supports should be used in work zone areas where channelizing devices are frequently impacted by errant vehicles or vehicle related wind gusts making alignment of the channelizing devices difficult to maintain. Locations of these devices shall be detailed elsewhere in the plans. These devices shall conform to the TMUTCD and the "Compliant Work Zone Traffic Control Devices List" (CWZTCD).
- The Contractor shall maintain devices in a clean condition and replace damaged, nonreflective, faded, or broken devices and bases as required by the Engineer/Inspector. The Contractor shall be required to maintain proper device spacing and alignment.
- Portable bases shall be fabricated from virgin and/or recycled rubber. The portable bases shall weigh a minimum of 30 lbs.
- Pavement surfaces shall be prepared in a manner that ensures proper bonding between the adhesives, the fixed mount bases and the pavement surface. Adhesives shall be prepared and applied according to the manufacturer's recommendations.
- The installation and removal of channelizing devices shall not cause detrimental effects to the final pavement surfaces, including pavement surface discoloration or surface integrity. Driveable bases shall not be permitted on final pavement surfaces. The Engineer/Inspector shall approve all application and removal procedures of fixed bases.

Posted Speed	Formula	Minimum Desirable Taper Lengths **			Suggested Maximum Spacing of Channelizing Devices	
		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent
30	L = WS ² /60	150'	165'	180'	30'	60'
35		205'	225'	245'	35'	70'
40	L = WS	265'	295'	320'	40'	80'
45		450'	495'	540'	45'	90'
50		500'	550'	600'	50'	100'
55		550'	605'	660'	55'	110'
60		600'	660'	720'	60'	120'
65		650'	715'	780'	65'	130'
70		700'	770'	840'	70'	140'
75		750'	825'	900'	75'	150'
80		800'	880'	960'	80'	160'

**Taper lengths have been rounded off.
L=Length of Taper (FT.) W=Width of Offset (FT.)
S=Posted Speed (MPH)

SUGGESTED MAXIMUM SPACING OF CHANNELIZING DEVICES AND MINIMUM DESIRABLE TAPER LENGTHS

SHEET 9 OF 12



BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES

BC (9) -21

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REV	NOVEMBER 2002	CONT	SECT	JOB	FW2770				
9-07	8-11	3210	01	018					
7-13	5-21			COUNTY					
		AUS		HAYS					

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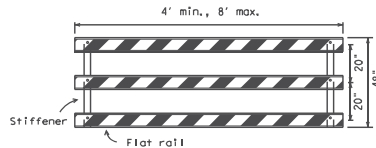
TYPE 3 BARRICADES

1. Refer to the Compliant Work Zone Traffic Control Devices List (CWZTCL) for details of the Type 3 Barricades and a list of all materials used in the construction of Type 3 Barricades.
2. Type 3 Barricades shall be used at each end of construction projects closed to all traffic.
3. Barricades extending across a roadway should have stripes that slope downward in the direction toward which traffic must turn in detouring. When both right and left turns are provided, the chevron striping may slope downward in both directions from the center of the barricade. Where no turns are provided at a closed road, striping should slope downward in both directions toward the center of roadway.
4. Striping of rails, for the right side of the roadway, should slope downward to the left. For the left side of the roadway, striping should slope downward to the right.
5. Identification markings may be shown only on the back of the barricade rails. The maximum height of letters and/or company logos used for identification shall be 1'.
6. Barricades shall not be placed parallel to traffic unless an adequate clear zone is provided.
7. Warning lights shall NOT be installed on barricades.
8. Where barricades require the use of weights to keep from turning over, the use of sandbags with dry, cohesionless sand is recommended. The sandbags will be tied shut to keep the sand from spilling and to maintain a constant weight. Sand bags shall not be stacked in a manner that covers any portion of a barricade rails reflective sheeting. Rock, concrete, iron, steel or other solid objects will NOT be permitted. Sandbags should weigh a minimum of 35 lbs and a maximum of 50 lbs. Sandbags shall be made of a durable material that tears upon vehicular impact. Rubber (such as fire inner tubes) shall not be used for sandbags. Sandbags shall only be placed along or upon the base supports of the device and shall not be suspended above ground level or hung with rope, wire, chains or other fasteners.
9. Sheeting for barricades shall be retroreflective Type A or Type B conforming to Departmental Material Specification DMS-8300 unless otherwise noted.

Barricades shall NOT be used as a sign support.

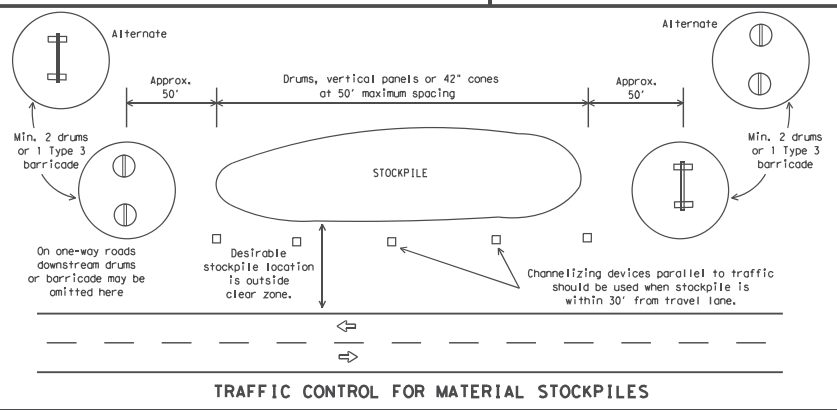
8" nominal
45°
6" 6"
Minimum Width of Reflective Sheeting 7 inches.

TYPICAL STRIPING DETAIL FOR BARRICADE RAIL

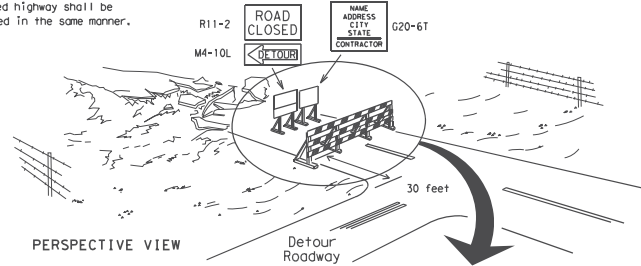


Stiffener may be inside or outside of support, but no more than 2 stiffeners shall be allowed on one barricade.

TYPICAL PANEL DETAIL FOR SKID OR POST TYPE BARRICADES



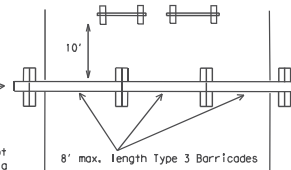
Each roadway of a divided highway shall be barricaded in the same manner.



PERSPECTIVE VIEW

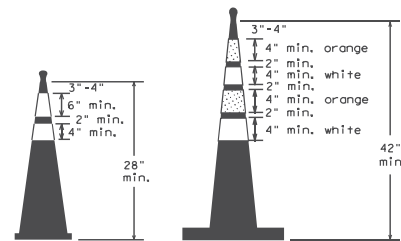
The three rails on Type 3 barricades shall be reflectorized orange and reflective white stripes on one side facing one-way traffic and both sides for two-way traffic. Barricade striping should slant downward in the direction of detour.

1. Signs should be mounted on independent supports at a 7 foot mounting height in center of roadway. The signs should be a minimum of 10 feet behind Type 3 Barricades.
2. Advance signing shall be as specified elsewhere in the plans.



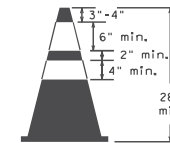
PLAN VIEW

TYPE 3 BARRICADE (POST AND SKID) TYPICAL APPLICATION

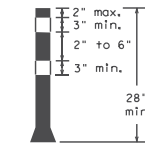


Two-Piece cones

CONES



One-Piece cones

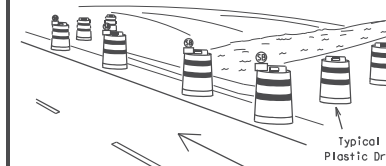


Tubular Marker

28" Cones shall have a minimum weight of 9 1/2 lbs.

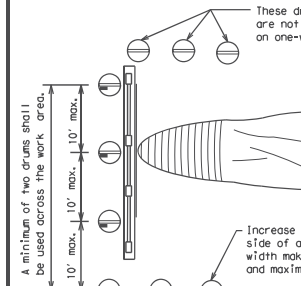
42" 2-piece cones shall have a minimum weight of 30 lbs. including base.

1. Traffic cones and tubular markers shall be predominantly orange, and meet the height and weight requirements shown above.
2. One-piece cones have the body and base of the cone molded in one consolidated unit. Two-piece cones have a cone shaped body and a separate rubber base, or ballast, that is added to keep the device upright and in place.
3. Two-piece cones may have a handle or loop extending up to 8" above the minimum height shown, in order to aid in retrieving the device.
4. Cones or tubular markers shall have white or white and orange reflective bands as shown above. The reflective bands shall have a smooth, sealed outer surface and meet the requirements of Departmental Material Specification DMS-8300 Type A or Type B.
5. 28" cones and tubular markers are generally suitable for short duration and short-term stationary work as defined on BC(4). These should not be used for intermediate-term or long-term stationary work unless personnel is on-site to maintain them in their proper upright position.
6. 42" two-piece cones, vertical panels or drums are suitable for all work zone durations.
7. Cones or tubular markers used on each project should be of the same size and shape.



PERSPECTIVE VIEW

These drums are not required on one-way roadway



PLAN VIEW

Increase number of plastic drums on the side of approaching traffic if the crown width makes it necessary. (minimum of 2 and maximum of 4 drums)

1. Where positive redirection capability is provided, drums may be omitted.
2. Plastic construction fencing may be used with drums for safety as required in the plans.
3. Vertical Panels on flexible support may be substituted for drums when the shoulder width is less than 4 feet.
4. When the shoulder width is greater than 12 feet, steady-burn lights may be omitted if drums are used.
5. Drums must extend the length of the culvert widening.

LEGEND	
	Plastic drum
	Plastic drum with steady burn light or yellow warning reflector
	Steady burn warning light or yellow warning reflector

CULVERT WIDENING OR OTHER ISOLATED WORK WITHIN THE PROJECT LIMITS

SHEET 10 OF 12



Texas Department of Transportation
Traffic Safety Division
Standard

BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES

BC (10) -21

FILE: DC-21.dgn	DATE: TxDOT November 2002	CONT: 3210	SECT: 01	JOB: O18	HIGHWAY: FM2770
9-07	6-14	DIST: AUS	COUNTY: HAYS	SHEET NO. 20	
7-13	5-21				

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WORK ZONE PAVEMENT MARKINGS

GENERAL

1. The Contractor shall be responsible for maintaining work zone and existing pavement markings, in accordance with the standard specifications and special provisions, on all roadways open to traffic within the CSJ limits unless otherwise stated in the plans.
2. Color, patterns and dimensions shall be in conformance with the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD).
3. Additional supplemental pavement marking details may be found in the plans or specifications.
4. Pavement markings shall be installed in accordance with the TMUTCD and as shown on the plans.
5. When short term markings are required on the plans, short term markings shall conform with the TMUTCD, the plans and details as shown on the Standard Plan Sheet WZ(STPM).
6. When standard pavement markings are not in place and the roadway is opened to traffic, DO NOT PASS signs shall be erected to mark the beginning of the sections where passing is prohibited and PASS WITH CARE signs at the beginning of sections where passing is permitted.
7. All work zone pavement markings shall be installed in accordance with Item 662, "Work Zone Pavement Markings."

RAISED PAVEMENT MARKERS

1. Raised pavement markers are to be placed according to the patterns on BC(112).
2. All raised pavement markers used for work zone markings shall meet the requirements of Item 672, "RAISED PAVEMENT MARKERS" and Departmental Material Specification DMS-4200 or DMS-4300.

PREFABRICATED PAVEMENT MARKINGS

1. Removable prefabricated pavement markings shall meet the requirements of DMS-8241.
2. Non-removable prefabricated pavement markings (foil back) shall meet the requirements of DMS-8240.

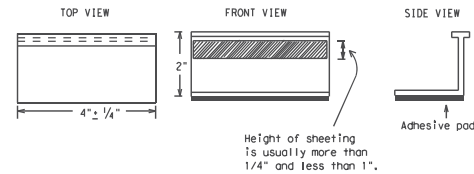
MAINTAINING WORK ZONE PAVEMENT MARKINGS

1. The Contractor will be responsible for maintaining work zone pavement markings within the work limits.
2. Work zone pavement markings shall be inspected in accordance with the frequency and reporting requirements of work zone traffic control device inspections as required by Form 599.
3. The markings should provide a visible reference for a minimum distance of 300 feet during normal daylight hours and 160 feet when illuminated by automobile low-beam headlights at night, unless sight distance is restricted by roadway geometrics.
4. Markings failing to meet this criteria within the first 30 days after placement shall be replaced at the expense of the Contractor as per Specification Item 662.

REMOVAL OF PAVEMENT MARKINGS

1. Pavement markings that are no longer applicable, could create confusion or direct a motorist toward or into the closed portion of the roadway shall be removed or obliterated before the roadway is opened to traffic.
2. The above shall not apply to detours in place for less than three days, where flaggers and/or sufficient channelizing devices are used in lieu of markings to outline the detour route.
3. Pavement markings shall be removed to the fullest extent possible, so as not to leave a discernable marking. This shall be by any method approved by TxDOT Specification Item 677 for "Eliminating Existing Pavement Markings and Markers".
4. The removal of pavement markings may require resurfacing or seal coating portions of the roadway as described in Item 677.
5. Subject to the approval of the Engineer, any method that proves to be successful on a particular type pavement may be used.
6. Blast cleaning may be used but will not be required unless specifically shown in the plans.
7. Over-painting of the markings SHALL NOT BE permitted.
8. Removal of raised pavement markers shall be as directed by the Engineer.
9. Removal of existing pavement markings and markers will be paid for directly in accordance with Item 677, "ELIMINATING EXISTING PAVEMENT MARKINGS AND MARKERS," unless otherwise stated in the plans.
10. Black-out marking tape may be used to cover conflicting existing markings for periods less than two weeks when approved by the Engineer.

Temporary Flexible-Reflective Roadway Marker Tabs



STAPLES OR NAILS SHALL NOT BE USED TO SECURE TEMPORARY FLEXIBLE-REFLECTIVE ROADWAY MARKER TABS TO THE PAVEMENT SURFACE

1. Temporary flexible-reflective roadway marker tabs used as guidemarks shall meet the requirements of DMS-8242.
2. Tabs detailed on this sheet are to be inspected and accepted by the Engineer or designated representative. Sampling and testing is not normally required, however at the option of the Engineer, either "A" or "B" below may be imposed to assure quality before placement on the roadway.
 - A. Select five (5) or more tabs at random from each lot or shipment and submit to the Construction Division, Materials and Pavement Section to determine specification compliance.
 - B. Select five (5) tabs and perform the following test. Affix five (5) tabs at 24 inch intervals on an asphaltic pavement in a straight line. Using a medium size passenger vehicle or pickup, run over the markers with the front and rear tires at a speed of 35 to 40 miles per hour, four (4) times in each direction. No more than one (1) out of the five (5) reflective surfaces shall be lost or displaced as a result of this test.
3. Small design variances may be noted between tab manufacturers.
4. See Standard Sheet WZ(STPM) for tab placement on new pavements. See Standard Sheet TCP(7-1) for tab placement on seal coat work.

RAISED PAVEMENT MARKERS USED AS GUIDEMARKS

1. Raised pavement markers used as guidemarks shall be from the approved product list, and meet the requirements of DMS-4200.
2. All temporary construction raised pavement markers provided on a project shall be of the same manufacturer.
3. Adhesive for guidemarks shall be bituminous material hot applied or butyl rubber pad for all surfaces, or thermoplastic for concrete surfaces.

Guidemarks shall be designated as:
YELLOW - (two amber reflective surfaces with yellow body).
WHITE - (one silver reflective surface with white body).

DEPARTMENTAL MATERIAL SPECIFICATIONS	
PAVEMENT MARKERS (REFLECTORIZED)	DMS-4200
TRAFFIC BUTTONS	DMS-4300
EPOXY AND ADHESIVES	DMS-6100
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-6130
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240
TEMPORARY REMOVABLE, PREFABRICATED PAVEMENT MARKINGS	DMS-8241
TEMPORARY FLEXIBLE, REFLECTIVE ROADWAY MARKER TABS	DMS-8242

A list of prequalified reflective raised pavement markers, non-reflective traffic buttons, roadway marker tabs and other pavement markings can be found at the Material Producer List web address shown on BC(1).

SHEET 11 OF 12



BARRICADE AND CONSTRUCTION PAVEMENT MARKINGS

BC(11)-21

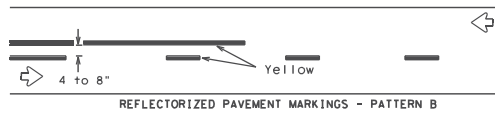
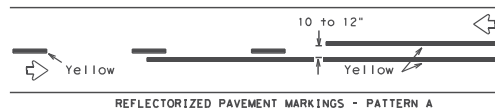
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© TxDOT February 1998	CONT	SECT	JOB	HIGHWAY
2-98 9-07 5-21	3210	01	018	FM2770
1-02 7-13	DIST	COUNTY		SHEET NO.
11-02 8-14	AUS	HAYS		21

105

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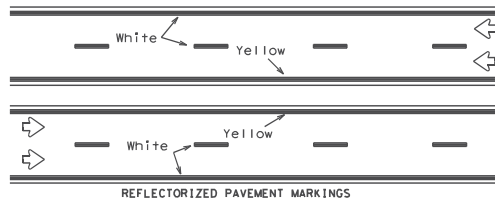
DATE: 6/29/2022 10:56:19 AM
FILE: K:\016225-000\G00\Plan\STND\New Standard\BC(12)-21.dgn

PAVEMENT MARKING PATTERNS



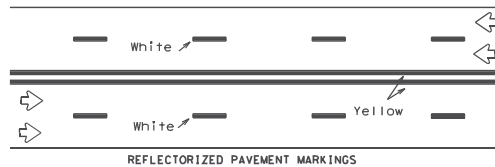
Pattern A is the TxDOT Standard, however Pattern B may be used if approved by the Engineer.
Prefabricated markings may be substituted for reflectORIZED pavement markings.

CENTER LINE & NO-PASSING ZONE BARRIER LINES FOR TWO-LANE, TWO-WAY HIGHWAYS



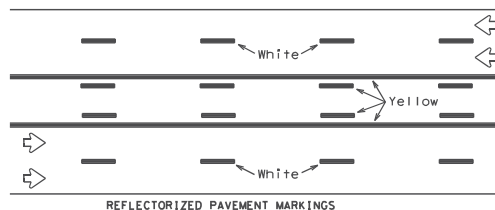
Prefabricated markings may be substituted for reflectORIZED pavement markings.

EDGE & LANE LINES FOR DIVIDED HIGHWAY



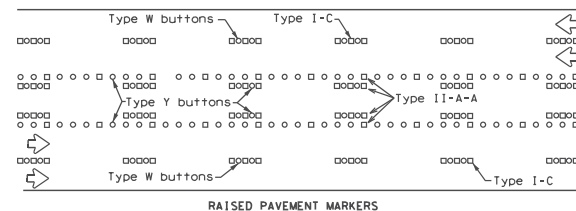
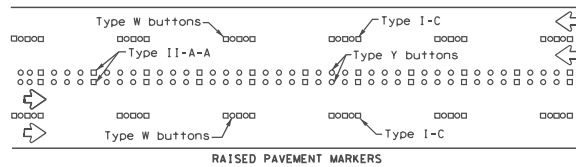
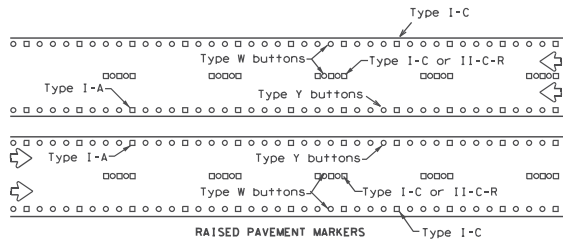
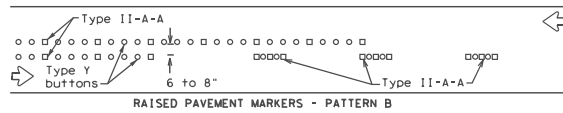
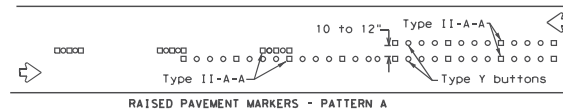
Prefabricated markings may be substituted for reflectORIZED pavement markings.

LANE & CENTER LINES FOR MULTILANE UNDIVIDED HIGHWAYS

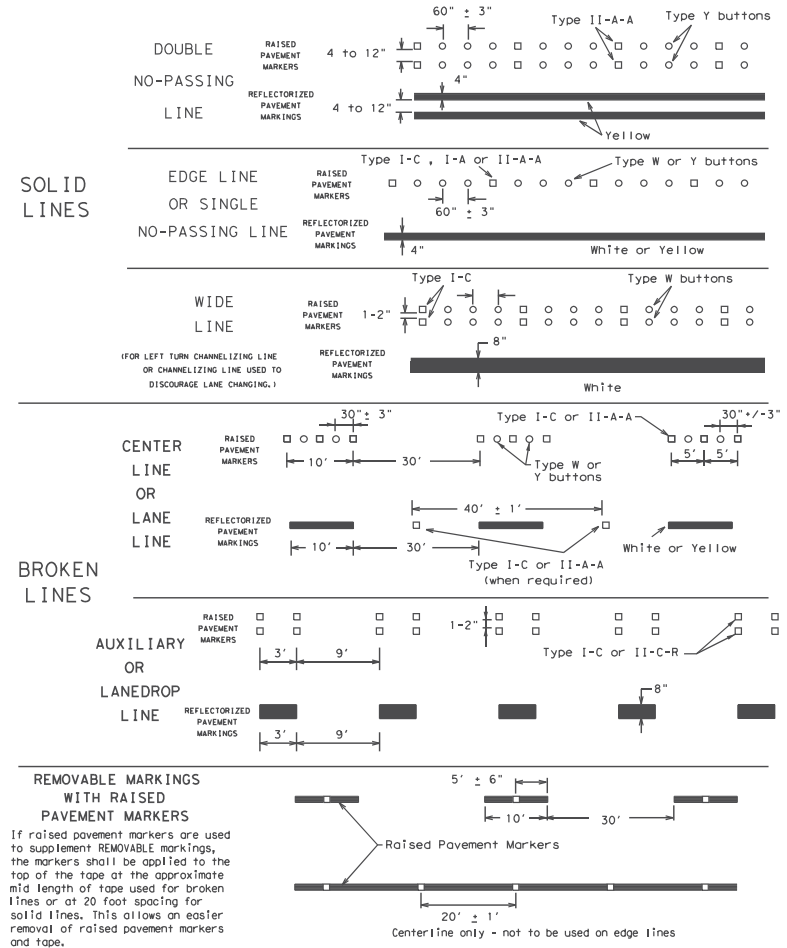


Prefabricated markings may be substituted for reflectORIZED pavement markings.

TWO-WAY LEFT TURN LANE



STANDARD WORK ZONE PAVEMENT MARKINGS DETAILS



SHEET 12 OF 12



BARRICADE AND CONSTRUCTION PAVEMENT MARKING PATTERNS

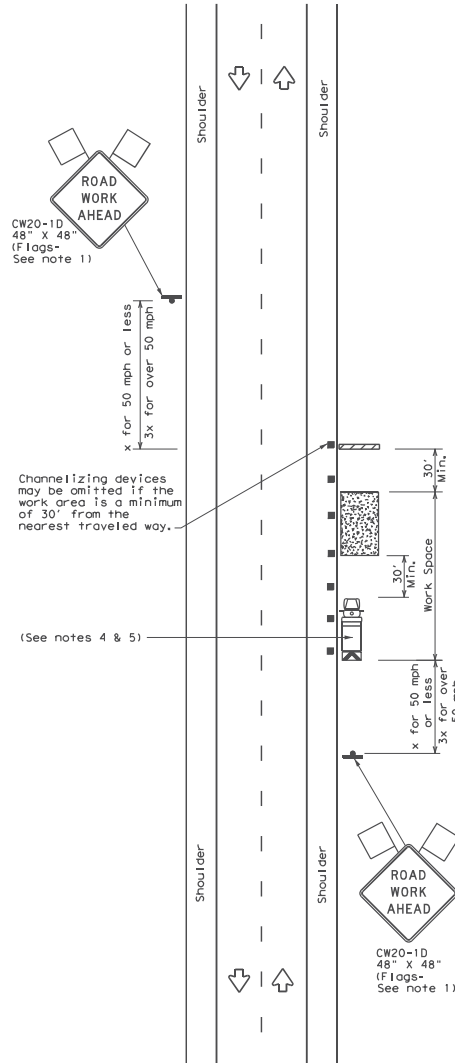
BC(12)-21

FILE: bc-21.dgn	DW: TxDOT	CHK: TxDOT	DR: TxDOT	CHK: TxDOT
© TxDOT February 1998	CONT	SECT	JOB	HIGHWAY
REVISIONS	3210	01	018	FM2770
1-97 9-07 5-21	DIST	COUNTY		
2-98 7-13	AUS	HAYS		22
11-02 8-14				

Raised pavement markers used as standard pavement markings shall be from the approved products list and meet the requirements of Item 672 "RAISED PAVEMENT MARKERS."

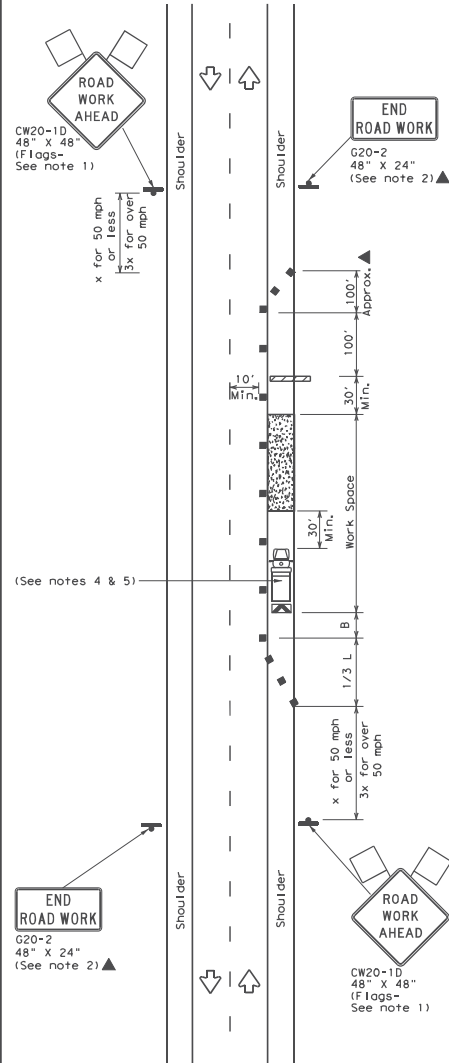
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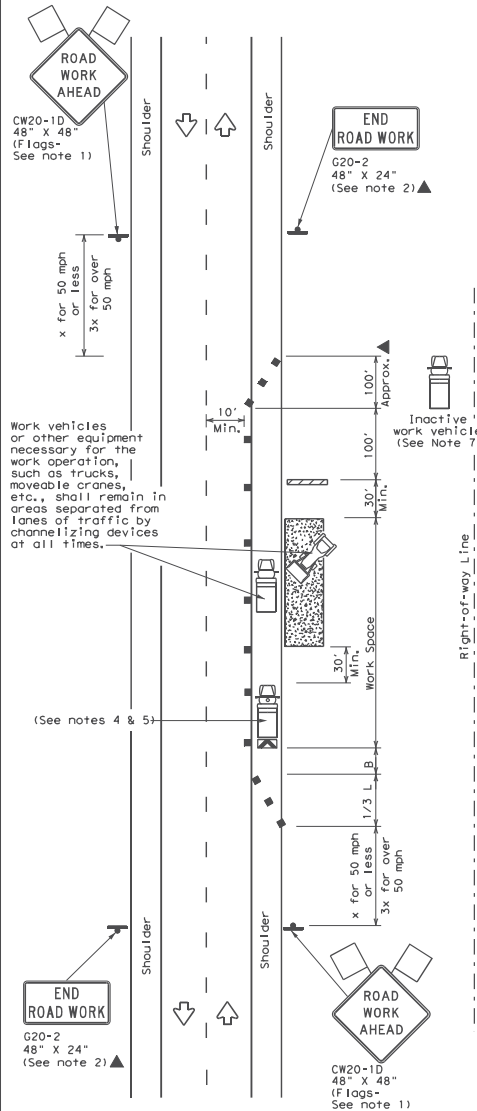
TCP (2-1a)

WORK SPACE NEAR SHOULDER
Conventional Roads



TCP (2-1b)

WORK SPACE ON SHOULDER
Conventional Roads



TCP (2-1c)

WORK VEHICLES ON SHOULDER
Conventional Roads

LEGEND					
	Type 3 Barricade		Channelizing Devices		Truck Mounted Attenuator (TMA)
	Heavy Work Vehicle		Portable Changeable Message Sign (PCMS)		Traffic Flow
	Trailer Mounted Flashing Arrow Board		Flagger		
	Sign				
	Flag				

Posted Speed *	Formula	Minimum Desirable Taper Lengths **			Suggested Maximum Spacing of Channelizing Devices		Minimum Sign Spacing Distance	Suggested Longitudinal Buffer Space "B"
		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent		
30	$L = \frac{WS^2}{60}$	150'	165'	180'	30'	60'	120'	90'
35		205'	225'	245'	35'	70'	160'	120'
40		265'	295'	320'	40'	80'	240'	155'
45	$L = WS$	450'	495'	540'	45'	90'	320'	195'
50		500'	550'	600'	50'	100'	400'	240'
55		550'	605'	660'	55'	110'	500'	295'
60		600'	660'	720'	60'	120'	600'	350'
65		650'	715'	780'	65'	130'	700'	410'
70		700'	770'	840'	70'	140'	800'	475'
75		750'	825'	900'	75'	150'	900'	540'

* Conventional Roads Only
** Taper lengths have been rounded off.
L=Length of Taper (FT) W=Width of Offset (FT) S=Posted Speed (MPH)

TYPICAL USAGE				
MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
	✓		✓	✓

- GENERAL NOTES**
- Flags attached to signs where shown, are REQUIRED.
 - All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated in the plans, or for routine maintenance work, when approved by the Engineer.
 - Stockpiled material should be placed a minimum of 30 feet from nearest traveled way.
 - Shadow Vehicle with TMA and high intensity rotating, flashing, oscillating or strobe lights. A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
 - Additional Shadow Vehicles with TMAs may be positioned off the paved surface, next to those shown in order to protect a wider work space.
 - See TCP(5-1) for shoulder work on divided highways, expressways and freeways.
 - Inactive work vehicles or other equipment should be parked near the right-of-way line and not parked on the paved shoulder.
 - CW21-5 "SHOULDER WORK" signs may be used in place of CW20-1D "ROAD WORK AHEAD" signs for shoulder work on conventional roadways.

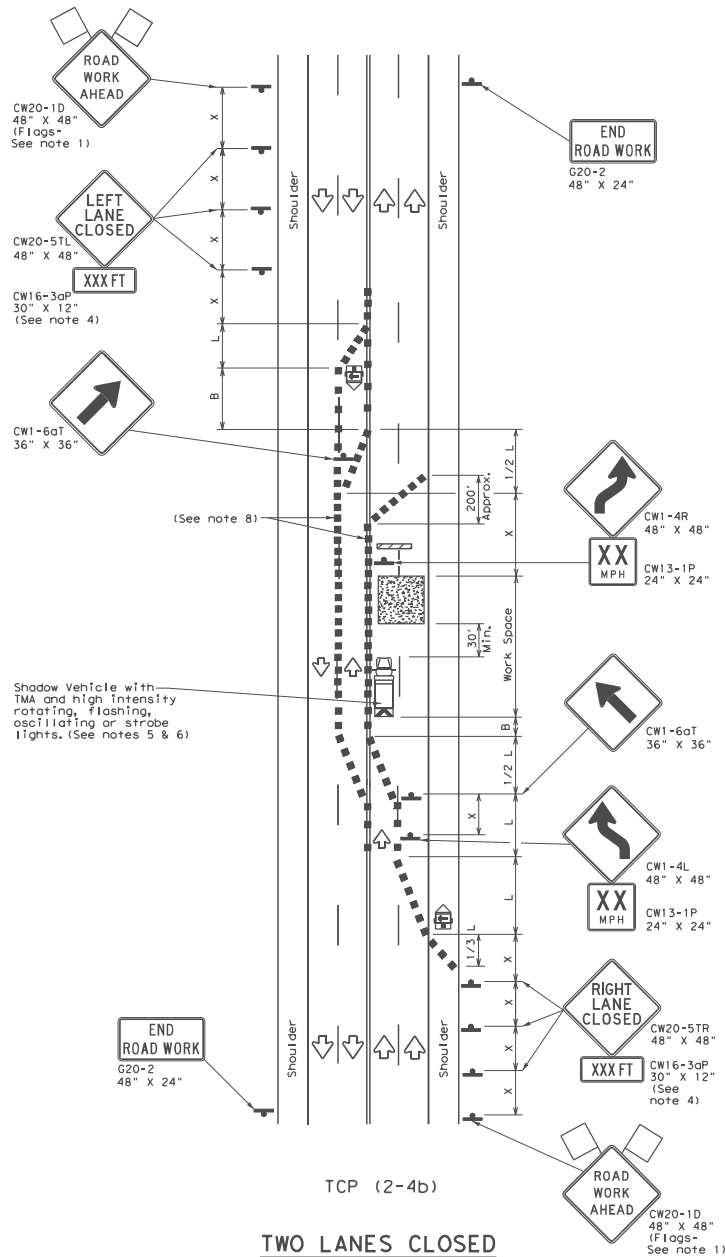
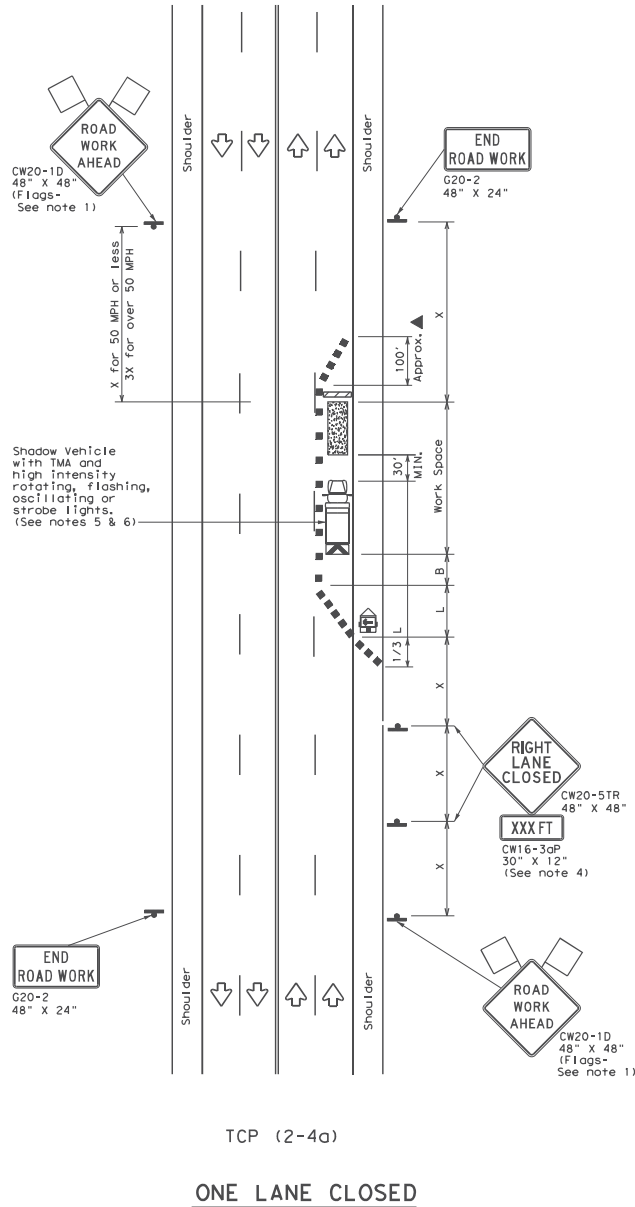
**TRAFFIC CONTROL PLAN
CONVENTIONAL ROAD
SHOULDER WORK**

TCP (2-1) - 18

FILES	tcp2-1-18.dgn	DATE	01/18/2018	BY	01/18/2018	CHK	01/18/2018
© TxDOT	December 1985	CONT	SECT	JOB	HIGHWAY		
2-94	4-98	3210	01	018	FM2770		
8-95	2-12	DIST		COUNTY			
1-97	2-18	AUS		HAYS			
161						23	

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FILE: K:\016225-000\Gcd\Plan\STND\New Standard\TCP\TCP2-4-18.dgn



LEGEND					
	Type 3 Barricade		Channelizing Devices		
	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)		
	Trailer Mounted Flashing Arrow Board		Portable Changeable Message Sign (PCMS)		
	Sign		Traffic Flow		
	Flag		Flagger		

Posted Speed *	Formula	Minimum Desirable Taper Lengths **			Suggested Maximum Spacing of Channelizing Devices		Minimum Sign Spacing Distance	Suggested Longitudinal Buffer Space "B"
		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent		
30	$L = \frac{WS^2}{60}$	150'	165'	180'	30'	60'	120'	90'
35		205'	225'	245'	35'	70'	160'	120'
40		265'	295'	320'	40'	80'	240'	155'
45		450'	495'	540'	45'	90'	320'	195'
50		500'	550'	600'	50'	100'	400'	240'
55	L = WS	550'	605'	660'	55'	110'	500'	295'
60		600'	660'	720'	60'	120'	600'	350'
65		650'	715'	780'	65'	130'	700'	410'
70		700'	770'	840'	70'	140'	800'	475'
75		750'	825'	900'	75'	150'	900'	540'

* Conventional Roads Only

** Taper lengths have been rounded off.

L=Length of Taper (FT) W=Width of Offset(FT) S=Posted Speed(MPH)

TYPICAL USAGE				
MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
		✓	✓	

GENERAL NOTES

- Flags attached to signs where shown, are REQUIRED.
- All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated elsewhere in the plans, or for routine maintenance work, when approved by the Engineer.
- The downstream taper is optional. When used, it should be 100 feet minimum length per lane.
- For short term applications, when post mounted signs are not used, the distance legend may be shown on the sign face rather than on a CW16-3aP supplemental plaque.
- A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
- Additional Shadow Vehicles with TMAs may be positioned in each closed lane, on the shoulder or off the paved surface, next to those shown in order to protect a wider work space.

TCP (2-4a)

- If this TCP is used for a left lane closure, CW20-5TL "LEFT LANE CLOSED" signs shall be used and channelizing devices shall be placed on the centerline to protect the work space from opposing traffic with the arrow board placed in the closed lane near the end of the merging traffic.

TCP (2-4b)

- For shorter durations where traffic is directed over a yellow centerline, channelizing devices which separate two-way traffic should be spaced on tapers at 20' or 15' if posted speeds are 35 mph or slower, and for tangent sections, at 1/2(S) where S is the speed in mph. This tighter devices spacing is intended for the area of conflicting markings, not the entire work zone.

Texas Department of Transportation

Traffic Operations Division Standard

TRAFFIC CONTROL PLAN
LANE CLOSURES ON MULTILANE
CONVENTIONAL ROADS

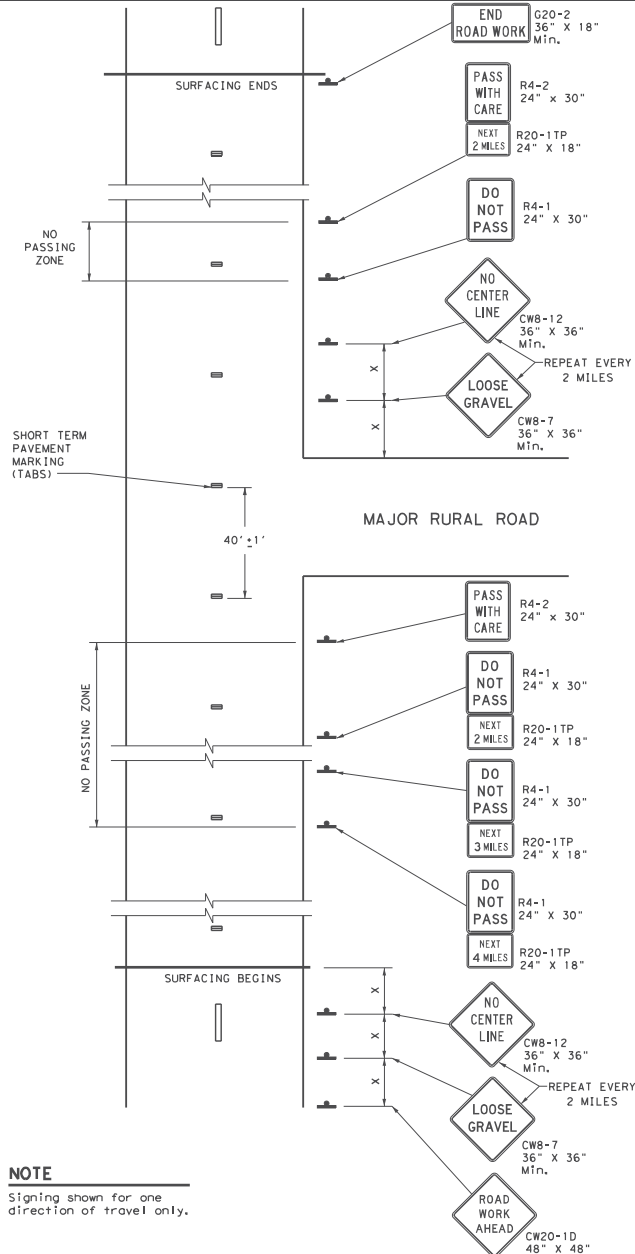
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© TxDOT	December 1985	CONT	SECT	JOB	HIGHWAY
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1-97	2-12	DIST	COUNTY		SHEET NO.
4-98	2-18	AUS	HAYS		24

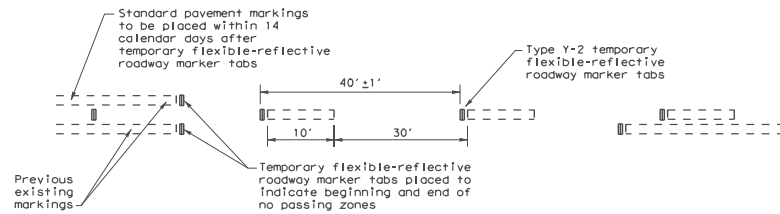
164

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NO PASSING ZONES ON TWO-LANE TWO-WAY ROADS



TABS ON CENTERLINES OF TWO-LANE TWO-WAY ROADS

For seal coat, micro-surface or similar operations

"DO NOT PASS" SIGN (R4-1) and NO-PASSING ZONES

- Prior to the beginning of construction, all currently striped no-passing zones shall be signed with the DO NOT PASS (R4-1) signs and PASS WITH CARE (R4-2) signs placed at the beginning and end of each zone for each direction of travel except as otherwise provided herein. Signs marking these individual no-passing zones need not be covered prior to construction if the signs supplement the existing pavement markings.
- At the discretion of the Engineer, in areas of numerous no-passing zones, several zones may be combined as a single zone. If passing is to be prohibited over one or more lengthy sections, a DO NOT PASS sign and a NEXT XX MILES (R20-1TP) plaque may be used at the beginning of such zones. The DO NOT PASS sign and the NEXT XX MILES plaque should be repeated every mile to the end of the no-passing zone. In areas where there is considerable distance between no-passing zones, the end of the no-passing zone may be signed with a PASS WITH CARE sign and a NEXT XX MILES plaque.
- Depending on traffic volumes and length of sections, it may be desirable to prohibit passing throughout the project to prevent damage to windshield and lights. The DO NOT PASS sign and NEXT XX MILES plaque should be used and repeated as often as necessary for this purpose. Where several existing zones are to be combined into one individual no-passing zone, the sign at the beginning of the zone should be covered until the surfacing operation has passed this location so as not to have the DO NOT PASS sign conflict with the existing pavement markings. Also, unless one day operation completes the entire length of such combined zones, appropriate DO NOT PASS and PASS WITH CARE signs should be placed at the beginning and end of the no-passing zones where the surfacing operation has stopped for the day.
- R4-1 and R4-2 are to remain in place until standard pavement markings are installed.

"NO CENTER LINE" SIGN (CW8-12)

- Center line markings are yellow pavement markings that delineate the separation of travel lanes that have opposite directions of travel on a roadway. Divided highways do not typically have center line markings.
- At the time construction activity obliterates the existing center line markings (low volume roads may not have an existing centerline), a NO CENTER LINE (CW8-12) sign should be erected at the beginning of the work area, at approximately 2 mile intervals within the work area, beyond major intersections and other locations deemed necessary by the Engineer.
- The NO CENTER LINE signs are to remain in place until standard pavement markings are installed.

"LOOSE GRAVEL" SIGN (CW8-7)

- When construction begins, a LOOSE GRAVEL (CW8-7) sign should be erected at each end of the work area and repeated at intervals of approximately 2 miles in rural areas and closer in urban areas.
- The LOOSE GRAVEL signs are to remain in place until the condition no longer exists.

PAVEMENT MARKINGS

- Temporary markings for surfacing projects shall be Temporary Flexible-reflective Roadway Marker Tabs unless otherwise approved by the Engineer. Tabs are to be installed to provide true alignment for striping crews or as directed by the Engineer. Tabs will be placed at the spacing indicated. Tabs should be applied to the pavement no more than two (2) days before the surfacing is applied. After the surfacing is rolled and swept, the cover over the reflective strip shall be removed.
- Tabs shall not be used to simulate edge lines.
- Tab placement for overlay/inlay operations shall be as shown on the WZ(STPM) standard sheet.

COORDINATION OF SIGN LOCATIONS

- The location of warning signs at the beginning and end of a work area are to be coordinated with other signing typically shown on the Barricade and Construction Standards for project limits to ensure adequate sign spacing.
- Where possible the ROAD WORK AHEAD (CW20-1D), LOOSE GRAVEL (CW8-7), and NO CENTER LINE (CW8-12) signs should be placed in the sequence shown following the OBEY WARNING SIGNS STATE LAW (R20-3T) and the TRAFFIC FINES DOUBLE (R20-5T) sign, and one "X" sign spacing prior to the CONTRACTOR (G20-6T) sign typically located at or near the limits of surfacing. LOOSE GRAVEL and NO CENTER LINE signs will then be repeated as described above.

Posted Speed *	Minimum Sign Spacing "x" Distance
30	120'
35	160'
40	240'
45	320'
50	400'
55	500'
60	600'
65	700'
70	800'
75	900'

* Conventional Roads Only

TYPICAL USAGE				
MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
			✓	✓

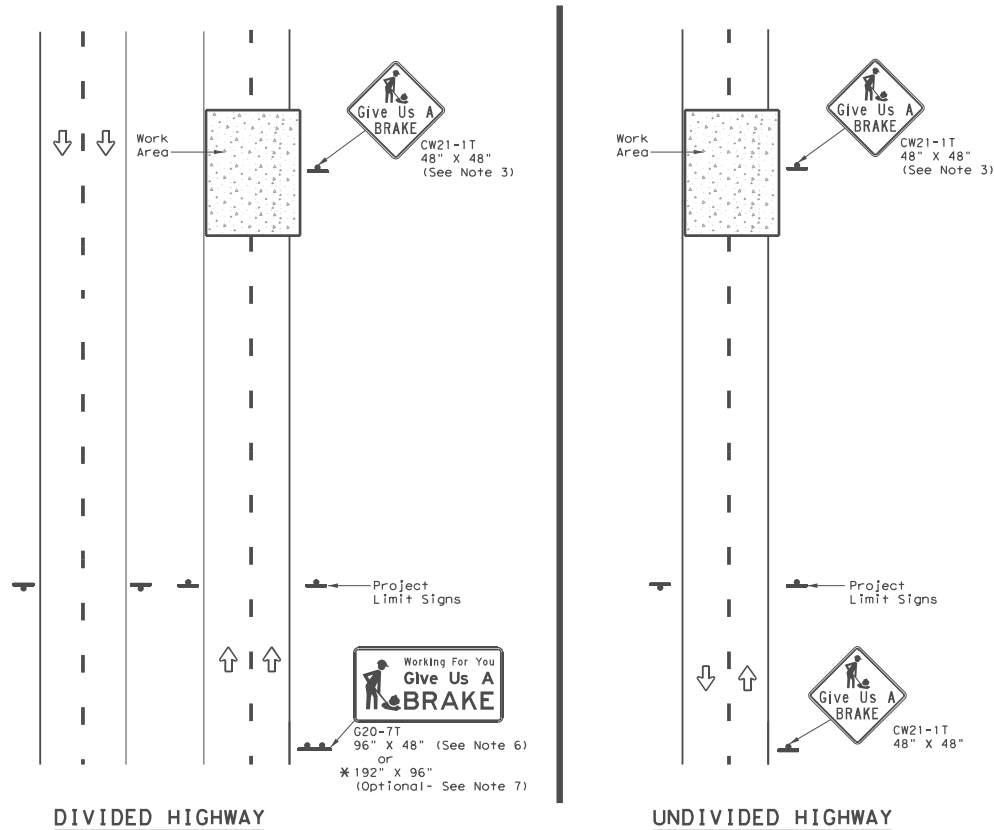
GENERAL NOTES

- The traffic control devices detailed on this sheet will be furnished and erected as directed by the Engineer on sections of roadway where tabs must be placed prior to the surfacing operation which will cover or obliterate the existing pavement markings.
- The devices shown on this sheet are to be used to supplement those required by the BC Standards or others required elsewhere in the plans.
- Signs shall be erected as detailed on the BC Standards or the Compliant Work Zone Traffic Control Devices List (CWZTCD) on supports approved for Long-Term / Intermediate-Term Work Zone Sign Supports.
- When surfacing operations take place on divided highways, freeways or expressways, the size of diamond shaped construction warning signs shall be 48" x 48".
- Signs on divided highways, freeways and expressways will be placed on both right and left sides of the roadway based on roadway conditions as directed by the Engineer.

		Traffic Operations Division Standard	
TRAFFIC CONTROL DETAILS FOR SURFACING OPERATIONS			
TCP (7-1) - 13			
FILE: tcp7-1.dgn	DW: TxDOT	CHK: TxDOT	DW: TxDOT
© TxDOT March 1991	CONT: 3210	SECT: 01	JOB: FM2770
4-92 4-98 REVISIONS	DIST: AUS	COUNTY: HAYS	SHEET NO. 26
1-97 7-13	[210]		

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SIGNS ARE SHOWN FOR ONE DIRECTION OF TRAVEL

* When the optional larger WORKING FOR YOU GIVE US A BRAKE (G20-7T) 192" x 96" sign is required, the locations shall be noted elsewhere in the plans.

SUMMARY OF LARGE SIGNS

BACKGROUND COLOR	SIGN DESIGNATION	SIGN	SIGN DIMENSIONS	REFLECTIVE SHEETING	SQ FT	GALVANIZED STRUCTURAL STEEL		DRILLED SHAFT
						Size	(LF)	
Orange	G20-7T		96" X 48"	Type B _{FL} or C _{FL}	32	▲	① ▲ ②	24" DIA. (LF)
Orange	G20-7T		192" X 96"	Type B _{FL} or C _{FL}	128	W8x18	16 17	12

▲ See Note 6 Below

LEGEND

	Sign
	Large Sign
	Traffic Flow

DEPARTMENTAL MATERIAL SPECIFICATIONS

PLYWOOD SIGN BLANKS	DMS-7100
ALUMINUM SIGN BLANKS	DMS-7110
SIGN FACE MATERIALS	DMS-8300

COLOR	USAGE	SHEETING MATERIAL
ORANGE	BACKGROUND	TYPE B _{FL} OR TYPE C _{FL}
BLACK	LEGEND & BORDERS	NON-REFLECTIVE ACRYLIC FILM

GENERAL NOTES

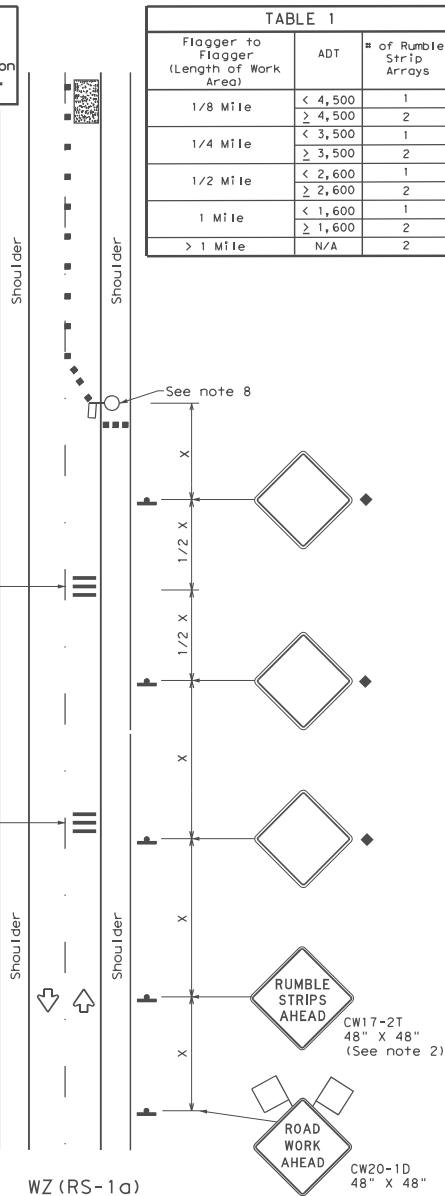
- See BC and SMD sheets for additional sign support details.
- Sign locations shall be approved by the Engineer.
- For projects more than two miles in length, Give Us a BRAKE signs should be repeated halfway through the project. The Give Us a BRAKE (CW21-1T) may be used for this purpose.
- Work zone speed limits are sometimes used in conjunction with GIVE US A BRAKE signing. See BC(3) for location and spacing of construction speed zone signing when required.
- Give Us a Brake (CW21-1T) signs and supports shall be considered subsidiary to Item 502, "Barricades, Signs and Traffic Handling."
- The 96" X 48" Working For You Give Us A BRAKE (G20-7T) may use a 1/2" or 5/8" plywood substrate or 0.125" aluminum sheeting substrate and may be supported by two 4" x 6" wood posts with drilled holes for breakaway as per BC(5) and will be subsidiary to Item 502.
- The Working For You Give Us A BRAKE (G20-7T) 192" X 96" sign shall be paid for under the following specification items:
 - Item 636 - Aluminum Signs
 - Item 647 - Large Roadside Sign Supports and Assemblies.
 - Item 416 - Drilled Shaft Foundations
- All signs shall be constructed in accordance with the details found in the "Standard Highway Sign Designs for Texas," latest edition. Sign details not shown in this manual shall be shown in the plans or the Engineer shall provide a detail to the Contractor before the sign is manufactured.

		Traffic Operations Division Standard	
WORK ZONE "GIVE US A BRAKE" SIGNS			
WZ (BRK) - 13			
FILE: w2brk-13.dgn	DW: TxDOT	CHK: TxDOT	DR: TxDOT
© TxDOT August 1995	CONT	SECT	JOB
REVISIONS		3210 01	018 FM2770
6-96 5-98 7-13	DIST	COUNTY	SHEET NO.
8-96 3-03	AUS	HAYS	27

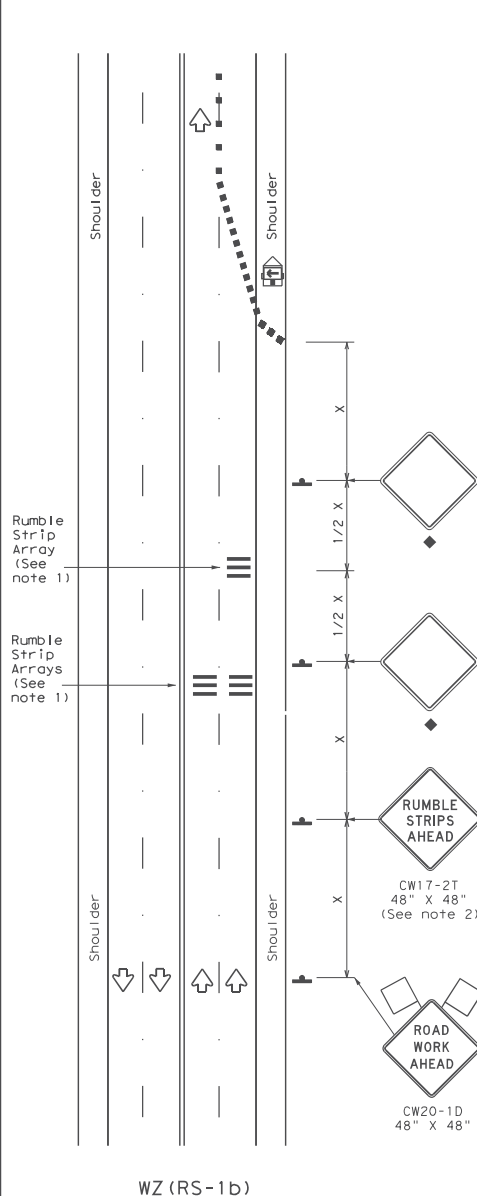
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FILE: K:\016225-000\Gd\Plan\STND\WZRS22.dgn

Warning sign and rumble strip sequence in opposite direction is same as below.



RUMBLE STRIPS ON ONE-LANE TWO-WAY APPLICATION



RUMBLE STRIPS FOR LANE CLOSURE ON CONVENTIONAL ROADWAY

GENERAL NOTES

- Each Rumble Strip Array should consist of three rumble strips spaced center to center at the spacing shown in Table 2, placed transverse across the lane at locations shown.
- The CW17-2T "RUMBLE STRIPS AHEAD" sign should be located after the CW20-1D "ROAD WORK AHEAD" sign and spaced as shown. If traffic is observed to be queuing, or is expected to queue beyond the Rumble Strips, the CW17-2T sign and the first Rumble Strip Array may be located upstream of the CW20-1D sign as necessary to provide needed warning.
- Temporary Rumble Strips will be considered subsidiary to Item 502, and shall be a product listed on the Compliant Work Zone Traffic Control Devices.
- Remove Temporary Rumble Strips before removing the advanced warning signs.
- Temporary Rumble Strips should not be used on horizontal curves, loose gravel, soft or bleeding asphalt, heavily rutted pavements or unpaved surfaces.
- Temporary Rumble Strips shall be installed and maintained as per manufacturer's recommendations.
- This standard sheet shall be used in conjunction with other appropriate TCP standard, TMUTCD typical application or project specific detail for the project.
- The one-lane two-way application may utilize a flagger, an Automated Flagger Assistance Device (AFAD) or a Portable Traffic Signal (PTS).
- Replace defective Temporary Rumble Strips as directed by the Engineer.
- Temporary Rumble Strips may be used on freeways or expressways based on engineering judgment and written direction from the Engineer.

TABLE 2	
Speed	Approximate distance between strips in an array
≤ 40 MPH	10'
> 40 MPH & ≤ 55 MPH	15'
= 60 MPH	20'
≥ 65 MPH	* 35' +

LEGEND

	Type 3 Barricade		Channelizing Devices
	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)
	Trailer Mounted Flashing Arrow Panel		Portable Changeable Message Sign (PCMS)
	Sign		Traffic Flow
	Flag		Flagger

Posted Speed *	Formula	Minimum Desirable Taper Lengths			Suggested Maximum Spacing of Channelizing Devices		Minimum Sign Spacing "x"	Suggested Longitudinal Buffer Space "b"
		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent	"x" Distance	
		%	%	%	%	%		
30	L = WS ² 60	150'	165'	180'	30'	60'	120'	90'
35		205'	225'	245'	35'	70'	160'	120'
40		265'	295'	320'	40'	80'	240'	155'
45		450'	495'	540'	45'	90'	320'	195'
50	L = WS	500'	550'	600'	50'	100'	400'	240'
55		550'	605'	660'	55'	110'	500'	295'
60		600'	660'	720'	60'	120'	600'	350'
65		650'	715'	780'	65'	130'	700'	410'
70		700'	770'	840'	70'	140'	800'	475'
75		750'	825'	900'	75'	150'	900'	540'

* Conventional Roads Only

** Taper lengths have been rounded off.
L=Length of Taper (FT) W=Width of Offset (FT)
S=Posted Speed (MPH)

TYPICAL USAGE

MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
	✓	✓		

◆ Signs are for illustrative purposes only. Signs required may vary depending on the TCP, TMUTCD Typical Application, or project specific details for the project.

* For posted speeds in excess of 65 MPH, it is recommended that spacing is increased as speed limits increase. Increasing space between rumble strips will improve effectiveness.

TEMPORARY RUMBLE STRIPS

WZ (RS) - 22

FILE: WZRS22.dgn	DATE: TxDOT	CHK: TxDOT	DATE: TxDOT	CHK: TxDOT
© TxDOT November 2012	CONT	SECT	JOB	HIGHWAY
REVISIONS	3210	01	018	FM2770
2-14 4-16	1-22	DIST	COUNTY	SHEET NO.
		AUS	HAYS	28

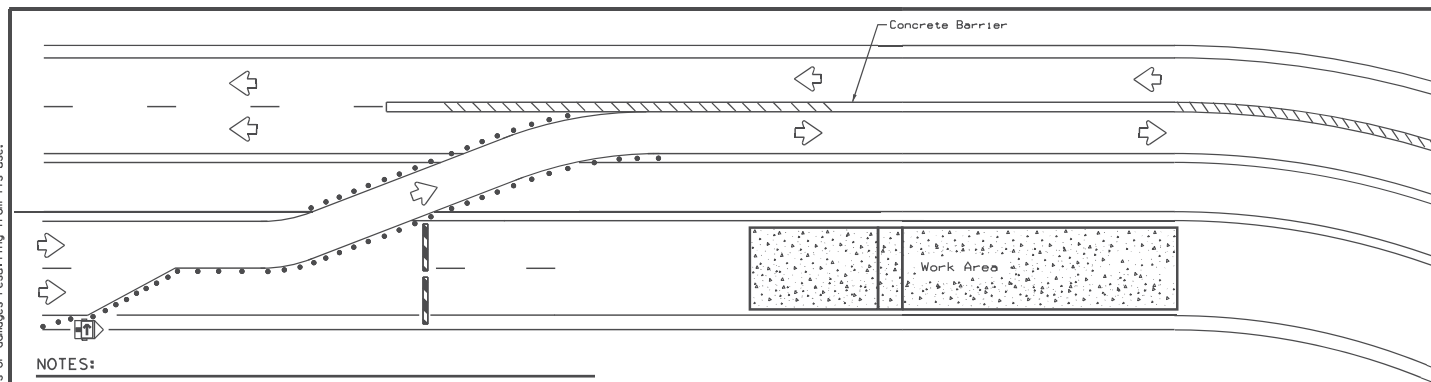
1117

DATE: 6/29/2022 10:56:25 AM
FILE: K:\016225-000\Cad\Plan\STND\New Standards\TCP\wzstom-13.dan

FILE#	wzstpm-13.dgn	DW#	TxDOT	CK#	TxDOT	DW#	TxDOT	CK#	TxDOT
© TxDOT	April 1992	CONT	SECT	JOB		HIGHWAY			
REVISIONS		3210	01	018		FM2770			
1-97		DIST	COUNTY			SHEET NO.			
3-03		AUS		HAYS			29		
7-13									

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DATE: 6/29/2022 10:56:26 AM
FILE: K:\016225-000\Gd\Plan\STDWZTD-17.dgn



NOTES:

1. Length of Safety Glare screen will be specified elsewhere in the plans.
2. The cumulative nominal length of the modular safety glare screen units shall equal the length of the individual sections of temporary concrete traffic barrier on which they are installed so the joint between barrier sections will not be spanned by any one safety glare screen unit.
3. Screen Panel/blades will be designed such that reflective sheeting conforming with Departmental Material Specification DMS-8300, Sign Face Materials, Type B or C Yellow, minimum size of 2 inches by 12 inches can be attached to the edge of the panel/blade. The sheeting shall be attached to one glare screen panel/blade per section of concrete barrier not to exceed a spacing of 30 feet. Barrier reflectors are not necessary when panel/blades are installed with reflective sheeting as described.
4. Payment for these devices will be under statewide Special Specification "Modular Glare Screens for Headlight Barrier."
5. This detail is only intended to show types of locations where Glare Screens would be appropriate. Required signing and other devices shall be as shown elsewhere in the plans.

BARRIER DELINEATION WITH MODULAR GLARE SCREENS

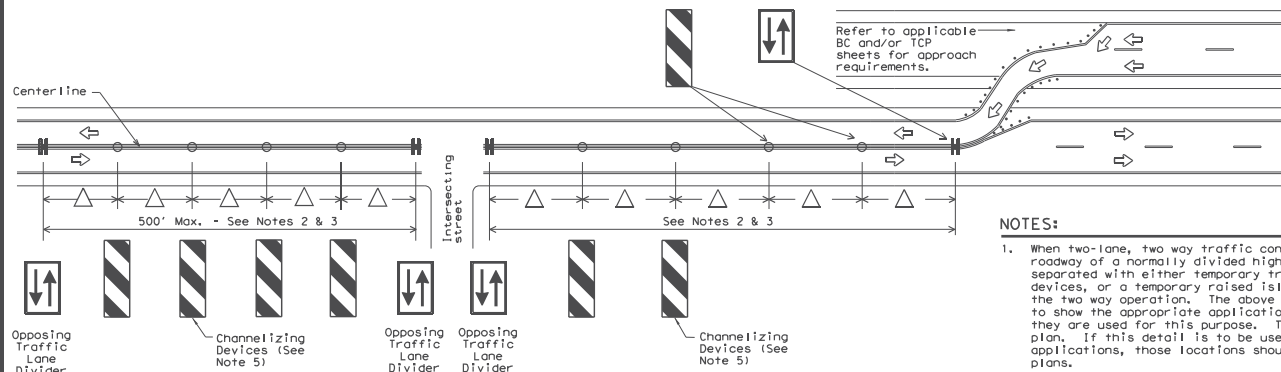
LEGEND	
	Type 3 Barricade
	Channelizing Devices
	Trailer Mounted Flashing Arrow Board
	Sign
	Safety glare screen

DEPARTMENTAL MATERIAL SPECIFICATIONS

SIGN FACE MATERIALS	DMS-8300
DELINEATORS AND OBJECT MARKERS	DMS-8600
MODULAR GLARE SCREENS FOR HEADLIGHT BARRIER	DMS-8610

Only pre-qualified products shall be used. A copy of the Compliant Work Zone Traffic Control Devices List" CWZTCD) describes pre-qualified products and their sources and may be found at the following web address:


<http://www.txdot.gov/business/resources/producer-list.html>



NOTES:

1. When two-lane, two way traffic control must be maintained on one roadway of a normally divided highway, opposing traffic shall be separated with either temporary traffic barriers, channelizing devices, or a temporary raised island throughout the length of the two way operation. The above typical Application is intended to show the appropriate application of channelizing devices when they are used for this purpose. This is not a traffic control plan. If this detail is to be used for other types of roads or applications, those locations should be stated elsewhere in the plans.
2. Space devices according to the Tangent Spacing shown on the Device Spacing table on BC(9) but not exceeding 100'.
3. Every fifth device should be an OTLD except when spaced closer to accommodate an intersection. An OTLD should be the first device on each side of intersecting streets or roads.
4. Locations where surface mount bases with adhesives or self-righting devices will be required in order to maintain them in their proper position should be noted elsewhere in the plans.
5. Channelizing devices are to be vertical panels, 42" cones or tubular markers that are at least 36" tall. Tubular markers used to separate traffic should have a rubber base weighing at least 30 pounds. Tubular markers that are 42" tall or more shall have four bands of reflective material as detailed for 42" cones on BC(10). Tubular markers less than 42" but at least 36" tall shall have three bands of 3" wide white reflective material spaced 2' apart. Reflective material shall meet DMS-8300, Type A.

VERTICAL PANELS & OPPOSING TRAFFIC LANE DIVIDERS (OTLD) SEPARATING TWO-WAY TRAFFIC ON NORMALLY DIVIDED HIGHWAYS




Texas Department of Transportation

*Traffic
Operations
Division
Standard*

TRAFFIC CONTROL PLAN

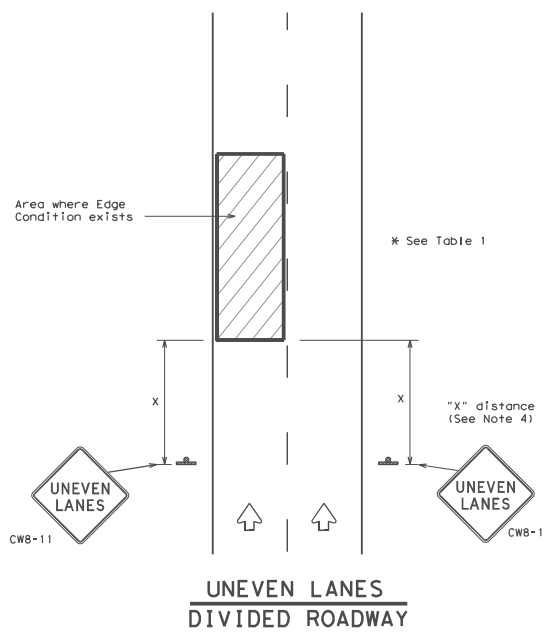
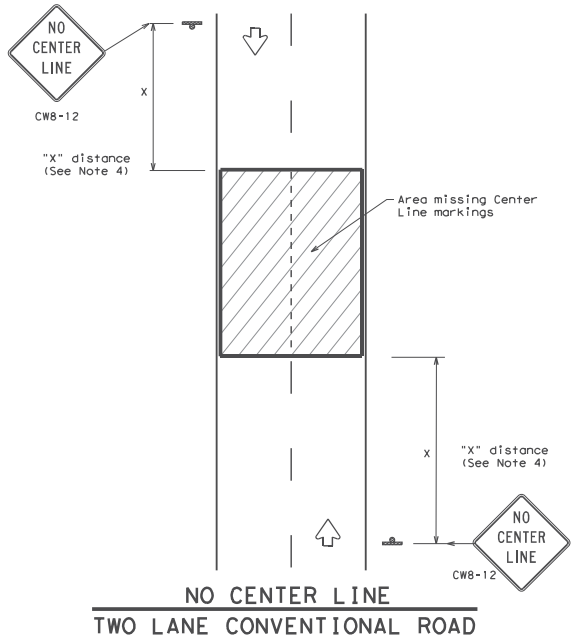
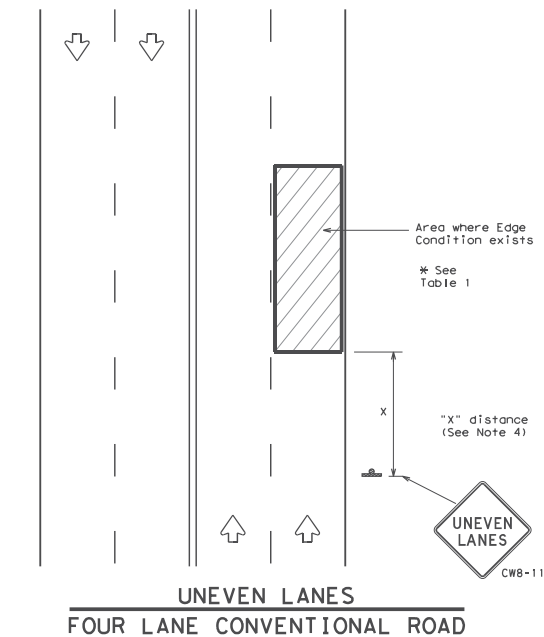
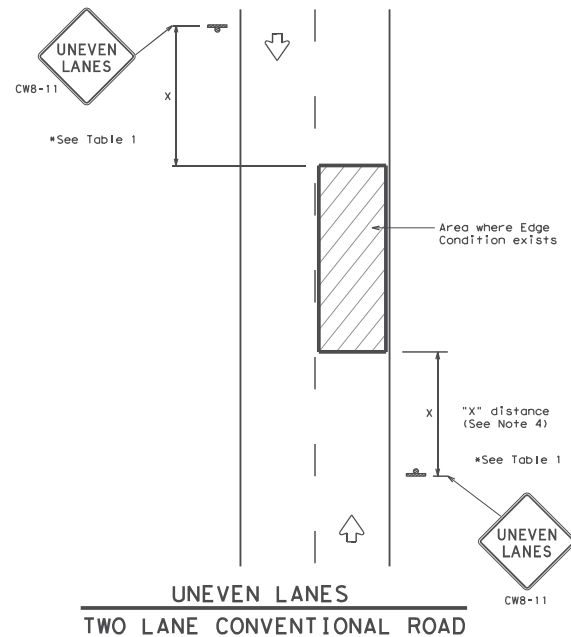
TYPICAL DETAILS

WZ (TD) - 17

FILES: WZTD-17.dgn	DW: TxDOT	CHK: TxDOT	DW: TxDOT	CHK: TxDOT
 TxDOT February 1998	CONT	SECT	JOB	HIGHWAY
REVISIONS 4-98 2-17 3-03 7-13	3210	01	018	FM2770
	DIST	COUNTY	SHEET NO.	
	AUS	HAYS	30	

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DATE: 6/29/2022 10:56:27 AM
FILE: K:\016225-000\G00\Plan\STND\New Standard\G01\CP\WZUL-13.dgn



DEPARTMENTAL MATERIAL SPECIFICATIONS

PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240
TEMPORARY (REMOVABLE) PREFABRICATED PAVEMENT MARKINGS	DMS-8241
SIGN FACE MATERIALS	DMS-8300

COLOR	USAGE	SHEETING MATERIAL
ORANGE	BACKGROUND	TYPE B _{FL} OR TYPE C _{FL} SHEETING
BLACK	LEGEND & BORDERS	ACRYLIC NON-REFLECTIVE SHEETING

GENERAL NOTES

- If spalling or holes occur, ROUGH ROAD (CW8-8) signs should be placed in advance of the condition and be repeated every two miles where the condition persists.
- UNEVEN LANES (CW8-11) signs shall be installed in advance of the condition and repeated every mile. Signs installed along the uneven lane condition may be supplemented with the NEXT XX MILES (CW7-3aP) plaque or Advisory Speed (CW13-1P) plaque.
- NO CENTER LINE (CW8-12) signs and temporary pavement markings as per the WZ(STPM) standard shall be installed if yellow centerlines separating two way traffic are obscured or obliterated. Repeat NO CENTER LINE signs every two miles where the center line markings are not in place. The signs and markings shall remain in place until permanent pavement markings are installed.
- Signs shall be spaced at the distances recommended as per BC standards.
- Additional signs may be required as directed by the Engineer. Signs shall remain in place until final surface is applied. Signs shall be considered subsidiary to Item 502 "BARRICADES, SIGNS AND TRAFFIC HANDLING."
- Signs shall be fabricated and mounted on supports as shown on the BC standards and/or listed on the "Compliant Work Zone Traffic Control Devices" list.
- Short term markings shall not be used to simulate edge lines.
- All signs shall be constructed in accordance with the details found in the "Standard Highway Sign Designs for Texas," latest edition.

TABLE 1

Edge Condition	Edge Height (D)	* Warning Devices
①	Less than or equal to: 1 1/4" (maximum-planing) 1 1/2" (typical-overlay)	Sign: CW8-11
②	Distance "D" may be a maximum of 1 1/4" for planing operations and 2" for overlay operations if uneven lanes with edge condition 1 are open to traffic after work operations cease.	
③	Less than or equal to 3"	Sign: CW8-11
	Distance "D" may be a maximum of 3" if uneven lanes with edge condition 2 or 3 are open to traffic after work operations cease. Uneven lanes should not be open to traffic when "D" is greater than 3".	

TRAFFIC CONTROL DURING PLANING,
OVERLAY AND LEVELING OPERATIONS
ARE SHOWN ELSEWHERE IN THE PLANS.

MINIMUM WARNING SIGN SIZE

Conventional roads	36" x 36"
Freeways/expressways, divided roadways	48" x 48"

Texas Department of Transportation

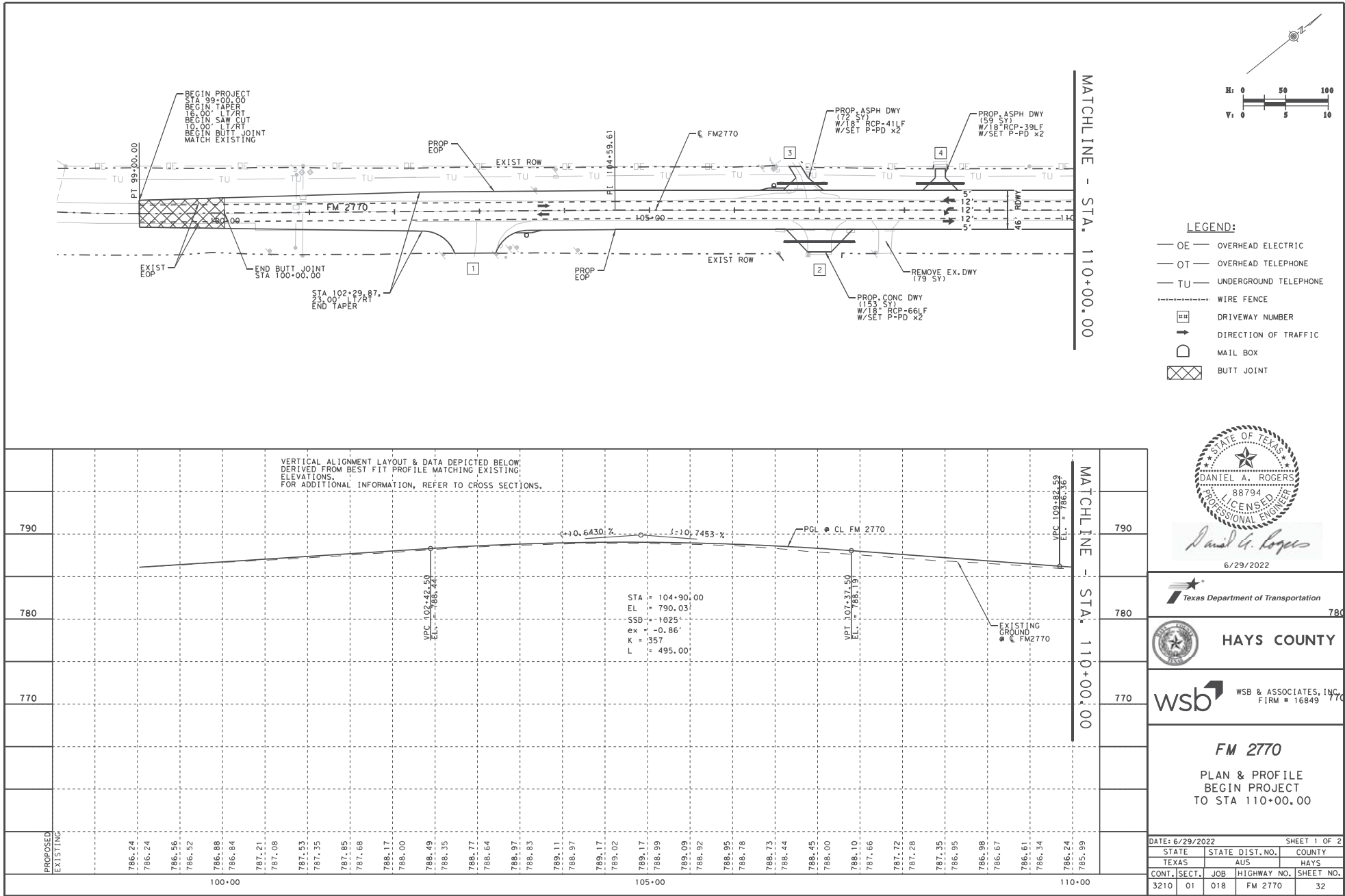
Traffic
Operations
Division
Standard

SIGNING FOR UNEVEN LANES

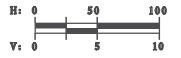
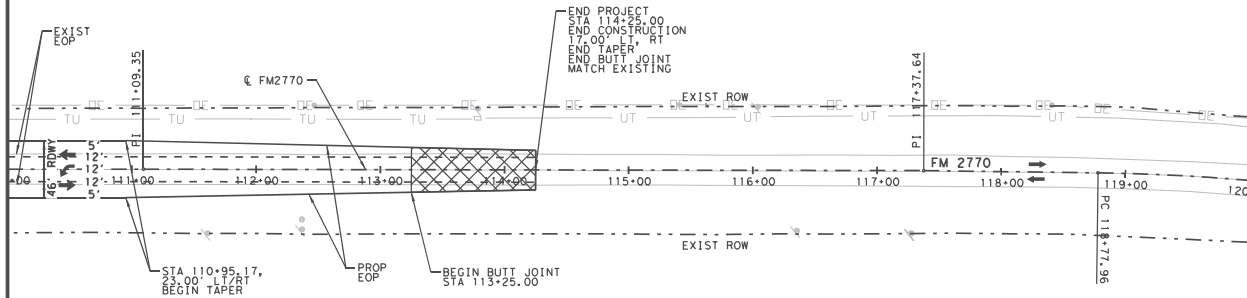
WZ (UL) - 13

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© TxDOT	Apr 11 1992	CONT	SECT	JOB	HIGHWAY				
REVISIONS		3210	01	018	FM2770				
8-95	2-98	7-13							
1-97	3-03								
AUS			COUNTY	HAYS	SHEET NO.				
					31				

112



MATCHLINE - STA. 110+00.00



LEGEND:

- OE — OVERHEAD ELECTRIC
- OT — OVERHEAD TELEPHONE
- TU — UNDERGROUND TELEPHONE
- WIRE FENCE
- [] DRIVEWAY NUMBER
- ➔ DIRECTION OF TRAFFIC
- [] MAIL BOX
- [X] BUTT JOINT



Daniel A. Rogers
6/29/2022



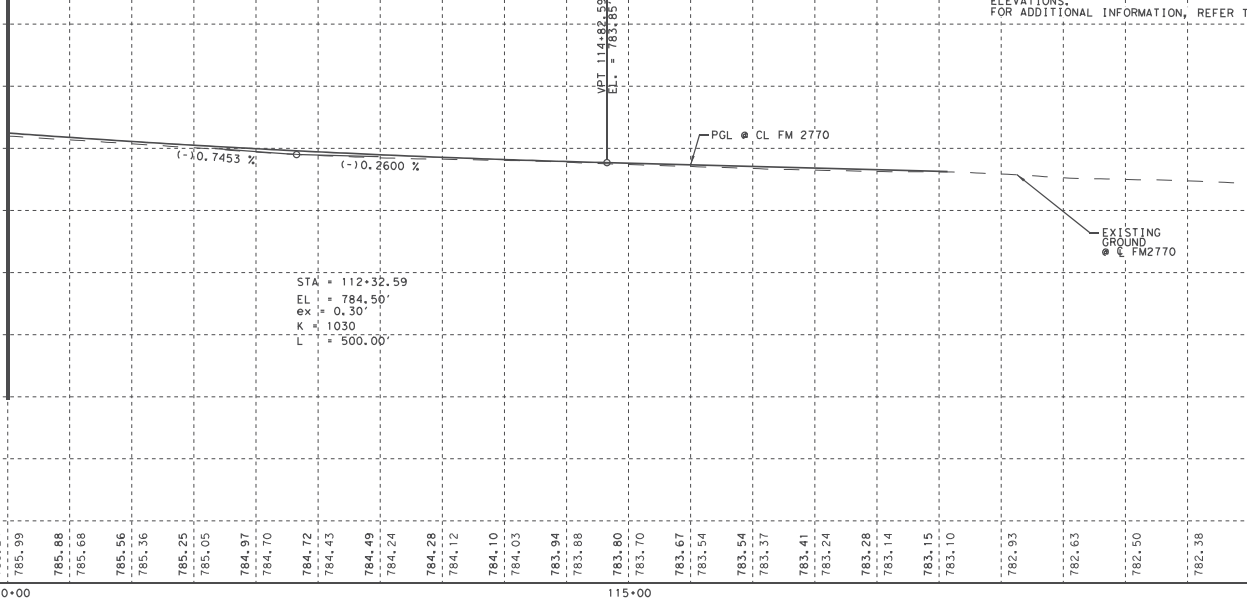
wsb WSB & ASSOCIATES, INC.
FIRM # 16849

FM 2770

PLAN & PROFILE
STA 110+00.00 TO
END PROJECT

VERTICAL ALIGNMENT LAYOUT & DATA DEPICTED BELOW
DERIVED FROM BEST FIT PROFILE MATCHING EXISTING
ELEVATIONS.
FOR ADDITIONAL INFORMATION, REFER TO CROSS SECTIONS.

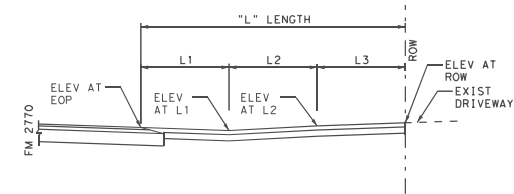
MATCHLINE - STA. 110+00.00



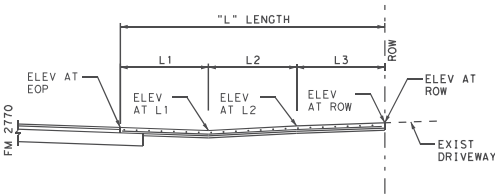
DATE: 6/29/2022				SHEET 2 OF 2	
STATE	STATE	DIST. NO.	COUNTY		
TEXAS	AUS		HAYS		
CONT.	SECT.	JOB	HIGHWAY NO.	SHEET NO.	
3210	01	018	FM 2770	33	

SUMMARY OF DRIVEWAY DETAILS																						
P&P SHEET NO.	DRIVEWAY ID	C. STATION	RT/LT	W (FT)	L (FT)	RDWY GRADE (%)	EOP ELEV (FT)	L1 (FT)	EL1 (FT)	GRADE1 (%)	L2 (FT)	EL2 (FT)	GRADE2 (%)	CONC DWY (SY)	APSH DWY (SY)	CULV	SET ELEV	STA	OS	SET ELEV	STA	CS
1	DWY 1	03+00.00	RT	48.00	26.5	2.66	788.21								SEE NOTE							
	DWY 2	07+00.00	RT	28.00	26.0	2.88	788.07	14.6	788.63	4.2	11.5	787.09	4.7	163		66° 18" RCP	786.17	106+66.85	37.6	786.13	107+33.1	37.5
	DWY 3	07+02.60	LT	14.50	28.5	2.00	788.19	6.3	788.64	7.2	22.4	789.19	-2.5		72	41° 18" RCP	786.15	106+58.73	31.7	785.95	107+05.04	31.74
	DWY 4	08+42.18	LT	12.00	25.5	1.47	786.80	8.5	787.40	7.1	17.3	787.15	-1.5		59	39° 18" RCP	784.90	108+20.32	31.5	784.82	108+63.43	31.5

NOTE: DWY #1 to be constructed using the same pavement structure as FM 2770 widening and is paid for under Roadway items.



TYPICAL ASPHALT DRIVEWAY PROFILE
NOT TO SCALE



TYPICAL CONCRETE DRIVEWAY PROFILE
NOT TO SCALE



Daniel A. Rogers
6/29/2022



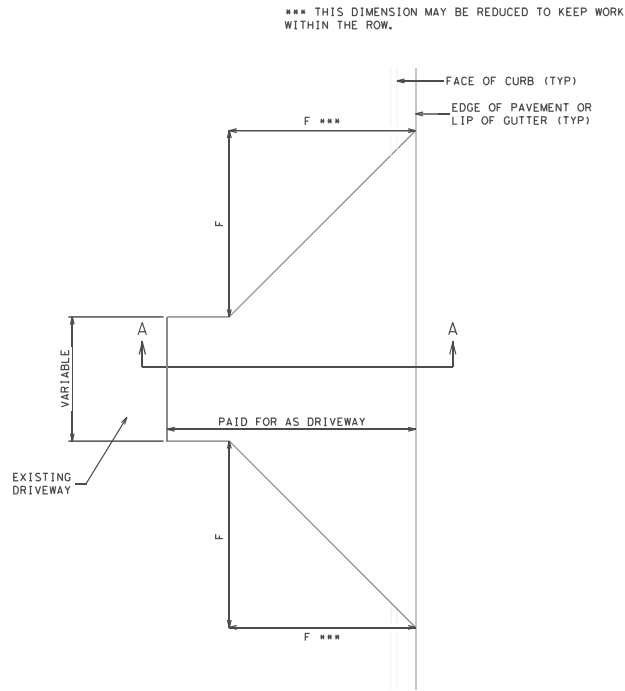
HAYS COUNTY

wsb WSB & ASSOCIATES, INC.
FIRM # 16849

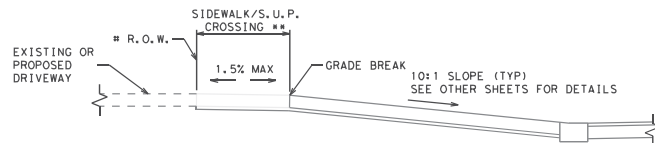
FM 2770
DRIVEWAY DETAILS

DATE: 6/29/2022			SHEET 1 OF 1	
STATE	STATE	DIST. NO.	COUNTY	
TEXAS	AUS		HAYS	
CONT. SECT.	JOB	HIGHWAY NO.	SHEET NO.	
3210	01	018	FM 2770	34

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DRIVEWAY PLAN

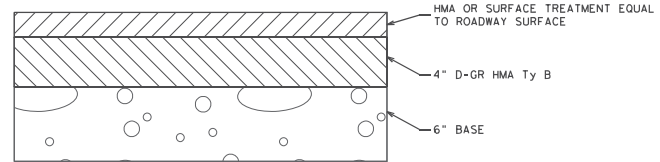


* ACTUAL TIE-IN SHOWN ELSEWHERE IN PLANS OR AS DIRECTED

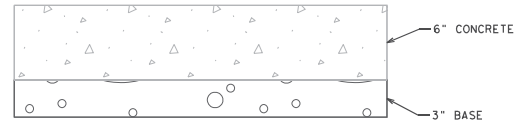
DRIVEWAY WITH GUTTER
SECTION A-A

ENSURE GRADE BREAK DOES NOT EXCEED 8% UNLESS OTHERWISE DIRECTED. PROVIDE ABSOLUTE MINIMUM SIDEWALK CROSSING WIDTH OF 4' FOR DRIVEWAYS WIDTH OF 20' OR LESS

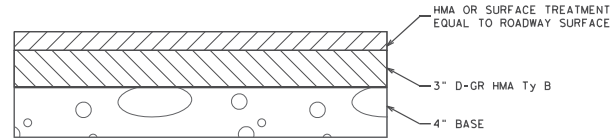
** LOCATE SIDEWALK CROSSING TO ALIGN WITH ADJACENT SIDEWALK; SIDEWALK/S.U.P. WIDTH AND LOCATION SHOWN ELSEWHERE IN PLANS.



HMA OR SURFACE TREATMENT -
COMMERCIAL



CONCRETE -
ALL DRIVEWAY TYPES



HMA OR SURFACE TREATMENT -
FARM/RANCH/RESIDENTIAL

FLARE	FARM/RANCH	RESIDENTIAL	COMMERCIAL
"F" (FT)	25	15	25

GENERAL NOTES

PROVIDE EXPANSION 20 FT C-C FOR WIDTH OR LENGTH OVER 25 FT. EXPANSION JOINT PER AUS STANDARD FOR SIDEWALK (MCPSWMD).

REINFORCEMENT WILL BE IN ACCORDANCE WITH ITEM 432.3.1 USING NO. 3 OR NO. 4 BARS.

FIBER REINFORCEMENT IS NOT ALLOWED. CLASS A CONCRETE IS ALLOWED TO USE COARSE AGGREGATE GRADES 1-8.

IN LIEU OF PFC OR TOM, SURFACE SHALL BE 1.5" D-GR HMA Ty D. IF SURFACE IS A MULTIPLE COURSE SURFACE TREATMENT, ALL COURSES MUST BE PLACED ON DRIVEWAY.

BLADE LAY HMA IS ALLOWED.

FURNISH BASE MEETING THE REQUIREMENTS FOR ANY TYPE OR GRADE IN ACCORDANCE WITH ITEM 247. BASE COMPRESSIVE STRENGTHS ARE WAIVED.

THE BASE UNDER THE CONCRETE MAY BE REPLACED WITH CONCRETE AT A RATIO OF 3 INCHES OF BASE EQUALS 2 INCHES OF CONCRETE.

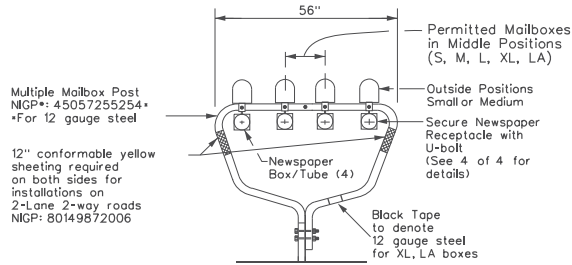
IF ROOTS ARE ENCOUNTERED VERIFY WITH THE ENGINEER PRIOR TO ACCOMMODATING OR REMOVING 2 IN. DIAMETER OR LARGER ROOTS. ROOT REMOVAL MUST BE IN ACCORDANCE WITH ITEM 752.4.2. ROOTS MAY REMAIN IN THE BASE. FOR IMPROVEMENTS WITHIN 6 IN. OF A ROOT, THE CONCRETE THICKNESS MAY BE REDUCED BY 1 IN. AND THE BASE INCREASED BY 1 IN. TO MINIMIZE IMPACTS TO THE ROOTS. ADJUST BASE AND SURFACE PROFILE TO PROVIDE A 1 IN. BASE CUSHION AROUND THE ROOTS. THE SURFACE PROFILE MAY BE ADJUSTED TO THE EXTENT ALLOWED BY ADA. THIS WORK IS SUBSIDIARY.

		Austin District Standard	
DRIVEWAYS			
DW-20 (AUS)			
NOT TO SCALE			
© 1x0018 YEARS			
REVISIONS			
01/18	SHEET CREATED	3210	01
04/18	APPROVED	018	FM2770
11/20	TABLE REVISED, OR ADDED, PLAN & PROFILE MODIFIED	DIST	COUNTY
AUS	HAYS		SHEET NO. 35

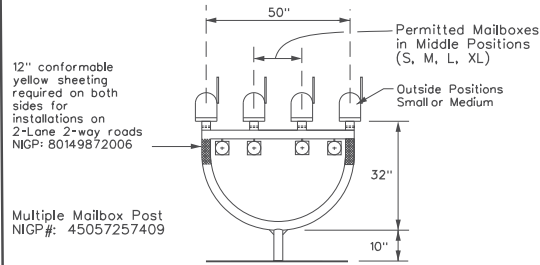
DISC 44675
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DATE: 6/29/2022 10:56:48 AM
FILE: K:\01625-000\CD\VP\m15\IND.mbx-21(1).dgn

TYPE 1 - MULTIPLE



TYPE 4 - MULTIPLE



MAILBOX SIZES

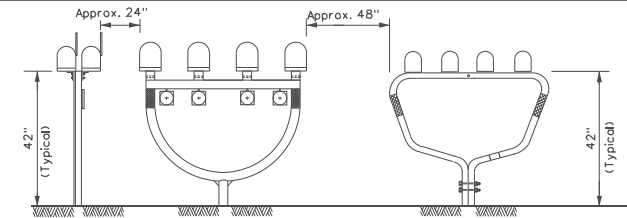
MAILBOX SIZE	TYPICAL DIMENSIONS			MAX **
	LENGTH	WIDTH	HEIGHT	WEIGHT
SMALL	19 1/2"	6"	7"	6 LBS
MEDIUM	22 1/2"	8"	11 1/2"	8 LBS
LARGE	23 1/2"	11 1/2"	13 1/2"	11 LBS
EXTRA LARGE	18"	14"	12"	13 LBS
LOCKABLE	18"	11 1/2"	15"	23 LBS

* See Note 1.
** Excluding Molded Plastic on 4 X 4 Post

GENERAL NOTES:

- Dimensions shown (length, width, and height) are typical, not maximums. However, anytime a medium size mailbox is mounted on a single/double mount or on the outside position on a multi-mount, the dimensions shown are maximums.
- Mailboxes shall be made of light weight sheet metal or light weight plastic. Heavy steel, cast iron or decorative mailboxes shall not be used on the state highway system.

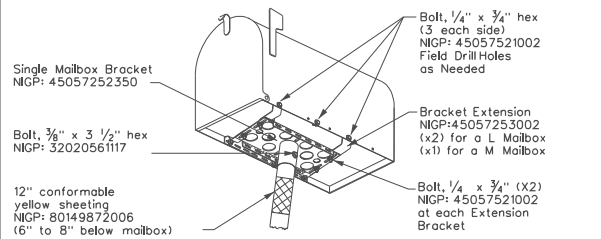
TYPICAL INSTALLATION MEASUREMENTS



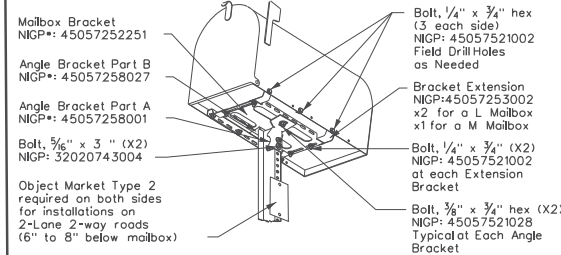
NOTE:

Mailbox installations in sidewalk areas shall be in accordance with the latest TxDOT Design Standard sheets PED-Pedestrian Facilities Curb Ramps.

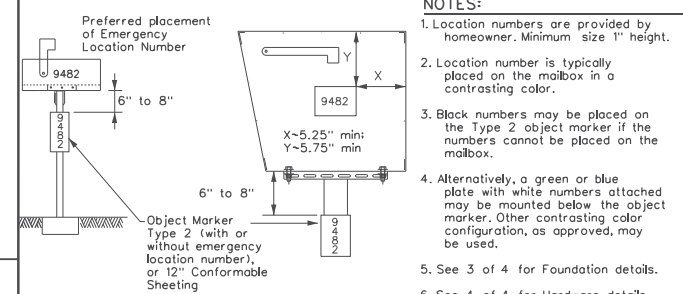
TYPE 2 and 4 - SINGLE/DOUBLE



TYPE 3 - SINGLE/DOUBLE



PLACEMENT OF EMERGENCY LOCATION NUMBER

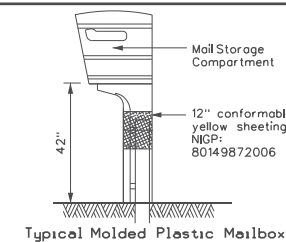


NOTES:

- Location numbers are provided by homeowner. Minimum size 1" height.
- Location number is typically placed on the mailbox in a contrasting color.
- Black numbers may be placed on the Type 2 object marker if the numbers cannot be placed on the mailbox.
- Alternatively, a green or blue plate with white numbers attached may be mounted below the object marker. Other contrasting color configuration, as approved, may be used.
- See 3 of 4 for Foundation details.
- See 4 of 4 for Hardware details.

SHEET 1 OF 4

TYPE 5



Maintenance Division Standard

MAILBOX MOUNTING AND ASSEMBLY

MB(1)-21

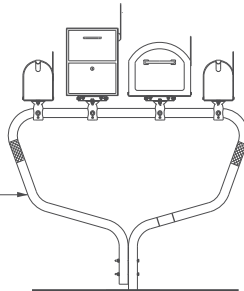
FILE: MB-21.dgn	ON: TxDOT	CH: TxDOT	OW: TxDOT	CH: TxDOT
© TxDOT March 2004	CONT	SECT	JOB	HIGHWAY
2/2005	3210	01	018	FM2770
6/2005	1/2011	4/2015	DIST	COUNTY
10/2006	7/2014		AUS	HAYS
				SHEET NO.
				36

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FILE: K:\016225-000\Txd\Plan\STD\mb-21(1).dgn

TYPE 1 - MULTI LOCKABLE AND XL MAILBOX

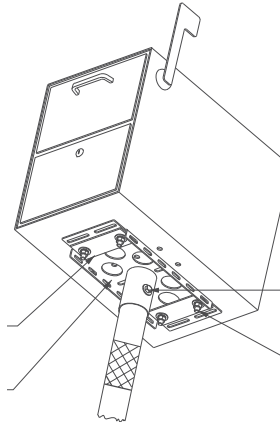
Multiple Mailbox Post
NIGP: 45057255254
For 12 gauge steel



TYPE 2/4 - SINGLE LOCKABLE MAILBOX

Plate Washer (X2)
NIGP: 45057250255

Single Mailbox
Bracket
NIGP: 45057252350



Bolt, $\frac{3}{8}$ " x $3\frac{1}{2}$ "
hex (X2)
NIGP: 32020561117

Bolt, $\frac{5}{16}$ " x $1\frac{1}{4}$ "
hex (X4)
NIGP: 32020681246

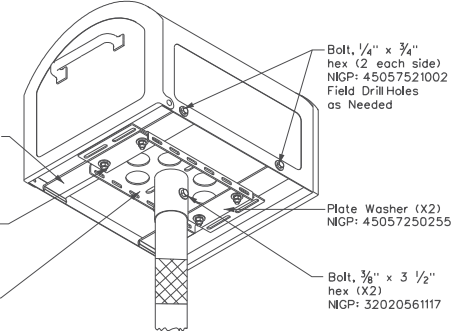
TYPE 2/4 - SINGLE XL MAILBOX

L-bracket (X4)
NIGP: 45057250263

Bolt, $\frac{3}{8}$ " x $3\frac{1}{2}$ "
hex (X2)
NIGP: 32020561117

Bolt, $\frac{3}{8}$ " x $1\frac{1}{2}$ "
hex (X4)
NIGP: 32020560507

Single Mailbox
Bracket
NIGP: 45057252350



NOTE:

Follow same configuration when mounting on
XL mailbox on a Type 4 multipost.

TYPE 1 MULTI - LOCKABLE ARCHITECTURAL (LA)

Bolt, $\frac{3}{8}$ " x $\frac{3}{4}$ "
hex (X6)
NIGP: 45057521028
Typical at Each
Angle Bracket
and plate washer

Mailbox Bracket
NIGP: 45057252251
(Inverted)

Bolt, $\frac{3}{8}$ " x $4\frac{1}{2}$ " hex
NIGP: 32020561133
Drill $\frac{7}{16}$ " hole in Post

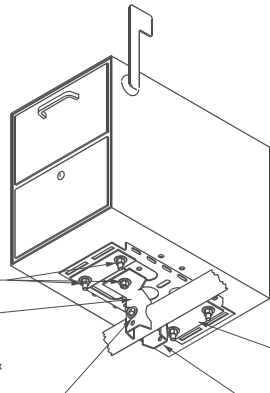


Plate Washer (X2)
NIGP: 45057250255

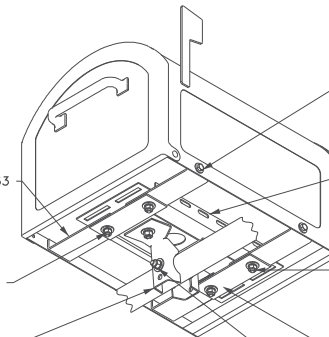
Angle Bracket
Part A (X2)
NIGP: 45057258001

TYPE 1 MULTI - XL MAILBOX

L-bracket (X4)
NIGP: 45057250263

Bolt, $\frac{3}{8}$ " x $\frac{3}{4}$ "
hex (X6)
NIGP: 45057521028
Typical at Each
Angle Bracket
and plate washer

Angle Bracket
Part A (X2)
NIGP: 45057258001



Bolt, $\frac{1}{4}$ " x $\frac{3}{4}$ " hex
(2 each side)
NIGP: 45057521002
Field Drill Holes
as Needed

Mailbox Bracket
NIGP: 45057252251
(Inverted)

Bolt, $\frac{5}{16}$ " x $2\frac{1}{2}$ "
hex (X4)
NIGP: 3202020938
Use existing
hole in mailbox

Plate Washer (x2)
NIGP: 45057250255

Bolt, $\frac{3}{8}$ " x $4\frac{1}{2}$ " hex
NIGP: 32020561133
Drill $\frac{7}{16}$ " hole
in Post

TYPE 3 - XL MAILBOX MOUNTING

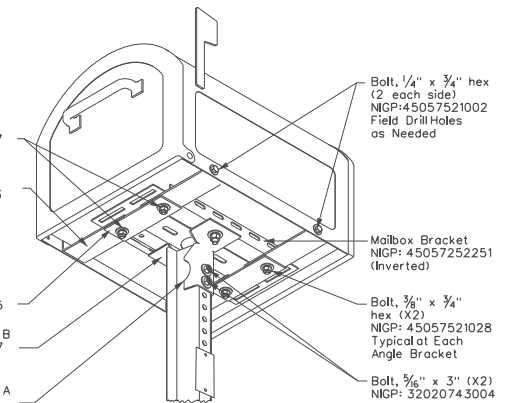
Bolt, $\frac{5}{16}$ " x $1\frac{1}{2}$ "
hex (X4)
NIGP: 32020560507

L-bracket (x4)
NIGP: 45057250263

Plate Washer (X2)
NIGP: 45057250255

Angle Bracket Part B
NIGP: 45057258027

Angle Bracket Part A
NIGP: 45057258001



SHEET 2 OF 4



XL AND LOCKABLE ARCHITECTURAL MAILBOX ASSEMBLY MB(2)-21

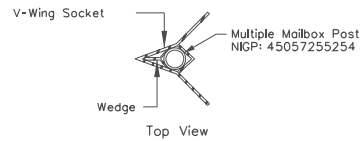
FILE: MB-21.dgn	DATE: TxDOT	DATE: TxDOT	DATE: TxDOT	DATE: TxDOT
© TxDOT March 2004	CONT	SECT	JOB	HIGHWAY
REVISIONS	3210	01	018	FM2770
2/2005 11/2009 4/2015	DIST	COUNTY		SHEET NO.
6/2005 1/2011	AUS	HAYS		37
11/2006 7/2014				

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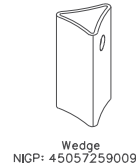
DATE: 6/29/2022 10:56:41 AM
 FILE: K:\016225-000\Cad\Plan\STND\mb-211.dgn

TYPE 1 - SUPPORT/FOUNDATION

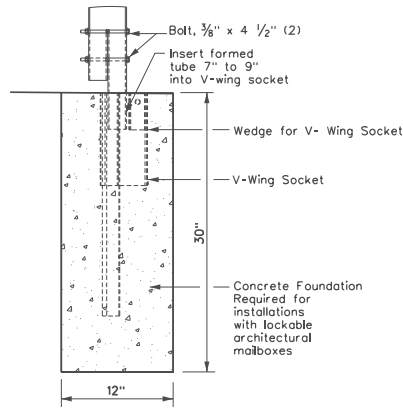
Thin Wall Tube w/ V-LOC Anchorage



Top View



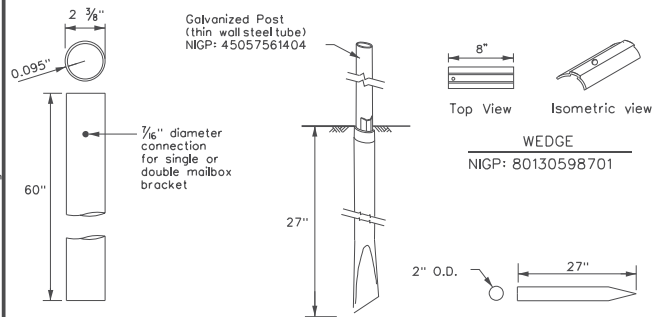
Wedge
NIGP: 45057259009



V-Wing Socket
NIGP: 45057256500

TYPE 2 - SUPPORT/FOUNDATION

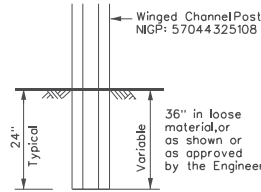
Thin Wall Steel Tube w/Wedge Anchor System



MAILBOX POST

WEDGE ANCHOR
NIGP: 80130238407

TYPE 3 - SUPPORT/FOUNDATION

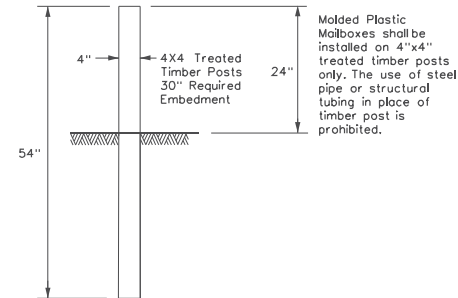


Top View

NOTES:

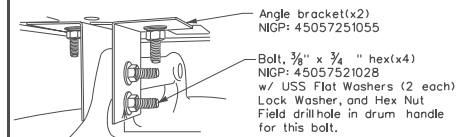
1. Attach Object Marker(OM) facing direction of traffic.
2. OM will also be required on opposite side if installed on a 2-Lane, 2-Way roadway.

TYPE 5 - SUPPORT/FOUNDATION



Molded Plastic Mailboxes shall be installed on 4"x4" treated timber posts only. The use of steel pipe or structural tubing in place of timber post is prohibited.

TYPE 6 - TEMPORARY MAILBOX SUPPORT



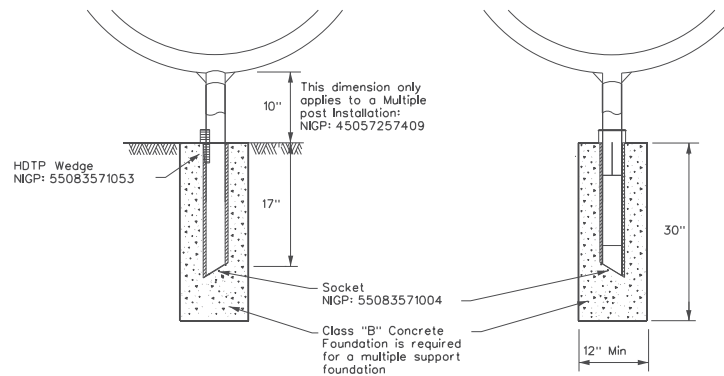
Plastic Drum NIGP: 55093383655
Rubber Collar NIGP: 55093387102

NOTES:

1. Place on approved plastic drum as shown in the Compliant Work Zone Traffic Control Devices (CWZTCD).
2. Existing attachment hardware shall be used unless damaged. Damaged hardware shall be replaced.

TYPE 4 - SUPPORT/FOUNDATION

Whitecoated steel post NIGP: 45057561107
Multiple post NIGP: 45057257409
Recycled Rubber post (RR) NIGP: 45057561057



Socket
NIGP: 55083571004

Class "B" Concrete Foundation is required for a multiple support foundation

GENERAL NOTES:

1. Erect post plumb or vertical.
2. When galvanized part is required galvanize in accordance with Item 445.
3. Use a concrete footing as shown or when directed. Concrete footing will be required when soils do not hold the support/foundations in a stable condition, only on Type 1, Type 2, and Type 4

SHEET 3 OF 4



MAILBOX SUPPORT AND FOUNDATION

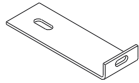
MB(3)-21

FILE: MB-21.dgn	DN:	CK:	DN:	CK:
© TxDOT March 2004	CONT	SECT	JOB	HIGHWAY
2/2005 REVISIONS	3210	01	018	FM2770
6/2005	DIST	COUNTY		SHEET NO.
11/2006	AUS	HAYS		38

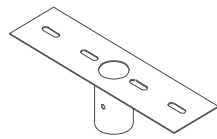
DSC-4469- The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

DATE: 6/29/2022 10:56:41 AM
FILE: K:\016225-000\Cad\Plan\STND\mb-2111.dgn

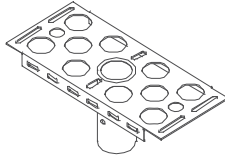
TYPE	TYPE 1	TYPE 2	TYPE 3	TYPE 4	TYPE 5	TYPE 6
Configuration	Multiple	Single or Double	Single or Double	Single	Double	Multiple
Mailbox Size NIGP #	Outside Position: S or M Inside Position: S, M, L, XL, or LA	Single: S, M, L, XL, or LA Double: SS, SM, MM	Single: S, M, L, or XL Double: SS, SM, MM	S, M, L, XL, or LA	SS, SM, or MM	Outside Position: S or M Inside Position: S, M, L, or XL
Mailbox Post NIGP #	45057255254 (Galvanized Multiple)	45057561404 (Thin Walled Gavanize)	57044325108 (Wing Channel Post)	45057561107 (Thin walled white powder coated) 45057561057 (Recycled Rubber Post: S or M only)	45057561107 (Thin Walled White Powder Coated)	45057257409 (White Powder Coated Multiple)
Post and Mailbox Hardware NIGP #	45057259009 (Wedge) 45057256500 (V-Wing Socket) 45057253002 (Bracket Extension) 45057252251 (Mailbox Bracket) 45057258001 (Part A Angle Bracket x2) 45057250255 (Plate Washer for XL/LA x2) 45057250263 (L-Bracket for XL x4)	80130598701 (Wedge) 80130238407 (Wedge Anchor) 45057253002 (Bracket Extension) 45057252343 (Double MB Bracket) 45057252350 (S. Mailbox Bracket) 45057252251 (Mailbox Bracket) 45057250255 (Plate Washer for XL/LA x2) 45057250263 (L-Bracket for XL x4)	45057541653 (Type 3 Double Mailbox Bracket) 45057252251 (Mailbox Bracket) 45057253002 (Bracket Extension) 45057258001 (Part A Angle Bracket) 45057258027 (Part B Angle Bracket) 45057250255 (Plate Washer for XL x2) 45057250263 (L-Bracket for XL x4)	55083571053 (Wedge) 55083571004 (Socket) 45057252350 (Single Mailbox Bracket) 45057253002 (Bracket Extension) 45057250255 (Plate Washer for XL/LA x2) 45057250263 (L-Bracket for XL x4)	55083571053 (Wedge) 55083571004 (Socket) 45057253002 (Bracket Extension) 45057252350 (Single Mount Bracket) 45057250255 (Plate Washer for XL x2) 45057250263 (L-Bracket for XL x4)	4x4 Timber Construction Barrel
Foundation Used	Class B Concrete (Required for LA Mailboxes)	Class B Concrete (Required for LA Mailboxes)	None	Class B Concrete (not used with recycled rubber post, required for LA Mailboxes)	Class B Concrete (not required)	Class B Concrete



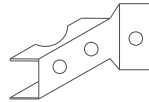
NIGP: 45057250263
L-Bracket x4 for
XL sized mailboxes



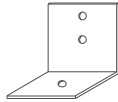
NIGP: 45057252343
Double Mailbox Bracket
For Type 2 and Type 4
double mount



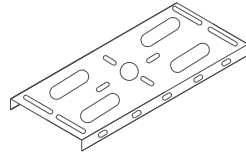
NIGP: 45057252350
Single Mailbox Bracket
For Type 2 single and for
Type 4 single and multi mount



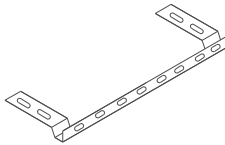
NIGP: 45057258001
Part "A" Angle Bracket
For Type 1 multi (2 per mailbox)
and Type 3 single and double



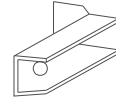
NIGP: 45057251055
Type 6 Angle Bracket
(2 per mailbox)



NIGP: 45057252251
Mailbox Bracket
For Type 1 multi and
any double mount (use 2)



NIGP: 45057253002
Bracket Extension
Use 1 for a medium Mailbox
Use 2 for a Large Mailbox



NIGP: 45057258027
Part "B" Angle Bracket
For Type 3 single
and double



NIGP: 80130598701
Wedge for Type 2



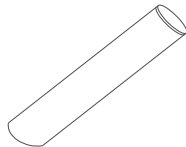
NIGP: 45057250255
Plate Washer for Architectural
and XL Mailboxes



NIGP: 45057541653
Type 3 double mailbox bracket



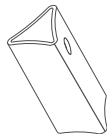
NIGP: 55083571053
Type 4 Mailbox Wedge



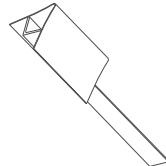
NIGP: 55083571004
Type 4 Mailbox Socket



NIGP: 80130238407
Type 2 Wedge Anchor



NIGP: 45057259009
Wedge for Type 1 V-wing Socket



NIGP: 45057256500
V-wing Socket for
Type 1 Foundation

NIGP #	OBJECT MARKERS AND CONFORMABLE SHEETING
55008311759	Type 2 OM 4"x4" (3 Needed) for Type 3 Wing Channel Post
55008312906	Type 2 OM 6"x12" (1 needed) for Type 3 Wing Channel Post
80149872006	12" Conformable Reflective Yellow Sheeting for Flexible Posts

NOTES:

- Type 2 object marker in accordance with Traffic Engineering Standard Delineators & Object Markers.
- A light weight receptacle for newspaper delivery can be attached to mailbox posts if the receptacle does not touch the mailbox, present a hazard to traffic or delivery of the mail, extend beyond the front of the mailbox, or display advertising, except the publication title.

BID CODES FOR CONTRACTS

MB-(X) ASSM TY (XXX) (X)

Type of Mailbox
S = Single
D = Double
M = Multiple
MP = Molded Plastic

Type of Post
WC = Winged Channel Post
RR = Recycled Rubber
TWW = Thin Walled White Tubing
TWG = Thin Walled Galvanized Tubing
TIM = Timber

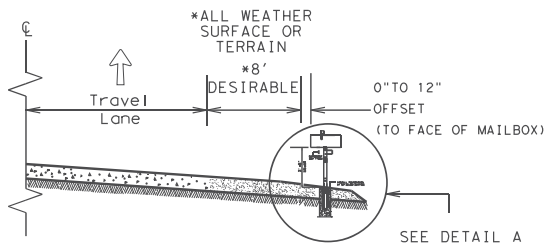
Type of Foundation
Ty 1 = V-Loc
Ty 2 = Wedge Anchor Steel System
Ty 3 = Winged Channel Post
Ty 4 = Wedge Anchor Plastic System
Ty 5 = 4 X 4 Post

SHEET 4 OF 4

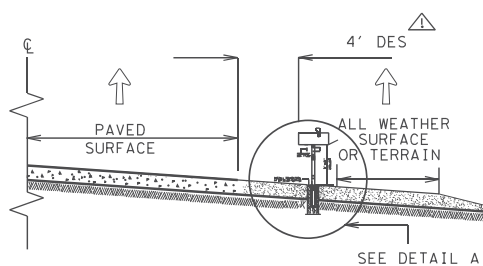
		Maintenance Division Standard	
NIGP PARTS LIST AND COMPATIBILITY			
MB(4)-21			
FILE: MB-21.dgn	DN: TxDOT	CH: TxDOT	DN: TxDOT
© TxDOT March 2004	CONT SECT	JOB	HIGHWAY
2/2005 11/2009	3210 01	018	FM2770
6/2005 1/2011	DIST	COUNTY	
10/2006 7/2014	AUS	HAYS	SHEET NO. 39

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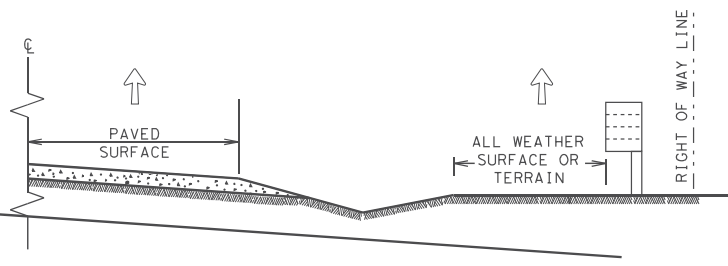
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FILE: K:\016225-000\G001\Plan\STND\New Standard\delTraffic\Items\mb-14(2).dgn



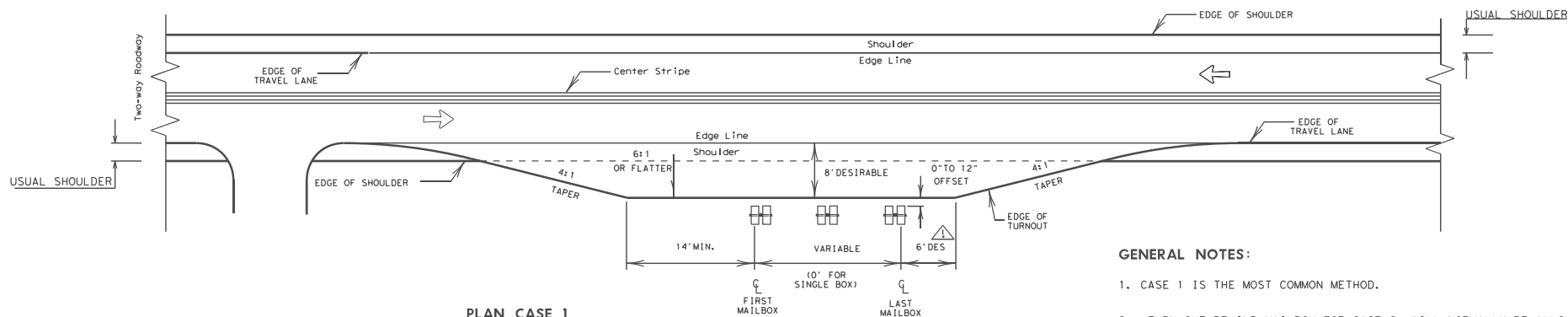
CASE 1. OFF TRAVEL WAY DELIVERY



CASE 2. BACK SIDE DELIVERY



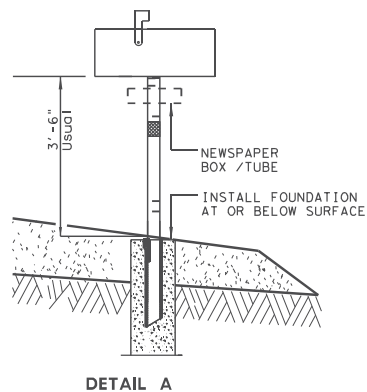
CASE 3. DELIVERY NEAR RIGHT OF WAY LINE



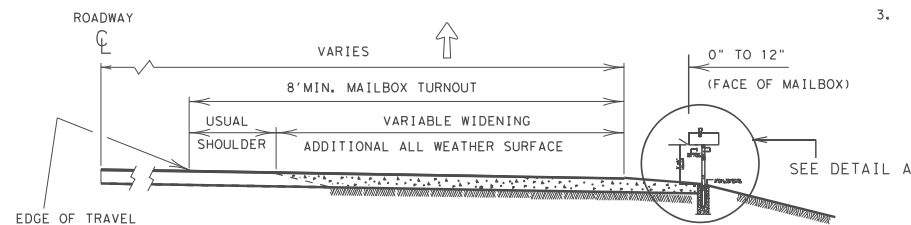
PLAN CASE 1

GENERAL NOTES:

1. CASE 1 IS THE MOST COMMON METHOD.
2. TURN OUT BEHIND MAILBOX FOR CASE 2 WILL NORMALLY BE ALLOWED FOR NATURAL TERRAIN THAT WILL SERVE AS AN ALL WEATHER SURFACE.
3. ALL WEATHER DRIVEWAYS FOR CASE 3 MAILBOXES LOCATED AT THE RIGHT OF WAY LINE SHOULD NORMALLY BE PLACED IN CONJUNCTION WITH COUNTY ROADS OR OTHER CONNECTING COMMUNITY ROADS OR STREETS. IF THE NUMBER OF MAILBOXES EXCEEDS FOUR, A COMMUNITY MAIL BOX SHOULD BE ENCOURAGED AT THESE LOCATIONS.




DETAIL A



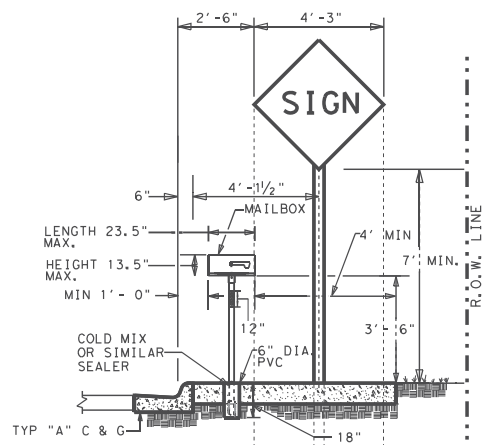
TYPICAL SECTION CASE 1

↑ MAIL DELIVERY VEHICLE TRAVEL DIRECTION

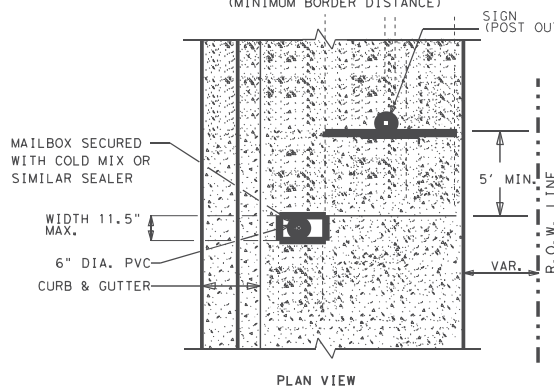
SHEET 1 OF 3

 Texas Department of Transportation		Maintenance Division Standard	
<i>Guideline</i>			
MAILBOX SIDE ROAD PLACEMENT AND TURNOUTS MB-14(2)			
FILE: MB14(2).DGN		DN: JED	CK: JED
© TxDOT MAY 2014		CONT	HIGHWAY
REVISIONS		3210 01	018 FM2770
DECEMBER 2012-NEW TxDOT TITLE BLOCK		DIST	SHEET NO.
		AUS	40

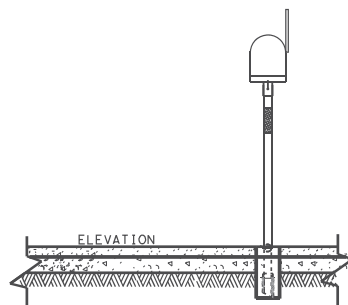
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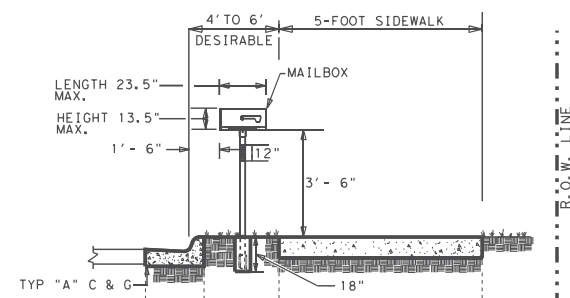
MAILBOX SIDEWALK INSTALLATION RELATIVE TO ANY OTHER OBSTRUCTION SUCH AS A SIGN (MINIMUM BORDER DISTANCE)



PLAN VIEW



ELEVATION



MAILBOX SIDEWALK INSTALLATION (DESIRABLE BORDER DISTANCE)

SEE MB-15(1) SHEET 3 OF 4

WIDTH 11.5" MAX.

CURB & GUTTER
BUFFER AREA BETWEEN CURB AND SIDEWALK (GRASS)

PLAN VIEW

SHEET 2 OF 3

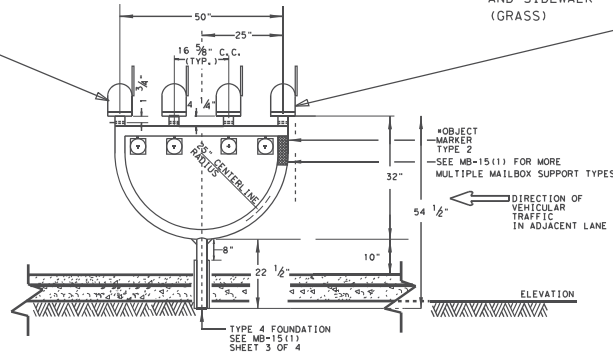
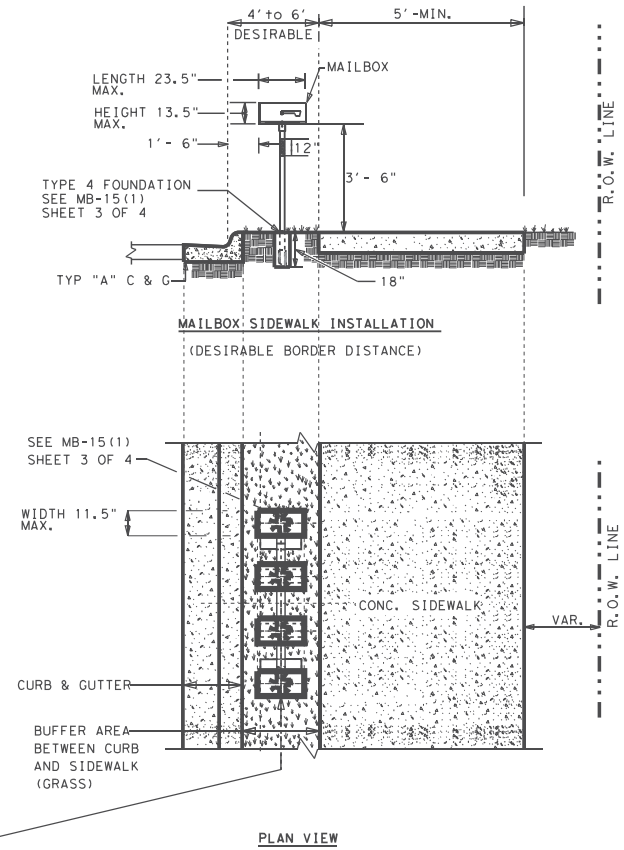
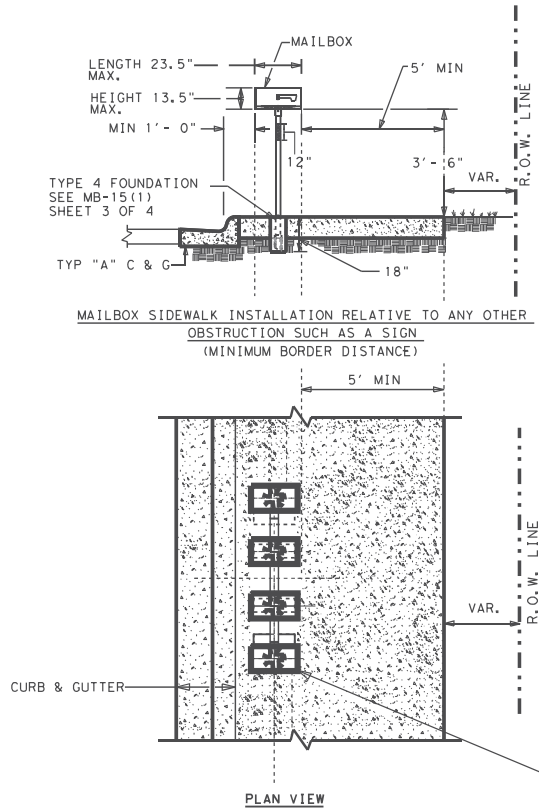


SINGLE MAILBOX PLACEMENT
BEHIND CURBS WITH OR WITHOUT
SIDEWALKS
MB-14(2A)

FILE: MB-14(2A)	DN:	CK:	DN:	CK:
© TxDOT MAY 2014	CONT	SECT	JOB	HIGHWAY
REVISIONS	3210	01	018	FM2770
	DIST	COUNTY		SHEET NO.
AUS		HAYS		41

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DATE: 6/29/2022 10:56:49 AM
FILE: 6/29/2022 10:56:49 AM



SHEET 3 OF 3

Texas Department of Transportation
Maintenance Division Standard

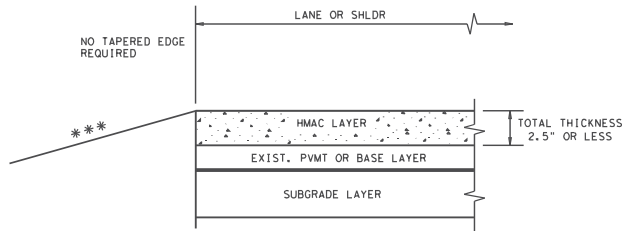
MULTIPLE MAILBOX PLACEMENT BEHIND CURBS WITH OR WITHOUT SIDEWALKS

MB-14(2B)

FILE: MB-14(2A)	DN:	CK1:	DN:	CK1:
© TxDOT MAY 2014	CONT	SECT	JOB	HIGHWAY
REVISIONS	3210	0	018	FM2770
DIST	AUS	COUNTY	HAYS	SHEET NO.
				47

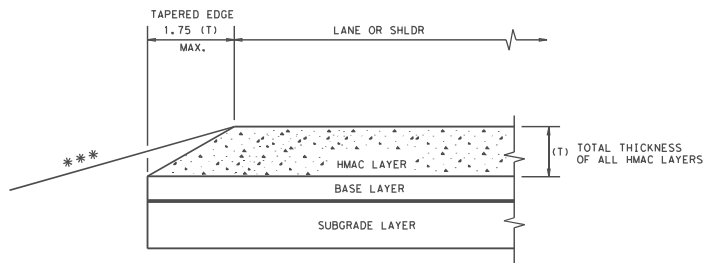
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DATE: 6/29/2022
FILE: K:\016225-000\Cad\Plan\STND\New Standards\Roadway Details\tehmoc11.dgn



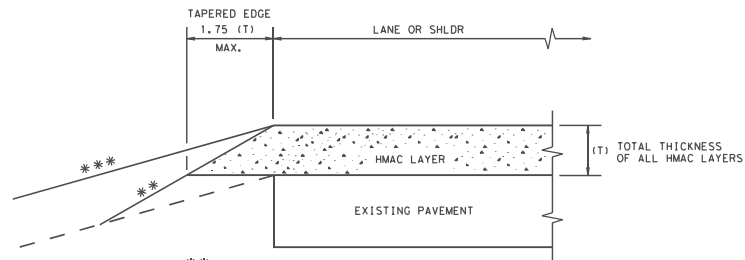
*** SEE TYPICAL SECTION FOR ROADSIDE DETAILS

CONDITION - 1
THIN HMAC SURFACES OR HMAC OVERLAY
WITH THICKNESS OF 2.5" OR LESS



*** SEE TYPICAL SECTION FOR ROADSIDE DETAILS

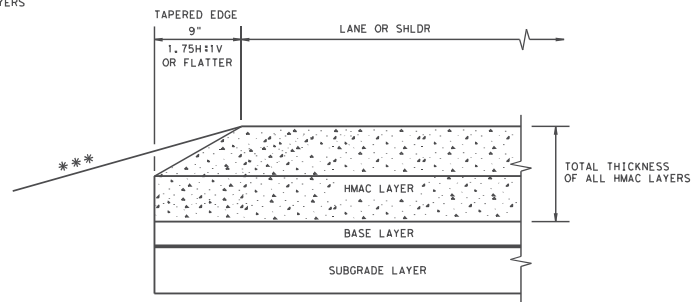
CONDITION - 3
NEW OR RECONSTRUCTED PAVEMENT
HMAC THICKNESS 2.5" TO 5"



** EXISTING ROADSIDE EMBANKMENT TO BE GRADED TO PRODUCE A SMOOTH LEVEL SURFACE FOR PLACEMENT OF TAPERED EDGE. THIS WORK IS SUBSIDIARY TO THE VARIOUS BID ITEMS.

*** SEE TYPICAL SECTION FOR ROADSIDE DETAILS

CONDITION - 2
OVERLAY OF EXISTING PAVEMENT
HMAC THICKNESS 2.5" TO 5"




*** SEE TYPICAL SECTION FOR ROADSIDE DETAILS

CONDITION - 4
NEW OR RECONSTRUCTED PAVEMENT
HMAC THICKNESS 5" OR GREATER

(NOT TO SCALE)

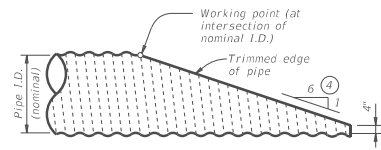
GENERAL NOTES

1. UNLESS OTHERWISE SHOWN IN THE PLANS, A VERTICAL EDGE IS PERMISSIBLE FOR HMAC PLACED GREATER THAN 5" BELOW THE EDGE OF PAVEMENT AND FOR THICKNESS OF HMAC LESS THAN 2.5".
2. FOR FURTHER INFORMATION REGARDING THE ROADSIDE AND PAVEMENT DETAILS, SEE TYPICAL SECTIONS.
3. PAYMENT FOR TAPERED EDGE WILL BE IN ACCORDANCE WITH APPLICABLE ITEMS IN THE CONTRACT.
4. THE SLOPE OF THE TAPERED EDGE SHALL BE 1.75H:1V OR FLATTER.
5. THE TAPERED EDGE SHALL BE PRODUCED BY USE OF A SCREENED ATTACHMENT CAPABLE OF PRODUCING A SMOOTH COMPACTED SURFACE. ADDITIONAL COMPACTING EFFORT BEHIND THE SCREEN IS NOT REQUIRED.

 Texas Department of Transportation					Design Division Standard			
TAPERED EDGE DETAILS HMAC PAVEMENT								
TE (HMAC) - 11								
FILE: tehmoc11.dgn	DN: TxDOT	CK: RL	DN: KB	CK:				
© TxDOT January 2011	CONT	SECT	JOB	HIGHWAY				
REVISIONS								
3210	01	018	FM2770					
BIST	COUNTY		SHEET NO.					
AUS	HAYS		43					

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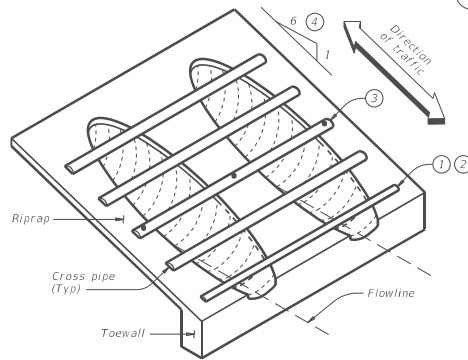
DATE: 04/28/2002 10:56:51 AM
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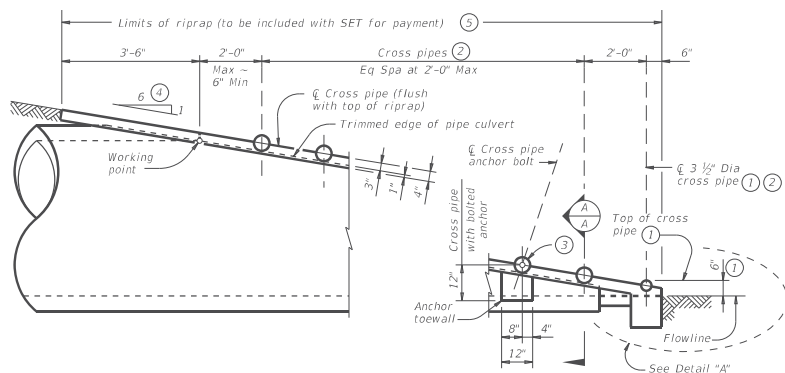
NOTE: All cross pipes, calculations, and dimensions are based on the pipe culverts mitered as shown in this detail. Alternate styles of mitered ends will require that appropriate adjustments be made to the values presented on this standard.

SIDE ELEVATION OF TYPICAL PIPE CULVERT MITER

(Showing corrugated metal pipe (CMP) culvert. Details at reinforced concrete pipe (RCP) culvert are similar.)

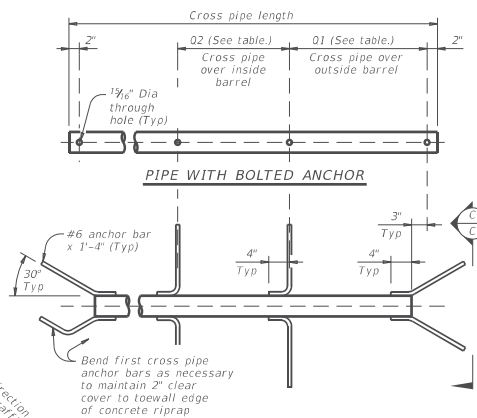


ISOMETRIC VIEW OF TYPICAL INSTALLATION

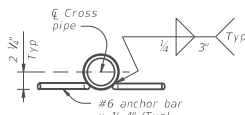


SIDE ELEVATION OF CAST-IN-PLACE CONCRETE

(Showing reinforced concrete pipe (RCP) culvert. Details at corrugated metal pipe (CMP) culvert are similar.)



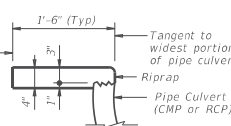
PIPE WITH ANCHOR BARS



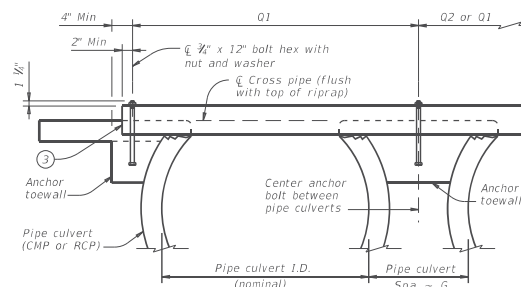
SECTION C-C

CROSS PIPE DETAILS

Limits of riprap (to be included with SET for payment) ⑤



SHOWING TYPICAL PIPE CULVERT AND RIPRAP



SHOWING CROSS PIPE WITH BOLTED ANCHOR

SECTION A-A

CROSS PIPE LENGTHS, REQUIRED PIPE SIZES, AND RIPRAP QUANTITIES ②

Nominal Culvert I.D.	Conc Riprap (CY) ⑥	Pipe Culvert Spa - G	Single Barrel ~ 01	Multi-Barrel ~ 01	Q2	Conditions for Use of Cross Pipes	Cross Pipe Sizes
12"	0.6	0' - 9"	N/A	2' - 1"	1' - 9"	3 or more pipe culverts	3" Std (3.500" O.D.)
15"	0.7	0' - 11"	N/A	2' - 5"	2' - 2"		
18"	0.8	1' - 2"	N/A	2' - 10"	2' - 8"		
21"	0.9	1' - 4"	N/A	3' - 2"	3' - 1"		
24"	0.9	1' - 7"	N/A	3' - 6"	3' - 7"		
27"	1.0	1' - 8"	N/A	3' - 10"	3' - 11"	3 or more pipe culverts	3 1/2" Std (4.000" O.D.)
30"	1.1	1' - 10"	N/A	4' - 2"	4' - 4"	2 or more pipe culverts	
33"	1.2	1' - 11"	4' - 2"	4' - 5"	4' - 8"	All pipe culverts	4" Std (4.500" O.D.)
36"	1.3	2' - 1"	4' - 5"	4' - 9"	5' - 1"		
42"	1.5	2' - 4"	4' - 11"	5' - 5"	5' - 10"	All pipe culverts	5" Std (5.563" O.D.)
48"	1.7	2' - 7"	5' - 5"	6' - 0"	6' - 7"		
54"	2.0	3' - 0"	5' - 11"	6' - 9"	7' - 6"		
60"	2.2	3' - 3"	6' - 5"	7' - 4"	8' - 3"		
66"	2.4	3' - 3"	6' - 11"	7' - 10"	8' - 9"		
72"	2.7	3' - 4"	7' - 5"	8' - 5"	9' - 4"		


- The proper installation of the first cross pipe is critical for vehicle safety. Place the top of the first cross pipe no more than 6" above the flow line.
- Provide cross pipes, except the first bottom pipe, of the size shown in the table. Provide a 3 1/2" standard pipe (4" O.D.) for the first bottom pipe.
- Install the third cross pipe from the bottom of the culvert using a bolted connection. Ensure that riprap concrete does not flow into the cross pipe so as to permit disassembly of the bolted connection to allow cleanout access. At the Contractor's option, install all other cross pipes using the bolted connection details.
- Match cross slope as shown elsewhere in the plans. Cross slope of 6:1 or flatter is required for vehicle safety.
- Riprap placed beyond the limits shown will be paid for as concrete riprap in accordance with Item 432, "Riprap".
- Quantities shown are for one end of one reinforced concrete pipe (RCP) culvert. For multiple pipe culverts or for corrugated metal pipe (CMP) culverts, quantities will need to be adjusted. Riprap quantities are for contractor's information only.

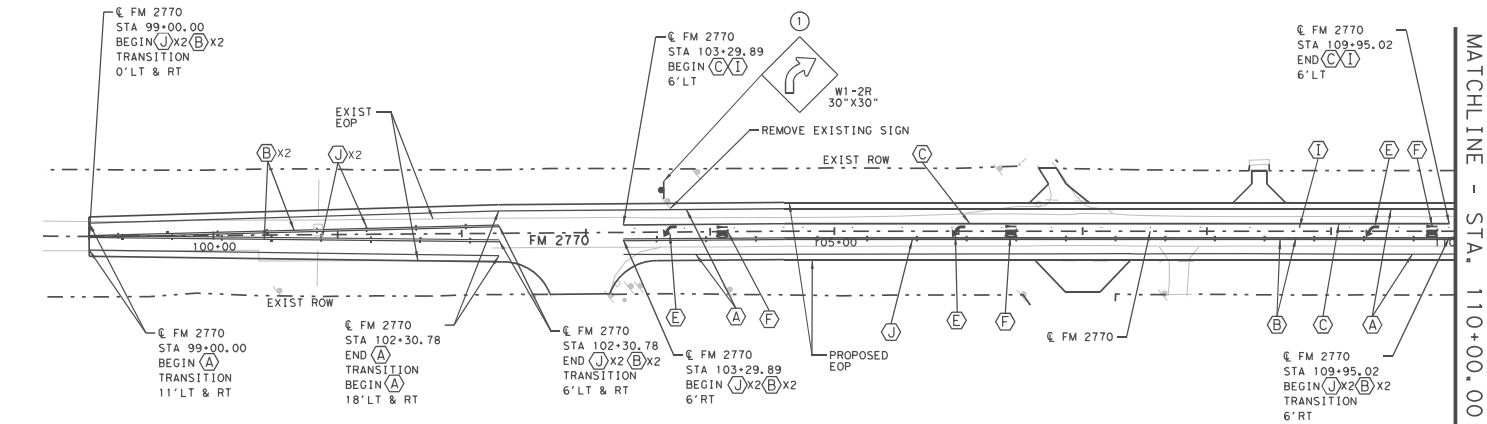
MATERIAL NOTES:

Synthetic fibers listed on the "Fibers for Concrete" Material Producer List (MPL) may be used in lieu of steel reinforcing in riprap concrete unless noted otherwise. Provide cross pipes that meet the requirements of ASTM A53 (Type E or S, Gr B), ASTM A500 (Gr B), or API 5LX52. Provide ASTM A307 bolts and nuts. Galvanize all steel components, except concrete reinforcing, after fabrication. Repair galvanizing damaged during transport or construction in accordance with the specifications.

GENERAL NOTES:

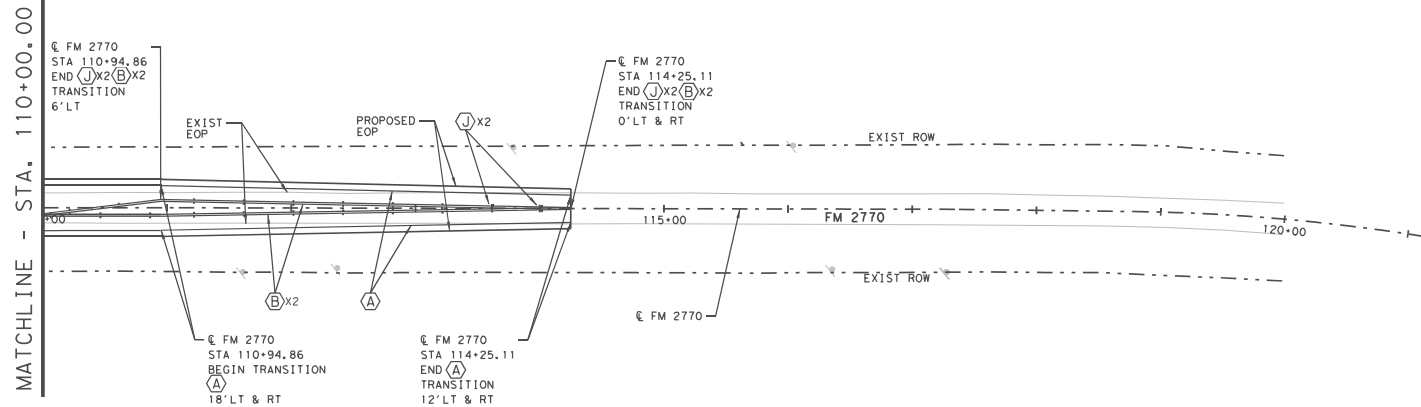
Cross pipes are designed for a traversing load of 10,000 pounds at yield as recommended by Research Report 280-2F, "Safety Treatment of Roadside Parallel-Drainage Structures", Texas Transportation Institute, March 1981. Safety end treatments (SET) shown herein are intended for use in those installations where out of control vehicles are likely to traverse the openings approximately perpendicular to the cross pipes. Construct concrete riprap and all necessary inverts in accordance with the requirements of Item 432, "Riprap". Payment for riprap and toewall is included in the Price Bid for each Safety End Treatment.

 Texas Department of Transportation						Bridge Division Standard	
SAFETY END TREATMENT							
FOR 12" DIA TO 72" DIA							
PIPE CULVERTS							
TYPE II ~ PARALLEL DRAINAGE							
SETP-PD							
FILE: setpdse-20.dgn	OWN: GAF	CK: CAT	OWN: JRP	CK: GAF			
QTY/DO: February 2020	CON: SEC	SEC: JOB	HIGHWAY				
REVISIONS	01	02	FUNDING				
DIS: COUNTY	COUNTY		SHEET NO.				
BGS	HOMS		44				



SUMMARY OF SIGNING AND PAVEMENT MARKINGS

REFLECTIVE PAVEMENT MARKINGS TY I & II										RAISED PAVEMENT MARKERS	
ITEM 666										ITEM 672	
6012	6207	6036	6030	6054	6078	6120	6111	6003	6141	6007	6009
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(K)	(L)	(I)	(J)
4" WHITE SLD	4" YELLOW SLD	8" WHITE SLD	8" WHITE DOT	ARROW WHITE	WORD WHITE	4" YELLOW BRK	BIKE SYMBOL	4" WHITE BRK	12" YELLOW SLD	CL B REFL TY I-C	CL B REFL TY II-A-A
LF	LF	LF	LF	EA	EA	LF	EA	LF	LF	EA	EA
2950	4360	666	-	3	3	-	-	-	-	17	109



NOTES:

1. THE LOCATION OF PROPOSED SIGNS, RELOCATED SIGNS, PAVEMENT MARKINGS, DELINEATORS, AND OBJECT MARKERS SHALL BE IN ACCORDANCE WITH THE STANDARD DETAILS INCLUDED IN THESE PLANS AND THE TMTCD.

LEGEND

- PROPOSED SIGN ASSEMBLY
- EXISTING SIGN ASSEMBLY
- DELINEATOR ASSEMBLY
- OBJECT MARKER ASSEMBLY



Daniel A. Rogers
 6/29/2022



HAYS COUNTY

wsb WSB & ASSOCIATES, INC.
 FIRM # 16849

FM 2770
 SIGNING AND
 PAVEMENT MARKINGS

DATE: 6/29/2022			SHEET 1 OF 1	
STATE		STATE DIST. NO.		COUNTY
TEXAS		AUS		HAYS
CONT.	SECT.	JOB	HIGHWAY NO.	SHEET NO.
3210	01	018	FM 2770	45

DATE:
FILE:

[illegible]

Square Feet	Minimum Thickness
Less than 7.5	0.080"
7.5 to 15	0.100"
Greater than 15	0.125"

The Standard Highway Sign Designs for Texas (SHSD) can be found at the following website.

<http://www.txdot.gov/>

1. Sign supports shall be located as shown on the plans, except that the Engineer may shift the sign supports, within design guidelines, where necessary to secure a more desirable location or to avoid conflict with utilities. Unless otherwise shown on the plans, the Contractor shall stake and the Engineer will verify all sign support locations.
2. For installation of bridge mount clearance signs, see Bridge Mounted Clearance Sign Assembly (BMCS) Standard Sheet.
3. For Sign Support Descriptive Codes, see Sign Mounting Details Small Roadside Signs, General Notes & Details SMD (GEN).



FILE#	DN#		CK#	DN#	CK#
	CONT	SECT	JOB	HIGHWAY	
REVISIONS	3210	01	018	FM2770	
	DEST	COUNTRY			SHEET NO
	AUS	HAYS			46

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REFLECTOR UNIT SIZES FOR DELINEATORS AND OBJECT MARKERS					DELINEATORS				D & OM DESCRIPTIVE CODES			
DEVICE	SIZE 1	SIZE 2	SIZE 3	SIZE 4	DEVICE	SINGLE		DOUBLE		INSTL DEL ASSM (D-XX)SZ X (XXXX)XXX (XX)		
										NUMBER OF REFLECTORS S = Single D = Double COLOR OF REFLECTORS W = White Y = Yellow R = Red REFLECTOR UNIT SIZE 1 or 2 TYPE OF POST OR DELINEATOR WC = Wing Channel Post YFLX = Yellow Flexible Post WFLX = White Flexible Post BRF = Barrier Reflector TYPE OF MOUNT GND = Embedded (drivable or set in concrete) CTB = Concrete Barrier Mount GF1 or GF2 = Guard Fence Attachment SRF = Surface Mount		
	SHEETING Yellow, White or Red Type B or C reflective sheeting					SHEETING Yellow, White or Red Type B or C Reflective Sheeting		POST TYPE WC YFLX, WFLX WC YFLX, WFLX		MOUNT TYPE GND GND, SRF GND GND, SRF		DIRECTION If Required BI = Bi-Directional BR = Bi-Directional with red on back
NOTE 1. Size 1 and 4 - Direct applied reflective sheeting for use on flexible post (flx). 2. Size 2 and 3 - For use on wing channel (wc) post only. Use approved metal, plastic or fiberglass backplate with 17/64" mounting holes.					SHEETING		POST TYPE		MOUNT TYPE		INSTL OM ASSM (OM-XX) (XXXX)XXX (XX)	
OBJECT MARKERS												
DEVICE	Type 1 (OM-1)	Type 2 (OM-2)			Type 3 (OM-3)			Type 4 (OM-4)		NUMBER OF REFLECTORS OR DIRECTION X = 3-Size 2 reflector units (Type 2 only) Y = 1-Size 3 reflector unit (Type 2 only) Z = 3-Size 1 or 1-Size 4 reflector unit(s) (Type 2 only) L = Left Side (Type 3 Object Marker only) R = Right Side (Type 3 Object Marker only) C = Center (Type 3 Object Marker only)		
	OM-1	OM-2X	OM-2Y	OM-2Z	OM-3L	OM-3R	OM-3C	OM-4	TYPE OF POST WC = Wing Channel Post WFLX = White Flexible Post TWT = Thin Walled Tubing TYPE OF MOUNT GND = Embedded (drivable) SRF = Surface Mount WAS = Wedge Anchor Steel WAP = Wedge Anchor Plastic DIRECTION If Required BI = Bi-Directional			
SHEETING Yellow-Type B _{FL} or C _{FL} Sheeting		Yellow - Type B or C Sheeting			Alternating acrylic black and retroreflective yellow - Type B _{FL} or C _{FL} Sheeting			Red -Type B _{FL} or C _{FL} Sheeting		DEPARTMENTAL MATERIAL SPECIFICATIONS		
POST TYPE TWT		WC			WFLX			TWT		FLEXIBLE DELINEATOR & OBJECT MARKER POSTS (EMBEDDED & SURFACE MOUNT TYPES) DMS-4400		
MOUNT TYPE WAS, WAP		GND			GND, SRF			WAS, WAP		SIGN FACE MATERIALS DMS-8300		
										DELINEATORS, OBJECT MARKERS AND BARRIER REFLECTORS DMS-8600		
BARRIER REFLECTORS (BRF)				CHEVRONS				ONE DIRECTION LARGE ARROW				
DEVICE	GF1	GF2	CTB	DEVICE				DEVICE				
	1. Barrier reflectors shall meet the requirements of DMS 8600. 2. Approved Barrier Reflectors are listed on the "Barrier Reflectors" Material Producer List at: www.txdot.gov.			SIZE (W x L) 18" x 24" (Conventional) 24" x 30" (Conventional Oversize) 30" x 36" (Expressway) 36" x 48" (Freeway)				SIZE (W x L) 48" x 24" (Conventional) 60" x 30" (Expressway & Freeway)				
SHEETING Yellow, White, Red			MOUNTING HEIGHT 4'-0" or 7'-0"				MOUNTING HEIGHT 7'-0" Only		MOUNTING HEIGHT 7'-0"			
NOTE 1. Reflective sheeting shall have a minimum dimension of 3 inches and minimum surface area of 9 square inches.			NOTE 1. CHEVRON (W1-8) signs and ONE DIRECTION LARGE ARROW (W1-6) Signs shall be installed per Sign Mounting Details (SMD) Standard Sheets and paid under Item 644 (Small Roadside Sign Assemblies). 2. When there is a need to increase conspicuity, the Texas version of the ONE DIRECTION LARGE ARROW sign (W1-9T) may be used instead of the ONE DIRECTION LARGE ARROW (W1-6).								NOTE: Delineator and object marker substrates and sign substrates shall be 0.080" Aluminum sign blank to conform to ASTM B-209 Alloy 6061-T6 or approved alternative.	
DELINATOR & OBJECT MARKER MATERIAL DESCRIPTION D & OM(1)-20												
FILES: dm1-20.dgn CONT: TXDOT August 2004 REVISIONS 10-09 3-15 4-10 7-20												
SHEET NO. 47												

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FILE: K:\016225-000\Cad\PIan\

POST TYPE AND SUPPORT FOUNDATION DETAILS						TYPE OF BARRIER MOUNTS	
WING CHANNEL (WC)		FLEXIBLE POSTS (YFLX,WFLX)		WEDGE ANCHOR SYSTEMS		GUARD FENCE ATTACHMENT	
GND		GND	SRF	WAS	WAP	GF1	GF2
<p>Ground Line 2'-0" Usual</p>							
						CONCRETE TRAFFIC BARRIER (CTB)	
NOTES 1. Embedded Wing Channel (WC) post option may be used for Type 2 Object Markers and Delineators only. 2. 1.12 lbs/ft steel per ASTM A 1011 SS Gr. 50, or ASTM A499.		NOTES 1. See "Flexible Delineator and Object Marker Posts" Material Producer List for approved devices. 2. Install per manufacturer's recommendations. 3. Post length may vary to meet field conditions. 4. When using yellow delineators with flexible posts to separate opposing direction of travel, such as centerline or median use, the flexible posts shall be yellow.		NOTE 1. Install per manufacturer's recommendations.			
						GENERAL NOTES 1. Place delineators on a section of roadway at a consistent distance from the edge of pavement. 2. Where a restriction prevents consistent placement from the pavement edge, place the affected object markers in line with the innermost edge of the obstruction. 3. When Type 2 object markers and delineators are more than 8'-0" from the edge of the pavement, it may not be possible to maintain a height of approximately 4'-0". If this is the case, place the object marker or delineator as close to the desired height as possible. 4. Install all delineators, object markers and barrier reflectors in accordance with the manufacturer's recommendation. 5. Barrier reflectors should be installed a minimum of 18 inches above the edge of the pavement surface. 6. Diagonal stripes on Type 3 object markers shall slope down toward the intended travel lane.	
TYPES 1,3, AND 4 OBJECT MARKERS AND CHEVRONS		CHEVRONS AND ONE DIRECTION LARGE ARROW SIGN		DELINEATORS AND TYPE 2 OBJECT MARKERS			
NOTE Mounting at 4 feet to the bottom of the chevron is permitted for chevrons that will not exceed a height of 6'-6" to the top of the chevron (sizes 24" x 30" and smaller).		NOTE Chevrons 30" x 36" and larger shall be mounted at a height of 7' to the bottom of the chevron. Chevron sign and ONE DIRECTION LARGE ARROW sign (W1-9T) shall be installed per SMD standard sheets and paid under item 644.		See general notes 1, 2 and 3.			

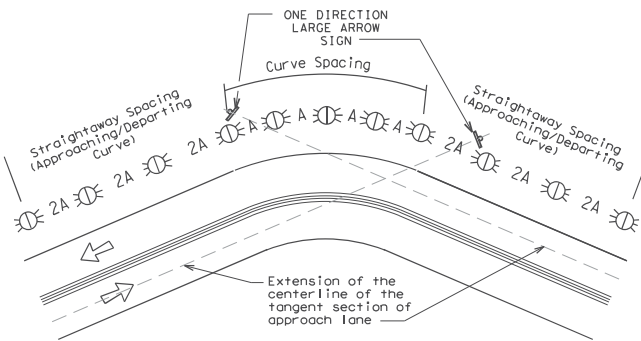
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MINIMUM WARNING DEVICES AT CURVES WITH ADVISORY SPEEDS

Amount by which Advisory Speed is less than Posted Speed	Curve Advisory Speed	
	Turn (30 MPH or less)	Curve (35 MPH or more)
5 MPH & 10 MPH	• RPMS	• RPMS
15 MPH & 20 MPH	• RPMS and One Direction Large Arrow sign	• RPMS and Chevrons; or • RPMS and One Direction Large Arrow sign where geometric conditions or roadside obstacles prevent the installation of chevrons.
25 MPH & more	• RPMS and Chevrons; or • RPMS and One Direction Large Arrow sign where geometric conditions or roadside obstacles prevent the installation of chevrons	• RPMS and Chevrons

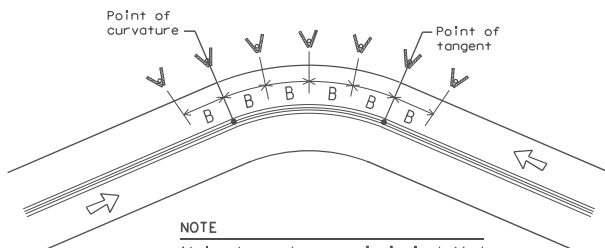
SUGGESTED SPACING FOR DELINEATORS ON HORIZONTAL CURVES



NOTE

ONE DIRECTION LARGE ARROW (W1-6) sign should be located at approximately and perpendicular to the extension of the centerline of the tangent section of approach lane.

SUGGESTED SPACING FOR CHEVRONS ON HORIZONTAL CURVES



NOTE

At least one chevron pair is installed beyond the point of tangent in tangent section.

DELINEATOR AND CHEVRON SPACING

WHEN DEGREE OF CURVE OR RADIUS IS KNOWN				
Degree of Curve	FEET			
	Radius of Curve	Spacing in Curve	Spacing in Straightway	Chevron Spacing in Curve
		A	2A	B
1	5730	225	450	—
2	2865	160	320	—
3	1910	130	260	200
4	1433	110	220	160
5	1146	100	200	160
6	955	90	180	160
7	819	85	170	160
8	716	75	150	160
9	637	75	150	120
10	573	70	140	120
11	521	65	130	120
12	478	60	120	120
13	441	60	120	120
14	409	55	110	80
15	382	55	110	80
16	358	55	110	80
19	302	50	100	80
23	249	40	80	80
29	198	35	70	40
38	151	30	60	40
57	101	20	40	40

Curve delineator approach and departure spacing should include 3 delineators spaced at 2A. This spacing should be used during design preparation or when the degree of curve is known.

DELINEATOR AND CHEVRON SPACING

WHEN DEGREE OF CURVE OR RADIUS IS NOT KNOWN			
Advisory Speed (MPH)	Spacing in Curve	Spacing in Straightway	Chevron Spacing in Curve
	A	2xA	B
65	130	260	200
60	110	220	160
55	100	200	160
50	85	170	160
45	75	150	120
40	70	140	120
35	60	120	120
30	55	110	80
25	50	100	80
20	40	80	80
15	35	70	40

If the degree of curve is not known, delineator spacing may be determined based on the Advisory Speed of the curve. Use the delineator curve spacing for each Advisory Speed (MPH).

DELINEATOR AND OBJECT MARKER APPLICATION AND SPACING

CONDITION	REQUIRED TREATMENT	MINIMUM SPACING
Frwy./Exp. Tangent	RPMS	See PM-series and FPM-series standard sheets
Frwy./Exp. Curve	Single delineators on right side	See delineator spacing table
Frwy/Exp. Ramp	Single delineators on at least one side of ramp (should be on outside of curves) (see Detail 3 on D&OM(4))	100 feet on ramp tangents Use delineator spacing table for ramp curves ("straightway spacing" does not apply to ramp curves)
Acceleration/Deceleration Lane	Double delineators (see Detail 3 on D&OM(4))	100 feet (See Detail 3 on D & OM (4))
Truck Escape Ramp	Single red delineators on both sides	50 feet
Bridge Rail (steel or concrete) and Metal Beam Guard Fence	Bi-Directional Delineators when undivided with one lane each direction Single Delineators when multiple lanes each direction	Equal spacing (100' max) but not less than 3 delineators
Concrete Traffic Barrier (CTB) or Steel Traffic Barrier	Barrier reflectors matching the color of the edge line	Equal spacing 100' max
Cable Barrier	Reflectors matching the color of the edge line	Every 5th cable barrier post (up to 100' max)
Guard Rail Terminus/Impact Head	Divided highway - Object marker on approach end Undivided 2-lane highways - Object marker on approach and departure end	Requires reflective sheeting provided by manufacturer per D & OM (VIA) or a Type 3 Object Marker (OM-3) in front of the terminal end See D & OM (5) and D & OM (6)
Bridges with no Approach Rail	Type 3 Object Marker (OM-3) at end of rail and 3 single delineators approaching rail	See D & OM(5)
Reduced Width Approaches to Bridge Rail	Type 2 and Type 3 Object Markers (OM-3) and 3 single delineators approaching bridge	Requires reflective sheeting provided by manufacturer per D & OM (VIA) or a Type 3 Object Marker (OM-3) in front of the terminal end See D & OM (5)
Culverts without MBGF	Type 2 Object Markers	See Detail 2 on D & OM(4)
Crossovers	Double yellow delineators and RPMS	See Detail 1 on D & OM (4)
Pavement Narrowing (Lane merge) on Freeways/Expressway	Single delineators adjacent to affected lane for full length of transition	100 feet

NOTES

- Unless indicated otherwise, the delineator or barrier reflector color shall conform to the color of the pavement edge line on the side of the road where the delineators or barrier reflectors are placed.
- Barrier reflectors may be used to replace required delineators.
- Single red delineators may be mounted on the back side of delineator posts for wrong way driver applications

LEGEND

	Bi-directional Delineator
	Delineator
	Sign



DELINEATOR & OBJECT MARKER PLACEMENT DETAILS

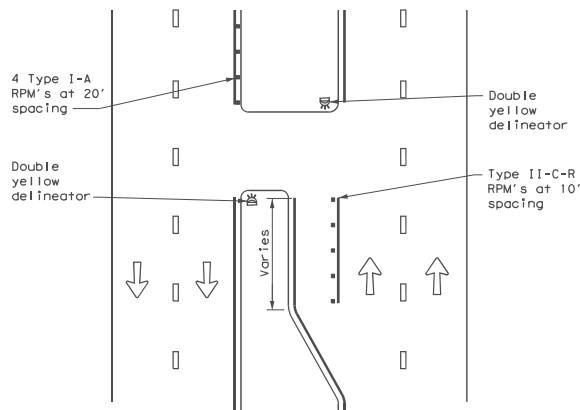
D & OM(3) -20

FILE: dom3-20.dgn	DN: TXDOT	CK: TXDOT	DN: TXDOT	CK: TXDOT
© TXDOT August 2004	CONT	SECT	JOB	HIGHWAY
3-15 9-15 8-15 7-20	3210	01	018	FM2770
	DIST	COUNTY		SHEET NO.
	AUS	HAYS		49

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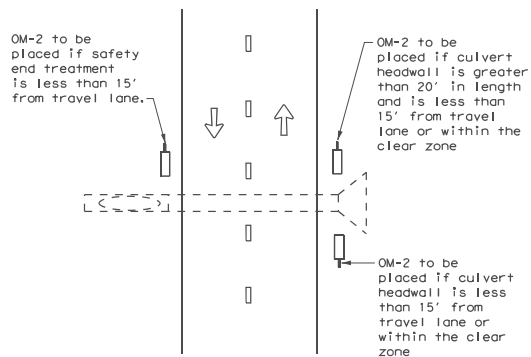
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CROSSOVERS



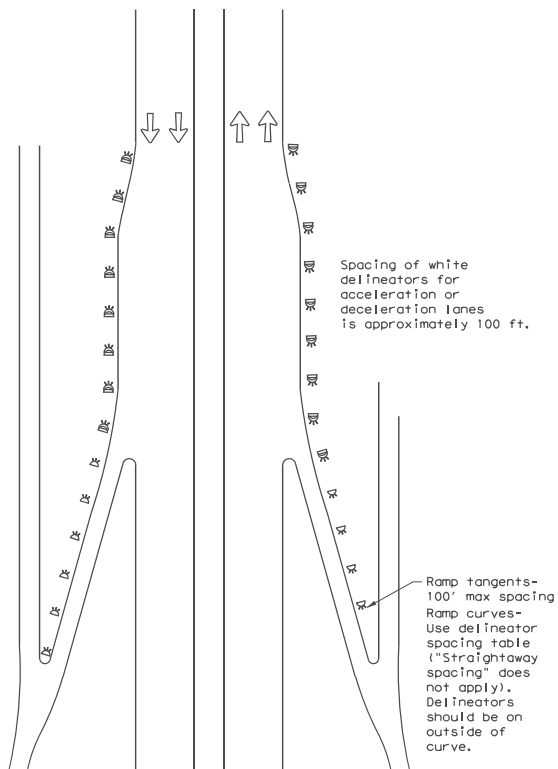
DETAIL 1

FOR CULVERTS WITHOUT MBGF



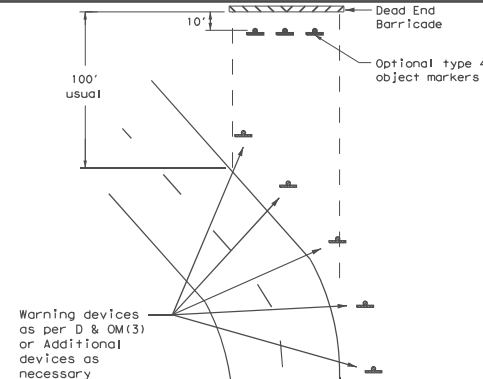
DETAIL 2

FREEWAY DELINEATION FOR RAMP AND ACCELERATION/DECELERATION LANES



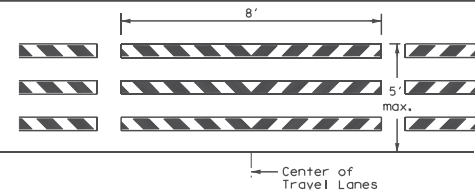
DETAIL 3

TYPICAL APPLICATION OF DEAD END BARRICADE



DETAIL 4

TYPICAL DEAD END BARRICADE INSTALLATION



NOTES

1. Barricade striping shall be red and white reflective sheeting for all permanent road closures.
2. Barricade striping is red and white sloping toward the center of the roadway.
3. Type 3 Barricade Supports should be anchored to soil or pavement as described in compliant Work Zone Traffic Control Devices List, section D.2.f and D.2.g.

DETAIL 5

LEGEND	
	Bidirectional Delineator
	Delineator
	OM-3
	Barricade
	Sign
	OM-2
	Double Delineator



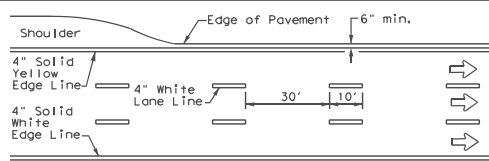
DELINEATOR & OBJECT MARKER PLACEMENT DETAILS

D & OM(4) -20

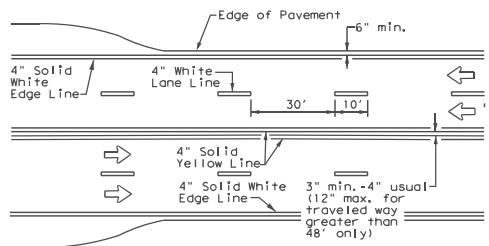
FILE: domt-20.dgn	DN: TXDOT	CK: TXDOT	DN: TXDOT	CK: TXDOT
© TXDOT August 2004	CONT	SECT	JOB	HIGHWAY
3-15	3210	01	018	FM2770
7-20	DIST	COUNTY		SHEET NO.
	AUS	HAYS		50

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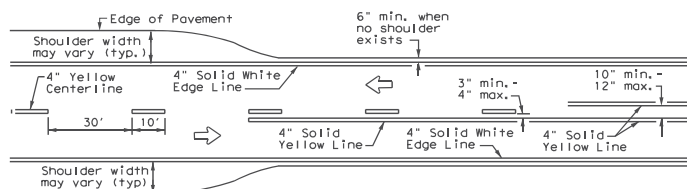
DATE: 6/29/2022 10:56:59 AM
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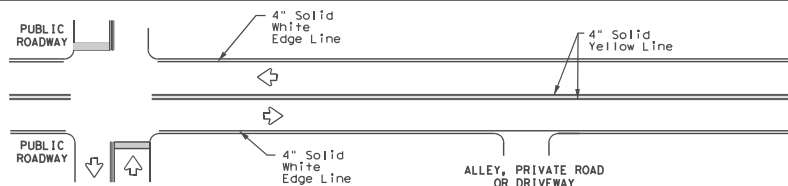
EDGE LINE AND LANE LINES
ONE-WAY ROADWAY
WITH OR WITHOUT SHOULDERS



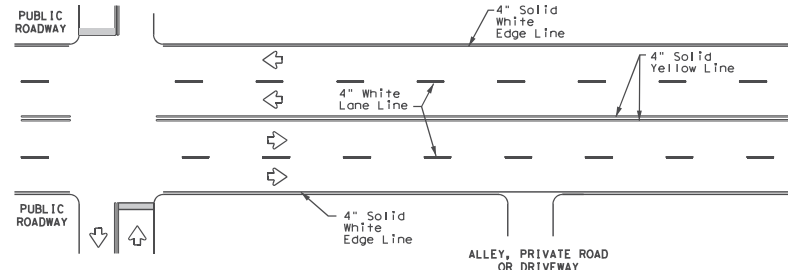
CENTERLINE AND LANE LINES
FOUR LANE TWO-WAY ROADWAY
WITH OR WITHOUT SHOULDERS



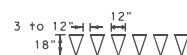
TWO LANE TWO-WAY ROADWAY
WITH OR WITHOUT SHOULDERS



TYPICAL TWO-LANE, TWO-WAY PAVEMENT
MARKINGS THROUGH INTERSECTIONS



TYPICAL MULTI-LANE, TWO-WAY PAVEMENT
MARKINGS THROUGH INTERSECTIONS



For posted speed on road
being marked equal to or
less than 40 MPH.



For posted speed on road
being marked equal to or
greater than 45 MPH.

YIELD LINES

NOTES

- Where divided highways are separated by median widths at the median opening itself of 30 feet or more, median openings shall be signed as two separate intersections. Each median opening has two width measurements, with one measurement for each approach. The narrow median width will be the controlling width to determine if signs are required. Yield signs are the typical intersection control. Stop signs are optional as determined by the Engineer.
- Install median striping (double yellow centerlines and stop bars/yield triangles) when a 50' or greater median centerline can be placed. Stop bars shall only be used with stop signs. Yield triangles shall only be used with yield signs.
- Length of turn bays, including taper, deceleration, and storage lengths shall be as shown on the plans or as directed by the Engineer.

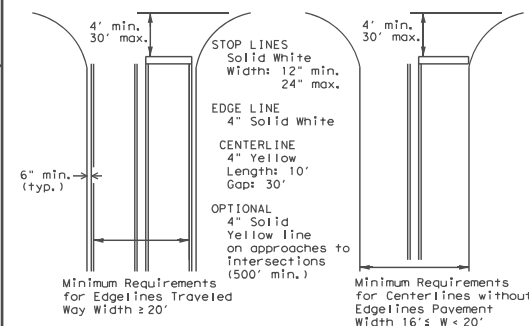
GENERAL NOTES

- Edgeline striping shall be as shown in the plans or as directed by the Engineer. The edgeline should not be placed less than 6 inches from the edge of pavement. This distance may vary due to pavement raveling or other conditions. Edgelines are not required in curb and gutter sections of roadways.
- The traveled way includes only that portion of the roadway used for vehicular travel. It does not include the parking lanes, sidewalks, berms and shoulders. The traveled ways shall be measured from the inside of edgeline to the inside of edgeline of a two lane roadway.

MATERIAL SPECIFICATIONS

PAVEMENT MARKERS (REFLECTORIZED)	DMS-4200
EPXY AND ADHESIVES	DMS-6100
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-6130
TRAFFIC PAINT	DMS-8200
HOT APPLIED THERMOPLASTIC	DMS-8220
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240

All pavement marking materials shall meet the required Departmental Material Specifications as specified by the plans.



GUIDE FOR PLACEMENT OF STOP LINES, EDGE LINE & CENTERLINE

Based on Traveled Way and Pavement Widths
for Undivided Highways



Traffic
Safety
Division
Standard

TYPICAL STANDARD PAVEMENT MARKINGS

PM(1)-20

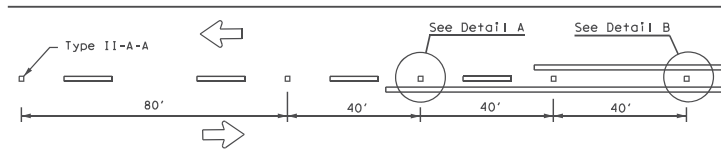
FILE	pm1-20.dgn	DATE	CHK	DATE	CHK
© TxDOT	November 1978	CONT	SECT	JOB	HIGHWAY
8-95	3-03	3210	01	018	FM2770
5-00	2-12	DIST	COUNTY		SHEET NO.
8-00	6-20	AUS	HAYS		51

228

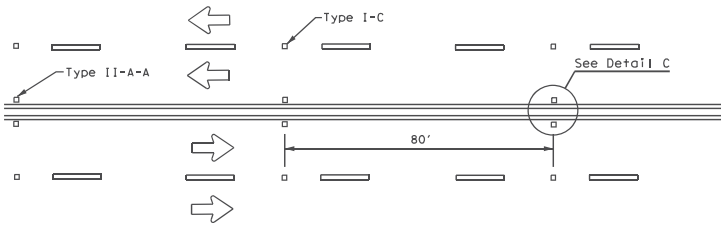
DISCLAIMER: The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

DATE: 6/29/2022 10:56:59 AM
FILE: K:\016225-000\Gad\Plan\STND\New Standard\Traffic Items\pm2-20.dgn

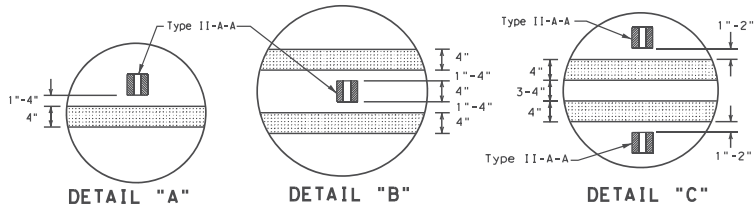
REFLECTIVE RAISED PAVEMENT MARKERS FOR VEHICLE POSITIONING GUIDANCE



CENTERLINE FOR ALL TWO LANE ROADWAYS



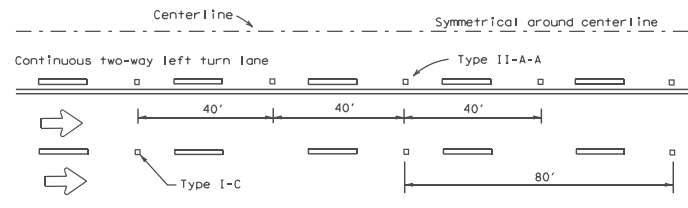
CENTERLINE & LANE LINES
FOR FOUR LANE TWO-WAY HIGHWAYS



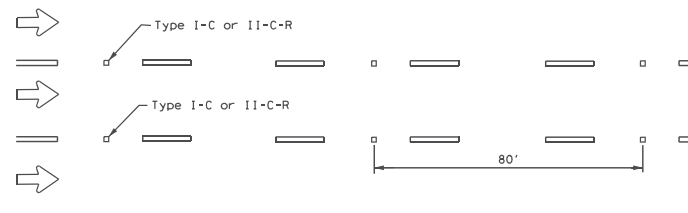
DETAIL "A"

DETAIL "B"

DETAIL "C"

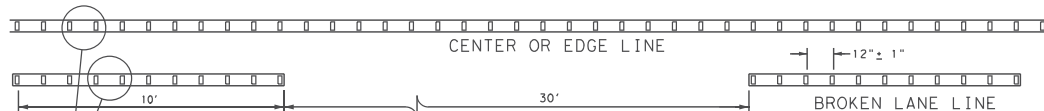


CENTERLINE AND LANE LINES FOR TWO-WAY LEFT TURN LANE



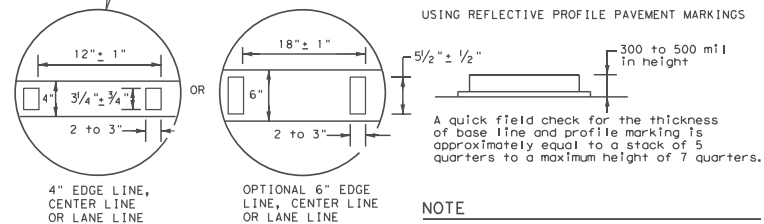
LANE LINES FOR ONE-WAY ROADWAY (NON-FREEWAY FACILITIES)

Raised pavement markers Type II-C-R shall have clear face toward normal traffic and red face toward wrong-way traffic.



REFLECTORIZED PROFILE
PATTERN DETAIL

USING REFLECTIVE PROFILE PAVEMENT MARKINGS



4" EDGE LINE,
CENTER LINE
OR LANE LINE

OPTIONAL 6" EDGE
LINE, CENTER LINE
OR LANE LINE

NOTE

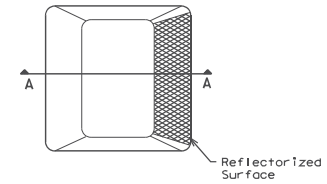
Profile markings shall not be placed on roadways with a posted speed limit of 45 MPH or less.

GENERAL NOTES

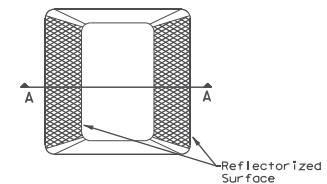
- All raised pavement markers placed in broken lines shall be placed in line with and midway between the stripes.
- On concrete pavements the raised pavement markers should be placed to one side of the longitudinal joints.

MATERIAL SPECIFICATIONS	
PAVEMENT MARKERS (REFLECTORIZED)	DMS-4200
EPOXY AND ADHESIVES	DMS-6100
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-6130
TRAFFIC PAINT	DMS-8200
HOT APPLIED THERMOPLASTIC	DMS-8220
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240

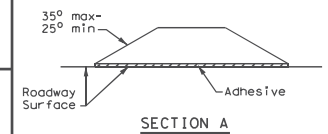
All pavement marking materials shall meet the required Departmental Material Specifications as specified by the plans.



Type I (Top View)



Type II (Top View)



RAISED PAVEMENT MARKERS

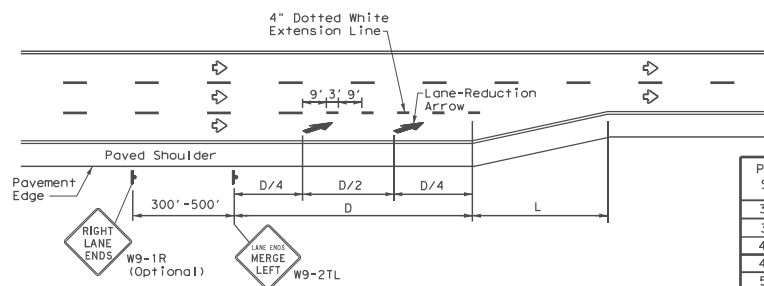


POSITION GUIDANCE USING RAISED MARKERS REFLECTORIZED PROFILE MARKINGS PM(2)-20

FILE: pm2-20.dgn	DN:	CK:	DN:	CK:
© TxDOT April 1977	CONT	SECT	JOB	HIGHWAY
4-92 2-10 REVISIONS	3210	01	018	FM2770
5-00 2-12	DIST	COUNTY		SHEET NO.
8-00 6-20	AUS	HAYS		52

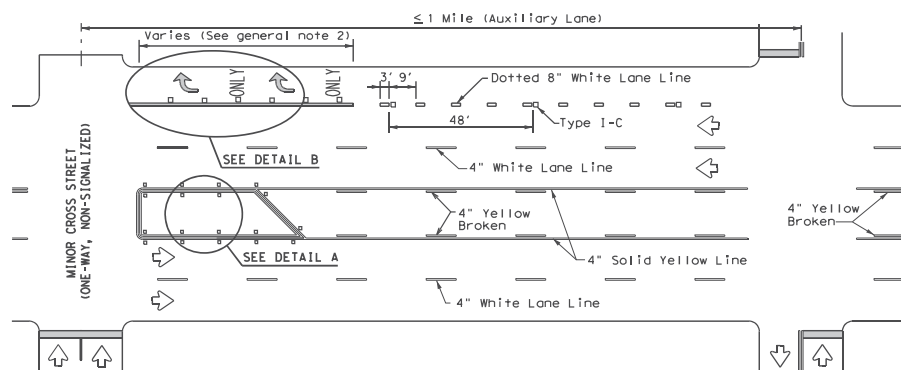
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DATE: 6/29/2022 10:57:00 AM
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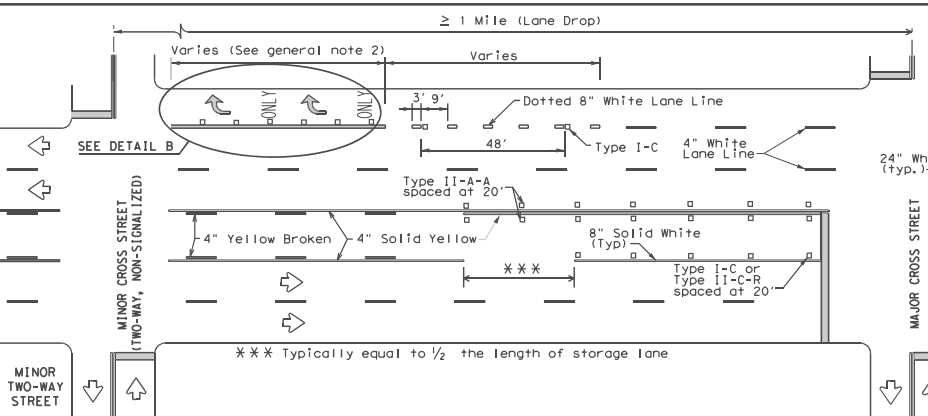


Posted Speed	D (ft)	L (ft)
30 MPH	460	$L = \frac{WS^2}{60}$
35 MPH	565	
40 MPH	670	60
45 MPH	775	
50 MPH	885	L = WS
55 MPH	990	
60 MPH	1,100	
65 MPH	1,200	
70 MPH	1,250	
75 MPH	1,350	

LANE REDUCTION



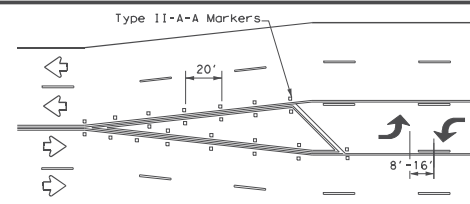
TYPICAL TWLTL AT ONE-WAY STREET AND RIGHT TURN AUXILIARY LANE



TYPICAL TWLTL AT TWO-WAY CROSS STREET AND RIGHT TURN LANE DROP

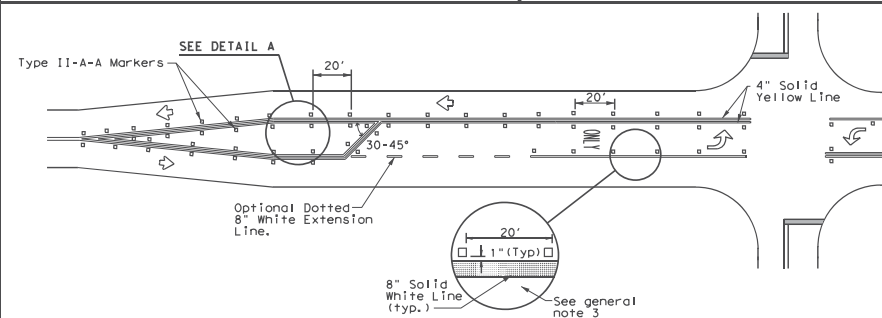
NOTES

- Lane reduction pavement markings are used where the number of through lanes is reduced because of narrowing of the roadway or because of a section of on-street parking in what would otherwise be a through lane. For Texas Super 2 Passing Lanes, see TS2(PL) standard sheets.
- On divided highways, an additional W9-1R "RIGHT LANE ENDS" sign may be installed in the median aligned with the W9-1R sign on the right side of the highway.
- Lane reduction arrows are required for speeds of 45 mph or greater. An optional third lane reduction arrow may be added based on engineering judgement. If used, the optional third lane reduction arrow should be centered between the first and last lane reduction arrows.
- For lane reductions on Freeways and Expressways, signing shall conform to the TxDOT Freeway Signing Handbook.

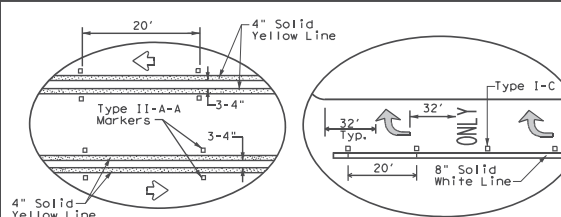


A two-way left-turn (TWLTL) lane-use arrow pavement marking should be used at or just downstream from the beginning of a two-way left-turn lane within a corridor. Repeating the marking after each intersection or dedicated turn bay is not required unless stated elsewhere in the plans.

TYPICAL TRANSITION FOR TWLTL AND DIVIDED HIGHWAY



TYPICAL TWO-LANE HIGHWAY INTERSECTION WITH LEFT TURN BAYS



DETAIL A

DETAIL B

GENERAL NOTES

- Lane use word and arrow markings shall be used where through lanes approaching an intersection become mandatory turn lanes. Lane use word and arrow markings should be used in auxiliary lanes of substantial length. Lane use arrow markings or word and arrow markings may be used in other lanes and turn bays for emphasis. Details for words and arrows are as shown in the Standard Highway Sign Designs for Texas.
- When lane-use words and arrow markings are used, two sets of arrows should be used if the length of the bay is greater than 180 feet. When a single lane use arrow or word and arrow marking is used for a short turn lane, it should be located at or near the upstream end of the full-width turn lane.
- Use raised pavement marker Type I-C with undivided highways, flush medians and two way left turn lanes. Use raised pavement marker Type II-C-R with divided highways and raised medians.
- Length of turn bays, including taper, deceleration, and storage lengths shall be as shown on the plans or as directed by the Engineer.

MATERIAL SPECIFICATIONS

PAVEMENT MARKERS (REFLECTORIZED)	DMS-4200
EPOXY AND ADHESIVES	DMS-6100
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-6130
TRAFFIC PAINT	DMS-8200
HOT APPLIED THERMOPLASTIC	DMS-8220
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240

All pavement marking materials shall meet the required Departmental Material Specifications as specified by the plans.

Texas Department of Transportation
Traffic Safety Division Standard

TWO-WAY LEFT TURN LANES, RURAL LEFT TURN BAYS, AND LANE REDUCTION PAVEMENT MARKINGS PM(3)-20

FILE: pm3-20.dgn	DATE: 01/11/1998	CONTRACT: 3210	SECTION: 01	JOB: 018	HIGHWAY: FM2770
REVISIONS:	5-00 2-10	DIST: COUNTY	SHEET NO.		
8-00 2-12	3-03 6-20	AUS HAYS	53		

SIGN SUPPORT DESCRIPTIVE CODES

(Descriptive Codes correspond to project estimate and quantities sheets)

SM RD SGN ASSM TY XXXXX(X)XX(X-XXXX)

Post Type

FRP = Fiberglass Reinforced Plastic Pipe (see SMD(FRP))
TWT = Thin-Walled Tubing (see SMD(TWT))
10BWG = 10 BWG Tubing (see SMD(SLIP-1) to (SLIP-3))
S80 = Schedule 80 Pipe (see SMD(SLIP-1) to (SLIP-3))

Number of Posts (1 or 2)

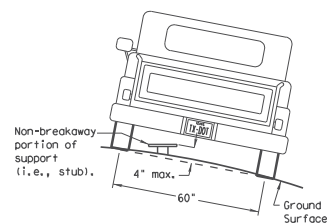
Anchor Type

UA = Universal Anchor - Concreted (see SMD(FRP) and (TWT))
UB = Universal Anchor - Bolted down (see SMD(FRP) and (TWT))
WS = Wedge Anchor Steel - (see SMD(TWT))
WP = Wedge Anchor Plastic (see SMD(TWT))
SA = Slipbase - Concreted (see SMD(SLIP-1) to (SLIP-3))
SB = Slipbase - Bolted Down (see SMD(SLIP-1) to (SLIP-3))

Sign Mounting Designation

P = Prefab. "Plain" (see SMD(SLIP-1) to (SLIP-3), (TWT), (FRP))
T = Prefab. "T" (see SMD(SLIP-1) to (SLIP-3), (TWT))
U = Prefab. "U" (see SMD(SLIP-1) to (SLIP-3))
IF REQUIRED
TEXT or 2EXT = Number of Extensions (see SMD(SLIP-1) to (SLIP-3), (TWT))
BM = Extruded Wind Beam (see SMD(SLIP-1) to (SLIP-3))
WC = 1, 1/2 #/ft W/ing Channel (see SMD(SLIP-1) to (SLIP-3))
EXAL = Extruded Aluminum Sign Panels (see SMD(SLIP-3))

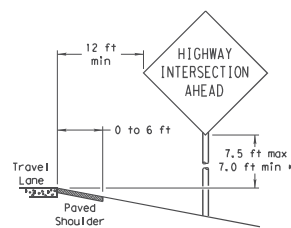
REQUIRED CLEARANCE FOR BREAKAWAY SUPPORT



To avoid vehicle undercarriage snagging, any substantial remains of a breakaway support, when it is broken away, should not project more than 4 inches above a 60-inch chord (i.e., typical space between wheel paths).

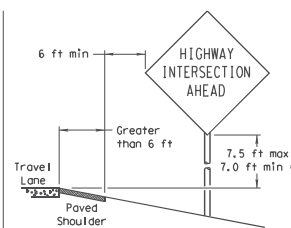
SIGN LOCATION

PAVED SHOULDERS



LESS THAN 6 FT. WIDE

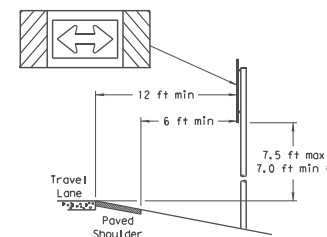
When the shoulder is 6 ft. or less in width, the sign must be placed at least 12 ft. from the edge of the travel lane.



GREATER THAN 6 FT. WIDE

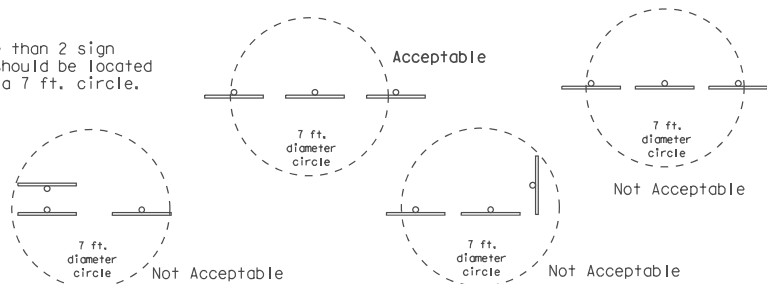
When the shoulder is greater than 6 ft in width, the sign must be placed at least 6 ft. from the edge of the shoulder.

T-INTERSECTION



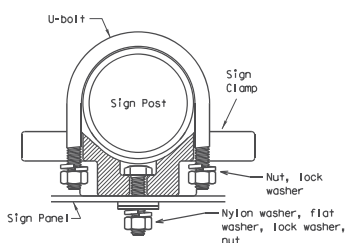
When this sign is needed at the end of a two-lane, two way roadway, the right edge of the sign should be in line with the centerline of the roadway. Place as close to ROW as practical.

No more than 2 sign posts should be located within a 7 ft. circle.



TYPICAL SIGN ATTACHMENT DETAIL

Single Signs

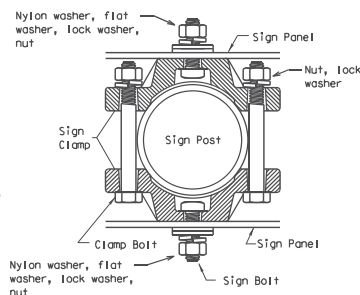


Bolts used to mount sign panels to the clamp are 5/16-18 UNC galvanized square head with nut, nylon washer, flat washer and lock washer. The bolt length is 1 inch for aluminum.

When two sign clamps are used to mount signs back-to-back, use a 5/16-18 UNC galvanized hex head per ASTM A307 with nut and helical-spring lock washer. The approximate bolt lengths for various post sizes and sign clamp types are given in the table at right. The bolt length may need to be adjusted depending upon field conditions.

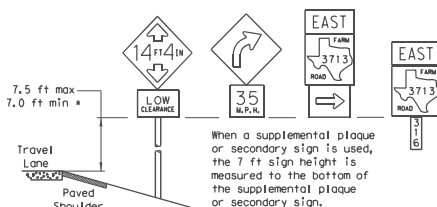
Sign clamps may be either the specific size clamp or the universal clamp.

Back-to-Back Signs



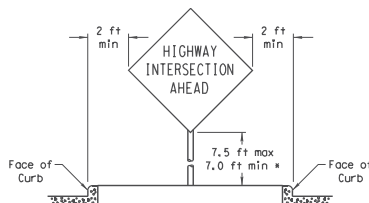
Pipe Diameter	Approximate Bolt Length	
	Specific Clamp	Universal Clamp
2" nominal	3"	3 or 3 1/2"
2 1/2" nominal	3 or 3 1/2"	3 1/2 or 4"
3" nominal	3 1/2 or 4"	4 1/2"

SIGNS WITH PLAQUES

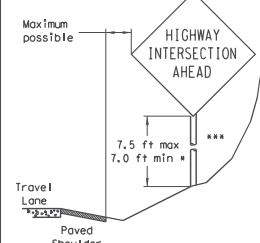


When a supplemental plaque or secondary sign is used, the 7 ft sign height is measured to the bottom of the supplemental plaque or secondary sign.

CURB & GUTTER OR RAISED ISLAND



RESTRICTED RIGHT-OF-WAY (When 6 ft min. is not possible.)



Right-of-way restrictions may be created by rocks, water, vegetation, forest, buildings, a narrow island, or other factors.

In situations where a lateral restriction prevents the minimum horizontal clearance from the edge of the travel lane, signs should be placed as far from the travel lane as practical.

*** Post may be shorter if protected by guardrail or if Engineer determines the post could not be hit due to extreme slope.

* Signs shall be mounted using the following condition that results in the greatest sign elevation:

- (1) a minimum of 7 to a maximum of 7.5 feet above the edge of the travel lane or
- (2) a minimum of 7 to a maximum of 7.5 feet above the grade at the base of the support when sign is installed on the backslope.

The maximum values may be increased when directed by the Engineer.

See the Traffic Operations Division website for detailed drawings of sign clamps, Triangular Slipbase System components and Wedge Anchor System components.

The website address is:
<https://www.txdot.gov/publications/traffic.htm>

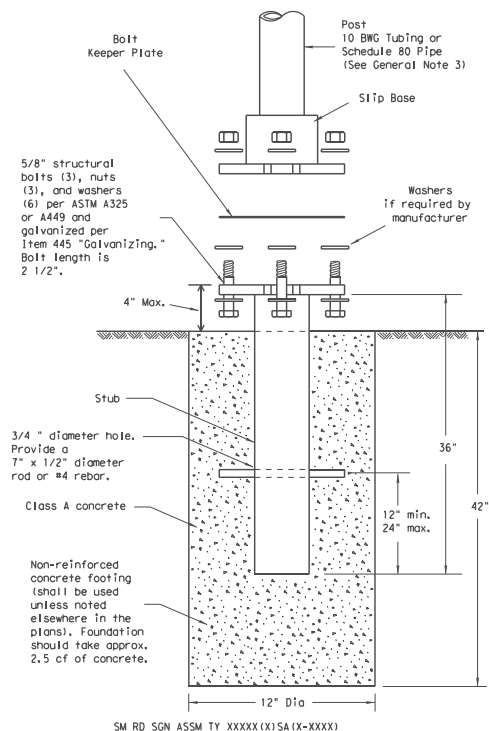


SIGN MOUNTING DETAILS SMALL ROADSIDE SIGNS GENERAL NOTES & DETAILS

SMD (GEN) -08

© TxDOT July 2002		DN: TxDOT	CK: TxDOT	DN: TxDOT	CK: TxDOT
9-08		CONT	SECT	JOB	HIGHWAY
		3210	01	018	FM2770
		DIST	COUNTY		SHEET NO.
		AUS	HAYS		54

TRIANGULAR SLIPBASE INSTALLATION GENERAL REQUIREMENTS



NOTE

There are various devices approved for the Triangular Slipbase System. Please reference the Material Producer List for approved slip base systems. http://www.txdot.gov/business/producer_list.htm The devices shall be installed per manufacturers' recommendations. Installation procedures shall be provided to the Engineer by Contractor.

GENERAL NOTES:

- Slip base shall be permanently marked to indicate manufacturer, method, design, and location of marking are subject to approval of the TxDOT Traffic Standards Engineer.
- Material used as post with this system shall conform to the following specifications:
 - 10 BWG Tubing (2.875" outside diameter)
 - 0.134" nominal wall thickness
 - Seamless or electric-resistance welded steel tubing or pipe
 - Steel shall be HSLAS Gr 95 per ASTM A1011 or ASTM A1008
 - Other steels may be used if they meet the following:
 - 55,000 PSI minimum yield strength
 - 70,000 PSI minimum tensile strength
 - 20% minimum elongation in 2"
 - Wall thickness (uncoated) shall be within the range of 0.122" to 0.138"
 - Outside diameter (uncoated) shall be within the range of 2.867" to 2.883"
 - Galvanization per ASTM A123 or ASTM A653 G210. For pre-coated steel tubing (ASTM A653), recoat tube outside diameter weld seam by metalizing with zinc wire per ASTM B833.
- Schedule 80 Pipe (2.875" outside diameter)
 - 0.276" nominal wall thickness
 - Steel tubing per ASTM A500 Gr C
 - Other seamless or electric-resistance welded steel tubing or pipe with equivalent outside diameter and wall thickness may be used if they meet the following:
 - 46,000 PSI minimum yield strength
 - 62,000 PSI minimum tensile strength
 - 21% minimum elongation in 2"
 - Wall thickness (uncoated) shall be within the range of 0.248" to 0.304"
 - Outside diameter (uncoated) shall be within the range of 2.855" to 2.895"
 - Galvanization per ASTM A123
- See the Traffic Operations Division website for detailed drawings of sign clamps and Texas Universal Triangular Slipbase System components. The website address is: <http://www.txdot.gov/publications/traffic.htm>
- Sign supports shall not be spliced except where shown. Sign support posts shall not be spliced.

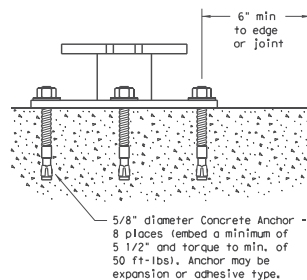
ASSEMBLY PROCEDURE

- Foundation
 - Prepare 12-inch diameter by 42-inch deep hole. If solid rock is encountered, the depth of the foundation may be reduced so that it is embedded a minimum of 18 inches into the solid rock.
 - The Engineer may permit batches of concrete less than 2 cubic yards to be mixed with a portable, motor-driven concrete mixer. For small placements less than 0.5 cubic yards, hand mixing in a suitable container may be allowed by Engineer. Concrete shall be Class A.
 - Push the pipe end of the slip base stub into the center of the concrete. Rotate the stub back and forth while pushing it down into the concrete to assure good contact between the concrete and stub. Continue to work the stub into the concrete until it is between 2 to 4 inches above the ground.
 - Plumb the stub. Allow a minimum of 4 days to set, unless otherwise directed by the Engineer.
 - The triangular slipbase system is multidirectional and is designed to release when struck from any direction.

Support

- Cut support so that the bottom of the sign will be 7 to 7.5 feet above the edge of the travelway (i.e., edge of the closest lane) when slip plate is below the edge of pavement or 7 to 7.5 feet above slip plate when the slip plate is above the edge of the travelway. The cut shall be plumb and straight.
- Attach sign to support using connections shown. When multiple signs are installed on the same support, ensure the minimum clearance between each sign is maintained. See SMD(SLIP-2) for clearances based on sign types.

CONCRETE ANCHOR



SM RD SGN ASSM TY XXXXX(X)SB(X-XXXX)

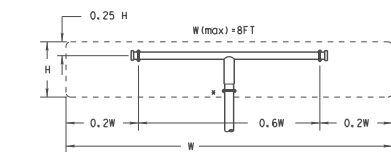
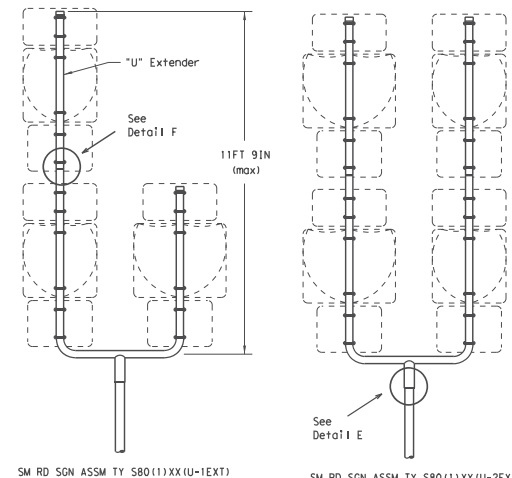
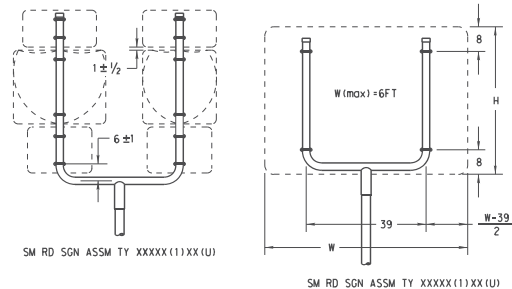
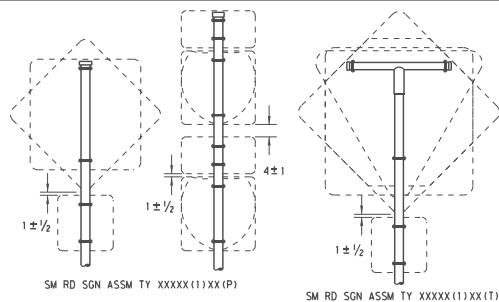
Concrete anchor consists of 5/8" diameter stud bolt with UNC series bolt threads on the upper end. Heavy hex nut per ASTM A563, and hardened washer per ASTM F436. The stud bolt shall have a minimum yield and ultimate tensile strength of 50 and 75 KSI, respectively. Nuts, bolts and washers shall be galvanized per Item 445, "Galvanizing." Adhesive type anchors shall have stud bolts installed with Type III epoxy per DMS-6100, "Epoxies and Adhesives." Adhesive anchors may be loaded after adequate epoxy cure time per the manufacturer's recommendations. Top of bolt shall extend at least flush with top of the nut when installed. The anchor, when installed in 4000 psi normal-weight concrete with a 5 1/2" minimum embedment, shall have a minimum allowable tension and shear of 3900 and 3100 psi, respectively.

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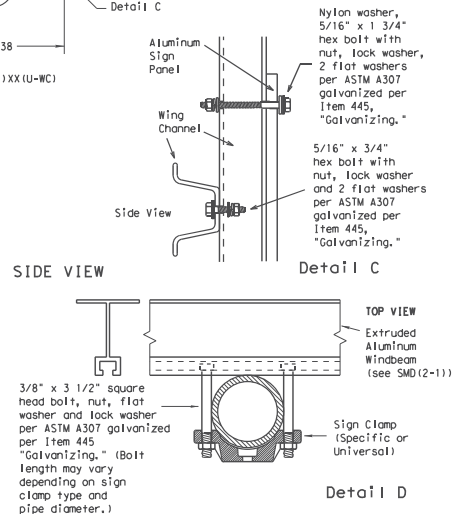
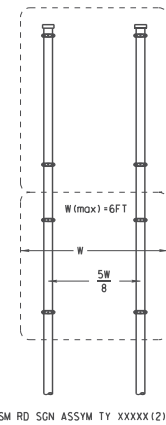
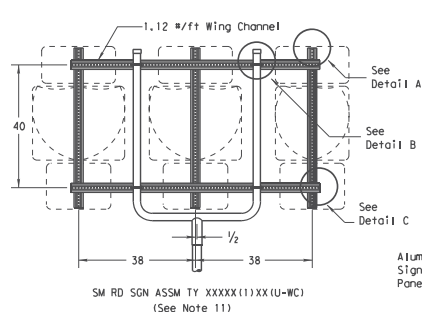
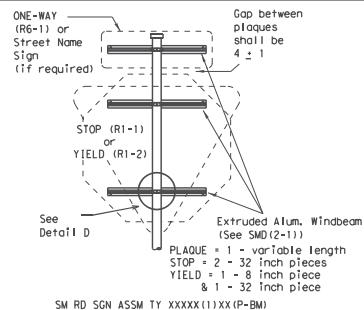
SIGN MOUNTING DETAILS SMALL ROADSIDE SIGNS TRIANGULAR SLIPBASE SYSTEM

SMD(SLIP-1)-08

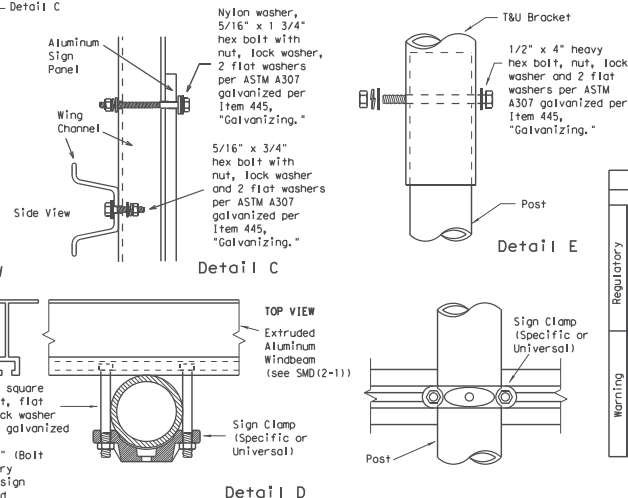
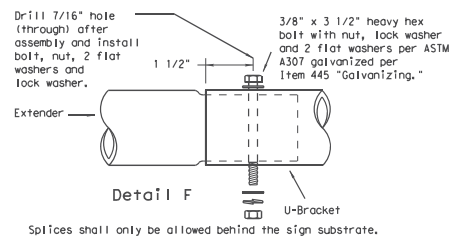
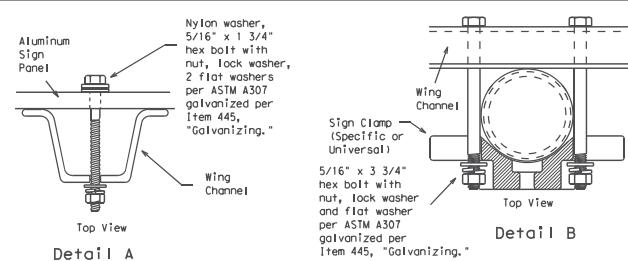
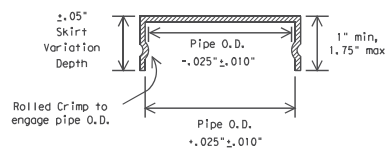
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		DIST	COUNTY		SHEET NO.
		AUS	HAYS		55



All dimensions are in english
unless detailed otherwise.

SM RD SGN ASSM TY XXXXX(1)XX(T)
(* - See Note 12)

FRICTION CAP DETAIL



Friction caps may be manufactured from hot rolled or cold rolled steel sheets. The minimum sheet metal thickness shall be 24 gauge for all cap sizes.

The rim edges shall be reasonably straight and smooth. Caps shall be sized and formed in such a manner as to produce a drive-on friction fit and have no tendency to rock when seated on the pipe. The depth shall be sufficient to give positive protection against entrance of rainwater. They shall be free of sharp creases or indentations and show no evidence of metal fracture.

Caps shall have an electrodeposited coating of zinc in accordance with the requirements of ASTM B633 Class FE/ZN 8.

GENERAL NOTES:

SIGN SUPPORT	# OF POSTS	MAX. SIGN AREA
10 BWG	1	16 SF
10 BWG	2	32 SF
Sch 80	1	32 SF
Sch 80	2	64 SF

2. The Engineer may require that a Schedule 80 post be used in place of a 10 BWG where a sign height is abnormally high due to a fill slope.
3. Sign supports shall not be spaced except where shown.
4. Sign supports shall be filled with concrete.
5. Aluminum sign blanks shall conform to Departmental Material Specifications DMS-7110 and shall have the following minimum thicknesses: 0.80 for signs less than 7.5 sq. ft., 0.100 for signs 7.5 to 15 sq. ft., and 0.125 for signs greater than 15 sq. ft.
6. Signs that require specific supports due to reasons in addition to windloading are indicated on the "REQUIRED SUPPORT" table on this sheet.
7. For horizontal rectangular signs fabricated from flat aluminum, T-brackets are used for signs 24 inches or less in height. U-brackets are used for signs of greater height.
8. When two triangular silhouette supports are used to support a site sign, they shall not be "rigidly" connected to each other except through the sign panel. This will allow each support to adjust independently when impacted by an errant vehicle.
9. Long channel steel, such as ASTM A 101 SS Gr 50 and be galvanized per ASTM A 123.
10. Excess pipe, wing channel, or window shall be cut off so that it does not extend beyond the sign panel. For example, excess support pipe shall be cut when the sign is viewed from the front. Repairs galvanized coating of cut support ends per Item 445, "Galvanizing".
11. Additional route markers may be added vertically, provided the total sign area does not exceed the maximum allowed.
12. Additional sign clamp required on the "T-bracket" post for 24 inch height signs. Place the clamp 3 inches above bottom of sign when possible.
13. Top open ends of the sign shall be fitted with Friction Caps.
14. Sign blanks shall be the sizes and shapes shown on the plans.

REQUIRED SUPPORT		
	SIGN DESCRIPTION	SUPPORT
Regulatory	48-inch STOP sign (R1-1)	TY 10BGW(1)XX(T) TY 10BGW(1)XX(P-BM)
	60-inch YIELD sign (R1-2)	TY 10BGW(1)XXX(T) TY 10BGW(1)XX(P-BM)
	48x16-inch ONE-WAY sign (R6-1)	TY 10BGW(1)XX(T) TY 10BGW(1)XX(P-BM)
	36x48, 48x36, and 48x48-inch signs	TY 10BGW(1)XX(T)
	48x60-inch signs	TY 580(1)XX(T)
Warning	48x48-inch signs (diamond or square)	TY 10BGW(1)XX(T)
	48x60-inch signs	TY 580(1)XX(T)
	48-inch Advance School X-ing sign (S1-1)	TY 10BGW(1)XX(T)
	48-inch School X-ing sign (S2-1)	TY 10BGW(1)XX(T)
	Large Arrow sign (W1-6 & W1-7)	TY 10BGW(1)XX(T)



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Traffic Operations Division

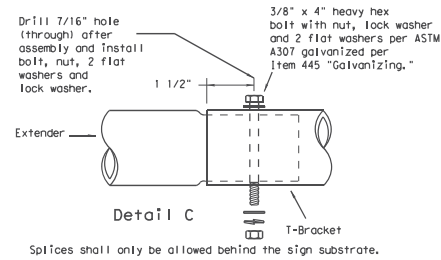
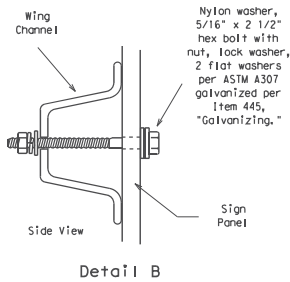
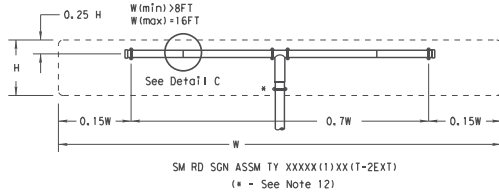
SIGN MOUNTING DETAILS SMALL ROADSIDE SIGNS TRIANGULAR SLIPBASE SYSTEM

SMD (SLIP-2) -08

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		DIST	COUNTY			SHEET NO.			
		AUS		HAYS			56		

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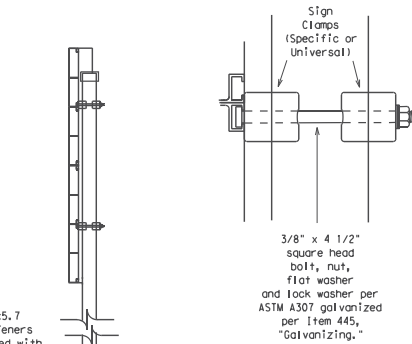
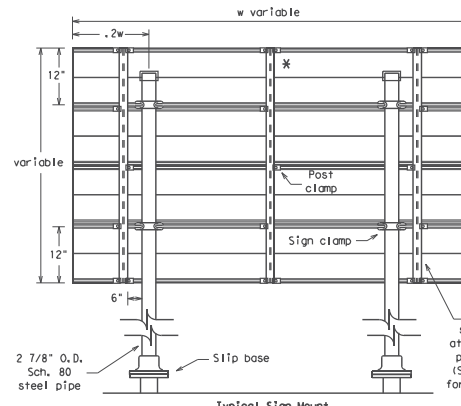
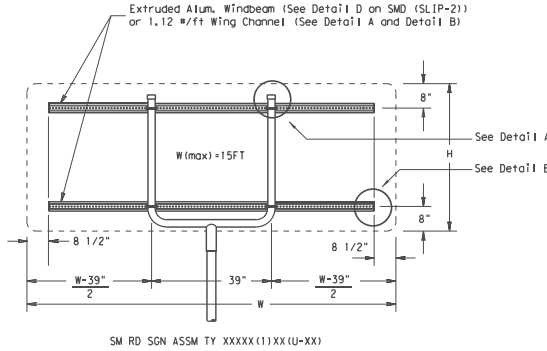
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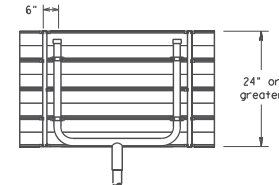
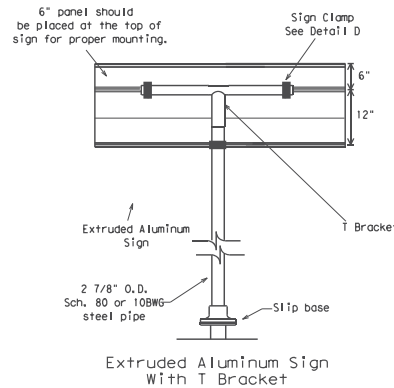
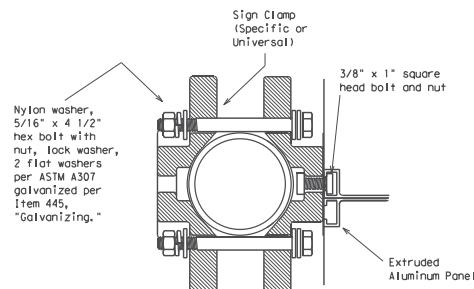
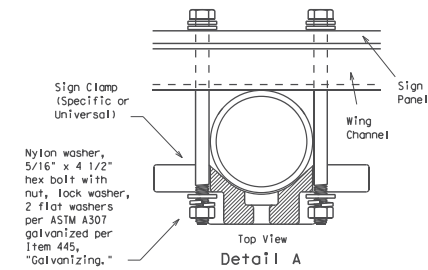
GENERAL NOTES:

1. SIGN SUPPORT # OF POSTS MAX. SIGN AREA

SIGN SUPPORT	# OF POSTS	MAX. SIGN AREA
10 BWG	1	16 SF
10 BWG	2	32 SF
Sch 80	1	32 SF
Sch 80	2	64 SF
2. The Engineer may require that a Schedule 80 post be used in place of a 10 BWG where a sign height is abnormally high due to a fill slope.
3. Sign supports shall not be spliced except where shown. Sign support posts shall not be spliced.
4. Aluminum sign blanks shall conform to Departmental Material Specifications DMS-7110 and shall have the following minimum thicknesses: 0.080 for signs less than 7.5 sq. ft., 0.100 for signs 7.5 to 15 sq. ft., and 0.125 for signs greater than 15 sq. ft.
5. Signs that require specific supports due to reasons in addition to windloading are indicated on the "REQUIRED SUPPORT" table on this sheet.
6. For horizontal rectangular signs fabricated from flat aluminum, T-brackets are used for signs 24 inches or less in height. U-brackets are used for signs of greater height.
7. When two triangular slipbase supports are used to support a single sign, they shall not be "rigidly" connected to each other except through the sign panel. This will allow each support to act independently when impacted by an errant vehicle.
8. Wing channel shall meet ASTM A 1011 SS Gr 50 and be galvanized per ASTM A 123.
9. Excess pipe, wing channel, or windbeam shall be cut off so that it does not extend beyond the sign panel (i.e., excess support shall not be visible when the sign is viewed from the front.) Repair galvanized coating at cut support ends per Item 445, "Galvanizing."
10. Sign blanks shall be the sizes and shapes shown on the plans.
11. Additional sign clamp required on the "T-bracket" post for 24 inch high signs. Place the clamp 3 inches above bottom of sign when possible.
12. Post open ends shall be fitted with Friction Caps.



REQUIRED SUPPORT		
Regulatory	SIGN DESCRIPTION	SUPPORT
	48-inch STOP sign (R1-1)	TY 10BWG(1)XX(T) TY 10BWG(1)XX(P-BM)
	60-inch YIELD sign (R1-2)	TY 10BWG(1)XX(T) TY 10BWG(1)XX(P-BM)
	48x16-inch ONE-WAY sign (R6-1)	TY 10BWG(1)XX(T) TY 10BWG(1)XX(P-BM)
	36x48, 48x36, and 48x48-inch signs	TY 10BWG(1)XX(T)
Warning	48x60-inch signs	TY S80(1)XX(T)
	48x48-inch signs (diamond or square)	TY 10BWG(1)XX(T)
	48x60-inch signs	TY S80(1)XX(T)
	48-inch Advance School X-ing sign (S1-1)	TY 10BWG(1)XX(T)
	48-inch School X-ing sign (S2-1)	TY 10BWG(1)XX(T)
	Large Arrow sign (W1-6 & W1-7)	TY 10BWG(1)XX(T)



Use Extruded Alum. Windbeam as stiffeners
See SMD (2-1) for additional details
See Detail E for clamp installation

Texas Department of Transportation
Traffic Operations Division

SIGN MOUNTING DETAILS SMALL ROADSIDE SIGNS TRIANGULAR SLIPBASE SYSTEM

SMD (SLIP-3) -08

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		3210	01	018
		DIST	COUNTY	HIGHWAY
		AUS	HAYS	FM2770
				SHEET NO.
				57

A. GENERAL SITE DATA

1. PROJECT LIMITS: FROM 2698' NORTH OF FM 1626 TO 4223' NORTH OF FM 1626

Project Coordinates: 30°03'12.07" N , 97°51'54.52" W

2. PROJECT SITE MAPS:

- * Project Location Map: The Title Sheet
- * Drainage Patterns: Erosion Control Sheet
- * Slopes Anticipated After Major Gradients or Areas of Soil Disturbance: Typical Sections
- * Location of Erosion and Sediment Controls: Erosion Control Sheet
- * Surface Waters and Discharge Locations: Erosion Control Sheet
- * Project Specific Locations: To be specified by the Project Field Office during construction and located in the Project SW3P File. Reference Item #10 below

3. PROJECT DESCRIPTION: CONSTRUCTION OF WIDENING AN EXISTING NON-FREEWAY FACILITY

4. MAJOR SOIL DISTURBING ACTIVITIES:

PREPARING RIGHT OF WAY, GRADING, EXCAVATION AND EMBANKMENT, FLEX BASE, EROSION AND SEDIMENT CONTROLS, AND SEEDING AND TOPSOIL.

5. EXISTING CONDITION OF SOIL & VEGETATIVE

COVER AND % OF EXISTING VEGETATIVE COVER:
SOIL IS AUSTIN-CASTEPHEN SILTY CLAY WITH NATIVE AND INTRODUCED GRASSES PROVIDING VEGETATIVE COVER. PROJECT SITE IS 75% GRASS AND 25% IMPERVIOUS COVER CONSISTING OF ROADWAY AND DRIVEWAYS.

6. TOTAL PROJECT AREA: 3.2 AC.

7. TOTAL AREA TO BE DISTURBED: 1.87 AC.

8. WEIGHTED RUNOFF COEFFICIENT
BEFORE CONSTRUCTION: 0.67
AFTER CONSTRUCTION: 0.73

9. NAME OF RECEIVING WATERS: (Segment Number of Receiving waters)

HALF OF PROJECT DRAINS TO MUSTANG BRANCH WHICH DRAINS TO ONION CREEK - SEGMENT 1427.
HALF OF PROJECT DRAINS TO BUNTON BRANCH WHICH DRAINS TO PLUM CREEK - SEGMENT 1810.

10. PROJECT SW3P FILE: FOR PROJECTS DISTURBING ONE ACRE OR MORE, TxDOT WILL MAINTAIN AN SW3P FILE WITH ALL PERTINENT ENVIRONMENTAL DOCUMENTS, CORRESPONDENCE, ETC. AT THE PROJECT FIELD OFFICE. IF NO FIELD OFFICE IS AVAILABLE THEN THE SW3P FILE SHALL BE KEPT IN THE INSPECTOR'S TRUCK.

B. EROSION AND SEDIMENT CONTROLS

1. SOIL STABILIZATION PRACTICES:

- ☒ TEMPORARY SEEDING
- ☒ PERMANENT PLANTING, SODDING, OR SEEDING
- ☐ MULCHING
- ☒ SOIL RETENTION BLANKET
- ☐ BUFFER ZONES
- ☐ PRESERVATION OF NATURAL RESOURCES

OTHER:
DISTURBED AREAS ON WHICH CONSTRUCTION ACTIVITY HAS CEASED (TEMPORARILY OR PERMANENTLY) SHALL BE STABILIZED WITHIN 14 DAYS UNLESS ACTIVITIES ARE SCHEDULED TO RESUME WITHIN 21 DAYS.

2. STRUCTURAL PRACTICES:

- ☒ SILT FENCES
- ☒ ROCK FILTER DAMS
- ☐ DIVERSION, INTERCEPTOR, OR PERIMETER DIKES
- ☐ DIVERSION, INTERCEPTOR, OR PERIMETER SWALES
- ☐ DIVERSION DIKE AND SWALE COMBINATIONS
- ☐ PIPE SLOPE DRAINS
- ☐ PAVED FLUMES
- ☐ ROCK BEDDING AT CONSTRUCTION EXIT
- ☐ TIMBER MATTING AT CONSTRUCTION EXIT
- ☐ CHANNEL LINERS
- ☐ SEDIMENT TRAPS
- ☐ SEDIMENT BASINS
- ☐ STORM INLET SEDIMENT TRAP
- ☐ STONE OUTLET STRUCTURES
- ☐ CURBS AND GUTTERS
- ☐ STORM SEWERS
- ☐ VELOCITY CONTROL DEVICES

OTHER:

3. STORM WATER MANAGEMENT:

STORM WATER GENERATED BY OFFSITE AREAS UPGRADIENT OF THE PROJECT WILL BE ROUTED THROUGH CULVERTS TO CROSS THE PROJECT AREA. THE UPGRADIENT RUNOFF WILL EITHER BE INTERCEPTED BY DRAINAGE DITCHES OR FLOW WITHIN EXISTING NATURAL CHANNELS TO REACH THE CULVERT ENTRANCES. ONSITE RUNOFF WILL FLOW THROUGH GRASS-LINED CHANNELS ALONG THE ROADWAY. EROSION CONTROL LOGS OR SILT FENCES WILL DIRECT OVERLAND (SHEET) FLOW TO ROCK FILTER DAMS PRIOR TO EXITING THE PROJECT.

4. STORM WATER MANAGEMENT ACTIVITIES: (Sequence of Construction)

1. INSTALL TEMPORARY EROSION CONTROL MEASURES AND BMP'S.
2. PREP ROW.
3. CONSTRUCT PHASE 1 ROADWAY, MAKING MINOR ADJUSTMENTS TO ROCK FILTER DAMS AS NEEDED. APPLY TEMPORARY SEEDING AS NEEDED.
4. PLACE TOPSOIL AND PERMANENT SEEDING.
5. REPEAT STEPS 1-4 FOR PHASE 2 WORK AREA.
6. AFTER THE ESTABLISHMENT OF VEGETATION, REMOVE ALL TEMPORARY EROSION CONTROL MEASURES AND RESEED ANY AREAS DISTURBED BY THEIR REMOVAL.

5. NON-STORM WATER DISCHARGES:

FILTER NON-STORM WATER DISCHARGES, OR HOLD RETENTION BASINS, BEFORE BEING ALLOWED TO MIX WITH STORM WATER. THESE DISCHARGES CONSIST OF NON-POLLUTED GROUND WATER, SPRING WATER, FOUNDATION AND/OR FOOTING DRAIN WATER; AND WATER USED FOR DUST CONTROL, PAVEMENT WASHING AND VEHICLE WASHWATER CONTAINING NO DETERGENTS.

C. OTHER REQUIREMENTS & PRACTICES

1. MAINTENANCE:

MAINTENANCE WILL BE PERFORMED AS INDICATED ON FIELD INSPECTION AND MAINTENANCE REPORT FORM 2118.

2. INSPECTION:

INSPECTION WILL BE PERFORMED AS INDICATED ON FIELD INSPECTION AND MAINTENANCE REPORT FORM 2118.

3. WASTE MATERIALS:

ALL WASTE MATERIALS WILL BE COLLECTED, STORED AND DISPOSED OF IN A LEGAL AND PROPER MANNER. NO CONSTRUCTION WASTE MATERIAL WILL BE BURIED ON SITE.

4. HAZARDOUS WASTE (INCLUDING SPILL REPORTING):

AT A MINIMUM, ANY PRODUCTS IN THE FOLLOWING CATEGORIES ARE CONSIDERED TO BE HAZARDOUS. PAINTS, ACIDS FOR CLEANING MASONRY SURFACES, CLEANING SOLVENTS, ASPHALT PRODUCTS, CHEMICAL ADDITIVES FOR SOIL STABILIZATION, OR CONCRETRECURING COMPOUNDS AND ADDITIVES. IN THE EVENT A SPILL WHICH MAY BE HAZARDOUS, THE SPILL COORDINATOR MUST BE CONTACTED IMMEDIATELY.

5. SANITARY WASTE:

ALL SANITARY WASTE WILL BE COLLECTED FROM THE PORTABLE UNITS AS NECESSARY OR AS REQUIRED BY LOCAL REGULATION BY A LICENSED SANITARY WASTE MANAGEMENT CONTRACTOR.

OFFSITE VEHICLE TRACKING:

- ☒ HAUL ROADS DAMPENED FOR DUST CONTROL
- ☒ LOADED HAUL TRUCKS TO BE COVERED WITH TARPULIN
- ☒ EXCESS DIRT ON ROAD REMOVED DAILY
- ☐ STABILIZED CONSTRUCTION ENTRANCE

OTHER:

EXCESS DIRT ON ROAD SHALL BE BROOMED AS NEEDED OR AS DIRECTED BY THE ENGINEER.

REMARKS: DISPOSAL AREAS, STOCKPILES AND HAUL ROADS SHALL BE CONSTRUCTED

IN A MANNER THAT WILL MINIMIZE AND CONTROL SEDIMENT FROM ENTERING RECEIVING WATERS. DISPOSAL AREAS SHALL NOT BE LOCATED IN ANY WATERBODY OR STREAMBED.

CONSTRUCTION STAGING AREAS AND VEHICLE MAINTENANCE AREAS SHALL BE CONSTRUCTED TO MINIMIZE THE RUNOFF OF POLLUTANTS.



HAYS COUNTY



WSB & ASSOCIATES, INC.
FIRM # 16849

FM 2770

STORM WATER POLLUTION
PREVENTION PLAN (SW3P)



6/29/2022

DATE: 6/29/2022		SHEET 1 OF 1	
STATE	STATE DIST. NO.	COUNTY	
TEXAS	AUS	HAYS	
CONT. SECT.	JOB	HIGHWAY NO.	SHEET NO.
3210	01	018	FM 2770 58

I. STORMWATER POLLUTION PREVENTION-CLEAN WATER ACT SECTION 402

TPDES TXR 150000: Stormwater Discharge Permit or Construction General Permit required for projects with 1 or more acres disturbed soil. Projects with any disturbed soil must protect for erosion and sedimentation in accordance with Item 506.

List MS4 Operator(s) that may receive discharges from this project. They may need to be notified prior to construction activities.

1.
2.
- ☐ No Action Required ☒ Required Action

Action No.

1. Prevent stormwater pollution by controlling erosion and sedimentation in accordance with TPDES Permit TXR 150000
2. Comply with the SW3P and revise when necessary to control pollution or required by the Engineer.
3. Post Construction Site Notice (CSN) with SW3P information on or near the site, accessible to the public and TCEQ, EPA or other inspectors.
4. When Contractor project specific locations (PSL's) increase disturbed soil area to 5 acres or more, submit NOI to TCEQ and the Engineer.

II. WORK IN OR NEAR STREAMS, WATERBODIES AND WETLANDS CLEAN WATER ACT SECTIONS 401 AND 404

USACE Permit required for filling, dredging, excavating or other work in any water bodies, rivers, creeks, streams, wetlands or wet areas.

The Contractor must adhere to all of the terms and conditions associated with the following permit(s):

- ☒ No Permit Required
- ☐ Nationwide Permit 14 - PCN not Required (less than 1/10th acre waters or wetlands affected)
- ☐ Nationwide Permit 14 - PCN Required (1/10 to <1/2 acre, 1/3 in tidal waters)
- ☐ Individual 404 Permit Required
- ☐ Other Nationwide Permit Required: NWP# _____

Required Actions: List waters of the US permit applies to, location in project and check Best Management Practices planned to control erosion, sedimentation and post-project TSS.

1.
2.
3.
4.

The elevation of the ordinary high water marks of any areas requiring work to be performed in the waters of the US requiring the use of a nationwide permit can be found on the Bridge Layouts.

Best Management Practices:

Erosion	Sedimentation	Post-Construction TSS
<input checked="" type="checkbox"/> Temporary Vegetation	<input checked="" type="checkbox"/> Silt Fence	<input type="checkbox"/> Vegetative Filter Strips
<input type="checkbox"/> Blankets/Matting	<input checked="" type="checkbox"/> Rock Berm	<input type="checkbox"/> Retention/Irrigation Systems
<input type="checkbox"/> Mulch	<input type="checkbox"/> Triangular Filter Dike	<input type="checkbox"/> Extended Detention Basin
<input type="checkbox"/> Sodding	<input type="checkbox"/> Sand Bag Berm	<input type="checkbox"/> Constructed Wetlands
<input type="checkbox"/> Interceptor Swale	<input type="checkbox"/> Straw Bale Dike	<input type="checkbox"/> Wet Basin
<input type="checkbox"/> Diversion Dike	<input type="checkbox"/> Brush Berms	<input type="checkbox"/> Erosion Control Compost
<input type="checkbox"/> Erosion Control Compost	<input type="checkbox"/> Erosion Control Compost	<input type="checkbox"/> Mulch Filter Berm and Socks
<input type="checkbox"/> Mulch Filter Berm and Socks	<input type="checkbox"/> Mulch Filter Berm and Socks	<input type="checkbox"/> Compost Filter Berm and Socks
<input type="checkbox"/> Compost Filter Berm and Socks	<input type="checkbox"/> Compost Filter Berm and Socks	<input type="checkbox"/> Vegetation Lined Ditches
	<input type="checkbox"/> Stone Outlet Sediment Traps	<input type="checkbox"/> Sand Filter Systems
	<input type="checkbox"/> Sediment Basins	<input type="checkbox"/> Grassy Swales

III. CULTURAL RESOURCES

Refer to TxDOT Standard Specifications in the event historical issues or archeological artifacts are found during construction. Upon discovery of archeological artifacts (bones, burnt rock, flint, pottery, etc.) cease work in the immediate area and contact the Engineer immediately.

- ☒ No Action Required ☐ Required Action

Action No.

1.
2.
3.
4.

IV. VEGETATION RESOURCES

Preserve native vegetation to the extent practical. Contractor must adhere to Construction Specification Requirements Specs 162, 164, 192, 193, 506, 730, 751, 752 in order to comply with requirements for invasive species, beneficial landscaping, and tree/brush removal commitments.

- ☒ No Action Required ☐ Required Action

Action No.

1.
2.
3.
4.

V. FEDERAL LISTED, PROPOSED THREATENED, ENDANGERED SPECIES, CRITICAL HABITAT, STATE LISTED SPECIES, CANDIDATE SPECIES AND MIGRATORY BIRDS.

- ☐ No Action Required ☒ Required Action

Action No.

1. See special provisions in Item 7 of the General Notes for avoiding impacts to the spot-tailed earless lizard.
- 2.

If any of the listed species are observed, cease work in the immediate area, do not disturb species or habitat and contact the Engineer immediately. The work may not remove active nests from bridges and other structures during nesting season of the birds associated with the nests. If caves or sinkholes are discovered, cease work in the immediate area, and contact the Engineer immediately.

LIST OF ABBREVIATIONS

BMP: Best Management Practice	SPCC: Spill Prevention Control and Countermeasure
CGP: Construction General Permit	SW3P: Storm Water Pollution Prevention Plan
DSHS: Texas Department of State Health Services	PCN: Pre-Construction Notification
FHWA: Federal Highway Administration	PSL: Project Specific Location
MOA: Memorandum of Agreement	TCEQ: Texas Commission on Environmental Quality
MOU: Memorandum of Understanding	TPDES: Texas Pollutant Discharge Elimination System
MS4: Municipal Separate Stormwater Sewer System	TPWD: Texas Parks and Wildlife Department
MBTA: Migratory Bird Treaty Act	TxDOT: Texas Department of Transportation
NOT: Notice of Termination	T&E: Threatened and Endangered Species
NWP: Nationwide Permit	USACE: U.S. Army Corps of Engineers
NOI: Notice of Intent	USFWS: U.S. Fish and Wildlife Service

VI. HAZARDOUS MATERIALS OR CONTAMINATION ISSUES

General (applies to all projects):

Comply with the Hazard Communication Act (the Act) for personnel who will be working with hazardous materials by conducting safety meetings prior to beginning construction and making workers aware of potential hazards in the workplace. Ensure that all workers are provided with personal protective equipment appropriate for any hazardous materials used. Obtain and keep on-site Material Safety Data Sheets (MSDS) for all hazardous products used on the project, which may include, but are not limited to the following categories: Paints, acids, solvents, asphalt products, chemical additives, fuels and concrete curing compounds or additives. Provide protected storage, off bare ground and covered, for products which may be hazardous. Maintain product labelling as required by the Act. Maintain an adequate supply of on-site spill response materials, as indicated in the MSDS. In the event of a spill, take actions to mitigate the spill as indicated in the MSDS, in accordance with safe work practices, and contact the District Spill Coordinator immediately. The Contractor shall be responsible for the proper containment and cleanup of all product spills.

Contact the Engineer if any of the following are detected:

- * Dead or distressed vegetation (not identified as normal)
- * Trash piles, drums, canister, barrels, etc.
- * Undesirable smells or odors
- * Evidence of leaching or seepage of substances

Does the project involve any bridge class structure rehabilitation or replacements (bridge class structures not including box culverts)?

- ☐ Yes ☒ No

If "No", then no further action is required.

If "Yes", then TxDOT is responsible for completing asbestos assessment/inspection.

Are the results of the asbestos inspection positive (is asbestos present)?

- ☐ Yes ☐ No

If "Yes", then TxDOT must retain a DSHS licensed asbestos consultant to assist with the notification, develop abatement/mitigation procedures, and perform management activities as necessary. The notification form to DSHS must be postmarked at least 15 working days prior to scheduled demolition.

If "No", then TxDOT is still required to notify DSHS 15 working days prior to any scheduled demolition.

In either case, the Contractor is responsible for providing the date(s) for abatement activities and/or demolition with careful coordination between the Engineer and asbestos consultant in order to minimize construction delays and subsequent claims.

Any other evidence indicating possible hazardous materials or contamination discovered on site. Hazardous Materials or Contamination Issues Specific to this Project:

- ☒ No Action Required ☐ Required Action

Action No.

1.
2.
3.

VII. OTHER ENVIRONMENTAL ISSUES

(includes regional issues such as Edwards Aquifer District, etc.)

- ☒ No Action Required ☐ Required Action

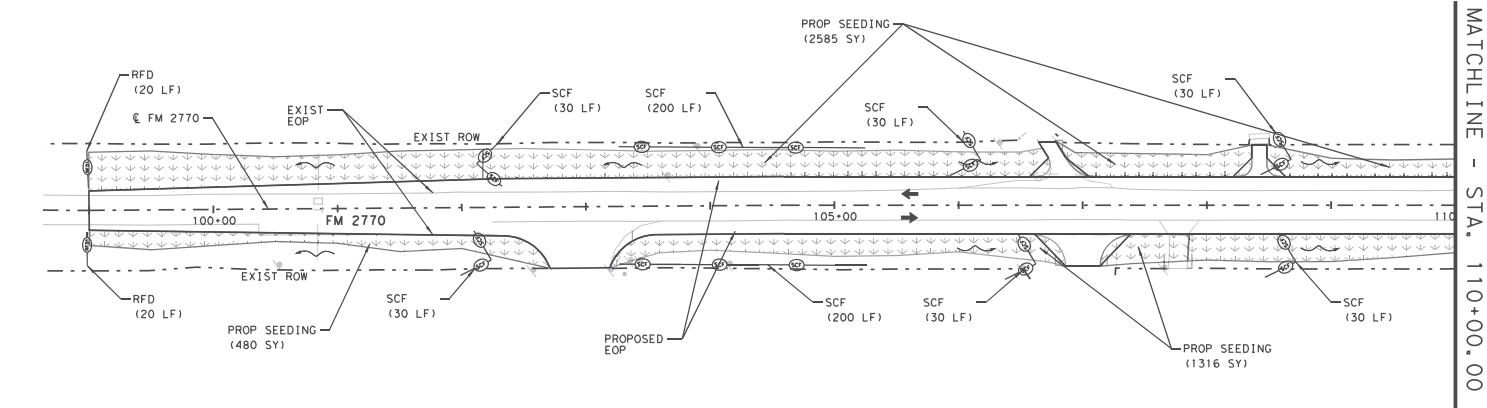
Action No.

- 1.



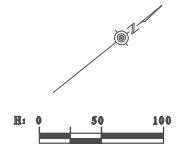
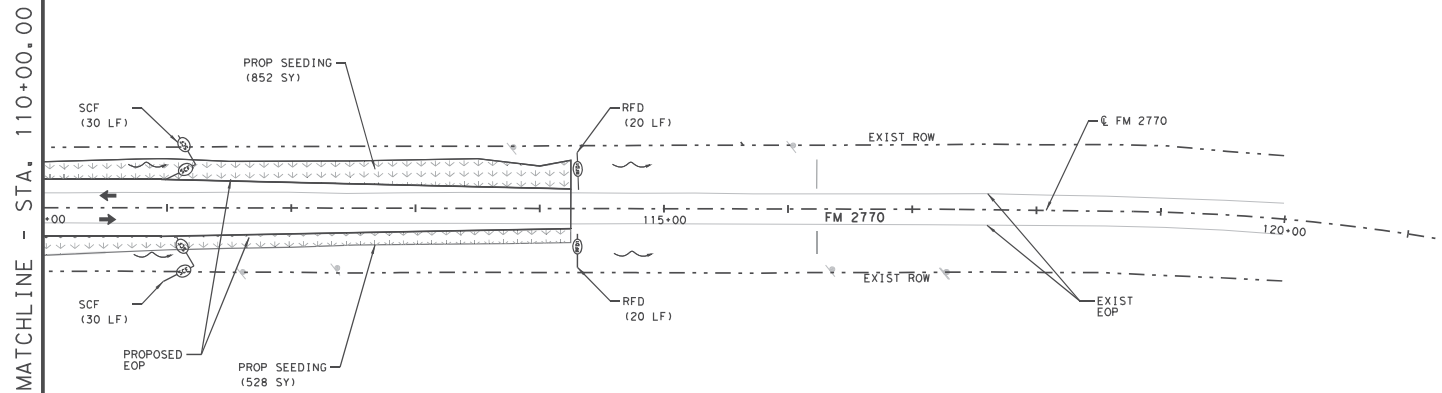
6/29/2022

		Design Division Standard	
ENVIRONMENTAL PERMITS, ISSUES AND COMMITMENTS			
EPIC			
FILE: epic.dgn	DN: TxDOT	CHK: RG	DN: VP
© TxDOT: February 2015	CONT	SECT	JOB
12-12-2011 1051	3210	01	018
05-07-14 ADDED NOTE SECTION IV.	DIST	COUNTY	FM2770
01-23-2015 SECTION I CHANGED ITEM 1122 TO ITEM 506, ADDED GRASSY SWALES.	AUS	HAYS	SHEET NO.
			59



SUMMARY OF EROSION CONTROL QUANTITIES

SYMBOL	ITEM NO.	DESCRIPTION	UNIT	QUANTITY
	160	FURN AND PLAC TPSL (4")	SY	5761
	164	DRILL SEEDING (TEMP) (WARM)	SY	2881
	164	DRILL SEEDING (PERM) (RURAL) (CLAY)	SY	5761
	506	ROCK FILTER DAM	LF	80
	506	TEMP SEDIMENT CONTROL FENCE	LF	640

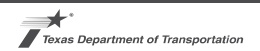


LEGEND

- TOPSOIL AND SEEDING
- FLOW DIRECTION
- ROCK FILTER DAM
- SEDIMENT CONTROL FENCE



6/29/2022



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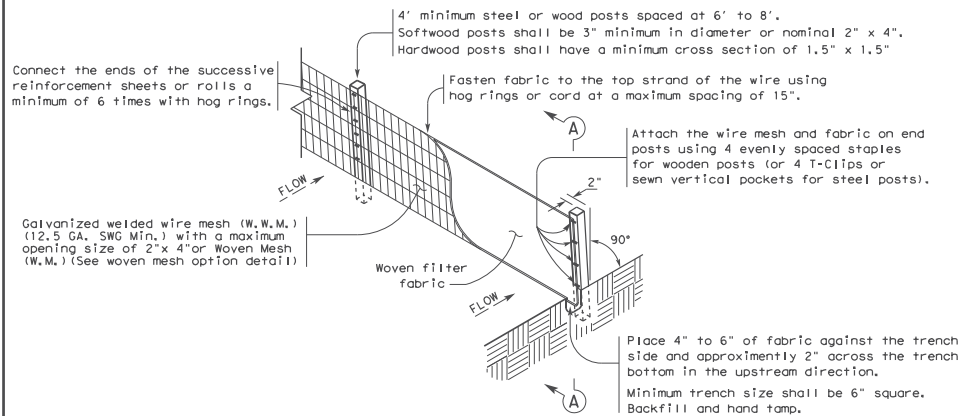
FM 2770

EROSION CONTROL

DATE: 6/29/2022				SHEET 1 OF 1	
STATE		STATE DIST. NO.		COUNTY	
TEXAS		AUS		HAYS	
CONT.	SECT.	JOB	HIGHWAY NO.		SHEET NO.
3210	01	018	FM 2770		60

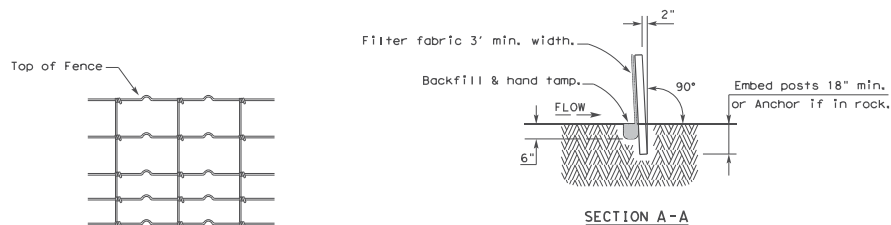
60412E2022
RFT10E6225-000.Cadd\Plan\am\STND\New Standard\ds\Environmental Issues\ec116.dgn

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TEMPORARY SEDIMENT CONTROL FENCE

SCF



HINGE JOINT KNOT WOVEN MESH (OPTION) DETAIL

Galvanized hinge joint knot woven mesh (12.5 GA. SWG Min.) requires a minimum of five horizontal wires spaced at a maximum of 12 inches apart and all vertical wires spaced at a maximum of 12 inches apart.

SEDIMENT CONTROL FENCE USAGE GUIDELINES

A sediment control fence may be constructed near the downstream perimeter of a disturbed area along a contour to intercept sediment from overland runoff. A 2 year storm frequency may be used to calculate the flow rate to be filtered.

Sediment control fence should be sized to filter a maximum flow through rate of 100 GPM/FT². Sediment control fence is not recommended to control erosion from a drainage area larger than 2 acres.

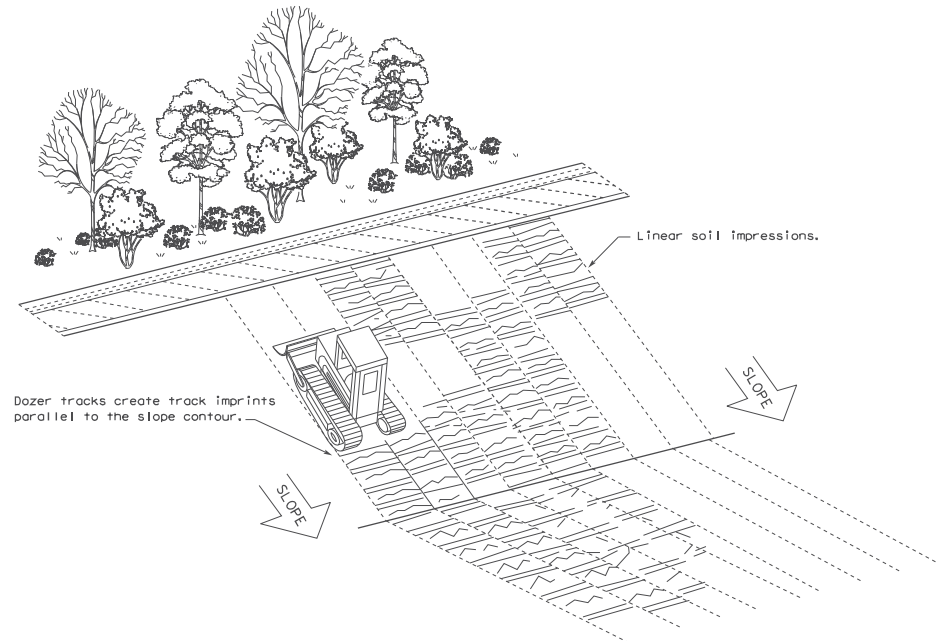
LEGEND

Sediment Control Fence


SCF

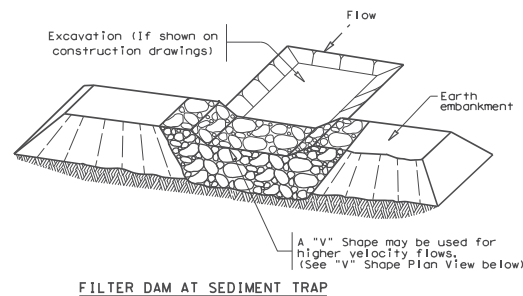
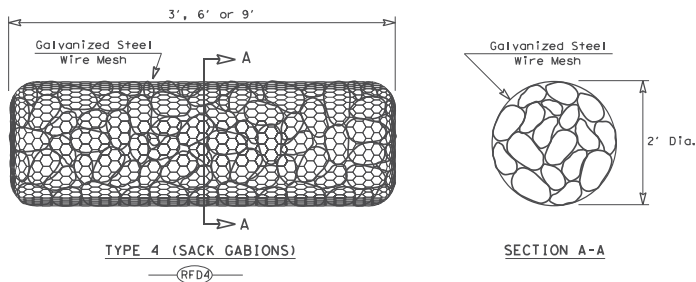
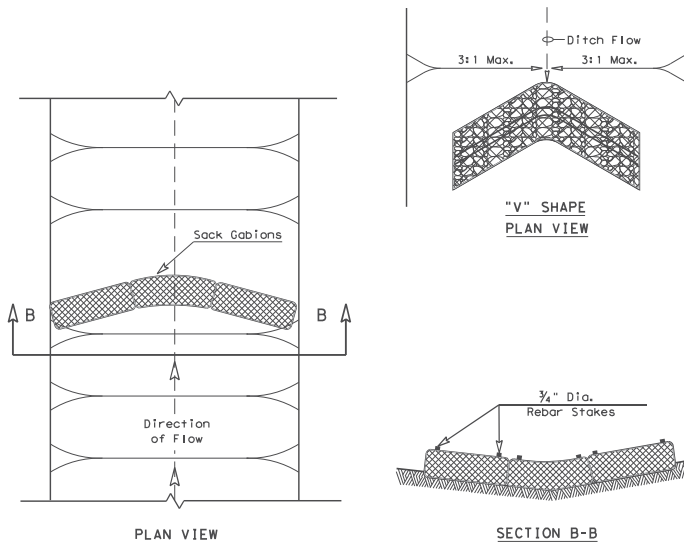
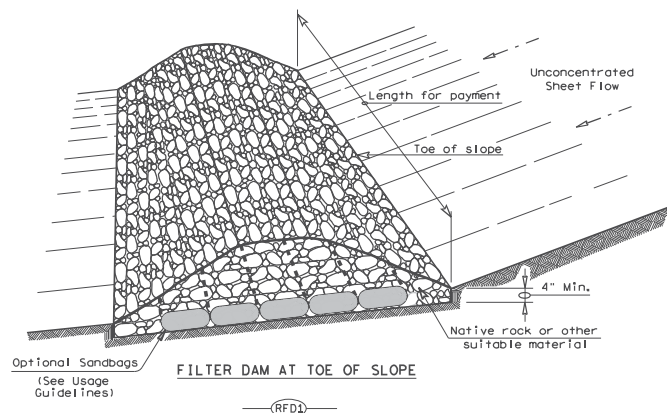
GENERAL NOTES

1. Vertical tracking is required on projects where soil distributing activities have occurred unless otherwise approved.
2. Perform vertical tracking on slopes to temporarily stabilize soil.
3. Provide equipment with a track undercarriage capable of producing linear soil impressions measuring a minimum of 12" in length by 2" to 4" in width by 1/2" to 2" in depth.
4. Do not exceed 12" between track impressions.
5. Install continuous linear track impressions where the minimum 12" length impressions are perpendicular to the slope or direction of water flow.

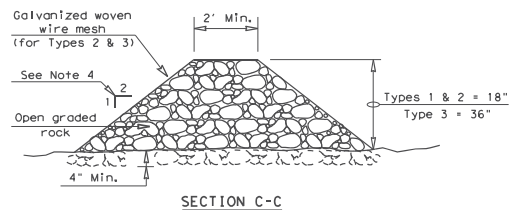
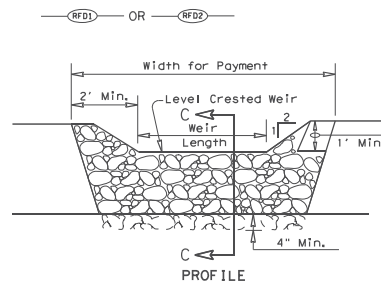


VERTICAL TRACKING

 Texas Department of Transportation				<i>Design Division Standard</i>	
<div>TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL MEASURES FENCE & VERTICAL TRACKING EC(1)-16</div>					
FILE: ec116		DN:TxDOT	CK: KM	DN: VP	DN/CK: LS
© TxDOT: JULY 2016		CONT	SECT	JOB	HIGHWAY
REVISIONS		3210	01	018	FM2770
		DIST	COUNTY		SHEET NO.
		AUS	HAYS		61



FILTER DAM AT SEDIMENT TRAP



ROCK FILTER DAM USAGE GUIDELINES

Rock Filter Dams should be constructed downstream from disturbed areas to intercept sediment from overland runoff and/or concentrated flow. The dams should be sized to filter a maximum flow through rate of 60 GPM/FT² of cross sectional area. A 2 year storm frequency may be used to calculate the flow rate.

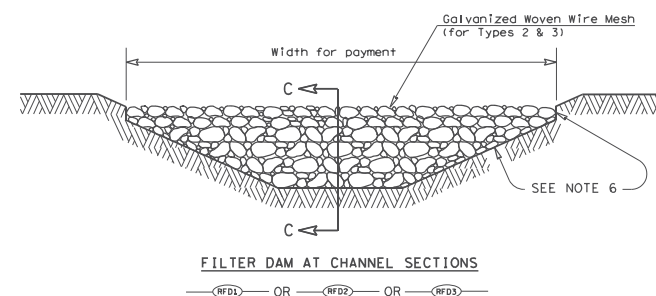
Type 1 (18" high with no wire mesh) (3" to 6" aggregate): Type 1 may be used at the toe of slopes, around inlets, in small ditches, and at dike or swale outlets. This type of dam is recommended to control erosion from a drainage area of 5 acres or less. Type 1 may not be used in concentrated high velocity flows (approximately 8 Ft/Sec or more) in which aggregate wash out may occur. Sandbags may be used at the embedded foundation (4" deep min.) for better filtering efficiency of low flows if called for on the plans or directed by the Engineer.

Type 2 (18" high with wire mesh) (3" to 6" aggregate): Type 2 may be used in ditches and at dike or swale outlets.

Type 3 (36" high with wire mesh) (4" to 8" aggregate): Type 3 may be used in stream flow and should be secured to the stream bed.

Type 4 (Sack gabions) (3" to 6" aggregate): Type 4 May be used in ditches and smaller channels to form an erosion control dam.

Type 5: Provide rock filter dams as shown on plans.



FILTER DAM AT CHANNEL SECTIONS


RFD1 OR RFD2 OR RFD3

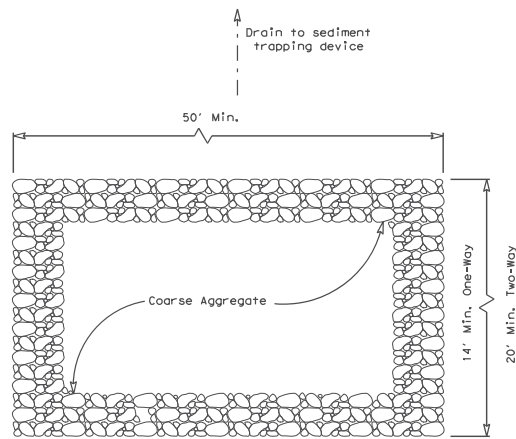
GENERAL NOTES

1. If shown on the plans or directed by the Engineer, filter dams should be placed near the toe of slopes where erosion is anticipated, upstream and/or downstream at drainage structures, and in roadway ditches and channels to collect sediment.
2. Materials (aggregate, wire mesh, sandbags, etc.) shall be as indicated by the specification for "Rock Filter Dams for Erosion and Sedimentation Control".
3. The rock filter dam dimensions shall be as indicated on the SW3P plans.
4. Side slopes should be 2:1 or flatter. Dams within the safety zone shall have sideslopes of 6:1 or flatter.
5. Maintain a minimum of 1' between top of rock filter dam weir and top of embankment for filter dams at sediment traps.
6. Filter dams should be embedded a minimum of 4" into existing ground.
7. The sediment trap for ponding of sediment laden runoff shall be of the dimensions shown on the plans.
8. Rock filter dam types 2 & 3 shall be secured with 20 gauge galvanized woven wire mesh with 1" diameter hexagonal openings. The aggregate shall be placed on the mesh to the height & slopes specified. The mesh shall be folded at the upstream side over the aggregate and tightly secured to itself on the downstream side using wire ties or hog rings. For in stream use, the mesh should be secured or staked to the stream bed prior to aggregate placement.
9. Sack Gabions should be staked down with 3/4" dia. rebar stakes, and have a double-twisted hexagonal weave with a nominal mesh opening of 2 1/2" x 3 1/4"
10. Flow outlet should be onto a stabilized area (vegetation, rock, etc.).
11. The guidelines shown hereon are suggestions only and may be modified by the Engineer.

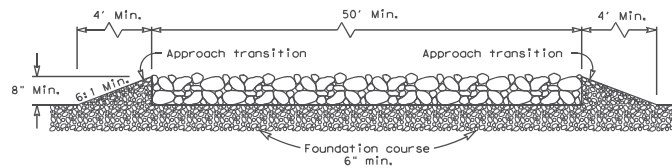
PLAN SHEET LEGEND

- Type 1 Rock Filter Dam — RFD1 —
Type 2 Rock Filter Dam — RFD2 —
Type 3 Rock Filter Dam — RFD3 —
Type 4 Rock Filter Dam — RFD4 —

 Texas Department of Transportation				Design Division Standard	
TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL MEASURES ROCK FILTER DAMS EC(2)-16					
FILE: ec216	DN:TxDOT	CR:KM	DN:VP	DN:CH:LS	
© TxDOT: JULY 2016	CONT	SECT	JOB	HIGHWAY	
REVISIONS	3210	01	018	FM2770	
	DIST	COUNTY		SHEET NO.	
	AUS	HAYS		62	



PLAN VIEW

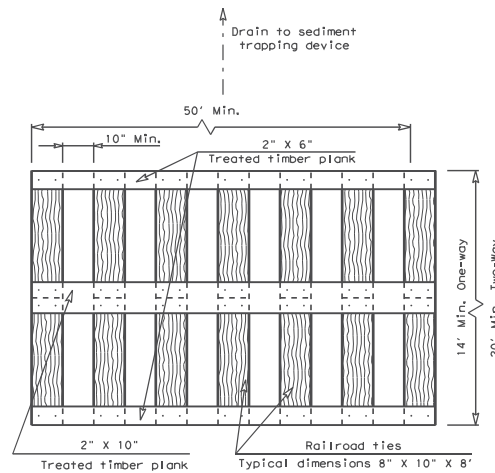


ELEVATION VIEW

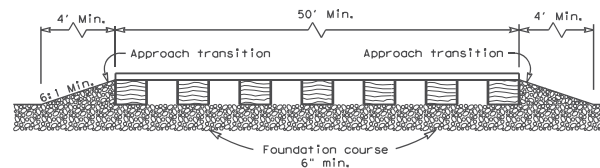
CONSTRUCTION EXIT (TYPE 1)
ROCK CONSTRUCTION (LONG TERM)

GENERAL NOTES (TYPE 1)

1. The length of the type 1 construction exit shall be as indicated on the plans, but not less than 50'.
2. The coarse aggregate should be open graded with a size of 4" to 8".
3. The approach transitions should be no steeper than 6:1 and constructed as directed by the Engineer.
4. The construction exit foundation course shall be flexible base, bituminous concrete, portland cement concrete or other materials approved by the Engineer.
5. The construction exit shall be graded to allow drainage to a sediment trapping device.
6. The guidelines shown hereon are suggestions only and may be modified by the Engineer.
7. Construct exits with a width of at least 14 ft. for one-way and 20 ft. for two-way traffic for the full width of the exit, or as directed by the engineer.



PLAN VIEW

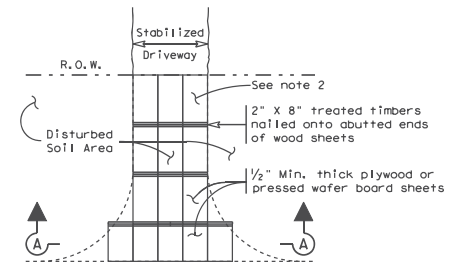


ELEVATION VIEW

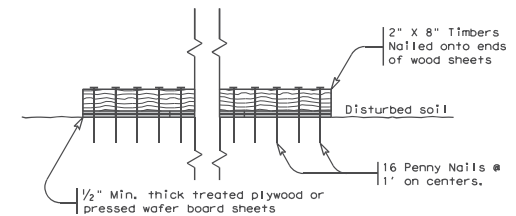
CONSTRUCTION EXIT (TYPE 2)
TIMBER CONSTRUCTION (LONG TERM)

GENERAL NOTES (TYPE 2)

1. The length of the type 2 construction exit shall be as indicated on the plans, but not less than 50'.
2. The treated timber planks shall be attached to the railroad ties with 1/2" x 6" min. lag bolts. Other fasteners may be used as approved by the Engineer.
3. The treated timber planks shall be #2 grade min., and should be free from large and loose knots.
4. The approach transitions shall be no steeper than 6:1 and constructed as directed by the Engineer.
5. The construction exit foundation course shall be flexible base, bituminous concrete, portland cement concrete or other material as approved by the Engineer.
6. The construction exit should be graded to allow drainage to a sediment trapping device.
7. The guidelines shown hereon are suggestions only and may be modified by the Engineer.
8. Construct exits with a width of at least 14 ft. for one-way and 20 ft. for two-way traffic for the full width of the exit, or as directed by the engineer.



PLAN VIEW



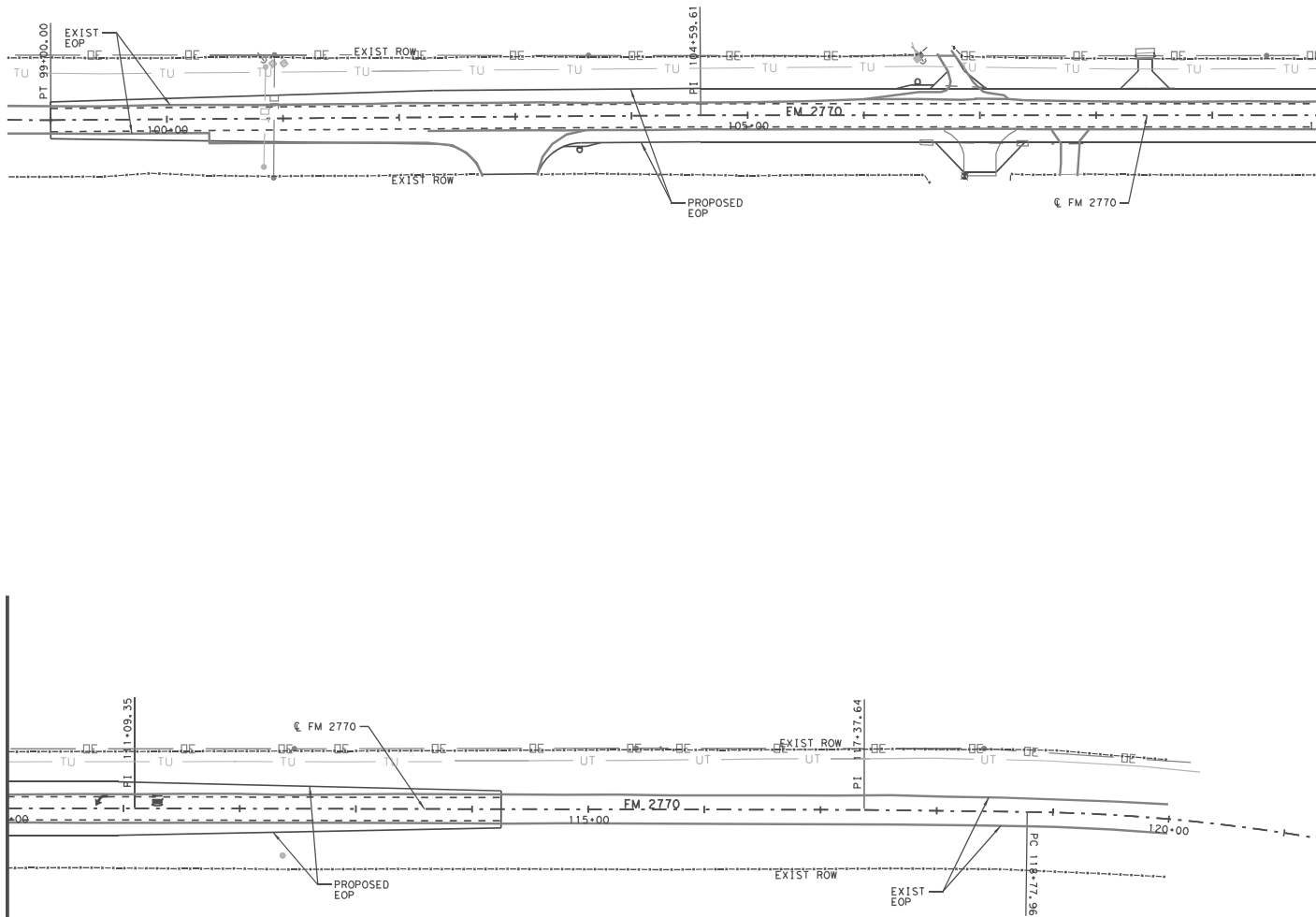
SECTION A-A
CONSTRUCTION EXIT (TYPE 3)
SHORT TERM

GENERAL NOTES (TYPE 3)

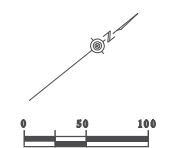
1. The length of the type 3 construction exit shall be as shown on the plans, or as directed by the Engineer.
2. The type 3 construction exit may be constructed from open graded crushed stone with a size of two to four inches spread a min. of 4" thick to the limits shown on the plans.
3. The treated timber planks shall be #2 grade min., and should be free from large and loose knots.
4. The guidelines shown hereon are suggestions only and may be modified by the Engineer.

		Design Division Standard	
TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL MEASURES			
CONSTRUCTION EXITS			
EC (3) - 16			
FILE: ec316	DN: TXDOT	CR: KM	DN: VP
© TXDOT JULY 2016	CONT	SECT	JOB
REVISIONS	3210	01	018
DIST	COUNTY		FM2770
AUS	HAYS		SHEET NO.
			63

MATCHLINE - STA. 110+00.00



MATCHLINE - STA. 110+00.00



- LEGEND**
- OE — OVERHEAD ELECTRICAL
 - OT — OVERHEAD TELEPHONE
 - UT — UNDERGROUND TELEPHONE
 - TU — UNDERGROUND TELEPHONE
 - WIRE FENCE
 - ⊞ ELECTRIC TRANSFORMER
 - ⊙ ELECTRIC JUNCTION BOX
 - ⊙ TELEPHONE MANHOLE
 - ⊕ MONUMENT BENCH MARK
 - GUY ANCHOR
 - ELECTRIC POWER POLE



Daniel A. Rogers
 6/29/2022



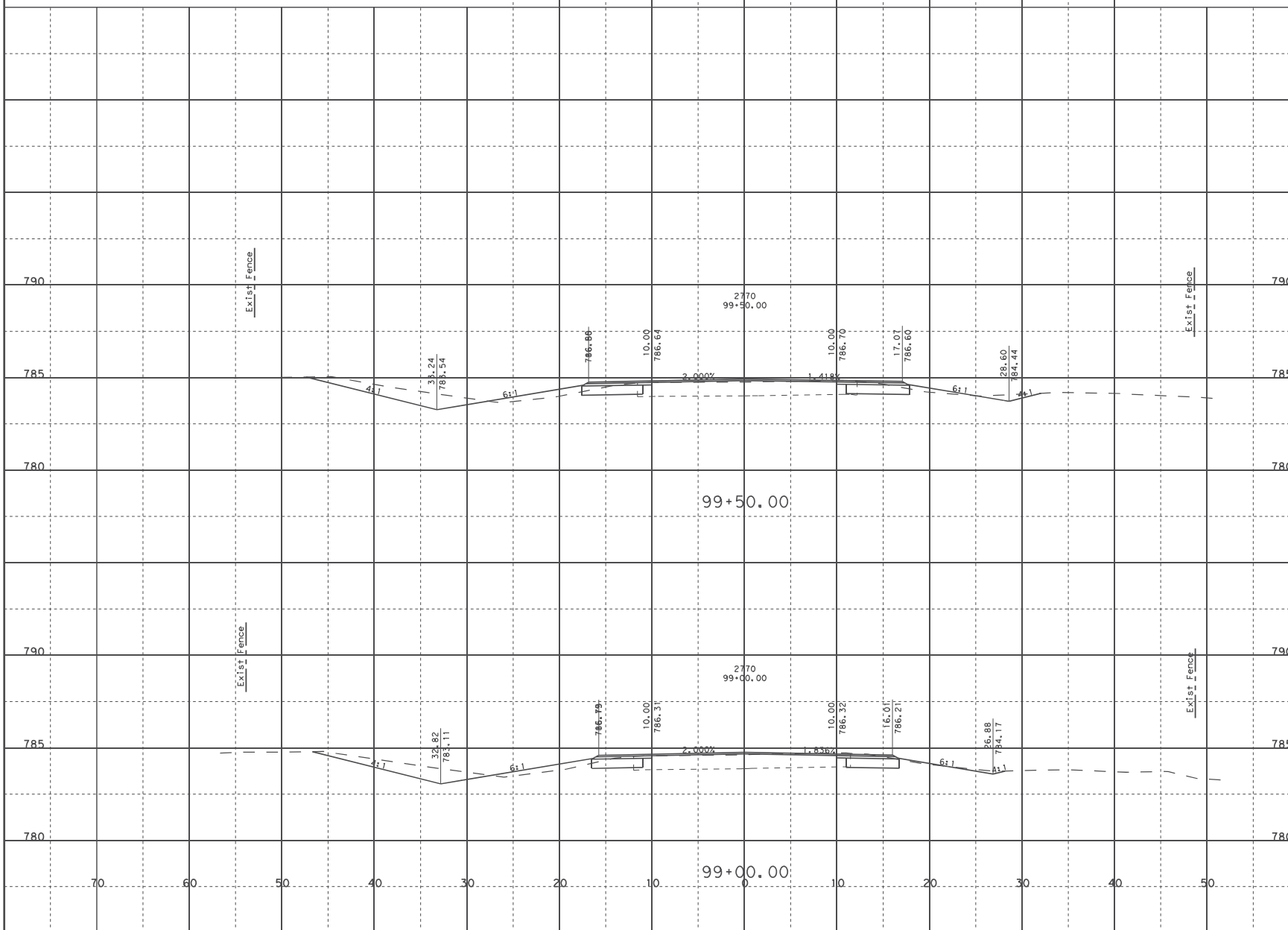
wsb WSB & ASSOCIATES, INC.
 FIRM # 16849

FM 2770
 EXISTING UTILITIES

DATE: 6/29/2022			SHEET 1 OF 1	
STATE		STATE DIST. NO.		COUNTY
TEXAS		AUS		HAYS
CONT. SECT.	JOB	HIGHWAY NO.		SHEET NO.
3210	01	018	FM 2770	64

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Date: 6/29/2022



HAYS COUNTY

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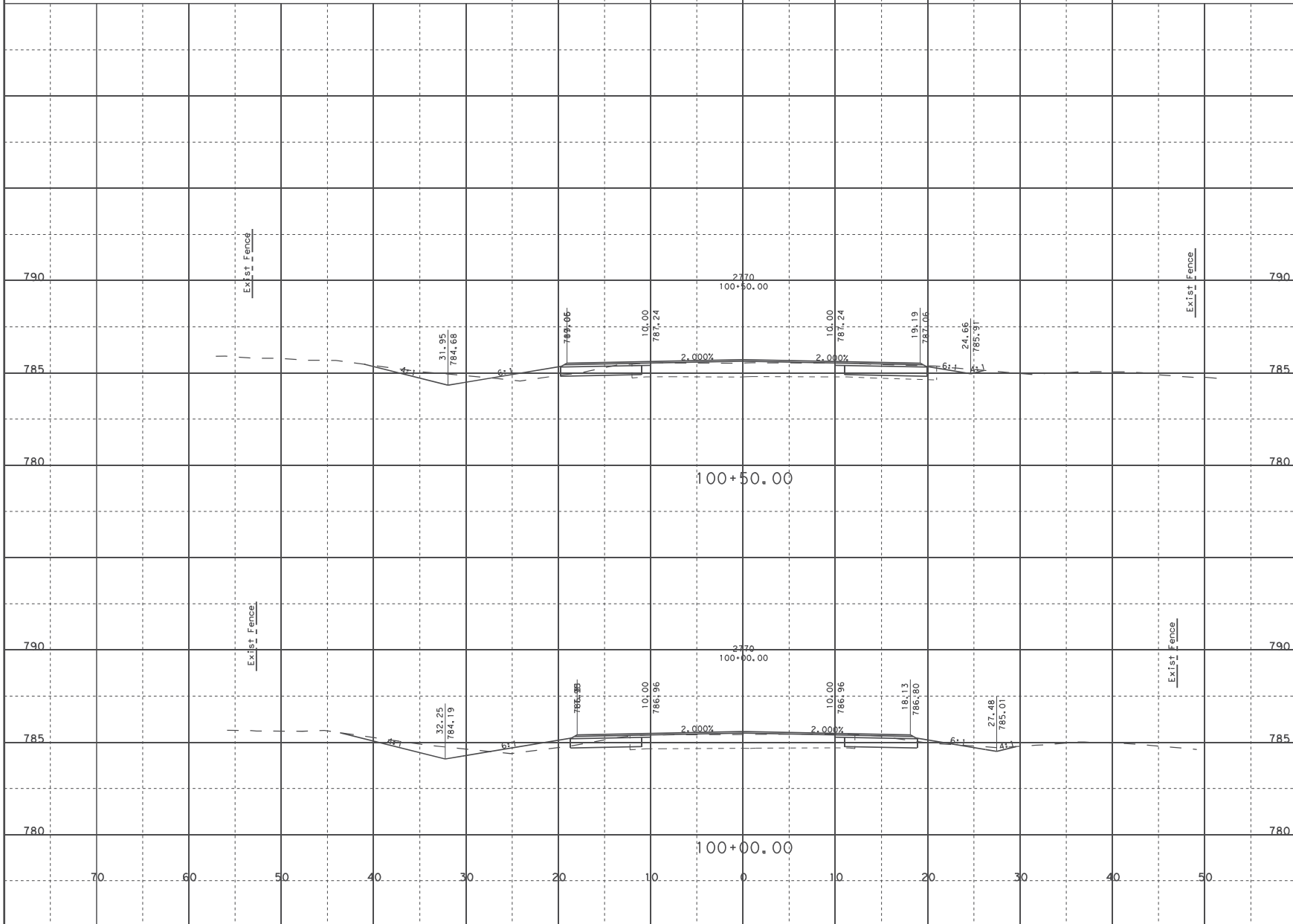
PROPOSED CROSS SECTIONS

SCALE: HORIZONTAL 1" = 10'
VERTICAL 1" = 10'

DATE: 6/29/2022	SHEET 1 OF 15
STATE: TEXAS	DIST. NO. 01
COUNTY: HAYS	JOB: FM 2770
SHEET NO. 65	

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Date: 6/29/2022



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FM 2770

PROPOSED CROSS SECTIONS

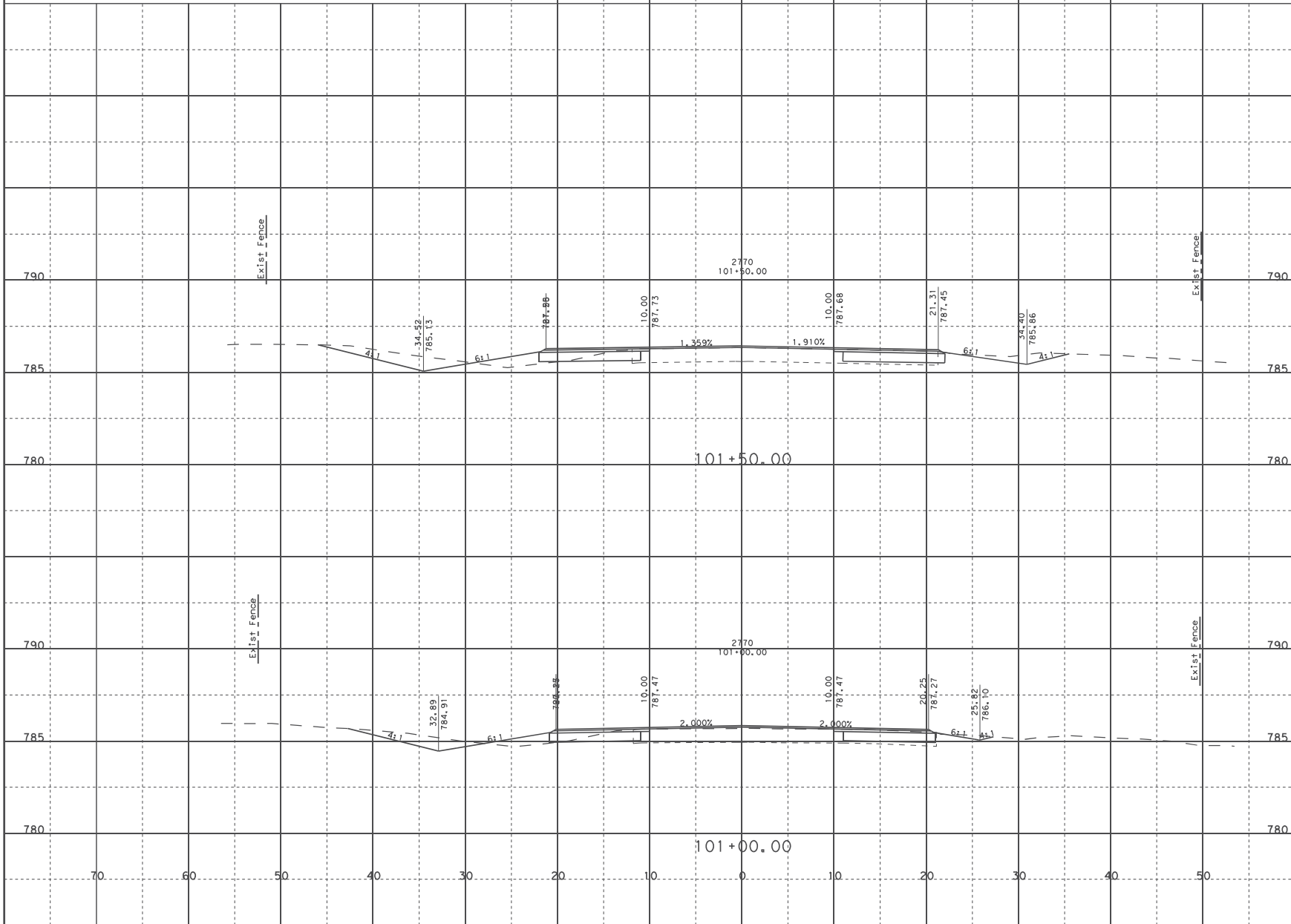
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DATE: 6/29/2022 SHEET 2 OF 15

STATE	STATE	DIST. NO.	COUNTY
TEXAS	AUS		HAYS
CONT	SECT	JOB	HIGHWAY NO. / SHEET NO.
3210	01	018	FM 2770 / 66


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Date: 6/29/2022






HAYS COUNTY



Texas Department of Transportation



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FIRM # 16849

FM 2770

**PROPOSED
CROSS SECTIONS**

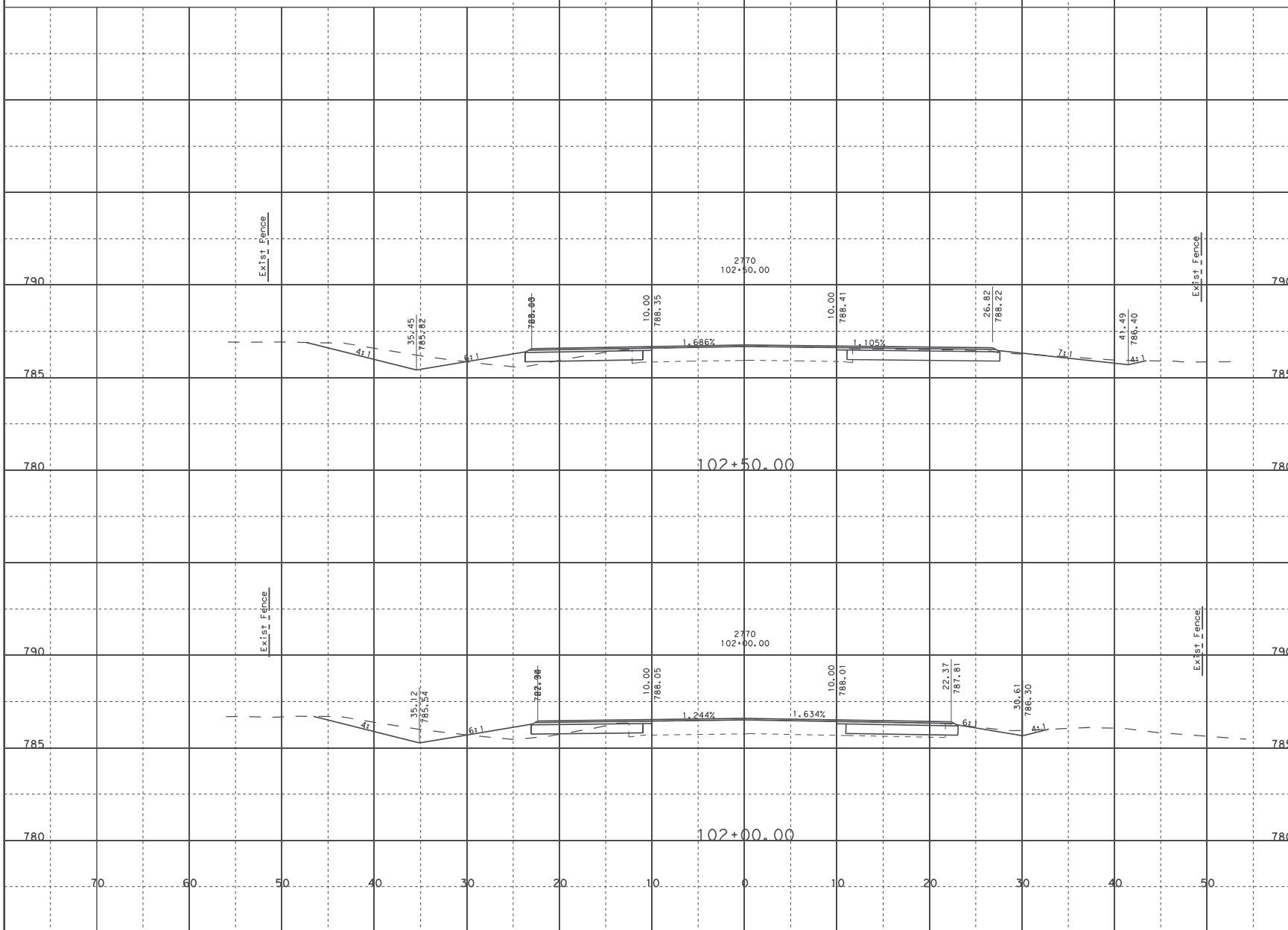
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DATE: 6/29/2022 SHEET 3 OF 15

STATE	STATE	DIST. NO.	COUNTY
TEXAS	AUS		HAYS
CONT	SECT	JOB HIGHWAY NO.	SHEET NO.
3210	01	018 FM 2770	67

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Date: 6/29/2022



HAYS COUNTY

Texas Department of Transportation

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FIRM # 16849

FM 2770

PROPOSED CROSS SECTIONS

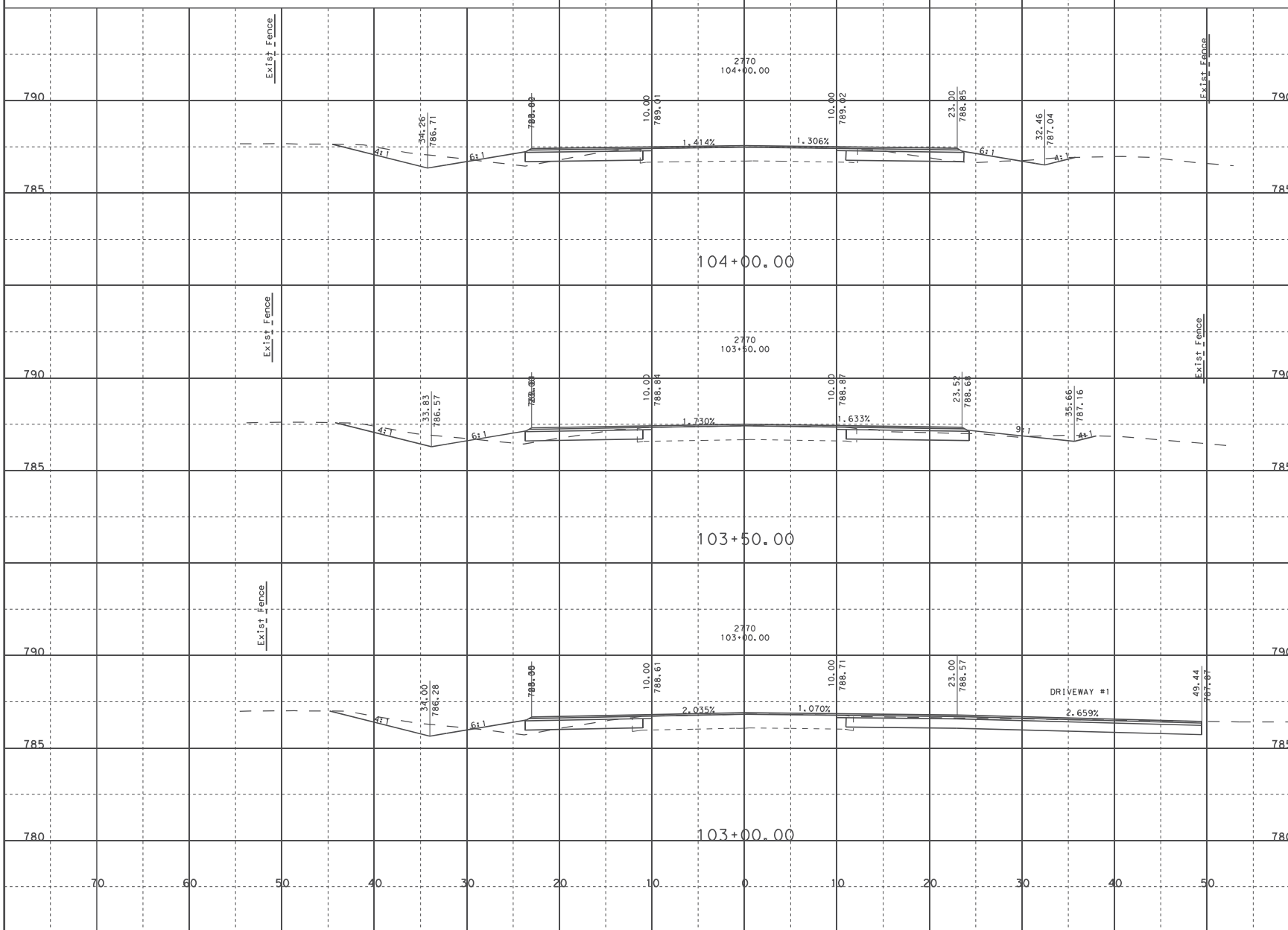
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DATE: 6/29/2022 SHEET 4 OF 15

STATE	STATE	DIST.	NO.	COUNTY
TEXAS	AUS			HAYS
CONT	SECT	JOB	HIGHWAY NO.	SHEET NO.
3210	01	018	FM 2770	68

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Date: 6/29/2022



HAYS COUNTY

Texas Department of Transportation

wsb WSB & ASSOCIATES, INC.
FIRM # 16849

FM 2770

PROPOSED CROSS SECTIONS

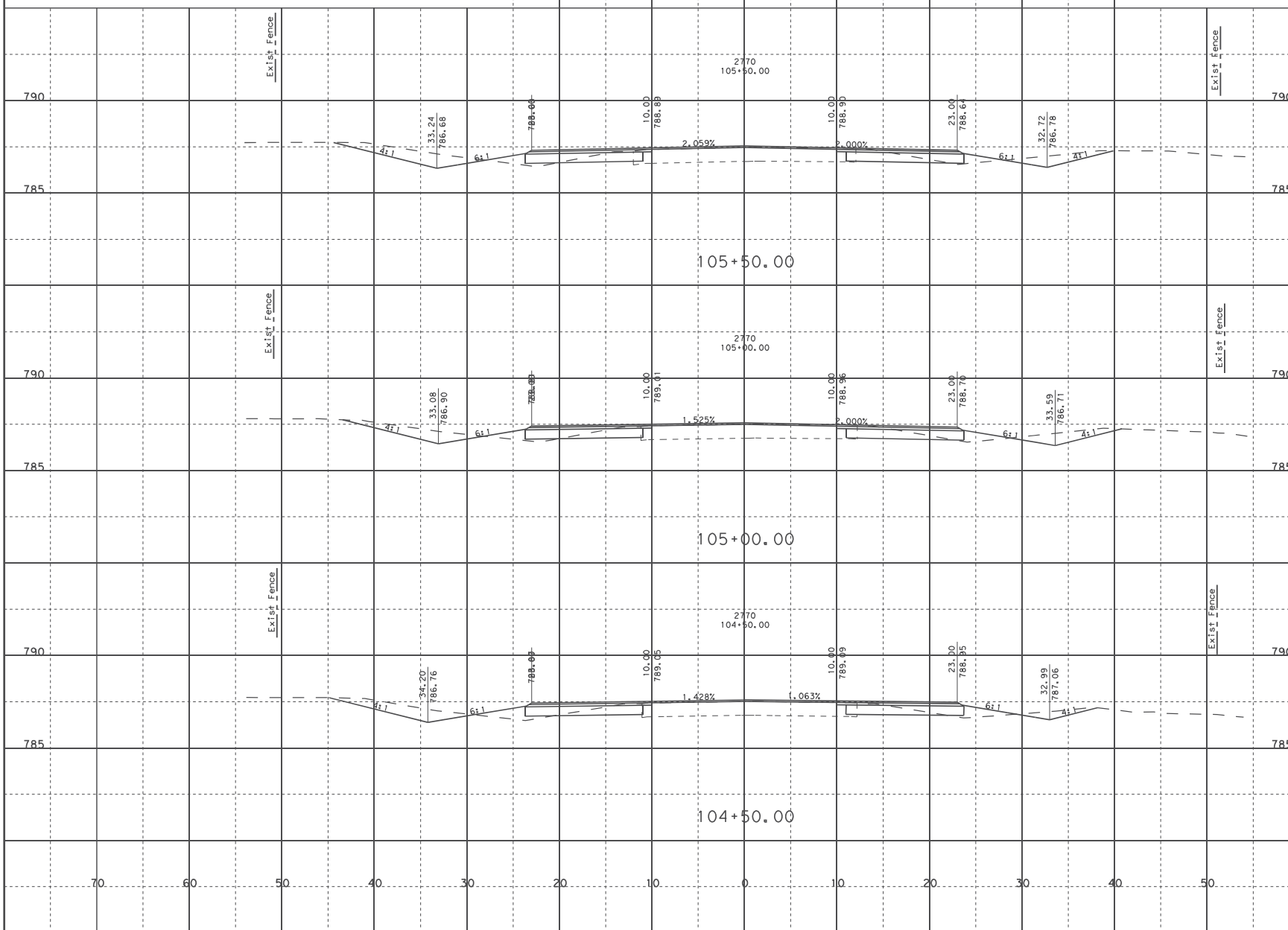
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DATE: 6/29/2022 SHEET 5 OF 15

STATE	STATE	DIST. NO.	COUNTY
TEXAS	AUS		HAYS
CONT	SECT	JOB	HIGHWAY NO./SHEET NO.
3210	01	018	FM 2770 / 69

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Date: 6/29/2022



HAYS COUNTY

Texas Department of Transportation

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FIRM # 16849

FM 2770

PROPOSED CROSS SECTIONS

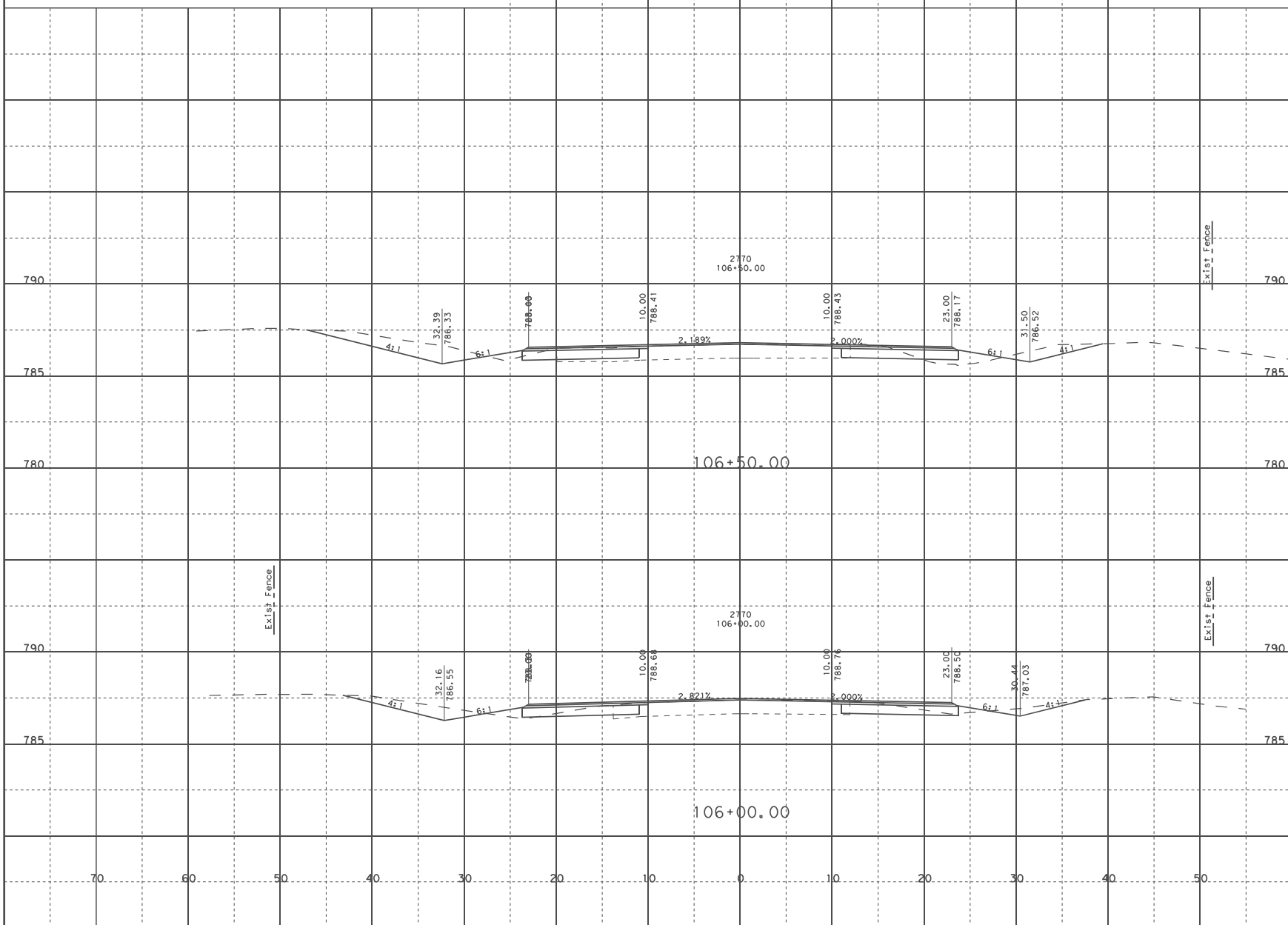
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DATE: 6/29/2022 SHEET 6 OF 15

STATE	STATE	DIST. NO.	COUNTY
TEXAS	AUS		HAYS
CONT	SECT	JOB	HIGHWAY NO. SHEET NO.
3210	01	018	FM 2770 70

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HAYS COUNTY

Texas Department of Transportation

wsb WSB & ASSOCIATES, INC.
FIRM # 16849

FM 2770

PROPOSED CROSS SECTIONS

SCALE: HORIZONTAL 1" = 10'
VERTICAL 1" = 10'

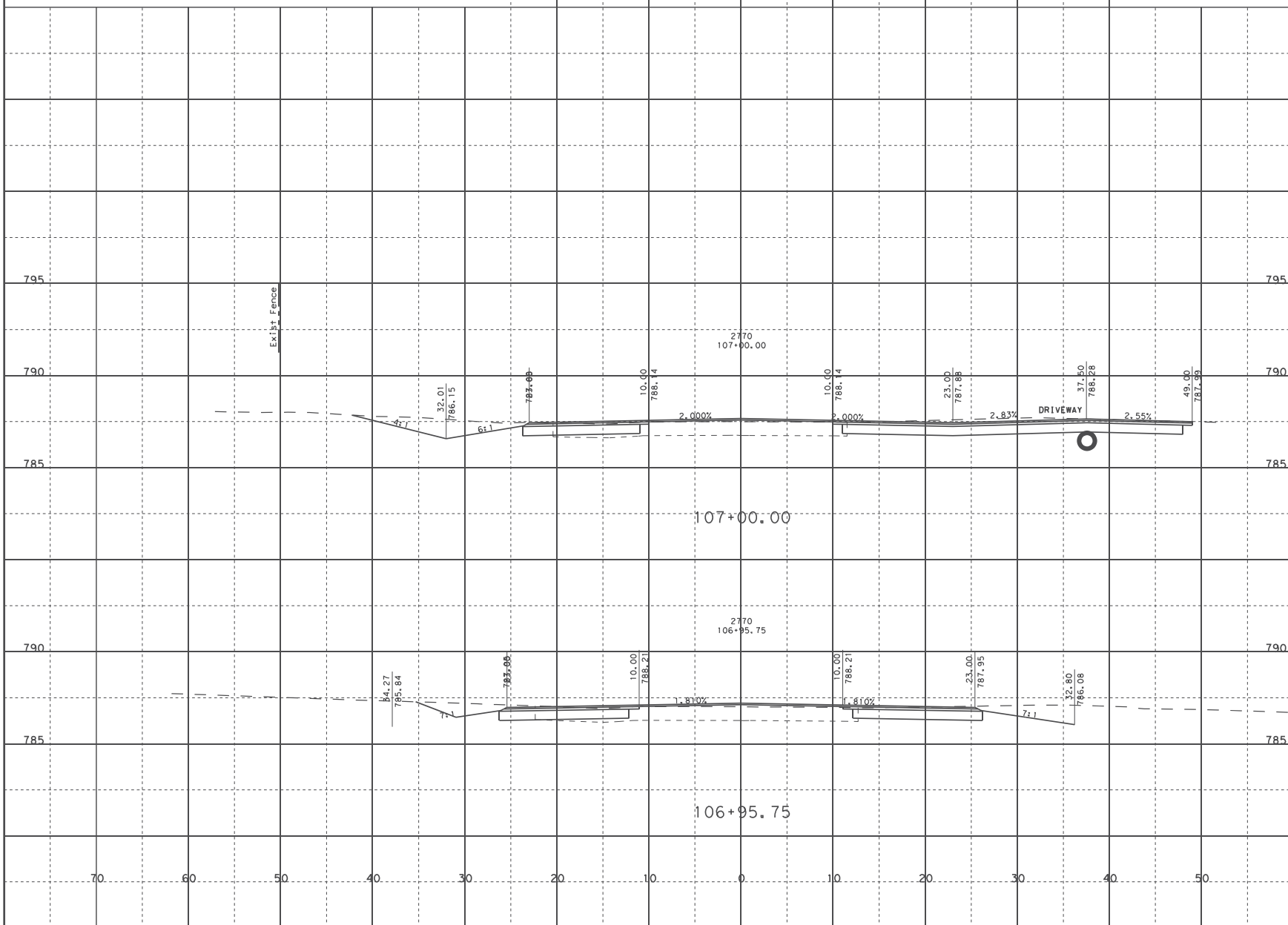
DATE: 6/29/2022 SHEET 7 OF 15

STATE	STATE	DIST. NO.	COUNTY
TEXAS	AUS		HAYS

CONT	SECT	JOB	HIGHWAY NO.	SHEET NO.
3210	01	018	FM 2770	71

DISCLAIMER:
THE FOLLOWING DATA IS FOR NON-CONSTRUCTION PURPOSES ONLY.
IT IS THE RESPONSIBILITY OF PROSPECTIVE BIDDER TO VALIDATE THE DATA.

Filename: ... \Geopak\016225-000*xsPlot.dgn
Date: 6/29/2022



HAYS COUNTY

Texas Department of Transportation

wsb WSB & ASSOCIATES, INC.
FIRM # 16849

FM 2770

PROPOSED CROSS SECTIONS

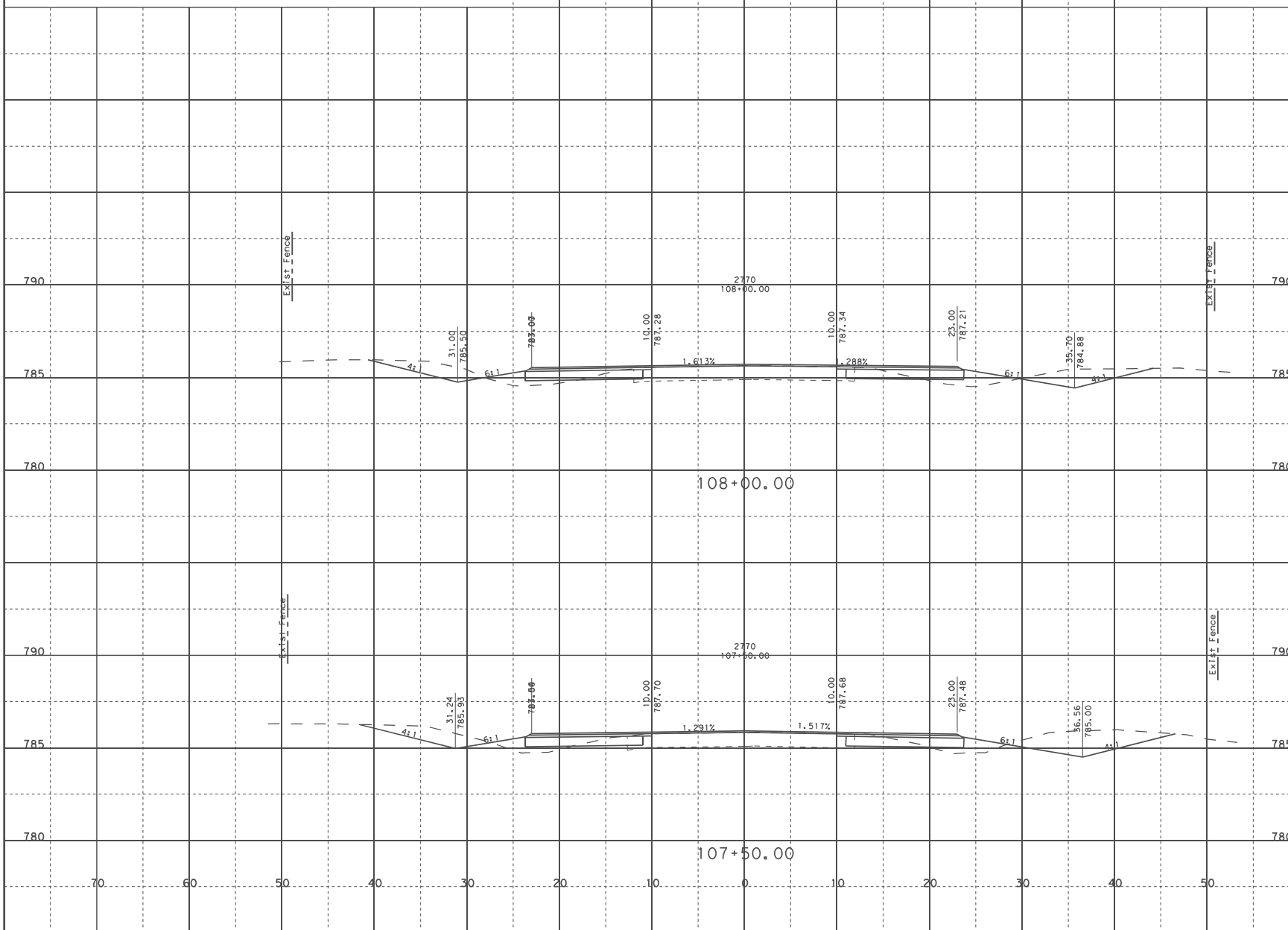
SCALE: HORIZONTAL 1" = 10'
VERTICAL 1" = 10'

DATE: 6/29/2022 SHEET 8 OF 15

STATE	STATE	DIST. NO.	COUNTY
TEXAS	AUS		HAYS
CONT	SECT	JOB	HIGHWAY NO./SHEET NO.
3210	01	018	FM 2770 / 77

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Filename: ... \Geopak\016225-000*xsPlot.dgn
Date: 6/29/2022



HAYS COUNTY

Texas Department of Transportation

wsb WSB & ASSOCIATES, INC.
FIRM # 16849

FM 2770

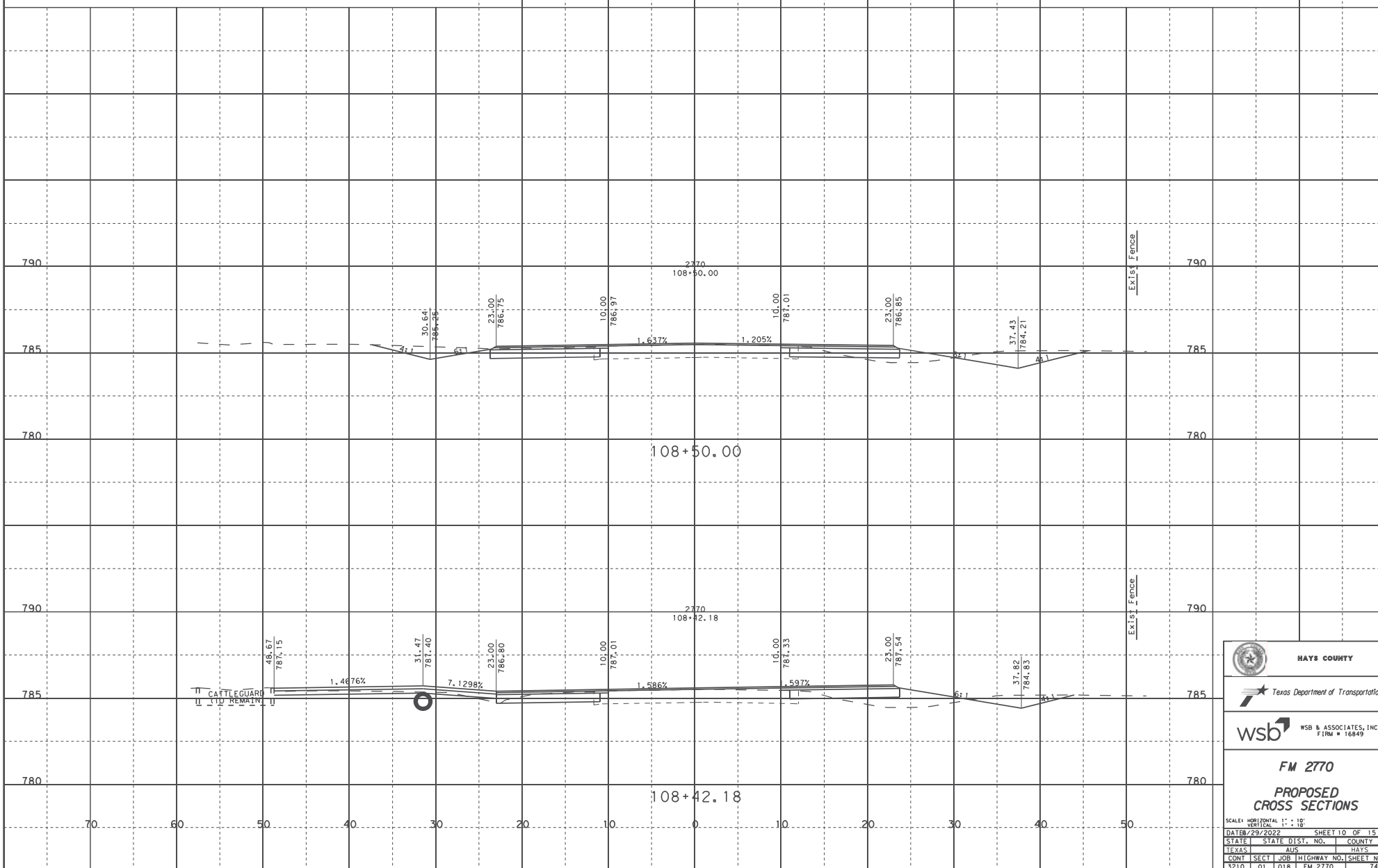
PROPOSED CROSS SECTIONS

SCALES: HORIZONTAL 1" = 10'
VERTICAL 1" = 10'

DATE: 6/29/2022	SHEET 9 OF 15
STATE: TEXAS	DIST. NO.: 01
COUNTY: HAYS	SECTION: 01
JOB: HIGHWAY NO. 2770	
SHEET NO. 73	

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Date: 6/29/2022



HAYS COUNTY

Texas Department of Transportation

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FIRM # 16849

FM 2770

PROPOSED CROSS SECTIONS

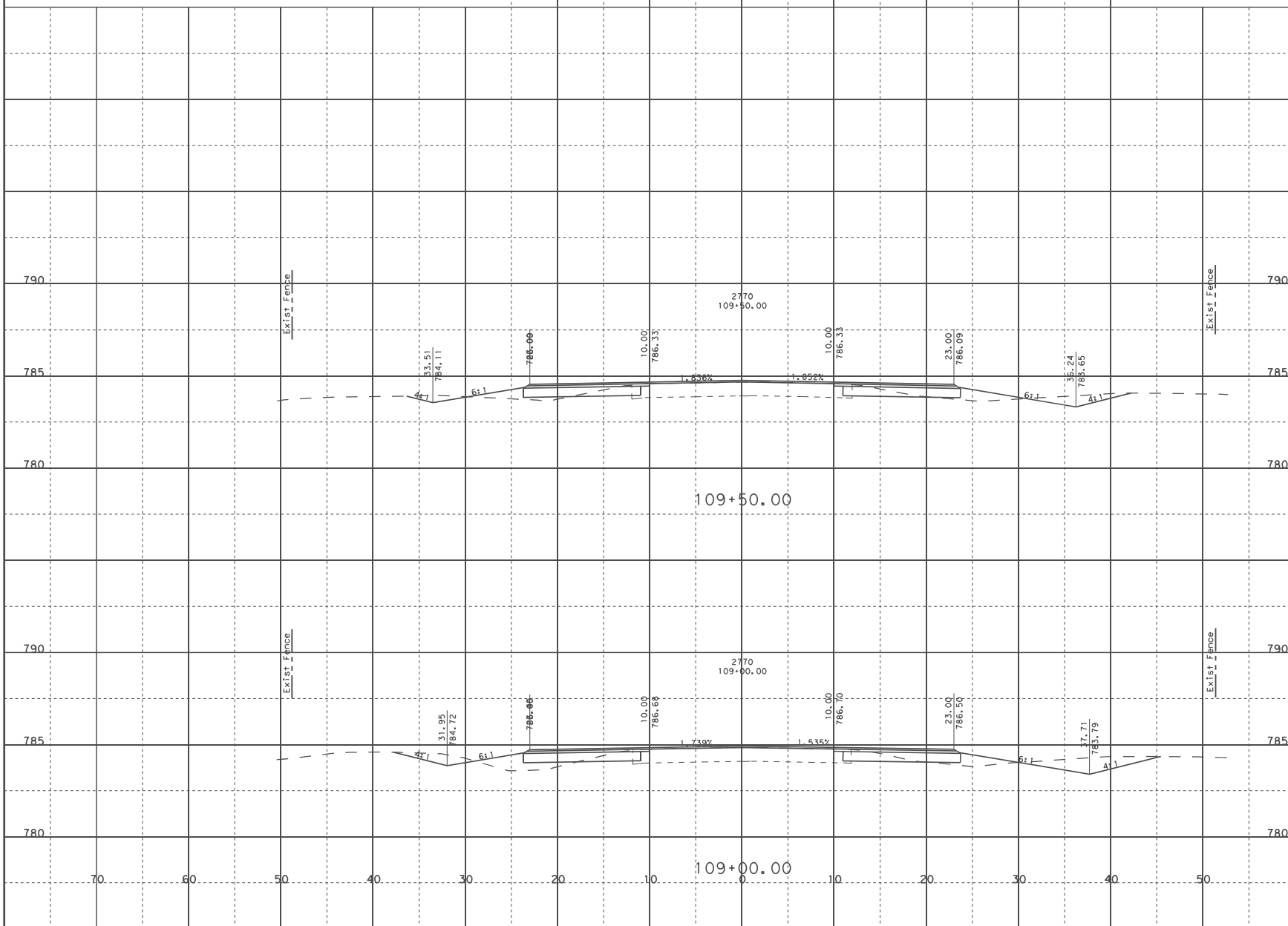
SCALES: HORIZONTAL 1" = 10'
VERTICAL 1" = 10'

DATE: 6/29/2022 SHEET 10 OF 15

STATE	STATE	DIST. NO.	COUNTY
TEXAS	AUS		HAYS
CONT	SECT	JOB	HIGHWAY NO. / SHEET NO.
3210	01	018	FM 2770 / 74

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Filename: ... \Geopak\016225-000*xsPlot.dgn
Date: 6/29/2022



HAYS COUNTY

Texas Department of Transportation

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FIRM # 16849

FM 2770

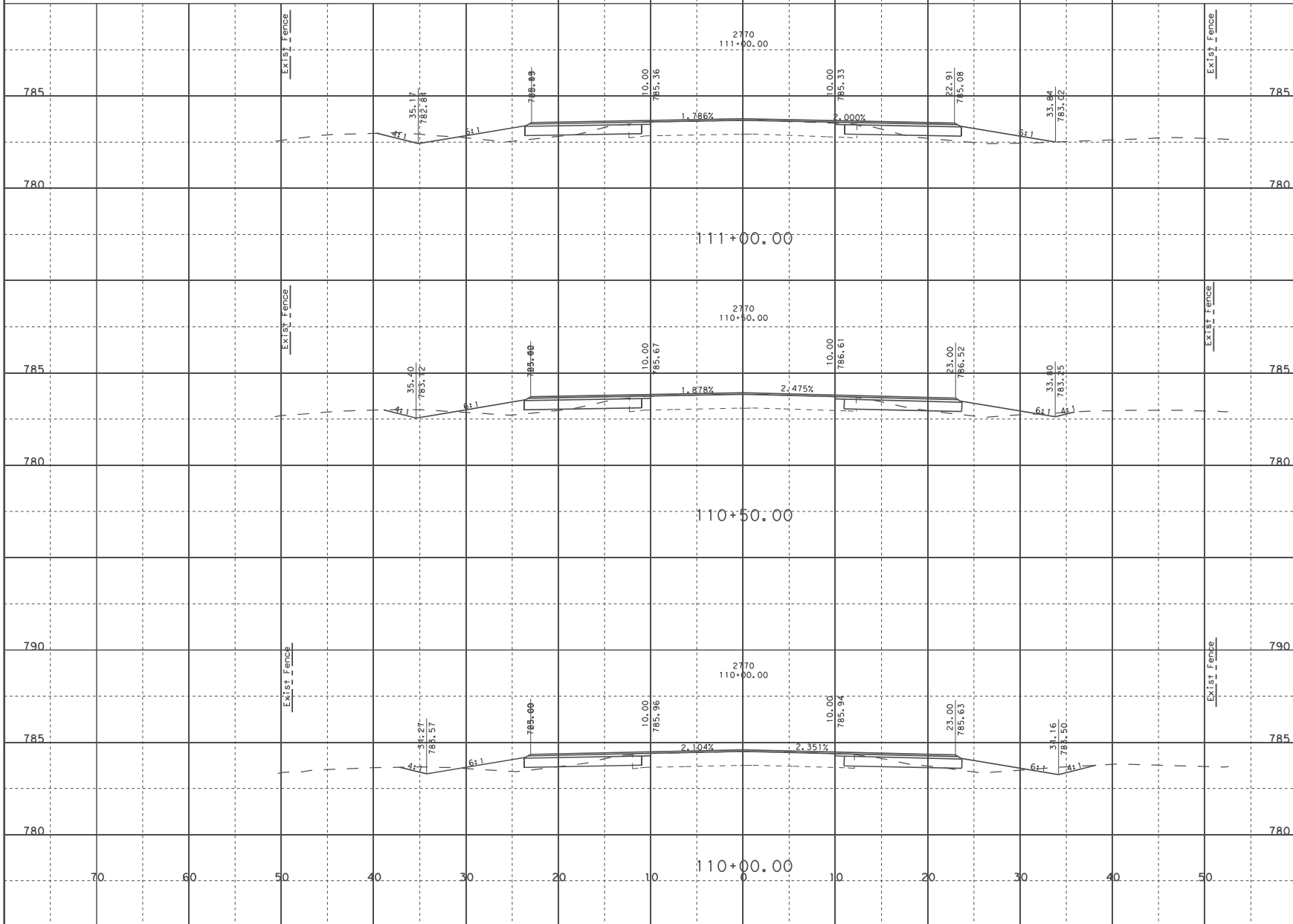
PROPOSED CROSS SECTIONS

SCALE: HORIZONTAL 1" = 10'
VERTICAL 1" = 10'

DATE: 6/29/2022	SHEET 11 OF 15
STATE: TEXAS	DIST. NO. 018
COUNTY: HAYS	JOB NO. 1018
PROJECT: FM 2770	SHEET NO. 75

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Filename: ... \Geopak\016225-000*xsPlot.dgn
Date: 6/29/2022



HAYS COUNTY

Texas Department of Transportation

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FIRM # 16849

FM 2770

PROPOSED CROSS SECTIONS

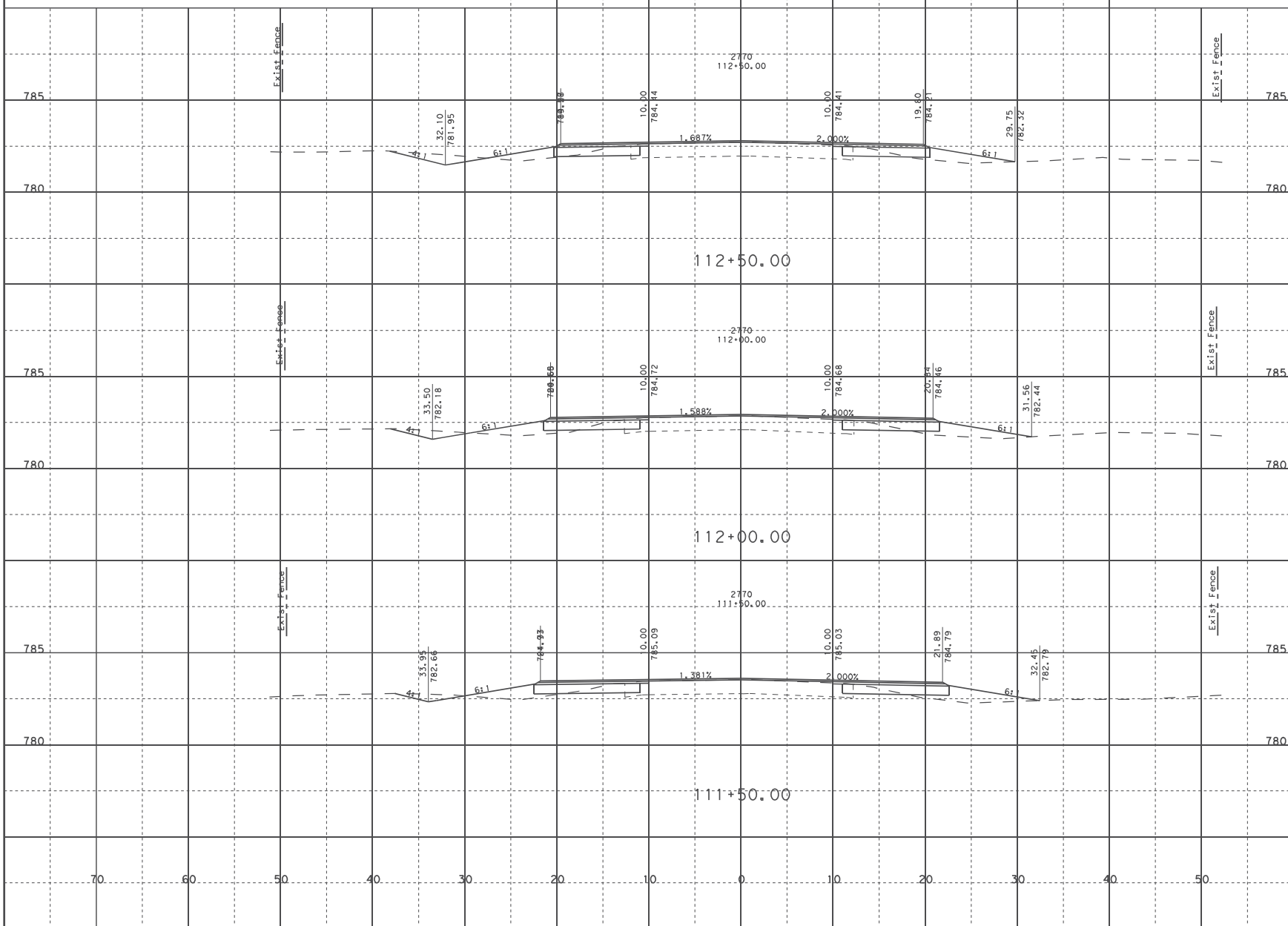
SCALES: HORIZONTAL 1" = 10'
VERTICAL 1" = 10'

DATE: 6/29/2022 SHEET 12 OF 15

STATE	STATE	DIST. NO.	COUNTY
TEXAS	AUS		HAYS
CONT	SECT	JOB	HIGHWAY NO. / SHEET NO.
3210	01	018	FM 2770 / 76

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Filename: ... \Geopak\016225-000*xsPlot.dgn
Date: 6/29/2022



HAYS COUNTY

Texas Department of Transportation

wsb WSB & ASSOCIATES, INC.
FIRM # 16849

FM 2770

PROPOSED CROSS SECTIONS

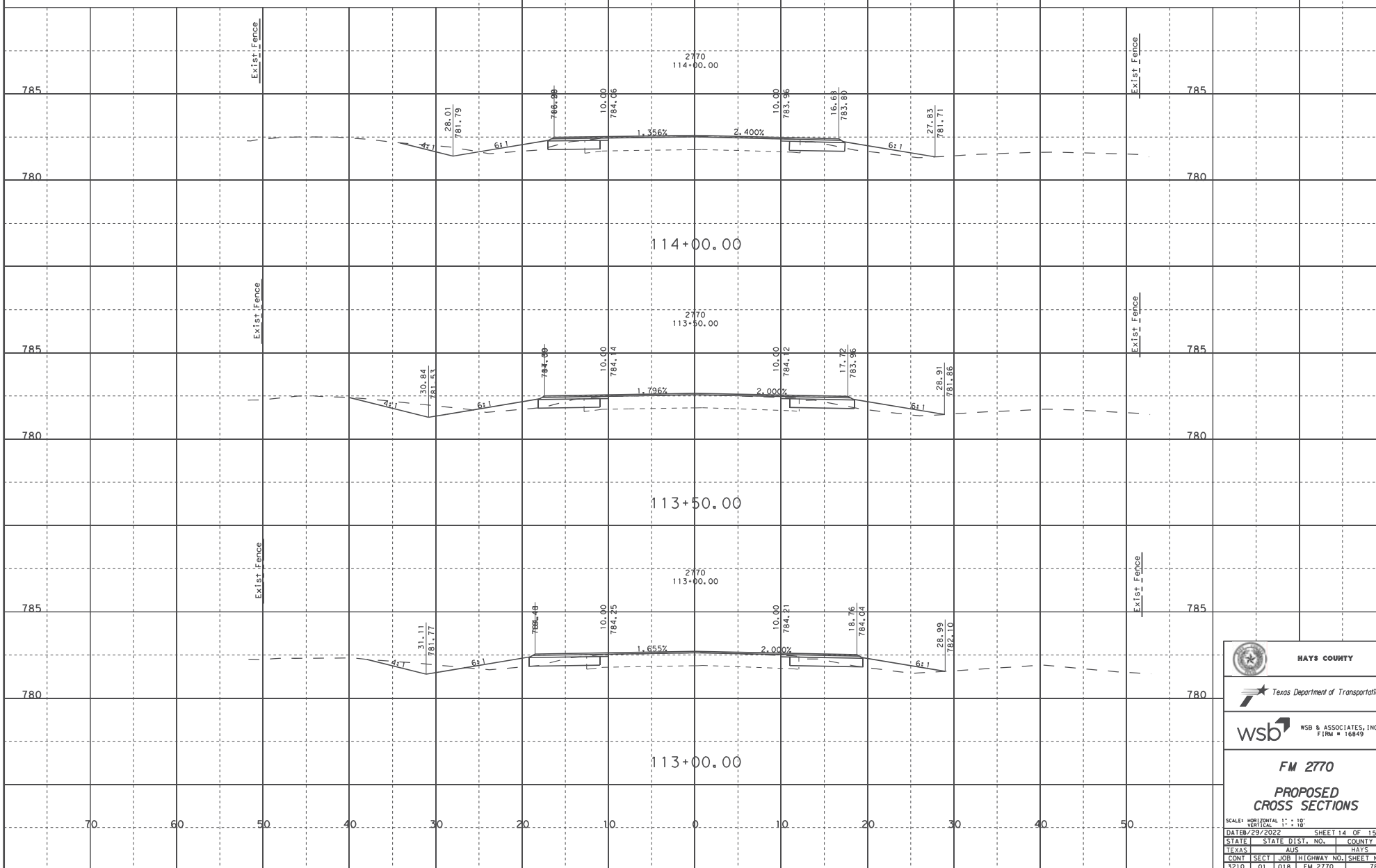
SCALE: HORIZONTAL 1" = 10'
VERTICAL 1" = 10'

DATE: 6/29/2022 SHEET 13 OF 15

STATE	STATE	DIST. NO.	COUNTY
TEXAS	AUS		HAYS
CONT	SECT	JOB	HIGHWAY NO. / SHEET NO.
3210	01	018	FM 2770 / 77

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Filename: ... \Geopak\016225-000*xsPlot.dgn
Date: 6/29/2022



HAYS COUNTY

Texas Department of Transportation

wsb WSB & ASSOCIATES, INC.
FIRM # 16849

FM 2770

PROPOSED CROSS SECTIONS

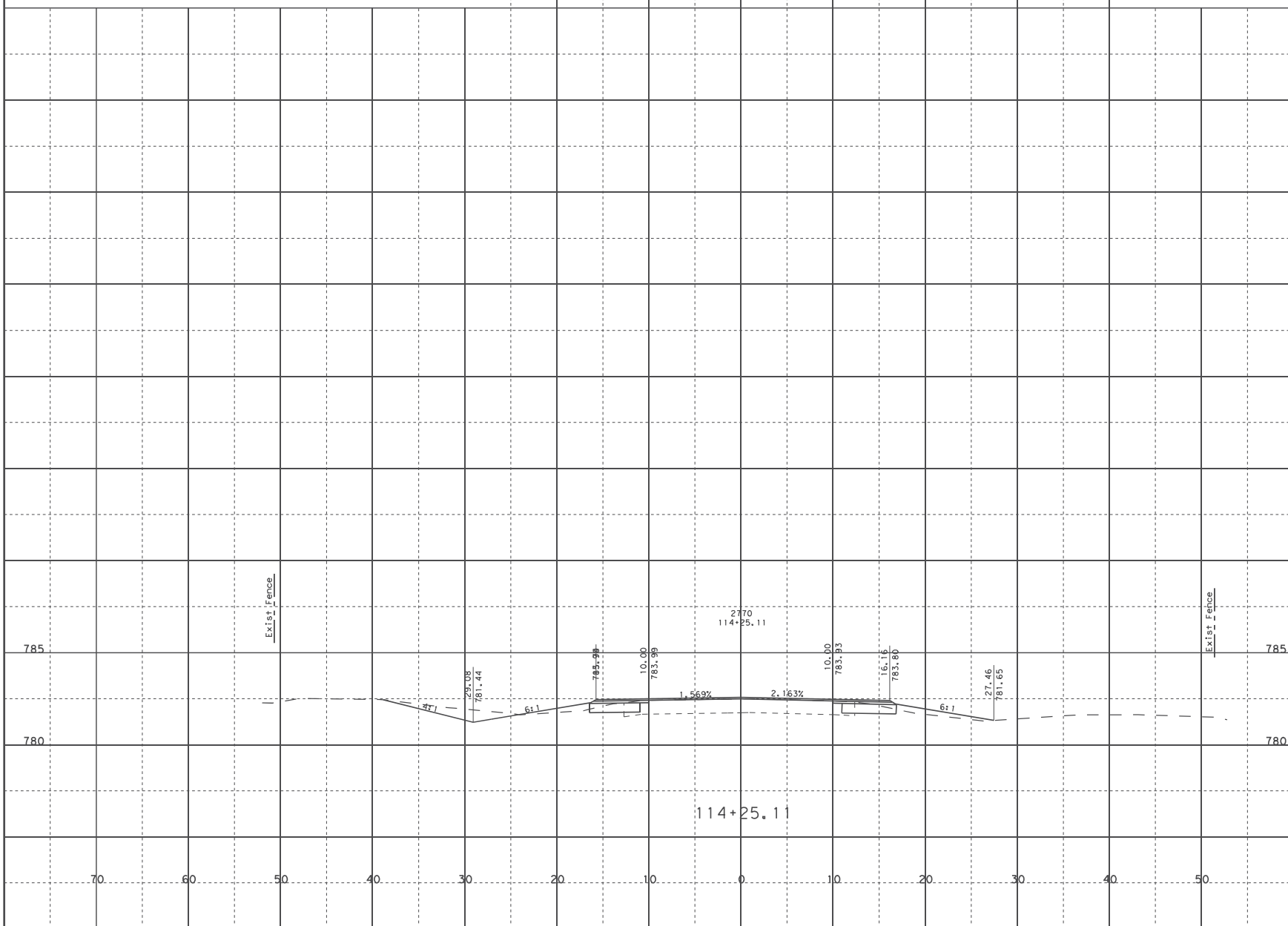
SCALE: HORIZONTAL 1" = 10'
VERTICAL 1" = 10'

DATE: 6/29/2022 SHEET 14 OF 15

STATE	STATE	DIST. NO.	COUNTY
TEXAS	AUS		HAYS
CONT	SECT	JOB	HIGHWAY NO. / SHEET NO.
3210	01	018	FM 2770 / 78

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Filename: ... \Geopak\016225-000*xsPlot.dgn
Date: 6/29/2022



HAYS COUNTY

Texas Department of Transportation

wsb WSB & ASSOCIATES, INC.
FIRM # 16849

FM 2770

PROPOSED CROSS SECTIONS

SCALE: HORIZONTAL 1" = 10'
VERTICAL 1" = 10'

DATE: 6/29/2022	DIST. NO.	SHEET 15 OF 15
STATE: TEXAS	DIST. NO. 01	COUNTY: HAYS
CONTRACT NO. 3210	SECTION 01	JOB HIGHWAY NO. 018
SHEET NO. 79		FM 2770



AGENDA ITEM REQUEST FORM

Hays County Commissioners Court

Date: 11/01/2022

Requested By:

T. CRUMLEY

Sponsor:

Commissioner Shell

Agenda Item:

Authorize the submission of a grant application to the Texas Department of Emergency Management, Hazard Mitigation Grant Program in the amount of \$146,058.00. **SHELL/T.CRUMLEY/MIKE JONES**

Summary:

This grant application will fund fire mitigation activities on three properties affected by wildfire in Hays County. Activities will include the clearing of burned and dead trees and the reseeding of land. There is a required 25% which will be made up of in-kind volunteer hours. Applications are due electronically by November 1.

Fiscal Impact:

Amount Requested: N/A

Line Item Number: TBD

Budget Office:

Source of Funds: Grant Funds

Budget Amendment Required Y/N?: No

Comments: Grant funds and in-kind match will be budgeted if grant is awarded.

Auditor's Office:

Purchasing Guidelines Followed Y/N?: N/A

G/L Account Validated Y/N?: TBD at award

New Revenue Y/N?: TBD at award

Comments:

Attachments

Certification and Terms and Conditions

SF-424

Application

Commitment Letter



TDEM
THE TEXAS A&M UNIVERSITY SYSTEM

Hazard Mitigation Grant Program Application Certification

Grant Program: HMGP CFDA #: 97.039 Grant #: 5420
Applicant: Hays County
Project Type: Other Wildfire
Project Title: Hays County Wildfire Mitigation

The undersigned assures fulfillment of all requirements of the Hazard Mitigation Grant Program as contained in the program guidelines and that all information contained herein is true and correct to the best of my knowledge.

The governing body of the applicant has duly authorized the document, and hereby applies for the assistance documented in this application.

The applicant understands that the project may proceed ONLY AFTER FEMA APPROVAL is gained.

Ruben Becerra

Typed Name of Certifying Official

County judge

Title

512-214-3533

Telephone Number

Signature of Certifying Official

Date Signed

GRANT TERMS AND CONDITIONS

This Agreement (consisting of these terms and conditions and all exhibits) is made and entered into by and between the Texas Division of Emergency Management (TDEM), an agency of the State of Texas, hereinafter referred to as "TDEM," and the award recipient, _____, hereinafter referred to as the "Subrecipient." Furthermore, TDEM and the Subrecipient are collectively hereinafter referred to as the "Parties." All subawards made under this agreement are subject to the same terms and conditions below.

Subrecipient may not assign or transfer any interest in this award without the express, prior written consent of TDEM and/or DHS/FEMA or other awarding agency.

- a. The term Recipient and pass-through entity have the same meaning as "Grantee," as used in governing statutes, regulations, and DHS/FEMA guidance.
- b. A Recipient is also a "non-federal entity" for administration purposes.
- c. A Subrecipient is also known as a "Subgrantee" as used in governing statutes regulations and DHS/ FEMA guidance.
- d. A Subrecipient is also a "non-federal entity" for administration purposes.
- e. The "Grant" referred to in this agreement is an award to the Subrecipient passed through from TDEM to the Subrecipient.
- f. Certifying Official will be the Mayor, Judge, or Executive Director authorized to execute these grant terms and conditions, and to submit changes of Subrecipient Agents.
- g. Projects and any subsequent versions for those projects accepted by the Subrecipient and subsequently obligated or deobligated by DHS/FEMA are considered subawards to this grant agreement.
- h. TDEM uses contractors to administer subawards, both in communication with Subgrantees and the awarding agency. A Subgrantee's point of contact for all awards will be the regional Recovery or Mitigation Coordinator followed by the regional contractor. Subgrantees should update their primary points of contact with every new award in addition to each time a contact may change.
- A. **Standard of Performance.** Subrecipient shall perform all activities as approved by TDEM. Any change to a project shall receive prior written approval by TDEM and, if required, by FEMA or other awarding agency. Subrecipient shall perform all activities in accordance with all terms, provisions and requirements set forth in this Grant, including but not limited to the following Exhibits:
 - 1. Assurances – Non-Construction Programs, hereinafter referred to as "Exhibit A"
 - 2. Assurances – Construction Programs, hereinafter referred to as "Exhibit B"
 - 3. Certifications for Grant Agreements, hereinafter referred to as "Exhibit C"
 - 4. State of Texas Assurances, hereinafter referred to as "Exhibit D"
 - 5. Environmental Review Certification, hereinafter referred to as "Exhibit E"
 - 6. Additional Grant Conditions, hereinafter referred to as "Exhibit F"
 - 7. Additional Grant Certifications, hereinafter referred to as "Exhibit G"
 - 8. Request for Information and Documentation referred to as "Exhibit H"

GRANT TERMS AND CONDITIONS

- B. **Failure to Perform.** In the event Subrecipient fails to implement and complete the project(s) approved and awarded, or comply with any provision of this Grant, Subrecipient shall be liable to TDEM for an amount not to exceed the award amount of this Grant and may be barred from applying for or receiving additional DHS/FEMA grant program funds

or any other grant program funds administered by TDEM until repayment to TDEM is made and any other compliance or audit finding is satisfactorily resolved, in addition to any other remedy specified in this Grant. Failure to timely implement and complete projects may reduce future funding in additional DHS/FEMA and/or other grant programs administered by TDEM.

- C. **Funding Obligations.** TDEM shall not be liable to Subrecipient for any costs incurred by Subrecipient that are not allowable costs.
1. Notwithstanding any other provision of this Grant, the total of all payments and other obligations incurred by TDEM under this Grant shall not exceed the total cumulative award amounts listed on the Subawards (projects and subsequent versions).
 2. Subrecipient shall contribute the match funds listed on the subaward.

Subrecipient shall refund to TDEM any sum of these Grant funds that has been determined by TDEM or DHS/FEMA to be an overpayment to Subrecipient or that TDEM determines has not been spent by Subrecipient in accordance with this Grant. No refund payment(s) shall be made from local, state or federal Grant funds unless repayment with Grant funds is specifically permitted by statute or regulation. Subrecipient shall make such refund to TDEM within thirty (30) calendar days after TDEM requests such refund. If the subrecipient is unable to refund the amount due at the time of request, they may request offset funds from other open projects under the same award or request a payment plan. If a subrecipient does not provide the amount requested within 30 calendar days, TDEM will first offset the amount with any available funds within the same award and may pursue other remedies to receive payment in full.

- D. **Performance Period.** The performance period for this Grant is listed on the subaward letter for each project. **All projects shall be completed within the performance period AND all reimbursement requests shall be submitted to TDEM within 60 days of the end of the performance period.** Subrecipient shall have expended all Grant funds and submitted reimbursement requests, invoices and any supporting documentation to TDEM within 60 days of the end of the performance period. TDEM shall not be obligated to reimburse expenses incurred after the performance period or submitted after the deadline.

- E. **Uniform Administrative Requirements, Cost Principles and Audit Requirements.** Except as specifically modified by law or this Grant, Subrecipient shall administer this Grant through compliance with the most recent version of all applicable laws and regulations, including but not limited to DHS program legislation, Federal awarding agency regulations, and the terms and conditions of this Grant. A non-exclusive list is provided below [not all may apply in every project]:

- Public Law 93-288, as amended (Stafford Act)
- 44 CFR, Emergency Management and Assistance
- Disaster Mitigation Act of 2000
- OMB Regulations 2 CFR, Grant and Agreements
- Executive Order 11988, Floodplain Management
- Executive Order 11990, Protection of Wetlands
- Executive Order 12372, Intergovernmental Review of Programs and Activities
- Executive Order 12549, Debarment and Suspension
- Executive Order 12612, Federalism

GRANT TERMS AND CONDITIONS

- Executive Order 12699, Seismic Design
- Executive Order 12898, Environmental Justice
- Coastal Barrier Resources Act, Public Law 97-348
- Single Audit Act, Public Law 98-502
- Sandy Recovery Improvement Act publications
- Disaster Recovery Reform Act of 2018 16 U.S.C. § 470, National Historic Preservation Act
- 16 U.S.C. § 1531, Endangered Species Act References
- FEMA program publications, guidance and policies

- F. **State Requirements for Grants.** Subrecipient shall comply with all other federal, state, and local laws and regulations applicable to this Grant including but not limited to the laws and the regulations promulgated in Texas Government Code, Chapter 783, Uniform Grant and Contract Management, (UGMS) at:

<http://www.window.state.tx.us/procurement/catrad/ugms.pdf>

and the program State Administrative Plan, available at:

<https://grants.tdem.texas.gov>

Subrecipient shall, in addition to the assurances and certifications, comply and require each of its subcontractors employed in the completion of the project to comply with all applicable statutes, regulations, executive orders, OMB circulars, terms and conditions of this Grant and the approved application.

Grant funds may not be awarded to or expended by any entity which performs political polling. This prohibition does not apply to a poll conducted by an academic institution as part of the institution's academic mission that is not conducted for the benefit of a particular candidate or party.

Grant funds may not be expended by a unit of local government unless the following limitations and reporting requirements are satisfied:

1. Texas General Appropriations Act, Art. IX, Parts 2 and 3, except there is no requirement for increased salaries for local government employees;
2. Texas Government Code Sections 556.004, 556.005, and 556.006, which prohibits using any money or vehicle to support the candidacy of any person for office, influencing positively or negatively the payment, loan, or gift to a person or political organization for a political purpose, and using Grant funds to influence the passage or defeat of legislation including not assisting with the funding of a lobbyist, or using Grant funds to pay dues to an organization with a registered lobbyist;
3. Texas Government Code Sections 2113.012 and 2113.101, which prohibits using Grant funds to compensate any employee who uses alcoholic beverages on active duty and Subrecipient may not use Grant funds to purchase an alcoholic beverage and may not pay or reimburse any travel expense for an alcoholic beverage;
4. Texas General Appropriations Act, Art. IX, Section 6.13, which requires Subrecipient to make every effort to attain key performance target levels associated with this Grant, including performance milestones, milestone time frames, and related performance reporting requirements; and
5. General Appropriations Act, Art. IX, Sections 7.01 and 7.02, and Texas Government Code §2102.0091, which requires that this Grant may only be expended if Subrecipient timely completes and files its reports.

- G. **Restrictions and General Conditions.**

1. **Use of Funds.** DHS/FEMA Grant funds may only be used for the purposes set forth in this

GRANT TERMS AND CONDITIONS

Grant, and shall be consistent with the statutory authority for this Grant. Grant funds may not be used for matching funds for other Federal grants/cooperative agreements, lobbying, or intervention in Federal regulatory or adjudicatory proceedings. In addition,

GRANT TERMS AND CONDITIONS

Federal funds may not be used to sue the Federal government or any other government entity.

2. Federal Employee Prohibition. Federal employees are prohibited directly benefiting from any funds under this Grant.
3. Points of Contacts. Within 10 calendar days of any change, Subrecipient shall notify TDEM of any change in designated of Subrecipient Agents as submitted during the execution of this agreement, and any subsequent changes submitted by Subrecipient. In the event a Subrecipient hires a consultant to assist them with managing its Public Assistance grants, they must be listed on the Designated Subrecipient Agent Form. TDEM will direct all correspondence to the Subrecipient but will cc: the consultant on all email exchanges. The Subrecipient will be responsible for sharing written communications with the consultant. The Subrecipient will remain the primary point of contact and must be included in all decision-making activities.
4. DUNS Number. Subrecipient confirms its Data Universal Numbering Systems (DUNS) Number is accurate and is registered on Sams.gov. The DUNS Number is the nine digit number established and assigned by Dun and Bradstreet, Inc., at 866/705-5711 or <http://fedgov.dnb.com/webform>
5. Central Contractor Registration and Universal Identifier Requirements. Subrecipient maintains that it has registered on the System for Award Management (SAM) at www.sam.gov or other federally established site for contractor registration, and entered TDEM-required information. Subrecipient shall keep current, and then review and update the information at least annually. Subrecipient shall keep information current in the SAM database until the later of when it submits this Grant's final financial report or receives final Grant award payment. Subrecipient agrees that it shall not make any subaward agreement or contract related to this Grant without first obtaining the vendor/subawardee's mandatory DUNS number. See Section §200.32 of OMB 2 C.F.R.
6. Reporting Total Compensation of Subrecipient Executives. 2 C.F.R. §200.331; see FEMA Information Bulletin 350.
 - a. Applicability and what to report: Subrecipient shall report whether Subrecipient received \$25 million or more in Federal procurement contracts or financial assistance subject to the Transparency Act per 2 C.F.R. §200.331. Subrecipient shall report whether 80% or more of Subrecipient's annual gross revenues were from Federal procurement contracts or Federal financial assistance. If Subrecipient answers "yes" to both questions, Subrecipient shall report, along with Subrecipient's DUNS number, the names and total compensation (see 17 C.F.R. §229.402(c)(2)) for each of Subrecipient's five most highly compensated executives for the preceding completed fiscal year.
 - b. Where and when to report: Subrecipient shall report executive total compensation at www.sam.gov or other federally established replacement site. By signing this Grant, Subrecipient certifies that, if required, Subrecipient's jurisdiction has already registered, entered the required information, and shall keep information in the SAM database current, and update the information at least annually for each year until the later of when the jurisdiction submits its final financial report or receives final payment. Subrecipient agrees that it shall not make any subaward agreement or contract without first obtaining the subawardee's mandatory DUNS number.
7. Debarment and Suspension. Subrecipient shall comply with Executive Order 12549 and 12689, which provide protection against waste, fraud, and abuse by debarring or

GRANT TERMS AND CONDITIONS

suspending those persons deemed irresponsible in their dealings with the Federal government.

8. Direct Deposit. A completed direct deposit form from Subrecipient shall be provided to TDEM, prior to receiving any payments under the provisions of this grant. The direct deposit form is currently available at grants.tdem.texas.gov under Resources/Public Assistance.
9. Property Management and Inventory. Subrecipient shall maintain property/inventory records which, at minimum, shall include a description of the property, a serial number or other identification number, the source of property, who holds title, the acquisition date, the cost of the property, the percentage of Federal participation in the cost of the property, the location, use and condition of the property, and any ultimate disposition data including the date of disposal and sale price of the property. Subrecipient shall develop and implement a control system to prevent loss, damage or theft of property and Subrecipient shall investigate and document any loss, damage or theft of property funded under this Grant.
10. Site Visits. DHS/FEMA and/or TDEM, through its authorized representatives, have the right at all reasonable times to make site visits to review project accomplishments and management control systems and to provide such technical assistance as may be required. If any site visit is made by DHS/FEMA on the premises of Subrecipient or a contractor under this Grant, Subrecipient shall provide and shall require its contractors to provide all reasonable facilities and assistance for the safety and convenience of the government representatives in the performance of their duties. All site visits and evaluations shall be performed in such a manner that will not unduly delay the work.

H. Procurement and Contracting.

1. Procurements. Subrecipient shall comply with all applicable federal, state, and local laws and requirements, including but not limited to proper competitive solicitation processes where required, for any procurement which utilizes federal funds awarded under this Grant in accordance with 2 C.F.R. 200. 318-326 and Appendix II to Part 200 (A-C) and (E-J)
2. Contract Provisions. All contracts executed using funds awarded under this Grant shall contain the contract provisions listed under 2 C.F.R. 200.326 and Appendix II (A), Uniform Administrative Requirements for Grants and Cooperative Agreements to State and Local Governments.
3. Procurement activities must follow the most restrictive of Federal, State and Local procurement regulations:
 - a. Procurement by micro purchase
 - b. Procurement by small purchase
 - c. Procurement by sealed bid
 - d. Procurement by competitive proposal
 - e. Procurement by non-competitive proposal, solely when the award of a contract is unfeasible under the other methods

The State must be contacted for approval to use a noncompetitive procurement method. Failure to follow eligible procurement methods will result in ineligible costs. Other types of agreements for services must have State approval prior to use or execution. A copy of the local procurement policy must be provided to the State before initial payment.

GRANT TERMS AND CONDITIONS

The **cost plus a percentage of cost** and **percentage of construction** cost methods of contracting are **ineligible**.

Must perform **cost/price analysis** for every procurement action in excess of the Simplified Acquisition Threshold.

Must negotiate profit as a separate element where required.

4. Evidence of non-debarment for vendors must be documented through <http://www.sam.gov/portal/public/SAM> and http://www.window.state.tx.us/procurement/prog/vendor_performance/debarred/ and submitted for review.
 5. Comply with rules related to underutilized businesses (small and minority businesses, women's enterprises and labor surplus firms) at 2 CFR 200.321
- I. **Monitoring.** Subrecipient will be monitored periodically by federal, state or local entities, both programmatically and financially, to ensure that project goals, objectives, performance requirements, timelines, milestone completion, budget, and other program-related criteria are met.

TDEM, or its authorized representative, reserves the right to perform periodic desk/office-based and/or on-site monitoring of Subrecipient's compliance with this Grant and of the adequacy and timeliness of Subrecipient's performance pursuant to this Grant. After each monitoring visit, if the monitoring visit reveals deficiencies in Subrecipient's performance under this Grant, a monitoring report will be provided to the Subrecipient and shall include requirements for the timely correction of such deficiencies by Subrecipient. Failure by Subrecipient to take action specified in the monitoring report may be cause for suspension or termination of this Grant pursuant to the Suspension and/or Termination Section herein.

J. **Audit.**

1. **Audit of Federal and State Funds.** Subrecipient shall arrange for the performance of an annual financial and compliance audit of funds received and performances rendered under this Grant as required by the Single Audit Act (OMB 2 C.F.R. 200.501, formerly A- 133). Subrecipient shall comply, as applicable, with Texas Government Code, Chapter 783, the Uniform Grant Management Standards (UGMS), the State Uniform Administrative Requirements for Grants and Cooperative Agreements.
2. **Right to Audit.** Subrecipient shall give the United States Department of Homeland Security (DHS), Federal Emergency Management Agency (FEMA), the Comptroller General of the United States, the Texas State Auditor, TDEM, or any of their duly authorized representatives, access to and the right to conduct a financial or compliance audit of Grant funds received and performances rendered under this Grant. Subrecipient shall permit TDEM or its authorized representative to audit Subrecipient's records. Subrecipient shall provide any documents, materials or information necessary to facilitate such audit.
3. **Subrecipient's Liability for Disallowed Costs.** Subrecipient understands and agrees that it shall be liable to TDEM for any costs disallowed pursuant to any financial or compliance audit(s) of these funds. Subrecipient further understands and agrees that reimbursement to TDEM of such disallowed costs shall be paid by Subrecipient

GRANT TERMS AND CONDITIONS

from funds that were not provided or otherwise made available to Subrecipient pursuant to this Grant or any other federal contract.

4. Subrecipient's Facilitation of Audit. Subrecipient shall take such action to facilitate the performance of such audit(s) conducted pursuant to this Section as TDEM may require of Subrecipient. Subrecipient shall ensure that this clause concerning the authority to audit funds received indirectly by subcontractors through Subrecipient and the requirement to cooperate is included in any subcontract it awards.
5. State Auditor's Clause. Subrecipient understands that acceptance of funds under this Grant acts as acceptance of the authority of the State Auditor's Office to conduct an audit or investigation in connection with those funds. Subrecipient further agrees to cooperate fully with the State Auditor's Office in the conduct of the audit or investigation, including providing all records requested. Subrecipient shall ensure that this clause concerning the State Auditor's Office's authority to audit funds and the requirement to cooperate fully with the State Auditor's Office is included in any subgrants or subcontracts it awards. Additionally, the State Auditor's Office shall at any time have access to and the rights to examine, audit, excerpt, and transcribe any pertinent books, documents, working papers, and records of Subrecipient relating to this Grant.

K. Retention and Accessibility of Records.

1. Retention of Records. Subrecipient shall follow its own internal retention policy, or the state's retention policy, whichever is stricter. At a minimum, the subrecipient shall maintain fiscal records and supporting documentation for all expenditures of this Grant's funds pursuant to the applicable OMB 2 C.F.R. Subpart D – Post Federal Award Requirements, §200.333-337, and this Grant. Subrecipient shall retain these records and any supporting documentation for a minimum of three (3) years from the later of the completion of this project's public objective, submission of the final expenditure report, any litigation, dispute, or audit. Records shall be retained for three (3) years after any real estate or equipment final disposition. The DHS or TDEM may direct Subrecipient to retain documents or to transfer certain records to DHS/FEMA custody when DHS/FEMA determines that the records possess long term retention value.
2. Access to Records. Subrecipient shall give the United States Department of Homeland Security, the Comptroller General of the United States, the Texas State Auditor, TDEM, or any of its duly authorized representatives, access to and the right to examine all books, accounts, records, reports, files, other papers, things or property belonging to or in use by Subrecipient pertaining to this Grant including records concerning the past use of DHS/FEMA funds. Such rights to access shall continue as long as the records are retained by Subrecipient.

L. Changes, Amendments, Suspension or Termination

1. Modification. DHS/FEMA or TDEM may modify this Grant after an award has been made. Once notification has been made in writing, any subsequent request for funds indicates Subrecipient's acceptance of the changes to this Grant. Any alteration, addition, or deletion to this Grant by Subrecipient is not valid.
2. Effect of Changes in Federal and State Laws. Any alterations, additions, or deletions to this Grant that are required by changes in federal and state laws, regulations or policy are automatically incorporated into this Grant without written amendment to this Grant and shall become effective upon the date designated by such law or regulation. In the event DHS/FEMA or TDEM determines that changes are necessary to this Grant after an award has been made, including changes to the period of performance or terms and conditions, Subrecipient shall be notified of the changes in writing. Once notification has

GRANT TERMS AND CONDITIONS

been made, any subsequent request for funds will indicate Subrecipient's acceptance of the changes to this Grant.

3. **Suspension.** In the event Subrecipient fails to comply with any term of this Grant, TDEM may, upon written notification to Subrecipient, suspend this Grant, in whole or in part, withhold payments to Subrecipient and prohibit Subrecipient from incurring additional obligations of this Grant's funds.
4. **Termination.** TDEM shall have the right to terminate this Grant, in whole or in part, at any time before the end of the Performance Period, if TDEM determines that Subrecipient has failed to comply with any term of this Grant. TDEM shall provide written notice of the termination and include:
 - a. The reason(s) for such termination;
 - b. The effective date of such termination; and
 - c. In the case of partial termination, the portion of this Grant to be terminated.
 - d. Appeal may be made to the Deputy Chief of the Texas Division of Emergency Management - Recovery & Mitigation.

M. **Enforcement.** If Subrecipient materially fails to comply with any term of this Grant, whether stated in a federal or state statute or regulation, an assurance, in a state plan or application, a notice of award, or elsewhere, TDEM or DHS/FEMA may take one or more of the following actions, as appropriate in the circumstances:

1. Increased monitoring of projects and require additional financial and performance reports
2. Require all payments as reimbursements rather than advance payments
3. Temporarily withhold payments pending correction of the deficiency
4. Disallow or deny use of funds and matching credit for all or part of the cost of the activity or action not in compliance;
5. Request DHS/FEMA to wholly or partially de-obligate funding for a project
6. Temporarily withhold cash payments pending correction of the deficiency by subrecipient or more severe enforcement action by TDEM or DHS/FEMA;
7. Withhold further awards for the grant program
8. Take other remedies that may be legally available

In taking an enforcement action, TDEM will provide Subrecipient an opportunity for a hearing, appeal, or other administrative proceeding to which Subrecipient is entitled under any statute or regulation applicable to the action involved.

The costs of Subrecipient resulting from obligations incurred by Subrecipient during a suspension or after termination of this Grant are not allowable unless TDEM or DHS/FEMA expressly authorizes them in the notice of suspension or termination or subsequently.

Other Subrecipient costs during suspension or after termination which are necessary and not reasonably avoidable are allowable if:

- The costs result from obligations which were properly incurred by Subrecipient before the effective date of suspension or termination, are not in anticipation of it, and in the case of a termination, are non-cancellable; and
- The costs would be allowable if this Grant were not suspended or expired normally at the end of the funding period in which the termination takes effects.

The enforcement remedies identified in this section, including suspension and termination, do not preclude Subrecipient from being subject to "Debarment and Suspension" under E.O.

GRANT TERMS AND CONDITIONS

12549. 2 C.F.R., Appendix II to Part 200, (I).

- N. **Conflicts of Interest**. The subrecipient will maintain written standards of conduct covering conflicts of interest and governing the actions of its employees engaged in the selection, award and administration of contracts and will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest or personal gain.
- O. **Closing of this Grant**. TDEM will close each subaward after receiving all required final documentation from the Subrecipient. If the close out review and reconciliation indicates that Subrecipient is owed additional funds, TDEM will send the final payment automatically to Subrecipient. If Subrecipient did not use all the funds received, TDEM will recover the unused funds.

At the completion and closure of all Subrecipient's projects (subawards), TDEM will request the Subrecipient to Certify the completion of all projects (subawards) in accordance with the grant terms and conditions to state there are no further claims under this subgrant.

The closeout of this Grant does not affect:

1. DHS/FEMA or TDEM's right to disallow costs and recover funds on the basis of a later audit or other review;
 2. Subrecipient's obligation to return any funds due as a result of later refunds, corrections, or other transactions;
 3. Records retention requirements, property management requirements, and audit requirements, as set forth herein; and
 4. Any other provisions of this Grant that impose continuing obligations on Subrecipient or that govern the rights and limitations of the parties to this Grant after the expiration or termination of this Grant.
- P. **Notices**. All notices and other communications pertaining to this agreement shall be delivered in electronic format and/or writing and shall be transmitted by fax, e-mail, personal hand-delivery (and receipted for) or deposited in the United States Mail, as certified mail, return receipt requested and postage prepaid, to the other party.

EXHIBIT A

ASSURANCES - NON-CONSTRUCTION PROGRAMS See Standard Form 424B

As the duly authorized representative of Subrecipient, I certify that Subrecipient:

1. Has the legal authority to apply for Federal assistance and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project cost) to ensure proper planning, management and completion of the project described in this Grant.
2. Will give the Department of Homeland Security, the Texas Division of Emergency Management, the Comptroller General of the United States and, if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to this Grant and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest or personal gain.
4. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681-1683, and 1685-1686 and 44 C.F.R. Part 19), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290dd-3 and 290ee-3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which agreement for Federal assistance is being made; and (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.
7. Will comply or has already complied with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
8. Will comply, as applicable, with provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.
9. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333), regarding labor standards for federally-assisted construction sub-agreements.
10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190 as amended by 42 U.S.C. 4311 et seq. and Executive Order (EO) 11514) which establishes national policy goals and procedures to protect and enhance the environment, including protection against natural disasters. To comply with NEPA for DHS grant-supported activities, DHS-FEMA requires the environmental aspects to be reviewed and evaluated before final action on the application; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) comply with the Clean Air Act of 1977, (42 U.S.C. §§7401 et seq. and Executive Order 11738) providing for the protection of and enhancement of the quality of the nation's air resources to promote public health and welfare and for restoring and maintaining the chemical, physical, and biological integrity of the nation's waters; (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).
12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
13. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).
14. Will comply with P.L. 93-348, 45 C.F.R. 46, and DHS Management Directive 026-044 (Directive) regarding the protection of human subjects involved in research, development, and related activities supported by this Grant. "Research" means a systematic investigation, including research, development, testing, and evaluation designed to develop or contribute to general knowledge. See Directive for additional provisions for including humans in the womb, pregnant women, and neonates (Subpart B); prisoners (Subpart C); and children (Subpart D). See also state and local law for research using autopsy materials.
15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. §§2131 et seq.) which requires the minimum standards of care and treatment for vertebrate animals bred for commercial sale, used in research, transported commercially, or exhibited to the public according to the Guide for Care and Use of Laboratory Animals and Public Health Service Policy and Government Principals Regarding the Care and Use of Animals.
16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.), which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133 (now OMB 2 C.F.R. 200.500), "Audits of States, Local Governments, and Non-Profit Organizations."
18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, grant guidance, and policies governing this Grant.

GRANT TERMS AND CONDITIONS

EXHIBIT B

ASSURANCES - CONSTRUCTION PROGRAMS See Standard Form 424D

As the duly authorized representative of Subrecipient, I certify that Subrecipient:

1. Has the legal authority to apply for Federal assistance, and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project costs) to ensure proper planning, management and completion of project described in this Grant.
2. Will give the Department of Homeland Security, the Texas Division of Emergency Management, the Comptroller General of the United States and, if appropriate, the State, the right to examine all records, books, papers, or documents related to this Grant and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will not dispose of, modify the use of, or change the terms of the real property title or other interest in the site and facilities without permission and instructions from the awarding agency. Will record the Federal awarding agency directives and will include a covenant in the title of real property acquired in whole or in part with Federal assistance funds to assure nondiscrimination during the useful life of this Grant.
4. Will comply with the requirements of the assistance awarding agency with regard to the drafting, review and approval of construction plans and specifications.
5. Will provide and maintain competent and adequate engineering supervision at the construction site to ensure that the complete work conforms with the approved plans and specifications and will furnish progressive reports and such other information as may be required by the awarding agency or State.
6. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
7. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest or personal gain.
8. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards of merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
9. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
10. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681 1683, and 1685-1686 and 44 C.F.R. Part 19), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290dd-3 and 290ee-3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which agreement for Federal assistance is being made; and (j) the requirements of any other nondiscrimination statute(s) which may apply to the agreement.
11. Will comply or has already complied with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal and federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
12. Will comply with the provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.
13. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327- 333) regarding labor standards for federally- assisted construction sub-agreements.
14. Will comply with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
15. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) as amended by 42 U.S.C. 4311 et seq. and Executive Order (EO) 11514 which establishes national policy goals and procedures to protect and enhance the environment, including protection against natural disasters; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) comply with the Clean Air Act of 1977, (42 U.S.C. §§7401 et seq. and Executive Order 11738) providing for the protection of and enhancement of the quality of the nation's air resources to promote public health and welfare and for restoring and maintaining the chemical, physical, and biological integrity of the nation's waters; (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).
16. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
17. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).
18. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133 (now OMB 2 C.F.R. 200.500), "Audits of States, Local Governments, and Non-Profit Organizations."
19. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, grant guidance and policies governing this Grant.

GRANT TERMS AND CONDITIONS

Exhibit C

Certifications for Grant Agreements

The undersigned, as the authorized official, certifies the following to the best of his/her knowledge and belief.

- A. No Federal appropriated funds have been paid or will be paid by or on behalf of the undersigned to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee or a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- B. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee or a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL Disclosure of Lobbying Activities, in accordance with its instructions.
- C. The undersigned shall require that the language of this certification prohibiting lobbying be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.
- D. As required by Executive Order 12549, Debarment and Suspension, and implemented at 28 C.F.R. Part 67, for prospective participants in primary covered transactions, as defined at 28 C.F.R. Part 67, Section 67.510. (Federal Certification), the Subrecipient certifies that it and its principals and vendors:
 - 1. Are not debarred, suspended, proposed for debarment, declared ineligible, sentenced to a denial of Federal benefits by a State or Federal court, or voluntarily excluded from covered transactions by any Federal department or agency. Subrecipient can access debarment information by going to www.sam.gov and the State Debarred Vendor List at: www.window.state.tx.us/procurement/prog/vendor_performance/debarred.
 - 2. Have not within a three-year period preceding this Grant been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction, violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;
 - 3. Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State, or local) with commission of any of the offenses enumerated in paragraph (D)(2) of this certification;
 - 4. Have not within a three-year period preceding this Grant had one or more public transactions (Federal, State, or local) terminated for cause or default; or
 - 5. Where Subrecipient is unable to certify to any of the statements in this certification, he or she shall attach an explanation to this Grant. (Federal Certification).
- E. Federal funds will be used to supplement existing funds, and will not replace (supplant) funds that have been appropriated for the same purpose. Subrecipient may be required to supply documentation certifying that a reduction in non-federal resources occurred for reasons other than the receipt or expected receipt of federal funds.
- F. Subrecipient will comply with 2 C.F.R. Part 180, Subpart C as a condition of receiving grant funds and Subrecipient will require such compliance in any subgrants or contract at the next tier.
- G. Subrecipient will comply with the Drug-free Workplace Act, in Subpart B of 2 C.F.R. Part 3001.
- H. Subrecipient is not delinquent on any Federal debt. Examples of relevant debt include delinquent payroll and other taxes, audit disallowances, and benefit overpayments. See OMB Circular A-129 and form SF-424, item number 17 for additional information and guidance.
- I. Subrecipient will comply with all applicable requirements of all other federal laws, executive orders, regulations, program and administrative requirements, policies and any other requirements governing this Grant.
- J. Subrecipient understands that failure to comply with any of the above assurances may result in suspension, termination or reduction of funds in this Grant.

GRANT TERMS AND CONDITIONS

EXHIBIT D

State of Texas Assurances

As the duly authorized representative of Subrecipient, I certify that Subrecipient:

1. Shall comply with Texas Government Code, Chapter 573, by ensuring that no officer, employee, or member of the Subrecipient's governing body or of the Subrecipient's contractor shall vote or confirm the employment of any person related within the second degree of affinity or the third degree of consanguinity to any member of the governing body or to any other officer or employee authorized to employ or supervise such person. This prohibition shall not prohibit the employment of a person who shall have been continuously employed for a period of two years, or such other period stipulated by local law, prior to the election or appointment of the officer, employee, or governing body member related to such person in the prohibited degree.
2. Shall insure that all information collected, assembled, or maintained by the Subrecipient relative to a project will be available to the public during normal business hours in compliance with Texas Government Code, Chapter 552, unless otherwise expressly prohibited by law.
3. Shall comply with Texas Government Code, Chapter 551, which requires all regular, special, or called meetings of governmental bodies to be open to the public, except as otherwise provided by law or specifically permitted in the Texas Constitution.
4. Shall comply with Section 231.006, Texas Family Code, which prohibits payments to a person who is in arrears on child support payments.
5. Shall not contract with or issue a license, certificate, or permit to the owner, operator, or administrator of a facility if the Subrecipient is a health, human services, public safety, or law enforcement agency and the license, permit, or certificate has been revoked by another health and human services agency or public safety or law enforcement agency.
6. Shall comply with all rules adopted by the Texas Commission on Law Enforcement pursuant to Chapter 1701, Texas Occupations Code, or shall provide the grantor agency with a certification from the Texas Commission on Law Enforcement that the agency is in the process of achieving compliance with such rules if the Subrecipient is a law enforcement agency regulated by Texas Occupations Code, Chapter 1701.
7. Shall follow all assurances. When incorporated into a grant award or contract, standard assurances contained in the application package become terms or conditions for receipt of grant funds. Administering state agencies and subrecipients shall maintain an appropriate contract administration system to ensure that all terms, conditions, and specifications are met. (See UGMS Section __.36 for additional guidance on contract provisions).
8. Shall comply with the Texas Family Code, Section 261.101, which requires reporting of all suspected cases of child abuse to local law enforcement authorities and to the Texas Department of Child Protective and Regulatory Services. Subrecipient shall also ensure that all program personnel are properly trained and aware of this requirement.
9. Shall comply with all federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352), which prohibits discrimination on the basis of race, color, or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps and the Americans with Disabilities Act of 1990 including Titles I, II, and III of the Americans with Disability Act which prohibits recipients from discriminating on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities, 44 U.S.C. §§ 12101-12213; (d) the Age Discrimination Act of 1974, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment, and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to the nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290dd-3 and 290ee-3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental, or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and (j) the requirements of any other nondiscrimination statute(s) which may apply to this Grant.
10. Shall comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333), regarding labor standards for federally assisted construction subagreements.
11. Shall comply with requirements of the provisions of the Uniform Relocation Assistance and Real Property Acquisitions Act of 1970 (P.L. 91-646), which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
12. Shall comply with the provisions of the Hatch Political Activity Act (5 U.S.C. §§7321-29), which limit the political activity of employees whose principal employment activities are funded in whole or in part with Federal funds.
13. Shall comply with the minimum wage and maximum hours provisions of the Federal Fair Labor Standards Act and the Intergovernmental Personnel Act of 1970, as applicable.

GRANT TERMS AND CONDITIONS

14. Shall insure that the facilities under its ownership, lease, or supervision which shall be utilized in the accomplishment of the project are not listed on the Environmental Protection Agency's (EPA) list of Violating Facilities and that it will notify the Federal grantor agency of the receipt of any communication from the Director of the EPA Office of Federal Activities indicating that a facility to be used in the project is under consideration for listing by the EPA (EO 11738).
15. Shall comply with the flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973, Public Law 93-234. Section 102(a) requires the purchase of flood insurance in communities where such insurance is available as a condition for the receipt of any Federal financial assistance for construction or acquisition proposed for use in any area that has been identified by the Secretary of the Department of Housing and Urban Development as an area having special flood hazards.
16. Shall comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved state management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of federal actions to State (Clear Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1977, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).
17. Shall comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
18. Shall assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).
19. Shall comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. §§2131 et seq.) which requires the minimum standards of care and treatment for vertebrate animals bred for commercial sale, used in research, transported commercially, or exhibited to the public according to the Guide for Care and Use of Laboratory Animals and Public Health Service Policy and Government Principals Regarding the Care and Use of Animals.
20. Shall comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residential structures.
21. Shall comply with the Pro-Children Act of 1994 (Public Law 103-277), which prohibits smoking within any portion of any indoor facility used for the provision of services for children.
22. Shall comply with all federal tax laws and are solely responsible for filing all required state and federal tax forms.
23. Shall comply with all applicable requirements of all other federal and state laws, executive orders, regulations, and policies governing this program.
24. And its principals are eligible to participate and have not been subjected to suspension, debarment, or similar ineligibility determined by any federal, state, or local governmental entity and it is not listed on a state or federal government's terrorism watch list as described in Executive Order 13224. Entities ineligible for federal procurement have Exclusions listed at <https://www.sam.gov/portal/public/SAM/>.
25. Shall adopt and implement applicable provisions of the model HIV/AIDS workplace guidelines of the Texas Department of Health as required by the Texas Health and Safety Code, Ann., Sec. 85.001, et seq.

GRANT TERMS AND CONDITIONS

EXHIBIT E

Environmental Review

As the duly authorized representative of Subrecipient, I certify that Subrecipient:

1. shall assess its federally funded projects for potential impact to environmental resources and historic properties.
2. shall submit any required screening form(s) as soon as possible and shall comply with deadlines established by TDEM. Timelines for the Environmental Planning and Historic Preservation (EHP) review process will vary based upon the complexity of the project and the potential for environmental or historical impact.
3. shall include sufficient review time within its project management plan to comply with EHP requirements. Initiation of any activity prior to completion of FEMA's EHP review will result in a non-compliance finding and TDEM will not authorize or release Grant funds for non-compliant projects.
4. as soon as possible upon receiving this Grant, shall provide information to TDEM to assist with the legally-required EHP review and to ensure compliance with applicable EHP laws and Executive Orders (EO) currently using the FEMA EHP Screening Form OMB Number 1660-0115/FEMA Form 024-0-01 and submitting it, with all supporting documentation, to TDEM for review. These EHP requirements include but are not limited to the National Environmental Policy Act, the National Historic Preservation Act, the Endangered Species Act, EO 11988 – Floodplain Management, EO 11990 – Protection of Wetlands, and EO 12898 – Environmental Justice. Subrecipient shall comply with all Federal, State, and local EHP requirements and shall obtain applicable permits and clearances.
5. shall not undertake any activity from the project that would result in ground disturbance, facility modification, or purchase and use of sonar equipment without the prior approval of FEMA. These include but are not limited to communications towers, physical security enhancements involving ground disturbance, new construction, and modifications to buildings.
6. shall comply with all mitigation or treatment measures required for the project as the result of FEMA's EHP review. Any changes to an approved project description will require re-evaluation for compliance with EHP requirements before the project can proceed.
7. if ground disturbing activities occur during project implementation, Subrecipient shall ensure monitoring of ground disturbance and if any potential archeological resources are discovered, Subrecipient shall immediately cease construction in that area and notify FEMA and the appropriate State Historical Preservation Office.

GRANT TERMS AND CONDITIONS

EXHIBIT F

Additional Grant Conditions

1. Additional damage requiring a new Public Assistance project to be written must be reported within 60 days following the Project Scoping meeting with the State-Federal team (or FEMA process equivalent).
2. All work must be done prior to the approved project completion deadline assigned to each Project (POP). For projects written at 100% complete, documentation must be submitted within 90 days of the Recovery Scoping Meeting (or FEMA process equivalent) or within 90 days of the work completion date (both Hazard Mitigation and Public Assistance), whichever is later, regardless of whether the project has been obligated. Should additional time be required, a time extension request must be submitted which: a.) Identifies the projects requiring an extension. b.) Explains the reason for an extension. c.) Indicates the percentage of work that has been completed. d.) Provides an anticipated completion date. e) Provides detailed milestones documenting expected progress. The reason for an extension must be based on extenuating circumstances or unusual project requirements that are beyond the control of your jurisdiction/organization. **Failure to submit a time extension request 90 days prior to the end of the period of performance may result in reduction or withdrawal of federal funds for approved work.**
3. Any significant change to a project's approved Scope of Work must be reported and approved through TDEM and FEMA before starting the project. Failure to do so will jeopardize grant funding. The Subrecipient shall submit requests for cost overruns requiring additional obligations to TDEM, who will forward to FEMA for review and approval prior to incurring costs. Approval of these requests is not guaranteed and is subject to funding availability. Costs incurred prior to approval of any scope or budget/cost changes may be denied.
4. The Project Completion and Certification Report must be submitted to TDEM within 60 days of all approved work being completed for each project. If any project requires the purchase of insurance as a condition of receiving federal funds, a copy of the current policy must be attached to this report, or Duplication of Benefits form certifying other funds were received to complete the project.
5. A cost overrun appeal on small (\$128,900) Public Assistance projects must be reported to the Texas Division of Emergency Management (TDEM) within 60 days of completing the last small project in order to be considered for additional funding.
6. Appeals may be filed on any determination made by FEMA or TDEM. All appeals must be submitted to TDEM within 60 days from receiving written notice of the action you wish to appeal. Should you wish to appeal a determination contained in the project application, the 60 days will start the day the application is signed. Appeals for Alternative Projects will be subject to the terms of the signed agreement for the Alternative Project.
7. Public Assistance program projects will not receive funding until all of the requirements identified in the comments section of the Project Worksheet are met.
8. You may request a payment of funds on projects by initiating a Request for Reimbursement (RFR) in TDEM's Grant Management System (GMS) or an Advance of Funds Request (AFR), and including documentation supporting your request. Small Public Assistance projects are paid upon obligation and will be initiated by TDEM personnel. Payments for open projects must be requested at least quarterly if expenditures have been made in that quarter.
9. Subrecipients will be required to submit quarterly progress reports (QPR) for open large projects and all Hazard Mitigation Grant Program projects using TDEM's GMS. Your assigned Public Assistance and/or Mitigation Coordinator will coordinate the due date for your specific reporting. Reports shall record all

GRANT TERMS AND CONDITIONS

information in an accurate and timely manner for each quarter. Detailed information regarding each item of information required is available on the form in GMS. Public Assistance program small projects are typically exempt from quarterly reporting, however TDEM reserves the right to require QPRs on any smalls requiring a POP extension. The first quarterly report will be due at the end of the first full quarter following the quarter in which the project was obligated. No quarterlies are required for projects that Subrecipient has initiated a closeout request and has provided a certificate of completion. Failure to submit required quarterly reports for two or more quarters can result in withholding or deobligation of funding for Subrecipients until all reports are submitted and up-to-date.

10. Subrecipients expending \$750,000 or more in total Federal financial assistance in a fiscal year will be required to provide an audit made in accordance with OMB Uniform Guidance; Cost Principles, Audit, and Administrative Requirements for Federal Awards, Subpart F. A copy of the Single Audit must be submitted to your cognizant State agency or TDEM within nine months of the end of the subrecipient's fiscal year. Consult with your financial officer regarding this requirement. If not required to submit a single audit, a letter must be sent to TDEM certifying to this.
11. Subrecipients will not make any award to any party which is debarred or suspended, or is otherwise excluded from participation in the Federal assistance programs (EO 12549, Debarment and Suspension). Subrecipient must maintain documentation validating review of debarment list of eligible contractors.
12. Subrecipients must keep record of equipment acquired by federal funds for the life cycle of the equipment. A life cycle for most equipment will be three years, but could be longer. If the fair market value of a piece of equipment is valued over \$5,000, FEMA will have the right to a portion of proceeds if equipment is sold. If the fair market value of a piece of equipment is less than \$5,000, the property can either be retained, sold or designated as surplus with no further obligation to FEMA.
13. TDEM will be using the FEMA Public Assistance Delivery Model to facilitate the writing of project worksheets (Portal). Subrecipient will be responsible for establishing and maintaining an active account in the Portal and to provide and upload timely, all information requested that is needed to write accurate project worksheets. The Portal will provide the Subrecipient visibility of the entire project writing process.
14. TDEM requires the use of its Grant Management System (GMS) for Subrecipient grant management functions. Subrecipient will access GMS to initiate Requests for Reimbursements (RFR), Advance of Funds Requests (AFR), Time Extensions, Scope and Cost change requests, Quarterly Progress Reports, Project Closeouts, Appeals, and other items deemed necessary by TDEM. Requested forms and processes may be adjusted and changed to accommodate GMS processes and requirements. Subrecipient agrees to monitor GMS as necessary to properly manage and complete awarded projects under this agreement.
- 16.2 CFR 200.210(a)(15), 2 CFR 200.331(a)(1)(xiii) and (a)(4) make reference to indirect cost rates. The Subrecipient may use the negotiated Indirect Cost Rate approved by its cognizant agency, or may use the 10% de minimis rate of modified total direct costs (MTDC) (as per § 200.414) when receiving Management Costs.

GRANT TERMS AND CONDITIONS

EXHIBIT G

Match Certification

Additional Grant Certifications

Subrecipient certifies that it has the ability to meet or exceed the cost share required for all subawards (Projects) and amendments (versions) under this Grant Agreement.

Duplication of Program Statement

Subrecipient certifies there has not been, nor will there be, a duplication of benefits for this project.

Match Certification

Federal Debt Disclosure

Subrecipient certifies that it is not delinquent on any Federal Debt.

For Hazard Mitigation Projects Only:

Maintenance Agreement

Applicant certifies that if there is a Maintenance Agreement needed for this facility copy of that agreement will be provided to TDEM.

Environmental Justice Statement

Federal Executive Order 12898 compliance requirements – If there are any concentrations of low income or minority populations in or near the HMGP project:

1. Applicant certifies that the HMGP project result will not result in a disproportionately high or adverse effect on low income or minority populations.

OR

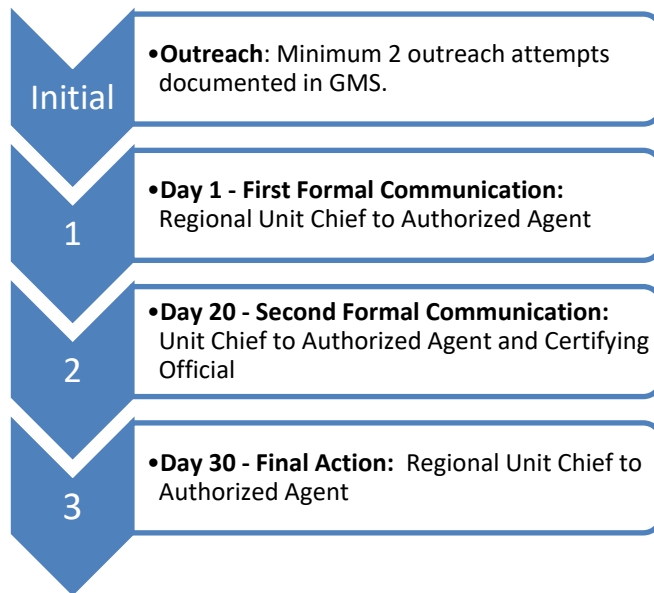
2. Applicant certifies that action will be taken to ensure achievement of environmental justice for low income and minority populations related to this HMGP project.

Formal Request for Information Policy

Timelines for providing complete and accurate information and documentation are crucial to the success of the overall Grant Program and to the timely completion and closure of awarded projects. TDEM has developed a framework to support this endeavor following a progressive series of communications for the subrecipient, referred to as Request for Information (RFI). TDEM will work with subrecipients throughout the Formal RFI process as communication is the key to success.

Scope: This policy will be applied to Public Assistance and Hazard Mitigation projects for management and closeout activities after obligation. This policy will address non-responsive and inadequate responses to request for information. The timelines outlined below represent a single 30-day period, containing three milestones.

Generally, this 30-day RFI Timeline begins after TDEM sufficiently documents communication (minimum of two GMS documented forms of outreach) with the subrecipient that has been escalated up to the Regional Unit Chief regarding the requested documentation. However, nothing limits the ability of TDEM to issue either a First or Second Request.



RFI Timelines

First Formal Communication

The TDEM Regional Unit Chief will issue a read-receipt, high importance email to the subrecipient's Authorized Agent(s) highlighting previous requests and allowing thirty calendar days to provide the requested information.

Second Formal Communication

TDEM staff will issue a formal reminder through a letter signed by the Unit Chief which is then emailed to the subrecipient's Authorized Agent(s) and Certifying Official informing them of the final ten business days remaining to provide the requested information. The Assistant Chief is to be copied on the email for visibility.

Final Action

If the RFI is not sufficiently answered, the Unit Chief will verbally contact the subrecipient's Authorized Agent(s) informing them of TDEM's intent to proceed with deobligation of funds or other remedies deemed appropriate by TDEM. Deobligation requires any previously paid funds to be returned to TDEM within thirty calendar days, per the State Administrative Plan.

GRANT TERMS AND CONDITIONS

Please initial by each Exhibit, acknowledging you have received them, understand them, and agree to abide by them.

_____ Assurances – Non-Construction Programs, hereinafter referred to as “Exhibit A”

_____ Assurances – Construction Programs, hereinafter referred to as “Exhibit B”

_____ Certifications for Grant Agreements, hereinafter referred to as “Exhibit C”

_____ State of Texas Assurances, hereinafter referred to as “Exhibit D”

_____ Environmental Review Certification, hereinafter referred to as “Exhibit E”

_____ Additional Grant Conditions, hereinafter referred to as “Exhibit F”

_____ Additional Grant Certifications, hereinafter referred to as “Exhibit G”

_____ Request for Information and Documentation referred to as “Exhibit H”

Please sign below to acknowledged acceptance of the grant and all exhibits in this agreement, and to abide by all terms and conditions.

Signature of Certifying Official

Date

Printed Name and Title

Application for Federal Assistance SF-424

* 1. Type of Submission:

- ☐ Preapplication
☒ Application
☐ Changed/Corrected Application

* 2. Type of Application:

- ☒ New
☐ Continuation
☐ Revision

* If Revision, select appropriate letter(s):

* Other (Specify):

* 3. Date Received:

4. Applicant Identifier:

5a. Federal Entity Identifier:

5b. Federal Award Identifier:

State Use Only:

6. Date Received by State:

7. State Application Identifier:

8. APPLICANT INFORMATION:

* a. Legal Name:

Hays County

* b. Employer/Taxpayer Identification Number (EIN/TIN):

74-60022415029

* c. Organizational DUNS:

0974948840000

d. Address:

* Street1:

712 S. Stagecoach Trail

Street2:

* City:

San Marcos

County/Parish:

Hays

* State:

TX: Texas

Province:

* Country:

USA: UNITED STATES

* Zip / Postal Code:

78666-5999

e. Organizational Unit:

Department Name:

Division Name:

f. Name and contact information of person to be contacted on matters involving this application:

Prefix:

* First Name:

Ruben

Middle Name:

* Last Name:

Becerra

Suffix:

Title: County Judge

Organizational Affiliation:

Hays County

* Telephone Number: 512-393-2205

Fax Number:

* Email: judge.becerra@co.hays.tx.us

Application for Federal Assistance SF-424

* 9. Type of Applicant 1: Select Applicant Type:

B: County Government

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

* 10. Name of Federal Agency:

Department of Homeland Security

11. Catalog of Federal Domestic Assistance Number:

97.039

CFDA Title:

* 12. Funding Opportunity Number:

FM5420

* Title:

Post Fire Fiscal Year 2022

13. Competition Identification Number:

Title:

14. Areas Affected by Project (Cities, Counties, States, etc.):

Add Attachment

Delete Attachment

View Attachment

* 15. Descriptive Title of Applicant's Project:

Hays County Wildfire Mitigation

Attach supporting documents as specified in agency instructions.

Add Attachments

Delete Attachments

View Attachments

Application for Federal Assistance SF-424**16. Congressional Districts Of:**

* a. Applicant TX-25

* b. Program/Project TX-25

Attach an additional list of Program/Project Congressional Districts if needed.

Add Attachment

Delete Attachment

View Attachment

17. Proposed Project:

* a. Start Date: 03/01/2023

* b. End Date: 10/04/2023

18. Estimated Funding (\$):

* a. Federal	
* b. Applicant	
* c. State	116,058.00
* d. Local	30,000.00
* e. Other	
* f. Program Income	
* g. TOTAL	146,058.00

*** 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

- ☐ a. This application was made available to the State under the Executive Order 12372 Process for review on .
- ☐ b. Program is subject to E.O. 12372 but has not been selected by the State for review.
- ☒ c. Program is not covered by E.O. 12372.

*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**☐ Yes ☒ No

If "Yes", provide explanation and attach

Add Attachment

Delete Attachment

View Attachment

21. *By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)**

☒ ** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix: * First Name: Ruben

Middle Name:

* Last Name: Becerra

Suffix:

* Title: County Judge

* Telephone Number: 5123932205 Fax Number:

* Email: judge.becerra@co.hays.tx.us

* Signature of Authorized Representative:

* Date Signed:

Hays County 5420 Fire Adjusted Budget and Scope of Work

Adjusted Project Cost - \$48,149.00

If necessary, Hays County can scale the amount of acreage that will be reseeded. This would be done by only reseeding the Hermosa Fire property and the Armbruster Fire property for a total of 150 acres. This would result in a cost of **\$28,350** for Buffalo Grass seed.

Because the same equipment will be needed regardless of how many acres are cleared, the same amount (**\$14,626**) will be used to purchase equipment to assist with the clear of the land, including burned trees. This includes: \$6,400 for 4 36-inch blade chainsaws; \$5,200 for 4 28-inch blade chainsaws; \$1,050 for 10 Pulaski hand tools; \$880 for 10 fire rakes; \$480 for 8 additional chains for the chainsaws; \$256 for bar oil for the chainsaws; and \$360 for fuel for the chainsaws.

The remaining funds can be scaled to **\$5,173** for additional tools and safety gear to be used during the clearing process including: \$2,960 for chaps, \$960 for helmets, and \$125 for safety glasses for those using chainsaws to clear trees in order to reduce the risk of serious injury; \$188 for 4 broadcasters to be used to spread the seed during reseeding; \$420 for ice chests in order to provide hydration for those clearing and reseeding the land; \$440 for Gorilla carts in order for those clearing the land to carry supplies and fuel for their chainsaws as they move throughout the 507 acres; and \$80 for flagging tape in order to mark trees and brush that needs to be cleared.

Type	Description		Qty	Unit		Price	Pre-Award	Total
Materials/Supp	Buffalo Grass Seed (1 acre)		507	Acre	\$	189.00	No	\$95,823.00
Materials/Supp	Chainsaws (36 inch blade)		4	Each	\$	1,600.00	No	\$6,400.00
Materials/Supp	Chainsaws (28 inch blade)		4	Each	\$	1,300.00	No	\$5,200.00
Materials/Supp	Chaps		16	Each	\$	185.00	No	\$2,960.00
Materials/Supp	Pulaski hand tool		10	Each	\$	105.00	No	\$1,050.00
Materials/Supp	McLeod Fire Rake		10	Each	\$	88.00	No	\$880.00
Materials/Supp	Handheld Seed Broadcaster (Front Pack Style)		4	Each	\$	47.00	No	\$188.00
Materials/Supp	Ice Chest		4	Each	\$	210.00	No	\$840.00
Materials/Supp	Extra chains for 36 inch chainsaws		4	Each	\$	60.00	No	\$240.00
Materials/Supp	Extra chains for 28 inch chainsaws		4	Each	\$	60.00	No	\$240.00
Materials/Supp	Helmets		16	Each	\$	60.00	No	\$960.00
Materials/Supp	Safety Glasses - Case of 60		1	Each	\$	125.00	No	\$125.00
Materials/Supp	Bar Oil		16	Each	\$	16.00	No	\$256.00
Materials/Supp	Five Gallon Fuel for Chainsaws		3	Each	\$	80.00	No	\$240.00
Materials/Supp	One Gallon Fuel for Chainsaws		4	Each	\$	30.00	No	\$120.00
Application Total								\$116,058.00
Grand Total								\$116,058.00

Type	Description	Qty	Unit	Price	Pre-Award	Total
Materials/Supp	Gorilla Carts	4	Each	\$ 110.00	No	\$440.00
Materials/Supp	Flagging Tape - 6 pack	6	Each	\$ 16.00	No	\$96.00
Application Total						\$116,058.00
Grand Total						\$116,058.00

Budget Narrative:

[Budget Narrative 9 KB](#)

Oct 4, 2022

[Attach Files](#)

The jurisdiction will ensure that all project costs are reasonable and necessary for the activity according to 2 CFR § Part 200 Uniform Administrative (URA) Requirements, Cost Principles, and Audit Requirements for Federal Awards. Please include explanation/justification for project and Subrecipient Management Cost amounts.

Subrecipient Management Cost

Will this sub-application be requesting any Subrecipient Management Cost amounts?

Opt-Out

Funding Sources

Method:	<input type="radio"/> By Percent <input checked="" type="radio"/> By Amount		Funding Source / Other Agency
FEMA Share:	\$	0.00 0%	
State Share:	\$	116,058.00 100%	
Non-Federal Share - Local Share (Include In-Kind Value):	\$	29,014.50 25%	Team Rubicon
Total Allocated:	\$	145,072.50 125%	


Subrecipient Management \$ 0.00

Cost Amount:

The amount of Subrecipient Management Cost requested for this Project.

Non-Federal Funding Share

List all sources and amounts utilized in the non-federal share including all in-kind services. In-kind services may not exceed 25% non-federal share. If any portion of the non-Federal share will come from non-applicant sources (donated services, private donation, etc.), attach letters of funding commitment for each non-applicant source.

Source	Name of Source Agency	Funding Source	Amount	Commitment Letter
Volunteer Hours	Team Rubicon	In-Kind Donations	\$	

Funds Commitment Letter lists the sources and amounts utilized in the non-Federal share requirement, including all in-kind services. Funds commitment letters from non-applicant sources

Cost Effectiveness

Not required for Plan or Plan Update applications

The cost effectiveness methodology used for this project is:

- ☐ Pre-Calculated Benefits: The properties to be acquired meet the criteria for pre-calculated benefits for acquisition for structures located in Special Flood Hazard Areas (SFHA) of \$276,000 per property. If the structure, or any portion of the structure lies within the 100-year SFHA, the structure can utilize the pre-calculated benefits. This must be established with maps which show the structure's footprint delineated against the SFHA. Details of the properties can be found in the Worksheets.
- ☐ Benefit Cost Software: Cost effectiveness for this project has been calculated using the FEMA approved BCA software. The Benefit Cost Ratio has been determined to be: 0. A zip file of the BCA runs is included with this application as required documentation. Details of the properties can be found in the Worksheets. Maintenance Costs must be included in the BCA, although they are not eligible project cost line items in the application budget. Upload an assurance letter from the signature authority that tells how much annual maintenance costs will be, what position or department will be responsible for maintenance, and how often it will be performed.
- ☒ Cost Effectiveness Narrative: Provide a detailed description of the cost effectiveness indicating that there is a reasonable expectation that future damage or loss of life will be reduced or prevented.

Hays County 5420 Fire Mitigation Budget Narrative

Total Project Cost - \$116,058

A majority of the budget for this project (**\$95,823**) is dedicated to the purchase of Buffalo Grass seed. This will purchase enough seed to reseed 507 acres of burned land that has been affected by wildfire in 2022. By reseeding the land, new growth will be able to come in.

Of the remaining funds, **\$14,626** will be used to purchase equipment to assist with the clear of the land, including burned trees. This includes: \$6,400 for 4 36-inch blade chainsaws; \$5,200 for 4 28-inch blade chainsaws; \$1,050 for 10 Pulaski hand tools; \$880 for 10 fire rakes; \$480 for 8 additional chains for the chainsaws; \$256 for bar oil for the chainsaws; and \$360 for fuel for the chainsaws. All of these tools are necessary in order to clear such a large acreage of land.

Workers clearing the land will be split into eight teams of two people, with one person operating the chainsaws and the other assisting.

The remaining **\$5,609** will be spent on additional tools and safety gear to be used during the clearing process including: \$2,960 for chaps, \$960 for helmets, and \$125 for safety glasses for those using chainsaws to clear trees in order to reduce the risk of serious injury; \$188 for 4 broadcasters to be used to spread the seed during reseeding; \$840 for ice chests in order to provide hydration for those clearing and reseeding the land; \$440 for Gorilla carts in order for those clearing the land to carry supplies and fuel for their chainsaws as they move throughout the 507 acres; and \$96 for flagging tape in order to mark trees and brush that needs to be cleared.



NATIONAL OPERATIONS CENTER
1209 W. CARRIER PKWY, SUITE 305
GRAND PRAIRIE, TX 75050

To Whom it May Concern,

Team Rubicon is a veteran-led humanitarian organization that serves communities before, during, and after crises. Our programs include volunteer driven hazard mitigation work.

Team Rubicon has agreed to assist in Hays County's hazard mitigations efforts in Hays County. Team Rubicon volunteer hours and equipment usage will be documented for use as an in-kind match for Hays County's grant application to the Texas Department of Emergency Management under disaster declaration FM5420. Under this plan, Team Rubicon volunteers will assist with the clearing and reseeding work on several pieces of property that have been affected by wildfires.

Team Rubicon anticipates providing – at a minimum – 2,000 hours of volunteer work over the course of the scheduled 32-week project period. These volunteer hours will be scheduled at the discretion of Team Rubicon and may occur consecutively, concurrently, or irregularly. Documentation of the volunteer hours and impact will be shared with Hays County at the completion of each phase of the project.

Volunteer hours will be valued at \$15.00 per hour based on information from the U.S. Bureau of Labor Statistics. Therefore, the estimated impact of Team Rubicon's in-kind donation is anticipated to be at least \$30,000.00 towards Hays County in the FM540 Fire Mitigation project.

Sincerely,

Andrew Hanna

Drew Hanna

Deputy Director of Operations

(M) 309.533.0276

andrew.hanna@teamrubiconusa.org

[Team Rubicon](#) | Built to Serve

CFC #59162

FEMA Region IV

FEMA Region VI



AGENDA ITEM REQUEST FORM

Hays County Commissioners Court

Date: 11/01/2022

Requested By:

Jerry Borcharding

Sponsor:

Commissioner Shell

Agenda Item:

Authorize the County Judge to execute a \$900.00 Subscription Support Agreement with Dover Fueling Solutions for the Transportation Department related to the OPW fuel system and amend the budget accordingly. **SHELL/BORCHERDING**

Summary:

This agreement is for Technical Support for the OPW fuel system at the Transportation Department. This fuel system monitors and tracks the amount of fuel that is pumped by gallons and vehicle. Previously the technical support was offered at no charge, however, funding is available for this agreement within the operating budget.

Fiscal Impact:

Amount Requested: \$900

Line Item Number: 020-710-00.5429

Budget Office:

Source of Funds: Road & Bridge General Fund

Budget Amendment Required Y/N?: Yes

Comments: N/A

\$900 - Increase Software Maintenance 020-710-00.5429

(\$900) - Decrease Road Materials 020-710-00.5351

Auditor's Office:

Purchasing Guidelines Followed Y/N?: Yes

G/L Account Validated Y/N?: Yes

New Revenue Y/N?: N/A

Comments:

Attachments

OPW Tech Support contract



Phoenix SQL Subscription Support Agreement: Single Site

Distributor /Sales Agent Contact Info:

Company

Name: JF Petro Group

Address: 1804 Smith Road

City: Austin, Tx

State: Tx

Zip: 78721

Country: US

Sales Rep Name:

Jimmy Kylberg

Email: JKylberg@JFPetrogroup.com

Phone: 512-278-1000

Subscriber Billing Address & Billing Contact Info:

Note: This section is to gather end user / subscriber billing information only. The site details of where Phoenix SQL will be installed/deployed is captured toward the end of this subscription agreement.

Legal Entity

Name: Hays County Transportation Dept.

Address: 2171 Yarrington Rd

City: Kyle, Tx 78640

State: Tx

Zip: 78640

Country: US

Billing Contact

Name: Ivy Saunders

Email: ivy-saunders@co.hays.tx.us

Phone: 512-393-7385

~~NOTE~~ NOTE:

old address was 2171 Yarrington Rd
San Marcos, Tx 78666

This "Subscription Agreement" is a legal document between Wayne Fueling Systems LLC part of the Dover Fueling Solutions family of companies and the Subscriber, as defined above. Wayne Fueling Systems LLC means "DFS", "we" or "our" and Subscriber means "you", "your" or "I". Subscription terms, if any follow the ordering grids below.

Agreement Effective Date	immediately
Projected Install / Subscription Start Date	11
Projected End of Subscription Date	12 months
SQL / SQL Lite Serial Number	1952916

Subscription Service(s)

Subscription	Part Number	# of Sites	Length (in months)
Phoenix Service Plan	FM65-0020	1	12
FSC 3000 included			

Defined Terms

As used in this Subscription Agreement, capitalized terms herein shall have the following meanings set forth in the tables above or as defined individually herein.

"Intermediary Provider" means the DFS authorized third party Distributor / Sales Agent as listed above.

Minimum Term and Renewal

Subscription Services. All Subscription Services will be governed by the terms of this Subscription Agreement beginning on the Effective Date. The prices, features and options of the Subscription Services depend on the plan selected as well as any changes instigated by you. We reserve the right to change our subscription plans or adjust pricing for our Subscription Services or any components thereof in any manner and at any time in our sole discretion. Except as otherwise expressly provided for in this Subscription Agreement, any price changes or changes to your Subscription Services will take effect following 30 days written notice to you. Your Periodic Charges will begin on the Subscription Start Date. You are also responsible for all Excluded Charges. Your subscription will automatically renew at the end of the Minimum Term. Each Automatic Renewal Term will be 12 months in length ("Automatic Renewal Term"). Should you desire to increase the number of Units to your Subscription Service, you will request those additional Units by providing in writing an amended Exhibit A. The Periodic Charges for such additional Units will be pro-rated for the remainder of the current Subscription Period after the install date of such additional Units.

Payment Terms

Recurring Charges. You agree to pay all Periodic Charges in full within 30 days of the date of invoice. You are responsible for but not limited to any applicable sales, use and value added tax (VAT), unless you are tax exempt. If you are a non-government Subscriber and fail to pay your invoice charges, you are responsible for collection costs including attorneys' fees. When you purchase a Subscription Service, you must provide accurate and complete information for a valid payment method that you are authorized to use. You will be billed for your Subscription Service either through the payment method you provide, such as a credit card, or through an Intermediary Provider. You must promptly notify DFS of any change in its invoicing address and must update its account with any changes related to its payment method. BY PURCHASING A SUBSCRIPTION SERVICE, YOU AUTHORIZE DFS OR ITS AGENT TO CHARGE ITS PAYMENT METHOD ON A RECURRING (E.G. MONTHLY, QUARTELY OR YEARLY) BASIS ("AUTHORIZATION") FOR: (a) THE APPLICABLE SUBSCRIPTION SERVICE CHARGES; (b) ANY AND ALL APPLICABLE TAXES; AND (c) ANY OTHER CHARGES INCURRED IN CONNECTION WITH YOUR USE OF THE SUBSCRIPTION SERVICES. The Authorization continues through the applicable Minimum Term and any Automatic Renewal Term until you cancel, as set forth in the Cancellation Section.

No Refunds. You will timely pay DFS all fees associated with your Subscription Service or account. YOUR PAYMENTS ARE NON-REFUNDABLE EXCEPT AS EXPRESSLY PROVIDED IN THESE TERMS. Charges for pre-paid Subscription Services will be billed to you in advance. Charges for standard Subscription Services will be billed in arrears in accordance with the number of Periods noted in the Subscription Service table above.

Late Fees and Collection Cost. If DFS does not receive payment from your payment method, you agree to pay all amounts due upon demand. For each calendar month, or fraction thereof, that payment is late; you shall pay a late payment charge computed at the rate of 1.5% per month on the overdue balance, or the maximum rate permitted by law, whichever is less. You will reimburse any costs or expenses (including, but not limited to, reasonable attorneys' fees) incurred by DFS to collect any amount that is not paid when due. Payments marked 'paid in full', or with any other restrictive language will not operate as an accord and satisfaction without our prior written approval.

Invoices. DFS will provide billing information in a format we choose, which may change from time to time in our sole discretion. DFS reserves the right to correct any errors or mistakes that it identifies even if it has already issued an invoice or received payment. You agree to notify us about any billing problems or discrepancies in writing within thirty (30) days after they first appear on your invoice. Written notice shall be sent by email to

Db_s_n_a_ar_inquiries@dovercorp.com If you do not bring such problems or discrepancies to our attention within thirty (30) days, you agree to waive your rights to dispute such problems or discrepancies. Any Excluded Charges will be detailed and issued to you in a separate statement of work between DFS and you.

Intermediary Provider Billing. If your Subscription Service is based on intermediary provider billing, your intermediary provider will automatically charge your account monthly for the cost of the Subscription Service and any applicable taxes. If you are not current with your Subscription Service payments, we reserve the right to suspend access to your Subscription Service or terminate your Subscription Service. You will be responsible for paying all past due amounts.

Cancellation. You can cancel your Subscription Service at any time with 90 days prior written notice to DFS. We do not provide refunds for partially rendered Subscription Services. If you choose to cancel your Subscription Service before the end of the Minimum Term, you will be charged an Early Cancellation Fee to your current payment method on file. Notwithstanding the foregoing, an Early Cancellation Fee does not apply to any Subscription Service with an annual Subscription Period. If applicable, the Early Cancellation Fee will be equal to one (1) year of Periodic Charges. We reserve the right to cancel your Subscription Service for failure to fulfill your obligations under this agreement, including timely payment. Send your email notice of cancellation to PhoenixOrders@doverfs.com

Miscellaneous

Applicable Law. This Subscription Agreement will be interpreted and construed in accordance with the laws of (a) the State of Texas if Buyer's invoiced place of business is in the U.S., Canada or Mexico; or (b) England and Wales if the Buyer's invoiced place of business is outside the U.S., Canada or Mexico in either case without giving effect to any choice of law rules that would cause the application of laws of any other jurisdiction.

Dover Fueling Solutions Terms and Conditions. At any time, the most current version of our Terms and Conditions of Sale, End User License Addendum and Services Addendum ("Terms"), can be found at www.doverfuelingsolutions.com/terms, as may be modified by DFS from time to time in its sole discretion. DFS Terms apply to all Subscription Services ordered. This Subscription Agreement will be interpreted by the then-current version in accordance with the Effective Date of this Subscription Agreement. In the event that there is a conflict of terms between the Terms and Conditions of sale and this Subscription Agreement, the terms of this Subscription Agreement control. This Subscription Agreement is subject to our approval. Except as otherwise provided in this Subscription Agreement, any hardware provided by DFS pursuant to this Subscription Agreement is provided subject to a parts-only warranty and otherwise under the conditions set forth under the Terms. Onsite labor support is not included in the Subscription Services. DFS will retain ownership of any hardware device(s) included as a part of the Subscription Service(s) and will upgrade such hardware device(s) only as it deems necessary to enable the technological functionality of the Subscription Service(s).

Product Specifications. Certain Subscription Services have specific terms and minimum technical requirements which are incorporated by reference and made a part of this Subscription Agreement if they apply to your order. In order for Subscription Services to be rendered you must meet our minimum product specifications which can be found at www.doverfuelingsolutions.com/terms. We reserve the right to update or modify the minimum specifications at any time without notice. If the product is not part of your order, the product specific terms do not apply. If there is any conflict between minimum product specifications terms and the Subscription Agreement, the

minimum product specifications terms control. Failure to maintain these specifications will not result in suspension of Periodic Charges. We are not responsible for any of your malfunctioning equipment not covered under warranty.

Prior Subscription Agreement. This Subscription Agreement shall supersede and replace all prior Subscription Agreements, orders and understandings, oral or written, between DFS and Subscriber in its entirety.

Signature of Authorized Representative for Subscription

Printed Name

Title



Exhibit A – Site Location

For any questions about your subscription agreement, contact a representative at 877-679-8324 or OPWSupport@OPWGlobal.com. For any questions about payment and billing contact a representative at Database_inquiries@dovercorp.com. Thank you.

Site Locations Information (site names and locations that Phoenix SQL will be deployed at)

There are 2 or more sites that this agreement applies to for the organization which are captured in a separate Excel file. Please refer to the Excel file for a complete list of all sites.

Subscription Service Administrator User Information (can have multiple users per site)

Enter the select few people from your organization who will be assigned as the organizational administrators ("Org Admins") for Phoenix SQL.

First Name	Last Name	Corresponding Company Email Address	Phone Number



AGENDA ITEM REQUEST FORM

Hays County Commissioners Court

Date: 11/01/2022

Requested By:

Tammy Crumley

Sponsor:

Commissioner Ingalsbe

Agenda Item:

Authorize the County Judge to execute Contract Amendment #4 with Pritchard Industries, SW, formerly known as PBS of Texas, related to Countywide Janitorial Services pursuant to RFP 2020-P02 and amend the budget accordingly. **INGALSBE/T.CRUMLEY**

Summary:

On January 28, 2020, the Commissioners Court approved a contract with PBS of Texas, LLC for Countywide Janitorial Services as a result of formal solicitation RFP 2020-P02. Pritchard Industries, SW acquired PBS of Texas, LLC and all of their contracts.

The Magistration Office has relocated to an exterior space at 1301 Uhland Road and will require janitorial services for that location. Prichard Industries, SW will provide cleaning two (2) days a week for 1.5 hours per day at a monthly rate of \$500.00.

Fiscal Impact:

Amount Requested: \$5,500

Line Item Number: 001-695-00.5456

Budget Office:

Source of Funds: General Fund

Budget Amendment Required Y/N?: Yes

Comments: Additional janitorial services was not requested for these portable buildings during the FY23 budget process.

Potential funding source is County-Wide contingencies.

\$5,500 - Increase Building Maintenance Janitorial Services 001-695-00.5456

(\$5,500) - Decrease County-Wide Contingencies 001-645-00.5399

Auditor's Office:

Purchasing Guidelines Followed Y/N?: Yes

G/L Account Validated Y/N?: Yes, Janitorial Services

New Revenue Y/N?: N/A

Comments:

Attachments

Proposal/Quote

(PE) Amendment 4 to Contract

Fourth Amendment to the Janitorial Service Agreement (RFP 2020-P02 Countywide Janitorial Services)

1. This Fourth Amendment to the Janitorial Service Agreement (the "Fourth Amendment", attached as *Exhibit "A"* and executed January 28, 2020 (the "Agreement"), and first amended (the "First Amendment") on March 30, 2021 (attached as *Exhibit "B"*), and second amendment (the "Second Amendment") on July 29, 2021 (attached as *Exhibit "C"*) and third amendment (the "Third Amendment") on September 15, 2021, (attached as *Exhibit "D"*) is made this 25th day of October, 2022, and will be effective as of November 1, 2021, by and between **Hays County, Texas ("Client")** and **PBS of Texas, LLC Pritchard Industries, SW ("Contractor")**. The above-cited parties are collectively referred to as "the parties to this Agreement" or "the parties."

2. Addition of Magistration Portable Cleaning:

a. Add cleaning service for the Magistration Portables

- 2 days a week, 1.5 hours per day
- \$500.00 Monthly

3. Except for the above modifications set forth in this Fourth Amendment, all other terms and conditions of the Agreement shall remain unaffected and shall continue in full force and effect in accordance with its terms.

HAYS COUNTY, TEXAS

By: _____

Printed Name: _____

Title: _____

Dated: _____

**PBS OF TEXAS, LLC
PRITCHARD INDUSTRIES, SW**

By: Ronnie Pace

Printed Name: Ronnie Pace

Title: Vice President

Dated: 10-25-22

ATTEST: _____

Elaine Cardenas
Hays County Clerk



AGENDA ITEM REQUEST FORM

Hays County Commissioners Court

Date: 11/01/2022

Requested By:

Sponsor:

Judge Becerra

Agenda Item

Authorize the County Judge to execute a General and No Litigation Certificate of Hays related to the issuance of bonds by Capital Area Housing Finance Corporation for Blanco Basin, located in San Marcos, Hays County, Texas and Farm Street Village, located in Bastrop, Bastrop County, Texas. **BECERRA**

Summary

The General Certificate must be submitted by Capital Area Housing Finance Corporation (CAHF Corp.) to the Texas Attorney General. It represents a simple statement from the County Judge regarding the "good standing" and status of CAHF Corp. It does not "authorize" the issuance of the bonds, nor does it implicate Hays County as a participant in the issuance of these bonds.

Attachments

Blanco Basin CAHFC
Farm Street Village CAHFC



September 29, 2022

Mark Kennedy
Hays County General Counsel
Hays County Courthouse
111 E. San Antonio Street, Room 202
San Marcos, Texas 78666

Re: Capital Area Housing Finance Corporation
Multifamily Housing Revenue Bonds
(Blanco Basin)

Dear Mr. Kennedy:

The Capital Area Housing Finance Corporation (the "*Corporation*") will issue the above captioned Bonds in an aggregate principal amount not to exceed \$25,000,000 in order to provide funds to finance the cost of a residential development that will provide decent, safe and sanitary housing at affordable prices for residents within the Corporation's jurisdiction. The development will be located in the City of San Marcos, a political subdivision of the Corporation (the "*Development*"). The Bonds will be a special limited obligation of the Corporation payable solely from the collateral pledged to secure the Bonds. The sponsoring local political subdivisions of the Corporation are not in any way liable for the payment of the Bonds.

In connection with the issuance by the Corporation of the above-referenced Bonds, enclosed herewith are two (2) copies of the General and No Litigation Certificate (the "*General Certificate*") for execution by Judge Ruben Becerra as the County Judge of the County of Hays. I have included below for your convenience a description of the legal requirements behind the General Certificate.

Although the Development will be constructed in the City of San Marcos, Texas, 1 TX A.D.C. §53.229 (or 15 Tex. Reg. 6289) requires a General Certificate from each sponsoring political subdivision of the Corporation to be submitted to the Attorney General of the State of Texas, who will approve all documentation relating to the Bonds prior to the issuance of the Bonds. Paragraph 8 of the General Certificate specifically gives the Attorney General the right to date the General Certificate on the date of closing. **Please do not date this Certificate.**

Please review the General Certificate and call me at (512) 349-9104 with any questions or comments you may have. Otherwise, if all is in order, please both signature pages for the General Certificate executed and return them to Chapman and Cutler LLP, Bond Counsel to the Corporation, using the enclosed prepaid Federal Express envelope for delivery no later than Wednesday, November 30, 2022.

CAPITAL AREA HOUSING FINANCE
CORPORATION

By 

M. John Trofa
General Counsel

Enclosures

cc: Jim Shaw, Executive Director of Capital Area HFC

GENERAL AND NO LITIGATION CERTIFICATE OF HAYS COUNTY

We hereby certify that we are duly elected or appointed and acting officers of Hays County, Texas (the "*County*"). We do hereby further certify that:

1. This Certificate is for the benefit of the Attorney General of the State of Texas (the "*Attorney General*") and all persons interested in the validity of the proceedings of the Capital Area Housing Finance Corporation (the "*Corporation*") related to the issuance by the Corporation of its multifamily housing revenue bonds entitled "Capital Area Housing Finance Corporation Multifamily Housing Revenue Bonds (Blanco Basin)" issued in one or more series (the "*Bonds*").
2. The Commissioners Court (the "*Governing Body*") of the County authorized the membership of the County in the Corporation, a joint housing finance corporation created pursuant to the Texas Housing Finance Corporations Act, Chapter 394, Local Government Code, as amended (the "*Act*"), and approved the Articles of Incorporation and Bylaws of the Corporation (and all amendments thereto).
3. The County has appointed Commissioner Mark Jones to act as a member of the board of directors of the Corporation. The individual is a resident of a city or county which is a member of the Corporation.
4. The Governing Body has taken no action pursuant to the Act, including Section 394.016(c) thereof, or otherwise, to limit the effectiveness of the resolution authorizing the issuance of the Bonds or in any way affecting the proceedings relating to the issuance of the Bonds.
5. The Governing Body has not created any other Corporation that currently has the power to make home mortgages or loans to lending institutions, the proceeds of which are to be used to make home mortgage or loans on residential developments.
6. No litigation is pending, or to our knowledge threatened, in any court in any way affecting the existence of the Corporation or seeking to restrain or to enjoin the issuance, sale or delivery of the Bonds, or in any way contesting or affecting the validity or enforceability of the Bonds or the financing documents to which the Corporation is a party, or contesting in any way the completeness or accuracy of any disclosure document prepared in connection with the issuance of the Bonds, or contesting the powers of the Corporation or its authority with respect to the financing documents to which it is party.
7. Each of the undersigned officers of the County hereby certifies that he or she is the duly elected or appointed incumbent of the office appearing below his or her signature and that the signature of the other officer appearing below is the true and correct signature of such person.
8. The Attorney General of the State of Texas is hereby authorized and directed to date this certificate concurrently with the date of his approval of the Bonds and this Certificate shall

be deemed for all purposes to be accurate and correct on and as of that date and on and as of the date of the initial issuance and delivery of the Bonds to the initial purchasers thereof.

9. By his or her signature hereto, the undersigned representative of the Governing Body assumes no liability whatsoever with respect to the Bonds. The Bonds are not an indebtedness of the Governing Body or the County and the Governing Body and the County shall have no liability therefor.

[Remainder of Page Intentionally Left Blank]

EXECUTED AND DELIVERED AS OF THE DATE SET FORTH BELOW.

HAYS COUNTY, TEXAS

By _____
Judge Ruben Becerra

ATTEST

By _____
General Counsel, Hays County

DATED: _____
[TO BE DATED BY ATTORNEY
GENERAL OF THE STATE OF TEXAS]



September 29, 2022

Mark Kennedy
Hays County General Counsel
Hays County Courthouse
111 E. San Antonio Street, Room 202
San Marcos, Texas 78666

Re: Capital Area Housing Finance Corporation
Multifamily Housing Revenue Bonds
(Farm Street Village)

Dear Mr. Kennedy:

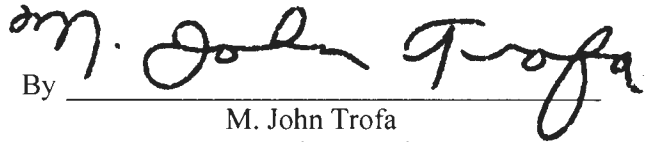
The Capital Area Housing Finance Corporation (the "*Corporation*") will issue the above captioned Bonds in an aggregate principal amount not to exceed \$20,000,000 in order to provide funds to finance the cost of a residential development that will provide decent, safe and sanitary housing at affordable prices for residents within the Corporation's jurisdiction. The development will be located in the City of Bastrop, a political subdivision of the Corporation (the "*Development*"). The Bonds will be a special limited obligation of the Corporation payable solely from the collateral pledged to secure the Bonds. The sponsoring local political subdivisions of the Corporation are not in any way liable for the payment of the Bonds.

In connection with the issuance by the Corporation of the above-referenced Bonds, enclosed herewith are two (2) copies of the General and No Litigation Certificate (the "*General Certificate*") for execution by Judge Ruben Becerra as the County Judge of the County of Hays. I have included below for your convenience a description of the legal requirements behind the General Certificate.

Although the Development will be constructed in the City of Bastrop, Texas, 1 TX A.D.C. §53.229 (or 15 Tex. Reg. 6289) requires a General Certificate from each sponsoring political subdivision of the Corporation to be submitted to the Attorney General of the State of Texas, who will approve all documentation relating to the Bonds prior to the issuance of the Bonds. Paragraph 8 of the General Certificate specifically gives the Attorney General the right to date the General Certificate on the date of closing. **Please do not date this Certificate.**

Please review the General Certificate and call me at (512) 349-9104 with any questions or comments you may have. Otherwise, if all is in order, please both signature pages for the General Certificate executed and return them to Chapman and Cutler LLP, Bond Counsel to the Corporation, using the enclosed prepaid Federal Express envelope for delivery no later than Wednesday, November 30, 2022.

CAPITAL AREA HOUSING FINANCE
CORPORATION

By 
M. John Trofa
General Counsel

Enclosures

cc: Jim Shaw, Executive Director of Capital Area HFC

GENERAL AND NO LITIGATION CERTIFICATE OF HAYS COUNTY

We hereby certify that we are duly elected or appointed and acting officers of Hays County, Texas (the "*County*"). We do hereby further certify that:

1. This Certificate is for the benefit of the Attorney General of the State of Texas (the "*Attorney General*") and all persons interested in the validity of the proceedings of the Capital Area Housing Finance Corporation (the "*Corporation*") related to the issuance by the Corporation of its multifamily housing revenue bonds entitled "Capital Area Housing Finance Corporation Multifamily Housing Revenue Bonds (Farm Street Village)" issued in one or more series (the "*Bonds*").

2. The Commissioners Court (the "*Governing Body*") of the County authorized the membership of the County in the Corporation, a joint housing finance corporation created pursuant to the Texas Housing Finance Corporations Act, Chapter 394, Local Government Code, as amended (the "*Act*"), and approved the Articles of Incorporation and Bylaws of the Corporation (and all amendments thereto).

3. The County has appointed Commissioner Mark Jones to act as a member of the board of directors of the Corporation. The individual is a resident of a city or county which is a member of the Corporation.

4. The Governing Body has taken no action pursuant to the Act, including Section 394.016(c) thereof, or otherwise, to limit the effectiveness of the resolution authorizing the issuance of the Bonds or in any way affecting the proceedings relating to the issuance of the Bonds.

5. The Governing Body has not created any other Corporation that currently has the power to make home mortgages or loans to lending institutions, the proceeds of which are to be used to make home mortgage or loans on residential developments.

6. No litigation is pending, or to our knowledge threatened, in any court in any way affecting the existence of the Corporation or seeking to restrain or to enjoin the issuance, sale or delivery of the Bonds, or in any way contesting or affecting the validity or enforceability of the Bonds or the financing documents to which the Corporation is a party, or contesting in any way the completeness or accuracy of any disclosure document prepared in connection with the issuance of the Bonds, or contesting the powers of the Corporation or its authority with respect to the financing documents to which it is party.

7. Each of the undersigned officers of the County hereby certifies that he or she is the duly elected or appointed incumbent of the office appearing below his or her signature and that the signature of the other officer appearing below is the true and correct signature of such person.

8. The Attorney General of the State of Texas is hereby authorized and directed to date this certificate concurrently with the date of his approval of the Bonds and this Certificate shall

be deemed for all purposes to be accurate and correct on and as of that date and on and as of the date of the initial issuance and delivery of the Bonds to the initial purchasers thereof.

9. By his or her signature hereto, the undersigned representative of the Governing Body assumes no liability whatsoever with respect to the Bonds. The Bonds are not an indebtedness of the Governing Body or the County and the Governing Body and the County shall have no liability therefor.

[Remainder of Page Intentionally Left Blank]

EXECUTED AND DELIVERED AS OF THE DATE SET FORTH BELOW.

HAYS COUNTY, TEXAS

By _____
Judge Ruben Becerra

ATTEST

By _____
General Counsel, Hays County

DATED: _____
[TO BE DATED BY ATTORNEY
GENERAL OF THE STATE OF TEXAS]



AGENDA ITEM REQUEST FORM

Hays County Commissioners Court

Date: 11/01/2022

Requested By:

T. CRUMLEY

Sponsor:

Commissioner Ingalsbe

Agenda Item:

Ratify the execution of the venue rental agreement between the Hays County Health Department and Dripping Springs Ranch Park for the rental of the venue used for the 2022 New Parents Preparedness Forum. **INGALSBE/T.CRUMLEY**

Summary:

Hays County Health Department hosted a New Parents Preparedness Forum on October 27, 2022, and rented the venue space from Dripping Springs Ranch Park. The rental agreement was presented the week of the event and requires execution.

Fiscal Impact:

Amount Requested: \$175

Line Item Number: 120-675-99-155.5391

Budget Office:

Source of Funds: Grant Funds from Department of State Health Services

Budget Amendment Required Y/N?: No

Comments: N/A

Auditor's Office:

Purchasing Guidelines Followed Y/N?: Pending ratification of venue rental agreement.

G/L Account Validated Y/N?: Yes, Miscellaneous Expense

New Revenue Y/N?: N/A

Comments:

Attachments

Venue Rental Agreement



DRIPPING SPRINGS RANCH PARK FACILITY RENTAL AGREEMENT

APPLICANT INFORMATION

Lessee/Company Name: _____

Designated Event Spokesperson: _____

Address: _____ City/State/Zip _____

Phone #: (_____) _____ - _____ Alternate Phone #:(_____) _____ - _____

Email: _____

EVENT INFORMATION

Name of Event: _____ Website _____

Event Start Date: _____ (Actual Rental, including set up)

Event End Date: _____ (Actual Rental, including break down)

Event Start Time: _____ * Event End Time: _____

***All music & alcohol consumption must end by 10PM. No exceptions.**

Description of Event: _____

Expected Attendance for Event: _____

Times and Types of Use: *(Please be specific and list all times the space is needed, including deliveries & set-up. Failure to list all set up times & dates and event times could result in the building not being accesible or staff unavailable at your desired times.* Full Day (12 hours), Half Day (6 hours). This must include set-up and breakdown times needed. Additional Per hour rates are available to Full and Half day rentals.

Set Up dates and times? _____

Special Requests? _____



DRIPPING SPRINGS RANCH PARK FACILITY RENTAL AGREEMENT

SOUND & AUDIO/VISUAL EQUIPMENT

Will there be loudspeakers, live music or any activity which involves amplification equipment or devices of any kind? ☐ YES ☐ NO If yes, please describe: _____

Will you use DSRP Sound System/Microphones? ☐ YES ☐ NO

Will you use the projector/screen in the Special Event Room? ☐ YES ☐ NO

Will you need a sound/AV Tech (additional fee TBD) prior to or during your event? ☐ YES ☐ NO

If you answered 'YES' to any of the above, please state your specific needs for sound/AV: _____

SPECIAL ELECTRICAL NEEDS

(Special electrical needs will result in additional fees)

Do you have special electrical needs/set up? ☐ YES ☐ NO

If **YES**, special electrical needs *must be submitted to DSRP no later than 30 days in advance of the event*. Failure to make this submittal could hinder your electrical needs being met by the facility. Please describe special electrical needs in detail: _____

ALCOHOLIC BEVERAGES

**Please see Facilities Rental Policy regarding alcoholic beverage service, consumption & security requirements*

Will alcohol be served at your event? ☐ YES ☐ NO

Will alcohol be sold at your event? ☐ YES ☐ NO

If alcohol is to be **sold** at your event, you must provide a copy of your **Texas Alcoholic Beverage Commission Permit** and a copy of the **Certificate of Liability Insurance** with at least \$1,000,000.00 (One-Million Dollars and Zero Cents) coverage for personal and property injuries.

TABC License Number: _____

Date Submitted: _____ Received by: _____

WWW.DRIPPINGSRINGSRANCHPARK.COM

PHONE: 512-894-2390

PHYSICAL ADDRESS: 1042 EVENT CENTER DRIVE
DRIPPING SPRINGS, TEXAS 78620
MAILING ADDRESS: PO Box 384
DRIPPING SPRINGS, TEXAS 78620



DRIPPING SPRINGS RANCH PARK FACILITY RENTAL AGREEMENT

Certificate of Liability Insurance Provided (Must list Dripping Springs Ranch Park/City of Dripping Springs as Certificate Holder & Additional Named Insured): ☐ YES ☐ NO

Approved for Alcohol Sales: ☐ YES ☐ NO

City Staff Signature of Approval: X _____

GENERAL LIABILITY INSURANCE

Certificate of Liability Insurance Provided (Must list Dripping Springs Ranch Park/City of Dripping Springs as Certificate Holder & Additional Named Insured): ☐ YES ☐ NO

CONCESSION SALES

Would you like to request concession sales at your event? ☐ YES ☐ NO

SPECIAL SET-UP or DIRT NEEDS

(Special set-up & dirt needs will result in additional fees)

Do you have special set-up needs or special dirt needs? ☐ YES ☐ NO

If **YES**, special set-up needs or special dirt **needs must be submitted to DSRP no later than 30 days** in advance of the event. Failure to make this submittal could hinder your set-up and/or dirt needs being met by the facility.

Please describe special set-up and/or dirt needs in detail: _____



DRIPPING SPRINGS RANCH PARK FACILITY RENTAL AGREEMENT

DRIPPING SPRINGS RANCH PARK FACILITIES RENTAL POLICY

(approved 12/10/19)

POLICIES AND PARK RULES FOR USE OF THE EVENT CENTER AND OUTDOOR ARENA COMPLEX ARE ATTACHED. PLEASE READ THOROUGHLY BEFORE RESERVING THE FACILITIES. YOU WILL BE REQUIRED TO ADHERE TO ALL POLICIES AND PARK RULES. FAILURE TO ADHERE TO POLICIES AND PARK RULES COULD RESULT IN EVENT CANCELLATION, FINES AND ALL PAYMENTS AND DEPOSITS BEING FORFEITED.

The following information includes: (1) definitions of rental categories; and (2) general policies and rules for use of the Dripping Springs Ranch Park Event Center and Outdoor Arena ("DSRP Event Center and Outdoor Arena"). In this document, the City of Dripping Springs is referred to as the "City". The Dripping Springs Ranch Park Event Center Manager ("DSRP Manager") will be the contact for all events at the Dripping Springs Ranch Park Event Center and Outdoor Arena. Please contact the DSRP Manager for details.

DSRP EVENT CENTER DEFINITIONS

Event Center Facility Rental

Fee includes use of the large indoor arena, small arena, lights, announcer's booth, public address system, chutes, panels, warm up arena and common/ vendor areas; 12,000 sq. ft meeting space & 6,000 sq. Ft. meeting space, Concession Kitchen. The fee does not include any facilities not listed here. Additional Custodial Fees required.

Event Center Large Indoor Arena Rental

Fee includes use of large indoor arena, lights, announcer's booth, public address system, chutes, panels, and warm up arena. The fee does not include any facilities not listed here. Additional Custodial Fees required.

Event Center Small Indoor Arena Rental

Fee includes use of small indoor arena, lights, announcer's booth, public address system, chutes, panels, and warm up arena. The fee does not include any facilities not listed here. Additional Custodial Fees required.

Large Special Event Room Rental

Fee includes the 12,000 sq. ft. meeting space is available in conjunction with other events, or for stand-alone events. The fee does not include any facilities not listed here. Additional Custodial Fees required.

Small Special Event Room Rental

Fee includes the 6,000 sq. ft. meeting space is available in conjunction with other events, or for stand-alone events. The fee does not include any facilities not listed here. Additional Custodial Fees required.

Vendor Hall/Front Porch Rental

Fee includes the 19,000 sq. ft. covered area in the Event Center is available in conjunction with other events, or for stand-alone events. The fee does not include any facilities not listed here. Additional Custodial Fees required.

Event Center Stalls

Stalls are available for rent at the Event Center. Any horse that remains at the facility overnight must be in a fee for use stall or tied up at the trailer or in a portable pen adjacent to your primitive camp site (Grounds fee will apply if tied adjacent to primitive camp site, in a portable pen or tied to trailer). Tying horses to the stalls is prohibited. Tying horses to your trailer at your RV campsite or erecting a portable pen at your RV campsite is prohibited. Tying or placing horses in any livestock pens, rough stock pens or cattle pens is prohibited. Rental period is 24 hours, noon to noon daily. Users may pay the fee at the Dripping Springs Ranch Park or may pay directly the Lessee/event holder who is responsible for remitting payment to the City. Using the stalls without renting this amenity will result in forfeiture of event deposit. DSRP requires that each stall have a minimum of 2 bags of shavings per stall. Shavings are not included in the stall rental price but are available for purchase at

WWW.DRIPPINGSRINGSRANCHPARK.COM

PHONE: 512-894-2390

**PHYSICAL ADDRESS: 1042 EVENT CENTER DRIVE
DRIPPING SPRINGS, TEXAS 78620
MAILING ADDRESS: PO Box 384
DRIPPING SPRINGS, TEXAS 78620**



DRIPPING SPRINGS RANCH PARK FACILITY RENTAL AGREEMENT

Dripping Springs Ranch Park. No outside shavings are allowed. Event Managers/Show managers have the option to do their own stall check-ins and remit payment to DSRP for stalls and shavings at DSRP rates.

RV Sites

Rental period is 2PM-10AM daily. Electricity and water are included in fee. Campers may pay the Ranch Park staff or the Lessee/event holder responsible for remitting payment to the City. Maximum stay is 7 days. Event Managers/Show managers have the option to do their own RV check-ins and remit payment to DSRP for RVs at DSRP rates.

Concession Stand Rental

The Concession stand is available for rent during events. If Lessee requires a concessionaire, contact DSRP Manager. The fee does not include any facilities not listed here. Additional Custodial Fees required.

Concession Kitchen Rental

The Concession Kitchen is available for rent during events. If Lessee requires a concessionaire, contact DSRP Manager. The fee does not include any facilities not listed here. Additional Custodial Fees required.

Tables and Chairs

The DSRP Event Center has a limited number of 8-foot-long rectangular tables and folding chairs available for rent during events.

Arena Prep

DSRP will provide personnel on site to prepare the arena dirt before the rental time period as needed. Cost is included in rental fee. Lessees who wish to work the dirt themselves during the event will be required to: 1) bring their own equipment; 2) attend a scheduled orientation with event center staff; 3) provide proof of \$1,000,000.00 of liability insurance coverage to cover personal and property injury/damages to, including but not limited to, any portion of the arena, including the base layer of the arena floor. All equipment brought in by outside parties must be approved by the event center staff prior to use in the arena. Said equipment should be well maintained and in good working order. The DSRP equipment is available for use during events for a fee. Before use each operator must be cleared by staff on equipment use and sign the DSRP Equipment Use Waiver.

OUTDOOR ARENA COMPLEX DEFINITIONS

Dripping Springs Ranch Park also has an outdoor arena available for rental. Amenities include the riding arena, a round pen, and arena lights.

Lessee

Person or entity leasing the Event Center and/or the Outdoor Arena (aka: event holder, show manager, etc.).

Outdoor Riding Arena & Round Pen Rental

The arena is 250 x 150 sq ft. This arena can be used in conjunction with events at the Event Center or as a standalone rental. The arena has lighting for evening use, announcer's booth, and public address system. An outdoor round pen is included in the rental of the riding arena for warm-up and training horses. The fee does not include any facilities not listed here. Additional Custodial Fees required.



DRIPPING SPRINGS RANCH PARK FACILITY RENTAL AGREEMENT

POLICIES FOR USE: Dripping Springs Ranch Park Event Center & Outdoor Arena

1. **No GLASS** containers are allowed on premises of the Dripping Springs Ranch Park and Event Center. This includes all outdoor spaces. **Failure for lessee and guests to comply with this policy will result in a \$500 fine and immediate cancellation of your event.**
2. When renting the special event rooms or any other areas of the facility it is the event holder's responsibility to supervise all children. Persons under the age of 18 years authorized to be in a park facility must always be accompanied by an adult. The ratio of minors to adults shall be no less than one adult for every eight minors. **Failure to follow these guidelines could result in immediate cancellation of event.**
3. **Facility Rental Period:** Full Day (12 hours), Half Day (6 hours). This must include set-up and breakdown times needed. Per hour rates are available to Full and Half day rentals.
4. **Multiple Day Events:** Parties booking for multiple day events will pay the 12-hour rate per day. Clean up must be done by 12:00 midnight of the last day of booking or the per hour charge will apply to additional clean-up time.
5. **Parties booking individual areas** of the Dripping Springs Ranch Park and Event Center (Vendor Hall/Front Porch, Special Event Rooms, etc.) are subject to being rescheduled or offered another space to hold their event if a party requests booking the entire facility 45 days or more from the individual area booking. In order to guarantee a reservation with no restrictions the entire Event Center must be reserved.
6. **No Sublease:** No subleasing of any area of the Dripping Springs Ranch Park Event Center or Outdoor Arena Complex is allowed, excluding vendors related to your event. The City requires knowledge of all the parties it deals with so it can assure that all parties are made aware of the requirements. An association or group that rents the arena and stalls and rents the stalls to its participants will not be considered as subleasing.
7. **Event Scheduling:** Bookings may be made up to eighteen (18) months in advance of the proposed event. Please contact the DSRP Manager for information and booking of the facilities. Reservations for the Outdoor Arena may be rescheduled or refunded due to weather conditions at the discretion of the City. Recurring events have the option to book multiple years in advance.
8. **Event Scheduling:** DSRP retains the right to refuse booking an event of a competing or similar nature within 45 days of an event already booked.
9. **Events with amplified music** must end at midnight and is restricted to 65 decibels or less. One hour will be given to clean up and exit after the event, but the music must end at midnight. Events with alcohol must cease alcohol consumption at midnight. If the premises are not vacated within the 1-hour clean up time, a per hour charge will be incurred. This 1-hour clean up time counts towards the 12 hour or 6 hour rental time frame.
10. **Payment:** A \$250 non-refundable deposit that credits toward your rental fees is due to reserve any dates. Remaining fees are due sixty (60) days prior to your event. The estimated charges are determined using the rental form that is completed prior to securing a confirmed date. If additional amenities or facilities are added or deleted at a later date, additional fees or refunds may apply. Events cancelled more than sixty (60) days prior to the first day/date of the scheduled event will receive a refund minus the \$250.00 deposit. Events cancelled between thirty (30) and sixty (60) days prior to the first day/date of the scheduled event will receive a fifty (50%) percent refund. Events cancelled less than thirty (30) days prior to the first scheduled day/date of the event will receive **NO** refund. **A \$25.00 NSF fee will be assessed for all returned checks.**
11. **Security Deposit:** A credit card must be placed on file as a security deposit. To avoid charges, Lessee agrees to leave the premises in as good or better condition than that which existed prior to their usage: such determination is at the sole discretion of the City. All trash must be disposed of properly.



DRIPPING SPRINGS RANCH PARK FACILITY RENTAL AGREEMENT

City representative will conduct a walk-through of the premises with the Lessee prior to the event to ensure that all facilities are in working order. An authorized City representative shall complete a walk-through with the Lessee following the event to determine and notify the Lessee of any damages and/or charges. Any damage repair incurred by the City will be charged to the card on file at actual cost.

12. **Insurance:** Event Lessee and any alcoholic beverage vendor must each provide a copy of its certificate of liability insurance, with a separate endorsement listing the City and DSRP as an additional insured, in the amount of \$1,000,000.00, insuring against any and all claims for personal injury, death, and/or property damage relating to the event and the Dripping Springs Ranch Park Event Center and Outdoor Arena.
13. **Indemnification:** City shall not be liable to Lessee or Lessee's employees, agents or invitees, or to any other person or entity, for any injury to person or property on or about the DSRP Event Center and Outdoor Arena caused by the negligence or misconduct of Lessee, its employees, or agents. Lessee and all vendors shall indemnify City and hold City harmless from any loss, expense or claims arising out of any such injury.
14. **Alcoholic Beverages:** No sale of alcoholic beverages will be allowed at the DSRP Event Center and Outdoor Arena without the prior written approval of the City. Lessees and/or vendors selling alcoholic beverages must be a holder of a current/valid Texas Alcoholic Beverage Commission ("TABC") license and must provide the City a copy of said TABC license/permit a minimum of two (2) business days prior to the event.
15. **Security and Emergency Medical Services ("EMS"):** Lessee shall be solely responsible for providing a reasonable number of Security and EMS personnel, at the City's discretion, before, during, and after the event to help maintain order, to regulate traffic control, and/or to provide any other security/safety functions that the City determines to be necessary. **Lessee shall be responsible for the actions and safety of Lessee or any of Lessee's guests, patrons, or anyone on or around the DSRP Event Center and Outdoor Arena premises as a result of the event, including without limitation protecting such persons from injury or death and protecting Lessee's and City's property or the property of such persons, including any vendors, from loss or damage. Lessee shall arrange for such security and EMS personnel at its own expense and advise the City of actions taken.** The City must approve the Lessee plan for security and safety a minimum of three (3) business days before the first day/date of the event. The event cannot take place without prior written approval from the City.

Emergency Medical Technicians are required at each event where there is a substantial risk of injury to the contestants or audience. Need is determined on an event by event basis by Staff. Securing and/or notifying EMT and Paramedics is the responsibility of the event holder.

The establishment of Security requirements for an event will be determined by Staff. These guidelines are established for the protection of life and property while events are in progress and may include officers before, during or after events. All security officers will be arranged for and managed by the event holder. Security and/or Law Enforcement must be present prior to the beginning of the event and must remain until all crowds and traffic are dispersed and evacuated. See below for guidelines-final plan must be approved by Staff.



DRIPPING SPRINGS RANCH PARK FACILITY RENTAL AGREEMENT

All Events with alcohol must have security present. Events with up to 250 attendees must have one licensed security personnel. 250-500 attendees require 2 licensed security personnel. Attendance of over 500 persons requires 3 licensed security personnel.

Other events may be required to have security, even if no alcohol is served or consumed, depending on attendance and type of event.

17. **Release of Liability Waivers:** The Lessee is responsible for copying waivers and obtaining signatures from each participant prior to participation in the event. Signed waivers must be returned to Dripping Springs Ranch Park Staff no later than seven (7) business days after an event is completed. A copy of the City's waiver may be obtained from Dripping Springs Ranch Park or on the Ranch Park's website.
18. **Special Event Food Vendors:** Special events that will have food vendors must obtain a Special Events Food Vendor permit from the City of Dripping Springs. Please contact Kyle DeHart, City of Dripping Springs Environmental Health & City Inspector for more information.
19. **Concessions:** Please contact dsrpinfo@cityofdrippingsprings.com to inquire about concessions availability.
20. **Overnight RV Camping:** Overnight RV camping is permitted. Refer to the Fee Schedule for pricing. Campers may pay the DSRP Staff or the Lessee/event manager responsible for remitting payment to the City. There is a Dump Station on the property available for use with paid RV Fee. There is no discharge of grey water on the property and spills at the Dump Station will be the responsibility of the RV owner.
21. **Overnight Primitive Camping:** Overnight primitive camping is permitted. Refer to the Fee Schedule for pricing. Campers may pay the DSRP staff or the Lessee/event manager responsible for remitting payment to the City. Please note that the Park does not have electrical hook-ups for campers.
22. **Toilets:** The Event Center houses sixteen women's toilets, nine men's toilets and three urinals. The new addition houses eight women's toilets, five men's toilets and three urinals. There is one portable toilet available for the Outdoor Arena. In cases where the existing restroom facilities will be inadequate, the Lessee is responsible for renting additional toilets. Please see guidelines.

Special Event Toilet Calculator

Special Event Ticket Calculator												
		Maximum Attendance*										
Number of Hours		100	250	500	1,000	2,000	3,000	4,000	5,000	6,000	7,000	8,000
	1	1	2	2	3	4	10	10	12	17	20	24
	2	1	2	3	4	8	12	16	20	27	32	39
	3	1	2	3	5	10	15	19	24	34	38	47
	4	1	2	4	6	11	16	22	27	38	41	54
	5	2	2	4	6	12	18	24	29	41	42	58
	6	2	3	4	7	13	18	25	31	42	46	62
	7	2	3	4	7	13	19	25	32	46	46	64
	8	2	3	4	7	14	20	27	33	46	46	66

*If alcohol is being served, we recommend increasing the number of restrooms for your event. Please keep in mind that this is an estimated number of restrooms needed. You may need more, or less depending on your specific needs.

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PHONE: 512-894-2390

PHYSICAL ADDRESS: 1042 EVENT CENTER DRIVE
DRIPPING SPRINGS, TEXAS 78620

MAILING ADDRESS: PO Box 384
DRIPPING SPRINGS, TEXAS 78620



DRIPPING SPRINGS RANCH PARK FACILITY RENTAL AGREEMENT

24. **Parking:** Parking at DSRP event center is free to Lessee and its participants. The City may choose to charge for parking at other hosted events. If your event attendance is expected to exceed 500 attendees, Lessee will be required to submit a parking plan to DSRP management no later than 30 days prior to event. Parking Plans, parking requirements or parking lot attendants may be required, and this determination is at the sole discretion of DSRP management.
25. **Equipment:** Show production equipment provided by the Lessee must be removed by Lessee from the arena or other fields no later than end of rental period. All City equipment such as orange cones or other equipment provided by the City must be returned to original placement following use. All leasable equipment is noted on the Rate Schedule. DSRP can arrange for additional equipment or services through outside sources at rates to be quoted upon request.
26. **Orange Cones:** If Available the City will have, free of charge, 36" tall orange traffic cones should the Lessee request them for an event. Lessee is responsible for notifying the City at least five days prior to event, providing the number of cones needed. Lessee is also responsible for placing cones where needed and returning them to their original location. Lost/damaged cones will be replaced at Lessee expense.
27. **Coggins Lab Accession Log:** Lessee is required to comply with the Texas Animal Health Control ("TAHC") regulations. Current Coggins Lab Accessions are required for all horses on DSRP property.
28. **General Park Rules:** General park rules for the City apply at the DSRP Event Center and Outdoor Arena. Campfires, glass containers, or fireworks are NOT permitted at the DSRP Event Center and Outdoor Arena complex or in the general park area. If you have questions about other general park rules, please refer to the Parks link on the City of Dripping Springs website at www.cityofdrippingsprings.com or contact City Hall at 512-858-4725.
29. **No alterations of any structure** will be allowed and there will be no glue, wire, screws, or nails attached to or embedded into the walls or ceilings for any reason.
30. **No signs or banners** shall be placed in the DSRP Event Center and Outdoor Arena without the consent of the DSRP Manager. No signs or banners shall be placed over an existing banner or exit sign.
31. It is the responsibility of the Lessee to remove all event related items (i.e. banners, signs, decorations, etc.) at the end of the event. DSRP will not be responsible for any items left behind.
32. **No smoking on or around** the DSRP Event Center and Outdoor Arena.
33. No alcoholic beverages permitted on or around the DSRP Event Center and Outdoor Arena unless: (a) purchased on site from approved vendor possessing appropriate licensing from TABC, or (b) provided free of charge by a Lessee to invited guests at a private function that is not open to the general public.
34. **Dogs must be on leash at all times** on or around the DSRP Event Center and Outdoor Arena. Owners must pick up after dogs or may be asked to leave the premises.
35. **Special Needs:** If you find that your event requires services or has needs not addressed in this document or rental forms, please contact the DSRP Manager to discuss.
36. **Planning Setups (Floor Plans):** DSRP staff will assist with arrangements for set up of your event. This assistance includes helping you plan the floor plans and layout for your event. All efforts will be made to ensure no detail is overlooked.
37. **Floor Plan, layout, dirt needs & electrical needs and parking plan:** The floor plan, event layout, dirt needs and electrical need and parking plans are due to DSRP no later than 30 days prior to the event. Failure to do so could hinder DSRP from meeting layout and electrical needs. Changes made after this 30-day deadline may result in additional fees.
38. **DSRP has wifi internet available.** A password is required for access.
39. **Please keep DSRP staff informed of any deliveries** for your event. DSRP cannot accept responsibility for liability or loss. Lessees must arrange for security for items shipped in advance. DSRP does not arrange return shipping for any item, this is the Lessees responsibility.



DRIPPING SPRINGS RANCH PARK FACILITY RENTAL AGREEMENT

41. **DSRP will provide trashcans and liners for events.** Lessee is responsible for utilizing these cans throughout your event. Your custodial fee covers staff changing out trash throughout your event. All bulk trash items must be removed by Lessee. If not removed and disposed of an additional clean up fee may be assessed.
42. **The DSRP Lobby is not a rental space.** It is common area which serves as the entrance and restroom access for concurrent events. No Lessee will be permitted to conduct events in the Lobby that would interfere with other events occurring within DSRP.
43. **Any space is rented as is; 'four walls';** any changes or modifications could result in additional fees. Please refer to fee schedule. Personnel necessary for normal building operations will be on duty. If additional staff is needed for your event there will be additional staff fees.
44. **Each event will have a designated spokesperson.** Any communications before and during the event must come through the designated spokesperson.

**Parties booking individual areas of the Dripping Springs Ranch Park and Event Center (Vendor Hall/Front Porch, Special Event Rooms, Indoor/Outdoor Arenas, etc.) are subject to being rescheduled or offered another space to hold their event if a party requests booking the entire facility 45 days or more from the individual area booking. In order to guarantee a reservation with no restrictions, the entire Event Center must be reserved.

To ensure no other events will take place during your event, you must book the entire Event Center.

The floor plan, event layout, dirt needs, electrical needs and parking plans are due to DSRP no later than 30 days prior to the event. Failure to do so could hinder DSRP from meeting floor plan, event layout, dirt needs, electrical needs and parking needs. Changes made after this 30 day deadline may result in additional fees.

The decision as to whether or not a proposed event or activity is appropriate for the desired space at the Dripping Springs Ranch Park and Event Center rests with the DSRP Manager.



DRIPPING SPRINGS RANCH PARK FACILITY RENTAL AGREEMENT

EVENT NAME: _____

FEES

EVENT DATE: _____

Rental Space(s) Requested

Entire DSRP Park
Entire DSRP Facility
Main Indoor Arena
Exhibit Hall

Main Event Room Main
Concession Kitchen
Livestock Arena-New Expansion
Small Event Room-New Expansion

Catering Kitchen-New Expansion
Outdoor Arena
Outdoor Trails
Field (4 total) How many?

\$250 Non-refundable deposit is due to reserve dates. Full payment due ninety (90) days prior to the event.

RENTAL SPACE FEE AMOUNT: _____

ADD ONS & FEES: _____

TOTAL RENTAL FEES: _____ **BALANCE DUE ON RENTAL FEES:** _____

Please read and initial/date below:

Initial: _____ Date _____ I have read and understand the policies, terms and conditions on the preceding pages required for rental of the park.

Initial: _____ Date _____ I understand that failure to comply with any of the policies, terms and conditions outlined in this agreement could result in forfeiture of my rental date, rental fees, security deposit and possible fines.

Initial: _____ Date _____ Damages to the rental space, facilities or any part of Dripping Springs Ranch Park Property exceeding the amount of the collected security deposit will be assessed at a cost plus 15% administrative fee.

Initial: _____ Date _____ Other fees may be assessed on an event basis depending on special requirements and requests from lessee.



DRIPPING SPRINGS RANCH PARK FACILITY RENTAL AGREEMENT

Please read and sign below:

I have read and agree to the terms and conditions stated in the Policies and General Park Rules for the Dripping Springs Ranch Park and Event Center and/or Outdoor Arena Complex, and Ranch House/Grounds and do hereby request the use of the facilities as outlined in this Agreement. As the authorized event agent, I shall be the responsible contact for my group, organization, membership, and/or event. Lessee hereby agrees to indemnify and hold harmless the City of Dripping Springs, and its officers and employees from and against any and all liabilities for any injury to person or property which may be suffered by me or by my party arising out of or in any way connected with participation in the rental noted above. By signing below, I declare I have read, understand, and agree to abide by the existing said Policies and Park Rules. I understand that I may request to have a copy of the Policies and Park Rules for my possession.

Lessee or Designated Event Spokesperson Signature

Date Signed

City Representative

Johnna Krantz

10-24-2022

Date Signed

*****CASH AND CHECKS ARE ACCEPTED*****

Please make checks payable to: DSRP; and hand deliver to 1042 Event Center Drive, Dripping Springs, Texas 78620 OR mail to DSRP, PO Box 384, Dripping Springs, Texas 78620. Contact DSRP Manager for more information.

Johnna Krantz, DSRP Event Center Coordinator, jkrantz@cityofdrippingsprings.com



AGENDA ITEM REQUEST FORM

Hays County Commissioners Court

Date: 11/01/2022

Requested By:

Mike Jones

Sponsor:

Judge Becerra

Agenda Item:

Authorize the Office of Emergency Services to accept and utilize insurance proceeds for Water & Earth Technologies to repair Low Water Crossing equipment located at Windy Hill Rd at Andrews Branch; authorize a discretionary exemption pursuant to Texas Local Government Code, Ch. 262.024(a)(7)(D) and amend the budget accordingly. **BECERRA/MIKE JONES**

Summary:

The Windy Hill Low Water Crossing Flasher was damaged during a vehicular accident on August 19th. The funds received from the insurance company (\$15,949.89) will be budgeted to utilize for repairs.

Fiscal Impact:

Amount Requested: \$27,933.18

Line Item Number: 001-656-00.5719_700

Budget Office:

Source of Funds: Insurance Proceeds & General Fund

Budget Amendment Required Y/N?: Yes

Comments: N/A

\$27,934 - Increase Misc. Equipment_Capital 001-656-00.5719_700

(\$15,950) - Increase Compensation for Loss 001-656-00.4680

(\$11,984) - Decrease Equipment Maintenance 001-656-00.5411

Auditor's Office:

Purchasing Guidelines Followed Y/N?: Requires a discretionary exemption pursuant to Texas Local Government Code, Ch. 262.024(a)(7)(D) for captive replacement or component parts.

G/L Account Validated Y/N?: Yes, Compensation for Loss and Miscellaneous Capital Equipment

New Revenue Y/N?: Yes, \$15,950 compensation for loss

Comments:

Attachments

Quotation XPHC045



07/25/2022

Quotation XPHC045

Prepared for:

Hays County - Office of Emergency Services
Attn: Brandon High
810 South Stagecoach Trail
San Marcos, TX 78666

Federal Tax Identification No.

84-1440328

Quote Valid Thru

09/23/2022

Prepared by:

Water & Earth Technologies, Inc.

40504 Weld County Road 17
Severance, CO 80524
Phone (970) 225-6080
email: RNiedenzu@wetec.us

Quote Title: Windy Hill Master Flasher Controller Replacement

Quote Information

The master pole at 50030 Windy Hill Rd at Andrews Branch was damaged during a vehicular accident on August 19, 2022. The vehicle broke the pole base, causing the pole to fall over. The entire pole needs to be replaced. Water & Earth Technologies, Inc. (WET) is currently under a maintenance contract, but not an installation contract so only one WET employee is available for support. A second WET employee needs to be available to re-install the pole which has increased the installation labor.

Item No.	Item Description	Model No.	Unit Price	Qty	Amount
1	New Master Flasher Controller Pole	NA	\$ 21,453.18	1	\$ 21,453.18
2	Pressure Transducer	CS451	\$ 1,840.00	1	\$ 1,840.00
Items Total					\$ 23,293.18

Item No.	Labor Description	Hours		Amount
		Eng I \$130/hr	Eng II \$150/hr	
3	Repair and Reinstall the damaged pole	16.0	20.0	\$ 3,800.00
4	Install new Pressure Transducer	4.0	4.0	\$ 840.00
Labor Total				\$ 4,640.00

Total Cost	\$ 27,933.18
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Thank you for your consideration!



AGENDA ITEM REQUEST FORM

Hays County Commissioners Court

Date: 11/01/2022

Requested By:

Sheriff Gary Cutler

Sponsor:

Agenda Item:

Authorize the Sheriff's Office to add a \$45.00 telephone allowance for the Corrections Officer slot number 0605-017 effective November 1, 2022. **INGALSBIE/CUTLER**

Summary:

The Sheriff's Office is requesting to add a cell phone allowance to the Fire & Safety Officer located at the Jail. The Officer uses a personal device and data for county-related duties. No additional funds are needed, funding is available in the Jail's Telephone Allowance general ledger.

Fiscal Impact:

Amount Requested: \$495.00

Line Item Number: 001-618-03.5194

Budget Office:

Source of Funds: General Fund

Budget Amendment Required Y/N?: No

Comments: N/A

Auditor's Office:

Purchasing Guidelines Followed Y/N?: N/A

G/L Account Validated Y/N?: Yes, Telephone Allowance

New Revenue Y/N?: N/A

Comments:



AGENDA ITEM REQUEST FORM

Hays County Commissioners Court

Date: 11/01/2022

Requested By:

Sheriff Gary Cutler

Sponsor:

Agenda Item:

Approve out-of-state travel for Detectives Chase Fuller, Zach Miller, Nelson Wray and Eric Zediker to attend the International Crimes Against Children Conference on December 12-14, 2022 in Orlando, Florida. **INGALSBE/CUTLER**

Summary:

Out-of-state travel is needed to send Detectives Fuller, Miller, Wray, and Zediker to attend the International Crimes Against Children Conference (ICAC) on December 12-14, 2022, in Orlando, FL.

This conference will provide these Detectives with highly specialized training focused on investigating and prosecuting technology-facilitated crimes against children. Registration is free. Travel expenses, including hotel, per diem, and airfare fees will be paid for out of the Sheriff's Office Continuing Education Fund.

Fiscal Impact:

Amount Requested: \$4,700

Line Item Number: 001-618-00.5551

Budget Office:

Source of Funds: General Fund

Budget Amendment Required Y/N?: No

Comments: N/A

Auditor's Office:

Purchasing Guidelines Followed Y/N?: N/A

G/L Account Validated Y/N?: Yes, Continuing Education Expense

New Revenue Y/N?: N/A

Comments:



AGENDA ITEM REQUEST FORM

Hays County Commissioners Court

Date: 11/01/2022

Requested By:

Jerry Borcharding

Sponsor:

Commissioner Jones

Co-Sponsor:

Commissioner Ingalsbe

Agenda Item

Approve Utility Permits. JONES/INGALSBE/BORCHERDING

Summary

TRN-2022-5360-UTL	Goforth SUD to bore across Knock Drive to service 305 Knox Drive. The bore will consist of a ¾ inch water line inside a steel casing.
TRN-2022-5361-UTL	Goforth SUD to propose installing a ¾ inch line across Peaceful Valley Drive to service 201 A -B and 201 C via method of bore.
RN-2022-5405-UTL	Grande to propose underground bore for relocation of fiber optics. Trenching will exist at Windy Hill and Dacy Lane to propose a manhole to feed existing Grande facilities to a subdivision at Windy Hill. The project will exist outside of future Windy Hill improvements and has taken account for Dacy Lane improvements.
TRN-2022-5418-UTL	Grande to propose an over head 144ct fiber line (total of 12,327') along west side of Post Road and will connect to existing poles.

Attachments

Permit
Site Plan
Permit
Site Plan
Permit
Site Plan
Permit
Site Plan



Hays County Transportation Department

2171 Yarrington Rd, Suite 200, Kyle Texas 78640
(P) 512-393-7385 (Web) www.hayscountytexas.com

UTILITY PERMIT APPROVAL LETTER

**** Notification must be given IN WRITING at least 24 hours before work begins and proper traffic control must be implemented throughout the work zone. ****

The utility company or any of its representatives, engineers, contractors, or authorized agents agree to use Best Management Practices to minimize erosion and sedimentation resulting from the proposed installation AND will insure that traffic control measures complying with applicable portions of the Texas Manual of Uniform Traffic Control Devices will be installed and maintained during installation.

General Special Provisions:

1. Construction of this line will begin on or after .

Utility Company Information:

Name:
Address:
Phone:
Contact Name:

Engineer / Contractor Information:

Name: Goforth SUD
Address: 8900 Niederwald Strasse Niederwald TX
Phone: 5126444640
Contact Name: Mario Tobias

Hays County Information:

Utility Permit Number: TRN-2022-5360
Type of Utility Service: Water Service Line
Project Description:
Road Name(s): 305 Knox Drive
Subdivision: Hillside Terrace
Commissioner Precinct: 2

What type of cut(s) will you be using ? ☒ Boring ☐ Trenching ☐ Overhead ☐ N/A

Authorization by Hays County Transportation Department
The above-mentioned permit was approved in Hays County Commissioners Court on .

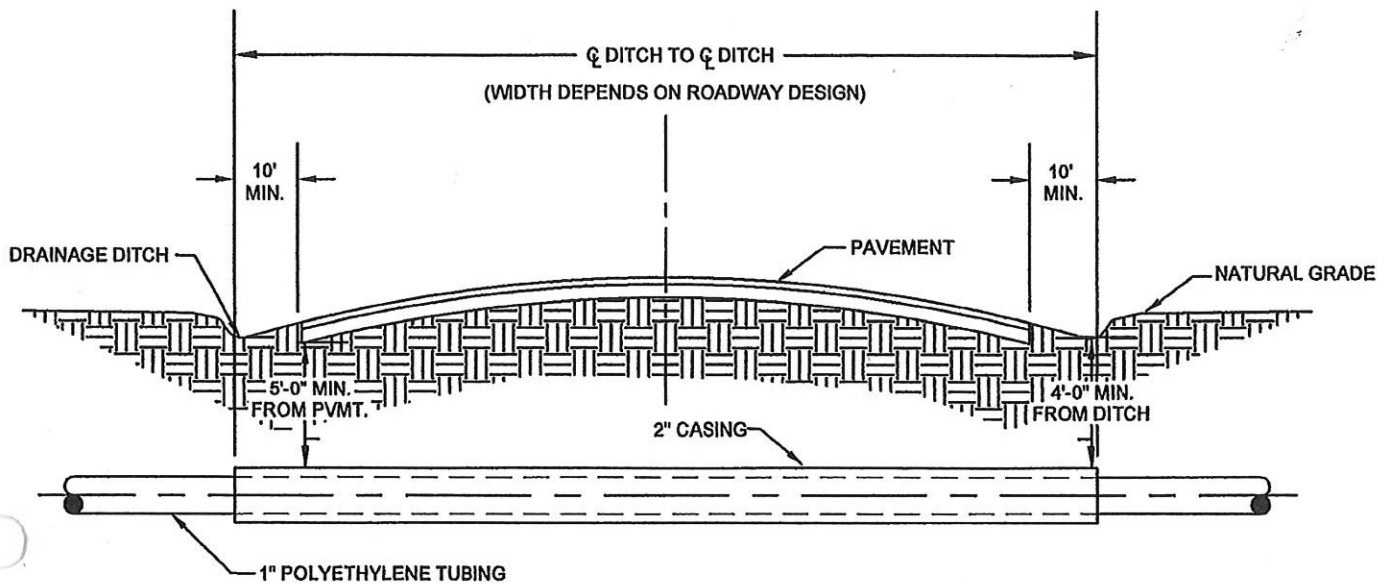
10/24/2022

Signature

Title

Date

NOTE:
UNLESS OTHERWISE REQUIRED BY THE
ROADWAY AUTHORITY, CASING PIPE SHALL
BE ASTM D 2241, SDR21, OR ASTM D 1785,
SCH. 40



NOTE: CASING SPACERS ARE REQUIRED FOR ALL LINES 6" AND LARGER

SERVICE LINE BORING & ENCASEMENT DETAILS-RURAL

METER SERVICE DETAIL

SCALE : NONE

REV. DATE : 3/07

DWG. W-5

GOFORTH S.U.D.

HAYS, CALDWELL & TRAVIS COUNTIES,
TEXAS

S:\Projects_1\0092-Goforth WSC\DETAILS\DETAILS-0507.dwg



10 YEAR CAPITAL IMPROVEMENT MAP
GOFORTH S.U.D.
 HAYS, CALDWELL & TRAVIS COUNTIES, TEXAS



Hays County Transportation Department

2171 Yarrington Rd, Suite 200, Kyle Texas 78640
(P) 512-393-7385 (Web) www.hayscountytexas.com

UTILITY PERMIT APPROVAL LETTER

**** Notification must be given IN WRITING at least 24 hours before work begins and proper traffic control must be implemented throughout the work zone. ****

The utility company or any of its representatives, engineers, contractors, or authorized agents agree to use Best Management Practices to minimize erosion and sedimentation resulting from the proposed installation AND will insure that traffic control measures complying with applicable portions of the Texas Manual of Uniform Traffic Control Devices will be installed and maintained during installation.

General Special Provisions:

1. Construction of this line will begin on or after .

Utility Company Information:

Name:
Address:
Phone:
Contact Name:

Engineer / Contractor Information:

Name: Goforth SUD
Address: 8900 Niedewald Strasse Niederwald TX 78640
Phone: 5122966012
Contact Name: John Girod

Hays County Information:

Utility Permit Number: TRN-2022-5361
Type of Utility Service:
Project Description:
Road Name(s):
Subdivision:
Commissioner Precinct: 2

What type of cut(s) will you be using ? ☐ Boring ☐ Trenching ☐ Overhead ☐ N/A

Authorization by Hays County Transportation Department
The above-mentioned permit was approved in Hays County Commissioners Court on .

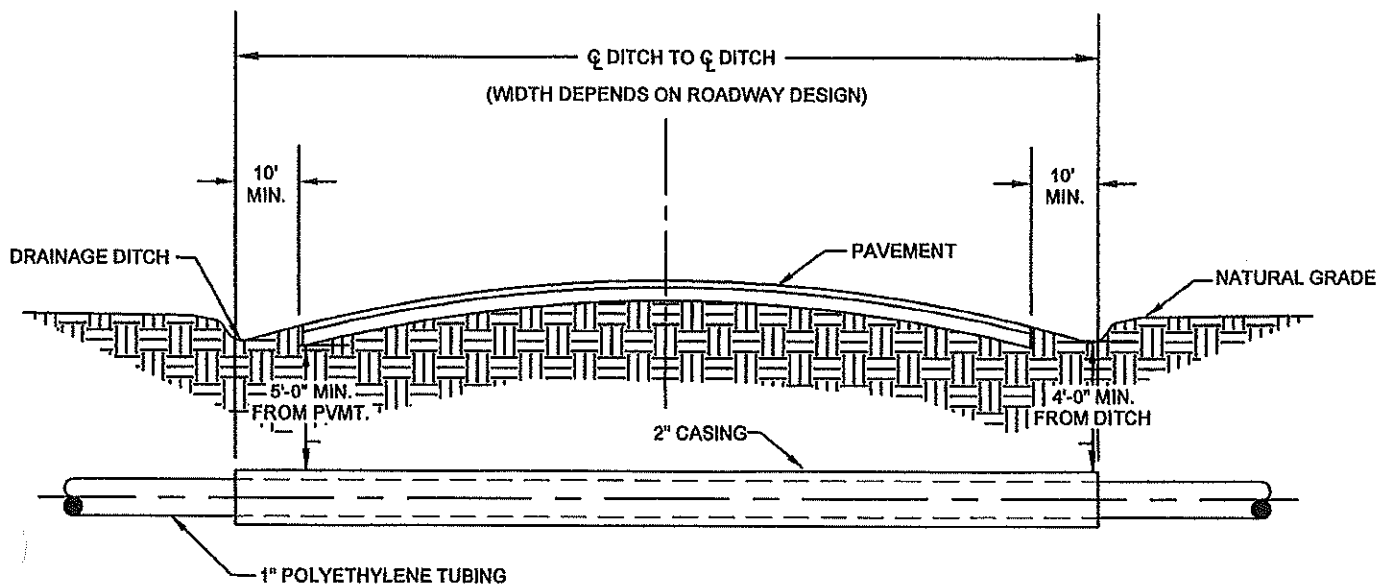
10/24/2022

Signature

Title

Date

NOTE:
UNLESS OTHERWISE REQUIRED BY THE
ROADWAY AUTHORITY, CASING PIPE SHALL
BE ASTM D 2241, SDR21, OR ASTM D 1785,
SCH. 40



NOTE: CASING SPACERS ARE REQUIRED FOR ALL LINES 6" AND LARGER

SERVICE LINE BORING & ENCASEMENT DETAILS-RURAL

METER SERVICE DETAIL	
SCALE : NONE	REV. DATE : 3/07
DWG. W-5	
GOFORTH S.U.D. HAYS, CALDWELL & TRAVIS COUNTIES, TEXAS	
S:\Projects_1\0092-Goforth WSC\DETAILS\DETAILS-0507.dwg	

N
SCALE: NONE



10 YEAR CAPITAL IMPROVEMENT MAP
GOFORTH S.U.D.
 HAYS, CALDWELL & TRAVIS COUNTIES, TEXAS

 **Southwest Engineers, Inc.**
 Civil - Environmental - Planning

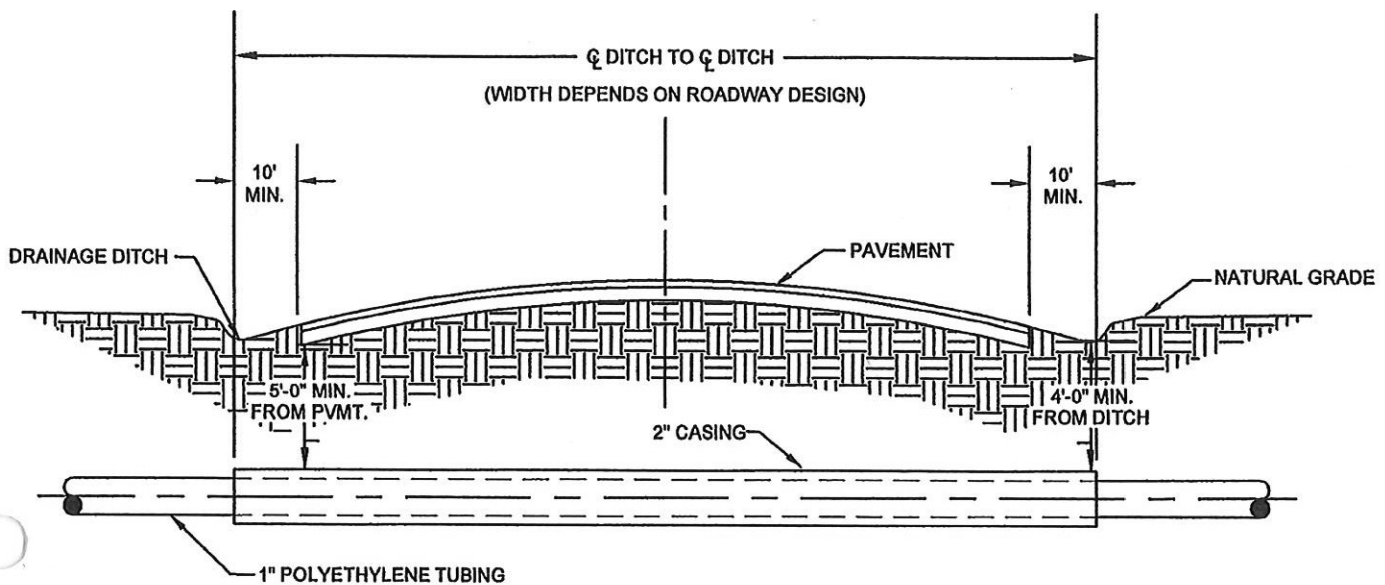
N
SCALE: NONE



10 YEAR CAPITAL IMPROVEMENT MAP
GOFORTH S.U.D.
 HAYS, CALDWELL & TRAVIS COUNTIES, TEXAS

Southwest Engineers, Inc.
 Civil - Environmental - Planning

NOTE:
UNLESS OTHERWISE REQUIRED BY THE
ROADWAY AUTHORITY, CASING PIPE SHALL
BE ASTM D 2241, SDR21, OR ASTM D 1785,
SCH. 40



NOTE: CASING SPACERS ARE REQUIRED FOR ALL LINES 6" AND LARGER

SERVICE LINE BORING & ENCASEMENT DETAILS-RURAL

METER SERVICE DETAIL

SCALE : NONE

REV. DATE : 3/07

DWG. W-5

GOFORTH S.U.D.

HAYS, CALDWELL & TRAVIS COUNTIES,
TEXAS

S:\Projects_1\0092-Goforth WSC\DETAILS\DETAILS-0507.dwg



Hays County Transportation Department

2171 Yarrington Rd, Suite 200, Kyle Texas 78640
(P) 512-393-7385 (Web) www.hayscountytexas.com

UTILITY PERMIT APPROVAL LETTER

**** Notification must be given IN WRITING at least 24 hours before work begins and proper traffic control must be implemented throughout the work zone. ****

The utility company or any of its representatives, engineers, contractors, or authorized agents agree to use Best Management Practices to minimize erosion and sedimentation resulting from the proposed installation AND will insure that traffic control measures complying with applicable portions of the Texas Manual of Uniform Traffic Control Devices will be installed and maintained during installation.

General Special Provisions:

1. Construction of this line will begin on or after 10/17/2022 .

Utility Company Information:

Name: GRANDE COMMUNICATION
Address: 1100 E HOWARD LN AUSTIN TX
Phone: 2547505230
Contact Name: Daniel Pina

Engineer / Contractor Information:

Name: S@S Cable
Address: 1900 E Howard Lane Pflugerville TX 78660
Phone: 5127485681
Contact Name: Troy Sylvester

Hays County Information:

Utility Permit Number: TRN-2022-5405-UTL
Type of Utility Service: 432 CT
Project Description:
Road Name(s): Dacy Ln, Dacy Ln and Windy hill, Windy hill and Belinda Ln, , , ,
Subdivision:
Commissioner Precinct:

What type of cut(s) will you be using ? ☒ Boring ☒ Trenching ☐ Overhead ☐ N/A

Authorization by Hays County Transportation Department
The above-mentioned permit was approved in Hays County Commissioners Court on .

10/19/2022

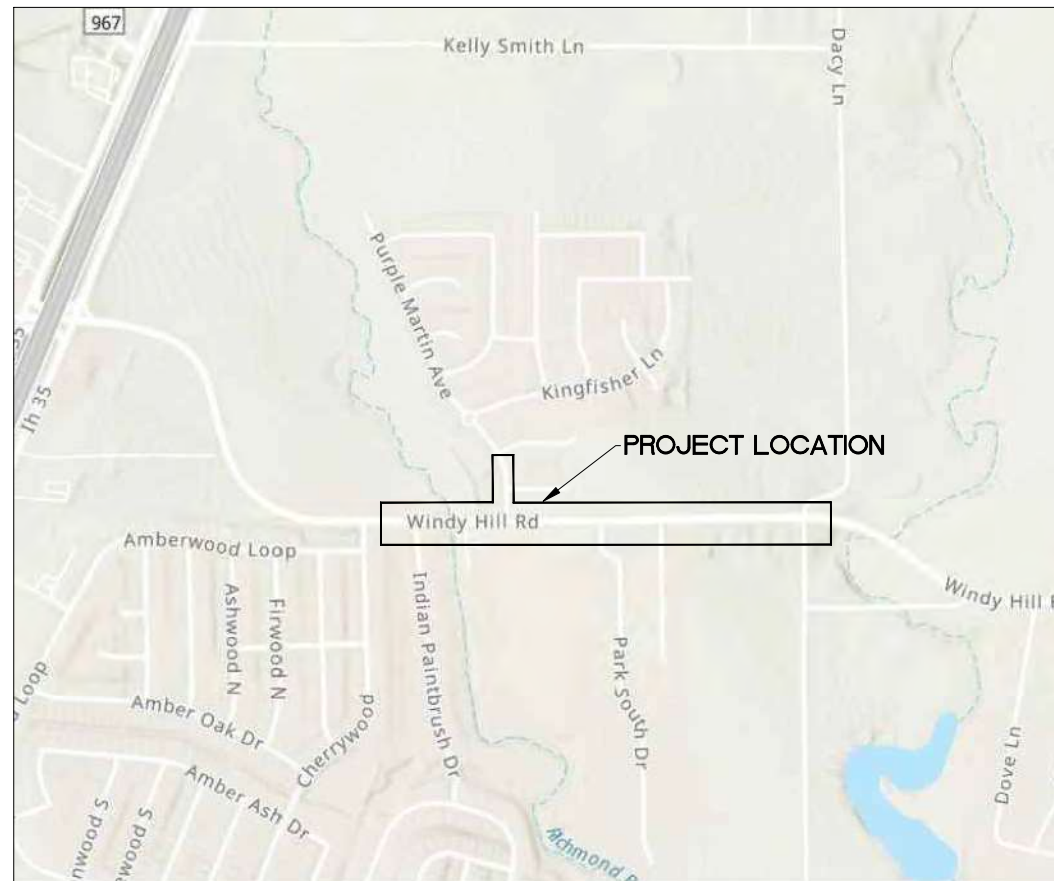
Signature

Title

Date



WINDY HILL RD & PURPLE MARTIN AVE FIBER OPTIC CABLE INSTALL



LOCATION MAP N.T.S.
KYLE, TX

SHEET INDEX	
SHEET NUMBER	SHEET TITLE
1	COVER SHEET AND GENERAL NOTES
2	SYMBOLS
3	SITE PLAN
4	WINDY HILL RD & PURPLE MARTIN AVE (STA 0+00-STA 6+00)
5	WINDY HILL RD & PARK DR (STA 6+00-STA 15+00) & (STA 100+00-STA 103+25)
6	WINDY HILL RD (STA 15+00-STA 23+50)
7	WINDY HILL RD & DACY LN (STA 23+50-STA 29+00)
8	GENERAL CONSTRUCTION NOTES
9	TRAFFIC CONTROL STANDARD DETAILS

TOTAL WORK ORDER QUANTITIES	
TOTAL INSTALLATION	QTY
1-2" CONDUIT	3,225'
VAULT	1

NOTE: CONTRACTOR MUST VERIFY QUANTITIES



UTILITY LOCATIONS SHOWN ON PLAN ARE BASED ON FIELD AND DOCUMENT RESEARCH AND MAY BE NEITHER ACCURATE NOR COMPLETE. CONTRACTOR IS FULLY RESPONSIBLE FOR PHYSICALLY LOCATING THE HORIZONTAL AND VERTICAL LOCATION OF ALL UTILITIES IN THE CONSTRUCTION VICINITY PRIOR TO ANY WORK.

PROJECT INFORMATION:

OWNER:

GRANDE COMMUNICATIONS

CONTACT:

CHARLIE JOHNSON
ENGINEERING & CONSTRUCTION MANAGER
401 CARLSON CIRCLE
SAN MARCOS, TX 78666
(512) 220-3310 (OFFICE)
(512) 590-9658 (CELL)
CHARLIE.JOHNSON@MYGRANDE.COM

SUBMITTAL PREPARED BY:

ENEngineering

11211 TAYLOR DRAPER LN SUITE 310
AUSTIN, TX, 78759
TEL: 630-353-4000
FAX: 630-353-7777
WWW.ENENGINEERING.COM
TX BOARD FIRM # - 11507

CONTACT:

























JUSTIN ORTIZ, PROJECT ENGINEER




PHONE:


























(210) 728-3156 (OFFICE)

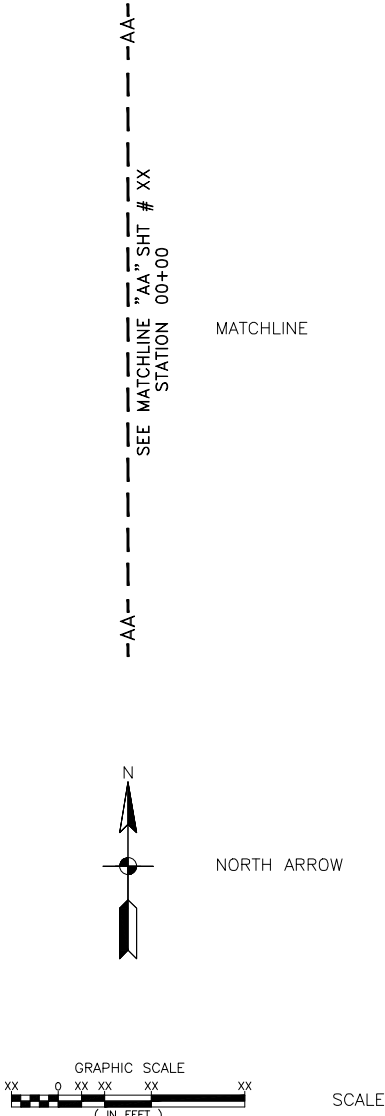
CITY OF KYLE PERMIT

CITY OF KYLE PERMIT


	EXISTING RIGHT OF WAY
	EXISTING EASEMENT
	EXISTING CENTERLINE
	EXISTING LOT LINES
	EXISTING BUILDING OUTLINE
	EXISTING PAVEMENT
	EXISTING FLOODPLAIN
	EXISTING WATER EDGE
	EXISTING REUSE WATER LINE
	EXISTING CHILLED WATER LINE
	EXISTING GAS LINE
	EXISTING WATER (DOUBLE LINE WHEN $\geq 24"$)
	EXISTING WASTE WATER (DOUBLE LINE WHEN $\geq 15"$)
	EXISTING STORM SEWER (DOUBLE LINE WHEN $\geq 18"$)
	EXISTING OVERHEAD ELECTRIC
	EXISTING UNDERGROUND ELECTRIC
	EXISTING OVERHEAD TELEPHONE LINE
	EXISTING UNDERGROUND TELEPHONE LINE
	EXISTING UNDERGROUND COMMUNICATION LINE
	EXISTING UNDERGROUND FIBER LINE
	EXISTING UNDERGROUND TRAFFIC SIGNAL
	EXISTING FENCE
	EXISTING RAILROAD
	EXISTING CONTOUR

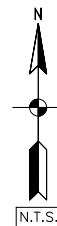
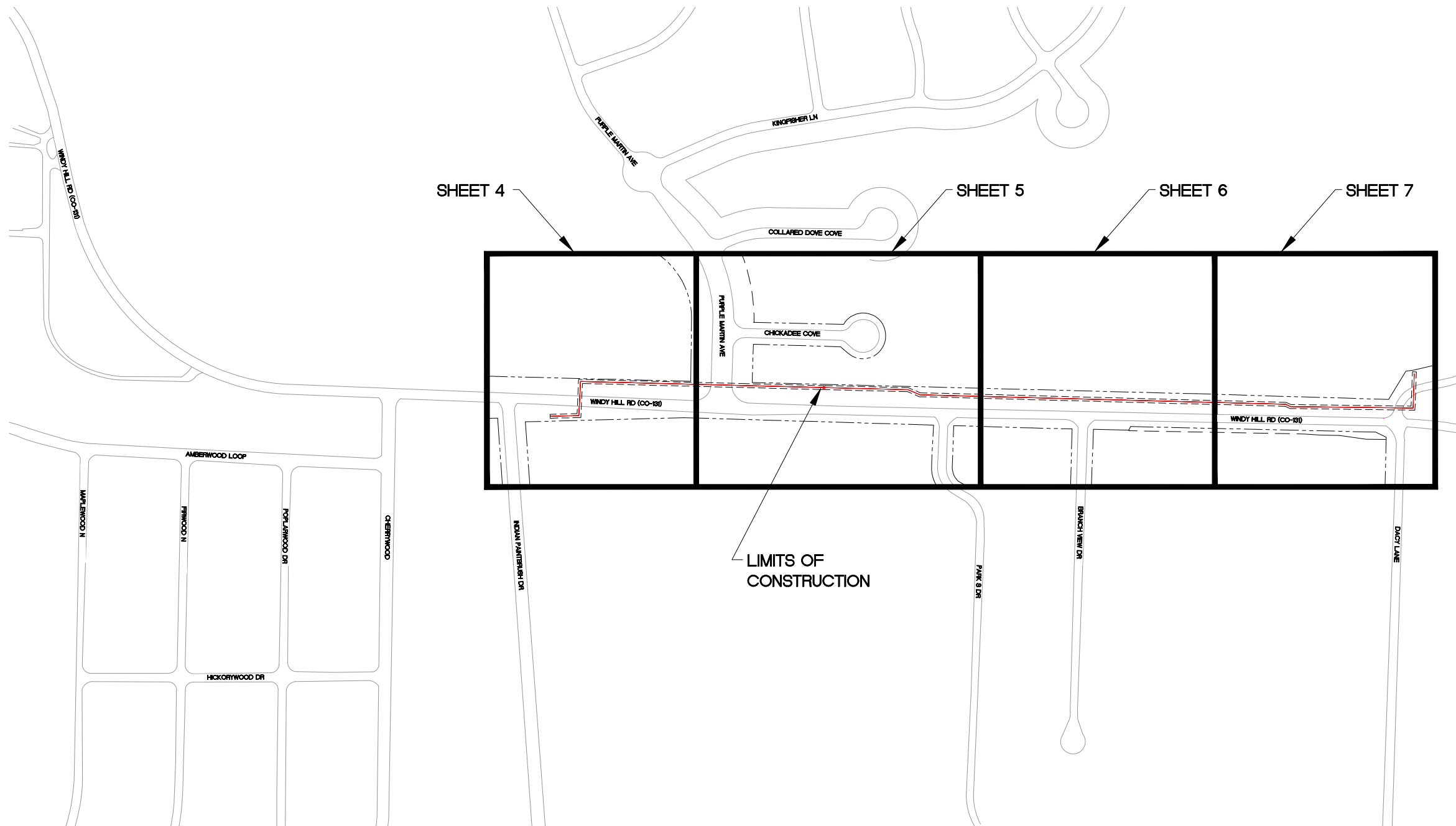
 PROPOSED CONDUIT (BORE)
 PROPOSED CONDUIT (OPEN TRENCH)
 PROPOSED PAVEMENT BREAK
 PROPOSED BORE PIT

	UTILITY PIPE END/CAP
	STORM INLET
	STORM MANHOLE/CATCH BASIN
	CULVERT
	WASTE WATER MANHOLE
	FIRE HYDRANT
	REUSE WATER MANHOLE
	WATER MANHOLE
	WATER VALVE
	WATER METER
	TELEPHONE MANHOLE
	TELEPHONE PEDESTAL
	COMMUNICATION MANHOLE
	FIBER MANHOLE
	ELECTRIC MANHOLE
	ELECTRIC BOX
	TRAFFIC SIGNAL PULL BOX/CABINET
	TRAFFIC SIGNAL POLE
	LIGHT POLE
	UTILITY POLE
	UNKNOWN MANHOLE
	STREET SIGN
	TREE
	BUSH
	STATION MARK



				AS-BUILT
				REVISION #
1	01/22/2020	A. ROTH	S. MELENDEZ	ORIGINAL
NO.	DATE	ENG DESIGN	DRAFTING	COMMENT


PREPARED BY:	ENEngineering 11211 TAYLOR DRAPER LN SUITE 310 AUSTIN, TX. 78759 TEL. 630-353-4000 FAX 630-353-7777 WWW.ENENGINEERING.COM TX BOARD FIRM # - 11507
	 GRANDE COMMUNICATIONS®
GRANDE ENGINEER: CHARLIE JOHNSON	
ENGINEERING FIRM: EN ENGINEERING	
PROJECT NUMBER: 2100195.00	
LOCATION: WIND HILL RD & PURPLE MARTIN AVE KYLE, TEXAS	
DRAWING NAME: SYMBOLLOGY	
CONFIDENTIAL/PROPRIETARY	SHEET: 2 OF 9



CITY OF KYLE PERMIT

PREPARED BY:

ENEngineering
11211 TAYLOR DRAPER LN
SUITE 310
AUSTIN, TX. 78759
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TX BOARD FIRM # - 11507

**GRANDE**
COMMUNICATIONS

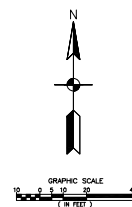
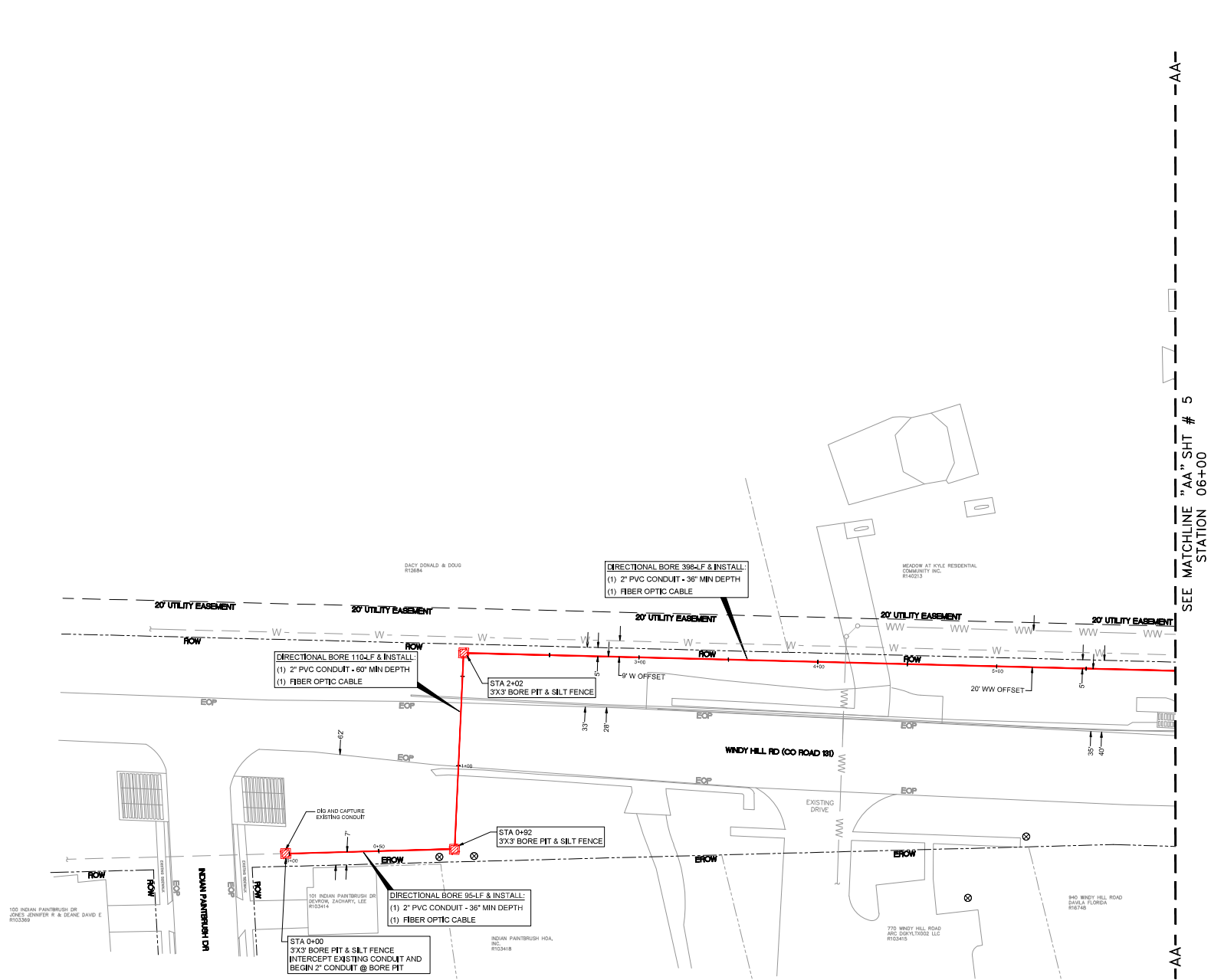
GRANDE ENGINEER: CHARLIE JOHNSON
ENGINEERING FIRM: EN ENGINEERING
PROJECT NUMBER: 2100195.00
LOCATION: WIND HILL RD & PURPLE MARTIN AVE
KYLE, TEXAS

DRAWING NAME:
SITE PLAN

CONFIDENTIAL/PROPRIETARY

SHEET: 3 OF 9

				AS-BUILT
				REVISION #
1	01/22/2020	A. ROTH	S. MELENDEZ	ORIGINAL
NO.	DATE	ENG. DESIGN	DRAFTING	COMMENT



SEE MATCHLINE "AA" SHT # 5
STATION 06+00

PREPARED BY:

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SUITE 310
AUSTIN, TX. 78759
TEL. 630-353-4000
FAX 630-353-7777
WWW.ENENGINEERING.COM
TX BOARD FIRM # - 11507

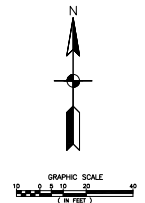
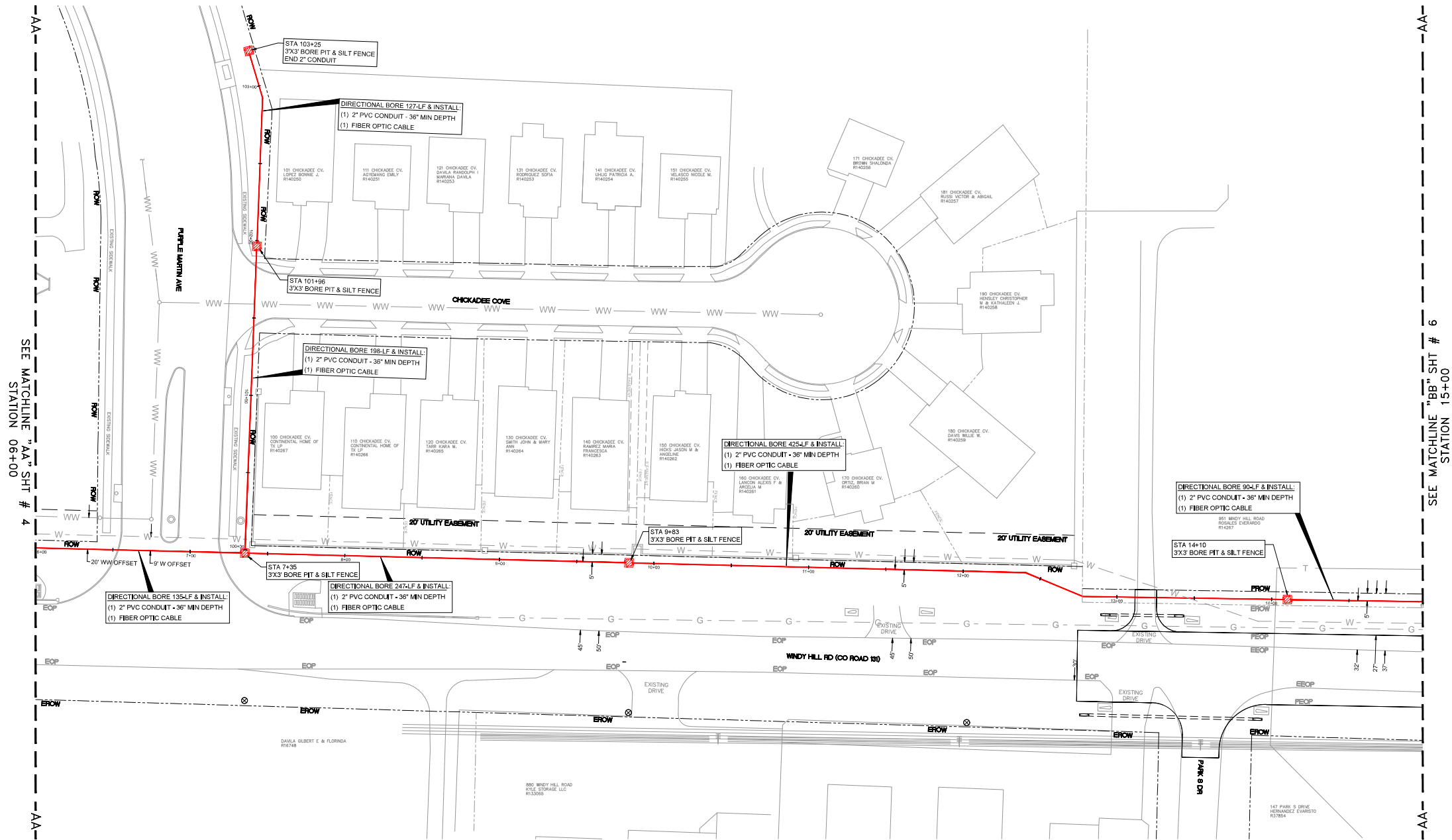
GRANDE ENGINEER: CHARLIE JOHNSON
ENGINEERING FIRM: EN ENGINEERING
PROJECT NUMBER: 2100195.00
LOCATION: WINDY HILL RD & PURPLE MARTIN AVE
KYLE, TEXAS

DRAWING NAME:
WINDY HILL RD & PURPLE MARTIN AVE (STA 0+00-STA 6+00)

CONFIDENTIAL/PROPRIETARY

SHEET: 4 OF 9

				AS-BUILT
				REVISION #
1	01/22/2020	A. ROTH	S. MELENDEZ	ORIGINAL
NO.	DATE	ENG. DESIGN	DRAFTING	COMMENT



CITY OF KYLE PERMIT

PREPARED BY:

ENEngineering
11211 TAYLOR DRAPER LN
SUITE 310
AUSTIN, TX. 78759
TEL. 630-353-4000
FAX 630-353-7777
WWW.ENENGINEERING.COM
TX BOARD FIRM # - 11507

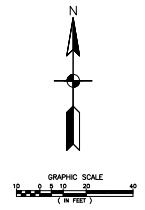
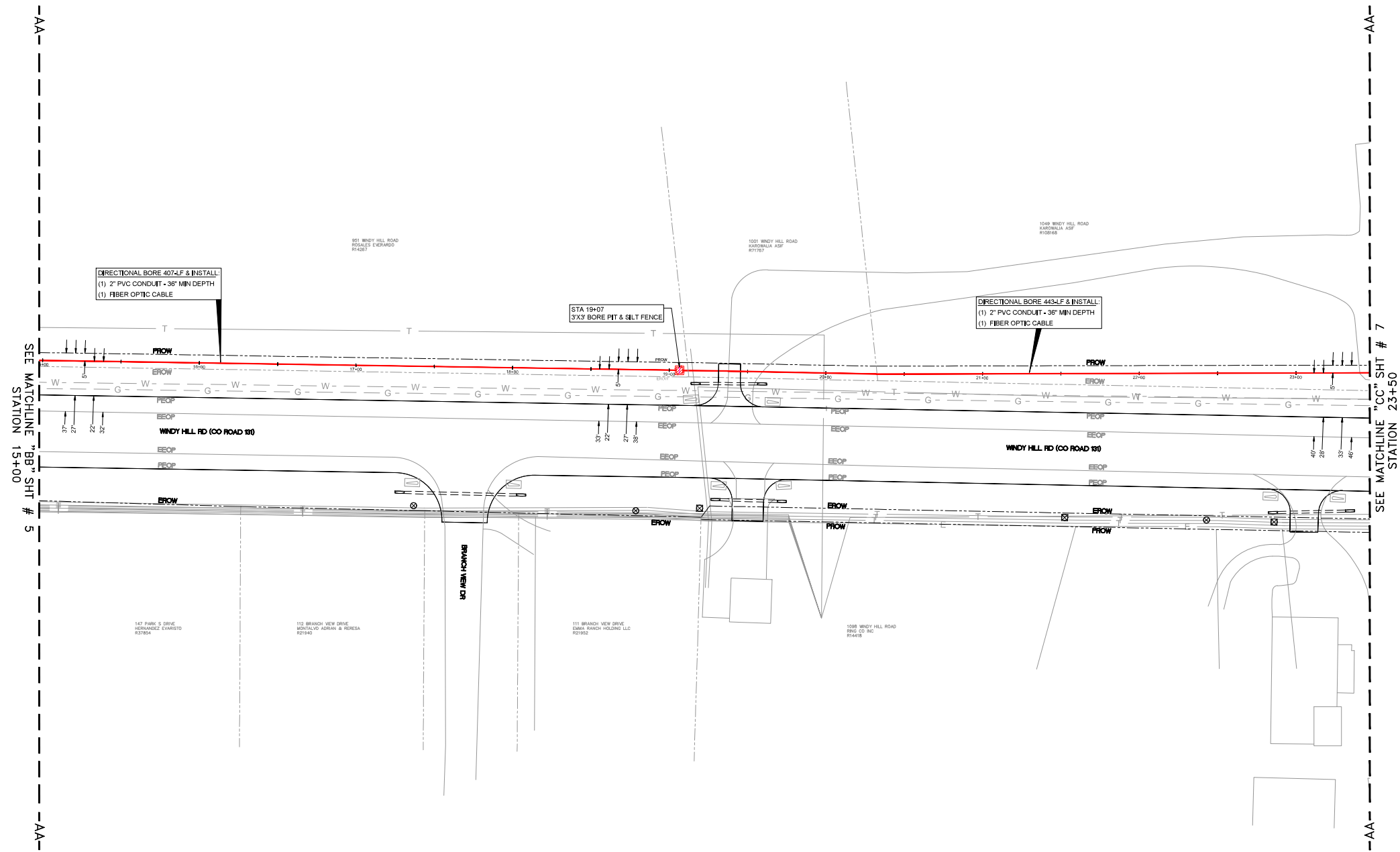
GRANDE ENGINEER: CHARLIE JOHNSON
ENGINEERING FIRM: EN ENGINEERING
PROJECT NUMBER: 2100195.00
LOCATION: WINDY HILL RD & PURPLE MARTIN AVE
KYLE, TEXAS

DRAWING NAME:
WINDY HILL RD & PARK DR (STA 6+00-STA 16+00) & (STA 29+00-STA 32+50)

CONFIDENTIAL/PROPRIETARY

SHEET: 5 OF 9

				AS-BUILT
				REVISION #
1	01/22/2020	A. ROTH	S. MELENDEZ	ORIGINAL
NO.	DATE	ENG. DESIGN	DRAFTING	COMMENT



PREPARED BY:

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11211 TAYLOR DRAPER LN
SUITE 310
AUSTIN, TX. 78759
TEL. 630-353-4000
FAX 630-353-7777
WWW.ENENGINEERING.COM
TX BOARD FIRM # - 11507

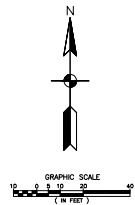
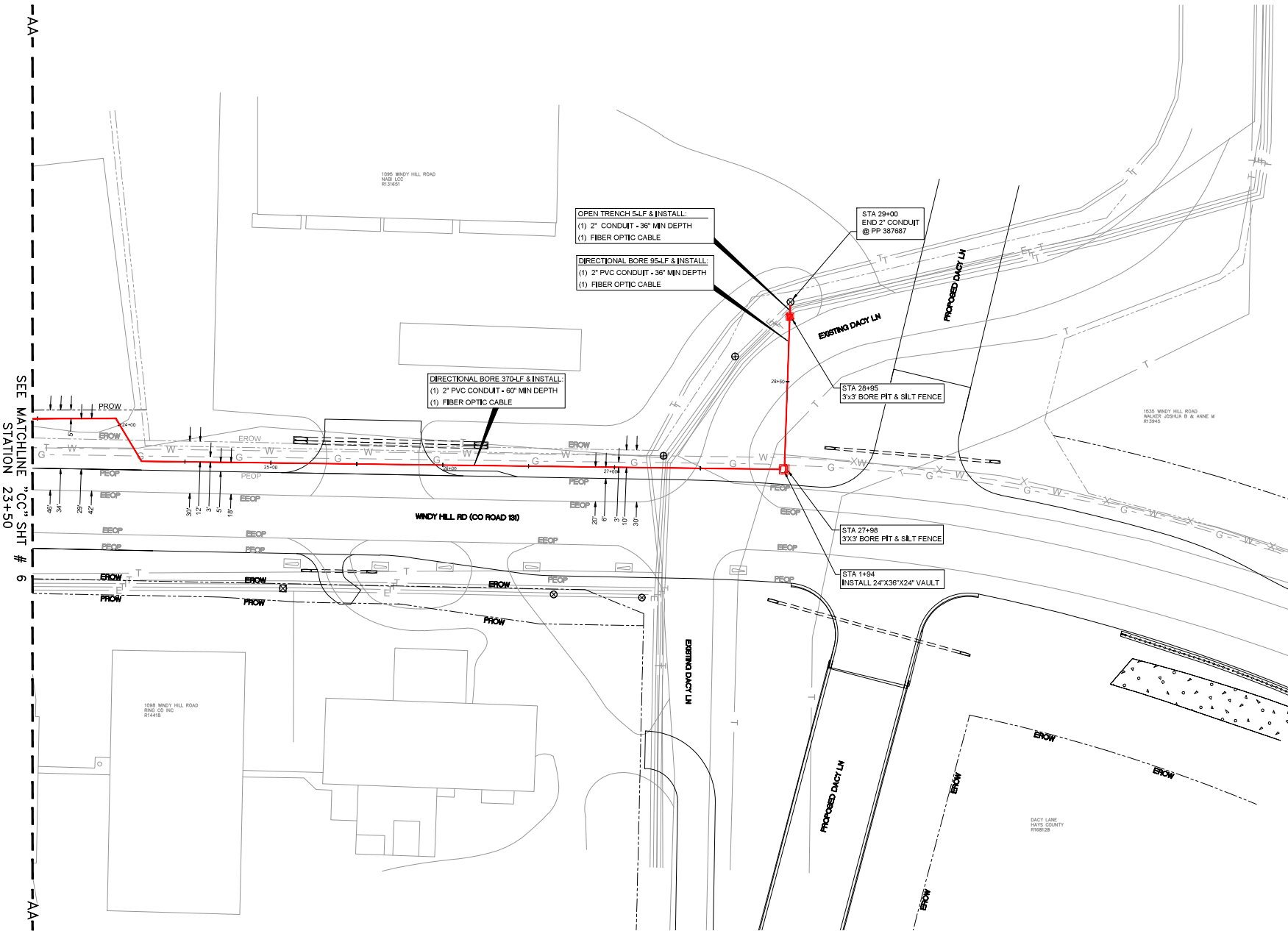
GRANDE ENGINEER: CHARLIE JOHNSON
ENGINEERING FIRM: EN ENGINEERING
PROJECT NUMBER: 2100195.00
LOCATION: WIND HILL RD & PURPLE MARTIN AVE
KYLE, TEXAS

DRAWING NAME:
WINDY HILL RD (STA 16+00-STA 24+50)

CONFIDENTIAL/PROPRIETARY

SHEET: 6 OF 9

				AS-BUILT
				REVISION #
1	01/22/2020	A. ROTH	S. MELENDEZ	ORIGINAL
NO.	DATE	ENG. DESIGN	DRAFTING	COMMENT



SEE MATCHLINE "CC" SHT # 6
STATION 23+50

PREPARED BY:

ENEngineering
11211 TAYLOR DRAPER LN
SUITE 310
AUSTIN, TX. 78759
TEL. 630-353-4000
FAX 630-353-7777
WWW.ENENGINEERING.COM
TX BOARD FIRM # - 11507

GRANDE ENGINEER: CHARLIE JOHNSON
ENGINEERING FIRM: EN ENGINEERING
PROJECT NUMBER: 2100195.00
LOCATION: WINDY HILL RD & PURPLE MARTIN AVE
KYLE, TEXAS

DRAWING NAME:
WINDY HILL RD & DACY LN (STA 24+50-STA 28+50)

CONFIDENTIAL/PROPRIETARY

SHEET: 7 OF 9

				AS-BUILT
				REVISION #
1	01/22/2020	A. ROTH	S. MELENDEZ	ORIGINAL
NO.	DATE	ENG. DESIGN	DRAFTING	COMMENT

1. ALL CONSTRUCTION IS TO BE IN ACCORDANCE WITH THE FOLLOWING REGULATIONS AND SPECIFICATIONS. THE FIRST LISTED WILL HAVE PRIORITY OVER THOSE LISTED BELOW:

PERMITS ISSUED FOR PROJECT BY ANY REGULATORY AGENCIES.TEXAS COMMISSION ON ENVIRONMENTAL QUALITY REGULATIONS.
CITY OF KYLE CONSTRUCTION STANDARDS.
PLANS FOR THIS PROJECT.

2. PRIOR TO THE BEGINNING OF CONSTRUCTION, THE DEVELOPER SHALL ARRANGE A PRE-CONSTRUCTION CONFERENCE. PRE-CONSTRUCTION SHALL BE SCHEDULED WITH THE PW OFFICE, 512-262-3024 AND HELD AT THE PW FACILITY LOCATED AT 520 E RR150, KYLE, TEXAS.REPRESENTATIVES FROM THE FOLLOWING ORGANIZATIONS SHALL BE INVITED:

CITY OF KYLE STAFF INCLUDING THE DIRECTOR OF PUBLIC WORKS, CITY ENGINEER AND THE PUBLIC WORKS INSPECTOR.
CONTRACTOR.
DESIGN ENGINEER.
ELECTRIC, GAS, PHONE AND CABLE UTILITY REPRESENTATIVES, IF APPROPRIATE.

3. PRIOR TO THE BEGINNING OF CONSTRUCTION, ALL PLAN REVIEW AND CONSTRUCTION INSPECTION FEES SHALL BE PAID TO THE CITY OF KYLE AND THE FOLLOWING PERMITS SHALL BE IN PLACE, IF NECESSARY:

TEXAS DEPARTMENT OF TRANSPORTATION, ENTRY ONTO A HIGHWAY, U.S. CORPS OF ENGINEERS, SECTION 404, FOR CONSTRUCTION IN FLOOD PLAIN, FLOODPLAIN COMPLIANCE WITH THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY (TCEQ) TEXAS POLLUTANT DISCHARGE ELIMINATION SYSTEM (TPDES)
CONSTRUCTION GENERAL PERMIT (TXR150000).
TEXAS DEPARTMENT OF LICENSING AND REGULATION FOR ACCESSIBILITY. TCEQ FOR SIGNIFICANT WATER AND WASTEWATER FACILITIES, INCLUDING LIFT STATIONS.

4. BENCHMARKS FOR THIS PROJECT ARE DESCRIBED AS FOLLOWS:

5. THE STREET PAVEMENT THICKNESS IS BASED ON A REPORT BY _____, 20____, DATED _____, WHICH RECOMMENDS THE FOLLOWING STREET SECTIONS.

STREET CLASSIFICATION	STREET WIDTH	STREET LIME	STREET LIME STABILIZATION	BASE OF SUBGRADE	HOT MIX THICKNESS	HOT MIX ASPHALT
-----------------------	--------------	-------------	---------------------------	------------------	-------------------	-----------------

6. ANY EXISTING PAVEMENT, CURBS, AND/OR SIDEWALKS DAMAGED OR REMOVED SHALL BE REPAIRED BY THE CONTRACTOR AT HIS EXPENSE BEFORE ACCEPTANCE OF THE SUBDIVISION.

7. THE CONTRACTOR SHALL GIVE THE CITY OF KYLE (PHONE NO. 512-262-3024), 48 HOURS NOTICE PRIOR TO CONNECTING TO ANY EXISTING CITY UTILITY LINE.

8. SIDEWALKS FRONTING PUBLIC RIGHT-OF-WAY LAND OR INCLUDING ALL SIDEWALK RAMPS REQUIRED BY CITY ORDINANCE SHOWN ON THESE PLANS SHALL BE CONSTRUCTED WITH THIS PROJECT.

9. THE CONTRACTOR SHALL BE RESPONSIBLE FOR WARNING AND SAFETY SIGNS, BARRICADES AND TRAFFIC CONTROL DURING CONSTRUCTION. ALL ROAD SIGNAGE SHALL CONFORM TO THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

10. CONTRACTOR SHALL MAKE ARRANGEMENTS WITH THE CITY OF KYLE FOR THE USE OF ALL WATER FOR CONSTRUCTION.

11. ALL FILL OR CUT ON LOTS WHICH IS GREATER THAN TWELVE (12) INCHES SHALL BE SHOWN ON THE PLANS AND SHALL CONFORM TO THE FOLLOWING:

FILL MATERIAL SHALL NOT CONTAIN ANY ROCKS HAVING A MAXIMUM DIMENSION GREATER THAN SIX (6) INCHES.

FILL MATERIAL SHALL HAVE AT LEAST FIFTY PERCENT (50%) PASSING THE NO. 4 SIEVE.

FILL MATERIAL SHALL BE REASONABLY FREE OF ROOTS, TRASH, CONCRETE RUBBLE AND OTHER ORGANIC MATERIAL.

COMPACTION SHALL BE TO NINETY-FIVE PERCENT (95%) OF MAXIMUM LABORATORY DENSITY DETERMINED IN ACCORDANCE WITH THE ASTM D 698. THE MATERIAL SHALL BE WITHIN THREE (3) PERCENTAGE POINTS OF OPTIMUM MOISTURE CONTENT DURING COMPACTION.

PLACEMENT SHALL BE IN LIFTS NOT EXCEEDING EIGHT (8) INCHES AFTER COMPACTION. EACH COMPACTED LIFT SHOULD BE INSPECTED AND/OR TESTED FOR DENSITY COMPLIANCE BY A GEOTECHNICAL ENGINEER PRIOR TO PLACING THE NEXT LIFT. THE FILL AREA SHOULD EXTEND AT LEAST 24 INCHES (36 INCHES ON FILLS OVER SIX (6) FEET IN HEIGHT) BEYOND THE BACK OF CURB OR FOUNDATION LINE BEFORE SLOPING DOWNWARD ON NOT MORE THAN THREE (3) TO ONE (1) SLOPE TO NATURAL SOIL. BACKSLOPES SHALL BE WELL COMPACTED. MAXIMUM FILL HEIGHTS SHOULD NOT EXCEED TEN (10) FEET WITHOUT ENGINEERING CONSULTATION.

12. CONTRACTOR SHALL GIVE CITY INSPECTOR 36 HOURS NOTICE OF THE NEED FOR MATERIALS TESTING. ALL TESTING WILL BE ARRANGED AND PAID FOR BY THE CONTRACTOR. THE CITY SHALL RECEIVE A COPY OF TEST RESULTS.

13. CONTRACTOR OR THE DESIGN ENGINEER SHALL BE RESPONSIBLE FOR ALL CONSTRUCTION STAKING AND CUT SHEETS FOR PIPE LINES LAID ON GRADE AND ROAD CONSTRUCTION. CUT SHEETS SHALL BE DELIVERED TO THE CITY INSPECTOR 36 HOURS PRIOR TO CONSTRUCTION.

14. IN ACCORDANCE WITH THE LAWS OF THE STATE OF TEXAS AND THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS, ALL TRENCHES OVER 5 FEET IN DEPTH IN EITHER HARD AND STABLE OR SOFT AND UNSTABLE SOIL SHALL BE SLOPED, SHORED, SHEETED, BRACED OR OTHERWISE SUPPORTED. FURTHERMORE, ALL TRENCHES LESS THAN 5 FEET IN DEPTH SHALL ALSO BE EFFECTIVELY PROTECTED WHEN HAZARDOUS GROUND MOVEMENT MAY BE EXPECTED. TRENCH SAFETY SYSTEMS TO BE UTILIZED FOR THIS PROJECT SHALL BE PROVIDED BY THE CONTRACTOR.

IN ACCORDANCE WITH THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION REGULATIONS, WHEN EMPLOYEES ARE REQUIRED TO BE IN TRENCHES 4 FEET DEEP OR MORE, ADEQUATE MEANS OF EXIT, SUCH AS A LADDER OR STEPS, MUST BE PROVIDED AND LOCATED SO AS TO REQUIRE NO MORE THAN 25 FEET OF LATERAL TRAVEL.

15. NO TREES OVER 6 INCHES IN DIAMETER SHALL BE REMOVED UNLESS DESIGNATED TO BE REMOVED ON THE APPROVED PLANS. ALL TREE LIMBS REMOVED OR TRIMMED SHALL BE VERTICALLY CUT AND DRESSED.

16. ALL CONSTRUCTION ACTIVITIES SHALL BE CONFINED TO PROPERTY OWNED BY THE DEVELOPER OR PUBLIC RIGHT-OF-WAY AND EASEMENT UNLESS WRITTEN PERMISSION IS OBTAINED BY THE CONTRACTOR FROM THE PROPERTY OWNER AFFECTED.

17. THE CITY OF KYLE DOES NOT ALLOW ANY BLASTING WITHIN THE CITY LIMITS.

TYPICAL SEQUENCE OF CONSTRUCTION

- HOLD PRE-CONSTRUCTION CONFERENCE.
- NO CLEARING OR ROUGH GRADING MAY BE DONE UNTIL THE APPROVED EROSION AND SEDIMENTATION CONTROLS ARE IN PLACE.
- INSTALL TEMPORARY EROSION AND SEDIMENTATION CONTROLS AND STABILIZATION CONSTRUCTION ENTRANCE, IF REQUIRED, IN THE APPROVED PLANS.
- ROUGH GRADE STREETS.
- INSTALL ALL UTILITIES IN RIGHTS-OF-WAY.
- RE-GRADE AND COMPACT SUBGRADE. MEET WITH CITY INSPECTOR AND/DESIGN ENGINEER TO DETERMINE AREAS OF DIFFERING STREET SECTION THICKNESS OR SUBGRADE PREPARATION IF CALLED FOR IN THE GEOTECHNICAL REPORT.
- INSURE ALL UNDERGROUND UTILITY CROSSINGS ARE IN PLACE INCLUDING SLEEVES FOR DRY UTILITIES AND INSTALL FIRST COURSE OF BASE.
- INSTALL CURBS, RIP-RAP AND MISCELLANEOUS CONCRETE.
- INSTALL SECOND COURSE OF BASE.
- LAY ASPHALT.
- FINAL GRADE ANY DITCHES AND PARKWAYS.
- REVEGETATE ALL DISTURBED AREAS. DISPOSE OF SPOIL IN AN APPROVED MANNER.
- SCHEDULE A FINAL INSPECTION WITH CITY.
- AFTER ACCEPTANCE OF CONSTRUCTION, TEMPORARY EROSION CONTROLS MAY BE REMOVED.

MINIMUM CRITERIA FOR ACCEPTANCE

- ALL CONSTRUCTION IS COMPLETE INCLUDING DRY UTILITIES AND RESTORATION TO THE CRITERIA.
- ALL CITY OF KYLE FEES PAID AND MAINTENANCE BOND POSTED.
- ALL RECORDS OF CONSTRUCTION TESTING AND RECORD DRAWINGS SHOWING ANY CHANGES DURING CONSTRUCTION PROVIDED TO THE CITY OF KYLE.
- ALL STREET LIGHTING, SIGNS AND PAVEMENT MARKINGS SHALL BE IN PLACE.

WATER AND WASTEWATER NOTES

- PIPE MATERIAL FOR WATER MAINS SHALL BE PVC (AWWA C-900, DR-14) OR DUCTILE IRON (AWWA C-151, CLASS 350).
- PIPE MATERIAL FOR GRAVITY SEWER SHALL BE SDR-26 PVC IF LOCATED GREATER THAN 9 FEET FROM A WATERLINE, OTHERWISE SHALL BE PRESSURE RATED PIPE.

3. BEDDING FOR FLEXIBLE GRAVITY PIPE (I.E. SDR-26 PVC) SHALL CONFORM TO ASTM 2321 CLASS 1 MATERIAL, I.E., 3/4" - 1" CLEAN ANGULAR CRUSHED ROCK.

4. CITY INSPECTOR SHALL OBSERVE ALL TAPS TO CITY UTILITY LINES AND PRIOR TO ANY UTILITY RELOCATION.

5. CONTRACTOR SHALL DISINFECT AND PRESSURE TEST ALL WATER LINES AND PERFORM LEAK AND DEFLECTION TESTS ON GRAVITY WASTEWATER LINES AT HIS EXPENSE.

6. THE CITY INSPECTOR SHALL BE NOTIFIED 36 HOURS PRIOR TO ALL UTILITY LINE TESTING. CONTRACTOR, WITH CITY STAFF PRESENT, IS RESPONSIBLE FOR SAMPLING. CITY STAFF WILL TRANSPORT BACTERIOLOGICAL TEST SAMPLES TO THE STATE DEPARTMENT OF HEALTH. ALL TEST RESULTS, WHETHER PASSING OR FAILING, SHALL BE PROVIDED TO THE CONTRACTOR. MANDREL DEFLECTION TESTING SHALL NOT BE CONDUCTED UNTIL THE PIPES HAVE BEEN BACKFILLED FOR 30 DAYS.

7. FIRE HYDRANTS SHALL BE MUELLER SUPER CENTURION OR APPROVED EQUAL.

8. THE CONTRACTOR SHALL SUBMIT TO THE DESIGN ENGINEER, DESCRIPTIVE INFORMATION FOR MATERIALS TO BE USED ON THE PROJECT FOR REVIEW. A COPY OF THE ACCEPTED MATERIAL SHALL ALSO BE PROVIDED TO THE CITY OF KYLE TEN DAYS PRIOR TO THE INSTALLATION OF UTILITIES.

9. PRESSURE TAPS SHALL BE IN ACCORDANCE WITH THE CITY OF KYLE. THE CONTRACTOR SHALL DO ALL EXCAVATION ETC., AND SHALL FURNISH, INSTALL AND AIR TEST THE SLEEVE AND VALVE. A CITY OF KYLE INSPECTOR MUST BE PRESENT WHEN TAP IS MADE. "SIZE ON SIZE" TAPS WILL NOT BE PERMITTED WITHOUT PRIOR APPROVAL OF THE DIRECTOR OF PUBLIC WORKS. CONCRETE BLOCKING SHALL BE PLACED BEHIND AND UNDER ALL TAP SLEEVES TWENTY-FOUR (24) HOURS PRIOR TO MAKING THE WET TAP.

10. ONE CALL NOTE - CONTRACTOR MUST CALL CITY OF KYLE (512-262-3024) FOR LOCATION OF CITY UTILITIES.

11. 200 PSI, BLACK, POLYETHYLENE TUBING SHALL BE USED ON WATER SERVICES.

12. ALL MANHOLES SHALL BE INTERNALLY COATED TO CITY OF AUSTIN SPECIFICATIONS, INCLUDING THE TIE-IN MANHOLE, UNLESS WAIVED BY THE DIRECTOR OF PUBLIC WORKS.

13. ALL PUBLIC MANHOLE COVERS WITHIN THE CITY LIMITS OF KYLE SHALL HAVE THE CITY OF KYLE LOGO.

FIRE PREVENTION NOTES

- THE CONTRACTOR SHALL PROVIDE COMPACTED FLEXIBLE BASE PAVEMENT PRIOR TO CONSTRUCTION OF COMBUSTIBLE MATERIALS AS AN "ALL WEATHER DRIVING SURFACE."
- HYDRANTS MUST BE INSTALLED WITH THE CENTER OF THE 4 ½ INCH OPENING AT LEAST EIGHTEEN (18) INCHES ABOVE FINISHED GRADE. THE 4 ½ INCH OPENING MUST FACE THE DRIVEWAY OR STREET WITH 3' - 6" SETBACK FROM CURBLINE(S). NO OBSERVATION IS ALLOWED WITHIN THREE (3) FEET OF ANY HYDRANT AND THE 4 ½ INCH OPENING MUST BE TOTALLY UNOBSTRUCTED FROM THE STREET (USE NST THREADS).
- DESIGNATE NO PARKING - FIRE LANE WITH CURB PAINTED RED AND WHITE STENCIL IN "FIRE ZONE / TOW AWAY ZONE" IN LETTERING 3 INCHES IN HEIGHT IN PROXIMITY TO COMMERCIAL, INDUSTRIAL AND PUBLIC STRUCTURES.

EROSION AND SEDIMENTATION CONTROL

- AFTER THE PRECONSTRUCTION MEETING IS HELD, THE CONTRACTOR SHALL INSTALL EROSION/SEDIMENTATION CONTROLS AND FENCING FOR AREAS OUTSIDE OF THE CONSTRUCTION AREA PRIOR TO ANY SITE PREPARATION WORK (CLEARING, GRUBBING OR EXCAVATION).
- THE CONTRACTOR IS REQUIRED TO INSPECT THE CONTROLS AND FENCES AT WEEKLY INTERVALS, AND AFTER SIGNIFICANT RAINFALL EVENTS TO ENSURE THAT THEY ARE FUNCTIONING PROPERLY. THE PERSON(S) RESPONSIBLE FOR MAINTENANCE OF CONTROLS AND FENCES SHALL IMMEDIATELY MAKE ANY NECESSARY REPAIRS TO DAMAGED AREAS. SILT ACCUMULATION AT CONTROLS MUST BE REMOVED WHEN THE DEPTH REACHES SIX (6) INCHES.
- PRIOR TO FINAL ACCEPTANCE BY THE CITY, HAUL ROADS AND WATERWAY CROSSINGS CONSTRUCTED FOR TEMPORARY CONTRACTOR ACCESS MUST BE REMOVED, ACCUMULATED SEDIMENT REMOVED FROM THE WATERWAY AND THE AREA RESTORED TO THE ORIGINAL GRADE AND REVEGETATED. ALL LAND CLEARING DEBRIS SHALL BE DISPOSED OF IN APPROVED SPOIL DISPOSAL SITES.
- FIELD REVISIONS TO THE EROSION AND SEDIMENTATION CONTROL PLAN MAY BE REQUIRED BY THE CITY INSPECTOR DURING THE COURSE OF CONSTRUCTION TO CORRECT CONTROL INADEQUACIES.

5. PERMANENT EROSION CONTROL: ALL DISTURBED AREAS SHALL BE RESTORED AS NOTED BELOW:

A. A MINIMUM OF FOUR (4) INCHES OF TOPSOIL SHALL BE PLACED IN ALL DRAINAGE CHANNELS (EXCEPT ROCK), AND BETWEEN THE CURB AND RIGHT-OF-WAY.

B. TRASH, WOOD, BRUSH, STUMPS, ROCKS OVER 1½ INCHES IN SIZE AND OTHER OBJECTIONABLE MATERIAL ENCOUNTERED SHALL BE REMOVED AND DISPOSED OF AS DIRECTED BY THE ENGINEER OR INSPECTOR PRIOR TO BEGINNING OF WORK REQUIRED BY THIS ITEM. GRASS AND OTHER HERBACEOUS PLANT MATERIALS MAY REMAIN. LARGE CLUMPS SHALL BE BROKEN UP.

C. THE SEEDING FOR PERMANENT EROSION CONTROL SHALL BE APPLIED OVER AREAS DISTURBED BY CONSTRUCTION AS FOLLOWS:

BROADCAST SEEDING:

(I) FROM OCTOBER TO FEBRUARY, SEEDING SHALL BE WITH ONE (1) POUND PER 1,000 SQUARE FEET OF UNHULLED BERMUDA OR THREE (3) POUNDS PER 1,000 SQUARE FEET OF WINTER RYE.

(II) FROM MARCH TO SEPTEMBER, SEEDING SHALL BE WITH HULLED BERMUDA AT A RATE OF ONE (1) POUND PER 1,000 SQUARE FEET.

FERTILIZER, IF USED, SHALL BE SLOW RELEASE GRANULAR OR PALETTE TYPE, AND SHALL HAVE AN ANALYSIS OF 15-15-15, AND SHALL BE APPLIED AT THE RATE OF ONE (1) POUND PER 1,000 SQUARE FEET, ONCE AT THE TIME OF PLANTING, AND AGAIN ONCE DURING THE TIME OF ESTABLISHMENT.

MULCH TYPE USED SHALL BE STRAW OR HAY APPLIED AT A RATE OF 45 POUNDS PER 1,000 SQUARE FEET.

HYDRAULIC SEEDING:

(I) FROM OCTOBER TO FEBRUARY, SEEDING SHALL BE WITH ONE (1) POUND PER 1,000 SQUARE FEET OF UNHULLED BERMUDA, OR THREE (3) POUNDS PER 1,000 SQUARE FEET OF WINTER RYE.

(II) FROM MARCH TO SEPTEMBER, SEEDING SHALL BE WITH HULLED BERMUDA AT A RATE OF ONE (1) POUND PER 1,000 SQUARE FEET.

FERTILIZER, IF USED, SHALL BE A WATER SOLUBLE FERTILIZER WITH AN ANALYSIS OF 15-15-15 AT A RATE OF 1.5 POUNDS PER 1,000 SQUARE FEET.

MULCH TYPE SHALL BE HAY, STRAW OR MULCH APPLIED AT A RATE OF 45 POUNDS PER 1,000 SQUARE FEET, WITH A SOIL TACKIFIER AT A RATE OF 1.4 POUNDS PER 1,000 SQUARE FEET.

D. THE PLANTED AREA SHALL BE IRRIGATED OR SPRINKLED IN A MANNER THAT WILL NOT ERODE THE TOPSOIL, BUT WILL SUFFICIENTLY SOAK TO A DEPTH OF SIX (6) INCHES. THE IRRIGATION SHALL OCCUR AT 10-DAY INTERVALS DURING THE FIRST TWO (2) MONTHS. RAINFALL OCCURRENCES OF ½ INCH OR MORE SHALL POSTPONE THE WATERING SCHEDULE FOR TEN (10) DAYS.

E. RESTORATION SHALL BE ACCEPTABLE WHEN THE GRASS HAS GROWN AT LEAST 1 INCH HIGH WITH 85% COVERAGE, PROVIDED NO BARE SPOTS LARGER THAN 20 SQUARE FEET EXIST.

F. A SOIL RETENTION BLANKET SHALL BE PLACED ON ALL SLOPES EQUAL TO OR GREATER THAN 3:1. ALL SOIL RETENTION BLANKETS MUST BE LISTED ON THE TXDOT APPROVED PRODUCTS LIST OR APPROVED BY THE CITY.

DEVELOPER INFORMATION:OWNER:

ADDRESS:

PHONE:

REPRESENTATIVE:

DESIGN ENGINEER: REPRESENTATIVE RESPONSIBLE FOR PLAN CHANGES.

NAME:

ADDRESS:

PHONE:

CITY OF KYLE:

DIRECTOR OF PUBLIC WORKS: HARPER WILDER
(512) 262-3024 ext. 4002

CITY ENGINEER:LEON BARBA, P.E. (512) 262-3958

PREPARED BY: **ENEngineering**
11211 TAYLOR DRAPER LN
SUITE 310
AUSTIN, TX. 78759
TEL. 630-353-4000
FAX 630-353-7777
WWW.ENENGINEERING.COM
TX BOARD FIRM # - 11507



GRANDE ENGINEER: CHARLIE JOHNSON
ENGINEERING FIRM: EN ENGINEERING
PROJECT NUMBER: 2100195.00
LOCATION: WIND HILL RD & PURPLE MARTIN AVE
KYLE, TEXAS

DRAWING NAME:
GENERAL CONSTRUCTION NOTES

				AS-BUILT
				REVISION #
1	01/22/2020	A. ROTH	S. MELENDEZ	ORIGINAL
NO.	DATE	ENG. DESIGN	DRAFTING	COMMENT

CONFIDENTIAL/PROPRIETARY

SHEET: 8 OF 9



Hays County Transportation Department

2171 Yarrington Rd, Suite 200, Kyle Texas 78640
(P) 512-393-7385 (Web) www.hayscountytexas.com

UTILITY PERMIT APPROVAL LETTER

**** Notification must be given IN WRITING at least 24 hours before work begins and proper traffic control must be implemented throughout the work zone. ****

The utility company or any of its representatives, engineers, contractors, or authorized agents agree to use Best Management Practices to minimize erosion and sedimentation resulting from the proposed installation AND will insure that traffic control measures complying with applicable portions of the Texas Manual of Uniform Traffic Control Devices will be installed and maintained during installation.

General Special Provisions:

1. Construction of this line will begin on or after 10/3/2022 .

Utility Company Information:

Name: Grande Communications
Address: 1100 E Howard Lane Austin TX
Phone: 2108257314
Contact Name: Mario Luna

Engineer / Contractor Information:

Name: S&S Cable communications
Address: 1900 Howard Lane Pflugerville TX 78660
Phone: 5122725033
Contact Name: Troy Sylvester

Hays County Information:

Utility Permit Number: TRN-2022-5418-UTL
Type of Utility Service: FIBER OPTIC
Project Description:
Road Name(s): Post Road, , , , , ,
Subdivision:
Commissioner Precinct: 3

What type of cut(s) will you be using ? ☐ Boring ☐ Trenching ☒ Overhead ☐ N/A

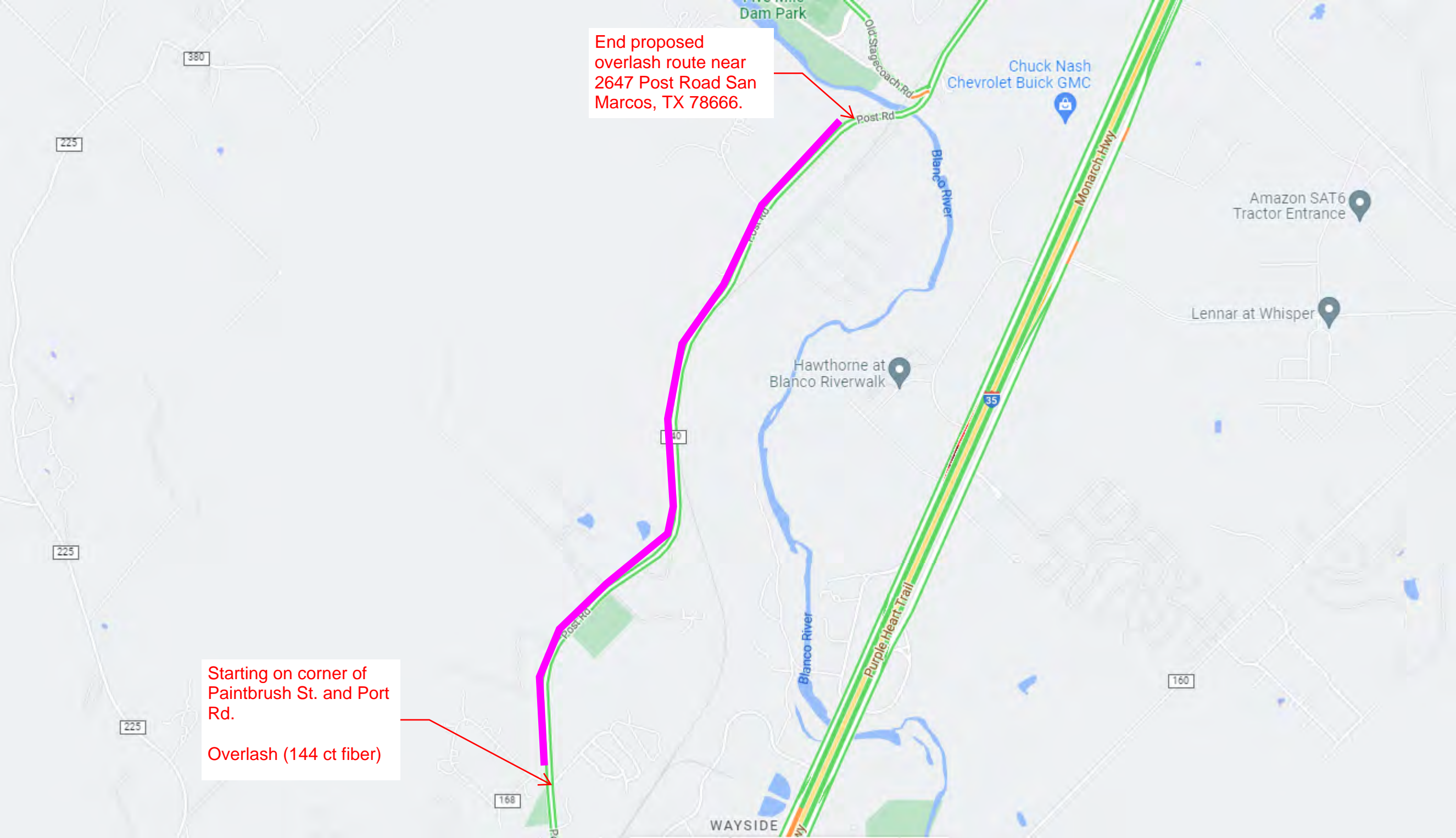
Authorization by Hays County Transportation Department
The above-mentioned permit was approved in Hays County Commissioners Court on .

10/19/2022

Signature

Title

Date



End proposed
overlash route near
2647 Post Road San
Marcos, TX 78666.

Starting on corner of
Paintbrush St. and Port
Rd.

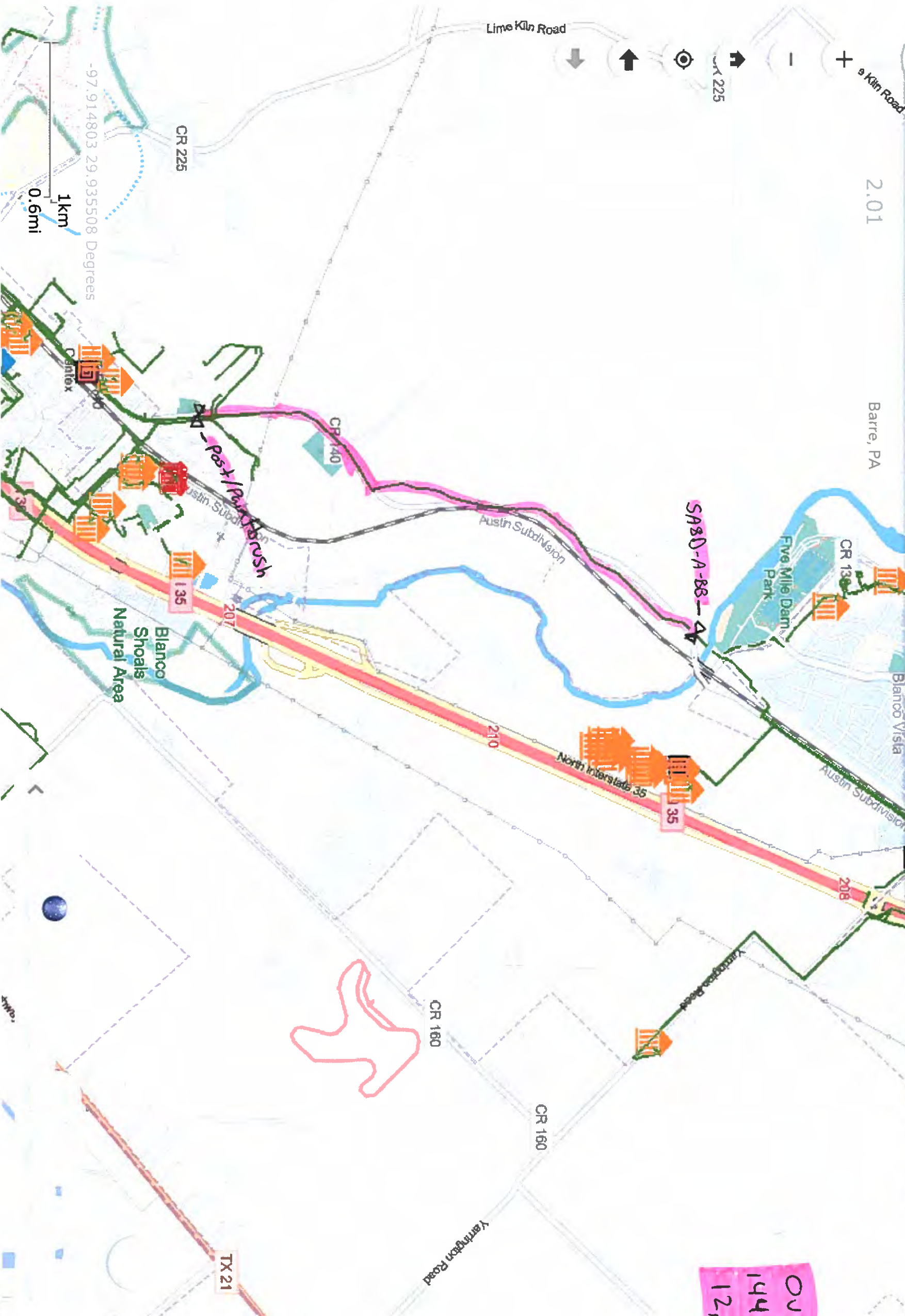
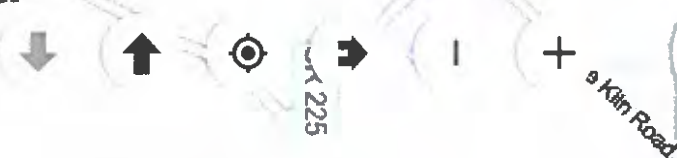
Overlash (144 ct fiber)



NIMS OSP Viewer

Network Engineering Wilkes-

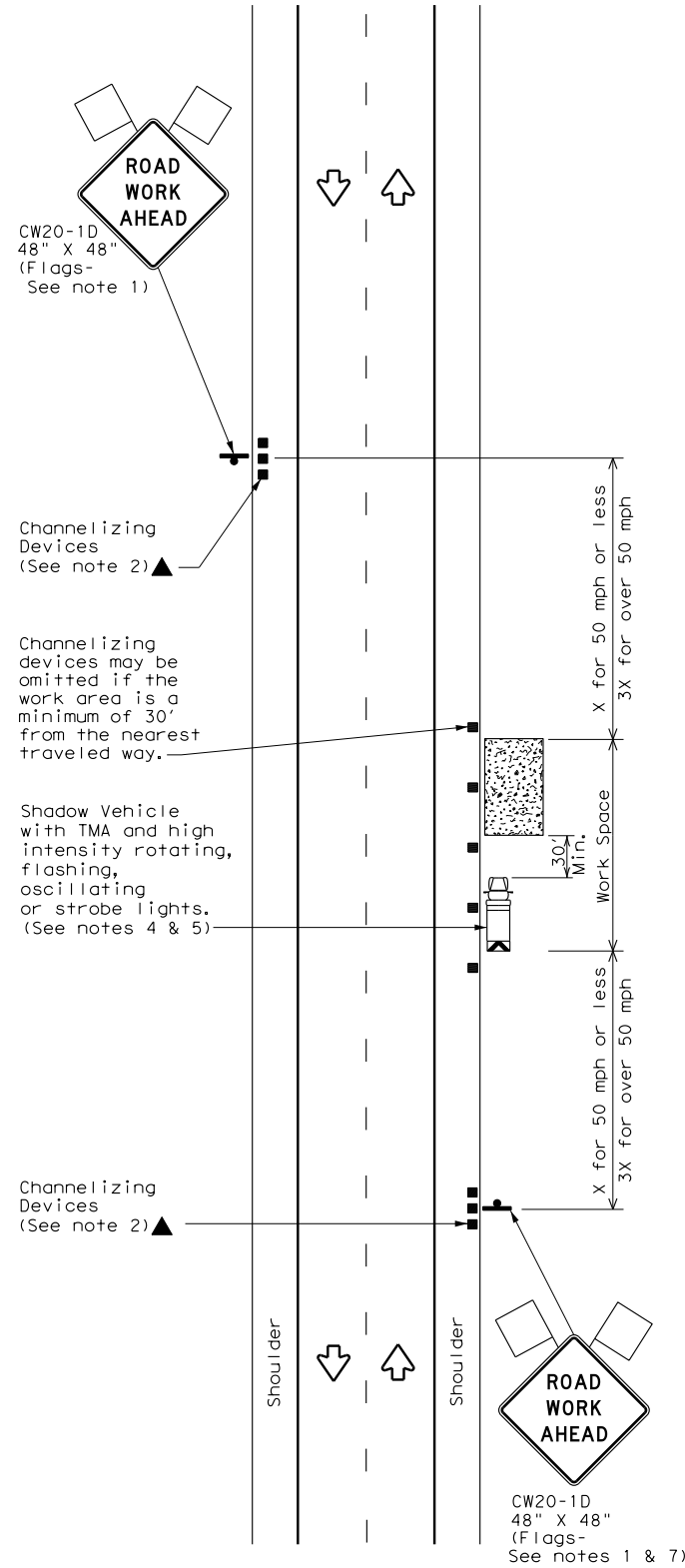
Find address or place



Overlash New
144 CT Fiber
12,327'

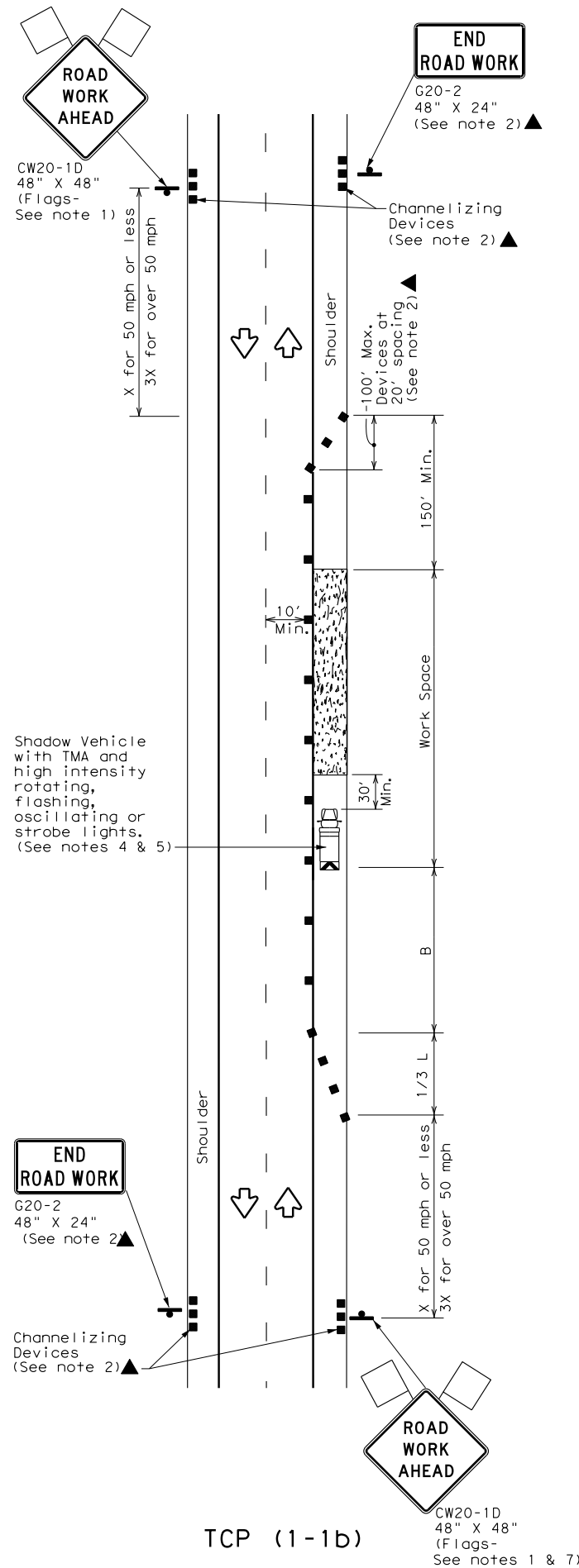
DISCLAIMER: The use of this standard is governed by the "Texas Engineering Practice Act". No warranty of any kind is made by TxDOT for any purpose whatsoever. TxDOT assumes no responsibility for the conversion of this standard to other formats or for incorrect results or damages resulting from its use.

DATE: FILE:



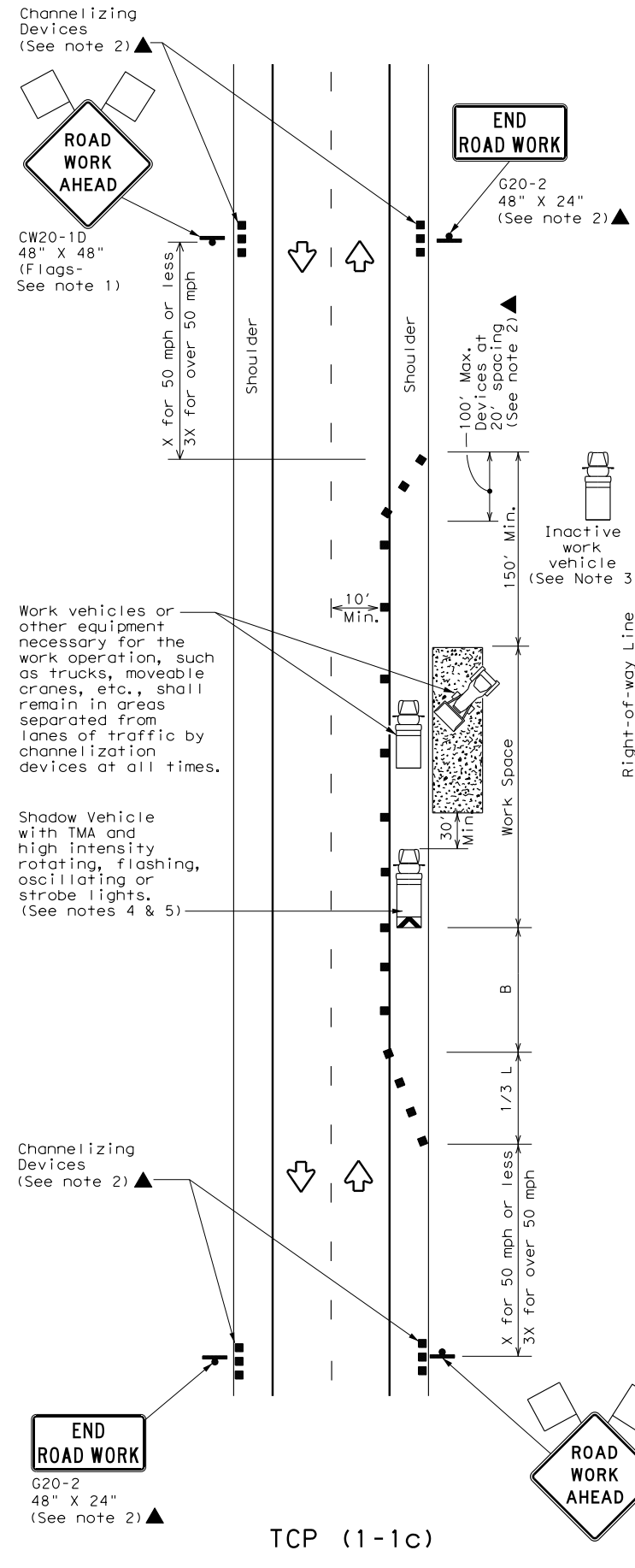
TCP (1-1a)

WORK SPACE NEAR SHOULDER
Conventional Roads



TCP (1-1b)

WORK SPACE ON SHOULDER
Conventional Roads



TCP (1-1c)

WORK VEHICLES ON SHOULDER
Conventional Roads

LEGEND			
	Type 3 Barricade		Channelizing Devices
	Heavy Work Vehicle		Truck Mounted Attenuator (TMA)
	Trailer Mounted Flashing Arrow Board		Portable Changeable Message Sign (PCMS)
	Sign		Traffic Flow
	Flag		Flagger

Posted Speed *	Formula	Minimum Desirable Taper Lengths **			Suggested Maximum Spacing of Channelizing Devices		Minimum Sign Spacing "X" Distance	Suggested Longitudinal Buffer Space "B"
		10' Offset	11' Offset	12' Offset	On a Taper	On a Tangent		
30	$L = \frac{WS^2}{60}$	150'	165'	180'	30'	60'	120'	90'
35		205'	225'	245'	35'	70'	160'	120'
40		265'	295'	320'	40'	80'	240'	155'
45	L = WS	450'	495'	540'	45'	90'	320'	195'
50		500'	550'	600'	50'	100'	400'	240'
55		550'	605'	660'	55'	110'	500'	295'
60		600'	660'	720'	60'	120'	600'	350'
65		650'	715'	780'	65'	130'	700'	410'
70		700'	770'	840'	70'	140'	800'	475'
75		750'	825'	900'	75'	150'	900'	540'

* Conventional Roads Only

** Taper lengths have been rounded off.

L=Length of Taper (FT) W=Width of Offset (FT) S=Posted Speed (MPH)

TYPICAL USAGE				
MOBILE	SHORT DURATION	SHORT TERM STATIONARY	INTERMEDIATE TERM STATIONARY	LONG TERM STATIONARY
	✓	✓		

GENERAL NOTES

- Flags attached to signs where shown are REQUIRED.
- All traffic control devices illustrated are REQUIRED, except those denoted with the triangle symbol may be omitted when stated elsewhere in the plans, or for routine maintenance work, when approved by the Engineer.
- Inactive work vehicles or other equipment should be parked near the right-of-way line and not parked on the paved shoulder.
- A Shadow Vehicle with a TMA should be used anytime it can be positioned 30 to 100 feet in advance of the area of crew exposure without adversely affecting the performance or quality of the work. If workers are no longer present but road or work conditions require the traffic control to remain in place, Type 3 Barricades or other channelizing devices may be substituted for the Shadow Vehicle and TMA.
- Additional Shadow Vehicles with TMAs may be positioned off the paved surface, next to those shown in order to protect wider work spaces.
- See TCP(5-1) for shoulder work on divided highways, expressways and freeways.
- CW21-5 "SHOULDER WORK" signs may be used in place of CW20-1D "ROAD WORK AHEAD" signs for shoulder work on conventional roadways.

TRAFFIC CONTROL PLAN CONVENTIONAL ROAD SHOULDER WORK

TCP (1-1) - 18

FILE: tcp1-1-18.dgn	DN:	CK:	DW:	CK:
© TxDOT December 1985	CONT	SECT	JOB	HIGHWAY
REVISIONS				
2-94 4-98				
8-95 2-12				
1-97 2-18				
DIST			COUNTY	SHEET NO.



AGENDA ITEM REQUEST FORM

Hays County Commissioners Court

Date: 11/01/2022

Requested By:

Sgt. Austin Horner, DPS

Sponsor:

Commissioner Ingalsbe

Agenda Item:

Amend the Department of Public Safety, License & Weight Division's county operating budget for travel expenses related to Records Management training. **INGALSBE/HORNER**

Summary:

The DPS Administrative Assistant, which is a county employee was required to attend a records' management training class in San Antonio on October 19th. Funds are requested to reimburse the employee for mileage to and from the training facility.

Fiscal Impact:

Amount Requested: \$59.38

Line Item Number: 001-651-00.5501

Budget Office:

Source of Funds: General Fund

Budget Amendment Required Y/N?: Yes

Comments: N/A

\$60 - Increase Travel 001-651-00.5501

(\$60) - Decrease Equipment Lease 001-651-00.5473

Auditor's Office:

Purchasing Guidelines Followed Y/N?: N/A

G/L Account Validated Y/N?: Yes, Travel

New Revenue Y/N?: N/A

Comments:



AGENDA ITEM REQUEST FORM

Hays County Commissioners Court

Date: 11/01/2022

Requested By:

Tammy Crumley

Sponsor:

Commissioner Shell

Co-Sponsor:

Commissioner Smith

Agenda Item:

Approve renewal of IFB 2020-B02 Hauling Solid Waste with JJ's waste and Recycling of Texas, LLC. and Texas Disposal Systems for one (1) additional year as stated in the original bid. **SHELL/SMITH/T.CRUMLEY**

Summary:

Texas Disposal Systems and JJ's Waste and Recycling of Texas, LLC. would like to renew their contract for one additional year. All terms and conditions remain unchanged and in full force and effect as stated in the original bid and past renewals. The Countywide Operations Department utilizes this contract for hauling solid waste throughout the County as needed.

Fiscal Impact:

Amount Requested: Pricing per bid terms based on cubic yardage and compact fees

Line Item Number: 001-716-00.5452

Budget Office:

Source of Funds: General Fund

Budget Amendment Required Y/N?: No

Comments: N/A

Auditor's Office:

Purchasing Guidelines Followed Y/N?: Yes, Invitation For Bid 2020-B02 Hauling of Solid Waste

G/L Account Validated Y/N?: Yes, Trash Hauling

New Revenue Y/N?: N/A

Comments:

Attachments

JJ's Waste and Recycling of Texas, LLC
Texas Disposal Systems



OFFICE OF THE COUNTY AUDITOR

Hays County Purchasing
712 S. Stagecoach Trail, Ste. 1071
San Marcos, Texas 78666
512-393-2271

Marisol Villarreal-Alonzo, CPA
County Auditor
marisol.alonzo@co.hays.tx.us

Vickie Dorsett
First Assistant County Auditor
vickie.dorsett@co.hays.tx.us

October 19, 2022

JJ's Waste and Recycling of Texas, LLC.
2301 W. Whitestone Blvd. Ste. E2
Cedar Park, TX 78613

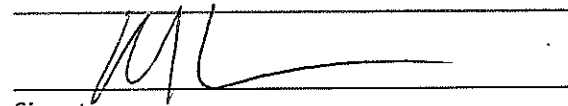
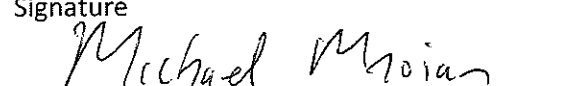
RE: Annual contract renewal

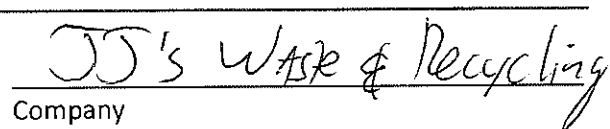
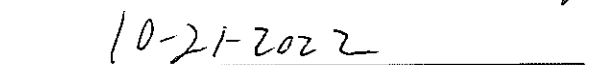
The annual contract for Hauling Solid Waste, IFB 2020-B02 will expire on November 5, 2022. This letter will serve as official notice that Hays County would like to exercise our 3rd option to renew the existing contract for one (1) additional year effective November 5, 2022 – November 4, 2023, provided all terms and conditions remain unchanged and in full force and effect as provided in the original bid. If you are in agreement with the renewal terms, please acknowledge below and return one original to the Hays County Purchasing Office at the address listed above.

Please email purchasing@co.hays.tx.us if you have any questions or need additional information.
Thank you.

Sincerely,

Marisol Villarreal-Alonzo, CPA
Hays County Auditor


Signature

Printed Name


Company

Date

Approved by the Hays County Commissioners Court on:

Date

Ruben Becerra, Hays C



OFFICE OF THE COUNTY AUDITOR

Hays County Purchasing
712 S. Stagecoach Trail, Ste. 1071
San Marcos, Texas 78666
512-393-2271

Marisol Villarreal-Alonzo, CPA
County Auditor
marisol.alonzo@co.hays.tx.us

Vickie Dorsett
First Assistant County Auditor
vickie.dorsett@co.hays.tx.us

October 19, 2022

Texas Disposal Systems, Inc.
PO Box 17126
Austin, TX 78760

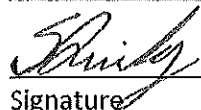
RE: Annual contract renewal

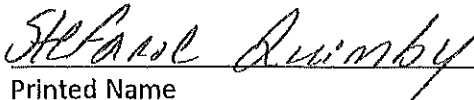
The annual contract for Hauling Solid Waste, IFB 2020-B02 will expire on November 5, 2022^{28th}. This letter will serve as official notice that Hays County would like to exercise our 3rd option to renew the existing contract for one (1) additional year effective November 5, 2022 – November 4, 2023, provided all terms and conditions remain unchanged and in full force and effect as provided in the original bid. If you are in agreement with the renewal terms, please acknowledge below and return one original to the Hays County Purchasing Office at the address listed above.

Please email purchasing@co.hays.tx.us if you have any questions or need additional information.
Thank you.

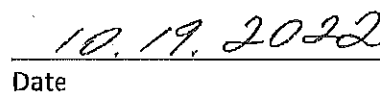
Sincerely,

Marisol Villarreal-Alonzo, CPA
Hays County Auditor


Signature


Printed Name


Company


Date

Approved by the Hays County Commissioners Court on:

Date

Ruben Becerra, Hays C



AGENDA ITEM REQUEST FORM

Hays County Commissioners Court

Date: 11/01/2022

Requested By:

Jerry Borcharding

Sponsor:

Commissioner Ingalsbe

Agenda Item

Discussion and possible action to consider the acceptance of road construction & surface drainage improvements, release of the subdivision bond #08BSBIW4813 in the amount of \$4,800,135.72, acceptance of the 2-year maintenance bond #PB03016800900 in the amount of \$401,852.15, and acceptance of the 1-year revegetation bond #PB03016800899 in the amount of \$36,288.00 for Sunset Oaks subd., Section 1, Phase 2. **INGALSBE/BORCHERDING**

Summary

Staff recommends acceptance of construction of roads and drainage improvements within the County ROW, and all regulatory signage as posted. An engineer's concurrence letter and as-built construction plans have been received. The Transportation Department has inspected and approved the improvements and will monitor the revegetation efforts for all disturbed areas within County ROW.

Attachments

Backup documents for Sunset Oaks, Sec. 1, Ph. 2

**HAYS COUNTY
TRANSPORTATION DEPARTMENT**



P.O. BOX 906
San Marcos, TX 78667

512/393-7385
FAX: 512/393-7393

October 25, 2022

Honorable Ruben Becerra
111 E. San Antonio Street
San Marcos, Texas 78666

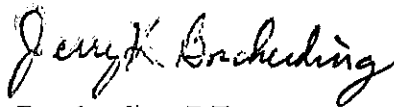
RE: Sunset Oaks subdivision, Section 1, Phase 2

Dear Commissioners and Judge:

Jon Adame, P.E. with Pape-Dawson Engineers, Inc., is requesting that Hays County accept construction of the roads and surface drainage improvements for Sunset Oaks subdivision, Section 1, Phase 2, release the subdivision bond #08BSBIW4813 in the amount of \$4,800,135.72, accept the 2-year maintenance bond #PB03016800900 in the amount of \$401,852.15, and accept the 1-year revegetation bond #PB03016800899 in the amount of \$36,288.00. A concurrence letter and as-built plans have been received as required by Hays County.

I recommend that construction be accepted per staff recommendations under Hays County specifications.

Respectfully,



Jerry Borcharding, P.E.
Director
Hays County Transportation



August 19, 2022

Mr. Jim Parman
Hays County Transportation Department
2171 Yarrington Rd
Kyle, TX 78640

Re: Engineer's Concurrence for Project Acceptance

Dear Mr. Parman:

Project: Sunset Oaks Section 1, Phase 2
Date: August 17, 2022
Owner: LGI Homes – Texas, LLC.
1450 Lake Robbins Dr. #430
The Woodlands, TX 77380

Consultant Engineer: Pape-Dawson Engineers, Inc.
Attn: Jon Adame, P.E.
2000 NW Loop 410
San Antonio, TX 78213

On this date, I, the undersigned Professional Engineer in the State of Texas, endorse that I had met with the Project Contractor, and Hays County and made a closing visual observation of the above referenced project. The items noted during the concluding Hays County walk-through on August 8, 2022 have been addressed and no other discrepancies from the approved plans were found other than those identified on the Plan of Record. I, therefore, recommend acceptance of this project by Hays County.

Sincerely,
Pape-Dawson Engineers, Inc.

A handwritten signature in black ink, appearing to read 'Jon Adame', is written over a light blue horizontal line.

Jon Adame, P.E.
Sr. Vice President

P:\123\88\00\Word\Letters\220817_Engineer's Concurrence-Hays County.docx

Philadelphia Indemnity Insurance Company

One Bala Plaza, Suite 100
Bala Cynwyd, PA 19004
877-438-7459

Bond No. PB03016800900

MAINTENANCE BOND

KNOW ALL MEN BY THESE PRESENTS, that we DNT Construction, LLC as Principal, and Philadelphia Indemnity Insurance Company, a corporation organized under the laws of the State of Pennsylvania, and duly authorized to do business in the State of Texas as Surety, are held and firmly bound unto Hays County, TX as Obligee, in the penal sum of Four Hundred One Thousand Eight Hundred Fifty Two and 15/100 (\$401,852.15) to which payment well and truly to be made we do bind ourselves, and each of our heirs, executors, administrators, successors and assigns jointly and severally, firmly by these presents.

WHEREAS, the said Principal has entered into a contract with LGI Homes- Texas, LLC for Sunset Oaks Section 1 Phase 2 Street and Drainage Improvements, which contract is hereinafter referred to as the "Contract."

WHEREAS, said Obligee requires that the Principal furnish a bond conditioned to guarantee for the period of Two year (s) from date of acceptance of the work performed under the Contract against all defects in workmanship and materials which would have been the responsibility under the Contract for which written notice is made to Surety during said period

NOW THEREFORE, THE CONDITIONS OF THIS OBLIGATION IS SUCH that, if the Principal shall indemnify the Obligee for all loss that the Obligee may sustain by reason of any defective materials or workmanship which may become apparent and with respect to which notice is delivered to Surety in writing during the period of Two year (s) from and after date of acceptance of the work under the Contract, then this obligation shall be void, otherwise to remain in full force and effect.

No right of action shall accrue hereunder to or for the benefit of any person or entity other the Obligee named herein, nor shall any suit be filed or action maintained on this bond more than twenty five (25) months after the date of the earliest timely notice of defect by Obligee to Surety.

SIGNED, SEALED AND DATED THIS 25th day of August, 2022.

DNT Construction, LLC
Principal

By: 

Dean Tomme, President

Philadelphia Indemnity Insurance Company
Surety

By: 

Rosemarie Lopez, Attorney-in-Fact

PHILADELPHIA INDEMNITY INSURANCE COMPANY

One Bala Plaza, Suite 100
Bala Cynwyd, PA 19004-0950

Power of Attorney

KNOW ALL PERSONS BY THESE PRESENTS: That PHILADELPHIA INDEMNITY INSURANCE COMPANY (the Company), a corporation organized and existing under the laws of the Commonwealth of Pennsylvania, does hereby constitute and appoint Tom Mulanax, Michael Whorton, David Whorton, Rachel Martinez, Rosemarie Lopez, Jeremy Farque and/or Noe Moreno of Whorton Insurance Services, its true and lawful Attorney-in-fact with full authority to execute on its behalf bonds, undertakings, recognizances and other contracts of indemnity and writings obligatory in the nature thereof, issued in the course of its business and to bind the Company thereby, in an amount not to exceed \$50,000,000.

This Power of Attorney is granted and is signed and sealed by facsimile under and by the authority of the following Resolution adopted by the Board of Directors of PHILADELPHIA INDEMNITY INSURANCE COMPANY on the 14th of November, 2016.

RESOLVED: That the Board of Directors hereby authorizes the President or any Vice President of the Company: (1) Appoint Attorney(s) in Fact and authorize the Attorney(s) in Fact to execute on behalf of the Company bonds and undertakings, contracts of indemnity and other writings obligatory in the nature thereof and to attach the seal of the Company thereto; and (2) to remove, at any time, any such Attorney-in-Fact and revoke the authority given. And, be it

FURTHER RESOLVED: That the signatures of such officers and the seal of the Company may be affixed to any such Power of Attorney or certificate relating thereto by facsimile, and any such Power of Attorney so executed and certified by facsimile signatures and facsimile seal shall be valid and binding upon the Company in the future with respect to any bond or undertaking to which it is attached.

IN TESTIMONY WHEREOF, PHILADELPHIA INDEMNITY INSURANCE COMPANY HAS CAUSED THIS INSTRUMENT TO BE SIGNED AND ITS CORPORATE SEAL TO BE AFFIXED BY ITS AUTHORIZED OFFICE THIS 5TH DAY OF MARCH, 2021.

(Seal)



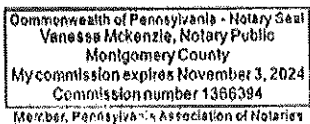
John Glomb

John Glomb, President & CEO
Philadelphia Indemnity Insurance Company

On this 5th day of March, 2021 before me came the individual who executed the preceding instrument, to me personally known, and being by me duly sworn said that he is the therein described and authorized officer of the PHILADELPHIA INDEMNITY INSURANCE COMPANY; that the seal affixed to said instrument is the Corporate seal of said Company; that the said Corporate Seal and his signature were duly affixed.

Notary Public:

Vanessa McKenzie



residing at:

Bala Cynwyd, PA

My commission expires:

November 3, 2024

I, Edward Sayago, Corporate Secretary of PHILADELPHIA INDEMNITY INSURANCE COMPANY, do hereby certify that the foregoing resolution of the Board of Directors and the Power of Attorney issued pursuant thereto on the 5th day March, 2021 are true and correct and are still in full force and effect. I do further certify that John Glomb, who executed the Power of Attorney as President, was on the date of execution of the attached Power of Attorney the duly elected President of PHILADELPHIA INDEMNITY INSURANCE COMPANY.

In Testimony Whereof I have subscribed my name and affixed the facsimile seal of each Company this 25th day of August, 2022.



Edward Sayago

Edward Sayago, Corporate Secretary
PHILADELPHIA INDEMNITY INSURANCE COMPANY

MAINTENANCE - REVEGETATION BOND

Bond No. PB03016800899

KNOW ALL MEN BY THESE PRESENTS,

That we DNT Construction, LLC, as Principal, and PHILADELPHIA INDEMNITY INSURANCE COMPANY, a corporation organized under the laws of the State of Pennsylvania, and authorized to do business in the State of Texas, as Surety, are held and firmly bound unto Hays County, Texas as Obligee in the penal sum of Thirty Six Thousand Two Hundred Eighty Eight and 00/100 (\$36,288.00) to which payment well and truly to be made we do bind ourselves, and each of our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the said Principal has completed that certain work (herein referred to as the "Work") described as: Sunset Oaks Section 1 Phase 2 Revegetation

WHEREAS, the Obligee requires that the Principal furnish a bond conditioned to guarantee the Work against defects in workmanship and materials which are the responsibility of the Principal under the contract under which the Work was constructed, and which did not appear prior to the final completion of the Work.

NOW THEREFORE, THE CONDITION OF THIS OBLIGATION IS SUCH, that if the Principal shall indemnify the Obligee for all loss that the obligee may sustain by reason of defective materials or workmanship which may first become apparent, and with respect to which written notice is delivered to Surety, at the expiration of the period of sixty days from the date of substantial completion, being the establishment of grass/vegetation at 70% in areas of hydro mulch, then this obligation shall be void, otherwise to remain in full force and effect for a period of up to One Year. However, such termination shall not discharge the Surety from any liability previously accrued pursuant to this bond.


This obligation does not cover normal wear and tear of materials, misuse or abuse by the Obligee or third parties, failure of Obligee to perform oblige-required maintenance, nor any defects known to Obligee prior to final completion of the Work nor any defects discovered or occurring after the expiration of the period set forth above.

SIGNED, sealed and dated this 25th **day of** August **, 2022.**

DNT Construction, LLC

Principal

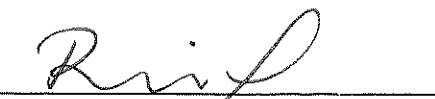
By:


Dean Tomme, President

Philadelphia Indemnity Insurance Company

Surety

By:


Rosemarie Lopez, Attorney-In-Fact

PHILADELPHIA INDEMNITY INSURANCE COMPANY
One Bala Plaza, Suite 100
Bala Cynwyd, PA 19004-0950

Power of Attorney

KNOW ALL PERSONS BY THESE PRESENTS: That PHILADELPHIA INDEMNITY INSURANCE COMPANY (the Company), a corporation organized and existing under the laws of the Commonwealth of Pennsylvania, does hereby constitute and appoint Tom Mulanax, Michael Whorton, David Whorton, Rachel Martinez, Rosemarie Lopez, Jeremy Farque and/or Noe Moreno of Whorton Insurance Services, its true and lawful Attorney-in-fact with full authority to execute on its behalf bonds, undertakings, recognizances and other contracts of indemnity and writings obligatory in the nature thereof, issued in the course of its business and to bind the Company thereby, in an amount not to exceed \$50,000,000.

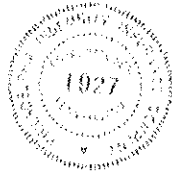
This Power of Attorney is granted and is signed and sealed by facsimile under and by the authority of the following Resolution adopted by the Board of Directors of PHILADELPHIA INDEMNITY INSURANCE COMPANY on the 14th of November, 2016.

RESOLVED: That the Board of Directors hereby authorizes the President or any Vice President of the Company: (1) Appoint Attorney(s) in Fact and authorize the Attorney(s) in Fact to execute on behalf of the Company bonds and undertakings, contracts of indemnity and other writings obligatory in the nature thereof and to attach the seal of the Company thereto; and (2) to remove, at any time, any such Attorney-in-Fact and revoke the authority given. And, be it

FURTHER RESOLVED: That the signatures of such officers and the seal of the Company may be affixed to any such Power of Attorney or certificate relating thereto by facsimile, and any such Power of Attorney so executed and certified by facsimile signatures and facsimile seal shall be valid and binding upon the Company in the future with respect to any bond or undertaking to which it is attached.

IN TESTIMONY WHEREOF, PHILADELPHIA INDEMNITY INSURANCE COMPANY HAS CAUSED THIS INSTRUMENT TO BE SIGNED AND ITS CORPORATE SEAL TO BE AFFIXED BY ITS AUTHORIZED OFFICE THIS 5TH DAY OF MARCH, 2021.

(Seal)

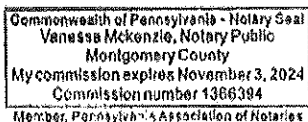


John Glomb, President & CEO
Philadelphia Indemnity Insurance Company

On this 5th day of March, 2021 before me came the individual who executed the preceding instrument, to me personally known, and being by me duly sworn said that he is the therein described and authorized officer of the PHILADELPHIA INDEMNITY INSURANCE COMPANY; that the seal affixed to said instrument is the Corporate seal of said Company; that the said Corporate Seal and his signature were duly affixed.

Notary Public:

Vanessa McKenzie



residing at:

Bala Cynwyd, PA

My commission expires:

November 3, 2024

I, Edward Sayago, Corporate Secretary of PHILADELPHIA INDEMNITY INSURANCE COMPANY, do hereby certify that the foregoing resolution of the Board of Directors and the Power of Attorney issued pursuant thereto on the 5th day March, 2021 are true and correct and are still in full force and effect. I do further certify that John Glomb, who executed the Power of Attorney as President, was on the date of execution of the attached Power of Attorney the duly elected President of PHILADELPHIA INDEMNITY INSURANCE COMPANY.

In Testimony Whereof I have subscribed my name and affixed the facsimile seal of each Company this 25th day of August, 2022.



Edward Sayago, Corporate Secretary
PHILADELPHIA INDEMNITY INSURANCE COMPANY



AGENDA ITEM REQUEST FORM

Hays County Commissioners Court

Date: 11/01/2022

Requested By:

Colby Machacek, County Planner

Sponsor:

Commissioner Smith

Agenda Item

PLN-2023-NP; Anthem, Ph 1C-3 Subdivision (1 Lot). Discussion and possible action to approve final plat and accept fiscal surety for street and drainage improvements. **SMITH/MACHACEK**

Summary

Anthem, Ph 1C-3 Subdivision is a proposed subdivision located off of FM 150 in Precinct 4.

This section includes 1 lot designated for Condominium Style development consisting of 126 units.

Water and wastewater service will be provided by City of Kyle.

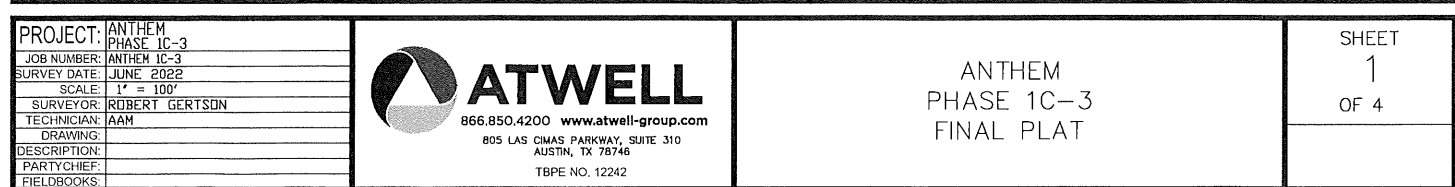
Of the estimated cost for improvements in the amount of \$165,621.80, the remaining cost for improvements amounts to \$140,516.80.

Attachments

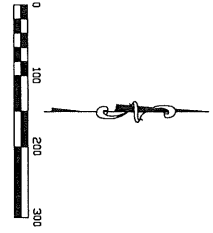
Plat

Bond

General Location Map

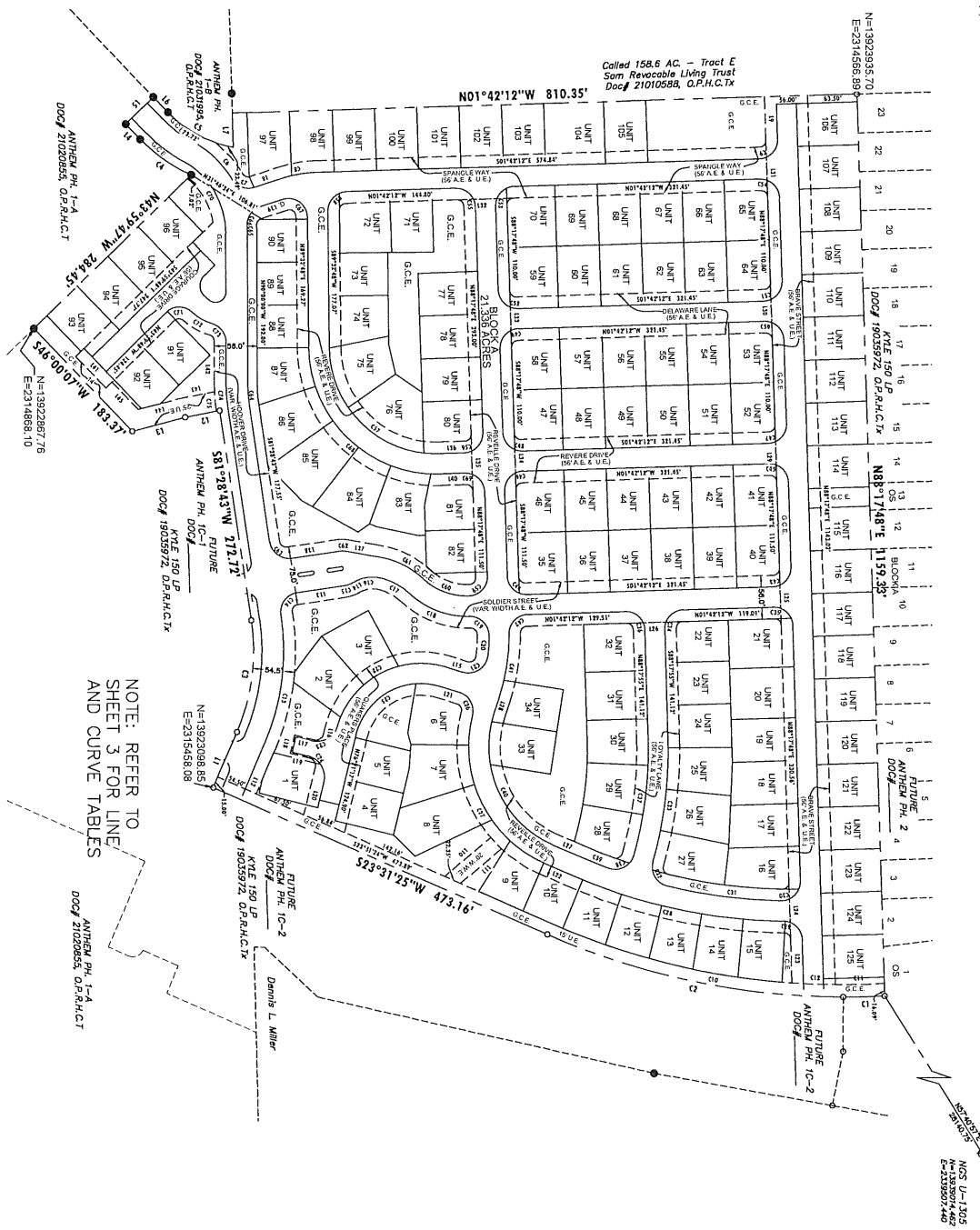


ANTHEM
PHASE 1C-3
FINAL PLAT



EASEMENT ANNOTATIONS AND FUTURE CONDOMINIUM UNITS (FUTURE CONDOMINIUMS SHOWN FOR REFERENCE ONLY)

21.336 ACRES OUT OF THE JOHN COOPER
SURVEY NO. 13, ABSTRACT 100, IN HAYS COUNTY,
TEXAS, AS CONVEYED BY DEED OF RECORD IN
VOLUME 5272, PAGE 475 OF THE OFFICIAL
PUBLIC RECORDS OF HAYS COUNTY, TEXAS



NOTE: REFER TO
SHEET 3 FOR LINE
AND CURVE TABLES

LEGEND:	
●	IRON ROD WITH CAP FOUND
○	IRON ROD WITH CAP SET
△	OPTION SPINDE SET
▲	WAC NAIL SET
⊗	CONCRETE MONUMENT SET
⊕	G.C.E. GENERAL COMMON EASEMENT
⊖	U.E. UTILITY EASEMENT
A.E.	ACCESS EASEMENT
O.P.R.A.C.T. OFFICIAL PUBLIC RECORDS HAYS COUNTY, TEXAS	

PROJECT:	ANTHEM PHASE 1C-3
JOB NUMBER:	ANTHEM PHASE 1C-3
SURVEY DATE:	JUNE 2022
SCALE:	1" = 100'
SURVEYOR:	ROBERT GERTSON
TECHNICIAN:	AAM
DRAWING:	
DESCRIPTION:	
PARTY CHIEF:	
FIELD BOOKS:	



ATWELL
866.850.4200 www.atwell-group.com
805 LAS CINAS PARKWAY, SUITE 310
AUSTIN, TX 78746
TBPE NO. 12242

ANTHEM
PHASE 1C-3
FINAL PLAT

EASEMENT ANNOTATIONS AND FUTURE CONDOMINIUM UNITS LINE AND CURVE TABLES

Line Table		
Line #	Length	Direction
L1	77.85'	N66°28'35"W
L2	45.28'	S11°03'16"E
L3	71.16'	S16°39'14"E
L4	27.15'	S46°00'29"W
L5	50.00'	N43°53'31"W
L6	27.15'	N46°06'29"E
L7	44.12'	S88°38'02"W
L8	39.76'	S17°43'14"E
L9	56.00'	N88°17'48"E
L10	77.80'	N39°57'34"W
L11	69.26'	S39°57'34"E
L12	62.85'	N66°28'35"W
L13	62.85'	N8°31'17"W
L14	5.96'	N27°06'41"W
L15	24.70'	S17°03'13"W
L16	8.39'	S16°21'17"E
L17	25.50'	S13°38'43"W
L18	24.00'	S16°21'17"E
L19	25.50'	N13°38'43"E
L20	62.85'	S16°21'17"E
L21	27.38'	N17°03'13"E
L22	47.36'	N22°11'06"E
L23	56.12'	N88°17'48"E
L24	73.00'	N88°17'48"E
L25	73.00'	N88°17'48"E
L26	73.00'	S17°42'12"E
L27	41.76'	S23°11'06"W
L28	18.44'	N17°26'41"W
L29	73.00'	S88°17'48"W
L30	73.00'	S88°17'48"W

Line Table		
Line #	Length	Direction
L31	73.00'	N88°17'48"E
L32	73.00'	S17°42'12"E
L33	73.00'	N88°17'48"E
L34	73.00'	N88°17'48"E
L35	73.00'	N88°17'48"E
L36	35.19'	S17°42'12"E
L37	36.37'	S10°04'07"W
L38	64.63'	S8°31'17"E
L39	35.56'	N17°43'14"W
L40	35.19'	N17°42'12"W
L41	56.00'	N46°00'12"E
L42	53.91'	N00°00'00"E
L43	42.95'	S11°03'16"E
L44	57.32'	S14°39'14"E
L45	49.25'	S46°00'07"W

Curve Table				
Curve #	Length	Radius	CHORD BEG	CHORD END
C1	53.87'	963.53'	S1°30'52"E	53.66'
C2	394.88'	965.00'	S11°48'04"W	392.12'
C3	146.81'	262.50'	N82°29'56"W	144.91'
C4	80.88'	205.00'	S34°48'19"W	80.36'
C5	97.21'	155.00'	N28°08'26"E	95.65'
C6	52.44'	149.50'	S48°49'34"W	52.16'
C7	10.72'	8.00'	S50°40'22"W	9.94'
C8	49.76'	178.00'	S9°42'43"E	49.60'
C9	13.35'	8.50'	S46°42'12"E	12.02'
C10	441.09'	918.89'	S10°02'09"W	437.03'
C11	62.31'	928.89'	N1°30'34"W	63.50'
C12	56.14'	928.89'	N2°08'57"E	56.13'
C13	180.38'	317.00'	N82°46'40"W	177.95'
C14	12.64'	8.00'	N53°48'00"W	11.37'
C15	15.09'	46.50'	N17°48'59"W	15.02'
C16	25.11'	33.50'	N5°38'30"W	24.52'
C17	33.32'	72.00'	N29°05'06"E	33.02'
C18	97.95'	128.00'	N20°25'23"E	95.56'
C19	13.59'	8.50'	N44°17'59"E	12.19'
C20	27.57'	222.00'	S86°20'51"E	27.55'
C21	14.81'	8.50'	S29°52'05"E	13.01'
C22	208.68'	128.00'	S29°39'02"E	186.32'
C23	15.71'	10.00'	S31°21'17"E	14.14'
C24	15.71'	10.00'	N58°38'43"E	14.14'
C25	117.38'	72.00'	N29°39'02"W	104.81'
C26	13.01'	8.50'	N60°53'16"E	11.77'
C27	253.31'	178.00'	N63°57'13"E	232.47'
C28	286.30'	728.00'	N11°55'08"E	284.45'
C29	13.00'	8.50'	S46°28'29"W	11.77'
C30	13.74'	8.50'	S45°23'44"E	12.29'

Curve Table				
Curve #	Length	Radius	CHORD BEG	CHORD END
C31	149.50'	672.00'	S7°17'07"W	149.19'
C32	13.75'	8.50'	S60°00'55"W	12.30'
C33	166.54'	528.00'	N82°39'55"W	165.85'
C34	13.35'	8.50'	N46°42'09"W	12.02'
C35	13.35'	8.50'	N43°17'48"E	12.02'
C36	13.35'	8.50'	N43°17'48"E	12.02'
C37	148.31'	472.00'	S82°42'01"E	147.70'
C38	13.90'	8.50'	S26°52'00"E	12.40'
C39	37.76'	672.00'	S31°34'31"W	37.75'
C40	181.78'	122.00'	S65°52'12"W	165.42'
C41	91.79'	273.00'	N80°54'14"W	91.38'
C42	13.15'	8.50'	N46°07'00"W	11.88'
C43	13.35'	8.50'	S46°42'12"E	12.02'
C44	13.35'	8.50'	S43°17'48"W	12.02'
C45	13.35'	8.50'	N43°17'48"E	12.02'
C46	13.35'	8.50'	N46°42'12"W	12.02'
C47	13.35'	8.50'	S46°42'12"E	12.02'
C48	13.35'	8.50'	S43°17'48"W	12.02'
C49	13.35'	8.50'	N46°42'12"W	12.02'
C50	13.35'	8.50'	N43°17'48"E	12.02'
C51	13.35'	8.50'	S46°42'12"E	12.02'
C52	13.35'	8.50'	S43°17'48"W	12.02'
C53	13.35'	8.50'	N46°42'12"W	12.02'
C54	13.35'	8.50'	N43°17'48"E	12.02'
C55	13.35'	8.50'	N43°17'48"E	12.02'
C56	13.35'	8.50'	S46°42'12"E	12.02'
C57	194.30'	122.00'	S43°55'18"W	174.41'
C58	13.17'	8.50'	N46°04'42"W	11.89'
C59	13.40'	8.50'	S46°31'39"E	12.06'
C60	54.91'	72.00'	S20°29'42"W	53.59'

Curve Table				
Curve #	Length	Radius	CHORD BEG	CHORD END
C61	76.41'	128.00'	S25°14'26"W	75.28'
C62	15.09'	46.50'	S0°46'25"W	15.02'
C63	14.14'	9.00'	S36°28'43"W	13.73'
C64	27.74'	186.50'	S85°44'22"W	27.71'
C65	10.11'	146.50'	S88°01'20"W	10.11'
C66	11.97'	9.00'	N55°50'17"W	11.11'
C67	15.91'	8.50'	N55°54'47"E	13.69'
C68	283.49'	178.00'	N43°55'18"E	254.46'
C69	13.35'	8.50'	N43°17'48"E	12.02'
C70	66.91'	90.50'	N59°50'26"E	65.40'
C71	12.96'	8.50'	N0°19'14"W	11.74'
C72	38.50'	78.00'	N29°12'51"E	38.11'
C73	10.46'	8.00'	N57°32'12"E	9.72'
C74	36.07'	242.50'	N85°44'22"E	36.03'
C75	24.93'	242.50'	S88°25'24"W	24.91'

ANTHEM PHASE 1C-3 FINAL PLAT

21.336 ACRES OUT OF THE JOHN COOPER
SURVEY NO. 13, ABSTRACT 100 IN HAYS COUNTY,
TEXAS, AS CONVEYED BY DEED OF RECORD IN
VOLUME 5272, PAGE 475 OF THE OFFICIAL
PUBLIC RECORDS OF HAYS COUNTY, TEXAS



ATWELL
866.850.4200 www.atwell-group.com
805 LAS COMAS PARKWAY, SUITE 310
AUSTIN, TX 78746
TBPE NO. 12242

ANTHEM
PHASE 1C-3
FINAL PLAT

SHEET
3
OF 4

PROJECT: ANTHEM
JOB NUMBER: PHASE 1C-3
SURVEY DATE: JUNE 2022
SCALE: 1" = 100'
SURVEYOR: ROBERT GERTSON
TECHNICIAN: AAM
DRAWING:
DESCRIPTION:
PARTY/CHIEF:
FIELD BOOKS:

IRON ROD # 2
 WITH CAP STAMPED "AST" AT THE NORTH
 R/W LINE OF RM150, 400' EAST OF A MAILBOX, 25'
 SOUTH OF A WIRE FENCE AND 18' NORTH OF THE EDGE
 OF PAVEMENT.
 TEXAS COMPROMISE SYSTEM SOUTH CENTRAL ZONE
 COORDINATES:
 N = 13821486.178
 E = 2314866.42
 ELEVATION = 866.51 NAVD88



Phone: 877 816 2800

PO Box 32577
Waco, Texas 76703-4200

SUBDIVISION IMPROVEMENTS PERFORMANCE BOND

BOND NO. CNB-41041-00

KNOW ALL MEN BY THESE PRESENTS:

THAT we, Kyle 150, LP, as Principal, and INSURORS INDEMNITY COMPANY, a corporation organized and doing business and under and by virtue of the laws of the State of Texas and duly licensed to conduct surety business in the State of Texas, as Surety, are held and firmly bound unto Hays County, as Obligee, in the sum of One Hundred and Sixty-Five Thousand Six Hundred and Twenty-One Dollars and Eighty Cents Dollars (\$ 165,621.80) for which payment, well and truly to be made, we bind ourselves, our heirs, executors and successors, jointly and severally firmly by these presents.

THE CONDITION OF THE OBLIGATION IS SUCH THAT:

WHEREAS, the above named Principal, has agreed to construct in _____
Anthem 1C-3 Subdivision, Subdivision, in Kyle the
following improvements: Anthem Phase 1C3, Sidewalks & ADA Ramps, Street signage, striping & lights and Hydro-mulching.

NOW, THEREFORE, the condition of this obligation is such, that if the above Principal shall well and truly perform said agreement or agreements during the original term thereof or of any extension of said term that may be granted by the Obligee with or without notice to the Surety, this obligation shall be void, otherwise it shall remain in full force and effect.

IN WITNESS WHEREOF, the seal and signature of said Principal is hereto affixed and the corporate seal and the name of the said Surety is hereto affixed and attested by its duly authorized Attorney-in-Fact, this 8th day of September, 2022.

Kyle 150, LP

Principal

BY: 

INSURORS INDEMNITY COMPANY

BY: 

Attorney-in-Fact

**POWER OF ATTORNEY of INSURORS INDEMNITY COMPANY
Waco, Texas**

KNOW ALL PERSONS BY THESE PRESENTS:

Number: CNB-41041-00

That INSURORS INDEMNITY COMPANY, Waco, Texas, organized and existing under the laws of the State of Texas, and authorized and licensed to do business in the State of Texas and the United States of America, does hereby make, constitute and appoint

JD Steanson of the City of Austin, State of TX

as Attorney in Fact, with full power and authority hereby conferred upon him to sign, execute, acknowledge and deliver for and on its behalf as Surety and as its act and deed, all of the following classes of document, to-wit:

Indemnity, Surety and Undertakings that may be desired by contract, or may be given in any action or proceeding in any court of law or equity; Indemnity in all cases where indemnity may be lawfully given and with full power and authority to execute consents and waivers to modify or change or extend any bond or document executed for this Company.

INSURORS INDEMNITY COMPANY

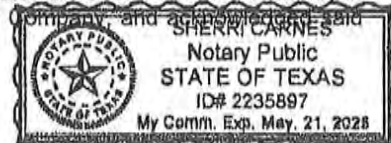
Attest: Tammy Tieperman
Tammy Tieperman, Secretary

By: Dave E. Talbert
Dave E. Talbert, President

State of Texas
County of McLennan

On the 11th day of November, 2014, before me a Notary Public in the State of Texas, personally appeared Dave E. Talbert and Tammy Tieperman, who being by me duly sworn, acknowledged that they executed the above Power of Attorney in their capacities as President, and Corporate Secretary, respectively, of Insurors Indemnity Company, and acknowledged said Power of Attorney to be the voluntary act and deed of the Company.

Sherril Carnes
Notary Public, State of Texas



Insurors Indemnity Company certifies that this Power of Attorney is granted under and by authority of the following resolutions of the Company adopted by the Board of Directors on November 11, 2014:

RESOLVED, that all bonds, undertakings, contracts or other obligations may be executed in the name of the Company by persons appointed as Attorney in Fact pursuant to a Power of Attorney issued in accordance with these Resolutions. Said Power of Attorney shall be executed in the name and on behalf of the Company either by the Chairman and CEO or the President, under their respective designation. The signature of such officer and the seal of the Company may be affixed by facsimile to any Power of Attorney, and, unless subsequently revoked and subject to any limitation set forth therein, any such Power of Attorney or certificate bearing such facsimile signature and seal shall be valid and binding upon the Company and any such power so executed and certified by facsimile signature and seal shall be valid and binding upon the Company with respect to any bond or undertaking to which it is validly attached.

RESOLVED, that Attorneys in Fact shall have the power and authority, subject to the terms and limitations of the Power of Attorney issued to them, to execute and deliver on behalf of the Company and to attach the seal of the Company to any and all bonds and undertakings, and any such instrument executed by such Attorneys in Fact shall be binding upon the Company as if signed by an Executive Officer and sealed and attested to by the Secretary or Assistant Secretary of the Company.

I, Tammy Tieperman, Secretary of Insurors Indemnity Company, do hereby certify that the foregoing is a true excerpt from the Resolutions of the said Company as adopted by its Board of Directors on November 11, 2014, and that this Resolution is in full force and effect. I certify that the foregoing Power of Attorney is in full force and effect and has not been revoked.

In Witness Whereof, I have set my hand and the seal of INSURORS INDEMNITY COMPANY on this 8th day of September, 2022.

Tammy Tieperman
Tammy Tieperman, Secretary

NOTE: IF YOU HAVE ANY QUESTION REGARDING THE VALIDITY OR WORDING OF THIS POWER OF ATTORNEY, PLEASE CALL 800 933 7444 OR WRITE TO US AT P. O. BOX 32577, WACO, TEXAS 76703 OR EMAIL US AT BONDDEPT@INSURORSINDEMNITY.COM.



Phone: 877 816 2800

PO Box 32577
Waco, Texas 76703-4200

IMPORTANT NOTICE - AVISO IMPORTANTE

To obtain information or make a complaint:

You may call Insurors Indemnity Company's toll-free telephone number for information or to make a complaint at:

1-877-816-2800

You may also write to Insurors Indemnity Company at:

P.O. Box 32577
Waco, TX 76703-4200
Or
225 South Fifth Street
Waco, TX 76701

You may contact the Texas Department of Insurance to obtain information on companies, coverages, rights or complaints at

1-800-252-3439

You may write the Texas Department of Insurance at:

Consumer Protection (111-1A)
P.O. Box 149091
Austin, TX 78714-9091
Fax: 512-490-1007

Web: <http://www.tdi.texas.gov>

E-mail: ConsumerProtection@tdi.texas.gov

PREMIUM OR CLAIM DISPUTES:

Should you have a dispute concerning your premium or about a claim, you should contact the agent or the company first. If the dispute is not resolved, you may contact the Texas Department of Insurance.

ATTACH THIS NOTICE TO YOUR POLICY:

This notice is for information only and does not become a part or condition of the attached document.

Para obtener informacion o para someter una queja:

Usted puede llamar al numero de telefono gratis de Insurors Indemnity Company's para informacion o para someter una queja al

1-877-816-2800

Usted tambien puede escribir a Insurors Indemnity Company:

P.O. Box 32577
Waco, TX 76703-4200
O
225 South Fifth Street
Waco, TX 76701

Puede comunicarse con el Departamento de Seguros de Texas para obtener informacion acerca de companias, coberturas, derechos o quejas al

1-800-252-3439

Puede escribir al Departamento de Seguros de Texas:

Consumer Protection (111-1A)
P.O. Box 149091
Austin, TX 78714-9091
Fax: 512-490-1007

Web: <http://www.tdi.texas.gov>

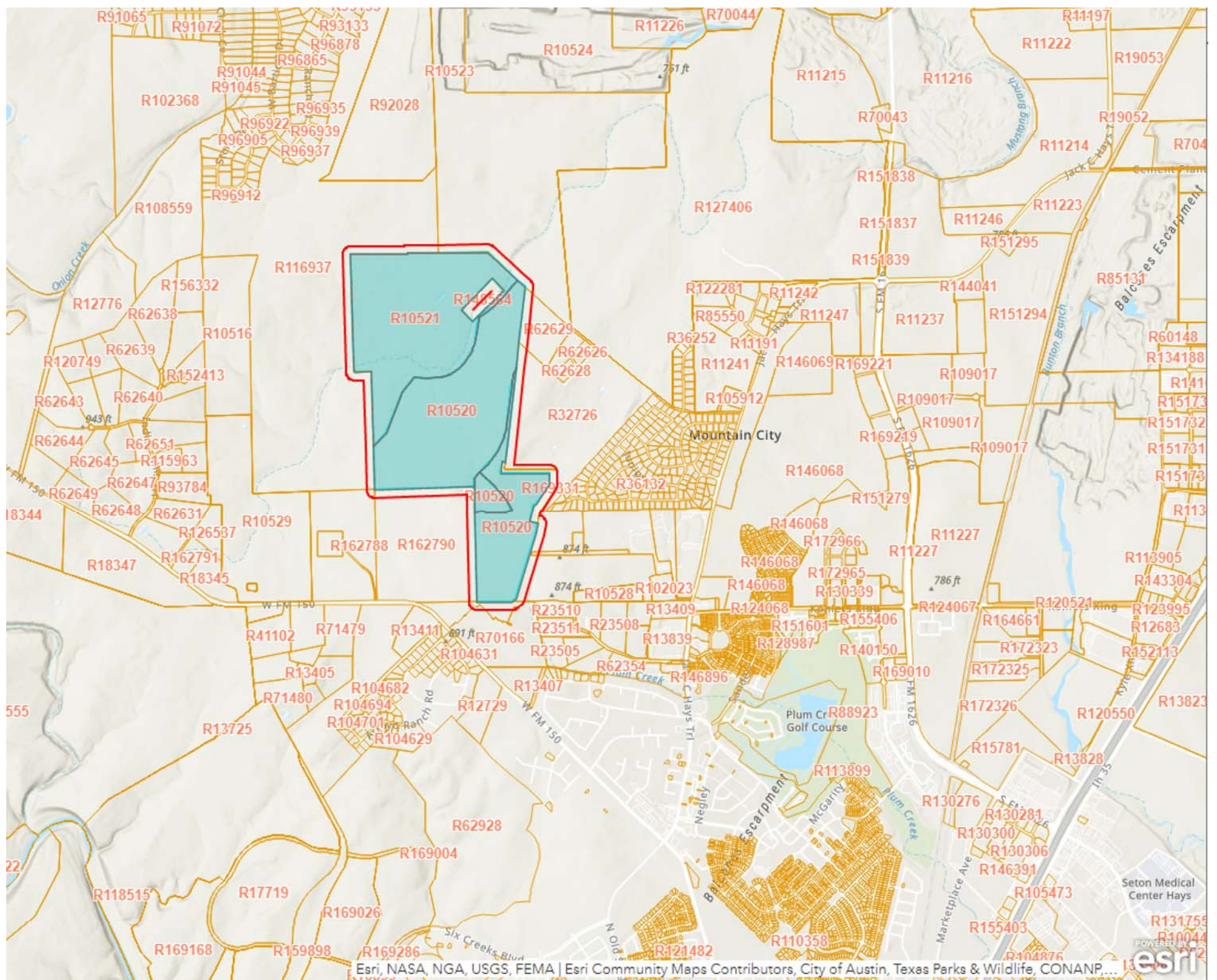
E-mail: ConsumerProtection@tdi.texas.gov

DISPUTAS SOBRE PRIMAS O RECLAMOS:

Si tiene una disputa concemiente a su prima o a un reclamo, debe comunicarse con el agente o la compania primero. Si no se resuelve la disputa, puede entonces comunicarse con el departamento (TDI).

UNA ESTE AVISO A SU POLIZA:

Este aviso es solo para proposito de informacion y no se convierte en parte o condicion del documento adjunto.





AGENDA ITEM REQUEST FORM

Hays County Commissioners Court

Date: 11/01/2022

Requested By:

Colby Machacek, County Planner

Sponsor:

Commissioner Smith

Agenda Item

PLN-2024-NP; Anthem, Ph 1C-2 Subdivision (2 Lots). Discussion and possible action to approve final plat and accept fiscal surety for street and drainage improvements. **SMITH/MACHACEK**

Summary

Anthem, Ph 1C-2 Subdivision is a proposed subdivision located off of FM 150 in Precinct 4.

This section includes 2 lots designated for Open Space and Drainage Easement.

Water and wastewater service will be provided by City of Kyle.

Of the estimated cost for improvements in the amount of \$321,316.20, the remaining cost for improvements amounts to \$38,757.80.

Attachments

Plat

Bond

General Location Map

STATE OF TEXAS :
COUNTY OF HAYS :

KNOW ALL MEN BY THESE PRESENTS:

THAT, KYLE 150 LP, OWNER OF 5.004 ACRES OUT OF THE JOHN COOPER SURVEY NO. 13, ABSTRACT 100 AND ANDREW DUNN LEAGUE ABSTRACT NUMBER 4 IN HAYS COUNTY, TEXAS, AS CONVEYED BY DEED OF RECORD IN VOLUME 5272, PAGE 475 OF THE OFFICIAL PUBLIC RECORDS OF HAYS COUNTY, TEXAS, DO HEREBY SUBDIVIDE 5.004 ACRES OF LAND IN ACCORDANCE WITH THE ATTACHED MAP OR PLAT TO BE KNOWN AS:

"ANTHEM PHASE 1C-2 FINAL PLAT"

SUBJECT TO ANY EASEMENTS AND/OR RESTRICTIONS HERETOFORE GRANTED, AND DO HEREBY DEDICATE TO THE PUBLIC USE OF THE STREETS AND EASEMENTS HEREON.

WITNESS MY HAND THIS THE _____ DAY OF _____, 20____ A.D.

AUSTIN, TEXAS 78746

BY: _____
CLARK WILSON FOR KYLE 150 LP
5312 PARK HOLLOW LANE, AUSTIN, TX 78746

STATE OF TEXAS :
COUNTY OF TRAVIS :

BEFORE ME, THE UNDERSIGNED AUTHORITY, A NOTARY PUBLIC IN AND FOR SAID COUNTY AND STATE, ON THIS DAY PERSONALLY APPEARED CLARK WILSON TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATION THEREIN EXPRESSED.

GIVEN UNDER MY HAND, THIS THE _____ DAY OF _____, 20____ A.D.

NOTARY PUBLIC IN AND FOR TRAVIS COUNTY, TEXAS

FINAL PLAT NOTES:

1. THIS FINAL PLAT IS LOCATED ENTIRELY WITHIN HAYS COUNTY, ENTIRELY WITHIN THE BOUNDARY OF THE ANTHEM M.U.D. NO. 1.
2. NO PORTION OF THIS PLAT LIES WITHIN THE BOUNDARIES OF THE EDWARDS AQUIFER RECHARGE ZONE.
3. A PORTION OF THIS PLAT LIES WITHIN THE BOUNDARIES OF THE EDWARDS AQUIFER CONTRIBUTING ZONE.
4. THIS PLAT IS LOCATED WITHIN THE BOUNDARY OF THE HAYS CONSOLIDATED INDEPENDENT SCHOOL DISTRICT.
5. NO PORTION OF THIS PROPERTY IS LOCATED WITHIN A DESIGNATED 100-YEAR FLOODPLAIN AS DELINEATED ON THE FLOOD INSURANCE RATE MAP NO. 48209C 0270 F, EFFECTIVE DATE OF SEPTEMBER 2, 2005, AS PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.
6. STREETS TO BE ACCESSED WILL BE CONSTRUCTED WITH CURB AND GUTTER.
7. LINEAR FOOTAGE OF STREET IMPROVEMENTS: 2,002 L.F.
8. THIS PLAT HAS BEEN PREPARED IN ACCORDANCE WITH THE HAYS COUNTY REQUIREMENTS AS APPLICABLE TO THIS DEVELOPMENT.
9. NO OBJECT INCLUDING FENCING OR LANDSCAPING WHICH WOULD INTERFERE WITH CONVEYANCE OF STORM WATER SHALL BE PLACED OR ERECTED WITHIN DRAINAGE EASEMENTS.
10. GREENBELT DRAINAGE EASEMENTS SHALL BE MAINTAINED BY THE HOME OWNERS ASSOCIATION.
11. SIDEWALKS SHALL BE CONSTRUCTED ALONG AT LEAST ON SIDE OF EACH RESIDENTIAL STREET AND MAINTAINED BY ANTHEM MUD NO. 1.
12. THIS SUBDIVISION IS WITHIN THE ETJ OF THE CITY OF MOUNTAIN CITY, TEXAS.
13. GAS IS PROVIDED BY CENTERPOINT ENERGY.
14. TELEPHONE/CABLE PROVIDED BY SPECTRUM.
15. ELECTRICITY PROVIDED BY FEDERNALES ELECTRIC COMPANY.
16. THE WASTEWATER TREATMENT PLANT IS OWNED AND OPERATED BY THE CITY OF KYLE, TEXAS.
17. WASTEWATER SERVICES IS PROVIDED BY THE CITY OF KYLE, TEXAS (SEE NOTE ABOVE).
18. WATER IS PROVIDED BY THE CITY OF KYLE, TEXAS.
19. THE REQUIREMENT CONCERNING CONSTRUCTION STANDARDS FOR MAILBOXES INSTALLED WITHIN THE RIGHT-OF-WAY OF STREETS AND HIGHWAYS AND REQUIRING ALL SUCH MAILBOXES TO BE MADE OF COLLAPSIBLE MATERIALS AS DEFINED IN THE ORDINANCE. COMMUNITY MAILBOXES SHALL HAVE A SEPARATE LIGHT/STREET LIGHT TO ILLUMINATE THE MAILBOX AREA.
20. 15' UTILITY EASEMENTS SHALL BE LOCATED ALONG EACH SIDE OF DEDICATED RIGHT OF WAY.
21. FOR THE TWO (2), TEN (10), TWENTY-FIVE (25), AND ONE HUNDRED (100) YEAR, TWENTY-FOUR (24) HOUR STORM EVENTS, POST DEVELOPED CONDITION RUNOFF RATES SHALL BE LESS THAN OR EQUAL TO THE PRE-DEVELOPED CONDITION RUNOFF RATES. PRE AND POST DEVELOPMENT RUNOFF CALCULATIONS SHALL BE INCLUDED WITH THE CONSTRUCTION DRAWINGS FOR THIS SUBDIVISION.
22. THIS SITE IS LOCATED WITHIN HAYS COUNTY ESD #5.
23. CONSTRUCTION STANDARDS AND SPECIFICATIONS WILL BE AS AGREED TO IN THE PHASING AGREEMENT APPROVED BY THE HAYS COUNTY COMMISSIONER'S COURT ON APRIL 4, 2017, AND THE FIRST AMENDMENT TO THE PHASING AGREEMENT EXECUTED DECEMBER 17, 2019.
24. NO RESIDENTIAL LOT WITHIN ANTHEM SUBDIVISION SHALL BE PERMITTED DIRECT ACCESS TO W. RM150.
25. INGRESS AND EGRESS IS PROHIBITED FROM ANTHEM PARKWAY.
26. THE ANTHEM PHASE 1C-2 PROJECT AREA LIES WITHIN THE BOUNDARIES OF THE EDWARDS AQUIFER AUTHORITY AND THE BARTON SPRINGS EDWARDS AQUIFER CONSERVATION DISTRICT.
27. POST CONSTRUCTION STORMWATER CONTROL MEASURES SHALL HAVE A MAINTENANCE PLAN. THE MAINTENANCE PLAN MUST BE FILED IN THE REAL PROPERTY RECORDS OF HAYS COUNTY. THE OWNER OPERATOR OF ANY NEW DEVELOPMENT OR REDEVELOPMENT SHALL DEVELOP AND IMPLEMENT A MAINTENANCE PLAN ADDRESSING MAINTENANCE REQUIREMENTS FOR ANY STRUCTURAL CONTROL MEASURES INSTALLED ON SITE. OPERATION AND MAINTENANCE PERFORMED SHALL BE DOCUMENTED AND RETAINED AND MADE AVAILABLE FOR REVIEW UPON REQUEST.
28. ALL STREETS TO BE PAVED, PUBLIC AND MAINTAINED BY THE COUNTY.

IN ORDER TO PROMOTE SAFE USE OF ROADWAYS AND PRESERVE THE CONDITIONS OF PUBLIC ROADWAYS, NO DRIVEWAY CONSTRUCTED ON ANY LOT WITHIN THIS SUBDIVISION SHALL BE PERMITTED TO ACCESS ONTO A PUBLIC ROADWAY UNLESS (A) A PERMIT FOR USE OF THE COUNTY ROADWAY RIGHT-OF-WAY HAS BEEN ISSUED UNDER CHAPTER 751, AND, (B) THE DRIVEWAY SATISFIES THE MINIMUM SPACING REQUIREMENT SET FORTH IN CHAPTER 721 OF THE HAYS COUNTY DEVELOPMENT REGULATIONS.

IN APPROVING THIS PLAT BY THE COMMISSIONERS COURT OF HAYS COUNTY, TEXAS, IT IS UNDERSTOOD THAT THE BUILDING OF ALL STREETS, ROADS, AND OTHER PUBLIC THOROUGHFARES DELINEATED AND SHOWN ON THIS PLAT, AND ALL BRIDGES AND CULVERTS NECESSARY TO BE CONSTRUCTED OR PLACED IN SUCH STREETS, ROADS, OR OTHER PUBLIC THOROUGHFARES, OR IN CONNECTION THEREWITH SHALL BE THE RESPONSIBILITY OF THE OWNER AND/OR THE DEVELOPER OF THE TRACT OF LAND COVERED BY THIS PLAT IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS PRESCRIBED BY THE COMMISSIONERS COURT OF HAYS COUNTY, TEXAS AND THE COMMISSIONERS COURT OF HAYS COUNTY, TEXAS, ASSUMES NO OBLIGATION TO BUILD THE STREETS, ROADS, OR OTHER PUBLIC THOROUGHFARES SHOWN ON THIS PLAT OR OF CONSTRUCTING ANY BRIDGES OR CULVERTS IN CONNECTION THEREWITH.

STATE OF TEXAS :
COUNTY OF HAYS :

I HEREBY CERTIFY THAT THIS PLAT WAS PREPARED FROM AN ACCURATE AND ON-THE-GROUND SURVEY OF THE PROPERTY MADE UNDER MY SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE, AND THAT THE CORNER MONUMENTS WERE PROPERLY PLACED UNDER MY PERSONAL SUPERVISION, IN ACCORDANCE WITH THE SUBDIVISION REGULATIONS OF HAYS COUNTY, TEXAS.

NOT FOR RECORDATION

ROBERT GERTSON, RPLS 6367
ATWELL-GROUP, LLC
805 LAS CIMAS PARKWAY, SUITE 310
AUSTIN, TEXAS 78746

STATE OF TEXAS :
COUNTY OF HAYS :

I, DAVID B. FUSILIER, P.E., A LICENSED PROFESSIONAL ENGINEER, DO HEREBY CERTIFY THAT NO PORTION OF ANY RESIDENTIAL LOT IS LOCATED WITHIN A DESIGNATED 100-YEAR FLOOD ZONE AREA, AS DELINEATED ON THE FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY PANEL NO. 48209C 0290 F, EFFECTIVE DATE OF SEPTEMBER 2, 2005. ADDITIONALLY, STORM WATER RUNOFF FROM THE 100-YEAR STORM EVENT SHALL BE CONTAINED WITHIN THE DRAINAGE FACILITIES TO BE LOCATED WITHIN THE RIGHTS-OF-WAY AND/OR GREENBELT DRAINAGE LOTS OR EASEMENTS SHOWN ON THE ATTACHED PLAT.

NOT FOR RECORDATION

DAVID B. FUSILIER, P.E., 87710
ATWELL-GROUP, LLC
805 LAS CIMAS PARKWAY, SUITE 310
AUSTIN, TEXAS 78746

THIS PLAT OF ANTHEM PHASE 1C-2, HAS BEEN SUBMITTED TO AND CONSIDERED BY THE PLANNING COMMISSION OF THE CITY OF MOUNTAIN CITY, TEXAS IS HEREBY APPROVED BY SUCH COMMISSION.

THIS THE _____ DAY OF _____, 20____

BY :

CHAIRMAN

ATTEST:

ANTHEM PHASE 1C-2 IS LOCATED ENTIRELY WITHIN THE BOUNDARIES AND SERVICE AREA OF THE CITY OF KYLE, TEXAS. WATER AND WASTEWATER SERVICE, AS REGULATED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY, WILL BE PROVIDED TO ALL LOTS REQUIRING SERVICE THROUGH THE CITY OF KYLE'S WATER AND WASTEWATER SYSTEM.

HARPER WILDER, PUBLIC WORKS DIRECTOR
CITY OF KYLE, TEXAS

DATE

BRANDON BRYDSON, PRESIDENT
ANTHEM M.U.D. NO. 1

DATE

SEWAGE DISPOSAL / INDIVIDUAL WATER SUPPLY CERTIFICATION, TO-WIT:

NO STRUCTURE IN THIS SUBDIVISION SHALL BE OCCUPIED UNTIL CONNECTED TO AN INDIVIDUAL WATER SUPPLY OR A STATE - APPROVED COMMUNITY WATER SYSTEM. DUE TO DECLINING WATER SUPPLIES AND DIMINISHING WATER QUALITY, PROSPECTIVE PROPERTY OWNERS ARE CAUTIONED BY HAYS COUNTY TO QUESTION THE SELLER CONCERNING GROUND WATER AVAILABILITY. RAIN WATER COLLECTION IS ENCOURAGED AND IN SOME AREAS MAY OFFER THE BEST RENEWABLE WATER RESOURCE.

NO STRUCTURE IN THIS SUBDIVISION SHALL BE OCCUPIED UNTIL CONNECTED TO A PUBLIC SEWER SYSTEM OR TO AN ON - SITE WASTEWATER SYSTEM WHICH HAS BEEN APPROVED AND PERMITTED BY HAYS COUNTY DEVELOPMENT SERVICES.

NO CONSTRUCTION OR OTHER DEVELOPMENT WITHIN THIS SUBDIVISION MAY BEGIN UNTIL ALL HAYS COUNTY DEVELOPMENT PERMIT REQUIREMENTS HAVE BEEN MET.

MARCUS PACHECO, DIRECTOR
HAYS COUNTY DEVELOPMENT SERVICES

DATE

ERIC VAN GAASBEEK, CFM, RS
HAYS COUNTY FLOODPLAIN ADMINISTRATOR

DATE

STATE OF TEXAS :
COUNTY OF HAYS :

I, ELAINE HANSON CARDENAS, COUNTY CLERK OF HAYS COUNTY, TEXAS, DO HEREBY CERTIFY THAT ON THE _____ DAY OF _____, 20____ A.D., THE COMMISSIONERS COURT OF HAYS COUNTY, TEXAS PASSED AN ORDER AUTHORIZING THE FILING FOR RECORD OF THIS PLAT AND SAID ORDER HAS BEEN DULY ENTERED IN THE MINUTES OF SAID COURT INSTRUMENT NUMBER _____.

WITNESS MY HAND AND SEAL OF OFFICE, THIS THE _____ DAY OF _____, 20____ A.D.

RUBEN BECERRA
COUNTY JUDGE
HAYS COUNTY, TEXAS

ELAINE HANSON CARDENAS
COUNTY CLERK
HAYS COUNTY, TEXAS

STATE OF TEXAS :
COUNTY OF HAYS :

I, ELAINE HANSON CARDENAS, COUNTY CLERK OF HAYS COUNTY, TEXAS DO HEREBY CERTIFY THAT THE FOREGOING INSTRUMENT IN WRITING WITH ITS CERTIFICATE OF AUTHENTICATION WAS FILED FOR RECORD IN MY OFFICE ON THE _____ DAY OF _____, 20____ A.D. AT _____ O'CLOCK _____ M. IN THE PLAT RECORDS OF HAYS COUNTY, TEXAS IN INSTRUMENT NO. _____, WITNESS MY HAND AND SEAL OF OFFICE, THIS THE _____ DAY OF _____, 20____ A.D.

ELAINE HANSON CARDENAS
COUNTY CLERK
HAYS COUNTY, TEXAS

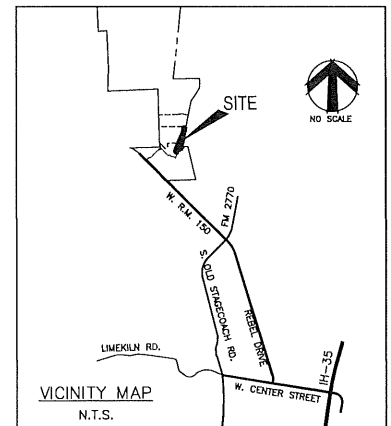
1. BEARINGS ARE REFERENCED TO TEXAS COORDINATE SYSTEM, SOUTH CENTRAL ZONE, NAD 83.
2. ELEVATIONS ARE BASED ON NAVD 1988 DATUM.
3. 1/2" IRON RODS WITH CAPS SET AT ALL CORNERS, UNLESS OTHERWISE NOTED.

TBM #1
IRON ROD WITH CAP STAMPED "AST" AT THE NORTH RAW LINE OF RM150, 8.5' NE OF THE NW CORNER ON SAFETY END TREATMENT OF 18" CMP, 21" NORTH OF THE NORTHERN EDGE OF PAVEMENT AND 5' WEST OF A GRAVEL DRIVE.

TEXAS COORDINATE SYSTEM SOUTH CENTRAL ZONE
COORDINATES:
N= 13923074.71
E= 2313177.69
ELEVATION = 871.77 NAVD88

TBM #2
IRON ROD WITH CAP STAMPED "AST" AT THE NORTH RAW LINE OF RM150, 400' EAST OF A MAILBOX, 25' SOUTH OF A WIRE FENCE AND 18' NORTH OF THE EDGE OF PAVEMENT.

TEXAS COORDINATE SYSTEM SOUTH CENTRAL ZONE
COORDINATES:
N= 13921466.178
E= 2314666.42
ELEVATION = 866.51 NAVD88

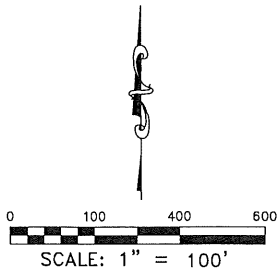


PROJECT:	ANTHEM PHASE 1C-2
JOB NUMBER:	ANTHEM 1C-2
SURVEY DATE:	APRIL 2022
SCALE:	1" = 100'
SURVEYOR:	ROBERT GERTSON
TECHNICIAN:	EB
DRAWING:	
DESCRIPTION:	
PARTY CHIEF:	
FIELD BOOKS:	

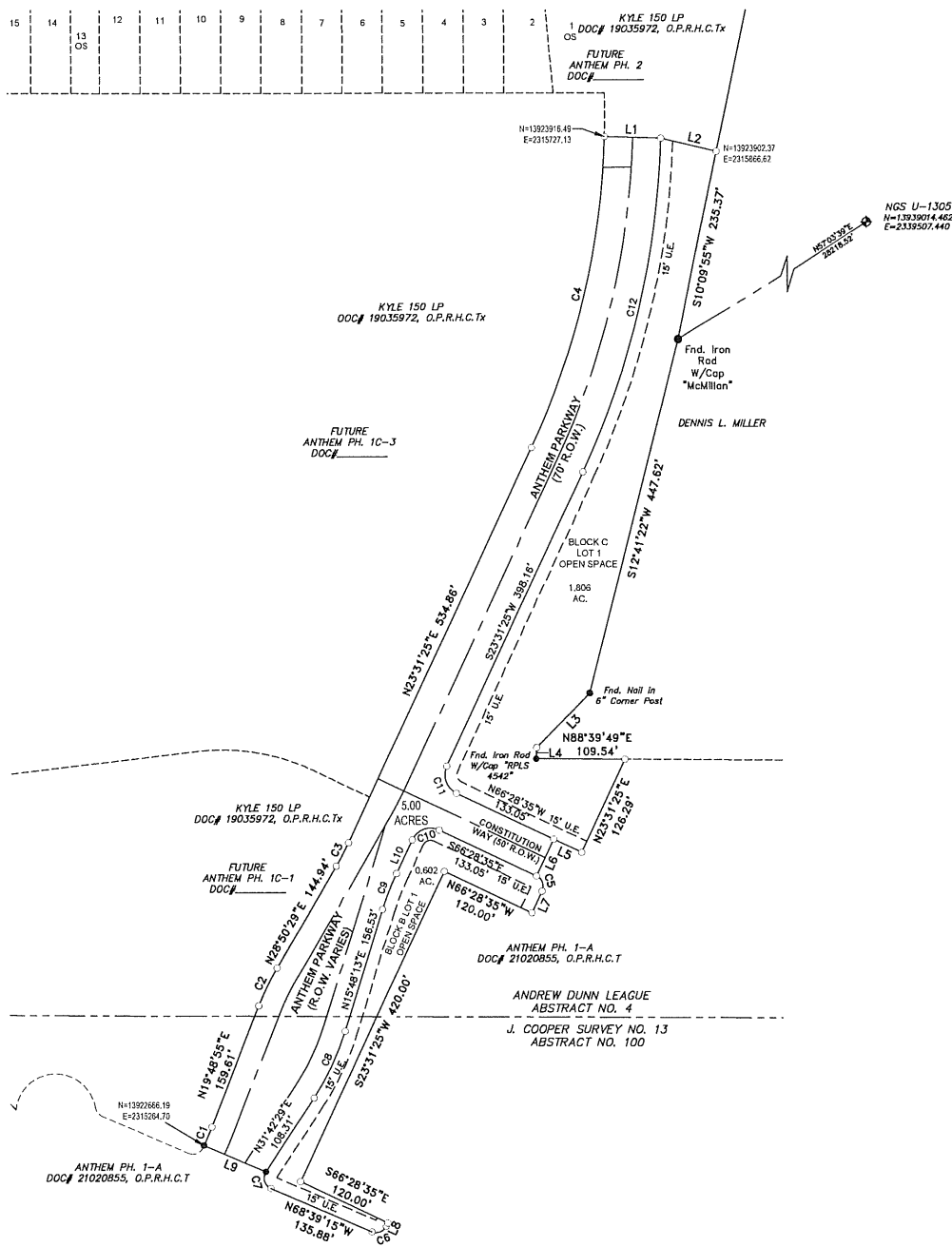
 **ATWELL**
866.850.4200 www.atwell-group.com
805 LAS CIMAS PARKWAY, SUITE 310
AUSTIN, TX 78746
TBPE NO. 12242

ANTHEM PHASE 1C-2 FINAL PLAT

SHEET
1
OF 2



LEGEND:	
●	IRON ROD WITH CAP FOUND
○	IRON ROD WITH CAP SET
☆	COTTON SPINDLE SET
△	MAG NAIL SET
□	CONCRETE MONUMENT SET
D.E.	DRAINAGE ESMT.
U.E.	UTILITY ESMT.
W.W.E.	WASTEWATER EASEMENT
	SIDEWALK LOCATION
	O.P.R.H.C.T., OFFICIAL PUBLIC RECORDS
	HAYS COUNTY, TEXAS



TOTAL NO. OPEN SPACE, & DRAINAGE EASEMENT LOTS: 2 (2.408 AC.)
TOTAL NO. BLOCKS: 2

LOT SIZE	NO.
>10 ACRES	0
5 TO 10 ACRES	0
2 TO 5 ACRES	0
1 TO 2 ACRES	1
<1 ACRE	1

LOT	BLOCK	ACREAGE
1/DE	B	0.602 AC
1/DE	C	1.806 AC

LOT AREA	2.408 AC.
STREET ROW AREA	2.596 AC.
TOTAL AREA	5.004 AC.

CENTERLINE STREET LINEAR FOOTAGE			
STREET NAME	ROW WIDTH	LENGTH	TYPE
ANHEM PARKWAY	70' VARIES	1,809	COLLECTOR
CONSTITUTION WAY	50'	193	RESIDENTIAL

TOTAL LINEAR FEET OF STREET ROW = 2,002

LINE DATA TABLE		
LINE #	DIRECTION	LENGTH
L1	S89°55'11"E	70.00'
L2	S78°35'17"E	70.90'
L3	S42°49'53"W	93.56'
L4	S0°59'19"W	13.67'
L5	N66°28'35"W	38.05'
L6	S23°31'25"W	50.00'
L7	S23°31'25"W	29.22'
L8	S23°31'25"W	4.20'
L9	N68°44'54"W	83.10'
L10	N23°31'25"E	45.85'

CURVE DATA TABLE					
CURVE #	DELTA	RADIUS	LENGTH	CHORD DIRECTION	CHORD LENGTH
C1	4°03'43"	347.50'	24.64'	N21°50'46"E	24.63'
C2	9°01'34"	327.50'	51.59'	N24°19'42"E	51.54'
C3	5°19'04"	350.00'	32.48'	N26°10'57"E	32.47'
C4	23°26'35"	965.00'	394.84'	N11°48'07"E	392.09'
C5	90°00'00"	14.00'	21.99'	S21°28'35"E	19.80'
C6	87°49'20"	14.00'	21.46'	S67°26'05"W	19.42'
C7	100°21'44"	14.00'	24.52'	N18°28'23"W	21.51'
C8	15°54'16"	327.50'	90.91'	N23°45'21"E	90.82'
C9	7°43'12"	350.00'	47.16'	N19°39'49"E	47.12'
C10	90°00'00"	25.00'	39.27'	N68°31'25"E	35.36'
C11	90°00'00"	25.00'	39.27'	S21°28'35"E	35.36'
C12	23°26'35"	1035.00'	423.48'	S11°48'07"W	420.53'

PROJECT:	ANHEM PHASE 1C-2
JOB NUMBER:	ANHEM 1C-2
SURVEY DATE:	APRIL 2022
SCALE:	1" = 100'
SURVEYOR:	ROBERT GERTSON
TECHNICIAN:	EB
DRAWING:	
DESCRIPTION:	
PARTYCHIEF:	
FIELDBOOKS:	

ATWELL
866.850.4200 www.atwell-group.com
805 LAS CIMAS PARKWAY, SUITE 310
AUSTIN, TX 78746
TBPE NO. 12242

ANHEM
PHASE 1C-2
FINAL PLAT

SHEET
2
OF 2

PO Box 32577
Waco, Texas 76703-4200

SUBDIVISION IMPROVEMENTS PERFORMANCE BOND

BOND NO. CNB-41045-00

KNOW ALL MEN BY THESE PRESENTS:

THAT we, Kyle 150, LP, as Principal, and INSURORS INDEMNITY COMPANY, a corporation organized and doing business and under and by virtue of the laws of the State of Texas and duly licensed to conduct surety business in the State of Texas, as Surety, are held and firmly bound unto Hays County, as Obligee, in the sum of Three Hundred and Twenty-One Thousand Three Hundred and Sixteen Dollars and Twenty Cents Dollars (\$ 321,316.20) for which payment, well and truly to be made, we bind ourselves, our heirs, executors and successors, jointly and severally firmly by these presents.

THE CONDITION OF THE OBLIGATION IS SUCH THAT:

WHEREAS, the above named Principal, has agreed to construct in _____
Anthem IC-2, Subdivision, in Kyle the
 following improvements: TBPE Firm No. 12242 Anthem IC-2, Curb, gutters, sidewalks & ADA ramps, street signage, furnish & install streetlighting .

NOW, THEREFORE, the condition of this obligation is such, that if the above Principal shall well and truly perform said agreement or agreements during the original term thereof or of any extension of said term that may be granted by the Obligee with or without notice to the Surety, this obligation shall be void, otherwise it shall remain in full force and effect.

IN WITNESS WHEREOF, the seal and signature of said Principal is hereto affixed and the corporate seal and the name of the said Surety is hereto affixed and attested by its duly authorized Attorney-in-Fact, this 8th day of September, 2022.

Kyle 150, LP Principal

BY: [Signature]

INSURORS INDEMNITY COMPANY

BY: [Signature] Attorney-in-Fact

**POWER OF ATTORNEY of INSURORS INDEMNITY COMPANY
Waco, Texas**

KNOW ALL PERSONS BY THESE PRESENTS:

Number: CNB-41045-00

That INSURORS INDEMNITY COMPANY, Waco, Texas, organized and existing under the laws of the State of Texas, and authorized and licensed to do business in the State of Texas and the United States of America, does hereby make, constitute and appoint

JD Steanson of the City of Austin, State of TX

as Attorney in Fact, with full power and authority hereby conferred upon him to sign, execute, acknowledge and deliver for and on its behalf as Surety and as its act and deed, all of the following classes of document, to-wit:

Indemnity, Surety and Undertakings that may be desired by contract, or may be given in any action or proceeding in any court of law or equity; Indemnity in all cases where indemnity may be lawfully given and with full power and authority to execute consents and waivers to modify or change or extend any bond or document executed for this Company.

INSURORS INDEMNITY COMPANY

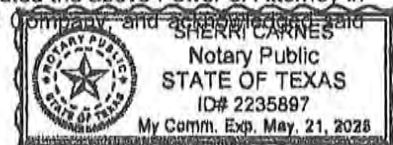
Attest: Tammy Tieperman
Tammy Tieperman, Secretary

By: Dave E. Talbert
Dave E. Talbert, President

State of Texas
County of McLennan

On the 11th day of November, 2014, before me a Notary Public in the State of Texas, personally appeared Dave E. Talbert and Tammy Tieperman, who being by me duly sworn, acknowledged that they executed the above Power of Attorney in their capacities as President, and Corporate Secretary, respectively, of Insurors Indemnity Company, and acknowledged said Power of Attorney to be the voluntary act and deed of the Company.

Sherri Carnes
Notary Public, State of Texas



Insurors Indemnity Company certifies that this Power of Attorney is granted under and by authority of the following resolutions of the Company adopted by the Board of Directors on November 11, 2014:

RESOLVED, that all bonds, undertakings, contracts or other obligations may be executed in the name of the Company by persons appointed as Attorney in Fact pursuant to a Power of Attorney issued in accordance with these Resolutions. Said Power of Attorney shall be executed in the name and on behalf of the Company either by the Chairman and CEO or the President, under their respective designation. The signature of such officer and the seal of the Company may be affixed by facsimile to any Power of Attorney, and, unless subsequently revoked and subject to any limitation set forth therein, any such Power of Attorney or certificate bearing such facsimile signature and seal shall be valid and binding upon the Company and any such power so executed and certified by facsimile signature and seal shall be valid and binding upon the Company with respect to any bond or undertaking to which it is validly attached.

RESOLVED, that Attorneys in Fact shall have the power and authority, subject to the terms and limitations of the Power of Attorney issued to them, to execute and deliver on behalf of the Company and to attach the seal of the Company to any and all bonds and undertakings, and any such instrument executed by such Attorneys in Fact shall be binding upon the Company as if signed by an Executive Officer and sealed and attested to by the Secretary or Assistant Secretary of the Company.

I, Tammy Tieperman, Secretary of Insurors Indemnity Company, do hereby certify that the foregoing is a true excerpt from the Resolutions of the said Company as adopted by its Board of Directors on November 11, 2014, and that this Resolution is in full force and effect. I certify that the foregoing Power of Attorney is in full force and effect and has not been revoked.

In Witness Whereof, I have set my hand and the seal of INSURORS INDEMNITY COMPANY on this 8th day of September, 2022.

Tammy Tieperman
Tammy Tieperman, Secretary

NOTE: IF YOU HAVE ANY QUESTION REGARDING THE VALIDITY OR WORDING OF THIS POWER OF ATTORNEY, PLEASE CALL 800 933 7444 OR WRITE TO US AT P. O. BOX 32577, WACO, TEXAS 76703 OR EMAIL US AT BONDDEPT@INSURORSINDEMNITY.COM.



Phone: 877 816 2800

PO Box 32577

Waco, Texas 76703-4200

IMPORTANT NOTICE - AVISO IMPORTANTE

To obtain information or make a complaint:

You may call Insurors Indemnity Company's toll-free telephone number for information or to make a complaint at:

1-877-816-2800

You may also write to Insurors Indemnity Company at:

P.O. Box 32577
Waco, TX 76703-4200
Or
225 South Fifth Street
Waco, TX 76701

You may contact the Texas Department of Insurance to obtain information on companies, coverages, rights or complaints at

1-800-252-3439

You may write the Texas Department of Insurance at:

Consumer Protection (111-1A)
P.O. Box 149091
Austin, TX 78714-9091
Fax: 512-490-1007

Web: <http://www.tdi.texas.gov>

E-mail: ConsumerProtection@tdi.texas.gov

PREMIUM OR CLAIM DISPUTES:

Should you have a dispute concerning your premium or about a claim, you should contact the agent or the company first. If the dispute is not resolved, you may contact the Texas Department of Insurance.

ATTACH THIS NOTICE TO YOUR POLICY:

This notice is for information only and does not become a part or condition of the attached document.

Para obtener informacion o para someter una queja:

Usted puede llamar al numero de telefono gratis de Insurors Indemnity Company's para informacion o para someter una queja al

1-877-816-2800

Usted tambien puede escribir a Insurors Indemnity Company:

P.O. Box 32577
Waco, TX 76703-4200
O
225 South Fifth Street
Waco, TX 76701

Puede comunicarse con el Departamento de Seguros de Texas para obtener informacion acerca de companias, coberturas, derechos o quejas al

1-800-252-3439

Puede escribir al Departamento de Seguros de Texas:

Consumer Protection (111-1A)
P.O. Box 149091
Austin, TX 78714-9091
Fax: 512-490-1007

Web: <http://www.tdi.texas.gov>

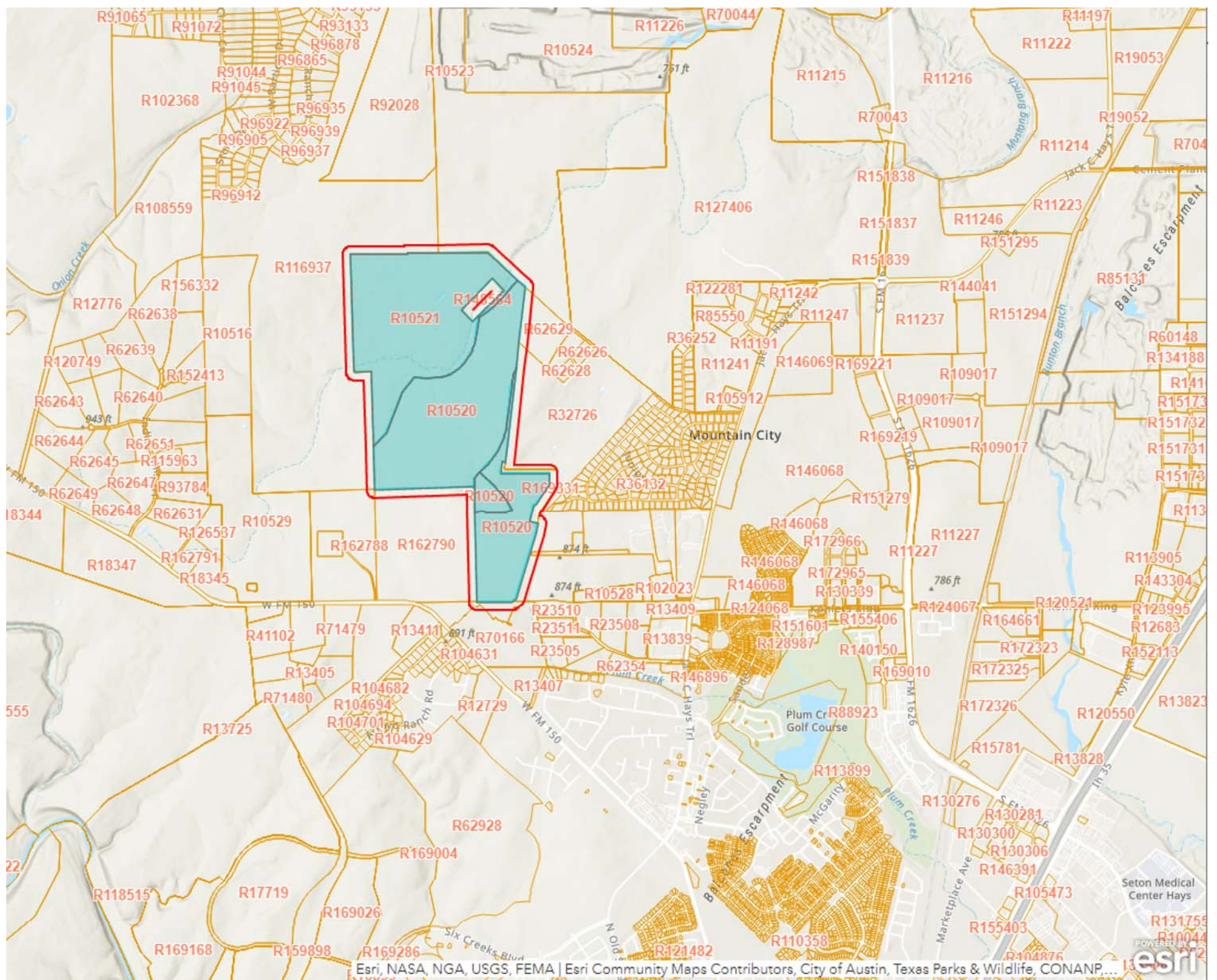
E-mail: ConsumerProtection@tdi.texas.gov

DISPUTAS SOBRE PRIMAS O RECLAMOS:

Si tiene una disputa concemiente a su prima o a un reclamo, debe comunicarse con el agente o la compania primero. Si no se resuelve la disputa, puede entonces comunicarse con el departamento (TDI).

UNA ESTE AVISO A SU POLIZA:

Este aviso es solo para proposito de informacion y no se convierte en parte o condicion del documento adjunto.





AGENDA ITEM REQUEST FORM

Hays County Commissioners Court

Date: 11/01/2022

Requested By:

Colby Machacek, County Planner

Sponsor:

Commissioner Smith

Agenda Item

PLN-2035-NP - Anthem, Phase 2 Subdivision (81 Lots). Discussion and possible action to approve final plat and accept fiscal surety for street and drainage improvements. **SMITH/MACHACEK**

Summary

Anthem, Phase 2 Subdivision is a proposed subdivision located off of FM 150 in Precinct 4.

This section includes 79 Residential lots and 2 Open Space lots.

Water and wastewater service will be provided by City of Kyle.

Of the estimated cost for improvements in the amount of \$583,636.64, the remaining cost for improvements amounts to \$346,856.28.

Attachments

Plat

Bond

General Location Map

STATE OF TEXAS :
COUNTY OF HAYS :

KNOW ALL MEN BY THESE PRESENTS:

THAT, KYLE 150 LP, OWNER OF 18.509 ACRES OUT OF THE JOHN COOPER SURVEY NO. 13, ABSTRACT 100 IN HAYS COUNTY, TEXAS, AS CONVEYED BY DEED OF RECORD IN VOLUME 5272, PAGE 476 OF THE OFFICIAL PUBLIC RECORDS OF HAYS COUNTY, TEXAS, DO HEREBY SUBDIVIDE 18.509 ACRES OF LAND IN ACCORDANCE WITH THE ATTACHED MAP OR PLAT TO BE KNOWN AS:

"ANTHEM PHASE 2 FINAL PLAT"

SUBJECT TO ANY EASEMENTS AND/OR RESTRICTIONS HERETOFORE GRANTED, AND DO HEREBY DEDICATE TO THE PUBLIC USE OF THE STREETS AND EASEMENTS HEREON.

WITNESS MY HAND THIS THE _____ DAY OF _____, 20____ A.D.

AUSTIN, TEXAS 78746

BY: _____
CLARK WILSON FOR KYLE 150 LP
5312 PARK HOLLOW LANE, AUSTIN, TX 78746

STATE OF TEXAS :
COUNTY OF TRAVIS :

BEFORE ME, THE UNDERSIGNED AUTHORITY, A NOTARY PUBLIC IN AND FOR SAID COUNTY AND STATE, ON THIS DAY PERSONALLY APPEARED CLARK WILSON TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATION THEREIN EXPRESSED.

GIVEN UNDER MY HAND, THIS THE _____ DAY OF _____, 20____ A.D.

NOTARY PUBLIC IN AND FOR TRAVIS COUNTY, TEXAS

FINAL PLAT NOTES:

1. THIS FINAL PLAT IS LOCATED ENTIRELY WITHIN HAYS COUNTY, ENTIRELY WITHIN THE BOUNDARY OF THE ANTHEM M.U.D. NO. 1.
2. A PORTION OF THIS PLAT LIES WITHIN THE BOUNDARIES OF THE EDWARDS AQUIFER RECHARGE ZONE.
3. A PORTION OF THIS PLAT LIES WITHIN THE BOUNDARIES OF THE EDWARDS AQUIFER CONTRIBUTING ZONE.
4. THIS PLAT IS LOCATED WITHIN THE BOUNDARY OF THE HAYS CONSOLIDATED INDEPENDENT SCHOOL DISTRICT.
5. NO PORTION OF THIS PROPERTY IS LOCATED WITHIN A DESIGNATED 100-YEAR FLOODPLAIN AS DELINEATED ON THE FLOOD INSURANCE RATE MAP NO. 48209C 0270 F, EFFECTIVE DATE OF SEPTEMBER 2, 2005, AS PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.
6. ALL STREETS SHALL BE DESIGNED IN ACCORDANCE WITH APPLICABLE HAYS COUNTY REQUIREMENTS AND APPROVED BY THE HAYS COUNTY TRANSPORTATION DEPARTMENT AND UPON ACCEPTANCE SHALL BE DEDICATED TO THE COUNTY FOR MAINTENANCE.
7. STREETS TO BE ACCESSED WILL BE CONSTRUCTED WITH CURB AND GUTTER.
8. LINEAR FOOTAGE OF STREET IMPROVEMENTS: 3,466 LF.
9. THIS PLAT HAS BEEN PREPARED IN ACCORDANCE WITH THE HAYS COUNTY REQUIREMENTS AS APPLICABLE TO THIS DEVELOPMENT.
10. AREA WITHIN NEW ROAD RIGHT-OF-WAY = 4.14 ACRES.
11. ALL STREETS TO BE PAVED, PUBLICLY MAINTAINED BY THE COUNTY.
12. NO OBJECT INCLUDING FENCING OR LANDSCAPING WHICH WOULD INTERFERE WITH CONVEYANCE OF STORM WATER SHALL BE PLACED OR ERRECTED WITHIN DRAINAGE EASEMENTS.
13. GREENBELT DRAINAGE EASEMENTS SHALL BE MAINTAINED BY THE HOME OWNERS ASSOCIATION.
14. SIDEWALKS SHALL BE CONSTRUCTED ALONG AT LEAST ON SIDE OF EACH RESIDENTIAL STREET AND MAINTAINED BY ANTHEM MUD NO. 1.
15. THIS SUBDIVISION IS WITHIN THE ETJ OF THE CITY OF MOUNTAIN CITY, TEXAS.
16. GAS IS PROVIDED BY CENTERPOINT ENERGY.
17. TELEPHONE CABLE PROVIDED BY TIME WARNER.
18. ELECTRICITY PROVIDED BY PEDERNALES ELECTRIC COMPANY.
19. THE WASTEWATER TREATMENT PLANT IS OWNED AND OPERATED BY THE CITY OF KYLE, TEXAS.
20. WASTEWATER SERVICE IS PROVIDED BY THE CITY OF KYLE, TEXAS (SEE NOTE ABOVE).
21. WATER IS PROVIDED BY THE CITY OF KYLE, TEXAS.
22. THE REQUIREMENT CONCERNING CONSTRUCTION STANDARDS FOR MAILBOXES INSTALLED WITHIN THE RIGHT-OF-WAY OF STREETS AND HIGHWAYS AND REQUIRING ALL SUCH MAILBOXES TO BE MADE OF COLLAPSIBLE MATERIALS, AS DEFINED IN THE ORDINANCE, COMMUNITY MAILBOXES SHALL HAVE A SEPARATE LIGHT/STREET LIGHT TO ILLUMINATE THE MAILBOX AREA.
23. 15' UTILITY EASEMENTS SHALL BE LOCATED ALONG EACH SIDE OF DEDICATED RIGHT OF WAY.
24. FOR THE TWO (2), TEN (10), TWENTY-FIVE (25), AND ONE HUNDRED (100) YEAR, TWENTY-FOUR (24) HOUR STORM EVENTS, POST DEVELOPED CONDITION RUNOFF RATES SHALL BE LESS THAN OR EQUAL TO THE PRE-DEVELOPED CONDITION RUNOFF RATES. PRE AND POST DEVELOPMENT RUNOFF CALCULATIONS SHALL BE INCLUDED WITH THE CONSTRUCTION DRAWINGS FOR THIS SUBDIVISION.
25. THIS SITE IS LOCATED WITHIN HAYS COUNTY ESD#5.
26. CONSTRUCTION STANDARDS AND SPECIFICATIONS WILL BE AS AGREED TO IN THE PHASING AGREEMENT APPROVED BY THE HAYS COUNTY COMMISSIONER'S COURT ON APRIL 4, 2017 AND THE FIRST AMENDMENT TO THE PHASING AGREEMENT EXECUTED DECEMBER 17, 2019.
27. PURSUANT TO CHAPTER 245 SECTION 004 (EXEMPTIONS) THE CONSTRUCTION STANDARDS ADOPTED BY HAYS COUNTY FOR THE HEALTH AND WELFARE OF THE PUBLIC ARE NOT EXEMPTED FROM CHANGE AND THIS ARE NOT CONSIDERED GRANDFATHERED. IT IS THE DECISION OF THE HAYS COUNTY TRANSPORTATION AND DEVELOPMENT SERVICES DEPARTMENTS THAT THE CONSTRUCTION AND DESIGN STANDARDS AT THE TIME OF ORIGINAL PLATTING SHALL BE HONORED FOR A PERIOD OF FIVE (5) YEARS FROM THE DATE OF FINAL PLAT ACCEPTANCE. IF CONSTRUCTION HAS STARTED PRIOR TO THE FIVE YEAR EXPIRATION DATE THEN THE PHASES FOR WHICH THE COUNTY HAS COMPLETE CONSTRUCTION PLANS FOR SHALL BE ALLOWED TO USE THE ORIGINAL STANDARDS. SUBSEQUENT PHASES THAT HAVE NOT BEEN FULLY DESIGNED AND APPROVED AT THAT POINT SHALL BE DESIGNED TO THE MOST CURRENT STANDARDS AND SPECIFICATIONS.
28. POST-CONSTRUCTION STORMWATER CONTROL MEASURES SHALL HAVE A MAINTENANCE PLAN. THE MAINTENANCE PLAN MUST BE FILED IN THE REAL PROPERTY RECORDS OF HAYS COUNTY. THE OWNER/OPERATOR OF ANY NEW DEVELOPMENT OR REDEVELOPMENT SITE SHALL DEVELOP AND IMPLEMENT A MAINTENANCE PLAN ADDRESSING MAINTENANCE REQUIREMENTS FOR ANY STRUCTURAL CONTROL MEASURES INSTALLED ON SITE. OPERATION AND MAINTENANCE PERFORMED SHALL BE DOCUMENTED AND RETAINED AND MADE AVAILABLE FOR REVIEW UPON REQUEST.
- IN ORDER TO PROMOTE SAFE USE OF ROADWAYS AND PRESERVE THE CONDITIONS OF PUBLIC ROADWAYS, NO DRIVEWAY CONSTRUCTED ON ANY LOT WITHIN THIS SUBDIVISION SHALL BE PERMITTED TO ACCESS ONTO A PUBLIC ROADWAY UNLESS (A) A PERMIT FOR USE OF THE COUNTY ROADWAY RIGHT-OF-WAY HAS BEEN ISSUED UNDER CHAPTER 751, AND, (B) THE DRIVEWAY SATISFIES THE MINIMUM SPACING REQUIREMENT SET FORTH IN CHAPTER 721 OF THE HAYS COUNTY DEVELOPMENT REGULATIONS.

IN APPROVING THIS PLAT BY THE COMMISSIONERS COURT OF HAYS COUNTY, TEXAS, IT IS UNDERSTOOD THAT THE BUILDING OF ALL STREETS, ROADS, AND OTHER PUBLIC THOROUGHFARES DELINEATED AND SHOWN ON THIS PLAT, AND ALL BRIDGES AND CULVERTS NECESSARY TO BE CONSTRUCTED OR PLACED IN SUCH STREETS, ROADS, OR OTHER PUBLIC THOROUGHFARES, OR IN CONNECTION THEREWITH SHALL BE THE RESPONSIBILITY OF THE OWNER AND/OR THE DEVELOPER OF THE TRACT OF LAND COVERED BY THIS PLAT IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS PRESCRIBED BY THE COMMISSIONERS COURT OF HAYS COUNTY, TEXAS AND THE COMMISSIONERS COURT OF HAYS COUNTY, TEXAS, ASSUMES NO OBLIGATION TO BUILD THE STREETS, ROADS, OR OTHER PUBLIC THOROUGHFARES SHOWN ON THIS PLAT OR OF CONSTRUCTING ANY BRIDGES OR CULVERTS IN CONNECTION THEREWITH.

STATE OF TEXAS :
COUNTY OF HAYS :

I HEREBY CERTIFY THAT THIS PLAT WAS PREPARED FROM AN ACCURATE AND ON-THE-GROUND SURVEY OF THE PROPERTY MADE UNDER MY SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE, AND THAT THE CORNER MONUMENTS WERE PROPERLY PLACED UNDER MY PERSONAL SUPERVISION, IN ACCORDANCE WITH THE SUBDIVISION REGULATIONS OF HAYS COUNTY, TEXAS.

NOT FOR RECORDATION

ROBERT GERTSON, RPLS 6367
ATWELL-GROUP, LLC
805 LAS CIMAS PARKWAY, SUITE 310
AUSTIN, TEXAS 78746

STATE OF TEXAS :
COUNTY OF HAYS :

I, DAVID B. FUSILIER, P.E., A LICENSED PROFESSIONAL ENGINEER, DO HEREBY CERTIFY THAT NO PORTION OF ANY RESIDENTIAL LOT IS LOCATED WITHIN A DESIGNATED 100-YEAR FLOOD ZONE AREA, AS DELINEATED ON THE FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY PANEL NO. 48209C 0280 F, EFFECTIVE DATE OF SEPTEMBER 2, 2005. ADDITIONALLY, STORM WATER RUNOFF FROM THE 100-YEAR STORM EVENT SHALL BE CONTAINED WITHIN THE DRAINAGE FACILITIES TO BE LOCATED WITHIN THE RIGHTS-OF-WAY AND/OR GREENBELT DRAINAGE LOTS OR EASEMENTS SHOWN ON THE ATTACHED PLAT.

NOT FOR RECORDATION

DAVID B. FUSILIER, P.E. 87710
ATWELL-GROUP, LLC
805 LAS CIMAS PARKWAY, SUITE 310
AUSTIN, TEXAS 78746

THIS PLAT OF ANTHEM PHASE 2, HAS BEEN SUBMITTED TO AND CONSIDERED BY THE PLANNING COMMISSION OF THE CITY OF MOUNTAIN CITY, TEXAS IS HEREBY APPROVED BY SUCH COMMISSION.

THIS THE _____ DAY OF _____, 20____

BY :

CHAIRMAN

ATTEST:

ANTHEM PHASE 2 IS LOCATED ENTIRELY WITHIN THE BOUNDARIES AND SERVICE AREA OF THE CITY OF KYLE, TEXAS, WATER AND WASTEWATER SERVICE, AS REGULATED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY, WILL BE PROVIDED TO ALL LOTS REQUIRING SERVICE THROUGH THE CITY OF KYLE'S WATER AND WASTEWATER SYSTEM.

HARPER WILDER, PUBLIC WORKS DIRECTOR
CITY OF KYLE, TEXAS

DATE

BRANDON BRYSDON, PRESIDENT
ANTHEM M.U.D. NO. 1

DATE

SEWAGE DISPOSAL / INDIVIDUAL WATER SUPPLY CERTIFICATION, TO-WIT:

NO STRUCTURE IN THIS SUBDIVISION SHALL BE OCCUPIED UNTIL CONNECTED TO AN INDIVIDUAL WATER SUPPLY OR A STATE - APPROVED COMMUNITY WATER SYSTEM. DUE TO DECLINING WATER SUPPLIES AND DIMINISHING WATER QUALITY, PROSPECTIVE PROPERTY OWNERS ARE CAUTIONED BY HAYS COUNTY TO QUESTION THE SELLER CONCERNING GROUND WATER AVAILABILITY. RAIN WATER COLLECTION IS ENCOURAGED AND IN SOME AREAS MAY OFFER THE BEST RENEWABLE WATER RESOURCE.

NO STRUCTURE IN THIS SUBDIVISION SHALL BE OCCUPIED UNTIL CONNECTED TO A PUBLIC SEWER SYSTEM OR TO AN ON - SITE WASTEWATER SYSTEM WHICH HAS BEEN APPROVED AND PERMITTED BY HAYS COUNTY DEVELOPMENT SERVICES.

NO CONSTRUCTION OR OTHER DEVELOPMENT WITHIN THIS SUBDIVISION MAY BEGIN UNTIL ALL HAYS COUNTY DEVELOPMENT PERMIT REQUIREMENTS HAVE BEEN MET.

MARCUS PACHECO, DIRECTOR
HAYS COUNTY DEVELOPMENT SERVICES

DATE

ERIC VAN GAASBEEK, CFM, RS
HAYS COUNTY FLOODPLAIN ADMINISTRATOR

DATE

STATE OF TEXAS :
COUNTY OF HAYS :

I, ELAINE HANSON CARDENAS, COUNTY CLERK OF HAYS COUNTY, TEXAS, DO HEREBY CERTIFY THAT ON THE _____ DAY OF _____, 20____ A.D., THE COMMISSIONERS COURT OF HAYS COUNTY, TEXAS PASSED AN ORDER AUTHORIZING THE FILING FOR RECORD OF THIS PLAT AND SAID ORDER HAS BEEN DULY ENTERED IN THE MINUTES OF SAID COURT INSTRUMENT NUMBER _____.

WITNESS MY HAND AND SEAL OF OFFICE, THIS THE _____ DAY OF _____, 20____ A.D.

RUBEN BECERRA
COUNTY JUDGE
HAYS COUNTY, TEXAS

ELAINE HANSON CARDENAS
COUNTY CLERK
HAYS COUNTY, TEXAS

STATE OF TEXAS :
COUNTY OF HAYS :

I, ELAINE HANSON CARDENAS, COUNTY CLERK OF HAYS COUNTY, TEXAS DO HEREBY CERTIFY THAT THE FOREGOING INSTRUMENT IN WRITING WITH ITS CERTIFICATE OF AUTHENTICATION WAS FILED FOR RECORD IN MY OFFICE ON THE _____ DAY OF _____, 20____ A.D. AT _____ O'CLOCK _____ M. IN THE PLAT RECORDS OF HAYS COUNTY, TEXAS IN INSTRUMENT NO. _____.

WITNESS MY HAND AND SEAL OF OFFICE, THIS THE _____ DAY OF _____, 20____ A.D.

ELAINE HANSON CARDENAS
COUNTY CLERK
HAYS COUNTY, TEXAS

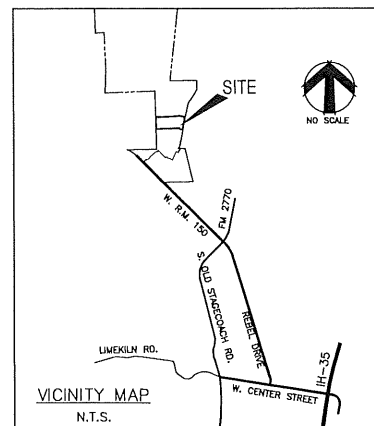
1. BEARINGS ARE REFERENCED TO TEXAS COORDINATE SYSTEM, SOUTH CENTRAL ZONE, NAD 83.
2. ELEVATIONS ARE BASED ON NAVD 1988 DATUM.
3. 1/2" IRON RODS WITH CAPS SET AT ALL CORNERS, UNLESS OTHERWISE NOTED.

TBM #1
IRON ROD WITH CAP STAMPED "AST" AT THE NORTH RAW LINE OF RM150, 8.5' NE OF THE NW CORNER ON SAFETY END TREATMENT OF 18" CMP, 21" NORTH OF THE NORTHERN EDGE OF PAVEMENT AND 5' WEST OF A GRAVEL DRIVE.


TEXAS COORDINATE SYSTEM SOUTH CENTRAL ZONE
COORDINATES:
N = 13923074.71
E = 2313177.69
ELEVATION = 871.77 NAVD88

TBM #2
IRON ROD WITH CAP STAMPED "AST" AT THE NORTH RAW LINE OF RM150, 400' EAST OF A MAILBOX, 25' SOUTH OF A WIRE FENCE AND 18' NORTH OF THE EDGE OF PAVEMENT.

TEXAS COORDINATE SYSTEM SOUTH CENTRAL ZONE
COORDINATES:
N = 13921486.178
E = 2314866.42
ELEVATION = 866.51 NAVD88



PROJECT: ANTHEM PHASE 2	
JOB NUMBER: ANTHEM 2	
SURVEY DATE: APRIL 2022	
SCALE: 1" = 100'	
SURVEYOR: ROBERT GERTSON	
TECHNICIAN: EB	
DRAWING:	
DESCRIPTION:	
PARTY/CHIEF:	
FIELDBOOKS:	

**ATWELL**
866.850.4200 www.atwell-group.com
805 LAS CIMAS PARKWAY, SUITE 310
AUSTIN, TX 78746
TBPE NO. 12242

**ANTHEM
PHASE 2
FINAL PLAT**

**SHEET
1
OF 2**

LOT AREA	14,364 AC.
STREET ROW AREA	4,144 AC.
TOTAL AREA	18,509 AC.

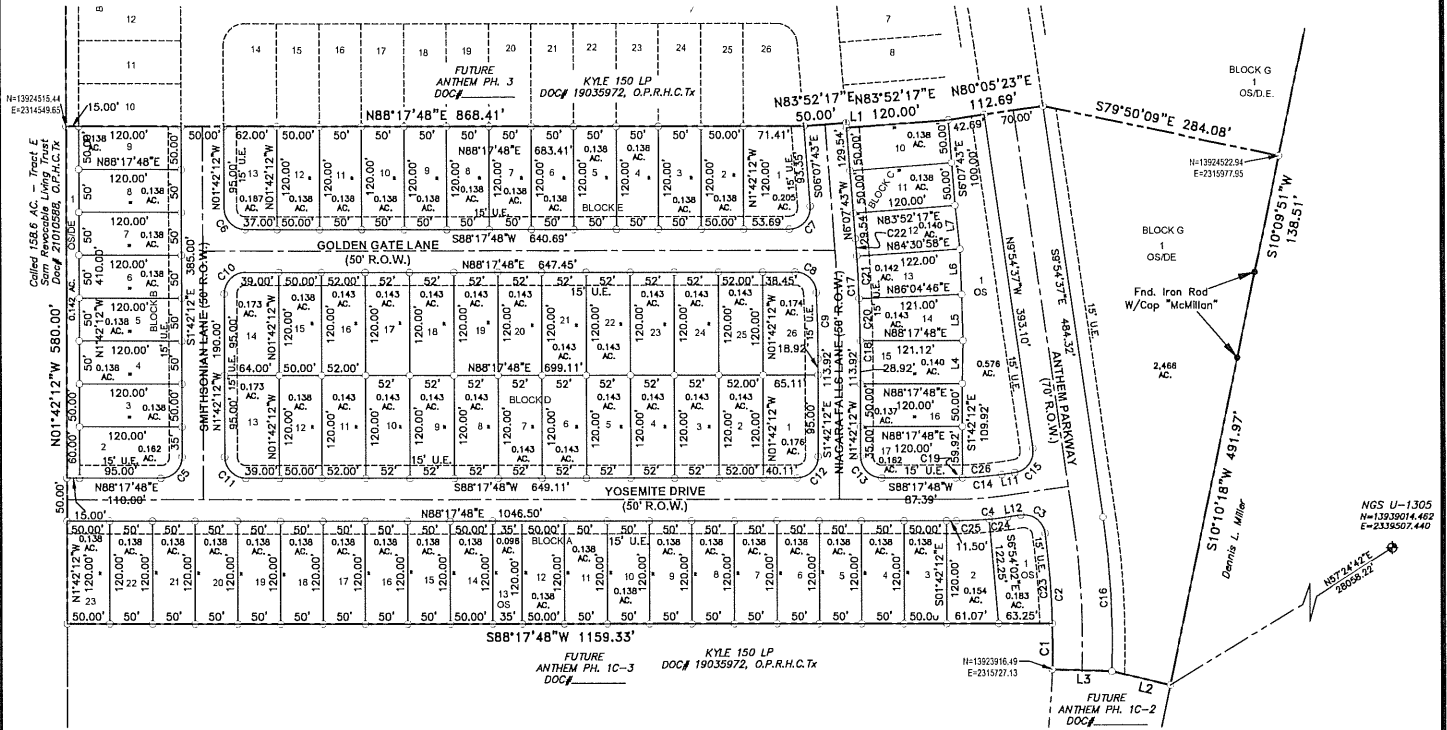
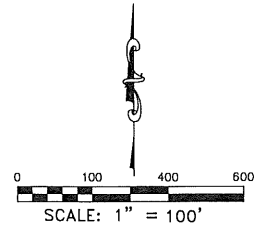
CENTERLINE STREET LINEAR FOOTAGE			
STREET NAME	ROW WIDTH	LENGTH	TYPE
ANTHEM PARKWAY	70'	660	COLLECTOR
GOLDEN BRIDGE	50'	745	RESIDENTIAL
NIAGARA FALLS	50'	437	RESIDENTIAL
SMITHSONIAN	50'	435	RESIDENTIAL
YOSEMITE	50'	1,179	RESIDENTIAL

TOTAL LINEAR FEET OF STREET ROW = 3,456

TOTAL NO. SINGLE FAMILY LOTS: 76 (11.13 AC.)
AVERAGE SIZE OF SINGLE FAMILY LOT = 6.14 AC.
TOTAL NO. OPEN SPACE & DRAINAGE EASEMENT LOTS: 5 (3.23 AC.)
TOTAL NO. BLOCKS: 5

LOT SIZE	NO.
>10 ACRES	0
5 TO 10 ACRES	0
2 TO 5 ACRES	1
1 TO 2 ACRES	0
<1 ACRE	80

LEGEND:	
●	IRON ROD WITH CAP FOUND
○	IRON ROD WITH CAP SET
△	COTTON SPINDLE SET
▲	MAG NAIL SET
□	CONCRETE MONUMENT SET
D.E.	DRAINAGE ESMT.
U.E.	UTILITY ESMT.
W.W.E.	WASTEWATER EASEMENT
	SIDEWALK LOCATION
	O.P.R.H.C.T. OFFICIAL PUBLIC RECORDS
	HAYS COUNTY, TEXAS



CURVE DATA TABLE				
CURVE #	DELTA	RADIUS	LENGTH	CHORD DIRECTION
C2	9°27'20"	985.00'	159.25'	N4°38'51"W
C3	90°32'07"	25.00'	39.50'	N54°36'34"W
C4	8°12'25"	425.00'	60.88'	N84°11'35"E
C5	90°00'00"	25.00'	39.27'	N43°17'48"E
C6	90°00'00"	25.00'	39.27'	S46°42'12"E
C7	94°25'31"	25.00'	41.20'	N41°05'02"E
C8	87°29'38"	25.00'	38.18'	N47°57'23"W
C9	2°30'22"	1765.00'	77.20'	N2°57'23"W
C10	90°00'00"	25.00'	39.27'	S43°17'48"W
C11	90°00'00"	25.00'	39.27'	S46°42'12"E
C12	90°00'00"	25.00'	39.27'	N43°17'48"E
C13	90°00'00"	25.00'	39.27'	S46°42'12"E
C14	8°12'25"	375.00'	53.71'	S84°11'35"W
C15	90°00'00"	25.00'	39.27'	S35°05'23"W
C16	9°59'27"	1035.00'	180.48'	N4°54'54"W
C17	42°53'31"	1815.00'	140.18'	N3°54'58"W
C18	0°39'56"	1815.00'	21.08'	N2°02'10"W
C19	1°09'45"	375.00'	7.61'	N87°42'55"E
C20	1°33'06"	1815.00'	49.15'	N3°08'41"W
C21	1°33'48"	1815.00'	49.52'	N4°42'08"W
C22	0°38'42"	1815.00'	20.43'	N5°48'23"W
C23	6°16'03"	965.00'	105.56'	N6°14'29"W
C24	3°00'35"	425.00'	22.33'	N81°35'40"E
C25	5°11'50"	425.00'	38.55'	N85°41'53"E
C26	7°02'40"	375.00'	46.11'	N83°36'42"E

LINE DATA TABLE		
LINE #	DIRECTION	LENGTH
L1	S67°07'43"E	5.78'
L2	N78°35'17"W	70.90'
L3	N89°55'16"W	70.00'
L4	N0°33'27"W	50.01'
L5	N3°14'46"W	53.84'
L6	N3°37'05"W	52.84'
L7	N8°13'23"W	51.37'
L11	S80°05'23"W	15.66'
L12	S80°05'23"W	15.62'

LOT	BLOCK	ACREAGE
1-OS	A	0.183 AC
2	A	0.154 AC
3	A	0.138 AC
4	A	0.138 AC
5	A	0.138 AC
6	A	0.138 AC
7	A	0.138 AC
8	A	0.138 AC
9	A	0.138 AC
10	A	0.138 AC
11	A	0.138 AC
12	A	0.138 AC
13-OS	A	0.096 AC
14	A	0.138 AC
15	A	0.138 AC
16	A	0.138 AC
17	A	0.138 AC
18	A	0.138 AC
19	A	0.138 AC
20	A	0.138 AC
21	A	0.138 AC
22	A	0.138 AC
23	A	0.138 AC
1	B	0.142 AC
2	B	0.162 AC
3	B	0.138 AC
4	B	0.138 AC
5	B	0.138 AC
6	B	0.138 AC
7	B	0.138 AC
8	B	0.138 AC
9	B	0.138 AC
10	C	0.576 AC
1	C	0.138 AC

LOT	BLOCK	ACREAGE
11	C	0.138 AC
12	C	0.140 AC
13	C	0.142 AC
14	C	0.143 AC
15	C	0.140 AC
16	C	0.137 AC
17	C	0.162 AC
1	D	0.176 AC
2	D	0.143 AC
3	D	0.143 AC
4	D	0.143 AC
5	D	0.143 AC
6	D	0.143 AC
7	D	0.143 AC
8	D	0.143 AC
9	D	0.143 AC
10	D	0.143 AC
11	D	0.143 AC
12	D	0.183 AC
13	D	0.173 AC
14	D	0.173 AC
15	D	0.138 AC
16	D	0.143 AC
17	D	0.143 AC
18	D	0.143 AC
19	D	0.143 AC
20	D	0.143 AC
21	D	0.143 AC
22	D	0.143 AC
23	D	0.143 AC
24	D	0.143 AC
25	D	0.143 AC
26	D	0.174 AC
1	E	0.205 AC

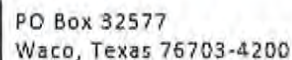
LOT	BLOCK	ACREAGE
2	E	0.138 AC
3	E	0.138 AC
4	E	0.138 AC
5	E	0.138 AC
6	E	0.138 AC
7	E	0.138 AC
8	E	0.138 AC
9	E	0.138 AC
10	E	0.138 AC
11	E	0.138 AC
12	E	0.138 AC
13	E	0.167 AC
1	G	2.466 AC

PROJECT:	ANTHEM PHASE 2
JOB NUMBER:	ANTHEM 2
SURVEY DATE:	APRIL 2022
SCALE:	1" = 100'
SURVEYOR:	ROBERT GERTSON
TECHNICIAN:	EB
DRAWING:	
DESCRIPTION:	N/A
PARTYCHIEF:	
FIELDBOOKS:	Antthem #1

ATWELL
866.850.4200 www.atwell-group.com
805 LAS CIMAS PARKWAY, SUITE 310
AUSTIN, TX 78746
TBPE NO. 12242

ANTHEM
PHASE 2
FINAL PLAN

SHEET
2
OF 2



BOND NO. CNB-41042-00

Bond verification: bonddept@insurorsindemnity.com

**POWER OF ATTORNEY of INSURORS INDEMNITY COMPANY
Waco, Texas**

KNOW ALL PERSONS BY THESE PRESENTS:

Number: CNB-41042-00

That INSURORS INDEMNITY COMPANY, Waco, Texas, organized and existing under the laws of the State of Texas, and authorized and licensed to do business in the State of Texas and the United States of America, does hereby make, constitute and appoint

JD Steanson of the City of Austin, State of TX

as Attorney in Fact, with full power and authority hereby conferred upon him to sign, execute, acknowledge and deliver for and on its behalf as Surety and as its act and deed, all of the following classes of document, to-wit:

Indemnity, Surety and Undertakings that may be desired by contract, or may be given in any action or proceeding in any court of law or equity; Indemnity in all cases where indemnity may be lawfully given and with full power and authority to execute consents and waivers to modify or change or extend any bond or document executed for this Company.

INSURORS INDEMNITY COMPANY

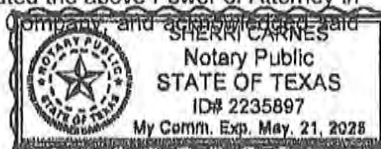
Attest: Tammy Tieperman
Tammy Tieperman, Secretary

By: Dave E. Talbert
Dave E. Talbert, President

State of Texas
County of McLennan

On the 11th day of November, 2014, before me a Notary Public in the State of Texas, personally appeared Dave E. Talbert and Tammy Tieperman, who being by me duly sworn, acknowledged that they executed the above Power of Attorney in their capacities as President, and Corporate Secretary, respectively, of Insurors Indemnity Company, and acknowledged said Power of Attorney to be the voluntary act and deed of the Company.

Sherril Carnes
Notary Public, State of Texas



Insurors Indemnity Company certifies that this Power of Attorney is granted under and by authority of the following resolutions of the Company adopted by the Board of Directors on November 11, 2014:

RESOLVED, that all bonds, undertakings, contracts or other obligations may be executed in the name of the Company by persons appointed as Attorney in Fact pursuant to a Power of Attorney issued in accordance with these Resolutions. Said Power of Attorney shall be executed in the name and on behalf of the Company either by the Chairman and CEO or the President, under their respective designation. The signature of such officer and the seal of the Company may be affixed by facsimile to any Power of Attorney, and, unless subsequently revoked and subject to any limitation set forth therein, any such Power of Attorney or certificate bearing such facsimile signature and seal shall be valid and binding upon the Company and any such power so executed and certified by facsimile signature and seal shall be valid and binding upon the Company with respect to any bond or undertaking to which it is validly attached.

RESOLVED, that Attorneys in Fact shall have the power and authority, subject to the terms and limitations of the Power of Attorney issued to them, to execute and deliver on behalf of the Company and to attach the seal of the Company to any and all bonds and undertakings, and any such instrument executed by such Attorneys in Fact shall be binding upon the Company as if signed by an Executive Officer and sealed and attested to by the Secretary or Assistant Secretary of the Company.

I, Tammy Tieperman, Secretary of Insurors Indemnity Company, do hereby certify that the foregoing is a true excerpt from the Resolutions of the said Company as adopted by its Board of Directors on November 11, 2014, and that this Resolution is in full force and effect. I certify that the foregoing Power of Attorney is in full force and effect and has not been revoked.

In Witness Whereof, I have set my hand and the seal of INSURORS INDEMNITY COMPANY on this 8th day of September, 2022.

Tammy Tieperman
Tammy Tieperman, Secretary

NOTE: IF YOU HAVE ANY QUESTION REGARDING THE VALIDITY OR WORDING OF THIS POWER OF ATTORNEY, PLEASE CALL 800 933 7444 OR WRITE TO US AT P. O. BOX 32577, WACO, TEXAS 76703 OR EMAIL US AT BONDDEPT@INSURORSINDEMNITY.COM.



Phone: 877 816 2800

PO Box 32577
Waco, Texas 76703-4200

IMPORTANT NOTICE - AVISO IMPORTANTE

To obtain information or make a complaint:

You may call Insurors Indemnity Company's toll-free telephone number for information or to make a complaint at:

1-877-816-2800

You may also write to Insurors Indemnity Company at:

P.O. Box 32577
Waco, TX 76703-4200
Or
225 South Fifth Street
Waco, TX 76701

You may contact the Texas Department of Insurance to obtain information on companies, coverages, rights or complaints at

1-800-252-3439

You may write the Texas Department of Insurance at:

Consumer Protection (111-1A)
P.O. Box 149091
Austin, TX 78714-9091
Fax: 512-490-1007

Web: <http://www.tdi.texas.gov>

E-mail: ConsumerProtection@tdi.texas.gov

PREMIUM OR CLAIM DISPUTES:

Should you have a dispute concerning your premium or about a claim, you should contact the agent or the company first. If the dispute is not resolved, you may contact the Texas Department of Insurance.

ATTACH THIS NOTICE TO YOUR POLICY:

This notice is for information only and does not become a part or condition of the attached document.

Para obtener informacion o para someter una queja:

Usted puede llamar al numero de telefono gratis de Insurors Indemnity Company's para informacion o para someter una queja al

1-877-816-2800

Usted tambien puede escribir a Insurors Indemnity Company:

P.O. Box 32577
Waco, TX 76703-4200
O
225 South Fifth Street
Waco, TX 76701

Puede comunicarse con el Departamento de Seguros de Texas para obtener informacion acerca de companias, coberturas, derechos o quejas al

1-800-252-3439

Puede escribir al Departamento de Seguros de Texas:

Consumer Protection (111-1A)
P.O. Box 149091
Austin, TX 78714-9091
Fax: 512-490-1007

Web: <http://www.tdi.texas.gov>

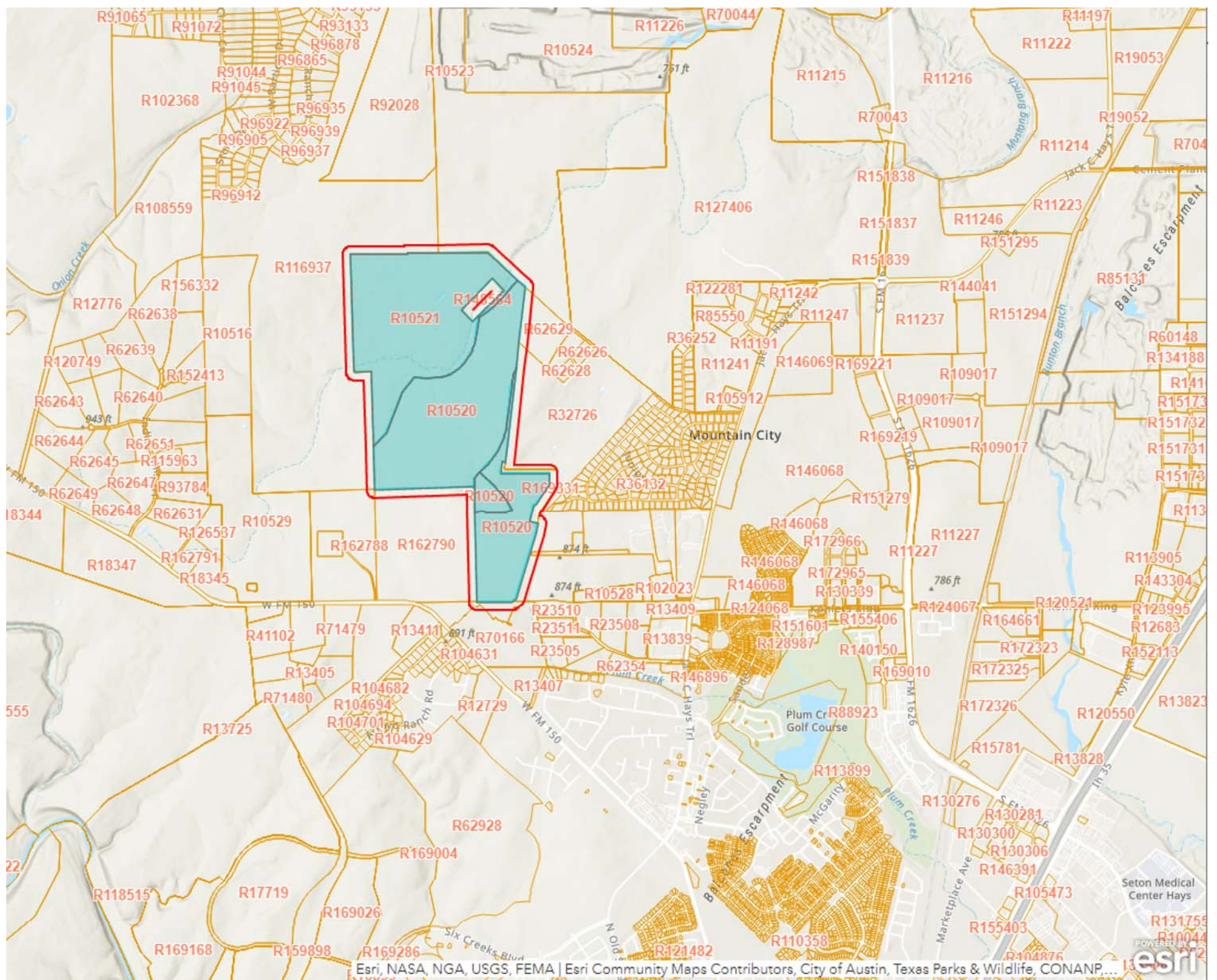
E-mail: ConsumerProtection@tdi.texas.gov

DISPUTAS SOBRE PRIMAS O RECLAMOS:

Si tiene una disputa concemiente a su prima o a un reclamo, debe comunicarse con el agente o la compania primero. Si no se resuelve la disputa, puede entonces comunicarse con el departamento (TDI).

UNA ESTE AVISO A SU POLIZA:

Este aviso es solo para proposito de informacion y no se convierte en parte o condicion del documento adjunto.





AGENDA ITEM REQUEST FORM

Hays County Commissioners Court

Date: 11/01/2022

Requested By:

Colby Machacek, County Planner

Sponsor:

Commissioner Smith

Agenda Item

PLN-2036-NP; Anthem, Phase 3 Subdivision (74 Lots). Discussion and possible action to approve final plat and accept fiscal surety for street and drainage improvements. **SMITH/MACHACEK**

Summary

Anthem, Phase 3 Subdivision is a proposed subdivision located off of FM 150 in Precinct 4.

This section includes 72 Residential lots and 2 Open Space lots.

Water and wastewater service will be provided by City of Kyle.

Of the estimated cost for improvements in the amount of \$530,905.76, the remaining cost for improvements amounts to \$315,934.12.

Attachments

Plat

Bond

General Location Map

STATE OF TEXAS :
COUNTY OF HAYS :

KNOW ALL MEN BY THESE PRESENTS:

THAT, KYLE 150 LP, OWNER OF 20.306 ACRES OUT OF THE JOHN COOPER SURVEY NO. 13, ABSTRACT 100 IN HAYS COUNTY, TEXAS, AS CONVEYED BY DEED UNDER INSTRUMENT NO. 476 OF THE OFFICIAL PUBLIC RECORDS OF HAYS COUNTY, TEXAS, DO HEREBY SUBDIVIDE 20.306 ACRES OF LAND IN ACCORDANCE WITH THE ATTACHED MAP OR PLAT TO BE KNOWN AS:

"ANTHEM PHASE 3 FINAL PLAT"

SUBJECT TO ANY EASEMENTS AND/OR RESTRICTIONS HERETOFORE GRANTED, AND DO HEREBY DEDICATE TO THE PUBLIC USE OF THE STREETS AND EASEMENTS HEREON.

WITNESS MY HAND THIS THE _____ DAY OF _____, 20____ A.D.

AUSTIN, TEXAS 78746

BY: _____
CLARK WILSON FOR KYLE 150 LP
5312 PARK HOLLOW LANE, AUSTIN, TX 78746

STATE OF TEXAS :
COUNTY OF TRAVIS :

BEFORE ME, THE UNDERSIGNED AUTHORITY, A NOTARY PUBLIC IN AND FOR SAID COUNTY AND STATE, ON THIS DAY PERSONALLY APPEARED CLARK WILSON KNOWN TO ME TO BE THE PERSON WHOSE NAME IS SUBSCRIBED TO THE FOREGOING INSTRUMENT AND ACKNOWLEDGED TO ME THAT HE EXECUTED THE SAME FOR THE PURPOSES AND CONSIDERATION THEREIN EXPRESSED.

GIVEN UNDER MY HAND, THIS THE _____ DAY OF _____, 20____ A.D.

NOTARY PUBLIC IN AND FOR TRAVIS COUNTY, TEXAS

FINAL PLAT NOTES:

1. THIS FINAL PLAT IS LOCATED ENTIRELY WITHIN HAYS COUNTY, ENTIRELY WITHIN THE BOUNDARY OF THE ANTHEM M.U.D. NO. 1.
2. THIS PLAT LIES WITHIN THE BOUNDARIES OF THE EDWARDS AQUIFER RECHARGE ZONE.
3. NO PORTION OF THIS PLAT LIES WITHIN THE BOUNDARIES OF THE EDWARDS AQUIFER CONTRIBUTING ZONE.
4. THIS PLAT IS LOCATED WITHIN THE BOUNDARY OF THE HAYS CONSOLIDATED INDEPENDENT SCHOOL DISTRICT.
5. NO PORTION OF THIS PROPERTY IS LOCATED WITHIN A DESIGNATED 100-YEAR FLOODPLAIN AS DELINEATED ON THE FLOOD INSURANCE RATE MAP NO. 48209C 0270 F, EFFECTIVE DATE OF SEPTEMBER 2, 2005, AS PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY.
6. ALL STREETS SHALL BE DESIGNED IN ACCORDANCE WITH APPLICABLE HAYS COUNTY REQUIREMENTS AND APPROVED BY THE HAYS COUNTY TRANSPORTATION DEPARTMENT AND UPON ACCEPTANCE SHALL BE DEDICATED TO THE COUNTY FOR MAINTENANCE.
7. STREETS TO BE ACCESSED SHALL BE CONSTRUCTED WITH CURB AND GUTTER.
8. LINEAR FOOTAGE OF STREET IMPROVEMENTS: 2,983 L.F.
9. THIS PLAT HAS BEEN PREPARED IN ACCORDANCE WITH THE HAYS COUNTY REQUIREMENTS AS APPLICABLE TO THIS DEVELOPMENT.
10. AREA WITHIN NEW ROAD RIGHT-OF-WAY = 3.696 ACRES.
11. ALL STREETS TO BE PAVED, PUBLIC AND MAINTAINED BY THE COUNTY.
12. NO OBJECT INCLUDING FENCING OR LANDSCAPING WHICH WOULD INTERFERE WITH CONVEYANCE OF STORM WATER SHALL BE PLACED OR ERECTED WITHIN DRAINAGE EASEMENTS.
13. GREENBELT DRAINAGE EASEMENTS SHALL BE MAINTAINED BY THE HOME OWNERS ASSOCIATION.
14. SIDEWALKS SHALL BE CONSTRUCTED ALONG AT LEAST ON SIDE OF EACH RESIDENTIAL STREET AND MAINTAINED BY ANTHEM MUD NO. 1.
15. THIS SUBDIVISION IS WITHIN THE ETJ OF THE CITY OF MOUNTAIN CITY, TEXAS.
16. GAS IS PROVIDED BY CENTERPOINT ENERGY.
17. TELEPHONE/CABLE PROVIDED BY TIME WARNER.
18. ELECTRICITY PROVIDED BY PEDERNALES ELECTRIC COMPANY.
19. THE WASTEWATER TREATMENT PLANT IS OWNED AND OPERATED BY THE CITY OF KYLE, TEXAS.
20. WASTEWATER SERVICE IS PROVIDED BY THE CITY OF KYLE, TEXAS (SEE NOTE ABOVE).
21. WATER IS PROVIDED BY THE CITY OF KYLE, TEXAS.
22. THE REQUIREMENT CONCERNING CONSTRUCTION STANDARDS FOR MAILBOXES INSTALLED WITHIN THE RIGHT-OF-WAY OF STREETS AND HIGHWAYS AND REQUIRING ALL SUCH MAILBOXES TO BE MADE OF COLLAPSIBLE MATERIALS, AS DEFINED IN THE ORDINANCE, COMMUNITY MAILBOXES SHALL HAVE A SEPARATE LIGHT STREET LIGHT TO ILLUMINATE THE MAILBOX AREA.
23. 15' UTILITY EASEMENTS SHALL BE LOCATED ALONG EACH SIDE OF DEDICATED RIGHT OF WAY.
24. FOR THE TWO (2), TEN (10), TWENTY-FIVE (25), AND ONE HUNDRED (100) YEAR, TWENTY-FOUR (24) HOUR STORM EVENTS, POST DEVELOPED CONDITION RUNOFF RATES SHALL BE LESS THAN OR EQUAL TO THE PRE-DEVELOPED CONDITION RUNOFF RATES, PRE AND POST DEVELOPMENT RUNOFF CALCULATIONS SHALL BE INCLUDED WITH THE CONSTRUCTION DRAWINGS FOR THIS SUBDIVISION.
25. THIS SITE IS LOCATED WITHIN HAYS COUNTY ESDBS.
26. CONSTRUCTION STANDARDS AND SPECIFICATIONS WILL BE AS AGREED TO IN THE PHASING AGREEMENT APPROVED BY THE HAYS COUNTY COMMISSIONER'S COURT ON APRIL 4, 2017, AND THE FIRST AMENDMENT TO THE PHASING AGREEMENT EXECUTED DECEMBER 17, 2019.
27. PURSUANT TO CHAPTER 245 SECTION 004 (EXEMPTIONS) THE CONSTRUCTION STANDARDS ADOPTED BY HAYS COUNTY FOR THE HEALTH AND WELFARE OF THE PUBLIC ARE NOT EXEMPTED FROM CHANGE AND THUS ARE NOT CONSIDERED GRANDFATHERED. IT IS THE DECISION OF THE HAYS COUNTY TRANSPORTATION AND DEVELOPMENT SERVICES DEPARTMENTS THAT THE CONSTRUCTION AND DESIGN STANDARDS AT THE TIME OF ORIGINAL PLATTING SHALL BE HONORED FOR A PERIOD OF FIVE (5) YEARS FROM THE DATE OF FINAL PLAT ACCEPTANCE. IF CONSTRUCTION HAS STARTED PRIOR TO THE FIVE YEAR EXPIRATION DATE THEN THE PHASES FOR WHICH THE COUNTY HAS COMPLETE CONSTRUCTION PLANS FOR SHALL BE ALLOWED TO USE THE ORIGINAL STANDARDS. SUBSEQUENT PHASES THAT HAVE NOT BEEN FULLY DESIGNED AND APPROVED AT THAT POINT SHALL BE DESIGNED TO THE MOST CURRENT STANDARDS AND SPECIFICATIONS.
28. POST-CONSTRUCTION STORMWATER CONTROL MEASURES SHALL HAVE A MAINTENANCE PLAN. THE MAINTENANCE PLAN MUST BE FILED IN THE REAL PROPERTY RECORDS OF HAYS COUNTY. THE OWNER/OPERATOR OF ANY NEW DEVELOPMENT OR REDEVELOPMENT SITE SHALL DEVELOP AND IMPLEMENT A MAINTENANCE PLAN ADDRESSING MAINTENANCE REQUIREMENTS FOR ANY STRUCTURAL CONTROL MEASURES INSTALLED ON SITE. OPERATION AND MAINTENANCE PERFORMED SHALL BE DOCUMENTED AND RETAINED AND MADE AVAILABLE FOR REVIEW UPON REQUEST.
- IN ORDER TO PROMOTE SAFE USE OF ROADWAYS AND PRESERVE THE CONDITIONS OF PUBLIC ROADWAYS, NO DRIVEWAY CONSTRUCTED ON ANY LOT WITHIN THIS SUBDIVISION SHALL BE PERMITTED TO ACCESS ONTO A PUBLIC ROADWAY UNLESS (A) A PERMIT FOR USE OF THE COUNTY ROADWAY RIGHT-OF-WAY HAS BEEN ISSUED UNDER CHAPTER 751, AND, (B) THE DRIVEWAY SATISFIES THE MINIMUM SPACING REQUIREMENT SET FORTH IN CHAPTER 721 OF THE HAYS COUNTY DEVELOPMENT REGULATIONS.

IN APPROVING THIS PLAT BY THE COMMISSIONERS COURT OF HAYS COUNTY, TEXAS, IT IS UNDERSTOOD THAT THE BUILDING OF ALL STREETS, ROADS, AND OTHER PUBLIC THOROUGHFARES DELINEATED AND SHOWN ON THIS PLAT, AND ALL BRIDGES AND CULVERTS NECESSARY TO BE CONSTRUCTED OR PLACED IN SUCH STREETS, ROADS, OR OTHER PUBLIC THOROUGHFARES, OR IN CONNECTION THEREWITH SHALL BE THE RESPONSIBILITY OF THE OWNER AND / OR THE DEVELOPER OF THE TRACT OF LAND COVERED BY THIS PLAT IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS PRESCRIBED BY THE COMMISSIONERS COURT OF HAYS COUNTY, TEXAS AND THE COMMISSIONERS COURT OF HAYS COUNTY, TEXAS, ASSUMES NO OBLIGATION TO BUILD THE STREETS, ROADS, OR OTHER PUBLIC THOROUGHFARES SHOWN ON THIS PLAT OR OF CONSTRUCTING ANY BRIDGES OR CULVERTS IN CONNECTION THEREWITH.

STATE OF TEXAS :
COUNTY OF HAYS :

I HEREBY CERTIFY THAT THIS PLAT WAS PREPARED FROM AN ACCURATE AND ON-THE-GROUND SURVEY OF THE PROPERTY MADE UNDER MY SUPERVISION AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE, AND THAT THE CORNER MONUMENTS WERE PROPERLY PLACED UNDER MY PERSONAL SUPERVISION, IN ACCORDANCE WITH THE SUBDIVISION REGULATIONS OF HAYS COUNTY, TEXAS.

NOT FOR RECORDATION

ROBERT GERTSON, RPLS 6367
ATWELL-GROUP, LLC
805 LAS CIMAS PARKWAY, SUITE 310
AUSTIN, TEXAS 78746

STATE OF TEXAS :
COUNTY OF HAYS :

I, DAVID B. FUSILIER, P.E., A LICENSED PROFESSIONAL ENGINEER, DO HEREBY CERTIFY THAT NO PORTION OF ANY RESIDENTIAL LOT IS LOCATED WITHIN A DESIGNATED 100-YEAR FLOOD ZONE AREA, AS DELINEATED ON THE FLOOD INSURANCE RATE MAP (FIRM) COMMUNITY PANEL NO. 48209C 0290 F, EFFECTIVE DATE OF SEPTEMBER 2, 2005. ADDITIONALLY, STORM WATER RUNOFF FROM THE 100-YEAR STORM EVENT SHALL BE CONTAINED WITHIN THE DRAINAGE FACILITIES TO BE LOCATED WITHIN THE RIGHTS-OF-WAY AND/OR GREENBELT DRAINAGE LOTS OR EASEMENTS SHOWN ON THE ATTACHED PLAT.

NOT FOR RECORDATION

DAVID B. FUSILIER, P.E. 87710
ATWELL-GROUP, LLC
805 LAS CIMAS PARKWAY, SUITE 310
AUSTIN, TEXAS 78746

THIS PLAT OF ANTHEM PHASE 3, HAS BEEN SUBMITTED TO AND CONSIDERED BY THE PLANNING COMMISSION OF THE CITY OF MOUNTAIN CITY, TEXAS IS HEREBY APPROVED BY SUCH COMMISSION.

THIS THE _____ DAY OF _____, 20____

BY:

CHAIRMAN

ATTEST:

ANTHEM PHASE 3 IS LOCATED ENTIRELY WITHIN THE BOUNDARIES AND SERVICE AREA OF THE CITY OF KYLE, TEXAS. WATER AND WASTEWATER SERVICE, AS REGULATED BY THE TEXAS COMMISSION ON ENVIRONMENTAL QUALITY, WILL BE PROVIDED TO ALL LOTS REQUIRING SERVICE THROUGH THE CITY OF KYLE'S WATER AND WASTEWATER SYSTEM.

HARPER WILDER, PUBLIC WORKS DIRECTOR
CITY OF KYLE, TEXAS

DATE

BRANDON BRYSDON, PRESIDENT
ANTHEM M.U.D. NO. 1

DATE

SEWAGE DISPOSAL / INDIVIDUAL WATER SUPPLY CERTIFICATION, TO-WIT:

NO STRUCTURE IN THIS SUBDIVISION SHALL BE OCCUPIED UNTIL CONNECTED TO AN INDIVIDUAL WATER SUPPLY OR A STATE - APPROVED COMMUNITY WATER SYSTEM, DUE TO DECLINING WATER SUPPLIES AND DIMINISHING WATER QUALITY, PROSPECTIVE PROPERTY OWNERS ARE CAUTIONED BY HAYS COUNTY TO QUESTION THE SELLER CONCERNING GROUND WATER AVAILABILITY. RAIN WATER COLLECTION IS ENCOURAGED AND IN SOME AREAS MAY OFFER THE BEST RENEWABLE WATER RESOURCE.

NO STRUCTURE IN THIS SUBDIVISION SHALL BE OCCUPIED UNTIL CONNECTED TO A PUBLIC SEWER SYSTEM OR TO AN ON - SITE WASTEWATER SYSTEM WHICH HAS BEEN APPROVED AND PERMITTED BY HAYS COUNTY DEVELOPMENT SERVICES.

NO CONSTRUCTION OR OTHER DEVELOPMENT WITHIN THIS SUBDIVISION MAY BEGIN UNTIL ALL HAYS COUNTY DEVELOPMENT PERMIT REQUIREMENTS HAVE BEEN MET.

MARCUS PACHECO, DIRECTOR
HAYS COUNTY DEVELOPMENT SERVICES

DATE

ERIC VAN GAASBEEK, CFM, RS
HAYS COUNTY FLOODPLAIN ADMINISTRATOR

DATE

STATE OF TEXAS :
COUNTY OF HAYS :

I, ELAINE HANSON CARDENAS, COUNTY CLERK OF HAYS COUNTY, TEXAS, DO HEREBY CERTIFY THAT ON THE _____ DAY OF _____, 20____ A.D., THE COMMISSIONERS COURT OF HAYS COUNTY, TEXAS PASSED AN ORDER AUTHORIZING THE FILING FOR RECORD OF THIS PLAT AND SAID ORDER HAS BEEN DULY ENTERED IN THE MINUTES OF SAID COURT INSTRUMENT NUMBER _____.

WITNESS MY HAND AND SEAL OF OFFICE, THIS THE _____ DAY OF _____, 20____ A.D.

RUBEN BECERRA
COUNTY JUDGE
HAYS COUNTY, TEXAS

ELAINE HANSON CARDENAS
COUNTY CLERK
HAYS COUNTY, TEXAS

STATE OF TEXAS :
COUNTY OF HAYS :

I, ELAINE HANSON CARDENAS, COUNTY CLERK OF HAYS COUNTY, TEXAS DO HEREBY CERTIFY THAT THE FOREGOING INSTRUMENT IN WRITING WITH ITS CERTIFICATE OF AUTHENTICATION WAS FILED FOR RECORD IN MY OFFICE ON THE _____ DAY OF _____, 20____ A.D. AT _____ O'CLOCK _____ M. IN THE PLAT RECORDS OF HAYS COUNTY, TEXAS IN INSTRUMENT NO. _____ WITNESS MY HAND AND SEAL OF OFFICE, THIS THE _____ DAY OF _____, 20____ A.D.

ELAINE HANSON CARDENAS
COUNTY CLERK
HAYS COUNTY, TEXAS

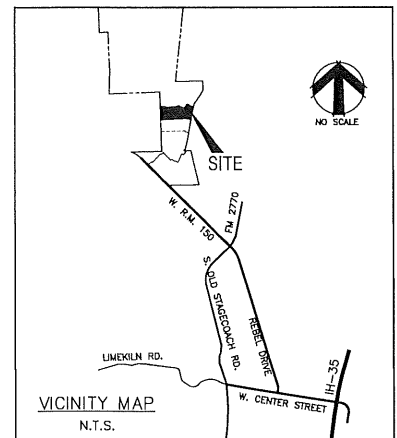
1. BEARINGS ARE REFERENCED TO TEXAS COORDINATE SYSTEM, SOUTH CENTRAL ZONE, NAD 83.
2. ELEVATIONS ARE BASED ON NAVD 1988 DATUM.
3. 1/2" IRON RODS WITH CAPS SET AT ALL CORNERS, UNLESS OTHERWISE NOTED.

BM # 1
IRON ROD WITH CAP STAMPED "AST" AT THE NORTH RAW LINE OF RM150, 8.5' NE OF THE NW CORNER ON SAFETY END TREATMENT OF 18' CMP, 21' NORTH OF THE NORTHERN EDGE OF PAVEMENT AND 5' WEST OF A GRAVEL DRIVE.

TEXAS COORDINATE SYSTEM SOUTH CENTRAL ZONE
COORDINATES:
N= 13923074.71
E= 2313177.69
ELEVATION = 871.77 NAVD88

BM # 2
IRON ROD WITH CAP STAMPED "AST" AT THE NORTH RAW LINE OF RM150, 400' EAST OF A MAILBOX, 25' SOUTH OF A WIRE FENCE AND 18' NORTH OF THE EDGE OF PAVEMENT.

TEXAS COORDINATE SYSTEM SOUTH CENTRAL ZONE
COORDINATES:
N= 13921486.178
E= 2314866.42
ELEVATION = 866.51 NAVD88



PROJECT:	ANTHEM PHASE 3
JOB NUMBER:	ANTHEM 3
SURVEY DATE:	APRIL 2022
SCALE:	1" = 100'
SURVEYOR:	ROBERT GERTSON
TECHNICIAN:	EB
DRAWING:	
DESCRIPTION:	
PARTY CHIEF:	
FIELD BOOKS:	



ATWELL
866.850.4200 www.atwell-group.com

805 LAS CIMAS PARKWAY, SUITE 310
AUSTIN, TX 78746

TBPE NO. 12242

**ANTHEM
PHASE 3
FINAL PLAT**

SHEET

1

OF 2

LOT AREA	16.61 AC.		
STREET ROW AREA	3.696 AC.		
TOTAL AREA	20.306 AC.		
CENTERLINE STREET LINEAR FOOTAGE			
STREET NAME	ROW WIDTH	LENGTH	TYPE
ANTHEM PARKWAY	70'	553	COLLECTOR
GRAND CANYON WAY	50'	722	RESIDENTIAL
NIAGARA FALLS LANE	50'	453	RESIDENTIAL
SMITHSONIAN LANE	50'	1,255	RESIDENTIAL

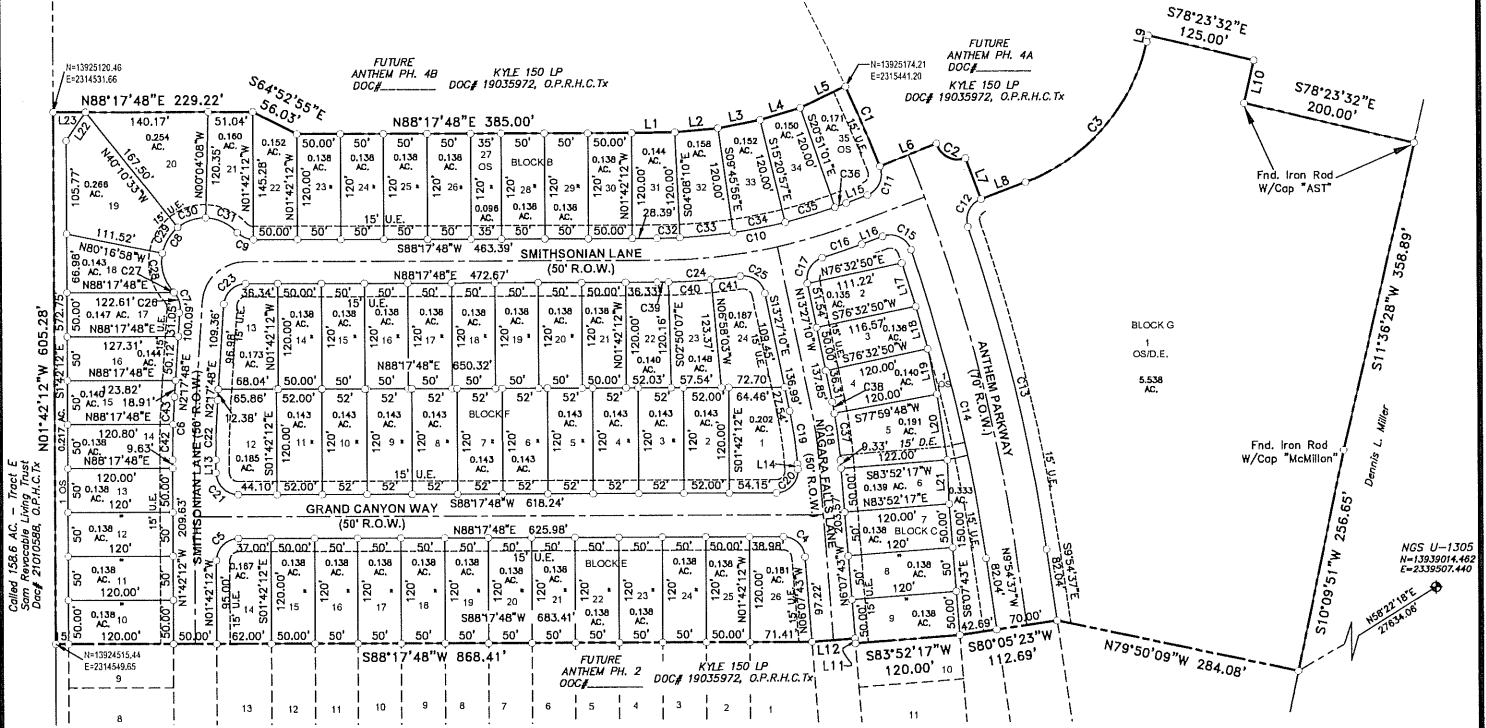
TOTAL LINEAR FEET OF STREET ROW = 2,983

TOTAL NO. SINGLE FAMILY LOTS: 69 (10.35 AC.)
 AVERAGE SIZE OF SINGLE FAMILY LOT = 0.15 AC.
 TOTAL NO. OPEN SPACE & DRAINAGE EASEMENT LOTS: 5 (6.26 AC.)
 TOTAL NO. BLOCKS: 5

LOT SIZE	NO.
>10 ACRES	1
5 TO 10 ACRES	1
2 TO 5 ACRES	0
1 TO 2 ACRES	0
<1 ACRE	73

0 100 200 300
 SCALE: 1" = 100'

LEGEND:	
●	IRON ROD WITH CAP FOUND
○	IRON ROD WITH CAP SET
⊙	COTTON SPINDLE SET
⊠	MAG NAIL SET
⊡	CONCRETE MONUMENT SET
D.E.	DRAINAGE ESMT.
U.E.	UTILITY ESMT.
H.C.D.R.	HAYS COUNTY DEED RECORDS
O.P.R.H.C.T. OFFICIAL PUBLIC RECORDS HAYS COUNTY, TEXAS	



CURVE DATA TABLE				
CURVE #	DELTA	RADIUS	LENGTH	CHORD DIRECTION
C1	2°53'34"	1964.60'	99.19'	S24°51'37"E
C2	94°09'33"	25.21'	41.43'	N64°51'28"W
C3	56°15'35"	225.00'	220.93'	N39°44'15"E
C4	85°34'29"	25.00'	37.34'	N48°54'58"W
C5	90°00'00"	25.00'	39.27'	S43°17'48"W
C6	4°00'00"	1025.00'	71.56'	S0°17'48"W
C7	48°11'23"	25.00'	21.03'	N21°47'54"W
C8	182°22'46"	50.00'	159.16'	S45°17'48"W
C9	48°11'23"	25.00'	21.03'	S67°36'31"E
C10	20°25'45"	625.00'	222.85'	N78°04'55"E
C11	91°16'54"	25.00'	39.83'	N22°13'36"E
C12	89°08'58"	25.00'	38.90'	S24°01'12"W
C13	10°38'51"	2035.00'	378.17'	N15°14'03"W
C14	10°33'00"	1965.00'	361.82'	N15°11'08"W
C15	91°40'20"	25.00'	40.00'	N66°17'48"W
C16	4°05'28"	675.00'	48.20'	N69°54'47"E
C17	85°24'41"	25.00'	37.27'	S29°15'10"W
C18	71°19'27"	525.00'	67.11'	N9°47'27"W
C19	71°19'27"	475.00'	60.72'	N9°47'27"W
C20	94°25'31"	25.00'	41.20'	N41°05'02"E
C21	90°00'00"	25.00'	39.27'	S46°42'00"E
C22	4°00'00"	975.00'	68.07'	S0°17'48"W
C23	86°00'00"	25.00'	37.52'	S45°17'48"W

CURVE DATA TABLE				
CURVE #	DELTA	RADIUS	LENGTH	CHORD DIRECTION
C24	8°08'44"	675.00'	95.96'	N84°13'26"E
C25	86°23'46"	25.00'	37.70'	N56°39'04"W
C26	47°43'04"	25.00'	20.82'	N21°33'44"W
C27	0°28'18"	25.00'	0.21'	N45°39'26"W
C28	55°36'37"	50.00'	48.53'	S18°05'17"E
C29	40°06'25"	50.00'	35.00'	S29°46'14"W
C30	40°06'25"	50.00'	35.00'	S69°52'40"W
C31	46°33'18"	50.00'	40.63'	N66°47'28"W
C32	2°25'58"	625.00'	26.54'	N87°04'49"E
C33	5°37'46"	625.00'	61.41'	N83°02'57"E
C34	5°35'01"	625.00'	60.91'	N77°26'34"E
C35	5°30'05"	625.00'	60.01'	N71°54'01"E
C36	1°16'56"	625.00'	13.99'	N68°30'31"E
C37	5°52'28"	525.00'	53.83'	N9°03'58"W
C38	1°26'59"	525.00'	13.28'	N12°43'41"W
C39	1°07'54"	675.00'	13.33'	N87°43'51"E
C40	4°07'56"	675.00'	48.68'	N85°05'55"E
C41	2°52'54"	675.00'	33.95'	N81°35'30"E
C42	2°15'25"	1025.00'	40.38'	S0°34'30"E
C43	1°44'35"	1025.00'	31.18'	S1°25'30"W

LINE DATA TABLE		
LINE #	DIRECTION	LENGTH
L1	N87°46'24"E	49.83'
L2	N83°02'57"E	49.60'
L3	N77°26'34"E	49.19'
L4	N71°54'01"E	48.47'
L5	N63°23'37"E	57.74'
L6	N66°35'09"E	70.00'
L7	S22°07'58"E	50.00'
L8	N67°52'02"E	54.78'
L9	N11°36'28"E	7.54'
L10	S11°36'28"W	50.00'
L11	N6°07'43"W	5.76'
L12	S83°52'17"W	50.00'
L13	N1°42'12"W	14.63'
L14	N6°07'43"W	6.05'
L15	N87°52'02"E	25.98'
L16	N67°52'02"E	25.64'
L17	N19°22'40"W	51.82'
L18	N17°22'51"W	50.12'
L19	N13°13'41"W	52.62'
L20	S10°13'06"E	75.54'
L21	S3°50'17"E	50.04'
L22	N33°33'38"E	39.84'
L23	N86°17'48"E	38.00'

LOT	BLOCK	ACREAGE	LOT	BLOCK	ACREAGE
1-05	B	0.217 AC	15	E	0.138 AC
10	B	0.138 AC	16	E	0.138 AC
11	B	0.138 AC	17	E	0.138 AC
12	B	0.138 AC	18	E	0.138 AC
13	B	0.138 AC	19	E	0.138 AC
14	B	0.138 AC	20	E	0.138 AC
15	B	0.140 AC	21	E	0.138 AC
16	B	0.144 AC	22	E	0.138 AC
17	B	0.147 AC	23	E	0.138 AC
18	B	0.143 AC	24	E	0.138 AC
19	B	0.266 AC	25	E	0.138 AC
20	B	0.254 AC	26	E	0.181 AC
21	B	0.160 AC	1	F	0.202 AC
22	B	0.152 AC	2	F	0.143 AC
23	B	0.138 AC	3	F	0.143 AC
24	B	0.138 AC	4	F	0.143 AC
25	B	0.138 AC	5	F	0.143 AC
26	B	0.138 AC	6	F	0.143 AC
27	B	0.096 AC	7	F	0.143 AC
28	B	0.138 AC	8	F	0.143 AC
29	B	0.138 AC	9	F	0.143 AC
30	B	0.138 AC	10	F	0.143 AC
31	B	0.144 AC	11	F	0.143 AC
32	B	0.142 AC	12	F	0.185 AC
33	B	0.158 AC	13	F	0.173 AC
34	B	0.150 AC	14	F	0.138 AC
35	B	0.171 AC	15	F	0.138 AC
1-05	C	0.333 AC	16	F	0.138 AC
2	C	0.135 AC	17	F	0.138 AC
3	C	0.136 AC	18	F	0.138 AC
4	C	0.140 AC	19	F	0.138 AC
5	C	0.191 AC	20	F	0.138 AC
6	C	0.139 AC	21	F	0.138 AC
7	C	0.138 AC	22	F	0.140 AC
8	C	0.138 AC	23	F	0.148 AC
9	C	0.138 AC	24	F	0.187 AC
14	E	0.167 AC	25	F	0.138 AC

PROJECT: ANHEM PHASE 3
 JOB NUMBER: ANHEM 3
 SURVEY DATE: DECEMBER 2021
 SCALE: 1" = 100'
 SURVEYOR: ROBERT GERTSON
 TECHNICIAN: EB
 DRAWING:
 DESCRIPTION:
 PARTY CHIEF:
 FIELD BOOKS:

ATWELL
 866.850.4200 www.atwell-group.com
 805 LAS CHUAS PARKWAY, SUITE 310
 AUSTIN, TX 78746
 TBPE NO. 12242

ANHEM
 PHASE 3
 FINAL PLAT

SHEET
2
 OF 2



Phone: 877 816 2800

PO Box 32577
Waco, Texas 76703-4200

SUBDIVISION IMPROVEMENTS PERFORMANCE BOND

BOND NO. CNB-41043-00

KNOW ALL MEN BY THESE PRESENTS:

THAT we, Kyle 150, LP, as Principal, and INSURORS INDEMNITY COMPANY, a corporation organized and doing business and under and by virtue of the laws of the State of Texas and duly licensed to conduct surety business in the State of Texas, as Surety, are held and firmly bound unto Hays County, as Obligee, in the sum of Five Hundred and Thirty Thousand Nine Hundred and Five Dollars and Seventy-Six Cents Dollars (\$ 530,905.76) for which payment, well and truly to be made, we bind ourselves, our heirs, executors and successors, jointly and severally firmly by these presents.

THE CONDITION OF THE OBLIGATION IS SUCH THAT:

WHEREAS, the above named Principal, has agreed to construct in _____
Anthem - Phase 3, Subdivision, in Kyle the
following improvements: TBPW Firm No. 12242 Anthem - Phase 3, Lift Station & Streetlights.

NOW, THEREFORE, the condition of this obligation is such, that if the above Principal shall well and truly perform said agreement or agreements during the original term thereof or of any extension of said term that may be granted by the Obligee with or without notice to the Surety, this obligation shall be void, otherwise it shall remain in full force and effect.

IN WITNESS WHEREOF, the seal and signature of said Principal is hereto affixed and the corporate seal and the name of the said Surety is hereto affixed and attested by its duly authorized Attorney-in-Fact, this 8th day of September, 2022.

Kyle 150, LP

Principal

BY: _____

INSURORS INDEMNITY COMPANY

BY: _____

Attorney-in-Fact

**POWER OF ATTORNEY of INSURORS INDEMNITY COMPANY
Waco, Texas**

KNOW ALL PERSONS BY THESE PRESENTS:

Number: CNB-41043-00

That INSURORS INDEMNITY COMPANY, Waco, Texas, organized and existing under the laws of the State of Texas, and authorized and licensed to do business in the State of Texas and the United States of America, does hereby make, constitute and appoint

JD Steanson of the City of Austin, State of TX

as Attorney in Fact, with full power and authority hereby conferred upon him to sign, execute, acknowledge and deliver for and on its behalf as Surety and as its act and deed, all of the following classes of document, to-wit:

Indemnity, Surety and Undertakings that may be desired by contract, or may be given in any action or proceeding in any court of law or equity; Indemnity in all cases where indemnity may be lawfully given and with full power and authority to execute consents and waivers to modify or change or extend any bond or document executed for this Company.

INSURORS INDEMNITY COMPANY

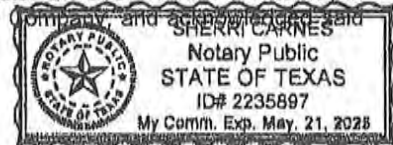
Attest: Tammy Tieperman
Tammy Tieperman, Secretary

By: Dave E. Talbert
Dave E. Talbert, President

State of Texas
County of McLennan

On the 11th day of November, 2014, before me a Notary Public in the State of Texas, personally appeared Dave E. Talbert and Tammy Tieperman, who being by me duly sworn, acknowledged that they executed the above Power of Attorney in their capacities as President, and Corporate Secretary, respectively, of Insurors Indemnity Company, and acknowledged said Power of Attorney to be the voluntary act and deed of the Company.

Sherry Carnes
Notary Public, State of Texas



Insurors Indemnity Company certifies that this Power of Attorney is granted under and by authority of the following resolutions of the Company adopted by the Board of Directors on November 11, 2014:

RESOLVED, that all bonds, undertakings, contracts or other obligations may be executed in the name of the Company by persons appointed as Attorney in Fact pursuant to a Power of Attorney issued in accordance with these Resolutions. Said Power of Attorney shall be executed in the name and on behalf of the Company either by the Chairman and CEO or the President, under their respective designation. The signature of such officer and the seal of the Company may be affixed by facsimile to any Power of Attorney, and, unless subsequently revoked and subject to any limitation set forth therein, any such Power of Attorney or certificate bearing such facsimile signature and seal shall be valid and binding upon the Company and any such power so executed and certified by facsimile signature and seal shall be valid and binding upon the Company with respect to any bond or undertaking to which it is validly attached.

RESOLVED, that Attorneys in Fact shall have the power and authority, subject to the terms and limitations of the Power of Attorney issued to them, to execute and deliver on behalf of the Company and to attach the seal of the Company to any and all bonds and undertakings, and any such instrument executed by such Attorneys in Fact shall be binding upon the Company as if signed by an Executive Officer and sealed and attested to by the Secretary or Assistant Secretary of the Company.

I, Tammy Tieperman, Secretary of Insurors Indemnity Company, do hereby certify that the foregoing is a true excerpt from the Resolutions of the said Company as adopted by its Board of Directors on November 11, 2014, and that this Resolution is in full force and effect. I certify that the foregoing Power of Attorney is in full force and effect and has not been revoked.

In Witness Whereof, I have set my hand and the seal of INSURORS INDEMNITY COMPANY on this 8th day of September, 2022.

Tammy Tieperman
Tammy Tieperman, Secretary

NOTE: IF YOU HAVE ANY QUESTION REGARDING THE VALIDITY OR WORDING OF THIS POWER OF ATTORNEY, PLEASE CALL 800 933 7444 OR WRITE TO US AT P. O. BOX 32577, WACO, TEXAS 76703 OR EMAIL US AT BONDDEPT@INSURORSINDEMNITY.COM.



Phone: 877 816 2800

PO Box 32577

Waco, Texas 76703-4200

IMPORTANT NOTICE - AVISO IMPORTANTE

To obtain information or make a complaint:

You may call Insurors Indemnity Company's toll-free telephone number for information or to make a complaint at:

1-877-816-2800

You may also write to Insurors Indemnity Company at:

P.O. Box 32577
Waco, TX 76703-4200
Or
225 South Fifth Street
Waco, TX 76701

You may contact the Texas Department of Insurance to obtain information on companies, coverages, rights or complaints at

1-800-252-3439

You may write the Texas Department of Insurance at:

Consumer Protection (111-1A)
P.O. Box 149091
Austin, TX 78714-9091
Fax: 512-490-1007

Web: <http://www.tdi.texas.gov>

E-mail: ConsumerProtection@tdi.texas.gov

PREMIUM OR CLAIM DISPUTES:

Should you have a dispute concerning your premium or about a claim, you should contact the agent or the company first. If the dispute is not resolved, you may contact the Texas Department of Insurance.

ATTACH THIS NOTICE TO YOUR POLICY:

This notice is for information only and does not become a part or condition of the attached document.

Para obtener informacion o para someter una queja:

Usted puede llamar al numero de telefono gratis de Insurors Indemnity Company's para informacion o para someter una queja al

1-877-816-2800

Usted tambien puede escribir a Insurors Indemnity Company:

P.O. Box 32577
Waco, TX 76703-4200
O
225 South Fifth Street
Waco, TX 76701

Puede comunicarse con el Departamento de Seguros de Texas para obtener informacion acerca de companias, coberturas, derechos o quejas al

1-800-252-3439

Puede escribir al Departamento de Seguros de Texas:

Consumer Protection (111-1A)
P.O. Box 149091
Austin, TX 78714-9091
Fax: 512-490-1007

Web: <http://www.tdi.texas.gov>

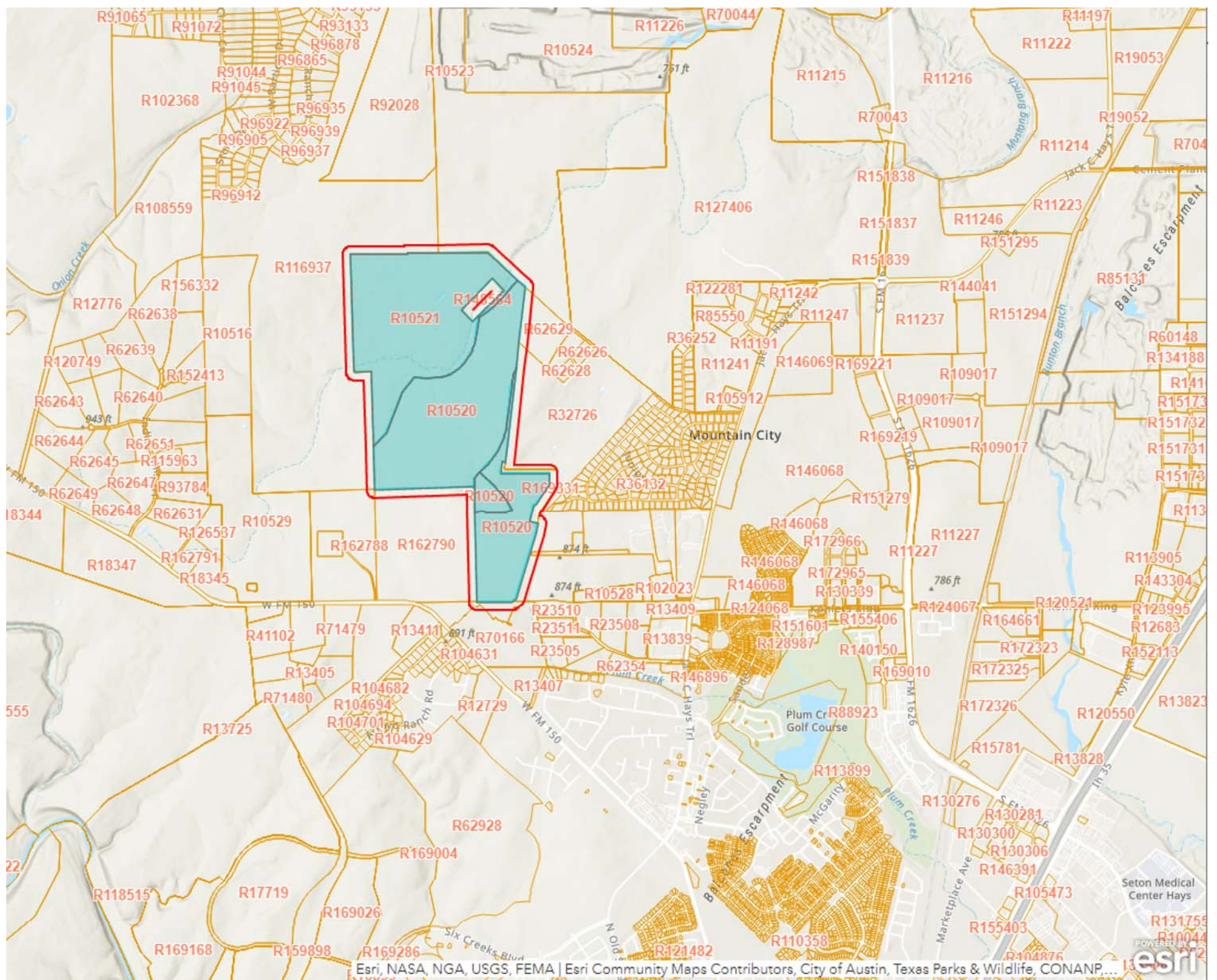
E-mail: ConsumerProtection@tdi.texas.gov

DISPUTAS SOBRE PRIMAS O RECLAMOS:

Si tiene una disputa concemiente a su prima o a un reclamo, debe comunicarse con el agente o la compania primero. Si no se resuelve la disputa, puede entonces comunicarse con el departamento (TDI).

UNA ESTE AVISO A SU POLIZA:

Este aviso es solo para proposito de informacion y no se convierte en parte o condicion del documento adjunto.





AGENDA ITEM REQUEST FORM

Hays County Commissioners Court

Date: 11/01/2022

Requested By:

Sponsor: Judge Becerra

Agenda Item

Discussion and possible action to appoint Arthur Ardolino to the Hays County Child Protective Board, a three-year term ending December 31, 2025. **BECERRA**

Summary

Attachments

Request from HCCPB



Hays County Child Protective Board

October 13th, 2022

Dear County Commissioner's,

Please consider the following new Board member and reappointment Board members:

Arthur Ardolino-New	2022-2024 term
Karen Brown-Since 1978	2023-2025 term
Erica Gallardo-Since 2017	2023-2025 term
Jodi Steen-Since 2020	2023-2025 term
Dixie Camp-Since 2020	2023-2025 term
Karen Housewright-Since 2020	2023-2025 term

Thank you for your consideration.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Samantha Tuzo', written over the printed name.

Samantha Tuzo

Vice Chair

www.hccpbtx.org



Hays County Commissioners Court

Date: 11/01/2022

Requested By:

Jeff McGill

Sponsor:

Commissioner Ingalsbe

Agenda Item:

Discussion and possible action to authorize the County Judge to execute an Amendment to the License and Services Agreement with Tyler Technologies, Inc. related to the Jury Manager Software module. **INGALSBE/McGILL**

Summary:

On October 5, 2022 the Court approved a contract with Tyler Technologies for the Tyler Jury Manager System. This amendment removes scanning options and adds additional texting options for juror notifications.

Attachment: Tyler Technology License and Services Agreement Amendment
Sourcewell Contract #090320-TTI

Fiscal Impact:

Amount Requested: None

Line Item Number: 001-680-00.5429

Budget Office:

Source of Funds: General Fund

Budget Amendment Required Y/N?: No

Comments: N/A

Auditor's Office:

Purchasing Guidelines Followed Y/N?: Yes, Sourcewell Contract

G/L Account Validated Y/N?: Yes, Software Maintenance and Licensing

New Revenue Y/N?: N/A

Comments:

Attachments

Tyler Technology Contract Amendment



AMENDMENT

This amendment ("Amendment") is effective as of the date of signature of the last party to sign as indicated below ("Amendment Effective Date"), by and between Tyler Technologies, Inc. with offices at 5101 Tennyson Parkway, Plano, Texas 75024 ("Tyler") and Hays County, Texas, with offices at 1307 Uhland Road, San Marcos, TX 78666 ("Client").

WHEREAS, Tyler and the Client are parties to an agreement dated October 12, 2021 ("Agreement");

WHEREAS, Tyler and Client desire to amend the terms of the Agreement as provided herein.

NOW THEREFORE, in consideration of the mutual promises hereinafter contained, Tyler and the Client agree as follows:

1. The Tyler Jury Image Data Capture software ("Jury Capture") is hereby discontinued from maintenance as of the Amendment Effective Date. Accordingly, Client's annual maintenance and support fees payment obligation commencing October 12, 2022 is hereby reduced by \$6,279.00. Client acknowledges that it no longer will receive software updates, "bug fixes," services or telephone support for Jury Capture. Client further acknowledges that, if it decides to later utilize Jury Capture, Tyler may require that Client pay for support fees that would have been due if the product had remained in continual use.
2. In recognition of fees paid to Tyler for Jury Capture, Tyler hereby issues to Client a credit for the Jury Capture maintenance and support fees in the amount of \$6,279.00. Such credit shall be applied to Client's future invoices under the Agreement until the credit has been used in full.
3. As of October 12, 2022, the maximum SMS volume included with the Jury Messenger service is hereby increased from 30,000 to 130,000 text messages per year, for a total annual fee of \$9,279.00. Commencing October 12, 2022, Jury Messenger fees shall be invoiced quarterly in advance in the amount of \$2,319.75, in accordance with the terms of the Agreement as modified by this Amendment.
4. This Amendment shall be governed by and construed in accordance with the terms and conditions of the Agreement. Except as expressly indicated in this Amendment, all other terms and conditions of the Agreement shall remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have executed this Amendment as of the dates set forth below.

Tyler Technologies, Inc.

Hays County, TX

By: _____

By: _____

Name: _____

Name: _____

Title: _____

Title: _____

Date: _____

Date: _____



AGENDA ITEM REQUEST FORM

Hays County Commissioners Court

Date: 11/01/2022

Requested By:

T. CRUMLEY

Sponsor:

Commissioner Jones

Co-Sponsor:

Commissioner Smith

Agenda Item:

Discussion and possible action to authorize the execution of a contract between Hays County and Half and Associates, Inc. for engineering services related to the Onion Creek Watershed Hydraulic Study and amend the budget accordingly. **JONES/SMITH/T.CRUMLEY/PACHECO**

Summary:

On May 29, 2022 the Commissioners Court approved the awarding of RFQ 2022-Q01 Onion Creek Watershed Hydraulic Study to Half and Associates, Inc. The attached contract is the culmination of discussions and negotiations between contractor and Hays County staff.

Fiscal Impact:

Amount Requested: \$430,000

Line Item Number: 001-657-00.5448

155-765-99-157.5448

Budget Office:

Source of Funds: General Fund & Texas Water Development Board Grant Funds

Budget Amendment Required Y/N?: Yes

Comments: TWDB grant funds were received in escrow in September 2021 and will be budgeted for use, the 50% required match was budgeted during the budget process.

(\$215,000) - Move Escrow to Increase Fund Balance

\$215,000 - Increase Contract Services 155-765-99-157.5448

Auditor's Office:

Purchasing Guidelines Followed Y/N?: Yes, Request For Qualification 2022-Q01 Onion Creek Watershed Hydraulic Study

G/L Account Validated Y/N?: Yes, Contract Services

New Revenue Y/N?: N/A

Comments:

Attachments

Half and Associates Contract

Scope of Work

AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES ON A DEFINED SCOPE OF SERVICES BASIS

This Agreement for Professional Engineering Services, hereinafter called "Agreement," is entered into by the **Hays County** a **Political Subdivision** of the State of **Texas**, hereinafter referred to as "Client", duly authorized to act by the **Commissioners Court** of said Client, and **HALFF ASSOCIATES, INC.**, a Texas corporation, acting through a duly authorized officer, herein called "Engineer," relative to Engineer providing professional engineering services to the Client. Client and Engineer when mentioned collectively shall be referred to as the "Parties".

W I T N E S S E T H:

For the mutual promises and benefits herein described, the Client and Engineer agree as follows:

I. Term of Agreement. This Agreement shall become effective on the date of its execution by both Parties and shall continue in effect thereafter until terminated as provided herein.

II. Services to be Performed by Engineer. Engineer shall provide to the Client basic engineering services as described in the scope of services attachment and fully incorporated herein as "**Exhibit A**" which services may include, but will not be limited to, those services normally rendered by an engineer to a **Political Subdivision**. Engineer shall perform its obligations under this agreement as an independent contractor and not as an agent or fiduciary of any other party.

III. Compensation. Client agrees to pay monthly invoices or their undisputed portions within 30 days of receipt. Payment later than 30 days shall include interest at 1 percent (1%) per month or lesser maximum enforceable interest rate, from the date the Client received the invoice until the date Engineer receives payment. Such interest is due and payable when the overdue payment is made.

It is understood and agreed by the Parties that Engineer's receipt of payment(s) from Client is not contingent upon Client's receipt of payment, funding, reimbursement, or any other remuneration from others.

Time-related charges will be billed as specified in this Agreement. Unless stated otherwise in this Agreement, direct expenses, subcontracted services, and direct costs will be billed at actual cost plus a service charge of 10 percent. Mileage will be billed at current IRS rates.

IV. Client's Obligations. The Client agrees that it will (i) designate a specific person to act as the Client's representative, (ii) provide Engineer with any previous studies, reports, data, budget constraints, special Client requirements, or other pertinent information known to the Client, when necessitated by a project, (iii) Client agrees to provide site access, and to provide those services described in the attached Scope of Services assist Engineer in obtaining access to property necessary for performance of Engineer's work for the Client, (iv) make prompt payments in response to Engineer's statements and (v) respond in a timely fashion to requests from Engineer. Engineer is entitled to rely upon and use, without independent verification and without liability, all information and services provided by the Client or the Client's representatives.

V. Termination of Work. Either the Client or the Engineer may terminate this Agreement at any time with or without cause upon giving the other Party ten (10) calendar days' prior written notice. Client agrees that termination of Engineer for Client's convenience shall only be utilized in good faith and shall not be utilized if either the purpose or the result of such termination is the performance of all or part of Engineer's services under this Agreement by Client or by another service provider. Following Engineer's receipt of such termination notice the Client shall, within ten (10) calendar days of Client's receipt of Engineer's final invoice, pay the Engineer for all services rendered and all costs incurred up to the date of Engineer's receipt of such notice of termination.

VI. Ownership of Documents. Upon Engineer's completion of services and receipt of payment in full, Engineer shall grant to Client a non-exclusive license to possess the final drawings and instruments produced in connection with Engineer's performance of the work under this Agreement, if any. Said drawings and instruments may be copied, duplicated, reproduced, and used by Client for the purpose of constructing, operating, and maintaining the improvements. Client agrees that such documents are not intended or represented to be suitable for reuse by Client or others for purposes outside the Scope of Services of this Agreement. Notwithstanding the foregoing, Client

understands and agrees that any and all computer programs, GIS applications, proprietary data or processes, and certain other items related to the services performable under this Agreement are and shall remain the sole and exclusive property of Engineer and may not be used or reused, in any form, by Client without the express written authorization of Engineer. Client agrees that any reuse by Client, or by those who obtain said information from or through Client, without written verification or adaptation by Engineer, will be at Client's sole risk and without liability or legal exposure to Engineer or to Engineer's employees, agents, representatives, officers, directors, affiliates, shareholders, owners, members, managers, attorneys, subsidiary entities, advisors, subconsultants or independent contractors or associates. Engineer may reuse all drawings, reports, data, and other information developed in performing the services described by this Agreement in Engineer's other activities. Under no circumstances shall delivery of electronic files for use by the Client be deemed a sale by Consultant, and Consultant makes no warranties, either express or implied, of merchantability or fitness for any particular purpose. In no event shall Consultant be liable for any damages, including but not limited to indirect or consequential damages, as a result of the Client's unauthorized use or reuse of the electronic files. The Client is aware that differences may exist between the electronic files delivered and the printed hard-copy original documents. In the event of a conflict between the signed original documents prepared by Consultant and any electronic or other files or data provided it is understood and agreed that the original signed or sealed hard-copy documents shall govern.

VII. Notices. Any notices to be given hereunder by either party to the other may be affected either by personal delivery, in writing, or by registered or certified mail.

VIII. Sole Parties and Entire Agreement. This Agreement shall not create any rights or benefits to anyone except the Client and Engineer and contains the entire agreement between the parties. Oral modifications to this Agreement shall have no force or effect.

IX. Insurance. Engineer shall, at its own expense, purchase, maintain and keep in force throughout the duration of this Agreement and for a period of four (4) years thereafter, professional liability insurance. The limits of liability shall be \$2,000,000 per claim and in the aggregate. Engineer shall submit to the Client a certificate of insurance prior to commencing any work for the Client.

X. Prompt Performance by Engineer. All services provided by Engineer hereunder shall be performed in accordance with the degree of care and skill ordinarily exercised under similar circumstances by competent members of the engineering profession in the State of **Texas** applicable to such engineering services contemplated by this Agreement.

XI. Client Objection to Personnel. If at any time after entering into this Agreement, the Client has any reasonable objection to any of Engineer's personnel, or any personnel, professionals and/or consultants retained by Engineer, Engineer shall promptly propose substitutes to whom the Client has no reasonable objection, and Engineer's compensation shall be equitably adjusted to reflect any difference in Engineer's costs occasioned by such substitution.

XII. Assignment and Delegation. Neither the Client nor Engineer may assign their rights or delegate their duties without the written consent of the other party. This Agreement is binding on the Client and Engineer to the fullest extent permitted by law. Nothing herein is to be construed as creating any personal liability on the part of any Client officer, employee or agent.

XIII. Jurisdiction and Venue. This Agreement shall be administered under the substantive laws of the State of **Texas** (and not its conflicts of law principles) which shall be used to govern all matters arising out of, or relating to, this Agreement and all of the transactions it contemplates, including without limitation, its validity, interpretation, construction, performance and enforcement. Exclusive venue shall lie in any court of competent jurisdiction in **Hays County, Texas**.

XIV. Integration, Merger and Severability. This Agreement and the Scope of Services, including fee and schedule are fully incorporated herein and represent the entire understanding of Client and Engineer. No prior oral or written understanding shall be of any force or effect with respect to those matters covered herein. The Agreement may not be modified or altered except in writing signed by both Parties. This Agreement constitutes, represents and is intended by the Parties to be the complete and final statement and expression of all of the terms and arrangements between the Parties to this Agreement with respect to the matters provided for in this Agreement. This Agreement supersedes any and all prior or contemporaneous agreements, understandings, negotiations, and discussions between the Parties and all such matters are merged into this Agreement. Should any one or more of the provisions contained in this

Agreement be determined by a court of competent jurisdiction or by legislative pronouncement to be void, invalid, illegal, or unenforceable in any respect, such voiding, invalidity, illegality, or unenforceability shall not affect any other provision hereof, and this Agreement shall be considered as if the entirety of such void, invalid, illegal, or unenforceable provision had never been contained in this Agreement.

XV. Exclusivity of Remedies. The Parties acknowledge and agree that the remedies set forth in this Agreement (Agreed Remedies) are and shall remain the Parties' sole and exclusive remedy with respect to any claim arising from, or out of, or related to, the subject matter of this Agreement. The Parties agree that Engineer is to have no liability or responsibility whatsoever to Client for any claim(s) or loss(es) of any nature, except as set forth in this Agreement. No Party shall be able to avoid the limitations expressly set forth in this Agreement by electing to pursue some other remedy.

XVI. Timeliness of Performance. Engineer shall perform its professional services with due and reasonable diligence consistent with sound professional practices.

XVII. Dispute Resolution. In the event of any disagreement or conflict concerning the interpretation of this Agreement, and such disagreement cannot be resolved by the signatories hereto, the signatories agree to schedule a series of no less than two meetings of senior personnel of Client and Engineer in which the disagreement or conflict will be discussed. The first of such meetings will be scheduled as soon as possible following identification of such disagreement or conflict and the second meeting must occur within thirty (30) days following the initial meeting. Subsequent meetings, if any may be scheduled upon mutual agreement of the parties. The parties agree that these two meetings are conditions precedent to the institution of legal proceedings unless such meetings will adversely affect the rights of one or more of the parties as such rights relate to statutes of limitation or repose.

XVIII. PROJECT ENHANCEMENT/BETTERMENT. IF A COMPONENT OF THE CLIENT'S PROJECT IS OMITTED FROM THE ENGINEER'S CONTRACT DOCUMENTS DUE TO THE BREACH OF CONTRACT OR NEGLIGENCE OF THE ENGINEER, THE ENGINEER WILL NOT BE LIABLE TO THE CLIENT TO THE EXTENT OF ANY BETTERMENT OR ADDED VALUE TO THE PROJECT. SPECIFICALLY, THE CLIENT WILL BE RESPONSIBLE FOR THE AMOUNT IT WOULD HAVE PAID TO THE CONSTRUCTION CONTRACTOR (OR SUPPLIER OR SUBCONTRACTOR OR OTHER) FOR THE COMPONENT AS IF SUCH HAD BEEN INCLUDED IN THE ENGINEER'S CONTRACT DOCUMENTS. NOTWITHSTANDING THE FOREGOING, THE ENGINEER WILL BE RESPONSIBLE, IF AT ALL, TO THE EXTENT REASONABLE AND NECESSARY TO PLACE CLIENT IN THE SAME POSITION IT WOULD HAVE BEEN BUT FOR SUCH BREACH OR NEGLIGENCE, FOR THE REASONABLE (I) RETROFIT EXPENSE, (II) WASTE, OR (III) INTERVENING INCREASE IN THE COST OF THE COMPONENT FURNISHED THROUGH A CHANGE ORDER FROM THE CONTRACTOR. TO THE EXTENT THAT CONTRACTOR PROVIDED UNIT PRICING THE CLIENT UNDERSTANDS AND AGREES THAT THE ISSUE OF INTERVENING UNIT COST INCREASES WOULD ONLY BE APPLICABLE TO NEWLY IDENTIFIED ITEMS, NOT INCREASES IN QUANTITY OF EXISTING ITEMS.

IF IT IS NECESSARY TO REPLACE A COMPONENT OF THE PROJECT DUE TO THE BREACH OF CONTRACT OR NEGLIGENCE OF THE ENGINEER, THE ENGINEER WILL NOT BE LIABLE TO THE CLIENT FOR THE ENHANCEMENT OR UPGRADE OF THE COMPONENT BEYOND THAT ORIGINALLY INCLUDED IN THE CONTRACT DOCUMENTS. IN ADDITION, IF THE COMPONENT HAS AN IDENTIFIABLE USEFUL LIFE THAT IS LESS THAN THE SYSTEM/STRUCTURE/IMPROVEMENT ITSELF, THE DAMAGES OF THE OWNER SHALL BE REDUCED TO THE EXTENT THAT THE USEFUL LIFE OF THE COMPONENT WILL BE EXTENDED BY THE REPLACEMENT THEREOF.

SHOULD AN ALLEGATION OF ERROR, NEGLIGENCE, BREACH OR OTHER DEFICIENCY IN THE SERVICES OF (ENGINEER) OR ANY OF ITS CONSULTANTS, AND SHOULD SUCH ALLEGATION RELATE TO A CONDITION, COMPONENT, OR ITEM, IN THE SERVICES OR THE PROJECT THAT IS ALLEGED OR OTHERWISE CLAIMED TO BE INACCURATE OR OMITTED FROM THE DESIGN PROFESSIONAL'S DRAWINGS, INSTRUMENTS OR OTHER DOCUMENTS PREPARED UNDER THIS AGREEMENT, IT IS UNDERSTOOD AND AGREED BY ALL PARTIES THAT (ENGINEER) AND ITS CONSULTANT'S LIABILITY, IF ANY, SHALL EXCLUDE ANY AND ALL DAMAGES, COSTS, OR EXPENSES THAT CREATE OR RESULT IN ADDED VALUE, UPGRADE, BETTERMENT OR ENANCEMENT OF THE PROJECT AS SUCH RELATE TO THE INACCURATE OR OMITTED CONDITION, COMPONENT, OR ITEM AS ORIGINALLY DESIGNED.

XIX. AGREED REMEDIES

A. IT IS THE INTENT OF THE PARTIES TO THIS AGREEMENT THAT ENGINEER'S SERVICES UNDER THIS AGREEMENT SHALL NOT SUBJECT ENGINEER'S INDIVIDUAL EMPLOYEES, OFFICERS OR DIRECTORS TO ANY PERSONAL LEGAL EXPOSURE FOR CLAIMS AND RISKS ASSOCIATED WITH THE SERVICES PERFORMED OR PERFORMABLE UNDER THIS AGREEMENT.

B. IN RECOGNITION OF THE RELATIVE RISKS AND BENEFITS OF THE PROJECT TO BOTH THE CLIENT AND THE ENGINEER AND ACKNOWLEDGING THAT THE ALLOCATION OF RISKS AND LIMITATIONS OF REMEDIES ARE BUSINESS UNDERSTANDINGS BETWEEN THE PARTIES AND THESE RISKS AND REMEDIES SHALL APPLY TO ALL POSSIBLE LEGAL THEORIES OF RECOVERY. CLIENT FURTHER AGREES, TO THE FULLEST EXTENT PERMITTED BY LAW, AND NOTWITHSTANDING ANY OTHER PROVISIONS OF THIS AGREEMENT OR ANY REFERENCE TO INSURANCE OR THE EXISTENCE OF APPLICABLE INSURANCE COVERAGE, THAT THE TOTAL LIABILITY, IN THE AGGREGATE, OF THE ENGINEER AND ENGINEER'S OFFICERS, DIRECTORS, EMPLOYEES, AGENTS, AND SUBCONSULTANTS TO THE CLIENT OR TO ANYONE CLAIMING BY, THROUGH OR UNDER THE CLIENT, FOR ANY AND ALL CLAIMS, LOSSES, COSTS OR DAMAGES WHATSOEVER ARISING OUT OF, RESULTING FROM, OR IN ANY WAY RELATED TO, THE SERVICES UNDER THIS AGREEMENT FROM ANY CAUSE OR CAUSES OF THE ENGINEER OR THE ENGINEER'S OFFICERS, DIRECTORS, EMPLOYEES, AGENTS, AND SUBCONSULTANTS, SHALL NOT EXCEED THE ENGINEER'S FEE RECEIVED FOR THE SERVICES PERFORMED, ADJUSTED DOWNWARD TO ACCOUNT FOR SUBCONSULTANT/SUBCONTRACTOR FEES INCURRED AND REIMBURSEABLE EXPENSES UNDER THIS AGREEMENT OR \$50,000, WHICHEVER IS LOWER. INCREASED LIMITS MAY BE NEGOTIATED FOR ADDITIONAL FEE.

C. NOTWITHSTANDING ANY OTHER PROVISION OF THE AGREEMENT, ENGINEER SHALL HAVE NO LIABILITY TO THE CLIENT FOR CONTINGENT, CONSEQUENTIAL OR OTHER INDIRECT DAMAGES INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF USE, REVENUE OR PROFIT; OPERATING COSTS AND FACILITY DOWNTIME; OR OTHER SIMILAR BUSINESS INTERRUPTION LOSSES, HOWEVER, THE SAME MAY BE CAUSED.

D. CLIENT MAY NOT ASSERT ANY CLAIM AGAINST ENGINEER AFTER THE SHORTER OF (1) 3 YEARS FROM SUBSTANTIAL COMPLETION OF SERVICES GIVING RISE TO THE CLAIM, OR (2) THE STATUTE OF LIMITATION PROVIDED BY LAW.

E. IT IS UNDERSTOOD AND AGREED BY BOTH PARTIES TO THIS AGREEMENT THAT THE FIRST TEN DOLLARS (\$10.00) OF REMUNERATION PAID TO ENGINEER UNDER THIS AGREEMENT SHALL BE IN CONSIDERATION FOR INDEMNITY/INDEMNIFICATION PROVIDED FOR IN THIS AGREEMENT.

XX. WAIVER. Any failure by Engineer to require strict compliance with any provision of this Agreement shall not be construed as a waiver of such provision, and Engineer may subsequently require strict compliance at any time, notwithstanding any prior failure to do so.

XXI. TWDB REQUIRED PROVISIONS.

- i. By executing this Contract, the ENGINEER accepts the authority of the State Auditor's Office, under direction of the legislative audit committee, to conduct audits and investigations in connection with any and all state funds received pursuant to this contract. The ENGINEER shall comply with and cooperate in any such investigation or audit. The ENGINEER agrees to provide the State Auditor with access to any information the State Auditor considers relevant to the investigation or audit. The ENGINEER also agrees to include a provision in any subcontract related to this contract that requires the ENGINEER to submit to audits and investigation by the State Auditor's Office in connection with any and all state funds received pursuant to the subcontract.
- ii. The ENGINEER(S) and its contracted parties shall maintain satisfactory financial accounting documents and records, including copies of invoices and receipts, and shall make them available for examination and audit by the EXECUTIVE ADMINISTRATOR of the TWDB. Accounting by the ENGINEER(S) and its contracted parties shall be in a manner consistent with generally accepted accounting principles.
- iii. The TWDB shall have unlimited rights to technical or other data resulting directly from the performance of services under this CONTRACT. It is agreed that all reports, drafts of reports, or other material, data, drawings, computer programs and codes associated with this CONTRACT and developed by the ENGINEER(S) or its

contracted parties pursuant to this CONTRACT shall become the joint property of the ENGINEER(S) and the TWDB. These materials shall not be copyrighted or patented by the ENGINEER(S) or by any consultants involved in this CONTRACT unless the EXECUTIVE ADMINISTRATOR of the TWDB approves in writing the right to establish copyright or patent; provided, however, that copyrighting or patenting by the ENGINEER(S) or its SUBCONTRACTORS will in no way limit the TWDB's access to or right to request and receive or distribute data and information obtained or developed pursuant to this CONTRACT. Any material subject to a TWDB copyright and produced by the ENGINEER(S) or TWDB pursuant to this CONTRACT may be printed by the SUBCONTRACTOR(S) or the TWDB at their own cost and distributed by either at their discretion. The ENGINEER(S) may otherwise utilize such material provided under this CONTRACT as it deems necessary and appropriate, including the right to publish and distribute the materials or any parts thereof under its own name, provided that any TWDB copyright is appropriately noted on the printed materials.

- iv. The ENGINEER(S) and its contracted parties agree to acknowledge the TWDB in any news releases or other publications relating to the work performed under this CONTRACT.
- v. This SUBCONTRACT and Agreement shall not be construed as creating any debt by or on behalf of the State of Texas and the TWDB, and all obligations of the State of Texas are subject to the availability of funds. To the extent the performance of this SUBCONTRACT transcends the biennium in which this SUBCONTRACT is entered into, this SUBCONTRACT is specifically contingent upon the continued authority of the TWDB and appropriations therefore.
- vi. For the purpose of this CONTRACT, the ENGINEER(S) will be considered an independent ENGINEER and therefore solely responsible for liability resulting from negligent acts or omissions. The ENGINEER(S) shall obtain all necessary insurance, in the judgment of the ENGINEER(S), to protect themselves, the CONTRACTOR, the TWDB, and employees and officials of the TWDB from liability arising out of this CONTRACT. The ENGINEER(S) shall indemnify and hold the TWDB and the State of Texas harmless, to the extent the ENGINEER(S) may do so in accordance with state law, from any and losses, damages, liability, or claims therefore, on account of personal injury, death, or property damage of any nature whatsoever caused by the ENGINEER(S), arising out of the activities under this CONTRACT.
- vii. The ENGINEER(S) shall be solely and entirely responsible for procuring all appropriate licenses and permits, which may be required by any competent authority for the ENGINEER(S) to perform the subject work.
- viii. The ENGINEER(S) agrees and acknowledge that it is subject to all applicable requirements of the master contract between Hays County and the Texas Water Development Board. Subcontractor adopts by reference the requirements of Article VII of the TWDB Contract for this Subcontract.

XXII. Signatories. The Client and Engineer mutually warrant and represent that the representation of each who is executing this Agreement on behalf of the Client or Engineer, respectively, has full authority to execute this Agreement and bind the entity so represented.

[SIGNATURE PAGE TO FOLLOW]

IN WITNESS WHEREOF, the parties, having read and understood this Agreement, have executed such in duplicate copies, each of which shall have full dignity and force as an original, on the ____ day of _____, 20__.

HALFF ASSOCIATES, INC.

CLIENT: HAYS COUNTY, Texas

By: _____
Signature

Printed Name

Title

Date

By: _____
Signature

Printed Name

Title

Date

HAYS COUNTY

ONION CREEK WATERSHED HYDRUALIC STUDY

(RFQ 2022-Q01)

October 25, 2022

INTRODUCTION

With the release of Atlas 14 rainfall data for Texas, which shows approximately 3 – 4 inches of increase in the 24-hour 1% annual chance storm event, the floodplain study for the Onion Creek watershed in Hays County needs to be updated to reflect a more accurate risk of flooding to help guide development and provide more accurate information to property owners.

Hays County has partnered with the Texas Water Development Board (TWDB) for a Flood Infrastructure Fund (FIF) Category 1 grant to conduct a hydraulic study of the Onion Creek Watershed in Hays County. The main purpose of this study is to develop digital, geo-referenced hydraulic models and floodplain maps for the Onion Creek Watershed for both existing and fully developed land-use conditions utilizing Atlas 14 flows produced by the City of Austin hydrologic models. The scope of study for the Hays County Onion Creek hydraulics will include roughly 87 miles of detailed analysis (Zone AE floodplains) and 159 miles of limited detail or approximate analysis (Zone A floodplains). Additionally, areas of significant risk will be evaluated for regional mitigation alternatives using the new data.

The objectives of this study are:

- To develop updated geo-referenced hydraulic (HEC-RAS) models of the Onion Creek Watershed for both existing and fully developed land-use conditions for selected storm frequencies based on NOAA Atlas 14 rainfall data.
- To map the 100-yr and 500-yr floodplains for existing land use conditions and the 100-yr floodplains for fully developed land-use conditions.
- To develop selected flood risk products to support the evaluation and communication of flood risk.
- To produce a hydraulic, mapping, and flood risk data that is necessary for FEMA to conduct a Physical Map Revision.
- To help county and cities to determine ideal areas and sites for flood mitigation.

BACKGROUND

The Onion Creek watershed encompasses approximately 344 square miles. Onion Creek generally flows easterly, from the headwaters in Blanco County, through Hays County, to the confluence with the Colorado River in Travis County. This study will consider hydraulics for the portion of Onion Creek that reside in Hays County. The study watershed is shown in Attachment 1. Hydraulic modeling and floodplain mapping will be performed for approximately 246 stream miles under this scope of work.

The best available floodplain modeling for selected streams in the watershed was completed in 2013 and utilized HEC-HMS and HEC-RAS computer models for the analysis. The FEMA preliminary floodplain mapping for selected streams in the watershed was last updated in 2019 utilizing the 2013 models. The completion of NOAA Atlas 14, Volume 11 for Texas and the resultant significant change in design rainfall for the area has prompted the need for this new study.

The hydraulic modeling and floodplain mapping will include the streams identified in Table 1. All existing floodplains must be restudied and remapped by detailed or limited detailed methods. The current effective Zone A study reaches indicated for restudy shall be delineated as limited detailed (Zone A floodplains) based on a HEC-RAS model that includes field measurements in place of field survey.

Table 1: Onion Creek Watershed Hydraulic Model Development Summary

Stream Name	Stream Length (Miles)		
	Detailed Study (Zone AE Floodplains with Field Survey)	Limited Detailed Study (Zone A Floodplains with Field Measure)	Total Study
Bear Creek	7.0		7.0
Bear Creek Tributaries	3.9	9.2	13.2
Dripping Springs	2.7		2.7
Eskew Branch		1.3	1.3
Flat Creek		5.1	5.1
Freestone Branch		1.7	1.7
Garlic Creek	3.6		3.6
Garlic Creek Tributaries	0.9		0.9
Gatlin Creek		3.5	3.5
Grooms Branch		1.8	1.8
Grooms Branch Tributaries		0.1	0.1
Jackson Branch		3.8	3.8
Jackson Branch Tributaries		1.2	1.2
Little Bear Creek	12.7		12.7
Little Bear Creek Tributaries	4.1	10.6	14.7
Millseat Branch		2.7	2.7
Mustang Branch		8.6	8.6
Mustang Branch Tributaries		5.3	5.3
North Gatlin Creek		4.3	4.3
Onion Creek	49.6		49.6
Onion Creek Tributaries		38.2	38.2
Pier Branch		3.8	3.8
Rocky Branch		4.8	4.8
South Gatlin Creek		3.7	3.7
South Gatlin Creek Tributaries		2.4	2.4
South Onion Creek		14.8	14.8
South Onion Creek Tributaries		1.7	1.7
Spring Hollow		4.8	4.8
Spring Hollow Tributaries		1.8	1.8
Walnut Spring	2.2		2.2
West Mustang Branch		4.3	4.3
West Mustang Branch Tributaries		0.9	0.9
White Branch		2.7	2.7
White Branch Tributaries		0.6	0.6
Yorks Creek		8.0	8.0
Yorks Creek Tributaries		7.4	7.4
Total Study Lengths	86.7	159.2	245.9

The study shall be performed in accordance with the following standards:

- FEMA's Standards for Flood risk Products (along with relevant section of the older Guidelines and Specifications for Flood Hazard Mapping Partners and a relevant procedure memoranda)
- 2019 draft Hays County Drainage Criteria Manual (DCM) with Atlas 14 criteria incorporated
- User Manuals and Engineering Reference Manuals associated with the hydrologic and hydraulic modeling software used for the study
- TWDB Flood Infrastructure Fund contracting and guidance
- Additional requirements and technical guidelines described in the scope of work.

SCOPE OF WORK

This study will include the development of updated floodplain studies utilizing Atlas 14 for the Onion Creek Watershed in Hays County. The update will be in accordance with FEMA's guidelines and standards and will include evaluation of approximately 87 miles of detailed analysis (Zone AE floodplains) and 159 miles of limited detail or approximate analysis (Zone A floodplains) that are currently in Hays County's FEMA mapped inventory. The project limits are shown in Attachment 1 below.

Task 1: Project Management

Half project management activities shall include task leadership and direction, monthly project status reports, telephone and written communication as needed, project schedule development and updates as needed, personnel and data management among other general project management activities.

- a. Conduct a kick-off meeting with the County to confirm the project objectives and deliverables for this study.
- b. Perform general project management activities as noted above.
- c. Conduct 8 coordination meetings with the County to discuss progress, refinements, and final deliverables. These meetings are anticipated to include 6 virtual meetings and 2 in-person meetings.
- d. Conduct community workshops with stakeholders. It is anticipated that a total of three (3) in-person public workshops will be held for this study. These three public meetings shall include: 1) kick-off meeting, 2) presentation of draft floodplain results and 3) presentation of conceptual mitigation alternatives.
 1. Presentation slides, exhibits, and maps will be created to share project information and to notify the public. Materials will be developed suitable for multiple media uses (print, web, email).
- e. Conduct one (1) meeting to the Commissioners Court to present final project results.

Task 2: Data Collection and Hydrology

Data collection includes a variety of data collection tasks (terrain development, general data collection, collection of historical information) aimed at gathering information relevant to the modeling and planning process. This task also includes coordination necessary for the utilization of the City of Austin Atlas 14 hydrologic model for Onion Creek to establish flows for use in the hydraulic analysis.

- a. Collect, organize and review historical project data from Hays County, including photos, videos, drainage complaint files, and recorded damage assessments.

- b. Collect and review relevant records from Hays County, City of Austin, Lower Colorado River Authority, FEMA and other jurisdictional entities. These may include, but is not limited to, previous masterplan reports, existing hydrologic and hydraulic models, historical rainfall (ground truth radar), high water marks, GIS data, recorded plans, detention pond analyses, topographic data, aerial photography, LiDAR, etc.
- c. Coordinate and collect the City of Austin Atlas 14 hydrologic model for Onion Creek to establish hydrologic flows for use in the hydraulic analysis.

Task 3: Hydraulic Analysis and Mapping

This task includes updating prior studies and developing new hydraulic analysis to reflect current conditions in the project area. Using the latest version of HEC-RAS modeling software, hydraulic analysis shall include one-dimensional (1D), steady-state model to evaluate the existing condition flood frequencies for the 50%, 10%, 4%, 2%, 1% and 0.2% annual chance events (ACE) and the fully developed condition 1% ACE for detailed analysis and limited detailed analysis. This scope of work does not include floodway analysis. Specific tasks include:

- a. Update prior hydraulic analysis or develop new georeferenced hydraulic models using Atlas 14 rainfall discharge, current LiDAR, leveraged field reconnaissance, leveraged field survey, and land use conditions. Hydraulic analysis shall be performed on approximately 246 stream miles consisting of approximately 159 miles of approximate study and approximately 87 miles of detailed study as outlined in Table 1. All analysis shall be consistent with FEMA mapping practices for floodplain management.
- b. Update hydraulic parameters such as bank station placement, Manning's roughness coefficients, ineffective and blocked flow areas to represent existing conditions.
- c. Incorporate structure and cross section data using leveraged field survey and field measurements as appropriate from the prior analysis.
- d. Compare historical flooding events to current updated floodplain studies based upon Atlas 14. This will include information from the October 2015 flood elevations, historical photos, recorded structure flooding and available high-water marks. This comparison will be used for model validation.
- e. Utilizing the updated model, compute flood profiles for a range of flood frequencies including the 50%, 10%, 4%, 2%, 1% and 0.2% ACE flood for detailed and limited detailed analysis streams.
- f. Develop inundation maps and associated depth grids for the existing condition 1%, and 0.2% ACE and fully developed condition 1% ACE flood frequencies along detailed study reaches. Along limited detailed study reaches, develop inundation mapping and depth grids for the existing condition and fully developed condition 1% ACE flood frequencies.
- g. Respond to independent QA/QC for milestones outlined in Task 5.

Task 4: Flood Mitigation Analysis

At the direction of the County, identify conceptual flood mitigation alternatives for areas with repetitive flood damages for the areas. An assessment of current and previous mitigation strategies using Atlas 14 results will be required. The re-evaluation of previous mitigation strategies including structural alternatives (detention ponds, channel improvements, and crossing improvements) and non-structural alternatives (rules/regulations, property buyouts, and structure elevations) to reduce flood risks. As previously evaluated, the flood mitigation analysis will primarily focus on detention to regionally reduce risk within the unincorporated areas of Hays County. Flood mitigation alternatives must be evaluated and whereas applicable, evaluations of these flood risk reduction

solutions should adhere to the “Technical Guidelines for Regional Flood Planning,” Exhibit C to Regional Flood Planning Grant Contracts by the Texas Water Development Board.

- a. Conduct a sensitivity analysis on up to six (6) potential mitigation solutions across the Onion Creek watershed in Hays County. Following review of prior Onion Creek alternatives analysis and coordination with the County, these alternatives will be narrowed to three (3) of the most viable alternatives for further evaluation.
- b. Evaluate up to three (3) conceptual flood mitigation alternatives to reduce identified flooding impacts for the 1% flood event based upon Atlas 14 rainfall. This task includes the hydrologic and/or hydraulic modeling to support the conceptual flood mitigation alternatives. Results of the modeling and associated flood risk information will be utilized to quantify project benefits.
- c. Prepare engineers estimates of probable cost for conceptual flood mitigation alternatives including estimate potential maintenance requirements to ensure sustainable effectiveness.
- d. Conduct simplified TWDB-compliant benefit cost analysis for recommended projects.
- e. Develop fact sheets, including concept illustrations, of recommended mitigation improvements including project description, geographic location, extent of benefits, estimated cost, and cost benefit comparison.
- f. Respond to independent QA/QC for milestones outlined in Task 5.

Each feasible flood mitigation alternatives evaluated must identify and compare cost and benefits of projects. Quantification of cost will include engineering, permitting, easement and/or property acquisition, capital cost, operation and maintenance, and other costs as applicable. Quantification of benefit of the project will include the following items, as applicable:

- Number of structures with reduced 100-year (1% annual chance) flood risk.
- Number of structures removed from 100-year (1% annual chance) flood risk.
- Number of structures removed from 500-year (0.2% annual chance) flood risk.
- Residential structures removed from 100-year (1% annual chance) flood risk.
- Estimated Population removed from 100-year (1% annual chance) flood risk.
- Critical facilities removed from 100-year (1% annual chance) flood risk (#).
- Number of low water crossings removed from 100-year (1% annual chance) flood risk (#).
- Estimated reduction in road closure occurrences.
- Estimated length of roads removed from 100-year flood risk (miles).
- Estimated farm & ranch land removed from 100-year flood risk (acres). Estimated farm & ranch land at 100-year flood risk (acres) should only include farm and ranch land that are negatively impacted by flooding events and should not include land that benefits from floodplains for example rice fields.
- Estimated reduction in fatalities (if available).
- Estimated reduction in injuries (if available).
- Pre-Project Level-of-Service
- Post-Project Level-of-Service
- Cost/ Structure removed
- Percent Nature-based Solution (by cost)
- Negative Impact (Y/N)
- Negative Impact Mitigation (Y/N)
- Social Vulnerability Index (SVI)
- Water Supply Benefit (Y/N)

- Traffic Count for Low Water Crossings

The recommended solutions must be permissible, constructible, and implementable. The recommended flood risk reduction solutions must have no negative effect on neighboring areas in accordance with statutory requirements for regional flood plans (Texas Water Code § 16.062(i) and (j)(2)). Recommended flood risk reduction solutions, including flood mitigation projects, must meet the definition and requirements regarding no negative effect identified in Exhibit C to the Regional Flood Planning Contracts, Technical Guidelines for Regional Flood Planning by the Texas Water Development Board.

Task 5: Independent QA/QC

Includes the implementation of a Quality Assurance/Quality Control (QA/QC) procedure that meets or exceeds the requirements of FEMA. The QA/QC shall include a multi-level approach to ensure that all project goals are met, critical/technical issues are addressed, and high-quality products are delivered in a timely fashion. Items such as quality control checklists shall be created for the various tasks in this project with milestone reviews of the events and describing the items needing further review and comments by the project team. All project materials shall be presented to Hays County with certification of QA/QC review.

- a. Conduct independent QA/QC of hydraulic and mapping milestones prior to submission to Hays County for review. There are two hydraulic milestones and two mapping milestones as listed below.
 1. XS Extensions, Parameters & Initial Results – Submittal includes preliminary hydraulic models, hydraulic data notebook, and supporting data. This modeling shall include incorporation of prior field measurements and field survey, initial frequency simulations, and historical event simulations.
 2. Calibration & Reporting – Submittal includes final hydraulic model, hydraulic data notebook, and supporting data. This submittal shall include draft text documenting non-standard methodologies, assumptions, and results including comparisons to previous data and historical events.
 3. Draft Floodplain Mapping – Submittal includes preliminary floodplain shapefiles with a top width comparison table explaining discrepancies greater than 5% between the model width and the mapped width.
 4. Revised Floodplain Mapping and Grids – Submittal includes final floodplains including associated water surface elevation and depth grids. This submittal shall include a final top width comparison table.
- b. Conduct independent QA/QC of alternatives milestones prior to submission to Hays County for review. There are two alternative milestones as listed below.
 1. Preliminary Alternatives – Submittal includes list and location of sensitivity alternatives and preliminary risk reduction results for viability review.
 2. Advanced Alternatives & Reporting – Submittal includes review of hydrologic and/or hydraulic models, quantification of benefits and costs.

Task 6: Documentation and Deliverables

Includes preparation of a Flood Protection Planning report that provides a thorough explanation of all procedures, assumptions, special considerations, comparisons, checkpoints, independent QA/QC, and planning results. Consultation and coordination with Hays County throughout preparation of the report shall be required

to discuss possible refinement of objectives, current and final methodologies, and any other items requiring further review.

- a. Prepare report documenting the study approach, data collection, hydraulic analysis, modeling results, mitigation analysis and mitigation recommendations.
- b. Prepare supporting information including computation spreadsheets, hydraulic models, and supporting geospatial data. A digital copy of the report will also be provided.

Deliverables:

1. Monthly invoices and progress reports
2. Public Meeting content for three (3) meetings (presentation slides, exhibits, and maps)
3. Final hydraulic dataset submittal (hydraulic modeling notebook, reporting, hydraulic models, supporting GIS datasets – centerlines, cross-sections, flow paths, n-values, floodplains and depth grids)
4. Listing and location of six (6) sensitivity alternatives
5. Fact sheets and quantification of benefits for three (3) conceptual mitigation alternatives
6. Independent QA/QC checklists for each milestone review
7. Digital draft TWDB-compliant report submittal describing the methods, assumptions, and results of the Hays County Onion Creek Watershed Study including supporting information, models, and GIS datasets
8. Digital final report with reconciled TWDB comments

SCHEDULE

Halff's services shall be performed in a timely manner consistent with due and reasonable diligence and sound professional practices. Any adjustments made to the agreed upon schedule shall be acceptable to both parties.

Task / Description	Duration (days)	Start	Finish
Notice to Proceed	1	1-Nov-22	
Task 1: Project Management	457	1-Nov-22	31-Jul-24
Task 2: Data Collection and Hydrology*	244	1-Nov-22	6-Oct-23
Task 3: Hydraulic Analysis and Mapping	414	1-Nov-22	31-May-24
Task 4: Flood Mitigation Analysis	214	6-Oct-23	31-Jul-24
Task 5: Independent QA/QC	457	1-Nov-22	31-Jul-24
Task 6: Documentation and Deliverables	457	1-Nov-22	31-Jul-24

*The schedule is reliant upon the completion of the City of Austin Atlas 14 hydrologic model for Onion Creek. The current schedule assumes hydrology will be ready for incorporation in September of 2023. All efforts will be made to meet the grant schedule of August 1, 2024. However, if hydrology results are delayed there may be an impact to this schedule.

FEE SUMMARY

Payment for services is on a time and materials basis. If the County requests tasks that are not included in the scope of services defined above, additional services will be requested to cover the additional costs to complete the work requested.

Task / Description	Halff Budget	CD&P Budget	Total Budget
Task 1: Project Management	\$40,007	\$29,993	\$70,000
Task 2: Data Collection and Hydrology	\$20,000	\$0	\$20,000
Task 3: Hydraulic Analysis and Mapping	\$235,350	\$0	\$235,350
<i>Detailed Study (87 miles)</i>	<i>\$113,100</i>	<i>\$0</i>	<i>\$113,100</i>
<i>Limited Detailed Study (159 miles)</i>	<i>\$97,250</i>	<i>\$0</i>	<i>\$97,250</i>
<i>Floodplain Mapping and Depth Grids</i>	<i>\$25,000</i>	<i>\$0</i>	<i>\$25,000</i>
Task 4: Flood Mitigation Analysis	\$40,000	\$0	\$40,000
Task 5: Independent QA/QC	\$39,650	\$0	\$39,650
Task 6: Documentation and Deliverables	\$25,000	\$0	\$25,000
Total	\$400,007	\$29,993	\$430,000

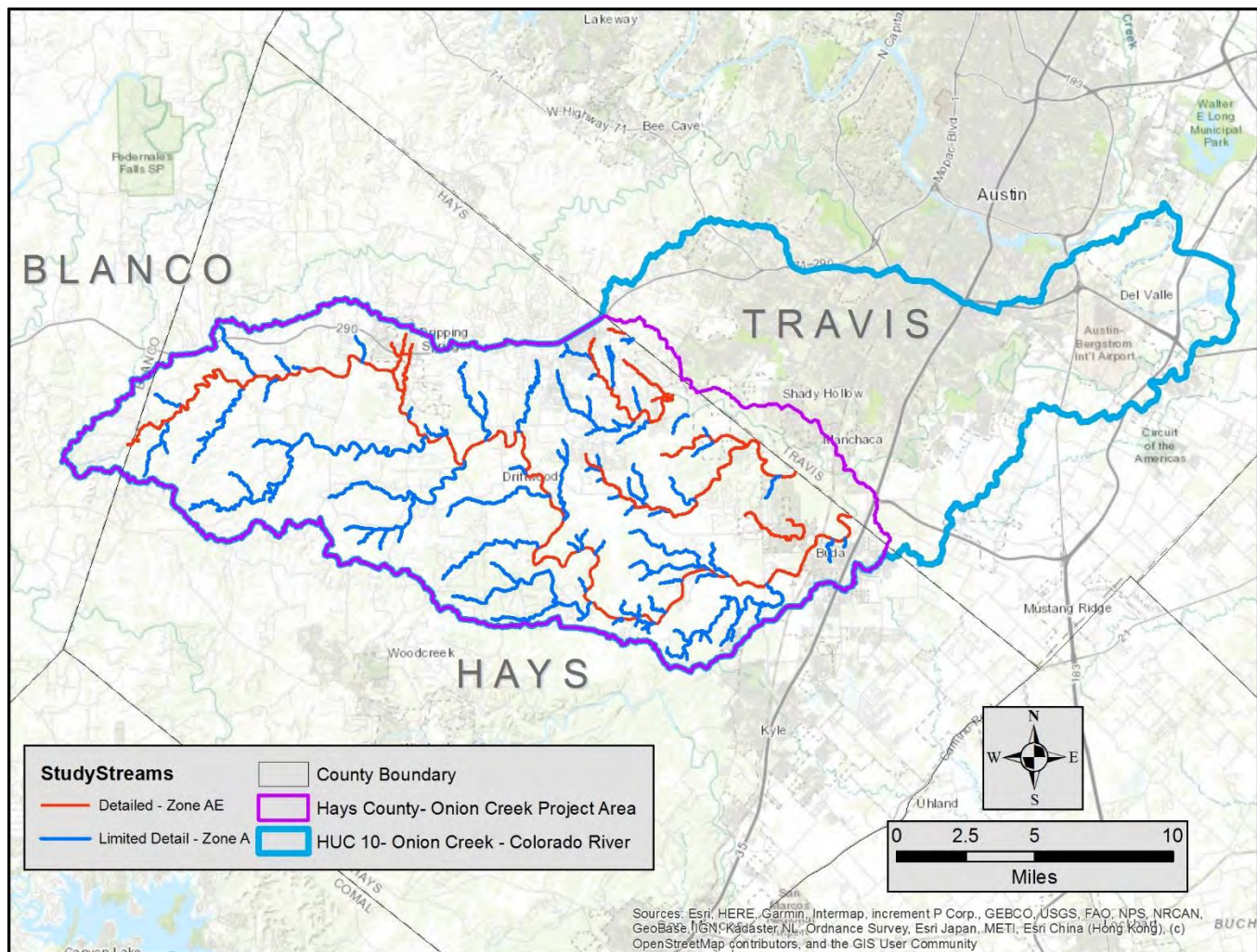
RATE SCHEDULE

Services will be billed on a time and materials basis using the rate schedule below. Direct expenses are not anticipated for this project.

Halff Associates, Inc.	
CATEGORY	HOURLY RATE
Principal	\$250.00
PM	\$205.00
Senior PE	\$215.00
Mid PE	\$160.00
Junior PE	\$130.00
EIT	\$115.00
QA/QC Manager	\$230.00
Senior GIS	\$145.00
Mid GIS	\$115.00
Junior GIS	\$90.00
Senior Programmer	\$190.00
Mid Programmer	\$160.00
Junior Programmer	\$135.00
2 Man Crew	\$182.28
Admin / Clerical	\$70.00

Concept Development & Planning, LLC	
CATEGORY	HOURLY RATE
Principal	\$225.00
Public Engagement Manager	\$175.00
Senior Lead Specialist	\$150.00
Specialist	\$125.00
Coordinator	\$100.00

Attachment 1 – Project Area and Study Streams





AGENDA ITEM REQUEST FORM

Hays County Commissioners Court

Date: 11/01/2022

Requested By: Marcus Pacheco, Development Services Director

Sponsor: Judge Becerra

Agenda Item:

Discussion and possible action to authorize the County Judge to execute a contract for the Development Services Department between Hays County and ESRI, Inc. for a Small Government Term Enterprise License Agreement; authorize a discretionary exemption pursuant to Texas Local Government Code, Ch. 262.024(a)(7)(D) and amend the budget accordingly. **BECERRA/PACHECO**

Summary:

The Development Services Department is at the end of their current contract agreement with ESRI for the GIS Enterprise License and is requesting approval of a new three-year agreement which would allow the county continued use of ESRI ArcGIS products and services county wide. Funding for the first-year of the program was budgeted for FY2023.

Quote and Master Agreement attached.

Fiscal Impact:

Amount Requested: \$55,000.00

Line Item Number: 001-657-00.5429

001-657-99-037.5429

Budget Office:

Source of Funds: General Fund & Grant Funds

Budget Amendment Required Y/N?: No

Comments: Funding was included in the FY23 budget for this contract, \$40,000 in the General Fund DC&S Operating budget and \$15,000 will be covered by the CAPCOG 911 Addressing Grant.

Auditor's Office:

Purchasing Guidelines Followed Y/N?: Requires a discretionary exemption pursuant to Texas Local Government Code, Ch. 262.024(a)(7)(D) for captive replacement or component parts.

G/L Account Validated Y/N?: Yes

New Revenue Y/N?: N/A

Comments:

Attachments

ESRI SGEA Quote and Master Agreement



September 20, 2022

Mr. Stephen Floyd
County of Hays
2171 Yarrington Rd Ste 100
Kyle, TX 78640-6657

Dear Stephen,

The Esri Small Municipal and County Government Enterprise Agreement (SGEA) is a three-year agreement that will grant your organization access to Esri term license software. The EA will be effective on the date executed and will require a firm, three-year commitment.

Based on Esri's work with several organizations similar to yours, we know there is significant potential to apply Geographic Information System (GIS) technology in many operational and technical areas within your organization. For this reason, we believe that your organization will greatly benefit from an Enterprise Agreement (EA).

An EA will provide your organization with numerous benefits including:

- A lower cost per unit for licensed software
- Substantially reduced administrative and procurement expenses
- Complete flexibility to deploy software products when and where needed

The following business terms and conditions will apply:

- All current departments, employees, and in-house contractors of the organization will be eligible to use the software and services included in the EA.
- If your organization wishes to acquire and/or maintain any Esri software during the term of the agreement that is not included in the EA, it may do so separately at the Esri pricing that is generally available for your organization for software and maintenance.
- The organization will establish a single point of contact for orders and deliveries and will be responsible for redistribution to eligible users.
- The organization will establish a Tier 1 support center to field calls from internal users of Esri software. The organization may designate individuals as specified in the EA who may directly contact Esri for Tier 2 technical support.
- The organization will provide an annual report of installed Esri software to Esri.
- Esri software and updates that the organization is licensed to use will be automatically available for downloading.
- The fee and benefits offered in this EA proposal are contingent upon your acceptance of Esri's Small Municipal and County Government EA terms and conditions.

- Licenses are valid for the term of the EA.

This program offer is valid for 90 days. To complete the agreement within this time frame, please contact me within the next seven days to work through any questions or concerns you may have.

To expedite your acceptance of this EA offer:

1. Sign and return the EA contract with a Purchase Order or issue a Purchase Order that references this EA Quotation and includes the following statement on the face of the Purchase Order:

"THIS PURCHASE ORDER IS GOVERNED BY THE TERMS AND CONDITIONS OF THE ESRI SMALL MUNICIPAL AND COUNTY GOVERNMENT EA, AND ADDITIONAL TERMS AND CONDITIONS IN THIS PURCHASE ORDER WILL NOT APPLY."

Have it signed by an authorized representative of the organization.

2. On the first page of the EA, identify the central point of contact/agreement administrator. The agreement administrator is the party that will be the contact for management of the software, administration issues, and general operations. Information should include name, title (if applicable), address, phone number, and e-mail address.
3. In the purchase order, identify the "Ship to" and "Bill to" information for your organization.
4. Send the purchase order and agreement to the address, email or fax noted below:

Esri
Attn: Customer Service SG-EA
380 New York Street
Redlands, CA 92373-8100

e-mail: service@esri.com
fax documents to: 909-307-3083

I appreciate the opportunity to present you with this proposal, and I believe it will bring great benefits to your organization.

Thank you very much for your consideration.

Best Regards,

Phillip White



Environmental Systems Research Institute, Inc.
380 New York St
Redlands, CA 92373-8100
Phone: (909) 793-2853 Fax: (909) 307-3049
DUNS Number: 06-313-4175 CAGE Code: 0AMS3

*To expedite your order, please attach a copy of
this quotation to your purchase order.
Quote is valid from: 9/20/2022 To: 12/19/2022*

Quotation # Q-480635

Date: September 20, 2022

Customer # 15381 Contract # ENTERPRISE
AGREEMENT

County of Hays
Development Services Dept
2171 Yarrington Rd Ste 100
Kyle, TX 78640-6657

ATTENTION: Stephen Floyd
PHONE: (512) 393-2160
EMAIL: stevef@co.hays.tx.us

Material	Qty	Term	Unit Price	Total
168179	1	Year 1	\$55,000.00	\$55,000.00
Populations of 50,001 to 100,000 Small Government Term Enterprise License Agreement				
168179	1	Year 2	\$55,000.00	\$55,000.00
Populations of 50,001 to 100,000 Small Government Term Enterprise License Agreement				
168179	1	Year 3	\$55,000.00	\$55,000.00
Populations of 50,001 to 100,000 Small Government Term Enterprise License Agreement				
Subtotal:				\$165,000.00
Sales Tax:				\$0.00
Estimated Shipping and Handling (2 Day Delivery):				\$0.00
Contract Price Adjust:				\$0.00
Total:				\$165,000.00

This SGEA pricing is based on a calculation of the unincorporated population which is served by the county.

Esri may charge a fee to cover expenses related to any customer requirement to use a proprietary vendor management, procurement, or invoice program.

For questions contact: Phillip White	Email: pwhite@esri.com	Phone: (909) 793-2853 x5803
<p>The items on this quotation are subject to and governed by the terms of this quotation, the most current product specific scope of use document found at https://assets.esri.com/content/dam/esrisites/media/legal/product-specific-terms-of-use/e300.pdf, and your applicable signed agreement with Esri. If no such agreement covers any item quoted, then Esri's standard terms and conditions found at https://go.esri.com/MAPS apply to your purchase of that item. If any item is quoted with a multi-year payment schedule, then unless otherwise stated in this quotation, Customer is required to make all payments without right of cancellation. Third-party data sets included in a quotation as separately licensed items will only be provided and invoiced if Esri is able to provide such data and will be subject to the applicable third-party's terms and conditions. If Esri is unable to provide any such data set, Customer will not be responsible for any further payments for the data set. US Federal government entities and US government prime contractors authorized under FAR 51.1 may purchase under the terms of Esri's GSA Federal Supply Schedule. Supplemental terms and conditions found at https://www.esri.com/en-us/legal/terms/state-supplemental apply to some US state and local government purchases. All terms of this quotation will be incorporated into and become part of any additional agreement regarding Esri's offerings. Acceptance of this quotation is limited to the terms of this quotation. Esri objects to and expressly rejects any different or additional terms contained in any purchase order, offer, or confirmation sent to or to be sent by buyer. Unless prohibited by law, the quotation information is confidential and may not be copied or released other than for the express purpose of system selection and purchase/license. The information may not be given to outside parties or used for any other purpose without consent from Esri. Delivery is FOB Origin for customers located in the USA.</p>		

WHITEP

This offer is limited to the terms and conditions incorporated and attached herein.

Esri Use Only:

Cust. Name _____
 Cust. # _____
 PO # _____
 Esri Agreement # _____



SMALL ENTERPRISE AGREEMENT COUNTY AND MUNICIPALITY GOVERNMENT (E214-3)

This Agreement is by and between the organization identified in the Quotation ("**Customer**") and **Environmental Systems Research Institute, Inc. ("Esri")**.

This Agreement sets forth the terms for Customer's use of Products and incorporates by reference (i) the Quotation and (ii) the Master Agreement (Exhibit A). Should there be any conflict between the terms and conditions of the documents that comprise this Agreement, the order of precedence for the documents shall be as follows: (i) the Quotation, (ii) this Agreement, and (iii) the Master Agreement (Exhibit A). This Agreement shall be governed by and construed in accordance with the laws of the state in which Customer is located without reference to conflict of laws principles, and the United States of America federal law shall govern in matters of intellectual property. The modifications and additional rights granted in this Agreement apply only to the Products listed in Table A.

Table A
List of Products

Uncapped Quantities**Desktop Software and Extensions** (Single Use)

ArcGIS Desktop Advanced
 ArcGIS Desktop Standard
 ArcGIS Desktop Basic
 ArcGIS Desktop Extensions: ArcGIS 3D Analyst,
 ArcGIS Spatial Analyst, ArcGIS Geostatistical Analyst,
 ArcGIS Publisher, ArcGIS Network Analyst, ArcGIS
 Schematics, ArcGIS Workflow Manager, ArcGIS Data
 Reviewer

Enterprise Software and Extensions

ArcGIS Enterprise and Workgroup
 (Advanced and Standard)
 ArcGIS Monitor
 ArcGIS Enterprise Extensions: ArcGIS 3D Analyst,
 ArcGIS Spatial Analyst, ArcGIS Geostatistical Analyst,
 ArcGIS Network Analyst, ArcGIS Schematics, ArcGIS
 Workflow Manager

Enterprise Additional Capability Servers

ArcGIS Image Server

Developer Tools

ArcGIS Engine
 ArcGIS Engine Extensions: ArcGIS 3D Analyst, ArcGIS
 Spatial Analyst, ArcGIS Engine Geodatabase Update,
 ArcGIS Network Analyst, ArcGIS Schematics
 ArcGIS Runtime (Standard)
 ArcGIS Runtime Analysis Extension

Limited Quantities

One (1) Professional subscription to ArcGIS Developer
 Two (2) ArcGIS CityEngine Single Use Licenses
 250 ArcGIS Online Viewers
 250 ArcGIS Online Creators
 37,500 ArcGIS Online Service Credits
 250 ArcGIS Enterprise Creators
 5 ArcGIS Insights in ArcGIS Enterprise
 5 ArcGIS Insights in ArcGIS Online
 50 ArcGIS Tracker for ArcGIS Enterprise
 50 ArcGIS Tracker for ArcGIS Online
 4 ArcGIS Parcel Fabric User Type Extensions (Enterprise)
 4 ArcGIS Utility Network User Type Extensions (Enterprise)
 4 ArcGIS Trace Network User Type Extensions (Enterprise)

OTHER BENEFITS

Number of Esri User Conference registrations provided annually	4
Number of Tier 1 Help Desk individuals authorized to call Esri	4
Maximum number of sets of backup media, if requested*	2
Five percent (5%) discount on all individual commercially available instructor-led training classes at Esri facilities purchased outside this Agreement	

*Additional sets of backup media may be purchased for a fee

Customer may accept this Agreement by signing and returning the whole Agreement with (i) the Quotation attached, (ii) a purchase order, or (iii) another document that matches the Quotation and references this Agreement ("**Ordering Document**"). **ADDITIONAL OR CONFLICTING TERMS IN CUSTOMER'S PURCHASE ORDER OR OTHER DOCUMENT WILL NOT APPLY, AND THE TERMS OF THIS AGREEMENT WILL GOVERN.** This Agreement is effective as of the date of Esri's receipt of an Ordering Document, unless otherwise agreed to by the parties ("**Effective Date**").

Term of Agreement: Three (3) years

This Agreement supersedes any previous agreements, proposals, presentations, understandings, and arrangements between the parties relating to the licensing of the Products. Except as provided in Article 4—Product Updates, no modifications can be made to this Agreement.

Accepted and Agreed:

(Customer)

By: _____
Authorized Signature

Printed Name: _____

Title: _____

Date: _____

CUSTOMER CONTACT INFORMATION

Contact: _____

Telephone: _____

Address: _____

Fax: _____

City, State, Postal Code: _____

E-mail: _____

Country: _____

Quotation Number (if applicable): _____

1.0—ADDITIONAL DEFINITIONS

In addition to the definitions provided in the Master Agreement, the following definitions apply to this Agreement:

"Case" means a failure of the Software or Online Services to operate according to the Documentation where such failure substantially impacts operational or functional performance.

"Deploy", "Deployed" and "Deployment" mean to redistribute and install the Products and related Authorization Codes within Customer's organization(s).

"Fee" means the fee set forth in the Quotation.

"Maintenance" means Tier 2 Support, Product updates, and Product patches provided to Customer during the Term of Agreement.

"Master Agreement" means the applicable master agreement for Esri Products incorporated by this reference that is (i) found at <https://www.esri.com/en-us/legal/terms/full-master-agreement> and available in the installation process requiring acceptance by electronic acknowledgment or (ii) a signed Esri master agreement or license agreement that supersedes such electronically acknowledged master agreement.

"Product(s)" means the products identified in Table A—List of Products and any updates to the list Esri provides in writing.

"Quotation" means the offer letter and quotation provided separately to Customer.

"Technical Support" means the technical assistance for attempting resolution of a reported Case through error correction, patches, hot fixes, workarounds, replacement deliveries, or any other type of Product corrections or modifications.

"Tier 1 Help Desk" means Customer's point of contact(s) to provide all Tier 1 Support within Customer's organization(s).

"Tier 1 Support" means the Technical Support provided by the Tier 1 Help Desk.

"Tier 2 Support" means the Esri Technical Support provided to the Tier 1 Help Desk when a Case cannot be resolved through Tier 1 Support.

2.0—ADDITIONAL GRANT OF LICENSE

2.1 Grant of License. Subject to the terms and conditions of this Agreement, Esri grants to Customer a personal, nonexclusive, nontransferable license solely to use, copy, and Deploy quantities of the Products listed in Table A—List of Products for the Term of Agreement (i) for the applicable Fee and (ii) in accordance with the Master Agreement.

2.2 Consultant Access. Esri grants Customer the right to permit Customer's consultants or contractors to use the Products exclusively for Customer's benefit. Customer will be solely responsible for compliance by consultants and contractors with this Agreement and will ensure that the consultant or contractor discontinues use of Products upon completion of work for Customer. Access to or use of Products by consultants or contractors not exclusively for Customer's benefit is prohibited. Customer may not permit its consultants or contractors to install Software or Data on consultant, contractor, or third-party computers or remove Software or Data from Customer locations, except for the purpose of hosting the Software or Data on Contractor servers for the benefit of Customer.

3.0—TERM, TERMINATION, AND EXPIRATION

3.1 Term. This Agreement and all licenses hereunder will commence on the Effective Date and continue for the duration identified in the Term of Agreement, unless this Agreement is terminated earlier as provided herein. Customer is only authorized to use Products during the Term of Agreement. For an Agreement with a limited term, Esri does not grant Customer an indefinite or a perpetual license to Products.

3.2 No Use upon Agreement Expiration or Termination. All Product licenses, all Maintenance, and Esri User Conference registrations terminate upon expiration or termination of this Agreement.

3.3 Termination for a Material Breach. Either party may terminate this Agreement for a material breach by the other party. The breaching party will have thirty (30) days from the date of written notice to cure any material breach.

3.4 Termination for Lack of Funds. For an Agreement with government or government-

owned entities, either party may terminate this Agreement before any subsequent year if Customer is unable to secure funding through the legislative or governing body's approval process.

3.5 Follow-on Term. If the parties enter into another agreement substantially similar to this Agreement for an additional term, the effective date of the follow-on agreement will be the day after the expiration date of this Agreement.

4.0—PRODUCT UPDATES

4.1 Future Updates. Esri reserves the right to update the list of Products in Table A—List of Products by providing written notice to Customer. Customer may continue to use all Products that have been Deployed, but support and upgrades for deleted items may not be available. As new Products are incorporated into the standard program, they will be offered to Customer via written notice for incorporation into the Products schedule at no additional charge. Customer's use of new or updated Products requires Customer to adhere to applicable additional or revised terms and conditions in the Master Agreement.

4.2 Product Life Cycle. During the Term of Agreement, some Products may be retired or may no longer be available to Deploy in the identified quantities. Maintenance will be subject to the individual Product Life Cycle Support Status and Product Life Cycle Support Policy, which can be found at <https://support.esri.com/en/other-resources/product-life-cycle>. Updates for Products in the mature and retired phases may not be available. Customer may continue to use Products already Deployed, but Customer will not be able to Deploy retired Products.

5.0—MAINTENANCE

The Fee includes standard maintenance benefits during the Term of Agreement as specified in the most current applicable Esri Maintenance and Support Program document (found at <https://www.esri.com/en-us/legal/terms/maintenance>). At Esri's sole discretion, Esri may make patches, hot fixes, or updates available for download. No Software other

than the defined Products will receive Maintenance. Customer may acquire maintenance for other Software outside this Agreement.

a. Tier 1 Support

1. Customer will provide Tier 1 Support through the Tier 1 Help Desk to all Customer's authorized users.
2. The Tier 1 Help Desk will be fully trained in the Products.
3. At a minimum, Tier 1 Support will include those activities that assist the user in resolving how-to and operational questions as well as questions on installation and troubleshooting procedures.
4. The Tier 1 Help Desk will be the initial point of contact for all questions and reporting of a Case. The Tier 1 Help Desk will obtain a full description of each reported Case and the system configuration from the user. This may include obtaining any customizations, code samples, or data involved in the Case.
5. If the Tier 1 Help Desk cannot resolve the Case, an authorized Tier 1 Help Desk individual may contact Tier 2 Support. The Tier 1 Help Desk will provide support in such a way as to minimize repeat calls and make solutions to problems available to Customer's organization.
6. Tier 1 Help Desk individuals are the only individuals authorized to contact Tier 2 Support. Customer may change the Tier 1 Help Desk individuals by written notice to Esri.

b. Tier 2 Support

1. Tier 2 Support will log the calls received from Tier 1 Help Desk.
2. Tier 2 Support will review all information collected by and received from the Tier 1 Help Desk including preliminary documented troubleshooting provided by the Tier 1 Help Desk when Tier 2 Support is required.
3. Tier 2 Support may request that Tier 1 Help Desk individuals provide verification of information, additional information, or answers to additional questions to

supplement any preliminary information gathering or troubleshooting performed by Tier 1 Help Desk.

4. Tier 2 Support will attempt to resolve the Case submitted by Tier 1 Help Desk.
5. When the Case is resolved, Tier 2 Support will communicate the information to Tier 1 Help Desk, and Tier 1 Help Desk will disseminate the resolution to the user(s).

6.0—ENDORSEMENT AND PUBLICITY

This Agreement will not be construed or interpreted as an exclusive dealings agreement or Customer's endorsement of Products. Either party may publicize the existence of this Agreement.

7.0—ADMINISTRATIVE REQUIREMENTS

7.1 OEM Licenses. Under Esri's OEM or Solution OEM programs, OEM partners are authorized to embed or bundle portions of Esri products and services with their application or service. OEM partners' business model, licensing terms and conditions, and pricing are independent of this Agreement. Customer will not seek any discount from the OEM partner or Esri based on the availability of Products under this Agreement. Customer will not decouple Esri products or services from the OEM partners' application or service.

7.2 Annual Report of Deployments. At each anniversary date and ninety (90) calendar days prior to the expiration of this Agreement, Customer will provide Esri with a written report detailing all Deployments. Upon request, Customer will provide records sufficient to verify the accuracy of the annual report.

8.0—ORDERING, ADMINISTRATIVE PROCEDURES, DELIVERY, AND DEPLOYMENT

8.1 Orders, Delivery, and Deployment

- a. Upon the Effective Date, Esri will invoice Customer and provide Authorization Codes to activate the nondestructive copy protection program that enables Customer to download,

operate, or allow access to the Products. If this is a multi-year Agreement, Esri may invoice the Fee up to thirty (30) calendar days before the annual anniversary date for each year.

- b. Undisputed invoices will be due and payable within thirty (30) calendar days from the date of invoice. Esri reserves the right to suspend Customer's access to and use of Products if Customer fails to pay any undisputed amount owed on or before its due date. Esri may charge Customer interest at a monthly rate equal to the lesser of one percent (1.0%) per month or the maximum rate permitted by applicable law on any overdue fees plus all expenses of collection for any overdue balance that remains unpaid ten (10) days after Esri has notified Customer of the past-due balance.

- c. Esri's federal ID number is 95-2775-732.

- d. If requested, Esri will ship backup media to the ship-to address identified on the Ordering Document, FOB Destination, with shipping charges prepaid. Customer acknowledges that should sales or use taxes become due as a result of any shipments of tangible media, Esri has a right to invoice and Customer will pay any such sales or use tax associated with the receipt of tangible media.

8.2 Order Requirements. Esri does not require Customer to issue a purchase order. Customer may submit a purchase order in accordance with its own process requirements, provided that if Customer issues a purchase order, Customer will submit its initial purchase order on the Effective Date. If this is a multi-year Agreement, Customer will submit subsequent purchase orders to Esri at least thirty (30) calendar days before the annual anniversary date for each year.

- a. All orders pertaining to this Agreement will be processed through Customer's centralized point of contact.
- b. The following information will be included in each Ordering Document:
 - (1) Customer name; Esri customer number, if known; and bill-to and ship-to addresses
 - (2) Order number
 - (3) Applicable annual payment due

9.0—MERGERS, ACQUISITIONS, OR DIVESTITURES

If Customer is a commercial entity, Customer will notify Esri in writing in the event of (i) a consolidation, merger, or reorganization of Customer with or into another corporation or entity; (ii) Customer's acquisition of another entity; or (iii) a transfer or sale of all or part of Customer's organization (subsections i, ii, and iii, collectively referred to as "**Ownership Change**"). There will be no decrease in Fee as a result of any Ownership Change.

- 9.1** If an Ownership Change increases the cumulative program count beyond the maximum level for this Agreement, Esri reserves the right to increase the Fee or terminate this Agreement and the parties will negotiate a new agreement.
- 9.2** If an Ownership Change results in transfer or sale of a portion of Customer's organization, that portion of Customer's organization will transfer the Products to Customer or uninstall, remove, and destroy all copies of the Products.
- 9.3** This Agreement may not be assigned to a successor entity as a result of an Ownership Change unless approved by Esri in writing in advance. If the assignment to the new entity is not approved, Customer will require any successor entity to uninstall, remove, and destroy the Products. This Agreement will terminate upon such Ownership Change.

EXHIBIT A

Revised September 14, 2022
IMPORTANT—READ CAREFULLY

Unless superseded by a signed license agreement between you and Esri, Esri is willing to provide Esri Offerings and Services to you only if you accept all terms and conditions contained in this Agreement as the sole and final agreement of the parties regarding your acquisition of these Esri Offerings and Services. Please read the terms and conditions carefully. You may not use the Esri Offerings unless you agree to the terms and conditions of the Agreement. Your access and use of Esri Offerings, or Services, constitutes your acceptance of the terms and conditions of this Agreement. If you do not agree, contact your local sales representative prior to making your purchase.

This Master Agreement ("**Agreement**") is between you ("**Customer**") and **Environmental Systems Research Institute, Inc. ("Esri")**, a California corporation with a place of business at 380 New York Street, Redlands, California 92373-8100 USA.

Attachment A contains definitions of capitalized terms used throughout this Agreement. Each section of this Agreement may include additional definitions that are used exclusively within that section.

1.0 GENERAL GRANT OF RIGHTS AND RESTRICTIONS

1.1 Grant of Rights. In consideration of Customer's payment of all applicable fees and in accordance with this Agreement, Esri

- a. Provides Services as set forth in this Agreement;
- b. Grants to Customer a nonexclusive, nontransferable right and license or subscription to access and use Esri Offerings as set forth in the Specifications and applicable Ordering Documents; and
- c. Authorizes Customer to copy and make derivative works of the Documentation for Customer's own internal use in conjunction with Customer's authorized use of Esri Offerings. Customer will include the following copyright attribution notice acknowledging the proprietary rights of Esri and its licensors in any derivative work:

"Portions of this document include intellectual property of Esri and its licensors and are used under license. Copyright © [*Customer will insert the actual copyright date(s) from the source materials.*] Esri and its licensors. All rights reserved."

The grants of rights in this section (i) continue for the duration of the subscription or applicable Term or perpetually if no Term is applicable or identified in the Ordering Documents and (ii) are subject to additional rights and restrictions in this Agreement including Attachment B.

1.2 Consultant or Contractor Access. Customer may authorize its consultants or contractors to (i) host Esri Offerings for Customer's benefit and (ii) use Esri Offerings exclusively for Customer's benefit. Customer will be solely responsible for its consultants' and contractors' compliance with this Agreement and will ensure that each consultant or contractor discontinues use of Esri Offerings upon completion of work for Customer. Access to or use of Esri Offerings by consultants or contractors that is not exclusively for Customer's benefit is prohibited.

1.3 Reservation of Rights. All Esri Offerings are the copyrighted works of Esri or its licensors; all rights not specifically granted in this Agreement are reserved.

1.4 Customer Content. Esri does not acquire any rights in Customer Content under this Agreement other than as needed to provide Esri Offerings and Services to Customer.

2.0 SOFTWARE AND ONLINE SERVICES

2.1 Definitions. The following definitions supplement the definitions provided in Attachment A:

- a. **"Anonymous Users"** means all who have public access (i.e., without having to provide a Named User Credential) to any part of Customer Content or Customer's Value-Added Applications.
- b. **"App Login Credential(s)"** means a system-generated application login and associated password, provided when registering a Value-Added Application with Online Services, which when embedded in a Value-Added Application allows the Value-Added Application to access and use Online Services.
- c. **"Commercial App Deployment License"** means a license to distribute Value-Added Applications to third parties for a fee.
- d. **"Concurrent Use License"** means a license to install and use Software on computer(s) on a network, provided that the number of simultaneous users may not exceed the number of licenses acquired. A Concurrent Use License includes the right to run passive failover instances of Concurrent Use License management software in a separate operating system environment for temporary failover support.
- e. **"Deployment License"** means a license to incorporate ArcGIS Runtime components in Value-Added Applications and distribute Value-Added Applications to Customer's end users.
- f. **"Deployment Server License"** means a license to use Software under a Server License for all uses permitted in this Agreement and as described in the Documentation.
- g. **"Development Server License"** means a license to use Software under a Server License only to build and test Value-Added Applications as described in the Documentation.
- h. **"Development Use"** means the right to install and use Products to build and test Value-Added Applications as described in the Documentation.
- i. **"Dual Use License"** means the right to install Software on a desktop computer and use it simultaneously with either a personal digital assistant (PDA) or handheld mobile device as long as the Software is only used by a single individual at any time.
- j. **"Failover License"** means a license to install Software on redundant systems for failover operations, but the redundantly installed Software may be operational only during the period the primary site is nonoperational. Except for system maintenance and updating of databases, the redundant Software installation(s) will remain dormant while the primary site (or any other redundant site) is operational.
- k. **"Named User(s)"** is Customer's employee, agent, consultant, or contractor to whom Customer has assigned a unique, secure login credential (identity) enabling access to a Product that requires such identity in order to access identity-managed capabilities within a Product for Customer's exclusive benefit. For educational use, Named Users may include registered students.
- l. **"Named User Credential(s)"** means an individual person's login and associated password enabling that person to access and use Products.
- m. **"Named User License"** means the right for a single Named User to use a specific Esri Offering.
- n. **"Online Services Subscription"** means a limited-term subscription conveying the right for one or more Named Users to access and use Online Services.
- o. **"Redistribution License"** means a license to reproduce and distribute Software provided that
 - 1. Customer reproduces and distributes the Software in its entirety;
 - 2. A license agreement that protects the Software to the same extent as this Agreement accompanies each copy of the Software, and the recipient agrees to the terms and conditions of the license agreement;
 - 3. Customer reproduces all copyright and trademark attributions and notices; and
 - 4. Customer does not charge a fee to others for the use of the Software.
- p. **"Server License"** means a license to install and use Software on any computer being used as a server. Server Licenses may be subject to a limited number of server cores or distributed deployment on multiple servers as described in the Ordering Documents or Documentation. If the Software description includes failover use rights, each Server License includes a Failover License.
- q. **"Service Credit(s)"** means a unit of exchange for consumption of services that can be used with an Online Services Subscription.
- r. **"Sharing Tools"** means publishing capabilities included with Customer's authorized use of Online Services or ArcGIS Enterprise that allow Customer to make Customer Content and Value-Added Applications available to third parties or Anonymous Users.

- s. **"Single Use License"** means a license for a single authorized end user to install and use Software on a single computer. The single authorized end user may also install a second copy for the end user's exclusive use on a second computer as long as only 1 copy of Software is in use at any time. No other end user may use Software under the same license at the same time for any other purpose.
- t. **"Staging Server License"** means a license to use Software under a Server License to build and test Value-Added Applications and map caches; conduct user acceptance, performance, and load testing of other third-party software; stage new commercial data updates; and conduct training activities as described in the Documentation. Customer may use Value-Added Applications and map caches with Development and Deployment Server Licenses.

2.2 License and Subscription Types. Esri provides Products under one or more of the license or subscription types identified in the definitions above. The Documentation and Ordering Documents identify which license or subscription type(s) applies to the ordered Products.

2.3 Software Terms of Use.

- a. Customer may
 - 1. Install, access, or store Software and Data on electronic storage device(s);
 - 2. Make archival copies and routine computer backups;
 - 3. Install and use a newer version of Software concurrently with the version to be replaced during a reasonable transition period not to exceed 6 months, provided that the deployment of either version does not exceed Customer's licensed quantity; thereafter, Customer will not use more Software in the aggregate than Customer's total licensed quantity. This concurrent use right does not apply to Software licensed for Development Use;
 - 4. Move Software in the licensed configuration to a replacement computer;
 - 5. Distribute Software and any associated Authorization Codes required for use of a Deployment License to third parties; and
 - 6. Governmental or not-for-profit organizations that operate a website or offer Internet services may use server Software for revenue-generating purposes on a cost-recovery basis and not for profit.
- b. Customer may customize Software using any macro or scripting language, APIs, or source or object code libraries but only to the extent that such customization is described in the Documentation.
- c. Customer may use all fonts provided with Software for any authorized use of the Software. Customer may also use Esri fonts separately to print any output created by the Software. Any use restrictions for third-party fonts included with the Software are set forth in the font file itself.
- d. Esri publishes Product-specific Software terms of use at <https://www.esri.com/legal/scope-of-use>.

2.4 Online Services Terms of Use.

- a. **Online Services Descriptions.** Esri publishes Online Services Subscription-specific terms of use at <https://www.esri.com/legal/scope-of-use>. Use of Online Services is also subject to the Cloud Services terms found in Attachment B.
- b. **Modifications of Online Services.** Esri may change Online Services and associated APIs at any time, subject to 30 days' notice of material changes and 90 days' notice for deprecations. If any modification, discontinuation, or deprecation of Online Services causes a material, adverse impact to Customer's operations, Esri may, at its discretion, attempt to repair, correct, or provide a workaround for Online Services. If a viable solution is not commercially reasonable, Customer may cancel its subscription to Online Services, and when applicable, Esri will issue a prorated refund.
- c. **Sharing Customer Content.** Sharing Customer Content using Sharing Tools enables third parties to use, store, cache, copy, reproduce, (re)distribute, and (re)transmit Customer Content through Online Services. Esri is not responsible for any loss, deletion, modification, or disclosure of Customer Content resulting from use or misuse of Sharing Tools. Customer's use of Sharing Tools is at Customer's sole risk.

2.5 Named User Licenses. Except as expressly set forth in this Agreement, the following terms apply to Software and Online Services for which Customer acquires Named User Licenses.

a. Named Users.

1. Named User login credentials are for designated users only and may not be shared with other individuals.
2. Customer may reassign a Named User License to another user if the former user no longer requires access to the Software or Online Services.
3. Customer may not add third parties as Named Users, other than third parties included within the definition of Named Users.

b. Anonymous Users. Anonymous Users may only access Software or Online Services through Value-Added Applications that provide access to services or Content, that has been published for shared access through the use of Sharing Tools.

2.6 Value-Added Applications.

1. Customer is responsible for the development, operation, and technical support of Customer Content and Value-Added Applications.
2. Customer may not embed a Named User Credential into Value-Added Applications. Value-Added Applications that enable access to Customer Content that is not publicly shared through the use of Sharing Tools must require individual users to log in to the application(s) with their unique Named User login credentials.
3. Customer may embed an App Login Credential into Value-Added Applications that provide access by Anonymous Users to services or Content, that has been published for shared access by Anonymous Users through the use of Sharing Tools.
4. Customer may not embed an App Login Credential into Value-Added Applications that enables access to Customer Content that is not publicly shared through the use of Sharing Tools. Value-Added Applications that enable access to Customer Content that is not publicly shared through the use of Sharing Tools must require individual users to log in to the application(s) with their unique Named User login credentials.
5. Customer may not provide a third party, other than third parties included within the definition of Named Users, with access to Software or Online Services, other than through Customer's Value-Added Application(s).
6. Customer may transfer Value-Added Applications to any third party for use in conjunction with the third party's own Software license or Online Services Subscription.

2.7 Limited-Use Programs.

- a. Trial, Evaluation, and Beta Programs.** Products acquired under a trial, evaluation, or Beta program are licensed for evaluation and testing purposes only and not for commercial use. Any such use is at Customer's own risk, and the Products do not qualify for Maintenance. If Customer does not convert to a purchased license or subscription prior to the expiration of the trial, evaluation, or Beta license, Customer may lose any Customer Content and customizations made during the license term. If Customer does not wish to purchase a license or subscription, Customer should export such Customer Content before the license expires.
- b. Educational Programs.** Customer agrees to use Products provided under an educational program solely for educational purposes during the educational use Term. Customer shall not use Products for any Administrative Use unless Customer has acquired an Administrative Use license. "Administrative Use" means administrative activities that are not directly related to instruction or education, such as asset mapping, facilities management, demographic analysis, routing, campus safety, and accessibility analysis. Customer shall not use Products for revenue-generating or for-profit purposes.
- c. Grant Programs.** Customer may use Products provided under a grant program for noncommercial purposes only. Except for cost recovery of using and operating the Products, Customer shall not use Products for revenue-generating or for-profit purposes.
- d. Other Esri Limited-Use Programs.** If Customer acquires Products under any limited-use program not listed above, Customer's use of the Products may be subject to the terms set forth in the applicable launching page or enrollment form or as described on Esri's website in addition to the nonconflicting terms of this Agreement.

3.0 DATA

3.1 Definitions. The following definitions supplement the definitions provided in [Attachment A](#):

- a. **"Business Listing Data"** means any dataset that includes a list of businesses and may include other associated business attributes.
- b. **"Esri Content Package(s)"** means a digital file containing Online Services basemap Data extracted from the Online Services.
- c. **"Street Data"** means Data that includes or depicts information about roads, streets, and related features.

3.2 Permitted Uses.

- a. Unless otherwise authorized in writing, Customer may only use Data with the Products for which Esri has provided the Data.
- b. Subject to the restrictions set forth in this Agreement and provided that Customer affixes an attribution statement to the Data representations acknowledging Esri or its applicable licensor(s) as the source of the portion(s) of the Data used for the Data representation, Customer may:
 - 1. Create representations of Data in hard-copy or static, electronic format (e.g., PDF, GIF, JPEG, HTML); in ArcGIS Web Maps; or in Esri Story Maps apps for the purposes of visualizing Data (including basic interactions such as panning, zooming, and identifying map features with simple pop-ups); and
 - 2. Use and include such representations of Data in presentation packages, marketing studies, or other reports or documents containing map images or data summaries derived from the use of Esri Products to third parties.
- c. Customer may take Online Services basemaps offline through Esri Content Packages and subsequently deliver (transfer) them to any device for use with licensed ArcGIS Runtime applications and ArcGIS Desktop. Customer may not otherwise scrape, download, or store Data.
- d. Customer may make any internal use of geocoded results that are obtained and stored in compliance with this Agreement. Customer may not redistribute geocoded results except to (i) use and/or display on a map in connection with Customer's public, non-revenue generating website(s), (ii) permit access to third-parties for the purposes of Customer's business, or (iii) deliver to third parties, on a noncommercial/non-revenue generating basis, static results, static output or static base map renderings.

3.3 Use Restrictions.

- a. Customer may not act directly or authorize its customers to cobrand Data, use Data in any unauthorized service or product, or offer Data through or on behalf of any third party.
- b. Customer may not use or allow third parties to use Data, for the purpose of compiling, enhancing, verifying, supplementing, adding to, or deleting from compilation of information that is sold, rented, published, furnished, or in any manner provided to a third party.
- c. *Business Listing Data.* Unless authorized in writing, Customer may not use Business Listing Data for any direct marketing purposes, resale publication, or distribution to any third party as part of any mailing list, directory, classified advertising, or other compilation of information.
- d. *Street Data.* Customer may use Street Data for mapping, geocoding, routing, and transportation network analysis purposes. Unless otherwise authorized in writing, Customer may not use Street Data for
 - 1. Real-time navigational guidance, including alerting a user about upcoming maneuvers, such as warning of an upcoming turn or calculating an alternate route if a turn is missed;
 - 2. Synchronized multivehicle routing; or
 - 3. Synchronized route optimization.
- e. *Business Analyst Data.* Customer may cache Data provided with ArcGIS Business Analyst Mobile App on a mobile device for use in conjunction with its use of ArcGIS Business Analyst Server. Customer may not otherwise cache or download such Data.

- f. *Partial Dataset Licenses*: If Customer orders a subset of a dataset (e.g., a country, region, state, or local portion of a global database), Customer may use only the licensed subset, not any other portion of the full dataset.
- g. *Michael Bauer Research International Boundaries Data ("MBR Data")*. Customer's right to use data downloaded to Customer's premises (e.g., MBR Data stored in ArcGIS Enterprise, ArcGIS Desktop) terminates 2 years after download.

3.4 Supplemental Terms and Conditions for Data. Certain Data licensors require Esri to flow down additional attribution requirements and terms of use to Customer. These terms supplement and amend the terms of this Agreement and are available at www.esri.com/legal/third-party-data.

4.0 MAINTENANCE

4.1 US Customers. Esri will provide Maintenance for Software and Online Services in accordance with the Esri Maintenance and Support Program and this Agreement if Customer is in the United States.

4.2 Customers outside the United States. Customer may obtain maintenance services from their local Esri authorized distributor under the authorized distributor's own standard support policy.

5.0 PROFESSIONAL SERVICES

5.1 Definitions. The following definitions supplement the definitions provided in Attachment A:

- a. **"Invention(s)"** means a patentable invention, discovery, innovation, or improvement, excluding Deliverables, relating to the subject matter of a Task Order.
- b. **"Inventor(s)"** means a party's principal, employee, consultant, or independent contractor that solely or jointly develops Inventions during Esri's performance under a Task Order.
- c. **"Professional Service Package(s)"** means a predefined unit of Professional Services, including travel-related expenses, provided at a firm fixed price.

5.2 Permitted Uses. Customer may use, copy, and modify Deliverables solely in conjunction with Customer's authorized use of Products.

5.3 Task Orders and Project Schedule.

- a. Esri will provide Professional Services and Deliverables as specified in the Task Order.
- b. Each Task Order will reference this Agreement and specify the commencement date and, if known, the period of performance.
- c. Task Orders may have the format shown in Attachment C or any other agreed-upon format.
- d. Each party will identify, in writing, the project manager who is responsible for Professional Services and Deliverables described in Task Orders. By written notice to the other party's technical administrator, either party may replace the project manager at any time with a similarly qualified person.
- e. Other than pricing and descriptions of Professional Services to be performed, terms and conditions in a Task Order are not binding unless both parties have signed the Task Order. The terms of a signed Task Order take precedence over conflicting terms in this Agreement.

5.4 Ownership of Deliverables and Inventions.

- a. Esri or its licensors own and retain ownership of Deliverables.
- b. Each party will retain all rights, title and ownership to any Inventions made or conceived solely by the respective Party's Inventors during the term of this Agreement, including, but not limited to, such Inventions that Esri's Inventors solely make or conceive while providing technical assistance pursuant to this Agreement.
- c. The parties will jointly own any Inventions made or conceived jointly by Inventors from both Parties. The Parties will negotiate in good faith and cooperate reasonably in (i) deciding whether or not to seek or maintain, or to continue to seek or maintain, patent protection in any country on any joint Invention and the extent and scope of such protection and (ii) protecting and enforcing any patents issued on such joint Invention.

5.5 Acceptance.

- a. **For Firm Fixed Price Task Orders.** Customer will complete its acceptance review within 10 working days of receiving each Deliverable and classify the Deliverables as follows:
1. "DELIVERABLE ACCEPTED" means a Deliverable conforming to the applicable Task Order with no more than minor nonconformities.
 2. "DELIVERABLE ACCEPTED WITH REWORK" means a Deliverable substantially conforming to the applicable Task Order but having a significant number of identified nonconformities and accepted subject to rework by Esri. Esri will rework the Deliverable for the identified nonconformities and resubmit it within 30 days. Customer will rerun its acceptance review for the nonconformities detected in the initial review within 10 working days of such resubmission and will reclassify the Deliverable as either DELIVERABLE ACCEPTED or DELIVERABLE REJECTED.
 3. "DELIVERABLE REJECTED" means a Deliverable that fails to substantially conform to applicable Task Order(s). Esri will rework the Deliverable and resubmit it to Customer within 30 days, at which time Customer will have 10 working days to rerun its acceptance review and reclassify the deliverable as either DELIVERABLE ACCEPTED or DELIVERABLE REJECTED.

Customer may not use any Deliverable in its business operations before acceptance as described in a.1 or a.2. If Customer does not notify Esri in writing within 10 working days after delivery that it has classified the Deliverable as ACCEPTED WITH REWORK or REJECTED in accordance with a.2 or a.3, or if Customer uses the Deliverable in its business operations, the Deliverable will be deemed, as of the first of either of these events to occur, to have been accepted.

- b. **For Task Orders with Professional Service Packages.** Professional Services that Esri performs under Professional Service Packages will be deemed accepted unless Customer notifies Esri within 10 days after performance. Customer may purchase additional Professional Service Packages as needed to complete Customer's work requirements.
- c. **For Time and Materials Task Orders.** Professional Services are provided strictly on a time and materials basis subject to the Task Order not-to-exceed funding limit. The Professional Services provided will be deemed accepted and in compliance with the professional and technical standards of the software industry unless Customer notifies Esri within 10 days after performance. Deliverables produced under a time and materials Task Order will not be subject to acceptance testing.

5.6 Warranty for Deliverables. Esri warrants to Customer that firm fixed price Deliverables materially comply with Specifications for a period of 90 days from acceptance, subject to the limitations and disclaimers of liability set forth in the "Limited Warranties and Disclaimers" section of [Attachment B](#).

5.7 Changes. The parties may make changes within the general scope of a Task Order by mutual agreement. To document any agreed-to scope changes within the general scope of the Task Order that affects the cost or time required to provide a Deliverable, the parties will jointly sign a written amendment to the Task Order that includes an equitable adjustment in the price, schedule, or both.

5.8 Customer Termination for Convenience. Customer may terminate any Task Order at any time upon 30 days' written notice to Esri and upon payment to Esri of all amounts due to date pursuant to this Agreement, including reasonable expenses incurred as a direct result of the termination and the pro rata contract price for the Task Orders affected.

5.9 Payment; Invoices.

- a. **For Firm Fixed Price Task Orders.** Unless otherwise specified in a Task Order, Esri will prepare and submit monthly invoices based on the percentage of completion for each Deliverable as of the end of the preceding month. Upon acceptance of all Deliverables under a Task Order, the unpaid balance of the total Task Order value is due.
- b. **For Professional Service Packages.** Esri will submit an invoice for Professional Service Packages on receipt of an agreed-upon Task Order. Esri may, at its sole discretion, stop work to avoid exceeding the total labor hours or number of days allotted in the applicable Professional Service Package description set forth in

the applicable scope of work. Professional Service Packages expire if not used within 12 months of the Esri invoice date.

c. **For Time and Materials Task Orders.**

1. Esri will submit to Customer written monthly invoices to the Customer address provided in the Task Order. The invoices will include the payment due for work performed, including travel time, and any other direct costs (ODCs) incurred as authorized under a Task Order. The amount invoiced for labor will be equal to the number of hours expended during the previous month, multiplied by the applicable labor rates. Esri will invoice meals on a per diem basis in accordance with the full daily limits specified on the government Defense Travel website at <https://www.defensetravel.dod.mil/site/perdiemCalc.cfm>. Esri and Customer may include hourly labor rates in this Agreement; if the parties elect to do so, Attachment D will identify the hourly labor rates for each labor category. Esri may change hourly labor rates for Services; any increase in the first 5 years will not exceed 5 percent per year. Esri will invoice ODCs, including travel-related expenses incurred, plus a 15 percent burden.
2. Esri may reallocate the budget between activities, labor categories, and ODCs as necessary to facilitate the work effort, provided the overall price is not exceeded. If Esri reaches the funded not-to-exceed Task Order value and the activities are not completed, Customer may increase the order funding to allow additional work to be performed, or Esri may stop work without further obligation or liability.

5.10 System and Data Access. Each Task Order will specify any requirement for Customer to give Esri personnel access to Customer's systems or data.

6.0 ESRI MANAGED CLOUD SERVICES

6.1 Definitions. The following definitions supplement the definitions provided in Attachment A:

- a. **"Esri Managed Cloud Services Environment"** means the hardware, Software, Data, and network platform that Esri or its third-party supplier provides as part of Esri Managed Cloud Services.
- b. **"Hosting"** means the business of housing and making accessible Customer Content via the Internet.

6.2 Provision of Esri Managed Cloud Services.

- a. **General Terms.** Use of Esri Managed Cloud Services is subject to the Cloud Services terms found in Attachment B of this Agreement.
- b. **Requirements Planning.** It is Customer's responsibility to plan for and address with Esri changes to Customer's requirements, such as the need for additional capacity, the update of an application or dataset, or increased level of system availability.
- c. **Compensation and Expenses.** Esri will invoice Customer for the one-time setup fee upon Task Order execution. Thereafter, Esri will invoice Customer monthly for the Esri Managed Cloud Services to be provided the following month. Customer will pay invoices within 30 days of receipt. Customer is responsible for any shipping or temporary storage costs incurred during the delivery of Customer Content to Esri or removal of Customer Content from the Esri Managed Cloud Services Environment. This paragraph does not apply to Esri Managed Cloud Services provided under the Advantage Program (see the section entitled "Advantage Program" in this Agreement).
- d. **Risk of Loss.** Risk of loss for all Customer Content shall at all times remain with Customer, and it is Customer's sole responsibility to maintain regular backups of Customer Content. Risk of loss for the Esri Managed Cloud Services Environment shall at all times remain with Esri.
- e. **Personally Identifiable Information.** Prior to providing any Customer Content under this Agreement, Customer shall notify Esri if Customer Content includes personally identifiable information.
- f. **Public Software.** Customer may not use, and may not authorize its end users or contractors to combine or use any Esri Offerings with any software (including any underlying dependencies), documentation, or other material distributed under an open source or other similar licensing or distribution model that requires as a condition of such model that any component of the Esri Offering to be (1) disclosed or distributed in source code form, (2) made available free of charge to third parties, or (3) modifiable without restriction by third parties.

- g. **Monitoring.** Customer will provide information and other materials related to its Customer Content as reasonably requested by Esri or its Hosting partner to verify Esri's or Customer's compliance with this Agreement. Esri or its Hosting partner, as applicable, may browse, index, or otherwise monitor the external interfaces of any Customer Content solely for the purpose of verifying compliance with this Agreement.

7.0 TRAINING

7.1 Definitions. The following definitions supplement the definitions provided in Attachment A:

- a. **"Customer-Supplied Training Data"** means any digital dataset(s) including, but not limited to, geographic vector data, coordinates, raster data reports, or associated tabular attributes supplied by Customer for use in training.
- b. **"Esri Academy LMS Integration Subscription"** means an optional term-limited subscription to Esri Academy enabling a specific number of unique Customer student(s) access to Self-Paced E-Learning through the customer's Learning Management System.
- c. **"Esri E-Learning Content (SCORM Format) License"** means an optional term-limited license that provides Esri customers with Esri's e-learning content in SCORM (Shareable Content Object Reference Model) format to import into their Learning Management System.
- d. **"Esri Mobile Lab"** means a service in which Esri will deliver and set up a training environment at the Customer's site for use in conjunction with scheduled Esri Training Events only. The Esri Mobile Lab will include certain hardware, software, power cords, and network switches necessary for the instructor to set up the environment.
- e. **"Esri Training Event(s)"** means an Esri site class, Esri instructor-led online class, a Customer site/private class, workshop, or coaching services.
- f. **"Esri Training Representative"** means Customer's primary Esri liaison in organizing private Esri Training Events.
- g. **"Student(s)"** means a Customer employee or agent who is a registered participant in a specific Esri Training Event or Training-related services. If Customer is an individual, then Student means Customer.
- h. **"Training Pass"** means a nonrefundable, nontransferable block of prepaid training days with a fixed price per day throughout the Term of the Training Pass.
- i. **"Esri Mobile Router"** means a service in which Esri will deliver and setup a mobile router at the Customer's site for use in conjunction with a scheduled Esri Training Event only. The mobile router provides high-speed wireless internet access needed to run the Esri Training Event.
- j. **"Learning Management System" or "LMS"** shall mean third-party software acquired separately by Customer that allows Customer to consume E-Learning Content (SCORM Format) for the purpose of re-serving it to the Customer's internal employees.

7.2 Permitted and Prohibited Uses.

- a. Esri provides Training Materials for Training purposes only and for the exclusive use of the Student who attends the Training course for which the Training Materials are provided.
- b. Customer may reproduce copies of Training Materials for registered Students.
- c. Customer may not and may not permit any Student to (i) separate the component parts of Training Materials for any use or (ii) use audio or video recording equipment during an Esri Training Event.
- d. Esri may issue temporary Product authorizations if Customer has an insufficient number of Products available for Training. Customer may use such Products as Training Materials under the terms of this Agreement. Customer will uninstall all deployed Products and return any media provided by Esri upon conclusion of the Esri Training Event.
- e. Customer will retain ownership of any Customer-Supplied Training Data.

7.3 Esri's Responsibilities.

Esri will

- a. Provide an instructor qualified to conduct Training;
- b. Provide all necessary Training Materials for Student; and

- c. Confirm Esri Training Events approximately 10 business days prior to the scheduled start date. Esri will only confirm Student registrations that include a payment method. Registrations without a confirmed payment method are placed on the reservation waiting list. All reservations on the waiting list are subject to availability. Customer site/Private class and coaching services confirmation is also dependent on receipt of the completed Customer site training request form.

7.4 Customer's Responsibilities.

Customer will

- a. Ensure that all Students have received confirmation from Esri to participate in an Esri Training Event. Esri reserves the right to disconnect any Student who permits unregistered student access to an online classroom Esri Training Event. In such case, the full Esri Training Event fee will be invoiced and payable;
- b. Ensure that all Students meet the minimum prerequisites for the applicable Esri Training Event as listed on Esri's training website;
- c. Submit Student registrations with payment method information at least 15 business days before the scheduled start date;
- d. Provide the Esri Training Representative with a list of names and email addresses of any Students who are to attend an Esri Training Event at least 3 business days before the scheduled start date, for compliance with the US embargoed country lists and the various US Government Lists of Parties of Concern or Specially Designated Nationals lists;
- e. For classes held at the Customer-designated facility, complete a client-site training request form; consult with Esri personnel to determine classroom, computer, and network requirements; and provide all such required classrooms, computers, and network access;
- f. Ensure that Student use of Training Materials provided by Esri complies with the terms of this Agreement; and
- g. Assume full liability and responsibility for Student attending Training course(s) under this Agreement.
- h. If the Esri Mobile Lab or Mobile Router is used, Customer will
 - 1. Take delivery of the Esri Mobile Lab or Mobile Router from the shipping agent, and keep it in a secure, locked area at all times;
 - 2. Immediately report any previously damaged Esri Mobile Lab or Mobile Router equipment to the Esri Training Representative upon receipt of the shipment; and
 - 3. Be financially responsible for loss of, damage to, or theft of Esri Mobile Lab or Mobile Router equipment while in Customer's possession.

7.5 Student Registration and Training Event Change Policy.

- a. Customer will provide advance written notice to Esri Customer Service at service@esri.com to reschedule or cancel any Esri Training Event or to substitute a student in a scheduled Esri Training Event.
- b. A replacement Student must be from the same Customer organization as the Student being replaced.
- c. If Customer reschedules an Esri Training Event three or fewer days before the scheduled start date, Esri will charge Customer 50 percent of the fee plus the cost of the rescheduled Esri Training Event.
- d. If Customer (i) cancels an Esri Training Event 3 or fewer days before the scheduled start date without concurrently rescheduling or (ii) is absent without notice from the Esri Training Event, Customer will be liable for the full Esri Training Event fee.
- e. If cancellation of an Esri Training Event is necessary due to causes beyond the party's reasonable control, the affected party may reschedule or cancel the Esri Training Event without incurring any liability.
- f. *Termination of Agreement.* Students who are currently registered for an Esri Training Event as of the date of termination of this Agreement may attend the scheduled Esri Training Event, subject to the terms and conditions of this Agreement.

7.6 Invoicing; Prepaid Fees.

- a. Esri will invoice Customer upon completion of the Esri Training Event or on purchase of a Training Pass. On Customer request, Esri will invoice in advance for an Esri Training Event.

- b. If Customer is invoiced and pays that invoice prior to the scheduled Esri Training Event, then Customer has 1 year from the date of the invoice to consume training days. For a multiyear order, training days must be consumed by the end date specified on the Esri quotation. Thereafter, all prepaid fees are forfeited.
- c. Training Pass policies and redemption rates are described at <https://www.esri.com/training/training-for-organizations/>.

This section 7.6 does not apply to Training provided under the Advantage Program.

7.7 Availability and General Provision of Wireless Service

- a. Esri will not be liable for any failure of or delay in the performance of this Agreement for the period that such failure or delay is due to wireless service interruptions or unavailability.

7.8 Esri E-Learning in the Customer's Learning Management System

- a. Esri E-Learning Content (SCORM format) License, specific terms of use incorporated by reference are found at <https://www.esri.com/content/dam/esrisites/en-us/media/legal/scorm-lms/scorm-terms-and-conditions.pdf>
- b. Esri Academy LMS Integration Subscription, specific terms of use incorporated by reference are found at <https://www.esri.com/content/dam/esrisites/en-us/media/legal/scorm-lms/lms-terms-and-conditions.pdf>

8.0 ADVANTAGE PROGRAM

8.1 Definitions. The following definitions supplement the definitions provided in Attachment A:

- a. **"Activity Description"** means a mutually agreed upon written statement that confirms the number of Learning and Services Credits that Esri estimates is required to perform an activity and authorizes Esri to begin work based on such estimate. The Activity Description serves as the Task Order for Services provided under the Advantage Program.
- b. **"Advantage Program"** means either Advantage Program, as described at www.esri.com/services/eeap/components, or the Advantage Program for Partners, as described at www.esri.com/partners/bpap/components.
- c. **"Authorized Contact"** means Customer's point of contact for the Advantage Program identified below.
- d. **"Learning and Services Credits"** means a contracted unit of exchange that Customer may use to acquire Professional Services, Training, PSS, Esri Managed Cloud Services, or related travel expenses as described below.
- e. **"Premium Support Services" or "PSS"** means a prioritized incident management and technical support program further described at <https://support.esri.com/en/support/premium>.
- f. **"Advisor"** means an Esri consultant assigned to work with Customer to provide Professional Services such as advising Customer on GIS strategies, facilitating annual planning, and developing and coordinating a collaborative work plan under the Advantage Program.

8.2 Advantage Program Description. The Advantage Program is provided on an order-by-order, annual subscription basis and provides strategy and planning support in addition to a menu of items including Professional Services, Training, PSS, and Esri Managed Cloud Services that Customer can select to best meet its needs with guidance from Advisor. The Advantage Program may change from time to time. The Advantage Program includes the following:

- a. **Advisor.** Customer will receive up to the number of Advisor hours ordered. Customer may elect to retain additional Advisor hours for a supplemental price.
- b. **Annual Planning Meeting.** A 1-day annual planning meeting is included.
- c. **Work Plan.** A collaboratively developed document is designed to drive the program's implementation through definition of Customer's GIS vision, goals, and objectives.
- d. **Learning and Services Credits.** Customer will receive the number of Learning and Services Credits ordered. Customer may use the credits toward any combination of Professional Services, Training, PSS, Esri Managed Cloud Services, or related travel expenses. Customer may order, for an additional price, additional Learning and Services Credits. Learning and Services Credits may be exchanged as described at the applicable

Advantage Program website. Esri will provide a monthly report outlining usage of Learning and Services Credits to date to the Authorized Contact.

- e. **Technology Webcasts.** Esri will provide an email invitation to the Authorized Contact for webcasts presenting business and technical information related to enterprise GIS.
- f. **No Project Services.** The Advantage Program is not designed for Esri to provide project-specific Professional Services such as custom application or database development for solutions or applications. Esri will not provide these types of Professional Services under the Advantage Program and does not warrant that Deliverables provided under an Advantage Program will comply with Specifications.

8.3 Authorized Contact Information. Customer identifies the following person as its initial Authorized Contact.

(to be completed by Customer):

Contact Name: _____

Address: _____

City, State, ZIP: _____

Email: _____

Telephone: _____

Fax: _____

8.4 Current on Maintenance. Customer must remain current on standard Software Maintenance during the Advantage Program term.

8.5 Authorization of Learning and Services Credits Use. Customer will contact its account manager or Advisor to consume Learning and Services Credits for a particular request. Esri will submit an Activity Description by email to Customer for confirmation and authorization to use Learning and Services Credits. Customer may authorize the consumption of Learning and Services Credits by submitting an email. Esri will begin work and deduct the estimated credit amount stated in the Activity Description from the unused Learning and Services Credits available.

8.6 Activity Descriptions for Esri Managed Cloud Services. The Activity Description for Esri Managed Cloud Services orders must include the following:

- a. **The Esri Managed Cloud Services Term.** The time period in which Esri provides the Esri Managed Cloud Services to Customer. The Esri Managed Cloud Services term does not begin until setup and deployment of the data and application are complete.
- b. **Targeted System Availability.** The minimum percentage of time that Customer has external access to the application and associated Customer Content through the Internet. Examples of supported levels of system availability are 95 percent, 99 percent, and 99.9 percent. Not all Esri Managed Cloud Services offerings include a Targeted System Availability.
- c. **Number of Anticipated Requests.** A The number of requests made by an end user through a client (e.g., desktop computer, web application, mobile device) and sent to a server(s) that is set up in the Esri Managed Cloud Services Environment by Esri and performs computational tasks on behalf of the end user. An example of a common request used in a GIS is a map request. A map request is made every time a user pans, zooms, or queries a map service.
- d. **Amount of Data Storage.** The storage capacity required to retain digital data, which is to be used and consumed in Customer GIS applications or Cloud Services.
- e. **Learning and Services Credits Consumption.** The price for the Esri Managed Cloud Services in Learning and Services Credits.

The Data storage location may be defined in the Activity Description.

8.7 Travel and Per Diem Expenses. Any Esri travel and per diem expenses will be quoted separately. Travel expenses will include a 15 percent burden, and per diem will be determined in accordance with the full daily limits specified on the government Defense Travel website at <https://www.defensetravel.dod.mil/site/perdiemCalc.cfm>. Customer will use Learning and Services Credits for travel and per diem expenses.

8.8 Notification of Consumed Credits. Esri will notify Customer if the authorized Learning and Services Credits are consumed prior to completion of the requested work. Customer may elect to direct the use of additional Learning and Services Credits, if available; procure additional Learning and Services Credits; or notify Esri to stop work on such requested work. Esri reserves the right to stop work if Customer has consumed all its Learning and Services Credits.

8.9 Review of Proposed Activities. Any activities proposed to be completed under the Advantage Program will be subject to Esri's review and approval to ensure alignment with the intent of the program.

8.10 Invoicing.

- a. Esri shall invoice Customer as quoted for the Advantage Program subscription, additional Learning and Services Credits, or Advisor services upon receipt of Customer's order. Subsequently, Esri will invoice annually at least 30 days in advance of the Advantage Program subscription expiration date. Esri will extend the Advantage Program subscription for a subsequent annual term upon receipt of Customer's payment of the renewal invoice. Esri will invoice fees for additional Learning and Services Credits or Advisor services upon receipt of Customer's order.
- b. Pricing for program renewals and new or additional Services will be in accordance with Esri's standard pricing at the time of purchase or renewal.

8.11 Termination and Expiration. Upon termination or expiration of an Advantage Program subscription:

- a. Services will end as of the expiration or termination date stated; and
- b. Unless either party terminates the Advantage Program subscription for cause, Customer may apply any unused Learning and Services Credits toward any Professional Services, Training, PSS, or related travel expenses that are scheduled as of the termination or expiration date, provided that the Learning and Services Credits are used within 3 months after the termination or expiration date. Any other unused Learning and Services Credits will expire 30 days after the expiration or termination date; if Customer renews the Advantage Program subscription within this time period, any unused Learning and Services Credits will remain valid for up to 2 years from the purchase date or termination of this Agreement, whichever comes first.

ATTACHMENT A GLOSSARY OF TERMS

The following glossary of terms applies to all Esri Offerings and Services that Esri may provide to its customers. Certain Esri Offerings or Services may not be within the scope of this Agreement. Please disregard any terms that are not applicable to Esri Offerings or Services offered under this Agreement.

"Affiliate" means any entity that directly or indirectly (i) Controls; (ii) is Controlled by; or (iii) is under common Control with a party, where "Control" means having more than 50 percent of the voting stock or other voting interest in the Controlled entity.

"API" means application programming interface.

"ArcGIS Website" means www.arcgis.com and any related or successor websites.

"Authorization Code(s)" means any key, authorization number, enablement code, login credential, activation code, token, user name and password, or other mechanism required for use of Esri Offerings.

"Beta" means any alpha, beta, or other prerelease version of a Product.

"Cloud Services" means Online Services and Esri Managed Cloud Services.

"Content" means data, images, photographs, animations, video, audio, text, maps, databases, data models, spreadsheets, user interfaces, graphics components, icons, software, and other resources used in connection with Esri Offerings and Services.

"Control" means having more than 50 percent of the voting stock or other voting interest in the Controlled entity.

"Customer Content" means any Content that Customer provides, uses, or develops in connection with Customer's use of Esri Offerings or Services, including Value-Added Applications. Customer Content excludes any feedback, suggestions, or requests for improvements that Customer provides to Esri.

"Data" means any commercially available digital dataset(s) including, but not limited to, geographic vector data, raster data reports, or associated tabular attributes that Esri bundles with other Esri Offerings or delivers independently.

"Deliverables" means anything that Esri delivers to Customer as a result of performance of Professional Services.

"Documentation" means all user reference documentation that Esri provides with a Deliverable or an Esri Offering.

"Esri Managed Cloud Services" means a Customer-specific cloud infrastructure, Software, Data, and network platform that Esri hosts, manages, and makes available to Customer or Customer's end users via the Internet.

"Esri Offering(s)" means any Product or Documentation. If Esri provides Training or Professional Services directly to Customer, then Esri Offerings also include Deliverables and Training Materials. Esri Offerings exclude Services and Third-Party Content.

"GIS" means geographic information system.

"Maintenance" means a subscription program that Esri provides and that entitles Customer to Product updates and other benefits such as access to technical support and self-paced, web-based learning resources.

"Malicious Code" means software viruses; worms; time bombs; Trojan horses; or any other computer code, files, denial of service, or programs designed to interrupt, destroy, or limit the functionality of any computer software, hardware, or telecommunications equipment.

"Online Services" means any commercially available, Internet-based geospatial system that Esri provides, including applications and associated APIs for storing, managing, publishing, and using maps, data, and other information. Online Services exclude Data and Content.

"Ordering Document(s)" means a sales quotation, Maintenance renewal quote, purchase order, proposal, Task Order, or other document identifying Esri Offerings, updates, or Services that Customer orders.

"Perpetual License" means a license to use a version of the Esri Offering for which applicable license fees have been paid, indefinitely, unless terminated by Esri or Customer as authorized under this Agreement.

"Product(s)" means Software, Data, and Online Services.

"Professional Services" means any development or consulting services that Esri provides to Customer.

"Sample(s)" means sample code, sample applications, add-ons, or sample extensions of Products.

"Service(s)" means Maintenance. If Esri provides Esri Managed Cloud Services, Training, or Professional Services directly to Customer, then Services also include Esri Managed Cloud Services, Training, and Professional Services.

"Software" means any proprietary commercial off-the-shelf software, excluding Data, accessed or downloaded from an Esri-authorized website or that Esri delivers on any media in any format including backups, updates, service packs, patches, hot fixes, or permitted merged copies.

"Specification(s)" means (i) the Documentation for Software and Online Services, (ii) the scope of work set forth in any Task Order, or (iii) Esri's published course descriptions for Training.

"Task Order(s)" means an Ordering Document for Services.

"Term License" means a license for use of an Esri Offering for a limited time period ("**Term**").

"Third-Party Content" means any Content that Customer may obtain from a third-party website or that persons other than Esri employees, suppliers, or contractors may directly contribute to Esri's website.

"Training" means (i) Product training or (ii) related training that Esri provides under this Agreement.

"Training Materials" means digital or printed Content required to complete Training, which may include, but is not limited to, workbooks, data, concepts, exercises, assessments, and exams.

"Value-Added Application(s)" means an application developed by Customer for use in conjunction with the authorized use of any Software, Data, or Online Services.

ATTACHMENT B GENERAL TERMS AND CONDITIONS

The following general terms and conditions apply to all Esri Offerings and Services that Esri may offer to its customers. Certain Esri Offerings or Services may not be available under this Agreement. Please disregard any terms that are not applicable to Esri Offerings or Services offered under this Agreement.

ARTICLE B.1—GENERAL USE RESTRICTIONS

Except as expressly permitted in this Agreement, Customer will not

- a. Sell, rent, lease, sublicense, distribute, lend, time-share, or assign Services or Esri Offerings;
- b. Distribute or provide direct access to Services or Esri Offerings to third parties, in whole or in part, including, but not limited to, extensions, components, or DLLs;
- c. Distribute Authorization Codes to third parties;
- d. Reverse engineer, decompile, or disassemble any Product or Deliverable delivered in compiled form;
- e. Make any attempt to circumvent the technological measure(s) that controls access to or use of Esri Offerings;
- f. Store, cache, use, upload, distribute, or sublicense Content or otherwise use Esri Offerings in violation of Esri's or a third-party's rights, including intellectual property rights, privacy rights, nondiscrimination laws, export laws, or any other applicable law or regulation;
- g. Remove or obscure any Esri or its licensors' patent, copyright, trademark, proprietary rights notices, or legends contained in or affixed to any Esri Offerings, output, metadata file, or online or hard-copy attribution page of any Data or Documentation;
- h. Unbundle or independently use individual or component parts of Esri Offerings;
- i. Incorporate any portion of Esri Offerings into a product or service for third-party use that competes with the Esri Offerings;
- j. Publish or in any other way communicate the results of benchmark tests run on Beta Products without the prior written permission of Esri and its licensors; or
- k. Use, incorporate, modify, distribute, provide access to, or combine any Esri Offerings in a manner that would subject any Esri Offering to open-source or open-database license terms (e.g. GPL) that require any part of the Esri Offering to be subject to additional terms, for example
 - 1. Disclosed in source code form to third parties;
 - 2. Licensed to third parties for the purpose of making derivative works; or
 - 3. Redistributable to third parties at no charge; or
- l. Generate revenue by providing access to Software or Online Services through a Value-Added Application.

These restrictions will not apply to the extent that they conflict with applicable law or regulation.

ARTICLE B.2—TERM AND TERMINATION

B.2.1 Customer may terminate this Agreement or any Esri Offerings license or subscription at any time upon written notice to Esri. Termination without cause does not entitle Customer to receive any refund of fees paid. Any right to terminate pending Services engagements for convenience is set forth in the applicable section in the body of this Agreement. Either party may terminate this Agreement or any license or subscription for a material breach that is not cured within 30 days of written notice to the breaching party. Upon any termination of this Agreement for breach, Esri will stop providing Services. Any licenses in Esri Offerings that survive termination of this Agreement continue under the terms of this Agreement.

B.2.2 If Esri terminates this Agreement following Customer's breach, then Esri may also, at its election, terminate Customer's licenses or subscriptions to Esri Offerings. If Customer terminates this Agreement for cause or convenience, then Customer may, at its election, also terminate Customer's licenses or subscriptions to Esri Offerings.

B.2.3 Upon any termination or expiration of a license or subscription, Customer will

- a. Stop accessing and using the terminated or expired Esri Offerings;
- b. Clear any client-side data cache derived from the terminated or expired Cloud Services; and
- c. Stop using and uninstall, remove, and destroy all copies of the terminated or expired Esri Offerings in Customer's possession or control, including any modified or merged portions thereof, in any form, and execute and deliver evidence of such actions to Esri or its authorized distributor.

Esri may stop performing Services immediately upon written notice to Customer if a bankruptcy or insolvency proceeding is commenced by or against Customer until the trustee cures any existing defaults and provides adequate assurance of future performance under this Agreement. This Agreement terminates upon the insolvency, liquidation, or dissolution of either party.

ARTICLE B.3—LIMITED WARRANTIES AND DISCLAIMERS

B.3.1 Limited Warranties. Except as disclaimed below, Esri warrants to Customer that (i) Products and Training will substantially comply with the applicable Specifications and (ii) Services will substantially conform to the professional and technical standards of the industry. The warranty period for Esri Offerings offered under a Perpetual License and for Services runs for 90 days from the date of delivery or from the date of acceptance if this Agreement provides an acceptance period. The warranty period for Esri Offerings offered under a subscription or Term License basis runs for the lesser of (i) the duration of the subscription or term or (ii) 90 days from delivery or acceptance if this Agreement provides an acceptance period.

B.3.2 Special Disclaimer. Third-Party Content; Data; Samples; hot fixes; patches; updates; Online Services provided at no charge; and trial, evaluation, and Beta Products are delivered "as is" and without warranty of any kind.

B.3.3 General Disclaimer. Except for the express limited warranties set forth in this Agreement, Esri disclaims all other warranties or conditions of any kind, whether express or implied, including, but not limited to, warranties or conditions of merchantability, fitness for a particular purpose, and noninfringement of intellectual property rights. Esri is not responsible for any nonconformities with Specifications or loss, deletion, modification, or disclosure of Customer Content caused by Customer's modification of any Esri Offering other than as specified in the Documentation. Esri does not warrant that Esri Offerings, or Customer's operation of the same, will be uninterrupted, error free, fault tolerant, or fail-safe or that all nonconformities can or will be corrected. Esri Offerings are not designed, manufactured, or intended for use in environments or applications that may lead to death, personal injury, or physical property or environmental damage. Customer should not follow any navigational route suggestions that appear to be hazardous, unsafe, or illegal. Any such uses will be at Customer's own risk and cost.

B.3.4 Disclaimers.

- a. **Internet Disclaimer.** Neither party will be liable for damages under any theory of law related to the performance or discontinuance of operation of the Internet or to regulation of the Internet that might restrict or prohibit the operation of Cloud Services.
- b. **Third-Party Websites; Third-Party Content.** Esri is not responsible for any third-party website or Third-Party Content that appears in or is referenced by Esri Offerings or Esri websites, including www.esri.com, developers.arcgis.com, livingatlas.arcgis.com and www.arcgis.com. Providing links to third-party websites and resources does not imply an endorsement, affiliation, or sponsorship of any kind.

B.3.5 Exclusive Remedy. Customer's exclusive remedy and Esri's entire liability for breach of the limited warranties in this section will be to replace any defective media and to (i) repair, correct, or provide a workaround for the applicable Esri Offering or Services or (ii) at Esri's election, terminate Customer's right to use and refund the fees paid for Esri Offerings or Services that do not meet Esri's limited warranties.

ARTICLE B.4—LIMITATION OF LIABILITY

B.4.1 Disclaimer of Liability. Neither Customer, Esri, nor any Esri authorized distributor or third party licensor will be liable for any indirect, special, incidental, or consequential damages; lost profits; lost sales; loss of goodwill; costs of procurement of substitute goods or services; or damages exceeding the applicable license fees, or current subscription fees, or Services fees paid or owed to Esri for the Esri Offerings or Services giving rise to the cause of action.

B.4.2 The limitations and exclusions of liability in the preceding paragraph do not apply to Customer's infringement, misuse, or misappropriation of Esri's or Esri's licensors' intellectual property rights, either party's indemnification obligations, gross negligence, willful misconduct, or violations of the Export Compliance clause of this Agreement or any applicable law or regulation.

B.4.3 Applicability of Disclaimers and Limitations. Esri or its authorized distributor has set its fees and entered into this Agreement in reliance on the disclaimers and limitations in this Agreement; the fees reflect an allocation of risk that is an essential basis of the bargain between the parties. **These limitations will apply whether or not a party is aware of the possibility of any damage and notwithstanding any failure of essential purpose of any exclusive, limited remedy.**

B.4.4 The foregoing disclaimers, limitations, and exclusions may be invalid in some jurisdictions and apply only to the extent permitted by applicable law or regulation in Customer's jurisdiction. Customer may have additional rights that may not be waived or disclaimed. Esri does not seek to limit Customer's warranty or remedies to any extent not permitted by law.

ARTICLE B.5—INDEMNIFICATIONS

B.5.1 Definitions. The following definitions supplement the definitions provided in Attachment A:

- a. **"Claim"** means any claim, action, or demand by a third party.
- b. **"Indemnitees"** means Customer and its directors, officers, and employees.
- c. **"Infringement Claim(s)"** means any Claim alleging that Customer's use of or access to any Esri Offering or Service infringes a patent, copyright, trademark, or trade secret.
- d. **"Loss(es)"** means expenditure, damage award, settlement amount, cost, or expense, including awarded attorneys' fees.

B.5.2 Infringement Indemnity.

- a. Esri will defend, hold all Indemnitees harmless from, and indemnify any Loss arising out of an Infringement Claim.
- b. If Esri determines that an Infringement Claim is valid, Esri may, at its expense, either (i) obtain rights for Customer to continue using the Esri Offerings or Services or (ii) modify the Esri Offerings or Services while maintaining substantially similar functionality. If neither alternative is commercially reasonable, Esri may terminate Customer's right to use the Esri Offerings or Services and will refund any (a) license fees that Customer paid for the infringing Esri Offerings or Services acquired under a Perpetual License, prorated on a 5-year, straight-line depreciation basis beginning from the initial date of delivery or (b) unused portion of fees paid for Term Licenses, Subscriptions, and Maintenance.
- c. Esri has no obligation to defend an Infringement Claim or to indemnify Customer to the extent the Infringement Claim arises out of (i) the combination or integration of Esri Offerings or Services with a product, process, system, or element that Esri has not supplied or specified in the Specification; (ii) alteration of Esri Offerings or Services by anyone other than Esri or its subcontractors; (iii) compliance with Customer's specifications; or (iv) use of Esri Offerings or Services after Esri either provides a modified version to avoid infringement or terminates Customer's right to use the Esri Offerings or Services.

B.5.3 General Indemnity. Esri will defend and hold all Indemnitees harmless from, and indemnify any Loss arising out of, any Claim for bodily injury, death, or tangible or real property damage brought against any of the Indemnitees to the extent arising from any negligent act or omission or willful misconduct by Esri or its directors, officers, employees, or agents performing Services while on Customer's site.

B.5.4 Conditions for Indemnification. As conditions for indemnification, but for those defined as Infringement Claims (see B.5.2 c.), Indemnitee will (i) promptly notify Esri in writing of the Claim, (ii) provide all available documents describing the Claim, (iii) give Esri sole control of the defense of any action and negotiation related to the defense or settlement of any Claim, and (iv) reasonably cooperate in the defense of the Claim at Esri's request and expense.

B.5.5 This section sets forth the entire obligation of Esri, its authorized distributor, and its third party licensors regarding any Claim for which Esri must indemnify Customer.

ARTICLE B.6—INSURANCE

If Esri is providing Services, Esri will carry, at a minimum, the following coverage:

- a. Comprehensive general liability or commercial general liability with a minimum coverage of \$1,000,000.00 (US dollars) combined single limit per occurrence for bodily injury, including death, and property damage liability to include the following:
 1. Premises and operations;
 2. Blanket contractual liability;
 3. Broad form property damage;
 4. Independent contractors;
 5. Personal injury, with employee exclusion deleted; and
 6. Completed operations.
- b. Workers' compensation insurance, with waiver of subrogation, in an amount that complies with statutory limits.

ARTICLE B.7—SECURITY AND COMPLIANCE

B.7.1 Security. Esri publishes its security capabilities at <https://trust.arcgis.com>. Customer may give Esri personnel access to Customer systems or to Customer or third-party personal information, controlled information, or sensitive data if access is essential for Esri's performance of Services and if Esri expressly agrees to such access. Esri will use reasonable administrative, technical, and physical safeguards to protect such data and guard against unauthorized access. Customer bears responsibility to (i) confirm that Esri's published security and privacy controls meet all applicable legal requirements for protection of Customer Content and (ii) upload or share Customer Content through Cloud Services only when it is legal to do so. Esri is not responsible to review Customer Content to ensure compliance with applicable laws and regulations. Customer must contact Esri at securesupport@esri.com for further instruction before providing any Customer Content that requires security measures other than Esri's published security capabilities.

B.7.2 Malicious Code. Esri will use commercially reasonable efforts to ensure that Esri Offerings will not transmit any Malicious Code to Customer. Esri is not responsible for Malicious Code that Customer introduces to Esri Offerings or that is introduced through Third-Party Content.

B.7.3 Export Compliance. Each party will comply with all applicable export and trade sanctions laws and regulations, including the US Department of Commerce's Export Administration Regulations (EAR), the US Department of State's International Traffic in Arms Regulations (ITAR), the US Department of Treasury, Office of Foreign Assets Control (OFAC) Regulations, and other applicable export laws. Customer will not export, reexport, transfer, release, or otherwise dispose of, in whole or in part, or permit access to or transfer or use of Services or Esri Offerings to any United States embargoed countries currently including Iran, Syria, North Korea, Cuba, Crimea region of Ukraine, the Donetsk People's Republic (DNR) and Luhansk People's Republic (LNR), or denied entities or persons except in accordance with all then-current applicable US government export laws and regulations. Customer will not export, reexport, transfer, or use Services or Esri Offerings for certain missile, nuclear, chemical, or biological activities or end uses without proper authorization from the US government. Customer shall immediately notify Esri in writing if any US government entity or agency denies, suspends, or revokes Customer's export privileges. Customer will not upload, store, or process in Cloud Services any Customer Content that (i) has an Export Control Classification Number (ECCN) other than EAR99 or (ii) is controlled for export from the United States under ITAR. Customer will notify Esri in advance if Esri's performance

of any Services or provision of any Esri Offerings is related to any defense article, defense service, or technical data, as defined under the ITAR Sections 120.31, 120.32, and 120.33, respectively; Esri will not perform any such Services or provide any such Esri Offerings until Esri obtains any necessary export license from the US government. Customer will reasonably assist Esri in applying for and obtaining an export license if needed.

B.7.4 Privacy. Esri will process personal data according to the terms of the Data Processing Addendum available at <https://www.esri.com/en-us/privacy/overview>.

ARTICLE B.8—CLOUD SERVICES

B.8.1 Prohibited Uses. Customer shall not provide Customer Content or otherwise access or use Cloud Services in a manner that

- a. Creates or transmits spam, spoofings, or phishing email or offensive or defamatory material; or stalks or makes threats of physical harm;
- b. Stores or transmits any Malicious Code;
- c. Violates any law or regulation;
- d. Infringes or misappropriates the rights of any third party;
- e. Probes, scans, or tests the vulnerability of Cloud Services or breach any security or authentication measures used by Cloud Services without written approval from Esri's Product Security Officer; or
- f. Benchmarks the availability, performance, or functionality of Cloud Services.

B.8.2 Service Interruption. System failures or other events beyond Esri's reasonable control may interrupt Customer's access to Cloud Services. Esri may not be able to provide advance notice of such interruptions.

B.8.3 Customer Content.

- a. Customer grants Esri and its subcontractors a nonexclusive, nontransferable, worldwide right to host, run, modify, and reproduce Customer Content as needed to provide Cloud Services to Customer. Esri will not access, use, or disclose Customer Content without Customer's written permission except as reasonably necessary to support Customer's use of Cloud Services. Except for the limited rights granted to Esri under this Agreement, Customer retains all its rights, title, and interest in the Customer Content.
- b. If Customer accesses Cloud Services with an application provided by a third party, Esri may disclose Customer Content to such third party as necessary to enable interoperation between the application, Cloud Services, and Customer Content.
- c. Esri may disclose Customer Content if required to do so by law or regulation or by order of a court or other government body, in which case Esri will reasonably attempt to limit the scope of disclosure.
- d. When Customer's use of Cloud Services ends, Esri will either
 - 1. Make Customer Content available to Customer for download for a period of 30 days unless Customer requests a shorter window of availability or Esri is legally prohibited from doing so; or
 - 2. Download all Customer Content in Esri's possession to a medium of Customer's choosing and deliver such Customer Content to Customer.

Esri will have no further obligations to store or return Customer Content at the conclusion of the Cloud Services.

B.8.4 Removal of Customer Content. Esri may remove or delete Customer Content if there is reason to believe that uploading Customer Content to or using it with Cloud Services materially violates this Agreement. If reasonable under these circumstances, Esri will notify Customer before removing Customer Content. Esri will respond to any Digital Millennium Copyright Act takedown notices in accordance with Esri's copyright policy, available at www.esri.com/legal/dmca_policy.

B.8.5 Service Suspension. Esri may suspend access to Cloud Services (i) if Customer materially breaches this Agreement and fails to timely cure the breach; (ii) if Esri reasonably believes that Customer's use of Cloud Services will subject Esri to immediate liability or adversely affect the integrity, functionality, or usability of the Cloud Services; (iii) for scheduled maintenance; (iv) to enjoin a threat or attack on Cloud Services; or (v) if Cloud

Services become prohibited by law or regulated to a degree that continuing to provide them would impose a commercial hardship. When feasible, Esri will notify Customer of any Cloud Services suspension beforehand and give Customer reasonable opportunity to take remedial action.

Esri is not responsible for any damages, liabilities, or losses that may result from any interruption or suspension of Cloud Services or removal of Customer Content as described above.

B.8.6 Notice to Esri. Customer will promptly notify Esri if Customer becomes aware of any unauthorized use of Customer's subscription or any other breach of security regarding Cloud Services.

ARTICLE B.9—GENERAL PROVISIONS

B.9.1 Payment. Customer will pay each correct invoice no later than 30 days after receipt and will remit payment to the address stated on the invoice. Customers outside the United States will pay the authorized distributor's invoices in accordance with the authorized distributor's payment terms.

B.9.2 Feedback. Esri may freely use any feedback, suggestions, or requests for Product improvement that Customer provides to Esri.

B.9.3 Patents. Customer may not seek, and may not permit any other user to seek, a patent or similar right worldwide that is based on or incorporates any Products. This express prohibition on patenting will not apply to Customer's software and technology except to the extent that Products, or any portion thereof, are part of any claim or preferred embodiment in a patent application or a similar application.

B.9.4 Restrictions on Solicitation. Neither party will solicit for hire any employee of the other party who is associated with the performance of Services during the performance of the Services and for a period of 1 year thereafter. This does not restrict either party from publicly advertising positions for hire in newspapers, professional magazines, or Internet postings.

B.9.5 Taxes and Fees; Shipping Charges. Pricing of Esri Offerings and Services that Esri quotes to Customer is exclusive of any and all applicable taxes or fees including, but not limited to, sales tax, use tax, or value-added tax (VAT); customs, duties, or tariffs; shipping and handling charges; and vendor enrollment fees. Esri will add any fees that it is required to pay to the total amount of its invoice to Customer. Esri may include estimated taxes and shipping and handling charges in its quotations but may adjust these fees on invoicing. For Customers outside the United States, the authorized distributor may quote taxes or fees in accordance with its own policies.

B.9.6 Compliance Review. Customer will keep accurate and complete records and accounts pertaining to its compliance with its obligations under this Agreement. Esri or its authorized distributor may conduct a compliance review of these records and accounts with no less than 14 business days' written notice or may appoint an independent third party to conduct such a compliance review on its behalf. Customer will promptly correct any noncompliance identified during the compliance review. Neither Esri nor Esri's authorized distributor may conduct a compliance review of Customer within 12 months after the conclusion of any prior compliance review that does not reveal any material Customer noncompliance.

B.9.7 No Implied Waivers. The failure of either party to enforce any provision of this Agreement is not a waiver of the provisions or of the right of such party thereafter to enforce that or any other provision.

B.9.8 Severability. If any provision of this Agreement is held to be unenforceable for any reason, (i) such provision will be reformed only to the extent necessary to make the intent of the language enforceable, and (ii) all other provisions of this Agreement will remain in effect.

B.9.9 Successor and Assigns. Customer will not assign, sublicense, or transfer Customer's rights or delegate Customer's obligations under this Agreement without Esri's and its authorized distributor's prior written consent, and any attempt to do so without consent will be void. This Agreement will be binding on the respective successors and assigns of the parties to this Agreement. Notwithstanding, a contractor under contract to the government to deliver Products may assign this Agreement and Products acquired for delivery to its government

customer upon written notice to Esri, provided the government customer assents to the terms of this Agreement. Upon mutual agreement, Esri's Affiliates may provide Services under the terms of this Agreement; in such cases, the Ordering Documents will identify the Affiliate as the party that provides the Services. Esri's authorized distributors are not Affiliates of Esri.

B.9.10 Survival of Terms. The Glossary of Terms and provisions of the following Articles of these General Terms and Conditions will survive the expiration or termination of this Agreement: "Limited Warranties and Disclaimers," "Limitation of Liability," "Indemnifications," and "General Provisions."

B.9.11 US Government Customer. The Products are commercial items, developed at private expense, provided to Customer under this Agreement. If Customer is a US government entity or US government contractor, Esri licenses or provides subscriptions to Customer in accordance with this Agreement under FAR Subparts 12.211/12.212 or DFARS Subpart 227.7202. Esri Data and Online Services are licensed or subscribed under the same DFARS Subpart 227.7202 policy as commercial computer software for acquisitions made under DFARS. Products are subject to restrictions, and this Agreement strictly governs Customer's use, modification, performance, reproduction, release, display, or disclosure of Products. Agreement provisions that are inconsistent with federal law regulation will not apply. A US government Customer may transfer Software to any of its facilities to which it transfers the computer(s) on which it has installed such Software. If any court, arbitrator, or board holds that a US government Customer has greater rights to any portion of Products under applicable public procurement law, such rights will extend only to the portions affected. ArcGIS Online has been granted FedRAMP tailored low authorization but does not meet higher security requirements including those found in DFARS 252.239-7010.

B.9.12 Governing Law. This Agreement is not subject to the United Nations Convention on Contracts for the International Sale of Goods.

- a. **Government Entities.** If Customer is a government entity, the applicable laws of Customer's jurisdiction govern this Agreement.
- b. **Nongovernment Entities.** US federal law and the law of the State of California exclusively govern this Agreement, excluding their respective choice of law principles.

B.9.13 Dispute Resolution. The parties will use the following dispute resolution processes:

- a. **Equitable Relief.** Either party will have the right to seek an injunction, specific performance, or other equitable relief in any court of competent jurisdiction without the requirement of posting a bond or proving injury as a condition for relief.
- b. **US Government Agencies.** This Agreement is subject to the Contract Disputes Act of 1978, as amended (41 USC 601–613).
- c. **Other Government Entities.** Esri will comply with mandatory dispute resolutions under applicable law.
- d. **Arbitration.** Except as noted above, the parties will submit to binding arbitration to resolve any dispute arising out of or relating to this Agreement that cannot be settled through negotiation. If Customer is in the United States or one of its territories or outlying areas, the Commercial Arbitration Rules of the American Arbitration Association will govern the arbitration proceedings. If Customer is outside the United States, the Rules of Arbitration of the International Chamber of Commerce will govern the proceedings. The parties will select a single arbitrator in accordance with the applicable arbitration rules. The language of the arbitration will be English. Arbitration will be at an agreed-upon location. Either party will, at the request of the other, make available documents or witnesses relevant to the major aspects of the dispute.

B.9.14 Force Majeure. A party will not be liable for any failure of or delay in the performance of this Agreement for the period that such failure or delay is due to causes beyond the party's reasonable control. Such causes may include, but are not limited to, acts of God, war, strikes, labor disputes, cyber attacks, laws, regulations, government orders, or any other force majeure event.

B.9.15 Independent Contractor. Esri is and at all times will be an independent contractor. Nothing in this Agreement creates an employer/employee, principal/agent, or joint venture relationship between Esri or its authorized distributor and Customer. No party has any authority to enter into contracts on behalf of another party or otherwise act on behalf of another party.

B.9.16 Notice. Customer may send notices required under this Agreement to Esri at the following address:

Environmental Systems Research Institute, Inc.
Attn.: Contracts and Legal Department
380 New York Street
Redlands, CA 92373-8100
USA
Tel.: 909-793-2853
Email: LegalNotices@esri.com

ATTACHMENT C
SAMPLE TASK ORDER
Esri Agreement No. _____
Task Order No. _____

In accordance with the terms and conditions of the above-referenced Agreement between Environmental Systems Research Institute, Inc. ("**Esri**"), and _____ ("**Customer**"), _____ ("**Customer Address**"), this Task Order authorizes preparation and provision of the Deliverables described and in accordance with the terms, schedule, and start/end date(s) specified below.

1. Scope of Work: *[As applicable, specifically identify and describe Deliverables including custom code, map data, technical data (including technical assistance), and the resources to be provided by Customer (including Customer-supplied personnel, software, hardware, and digital or hard-copy data) and place of delivery and location where technical assistance will be provided.]*

In addition to the foregoing, Customer agrees that its employees, representatives, and subcontractors will cooperate and communicate with Esri during performance of this Task Order. Without cost to Esri, Customer shall provide, allow access to, or assist Esri in obtaining all data Esri requests for performance of this Task Order, including, but not limited to, (1) copies of previously prepared reports, maps, plans, surveys, records, and other documents in the control or possession of Customer and (2) copies of ordinances, codes, regulations, or other governmental documents.

2. Contract Type: *[Firm Fixed Price (FFP) or Time and Materials (T&M)]*:
3. Total Task Order Value (if FFP) or Not-to-Exceed Value (if T&M):
4. Customer Address for the Receipt of Esri Invoices:
5. Delivery Schedule or Start/End Date(s) for Each Deliverable:
6. Special Considerations:
7. Esri Project Manager: *[insert name, telephone, fax, and email address]*
Esri Senior Contract Administrator: *[insert name, telephone, fax, and email address]*
Customer Project Manager: *[insert name, telephone, fax, and email address]*
Customer Senior Contract Administrator: *[insert name, telephone, fax, and email address]*
Customer Accounts Payable Contact: *[insert name, telephone, fax, and email address]*

ACCEPTED AND AGREED:

[sample only—do not sign]
(Customer)

Signature: [sample only—do not sign]

Printed Name: _____

Title: _____

Date: _____

ENVIRONMENTAL SYSTEMS
RESEARCH INSTITUTE, INC.
(Esri)

Signature: [sample only—do not sign]

Printed Name: _____

Title: _____

Date: _____

**ATTACHMENT D
TIME AND MATERIALS RATE SCHEDULE**

See Quotation for Pricing.



AGENDA ITEM REQUEST FORM

Hays County Commissioners Court

Date: 11/01/2022

Requested By:

Sponsor: Commissioner Ingalsbe

Agenda Item

Executive Session pursuant to Sections 551.071 and 551.087 of the Texas Government Code: consultation with counsel and deliberation regarding economic development negotiations associated with Project Shamrock. Possible action may follow in open court. **INGALSBE**

Summary
