Jefferson County Purchasing Department

Deborah L. Clark, Purchasing Agent

1149 Pearl Street
1st Floor, Beaumont, TX 77701

OFFICE MAIN: (409) 835-8593
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LEGAL NOTICE
Advertisement for Invitation for Bids
February 21, 2023

Notice is hereby given that sealed bids will be accepted by the Jefferson County Purchasing Department for Invitation for Bid **(IFB 23-009/JW) Landside Road Pavement Repairs at the Jack Brooks Regional Airport.** This project is 100% funded by the Federal Aviation Administration (FAA) Airport Improvement Program (AIP Grant #37). Specifications for this project may be obtained from the Jefferson County website, https://www.co.jefferson.tx.us/Purchasing/ or by calling 409-835-8593.

Bids are to be sealed and addressed to the Purchasing Agent with the bid number and name marked on the outside of the envelope or box. Bidders shall forward an original and two (2) copies of their bid to the address shown below. Jefferson County does not accept bids submitted electronically. Late bids will be rejected as non-responsive. Bids will be publicly opened and read aloud in the Jefferson County Engineering Department Conference Room (5th Floor, Historic Courthouse) 1149 Pearl Street, Beaumont, Texas 77701, at the time and date below. Bidders are invited to attend the sealed bid opening.

BID NAME: **Landside Road Pavement Repairs at the Jack Brooks Regional Airport**

BID NUMBER: **IFB 23-009/JW**

DUE BY TIME/DATE: **11:00 AM CT, Wednesday, March 29, 2023**

MAIL OR DELIVER TO: **Jefferson County Purchasing Department**
1149 Pearl Street, 1st Floor
Beaumont, Texas 77701

There will be a Non-mandatory Pre-Bid Conference and Walk-Through at 2:00 PM CT on Tuesday, March 7, 2023, at the Airport Administration Conference Room located at 5000 Jerry Ware Blvd. Beaumont, Texas 77705. This conference will be the Bidder's only opportunity to view secured areas of the project.

The County shall require the bidder to furnish a bid security in the amount of five percent (5%) of the total contract cost. The bid bond must be executed with a surety company authorized to do business in the State of Texas. Within ten (10) days after the date of the signing of a contract, the bidder shall furnish a performance bond to the County for the full amount of the contract, if the contract exceeds one hundred thousand dollars ($100,000). If the contract is for one hundred thousand dollars ($100,000) or less, the County may provide that no money be paid to the contractor until completion and acceptance of the work or the fulfillment of the purchase obligation to the County.

Any questions relating to these bid requirements should be directed to at **Jamey West, Contract Specialist** at 409-835-8593 or via email at: Jamey.West@jeffcotx.us

Jefferson County encourages Disadvantaged Business Enterprises (DBEs), Minority/Women Business Enterprises (M/WBEs), and Historically Underutilized Businesses (HUBs) to participate in the bidding process. Jefferson County does not discriminate on the basis of race, color, national origin, sex, religion, age or disability in employment, or the provisions of services. Individuals requiring special accommodations are requested to contact our office at least seven (7) days prior to the bid due date at 409-835-8593. All interested firms are invited to submit a bid in accordance with the terms and conditions stated in this bid.

Bidders are strongly encouraged to carefully read the entire invitation, as failure to return and/or complete all required documentation will result in a response being declared as non-responsive.

Deborah Clark

Deborah L. Clark, Purchasing Agent
Jefferson County, Texas

PUBLISH:
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February 22, 2023 and March 1, 2023
The Examiner:
January 19, 2023

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BID SUBMISSIONS:

One (1) Original and Two (2) Bid Copies; with all copies to include a Completed Copy of this specifications packet, drawings, and project manuals IN THEIR ENTIRETY. Drawings and project manuals -only- may be submitted as double-sided copies.

Each Bidder shall ensure that required parts of their bid submission are completed with accuracy and submitted as per the requirements within this specifications packet, including any addenda.

Additionally, Bidder shall monitor the Jefferson County Purchasing Department Website for any addenda, additional instructions, or bid updates. https://www.co.jefferson.tx.us/Purchasing/

Failure to return and/or complete all required documentation will result in a response being declared as non-responsive.

SECTION 1: GENERAL CONDITIONS OF BIDDING AND TERMS OF CONTRACT

By execution of this document, the Vendor accepts all general and special conditions of the contract as outlined below and, in the specifications, and plans.

1. BIDDING.

1.1 BIDS.

- All bids must be submitted on the bid form furnished in this package.

1.2 AUTHORIZED SIGNATURES.

The bid must be executed personally by the Vendor, duly authorized partner of the partnership, or duly authorized officer of the corporation. If executed by an agent, a power of attorney or other evidence of authority to act on behalf of the Vendor shall accompany the bid to become a valid bid.

1.3 LATE BIDS.

Bids must be in the office of the Jefferson County Purchasing Agent before or at the specified time and date bids are due. Bids received after the submission deadline shall be rejected as non-responsive and returned unopened.

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1.4 WITHDRAWAL OF BID PRIOR TO OPENING.

- A bid may be withdrawn before the opening date by submitting a written request to the Purchasing Agent. If time allows, the Bidder may submit a new bid. Bidder assumes full responsibility for submitting a new bid before or at the specified time and date bids are due. Jefferson County reserves the right to withdraw a request for bids before the opening date.

1.5 WITHDRAWAL OF BID AFTER OPENING.

Bidder agrees that its offer may not be withdrawn or cancelled by the Vendor for a period of ninety (90) days following the date and time designated for the receipt of bids unless otherwise stated in the bid and/or specifications.

1.6 BID AMOUNTS.

Bids shall show net prices, extensions where applicable and net total. In case of conflict between unit price and extension, the unit price will govern. Any ambiguity in the bid as a result of omission, error, unintelligible or illegible wording shall be interpreted in the favor of Jefferson County.

1.7 EXCEPTIONS AND/OR SUBSTITUTIONS.

All bids meeting the intent of the specifications and plans will be considered for award. Vendors taking exception to the specifications and plans, or offering substitutions, shall state these exceptions in the section provided. If bid is made on an article other than the one specified, which a Bidder considers comparable, the name and grade of said article must be specified in the bid and sufficient specifications and descriptive data must accompany same to permit thorough evaluation. The absence of stated exceptions and/or substitutions shall indicate that the Vendor has not taken any exceptions to the specifications and shall be responsible to perform in strict accordance with the specifications. As a matter of practice, Jefferson County rejects exception(s) and /or substitutions as non-responsive but reserves the right to accept any and/or all of the exception(s) and/or substitution(s) deemed to be in the best **interest of Jefferson County.**

1.8 ALTERNATES.

The Invitation for Bid and/or specifications may expressly allow Bidder to submit an alternate bid. Presence of such an offer shall not be considered an indication of non-responsiveness.

1.9 DESCRIPTIONS.

Unless otherwise specified, any reference to make, manufacturer and/or model used in the bid specifications is merely descriptive and not restrictive, and is used only to indicate type, style, or quality of material desired.

1.10 BID ALTERATIONS.

- Bids cannot be altered or amended after submission deadline. Any interlineations, alterations, or erasures made before opening time must be initialed by the signer of the bid, guaranteeing authenticity.

1.11 TAX EXEMPT STATUS.

Jefferson County is exempt from federal excise tax and state sales tax. Unless the bid form or specifications specifically indicate otherwise, the bid price must be net, exclusive of above-mentioned taxes and will be so construed. Therefore, the bid price shall not include taxes.

1.12 QUANTITIES.

Quantities indicated are estimated quantities only and are not a commitment to buy. Approximate usage does not constitute an order, but only implies the probable quantity that will be used. Commodities will be ordered on an as-needed basis. Bidder is responsible for accurate final counts.

1.13 BID AWARD.

Award of contract shall be made to the most responsible, responsive Bidder, whose offer is determined to be the best value, taking into consideration the relative importance of price. Jefferson County reserves the right to be the sole judge as to whether items bid will serve the purpose intended.

Jefferson County reserves the right to award based upon individual line items, sections or total bid.

1.14 SILENCE OF SPECIFICATIONS FOR COMPLETE UNITS.

All materials, equipment and/or parts that will become a portion of the completed work, including items not specifically stated herein but, necessary to render the service(s) complete and operational per the specifications, are to be included in the bid price. Vendor may be required to furnish evidence that the service, as bid, will meet or exceed these requirements.

1.15 ADDENDA.

Any interpretations, corrections or changes to the specifications and plans will be made by addenda no later than forty-eight (48) hours prior to the bid opening. Addenda will be posted on the Purchasing web site. Vendors are responsible for monitoring the web site in order to remain informed on addenda. Vendors shall acknowledge receipt of all addenda with submission of bid.

1.16 GENERAL BID BOND/SURETY REQUIREMENTS.

- Failure to furnish bid bond/surety, if requested, will result in bid being declared non-responsive. Non-responsive bids will not be considered for award.

- **1.17 GENERAL INSURANCE REQUIREMENTS.**

Failure to furnish Affidavit of Insurance, if required in these specifications, will result in bid being declared non-responsive. Non-responsive bids will not be considered for award.

1.18 RESPONSIVENESS.

A responsive bid shall substantially conform to the requirements of this Invitation to Bid and/or specifications contained herein. Bidders who substitute any other terms, conditions, specifications and/or requirements or who qualify their bids in such a manner as to nullify or limit their liability to the contracting entity shall have their bids

deemed non-responsive. Also, bids containing any clause that would limit contracting authority shall be considered non-responsive. Examples of non-responsive bids include but shall not be limited to: a) bids that fail to conform to required delivery schedules as set forth in the bid request; b) bids with prices qualified in such a manner that the bid price cannot be determined, such as with vague wording that may include "price in effect at the time of delivery," and c) bids made contingent upon award of other bids currently under consideration.

1.19 RESPONSIBLE STANDING OF BIDDER.

To be considered for award, Bidder must at least: have the ability to obtain adequate financial resources, be able to comply with required or proposed delivery/completion schedule, have a satisfactory record of performance; have a satisfactory record of integrity and ethics, and be otherwise qualified and eligible to receive award.

1.20 CONFIDENTIAL/PROPRIETARY INFORMATION.

If any material in the bid submission is considered by Bidder to be confidential or proprietary information (including manufacturing and/or design processes exclusive to the Bidder), Bidder **must** clearly mark the applicable pages of bid submission to indicate each claim of confidentiality. Additionally, Bidder must include a statement on company letterhead identifying all Bid Submission section(s) and page(s) that have been marked as confidential. Jefferson County will protect from public disclosure such portions of a bid, unless directed otherwise by legal authority, including existing open records acts. Merely making a blanket claim that the entire bid submission is protected from disclosure because it contains some proprietary information is not acceptable, and will make the entire bid submission subject to release under the Texas Public Information Act.

By submitting a bid, Bidder agrees to reproduction by Jefferson County, without cost or liability, of any copyrighted portions of Bidder's bid submission or other information submitted by Bidder.

1.21 PUBLIC BID OPENING.

Bidders are invited to be present at the opening of bids. After the official opening of bids, a period of not less than one week is necessary to evaluate bids. The amount of time necessary for bid evaluation may vary and is determined solely by the County. Following the bid evaluation, all bids submitted are available for public review.

2. PERFORMANCE.

2.1 DESIGN, STRENGTH, AND QUALITY.

- Design, strength, and quality of materials and workmanship must conform to the highest standards of manufacturing and engineering practices. The apparent silence of specifications and/or plans as to any detailed description concerning any point shall be regarded as meaning that only the best commercial practices are to prevail. All interpretations of these specifications and/or plans shall be made on the basis of this statement.

2.2 AGE AND MANUFACTURE.

All tangible goods being bid must be new and unused, unless otherwise specified, in first-class condition, of current manufacture, and furnished ready to use. All items not specifically mentioned that are required for a complete unit shall be furnished.

2.3 DELIVERY LOCATION.

All deliveries will be made to the address(es) specified on the purchase order during normal working hours of 8:00 am CT to 4:00 pm CT, Monday through Friday, unless otherwise authorized by the Purchasing Agent or designee.

2.4 DELIVERY SCHEDULE.

Delivery time may be an important consideration in the evaluation of best value. The maximum number of days necessary for delivery ARO shall be stated in the space, if provided, on the bid form.

2.5 DELIVERY CHARGES.

All delivery and freight charges, F.O.B. destination shown on Jefferson County purchase order, as necessary to perform contract are to be included in the bid price.

2.6 INSTALLATION CHARGES.

All charges for assembly, installation and set-up shall be included in the bid price. Unless otherwise stated, assembly, installation and set-up will be required.

2.7 OPERATING INSTRUCTIONS AND TRAINING.

Clear and concise operating instructions and descriptive literature will be provided in English, if requested. On-site detailed training in the safe and efficient use and general maintenance of item(s) purchased shall be provided as needed at the request of Jefferson County. Instructions and training shall be at no additional cost to the County.

2.8 STORAGE.

Bidder agrees to provide storage of custom ordered materials, if requested, for up to thirty (30) calendar days.

2.9 COMPLIANCE WITH FEDERAL, STATE, COUNTY, AND LOCAL LAWS.

Bids must comply with all federal, state, county and local laws, including, but not limited to, all applicable standard safety, emission, and noise control requirements. Any vehicles or equipment shall contain all standard safety, emission, and noise control requirements required for the types and sizes of equipment at the time of their manufacture. The contractor agrees, during the performance of work or service, to comply with all applicable codes and ordinances of Jefferson County or the State of Texas as they may apply, as these laws may now read, or as they may hereafter be changed or amended.

2.10 OSHA.

The Bidder will certify all equipment complies with all regulations and conditions stipulated under the Williams-Steiger Occupational Safety and Health Act of 1971, as amended. The successful Bidder will further certify that all items furnished under this project will conform and comply with federal and State of Texas OSHA standards. The successful Bidder will agree to indemnify and hold harmless Jefferson County for any and all damages that may be assessed against the County.

2.11 PATENTS AND COPYRIGHTS.

The successful Vendor agrees to protect the County from claims involving infringements of patents and/or copyrights.

2.12 SAMPLES, DEMONSTRATIONS, AND TESTING.

At Jefferson County's request and direction, Bidder shall provide product samples and/or testing of items bid to ensure compliance with specifications. Samples, demonstrations and/or testing may be requested at any point prior to or following bid award. Samples, demonstrations and/or testing may be requested upon delivery and/or any point during the term of resulting contract. All samples (including return thereof), demonstrations, and/or testing shall be at the expense of the Bidder/Vendor.

2.13 ACCEPTABILITY.

All articles enumerated in the bid shall be subject to inspection by an officer designated for that purpose by Jefferson County. If found inferior to the quality called for, or not equal in value to the specifications, deficient in workmanship or otherwise, this fact shall be certified to the Purchasing Agent, who shall have the right to reject the whole or any part of the same. Items and/or work determined to be contrary to specifications must be replaced at the vendor's expense. Inferior items not retrieved by the vendor within thirty (30) calendar days, or an otherwise agreed upon time, shall become the property of the County. If disposal of such items warrants an expense, an amount equal to the disposal expense will be deducted from amounts payable to the vendor.

2.14 MAINTENANCE.

Maintenance required for equipment bid should be available in Jefferson County by a manufacturer authorized maintenance facility. Cost for this service shall be shown on the bid sheet as requested or on a separate sheet, as required. If Jefferson County opts to include maintenance, it shall be so stated in the purchase order and said cost will be included. Service will commence only upon expiration of applicable warranties and should be priced accordingly.

2.15 MATERIAL SAFETY DATA SHEETS.

Under the "Hazardous Communications Act," common known as the "Texas Right to Know Act," a Bidder must provide the user department, with each delivery, material safety data sheets which are applicable to hazardous substances defined in the Act. Failure of the Bidder to furnish this documentation, will be cause to reject any bid applying thereto.

2.16 EVALUATION.

Evaluation shall be used as a determinant as to which services are the most efficient and/or most economical for the County. It shall be based on all factors having a bearing on price and performance of the items in the user environment. All bids are subject to tabulation by the Jefferson County Purchasing Department and recommendation to Jefferson County Commissioners' Court. Compliance with all bid requirements and needs of the using department are considered in evaluating bids. Pricing is not the only criteria for making a recommendation. The Jefferson County Purchasing Department reserves to right to contact any Bidder, at any time, to clarify, verify or requirement information with regard to this bid.

3. PURCHASE ORDERS AND PAYMENT.

3.1 PURCHASE ORDERS.

A purchase order(s) shall be generated by the Jefferson County Purchasing Agent to the successful vendor. The purchase order number must appear on all itemized invoices and packing slips. The County will not be held responsible for any work orders placed and/or performed without a valid current purchase order number. Payment will be made for all services rendered and accepted by the contract administrator for which a valid invoice has been received.

3.2 INVOICES.

All invoices shall reference the Purchase Order number. Invoices shall reference the bid item number or a detailed description for each item invoiced. If an item purchased and itemized on the invoice does not correspond to an item in any of the categories awarded to the vendor, invoice shall reference the item as "N/C" to indicate that it is a non-contract item. This requirement is to assist the County in verifying contract pricing on all invoices. Payment will be made under terms of net thirty (30) days unless otherwise agreed upon by seller and the purchasing department.

3.3 PROMPT PAYMENT.

In accordance with the State of Texas Prompt Payment Act, Article 601f V.T.C.S., payment will be made after receive and acceptance by the County of the merchandise ordered and of a valid invoice. Successful Bidder(s) is required to pay subcontractors within ten (10) days after the successful Bidder receives payment from the County.

3.4 FUNDING.

Jefferson County is operated and funded on an October 1 to September 30 basis; accordingly, the County reserves the right to terminate, without liability to the County, any contract for which funding is not available.

4. CONTRACT.

4.1 CONTRACT DEFINITION.

The General Conditions of Bidding and Terms of Contract, Specifications, Plans, Bidding Forms, Addenda, and any other documents made a part of this bid shall constitute the complete bid. This bid, when duly accepted by Jefferson County, shall constitute a contract equally binding between the successful Bidder and Jefferson County.

4.2 CHANGE ORDER.

No different or additional terms will become part of this contract with the exception of a change order. No oral statement of any person shall modify or otherwise change, or affect the terms, conditions or specifications stated in the resulting contract. All change orders to the contract will be made in writing and at the discretion and approval of Jefferson County. No change order will be binding unless signed by an authorized representative of the County and the vendor.

4.3 PRICE RE-DETERIMINATION.

A price re-determination may be requested at the time of annual renewal. All requests for price re-determination shall be in written form. Cause for such request, i.e., manufacturer's direct cost, postage rates, Railroad Commission rates, Federal/State minimum wage law, Federal/State unemployment taxes, F.I.C.A, Insurance Coverage Rates, etc., shall be substantiated in writing by the source of the cost increase. The Bidder's past experience of honoring contracts at the bid price will be an important consideration in the evaluation of the lowest and best bid. Jefferson County reserves the right to accept or reject any/all requests for price re-determination as it deems to be in the best interest of the County.

4.4 TERMINATION.

Jefferson County reserves the right to terminate the contract for default if the Bidder breached any of the terms therein, including warranties of Bidder or if the Bidder becomes insolvent or commits acts of bankruptcy. Such right of termination is in addition to and not in lieu of any other remedies which Jefferson County may have in law or equity. Default may be construed as, but not limited to, failure to deliver the proper goods and/or service within the proper amount of time, and/or to properly perform any and all services required to Jefferson County's satisfaction and/or to meet all other obligations and requirements. Contracts may be terminated without cause upon thirty (30) days' written notice to either party unless otherwise specified. Jefferson County reserves the right to award canceled contract to the next lowest Bidder. Bidder, in submitting this bid, agrees that Jefferson County shall not be liable to prosecution for damages in the event that the County declares the Bidder in default.

4.5 CONFLICT OF INTEREST.

Employees of the County are not permitted to maintain financial interest in, or receive payment, directly or indirectly, borrow from, lend to, invest in, or engage in any substantial financial transaction with any individual, organization, supplier, or subcontractor who does business with the County without disclosure. When conflict of interest is discovered, it shall be grounds for termination of contract.

4.6 INTEREST BY PUBLIC OFFICIALS.

No public official shall have interest in this contract, in accordance with Texas Local Government Code.

4.7 PRE-AWARD/CONTRACT CONTACT BETWEEN COUNTY AND VENDORS.

The Jefferson County Purchasing Department may initiate discussions with selected vendors; however, discussions <u>may not</u> be initiated by vendors.

The Jefferson County Purchasing Department expects to conduct discussions with vendor's representatives authorized to contractually obligate the vendor with an offer. **Vendors shall not contact any Jefferson County personnel during the IFB process without the express permission from the Jefferson County Purchasing Agent. The Purchasing Agent will disqualify any vendor who has made site visits, contacted Jefferson County personnel, or distributed any literature without authorization from the Jefferson County Purchasing Department.**

All correspondence relating to this IFB, from advertisement to award shall be sent to the Jefferson County Purchasing Department. All presentations and/or meetings between Jefferson County and the vendor relating to this IFB shall be coordinated by the Jefferson County Purchasing Department.

Selected vendors may be expected to make a presentation/product demonstration to an Evaluation Committee. Proposals, vendor presentations, and product/service evaluations may develop into negotiating sessions with the vendor(s) as selected by the Evaluation Committee. Jefferson County expects to conduct negotiations with vendor representatives authorized to contractually obligate the vendor with an offer. If vendor is unable to agree to contract terms and conditions, Jefferson County reserves the right to terminate contract negotiations with that vendor and initiate negotiations with another vendor. In addition to a presentation, visits by the Evaluation Committee to representative vendor client sites may be conducted where the proposed solution can be demonstrated in a production environment.

4.8 INJURIES OR DAMAGES RESULTING FROM NEGLIGENCE.

Successful vendor shall defend, indemnify and save harmless Jefferson County and all its officers, agents and employees from all suits, actions, or other claims of any character, name and description brought for or on account of any injuries or damages received or sustained by any person, persons, or property on account of any negligent act or fault of the successful vendor, or of any agent, employee, subcontractor or supplier in the execution of, or performance under, any contract which may result from bid award. Successful vendor shall pay any judgment with cost which may be obtained against Jefferson County growing out of such injury or damages.

4.9 WARRANTY.

The successful vendor shall warrant that all materials utilized in the performance of this contract shall conform to the proposed specifications and/or all warranties as stated in the Uniform Commercial Code and be free from all defects in material, workmanship and title.

4.10 UNIFORM COMMERCIAL CODE.

The successful vendor and Jefferson County agree that both parties have all rights, duties, and remedies available as stated in the Uniform Commercial Code.

4.11 VENUE.

This agreement will be governed and construed according to the laws of the State of Texas. This agreement is performable in the County of Jefferson, Texas.

4.12 SALE, ASSIGNMENT, OR TRANSFER OF CONTRACT.

The successful vendor shall not sell, assign, transfer or convey this contract, in whole or in part, without the prior written consent of Jefferson County.

4.13 SILENCE OF SPECIFICATIONS.

The apparent silence of these specifications as to any detailed description concerning any point, shall be regarded as meaning that only the best commercial practices are to prevail. All interpretations of these specifications shall be made on the basis of this statement.

5. REJECTION OR WITHDRAWAL.

Submission of additional terms, conditions or agreements with the bid document are grounds for deeming a bid non-responsive and may result in bid rejection. Jefferson County reserves the right to reject any and all bids and to waive any informalities and minor irregularities or defects in bids. Bids may be withdrawn in person by a bidder or authorized representative, provided their identity is made known and a receipt is signed for the bid, but only if the withdrawal is made prior to the time set for receipt of bids. Bids are an irrevocable offer and may not be withdrawn within **90** days after opening date.

6. EMERGENCY/DECLARED DISASTER REQUIREMENTS.

In the event of an emergency or if Jefferson County is declared a disaster area, by the County, State, or Federal Government, this Acceptance of Offer may be subjected to unusual usage. Contractor shall service the county during

such an emergency or declared disaster under the same terms and conditions that apply during non-emergency/disaster conditions. The pricing as specified in this Acceptance of Offer shall apply to serving the County's needs regardless of the circumstances. If Contractor is unable to supply the services under the terms of the Acceptance of Offer, then Contractor shall provide proof of such disruption and a copy of the invoice from Contractor's supplier(s).

Additional profit margin as a result of supplying services during an emergency or declared disaster shall not be permitted. In the event that additional equipment, supplies, and materials are required during the declared disaster, additional shipping, handling and drayage fees may apply.

7. AWARD.

The bid will be awarded to the responsible, responsive bidder(s) whose bid, conforming to the solicitation, will be most advantageous to Jefferson County – price and other factors considered. Unless otherwise specified in this IFB, Jefferson County reserves the right to accept a bid in whole or in part, and to award by item or by group, whichever is deemed to be in the best interest of Jefferson County. Any bidder who is in default to Jefferson County at the time of submittal of the bid shall have that bid rejected.

Jefferson County reserves the right to clarify any contractual terms with the concurrence of the Contractor; however, any substantial non-conformity in the offer, as determined by Jefferson County, shall be deemed non-responsive and the offer rejected.

In evaluating bids, Jefferson County shall consider the qualifications of the bidders, and, where applicable, operating costs, delivery time, maintenance requirements, performance data, and guarantees of materials and equipment.

In addition, Jefferson County may conduct such investigation as it deems necessary to assist in the evaluation of a bid and to establish the responsibility, qualifications, and financial ability of the bidders to fulfill the contract.

Jefferson County reserves the right to award this contract on the basis of **lowest and best bid** in accordance with the laws of the State of Texas, to waive any formality or irregularity, to make awards to more than one offeror, and/or to reject any or all bids. In the event the lowest dollar offeror meeting specifications is not a awarded a contract, Offeror may appear before the Commissioners' Court and present evidence concerning Offeror responsibility after officially notifying the Office of the Purchasing Agent of Offeror's intent to appear.

8. CONTRACT.

A response to an IFB is an offer to contract with Jefferson County based upon the terms, conditions, and specifications contained in the IFB. Bids do not become contracts unless and until they are executed by Jefferson County, eliminating a formal signing of a separate contract. For that reason, all of the terms and conditions of the contract are contained in the IFB, unless any of the terms and conditions is modified by an IFB Amendment, a Contract Amendment, or by mutually agreed terms and conditions in the contract documents.

9. WAIVER OF SUBROGATION.

Bidder and bidder's insurance carrier waive any and all rights whatsoever with regard to subrogation against Jefferson County as an indirect party to any suit arising out of personal or property damages resulting from bidder's performance under this agreement.

10. FISCAL FUNDING.

A multi-year contract (if requested by the specifications) continuing as a result of an extension option must include fiscal funding out. If, for any reason, funds are not appropriated to continue the contract, said contract shall become null and void.

11. BID RESULTS.

Bid results are not provided in response to telephone inquiries. A preliminary tabulation of bids received will be posted on the Purchasing web page at https://www.co.jefferson.tx.us/Purchasing/ as soon as possible following bid opening. A final tabulation will be posted following bid award, and will also be available for review in the Purchasing Department.

12. CHANGES AND ADDENDA TO BID DOCUMENTS.

Each change or addendum issued in relation to this IFB document will be on file in the Office of the Purchasing Agent, and will be posted on the Purchasing web site as soon as possible. It shall be the bidder's responsibility to make inquiry as to change or addenda issued, and to monitor the web site. All such changes or addenda shall become part of the contract and all bidders shall be bound by such addenda. Information on all changes or addenda issued will be available at the Office of the County Purchasing Agent.

13. SPECIFICATIONS.

Unless otherwise stated by the bidder, the bid will be considered as being in accordance with Jefferson County's applicable standard specifications, and any special specifications outlined in the bid document. References to a particular trade name, manufacturer's catalogue, or model number are made for descriptive purposes to guide the bidder in interpreting the requirements of Jefferson County, and should not be construed as excluding bids on other types of materials, equipment, and supplies. However, the bidder, if awarded a contract, will be required to furnish the particular item referred to in the specifications or description unless departure or substitution is clearly noted and described in the bid.

Jefferson County reserves the right to determine if equipment/ product being bid is an acceptable alternate. All goods shall be new unless otherwise so stated in the bid. Any unsolicited alternate bid, or any changes, insertions, or omissions to the terms and conditions, specifications, or any other requirements of the bid, may be considered non-responsive.

14. DELIVERY.

Bids shall include all charges for delivery, packing, crating, containers, etc. Unless otherwise stated by the bidder (in writing on the included Bid Form), prices bid will be considered as being based on F.O.B. destination/delivered freight included.

15. INTERPRETATION OF BID AN/OR CONTRACT DOCUMENTS.

All inquiries shall be made within a reasonable time prior to the date and time fixed for the bid opening, in order that a written response in the form of an addendum, if required, can be processed before the bids are opened. Inquiries received that are not made in a timely fashion may or may not be considered.

16. CURRENCY.

Prices calculated by the bidder shall be stated in U.S. dollars.

17. PRICING.

Prices shall be stated in units of quantity specified in the bid documents. In case of discrepancy in computing the amount of the bid, the unit price shall govern.

18. NOTICE TO PROCEED/PURCHASE ORDER.

The successful bidder may not commence work under this contract until authorized to do so by the Purchasing Agent.

19. CERTIFICATION.

By signing the offer section of the Offer and Acceptance page, Bidder certifies:

- The submission of the offer did not involve collusion or other anti-competitive practices.
- The Bidder has not given, offered to give, nor intends to give at any time hereafter, any economic opportunity, future employment, gift, loan, gratuity, special discount, trip, favor, or service to any public servant in connection with the submitted offer.
- The Bidder hereby certifies that the individual signing the bid is an authorized agent for the Bidder and has the authority to bind the Bidder to the contract.

20. DEFINITIONS.

"County" – Jefferson County, Texas.
"Contractor" – The Bidder whose proposal is accepted by Jefferson County.

21. DISADVANTAGED BUSINESS ENTERPRISES (DBEs), MINORITY/WOMEN BUSINESS ENTERPRISES (M/WBEs), AND HISTORICALLY UNDERUTILIZED BUSINESSES (HUBs)

It is the desire of Jefferson County to increase the participation of Disadvantaged (DBE), Minority (MBE), Women-Owned (WBE), and Historically Underutilized (HUB) Business Enterprises in its contracting and procurement programs. While the County does not have any preference or set aside programs in place, it is committed to a policy of equitable participation for these firms.

Affirmative Steps pursuant to 2 CFR §200.321

Good faith efforts will be taken to assure small and minority firms are used whenever possible, consistent with 49 CFR part 26. These steps and efforts include, but not limited to:

- Including qualified small business and minority forms on solicitation lists
- Assure that small businesses and minority firms are solicited whenever they are potential sources. Consultation with Airports Division, Office of Civil Rights and or State transportation offices is used.
- When economically feasible, the total requirements will be divided into tasks to permit maximum small business and DBE firm participation.
- Encourage consultants to subcontract portions of the work, even when they might otherwise perform the work with their own forces.

For the purposes of this IFB, respondents are to provide the following information:

- Certification of any DBEs on this project.
- Percentage of project DBEs will work on, if part of a team.
- The Bidder must clearly state that they have no DBEs on their team, if applicable. If Bidder has minority businesses as part of a team or is a minority business registered with the State of Texas but is not certified as a DBE, that information must also be clearly stated in bid response.

SECTION 2: FEDERAL MANDATED CONTRACT PROVISIONS

Some or all of the provisions in this section will be incorporated into a professional service agreement as a result of this solicitation.

BREACH OF CONTRACT TERMS/REMEDIES

Source: 2 CFR § 200 Appendix II (A)

Applicability: This provision requires Jefferson County, as the Airport Sponsor, to incorporate administrative, contractual, or legal remedies if contractor/consultant violate or breach contract terms. The sponsor must also include appropriate penalties and sanctions. Language acceptable to meet the intent of this requirement will be included in contractual documents.

This requirement applies to all FEMA grant and cooperative agreement programs

Contract Types: This provision is required for all contracts that exceed the simplified acquisition threshold as stated in 2 CFR § 200, Appendix II (A). This threshold is occasionally adjusted for inflation and is now equal to $150,000.

TERMINATION OF CONTRACT (FOR CAUSE AND CONVENIENCE)

Source: 2 CFR § 200 Appendix II (B)

FAA Advisory Circular 150/5370-10, Section 80-09

Applicability: This provision requires Jefferson County, as the Airport Sponsor, to incorporate in all contracts over $10,000, a provision that addresses termination for cause and termination for convenience, by the sponsor. The contractual provision must address the manner by which the sponsor's contract will be affected and the basis for settlement. Language acceptable to meet the intent of this requirement will be included in contractual documents.

This requirement applies to all FEMA grant and cooperative agreement programs.

Contract Types: This provision is required for all contracts that exceed $10,000.

EQUAL EMPLOYMENT OPPORTUNITY

Source: 2 CFR § 200 Appendix II (C) 41 CFR § 60-1.4

Executive Order 11246 41 CFR § 60-4.3

Applicability: The purpose of this provision is to provide equal opportunity for all persons, without regard to race, color, religion, sex, or national origin who are employed or seeking employment with contractors performing under a federally assisted construction contract. There are two provisions, a construction clause and a specification clause.

The equal opportunity contract clause must be included in any contract or subcontract when the amount exceeds $10,000. Once the equal opportunity clause is determined to be applicable, the contract or subcontract must include the clause for the remainder of the year, regardless of the amount of the contract.

This requirement applies to all FEMA grant and cooperative agreement programs.

Contract Types: This provision is required for all contracts that exceed $10,000.

Use of Provision: 41 CFR 60-1.4 provides the mandatory **contract** language. 41 CFR 60-4.3 provides the mandatory **specification** language. The sponsor will incorporate these clauses without modification.

Note: Any contracts resulting from this IFB will have the requisite language as set forth in 2 CFR 200 App II, 41 CFR 60-1.4, 41 CFR 60-4.3, and Executive Order 11246.

DAVIS-BACON REQUIREMENTS

Source: 2 CFR § 200 Appendix II (D)

29 CFR Part 5

Applicability: The Davis-Bacon Act ensures that laborers and mechanics employed under the contract receive pay no less than the locally prevailing wages and fringe benefits as determined by the Department of Labor.

For Professional Services: The emergence of different project delivery methods has created situations where Professional Service Agreements (PSAs) includes tasks that meet the definition of construction, alteration, or repair as defined in 29 CFR Part 5. If such tasks result in work that qualifies as construction, alteration, or repair and it exceeds $2,000, the PSA must incorporate this clause.

Use of Provision: 29 CFR 5 establishes the specific language the sponsor must use without modification. A/E firms that employ laborers and mechanics on a task that meets the definition of construction, alteration, or repair are acting as a contractor. The sponsor may not substitute the term "Contractor" for "Consultant" in such instances.

COPELAND ANTI-KICKBACK

Source: 2 CFR § 200 Appendix II (D)

29 CFR Part 3 & Part 5

Applicability: The Copeland Act (18 USC 874 and 40 USC 3145) makes it unlawful to induce by force, intimidation, threat of dismissal from employment, or by any other manner, any person employed in the construction or repair of public buildings or public works, financed in whole or in part by the United States, to give up any part of the compensation to which that person is entitled under a contract of employment. The Copeland Act also requires each contractor and subcontractor to furnish weekly a statement of compliance with respect to the wages paid each employee during the preceding week.

It DOES NOT apply to the FEMA Public Assistance Program.

For Professional Services: The emergence of different project delivery methods has created situations where Professional Service Agreements (PSAs) includes tasks that meet the definition of construction, alteration, or repair as defined in 29 CFR Part 5. If such tasks result in work that qualifies as construction, alteration, or repair and it exceeds $2,000, the PSA must incorporate the Copeland Anti-kickback provision.

Use of Provision: 29 CFR 5 establishes the specific language the sponsor must use without modification. A/E firms that employ laborers and mechanics on a task that meets the definition of construction, alteration, or repair are acting as a contractor. The sponsor may not substitute the term "Contractor" for "Consultant" in such instances.

CONTRACT WORK HOURS AND SAFETY STANDARDS ACT REQUIREMENTS

Source: 2 CFR § 200 Appendix II (E) 29 CFR Part 5

40 U.S.C. § 3701-3708

Applicability: Contract Workhours and Safety Standards Act Requirements (CWHSSA) requires contractors and subcontractors on covered contracts to pay laborers and mechanics employed in the performance of the contracts one and one-half times their basic rate of pay for all hours worked over 40 in a workweek and prohibits unsanitary, hazardous, or dangerous working conditions on federally assisted projects. The Wage and Hour division (WHD) within the U.S. Department of Labor (DOL) enforces the compensation requirements of this Act, while DOL's Occupational Safety and Health Administration (OSHA) enforces the safety and health requirements.

Jefferson County urges all contractors, regardless of funding sources for projects, to follow all applicable Federal and State labor laws.

For Professional Services: This provision applies to professional service agreements that exceed $100,000 and employs laborers, mechanics, watchmen, and guards This includes members of survey crews and exploratory drilling operations.

Use of Provision: The following text will be included in applicable contracts without modification:

1. *Overtime requirements*. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

2. *Violation; liability for unpaid wages; liquidated damages.* In the event of any violation of the clause set forth in paragraph (1) of this clause, the Contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph (1) of this section, in the sum of **$500.00 for each calendar day** on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph (1) of this clause.

3. *Withholding for unpaid wages and liquidated damages*. Jefferson County shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (2) of this clause.

4. Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (1) through (4) of this clause.

RIGHTS TO INVENTIONS

Source: 2 CFR § 200 Appendix II (F)

37 CFR § 401

Applicability: This provision applies to all contracts and subcontracts with small business forms or nonprofit organizations that include performance of *experimental, developmental, or research work*. This clause is not applicable to construction, equipment, or professional service contracts unless the contract includes *experimental, developmental, or research work*. This requirement applies to "funding agreements," but it DOES NOT apply to the Public Assistance, Hazard Mitigation Grant Program, Fire Management Assistance Grant Program, Crisis Counseling Assistance and Training Grant Program, Disaster Case Management Grant Program, and Federal Assistance to Individuals and Households – Other Needs Assistance Grant Program, as FEMA awards under these programs do not meet the definition of "funding agreement."

Use of Provision: When applicable, the sponsor's language in the contract must fully satisfy the requirements of Appendix II to 2 CFR part 200.

CLEAN AIR AND WATER POLLUTION CONTROL

Source: 2 CFR § 200 Appendix II (G)

29 CFR Part 5

Applicability: This provision is required on all contracts and lower tier contracts that exceed $150,000.

Use of Provision: The following language will be included in applicable contracts:

1. Contractor agrees to comply with all applicable standards, orders, and regulations pursuant to the Clean Air Act (42 U.S.C. § 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. § 1251-13870). The contractor agrees to report any violation to the owner immediately upon discovery. The owner assumes responsibility for notifying the EPA and the FAA.

DEBARMENT AND SUSPENSION

Source: 2 CFR Part 180 (Subpart C) 2 CFR Part 3000

2 CFR Part 1200 DOT Order 4200.5

Applicability: Required in all FEMA grant and cooperative agreement programs, regardless of amount. This requirement applies to covered transactions as defined in 2 CFR part 180. AIP funded contracts are non-procurement transactions as defined by §180.970. Covered transactions include any AIP-funded contract, regardless of tier, that is awarded by a contractor, subcontractor, supplier, consultant, or its agents or representative in any transaction, if the amount of the contract is expected to equal or exceed $25,000. Jefferson County must verify that the firm or individual that is entering into a contract with is not presently suspended, excluded, or debarred by any Federal department or agency from participating in federally assisted projects. This is accomplished by:

1. Checking SAM.gov to verify the firm's or individual's status;
2. Collecting a certification from the firm or individual that is not suspended, debarred, or excluded; and
3. Incorporating a clause into the contract that requires lower tier contracts to verify that no suspended, debarred, or excluded firm or individual is included in the project.

See Paragraph above for more information on SAM.gov.

Use of Provision: When applicable, the sponsor's language in the contract must fully satisfy the requirements of Appendix II to 2 CFR part 200.

LOBBYING AND INFLUENCING FEDERAL EMPLOYEES

Source: 2 CFR § 200 Appendix II (J) 31 USC § 1352 – Byrd Anti-Lobbying Amendment

49 CFR Part 20, Appendix A 44 CFR Part 18

Applicability: This requirement applies to all FEMA grant and cooperative agreement programs. Consultants and contractors that apply or bid an award of $100,000 or more must certify 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 another award covered by 31 USC 1352. Each tier must also disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award.

Use of Provision: When applicable, the sponsor's language in the contract must fully satisfy the requirements of Appendix II to 2 CFR part 200 Appendix (J) and 31 USC 1352.

If applicable, contractors ***must sign and submit*** to Jefferson County the "**Certification Regarding Lobbying**" Form included in this bid specification.

PROCUREMENT OF RECOVERED MATERIALS

Source: 2 CFR § 200 Appendix II (J) Solid Waste Disposal Act

40 CFR Part 247 2 CFR § 200.322

Applicability: Sponsors of AIP funded development and equipment projects must comply with Section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act. Section 6002 emphasizes maximizing energy and resource recovery through use of affirmative procurement actions for recovered materials identified in the EPA guidelines. When acquiring items designated in the guidelines, the sponsor must procure items that contain the highest percentage of recovered materials practicable, consistent with maintaining a satisfactory level of competition.

This requirement applies to:

- All contracts awarded by a non-Federal entity under FEMA grant and cooperative agreement programs.
- All construction and equipment projects.
- Any contract, professional and property acquisition, that includes procurement of a product that exceeds $10,000.

Information about this requirement, along with the list of EPA designated items, is available at EPA's Comprehensive Procurement Guidelines website:

https://www.epa.gov/smm/comprehensiveprocurement-guideline-cpg-program.

The Contractor also agrees to comply with all other applicable requirements of Section 6002 of the Solid Waste Disposal Act." The Uniform Rules authorize FEMA to require additional provisions for non-Federal entity contracts.

Use of Provision: When applicable, the sponsor's language in the contract must fully satisfy the requirements of Appendix II to 2 CFR part 200.

ACCESS TO RECORDS AND REPORTS

Source: 2 CFR § 200.333 FAA Order 5100.38

2 CFR § 200.336

Applicability: 2 CFR § 200.333 requires a sponsor to retain records pertinent to a federal award for a period of three years from submission of final closure documents. 2 CFR § 200.336 establishes that sponsors must provide Federal entities the right to access records pertinent to the Federal award. FAA policy extends these requirements to the sponsor's contracts and subcontracts of AIP funded projects.

Use of Provision: When applicable, the sponsor's language in the contract must fully satisfy the requirements of Appendix II to 2 CFR part 200. The following will be in applicable contracts:

1. The contractor must maintain an acceptable cost accounting system. The Contractor agrees to provide the local/state/federal entity providing funding for this project, the FEMA Administrator, the Comptroller General of the United States, or any of their authorized representatives access to any books, documents, papers, and records of the Contractor which are directly pertinent to this contract for the purposes of making audits, examinations, excerpts, and transcriptions.
2. The contractor agrees to maintain all books, records and reports required under this contract for a period of not less than three years after final payment is made and all pending matters have been resolved.
3. The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.

4. The Contractor agrees to provide the FEMA Administrator or their representatives access to construction or other work sites pertaining to the work being completed under the contract.
5. In compliance with the Disaster Recovery Act of 2018, the County and the Contractor acknowledge and agree that no language in this contract is intended to prohibit audits or internal reviews by the FEMA Administrator or the Comptroller General of the United States.

AFFIRMATIVE ACTION REQUIREMENT

Source: 41 CFR Part 60-4 FAA Order 5100.38

Executive Order 11246

Applicability: Sponsors are required to set goals for minority participation in AIP funded projects exceeding $10,000. The goals for minority participation derive from Economic Area (EA) and Standard Metropolitan Statistical Area (SMSA) as established in Volume 45 of the Federal Register dated 10/03/80. Page 65984 contains a table of all EAs and SMSAs and the associated minority participation goals.

Executive Order 11246 has set a goal of 6.9% nationally for female participation for all construction projects. This value remains constant for all counties and states.

Contract Types:

- **Construction:** The sponsor must incorporate this notice in all solicitations for bids or requests for proposals for AIP funded construction work contracts and subcontracts that exceed $10,000.
- **Equipment:** The sponsor must incorporate this notice in all solicitations for equipment project exceeding $10,000 that involves installation of equipment onsite (e.g. electrical vault equipment, generators). This provision does not apply to equipment acquisition projects where the manufacturer of the equipment takes place offsite at a manufacturer's plant (e.g. firefighting and vehicles).
- **Professional Services:** The sponsor must incorporate this notice in any professional service agreement if the agreement includes tasks that meet the definition of construction work, as defined by the DOL, and exceeds $10,000.

Use of Provision: When applicable, the sponsor's language in the contract must fully satisfy the requirements of 41 CFR Part 60-4. The following will be in applicable contracts:

SOLICITATION CLAUSE:

NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.

2. The goals and timetables for minority and female participation, expressed in percentage terms for the contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

   a. Goals for minority participation for each trade: 10.01 %

   b. Goals for female participation in each trade: 10.01 %

These goals are applicable to all of the contractor's construction work, whether or not it is federal or federally assisted, performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and non-federally involved construction.

The contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR Part 60-4.3(a) and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from contractor to contractor or from project to project for the sole purpose of meeting the contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with these goals will be measured against the total work hours performed.

The contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs (OFCCP) within 10 working days of award of any construction subcontract in excess of $10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address, and telephone number of the subcontractor; employer identification number of the subcontractor; estimated dollar amount of these subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

As used in this notice and in the contract resulting from this solicitation, the covered area is Texas, Jefferson County, Beaumont.

BUY AMERICAN PREFERENCES

Source: 49 USC § 50101

Applicability: the buy American preference requirement in 49 USC § 50101 requires that all still in manufactured goods used on AIP projects be produced in the United States. This statute gives the FAA the ability to issue a waiver to a sponsor to use non-domestic material on an AIP funded project subject to meeting certain conditions a sponsor may request that the FAA issue a waiver from the by American preference requirements if the FA finds that:

1. Applying the provision is not in the public interest;
2. The steel or manufactured goods are not available in sufficient quantity or quality in the United States;
3. The cost of components in subcomponents produced in the United States is more than 60% of the total components of a facility or equipment, and final assembly has taken place in the United States. Items that have an FAA standard specification item number, such as specific airport lighting equipment, are considered the equipment.
4. Applying this provision would increase the cost of the overall project by more than 25%.

For construction and equipment procurement projects, language, forms, and references to 49 USC § 50101 will be included in the solicitation.

Professional Service Agreements typically do not result in a deliverable that meets the definition of a manufactured product. If a PSA includes providing a manufactured good as a deliverable under the contract, the sponsor must include the Buy American Preference provision in the agreement.

Use of Provision: When applicable, the sponsor's language in the contract must fully satisfy the requirements of 49 USC § 50101.

CIVIL RIGHTS

Source:	49 USC § 47123	Title VI of the Civil Rights Act of 1964
	FAA Order 1400.11	US DOT Order 1050.2

Applicability: Title VI of the Civil Rights Act of 1964, as amended, Title VI, prohibits discrimination on the grounds of race, color, or national origin under any program or activity receiving Federal financial assistance. Sponsors must include appropriate clauses from the Standard DOT Title VI Assurances in all contracts and solicitations.

The text of each individual clause comes from the U.S. DOT Order 1050.2 Standard Title VI Assurances and Nondiscrimination Provisions, effective 04/24/2013. These assurances require the sponsor insert the appropriate clauses in the form provided by the DOT. Where the clause refers to the applicable activity, project, or program, it means the AIP project.

TITLE VI SOLICITATION NOTICE

Jefferson County, in accordance with the provisions of Title VI of the Civil Rights Act of 1964 (78 Stat. 252, 42 USC § 2000d to 2000d-4) and the Regulations, hereby notifies all bidders or offerors that it will affirmatively ensure that any contract entered into pursuant to this advertisement, Disadvantaged Business Enterprises will be afforded full and fair opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, or national origin in consideration for an award.

Title VI List of Pertinent Nondiscrimination Acts and Authorities

During the performance of any contract as a result of this bid, the Contractor, for itself, its assignees, and successors in interest, hereinafter referred to as the Contractor, agrees to comply with the following non-discrimination statutes and authorities, including but not limited to:

- Title VI of the Civil Rights Act of 1964
- 49 CFR part 21
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970
- Section 504 of the Rehabilitation Act of 1973
- The Age Discrimination Act of 1975
- Airport and Airway Improvement Act of 1982
- The Civil Rights Restoration Act of 1987
- Titles II and III of the Americans with Disabilities Act of 1990
- The Federal Aviation Administration's Nondiscrimination Statute
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency
- Title IX of the Education Amendments of 1972

DISADVANTAGED BUSINESS ENTERPRISE

Source: 49 CFR part 26

Applicability: A sponsor that anticipates awarding $250,000 or more in AIP funding prime contracts in a federal fiscal year must have an approved Disadvantaged Business Enterprise (DBE) program on file with the FAA Office of Civil Rights (§26.21). The approved DBE program will identify a 3-year overall program goal that the sponsor bases on the availability of ready, willing, and able DBEs relative to all businesses ready, willing, and able to participate on the project. (§26.45).

Sponsors with a DBE program on file with the FAA must include the three following provisions, if applicable:

- Clause in all solicitations for proposals for which a contract goal has been established;
- Clause in each prime contract, and;
- Clause in solicitations that are obtaining DBE participation through race/gender neutral means.

As a condition of bid responsiveness, the Bidder or Offeror must submit the following information with its proposal on the forms provided herein:

1. Names and addresses of the DBE firms that will participate in the contract;
2. A description of the work each DBE firm will perform;
3. Percentage/dollar amount of the participation of each DBE firm listed under 1.

4. Written statement from Bidder or Offeror that attests their commitment to use the DBE firm(s) listed under (1) to meet the Owner's project goal; and
5. If Bidder or Offeror cannot meet the advertised project DBE goal, evidence of good faith efforts undertaken by the Bidder or Offeror as described in 49 CFR part 26 Appendix A

The requirements of 49 CFR part 26 apply to this contract. It is the policy of Jefferson County to practice nondiscrimination based on race, color, sex, or national origin in the award or performance of this contract. Jefferson County encourages participation by all firms qualifying under this solicitation regardless of business size or ownership.

DBE CONTRACT ASSURANCES

Contracts as a result of this bid will include contract assurances per §26.13, if applicable:

The contractor or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 and the award and administration of Department of Transportation-assisted contracts. Failure by contractor to carry out these requirements is a material breach of this contract which may result in the termination of this contract or such other remedy as the owner deems appropriate, which may include but is not limited to:

1. Withholding monthly progress payments;
2. Accessing sanctions;
3. Liquidated damages; and/or
4. Disqualifying the Contractor from future bidding as non-responsible.

Prompt Payment (§26.29) – The prime contractor agrees to pay each subcontractor under this prime contract for satisfactory performance of its contract no later than 30 days from the receipt of each payment the prime contractor receives from Jefferson County. The prime contractor agrees further to return retainage payments to each subcontractor within 30 days after the subcontractor's work is satisfactorily completed. Any delay or postponement of payment from the above referenced time frame may occur only for good cause following written approval of Jefferson County. This clause applies to both DBE and non-DBE subcontractors.

DISTRACTED DRIVING

Source: Executive Order 13513 2 CFR §200.67

DOT Order 3902.10

Applicability: The FAA encourages recipients of federal grant funds to adopt and enforce safety policies that decrease crashes by distracted drivers, including policies to ban text messaging while driving when performing work related to a grant or subgrant.

Use of Provision: The following clause will be included in all Federally-assisted contracts regardless of amount:

In accordance with executive order 13513, federal leadership on reducing text messaging while driving, Andy OT order 3902.10, text messaging while driving, the FAA encourages recipients of Federal grant funds to adopt and enforce safety policies that decrease crashes by distracted drivers including policies to ban text messaging while driving when performing work related to a grant or subgrant.

In support of this initiative, Jefferson County encourages the contractor to promote policies and initiatives for its employees and other work personnel that decrease crashes by distracted drivers, including policies that ban text messaging while driving motor vehicles Papa forming work activities associated with the project. The contractor must include the substance of this clause and other sub tier contracts exceeding $3,500 that involve driving a motor vehicle and performance of work activities associated with the project.

COMPLIANCE WITH FEDERAL LAW, REGULATIONS, AND EXECUTIVE ORDERS

The recipient and its contractors are required to comply with all Federal laws, regulations, and executive orders.

Applicability: FEMA recommends that all non-Federal entities place into their contracts an acknowledgement that FEMA financial assistance will be used to fund the contract along with the requirement that the contractor will comply with all applicable Federal law, regulations, executive orders, and FEMA policies, procedures, and directives.

"*This is an acknowledgement that FEMA financial assistance will be used to fund all or a portion of the contract. The contractor will comply with all applicable Federal law, regulations, executive orders, FEMA policies, procedures, and directives."*

NO OBLIGATION BY FEDERAL GOVERNMENTS

The FAA and or FEMA is not a party to any transaction between the recipient and its contractor. The FAA and or FEMA is not subject to any obligations or liable to any party for any matter relating to the contract.

Applicability: FEMA recommends that the non-Federal entity include a provision in its contract that states that the Federal Government is not a party to the contract and is not subject to any obligations or liabilities to the non-Federal entity, contractor, or any other party pertaining to any matter resulting from the contract.

"The Federal Government is not a party to this contract and is not subject to any obligations or liabilities to the non-Federal entity, contractor, or any other party pertaining to any matter resulting from the contract."

PROGRAM FRAUD AND FALSE OR FRAUDULENT STATEMENTS OR RELATED ACTS

Recipients must comply with the requirements of The False Claims Act (31 U.S.C. §§ 3729-3733) which prohibits the submission of false or fraudulent claims for payment to the federal government. See DHS Standard Terms and Conditions: Version 8.1 (2018); and 31 U.S.C. §§ 3801-3812, which details the administrative remedies for false claims and statements made. The non-Federal entity must include a provision in its contract that the contractor acknowledges that 31 U.S.C. Chap. 38 (Administrative Remedies for False Claims and Statements) applies to its actions pertaining to the contract.

FEMA recommends that the non-Federal entity include a provision in its contract that the contractor acknowledges that 31 U.S.C. Chap. 38 (Administrative Remedies for False Claims and Statements) applies to its actions pertaining to the contract.

"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 this contract."

BYRD ANTI-LOBBYING CERTIFICATION

Certification for Contracts, Grants, Loans, and Cooperative Agreements-The undersigned certifies, to the best of his or her knowledge and belief, that:

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 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.

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 undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

The undersigned 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 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.

The Contractor _____ certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. Chap. 38, Administrative Remedies for False Claims and Statements, apply to this certification and disclosure, if any.

_____

Signature of Contractor's Authorized Official

_____

Name and Title of Contractor's Authorized Official

_____

Date

REQUIRED FORM
Bidder: Please complete this form and include with bid submission.

DEBARMENT/SUSPENSION CERTIFICATION

Non-Federal entities and contractors are subject to the debarment and suspension regulations implementing Executive Order 12549, Debarment and Suspension (1986) and Executive Order 12689, Debarment and Suspension (1989) at 2 C.F.R. Part 180 and the Department of Homeland Security's regulations at 2 C.F.R. Part 3000 (No procurement Debarment and Suspension).

This requirement applies to all FEMA grant and cooperative agreement programs.

Federal Executive Order (E .O.) 12549 "Debarment" requires that all contractors receiving individual awards, using federal funds, and all sub recipients certify that the organization and its principals are not debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded by any Federal department or agency from doing business with the Federal Government. By signing this document, you certify that your organization and its principals are not debarred. Failure to comply or attempts to edit this language may disqualify your bid. Information on debarment is available at the following websites: **Error! Hyperlink reference not valid.**and https://acguisition.qov/far/index.html see section 52.209-6.

The Contractor _____ certifies or affirms by your signature that neither you nor your principal is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any federal department or agency.

_____

Signature of Contractor's Authorized Official

_____

Name and Title of Contractor's Authorized Official

_____

Date

REQUIRED FORM
Bidder: Please complete this form and include with bid submission.

CIVIL RIGHTS COMPLIANCE PROVISIONS

EQUAL EMPLOYMENT OPPORTUNITY (Equal Opportunity Clause)

(For all awarded contracts that meet the definition of "federally assisted construction contract" provided in 41 CFR Part 60-1.3)

During the performance of this contract, the contractor agrees as follows:

1) 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.

2) 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.

3) 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.

4) The contractor will send to each labor union or representative of workers with which he 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.

5) 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.

6) 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 his 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.

7) In the event of the contractor's noncompliance with the nondiscrimination clauses of this contract or with any of the said rules, regulations, or order this contract 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.

8) The contractor will include the portion of the sentence immediately preceding paragraph (1) and the provisions of paragraphs (1) through (8) 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:

CIVIL RIGHTS COMPLIANCE PROVISIONS (CONTINUED)

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.

The applicant further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally assisted construction work: Provided, that if the applicant so participating is a State or local government, the above equal opportunity clause is not applicable to any agency, instrumentality or subdivision of such government which does not participate in work on or under the contract.

The applicant agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the compliance of contractors and subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor, that it will furnish the administering agency and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance.

The applicant further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a contractor debarred from, or who has not demonstrated eligibility for, Government contracts and federally assisted construction contracts pursuant to the Executive Order and will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed upon contractors and subcontractors by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive Order. In addition, the applicant agrees that if it fails or refuses to comply with these undertakings, the administering agency may take any or all of the following actions: Cancel, terminate, or suspend in whole or in part this grant (contract, loan, insurance, guarantee); refrain from extending any further assistance to the applicant under the program with respect to which the failure or refund occurred until satisfactory assurance of future compliance has been received from such applicant; and refer the case to the Department of Justice for appropriate legal proceedings.

_____

Signature of Contractor's Authorized Official

_____

Name and Title of Contractor's Authorized Official

_____

Date

REQUIRED FORM
<u>Bidder</u>: Please complete this form and include with bid submission.

SECTION 3: SPECIAL REQUIREMENTS/BID SUBMISSION INSTRUCTIONS

The following requirements and instructions **supersede** General Requirements where applicable.

1. SUBMISSION OF BID.

Bidder is Responsible for Submitting:

One (1) Original and Two (2) Bid Copies; with all copies to include a Completed Copy of this specifications packet, drawings, and project manuals IN THEIR ENTIRETY. Drawings and project manuals -only- may be submitted as double-sided copies.

The County requests that bid submissions NOT be bound by staples or glued spines.

Each Bidder shall ensure that required parts of their bid submission are completed with accuracy and submitted as per the requirements within this specifications packet, including any addenda.

Additionally, Bidder shall monitor the Jefferson County Purchasing Department Website for any addenda, additional instructions, or bid updates**.** https://www.co.jefferson.tx.us/Purchasing/

Failure to return and/or complete all required documentation will result in a response being declared as non-responsive.

Bids must be submitted in complete original form by mail or messenger to the following address:
Jefferson County Purchasing Department
1149 Pearl Street, 1st Floor
Beaumont, TX 77701

BID PACKAGING: Bidder shall submit response in a tightly sealed opaque envelope or box, plainly marked "SEALED BID." The outside of the envelope of box shall also include the IFB Number, IFB Name, IFB Due Date, and the Bidder's Name and Address; and shall be addressed to the Purchasing Agent.

All submissions must be received by 11:00 am CT, Wednesday, March 29, 2023.

Bids will be accepted at the above address until the time and date specified herein, and immediately after will be publicly opened and read aloud.

Jefferson County will not accept any responsibility for bids being delivered by third party carriers.

Late bids will not be accepted and will be returned unopened to the Bidder.
Jefferson County shall not be responsible for any effort or cost expended in the preparation of a response to this IFB.

All bid responses submitted in response to this invitation shall become the property of Jefferson County and will be a matter of public record available for review.

All protests should be coordinated through the Purchasing Office prior to award recommendation to Commissioners' Court.

COURTHOUSE SECURITY: All visitors to the Courthouse must pass through Security. Respondents planning to hand deliver proposals must allow time to get through Security, as a delay in entering the Courthouse will not be accepted as an excuse for late submittal. Mondays and Tuesdays are particularly heavy days.

In response to the Covid-19 pandemic, Jefferson County has implemented precautionary measures as currently recommended by the CDC within its facilities. Bidders are strongly urged to plan accordingly.

COUNTY HOLIDAYS (2023):

~~January 16~~	~~(Monday)~~	~~Martin Luther King, Jr. Day~~
~~February 20~~	~~(Monday)~~	~~President's Day~~
April 7	(Friday)	Good Friday
May 29	(Monday)	Memorial Day
July 4	(Tuesday)	Independence Day
September 4	(Monday)	Labor Day
November 10	(Friday)	Veteran's Day
November 23 & 24	(Thursday & Friday)	Thanksgiving
December 25 & 26	(Monday & Tuesday)	Christmas
January 1, 2024	(Monday)	New Year's

Submissions During Time of Inclement Weather, Disaster, or Emergency:

In case of inclement weather or any other unforeseen event causing the County to close for business on the date of a bid/proposal/statement of qualifications submission deadline, the IFB closing will automatically be postponed until the next business day that County offices are open to the public. Should inclement weather conditions or any other unforeseen event cause delays in courier service operations, the County may issue an addendum to all known vendors interested in the project to extend the deadline. It will be the responsibility of the vendor to notify the county of their interest in the project should these conditions impact their ability to submit a bid/proposal/statement of qualifications submission before the stated deadline. The County reserves the right to make the final judgement call to extend any deadline.

Should an emergency or unanticipated event interrupt normal County processes, and bid/proposal/statement of qualifications submissions cannot be received by the Jefferson County Purchasing Department's office by the exact time specified in the IFB and urgent County requirements preclude amendment to the IFB, the time specified for receipt of Statements of Qualifications will be deemed to be extended to the same time of day specified in the solicitation on the first business day on which normal County processes resume.

2. PRE-BID MEETING AND WALK-THROUGH.

There will be a **Non-Mandatory Pre-Bid Meeting on Tuesday, March 7, 2023 at 2:00 pm CT**, at the Jack Brooks Regional Airport - Administration Conference Room located at 5000 Jerry Ware Blvd. Beaumont, Texas 77705. This conference will be the Bidder's only opportunity to view secured areas of the project.

3. QUESTIONS/DEADLINE FOR QUESTIONS.

Questions may be emailed to **Jamey West** & **Contract Specialist** at: Jamey.West@jeffcotx.us
The Deadline for asking questions or requesting additional information (in writing) is 5:00 pm, CT, Monday, March 20, 2023.

4. VENDOR REGISTRATION (System for Award Management).

Vendors doing business with Jefferson County are **required** to be registered with The System for Award Management (SAM), with an "active" status. The System for Award Management (SAM) is the Official U.S. Government system that consolidated the capabilities of CCR/FedReg, ORCA, and EPLS. There is NO fee to register for this site. Entities may register at no cost directly from the SAM website at: https://www.sam.gov

In instances where a vendor has either an "Inactive" SAM Registration or is not currently registered with the System for Award Management, the Purchasing Department may *initially* accept proof (printout from the SAM website) that the vendor has begun the registration process in order for the IFB/RFQ/RFP submission to be considered as "responsive" to the specifications for the project.

However, the SAM Registration must be completed (showing "active" status, with no exclusions) prior to the award and/or execution of an agreement or contract for the project.

5. FORM 1295 (Texas Ethics Commission) SUBMISSION REQUIREMENT/INSTRUCTIONS FOR BIDDERS.
All Non-Exempt Bidders are required to submit a completed FORM 1295 with bid submission.

1. Submit a FORM 1295 online via the Texas Ethics Commission website link below.
Vendors must enter the required information on Form 1295, and print a copy of the completed form.
The form will include a certification of filing that will contain a unique certification number.

2. Submit a FORM 1295 hard copy (completed & signed by an Authorized Agent of the Awarded Vendor), to the Jefferson County Purchasing Department **with bid submission.**

FORM 1295, Completion Instructions, and Login Instructions are available via the Texas Ethics Commission Website at: https://www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm

A sample of a completed FORM 1295 is included on **PAGE 37**.

FORM 1295 Implementation Background:

In accordance with House Bill 1295 (passed January 1, 2016), Vendors entering into contracts and professional agreements with Jefferson County will be required to complete a Certificate of Interested Parties (FORM 1295), **unless contract is considered exempt as described below.**

In 2017, the Texas legislature amended the law to require Form 1295 to include an "unsworn declaration" which includes, among other things, the date of birth and address of the authorized representative signing the form. The unsworn declaration, including the date of birth and address of the signatory, replaces the notary requirement that applied to contracts entered into before January 1, 2018. The TEC filing application does not capture the date of birth or street address of the signatory and it will not appear on forms that are filed using the TEC filing application.

Changes to the law requiring certain businesses to file a Form 1295 are in effect for contracts entered into or amended on or after January 1, 2018. The changes exempt businesses from filing a Form 1295 for certain types of contracts and replace the need for a completed Form 1295 to be notarized. Instead, the person filing a 1295 needs to complete an "unsworn declaration."

Question: Will the date of birth and address provided appear on the TEC's website when the form is filed?

Answer: No. The TEC filing application does not capture the date of birth or street address of the signatory and it will not appear on forms that are filed using the TEC filing application. Although the TEC does not capture the date of birth and street address of the signatory, the contracting state agency or governmental agency will have a physical copy of the form that includes the date of birth and address of the signatory. The TEC cannot answer whether the contracting state agency or governmental agency may release such information. Questions regarding the Texas Public Information Act may be directed to the Office of the Attorney General. See also Paxton v. City of Dall., No. 03-13-00546-CV, 2015 Tex. App. LEXIS 5228, at *10-11 (App.—Austin May 22, 2015) (mem. op.) (pet. denied) (available here)

FORM 1295 EXEMPTIONS:

What type of contracts are exempt from the Form 1295 filing requirement under the amended law?
The amended law adds to the list of types of contract exempt from the Form 1295 filing requirement.

A completed Form 1295 is not required for:

- a sponsored research contract of an institution of higher education
- an interagency contract of a state agency or an institution of higher education

• a contract related to health and human services if: the value of the contract cannot be determined at the time the contract is executed; and any qualified vendor is eligible for the contract

• a contract with a publicly traded business entity, including a wholly owned subsidiary of the business entity

• a contract with an electric utility, as that term is defined by Section 31.002, Utilities Code

• a contract with a gas utility, as that term is defined by Section 121.001, Utilities Code

<u>BIDDER</u>: INSERT PROOF OF SYSTEM FOR AWARD MANAGEMENT (SAM) REGISTRATION BEHIND THIS PAGE.

SAMPLE COMPLETED FORM 1295

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

OFFICE USE ONLY

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

1 **Name of business entity filing form, and the city, state and country of the business entity's place of business.**

YOUR FIRM NAME HERE

2 **Name of governmental entity or state agency that is a party to the contract for which the form is being filed.**

**JEFFERSON COUNTY, TEXAS*

3 **Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.**

BID/CONTRACT/PO NUMBER GOES HERE

4 Name of Interested Party	City, State, Country (place of business)	Nature of Interest (check applicable)	
		Controlling	Intermediary
NAME OF PERSON/PERSONS THAT OWN BUSINESS GOES HERE. MUST LIST ANY PERSON THAT DOES NOT WORK FOR THE COMPANY LISTED IN #1 THAT WILL PROFIT FROM THE BID/CONTRACT/PO			

5 **Check only if there is NO Interested Party.** ☐ **ONLY CHECK IF NO CONTROLLING OR INTERMEDIARY PARTY**

6 **UNSWORN DECLARATION** Vendor is to complete #6 - Unsworn Declaration

My name is _____, and my date of birth is _____.

My address is _____, _____, _____, _____, _____.
(street) (city) (state) (zip code) (country)

I declare under penalty of perjury that the foregoing is true and correct.

Executed in _____ County, State of _____, on the _____ day of _____, 20_____.
(month) (year)

_____
Signature of authorized agent of contracting business entity
(Declarant)

ADD ADDITIONAL PAGES AS NECESSARY

Form provided by Texas Ethics Commission www.ethics.state.tx.us Revised 12/22/2017

Must file online at www.ethics.state.tx.us/File

BIDDER: INSERT COMPLETED FORM 1295 BEHIND THIS PAGE.

6. MULTIPLE VENDOR AWARD.

Jefferson County reserves the right to award this contract to more than one vendor at the County's discretion.

7. DELIVERY.

If delivery is required, all items must be packaged so as to be protected from damage during shipping and handling. Any item(s) damaged in shipping must be replaced in kind, or repaired, by the contractor, at the discretion of, and at no additional charge to, Jefferson County.

8. PAYMENT.

Jefferson County will pay original invoices that clearly itemize the goods and/or services provided as to quantity, part number, description, price, applicable discount (if any), labor charges showing time differential, if applicable and if previously agreed to, and delivery, installation, and set-up costs, if applicable and if previously agreed to. Only charges as stated on the Bid Form(s) submitted as a part of the bid will be considered.

Invoices must indicate Jefferson County as applicable, the address to which the product(s) and/or service(s) were delivered, and the applicable purchase order number. Invoices will be matched to delivery tickets prior to payment; therefore, all delivery tickets should have an accurate description of the product(s) and/or service(s).

Invoices shall be submitted to:
Jefferson County Auditing Department
Attention: Accounts Payable
1149 Pearl Street, 7th floor
Beaumont, TX 77701.

9. USAGE REPORTS.

Jefferson County reserves the right to request, and receive at no additional cost, up to two (2) times during the contract period, a usage report detailing the products and/or services furnished to date under a contract resulting from this IFB. The reports must be furnished no later than five (5) working days after written request and itemize all purchases to date by Jefferson County department, description of each item purchased, including manufacturer, quantity of each item purchased, per unit and extended price of each item purchased, and total amount and price of all items purchased.

10. INSURANCE.

The contractor (including any and all subcontractors as defined in Section 11.1.3 below) shall, at all times during the term of this contract, maintain insurance coverages with not less than the type and requirements shown below. Such insurance is to be provided at the sole cost of the contractor. These requirements do not establish limits of the contractor's liability.

All policies of insurance shall waive all rights of subrogation against the County, its officers, employees and agents; a copy of the policy wording or endorsement is required.

Contractor shall furnish Jefferson County with Certificate of Insurance naming Jefferson County as additional insured and will provide the actual policy wording or endorsement showing as such.

All insurance must be written by an insurer licensed to conduct business in the State of Texas.

Minimum Insurance Requirements:

Public Liability, including Products & Completed Operations	$1,000,000
Excess Liability	$1,000,000

Property Insurance (policy below that is applicable to this project):
Improvements & Betterments Policy: Improvements/Remodeling (for Lease Tenants)
Builder's Risk Policy: Structural Coverage for Construction Projects
Installation Floater Policy: Improvements/Alterations to Existing Structure

Workers' Compensation Statutory Coverage (See Section 9 Below)

11. WORKERS' COMPENSATION INSURANCE

11.1 Definitions:

11.1.1 **Certificate of coverage ("Certificate")** – A copy of a certificate of insurance, a certificate of authority to self-insure issued by the commission, or a coverage agreement, DWC-81, DWC-82, DWC-83, or DWC-84 showing statutory workers' compensation insurance coverage for the person's or entity's employees providing services on a project, for the duration of the project.

11.1.2 **Duration of the project** – Includes the time from the beginning of the work on the project until the contractor's/person's work on the project has been completed and accepted by the governmental entity.

11.1.3 **Persons providing services on the project ("subcontractor") in article 406.096** – Includes all persons or entities performing all or part of the services under the contractor has undertaken to perform on the project, regardless of whether that person contracted directly with the contractor and regardless of whether that person has employees. This includes, without limitation, independent contractors, subcontractor, leasing companies, motor carriers, owner-operators, employees of any such entity, or employees of any entity which furnishes persons to provide services on the project. "Services" includes, without limitation, providing, hauling or delivering equipment or materials, or providing labor, transportation, or other service related to a project. "Services" does not include activities unrelated to the project, such as food/beverage vendors, office supply deliveries, and delivery of portable toilets.

11.2 The Contractor shall provide coverage, based on proper reporting of classification code and payroll amounts and filing any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all employees of the contractor providing services on the project, for the duration of the project.

11.3 The Contractor must provide a certificate of coverage to the governmental entity prior to being awarded the contract – refer to Section 10 above.

11.4 If the coverage period shown on the Contractor's current certificate of coverage ends during the duration of the project, the Contractor must, prior to the end of the coverage period, file a new certificate of coverage with the governmental entity showing that coverage has been extended.

11.5 The Contractor shall obtain from each person providing services on a project, and provide to the governmental entity:

11.5.1 A certificate of coverage, prior to that person beginning work on the project, so the governmental entity will have on file certificates of coverage showing coverage for all persons providing services on the project; and

11.5.2 No later than seven (7) days after receipt by the Contractor, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate ends during the duration of the project.

11.6 The Contractor shall retain all required certificates of coverage for the duration of the project and for one (1) year thereafter.

11.7 The Contractor shall notify the governmental entity in writing by certified mail or personal delivery, within ten (10) days after the contractor knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project.

11.8 The Contractor shall post on each project site a notice, in the text, form and manner prescribed by the Texas Department of Workers' Compensation, informing all persons providing services on the project that they are required to be covered, and stating how a person may verify coverage and report lack of coverage.

11.9 The Contractor shall contractually require each person with whom it contracts to provide services on a project to:

11.9.1 Provide coverage, based on reporting of classification codes and payroll amounts and filing of any coverage agreements, which meets the statutory requirements of Texas Labor Code, Section 401.011(44) for all its employees providing services on the project, for the duration of the project.

11.9.2 Provide to the Contractor, prior to that person beginning work on the project a certificate of coverage showing that coverage is being provided for all employees of the person providing services on the project, for the duration of the project.

11.9.3 Provide the Contractor, prior to the end of coverage period, a new certificate of coverage showing extension of coverage, if the coverage period shown on the current certificate of coverage ends during the duration of the project.

11.9.4 Obtain from each person with whom it contracts, and provide to the Contractor:

11.9.4.1 A certificate of coverage, prior to the other person beginning work on the project; and

11.9.4.2 the coverage period, if the coverage period shown on the current certificate of a new certificate of coverage showing extension of coverage, prior to the end of coverage ends during the duration of the project.

11.9.5 Retain all required certificates of coverage on file for the duration of the project and for one (1) year thereafter.

11.9.6 Notify the governmental entity in writing by certified mail or personal delivery, within ten (10) days after the person knew or should have known, of any change that materially affects the provision of coverage of any person providing services on the project; and

11.9.7 Contractually require each person with whom it contracts to perform as required by paragraphs 11.1. – 11.7., with the certificates of coverage to be provided to the person for whom they are providing services.

11.10 By signing this contract or providing or causing to be provided a certificate of coverage, the Contractor is representing to the governmental entity that all employees of the contractor who will provide services of the project will be covered by workers' compensation coverage for the duration of the project, that the coverage will be based on proper reporting of classification codes and payroll amounts, and that all coverage agreements will be filed with the appropriate insurance carrier or, in the case of a self-insured, with the commission's Division of Self-Insurance Regulation. Providing false or misleading information may subject the contractor to administrative penalties, criminal penalties, civil penalties, or other civil actions.

11.11 The Contractor's failure to comply with any of these provisions is a breach of contract by the Contractor which entitles the governmental entity to declare the contract void if the Contractor does not remedy the breach within ten (10) days after receipt of notice of breach from the governmental entity.

<u>BIDDER</u>: INSERT COPY OF CERTIFICATE OF INSURANCE (COI) BEHIND THIS PAGE.

Note: For bid purposes, a general COI will suffice. However, a COI that includes the notation that "Jefferson County as an additional insured" will be required from Awarded Bidder(s) prior to the issuance of a Purchase Order.

<u>BIDDER</u>: INSERT BID SURETY BEHIND THIS PAGE.

BIDDER INFORMATION FORM

Instructions: Complete the form below. Please provide legible, accurate, and complete contact information. PLEASE PRINT.

Bid Number & Name: Invitation for Bid (IFB 23-009/JW)
Landside Road Pavement Repairs at the Jack Brooks Regional Airport

Bidder's Company/Business Name: _____

Bidder's TAX ID Number: _____

If Applicable: **HUB Vendor No**. _____ **DBE Vendor No**. _____

Contact Person: _____ **Title:** _____

Phone Number (with area code): _____

Alternate Phone Number if available (with area code):_____

Fax Number (with area code):_____

Email Address: _____

Mailing Address (Please provide a <u>physical address for bid bond return</u>, if applicable):

_____
Address

_____
City, State, Zip Code

REQUIRED FORM
<u>Bidder</u>: Please complete this form and include with bid submission.

<u>BIDDER</u>: INSERT ALL ADDENDA BEHIND THIS PAGE.
PLEASE BE SURE TO COMPLETE, SIGN, ATTEST, AND DATE EACH ADDENDUM.

PLEASE NOTE: Bid Award is subject to grant funding for this project. The County may choose to award all or in partial the projects listed on this bid form.

We have examined the site of the Work and the nature and kind of work to be performed and have informed ourselves of all local conditions and other things that might affect the cost or difficulty of performing the Work, and we represent and warrant that we have experience in the use of materials and methods of performance specified, and that we can and will do the Work and construct the improvements with the specified materials as contemplated and indicated by the Drawings and Specifications.

Upon receipt of notice of acceptance of our bid, we agree to execute the Contract within 10 (ten) days after such notice, begin work on or before the date of commencement of the Work established in the Notice to Proceed, and to complete the Work within **_____ calendar days.**

We have visited and examined the site of the Work and the nature and kind of work to be performed and have informed ourselves of all local conditions and other things that might affect the cost or difficulty of performing the Work, and we represent and warrant that we have experience in the use of materials and methods of performance specified, and that we can and will do the Work and construct the improvements with the specified materials as contemplated and indicated by the drawings and specifications.

LIQUIDATED DAMAGES FOR DELAYS:
It is understood and agreed between the parties that time is of the essence of this contract, and in case the Contractor shall fail to fully, entirely, and in conformity with the provisions of this contract, perform and complete said work within the time stated in the proposal with such allowances as herein before provided or within such further time as he may be allowed by the Owner, the Architect shall compute the number of days of delinquency in said final and entire completion. It is hereby acknowledged by the Contractor that such delinquency caused additional overhead costs and expenses to the Owner.

It is hereby agreed between both parties to this contract that the amount of said damages are hereby ascertained and liquidated at the greater of **FIVE HUNDRED DOLLARS ($250.00)** per day of delay, or the actual measurable damages to the Owner including penalties, or other fees which may be charged to the Owner for failure to meet the time requirements. The Contractor hereby agrees to pay the stated sum to the Owner for each and every day of delinquency.

BASE BID ITEMS – Jerry Ware Road

Item No.	TxDOT Item No	Est. Qty.	Unit	Description of Item with Unit Price Written in Words	Unit Price	Amount
01	100	4.42	Ac.	Preparing Right-Of-Way, complete in place @ _____ _____ per Acre	$ _____	$ _____
02	500	1	L.S.	Mobilization/demobilization, complete in place @ _____ _____ per lump sum	$ _____	$ _____
03	110	1,746	C.Y	Excavation, complete in place @ _____ _____ per cubic yard		
04	132	1,988	C.Y	Embankment, complete in place @ _____ _____ per cubic yard		
05	110	5,463	S.Y	Removing existing Concrete roadway, complete in place @ _____ _____ per square yard	$ _____	$ _____
06	110	2,663	S.Y	Removing existing asphalt shoulder, complete in place @ _____ _____ per square yard	$ _____	$ _____

BASE BID ITEMS – Jerry Ware Road

Item No.	TxDOT Item No	Est. Qty.	Unit	Description of Item with Unit Price Written in Words	Unit Price	Amount
07	110	478	S.Y	Removing existing asphalt driveway, complete in place @ _____ _____ per square yard	$ _____	$ _____
08	110	255	S.Y	Removing existing asphalt turnout, complete in place @ _____ _____ per square yard	$ _____	$ _____
09	496	17	L.F.	Removing existing 12” storm sewer, complete in place @ _____ _____ per linear foot	$ _____	$ _____
10	496	77	L.F.	Removing existing 15” storm sewer, complete in place @ _____ _____ per linear foot	$ _____	$ _____
11	496	339	L.F.	Removing existing 18” storm sewer, complete in place @ _____ _____ per linear foot	$ _____	$ _____
12	496	48	L.F.	Removing existing 24” storm sewer, complete in place @ _____ _____ per linear foot	$ _____	$ _____
13	496	6	E.A.	Removing existing concrete storm inlet, complete in place @ _____ _____ per Each	$ _____	$ _____

BASE BID ITEMS – Jerry Ware Road

Item No.	TxDOT Item No	Est. Qty.	Unit	Description of Item with Unit Price Written in Words	Unit Price	Amount
14	360	6,372	S.Y.	7" Reinforced Concrete Pavement, complete in place @ _____ _____ per square yard	$ _____	$ _____
15	247	1,627	S.Y.	7" Compacted Limestone Shoulder, complete in place @ _____ _____ per square yard	$ _____	$ _____
15 A	292	1,627	S.Y.	Alternate Item: 7" Asphalt Stab Base (GR 2)(PG 70) Shoulder, complete in place @ _____ _____ per square yard	$ _____	$ _____
16	260	8,214	S.Y.	8" hydrated lime stabilized base (10%-12% DC) (In Place & Salvaged Fill), complete in place @ _____ _____ per square yard	$ _____	$ _____
17	360	583	S.Y.	7" Reinforced concrete driveway pavement, complete in place @ _____ _____ per square yard	$ _____	$ _____
18	760	2,492	L.F.	Re-grade existing roadside ditches, complete in place @ _____ _____ per linear foot	$ _____	$ _____

BASE BID ITEMS – Jerry Ware Road

Item No.	TxDOT Item No	Est. Qty.	Unit	Description of Item with Unit Price Written in Words	Unit Price	Amount
19	464	56	L.F.	24” HDPE storm sewer, complete in place @ _____ _____ per linear foot	$ _____	$ _____
20	464	230	L.F.	18” HDPE storm sewer, complete in place @ _____ _____ per linear foot	$ _____	$ _____
21	467	24	Ea.	Precast Safety End Treatment SET. Complete in place @ _____ _____ per each	$ _____	$ _____
22	164	4.42	Ac.	Hydromulch Seeding of ROW, incl. fertilizer & watering, complete in place @ _____ _____ per Acre	$ _____	$ _____
23	502	1	L.S.	Barricades, Signs & Traffic Control, complete in place @ _____ _____ per lump sum	$ _____	$ _____
24	506	1	L.S.	Temp Erosion Control, complete in place @ _____ _____ per lump sum	$ _____	$ _____
25	644	1	L.S.	Small Sign Assemblies, complete in place @ _____ _____ per lump sum	$ _____	$ _____

BASE BID ITEMS – Jerry Ware Road

Item No.	TxDOT Item No	Est. Qty.	Unit	Description of Item with Unit Price Written in Words	Unit Price	Amount
26	666	4,402	L.F.	Reflect Pav. Marking Ty-II 4" Solid, White 0.90 Mil, including surface preparation, complete in place @ _____ _____ per linear foot	$ _____	$ _____
27	666	4,118	L.F.	Reflect Pav. Marking Ty-II 4" Solid, Yellow 0.90 Mil, including surface preparation, complete in place @ _____ _____ per linear foot	$ _____	$ _____
28	666	180	L.F.	Reflect Pav. Marking Ty-II 12" Solid, White 0.90 Mil, including surface preparation, complete in place @ _____ _____ per linear foot	$ _____	$ _____
29	666	62	L.F.	Reflect Pav. Marking Ty-II 24" Solid, White 0.90 Mil, including surface preparation, complete in place @ _____ _____ per linear foot	$ _____	$ _____

* 2014 Texas Department of Transportation Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges

TOTAL AMOUNT BID **$_____**

Section D

_____and_____ /100 Dollars
(Total Base Contract Price-Written)

Total number of <u>Calendar days</u> to complete: <u>270</u>

QUANTITIES OF WORK:

The quantities of work or material stated in unit price items of the Bid are supplied only to give an indication of the general scope of Work; the Owner does not expressly or by implication agree that the actual amount of work or material will correspond therewith, and reserves the right afterward to increase or decrease the quantity of any unit price item of the Work by any amount up to and including twenty percent (20%) of any Bid Item, without a change in the unit price, and shall have the right to delete any Bid Item in its entirety, or to add additional Bid Items up to and including an aggregate total amount not to exceed twenty percent (20%) of the Contract Price.

Bid Submitted by: _____, Contractor

Represented by: _____

_____, Title

Bid Prepared by: _____, Estimator

_____, Estimator

ADDITIVE ALTERNATE #1 BID ITEMS – 3rd Street Segment A

Item No.	TxDOT Item No	Est. Qty.	Unit	Description of Item with Unit Price Written in Words	Unit Price	Amount
01	100	0.930	Ac.	Preparing Right-Of-Way, complete in place @ _____ _____ per Acre	$ _____	$ _____
02	500	1	L.S.	Mobilization/demobilization, complete in place @ _____ _____ per lump sum	$ _____	$ _____
03	110	210	C.Y	Excavation, complete in place @ _____ _____ per cubic yard		
04	132	156	C.Y	Embankment, complete in place @ _____ _____ per cubic yard		
05	110	3,904	S.Y	Removing existing Concrete roadway, complete in place @ _____ _____ per square yard	$ _____	$ _____
06	360	2,521	S.Y.	7” Reinforced Concrete Pavement, complete in place @ _____ _____ per square yard	$ _____	$ _____

ADDITIVE ALTERNATE #1 BID ITEMS – 3rd Street Segment A

Item No.	TxDOT Item No	Est. Qty.	Unit	Description of Item with Unit Price Written in Words	Unit Price	Amount
07	260	2,726	S.Y.	8" hydrated lime stabilized base (10%-12% DC) (In Place & Salvaged Fill), complete in place @ _____ _____ per square yard	$ _____	$ _____
08	360	379	S.Y.	7" Reinforced concrete driveway pavement, complete in place @ _____ _____ per square yard	$ _____	$ _____
09	360	68	S.Y.	5" Reinforced Concrete Pavement, complete in place @ _____ _____ per square yard	$ _____	$ _____
10	465	13	Ea.	Concrete surface grate inlet, complete in place @ _____ _____ per each	$ _____	$ _____
11	464	442	L.F.	24" HDPE storm sewer, complete in place @ _____ _____ per linear foot	$ _____	$ _____
12	464	140	L.F.	18" HDPE storm sewer, complete in place @ _____ _____ per linear foot	$ _____	$ _____
13	464	332	L.F.	15" HDPE storm sewer, complete in place @ _____ _____ per linear foot	$ _____	$ _____

ADDITIVE ALTERNATE #1 BID ITEMS – 3rd Street Segment A

Item No.	TxDOT Item No	Est. Qty.	Unit	Description of Item with Unit Price Written in Words	Unit Price	Amount
14	464	195	L.F.	12" HDPE storm sewer, complete in place @ _____ _____ per linear foot	$ _____	$ _____
15	164	0.93	Ac.	Hydromulch Seeding of ROW, incl. fertilizer & watering, complete in place @ _____ _____ per Acre	$ _____	$ _____
16	502	1	L.S.	Barricades, Signs & Traffic Control, complete in place @ _____ _____ per lump sum	$ _____	$ _____
17	506	1	L.S.	Temp Erosion Control, complete in place @ _____ _____ per lump sum	$ _____	$ _____
18	644	1	L.S.	Small Sign Assemblies, complete in place @ _____ _____ per lump sum	$ _____	$ _____
19	666	1,635	L.F.	Reflect Pav. Marking Ty-II 4" Solid, White 0.90 Mil, including surface preparation, complete in place @ _____ _____ per linear foot	$ _____	$ _____

ADDITIVE ALTERNATE #1 BID ITEMS – 3rd Street Segment A

Item No.	TxDOT Item No	Est. Qty.	Unit	Description of Item with Unit Price Written in Words	Unit Price	Amount
20	666	220	L.F.	Reflect Pav. Marking Ty-II 4" Broken, Yellow 0.90 Mil, including surface preparation, complete in place @ _____ _____ per linear foot	$ _____	$ _____
21	666	35	L.F.	Reflect Pav. Marking Ty-II 24" Solid, White 0.90 Mil, including surface preparation, complete in place @ _____ _____ per linear foot	$ _____	$ _____
22	666	16	E.A.	Reflect Pav. Marking Ty-II 18" White, Tri Yield 0.90 Mil, including surface preparation, complete in place @ _____ _____ per each	$ _____	$ _____

* 2014 Texas Department of Transportation Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges

ADDITIVE ALTERNATE #1 TOTAL AMOUNT BID **$_____**

ADDITIVE ALTERNATE #2 BID ITEMS – 3rd Street Segment B

Item No.	TxDOT Item No	Est. Qty.	Unit	Description of Item with Unit Price Written in Words	Unit Price	Amount
01	100	2.75	Ac.	Preparing Right-Of-Way, complete in place @ _____ _____ per Acre	$ _____	$ _____
02	500	1	L.S.	Mobilization/demobilization, complete in place @ _____ _____ per lump sum	$ _____	$ _____
03	110	400	C.Y	Excavation, complete in place @ _____ _____ per cubic yard		
04	132	297	C.Y	Embankment, complete in place @ _____ _____ per cubic yard		
05	110	9,000	S.Y	Removing existing Concrete roadway, complete in place @ _____ _____ per square yard	$ _____	$ _____
06	360	4,302	S.Y.	7” Reinforced Concrete Pavement, complete in place @ _____ _____ per square yard	$ _____	$ _____

ADDITIVE ALTERNATE #2 BID ITEMS – 3rd Street Segment B

Item No.	TxDOT Item No	Est. Qty.	Unit	Description of Item with Unit Price Written in Words	Unit Price	Amount
07	260	4,652	S.Y.	8" hydrated lime stabilized base (10%-12% DC) (In Place & Salvaged Fill), complete in place @ _____ _____ per square yard	$ _____	$ _____
08	360	735	S.Y.	7" Reinforced concrete driveway pavement, complete in place @ _____ _____ per square yard	$ _____	$ _____
09	465	8	Ea.	Concrete surface grate inlet, complete in place @ _____ _____ per each	$ _____	$ _____
10	465	2	Ea.	Concrete Junction Box with surface grate inlet, complete in place @ _____ _____ per each	$ _____	$ _____
11	760	1,314	L.F.	Grade proposed roadside ditches, complete in place @ _____ _____ per linear foot	$ _____	$ _____
12	464	351	L.F.	24" HDPE storm sewer, complete in place @ _____ _____ per linear foot	$ _____	$ _____
13	464	465	L.F.	18" HDPE storm sewer, complete in place @ _____ _____ per linear foot	$ _____	$ _____

ADDITIVE ALTERNATE #2 BID ITEMS – 3rd Street Segment B

Item No.	TxDOT Item No	Est. Qty.	Unit	Description of Item with Unit Price Written in Words	Unit Price	Amount
14	464	36	L.F.	12” HDPE storm sewer, complete in place @ _____ _____ per linear foot	$ _____	$ _____
15	467	9	Ea.	Precast Safety End Treatment SET. Complete in place @ _____ _____ per each	$ _____	$ _____
16	164	2.75	Ac.	Hydromulch Seeding of ROW, incl. fertilizer & watering, complete in place @ _____ _____ per Acre	$ _____	$ _____
17	502	1	L.S.	Barricades, Signs & Traffic Control, complete in place @ _____ _____ per lump sum	$ _____	$ _____
18	506	1	L.S.	Temp Erosion Control, complete in place @ _____ _____ per lump sum	$ _____	$ _____
19	644	1	L.S.	Small Sign Assemblies, complete in place @ _____ _____ per lump sum	$ _____	$ _____
20	666	2,447	L.F.	Reflect Pav. Marking Ty-II 4” Solid, White 0.90 Mil, including surface preparation, complete in place @ _____ _____ per linear foot	$ _____	$ _____

ADDITIVE ALTERNATE #2 BID ITEMS – 3rd Street Segment B

Item No.	TxDOT Item No	Est. Qty.	Unit	Description of Item with Unit Price Written in Words	Unit Price	Amount
21	666	400	L.F.	Reflect Pav. Marking Ty-II 4" Broken, Yellow 0.90 Mil, including surface preparation, complete in place @ _____ _____ per linear foot	$ _____	$ _____
22	666	18	L.F.	Reflect Pav. Marking Ty-II 24" Solid, White 0.90 Mil, including surface preparation, complete in place @ _____ _____ per linear foot	$ _____	$ _____

* 2014 Texas Department of Transportation Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges

ADDITIVE ALTERNATE #2 TOTAL AMOUNT BID **$_____**

CONTRACTOR'S PERSONNEL: The Bidder agrees to employ the following individuals for the entire duration of the Work at the positions indicated, and agrees not to remove them from the Work and replace them with others except as otherwise allowed in the Contract Documents.

Project Manager: _____

Superintendent: _____

Project Clerk: _____

BIDDER ACKNOWLEDGEMENT OF BID ADDENDA (IF APPLICABLE):

Addendum 1 _____ Date Received_____

Addendum 2 _____ Date Received_____

Addendum 3 _____ Date Received_____

BIDDER: INCLUDE FULL, SIGNED, & ATTESTED COPY OF EACH ADDENDUM ISSUED WITH BID SUBMISSION.

REQUIRED FORM
Bidder: Please complete this form and include with bid submission.

VENDOR REFERENCES FORM

Bidder: Please list at least three (3) companies or governmental agencies (preferably a municipality) where the same or similar products and/or services as contained in this specification package were recently provided.

REQUIRED FORM
Bidder: Please complete this form and include with bid submission.

REFERENCE ONE

Government/Company Name: _____

Address: _____

Contact Person and Title: _____

Phone: _____ Fax: _____

Email Address: _____ Contract Period: _____

Scope of Work:

REFERENCE TWO

Government/Company Name: _____

Address: _____

Contact Person and Title: _____

Phone: _____ Fax: _____

Email Address: _____ Contract Period: _____

Scope of Work:

REFERENCE THREE

Government/Company Name:

Address: _____

Contact Person and Title:

_____

Phone: _____

Email Address:

_____ Fax: _____

Scope of Work:

_____ Contract Period: _____

_____

SIGNATURE PAGE

As permitted under Article 4413 (32c) V.A.C.S., other governmental entities may wish to participate under the same terms and conditions contained in this contract (i.e., piggyback). In the event any other entity participates, all purchase orders will be issued directly from and shipped directly to the entity requiring supplies/services. Jefferson County shall not be held responsible for any orders placed, deliveries made or payment for supplies/services ordered by another entity. Each entity reserves the right to determine their participation in this contract.

Would Bidder be willing to allow other governmental entities to piggyback off this contract, if awarded, under the same terms and conditions? .....**Yes** ☐ **No** ☐

This bid shall remain in effect for ninety (90) days from bid opening and shall be exclusive of federal excise and state and local sales tax (exempt).

The undersigned agrees, if this bid is accepted, to furnish any and all items upon which prices are offered, at the price and upon the terms and conditions contained in the Invitation for Bid, Conditions of Bidding, Terms of Contract, and Specifications and all other items made a part of the accepted contract.

The undersigned affirms that they are duly authorized to execute the 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 prices, terms or conditions of said bid have not been communicated by the undersigned nor by any employee or agent to any other Bidder or to any other person(s) engaged in this type of business prior to the official opening of this bid. And further, that neither the Bidder nor their employees nor agents have been for the past six (6) months directly nor indirectly concerned in any pool or agreement or combination to control the price of goods or services on, nor to influence any person to bid or not to bid thereon.

Bidder (Entity Name)	Signature
Street & Mailing Address	Print Name
City, State & Zip	Date Signed
Telephone Number	Fax Number
E-mail Address	

REQUIRED FORM
<u>Bidder</u>: Please complete this form and include with bid submission.

CERTIFICATION REGARDING LOBBYING

Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

1. 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 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.

2. 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 undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

3. The undersigned 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 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.

The Contractor, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. Chap. 38, Administrative Remedies for False Claims and Statements, apply to this certification and disclosure, if any.

_____

Signature of Contractor's Authorized Official

_____

Name and Title of Contractor's Authorized Official *(Please Print)*

_____

Date

REQUIRED FORM
<u>Bidder</u>: Please complete this form and include with bid submission.

CONFLICT OF INTEREST QUESTIONNAIRE

FORM CIQ

For vendor doing business with local governmental entity

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 under this section is a misdemeanor.

OFFICE USE ONLY

Date Received

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 in this section is being disclosed.**

_____
Name of Officer

This section (item 3 including subparts A, B, C, & D) must be completed for each officer with whom the vendor has an employment or other business relationship as defined by Section 176.001(1-a), Local Government Code. Attach additional pages to this Form CIQ as necessary.

A. Is the local government officer named in this section 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 named in this section AND the taxable income is not received from the local governmental entity?

☐ Yes ☐ No

C. Is the filer of this questionnaire employed by 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?

☐ Yes ☐ No

D. Describe each employment or business and family relationship with the local government officer named in this section.

4

_____ _____
Signature of vendor doing business with the governmental entity Date

Adopted 8/7/2015

REQUIRED FORM
<u>Bidder</u>: Please complete this form and include with bid submission.

LOCAL GOVERNMENT OFFICER CONFLICTS DISCLOSURE STATEMENT

FORM CIS

This questionnaire reflects changes made to the law by H.B. 23, 84th Leg., Regular Session.

This is the notice to the appropriate local governmental entity that the following local government officer has become aware of facts that require the officer to file this statement in accordance with Chapter 176, Local Government Code.

OFFICE USE ONLY

Date Received

1 **Name of Local Government Officer**

2 **Office Held**

3 **Name of vendor described by Sections 176.001(7) and 176.003(a), Local Government Code**

4 **Description of the nature and extent of employment or other business relationship with vendor named in item 3**

5 **List gifts accepted by the local government officer and any family member, if aggregate value of the gifts accepted from vendor named in item 3 exceeds $100 during the 12-month period described by Section 176.003(a)(2)(B).**

Date Gift Accepted _____ Description of Gift _____

Date Gift Accepted _____ Description of Gift _____

Date Gift Accepted _____ Description of Gift _____

(attach additional forms as necessary)

6 **AFFIDAVIT**

I swear under penalty of perjury that the above statement is true and correct. I acknowledge that the disclosure applies to each family member (as defined by Section 176.001(2), Local Government Code) of this local government officer. I also acknowledge that this statement covers the 12-month period described by Section 176.003(a)(2)(B), Local Government Code.

_____
Signature of Local Government Officer

AFFIX NOTARY STAMP / SEAL ABOVE

Sworn to and subscribed before me, by the said _____, this the _____ day of _____, 20 _____, to certify which, witness my hand and seal of office.

_____ _____ _____
Signature of officer administering oath | Printed name of officer administering oath | Title of officer administering oath

Adopted 8/7/2015

THIS FORM IS FOR OFFICE USE ONLY

GOOD FAITH EFFORT (GFE) DETERMINATION CHECKLIST

Bidder intends to utilize subcontractors/subconsultants in the fulfillment of this contract (if awarded).
☐ Yes ☐ No

Instructions: In order to determine if a "Good Faith Effort" was made in soliciting DBEs for subcontracting opportunities, the following checklist and supporting documentation shall be completed by the Prime Contractor/Consultant, and returned with the Prime Contractor/ Consultant's bid. This list contains the **minimum** efforts that should be put forth by the Prime Contractor/Consultant when attempting to achieve or exceed the goals of DBE Subcontractor participation. The Prime Contractor/Consultant may extend his/her efforts in soliciting DBE Subcontractor participation beyond what is listed below.

Did the Prime Contractor/Consultant . . .?

☐ Yes ☐ No 1. To the extent practical, and consistent with standard and prudent industry standards, divide the contract work into the smallest feasible portions, to allow for maximum DBE Subcontractor participation?

☐ Yes ☐ No 2. **Notify** in writing a reasonable number of DBEs, allowing sufficient time for effective participation of the planned work to be subcontracted?

☐ Yes ☐ No 3. **Provide** DBEs that were genuinely interested in bidding on a subcontractor, adequate information regarding the project (i.e., plans, specifications, scope of work, bonding and insurance requirements, and a point of contract within the Prime Contractor/Consultant's organization)?

☐ Yes ☐ No 4. **Negotiate** in good faith with interested DBEs, and not reject bids from DBEs that qualify as lowest and responsive Bidders?

☐ Yes ☐ No 5. **Document** reasons DBEs were rejected? Was a written rejection notice, including the reason for rejection, provided to the rejected DBEs?

☐ Yes ☐ No 6. If Prime Contractor/Consultant has zero (0) DBE participation, **please explain the reasons why.**

If "No" was selected, please explain and include any pertinent documentation with your bid.
If necessary, please use a separate sheet to answer the above questions.

Printed Name of Authorized Representative	Signature
Title	Date

REQUIRED FORM
Bidder: Please complete this form and include with bid submission.

NOTICE OF INTENT (NOI) TO SUBCONTRACT WITH DISADVANTAGED BUSINESS ENTERPRISE (DBE)

Bidder intends to utilize subcontractors/subconsultants in the fulfillment of this contract (if awarded).
☐ Yes ☐ No

Instructions for Prime Contractor/Consultant: Bidder shall submit this form with the bid; however, the information below may be submitted after contract award, but prior to beginning performance on the contract. Please submit one form for each DBE Subcontractor/Subconsultant with proper signatures, per the terms and conditions of your contract.

Contractor Name: _____ DBE: ☐ Yes ☐ No

Address: _____
Street City State Zip

Phone (with area code): _____ Fax (with area code): _____

Project Title & No.: _____

Prime Contract Amount: $ _____

DBE Subcontractor Name: _____

DBE Status (Gender & Ethnicity): _____

Certifying Agency: ☐ Tx. Bldg & Procurement Comm. ☐ Jefferson County ☐ Tx Unified Certification Prog.

Address: _____
Street City State Zip

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

_____

_____ _____ _____
Printed Name of Contractor Representative Signature of Representative Date

_____ _____ _____
Printed Name of DBE Signature of Representative Date

Note: Nothing on this Notice of Intent Form is intended to confer any rights, expressed or implied, to any third parties.

• Pre-Approval for Subcontractor Substitutions must be obtained from the Jefferson County Purchasing Agent's Representative. The "DBE Subcontractor/Subconsultant Change Form" must be completed and faxed to 409-835-8456.

REQUIRED FORM
Bidder: Please complete this form and include with bid submission.

DISADVANTAGED BUSINESS ENTERPRISE (DBE)
SUBCONTRACTING PARTICIPATION DECLARATION FORM

Bidder intends to utilize subcontractors/subconsultants in the fulfillment of this contract (if awarded).
☐ Yes ☐ No

Prime Contractor: _____ DBE: ☐ Yes ☐ No

DBE Status (Gender & Ethnicity): _____

Address: _____
Street City State Zip

Phone (with area code): _____ Fax (with area code): _____

Project Title & No.: _____ IFB/RFP No.: _____

Total Contract: $ _____ Total DBE Subcontract(s): $ _____

Construction DBE Goals: 10.01 % **WBE: 10.01%**

Sub-goals: 1.7 African-American, 9.7% Hispanic, 0.7% Native American, 0.8% Asian American.
Use these goals as a guide to diversify.

FOR DBE OFFICE USE ONLY:

Verification date DBE Program Office reviewed and verified DBE Sub information Date: _____ Initials: _____

PART I. DBE SUBCONTRACTOR DISCLOSURE

DBE Subcontractor Name: _____

DBE Status (Gender & Ethnicity): _____

Certifying Agency: ☐ Texas Bldg & Procurement Comm. ☐ Texas Unified Certification Prog.

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

REQUIRED FORM
Bidder: Please complete this form and include with bid submission.

DISADVANTAGED BUSINESS ENTERPRISE (DBE)
SUBCONTRACTING PARTICIPATION DECLARATION FORM

DBE Subcontractor Disclosure

PART I: Continuation Sheet (Duplicate as Needed)

DBE Subcontractor Name: _____

DBE Status (Gender & Ethnicity): _____

Certifying Agency: ☐ Tx. Bldg & Procurement Comm. ☐ Jefferson County ☐ Tx Unified Certification Prog.

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

DBE Subcontractor Name: _____

DBE Status (Gender & Ethnicity): _____

Certifying Agency: ☐ Tx. Bldg & Procurement Comm. ☐ Jefferson County ☐ Tx Unified Certification Prog.

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

All DBE Subcontractor Participation may be verified with the DBE Subcontractor(s) listed on Part I.

REQUIRED FORM
Bidder: Please complete this form and include with bid submission.

DISADVANTAGED BUSINESS ENTERPRISE (DBE)
SUCONTRACTING PARTICIPATION DECLARATION FORM

PART II: STATEMENT OF NON-COMPLIANCE FOR NOT MEETING DBE SUBCONTRACTING GOALS

Please complete Good Faith Effort (GFE) Checklist and attach any supporting documentation.

Our firm was unable to meet the DBE goals for this project for the following reasons:

- ☐ All subcontractors to be utilized are "Non-DBEs." *(Complete Part III)*
- ☐ DBEs were solicited but did not respond.
- ☐ DBEs solicited were not competitive.
- ☐ DBEs were unavailable for the following trade(s):
- ☐ Other: _____

Was the Jefferson County DBE Office contacted for assistance in locating DBEs? ☐ Yes ☐ No

PART III: DISCLOSURE OF OTHER "NON-DBE" SUBCONTRACTS

The Bidder shall use this area to provide a listing of all "Non-DBE" Subcontractors, including suppliers, that will perform under this project. A list of those "Non-DBE" Subcontractors the Bidder selects, after bid submission, shall be provided to the Purchasing Office not later than five (5) calendar days after being notified that Bidder is the apparent low Bidder. A list of those "Non-DBE" Subcontractors that are selected after contract award must be provided **immediately** after their selection.

Subcontractor Name: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Subcontractor Name: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

REQUIRED FORM
<u>Bidder</u>: Please complete this form and include with bid submission.

DISADVANTAGED BUSINESS ENTERPRISE (DBE)
SUBCONTRACTING PARTICIPATION DECLARATION FORM

Subcontractor Name: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

Subcontractor Name: _____

Address: _____
Street City State Zip

Contact person: _____ Title: _____

Phone (with area code): _____ Fax (with area code): _____

Proposed Subcontract Amount: $ _____ Percentage of Prime Contract: _____ %

Description of Subcontract Work to be Performed: _____

I hereby certify that I have read the *DBE Program Instructions and Information*, truthfully completed all applicable parts of this form, and **attached any necessary support documentation as required**. I fully understand that intentionally falsifying information on this document may result in my not receiving a contract award or termination of any resulting contract.

Name (print or type): _____

Title: _____

Signature: _____

Date: _____

E-mail address: _____

Contact person that will be in charge of invoicing for this project:

Name (print or type): _____

Title: _____

Date: _____

E-mail address: _____

REQUIRED FORM
Bidder: Please complete this form and include with bid submission.

RESIDENCE CERTIFICATION/TAX FORM

Pursuant to Texas Government Code §2252.001 *et seq*., as amended, Jefferson County requests Resident Certification. §2252.001 *et seq*. of the Government Code provides some restrictions on the awarding of governmental contracts; pertinent provisions of §2252.001 are stated below:

(3) "Non-resident Bidder" refers to a person who is not a resident.

(4) "Resident Bidder" refers to a person whose principal place of business is in this state, including a contractor whose ultimate parent company or majority owner has its principal place of business in this state.

☐ I certify that _____ [company name] is a Resident Bidder of Texas as defined in Government Code §2252.001.

☐ I certify that _____ [company name] is a Nonresident Bidder as defined in Government Code §2252.001 and our principal place of business is _____ _____ (city and state).

Taxpayer Identification Number (T.I.N.):	
Company Name submitting bid/proposal:	
Mailing address:	
If you are an individual, list the names and addresses of any partnership of which you are a general partner:	

Property: List all taxable property owned by you or above partnerships in Jefferson County.

Jefferson County Tax Acct. No.*	Property address or location**

* This is the property amount identification number assigned by the Jefferson County Appraisal District.

** For real property, specify the property address or legal description. For business property, specify the address where the property is located. For example, office equipment will normally be at your office, but inventory may be stored as a warehouse or other location.

REQUIRED FORM
<u>Bidder</u>: Please complete this form and include with bid submission.

HOUSE BILL 89 VERIFICATION

I, _____, the undersigned representative of (company or business name)_____ (heretofore 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 2270.002, 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 ordinary business purposes; and

2. "**Company**" means a for-profit sole proprietorship, organization, association, corporation, partnership, joint venture, limited partnership, limited liability partnership, or an limited liability company, including a wholly owned subsidiary, majority-owned subsidiary, parent company or affiliate of those entities or business association 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 Signature

_____
Date

REQUIRED FORM
<u>Bidder</u>: Please complete this form and include with bid submission.

SENATE BILL 252 CERTIFICATION

On this day, I, Deborah L. Clark, Purchasing Agent for Jefferson County, 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 below named company is not contained on said listing of companies which do business with Iran, Sudan, or any Foreign Terrorist Organization.

_____

Company Name

_____

IFB/RFP/RFQ number

Certification check performed by:

_____

Purchasing Representative

_____

Date

BID AFFIDAVIT

The undersigned certifies that the bid prices contained in this bid have been carefully reviewed and are submitted as correct and final. Bidder further certifies and agrees to furnish any and/or all commodities upon which prices are extended at the price offered, and upon the conditions contained in the specifications and the Notice to Bidders.

STATE OF_____ COUNTY OF_____

BEFORE ME, the undersigned authority, a Notary Public in and for the State of _____,

on this day personally appeared _____, who
(name)
after being by me duly sworn, did depose and say:

"I, _____ am a duly authorized officer of/agent
(name)
for _____ and have been duly authorized to execute the
(name of firm)
foregoing on behalf of the said_____.
(name of firm)

I hereby certify that the foregoing bid has not been prepared in collusion with any other Bidder or other person or persons engaged in the same line of business prior to the official opening of this bid. Further, I certify that the Bidder is not now, nor has been for the past six (6) months, directly or indirectly concerned in any pool or agreement or combination, to control the price of services/commodities bid on, or to influence any person or persons to bid or not to bid thereon."

Name and address of Bidder:_____

_____

Fax: _____ Telephone#_____

by: _____ Title:_____
(print name)

Signature:_____

SUBSCRIBED AND SWORN to before me by the above-named

_____ on

this the _____ day of_____, 20___.

_____
Notary Public in and for
the State of _____

REQUIRED FORM
<u>Bidder</u>: Please complete this form and include with bid submission.

INVITATION FOR BID (IFB 23-009/JW)

LANDSIDE ROAD PAVEMENT REPAIRS
AT JACK BROOKS REGIONAL AIRPORT

TECHNICAL SPECIFICATIONS, PLAN SHEETS, AND GEOTECHNICAL SURVEY

TECHNICAL SPECIFICATIONS

JANUARY 2023

Jack Brooks Regional Airport Landside Road Pavement Repairs

STATE OF TEXAS
BERNARDINO D. TRISTAN
117017
LICENSED
PROFESSIONAL ENGINEER

Bernardino D. Tristan
January 9, 2023

Fittz&Shipman INC.

Consulting Engineers and Land Surveyors

1405 CORNERSTONE COURT
BEAUMONT, TEXAS 77706
(409) 832-7238
T.B.P.E. FIRM #1160 T.X.L.S. FIRM #100186

FS 21200

General Notes and Specifications

General Notes:

1. The contractor will establish the project control point, points of tangency, pi's (points of intersections), point of curvature (pc, pi and pt) and bench mark at the beginning and end of the project.

2. The contractor shall furnish all lines, grades and benchmarks, other than those specified above. Notify the Engineer immediately if discrepancies are discovered in the horizontal control or the benchmark data.

3. 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, except for roadway illumination, electrical, and traffic signal items.

4. The lengths of the posts for ground mounted signs are approximate. Verify the lengths before ordering these materials to meet the existing field conditions and to conform to the minimum sign mounting heights shown in the plans.

5. Unless otherwise shown on the plans or otherwise directed, commence work after sunrise and ensure construction equipment is off the road by sunset.

6. Do not mix or store materials, or store or repair equipment, on top of concrete pavement or bridge decks unless authorized by the Engineer. Permission will be granted to store materials on surfaces if no damage or discoloration will result.

7. The contractor will assume ownership of debris and dispose of at an approved location. Do not dispose of debris on private property unless approved in writing by the Engineer.

8. Control the dust caused by construction operations. For sweeping the finished concrete pavement, use one of the following types of sweepers or equal:

Tricycle Type	Truck Type-4 Wheel
Wayne Series 900	M-B Cruiser II
Elgin White Wing	Wayne Model 945
Elgin Pelican	Mobile TE-3
	Mobile TE-4
	Murphy 4042

9. Schedule construction operations such that preparing individual items of work follows in close sequence to constructing storm drains in order to provide as little inconvenience as practical to the businesses and residents along the project.

10. Contractor shall limit his work zone for pavement demolition and concrete placement to three (3) blocks. Concrete placement for new pavement must be complete within one (1) block of the

existing roadway/pavement before demolition in the next three (3) blocks can be initiated.

11. Schedule work so that the base placement operations follow the subgrade work as closely as practical to reduce the hazard to the traveling public and to prevent undue delay caused by wet weather.

12. The Contractor's construction schedule shall be based upon the Contract Time. The Contract Time has an inclusion of Thirty (30) calendar days of inclement weather as defined in Article 54.b, c & d of the General Conditions. No request for an extension of Contract time will be considered until the actual number of inclement weather days exceeds the number of days set out herein.

13. When design details are not shown on the traffic control plans, modifications to the proposed traffic control plan to meet site conditions by either adding more detour, warning and traffic signs as approved by the engineer shall not be paid for separately but shall be considered subsidiary to the traffic control bid items. Temporary pavement markings will be paid for under its unit bid item cost. Signs and arrows shall conform to the latest "Standard Highway Sign Designs for Texas" manual.

14. County forces will maintain the existing section of streets and its appurtenances not a part of this project except that those sections damaged by the contractor's forces shall be repaired by the contractor at his entire expense.

15. The contractor shall be responsible for all maintenance of the travel way and appurtenances within the barricades for the duration of the project. No direct payment will be made for maintenance of the travel way and appurtenances within the barricades, but shall be subsidiary to various bid items.

16. All authorized waste material shall become the property of the contractor and shall be disposed of at a place off the right-of-way and approved by the engineer.

17. The contractor shall maintain adequate drainage throughout the limits of the project during all construction phases.

18. The contractor shall allow county forces to enter this project to accomplish such work as shown in the plans (by others) and as may be deemed necessary by the engineer.

19. All drainage structures shall be cleaned and outfall channels unobstructed at the time of acceptance by the county.

20. Ingress and egress to adjacent property shall be provided and maintained by the contractor at all times. This will not be paid for separately but shall be considered subsidiary to various bid Items.

21. The Contractor will utilize an independent Geotechnical Testing Laboratory to sample all concrete structures and make and test all concrete cylinders and test all roadway density controlled base and or subgrades in accordance with the test methods provided for under the TxDOT Standard Specifications for Construction of Highways, and Bridges (Adopted November 2014). This will not be paid for separately but shall be considered subsidiary to various bid Items.

22. The approximate locations of the known underground utility installations are shown on the plans. The contractor shall be responsible for confirming the exact location of these utility lines and of any others which may exist. No delay claim is allowed because of utility conflicts. It shall be the contractor's responsibility to notify the utility involved in case of conflict or damage and the contractor shall be held responsible for any damage that occurs due to negligence. Where the contractor encounters abandoned lines that interfere with the construction of this project, such lines shall be removed and disposed of by the contractor. There will be no direct payment for this work and it shall be considered subsidiary to the various bid items in the contract.
Before excavating near existing utilities, contact the utility companies or the utility coordinating committee for exact locations to prevent damage or interference with present facilities. Notify the utility coordinating committee and the Texas One Call System. at the following numbers:

    Texas One Call, toll-free 1-800-245-4545

UTILITY	**TELEPHONE NO.**	**CONTACT PERSON**
AT & T Telephone Company	O: 409.839.7851 M: 409.924.1495	Eddie Cook
	O: 409.893.1666 M: 409.291.9489	Cliff Palermo
Texas Gas Service	O: 409.963.0263 M: 409.460.9236	Patrick Sam
City of Nederland Public Works	O: 409.723.1541	Robert Woods
Entergy	O: 409.982.5810 M: 409.974.8663	Ron Fletcher
Spectrum	O: 409.720.5565	Adam LaRive

This action does not relieve the Contractor of the responsibilities under the terms of the contract or the plans and specifications. Damage caused by the Contractor's operations shall be repaired and restored to service in a timely manner at no expense to the County.

23. Notify the Engineer at least 48 hours before constructing junction boxes at intersections of storm drains and utilities.

24. Install or remove poles, street lights and luminaires located near overhead or underground electrical lines using established industry and utility safety practices. Consult the appropriate utility company before beginning such work.

25. If overhead or underground power lines need to be de-energized, contact the electrical service provider to perform this work. Costs associated with de-energizing the power lines or other protective measures required are at no expense to the County.

26. If working near power lines, comply with the appropriate sections of Texas State Law and Federal Regulations relating to the type of work involved.

27. Perform electrical work in conformance with the National Electrical Code (NEC) and County standard sheets.

28. All materials, labor and incidentals required for the contractor to provide for traffic across the streets and for temporary ingress and egress to private property shall be furnished by the contractor at no additional cost to the county and shall be considered as incidental to the various bid items in this project.

29. The contractor shall furnish a certified tabulation of measurements, tare weights and allowable legal gross weight calculations for all trucks, etc., prior to their use on the project. Each truck shall be identified by a permanent and plainly legible number located on the truck and on the bed of the truck and/or trailer.

30. Any storm water permit and associated fees required for construction of this project shall be at the contractor's expense. Also, any temporary erosion, sediment and water control measures required shall be in accordance with the details shown in the plans and all work and materials required shall be paid for under the item "Temporary Erosion, Sedimentation & Environmental Controls".

31. Storm water grading permit is required for this project and shall be filed by the contractor at the contractor's expense.

32. Procure all the necessary city, county and/or state permits and licenses before the start of this project.

33. Prepare, maintain and submit for approval, a project schedule using CPM or similar project planning method. Also, submit contractor's contact personnel's telephone or cell phone numbers in case of emergencies during and after working hours.

34. Move existing signs, mailboxes, delineators and any other similar obstructions that interfere with construction to temporary locations approved by the engineer. Move them back to their permanent positions when the work progresses to the point where this is possible. Place the sign post back in accordance with the applicable standard sheets. (Pozloc System). This will not be paid for directly and will be considered subsidiary to various bid items.

35. The contractor shall maintain adequate drainage throughout the limits of the project during all construction phases. The contractor will provide all necessary labor, equipment, temporary conveyance materials and all other incidentals and cost associated with this task to prevent flooding of roadway pavements, roadside ditches and properties on areas were construction work has started and/or on areas within project limits that will affect public safety and property damage during a storm event. Storm water will be conveyed and discharged into existing and new storm sewer structures. This work will not be measured or paid for directly but will be subsidiary to pertinent items. On areas within scope of work where water is ponding and or flooding during a rain event and as directed by the engineer, the contractor shall provide drainage and maintain temporary drainage structures and facilities which are necessary to facilitate drainage. All incidental labor, equipment, temporary material and incidental cost will not be measured or paid for directly but will be subsidiary to pertinent items.

36. Care shall be taken when moving existing property irrigation or sprinkling water facilities and its

appurtenances that interfere with construction. Contractor shall temporarily relocate or disassemble, disable, and plug these facilities at their temporary location. Contractor shall restore, reconnect and activate property irrigation or sprinkling facilities its original condition or better when work is completed. This work will not be measured or paid for directly but will be subsidiary to pertinent items.

Specifications:

ITEM 5: CONTROL OF WORK

Any earthwork cross-sections, computer printouts, data files and any other information provided is for non-construction purposes only and it is the responsibility of the prospective bidder to validate the data with the appropriate plans, specifications and estimates for the projects. Contact the Fittz & Shipman, Inc. located at 1405 Cornerstone Court (409) 832-7238.

ITEM 7: LEGAL RELATIONS AND RESPONSIBILITIES

Furnish all materials, labor and incidentals required to provide for traffic across the highway and for temporary ingress and egress to private property in accordance with article 7.7 of the standard specifications at no additional cost to the County. This shall be incidental to the bid items on this project.

Maintain the roadway slope stability. Temporary retaining structures or shoring may be required. Before installing any proposed temporary retaining structures or shoring, secure written approval. Submit design calculations, working drawings and a plan of operations including sequencing. Maintaining slope stability is subsidiary to the various bid items.

This contract requires work performed on railroad property. Cooperate with the railroads and comply with all of their requirements including obtaining any training they require before performing work on railroad property.

ITEM 8: PROSECUTION AND PROGRESS

Gather information and direct attention to the aspects of adjoining projects that may be in progress during the construction of a portion of this project. Plan and prosecute the sequence of construction and the traffic control plan with adjacent construction projects so as not to interfere with, or hinder the completion of the work in progress on the adjoining projects. Coordinate projects to ensure an uninterrupted flow of traffic.

BID ITEM NOTES

ITEM 104: REMOVING CONCRETE

- All concrete (sidewalks, driveways, slabs, pavements, etc.) will be saw cut to full depth at connection points to existing pavements. Saw cutting of all concrete (sidewalks, driveways, slabs, pavements, etc.) and as directed by engineer for removing concrete will not be measured or paid for directly but will be subsidiary to pertinent items.

- Replace that portion of the pavement removed for storm sewer installation with ten (10) inches of flexible base and one (1) inch of asphaltic concrete pavement. This work will be considered subsidiary to this item.

- Removal of concrete curb is subsidiary to this item.

ITEM 110: EXCAVATION

- All excavated material not used on this project shall be the property of the contractor and disposed of at a site approved by the engineer. There will be no direct payment for hauling of excess excavated material, but shall be considered subsidiary to the item 110 "Excavation".

- Excavation shall be a plans quantity measurement item. Payment shall be based on the quantity as shown in the proposal sheet. Additional compensation will be considered for extra excavation due to field change which effect the total quantity more than 5%.

- If manipulating the excavated material requires moving the same material more than once to accomplish the desired results, the excavation is measured and paid for only once regardless of the number of manipulations required.

- The total excavation quantity shown on the plans includes the quantity for excavating the material beyond the extents of the existing street to allow the installation of stabilized base, concrete pavement and asphalt stabilized shoulder as shown on the typical sections.

- Excavation required for the installation of drainage structures including but not limited to storm sewer, inlets, safety end treatment, etc. as well as re-grading the road side ditches shall be subsidiary to the associated bid item and not included in the excavation quantities.

ITEM 164 SEEDING FOR EROSION CONTROL

- Final grading and stabilization (seeding) shall be achieved as soon as possible and not scheduled only for the end of the project. Final grading and stabilization should be initiated as the overall work progresses.

- Multiple mobilizations of the seeding crews will be expected to comply with the TCEQ Requirements for Construction General Permit of the Texas Pollution Elimination Discharge System requirements for re- vegetating disturbed soils.

- Eliminate seeding in areas of natural growth determined by the Engineer to have sufficient cover.

ITEM 168 VEGETATIVE WATERING

- Equip water trucks with sprinkler systems capable of covering the entire area to be seeded from the roadway.

- Water all newly placed seeded areas the same day of installation. Thereafter, maintain the seeded areas in a well-watered condition and at no time allow the areas to dry to the condition that water stress is evident.

- Mechanical watering may not be required during periods of adequate moisture as determined by the Engineer.

- Furnish and apply water at a rate of 6.788 Mega gallons per acre per cycle.

- Comply with stabilization requirements for 70% grass coverage; uniform vegetative coverage is required. During this period, meter and operate water equipment under pumping pressure capable of delivering the required quantities of water necessary. For Permanent seeding each cycle shall be executed weekly for 12 weeks, unless directed otherwise by the Engineer. For Temporary seeding each cycle shall be executed weekly for 6 weeks, unless directed otherwise by the Engineer.

- Provide a log book showing daily water usage and receipts of water applied, in addition to metering the water equipment.

- Vegetative watering for seeding for erosion control shall be subsidiary to the associated bid item.

ITEM 210: ROLLING

- Compact embankment, subgrade, base, surface treatment, or base materials.

- The work performed, materials furnished, equipment, labor, tools, and incidentals will not be measured or paid for directly but will be subsidiary to pertinent Items.

ITEM 247: FLEXIBLE BASE

- Flexible base Type “A” GR 1-2, Density Control and complete in place shall be used on the project unless otherwise approved by the engineer.

- Flexible base materials shall be placed and compacted in a minimum of two lifts with a maximum loose material thickness of 8 inches. Compaction test will be taken at each lift as required by the Engineer. Minimum density shall be not less than 95% of maximum dry density as determined by test method TEX-1 14e & TEX-l 15-e.

- Subgrade shall be rolled and compacted to not less than 95% of maximum dry density as determined by test method TEX-1 14e & TEX-l 15-e. This work shall not be measured or paid for directly but will be subsidiary to pertinent items.

ITEM 340: DENSE GRADED HOT-MIX ASPHALT

- The transition surface areas to be overlaid shall be bladed, cleaned and broomed where necessary

and tack coated as directed by the engineer. There will be no direct payment for this work, but shall be considered subsidiary to item 340.

- Siliceous granite and gravel, iron ore, or lightweight material will not be permitted on this project.

- The paving mixture shall consist of a uniform mixture of coarse aggregate, intermediate aggregate, fine, and asphalt material. Fine aggregate shall consist of manufactured sands, screenings, and field sands.

- Prime coating flexible base course for asphalt placement surfaces will not be paid for directly, but will be considered subsidiary to Item 340.

- Neither recycled asphalt shingles (RAS) or reclaimed asphalt pavement (RAP) shall be permitted to be used on this project.

ITEM 354: PLANING AND TEXTURING PAVEMENT

- Planning of asphalt surface is limited within the area of each sub-phase under construction.

- Planning of asphalt surface is for the purpose of asphalt material salvage and recycle.

- County has coordinated with the Jack Brook Airport and will provide an area on the southeast side of Jerry Ware Drive, just south of the fueling entrance near Airline Drive split for a laydown area and stockpiling**.**

ITEM 360: CONCRETE PAVEMENT

- Class P concrete shall be used for all concrete roadway pavements.

- Deformed reinforcement bar size, spacing and placement shall conform to Roadway Standards and Paving Details. Spacing adjustments may be required at the edges on both sides of the proposed concrete pavement lane widths as shown in the contract drawings.

- Wire mat reinforcements are not allowed for use on roadway construction for this project. Wire mat reinforcement will be allowed for use on driveways and sidewalk construction.

- The contractor may use transit mix concrete in accordance with the item “ready-mix plants”.

- Where the pavement curb is left off for a later tie, provide the dowels or the tie bars as indicated on the paving detail sheets. The dowel bars and tie bars are subsidiary to the various bid items.

- Repair portions of the concrete pavement surfaces that are damaged while in a plastic state before that area receives permanent pavement markings and opens to traffic. Perform repairs that are structurally equivalent to and cosmetically uniform with the adjacent undamaged areas. Do not repair by grouting onto the surface.

- Set-retarding admixtures will not be allowed.

- Hand-finishing of concrete pavement will be permitted as directed by the engineer.

- Sawing of all joints shall begin as soon as sawing can be accomplished without damage to the pavement and completed before 12 hours has elapsed. Any random cracking of the pavement, which in the opinion of the engineer, is due to incomplete sawing operation shall be removed and replaced at the expense of the contractor.

- Class 5 self-leveling low modulus silicone sealant shall be used on this project.

- All longitudinal and transverse joints shall be sawed.

- Surface test Type "A" shall apply to this project.

- Concrete placement will not be permitted when impending weather conditions, in the opinion of the engineer, may result in rainfall or low temperatures which will impair the quality of the finishing work.

- The contractor shall have on the job site sufficient burlap or polyethylene fabric, as directed by the engineer, to cover a section of concrete pavement 600 feet long and 16 feet wide.

- Siliceous gravel will not be permitted in the mix design.

- The dowel support assemblies used in concrete pavement shall be constructed using number 1/0 (0.306 inch diameter) wire in the main vertical members. Dowels shall be rigidly supported in parallel positions and shall be welded on one end to support the frame. The weld attachment shall be made alternately on opposite ends of successive dowels. The support assembly shall be subject to the approval of the engineer.

- A minimum of 3/5th of each dowel bar shall be coated with hot-applied asphalt cement. The coating shall be placed on opposite ends of successive dowels.

- Saw cutting of all joints (transverse expansion joints, longitudinal construction joints, longitudinal sawed joints, transverse sawed joints and others) will not be paid for separately, but shall be considered subsidiary to pertinent items.

- Newly placed roadway pavement surfaces with crack(s) of any cause or nature will not be approved and accepted by the County. Crack(s) shall be repaired as shown on TxDOT Standard Full Depth Repair for Concrete Pavement (REPCP) – 14 before the acceptance of the project for maintenance by the Owner. This repair, including saw cutting of pavement full depth, reinforcing, tie and dowel bars, concrete and all incidental materials, saw cutting and sealing of joints, labor and equipment needed to complete the work shall be at the contractor's expense.

ITEM 400: EXCAVATION AND BACKFILL FOR STRUCTURES

- Structural excavation for pipes will not be paid for separately, but shall be considered subsidiary to pertinent items.

- As shown in the drawings, structural backfilling with cement stabilized backfill for pipes under roadway pavements and or outside roadway pavements around pipe zones will not be paid for

separately, but will be considered subsidiary to pertinent items.

- Removal of existing storm sewer pipes as called for in the drawings will be paid for under the item for removal of pipes. Pipes removed under roadway pavements will be backfield with cement stabilized sand material up to the bottom of subgrade stabilization or base course. Pipes removed outside the roadway pavement will be backfield with suitable excavated ordinary material up to finish grade line. Cement stabilized sand backfill will be compacted to fill all voids and ordinary soil material will be compacted at 8" lifts equal to the surrounding undisturbed soil condition. Backfilling of cement stabilized sand for trench underneath roadway pavement and ordinary soil materials for trench outside roadway pavement will not be paid for separately, but will be considered subsidiary to pertinent items.

ITEM 465: MANHOLES AND INLETS

- The use of precast storm sewer manholes and/or inlets will not be permitted in this project.

- Inlet and manhole "ring and cover" shall be gray cast iron of part no. as shown in the plans. The dimensions and descriptions are shown on the plans. Dimensions may vary to the extent determined by the engineer.

- Excavation will not be paid for directly but shall be considered subsidiary to this bid item.

- Cement stabilized backfill shall be required around all inlets. The stabilized backfill shall not be paid for directly but shall be considered subsidiary to pertinent bid items.

- If building manholes or inlets in graded areas, first construct them to an elevation at least 4 in. above the top of the highest entering pipe and cover with a wooden cover. Complete the construction of such manholes or inlets to the finished elevation when completing the grading work for such manholes or inlets. Adjust the final elevation, if required, since this elevation is approximate.

- Construct manholes and inlets in paved areas to an elevation so their temporary wooden covers are flush with the surface of the base material.

- Do not leave excavations or trenches open overnight.

ITEM 500: MOBILIZATION

- Mobilization shall not exceed ten (10) percent of the total construction items amount.

ITEM 502: BARRICADES, SIGNS, AND TRAFFIC HANDLING

- Submit changes to the traffic control plan to the Engineer. Provide a layout showing the construction phasing, signs, striping, and signalizations for changes to the original traffic control plan.

- Furnish and maintain the barricades and warning signs, including the necessary temporary and portable traffic control devices, during the various phases of construction. Place and construct these barricades and warning signs in accordance with the latest "Texas Manual on Uniform Traffic

Control Devices for Streets and Highways" for typical construction layouts.

- Furnish additional barricades and signs to maintain traffic and motorists' safety when directed by the Engineer. Consider payment for these additional signs and barricades subsidiary to Item 502.

- Cover work zone signs when work related to the signs is not in progress, or when any hazard related to the signs no longer exists.

- Keep the delineation devices, signs, and pavement markings clean. This work is subsidiary to the Item, "Barricades, Signs, and Traffic Handling".

- If a section is not complete before the end of the workday, pull back the base material to the existing pavement edge on a 6H: 1V slope. Edge drop-offs during the hours of darkness are not permitted.

- Do not mount signs on drums or barricades, except those listed in the latest Barricades and Construction standard sheets.

- Use traffic cones for daytime work only. Replace the cones with plastic drums during nighttime hours.

- Place positive barriers to protect drop-off conditions greater than 2 ft. within the clear zone that remain overnight. The traffic control plan (TCP) shall conform to the BC (1) - (12) standards and part VI of the Current Texas Manual Of Uniform Traffic Control Devices.

- Remove all traffic control devices from the roadway, off of the right of way, when they are not in use. Devices scheduled to be used within 3 days may be placed along the shoulder of the roadway or right of way when not in use, or stored in other approved areas on the project. Cover any construction signs that are not in effect that are installed in a fashion that will not allow them to be removed from the right of way easily.

- Use vertical panels instead of cones as traffic control devices.

- Construct all work zone signs, sign supports, and barricades from material other than wood unless approved by the engineer.

- Galvanize steel supports if used. Aluminum posts, if used, shall meet the following minimum thickness requirements:

Square Feet	Minimum Thickness
Less Than 7.5	0.080 Inches
7.5 To 1.5	0.100 Inches
Greater Than 1.5	0.125 Inches

- Plan the sequence of work so as to minimize inconvenience to the traveling public. Any changes to the traffic control plan shown in the plans must be approved in writing by the Engineer. Submit the revised plan for approval to the Engineer.

- The approval by the engineer of the method and procedure the contractor plans to use to handle or detour traffic will not relieve the contractor of his responsibility for the protection of the traveling public.

- Install temporary fence around the open pit by the end of each working day to safeguard pedestrian using the sidewalk. No payment shall be made for this work directly, but will be consider subsidiary to this item.

- Temporary traffic signalization as shown in the plans and Additional temporary traffic signalization not shown in the plans that is required to meet actual site conditions as directed by the engineer will not be measured or paid for separately, but will be considered subsidiary to this pay item.

- The Contractor shall submit to the County prior to start of any construction work, a hauling truck and construction vehicles route plan. This route plan shall show streets to be taken for trucks and vehicles either empty or hauling materials going in or out the construction areas scope of work. The Streets that are to be used as truck and vehicle routes shall be truck loads roadway bearing pavements. Upon approval of the Engineer, this truck routing plan will be strictly implemented. Any changes that is required as construction phases progresses will be reviewed and approved by the Engineer. This work will not be measured or paid for separately, but will be considered subsidiary to this pay item. Construction Exit shall be paid for under Item 506.

- The Contractor shall prepare proposed revised traffic Detour Plan for the construction of Airport Pavement Replacement project. This shall be coincidental with the construction progress of work phases. Any addition barricades, warning and detour signs, including the necessary temporary and portable traffic control devices to detour and control traffic during the construction of the Jerry Ware Drive and 3rd Street Pavement Replacement Project will not be measured or paid for separately, but will be considered subsidiary to this pay item.

- Additional Barricades, warning and detour signs, including the necessary temporary and portable traffic control devices to detour and control traffic along 1st Street, Jerry Ware Drive and 3rd Street during the construction of County Utilities as required by the Engineer within limits and scope of project work will not be measured or paid for separately, but will be considered subsidiary to this pay item. Water and Sanitary Sewer installations will be paid under its respective Items. Temporary Asphalt Pavement restoration and Temporary Pavement Markings will be paid under its respective Items.

ITEM 506: TEMPORARY EROSION, SEDIMENTATION AND ENVIRONMENTAL CONTROL

- A Storm Water Pollution Prevention Plan (SWP3) is required for submittal when the disturbed area is 1 acre and greater, with the "Notice of Intent" (NOl) as required. The NOI will be completed and filed by the Contractor at the contractor's own expense.

- Use appropriate measures to prevent, minimize, and control the spill of hazardous materials in the construction staging area. Remove and dispose of materials in compliance with State and Federal laws.

- Before starting construction, review with the Engineer the SW3P used for temporary erosion control as outlined on the plans. Before construction, place the temporary erosion and sedimentation control management practices as shown on the SWP3.

- Before starting grading operations and during the project duration, place the temporary or permanent erosion control measures to prevent sediment from leaving the right of way.

- Implement temporary and permanent erosion control measures to comply with the Texas Pollution Discharge Elimination System (TPDES) general permit.

- Schedule the sodding work as soon as possible after completing earthwork operations, restore and sod the disturbed areas in accordance with the County's specifications for permanent or temporary erosion control.

ITEM 530: INTERSECTIONS, DRIVEWAYS, AND TURNOUTS

- Saw cutting of concrete and asphalt pavement at break back line as shown in the drawings for Intersections, Driveways and Turnouts shall not be paid for separately, but shall be subsidiary to this unit bid item. Any additional modifications and incidental saw cutting of concrete and asphalt pavement at intersections, driveways, and turnouts required to meet existing site conditions, construction grade standards as shown in the drawings and as directed by the engineer will not be measured or paid for directly but will be subsidiary to pertinent items.

- Any additional saw cutting of existing driveways pavements beyond Right of Way lines inside private property as permitted by the owner, not shown in the drawings as determined and ordered by the Engineer to meet standard grade requirements will not be measured or paid for directly but will be subsidiary to pertinent items.

ITEM 585: RIDE QUALITY FOR PAVEMENT SURFACES - TXDOT PAVEMENTS

- Service Roads and Ramps. Use Surface Test Type A (10 ft straight edge) on service roads and ramps.

- Short Projects. Use Surface Test Type A when project pavement length is less than 2,500 ft.

ITEM 644: SMALL ROADSIDE SIGN SUPPORTS AND ASSEMBLIES

- Sign locations shown on the plans are approximate before placing them, obtain approval of the engineer and then stake the exact locations for these signs. For this project, existing signs shall be removed, stored, and replaced. Any signs or posts damaged during the removal or storage process shall be replaced with identical products at the contractor's expense. All expenses, equipment, materials, and appurtenances required to remove and replace the existing small road signs will be paid for under this item.

- Use the Texas universal triangular slip base with the concrete foundation for small ground mounted signs, unless otherwise shown in the plans.

- When design details are not shown on the plans, provide signs and arrows conforming to the latest "Standard Highway Sign Designs for Texas" manual.

ITEM 666: RETROREFLECTORIZED PAVEMENT MARKINGS

- Furnish Type II drop-on glass beads per TxDOT Specifications.

ITEM 677: ELIMINATING EXISTING PAVEMENT MARKINGS AND MARKERS

- Remove all contaminates and loose material. Consider this work to be subsidiary to the various bid items of the contract.

- Remove existing raised pavement markers where indicated prior to the addition of the asphaltic pavement or seal coat. Dispose of the removed markers form the project at the end of each workday. Consider this work to be subsidiary to the various bid items of the contract.

ITEM 760: DITCH CLEANING AND RESHAPING

- This item will be used to clean and regrade the existing ditches to the grades as shown in plans to provide adequate drainage for the existing and/or proposed roadway. Any excavation and backfill will be considered subsidiary and included in the price per linear foot.

- This item will be used as shown in plans when ditch to filled or excavated. Fill material shall be in accordance with Item 110 Excavation but will be included in the cost per linear foot in this item to depths shown in plans to provide proper drainage.

End of General Notes

GOVERNING CONSTRUCTION SPECIFICATIONS

The governing construction specifications applicable to this work are the Texas Department of Transportation (TXDOT) 2014 Standard Specifications for Construction of Highways, Streets and Bridges as adopted by the State of Texas.

These items which are listed below and which are contained in the TX DOT 2004 Standard Specifications are hereby adopted and made part of the Contract Documents to the same extent as if they were herein reproduced in full subject to such modifications, revisions or supplements as may appear in the section entitled Special Provisions in these Contract Documents to follow:

Standard Specifications:

Item 100 Preparing Right of Way

Item 104 Removing Concrete

Item 105 Removing Treated and Untreated Base and Asphalt Pavement

Item 110 Excavation (132)

Item 134 Backfilling Pavement Edges

Item 164 Seeding for Erosion Control

Item 168 Vegetative Watering

Item 210 Rolling

Item 216 Proof Rolling

Item 247 Flexible Base

Item 260 Lime Treatment

Item 276 Cement Treatment (Plant Mix) (204)(210)(216)(300)(520)

Item 300 Asphalts, Oils, and Emulsions

Item 340 Dense-Graded Hot-Mix Asphalt (Method) (300)(301)(320)(520)(585)

Item 354 Planning and Texturing Pavement

Item 360 Concrete Pavement (421)(420)(438)(440)(529)

Item 400 Excavation and Backfill for Structures (132)(402)

Item 438 Cleaning and Sealing Joints

Item 440 Reinforcing Steel

Item 465 Junction Boxes, Manholes and Inlets (420)(421)(427)(440)(442)(471)

Item 471 Frames, Grates, Rings, and Cover

Item 500 Mobilization

Item 502 Barricades, Signs, & Traffic Handle

Item 506 Temporary Erosion, Sedimentation and Environmental Control

Item 529 Concrete Curb and Gutter (360)(420)(421)(440)

Item 530 Driveways and Turnouts (247)(276)(360)(421)(440)

Item 585 Ride Quality for Pavement Surfaces

Item 636 Signs

Item 666 Retroreflectorized Pavement Markings

Item 678 Pavement Surface Preparation Surfaces

End of Governing Construction Specification

CONSTRUCTION PLANS
FOR

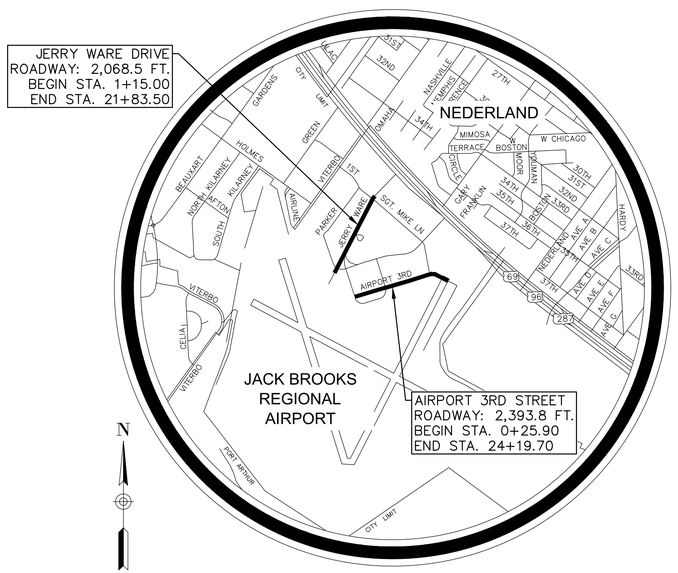
JACK BROOKS REGIONAL AIRPORT

PROPOSED ROADWAY RECONSTRUCTION
JERRY WARE DRIVE / AIRPORT 3RD. STREET
JEFFERSON COUNTY, TEXAS

JULY 2022

INDEX OF DRAWINGS

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C4.1 - C4.2	GENERAL NOTES
C5.1 - C5.2	SURVEY CONTROL
C6.1 - C6.3	DEMOLITION PLAN - JERRY WARE DRIVE
C6.4 - C6.6	DEMOLITION PLAN - AIRPORT 3rd. STREET
C7.1 - C7.5	PLAN AND PROFILES - JERRY WARE DRIVE
C7.6 - C7.10	PLAN AND PROFILES - AIRPORT 3rd. STREET
C7.11 - C7.14	INTERSECTION GRADING
C7.15	ROADWAY STANDARDS AND PAVING DETAILS
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C9.1 - C9.2	SW3P PLAN
C10.1 - C10.10	TRAFFIC CONTROL PLAN
C11.1 - C11.4	DRAINAGE AREAS PLAN & CALCULATIONS
C12.1 - C12.2	DRAINAGE STANDARDS AND DETAILS
C13.1 - C13.7	EROSION CONTROL DETAILS
C14.1 - C14.12	TRAFFIC CONTROL DETAILS



VICINITY MAP

COUNTY JUDGE

JEFF BRANICK

COUNTY COMMISSIONERS

VERNON PIERCE	COMM. PCT. 1
CARY ERICKSON	COMM. PCT. 2
MICHAEL SINEGAL	COMM. PCT. 3
EVERETTE ALFRED	COMM. PCT. 4

AIRPORT MANAGER

ALEX RUPP

APPROVED BY

STATE OF TEXAS
BERNARDINO D. TRISTAN
117017
LICENSED PROFESSIONAL ENGINEER
Jan 11, 2023

BERNARDINO D. TRISTAN, P.E.
REGISTERED PROFESSIONAL ENGINEER No. 117017

APPROVED FOR CONSTRUCTION

BY: _____ DATE: _____

MICHELLE FALGOUT
COUNTY ENGINEERING

PREPARED BY:

Fittz&Shipman INC.
Consulting Engineers and Land Surveyors
1405 CORNERSTONE COURT BEAUMONT, TEXAS
(409)832-7238 FAX (409)832-7303
Tx Board of Prof Engineers Firm No. F-01160 Tx Board of Prof Land Surveyors Firm No. 100186

JACK BROOKS
REGIONAL AIRPORT

DWG BY: JEFF HANKS

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ESTIMATE AND SUMMARY QUANTITY
JBRA LAROAD PAVEMENT IMPROVEMENT PROJECT

Jerry Ware Roadway

ITEM NO.	TxDOT SPEC TTEM NO.*	DESCRIPTION	UNIT	TOTAL ESTIMATE	TOTAL FINAL
1	100	Preparing Right-Of-Way, complete in place	Ac.	4.42	
2	500	Mobilization/demobilization, complete in place	L.S.	1	
3	110	Excavation, complete in place	C.Y	1,746	
4	132	Embankment, complete in place	C.Y	1,988	
5	110	Removing existing Concrete roadway, complete in place	S.Y	5,463	
6	110	Removing existing asphalt shoulder, complete in place	S.Y	2,663	
7	496	Removing existing asphalt driveway, complete in place	S.Y	478	
8	496	Removing existing asphalt turnout, complete in place	S.Y	255	
9	496	Removing existing 12" storm sewer, complete in place	L.F.	17	
10	496	Removing existing 15" storm sewer, complete in place	L.F.	77	
11	496	Removing existing 18" storm sewer, complete in place	L.F.	339	
12	496	Removing existing 24" storm sewer, complete in place	L.F.	48	
13	496	Removing existing concrete storm inlet, complete in place	E.A.	6	
14	360	7" Reinforced Concrete Pavement, complete in place	S.Y.	6,372	
15	247	7" Compacted Limestone Shoulder, complete in place	S.Y.	1,627	
**15A	292	7" Asphalt Stab Base (GR 2)(PG 70) Shoulder, complete in place	S.Y.	1,627	
16	275	8" hydrated lime stabilized base (10%-12% DC) (In Place & Salvaged Fill), complete in place	S.Y.	8,214	
17	340	7" Reinforced concrete driveway pavement, complete in place	S.Y.	583	
18	760	Re-grade existing roadside ditches, complete in place	L.F.	2,492	
19	464	24" HDPE storm sewer, complete in place	L.F.	56	
20	464	18" HDPE storm sewer, complete in place	L.F.	230	
21	467	Precast Safety End Treatment SET. Complete in place	Ea.	24	
22	164	Hydromulch Seeding of ROW, incl. fertilizer & watering, complete in place	Ac.	4.42	
23	502	Barricades, Signs & Traffic Control, complete in place	L.S.	1	
24	506	Temp Erosion Control, complete in place	L.S.	1	
25	644	Small Sign Assemblies, complete in place	L.S.	1	
26	666	Reflect Pav. Marking Ty-II 4" Solid, White 0.90 Mil, including surface preparation, complete in place	L.F.	4,402	
27	666	Reflect Pav. Marking Ty-II 4" Solid, Yellow 0.90 Mil, including surface preparation, complete in place	L.F.	4,118	
28	666	Reflect Pav. Marking Ty-II 12" Solid, White 0.90 Mil, including surface preparation, complete in place	L.F.	180	
29	666	Reflect Pav. Marking Ty-II 24" Solid, White 0.90 Mil, including surface preparation, complete in place	L.F.	62	

* 2014 Texas Department of Transportation Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges
** Alternate Bid Item for Shoulder Material

3rd Street - Segment A - Sta 0+00 to 8+50

ITEM NO.	TxDOT SPEC TTEM NO.*	DESCRIPTION	UNIT	TOTAL ESTIMATE	TOTAL FINAL
1	100	Preparing Right-Of-Way, complete in place	Ac.	0.93	
2	500	Mobilization/demobilization, complete in place	L.S.	1	
3	110	Excavation, complete in place	C.Y	210	
4	132	Embankment, complete in place	C.Y	156	
5	110	Removing existing Concrete roadway, complete in place	S.Y	3,904	
6	360	7" Reinforced Concrete Pavement, complete in place	S.Y.	2,521	
7	275	8" hydrated lime stabilized base (10%-12% DC) (In Place & Salvaged Fill), complete in place	S.Y.	2,726	
8	340	7" Reinforced concrete driveway pavement, complete in place	S.Y.	379	
9	340	5" Reinforced concrete pavement, complete in place	S.Y.	68	
10	465	Concrete surface grate inlet, complete in place	Ea.	13	
11	464	24" HDPE storm sewer, complete in place	L.F.	442	
12	464	18" HDPE storm sewer, complete in place	L.F.	140	
13	464	15" HDPE storm sewer, complete in place	L.F.	332	
14	464	12" HDPE storm sewer, complete in place	L.F.	195	
15	164	Hydromulch Seeding of ROW, incl. fertilizer & watering, complete in place	Ac.	0.93	
16	502	Barricades, Signs & Traffic Control, complete in place	L.S.	1	
17	506	Temp Erosion Control, complete in place	L.S.	1	
18	644	Small Sign Assemblies, complete in place	L.S.	1	
19	666	Reflect Pav. Marking Ty-II 4" Solid, White 0.90 Mil, including surface preparation, complete in place	L.F.	1,635	
20	666	Reflect Pav. Marking Ty-II 4" Broken, Yellow 0.90 Mil, including surface preparation, complete in place	L.F.	220	
21	666	Reflect Pav. Marking Ty-II 24" Solid, White 0.90 Mil, including surface preparation, complete in place	L.F.	35	
22	666	Reflect Pav. Marking Ty-II 18" White, Tri Yield 0.90 Mil, including surface preparation, complete in place	E.A.	16	

* 2014 Texas Department of Transportation Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges

3rd Street - Segment B - Sta 8+50 to 24+20

ITEM NO.	TxDOT SPEC TTEM NO.*	DESCRIPTION	UNIT	TOTAL ESTIMATE	TOTAL FINAL
1	100	Preparing Right-Of-Way, complete in place	Ac.	2.75	
2	500	Mobilization/demobilization, complete in place	L.S.	1	
3	110	Excavation, complete in place	C.Y	400	
4	132	Embankment, complete in place	C.Y	297	
5	110	Removing existing Concrete roadway, complete in place	S.Y	9,000	
6	360	7" Reinforced Concrete Pavement, complete in place	S.Y.	4,302	
7	275	8" hydrated lime stabilized base (10%-12% DC) (In Place & Salvaged Fill), complete in place	S.Y.	4,652	
8	340	7" Reinforced concrete driveway pavement, complete in place	S.Y.	735	
9	465	Concrete surface grate inlet, complete in place	Ea.	8	
10	465	Concrete Junction Box with surface grate inlet, complete in place	Ea.	2	
11	760	Grade proposed roadside ditches, complete in place	L.F.	1,314	
12	464	24" HDPE storm sewer, complete in place	L.F.	351	
13	464	18" HDPE storm sewer, complete in place	L.F.	465	
14	464	12" HDPE storm sewer, complete in place	L.F.	36	
15	467	Precast Safety End Treatment SET. Complete in place	Ea.	9	
16	164	Hydromulch Seeding of ROW, incl. fertilizer & watering, complete in place	Ac.	2.75	
17	502	Barricades, Signs & Traffic Control, complete in place	L.S.	1	
18	506	Temp Erosion Control, complete in place	L.S.	1	
19	644	Small Sign Assemblies, complete in place	L.S.	1	
20	666	Reflect Pav. Marking Ty-II 4" Solid, White 0.90 Mil, including surface preparation, complete in place	L.F.	2,447	
21	666	Reflect Pav. Marking Ty-II 4" Broken, Yellow 0.90 Mil, including surface preparation, complete in place	L.F.	400	
22	666	Reflect Pav. Marking Ty-II 24" Solid, White 0.90 Mil, including surface preparation, complete in place	L.F.	18	

* 2014 Texas Department of Transportation Standard Specifications for Construction and Maintenance of Highways, Streets, and Bridges

NO.	ISSUED FOR	DATE

Fittz & Shipman INC.
Consulting Engineers and Land Surveyors
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STATE OF TEXAS
BERNARDINO D. TRISTAN
117017
LICENSED
PROFESSIONAL ENGINEER
Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

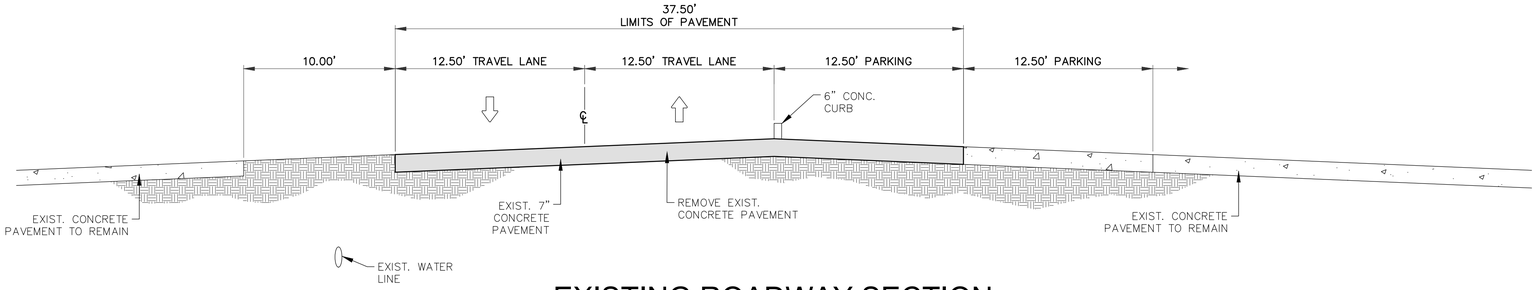
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DATE: Jan 09, 2023
SCALE: N.T.S.
DRAWN BY: J.L.H.
CHECK BY: B.T.
FS DRAWING NAME: 21200.000_CE_QUANTITIES & NOTES

QUANTITY TABULATIONS

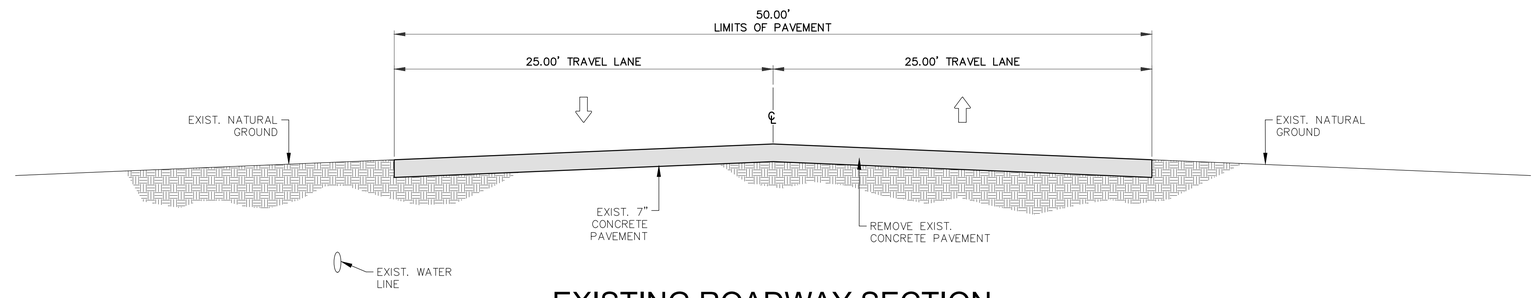
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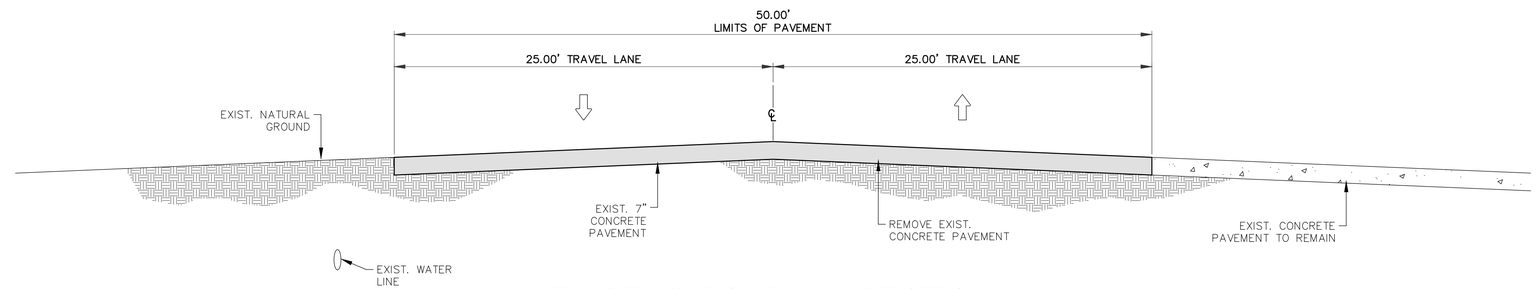
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EXISTING ROADWAY SECTION
STA. 0+80 - 7+80
(AIRPORT 3rd. STREET)



EXISTING ROADWAY SECTION
STA. 8+50 - 11+34
STA. 16+37 - 22+27
(AIRPORT 3rd. STREET)



EXISTING ROADWAY SECTION
STA. 11+34 - 16+37
STA. 22+27 - 24+19.68
(AIRPORT 3rd. STREET)

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Consulting Engineers and Land Surveyors
1405 Cornerstone Court Beaumont, TX. 77706
Ph. (409) 832-7238 Fax. (409) 832-7303
www.fittzshipman.com
T.B.P.E. Firm #1160 T.X.L.S. Firm #100186

STATE OF TEXAS
BERNARDINO D. TRISTAN
117017
LICENSED PROFESSIONAL ENGINEER
Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

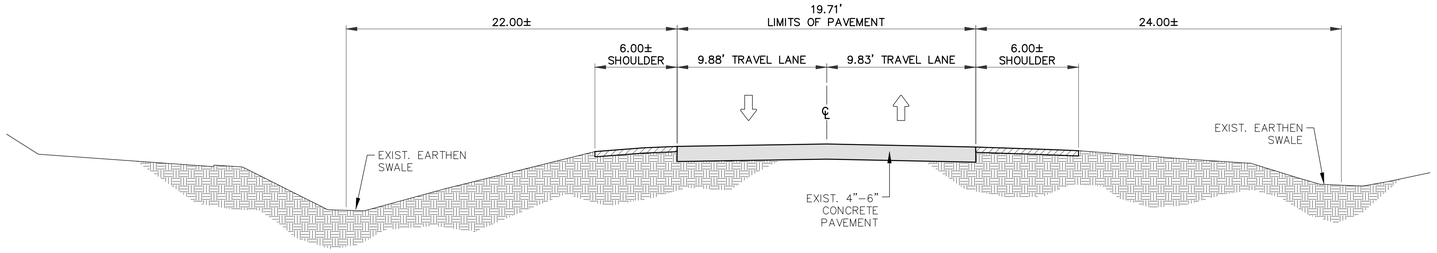
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SCALE:	N.T.S.
DRAWN BY:	J.L.H.
CHECK BY:	B.T.
FS DRAWING NAME:	21200.000_CE_TYPICAL SECTIONS

AIRPORT 3rd ST.
EXISTING
TYPICAL
X-SECTIONS

C2.1

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EXISTING ROADWAY SECTION

STA. 1+15 - 2+18
STA. 2+94 - 6+00
STA. 7+50 - 21+00
STA. 21+50 - 23+75
(JERRY WARE DRIVE)

DATE
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Fittz&Shipman INC.
Consulting Engineers and Land Surveyors
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STATE OF TEXAS
BERNARDINO D. TRISTAN
117017
LICENSED
PROFESSIONAL ENGINEER
Jan 09, 2023

JACK BROOKS
REGIONAL AIRPORT

FS PROJECT #
21200.000

DATE:	Jan 09, 2023
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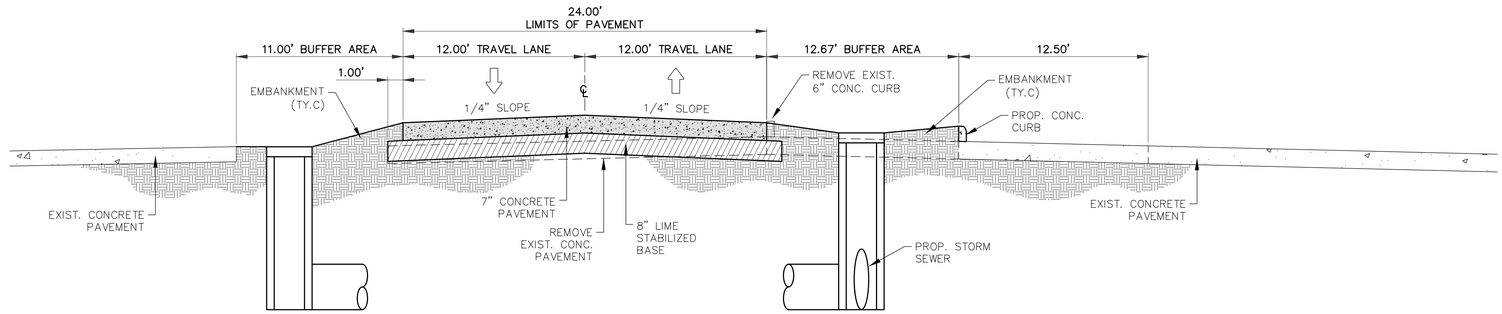
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EXISTING
TYPICAL
X-SECTIONS

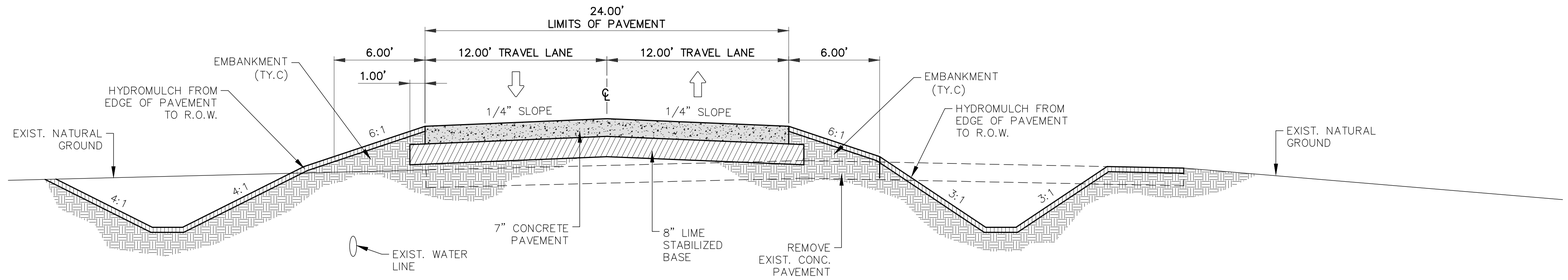
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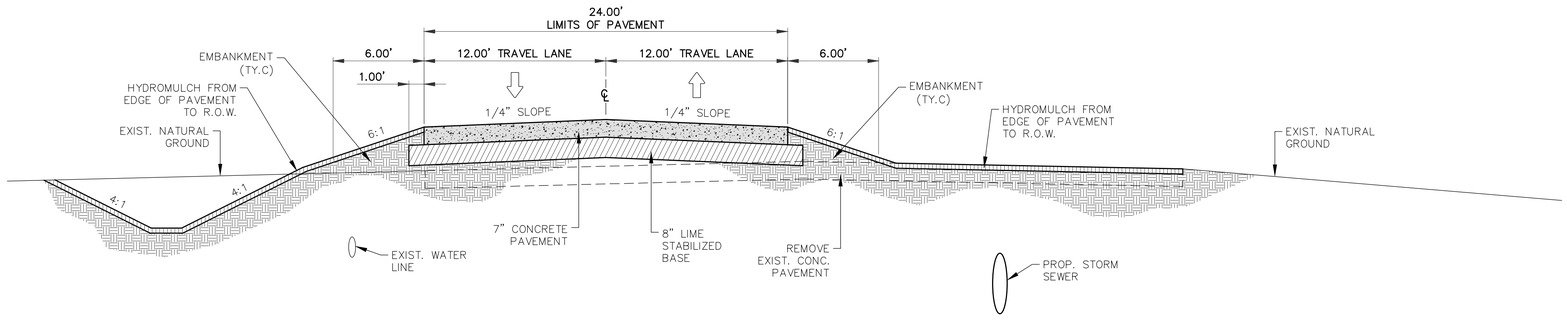
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PROPOSED ROADWAY SECTION
STA. 0+80 - 7+80
(AIRPORT 3rd. STREET)



PROPOSED ROADWAY SECTION
STA. 7+80 - 11+00
(AIRPORT 3rd. STREET)



PROPOSED ROADWAY SECTION
STA. 11+00 - 17+65
(AIRPORT 3rd. STREET)

NO.	ISSUED FOR	DATE

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STATE OF TEXAS
BERNARDINO D. TRISTAN
117017
LICENSED
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Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

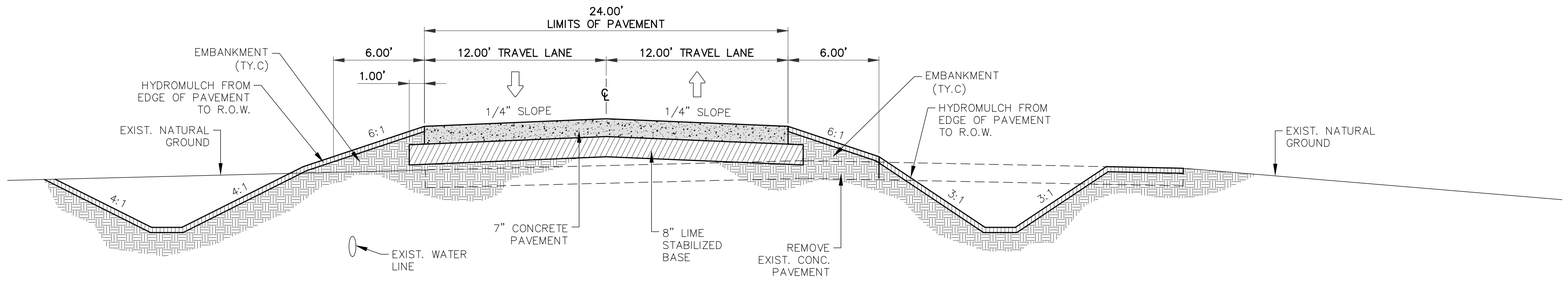
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DATE:	Jan 09, 2023
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DRAWN BY:	J.L.H.
CHECK BY:	B.T.
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AIRPORT 3rd ST. PROPOSED TYPICAL X-SECTIONS

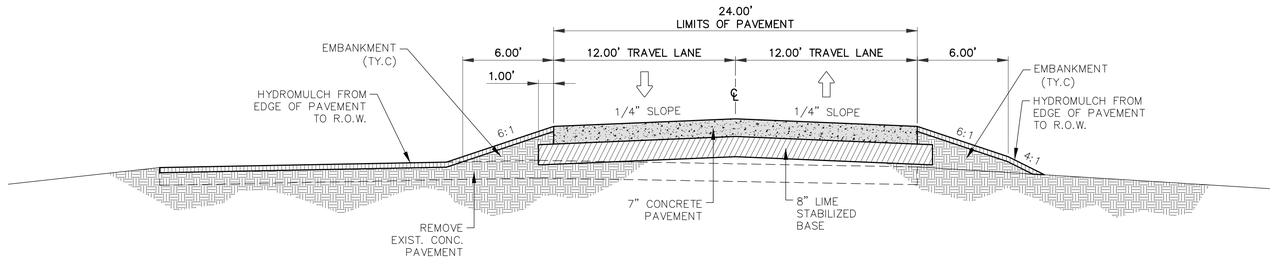
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PROPOSED ROADWAY SECTION
STA. 17+65 - 19+00
(AIRPORT 3rd. STREET)



PROPOSED ROADWAY SECTION
STA. 19+00 - 24+19.68
(AIRPORT 3rd. STREET)

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STATE OF TEXAS
BERNARDINO D. TRISTAN
117017
LICENSED PROFESSIONAL ENGINEER
Jan 09, 2023

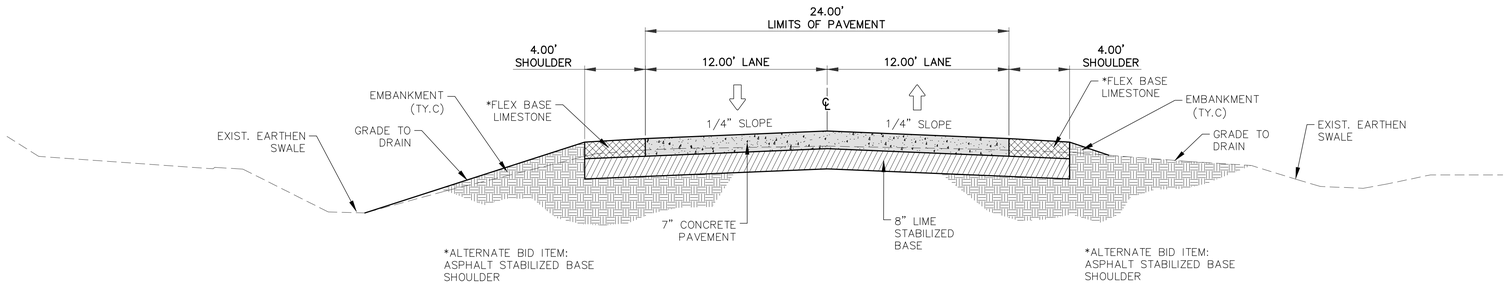
JACK BROOKS REGIONAL AIRPORT

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DATE: Jan 09, 2023
SCALE: N.T.S.
DRAWN BY: J.L.H.
CHECK BY: B.T.
FS DRAWING NAME: 21200.000_CE_TYPICAL SECTIONS

AIRPORT 3rd ST. PROPOSED TYPICAL X-SECTIONS

C2.4

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PROPOSED ROADWAY SECTION

STA. 1+15 - 2+18
STA. 2+94 - 6+00
STA. 7+50 - 21+00
STA. 21+50 - 23+75
(JERRY WARE DRIVE)

DATE
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STATE OF TEXAS
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117017
LICENSED
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Jan 09, 2023

JACK BROOKS
REGIONAL AIRPORT

FS PROJECT #
21200.000

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CHECK BY:	B.T.

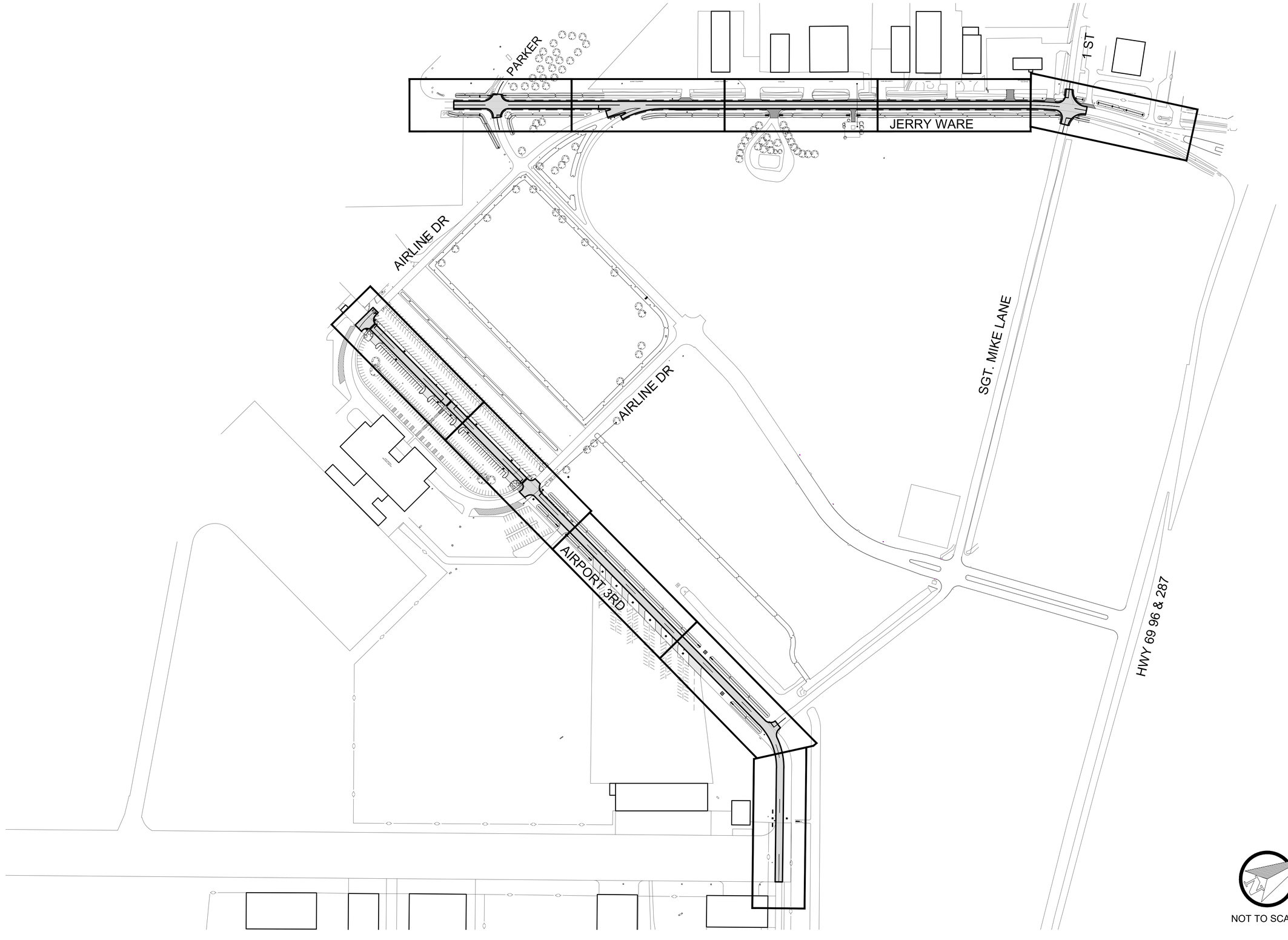
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21200.000_CE_TYPICAL SECTIONS

JERRY WARE DR.
PROPOSED
TYPICAL
X-SECTIONS

C2.5

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STATE OF TEXAS
BERNARDINO D. TRISTAN
117017
LICENSED PROFESSIONAL ENGINEER
Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

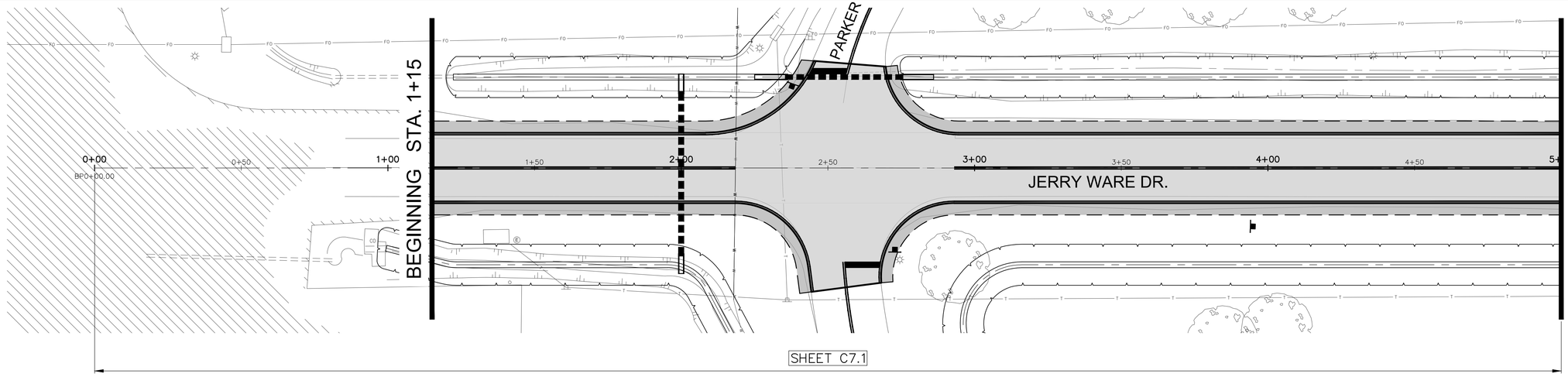
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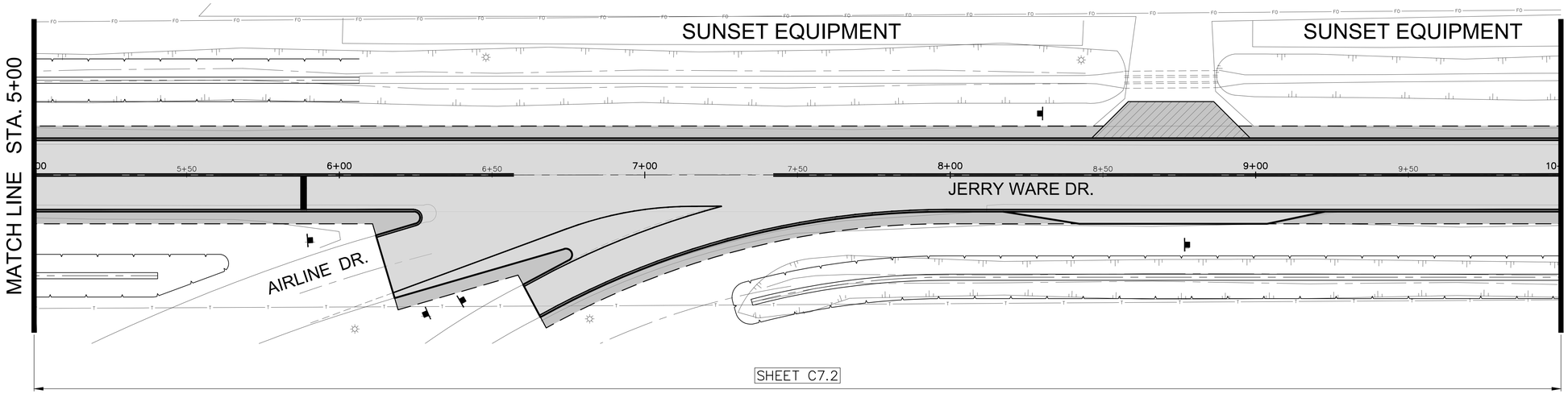
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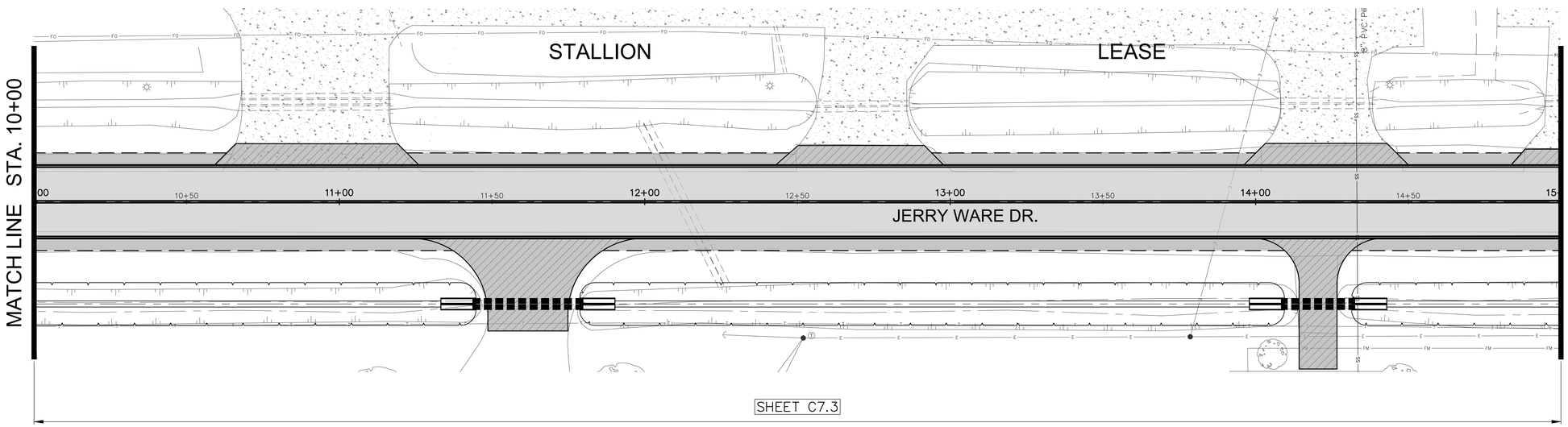
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0 20' 40'

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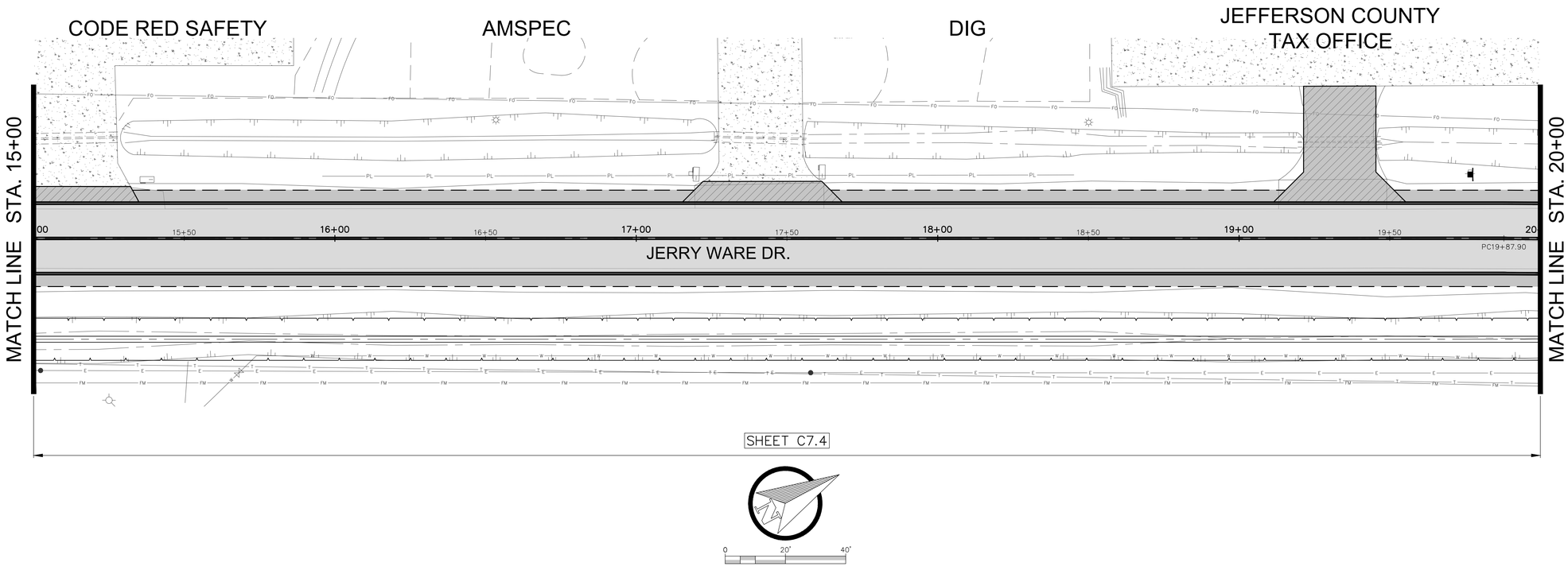
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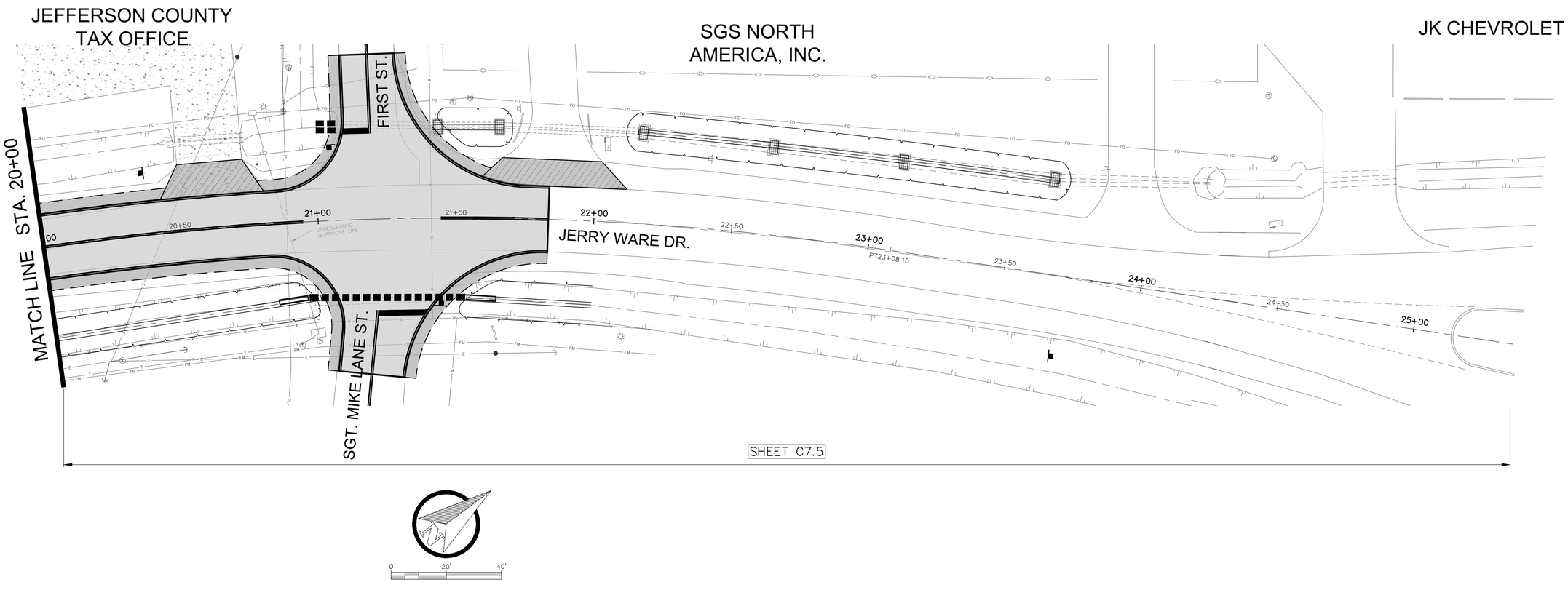
JERRY WARE DR. PROJECT LAYOUT STA. 0+00 - 15+00

C3.2

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STATE OF TEXAS
BERNARDINO D. TRISTAN
117017
LICENSED PROFESSIONAL ENGINEER
Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

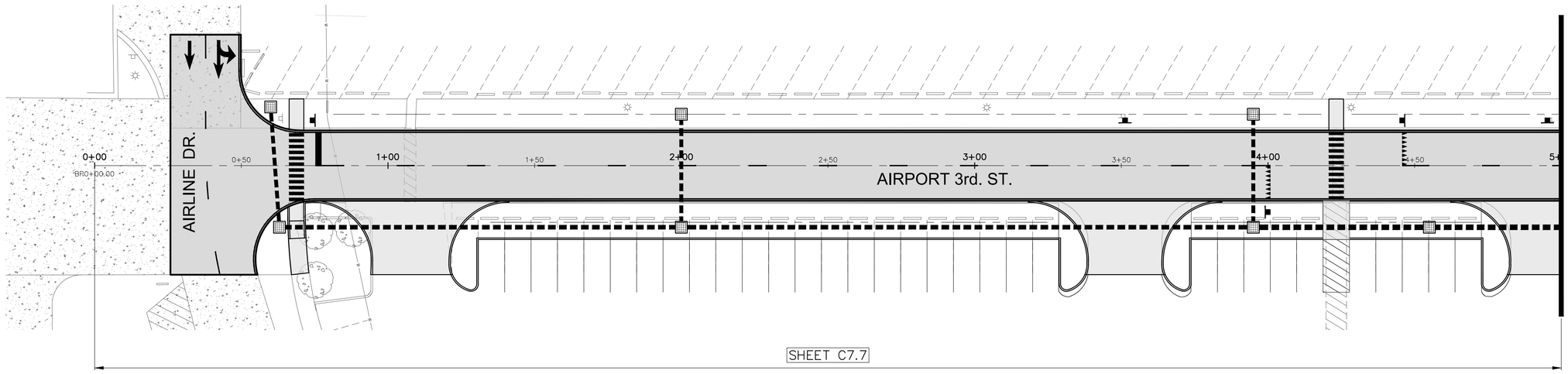
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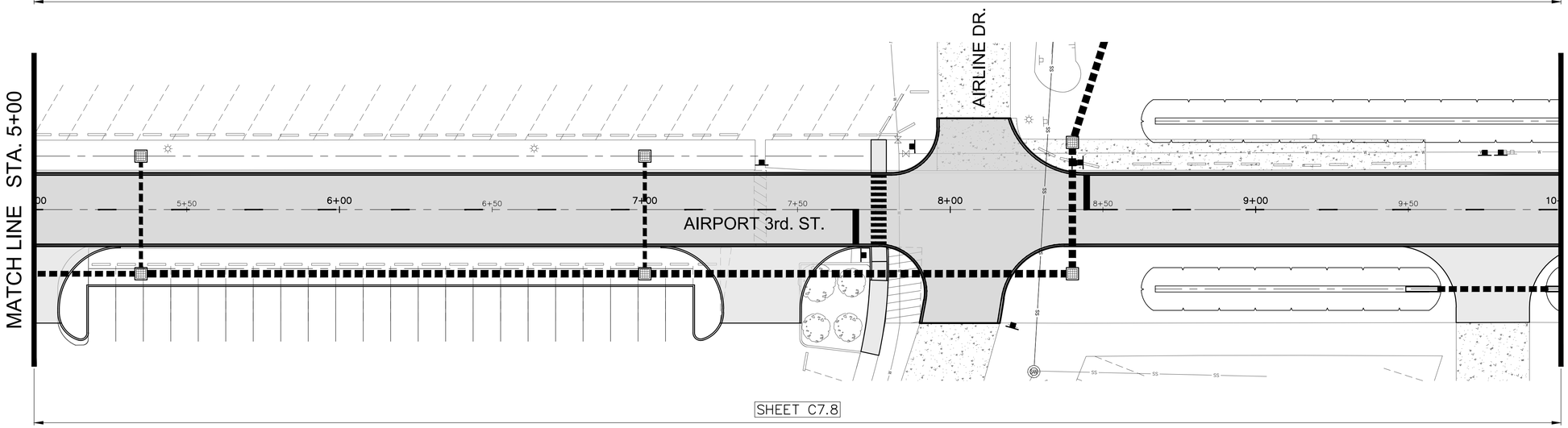
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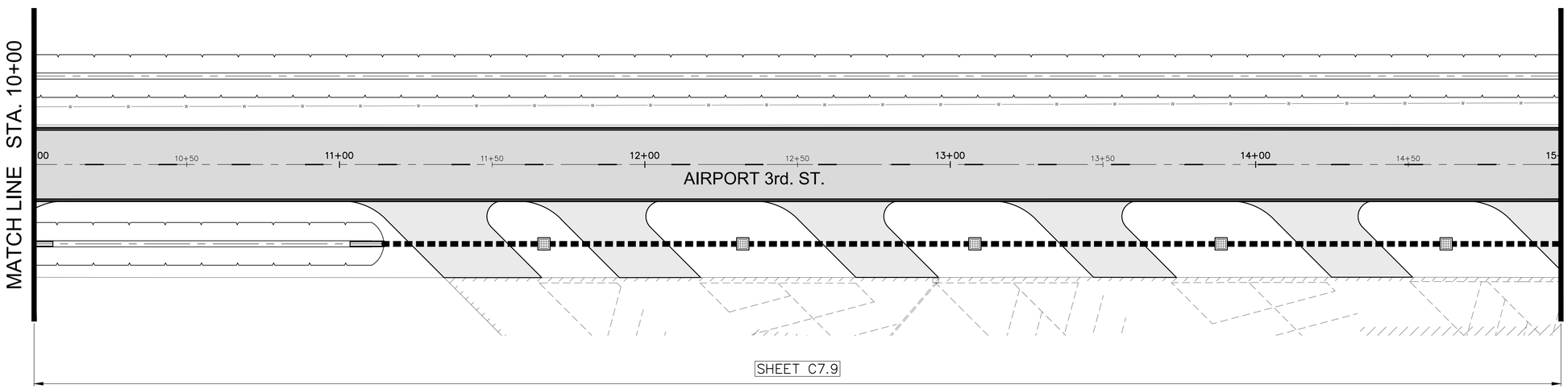
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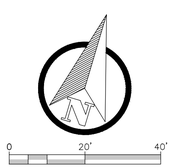
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www.fittzshipman.com
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STATE OF TEXAS
BERNARDINO D. TRISTAN
117017
LICENSED PROFESSIONAL ENGINEER
Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

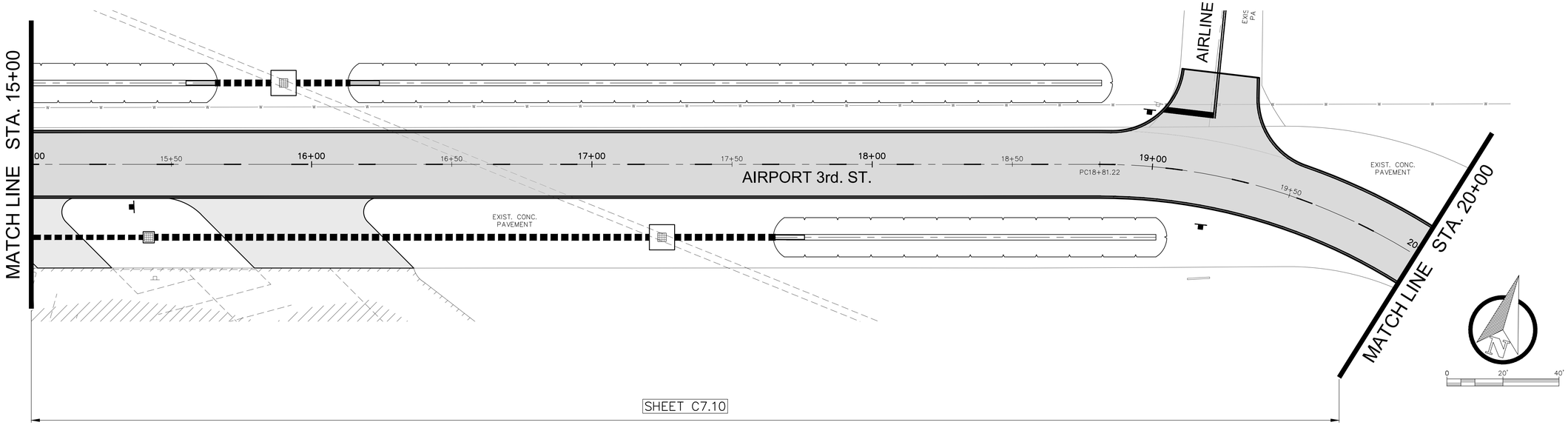
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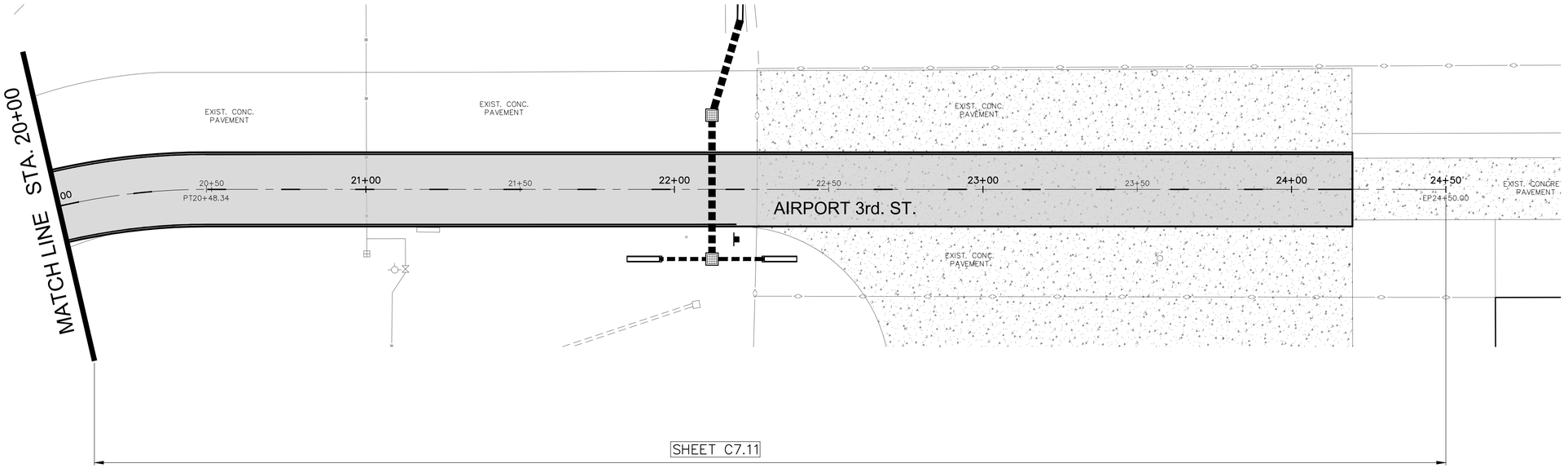
AIRORT 3RD. ST.
PROJECT
LAYOUT
STA. 0+00 - 15+00

C3.4

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STATE OF TEXAS
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117017
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Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

FS PROJECT #	21200.000
DATE:	Jan 09, 2023
SCALE:	1" = 20'
DRAWN BY:	J.L.H.
CHECK BY:	B.T.
FS DRAWING NAME:	21200.000_CE_SITE

AIRORT 3RD. ST.
PROJECT
LAYOUT
STA. 15+00 - 24+50

C3.5

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General Notes and Specifications
General Notes:

1. The contractor will establish the project control point, points of tangency, pi's (points of intersections), point of curvature (pc, pi and pt) and bench mark at the beginning and end of the project.

2. The contractor shall furnish all lines, grades and benchmarks, other than those specified above. Notify the Engineer immediately if discrepancies are discovered in the horizontal control or the benchmark data.

3. 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, except for roadway illumination, electrical, and traffic signal items.

4. The lengths of the posts for ground mounted signs are approximate. Verify the lengths before ordering these materials to meet the existing field conditions and to conform to the minimum sign mounting heights shown in the plans.

5. Unless otherwise shown on the plans or otherwise directed, commence work after sunrise and ensure construction equipment is off the road by sunset.

6. Do not mix or store materials, or store or repair equipment, on top of concrete pavement or bridge decks unless authorized by the Engineer. Permission will be granted to store materials on surfaces if no damage or discoloration will result.

7. The contractor will assume ownership of debris and dispose of at an approved location. Do not dispose of debris on private property unless approved in writing by the Engineer.

8. Control the dust caused by construction operations. For sweeping the finished concrete pavement, use one of the following types of sweepers or equal:

Tricycle Type — Truck Type-4 Wheel
Wayne Series 900 — M-B Cruiser II
Elgin White Wing — Wayne Model 945
Elgin Pelican — Mobile TE-3
Mobile TE-4
Murphy 4042

9. Schedule construction operations such that preparing individual items of work follows in close sequence to constructing storm drains in order to provide as little inconvenience as practical to the businesses and residents along the project.

10. Contractor shall limit his work zone for pavement demolition and concrete placement to three (3) blocks. Concrete placement for new pavement must be complete within one (1) block of the existing roadway/pavement before demolition in the next three (3) blocks can be initiated.

11. Schedule work so that the base placement operations follow the subgrade work as closely as practical to reduce the hazard to the traveling public and to prevent undue delay caused by wet weather.

12. The Contractor's construction schedule shall be based upon the Contract Time. The Contract Time has an inclusion of Thirty (30) calendar days of inclement weather as defined in Article 54.b, c & d of the General Conditions. No request for an extension of Contract time will be considered until the actual number of inclement weather days exceeds the number of days set out herein.

13. When design details are not shown on the traffic control plans, modifications to the proposed traffic control plan to meet site conditions by either adding more detour, warning and traffic signs as approved by the engineer shall not be paid for separately but shall be considered subsidiary to the traffic control bid items. Temporary pavement markings will be paid for under its unit bid item cost. Signs and arrows shall conform to the latest "Standard Highway Sign Designs for Texas" manual.

14. County forces will maintain the existing section of streets and its appurtenances not a part of this project except that those sections damaged by the contractor's forces shall be repaired by the contractor at his entire expense.

15. The contractor shall be responsible for all maintenance of the travel way and appurtenances within the barricades for the duration of the project. No direct payment will be made for maintenance of the travel way and appurtenances within the barricades, but shall be subsidiary to various bid items.

16. All authorized waste material shall become the property of the contractor and shall be disposed of at a place off the right-of-way and approved by the engineer.

17. The contractor shall maintain adequate drainage throughout the limits of the project during all construction phases.

18. The contractor shall allow county forces to enter this project to accomplish such work as shown in the plans (by others) and as may be deemed necessary by the engineer.

19. All drainage structures shall be cleaned and outfall channels unobstructed at the time of acceptance by the county.

20. Ingress and egress to adjacent property shall be provided and maintained by the contractor at all times. This will not be paid for separately but shall be considered subsidiary to various bid Items.

21. The Contractor will utilize an independent Geotechnical Testing Laboratory to sample all concrete structures and make and test all concrete cylinders and test all roadway density controlled base and or subgrades in accordance with the test methods provided for under the TxDOT Standard Specifications for Construction of Highways, and Bridges (Adopted November 2014). This will not be paid for separately but shall be considered subsidiary to various bid Items.

22. The approximate locations of the known underground utility installations are shown on the plans. The contractor shall be responsible for confirming the exact location of these utility lines and of any others which may exist. No delay claim is allowed because of utility conflicts. It shall be the contractor's responsibility to notify the utility involved in case of conflict or damage and the contractor shall be held responsible for any damage that occurs due to negligence. Where the contractor encounters abandoned lines that interfere with the construction of this project, such lines shall be removed and disposed of by the contractor. There will be no direct payment for this work and it shall be considered subsidiary to the various bid items in the contract. Before excavating near existing utilities, contact the utility companies or the utility coordinating committee for exact locations to prevent damage or interference with present facilities. Notify the utility coordinating committee and the Texas One Call System. at the following numbers:

Texas One Call, toll-free 1-800-245-4545

UTILITY	TELEPHONE NO.	
CONTACT PERSON		
AT & T	O: 409.839.7851	Eddie Cook
Telephone Company	M: 409.924.1495	
	O: 409.893.1666	Cliff Palermo
	M: 409.291.9489	
Texas Gas Service	O: 409.963.0263	
Patrick Sam	M: 409.460.9236	
City of Nederland	O: 409.723.1541	Robert Woods
Public Works		
Entergy	O: 409.982.5810	Ron Fletcher
	M: 409.974.8663	
Spectrum	O: 409.720.5565	Adam LaRive

This action does not relieve the Contractor of the responsibilities under the terms of the contract or the plans and specifications. Damage caused by the Contractor's operations shall be repaired and restored to service in a timely manner at no expense to the County.

23. Notify the Engineer at least 48 hours before constructing junction boxes at intersections of storm drains and utilities.

24. Install or remove poles, street lights and luminaires located near overhead or underground electrical lines using established industry and utility safety practices. Consult the appropriate utility company before beginning such work.

25. If overhead or underground power lines need to be de-energized, contact the electrical service provider to perform this work. Costs associated with de-energizing the power lines or other protective measures required are at no expense to the County.

26. If working near power lines, comply with the appropriate sections of Texas State Law and Federal Regulations relating to the type of work involved.

27. Perform electrical work in conformance with the National Electrical Code (NEC) and County standard sheets.

28. All materials, labor and incidentals required for the contractor to provide for traffic across the streets and for temporary ingress and egress to private property shall be furnished by the contractor at no additional cost to the county and shall be considered as incidental to the various bid items in this project.

29. The contractor shall furnish a certified tabulation of measurements, tare weights and allowable legal gross weight calculations for all trucks, etc., prior to their use on the project. Each truck shall be identified by a permanent and plainly legible number located on the truck and on the bed of the truck and/or trailer.

30. Any storm water permit and associated fees required for construction of this project shall be at the contractor's expense. Also, any temporary erosion, sediment and water control measures required shall be in accordance with the details shown in the plans and all work and materials required shall be paid for under the item "Temporary Erosion, Sedimentation & Environmental Controls".

31. Storm water grading permit is required for this project and shall be filed by the contractor at the contractor's expense.

32. Procure all the necessary city, county and/or state permits and licenses before the start of this project.

33. Prepare, maintain and submit for approval, a project schedule using CPM or similar project planning method. Also, submit contractor's contact personnel's telephone or cell phone numbers in case of emergencies during and after working hours.

34. Move existing signs, mailboxes, delineators and any other similar obstructions that interfere with construction to temporary locations approved by the engineer. Move them back to their permanent positions when the work progresses to the point where this is possible. Place the sign post back in accordance with the applicable standard sheets. (Pozloc System). This will not be paid for directly and will be considered subsidiary to various bid items.

35. The contractor shall maintain adequate drainage throughout the limits of the project during all construction phases. The contractor will provide all necessary labor, equipment, temporary conveyance materials and all other incidentals and cost associated with this task to prevent flooding of roadway pavements, roadside ditches and properties on areas were construction work has started and/or on areas within project limits that will affect public safety and property damage during a storm event. Storm water will be conveyed and discharged into existing and new storm sewer structures. This work will not be measured or paid for directly but will be subsidiary to pertinent items. On areas within scope of work where water is ponding and or flooding during a rain event and as directed by the engineer, the contractor shall provide drainage and maintain temporary drainage structures and facilities which are necessary to facilitate drainage. All incidental labor, equipment, temporary material and incidental cost will not be measured or paid for directly but will be subsidiary to pertinent items.

36. Care shall be taken when moving existing property irrigation or sprinkling water facilities and its appurtenances that interfere with construction. Contractor shall temporarily relocate or disassemble, disable, and plug these facilities at their temporary location. Contractor shall restore, reconnect and activate property irrigation or sprinkling facilities its original condition or better when work is completed. This work will not be measured or paid for directly but will be subsidiary to pertinent items.

Specifications:

ITEM 5: CONTROL OF WORK

Any earthwork cross-sections, computer printouts, data files and any other information provided is for non-construction purposes only and it is the responsibility of the prospective bidder to validate the data with the appropriate plans, specifications and estimates for the projects. Contact the Fittz & Shipman, Inc. located at 1405 Cornerstone Court (409) 832-7238.

ITEM 7: LEGAL RELATIONS AND RESPONSIBILITIES

Furnish all materials, labor and incidentals required to provide for traffic across the highway and for temporary ingress and egress to private property in accordance with article 7.7 of the standard specifications at no additional cost to the County. This shall be incidental to the bid items on this project.

Maintain the roadway slope stability. Temporary retaining structures or shoring may be required. Before installing any proposed temporary retaining structures or shoring, secure written approval. Submit design calculations, working drawings and a plan of operations including sequencing. Maintaining slope stability is subsidiary to the various bid items.

This contract requires work performed on railroad property. Cooperate with the railroads and comply with all of their requirements including obtaining any training they require before performing work on railroad property.

ITEM 8: PROSECUTION AND PROGRESS

Gather information and direct attention to the aspects of adjoining projects that may be in progress during the construction of a portion of this project. Plan and prosecute the sequence of construction and the traffic control plan with adjacent construction projects so as not to interfere with, or hinder the completion of the work in progress on the adjoining projects. Coordinate projects to ensure an uninterrupted flow of traffic.

BID ITEM NOTES

ITEM 104: REMOVING CONCRETE

- All concrete (sidewalks, driveways, slabs, pavements, etc.) will be saw cut to full depth at connection points to existing pavements. Saw cutting of all concrete (sidewalks, driveways, slabs, pavements, etc.) and as directed by engineer for removing concrete will not be measured or paid for directly but will be subsidiary to pertinent items.
- Replace that portion of the pavement removed for storm sewer installation with ten (10) inches of flexible base and one (1) inch of asphaltic concrete pavement. This work will be considered subsidiary to this item.
- Removal of concrete curb is subsidiary to this item.

ITEM 110: EXCAVATION

- All excavated material not used on this project shall be the property of the contractor and disposed of at a site approved by the engineer. There will be no direct payment for hauling of excess excavated material, but shall be considered subsidiary to the item 110 "Excavation".
- Excavation shall be a plans quantity measurement item. Payment shall be based on the quantity as shown in the proposal sheet. Additional compensation will be considered for extra excavation due to field change which effect the total quantity more than 5%.
- If manipulating the excavated material requires moving the same material more than once to accomplish the desired results, the excavation is measured and paid for only once regardless of the number of manipulations required.
- The total excavation quantity shown on the plans includes the quantity for excavating the material beyond the extents of the existing street to allow the installation of stabilized base, concrete pavement and asphalt stabilized shoulder as shown on the typical sections.
- Excavation required for the installation of drainage structures including but not limited to storm sewer, inlets, safety end treatment, etc. as well as re-grading the road side ditches shall be subsidiary to the associated bid item and not included in the excavation quantities.

ITEM 164 SEEDING FOR EROSION CONTROL

- Final grading and stabilization (seeding) shall be achieved as soon as possible and not scheduled only for the end of the project. Final grading and stabilization should be initiated as the overall work progresses.
- Multiple mobilizations of the seeding crews will be expected to comply with the TCEQ Requirements for Construction General Permit of the Texas Pollution Elimination Discharge System requirements for re- vegetating disturbed soils.
- Eliminate seeding in areas of natural growth determined by the Engineer to have sufficient cover.

ITEM 168 VEGETATIVE WATERING

- Equip water trucks with sprinkler systems capable of covering the entire area to be seeded from the roadway.
- Water all newly placed seeded areas the same day of installation. Thereafter, maintain the seeded areas in a well-watered condition and at no time allow the areas to dry to the condition that water stress is evident.
- Mechanical watering may not be required during periods of adequate moisture as determined by the Engineer.
- Furnish and apply water at a rate of 6.788 Mega gallons per acre per cycle.
- Comply with stabilization requirements for 70% grass coverage; uniform vegetative coverage is required. During this period, meter and operate water equipment under pumping pressure capable of delivering the required quantities of water necessary. For Permanent seeding each cycle shall be executed weekly for 12 weeks, unless directed otherwise by the Engineer. For Temporary seeding each cycle shall be executed weekly for 6 weeks, unless directed otherwise by the Engineer.
- Provide a log book showing daily water usage and receipts of water applied, in addition to metering the water equipment.
- Vegetative watering for seeding for erosion control shall be subsidiary to the associated bid item.

ITEM 210: ROLLING

- Compact embankment, subgrade, base, surface treatment, or base materials.
- The work performed, materials furnished, equipment, labor, tools, and incidentals will not be measured or paid for directly but will be subsidiary to pertinent Items.

ITEM 247: FLEXIBLE BASE

- Flexible base Type "A" GR 1-2, Density Control and complete in place shall be used on the project unless otherwise approved by the engineer.
- Flexible base materials shall be placed and compacted in a minimum of two lifts with a maximum loose material thickness of 8 inches. Compaction test will be taken at each lift as required by the Engineer. Minimum density shall be not less than 95% of maximum dry density as determined by test method TEX-1 14e & TEX-I 15-e.
- Subgrade shall be rolled and compacted to not less than 95% of maximum dry density as determined by test method TEX-1 14e & TEX-I 15-e. This work shall not be measured or paid for directly but will be subsidiary to pertinent items.

ITEM 340: DENSE GRADED HOT-MIX ASPHALT

- The transition surface areas to be overlaid shall be bladed, cleaned and broomed where necessary and tack coated as directed by the engineer. There will be no direct payment for this work, but shall be considered subsidiary to item 340.
- Siliceous granite and gravel, iron ore, or lightweight material will not be permitted on this project.
- The paving mixture shall consist of a uniform mixture of coarse aggregate, intermediate aggregate, fine, and asphalt material. Fine aggregate shall consist of manufactured sands, screenings, and field sands.
- Prime coating flexible base course for asphalt placement surfaces will not be paid for directly, but will be considered subsidiary to Item 340.
- Neither recycled asphalt shingles (RAS) or reclaimed asphalt pavement (RAP) shall be permitted to be used on this project.

ITEM 354: PLANING AND TEXTURING PAVEMENT

- Planning of asphalt surface is limited within the area of each sub-phase under construction.
- Planning of asphalt surface is for the purpose of asphalt material salvage and recycle.
- County has coordinated with the Jack Brook Airport and will provide an area on the southeast side of Jerry Ware Drive, just south of the fueling entrance near Airline Drive split for a laydown area and stockpiling.

NO.	ISSUED FOR	DATE

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Consulting Engineers and Land Surveyors
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STATE OF TEXAS
BERNARDINO D. TRISTAN
117017
LICENSED PROFESSIONAL ENGINEER
Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

FS PROJECT # 21200.000

DATE:	Jan 09, 2023
SCALE:	N.T.S.
DRAWN BY:	J.L.H.
CHECK BY:	B.T.

FS DRAWING NAME: 21200.000_CE_QUANTITIES & NOTES

GENERAL NOTES

C4.1

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ITEM 360: CONCRETE PAVEMENT

- Class P concrete shall be used for all concrete roadway pavements.
- Deformed reinforcement bar size, spacing and placement shall conform to Roadway Standards and Paving Details. Spacing adjustments may be required at the edges on both sides of the proposed concrete pavement lane widths as shown in the contract drawings.
- Wire mat reinforcements are not allowed for use on roadway construction for this project. Wire mat reinforcement will be allowed for use on driveways and sidewalk construction.
- The contractor may use transit mix concrete in accordance with the item "ready-mix plants".
- Where the pavement curb is left off for a later tie, provide the dowels or the tie bars as indicated on the paving detail sheets. The dowel bars and tie bars are subsidiary to the various bid items.
- Repair portions of the concrete pavement surfaces that are damaged while in a plastic state before that area receives permanent pavement markings and opens to traffic. Perform repairs that are structurally equivalent to and cosmetically uniform with the adjacent undamaged areas. Do not repair by grouting onto the surface.
- Set-retarding admixtures will not be allowed.
- Hand-finishing of concrete pavement will be permitted as directed by the engineer.
- Sawing of all joints shall begin as soon as sawing can be accomplished without damage to the pavement and completed before 12 hours has elapsed. Any random cracking of the pavement, which in the opinion of the engineer, is due to incomplete sawing operation shall be removed and replaced at the expense of the contractor.
- Class 5 self-leveling low modulus silicone sealant shall be used on this project.
- All longitudinal and transverse joints shall be sawed.
- Surface test Type "A" shall apply to this project.
- Concrete placement will not be permitted when impending weather conditions, in the opinion of the engineer, may result in rainfall or low temperatures which will impair the quality of the finishing work.
- The contractor shall have on the job site sufficient burlap or polyethylene fabric, as directed by the engineer, to cover a section of concrete pavement 600 feet long and 16 feet wide.
- Siliceous gravel will not be permitted in the mix design.
- The dowel support assemblies used in concrete pavement shall be constructed using number 1/0 (0.306 inch diameter) wire in the main vertical members. Dowels shall be rigidly supported in parallel positions and shall be welded on one end to support the frame. The weld attachment shall be made alternately on opposite ends of successive dowels. The support assembly shall be subject to the approval of the engineer.
- A minimum of 3/5th of each dowel bar shall be coated with hot-applied asphalt cement. The coating shall be placed on opposite ends of successive dowels.
- Saw cutting of all joints (transverse expansion joints, longitudinal construction joints, longitudinal sawed joints, transverse sawed joints and others) will not be paid for separately, but shall be considered subsidiary to pertinent items.
- Newly placed roadway pavement surfaces with crack(s) of any cause or nature will not be approved and accepted by the County. Crack(s) shall be repaired as shown on TxDOT Standard Full Depth Repair for Concrete Pavement (REPCP) - 14 before the acceptance of the project for maintenance by the Owner. This repair, including saw cutting of pavement full depth, reinforcing, tie and dowel bars, concrete and all incidental materials, saw cutting and sealing of joints, labor and equipment needed to complete the work shall be at the contractor's expense.

ITEM 400: EXCAVATION AND BACKFILL FOR STRUCTURES

- Structural excavation for pipes will not be paid for separately, but shall be considered subsidiary to pertinent items.
- As shown in the drawings, structural backfilling with cement stabilized backfill for pipes under roadway pavements and or outside roadway pavements around pipe zones will not be paid for separately, but will be considered subsidiary to pertinent items.
- Removal of existing storm sewer pipes as called for in the drawings will be paid for under the item for removal of pipes. Pipes removed under roadway pavements will be backfield with cement stabilized sand material up to the bottom of subgrade stabilization or base course. Pipes removed outside the roadway pavement will be backfield with suitable excavated ordinary material up to finish grade line. Cement stabilized sand backfill will be compacted to fill all voids and ordinary soil material will be compacted at 8" lifts equal to the surrounding undisturbed soil condition. Backfilling of cement stabilized sand for trench underneath roadway pavement and ordinary soil materials for trench outside roadway pavement will not be paid for separately, but will be considered subsidiary to pertinent items.

ITEM 465: MANHOLES AND INLETS

- The use of precast storm sewer manholes and/or inlets will not be permitted in this project.
- Inlet and manhole "ring and cover" shall be gray cast iron of part no. as shown in the plans. The dimensions and descriptions are shown on the plans. Dimensions may vary to the extent determined by the engineer.
- Excavation will not be paid for directly but shall be considered subsidiary to this bid item.
- Cement stabilized backfill shall be required around all inlets. The stabilized backfill shall not be paid for directly but shall be considered subsidiary to pertinent bid items.
- If building manholes or inlets in graded areas, first construct them to an elevation at least 4 in. above the top of the highest entering pipe and cover with a wooden cover. Complete the construction of such manholes or inlets to the finished elevation when completing the grading work for such manholes or inlets. Adjust the final elevation, if required, since this elevation is approximate.
- Construct manholes and inlets in paved areas to an elevation so their temporary wooden covers are flush with the surface of the base material.
- Do not leave excavations or trenches open overnight.

ITEM 500: MOBILIZATION

- Mobilization shall not exceed ten (10) percent of the total construction items amount.

ITEM 502: BARRICADES, SIGNS, AND TRAFFIC HANDLING

- Submit changes to the traffic control plan to the Engineer. Provide a layout showing the construction phasing, signs, striping, and signalizations for changes to the original traffic control plan.
- Furnish and maintain the barricades and warning signs, including the necessary temporary and portable traffic control devices, during the various phases of construction. Place and construct these barricades and warning signs in accordance with the latest "Texas Manual on Uniform Traffic Control Devices for Streets and Highways" for typical construction layouts.
- Furnish additional barricades and signs to maintain traffic and motorists' safety when directed by the Engineer. Consider payment for these additional signs and barricades subsidiary to Item 502.
- Cover work zone signs when work related to the signs is not in progress, or when any hazard related to the signs no longer exists.
- Keep the delineation devices, signs, and pavement markings clean. This work is subsidiary to the Item, "Barricades, Signs, and Traffic Handling".
- If a section is not complete before the end of the workday, pull back the base material to the existing pavement edge on a 6H: 1V slope. Edge drop-offs during the hours of darkness are not permitted.
- Do not mount signs on drums or barricades, except those listed in the latest Barricades and Construction standard sheets.
- Use traffic cones for daytime work only. Replace the cones with plastic drums during nighttime hours.
- Place positive barriers to protect drop-off conditions greater than 2 ft. within the clear zone that remain overnight. The traffic control plan (TCP) shall conform to the BC (1) - (12) standards and part VI of the Current Texas Manual Of Uniform Traffic Control Devices.
- Remove all traffic control devices from the roadway, off of the right of way, when they are not in use. Devices scheduled to be used within 3 days may be placed along the shoulder of the roadway or right of way when not in use, or stored in other approved areas on the project. Cover any construction signs that are not in effect that are installed in a fashion that will not allow them to be removed from the right of way easily.
- Use vertical panels instead of cones as traffic control devices.
- Construct all work zone signs, sign supports, and barricades from material other than wood unless approved by the engineer.
- Galvanize steel supports if used. Aluminum posts, if used, shall meet the following minimum thickness requirements:

Square Feet	Minimum Thickness
Less Than 7.5	0.080 Inches
7.5 To 1.5	0.100 Inches
Greater Than 1.5	0.125 Inches

- Plan the sequence of work so as to minimize inconvenience to the traveling public. Any changes to the traffic control plan shown in the plans must be approved in writing by the Engineer. Submit the revised plan for approval to the Engineer.
- The approval by the engineer of the method and procedure the contractor plans to use to handle or detour traffic will not relieve the contractor of his responsibility for the protection of the traveling public.
- Install temporary fence around the open pit by the end of each working day to safeguard pedestrian using the sidewalk. No payment shall be made for this work directly, but will be consider subsidiary to this item.
- Temporary traffic signalization as shown in the plans and Additional temporary traffic signalization not shown in the plans that is required to meet actual site conditions as directed by the engineer will not be measured or paid for separately, but will be considered subsidiary to this pay item.
- The Contractor shall submit to the County prior to start of any construction work, a hauling truck and construction vehicles route plan. This route plan shall show streets to be taken for trucks and vehicles either empty or hauling materials going in or out the construction areas scope of work. The Streets that are to be used as truck and vehicle routes shall be truck loads roadway bearing pavements. Upon approval of the Engineer, this truck routing plan will be strictly implemented. Any changes that is required as construction phases progresses will be reviewed and approved by the Engineer. This work will not be measured or paid for separately, but will be considered subsidiary to this pay item. Construction Exit shall be paid for under Item 506.
- The Contractor shall prepare proposed revised traffic Detour Plan for the construction of Airport Pavement Replacement project. This shall be coincidental with the construction progress of work phases. Any addition barricades, warning and detour signs, including the necessary temporary and portable traffic control devices to detour and control traffic during the construction of the Jerry Ware Drive and 3rd Street Pavement Replacement Project will not be measured or paid for separately, but will be considered subsidiary to this pay item.
- Additional Barricades, warning and detour signs, including the necessary temporary and portable traffic control devices to detour and control traffic along 1st Street, Jerry Ware Drive and 3rd Street during the construction of County Utilities as required by the Engineer within limits and scope of project work will not be measured or paid for separately, but will be considered subsidiary to this pay item. Water and Sanitary Sewer installations will be paid under its respective Items. Temporary Asphalt Pavement restoration and Temporary Pavement Markings will be paid under its respective Items.

ITEM 506: TEMPORARY EROSION, SEDIMENTATION AND ENVIRONMENTAL CONTROL

- A Storm Water Pollution Prevention Plan (SWP3) is required for submittal when the disturbed area is 1 acre and greater, with the "Notice of Intent" (NOI) as required. The NOI will be completed and filed by the Contractor at the contractor's own expense.
- Use appropriate measures to prevent, minimize, and control the spill of hazardous materials in the construction staging area. Remove and dispose of materials in compliance with State and Federal laws.
- Before starting construction, review with the Engineer the SW3P used for temporary erosion control as outlined on the plans. Before construction, place the temporary erosion and sedimentation control management practices as shown on the SWP3.
- Before starting grading operations and during the project duration, place the temporary or permanent erosion control measures to prevent sediment from leaving the right of way.
- Implement temporary and permanent erosion control measures to comply with the Texas Pollution Discharge Elimination System (TPDES) general permit.
- Schedule the sodding work as soon as possible after completing earthwork operations, restore and sod the disturbed areas in accordance with the County's specifications for permanent or temporary erosion control.

ITEM 530: INTERSECTIONS, DRIVEWAYS, AND TURNOUTS

- Saw cutting of concrete and asphalt pavement at break back line as shown in the drawings for Intersections, Driveways and Turnouts shall not be paid for separately, but shall be subsidiary to this unit bid item. Any additional modifications and incidental saw cutting of concrete and asphalt pavement at intersections, driveways, and turnouts required to meet existing site conditions, construction grade standards as shown in the drawings and as directed by the engineer will not be measured or paid for directly but will be subsidiary to pertinent items.
- Any additional saw cutting of existing driveways pavements beyond Right of Way lines inside private property as permitted by the owner, not shown in the drawings as determined and ordered by the Engineer to meet standard grade requirements will not be measured or paid for directly but will be subsidiary to pertinent items.

ITEM 585: RIDE QUALITY FOR PAVEMENT SURFACES - TXDOT PAVEMENTS

- Service Roads and Ramps. Use Surface Test Type A (10 ft straight edge) on service roads and ramps.
Short Projects. Use Surface Test Type A when project pavement length is less than 2,500 ft.

ITEM 644: SMALL ROADSIDE SIGN SUPPORTS AND ASSEMBLIES

- Sign locations shown on the plans are approximate before placing them, obtain approval of the engineer and then stake the exact locations for these signs. For this project, existing signs shall be removed, stored, and replaced. Any signs or posts damaged during the removal or storage process shall be replaced with identical products at the contractor's expense. All expenses, equipment, materials, and appurtenances required to remove and replace the existing small road signs will be paid for under this item.
- Use the Texas universal triangular slip base with the concrete foundation for small ground mounted signs, unless otherwise shown in the plans.
- When design details are not shown on the plans, provide signs and arrows conforming to the latest "Standard Highway Sign Designs for Texas" manual.

ITEM 666: RETROREFLECTORIZED PAVEMENT MARKINGS

- Furnish Type II drop-on glass beads per TxDOT Specifications.

ITEM 677: ELIMINATING EXISTING PAVEMENT MARKINGS AND MARKERS

- Remove all contaminates and loose material. Consider this work to be subsidiary to the various bid items of the contract.
- Remove existing raised pavement markers where indicated prior to the addition of the asphaltic pavement or seal coat. Dispose of the removed markers form the project at the end of each workday. Consider this work to be subsidiary to the various bid items of the contract.

ITEM 760: DITCH CLEANING AND RESHAPING

- This item will be used to clean and regrade the existing ditches to the grades as shown in plans to provide adequate drainage for the existing and/or proposed roadway. Any excavation and backfill will be considered subsidiary and included in the price per linear foot.
- This item will be used as shown in plans when ditch to filled or excavated. Fill material shall be in accordance with Item 110 Excavation but will be included in the cost per linear foot in this item to depths shown in plans to provide proper drainage.

End of General Notes

GOVERNING CONSTRUCTION SPECIFICATIONS

The governing construction specifications applicable to this work are the Texas Department of Transportation (TXDOT) 2014 Standard Specifications for Construction of Highways, Streets and Bridges as adopted by the State of Texas.

These items which are listed below and which are contained in the TX DOT 2004 Standard Specifications are hereby adopted and made part of the Contract Documents to the same extent as if they were herein reproduced in full subject to such modifications, revisions or supplements as may appear in the section entitled Special Provisions in these Contract Documents to follow:

Standard Specifications:

Item 100 Preparing Right of Way
Item 104 Removing Concrete
Item 105 Removing Treated and Untreated Base and Asphalt Pavement
Item 110 Excavation (132)
Item 134 Backfilling Pavement Edges
Item 164 Seeding for Erosion Control
Item 168 Vegetative Watering
Item 210 Rolling
Item 216 Proof Rolling
Item 247 Flexible Base
Item 260 Lime Treatment
Item 276 Cement Treatment (Plant Mix) (204)(210)(216)(300)(520)
Item 300 Asphalts, Oils, and Emulsions
Item 340 Dense-Graded Hot-Mix Asphalt (Method) (300)(301)(320)(520)(585)
Item 354 Planning and Texturing Pavement
Item 360 Concrete Pavement (421)(420)(438)(440)(529)
Item 400 Excavation and Backfill for Structures (132)(402)
Item 438 Cleaning and Sealing Joints
Item 440 Reinforcing Steel
Item 465 Junction Boxes, Manholes and Inlets (420)(421)(427)(440)(442)(471)
Item 471 Frames, Grates, Rings, and Cover
Item 500 Mobilization
Item 502 Barricades, Signs, & Traffic Handle
Item 506 Temporary Erosion, Sedimentation and Environmental Control
Item 529 Concrete Curb and Gutter (360)(420)(421)(440)
Item 530 Driveways and Turnouts (247)(276)(360)(421)(440)
Item 585 Ride Quality for Pavement Surfaces
Item 636 Signs
Item 666 Retroreflectorized Pavement Markings
Item 678 Pavement Surface Preparation Surfaces

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STATE OF TEXAS
BERNARDINO D. TRISTAN
117017
LICENSED PROFESSIONAL ENGINEER
Jan 09, 2023

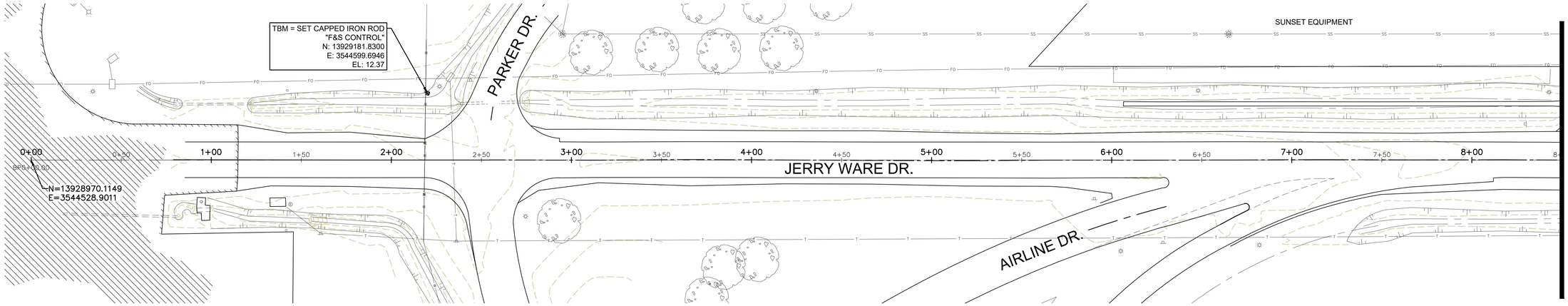
JACK BROOKS REGIONAL AIRPORT

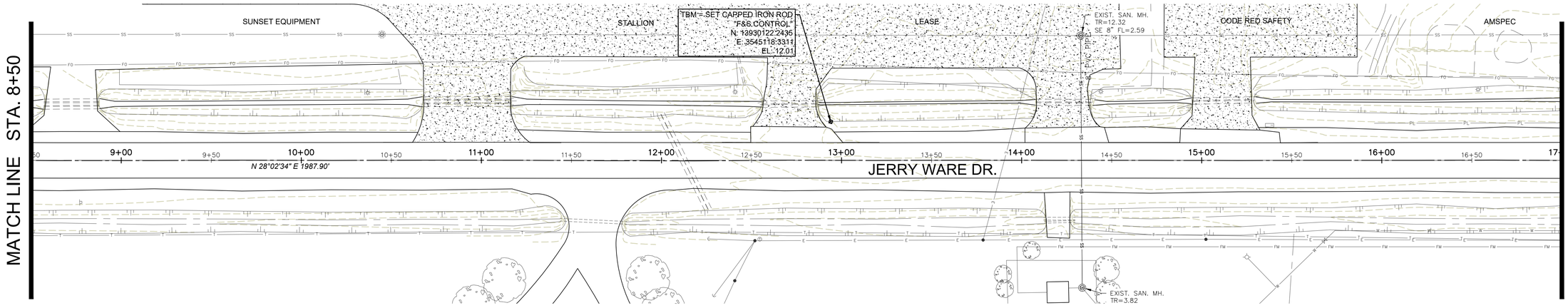
FS PROJECT # 21200.000
DATE: Jan 09, 2023
SCALE: N.T.S.
DRAWN BY: J.L.H.
CHECK BY: B.T.
FS DRAWING NAME: 21200.000_CE_QUANTITIES & NOTES

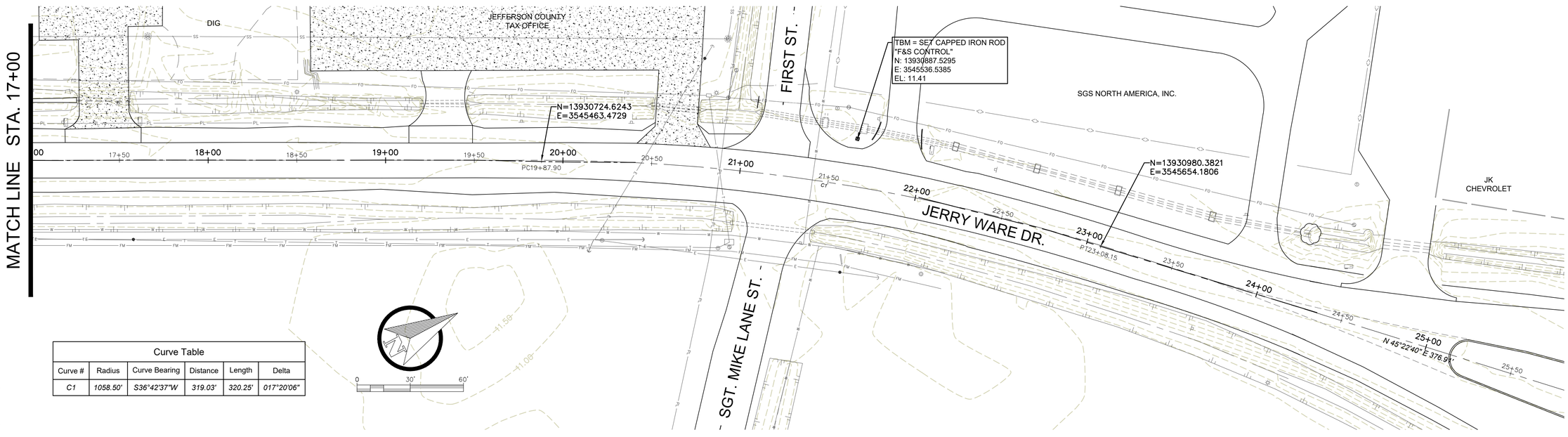
GENERAL NOTES

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Curve Table					
Curve #	Radius	Curve Bearing	Distance	Length	Delta
C1	*1058.50'*	*S36°42'37"W*	*319.03'*	*320.25'*	*017°20'06"*

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STATE OF TEXAS
BERNARDINO D. TRISTAN
117017
LICENSED PROFESSIONAL ENGINEER
Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

FS PROJECT #	21200.000
DATE:	Jan 09, 2023
SCALE:	1" = 30'
DRAWN BY:	J.L.H.
CHECK BY:	B.T.
FS DRAWING NAME:	21200.000_CE_SITE

JERRY WARE DR.
SURVEY
CONTROL

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TBM = SET CAPPED IRON ROD
"F&S CONTROL"
N: 13928518.3647
E: 3545029.5370
EL: 12.39

AIRLINE DR.

N=13928477.8434
E=3545030.4614

AIRPORT 3rd. ST.

TBM = SET CAPPED IRON ROD
"F&S CONTROL"
N: 13928757.3461
E: 3545815.9379
EL: 11.10

AIRLINE DR.

MATCH LINE STA. 8+50

MATCH LINE STA. 8+50

9+00 9+50 10+00 10+50 11+00 11+50 12+00 12+50 13+00 13+50 14+00 14+50 15+00 15+50 16+00 16+50

N 73°31'06" E 1881.22'

AIRPORT 3rd. ST.

4" PVC SAN. SEWER LINE

MATCH LINE STA. 17+00

0 30' 60'

MATCH LINE STA. 17+00

TBM = SET CAPPED IRON ROD
"F&S CONTROL"
N: 13929057.8610
E: 3546835.2026
EL: 8.74

SGT. MIKE LANE ST.

17+50 18+00 18+50 19+00 19+50

AIRPORT 3rd. ST.

PC18+81.22

N=13929011.5598
E=3546834.3786

C1

38

MATCH LINE STA. 20+00

MATCH LINE STA. 20+00

20+50 21+00 21+50 22+00 22+50 23+00 23+50 24+00 24+50

AIRPORT 3rd. ST.

PT20+48.34

N=13928994.2513
E=3546996.2854

S 61°18'52" E 401.66'

EP24+50.00

N=13928801.4525
E=3547348.6498

0 30' 60'

Curve Table					
Curve #	Radius	Curve Bearing	Distance	Length	Delta
C1	*212.00'*	*N83°53'53"W*	*162.83'*	*167.12'*	*045°10'02"*

Q:\PROJECTS\21200 - JBRA LS Pavement Repairs\Civil\Drawings_Current\21200.000_CE_SITE.dwg Jan 09, 2023 02:23pm

NO.	ISSUED FOR	DATE

Fittz&Shipman INC.
Consulting Engineers and Land Surveyors
1405 Cornerstone Court Beaumont, TX. 77706
Ph. (409) 832-7238 Fax. (409) 832-7303
www.fittzshipman.com
T.B.P.E. Firm #1160 T.X.L.S. Firm #100186

STATE OF TEXAS
BERNARDINO D. TRISTAN
117017
LICENSED PROFESSIONAL ENGINEER
Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

FS PROJECT #	21200.000
DATE:	Jan 09, 2023
SCALE:	1" = 30'
DRAWN BY:	J.L.H.
CHECK BY:	B.T.
FS DRAWING NAME:	21200.000_CE_SITE

AIRPORT 3rd. ST.
SURVEY
CONTROL

C5.2

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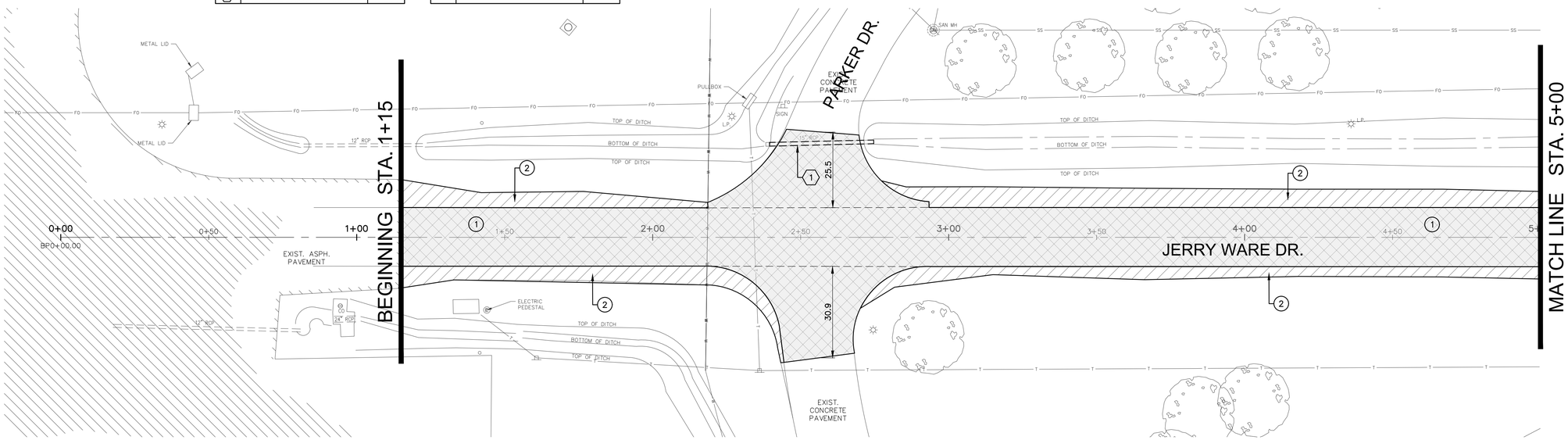
STORM SEWER DEMOLITION TABLE		
ID #	DESCRIPTION	UNIT
1	REMOVE EXIST. 15" R.C.P.	35 L.F.
2	REMOVE EXIST. 18" R.C.P.	37 L.F.
3	REMOVE EXIST. 18" R.C.P.	18 L.F.
4	REMOVE EXIST. 12" R.C.P.	17 L.F.
5	REMOVE EXIST. 15" R.C.P.	21 L.F.
6	REMOVE EXIST. 15" R.C.P.	21 L.F.
7	REMOVE EXIST. 18" R.C.P.	45 L.F.

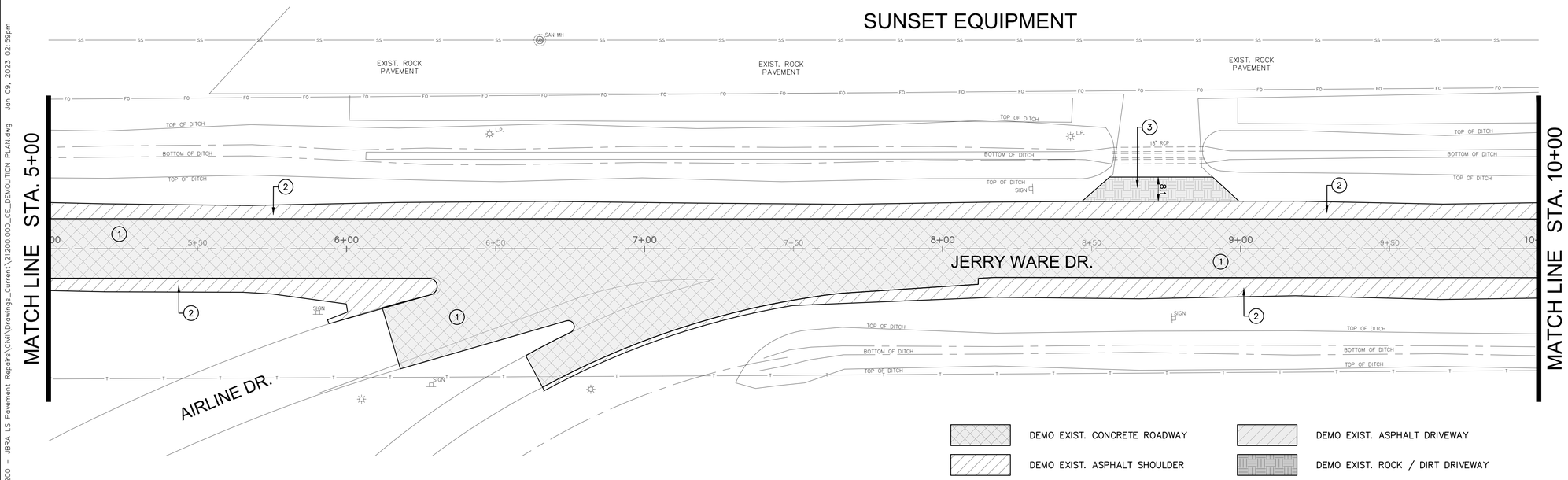
STORM SEWER DEMOLITION TABLE		
ID #	DESCRIPTION	UNIT
8	REMOVE EXIST. 18" R.C.P.	45 L.F.
9	REMOVE EXIST. 18" R.C.P.	45 L.F.
10	REMOVE EXIST. 18" R.C.P.	45 L.F.
11	REMOVE EXIST. 18" R.C.P.	52 L.F.
12	REMOVE EXIST. 18" R.C.P.	52 L.F.
13	REMOVE EXIST. 24" R.C.P.	48 L.F.

MISC. DEMOLITION TABLE		
ID #	DESCRIPTION	UNIT
1	REMOVE CONC. INLET	1
2	REMOVE CONC. INLET	1
3	REMOVE CONC. INLET	1
4	REMOVE CONC. INLET	1
5	REMOVE CONC. INLET	1
6	REMOVE CONC. INLET	1

PAVING DEMOLITION TABLE		
ID #	DESCRIPTION	UNIT
1	REMOVE CONCRETE ROADWAY	49,170 SF.
2	REMOVE ASPHALT SHOULDER	23,965 SF.
3	REMOVE ROCK / LIMESTONE DRIVEWAY	353 SF.
4	REMOVE ASPHALT DRIVEWAY	529 SF.
5	REMOVE ASPHALT DRIVEWAY	1,019 SF.
6	REMOVE ASPHALT DRIVEWAY	412 SF.

PAVING DEMOLITION TABLE		
ID #	DESCRIPTION	UNIT
7	REMOVE ROCK / LIMESTONE DRIVEWAY	483 SF.
8	REMOVE ASPHALT DRIVEWAY	417 SF.
9	REMOVE ASPHALT DRIVEWAY	399 SF.
10	REMOVE ASPHALT DRIVEWAY	391 SF.
11	REMOVE ASPHALT DRIVEWAY	1,135 SF.
12	REMOVE CONCRETE DRIVEWAY	402 SF.





DEMO EXIST. CONCRETE ROADWAY

DEMO EXIST. ASPHALT SHOULDER

DEMO EXIST. CONC. DRIVEWAY

DEMO EXIST. ASPHALT DRIVEWAY

DEMO EXIST. ROCK / DIRT DRIVEWAY

REGRADE EXIST. DITCH

SITE LEGEND

- LIGHT POLE
- P.P. — P.P.
- SIGN
- WATER VALVE
- WATER METER
- RPZ VALVE
- FIRE HYDRANT
- FDC
- BENCH MARKS
- IRON ROD (SET)
- IRON ROD (FOUND)
- CONCRETE MONUMENT
- "X" SCRIBED IN CONC
- MONITORING WELL
- GAS METER
- (E) ELECTRIC PEDESTAL
- (T) TELEPHONE PEDESTAL
- (FO) FIBER OPTIC PEDESTAL
- (ET) ELECTRIC TRANSFORMER
- GUY ANCHOR
- (S) SANITARY MANHOLE
- (CO) SANITARY CLEANOUT
- MAILBOX
- STORM MANHOLE
- STORM GRATE INLET

SITE LEGEND

- STORM SEWER LINE
- FIBER OPTIC LINE — FO —
- TELEPHONE LINE — T —
- CABLE TV LINE — TV —
- GAS LINE — G —
- FORCE MAIN LINE — FM —
- SANITARY SEWER — SS —
- PIPELINE — PL —
- ELECTRIC LINE — E —
- WATER LINE — W —
- BARBED WIRE FENCE — X —
- CHAINLINK FENCE
- IRON FENCE
- WOOD FENCE

0 20' 40'

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STATE OF TEXAS
BERNARDINO D. TRISTAN
117017
LICENSED
PROFESSIONAL ENGINEER
Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

FS PROJECT #	21200.000
DATE:	Jan 09, 2023
SCALE:	1" = 20'
DRAWN BY:	J.L.H.
CHECK BY:	B.T.
FS DRAWING NAME:	21200.000_CE_DEMOLITION PLAN

JERRY WARE DR. DEMOLITION PLAN STA. 0+00 - 10+00

C6.1

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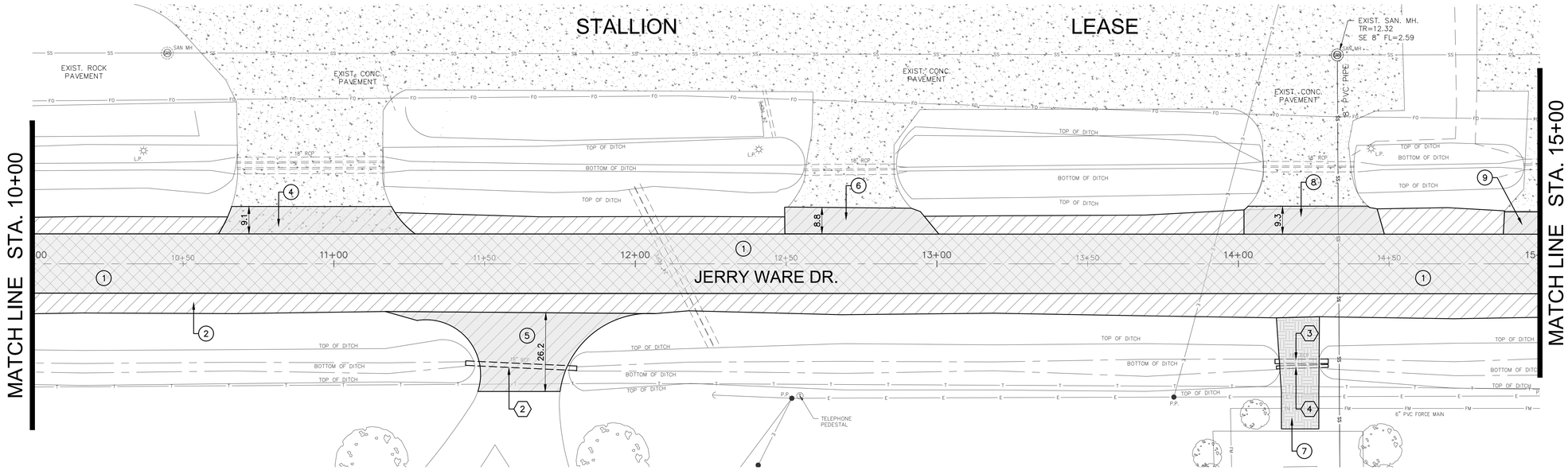
STORM SEWER DEMOLITION TABLE		
ID #	DESCRIPTION	UNIT
1	REMOVE EXIST. 15" R.C.P.	35 L.F.
2	REMOVE EXIST. 18" R.C.P.	37 L.F.
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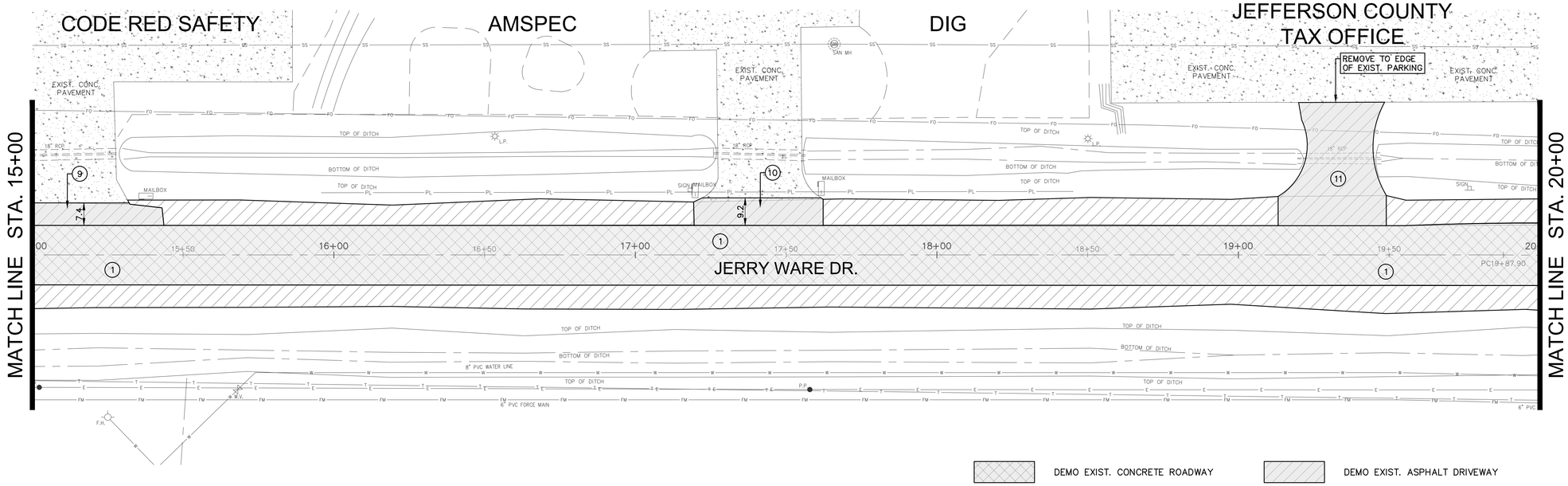
STORM SEWER DEMOLITION TABLE		
ID #	DESCRIPTION	UNIT
8	REMOVE EXIST. 18" R.C.P.	45 L.F.
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13	REMOVE EXIST. 24" R.C.P.	48 L.F.

MISC. DEMOLITION TABLE		
ID #	DESCRIPTION	UNIT
1	REMOVE CONC. INLET	1
2	REMOVE CONC. INLET	1
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4	REMOVE CONC. INLET	1
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6	REMOVE CONC. INLET	1

PAVING DEMOLITION TABLE		
ID #	DESCRIPTION	UNIT
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PAVING DEMOLITION TABLE		
ID #	DESCRIPTION	UNIT
7	REMOVE ROCK / LIMESTONE DRIVEWAY	483 SF.
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12	REMOVE CONCRETE DRIVEWAY	402 SF.





DEMO EXIST. CONCRETE ROADWAY
DEMO EXIST. ASPHALT SHOULDER
DEMO EXIST. CONC. DRIVEWAY
DEMO EXIST. ASPHALT DRIVEWAY
DEMO EXIST. ROCK / DIRT DRIVEWAY
REGRADE EXIST. DITCH

SITE LEGEND

- LIGHT POLE
- P.P. — P.P.
- SIGN
- WATER VALVE
- WATER METER
- RPZ VALVE
- FIRE HYDRANT
- FDC
- BENCH MARKS
- IRON ROD (SET)
- IRON ROD (FOUND)
- CONCRETE MONUMENT
- "X" SCRIBED IN CONC
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- GAS METER
- ELECTRIC PEDESTAL
- TELEPHONE PEDESTAL
- FIBER OPTIC PEDESTAL
- ELECTRIC TRANSFORMER
- GUY ANCHOR
- SANITARY MANHOLE
- SANITARY CLEANOUT
- MAILBOX
- STORM MANHOLE
- STORM GRATE INLET

SITE LEGEND

- STORM SEWER LINE
- FIBER OPTIC LINE — FO
- TELEPHONE LINE — T
- CABLE TV LINE — TV
- GAS LINE — G
- FORCE MAIN LINE — FM
- SANITARY SEWER — SS
- PIPELINE — PL
- ELECTRIC LINE — E
- WATER LINE — W
- BARBED WIRE FENCE — X
- CHAINLINK FENCE
- IRON FENCE
- WOOD FENCE

0 20' 40'

NO.	ISSUED FOR	DATE

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LICENSED PROFESSIONAL ENGINEER
Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

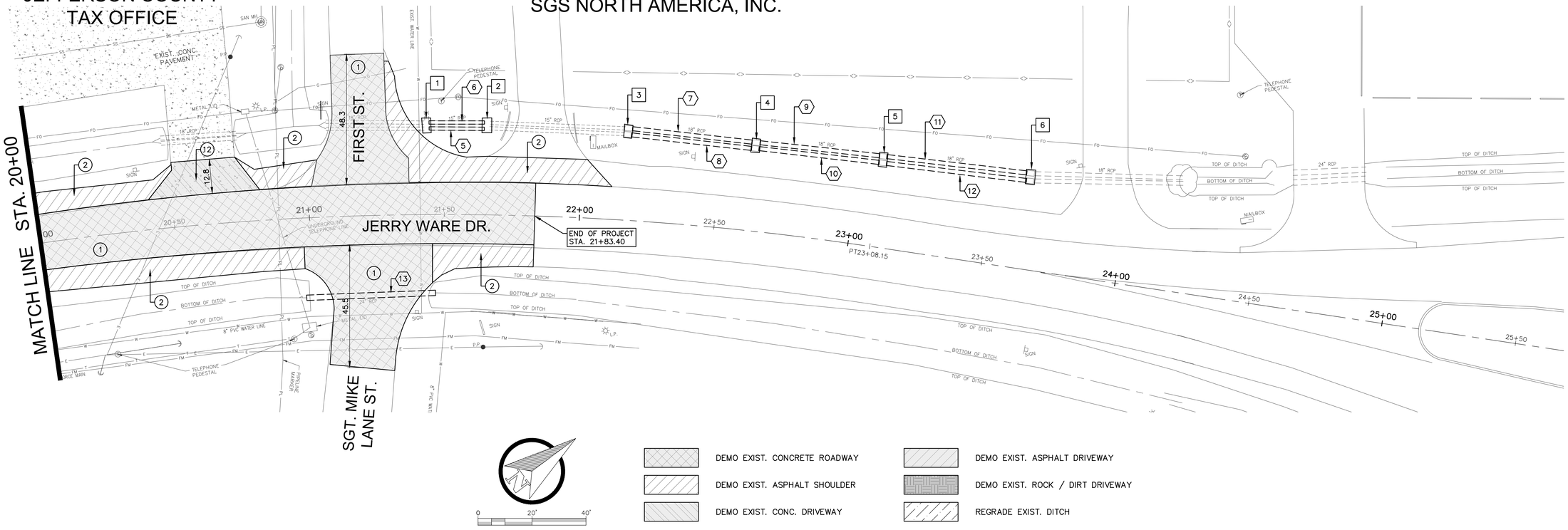
FS PROJECT #	21200.000
DATE:	Jan 09, 2023
SCALE:	1" = 20'
DRAWN BY:	J.L.H.
CHECK BY:	B.T.
FS DRAWING NAME:	21200.000_CE_DEMOLITION PLAN

JERRY WARE DR. DEMOLITION PLAN
STA. 10+00 - 20+00

C6.2

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DEMO EXIST. CONCRETE ROADWAY
DEMO EXIST. ASPHALT SHOULDER
DEMO EXIST. CONC. DRIVEWAY
DEMO EXIST. ASPHALT DRIVEWAY
DEMO EXIST. ROCK / DIRT DRIVEWAY
REGRADE EXIST. DITCH

SITE LEGEND

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- SANITARY CLEANOUT
- MAILBOX
- STORM MANHOLE
- STORM GRATE INLET

SITE LEGEND

- STORM SEWER LINE — SS
- FIBER OPTIC LINE — FO
- TELEPHONE LINE — T
- CABLE TV LINE — TV
- GAS LINE — G
- FORCE MAIN LINE — FM
- SANITARY SEWER — SS
- PIPELINE — PL
- ELECTRIC LINE — E
- WATER LINE — W
- BARBED WIRE FENCE — X
- CHAINLINK FENCE
- IRON FENCE
- WOOD FENCE

STORM SEWER DEMOLITION TABLE

ID #	DESCRIPTION	UNIT
1	REMOVE EXIST. 15" R.C.P.	35 L.F.
2	REMOVE EXIST. 18" R.C.P.	37 L.F.
3	REMOVE EXIST. 18" R.C.P.	18 L.F.
4	REMOVE EXIST. 12" R.C.P.	17 L.F.
5	REMOVE EXIST. 15" R.C.P.	21 L.F.
6	REMOVE EXIST. 15" R.C.P.	21 L.F.
7	REMOVE EXIST. 18" R.C.P.	45 L.F.

STORM SEWER DEMOLITION TABLE

ID #	DESCRIPTION	UNIT
8	REMOVE EXIST. 18" R.C.P.	45 L.F.
9	REMOVE EXIST. 18" R.C.P.	45 L.F.
10	REMOVE EXIST. 18" R.C.P.	45 L.F.
11	REMOVE EXIST. 18" R.C.P.	52 L.F.
12	REMOVE EXIST. 18" R.C.P.	52 L.F.
13	REMOVE EXIST. 24" R.C.P.	48 L.F.

MISC. DEMOLITION TABLE

ID #	DESCRIPTION	UNIT
1	REMOVE CONC. INLET	1
2	REMOVE CONC. INLET	1
3	REMOVE CONC. INLET	1
4	REMOVE CONC. INLET	1
5	REMOVE CONC. INLET	1
6	REMOVE CONC. INLET	1

PAVING DEMOLITION TABLE

ID #	DESCRIPTION	UNIT
1	REMOVE CONCRETE ROADWAY	49,170 SF.
2	REMOVE ASPHALT SHOULDER	23,965 SF.
3	REMOVE ROCK / LIMESTONE DRIVEWAY	353 SF.
4	REMOVE ASPHALT DRIVEWAY	529 SF.
5	REMOVE ASPHALT DRIVEWAY	1,019 SF.
6	REMOVE ASPHALT DRIVEWAY	412 SF.

PAVING DEMOLITION TABLE

ID #	DESCRIPTION	UNIT
7	REMOVE ROCK / LIMESTONE DRIVEWAY	483 SF.
8	REMOVE ASPHALT DRIVEWAY	417 SF.
9	REMOVE ASPHALT DRIVEWAY	399 SF.
10	REMOVE ASPHALT DRIVEWAY	391 SF.
11	REMOVE ASPHALT DRIVEWAY	1,135 SF.
12	REMOVE CONCRETE DRIVEWAY	402 SF.

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STATE OF TEXAS
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117017
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Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

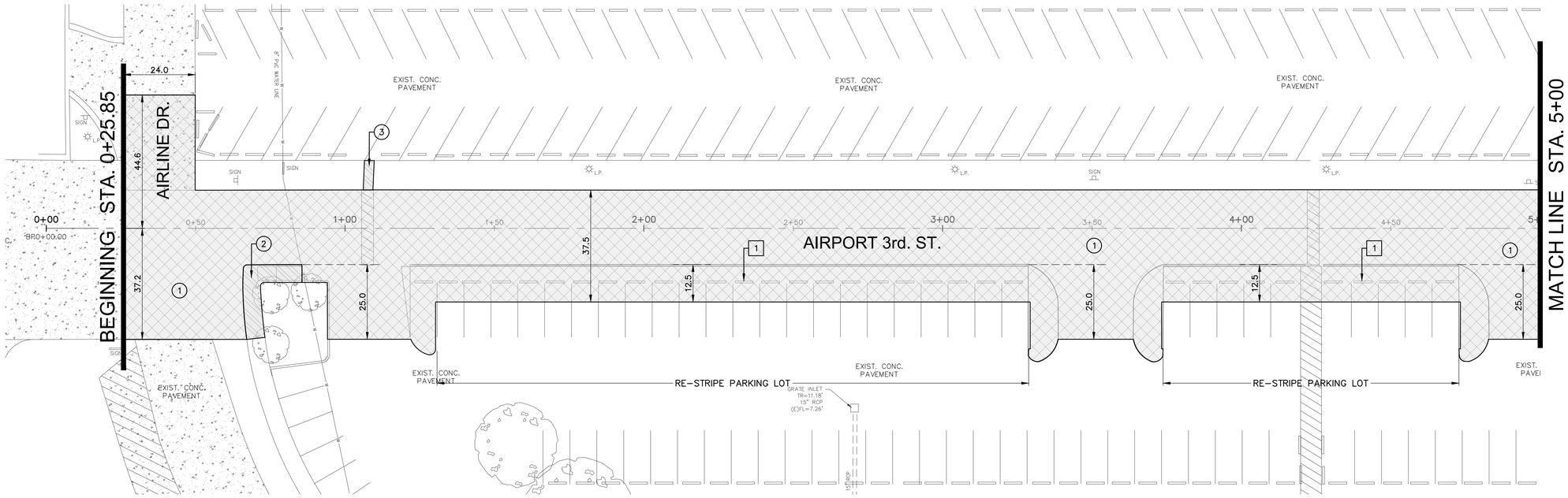
FS PROJECT # 21200.000
DATE: Jan 09, 2023
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CHECK BY: B.T.
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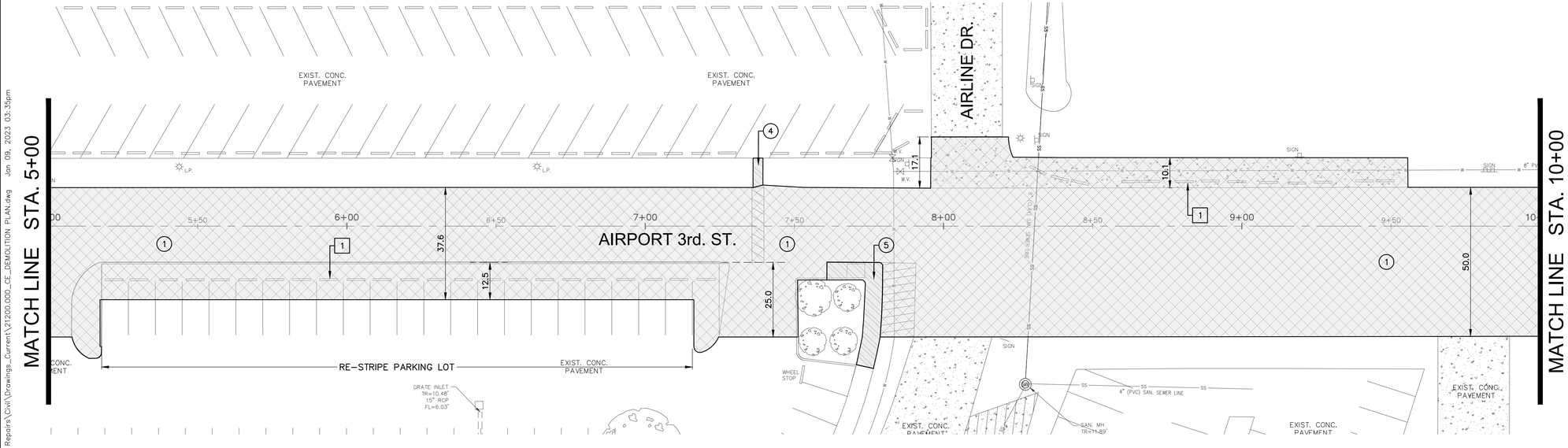
JERRY WARE DR. DEMOLITION PLAN STA. 20+00 - 25+50

C6.3

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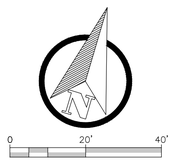


SITE LEGEND

- LIGHT POLE
- P.P. — P.P.
- SIGN
- WATER VALVE
- WATER METER
- RPZ VALVE
- FIRE HYDRANT
- FDC
- BENCH MARKS
- IRON ROD (SET)
- IRON ROD (FOUND)
- CONCRETE MONUMENT
- "X" SCRIBED IN CONC
- MONITORING WELL
- GAS METER
- ELECTRIC PEDESTAL
- TELEPHONE PEDESTAL
- FIBER OPTIC PEDESTAL
- ELECTRIC TRANSFORMER
- GUY ANCHOR
- SANITARY MANHOLE
- SANITARY CLEANOUT
- MAILBOX
- STORM MANHOLE
- STORM GRATE INLET

SITE LEGEND

- STORM SEWER LINE
- FIBER OPTIC LINE — FO
- TELEPHONE LINE — T
- CABLE TV LINE — TV
- GAS LINE — G
- FORCE MAIN LINE — FM
- SANITARY SEWER — SS
- PIPELINE — PL
- ELECTRIC LINE — E
- WATER LINE — W
- BARBED WIRE FENCE — X
- CHAINLINK FENCE
- IRON FENCE
- WOOD FENCE



- DEMO EXIST. CONCRETE ROADWAY
- DEMO EXIST. ASPHALT SHOULDER
- DEMO EXIST. CONC. SIDEWALK
- DEMO EXIST. ASPHALT DRIVEWAY
- DEMO EXIST. ROCK / DIRT DRIVEWAY
- REGRADE EXIST. DITCH

PAVING DEMOLITION TABLE

ID #	DESCRIPTION	UNIT
1	REMOVE CONCRETE ROADWAY	116,140 SF.
2	REMOVE CONCRETE SIDEWALK	230 SF.
3	REMOVE CONCRETE SIDEWALK	32 SF.
4	REMOVE CONCRETE SIDEWALK	31 SF.
5	REMOVE CONCRETE SIDEWALK	283 SF.
6		
7		

MISC. DEMOLITION TABLE

ID #	DESCRIPTION	UNIT
1	REMOVE CONC. WHEEL STOPS	69
2		
3		

DATE | ISSUED FOR | NO.

Fitz&Shipman INC.
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FS PROJECT # 21200.000

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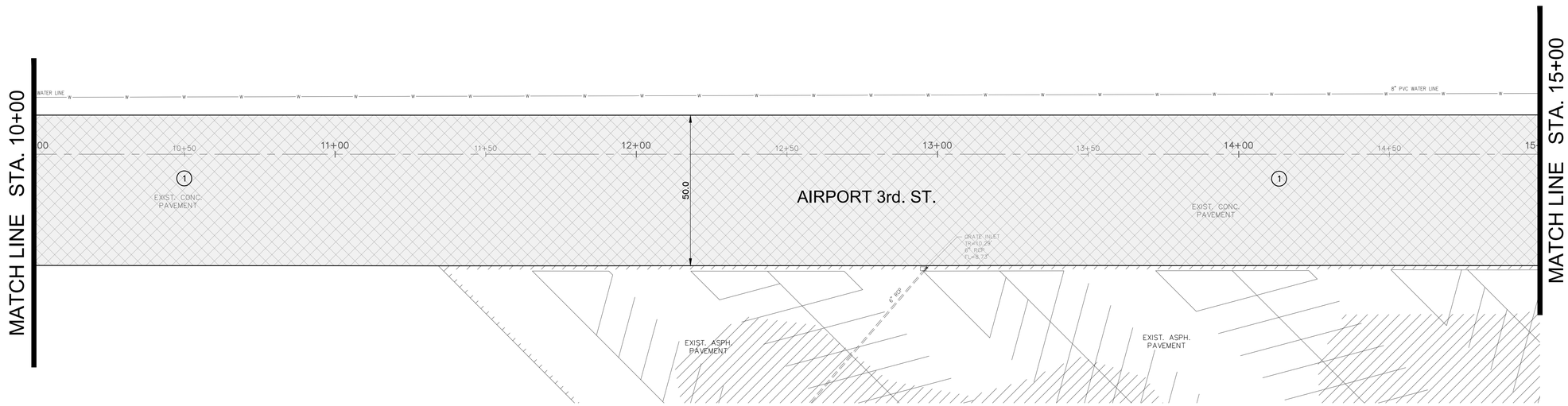
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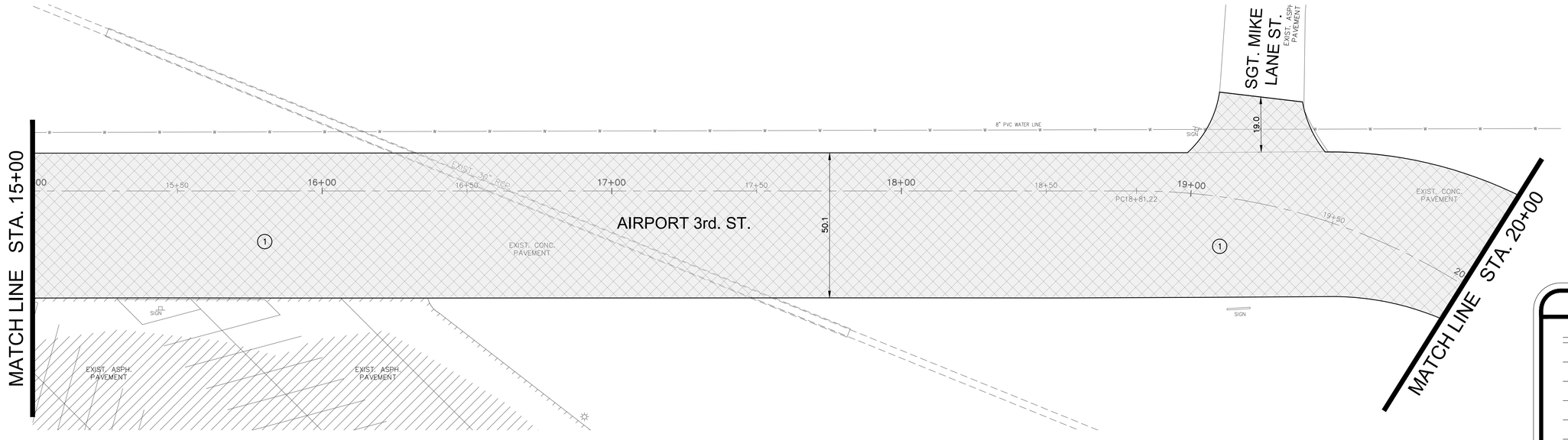
AIRPORT 3RD ST. DEMOLITION PLAN STA. 0+00 - 10+00

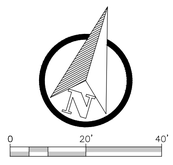
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SITE LEGEND

- LIGHT POLE
- P.P.
- SIGN
- WATER VALVE
- WATER METER
- RPZ VALVE
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- FDC
- BENCH MARKS
- IRON ROD (SET)
- IRON ROD (FOUND)
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SITE LEGEND

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- SANITARY SEWER (SS)
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- ELECTRIC LINE (E)
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- BARBED WIRE FENCE (X)
- CHAINLINK FENCE
- IRON FENCE
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DEMO EXIST. CONCRETE ROADWAY
DEMO EXIST. ASPHALT SHOULDER
DEMO EXIST. CONC. SIDEWALK
DEMO EXIST. ASPHALT DRIVEWAY
DEMO EXIST. ROCK / DIRT DRIVEWAY
REGRADE EXIST. DITCH

PAVING DEMOLITION TABLE

ID #	DESCRIPTION	UNIT
1	REMOVE CONCRETE ROADWAY	116,140 SF.
2	REMOVE CONCRETE SIDEWALK	230 SF.
3	REMOVE CONCRETE SIDEWALK	32 SF.
4	REMOVE CONCRETE SIDEWALK	31 SF.
5	REMOVE CONCRETE SIDEWALK	283 SF.
6		
7		

MISC. DEMOLITION TABLE

ID #	DESCRIPTION	UNIT
1	REMOVE CONC. WHEEL STOPS	69
2		
3		

DATE
ISSUED FOR
NO.

Fittz & Shipman INC.
Consulting Engineers and Land Surveyors
1405 Cornerstone Court
Ph. (409) 832-7238
Beaumont, TX. 77706
Fax. (409) 832-7303
www.fittzshipman.com
T.B.P.E. Firm #1160 T.X.L.S. Firm #100186

STATE OF TEXAS
BERNARDINO D. TRISTAN
117017
LICENSED PROFESSIONAL ENGINEER
Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

FS PROJECT # 21200.000

DATE:	Jan 09, 2023
SCALE:	1" = 20'
DRAWN BY:	J.L.H.
CHECK BY:	B.T.

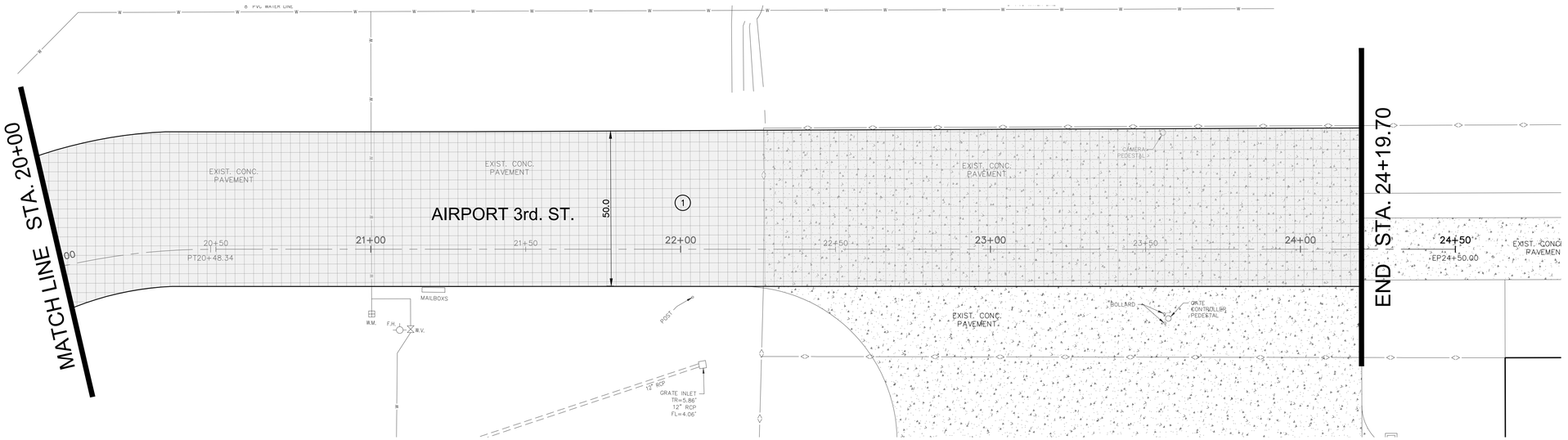
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AIRPORT 3RD ST. DEMOLITION PLAN STA. 10+00 - 20+00

C6.5

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DEMO EXIST. CONCRETE ROADWAY

DEMO EXIST. ASPHALT SHOULDER

DEMO EXIST. CONC. SIDEWALK

DEMO EXIST. ASPHALT DRIVEWAY

DEMO EXIST. ROCK / DIRT DRIVEWAY

REGRADE EXIST. DITCH

SITE LEGEND

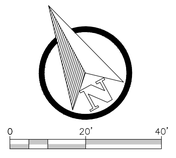
- LIGHT POLE
- P.P. — P.P.
- SIGN
- WATER VALVE
- WATER METER
- RPZ VALVE
- FIRE HYDRANT
- FDC
- BENCH MARKS
- IRON ROD (SET)
- IRON ROD (FOUND)
- CONCRETE MONUMENT
- "X" SCRIBED IN CONC
- MONITORING WELL
- GAS METER
- (E) ELECTRIC PEDESTAL
- (T) TELEPHONE PEDESTAL
- (FO) FIBER OPTIC PEDESTAL
- (ET) ELECTRIC TRANSFORMER
- GUY ANCHOR
- (S) SANITARY MANHOLE
- (CO) SANITARY CLEANOUT
- MAILBOX
- STORM MANHOLE
- STORM GRATE INLET

NO.	ISSUED FOR	DATE

Fittz & Shipman INC.
Consulting Engineers and Land Surveyors
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STATE OF TEXAS
BERNARDINO D. TRISTAN
117017
LICENSED
PROFESSIONAL ENGINEER
Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT



SITE LEGEND

- STORM SEWER LINE
- FIBER OPTIC LINE — FO —
- TELEPHONE LINE — T —
- CABLE TV LINE — TV —
- GAS LINE — G —
- FORCE MAIN LINE — FM —
- SANITARY SEWER — SS —
- PIPELINE — PL —
- ELECTRIC LINE — E —
- WATER LINE — W —
- BARBED WIRE FENCE — X —
- CHAINLINK FENCE — <> —
- IRON FENCE — * — * —
- WOOD FENCE — // —

PAVING DEMOLITION TABLE		
ID #	DESCRIPTION	UNIT
1	REMOVE CONCRETE ROADWAY	116,140 SF.
2	REMOVE CONCRETE SIDEWALK	230 SF.
3	REMOVE CONCRETE SIDEWALK	32 SF.
4	REMOVE CONCRETE SIDEWALK	31 SF.
5	REMOVE CONCRETE SIDEWALK	283 SF.
6		
7		

MISC. DEMOLITION TABLE		
ID #	DESCRIPTION	UNIT
1	REMOVE CONC. WHEEL STOPS	69
2		
3		

FS PROJECT #	21200.000
DATE:	Jan 09, 2023
SCALE:	1" = 20'
DRAWN BY:	J.L.H.
CHECK BY:	B.T.
FS DRAWING NAME:	21200.000_CE_DEMOLITION PLAN

AIRPORT 3RD ST.
DEMOLITION
PLAN
STA. 20+00 - 24+20

C6.6

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SITE LEGEND

LIGHT POLE	RPZ VALVE	IRON ROD (FOUND)	ELECTRIC PEDESTAL	SANITARY MANHOLE	STORM SEWER LINE	GAS LINE	ELECTRIC LINE	IRON FENCE
P.P. P.P.	FIRE HYDRANT	CONCRETE MONUMENT	TELEPHONE PEDESTAL	SANITARY CLEANOUT	FIBER OPTIC LINE	FORCE MAIN LINE	WATER LINE	WOOD FENCE
SIGN	FDC	"X" SCRIBED IN CONC	FIBER OPTIC PEDESTAL	MAILBOX	TELEPHONE LINE	SANITARY SEWER	BARBED WIRE FENCE	
WATER VALVE	BENCH MARKS	MONITORING WELL	ELECTRIC TRANSFORMER	STORM MANHOLE	CABLE TV LINE	PIPELINE	CHAINLINK FENCE	
WATER METER	IRON ROD (SET)	GAS METER	GUY ANCHOR	STORM GRATE INLET				

PROPOSED CONCRETE ROADWAY

PROPOSED ASPHALT SHOULDER

PROPOSED CONCRETE DRIVEWAY

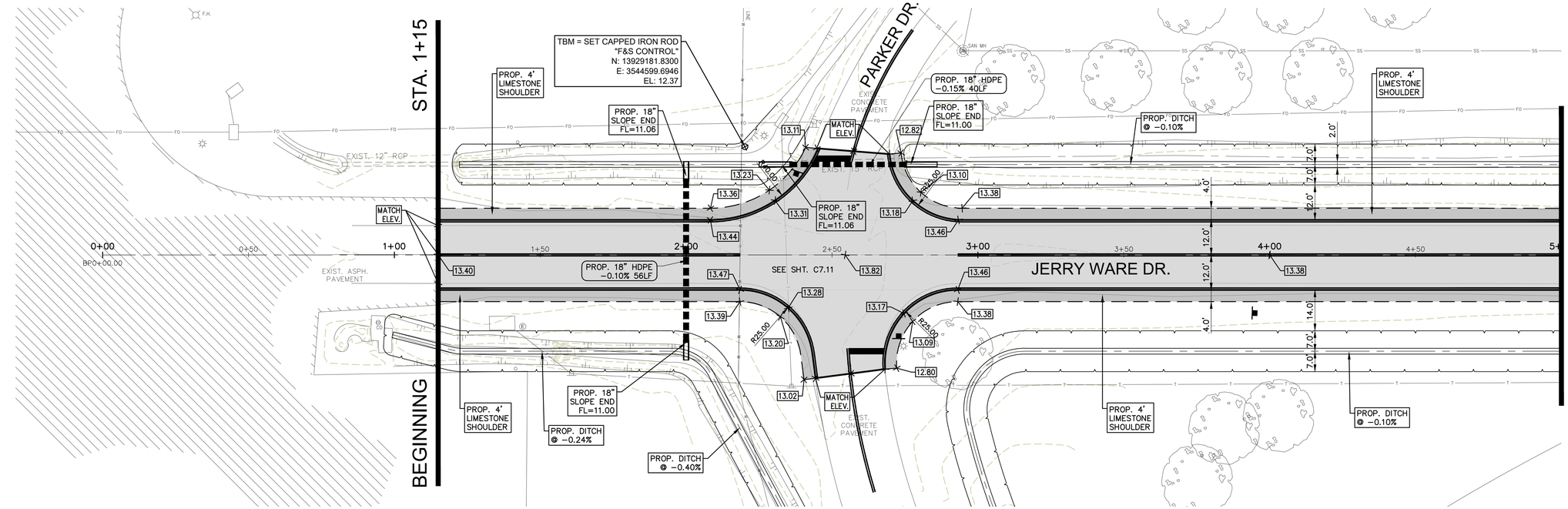
PROPOSED ROCK DRIVEWAY

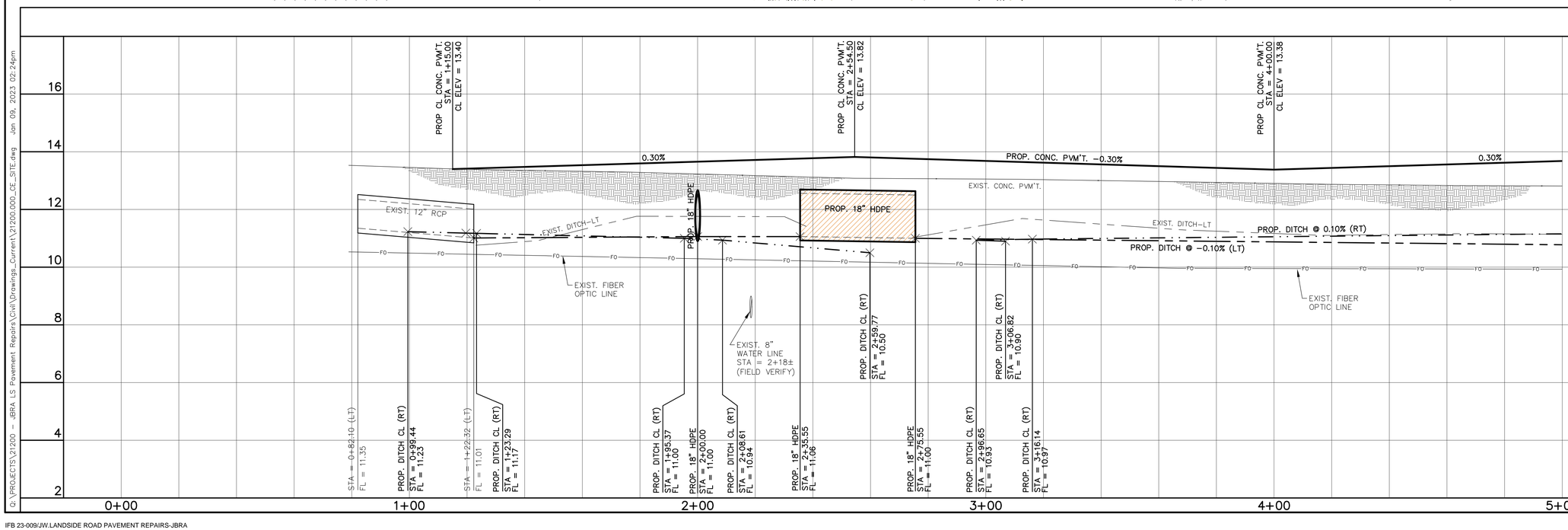
NOTE:

SEE SHEET C1.1 FOR ROADWAY, SUBBASE AND SHOULDER PAVEMENT QUANTITIES.

PROPOSED DRIVEWAY PAVING TABLE		
ID #	DESCRIPTION	UNIT
1	CONCRETE DRIVEWAY	480 SF.
2	CONCRETE DRIVEWAY	420 SF.
3	CONCRETE DRIVEWAY	1,063 SF.
4	CONCRETE DRIVEWAY	310 SF.
5	CONCRETE DRIVEWAY	333 SF.
6	CONCRETE DRIVEWAY	627 SF.

PROPOSED DRIVEWAY PAVING TABLE		
ID #	DESCRIPTION	UNIT
7	CONCRETE DRIVEWAY	249 SF.
8	CONCRETE DRIVEWAY	320 SF.
9	CONCRETE DRIVEWAY	1,025 SF.
10	CONCRETE DRIVEWAY	368 SF.
11	CONCRETE DRIVEWAY	417 SF.





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STATE OF TEXAS
BERNARDINO D. TRISTAN
117017
LICENSED PROFESSIONAL ENGINEER
Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

FS PROJECT # 21200.000

DATE:	Jan 09, 2023
SCALE:	H: 1:20 V: 1:2
DRAWN BY:	J.L.H.
CHECK BY:	B.T.

FS DRAWING NAME: 21200.000_CE_SITE

JERRY WARE DR. PLAN & PROFILE STA. 0+00 - 5+00

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SITE LEGEND

LIGHT POLE	RPZ VALVE	IRON ROD (FOUND)	ELECTRIC PEDESTAL	SANITARY MANHOLE	STORM SEWER LINE	GAS LINE	ELECTRIC LINE	IRON FENCE
P.P. P.P.	FIRE HYDRANT	CONCRETE MONUMENT	TELEPHONE PEDESTAL	SANITARY CLEANOUT	FIBER OPTIC LINE	FORCE MAIN LINE	WATER LINE	WOOD FENCE
SIGN	FDC	"X" SCRIBED IN CONC	FIBER OPTIC PEDESTAL	MAILBOX	TELEPHONE LINE	SANITARY SEWER	BARBED WIRE FENCE	
WATER VALVE	BENCH MARKS	MONITORING WELL	ELECTRIC TRANSFORMER	STORM MANHOLE	CABLE TV LINE	PIPELINE	CHAINLINK FENCE	
WATER METER	IRON ROD (SET)	GAS METER	GUY ANCHOR	STORM GRATE INLET				

PROPOSED CONCRETE ROADWAY

PROPOSED ASPHALT SHOULDER

PROPOSED CONCRETE DRIVEWAY

PROPOSED ROCK DRIVEWAY

NOTE:

SEE SHEET C1.1 FOR ROADWAY, SUBBASE AND SHOULDER PAVEMENT QUANTITIES.

PROPOSED DRIVEWAY PAVING TABLE

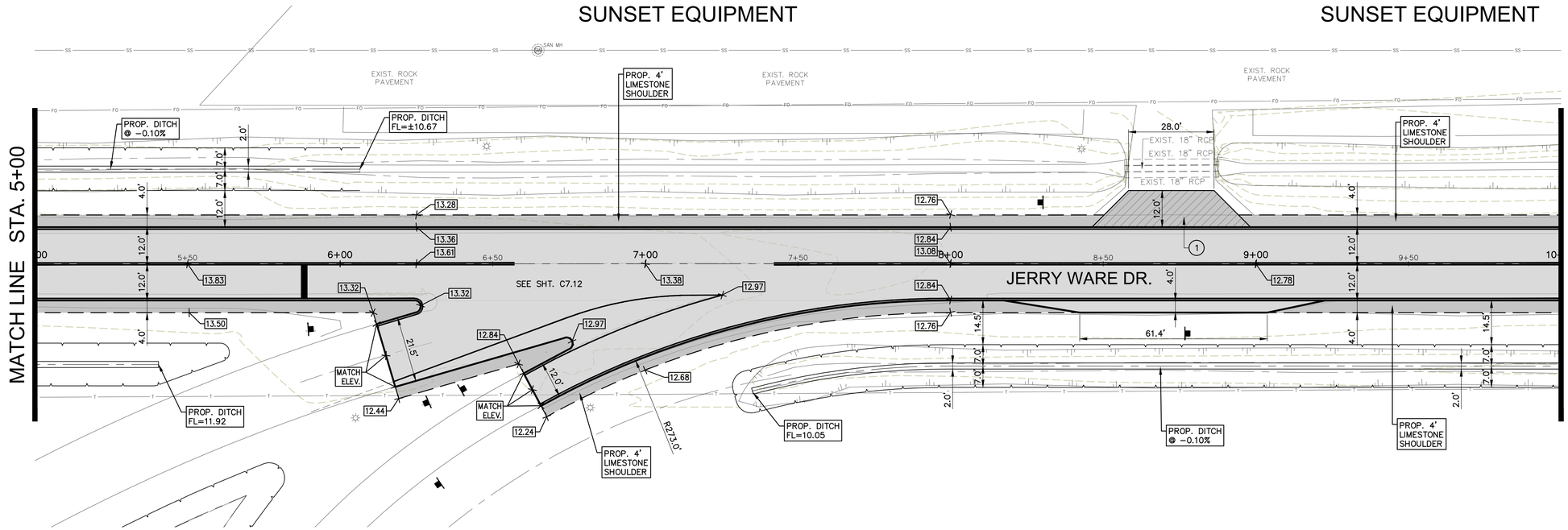
ID #	DESCRIPTION	UNIT
1	CONCRETE DRIVEWAY	480 SF.
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3	CONCRETE DRIVEWAY	1,063 SF.
4	CONCRETE DRIVEWAY	310 SF.
5	CONCRETE DRIVEWAY	333 SF.
6	CONCRETE DRIVEWAY	627 SF.

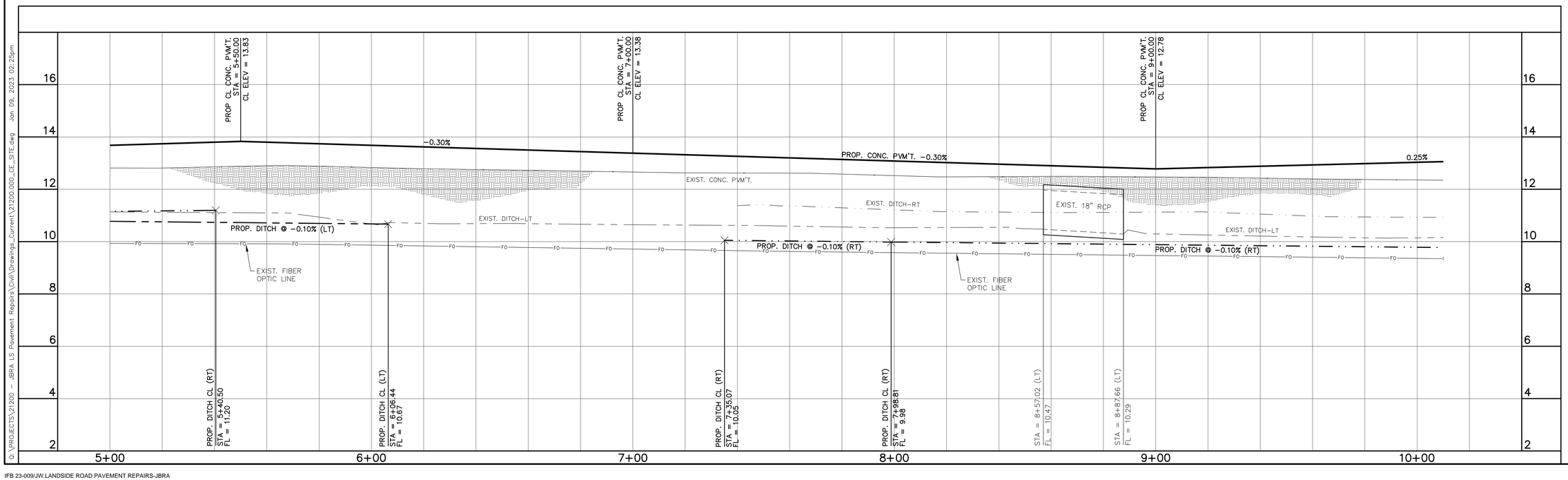
PROPOSED DRIVEWAY PAVING TABLE

ID #	DESCRIPTION	UNIT
7	CONCRETE DRIVEWAY	249 SF.
8	CONCRETE DRIVEWAY	320 SF.
9	CONCRETE DRIVEWAY	1,025 SF.
10	CONCRETE DRIVEWAY	368 SF.
11	CONCRETE DRIVEWAY	417 SF.

SUNSET EQUIPMENT

SUNSET EQUIPMENT





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STATE OF TEXAS
BERNARDINO D. TRISTAN
117017
LICENSED PROFESSIONAL ENGINEER
Jan 09, 2023

DATE
ISSUED FOR
NO.

JACK BROOKS REGIONAL AIRPORT

FS PROJECT # 21200.000

DATE:	Jan 09, 2023
SCALE:	H: 1:20 V: 1:2
DRAWN BY:	J.L.H.
CHECK BY:	B.T.

FS DRAWING NAME: 21200.000_CE_SITE

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SITE LEGEND

LIGHT POLE	RPZ VALVE	IRON ROD (FOUND)	ELECTRIC PEDESTAL	SANITARY MANHOLE	STORM SEWER LINE	GAS LINE	ELECTRIC LINE	IRON FENCE
P.P. P.P.	FIRE HYDRANT	CONCRETE MONUMENT	TELEPHONE PEDESTAL	SANITARY CLEANOUT	FIBER OPTIC LINE	FORCE MAIN LINE	WATER LINE	WOOD FENCE
SIGN	FDC	"X" SCRIBED IN CONC	FIBER OPTIC PEDESTAL	MAILBOX	TELEPHONE LINE	SANITARY SEWER	BARBED WIRE FENCE	
WATER VALVE	BENCH MARKS	MONITORING WELL	ELECTRIC TRANSFORMER	STORM MANHOLE	CABLE TV LINE	PIPELINE	CHAINLINK FENCE	
WATER METER	IRON ROD (SET)	GAS METER	GUY ANCHOR	STORM GRATE INLET				

PROPOSED CONCRETE ROADWAY

PROPOSED ASPHALT SHOULDER

PROPOSED CONCRETE DRIVEWAY

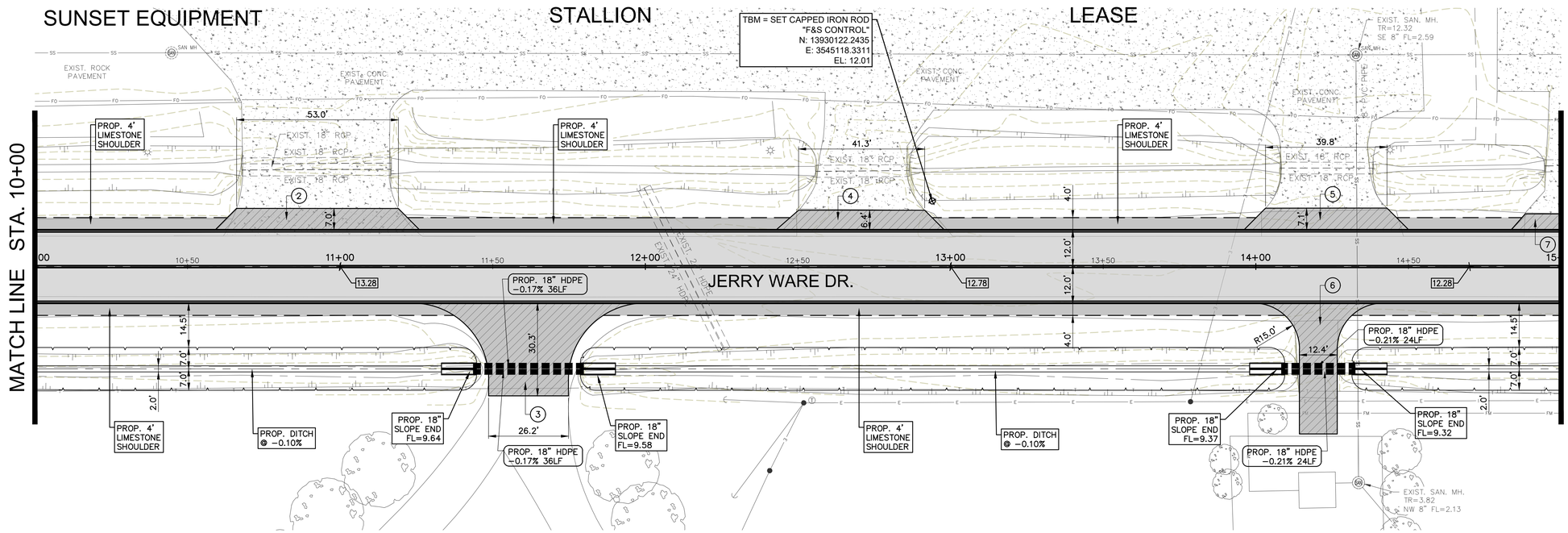
PROPOSED ROCK DRIVEWAY

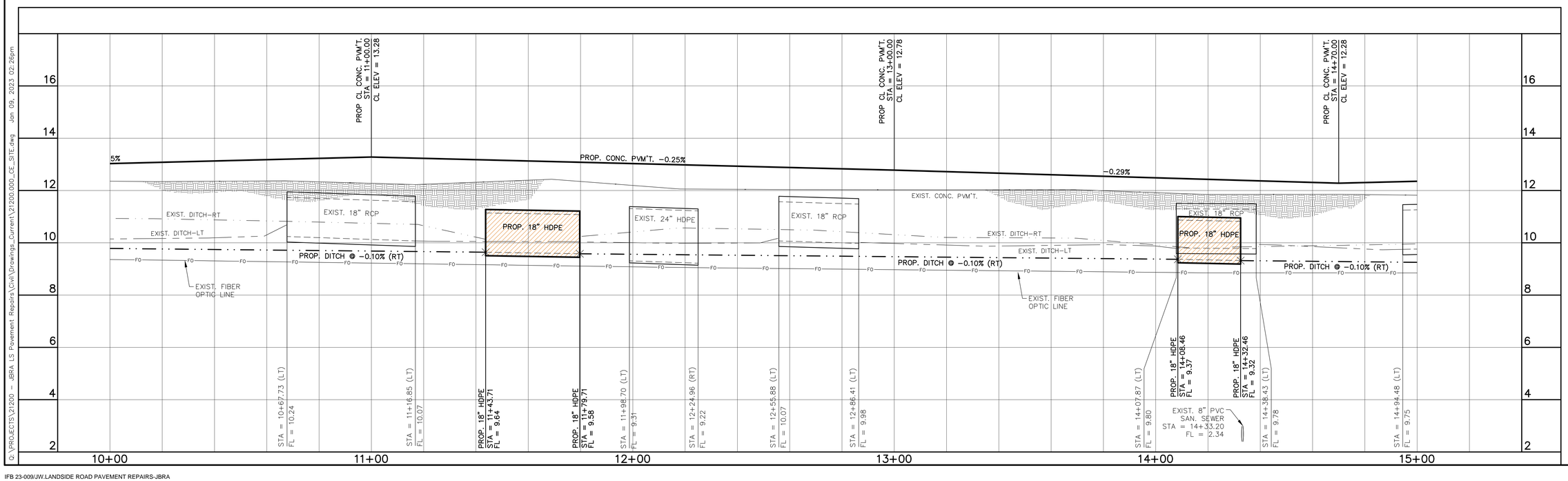
NOTE:

SEE SHEET C1.1 FOR ROADWAY, SUBBASE AND SHOULDER PAVEMENT QUANTITIES.

PROPOSED DRIVEWAY PAVING TABLE		
ID #	DESCRIPTION	UNIT
1	CONCRETE DRIVEWAY	480 SF.
2	CONCRETE DRIVEWAY	420 SF.
3	CONCRETE DRIVEWAY	1,063 SF.
4	CONCRETE DRIVEWAY	310 SF.
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PROPOSED DRIVEWAY PAVING TABLE		
ID #	DESCRIPTION	UNIT
7	CONCRETE DRIVEWAY	249 SF.
8	CONCRETE DRIVEWAY	320 SF.
9	CONCRETE DRIVEWAY	1,025 SF.
10	CONCRETE DRIVEWAY	368 SF.
11	CONCRETE DRIVEWAY	417 SF.





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Ph. (409) 832-7238 Fax. (409) 832-7303
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STATE OF TEXAS
BERNARDINO D. TRISTAN
117017
LICENSED PROFESSIONAL ENGINEER
Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

FS PROJECT #	21200.000
DATE:	Jan 09, 2023
SCALE:	H: 1:20 V: 1:2
DRAWN BY:	J.L.H.
CHECK BY:	B.T.
FS DRAWING NAME:	21200.000_CE_SITE

JERRY WARE DR.
PLAN & PROFILE
STA. 10+00 - 15+00

C7.3

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SITE LEGEND

LIGHT POLE	RPZ VALVE	IRON ROD (FOUND)	ELECTRIC PEDESTAL	SANITARY MANHOLE	STORM SEWER LINE	GAS LINE	ELECTRIC LINE / IRON FENCE
P.P. P.P.	FIRE HYDRANT	CONCRETE MONUMENT	TELEPHONE PEDESTAL	SANITARY CLEANOUT	FIBER OPTIC LINE FO	FORCE MAIN LINE FM	WATER LINE W / WOOD FENCE
SIGN	FDC	"X" SCRIBED IN CONC	FIBER OPTIC PEDESTAL	MAILBOX	TELEPHONE LINE T	SANITARY SEWER SS	BARBED WIRE FENCE X
WATER VALVE	BENCH MARKS	MONITORING WELL	ELECTRIC TRANSFORMER	STORM MANHOLE	CABLE TV LINE TV	PIPELINE PL	CHAINLINK FENCE
WATER METER	IRON ROD (SET)	GAS METER	GUY ANCHOR	STORM GRATE INLET			

PROPOSED CONCRETE ROADWAY

PROPOSED ASPHALT SHOULDER

PROPOSED CONCRETE DRIVEWAY

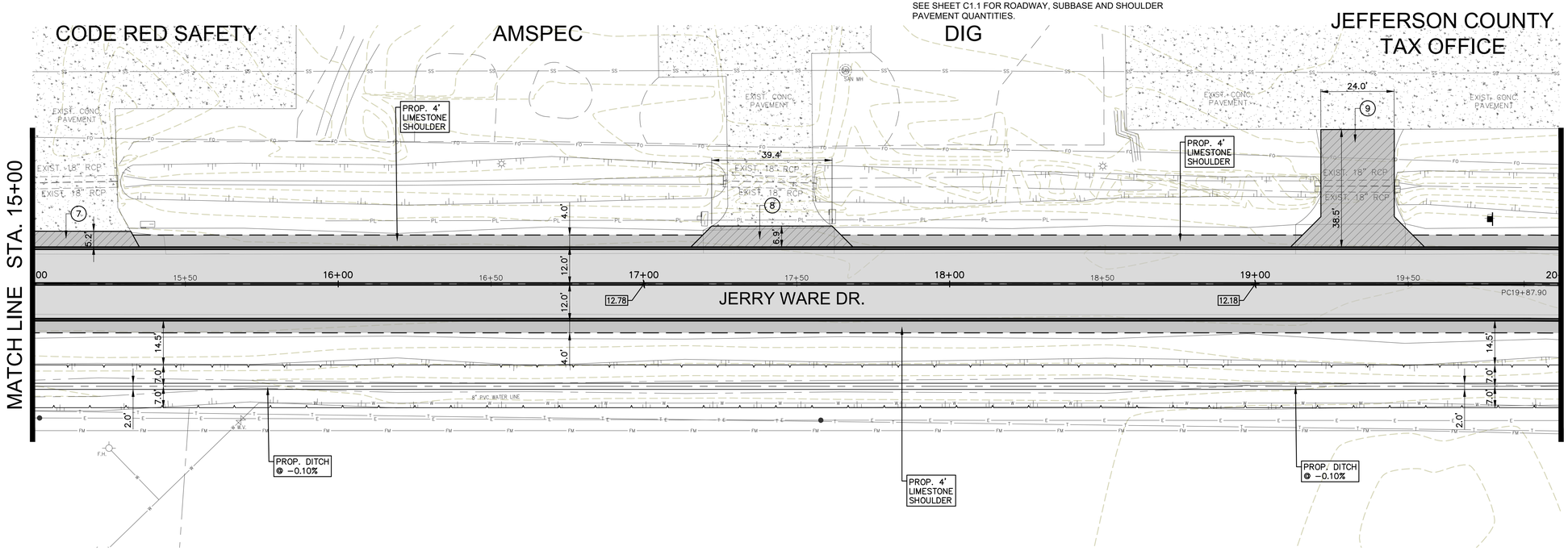
PROPOSED ROCK DRIVEWAY

NOTE:

SEE SHEET C1.1 FOR ROADWAY, SUBBASE AND SHOULDER PAVEMENT QUANTITIES.

PROPOSED DRIVEWAY PAVING TABLE		
ID #	DESCRIPTION	UNIT
1	CONCRETE DRIVEWAY	480 SF.
2	CONCRETE DRIVEWAY	420 SF.
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PROPOSED DRIVEWAY PAVING TABLE		
ID #	DESCRIPTION	UNIT
7	CONCRETE DRIVEWAY	249 SF.
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9	CONCRETE DRIVEWAY	1,025 SF.
10	CONCRETE DRIVEWAY	368 SF.
11	CONCRETE DRIVEWAY	417 SF.



0 20' 40'

Fittz & Shipman INC.
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STATE OF TEXAS
BERNARDINO D. TRISTAN
117017
LICENSED PROFESSIONAL ENGINEER
Jan 09, 2023

DATE
ISSUED FOR
NO.

JACK BROOKS REGIONAL AIRPORT

FS PROJECT #	21200.000
DATE:	Jan 09, 2023
SCALE:	H: 1:20 V: 1:2
DRAWN BY:	J.L.H.
CHECK BY:	B.T.
FS DRAWING NAME:	21200.000_CE_SITE

JERRY WARE DR. PLAN & PROFILE STA. 15+00 - 20+00

C7.4

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SITE LEGEND

LIGHT POLE	RPZ VALVE	IRON ROD (FOUND)	ELECTRIC PEDESTAL	SANITARY MANHOLE	STORM SEWER LINE	GAS LINE	ELECTRIC LINE / IRON FENCE
P.P. P.P.	FIRE HYDRANT	CONCRETE MONUMENT	TELEPHONE PEDESTAL	SANITARY CLEANOUT	FIBER OPTIC LINE	FORCE MAIN LINE	WATER LINE / WOOD FENCE
SIGN	FDC	"X" SCRIBED IN CONC	FIBER OPTIC PEDESTAL	MAILBOX	TELEPHONE LINE	SANITARY SEWER	BARBED WIRE FENCE
WATER VALVE	BENCH MARKS	MONITORING WELL	ELECTRIC TRANSFORMER	STORM MANHOLE	CABLE TV LINE	PIPELINE	CHAINLINK FENCE
WATER METER	IRON ROD (SET)	GAS METER	GUY ANCHOR	STORM GRATE INLET			

PROPOSED CONCRETE ROADWAY

PROPOSED ASPHALT SHOULDER

PROPOSED CONCRETE DRIVEWAY

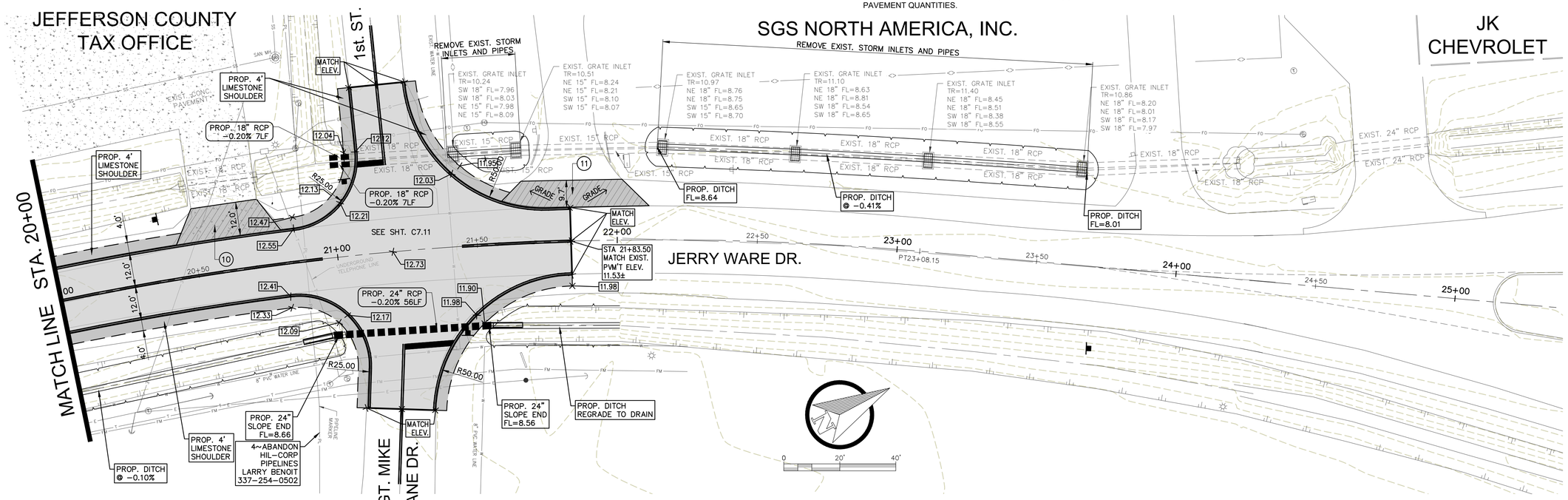
PROPOSED ROCK DRIVEWAY

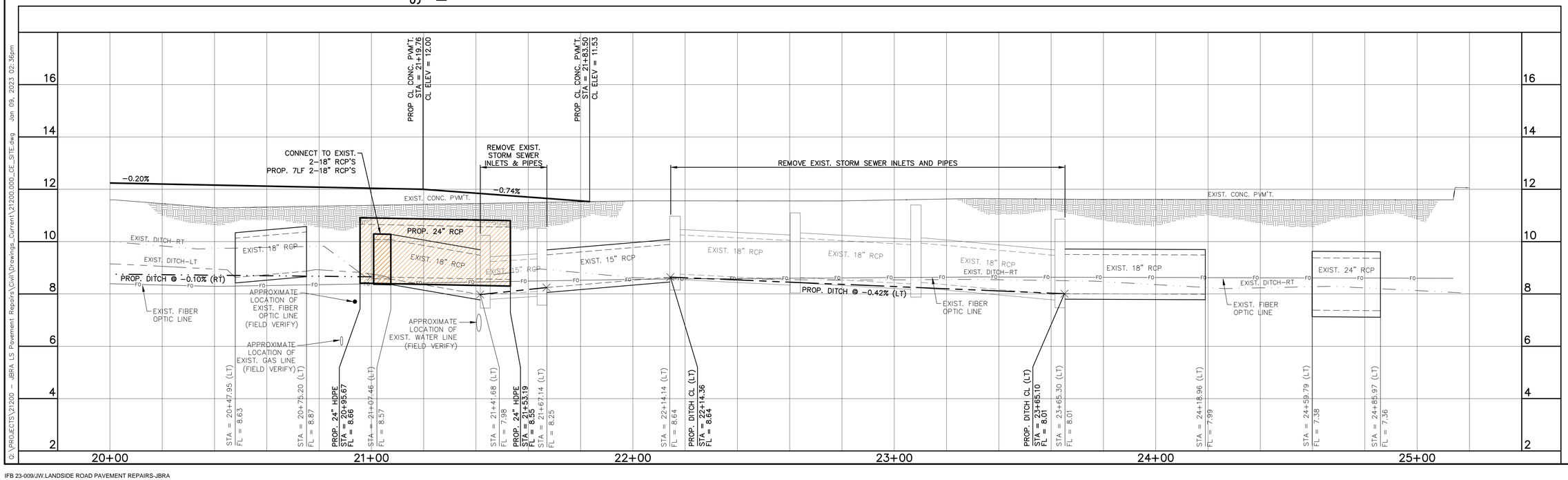
NOTE:

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PROPOSED DRIVEWAY PAVING TABLE		
ID #	DESCRIPTION	UNIT
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PROPOSED DRIVEWAY PAVING TABLE		
ID #	DESCRIPTION	UNIT
(7)	CONCRETE DRIVEWAY	249 SF.
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(9)	CONCRETE DRIVEWAY	1,025 SF.
(10)	CONCRETE DRIVEWAY	368 SF.
(11)	CONCRETE DRIVEWAY	417 SF.





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FS PROJECT #	21200.000
DATE:	Jan 09, 2023
SCALE:	H: 1:20 V: 1:2
DRAWN BY:	J.L.H.
CHECK BY:	B.T.
FS DRAWING NAME:	21200.000_CE_SITE

JERRY WARE DR. PLAN & PROFILE STA. 20+00 - 21+84

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SITE LEGEND

LIGHT POLE	RPZ VALVE	IRON ROD (FOUND)	ELECTRIC PEDESTAL	SANITARY MANHOLE	STORM SEWER LINE	GAS LINE	ELECTRIC LINE / IRON FENCE
P.P. P.P.	FIRE HYDRANT	CONCRETE MONUMENT	TELEPHONE PEDESTAL	SANITARY CLEANOUT	FIBER OPTIC LINE	FORCE MAIN LINE / WATER LINE	WOOD FENCE
SIGN	FDC	"X" SCRIBED IN CONC	FIBER OPTIC PEDESTAL	MAILBOX	TELEPHONE LINE	SANITARY SEWER / BARBED WIRE FENCE	
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WATER METER	IRON ROD (SET)	GAS METER	GUY ANCHOR	STORM GRATE INLET			

PROPOSED CONCRETE ROADWAY

PROPOSED CONCRETE DRIVEWAY

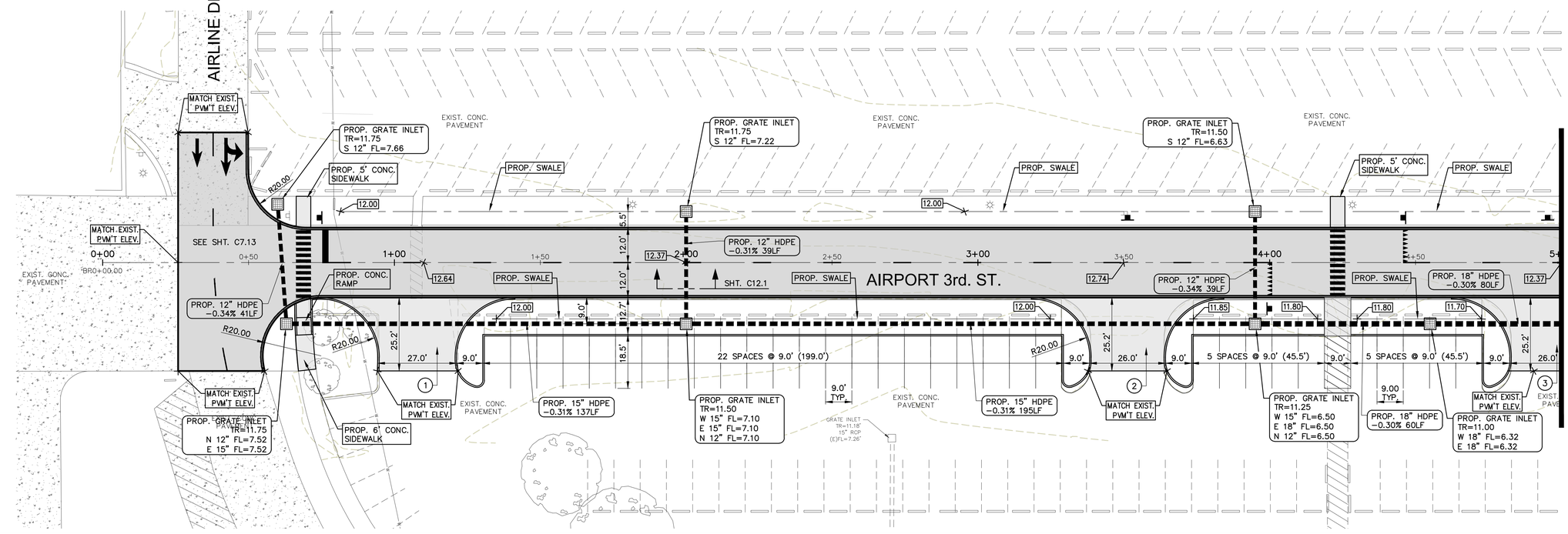
PROPOSED ROCK DRIVEWAY

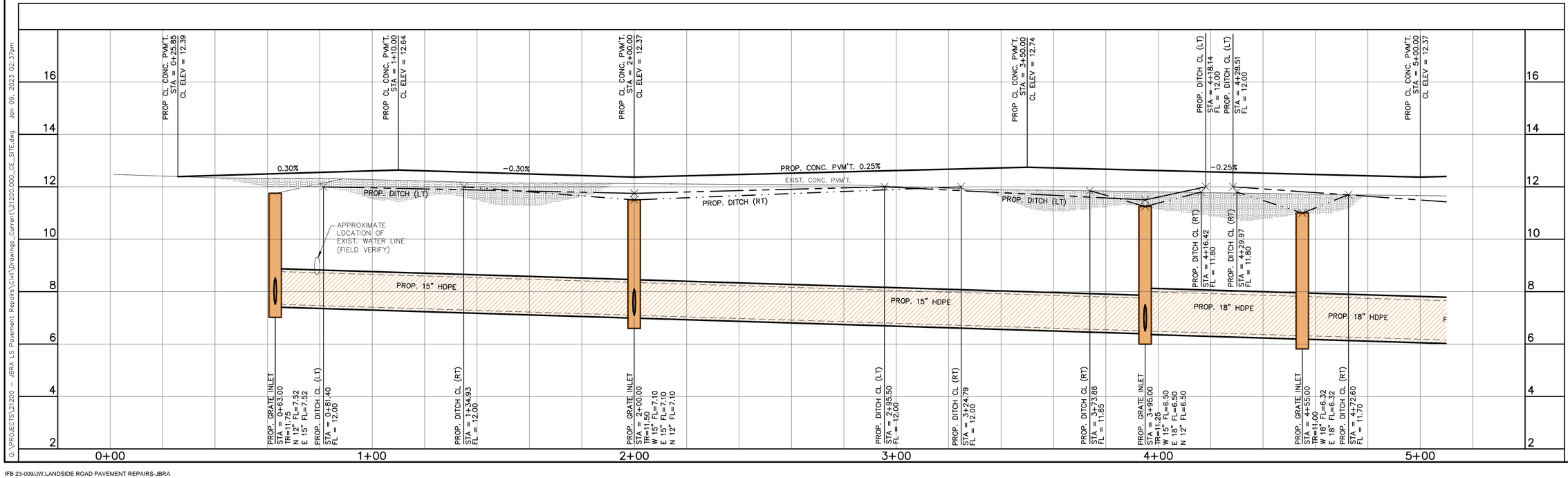
NOTE:

SEE SHEET C1.1 FOR ROADWAY, SUBBASE AND SHOULDER PAVEMENT QUANTITIES.

PROPOSED DRIVEWAY PAVING TABLE		
ID #	DESCRIPTION	UNIT
1	CONCRETE DRIVEWAY	872 SF.
2	CONCRETE DRIVEWAY	848 SF.
3	CONCRETE DRIVEWAY	848 SF.
4	CONCRETE DRIVEWAY	847 SF.
5	CONCRETE DRIVEWAY	771 SF.
6	CONCRETE DRIVEWAY	841 SF.

PROPOSED DRIVEWAY PAVING TABLE		
ID #	DESCRIPTION	UNIT
7	CONCRETE DRIVEWAY	707 SF.
8	CONCRETE DRIVEWAY	715 SF.
9	CONCRETE DRIVEWAY	716 SF.
10	CONCRETE DRIVEWAY	700 SF.
11	CONCRETE DRIVEWAY	701 SF.
12	CONCRETE DRIVEWAY	1,459 SF.





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T.B.P.E. Firm #1160 T.X.L.S. Firm #100186

STATE OF TEXAS
BERNARDINO D. TRISTAN
117017
LICENSED PROFESSIONAL ENGINEER
Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

FS PROJECT #	21200.000
DATE:	Jan 09, 2023
SCALE:	H: 1:20 V: 1:2
DRAWN BY:	J.L.H.
CHECK BY:	B.T.
FS DRAWING NAME:	21200.000_CE_SITE

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SITE LEGEND

LIGHT POLE	RPZ VALVE	IRON ROD (FOUND)	ELECTRIC PEDESTAL	SANITARY MANHOLE	STORM SEWER LINE	GAS LINE	ELECTRIC LINE	IRON FENCE
P.P. P.P.	FIRE HYDRANT	CONCRETE MONUMENT	TELEPHONE PEDESTAL	SANITARY CLEANOUT	FIBER OPTIC LINE	FORCE MAIN LINE	WATER LINE	WOOD FENCE
SIGN	FDC	"X" SCRIBED IN CONC	FIBER OPTIC PEDESTAL	MAILBOX	TELEPHONE LINE	SANITARY SEWER	BARBED WIRE FENCE
WATER VALVE	BENCH MARKS	MONITORING WELL	ELECTRIC TRANSFORMER	STORM MANHOLE	CABLE TV LINE	PIPELINE	CHAINLINK FENCE
WATER METER	IRON ROD (SET)	GAS METER	GUY ANCHOR	STORM GRATE INLET			

PROPOSED CONCRETE ROADWAY

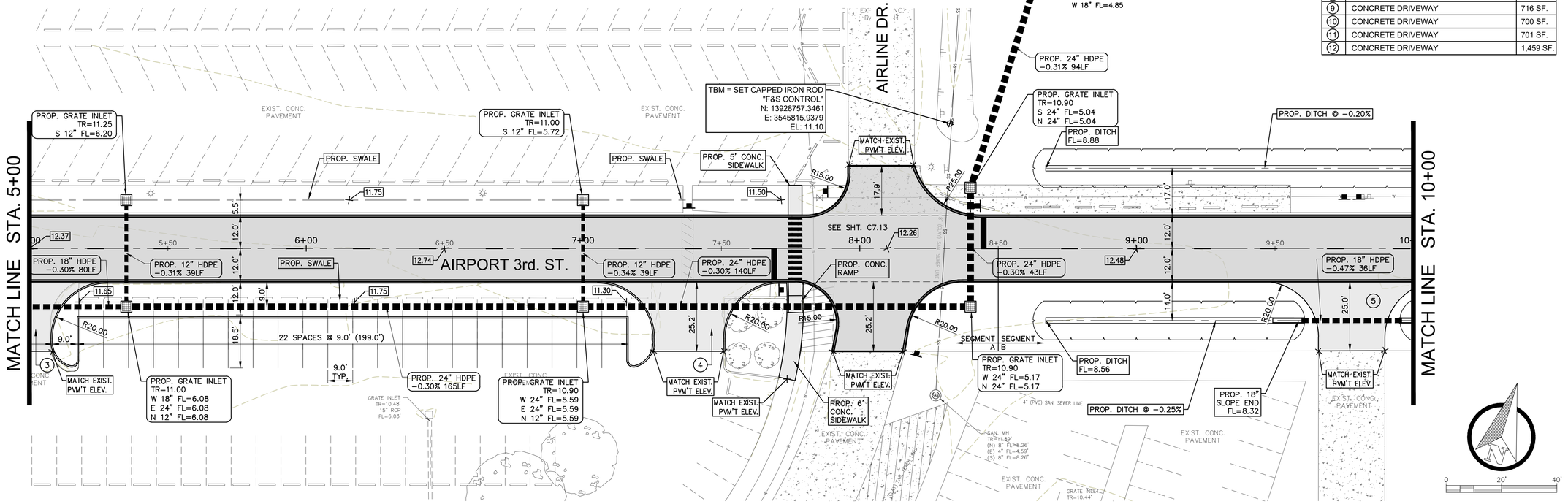
PROPOSED CONCRETE DRIVEWAY

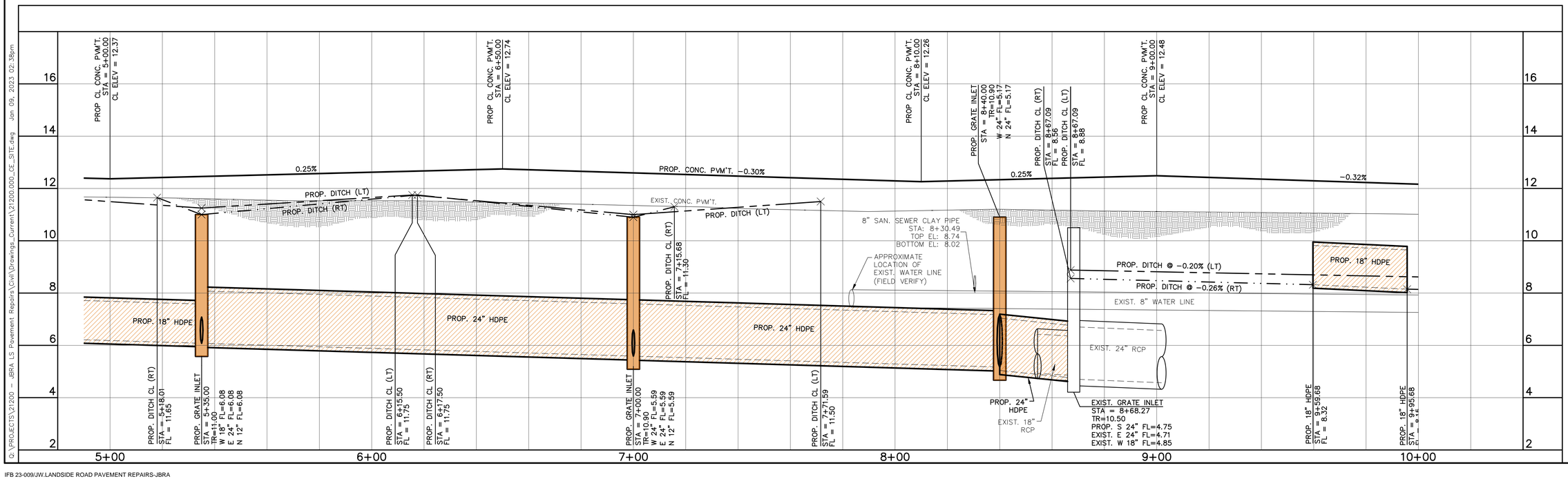
PROPOSED ROCK DRIVEWAY

NOTE:

SEE SHEET C1.1 FOR ROADWAY, SUBBASE AND SHOULDER PAVEMENT QUANTITIES.

PROPOSED DRIVEWAY PAVING TABLE		
ID #	DESCRIPTION	UNIT
1	CONCRETE DRIVEWAY	872 SF.
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5	CONCRETE DRIVEWAY	771 SF.
6	CONCRETE DRIVEWAY	841 SF.
7	CONCRETE DRIVEWAY	707 SF.
8	CONCRETE DRIVEWAY	715 SF.
9	CONCRETE DRIVEWAY	716 SF.
10	CONCRETE DRIVEWAY	700 SF.
11	CONCRETE DRIVEWAY	701 SF.
12	CONCRETE DRIVEWAY	1,459 SF.





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Jan 09, 2023

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FS PROJECT #	21200.000
DATE:	Jan 09, 2023
SCALE:	H: 1:20 V: 1:2
DRAWN BY:	J.L.H.
CHECK BY:	B.T.
FS DRAWING NAME:	21200.000_CE_SITE

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SITE LEGEND

LIGHT POLE	RPZ VALVE	IRON ROD (FOUND)	ELECTRIC PEDESTAL	SANITARY MANHOLE	STORM SEWER LINE	GAS LINE	ELECTRIC LINE
P.P. P.P.	FIRE HYDRANT	CONCRETE MONUMENT	TELEPHONE PEDESTAL	SANITARY CLEANOUT	FIBER OPTIC LINE	FORCE MAIN LINE	WATER LINE
SIGN	FDC	"X" SCRIBED IN CONC	FIBER OPTIC PEDESTAL	MAILBOX	TELEPHONE LINE	SANITARY SEWER	BARBED WIRE FENCE
WATER VALVE	BENCH MARKS	MONITORING WELL	ELECTRIC TRANSFORMER	STORM MANHOLE	CABLE TV LINE	PIPELINE	CHAINLINK FENCE
WATER METER	IRON ROD (SET)	GAS METER	GUY ANCHOR	STORM GRATE INLET			IRON FENCE / WOOD FENCE

PROPOSED CONCRETE ROADWAY

PROPOSED CONCRETE DRIVEWAY

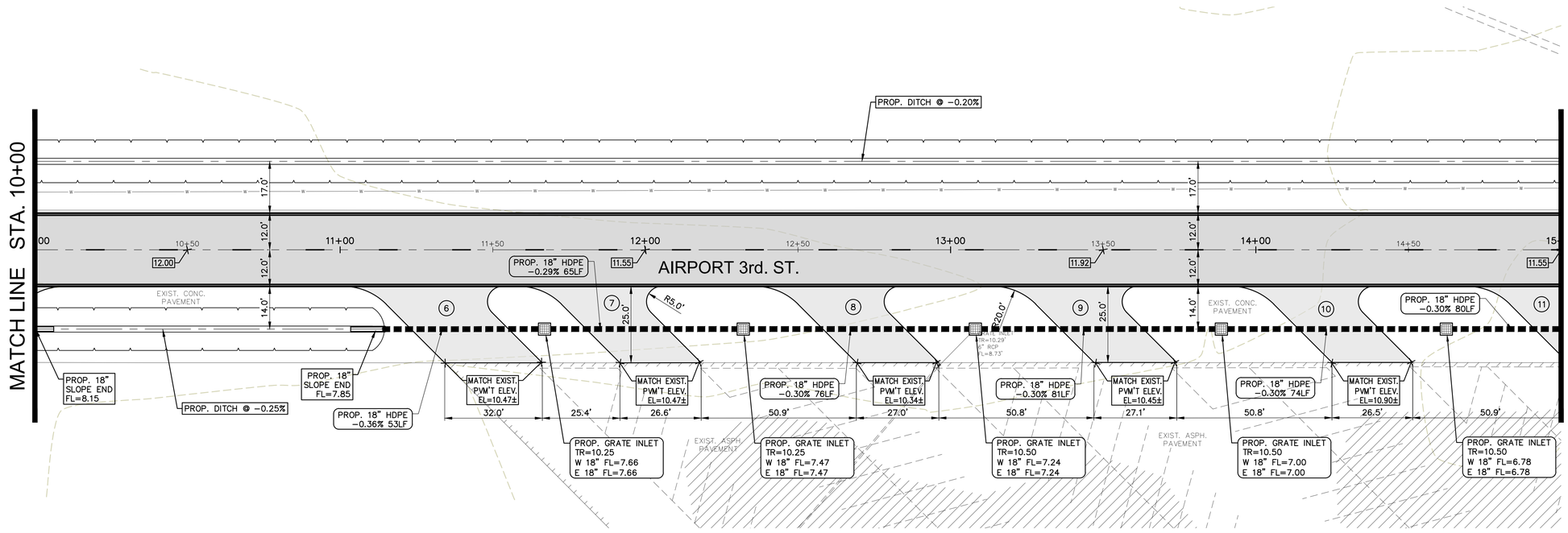
PROPOSED ROCK DRIVEWAY

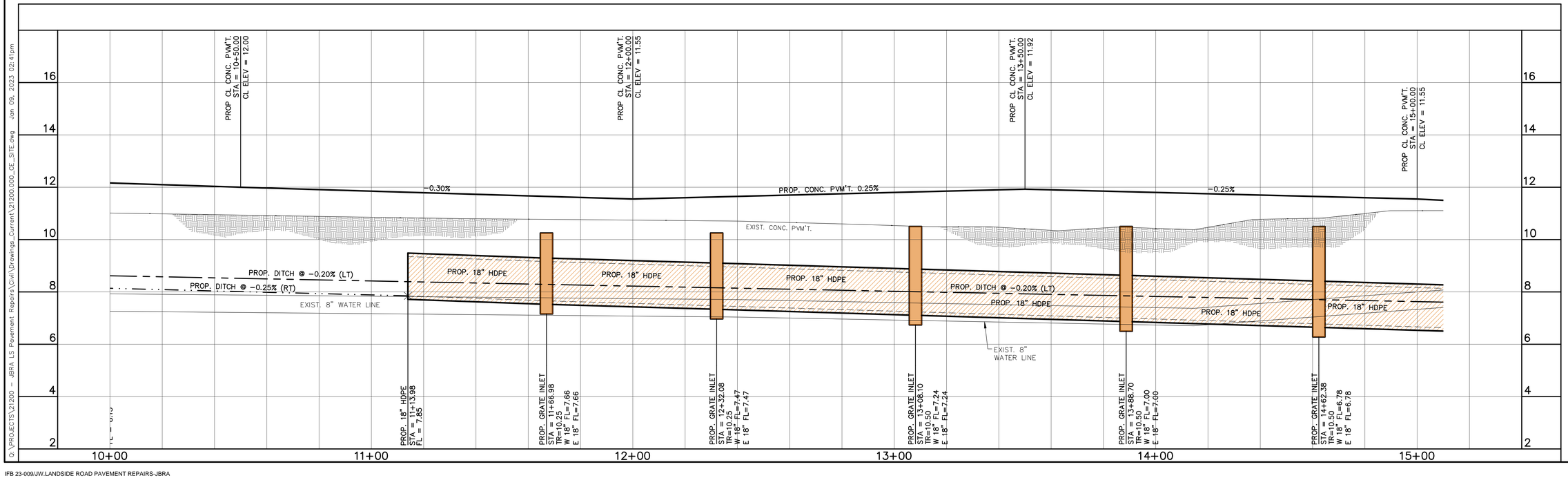
NOTE:

SEE SHEET C1.1 FOR ROADWAY, SUBBASE AND SHOULDER PAVEMENT QUANTITIES.

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11	CONCRETE DRIVEWAY	701 SF.
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STATE OF TEXAS
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Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

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DRAWN BY:	J.L.H.
CHECK BY:	B.T.
FS DRAWING NAME:	21200.000_CE_SITE

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SITE LEGEND

LIGHT POLE	RPZ VALVE	IRON ROD (FOUND)	ELECTRIC PEDESTAL	SANITARY MANHOLE	STORM SEWER LINE	GAS LINE (G)	ELECTRIC LINE (E)
P.P. P.P.	FIRE HYDRANT	CONCRETE MONUMENT	TELEPHONE PEDESTAL	SANITARY CLEANOUT	FIBER OPTIC LINE (FO)	FORCE MAIN LINE (FM)	WATER LINE (W)
SIGN	FDC	"X" SCRIBED IN CONC	FIBER OPTIC PEDESTAL	MAILBOX	TELEPHONE LINE (T)	SANITARY SEWER (SS)	BARBED WIRE FENCE (X)
WATER VALVE	BENCH MARKS	MONITORING WELL	ELECTRIC TRANSFORMER	STORM MANHOLE	CABLE TV LINE (TV)	PIPELINE (PL)	CHAINLINK FENCE
WATER METER	IRON ROD (SET)	GAS METER	GUY ANCHOR	STORM GRATE INLET			IRON FENCE / WOOD FENCE

PROPOSED CONCRETE ROADWAY

PROPOSED CONCRETE DRIVEWAY

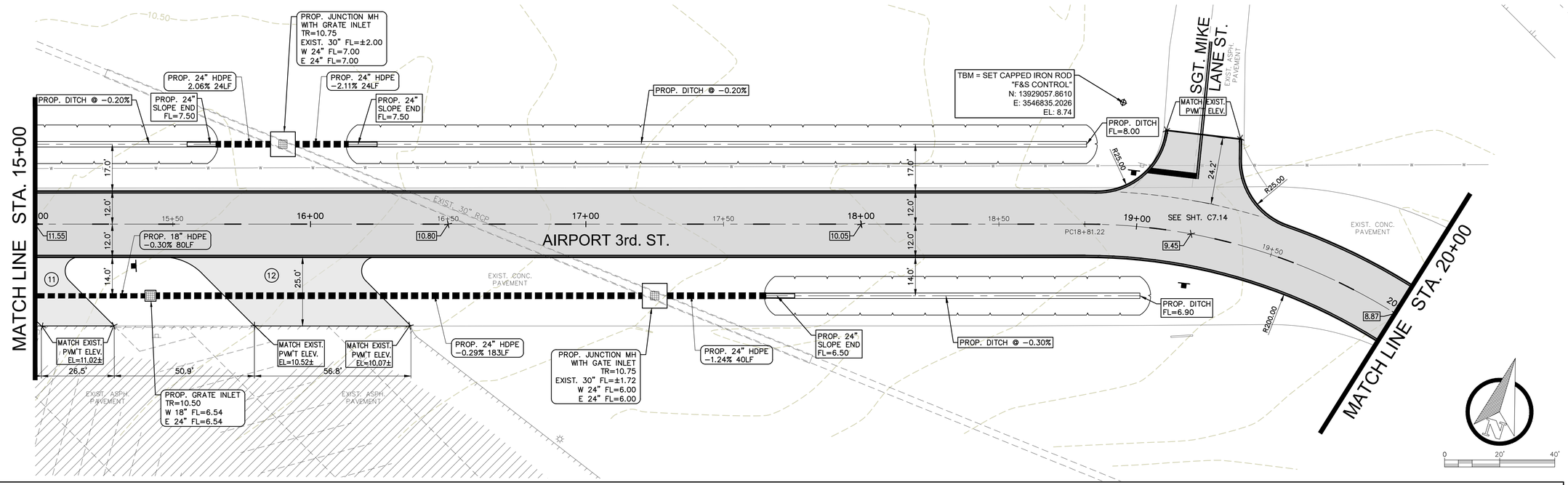
PROPOSED ROCK DRIVEWAY

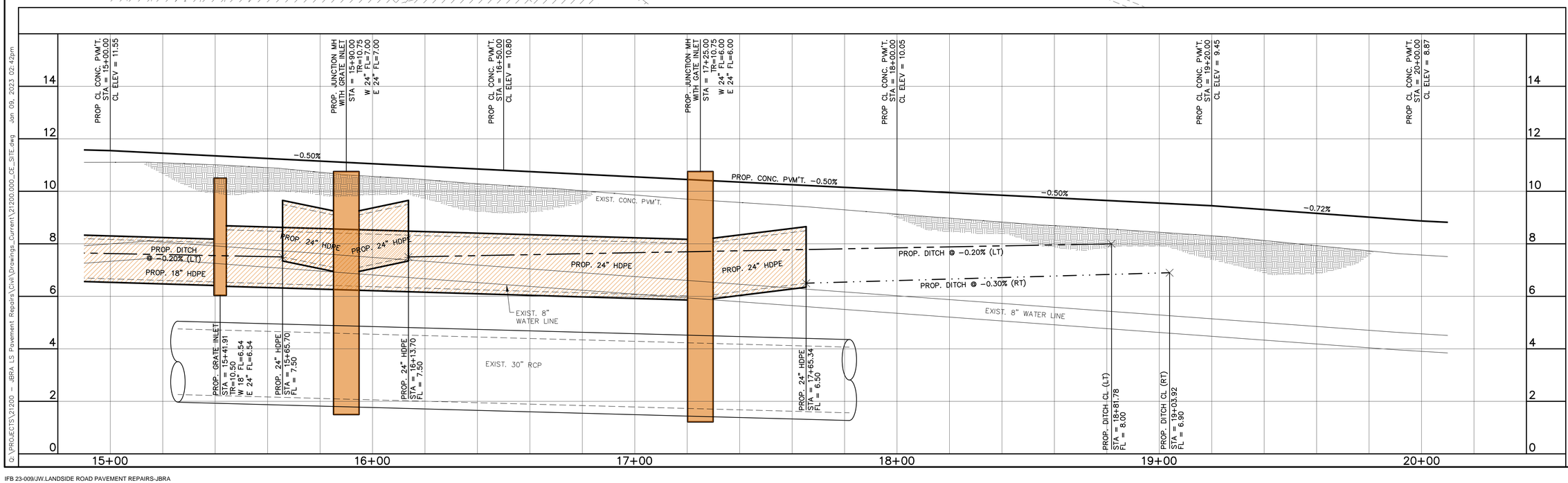
NOTE:

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STATE OF TEXAS
BERNARDINO D. TRISTAN
117017
LICENSED PROFESSIONAL ENGINEER
Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

FS PROJECT # 21200.000

DATE:	Jan 09, 2023
SCALE:	H: 1:20 V: 1:2
DRAWN BY:	J.L.H.
CHECK BY:	B.T.

FS DRAWING NAME: 21200.000_CE_SITE

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SITE LEGEND

LIGHT POLE	RPZ VALVE	IRON ROD (FOUND)	ELECTRIC PEDESTAL	SANITARY MANHOLE	STORM SEWER LINE	GAS LINE	ELECTRIC LINE	IRON FENCE
P.P. P.P.	FIRE HYDRANT	CONCRETE MONUMENT	TELEPHONE PEDESTAL	SANITARY CLEANOUT	FIBER OPTIC LINE	FORCE MAIN LINE	WATER LINE	WOOD FENCE
SIGN	FDC	"X" SCRIBED IN CONC	FIBER OPTIC PEDESTAL	MAILBOX	TELEPHONE LINE	SANITARY SEWER	BARBED WIRE FENCE	
WATER VALVE	BENCH MARKS	MONITORING WELL	ELECTRIC TRANSFORMER	STORM MANHOLE	CABLE TV LINE	PIPELINE	CHAINLINK FENCE	
WATER METER	IRON ROD (SET)	GAS METER	GUY ANCHOR	STORM GRATE INLET				

PROPOSED CONCRETE ROADWAY

PROPOSED CONCRETE DRIVEWAY

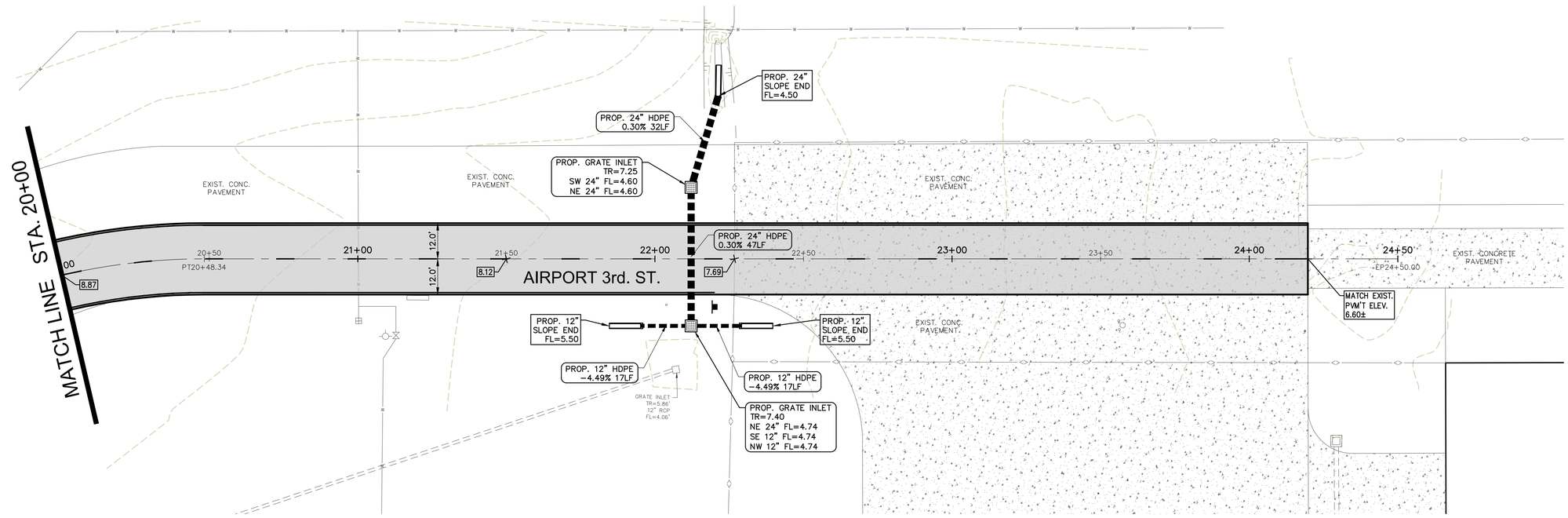
PROPOSED ROCK DRIVEWAY

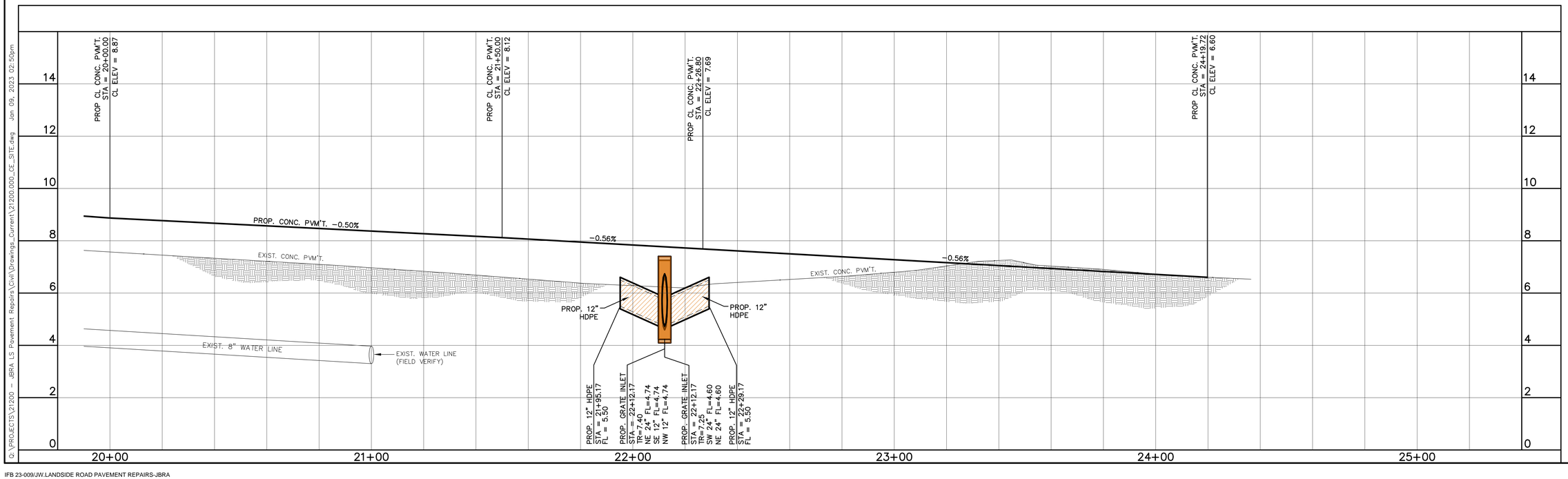
NOTE:

SEE SHEET C1.1 FOR ROADWAY, SUBBASE AND SHOULDER PAVEMENT QUANTITIES.

PROPOSED DRIVEWAY PAVING TABLE		
ID #	DESCRIPTION	UNIT
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PROPOSED DRIVEWAY PAVING TABLE		
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11	CONCRETE DRIVEWAY	701 SF.
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STATE OF TEXAS
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117017
LICENSED PROFESSIONAL ENGINEER
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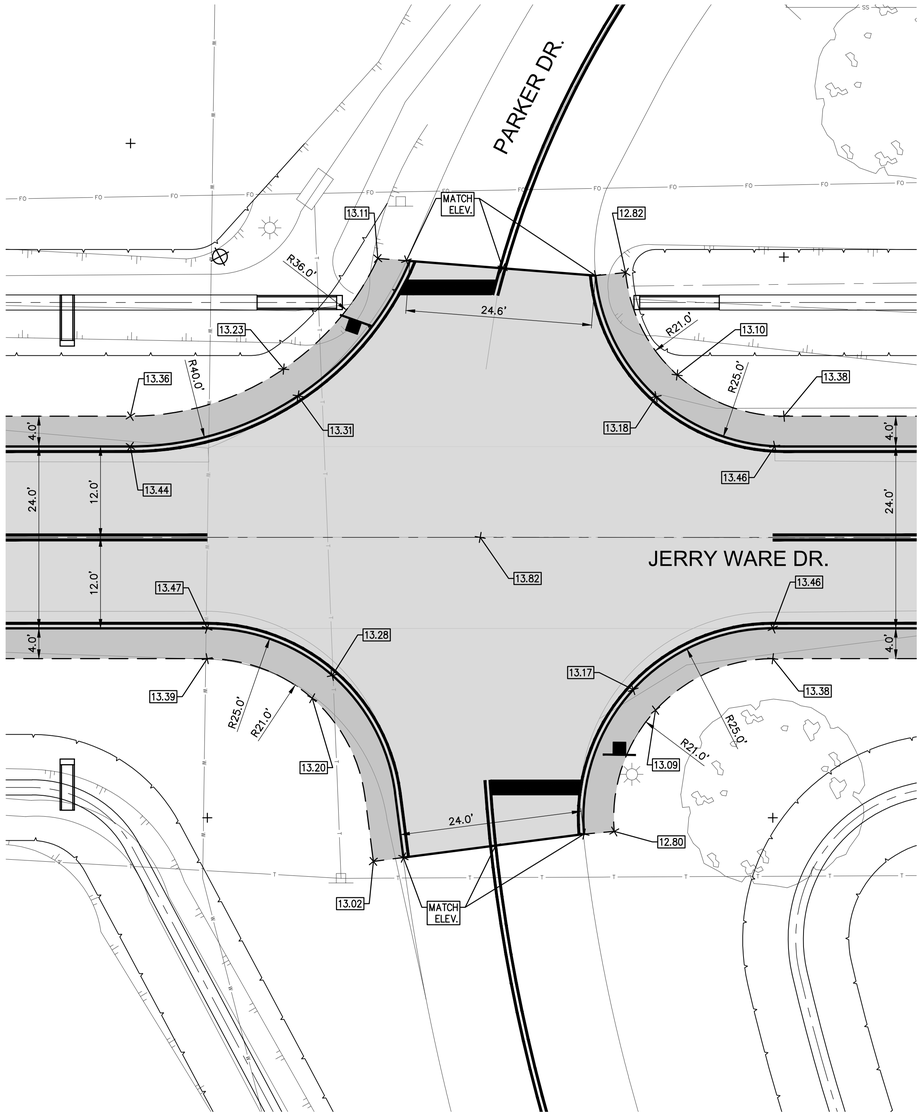
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STA. 20+00 - 25+00

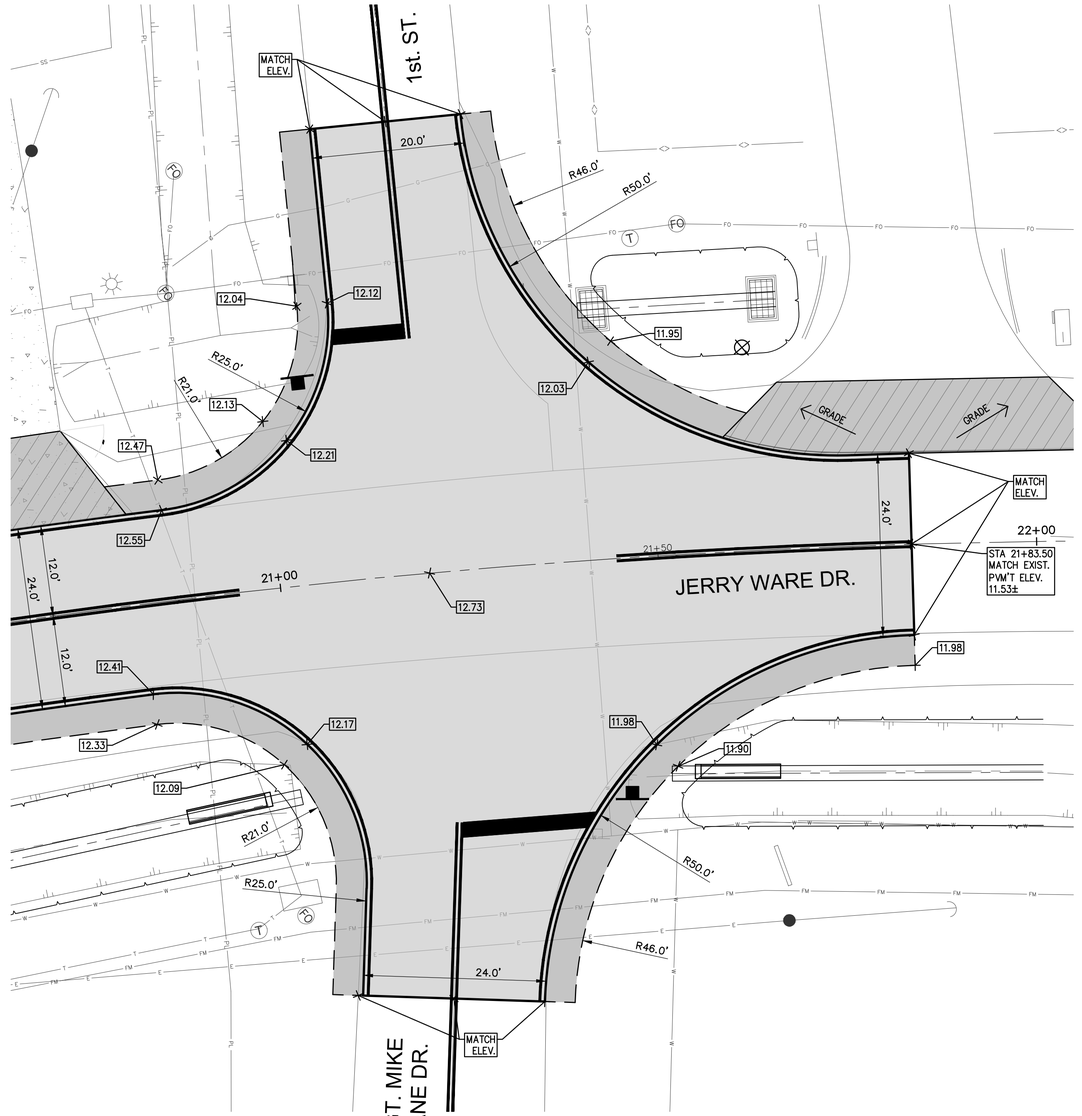
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0 10' 20'

INTERSECTION GRADING JERRY WARE DRIVE AT PARKER DRIVE

0 10' 20'

INTERSECTION GRADING JERRY WARE DRIVE AT SGT. MIKE LANE / 1st. STREET

Q:\PROJECTS\21200 - JBRA LS Pavement Repairs\Civil\Drawings_Current\21200.000_CE_SITE.dwg Jan 09, 2023 02:54pm

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STATE OF TEXAS
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117017
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Jan 09, 2023

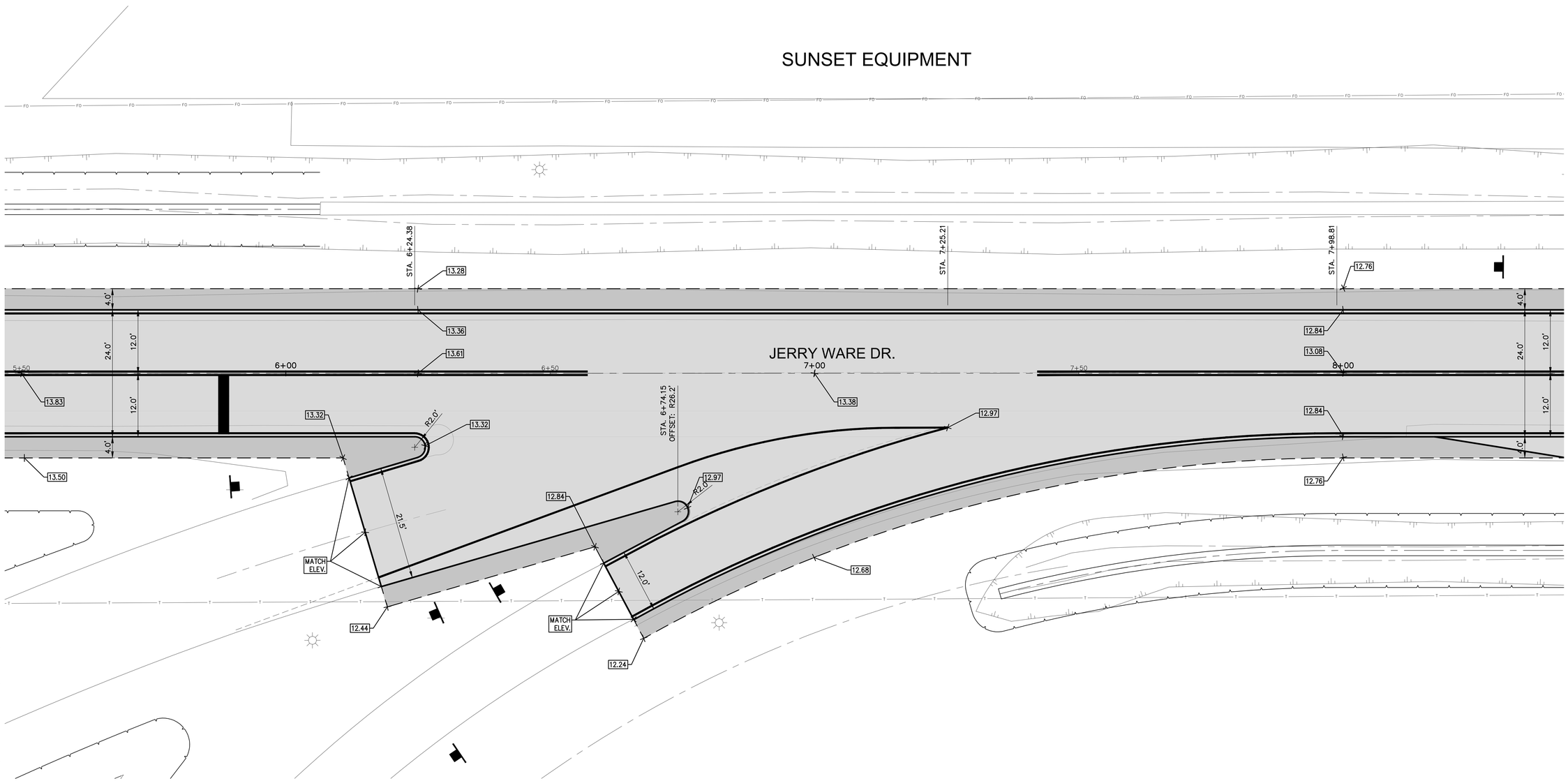
JACK BROOKS REGIONAL AIRPORT

FS PROJECT #	21200.000
DATE:	Jan 09, 2023
SCALE:	1" = 10'
DRAWN BY:	J.L.H.
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FS DRAWING NAME:	21200.000_CE_SITE

INTERSECTION GRADING PLAN JERRY WARE DR.

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0 10' 20'

INTERSECTION GRADING JERRY WARE DRIVE AT AIR LINE DRIVE

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Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

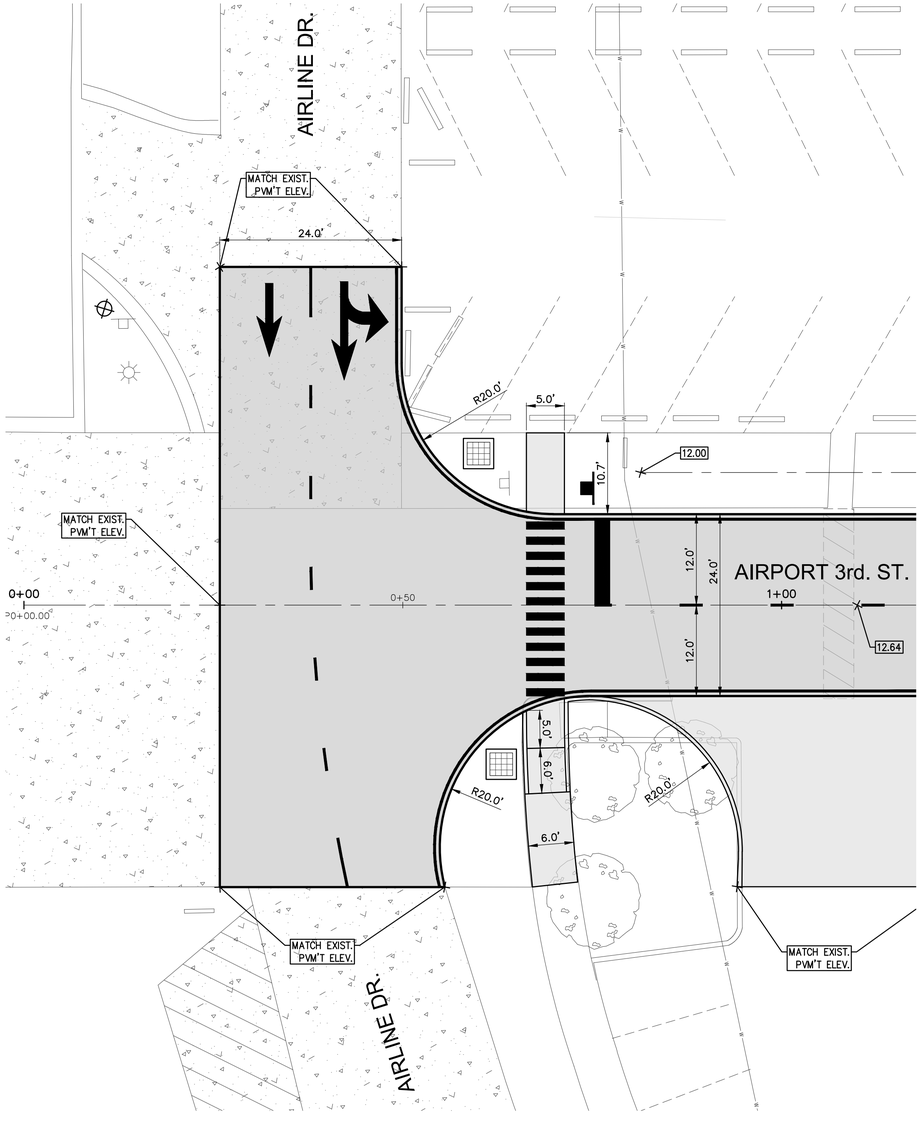
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DATE:	Jan 09, 2023
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CHECK BY:	B.T.
FS DRAWING NAME:	21200.000_CE_SITE

INTERSECTION GRADING PLAN JERRY WARE DR.

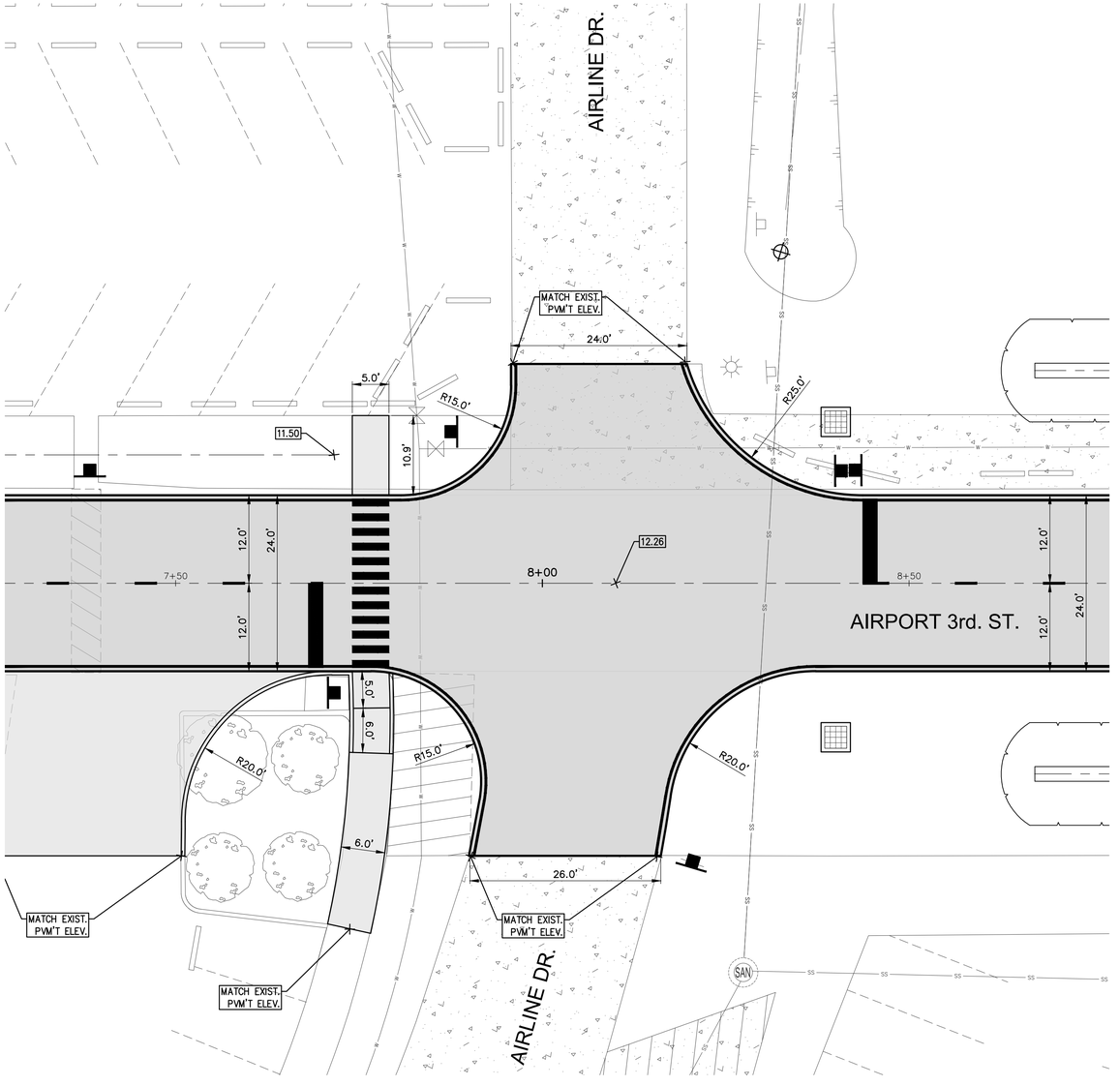
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INTERSECTION GRADING
AIRPORT 3rd. STREET AT
AIRLINE DRIVE



INTERSECTION GRADING
AIRPORT 3rd. STREET AT
AIRLINE DRIVE

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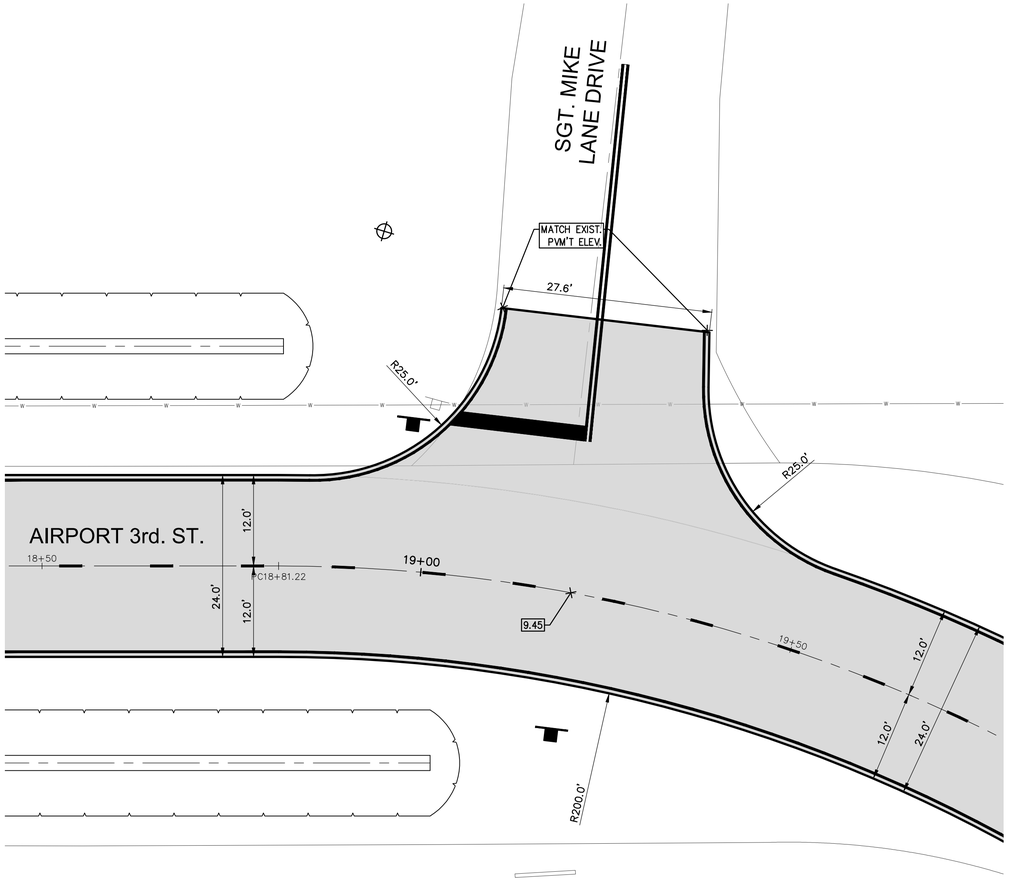
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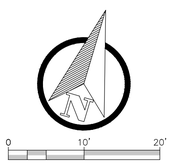
INTERSECTION GRADING PLAN AIRPORT 3rd. ST.

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INTERSECTION GRADING AIRPORT 3rd. STREET AT SGT. MIKE LANE DRIVE

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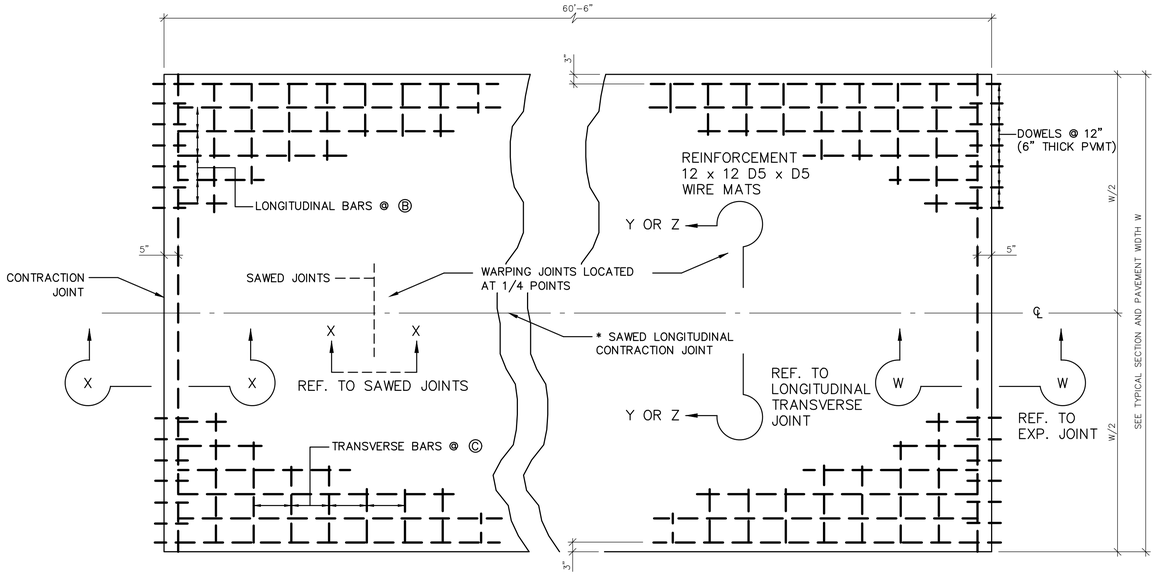
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INTERSECTION GRADING PLAN AIRPORT 3rd. ST.

C7.14

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PAVEMENT THICKNESS T (INCHES)	SPACINGS FOR #3 BARS 13'-6" PLACEMENT WIDTH LONGITUDINAL NO. OF BARS	LONGITUDINAL 4 SPACE B (IN)	TRANSVERSE NO. OF BARS	TRANSVERSE 4 SPACE C (IN)	2 STEEL # /SY	SPACINGS FOR #3 BARS 14'-6" PLACEMENT WIDTH LONGITUDINAL NO. OF BARS	LONGITUDINAL 4 SPACE B (IN)	TRANSVERSE NO. OF BARS	TRANSVERSE 4 SPACE C (IN)	2 STEEL # /SY	SPACINGS FOR #3 BARS 27'-0" PLACEMENT WIDTH LONGITUDINAL NO. OF BARS	LONGITUDINAL 4 SPACE B (IN)	TRANSVERSE NO. OF BARS	TRANSVERSE 4 SPACE C (IN)	2 STEEL # /SY	DOWELS (SMOOTH BARS) SIZE	AVG SPACE (IN)	WT # /FT OF JOINT	TIEBARS (DEFORMED) SIZE	AVG SPACE (IN)	WT # /FT OF JOINT
6	8	22-1/2	31	24	3.66	9	21	31	24	3.80	15	22-5/8	31	24	3.67	1" X 18"	12	4.01	#4 X 30"	36	0.56
7	8	22-1/2	31	24	3.66	9	21	31	24	3.80	15	22-5/8	31	24	3.67	1" X 18"	12	4.01	#4 X 30"	36	0.56
8	8	22-1/2	31	24	3.66	9	21	31	24	3.80	15	22-5/8	31	24	3.67	1" X 18"	12	4.01	#4 X 30"	36	0.56
9	10	17-1/2	31	24	4.16	10	18-3/4	31	24	4.03	17	19-3/4	31	24	3.92	1-1/8" X 20"	12	5.63	#4 X 30"	36	0.56
10	10	17-1/2	37	20	4.48	11	16-3/4	37	20	4.59	18	18-5/8	37	20	4.38	1-1/4" X 22"	12	7.65	#4 X 30"	36	0.56
11	11	15-3/4	37	20	4.72	11	16-3/4	37	20	4.59	20	16-3/4	37	20	4.63	1-1/4" X 22"	12	7.65	#4 X 30"	36	0.56
12	12	14-1/4	41	18	5.19	12	15-1/4	41	18	5.03	22	15-1/8	41	18	5.1	1-1/4" X 22"	12	7.65	#4 X 30"	30	0.67
13	12	14-1/4	49	15	5.92	13	14	49	15	5.69	23	14-3/8	49	15	5.68	1-1/4" X 22"	12	7.65	#4 X 30"	30	0.67
14	13	13-1/4	49	15	5.87	14	13	49	15	5.92	25	13-1/4	49	15	5.92	1-1/4" X 22"	12	7.65	#4 X 30"	24	0.84

TWO LANE PAVEMENT PLAN

NOTE:
LONGITUDAL JOINTS SHALL BE PLACED AT ℄ & 14.75' OFF BACK OF CURB, UNLESS OTHERWISE APPROVED.

1. THE CONTRACTOR MAY USE #3, #4, OR #5 BARS FOR TRANSVERSE OR LONGITUDINAL STEEL. SPACINGS B AND C SHOWN IN THIS TABLE ARE FOR #3 BARS. EQUIVALENT SPACINGS OF #4 OR #5 BARS THAT MAINTAIN AN EQUIVALENT OR GREATER AREA OF STEEL WILL BE ACCEPTED IN ANY CROSS SECTIONS, PROVIDED NO SPACINGS ARE GREATER THAN 36".

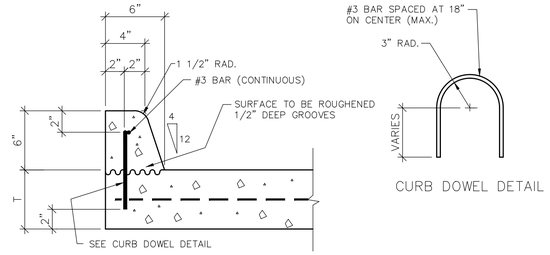
2. STEEL WEIGHTS ARE FOR CONTRACTOR'S INFORMATION ONLY AND INCLUDE WEIGHT OF LONGITUDINAL AND TRANSVERSE BARS.

3. SPACING SHOWN ARE FOR ASTM DESIGNATION A-615 OR A-616, GRADE 60 TIEBARS. IF ASTM A-615, GRADE 40 TIEBARS ARE USED, THE AVERAGE SPACING SHALL BE TWO-THIRDS OF THE SPACINGS SHOWN IN THE TABLE.

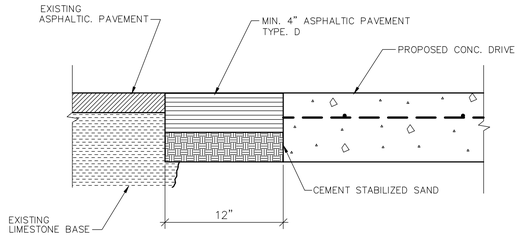
4. THE B SPACINGS ADJACENT TO THE LONGITUDINAL BAR NEAREST THE EDGE OF PLACEMENT SHALL BE ADJUSTED IN WIDTH TO MAINTAIN THE 3" EDGE SPACING SHOWN IN DETAILS OF LONGITUDINAL CONSTRUCTION JOINT, SECTION Y-Y AND TYPICAL SECTION, SECTION Z-Z. IN A LIKE MANNER, THE C SPACING ADJACENT TO THE TRANSVERSE BARS NEAREST THE CONTRACTION JOINT SHALL BE ADJUSTED IN WIDTH TO MAINTAIN THE 5" SPACING FROM THE VERTICAL PLANE OF THE JOINT.

SLAB THICKNESS (IN.)	TRANSVERSE STEEL X-X BAR SIZE	TRANSVERSE STEEL X-X SPACING (IN.)	TIE BARS AT LONGITUDINAL CONTRACTION JOINT Y-Y BAR SIZE	TIE BARS AT LONGITUDINAL CONTRACTION JOINT Y-Y SPACING (IN.)	TIE BARS AT LONGITUDINAL CONSTRUCTION JOINT Z-Z BAR SIZE	TIE BARS AT LONGITUDINAL CONSTRUCTION JOINT Z-Z SPACING (IN.)
6.0 – 7.5	#5	36	#5	36	#5	24
8.0 – 13.0	#5	36	#6	36	#6	24

TABLE NO.2 TRANSVERSE STEEL AND TIE BARS

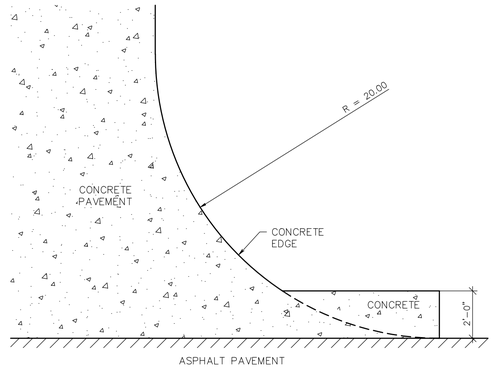


STANDARD CURB FOR REINFORCED CONCRETE PAVEMENT

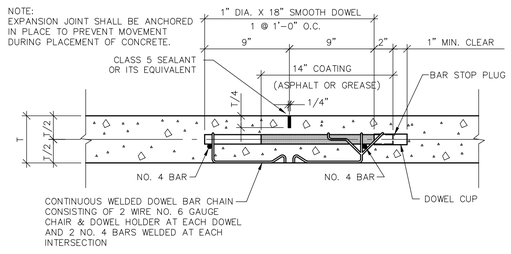


PAVEMENT TRANSITION

(NEW CONCRETE TO EXIST. ASPHALT)

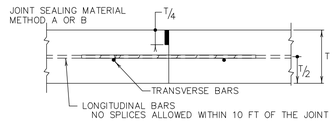


DRIVEWAY CURB TERMINATION

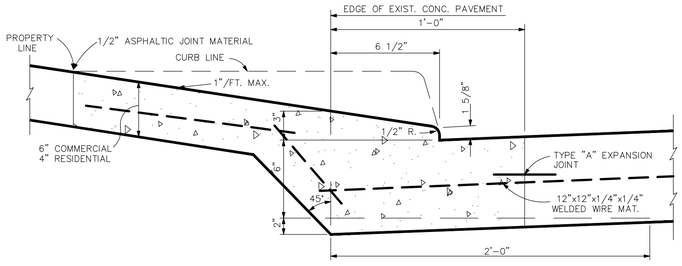


CONTRACTION JOINT SECTION W - W

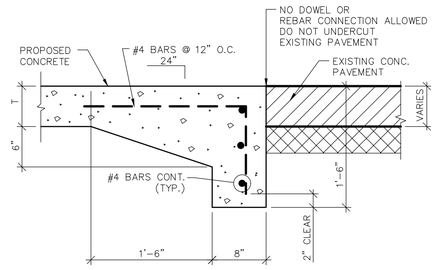
(SPACING 60' O.C.)



TRANSVERSE CONSTRUCTION JOINT SECTION X - X

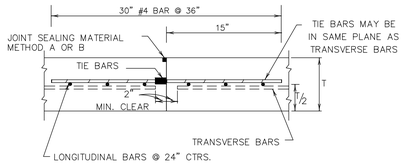


TYPICAL DRIVEWAY SECTION

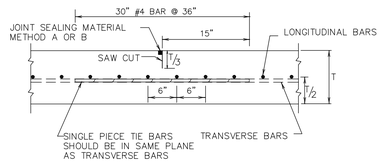


PAVEMENT TRANSITION - TXDOT

(NEW CONCRETE TO EXIST. CONCRETE)



LONGITUDINAL CONSTRUCTION JOINT SECTION Y - Y



LONGITUDINAL CONTRACTION JOINT SECTION Z - Z

Fittz & Shipman INC.
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www.fittzshipman.com
T.B.P.E. Firm #1160 T.X.L.S. Firm #100186

STATE OF TEXAS
BERNARDINO D. TRISTAN
117017
LICENSED PROFESSIONAL ENGINEER
Jan 09, 2023

DATE
ISSUED FOR
NO.

JACK BROOKS REGIONAL AIRPORT

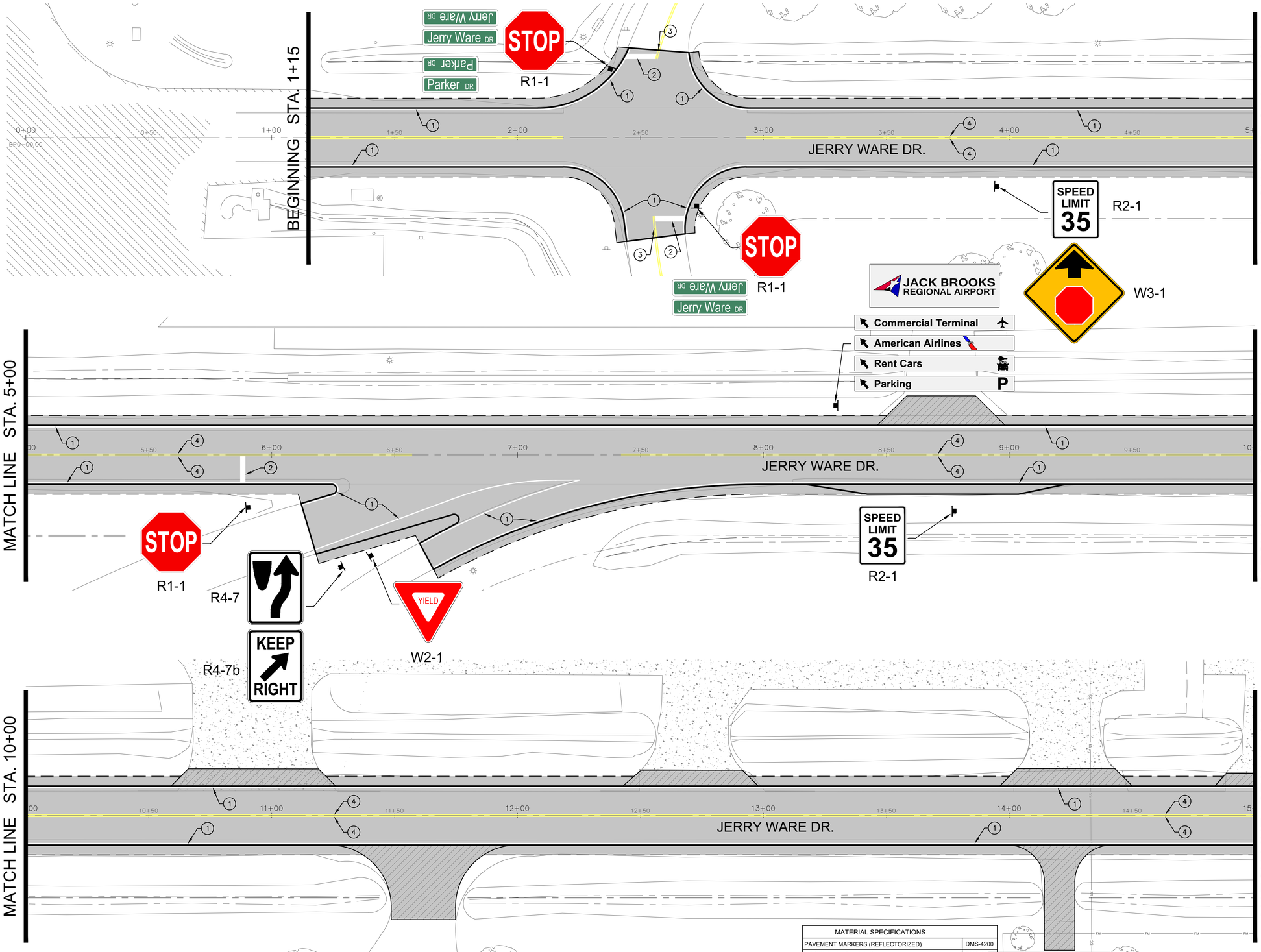
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DATE: Jan 09, 2023
SCALE: N.T.S.
DRAWN BY: J.L.H.
CHECK BY: B.T.
FS DRAWING NAME: 21200.000_CE_SITE

ROADWAY STANDARDS AND PAVING DETAILS

C7.15

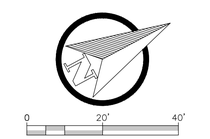
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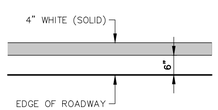
MATERIAL SPECIFICATIONS	
PAVEMENT MARKERS (REFLECTORIZED)	DMS-4200
EPOXY AND ADHESIVES	DMS-6100
BITUMINOUS ADHESIVE FOR PAVEMENT MARKERS	DMS-6130
TRAFFIC PAINT	DMS-8200
HOT APPLIED THERMOPLASTIC	DMS-8220
PERMANENT PREFABRICATED PAVEMENT MARKINGS	DMS-8240

All pavement marking materials shall meet the required Departmental Material Specifications as specified by the plans.



4" D S Y
(WIDTH) (DOUBLE) (YELLOW/WHITE)
(SOLID/BROKEN)

STRIPING LEGEND



1. 4" WHITE SOLID STRIPE
2. 24" WHITE SOLID STRIPE
3. 4" YELLOW BROKEN STRIPE
4. 4" YELLOW SOLID STRIPE

NO.	ISSUED FOR	DATE

Fittz & Shipman INC.
Consulting Engineers and Land Surveyors
1405 Cornerstone Court Beaumont, TX. 77706
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www.fittzshipman.com
T.B.P.E. Firm #1160 T.X.L.S. Firm #100186

STATE OF TEXAS
BERNARDINO D. TRISTAN
117017
LICENSED PROFESSIONAL ENGINEER
Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

FS PROJECT # 21200.000

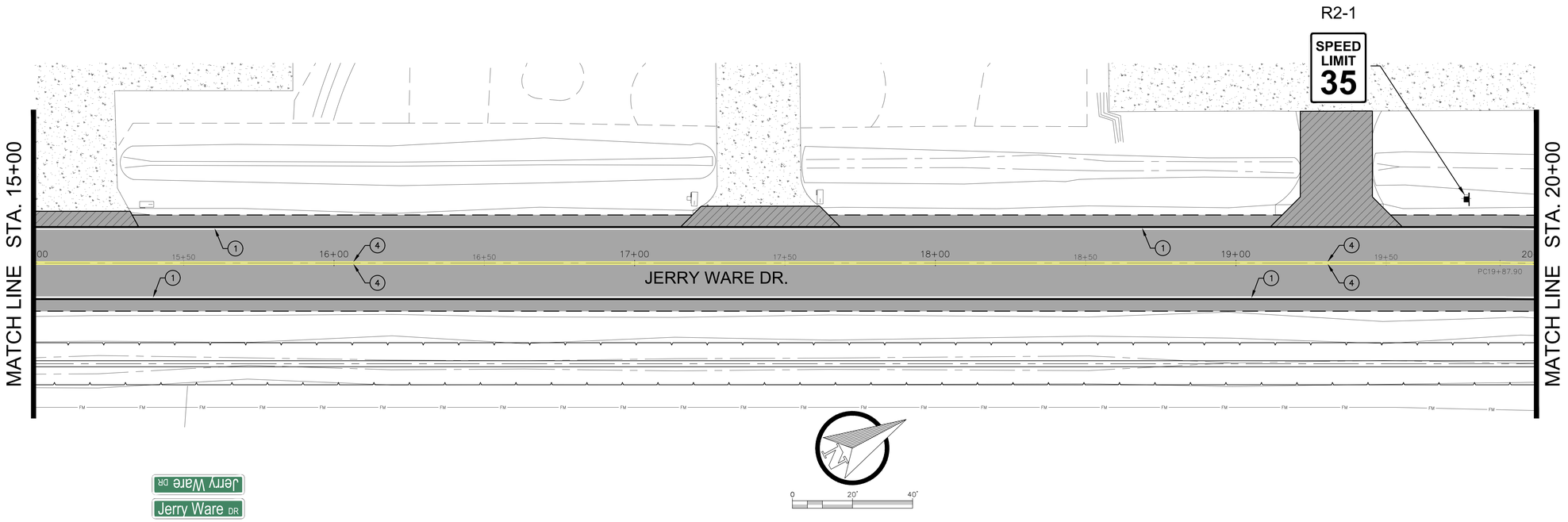
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CHECK BY:	B.D.T.
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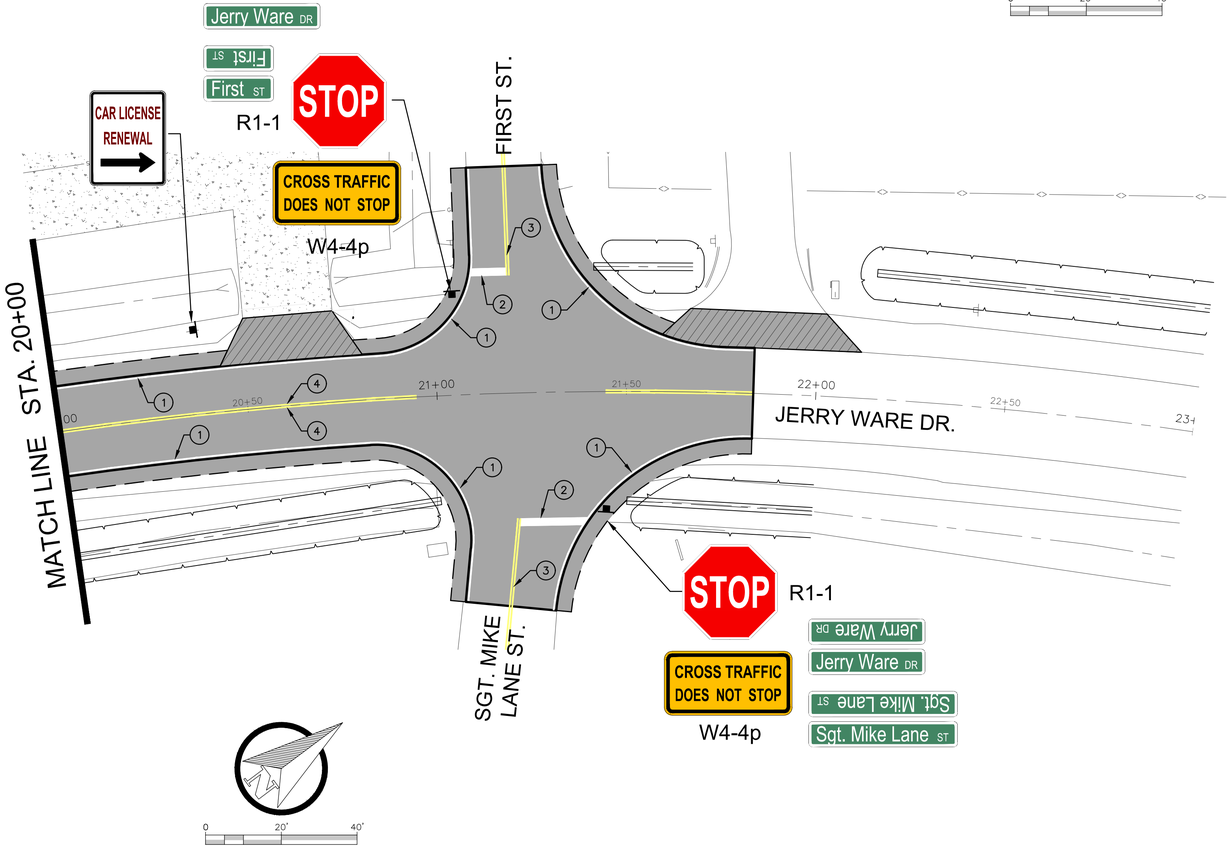
JERRY WARE DR. PVM'T STRIPING AND SIGNAGE

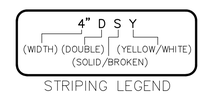
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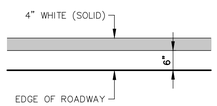
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STRIPING LEGEND



1. 4" WHITE SOLID STRIPE
2. 24" WHITE SOLID STRIPE
3. 4" YELLOW BROKEN STRIPE
4. 4" YELLOW SOLID STRIPE

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

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117017
LICENSED PROFESSIONAL ENGINEER
Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

FS PROJECT # 21200.000

DATE:	Jan 09, 2023
SCALE:	1" = 20'
DRAWN BY:	J.L.H.
CHECK BY:	B.D.T.

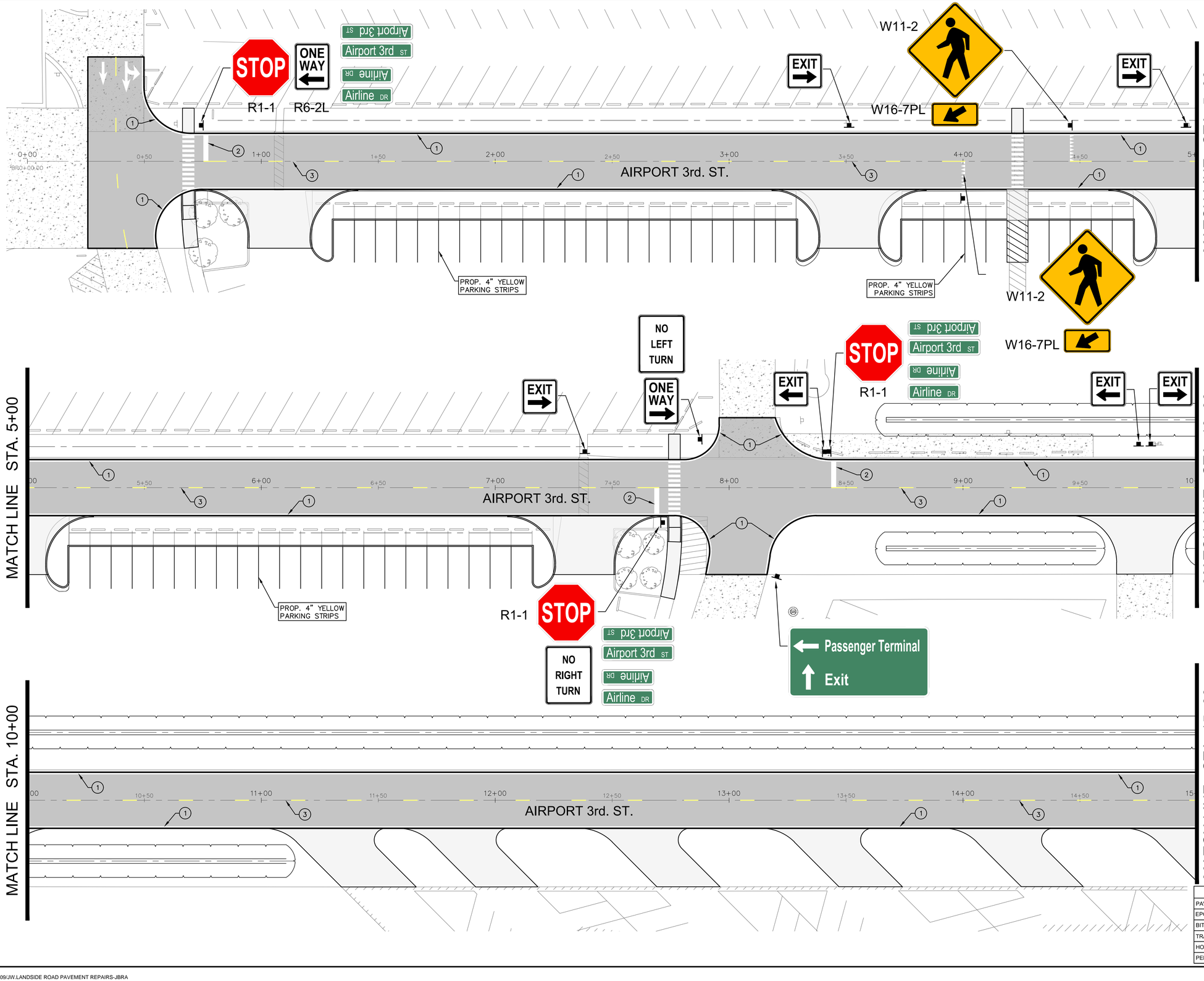
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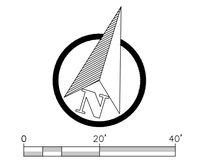
JERRY WARE DR. PVM'T STRIPING AND SIGNAGE

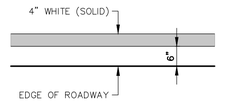
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1. 4" WHITE SOLID STRIPE
2. 24" WHITE SOLID STRIPE
3. 4" YELLOW BROKEN STRIPE
4. 4" YELLOW SOLID STRIPE

4" D S Y
(WIDTH) (DOUBLE) (YELLOW/WHITE)
(SOLID/BROKEN)

STRIPING LEGEND

All pavement marking materials shall meet the required Departmental Material Specifications as specified by the plans.

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

NO.	ISSUED FOR	DATE

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Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

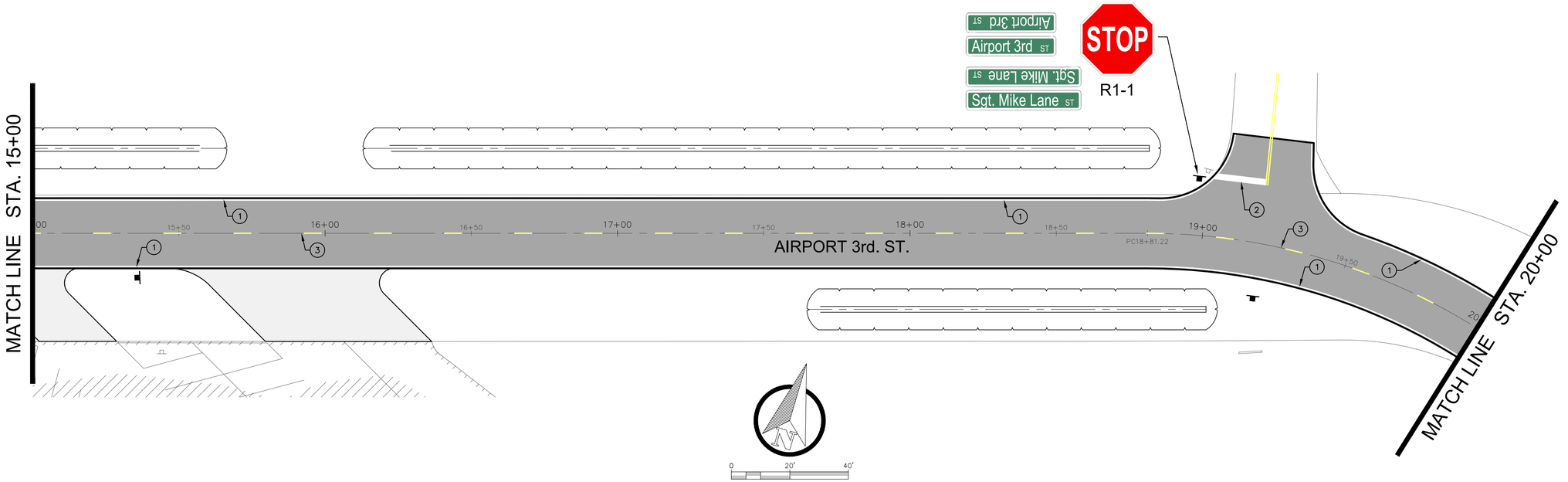
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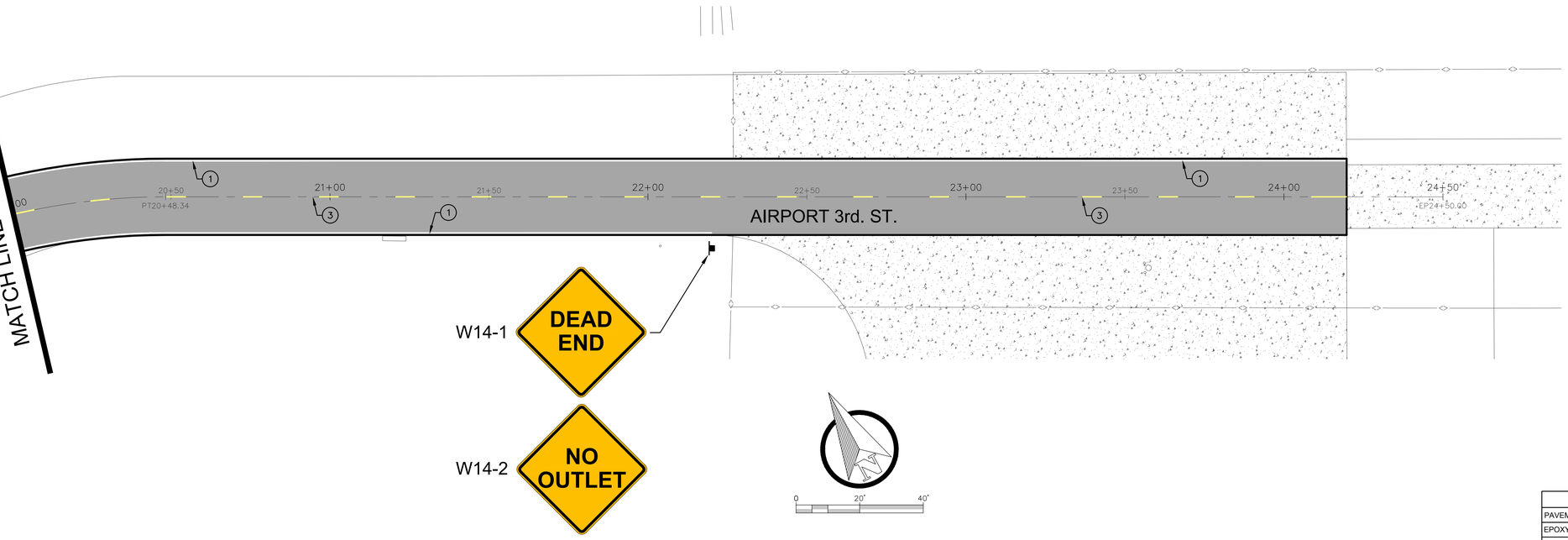
AIRORT 3RD. ST. PVM'T STRIPING AND SIGNAGE

C8.3

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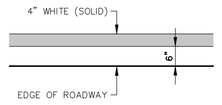
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4" D S Y
(WIDTH) (DOUBLE) (YELLOW/WHITE)
(SOLID/BROKEN)

STRIPING LEGEND



1. 4" WHITE SOLID STRIPE
2. 24" WHITE SOLID STRIPE
3. 4" YELLOW BROKEN STRIPE
4. 4" YELLOW SOLID STRIPE

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.

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Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

FS PROJECT # 21200.000

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DRAWN BY:	J.L.H.
CHECK BY:	B.D.T.

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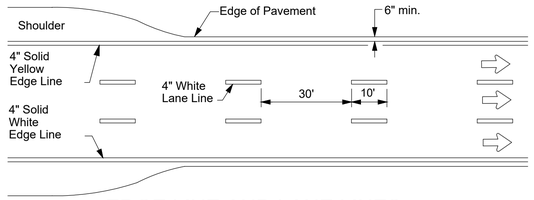
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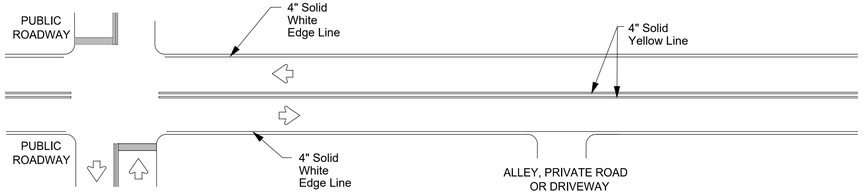
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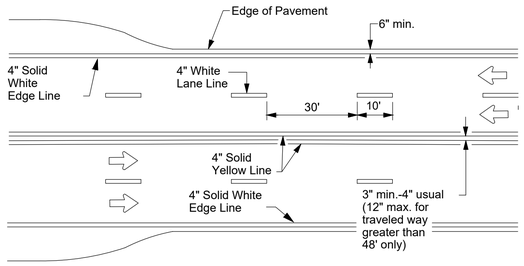
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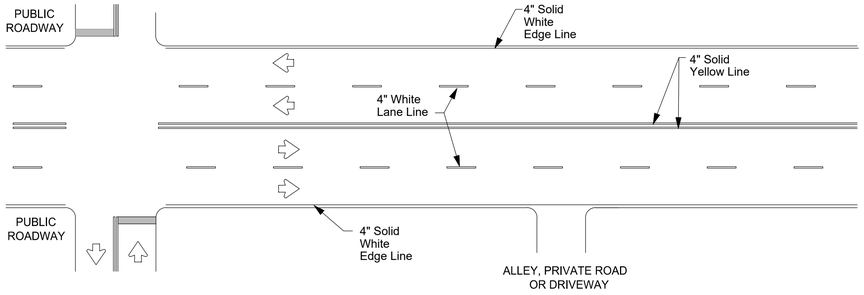
EDGE LINE AND LANE LINES ONE-WAY ROADWAY WITH OR WITHOUT SHOULDERS



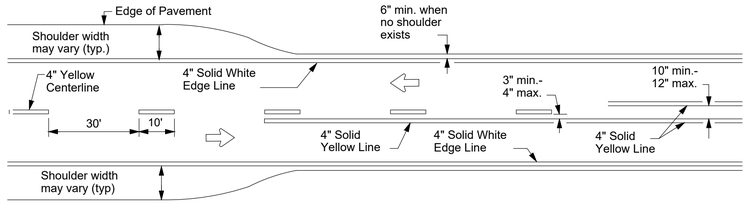
TYPICAL TWO-LANE, TWO-WAY PAVEMENT MARKINGS THROUGH INTERSECTIONS



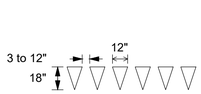
CENTERLINE AND LANE LINES FOUR LANE TWO-WAY ROADWAY WITH OR WITHOUT SHOULDERS



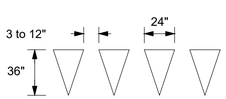
TYPICAL MULTI-LANE, TWO-WAY PAVEMENT MARKINGS THROUGH INTERSECTIONS



TWO LANE TWO-WAY ROADWAY WITH OR WITHOUT SHOULDERS

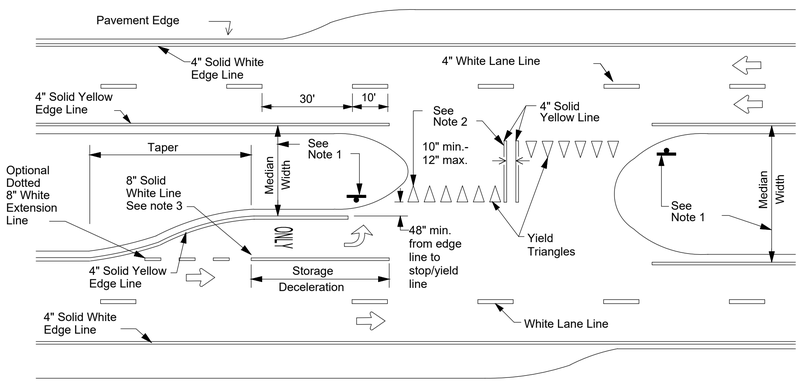


For posted speed on road being marked equal to or less than 40 MPH.



For posted speed on road being marked equal to or greater than 45 MPH.

YIELD LINES



FOUR LANE DIVIDED ROADWAY CROSSOVERS

NOTES

1. 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.

2. 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 traingles shall only be used with yield signs.

3. Length of turn bays, including taper, deceleration, and storage lengths shall be as shown on the plans or as directed by the Engineer.

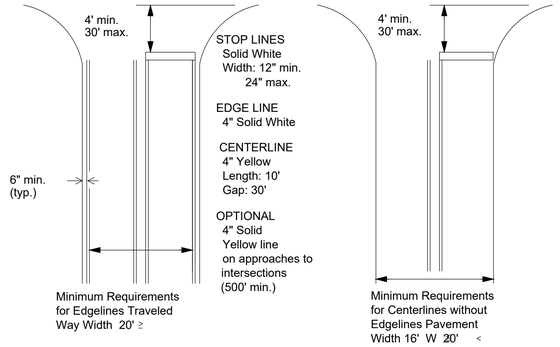
GENERAL NOTES

1. Edgeline striping shall be as shown in the plans or as directed by the Engineer. The edgeline should not be placed less 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.

2. 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
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.



GUIDE FOR PLACEMENT OF STOP LINES, EDGE LINE & CENTERLINE

Based on Traveled Way and Pavement Widths for Undivided Highways

Texas Department of Transportation | Traffic Safety Division Standard

TYPICAL STANDARD PAVEMENT MARKINGS

PM(1)-20

FILE: pm1-20.dgn	DN:	CK:	DW:	CK:
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REVISIONS 8-95 3-03 / 5-00 2-12 / 8-00 6-20				
22A	DIST	COUNTY		SHEET NO.

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STATE OF TEXAS
BERNARDINO D. TRISTAN
117017
LICENSED PROFESSIONAL ENGINEER
Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

FS PROJECT # 21200.000

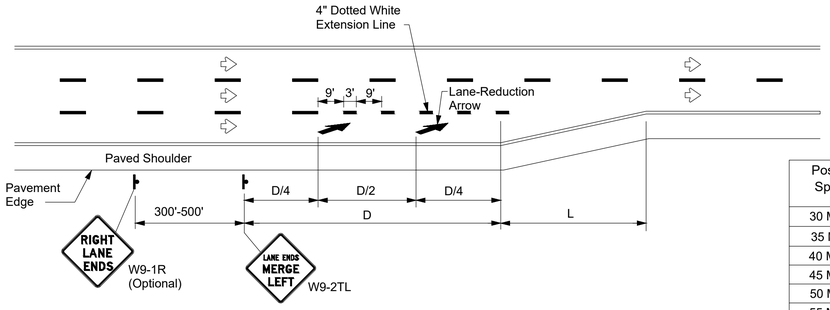
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SCALE:	N.T.S.
DRAWN BY:	J.L.H.
CHECK BY:	B.D.T.

FS DRAWING NAME: 21200.000_CE_PVMT STRIPING & SIGNAGE

PAVEMENT STRIPING AND SIGNAGE

C8.5

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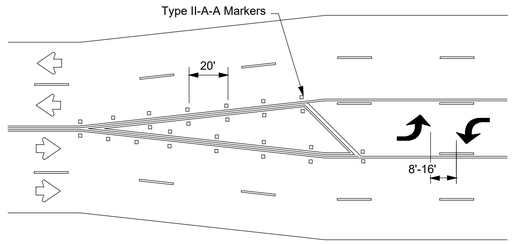


LANE REDUCTION

Posted Speed	D (ft)	L (ft)
30 MPH	460	$L=\frac{WS^2}{60}$
35 MPH	565	
40 MPH	670	
45 MPH	775	L=WS
50 MPH	885	
55 MPH	990	
60 MPH	1,100	
65 MPH	1,200	
70 MPH	1,250	
75 MPH	1,350	

NOTES

1. 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.
2. 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.
3. 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.
4. For lane reductions on Freeways and Expressways, signing shall conform to the TxDOT Freeway Signing Handbook.



A two-way left-turn (TWLT) 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.

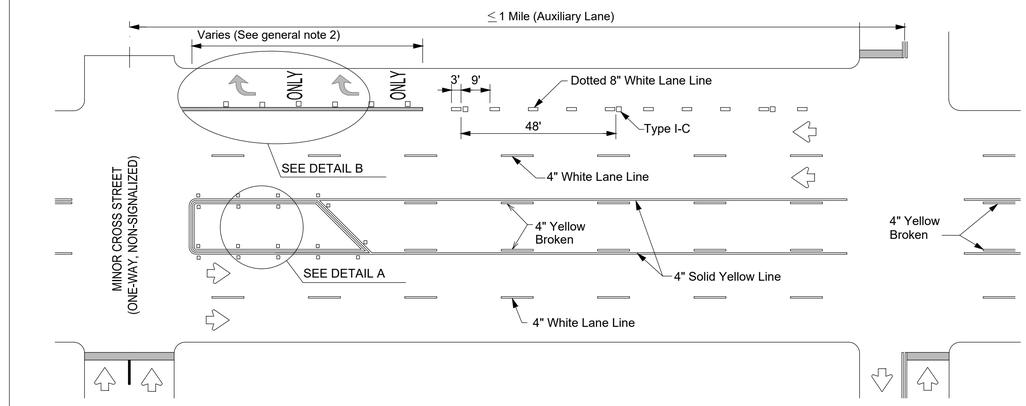
TYPICAL TRANSITION FOR TWLTL AND DIVIDED HIGHWAY

GENERAL NOTES

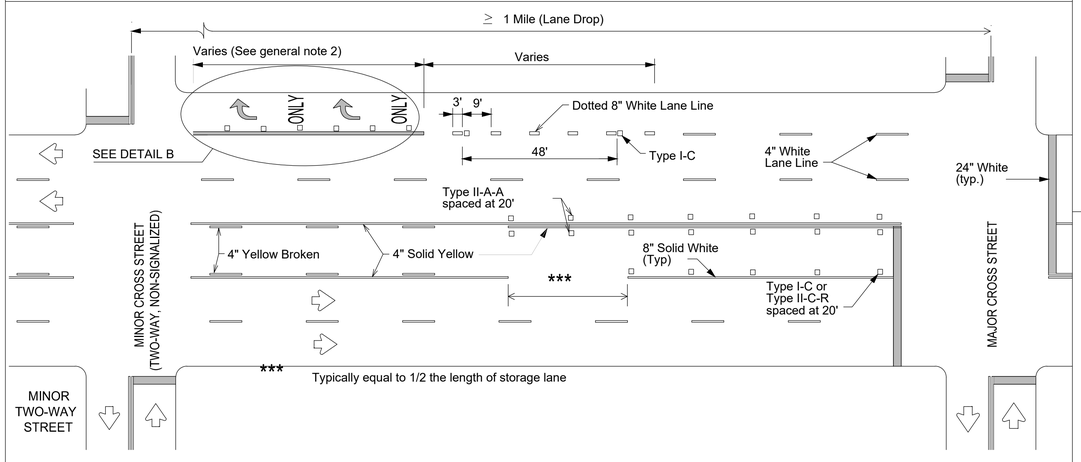
1. Lane use word and arrow markings shall be used where through lanes approaching an intersection become mandatory turn lanes. Lane use word and arrow markings should be used in auxiliary lanes of substantial length. Lane use arrow markings or word and arrow markings may be used in other lanes and turn bays for emphasis. Details for words and arrows are as shown in the Standard Highway Sign Designs for Texas.
2. 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.
3. 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.
4. 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

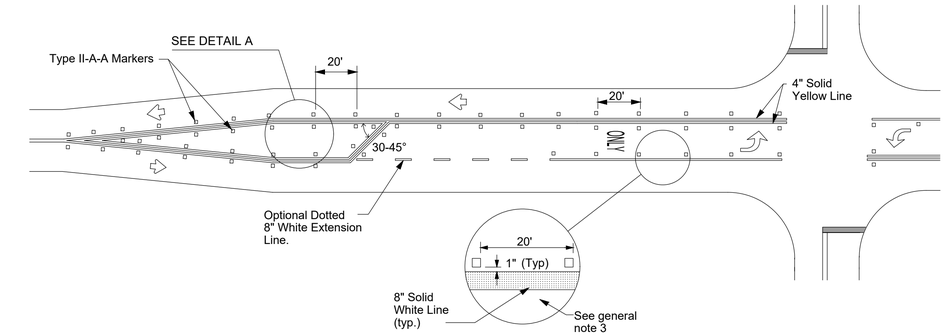
All pavement marking materials shall meet the required Departmental Material Specifications as specified by the plans.



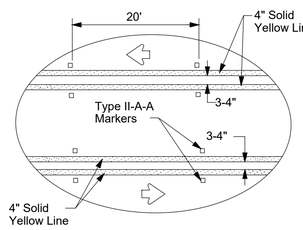
TYPICAL TWLTL AT ONE-WAY STREET AND RIGHT TURN AUXILIARY LANE



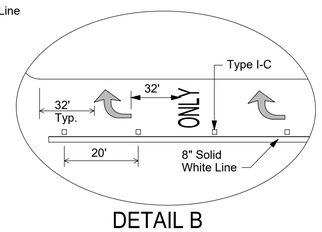
TYPICAL TWLTL AT TWO-WAY CROSS STREET AND RIGHT TURN LANE DROP



TYPICAL TWO-LANE HIGHWAY INTERSECTION WITH LEFT TURN BAYS



DETAIL A



DETAIL B

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	DN:	CK:	DW:	CK:
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REVISIONS				
5-00 2-10	DIST	COUNTY		SHEET NO.
8-00 2-12				
3-03 6-20				
22C				

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BERNARDINO D. TRISTAN
117017
LICENSED
PROFESSIONAL ENGINEER
Jan 09, 2023

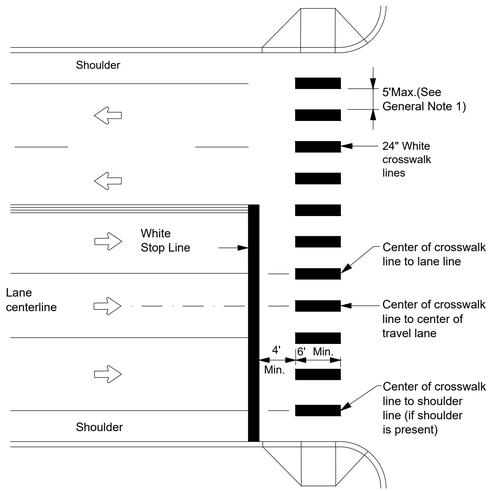
JACK BROOKS REGIONAL AIRPORT

FS PROJECT #	21200.000
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PAVEMENT STRIPING AND SIGNAGE

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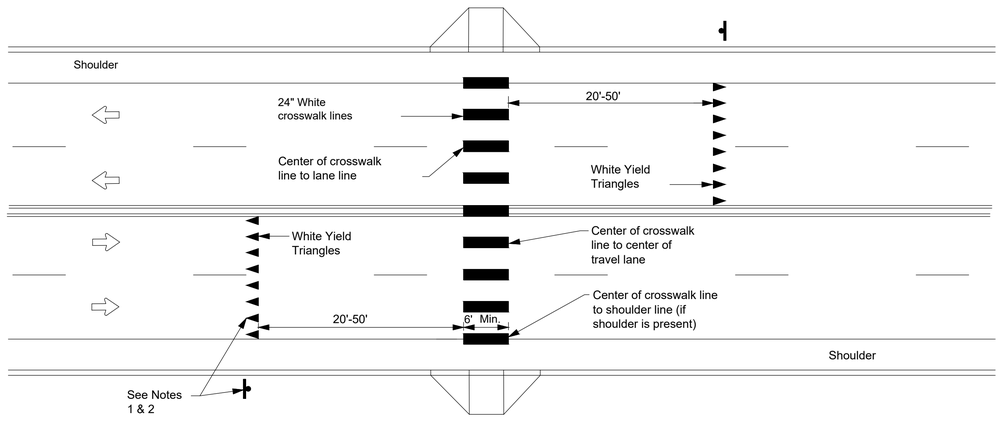
HIGH-VISIBILITY LONGITUDINAL CROSSWALK AT CONTROLLED APPROACH

GENERAL NOTES

1. Longitudinal crosswalk lines should not be placed in the wheel path of vehicles. Center the crosswalk lines on travel lanes, lane lines, and shoulder lines (if present).
2. A minimum 6" clear distance shall be provided to the curb face. If the last crosswalk line falls into this distance it must be omitted.
3. For divided roadways, adjustments in spacing of the crosswalk lines should be made in the median so that the crosswalk lines are maintained in their proper location across the travel portion of the roadway.
4. At skewed crosswalks, the crosswalk lines are to remain parallel to the lane lines.
5. Each crosswalk shall be a minimum of 6' wide.
6. The High-Visibility Longitudinal Crosswalk is the preferred crosswalk pattern on State Highways. Other crosswalk patterns as shown in the "Texas Manual on Uniform Traffic Control Devices" may be used. All crosswalk designs and dimension shall comply with the "Texas Manual on Uniform Traffic Control Devices."
7. Final placement of Stop Bar/Yield Triangles and Crosswalk shall be approved by the Engineer in the field.

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.



UNSIGNALIZED MID BLOCK HIGH-VISIBILITY LONGITUDINAL CROSSWALK

NOTES

1. Use yield triangles with "Yield Here to Pedestrians" signs at unsignalized mid block crosswalks.
2. Use stop bars with "Stop Here on Red" signs at mid block crosswalks controlled by traffic signals or pedestrian hybrid beacons.

Texas Department of Transportation — *Traffic Safety Division Standard*

CROSSWALK PAVEMENT MARKINGS

PM(4)-20

FILE: pm4-20.dgn	DN:	CK:	DW:	CK:
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BERNARDINO D. TRISTAN
117017
LICENSED PROFESSIONAL ENGINEER
Jan 09, 2023

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PAVEMENT STRIPING AND SIGNAGE

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SUNSET EQUIPMENT

SILT FENCE OR EROSION LOGS AROUND SITE UNTIL FINAL STABILIZATION

ROCK BERM

PARKER DR.

JERRY WARE DR.

AIRLINE DR.

0+00 BP0+00.00 | 0+50 | 1+00 | 1+50 | 2+00 | 2+50 | 3+00 | 3+50 | 4+00 | 4+50 | 5+00 | 5+50 | 6+00 | 6+50 | 7+00 | 7+50 | 8+00

MATCH LINE STA. 8+50

SUNSET EQUIPMENT | STALLION | LEASE | CODE RED SAFETY | AMSPEC

MATCH LINE STA. 8+50

9+00 | 9+50 | 10+00 | 10+50 | 11+00 | 11+50 | 12+00 | 12+50 | 13+00 | 13+50 | 14+00 | 14+50 | 15+00 | 15+50 | 16+00 | 16+50 | 17+

JERRY WARE DR.

MATCH LINE STA. 17+00

DIG | JEFFERSON COUNTY TAX OFFICE | SGS NORTH AMERICA, INC. | JK CHEVROLET

FIRST ST.

SGT. MIKE LANE ST.

JERRY WARE DR.

17+00 | 17+50 | 18+00 | 18+50 | 19+00 | 19+50 | 20+00 | 20+50 | 21+00 | 21+50 | 22+00 | 22+50 | 23+00 | 23+50 | 24+00 | 24+50 | 25+00 | 25+50

PC19+87.90

P123+08.15

LEGEND

TEMP. CONSTRUCTION ENTRANCE

ROCK BERM

FILTER FABRIC SILT FENCE

0 30' 60'

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Jan 09, 2023

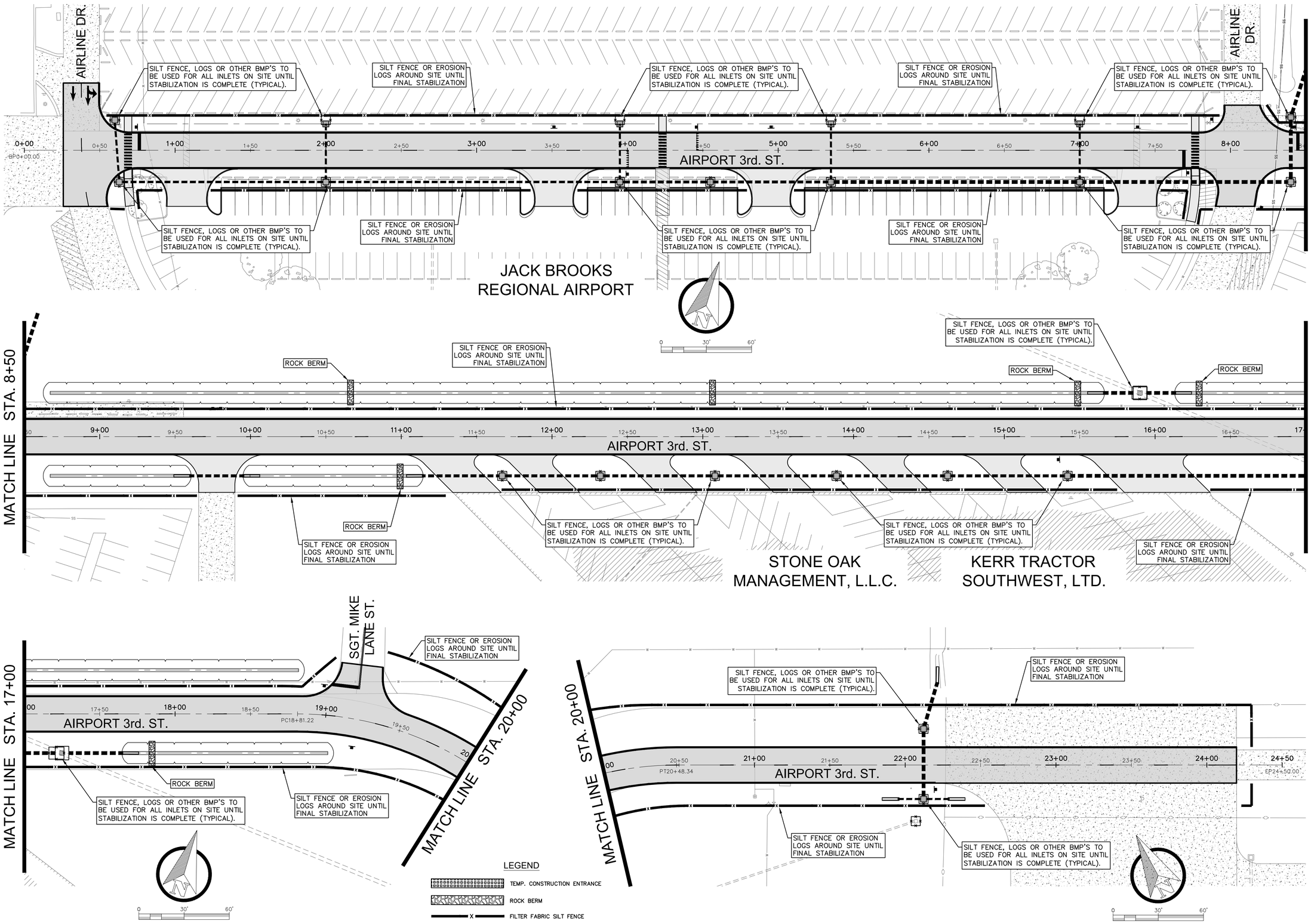
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JERRY WARE DR. SW3P PLAN

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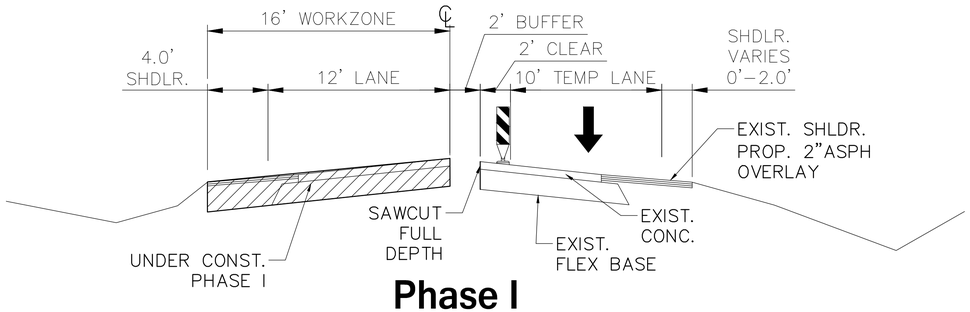
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AIRPORT 3rd. ST.
SW3P PLAN

C9.2

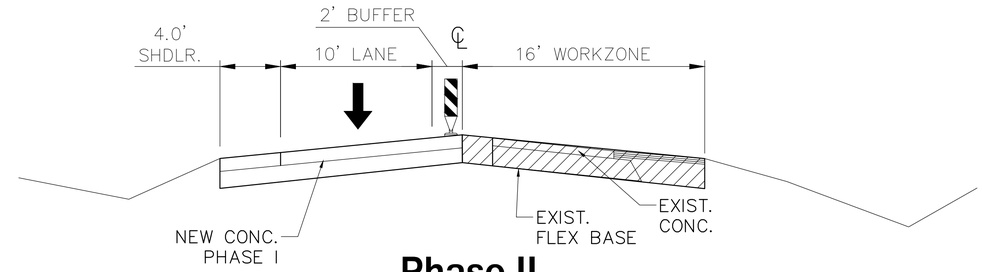
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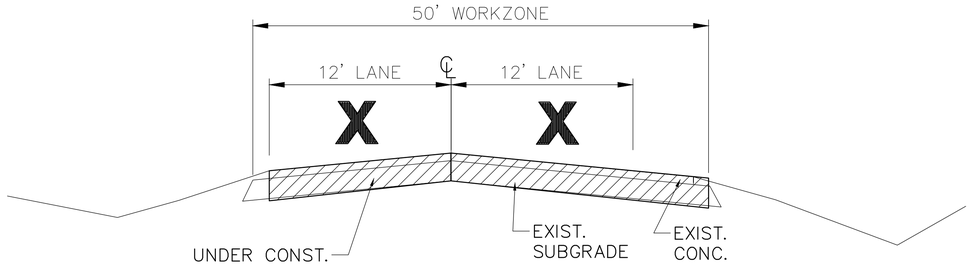
Phase I Constr. Section

JERRY WARE ROAD
STA. 0+00 TO STA. 25+15



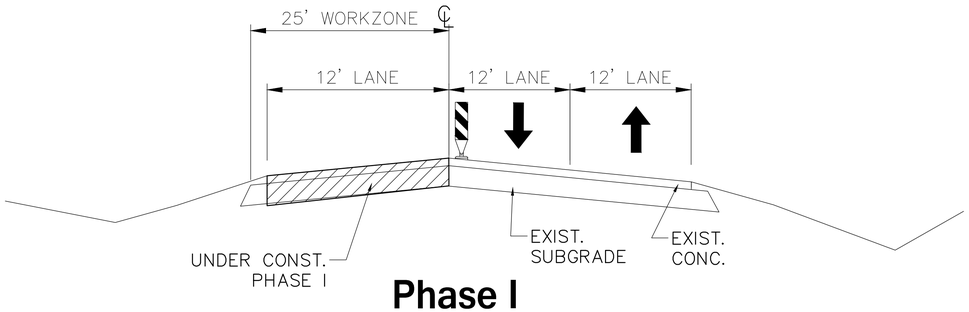
Phase II Constr. Section

JERRY WARE ROAD
STA. 0+00 TO STA. 25+15



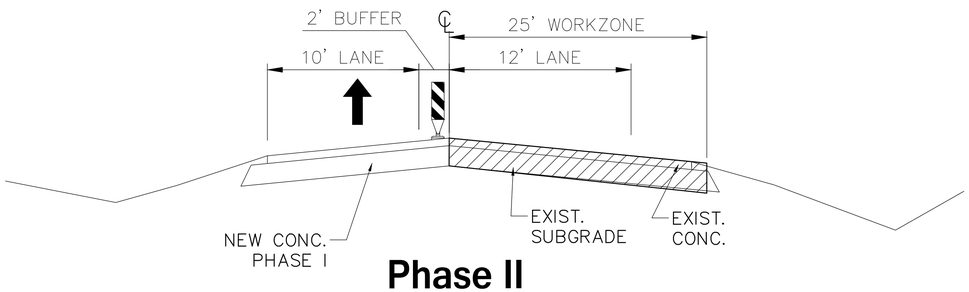
Phase I Constr. Section

3RD STREET
STA. 0+00 TO STA. 8+40



Phase I Constr. Section

3RD STREET
STA. 8+40 TO STA. 24+20



Phase II Constr. Section

3RD STREET
STA. 8+40 TO STA. 24+20

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Consulting Engineers and Land Surveyors
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117017
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Jan 09, 2023

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FS PROJECT # 21200.000

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SCALE:	1" = 20'
DRAWN BY:	J.L.H.
CHECK BY:	B.D.T.

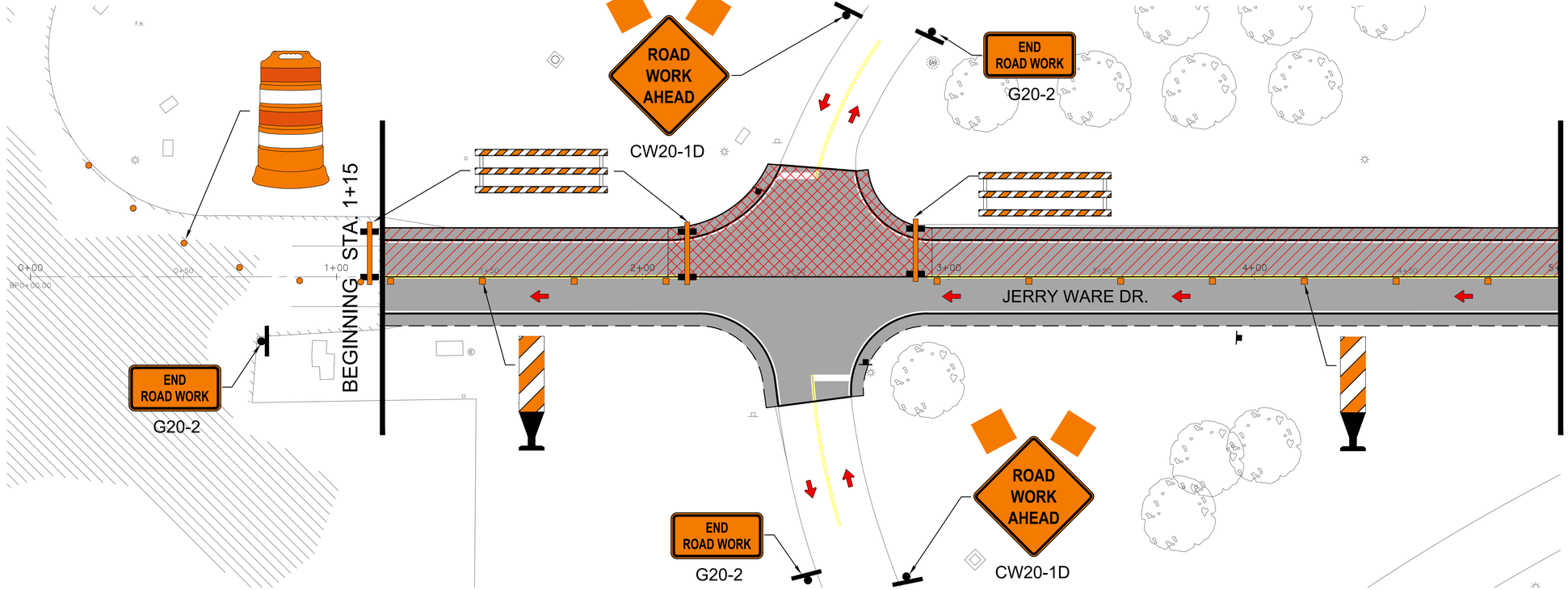
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TRAFFIC CONTROL PLAN

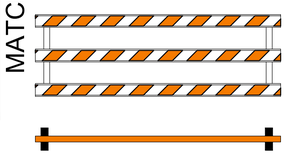
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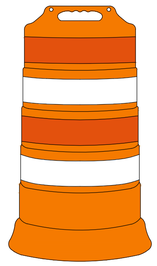
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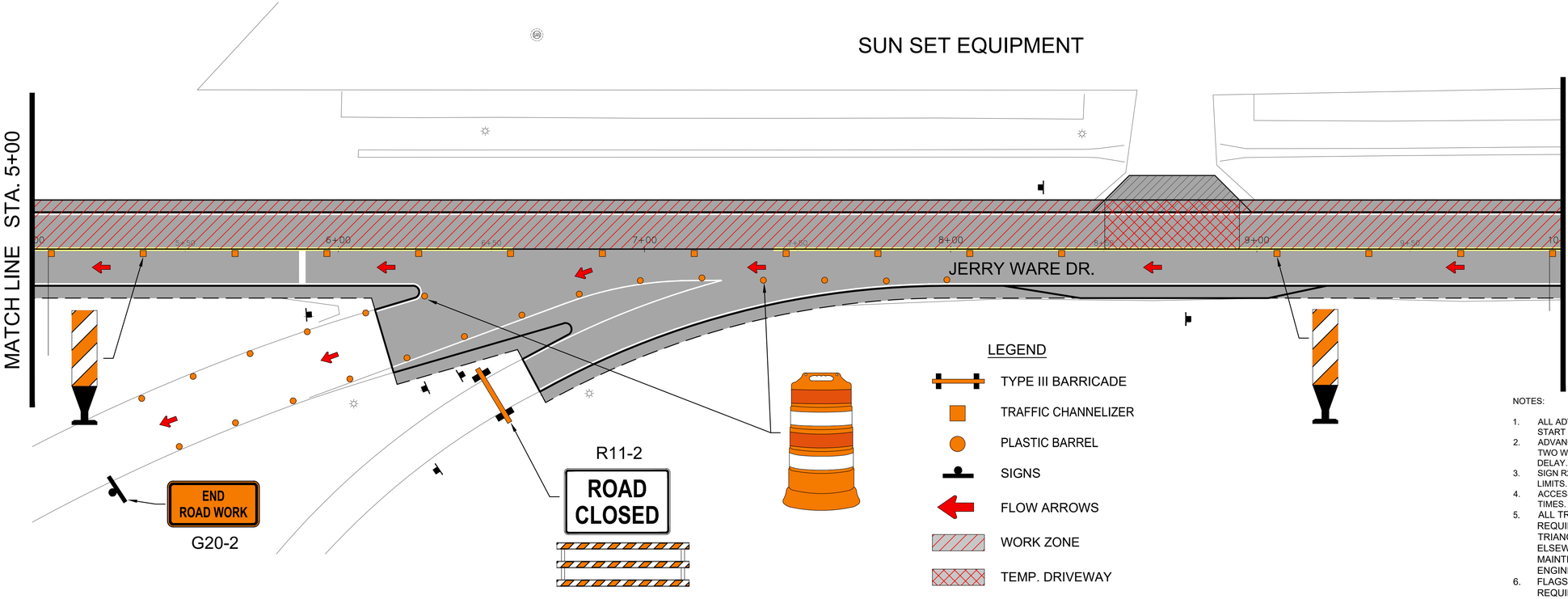
VERICAL PANEL CHANNELIZER

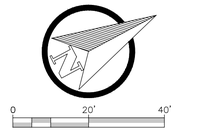


TYPE III BARRICADE



PLASTIC TRAFFIC BARRELS





NOTES:

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6. FLAGS ATTACHED TO SIGNS WHERE SHOWN, ARE REQUIRED.

NO.	ISSUED FOR	DATE

Fittz&Shipman INC.
Consulting Engineers and Land Surveyors
1405 Cornerstone Court
Ph. (409) 832-7238
Beaumont, TX. 77706
Fax. (409) 832-7303
www.fittzshipman.com
T.B.P.E. Firm #1160 T.X.L.S. Firm #100186

STATE OF TEXAS
BERNARDINO D. TRISTAN
117017
LICENSED PROFESSIONAL ENGINEER
Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

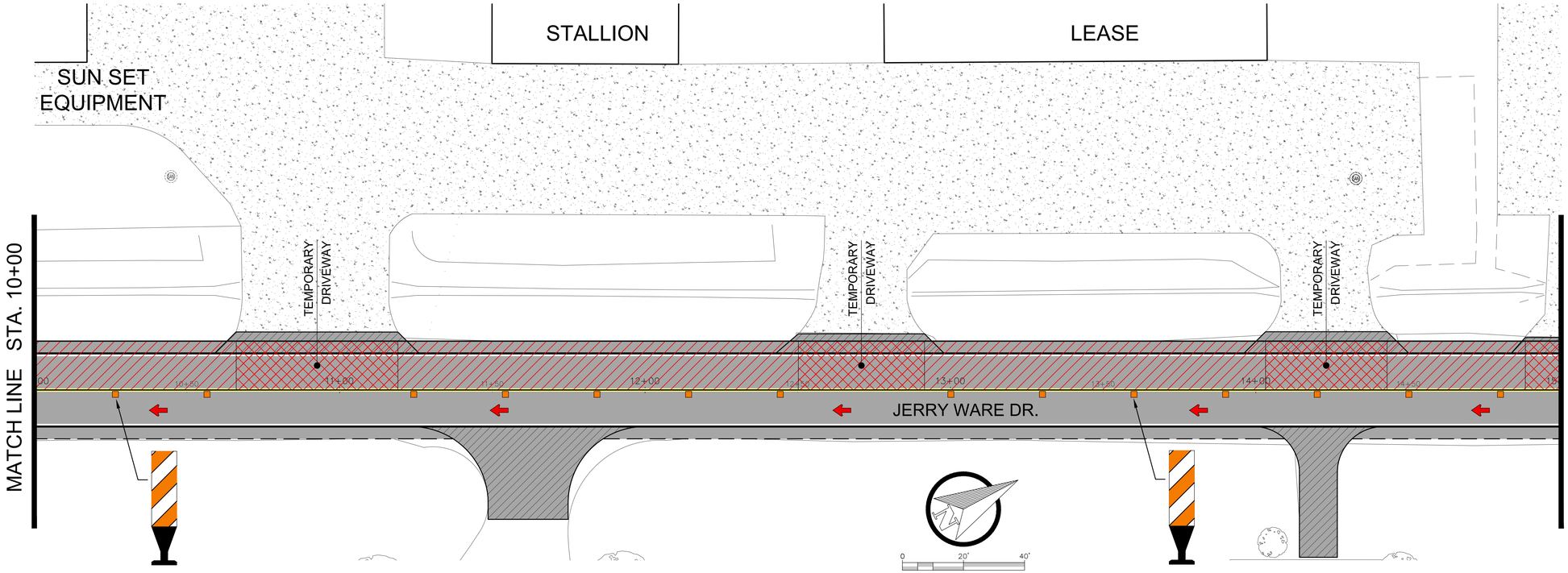
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DRAWN BY:	J.L.H.
CHECK BY:	B.D.T.
FS DRAWING NAME:	21200.000_CE_TRAFFIC CONTROL PLAN

JERRY WARE DR. TRAFFIC CONTROL PLAN PHASE ONE

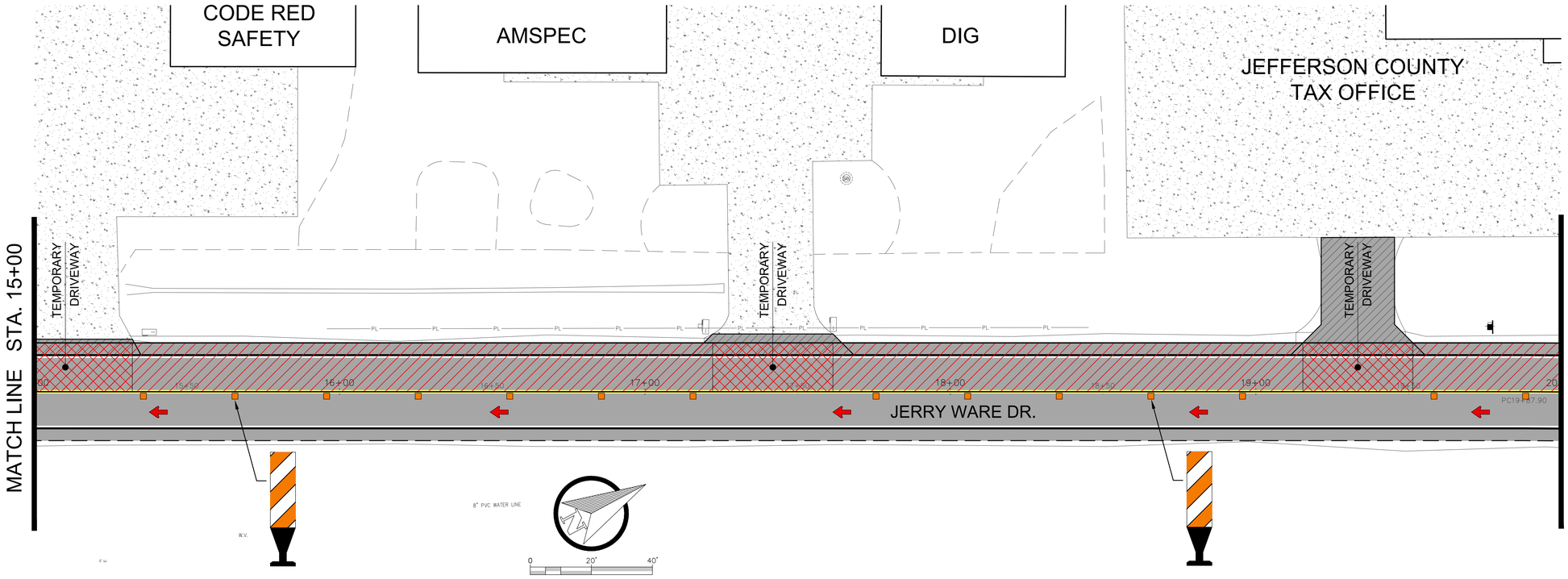
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VERICAL PANEL CHANNELIZER



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LEGEND

- TYPE III BARRICADE
- TRAFFIC CHANNELIZER
- PLASTIC BARREL
- SIGNS
- FLOW ARROWS
- WORK ZONE
- TEMP. DRIVEWAY

NO.	ISSUED FOR	DATE

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Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

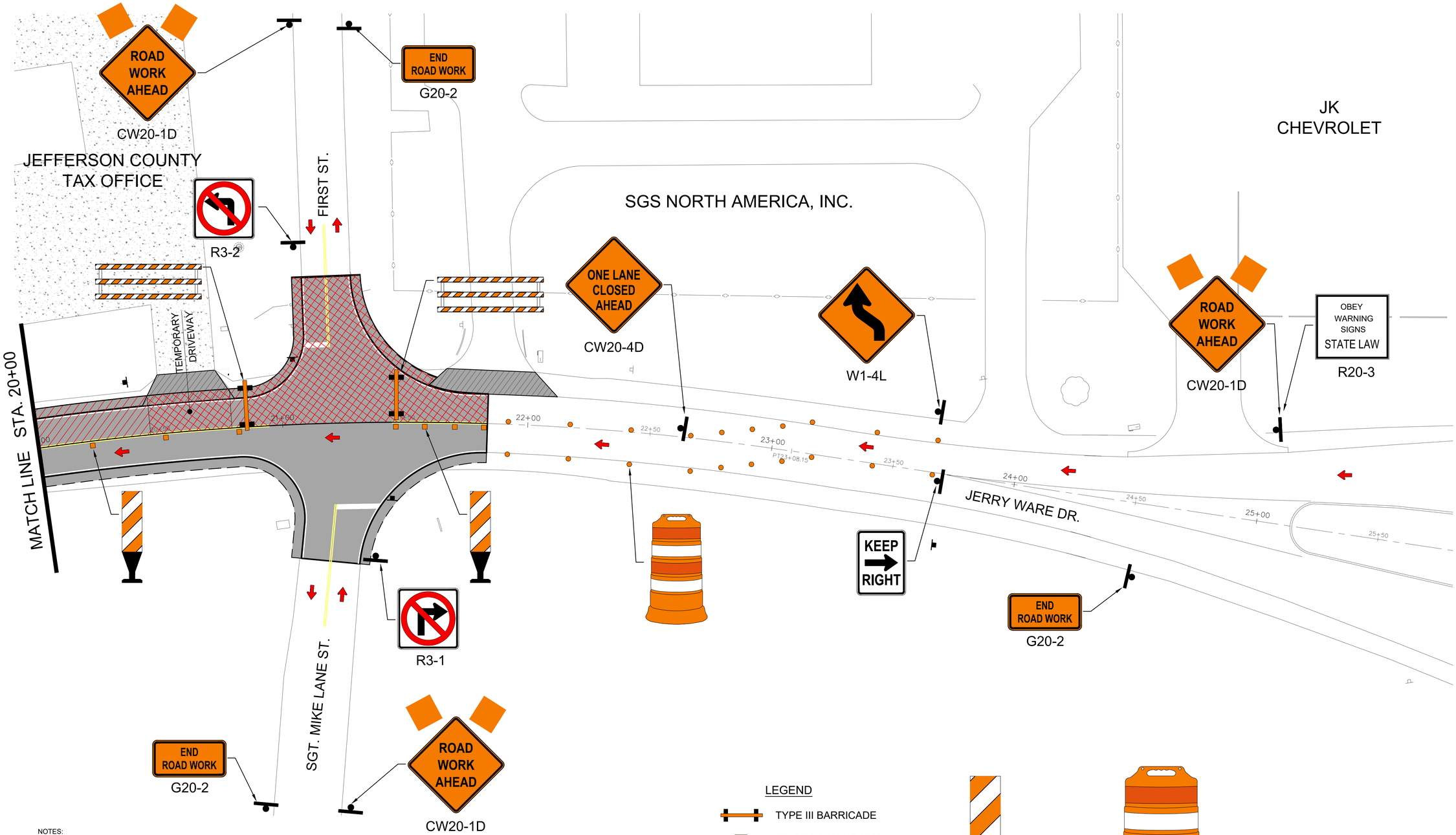
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DRAWN BY:	J.L.H.
CHECK BY:	B.D.T.
FS DRAWING NAME:	21200.000_CE_TRAFFIC CONTROL PLAN

JERRY WARE DR. TRAFFIC CONTROL PLAN PHASE ONE

C10.3

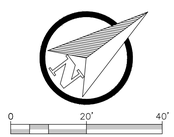
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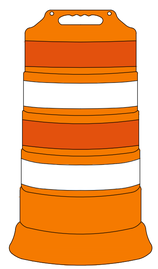


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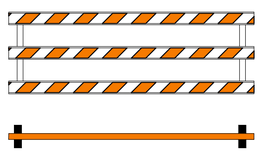
- TYPE III BARRICADE
- TRAFFIC CHANNELIZER
- PLASTIC BARREL
- SIGNS
- FLOW ARROWS
- WORK ZONE
- TEMP. DRIVEWAY



VERICAL PANEL CHANNELIZER



PLASTIC TRAFFIC BARRELS



TYPE III BARRICADE

DATE
ISSUED FOR
NO.

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STATE OF TEXAS
BERNARDINO D. TRISTAN
117017
LICENSED PROFESSIONAL ENGINEER
Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

FS PROJECT # 21200.000

DATE:	Jan 09, 2023
SCALE:	1" = 20'
DRAWN BY:	J.L.H.
CHECK BY:	B.D.T.

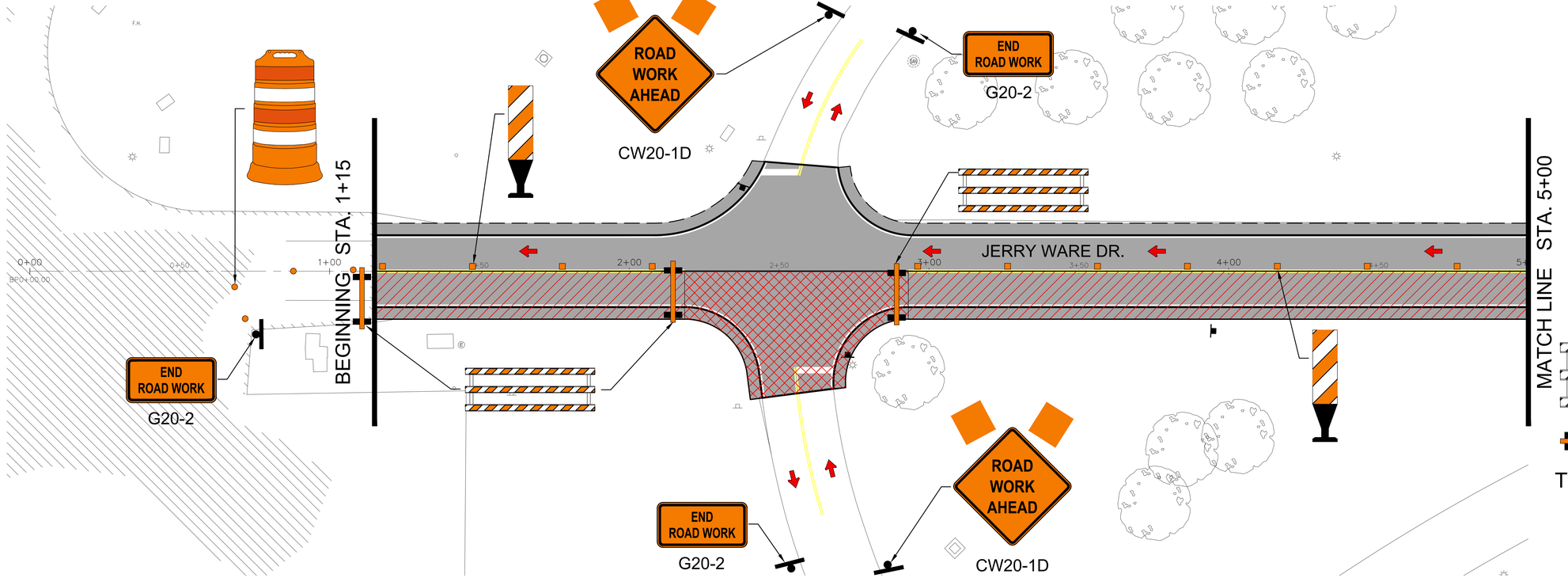
FS DRAWING NAME: 21200.000_CE_TRAFFIC CONTROL PLAN

JERRY WARE DR. TRAFFIC CONTROL PLAN PHASE ONE

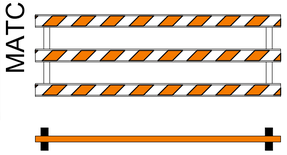
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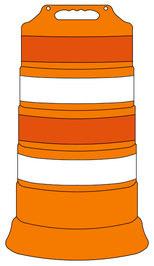
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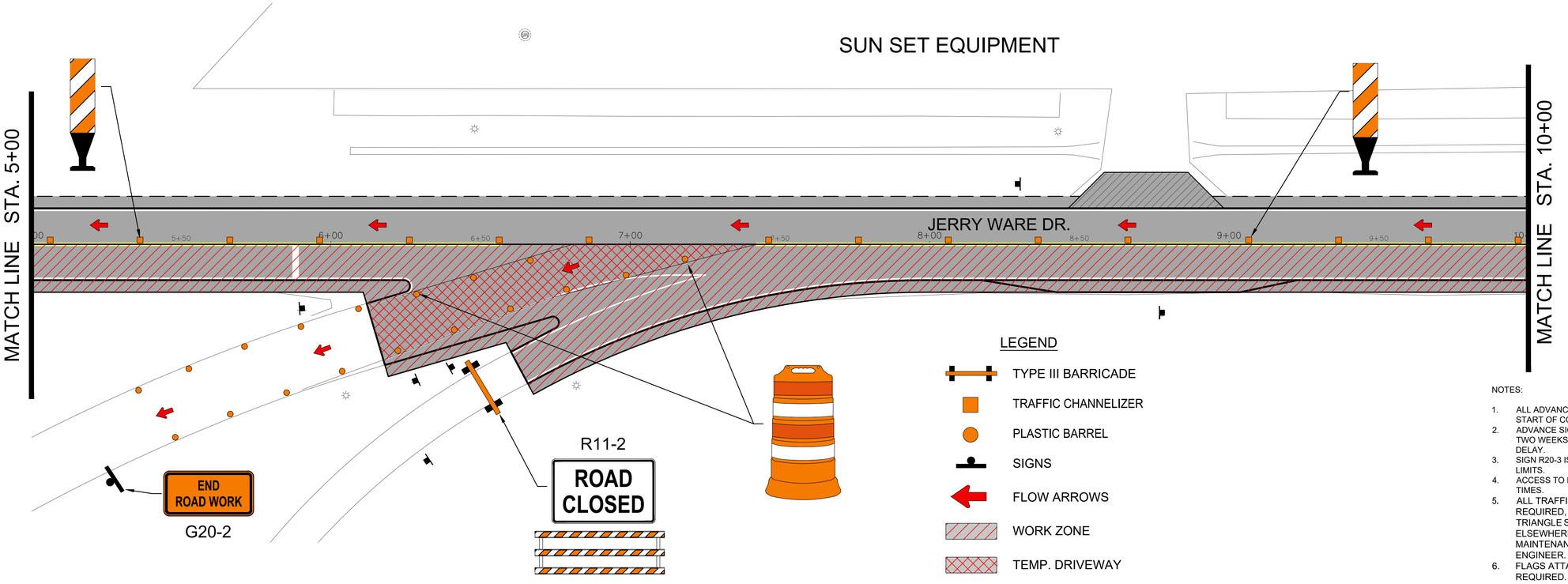
VERICAL PANEL CHANNELIZER



TYPE III BARRICADE



PLASTIC TRAFFIC BARRELS



LEGEND

- TYPE III BARRICADE
- TRAFFIC CHANNELIZER
- PLASTIC BARREL
- SIGNS
- FLOW ARROWS
- WORK ZONE
- TEMP. DRIVEWAY

NOTES:

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STATE OF TEXAS
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117017
LICENSED PROFESSIONAL ENGINEER
Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

FS PROJECT # 21200.000

DATE:	Jan 09, 2023
SCALE:	1" = 20'
DRAWN BY:	J.L.H.
CHECK BY:	B.D.T.

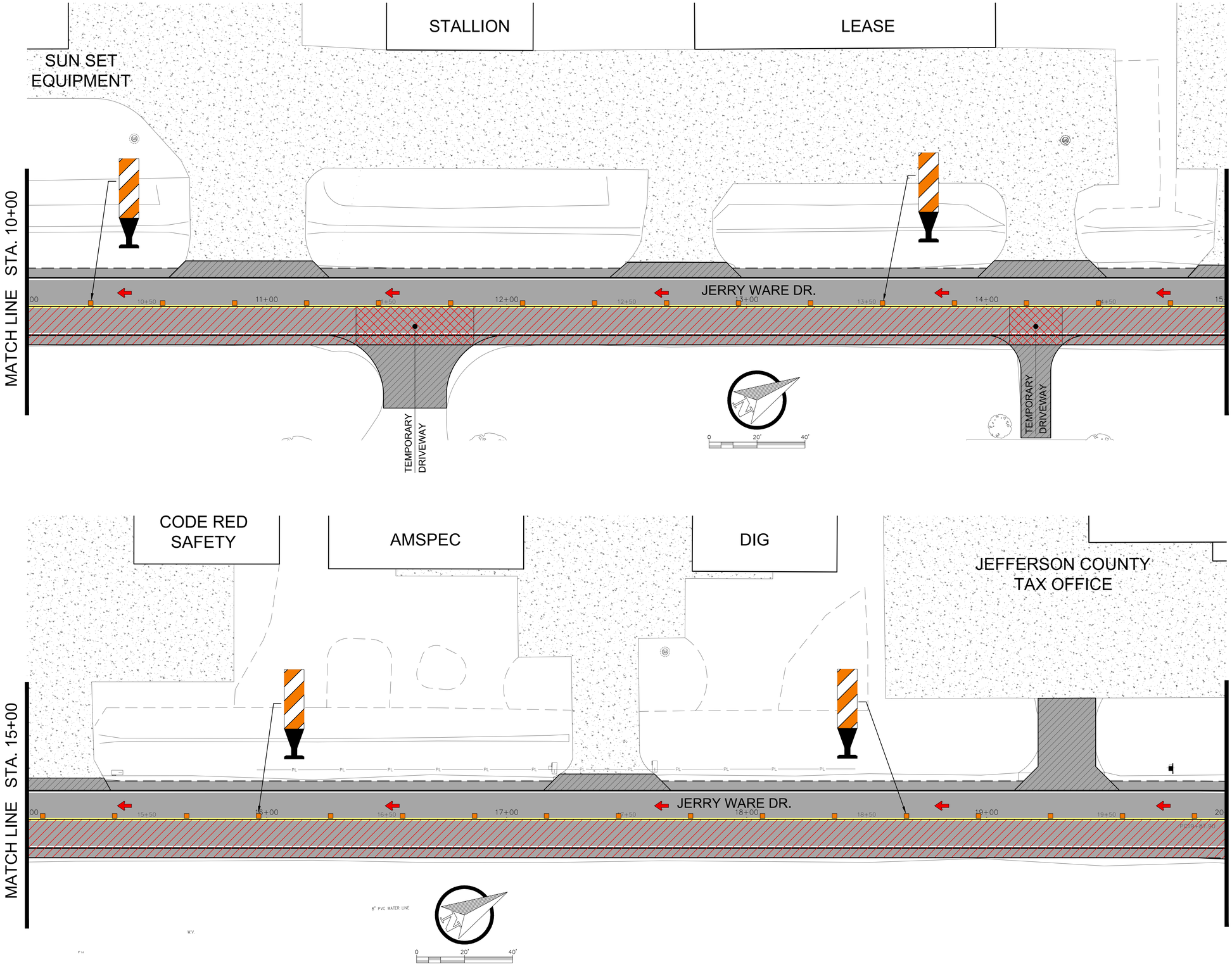
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JERRY WARE DR. TRAFFIC CONTROL PLAN PHASE TWO

C10.5

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VERICAL PANEL CHANNELIZER

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LEGEND

- TYPE III BARRICADE
- TRAFFIC CHANNELIZER
- PLASTIC BARREL
- SIGNS
- FLOW ARROWS
- WORK ZONE
- TEMP. DRIVEWAY

NO.	ISSUED FOR	DATE

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Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

FS PROJECT # 21200.000

DATE:	Jan 09, 2023
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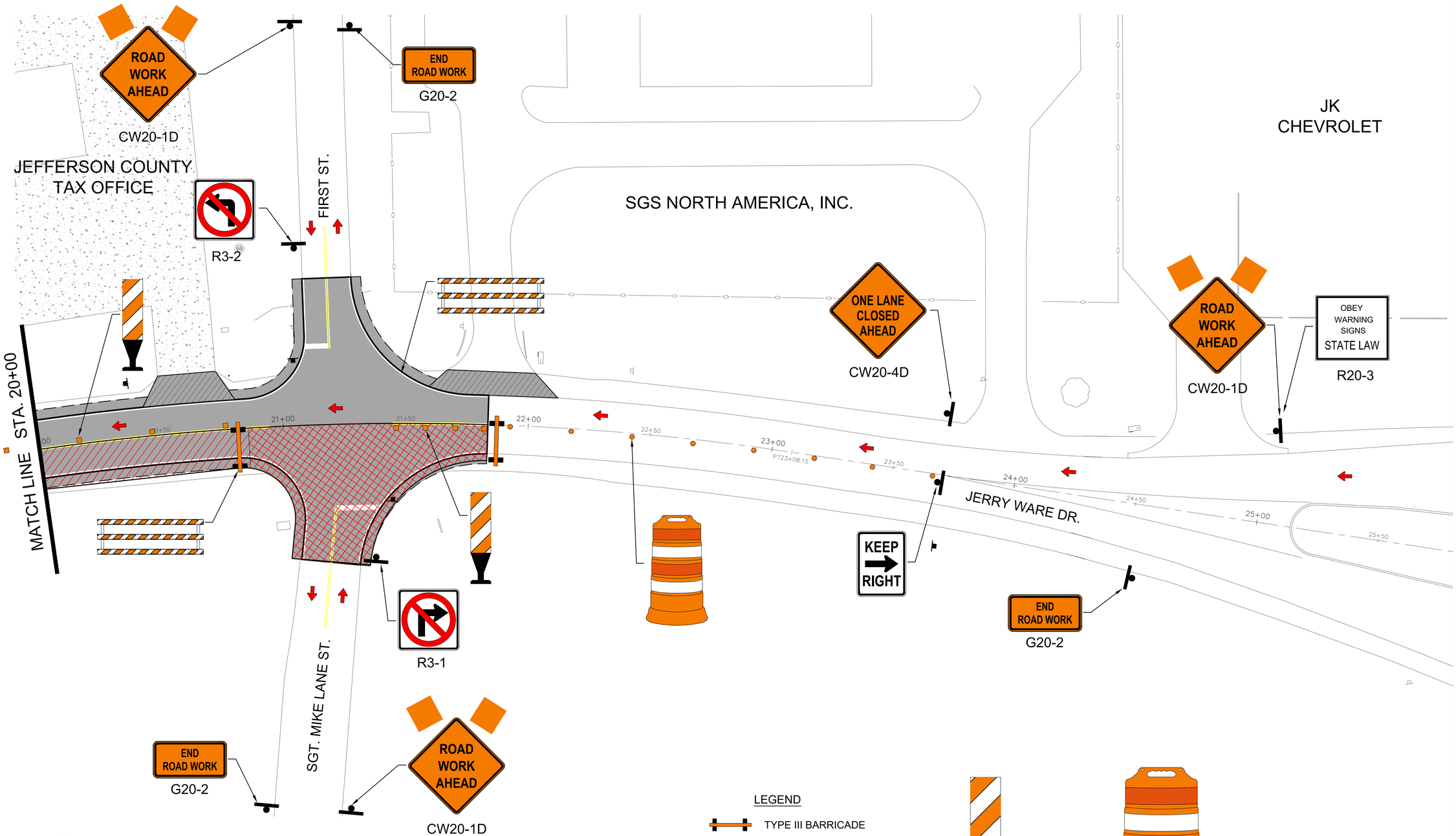
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JERRY WARE DR. TRAFFIC CONTROL PLAN PHASE TWO

C10.6

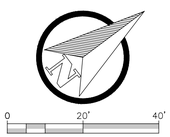
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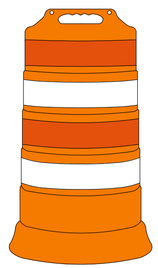


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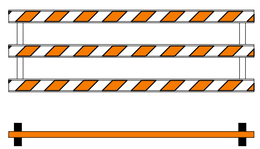
- TYPE III BARRICADE
- TRAFFIC CHANNELIZER
- PLASTIC BARREL
- SIGNS
- FLOW ARROWS
- WORK ZONE
- TEMP. DRIVEWAY



VERICAL PANEL CHANNELIZER



PLASTIC TRAFFIC BARRELS



TYPE III BARRICADE

NO.	ISSUED FOR	DATE

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Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

FS PROJECT #	21200.000
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DRAWN BY:	J.L.H.
CHECK BY:	B.D.T.
FS DRAWING NAME:	21200.000_CE_TRAFFIC CONTROL PLAN

JERRY WARE DR. TRAFFIC CONTROL PLAN PHASE TWO

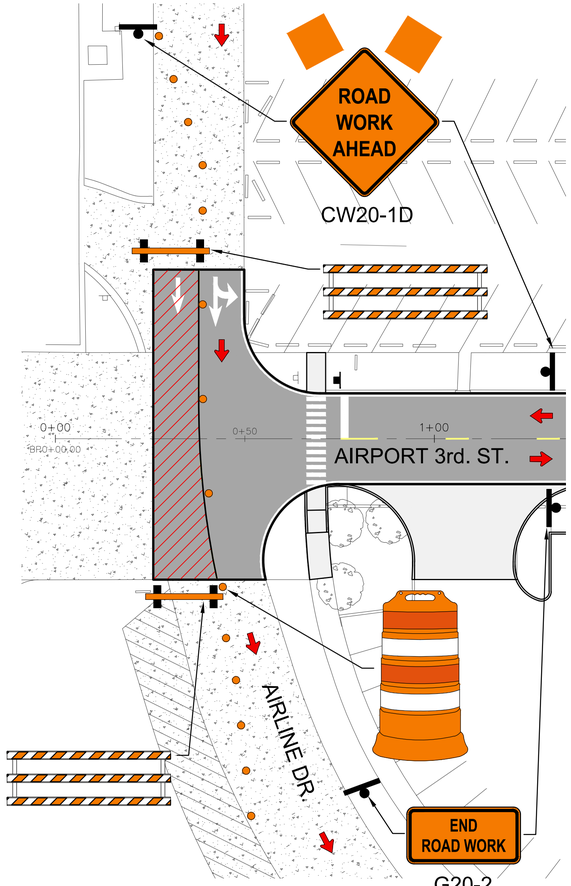
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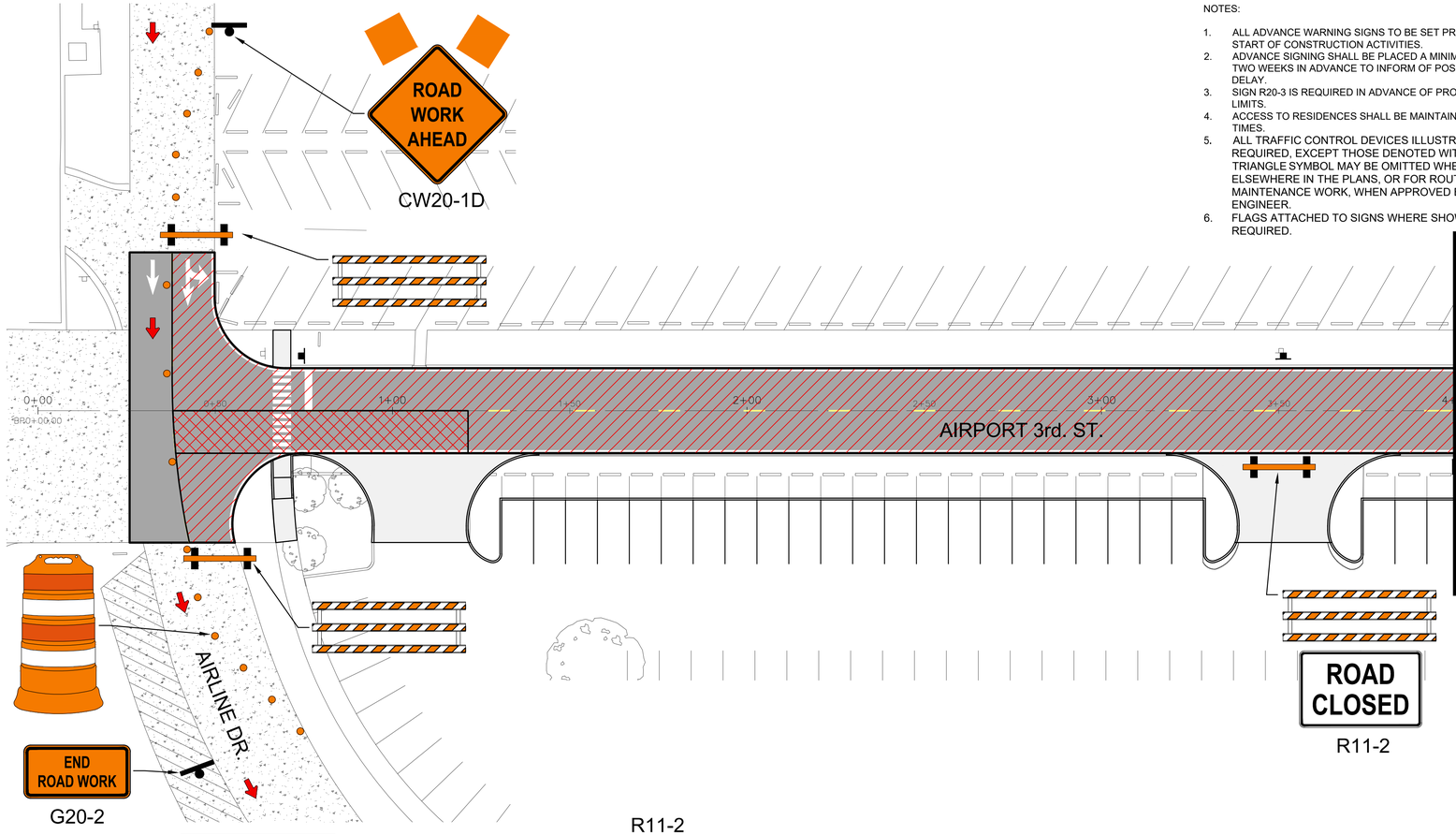
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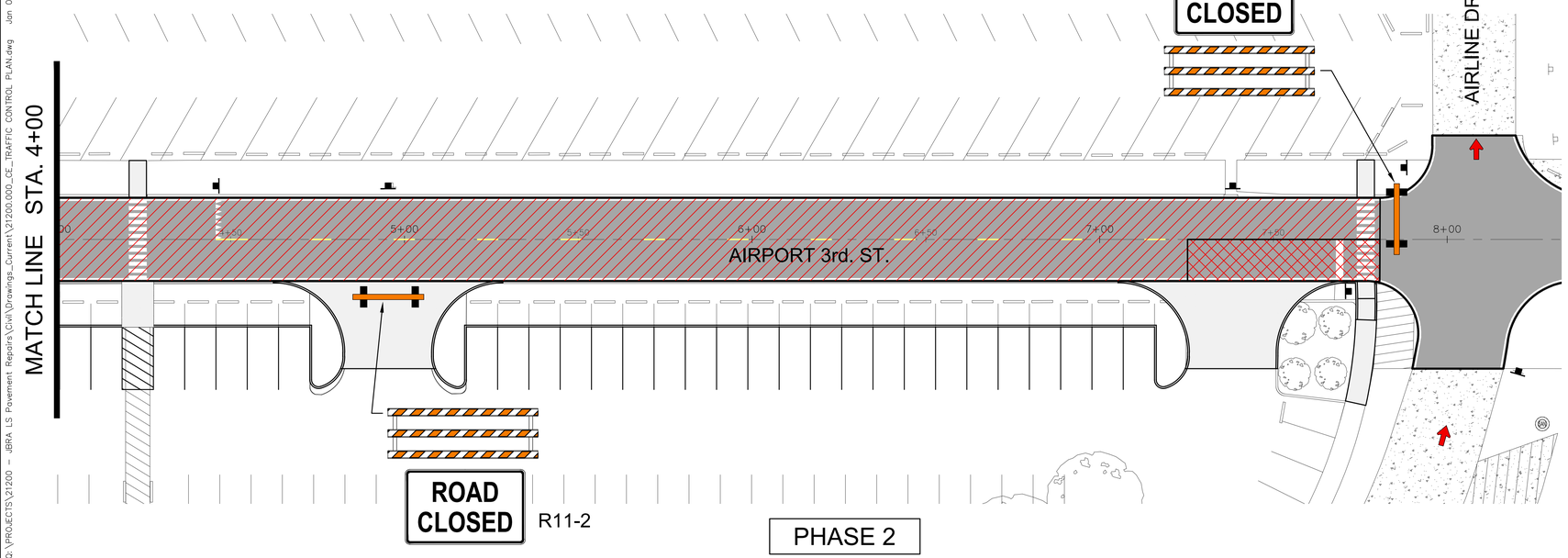
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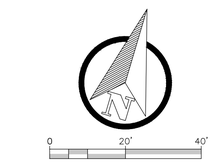
PHASE 1



PHASE 2

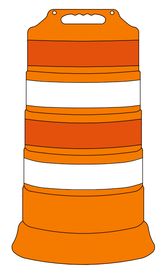


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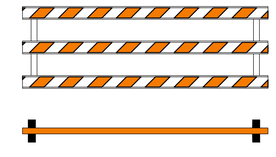


LEGEND

- TYPE III BARRICADE
- TRAFFIC CHANNELIZER
- PLASTIC BARREL
- SIGNS
- FLOW ARROWS
- WORK ZONE
- TEMP. DRIVEWAY



PLASTIC TRAFFIC BARRELS



TYPE III BARRICADE

NO.	ISSUED FOR	DATE

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STATE OF TEXAS
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117017
LICENSED PROFESSIONAL ENGINEER
Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

FS PROJECT #	21200.000
DATE:	Jan 09, 2023
SCALE:	1" = 20'
DRAWN BY:	J.L.H.
CHECK BY:	B.D.T.
FS DRAWING NAME:	21200.000_CE_TRAFFIC CONTROL PLAN

AIRORT 3RD. ST. TRAFFIC CONTROL PLAN PHASE 1 & 2

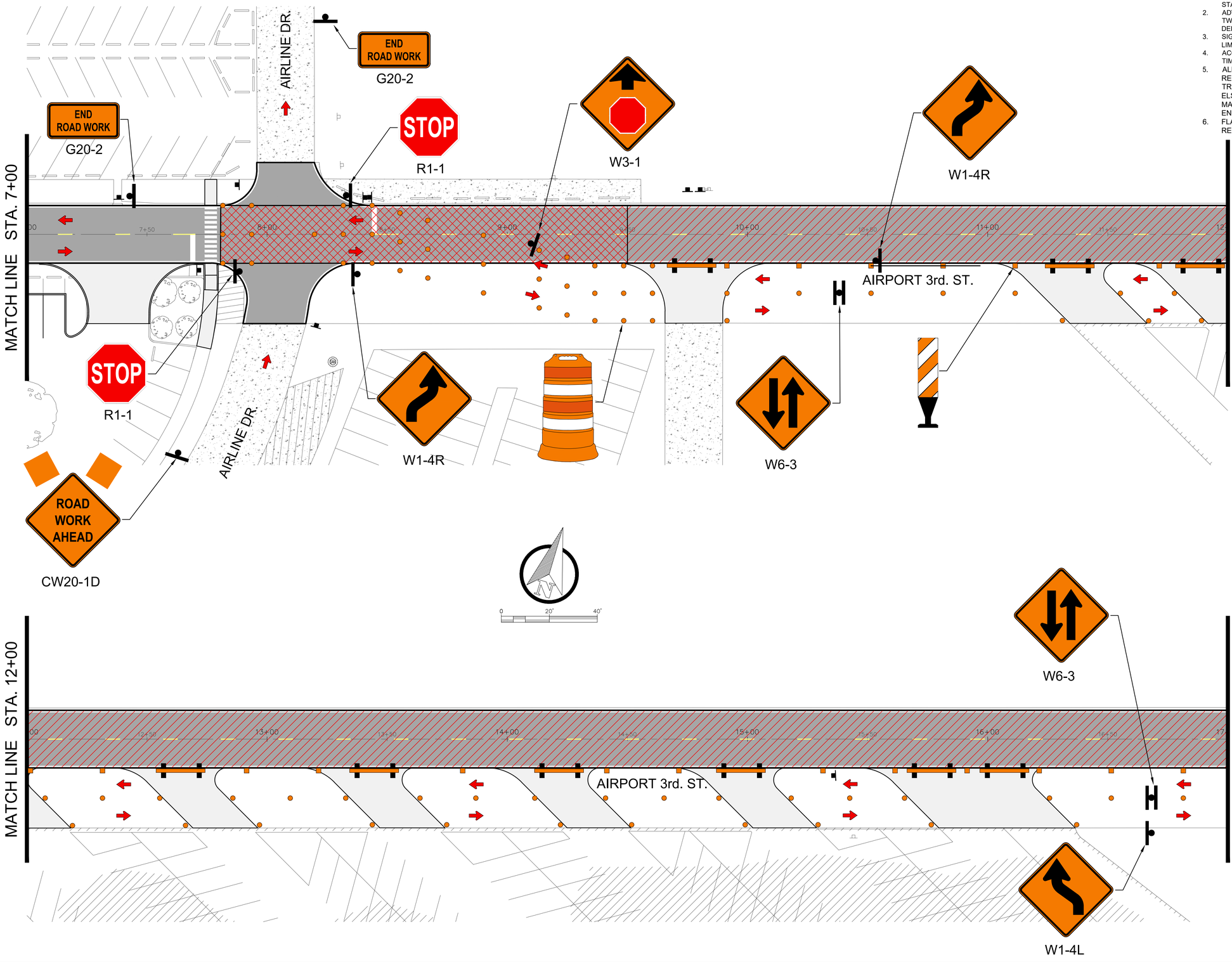
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PLASTIC TRAFFIC BARRELS

TYPE III BARRICADE

VERICAL PANEL CHANNELIZER

LEGEND

- TYPE III BARRICADE
- TRAFFIC CHANNELIZER
- PLASTIC BARREL
- SIGNS
- FLOW ARROWS
- WORK ZONE
- TEMP. DRIVEWAY

DATE | ISSUED FOR | NO.

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STATE OF TEXAS
BERNARDINO D. TRISTAN
117017
LICENSED PROFESSIONAL ENGINEER
Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

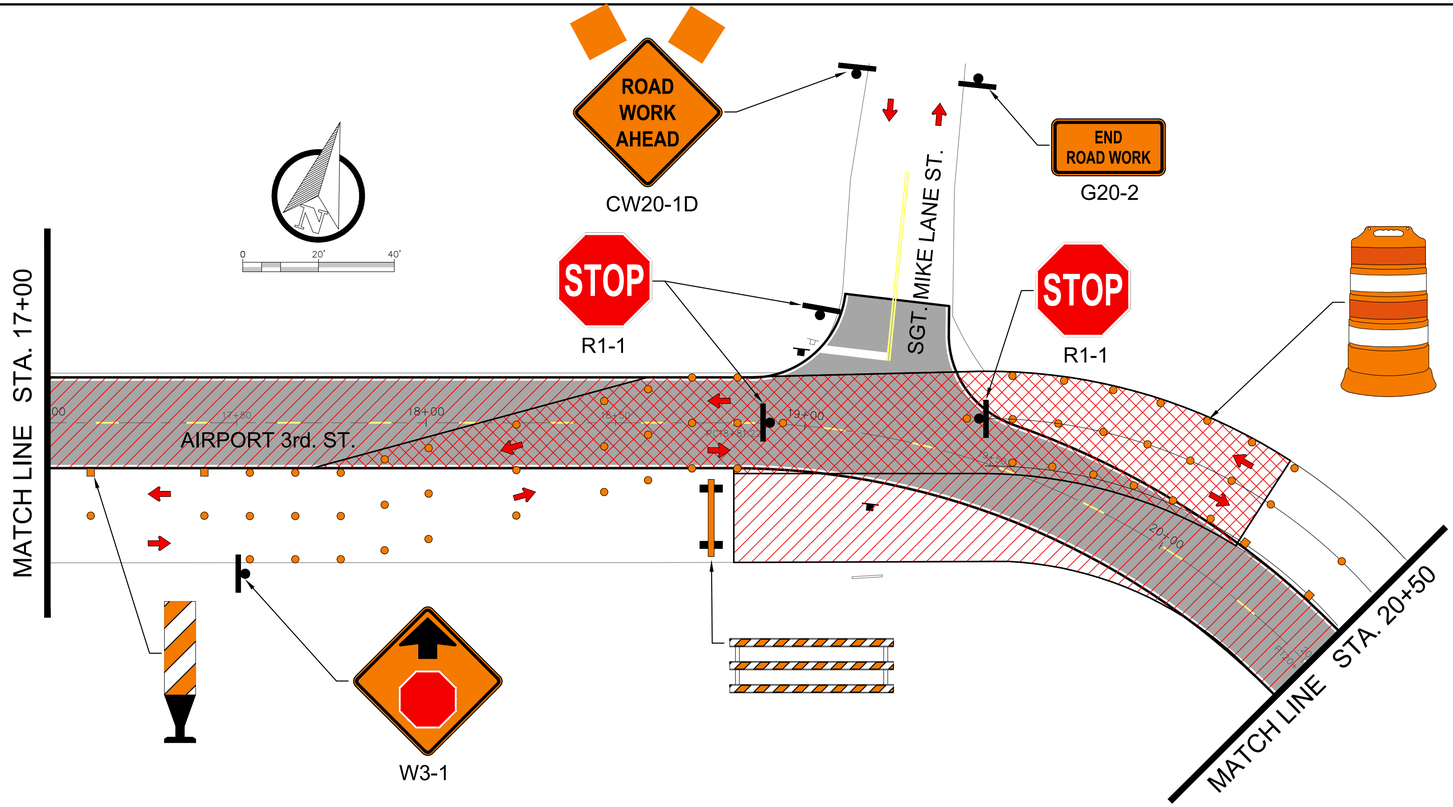
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DATE:	Jan 09, 2023
SCALE:	1" = 20'
DRAWN BY:	J.L.H.
CHECK BY:	B.D.T.
FS DRAWING NAME:	21200.000_CE_TRAFFIC CONTROL PLAN

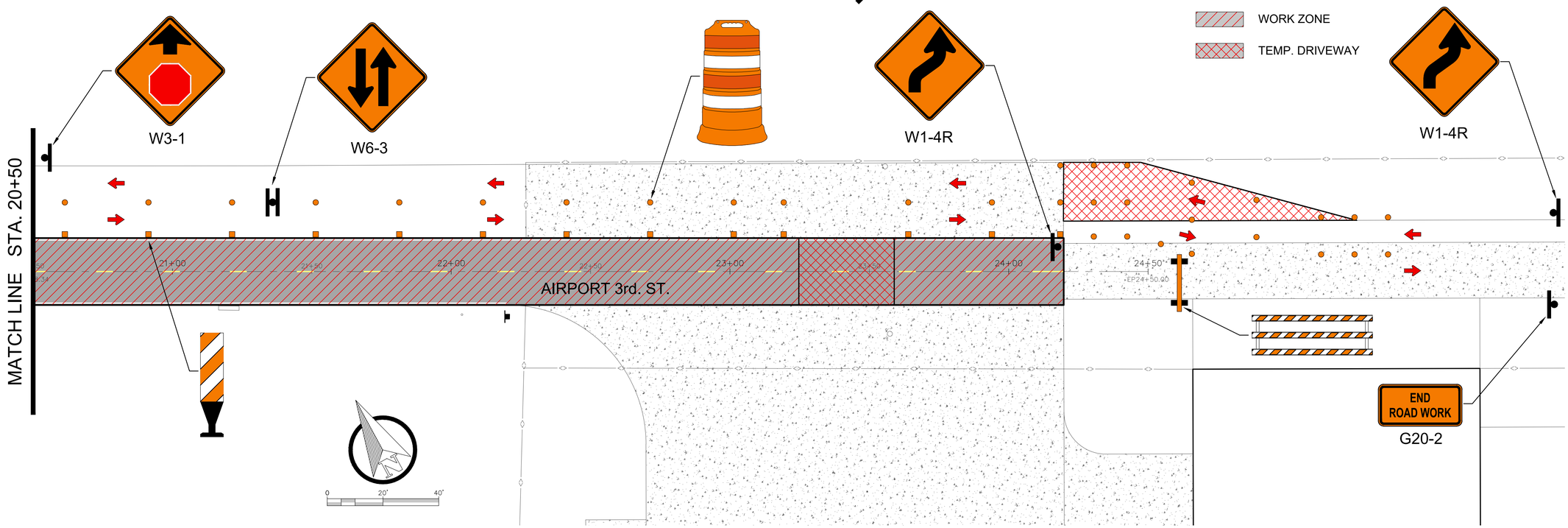
AIRORT 3RD. ST. TRAFFIC CONTROL PLAN PHASE 3

C10.9

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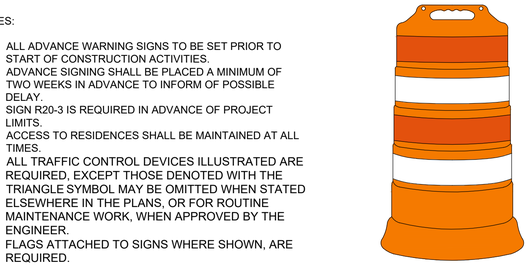
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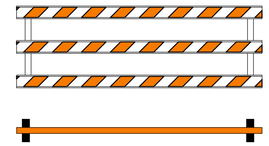


NOTES:

1. ALL ADVANCE WARNING SIGNS TO BE SET PRIOR TO START OF CONSTRUCTION ACTIVITIES.
2. ADVANCE SIGNING SHALL BE PLACED A MINIMUM OF TWO WEEKS IN ADVANCE TO INFORM OF POSSIBLE DELAY.
3. SIGN R20-3 IS REQUIRED IN ADVANCE OF PROJECT LIMITS.
4. ACCESS TO RESIDENCES SHALL BE MAINTAINED AT ALL TIMES.
5. 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.
6. FLAGS ATTACHED TO SIGNS WHERE SHOWN, ARE REQUIRED.



PLASTIC TRAFFIC BARRELS



TYPE III BARRICADE

LEGEND

- TYPE III BARRICADE
- TRAFFIC CHANNELIZER
- PLASTIC BARREL
- SIGNS
- FLOW ARROWS
- WORK ZONE
- TEMP. DRIVEWAY



VERICAL PANEL CHANNELIZER

DATE
ISSUED FOR
NO.

Fittz&Shipman INC.
Consulting Engineers and Land Surveyors
1405 Cornerstone Court
Ph. (409) 832-7238
Beaumont, TX. 77706
Fax. (409) 832-7303
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FS PROJECT # 21200.000

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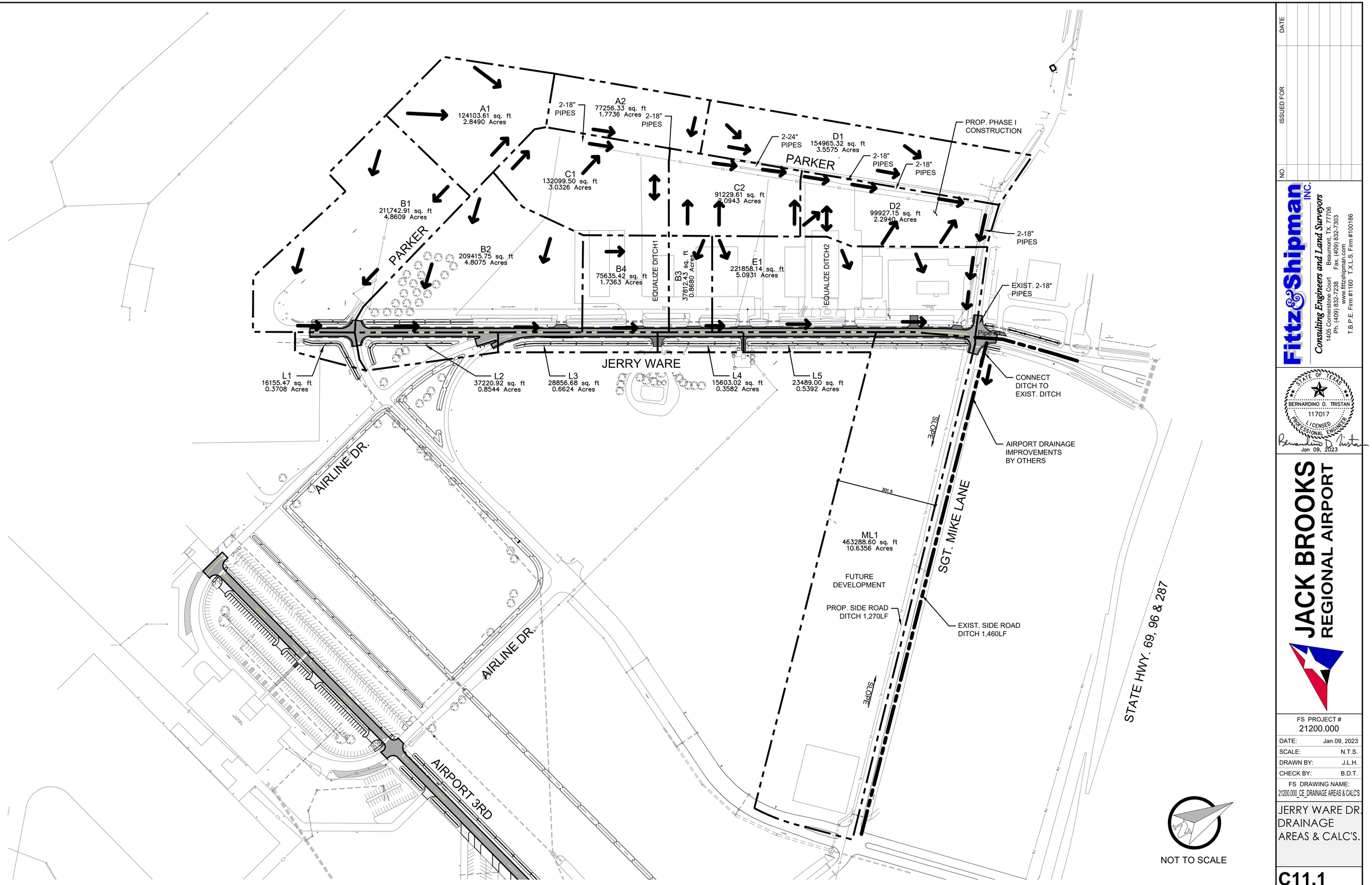
FS DRAWING NAME: 21200.000_CE_TRAFFIC CONTROL PLAN

AIRORT 3RD. ST. TRAFFIC CONTROL PLAN PHASE 3

C10.10

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Q:\PROJECTS\21200 - JBRA LS Pavement Repairs\Civil\Drawings_Current\21200.000_CE_DRAINAGE AREAS PLAN & CALC'S.dwg Jan 09, 2023 05:34pm

NO.	ISSUED FOR	DATE

Fittz & Shipman INC.
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1405 Cornerstone Court Beaumont, TX. 77706
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FS PROJECT #	21200.000
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CHECK BY:	B.D.T.
FS DRAWING NAME:	21200.000_CE_DRAINAGE AREAS & CALC'S

JERRY WARE DR. DRAINAGE AREAS & CALC'S.

C11.1

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AIRLINE DR.

AIRLINE DR.

SGT. MIKE LANE

AIRPORT 3RD

JB1

JB2

D1
2406.33 sq. ft
0.0552 Acres

H3
3783.95 sq. ft
0.0868 Acres

H5
2908.65 sq. ft
0.0667 Acres

H8
4395.28 sq. ft
0.1009 Acres

H10
3485.22 sq. ft
0.080 Acres

H13
2479.23 sq. ft
0.0569 Acres

J1
20973.29 sq. ft
0.4814 Acres

J2
23408.61 sq. ft
0.5373 Acres

J7
19961.12 sq. ft
0.4582 Acres

K1
18507.85 sq. ft
0.4248 Acres

H2
3926.19 sq. ft
0.0901 Acres

H4
6168.97 sq. ft
0.1416 Acres

H6
4738.22 sq. ft
0.1088 Acres

H7
2601.37 sq. ft
0.0597 Acres

H9
4552.41 sq. ft
0.1045 Acres

H11
5667.28 sq. ft
0.1301 Acres

H12
2974.04 sq. ft
0.0682 Acres

J3
7658.93 sq. ft
0.1758 Acres

J4
13311.09 sq. ft
0.3055 Acres

J5
13560.68 sq. ft
0.3113 Acres

J6
17795.70 sq. ft
0.4085 Acres

J8
11505.25 sq. ft
0.2641 Acres

K2
19048.79 sq. ft
0.4373 Acres

K3
6720.10 sq. ft
0.1542 Acres

K4
7633.05 sq. ft
0.1752 Acres

JACK BROOKS
REGIONAL AIRPORT

NOT TO SCALE

Q:\PROJECTS\21200 - JBRA LS Pavement Repairs\Civil\Drawings_Current\21200.000_CE_DRAINAGE AREAS PLAN & CALC'S.dwg Jan 09, 2023 05:27pm

NO.	ISSUED FOR	DATE

Fittz & Shipman INC.
Consulting Engineers and Land Surveyors
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DATE:	Jan 09, 2023
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CHECK BY:	B.D.T.
FS DRAWING NAME:	21200.000_CE_DRAINAGE AREAS & CALC'S

AIRPORT 3rd ST.
DRAINAGE
AREAS & CALC'S.

C11.2

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					Jefferson Co.		Des. Freq.	2		5		10		25		50		100
					I=b/(t+d)e		Atlas 14	b=	67.1216	b=	80.22	b=	88.32	b=	97.22	b=	101.38	b=	105.57
					Tc=10A .1761+15		Zone 1	d=	13.2828	d=	13.47	d=	13.43	d=	13.33	d=	13.05	d=	12.99
					DRAINAGE AREA COMPUTATIONS		2019	e=	0.8004	e=	0.772	e=	0.752	e=	0.727	e=	0.707	e=	0.687
DRAINAGE AREA NO.	TOTAL AREA (Ac.)	Composite C 0.60	Pavement C 0.90	Grass C 0.25	Combined C A	Time of Concent. (min.)	i2 (in./hr.)	Q2 (c.f.s.)	i5 (in./hr.)	Q5 (c.f.s.)	i10 (in./hr.)	Q10 (c.f.s.)	i25 (in./hr.)	Q25 (c.f.s.)	i50 (in./hr.)	Q50 (c.f.s.)	i100 (in./hr.)	Q100 (c.f.s.)
Post-Construction Conditions																		
A1	2.849	2.849	0.000	0.000	1.709	27.0	3.48	5.95	4.61	7.88	5.47	9.34	6.61	11.30	7.47	12.76	8.37	14.30
A2	1.774	1.774	0.000	0.000	1.064	26.1	3.55	3.78	4.70	5.00	5.57	5.92	6.73	7.16	7.59	8.08	8.51	9.05
B1	4.861	4.861	0.000	0.000	2.917	28.2	3.40	9.92	4.51	13.15	5.35	15.60	6.47	18.87	7.31	21.33	8.20	23.91
B2	4.808	4.808	0.000	0.000	2.885	28.2	3.40	9.82	4.51	13.01	5.35	15.43	6.47	18.67	7.32	21.10	8.20	23.66
B3	0.868	0.868	0.000	0.000	0.521	24.8	3.65	1.90	4.82	2.51	5.71	2.97	6.89	3.59	7.78	4.05	8.71	4.54
B4	1.736	1.736	0.000	0.000	1.042	26.0	3.55	3.70	4.70	4.90	5.57	5.80	6.73	7.01	7.60	7.92	8.51	8.87
C1	3.033	3.033	0.000	0.000	1.820	27.2	3.47	6.32	4.60	8.37	5.45	9.92	6.59	12.00	7.45	13.55	8.35	15.19
C2	2.094	2.094	0.000	0.000	1.257	26.4	3.53	4.43	4.67	5.86	5.53	6.95	6.68	8.40	7.55	9.49	8.46	10.63
D1	3.558	3.558	0.000	0.000	2.135	27.5	3.45	7.36	4.57	9.75	5.42	11.56	6.55	13.98	7.40	15.80	8.30	17.71
D2	2.294	2.294	0.000	0.000	1.376	26.6	3.51	4.84	4.65	6.40	5.51	7.59	6.66	9.17	7.52	10.36	8.43	11.60
E1	5.093	5.093	0.000	0.000	3.056	28.3	3.40	10.38	4.50	13.75	5.34	16.31	6.46	19.74	7.30	22.31	8.18	25.01
ML1	10.636	10.636	0.000	0.000	6.381	30.2	3.28	20.93	4.35	27.77	5.17	32.97	6.26	39.93	7.08	45.16	7.94	50.69
Entire Basin	43.60				26.16	34.4	3.04	79.59	4.05	105.92	4.82	125.98	5.85	152.93	6.62	173.21	7.44	194.73
H1	0.055	0.000	0.055	0.000	0.050	21.0	3.96	0.20	5.22	0.26	6.17	0.31	7.43	0.37	8.38	0.42	9.36	0.47
H2	0.090	0.000	0.090	0.000	0.081	21.5	3.91	0.32	5.16	0.42	6.10	0.49	7.35	0.60	8.28	0.67	9.26	0.75
H3	0.087	0.000	0.087	0.000	0.078	21.5	3.92	0.31	5.16	0.40	6.10	0.48	7.35	0.57	8.29	0.65	9.26	0.72
H4	0.142	0.000	0.142	0.000	0.127	22.1	3.87	0.49	5.10	0.65	6.03	0.77	7.27	0.93	8.19	1.04	9.16	1.17
H5	0.067	0.000	0.067	0.000	0.060	21.2	3.95	0.24	5.20	0.31	6.14	0.37	7.40	0.44	8.34	0.50	9.32	0.56
H6	0.109	0.000	0.109	0.000	0.098	21.8	3.89	0.38	5.13	0.50	6.07	0.59	7.31	0.72	8.25	0.81	9.22	0.90
H7	0.060	0.000	0.060	0.000	0.054	21.1	3.96	0.21	5.21	0.28	6.16	0.33	7.42	0.40	8.36	0.45	9.34	0.50
H8	0.101	0.000	0.101	0.000	0.091	21.7	3.90	0.35	5.14	0.47	6.08	0.55	7.33	0.67	8.26	0.75	9.23	0.84
H9	0.105	0.000	0.105	0.000	0.094	21.7	3.90	0.37	5.14	0.48	6.07	0.57	7.32	0.69	8.25	0.78	9.23	0.87
H10	0.080	0.000	0.080	0.000	0.072	21.4	3.93	0.28	5.17	0.37	6.12	0.44	7.37	0.53	8.31	0.60	9.28	0.67
H11	0.130	0.000	0.130	0.000	0.117	22.0	3.88	0.45	5.11	0.60	6.04	0.71	7.28	0.85	8.21	0.96	9.18	1.07
H12	0.068	0.000	0.068	0.000	0.061	21.2	3.94	0.24	5.19	0.32	6.14	0.38	7.40	0.45	8.34	0.51	9.31	0.57
H13	0.057	0.000	0.057	0.000	0.051	21.0	3.96	0.20	5.22	0.27	6.17	0.32	7.43	0.38	8.37	0.43	9.35	0.48
J1	0.481	0.000	0.241	0.241	0.277	23.8	3.72	1.03	4.92	1.36	5.82	1.61	7.02	1.94	7.92	2.19	8.86	2.45
J2	0.537	0.000	0.269	0.269	0.309	24.0	3.71	1.15	4.90	1.51	5.80	1.79	7.00	2.16	7.90	2.44	8.84	2.73
J3	0.176	0.000	0.088	0.088	0.101	22.4	3.84	0.39	5.07	0.51	5.99	0.61	7.23	0.73	8.15	0.82	9.11	0.92
J4	0.306	0.000	0.153	0.153	0.176	23.1	3.78	0.66	4.99	0.88	5.90	1.04	7.12	1.25	8.03	1.41	8.98	1.58
J5	0.311	0.000	0.156	0.156	0.179	23.1	3.78	0.68	4.98	0.89	5.90	1.06	7.11	1.27	8.02	1.44	8.97	1.61
J6	0.409	0.000	0.204	0.204	0.235	23.5	3.74	0.88	4.94	1.16	5.85	1.37	7.06	1.66	7.96	1.87	8.91	2.09
J7	0.458	0.000	0.229	0.229	0.263	23.7	3.73	0.98	4.92	1.30	5.83	1.54	7.03	1.85	7.93	2.09	8.88	2.34
J8	0.264	0.000	0.132	0.132	0.152	22.9	3.80	0.58	5.01	0.76	5.92	0.90	7.15	1.09	8.06	1.22	9.01	1.37
K1	0.425	0.000	0.212	0.212	0.244	23.6	3.74	0.91	4.94	1.21	5.84	1.43	7.05	1.72	7.95	1.94	8.90	2.17
K2	0.437	0.000	0.219	0.219	0.251	23.6	3.74	0.94	4.93	1.24	5.84	1.47	7.04	1.77	7.94	2.00	8.89	2.24
K3	0.154	0.000	0.077	0.077	0.089	22.2	3.86	0.34	5.08	0.45	6.01	0.53	7.25	0.64	8.17	0.73	9.14	0.81
K4	0.175	0.000	0.088	0.088	0.101	22.4	3.84	0.39	5.07	0.51	5.99	0.60	7.23	0.73	8.15	0.82	9.11	0.92
L1	0.371	0.000	0.185	0.185	0.213	23.4	3.76	0.80	4.96	1.06	5.87	1.25	7.08	1.51	7.98	1.70	8.93	1.90
L2	0.854	0.000	0.427	0.427	0.491	24.7	3.65	1.79	4.82	2.37	5.71	2.81	6.90	3.39	7.78	3.82	8.71	4.28
L3	0.662	0.000	0.331	0.331	0.381	24.3	3.68	1.40	4.86	1.85	5.76	2.19	6.95	2.65	7.85	2.99	8.78	3.34
L4	0.358	0.000	0.179	0.179	0.206	23.3	3.76	0.77	4.96	1.02	5.87	1.21	7.08	1.46	7.99	1.65	8.94	1.84
L5	0.539	0.000	0.270	0.270	0.310	24.0	3.71	1.15	4.90	1.52	5.80	1.80	7.00	2.17	7.90	2.45	8.84	2.74

Q:\PROJECTS\21200 - JBRA LS Pavement Repairs\Civil\Drawings_Current\21200.000_CE_DRAINAGE AREAS PLAN & CALC'S.dwg Jan 09, 2023 03:43pm

DATE

ISSUED FOR

NO.

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Consulting Engineers and Land Surveyors
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REGIONAL AIRPORT

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JERRY WARE DR.
AIRPORT 3rd ST.
DRAINAGE
AREAS & CALC'S.

C11.3

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Jefferson Co. Freq = 10 n= 0.013 RCP pipe

Atlas 14 b= 88.32 I=b/(t+d)e n= 0.012 HDPE pipe

Zone 1 d= 13.43 Tc=10A .1761+15 n= 0.030 earth ditch

2019 e= 0.752 PIPE

FROM NO.	TO	Drainage Areas	TOTAL DA (Ac.)	TOTAL CA	Time of Concentration LNGTH (ft.)	Along sewer line					Inlet Time	Used in Design	I (in/hr)	Freq = Q (cfs)	DESIGN No. (#)	Dia. (in.)	Slope %	Cap. (cfs)	Vel. (ft/sec)	REMARKS	+/- Λ Q
A1	A2	A1	2.85	1.71	482	10.0	+ 482 / 1.00	(60)=	18.03	27.02	27.02	5.47	9.34	2	24	0.20	20.28	3.50	Pipe	10.94
A2	N. Ditch	A1+A2	4.62	2.77	471	27.0	+ 482 / 3.50	(60)=	29.32	28.09	29.32	5.24	14.54	2	24	0.25	22.68	3.91	Pipe	8.14
D1	N. Ditch	D1	3.56	2.13	780	29.3	+ 471 / 3.91	(60)=	31.33	27.50	31.33	5.07	10.81	2	24	0.20	20.28	3.50	Pipe	9.47
B1	B2	B1	4.86	2.92	580	10.0	+ 580 / 1.00	(60)=	19.67	28.21	28.21	5.35	15.60	3	18	0.30	17.30	3.54	Pipe	1.70
B2	B4	B1+B2	9.67	5.80	615	28.2	+ 580 / 3.54	(60)=	30.95	29.91	30.95	5.10	29.57	3	18	0.30	17.30	3.54	Pipe	-12.27
B4	B3	B1+B2+B4	11.40	6.84	260	30.9	+ 615 / 3.54	(60)=	33.84	30.35	33.84	4.86	33.26	3	18	0.30	17.30	3.54	Pipe	-15.96
B3	E1	B1+B2+B3+B4	12.27	7.36	290	33.8	+ 260 / 3.54	(60)=	35.07	30.55	35.07	4.77	35.11	2	24	0.30	24.84	4.28	Pipe	-10.27
C1	C2	C1	3.03	1.82	265	10.0	+ 265 / 1.00	(60)=	14.42	27.16	27.16	5.45	9.92	2	18	0.20	9.42	2.89	Pipe	-0.50
C2	D2	C1+C2	5.13	3.08	687	27.2	+ 265 / 2.89	(60)=	28.69	28.34	28.69	5.30	16.31	2	24	0.20	20.28	3.50	Pipe	3.97
D2	E1	C1+C2+D2	7.42	4.45	575	28.7	+ 687 / 3.50	(60)=	31.96	29.23	31.96	5.01	22.32	2	18	0.30	11.53	3.54	Pipe	-10.78
E1	Pipe 1	C1+C2+D2+E1	12.51	7.51	200	32.0	+ 575 / 3.54	(60)=	34.67	30.60	34.67	4.80	36.03	2	18	1.20	23.07	7.07	Pipe	-12.96
														2	18	0.30	11.53	3.54	Pipe	
																	34.60			-1.42

TRAPEZOIDAL DITCH DESIGN

														SS (l/h)	Wb (ft.)	d (ft.)	Slope %	Cap. (cfs)	Vel. (ft/sec)		Λ Q
EQ Ditch 1		B1+B2+B4+C1	14.44	8.66	290	33.8	+ 260 / 3.54	(60)=	35.07	10.00	35.07	4.77	41.31	4.0	4.0	3.0	0.10	106.14	2.21	Ditch	64.84
EQ Ditch 2		B1->B4+C1+C2+E1	22.49	13.50	506	21.2	+ 41 / 2.70	(60)=	21.46	10.00	21.46	6.11	82.44	4.0	4.0	3.0	0.10	106.14	2.21	Ditch	23.71
ML DITCH		ML1	43.60	26.16	1270	34.7	+ 1270 / 7.07	(60)=	37.67	10.00	37.67	4.59	119.96	4.0	4.0	3.0	0.10	106.14	2.21	Ditch	-13.81
H1	H2	H1	0.06	0.05	42		+ 42 / 1.5	(60)=	0.5	21.0	21.0	6.17	0.31		1	12	0.30	2.12	2.70	Pipe	1.81
H2	H4	H1+H2	0.15	0.13	137	21.0	+ 137 / 2.7	(60)=	21.9	22.1	22.1	6.02	0.79		1	15	0.30	3.84	3.13	Pipe	3.05
H3	H4	H3	0.09	0.08	41		+ 41 / 1.5	(60)=	0.5	21.5	21.5	6.10	0.48		1	12	0.30	2.12	2.70	Pipe	1.64
H4	H6	H1->H4	0.37	0.34	195	21.5	+ 195 / 3.1	(60)=	22.5	23.4	23.4	5.86	1.97		1	15	0.30	3.84	3.13	Pipe	1.87
H5	H6	H5	0.07	0.06	41		+ 41 / 1.5	(60)=	0.5	21.2	21.2	6.14	0.37		1	12	0.30	2.12	2.70	Pipe	1.75
H6	H7	H1->H6	0.55	0.49	59	23.4	+ 195 / 3.1	(60)=	24.4	24.0	24.4	5.74	2.84		1	18	0.30	6.25	3.54	Pipe	3.41
H7	H9	H1->H7	0.61	0.55	79	21.2	+ 41 / 2.7	(60)=	21.5	24.2	24.2	5.78	3.17		1	18	0.30	6.25	3.54	Pipe	3.08
H8	H9	H8	0.10	0.09	41		+ 41 / 1.5	(60)=	0.5	21.7	21.7	6.08	0.55		1	12	0.30	2.12	2.70	Pipe	1.57
H9	H11	H1->H9	0.81	0.73	165	24.2	+ 79 / 3.5	(60)=	24.5	24.6	24.6	5.72	4.19		1	24	0.30	13.46	4.28	Pipe	9.26
H10	H11	H10	0.08	0.07	41		+ 41 / 1.5	(60)=	0.5	21.4	21.4	6.12	0.44		1	12	0.30	2.12	2.70	Pipe	1.68
H11	H12	H1->H11	1.02	0.92	140	24.6	+ 165 / 4.3	(60)=	25.3	25.0	25.3	5.65	5.21		1	24	0.30	13.46	4.28	Pipe	8.25
H12	H13	H1->H12	1.09	0.98	41	21.4	+ 41 / 2.7	(60)=	21.7	25.2	25.2	5.66	5.57		1	24	0.30	13.46	4.28	Pipe	7.89
H13	OUT	H1->H13	1.15	1.03	95	25.3	+ 140 / 4.3	(60)=	25.8	25.2	25.8	5.59	5.78		1	24	0.30	13.46	4.28	Pipe	7.67

TRAPEZOIDAL DITCH DESIGN

														SS (l/h)	Wb (ft.)	d (ft.)	Slope %	Cap. (cfs)	Vel. (ft/sec)		
J1	J2	J2	0.48	0.28	332		+ 332 / 1.5	(60)=	3.7	23.8	23.8	5.82	1.61	3.0	2.0	3.0	0.20	99.2	3.0	Ditch	97.56
J2	JB1	J1+J2	1.02	0.59	368	23.8	+ 368 / 3.0	(60)=	25.8	25.0	25.8	5.59	3.27	3.0	2.0	3.0	0.20	99.2	3.0	Ditch	95.90
JB1	Out	J1+J2	1.02	0.59	24	25.8	+ 24 / 3.0	(60)=	26.0	25.0	26.0	5.58	3.27		1	24	2.00	34.74	11.06	Pipe	31.48
J3	J4	J3	0.18	0.10	36		+ 36 / 1.5	(60)=	0.4	22.4	22.4	5.99	0.61		1	18	0.50	8.07	4.56	Pipe	7.46
J4	J5	J3+J4	0.48	0.28	118	22.4	+ 118 / 4.6	(60)=	22.8	23.8	23.8	5.82	1.61		1	18	0.30	6.25	3.54	Pipe	4.64
J5	J6	J3+J4+J5	0.79	0.46	230	23.8	+ 230 / 3.5	(60)=	24.9	24.6	24.9	5.69	2.60		1	18	0.30	6.25	3.54	Pipe	3.65
J6	JB2	J3+J4+J5+J6	1.20	0.69	262	24.9	+ 262 / 3.5	(60)=	26.1	25.3	26.1	5.56	3.84		1	24	0.30	13.46	4.28	Pipe	9.62
J7	JB1	J7	0.46	0.26	24		+ 24 / 4.3	(60)=	0.1	23.7	23.7	5.83	1.54		1	24	2.00	34.74	11.06	Pipe	33.21
J8	JB2	J8	0.26	0.15	24		+ 24 / 11.1	(60)=	0.0	22.9	22.9	5.92	0.90		1	24	1.25	27.47	8.74	Pipe	26.57
JB2	OUT	J1->J8	2.94	1.69	240	22.9	+ 240 / 8.7	(60)=	23.4	27.1	27.1	5.46	9.24		1	30	0.19	19.42	3.96	Pipe	10.18
K2	JB3	K2	0.44	0.25	46		+ 46 / 1.5	(60)=	0.5	23.6	23.6	5.84	1.47								
K3	JB3	K3	0.15	0.09	46		+ 46 / 1.5	(60)=	0.5	22.2	22.2	6.01	0.53								
JB3	OUT	K2+K3	0.59	0.34	46	22.2	+ 46 / 2.5	(60)=	22.5	24.1	24.1	5.78	1.97		1	24	0.30	13.46	4.28	Pipe	11.49
L1	Out	L1	0.37	0.21	118		+ 118 / 1.5	(60)=	1.3	23.4	23.4	5.87	1.25		1	18	0.12	3.95	2.24	Pipe	2.70
L2	Out	L2	0.85	0.49	118		+ 118 / 1.5	(60)=	1.3	24.7	24.7	5.71	2.81		1	15	0.10	2.22	1.81	Pipe	-0.59
L3	L4	L3	0.66	0.38	118		+ 118 / 1.5	(60)=	1.3	24.3	24.3	5.76	2.19		2	18	0.17	9.41	2.66	Pipe	7.21
L4	L5	L3+L4	1.02	0.59	257	24.3	+ 257 / 2.5	(60)=	26.0	25.0	26.0	5.57	3.27		2	18	0.21	10.45	2.96	Pipe	7.19
L5	ML1	L3+L4+L5	1.56	0.90	381	26.0	+ 381 / 2.5	(60)=	28.6	25.8	28.6	5.32	4.77		1	24	0.20	10.99	3.50	Pipe	6.22

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1405 Cornerstone Court Beaumont, TX. 77706
Ph. (409) 832-7238 Fax. (409) 832-7303
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STATE OF TEXAS
BERNARDINO D. TRISTAN
117017
LICENSED
PROFESSIONAL ENGINEER
Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

FS PROJECT # 21200.000

DATE: Jan 09, 2023

SCALE: N.T.S.

DRAWN BY: J.L.H.

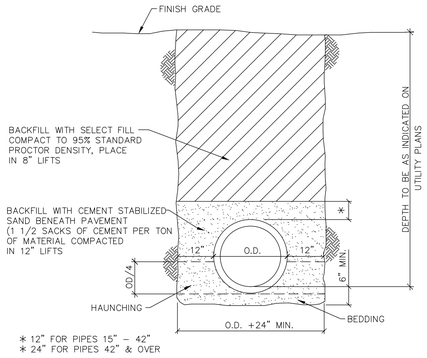
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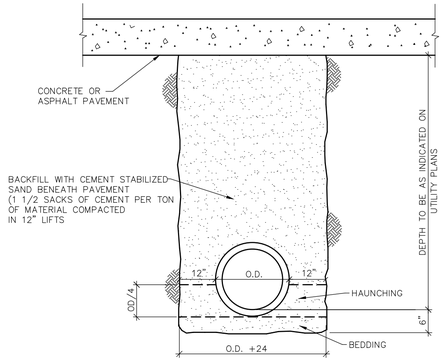
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AIRPORT 3rd ST.
DRAINAGE
AREAS & CALC'S.

C11.4

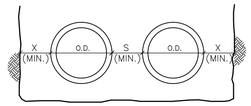
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TRENCH CUT FOR HDPE STORM SEWER LINES



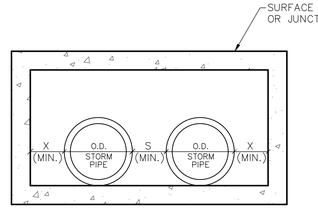
TRENCH CUT FOR STORM SEWER LINES UNDER PAVEMENT



MINIMUM HDPE PIPE SPACING

PIPE DIA.	MIN.SPACING (S)	MIN. (X)
24"	S = 12"	X = 12"
30"	S = 15"	X = 12"
36"	S = 18"	X = 12"
42"	S = 21"	X = 12"
48"	S = 24"	X = 24"

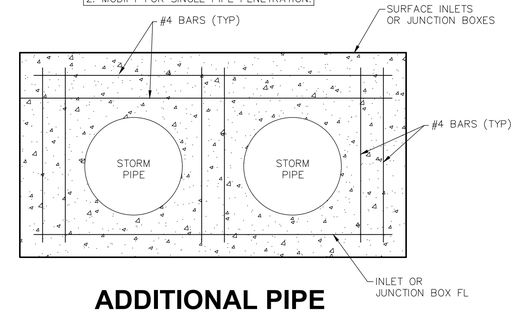
TRENCH CUT FOR MULTIPLE STORM SEWER LINES



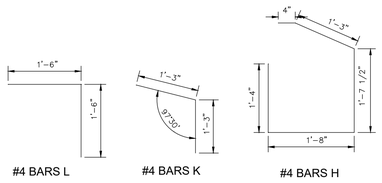
MINIMUM HDPE PIPE SPACING

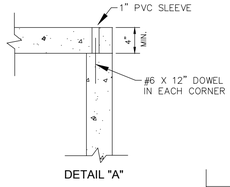
PIPE DIA.	MIN. (X)	MIN.SPACING (S)	O.D.
24"	X = 6"	S = 12"	X = 28"
30"	X = 6"	S = 15"	X = 36"
36"	X = 6"	S = 18"	X = 42"
42"	X = 6"	S = 21"	X = 48"
48"	X = 6"	S = 24"	X = 54"

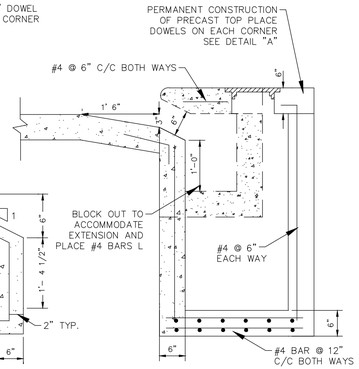
ADDITIONAL PIPE CATCH BASIN SPACING

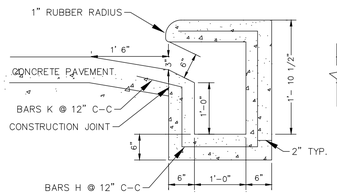


ADDITIONAL PIPE PENETRATION REINFORCEMENT

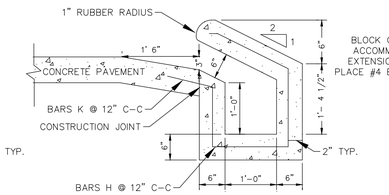






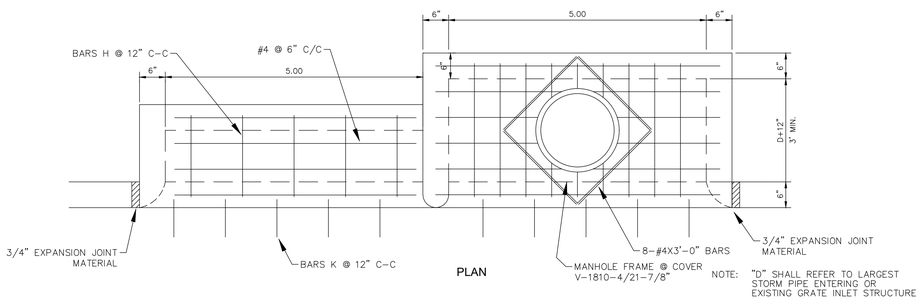


SECTION INLET EXTENSION



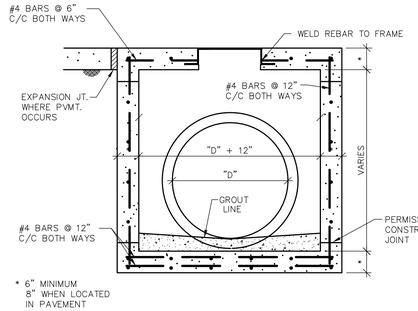
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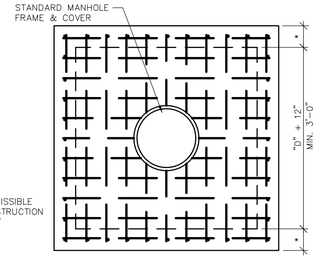
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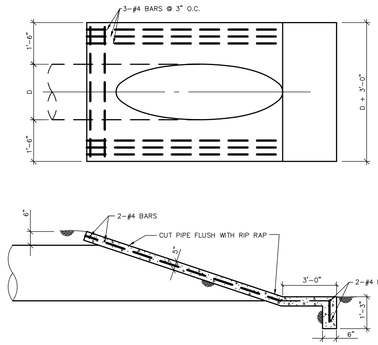
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CURB INLET TYPE B MODIFIED

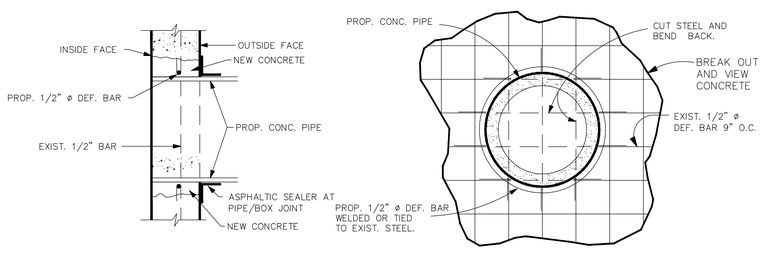




STORM JUNCTION MANHOLE (TYPICAL)



PIPE SLOPED END DETAL



Tie-in To Existing Concrete Drain Box

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Consulting Engineers and Land Surveyors
1405 Cornerstone Court
Ph. (409) 832-7238
Beaumont, TX. 77706
Fax. (409) 832-7303
www.fittzshipman.com
T.B.P.E. Firm #1160 T.X.L.S. Firm #100186

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BERNARDINO D. TRISTAN
117017
LICENSED PROFESSIONAL ENGINEER
Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

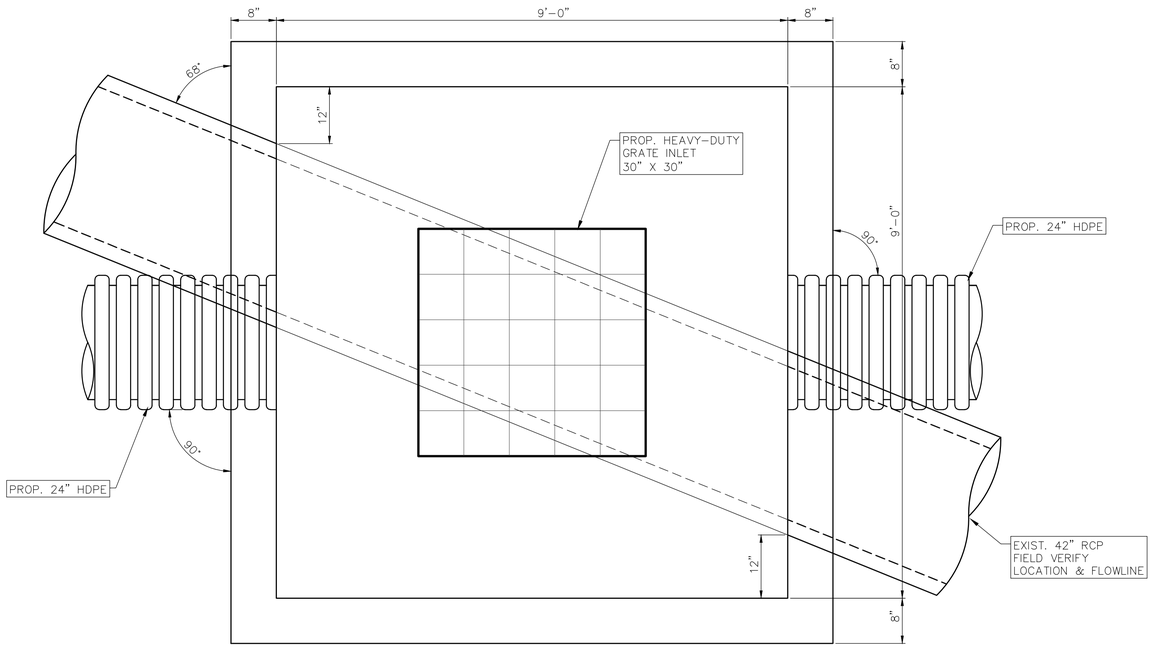
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DATE:	Jan 09, 2023
SCALE:	1" = 20'
DRAWN BY:	J.L.H.
CHECK BY:	B.D.T.
FS DRAWING NAME:	21200.000_CE_DRAINAGE AREAS & CALC'S

DRAINAGE STANDARDS AND DETAILS

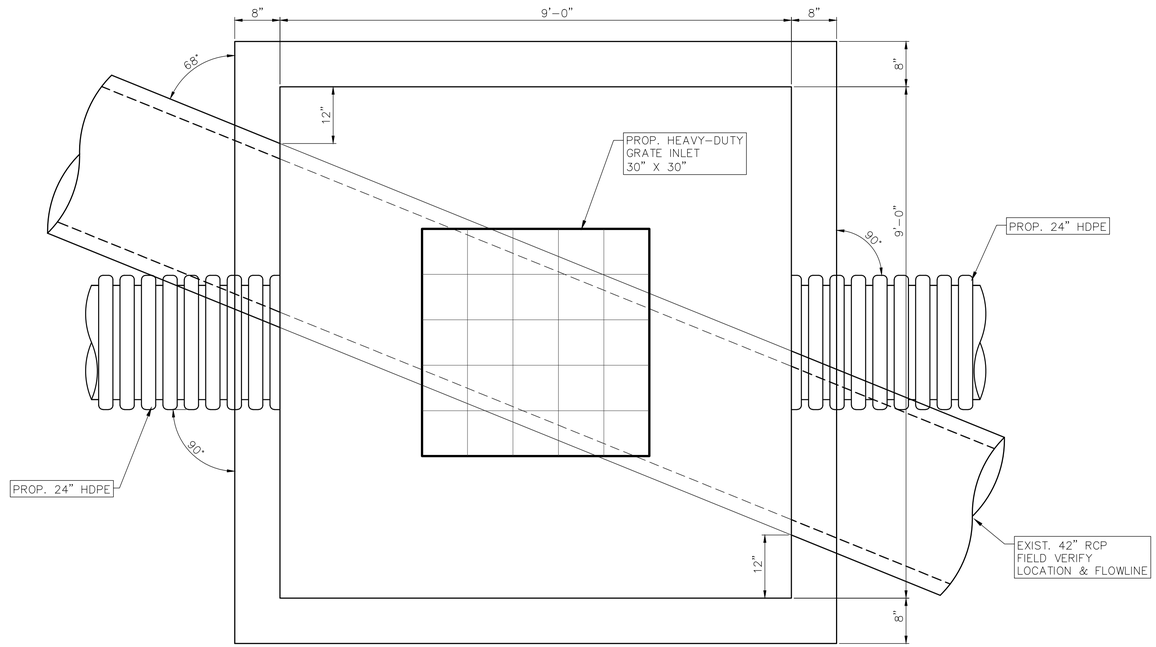
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STORM JUNCTION MANHOLE
3rd STREET
STA. 15+89 (L)



STORM JUNCTION MANHOLE
3rd STREET
STA. 17+25 (R)

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SCALE:	N.T.S.
DRAWN BY:	J.L.H.
CHECK BY:	B.D.T.
FS DRAWING NAME:	21200.000_CE_DRAINAGE AREAS & CALC'S

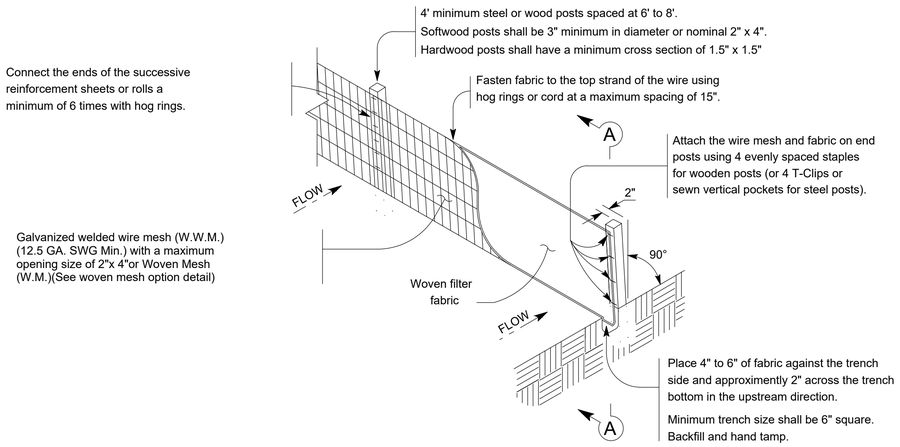
DRAINAGE STANDARDS AND DETAILS

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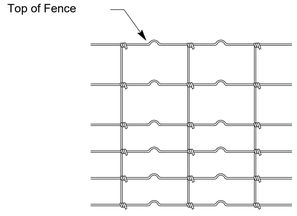
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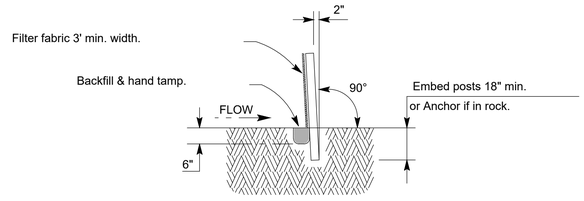
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TEMPORARY SEDIMENT CONTROL FENCE

SCF





SECTION A-A

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/FT^2. Sediment control fence is not recommended to control erosion from a drainage area larger than 2 acres.

LEGEND

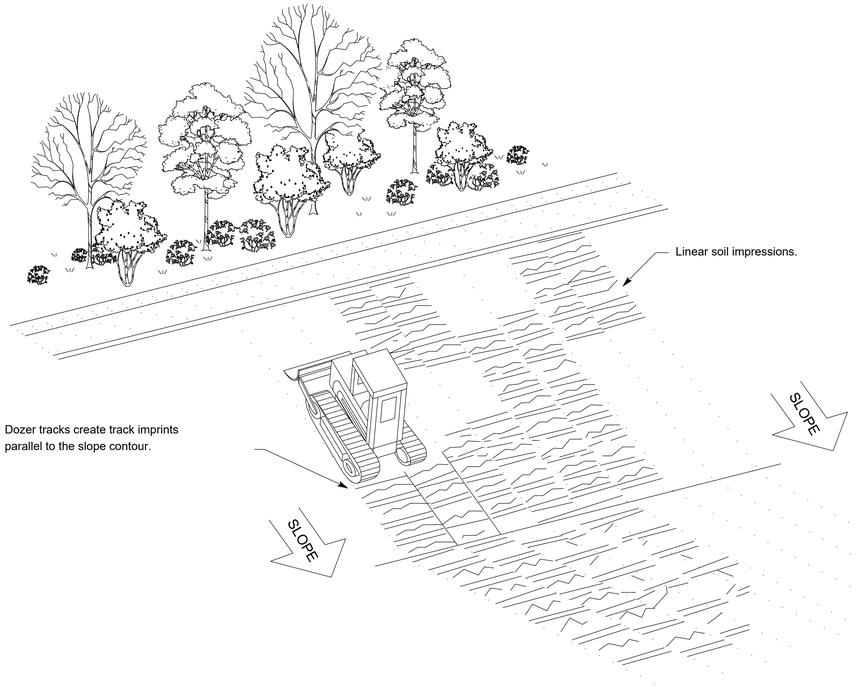
Sediment Control Fence

SCF

DATE
FILE

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 continous 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 — Design Division Standard

TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL MEASURES

FENCE & VERTICAL TRACKING

EC(1)-16

FILE: ec116	DN: TxDOT	CK: KM	DW: VP	DN/CK: LS
©TxDOT: JULY 2016	CONT	SECT	JOB	HIGHWAY
REVISIONS				
	DIST	COUNTY		SHEET NO.

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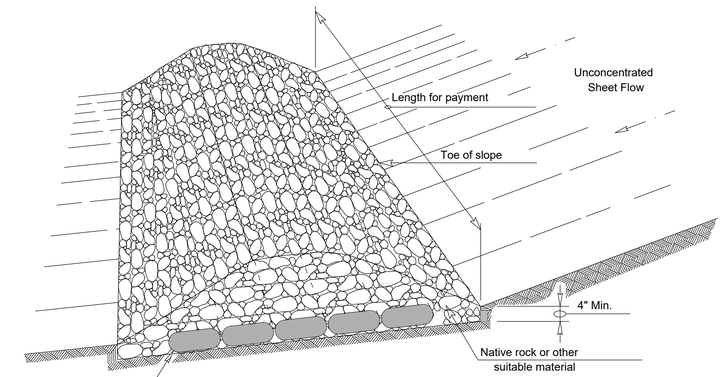
FS PROJECT # 21200.000

DATE:	Jan 09, 2023
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DRAWN BY:	J.L.H.
CHECK BY:	B.T.
FS DRAWING NAME:	21200.000_CE_EROSION CONTROL DETAILS

EROSION CONTROL DETAILS

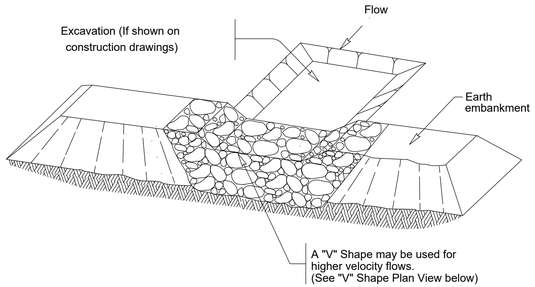
C13.1

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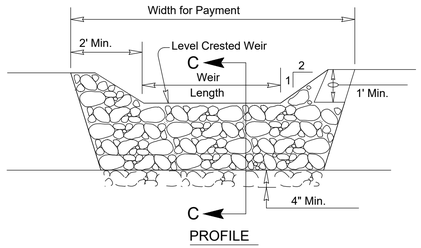
FILTER DAM AT TOE OF SLOPE

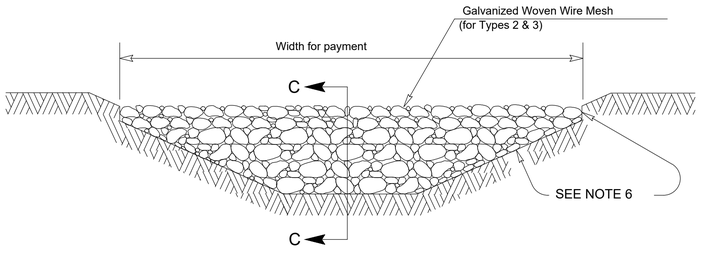
RFD1



FILTER DAM AT SEDIMENT TRAP

RFD1 OR RFD2



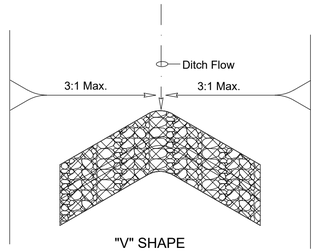


FILTER DAM AT CHANNEL SECTIONS

RFD1 OR RFD2 OR RFD3

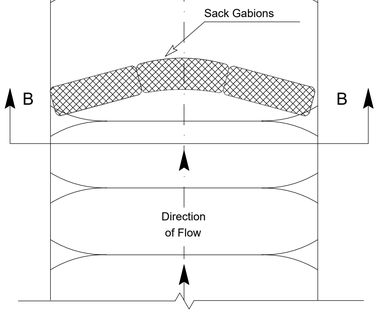
GENERAL NOTES

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.

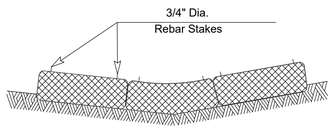


"V" SHAPE

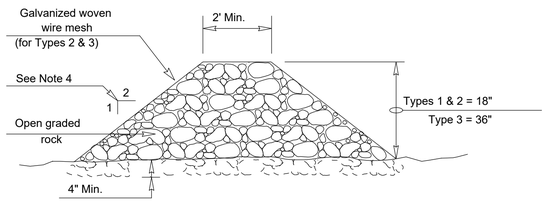
PLAN VIEW



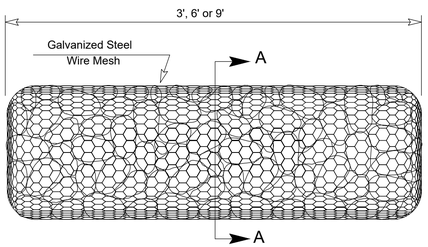
PLAN VIEW



SECTION B-B

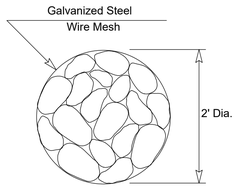


SECTION C-C



TYPE 4 (SACK GABIONS)

RFD4



SECTION A-A

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/FT ^{2} 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 (approximently 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.

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	CK: KM	DW: VP	DN/CK: LS
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STATE OF TEXAS
BERNARDINO D. TRISTAN
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LICENSED
PROFESSIONAL ENGINEER
Jan 09, 2023

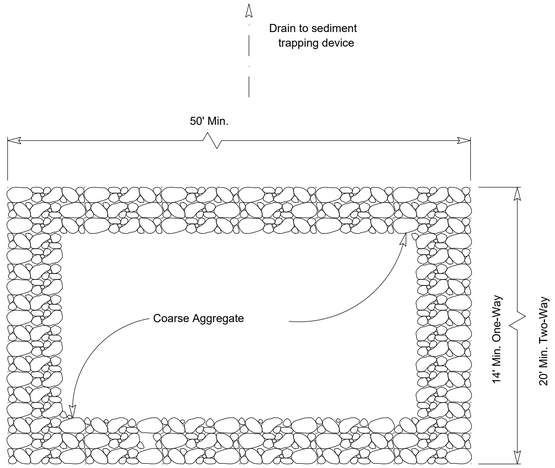
JACK BROOKS REGIONAL AIRPORT

FS PROJECT #	21200.000
DATE:	Jan 09, 2023
SCALE:	N.T.S.
DRAWN BY:	J.L.H.
CHECK BY:	B.T.
FS DRAWING NAME:	21200.000_CE_EROSION CONTROL DETAILS

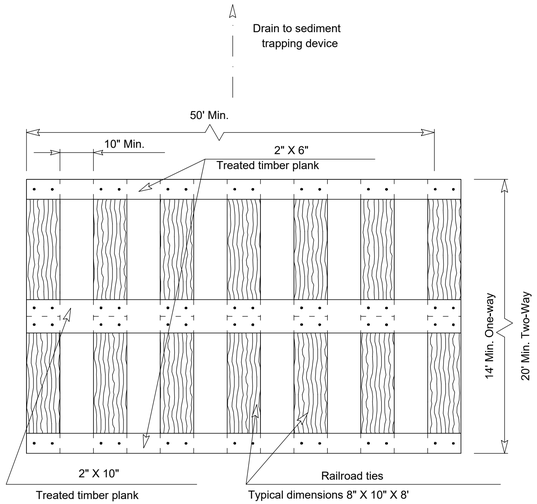
EROSION CONTROL DETAILS

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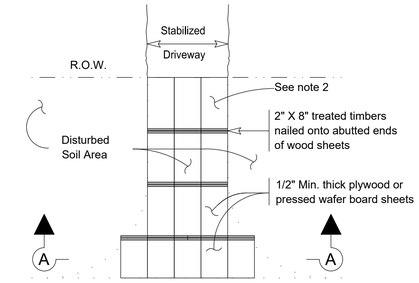
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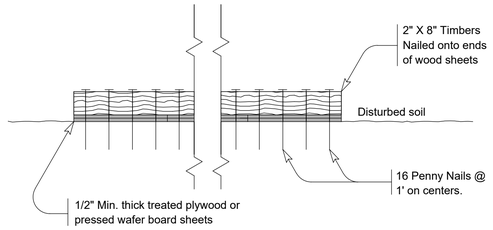
PLAN VIEW



PLAN VIEW



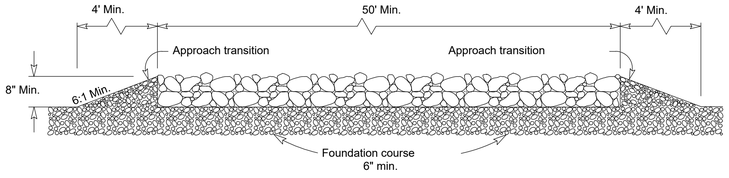
PLAN VIEW



SECTION A-A

CONSTRUCTION EXIT (TYPE 3)

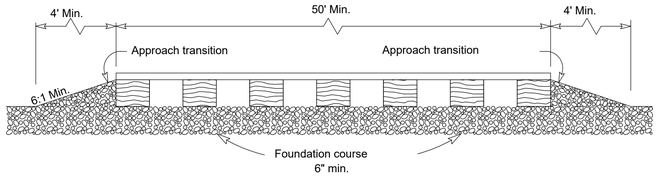
SHORT TERM



ELEVATION VIEW

CONSTRUCTION EXIT (TYPE 1)

ROCK CONSTRUCTION (LONG TERM)



ELEVATION VIEW

CONSTRUCTION EXIT (TYPE 2)

TIMBER 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 materialas 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.

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.

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.

Texas Department of Transportation | Design Division Standard

TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL MEASURES

CONSTRUCTION EXITS

EC(3)-16

FILE: ec316	DN: TxDOT	CK: KM	DW: VP	DN/CK: LS
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BERNARDINO D. TRISTAN
117017
LICENSED PROFESSIONAL ENGINEER
Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

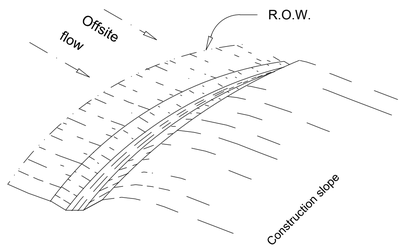
FS PROJECT #	21200.000
DATE:	Jan 09, 2023
SCALE:	N.T.S.
DRAWN BY:	J.L.H.
CHECK BY:	B.T.
FS DRAWING NAME:	21200.000_CE_EROSION CONTROL DETAILS

EROSION CONTROL DETAILS

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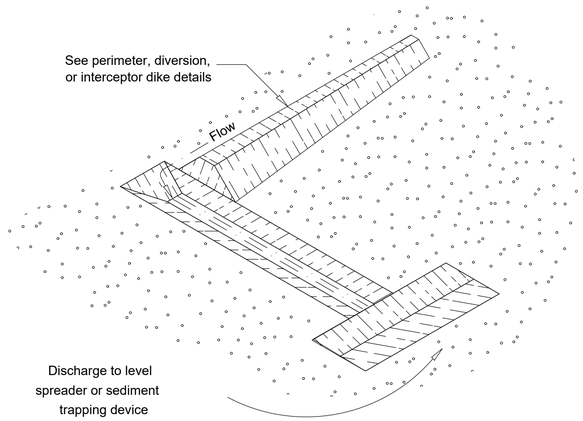
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PERIMETER SWALE

S



DIVERSION SWALE

S

GENERAL NOTE

1. Dimensions of swale may be modified with prior approval of the Engineer.
2. Side slopes within the safety clear zone of a roadway shall be 6:1 or flatter.
3. Grading shall be shown elsewhere on the plans or as directed by the Engineer.
4. The Engineer reserves the right to modify the dimensions shown for the swale dependent on runoff volume characteristics.
5. Swales that are in place for more than 14 calender days should be stabilized through seeding or other measures to control sediment runoff.
6. The guidelines shown hereon are suggestions only and may be modified by the Engineer.
7. Remove sediment and debris when accumulation affects the performance of the devices, after a rain and when directed by the Engineer.

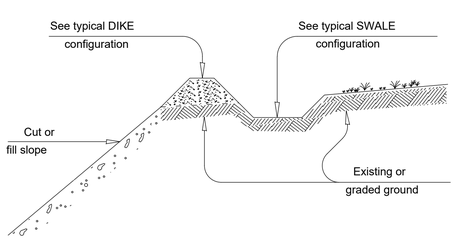
SWALE AND DIKE/SWALE USAGE GUIDELINES

A swale or dike/swale may be used to intercept runoff and divert it around unstabilized areas or to divert sediment laden runoff to an erosion control device (sediment basin or trap, rock filter dam, etc.).

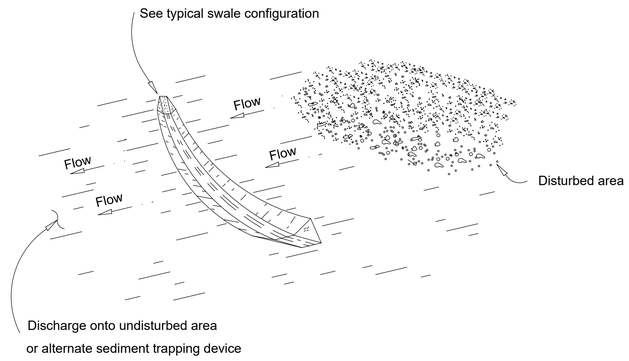
The drainage area contributing runoff to a swale or dike/swale should not exceed 5 acres. The spacing of swales and dike/swales should be as follows:

Slope of disturbed areas above dike	greater than 10%	5 - 10%	less than 5%		
Maximum distance between dikes	100'	200'	300'		

Intercepted runoff flowing in a swale or dike/swale should outlet to a stabilized area (vegetation, rock, etc.).

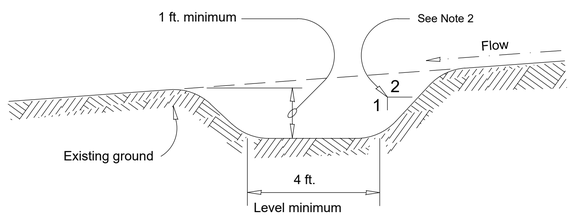


DIVERSION DIKE WITH SWALE



INTERCEPTOR SWALE

S



TYPICAL SWALE CONFIGURATION

PLAN SHEET LEGEND

SWALE — S

DIKE — D

Texas Department of Transportation | Design Division Standard

TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL MEASURES

SWALES
(EARTHWORK FOR EROSION CONTROL)

EC(5)-16

FILE: ec516	DN: TxDOT	CK: KM	DW: VP	DN/CK: LS
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Jan 09, 2023

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21200.000

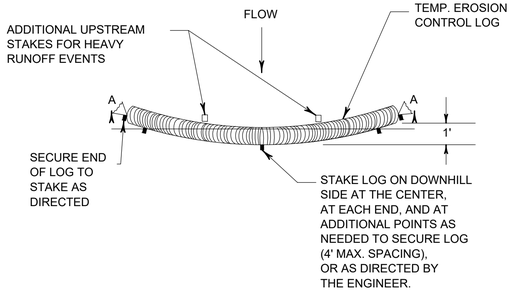
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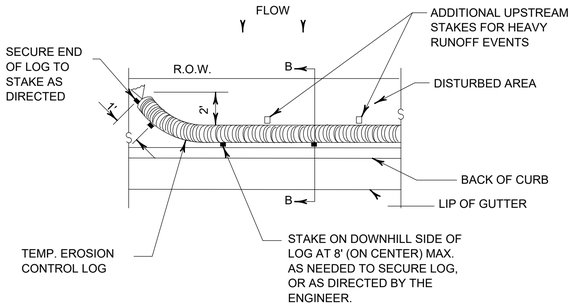
EROSION CONTROL DETAILS

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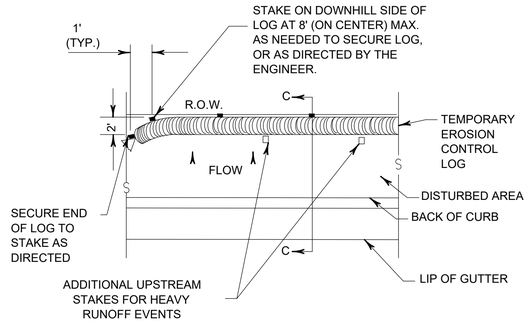
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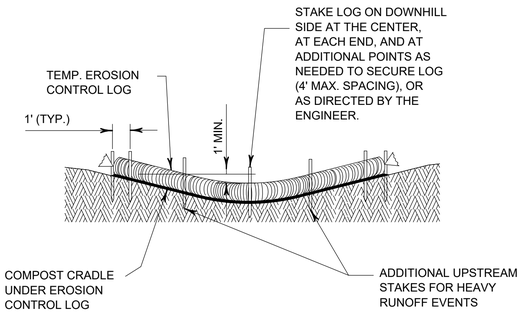
PLAN VIEW



PLAN VIEW



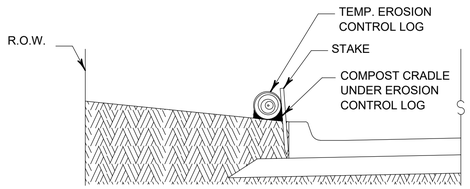
PLAN VIEW



SECTION A-A

EROSION CONTROL LOG DAM

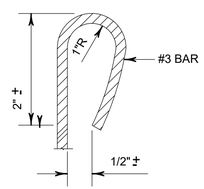
CL-D



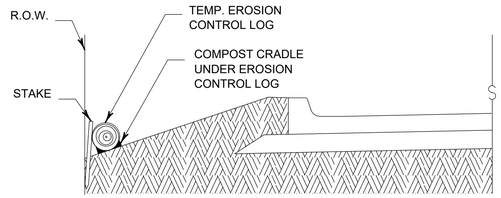
SECTION B-B

EROSION CONTROL LOG AT BACK OF CURB

CL-BOC



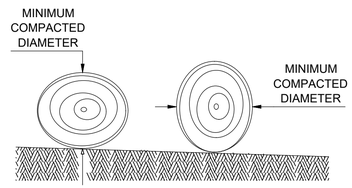
REBAR STAKE DETAIL



SECTION C-C

EROSION CONTROL LOG AT EDGE OF RIGHT-OF-WAY

CL-ROW



DIAMETER MEASUREMENTS OF EROSION CONTROL LOGS SPECIFIED IN PLANS

GENERAL NOTES:

1. EROSION CONTROL LOGS SHALL BE INSTALLED IN ACCORDANCE WITH MANFACTURER'S RECOMMENDATIONS, OR AS DIRECTED BY THE ENGINEER.
2. LENGTHS OF EROSION CONTROL LOGS SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND AS REQUIRED FOR THE PURPOSE INTENDED.
3. UNLESS OTHERWISE DIRECTED, USE BIODEGRADABLE OR PHOTODEGRADABLE CONTAINMENT MESH ONLY WHERE LOG WILL REMAIN IN PLACE AS PART OF A VEGETATIVE SYSTEM. FOR TEMPORARY INSTALLATIONS, USE RECYCLABLE CONTAINMENT MESH.
4. FILL LOGS WITH SUFFICIENT FILTER MATERIAL TO ACHIEVE THE MINIMUM COMPACTED DIAMETER SPECIFIED IN THE PLANS WITHOUT EXCESSIVE DEFORMATION.
5. STAKES SHALL BE 2" X 2" WOOD OR #3 REBAR, 2'-4' LONG, EMBEDDED SUCH THAT 2" PROTRUDES ABOVE LOG, OR AS DIRECTED BY THE ENGINEER.
6. DO NOT PLACE STAKES THROUGH CONTAINMENT MESH.
7. COMPOST CRADLE MATERIAL IS INCIDENTAL & WILL NOT BE PAID FOR SEPARATELY.
8. SANDBAGS USED AS ANCHORS SHALL BE PLACED ON TOP OF LOGS & SHALL BE OF SUFFICIENT SIZE TO HOLD LOGS IN PLACE.
9. TURN THE ENDS OF EACH ROW OF LOGS UPSLOPE TO PREVENT RUNOFF FROM FLOWING AROUND THE LOG.
10. FOR HEAVY RUNOFF EVENTS, ADDITIONAL UPSTREAM STAKES MAY BE NECESSARY TO KEEP LOG FROM FOLDING IN ON ITSELF.

LEGEND

CL-D	EROSION CONTROL LOG DAM
CL-BOC	EROSION CONTROL LOG AT BACK OF CURB
CL-ROW	EROSION CONTROL LOG AT EDGE OF RIGHT-OF-WAY
CL-SST	EROSION CONTROL LOGS ON SLOPES STAKE AND TRENCHING ANCHORING
CL-SSL	EROSION CONTROL LOGS ON SLOPES STAKE AND LASHING ANCHORING
CL-DI	EROSION CONTROL LOG AT DROP INLET
CL-CI	EROSION CONTROL LOG AT CURB INLET
CL-GI	EROSION CONTROL LOG AT CURB & GRATE INLET

SEDIMENT BASIN & TRAP USAGE GUIDELINES

An erosion control log sediment trap may be used to filter sediment out of runoff draining from an unstabilized area.

Log Traps: The drainage area for a sediment trap should not exceed 5 acres. The trap capacity should be 1800 CF/Acre (0.5" over the drainage area).

Control logs should be placed in the following locations:

1. Within drainage ditches spaced as needed or min. 500' on center
2. Immediately preceding ditch inlets or drain inlets
3. Just before the drainage enters a water course
4. Just before the drainage leaves the right of way
5. Just before the drainage leaves the construction limits where drainage flows away from the project.

The logs should be cleaned when the sediment has accumulated to a depth of 1/2 the log diameter.

Cleaning and removal of accumulated sediment deposits is incidental and will not be paid for separately.

SHEET 1 OF 3

Texas Department of Transportation | Design Division Standard

TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL MEASURES

EROSION CONTROL LOG

EC(9)-16

FILE: ec916		DN: TxDOT	CK: KM	DW: LS/PT	CK: LS		
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STATE OF TEXAS
BERNARDINO D. TRISTAN
117017
LICENSED
PROFESSIONAL ENGINEER
Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

FS PROJECT #
21200.000

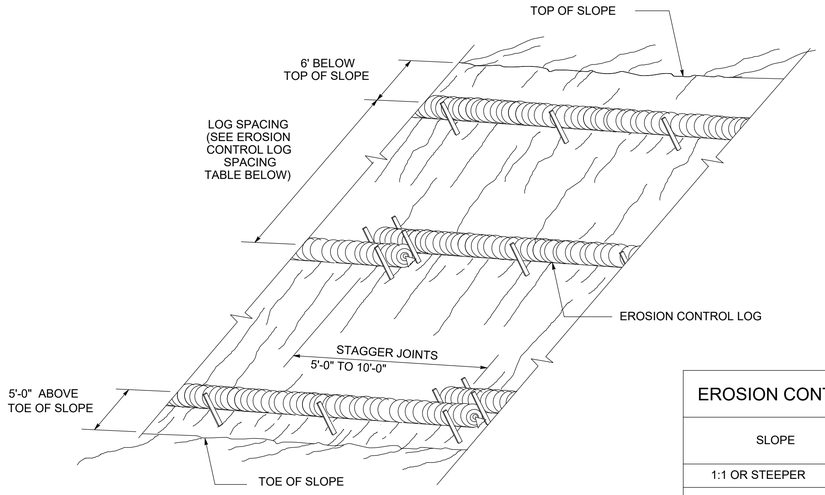
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21200.000_CE_EROSION CONTROL DETAILS

EROSION CONTROL DETAILS

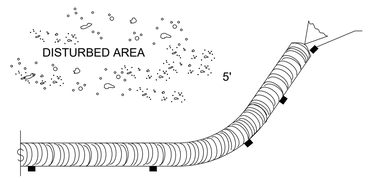
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EROSION CONTROL LOGS ON SLOPES
STAKE AND TRENCHING ANCHORING

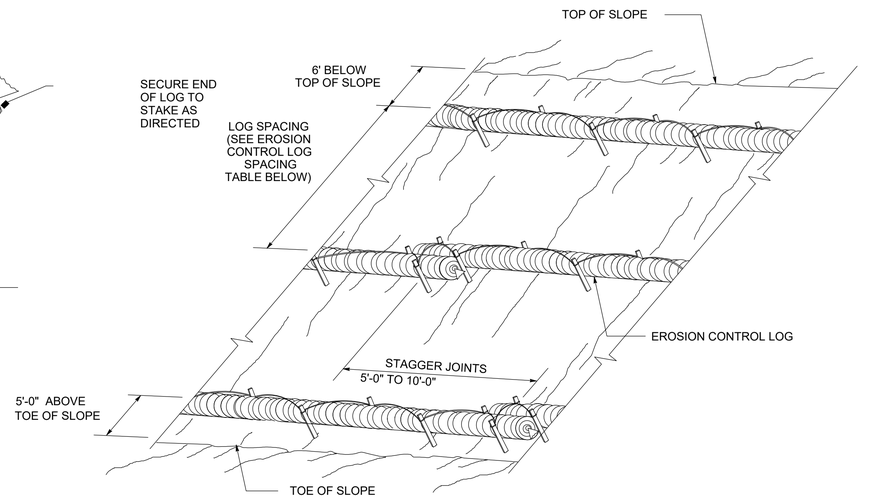
CL-SST



END SECTION RAP DETAIL

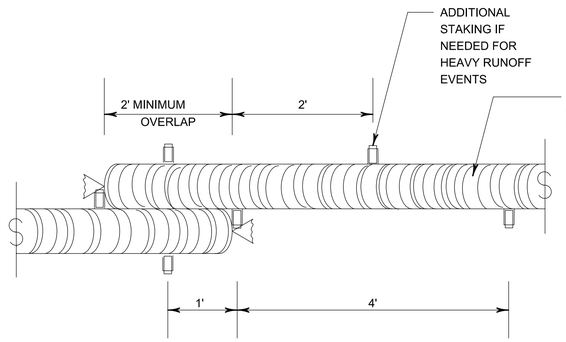
EROSION CONTROL LOG SPACING TABLE				
SLOPE	LOG DIAMETER			
	6"	8"	12"	18"
1:1 OR STEEPER	5'	10'	15'	20'
2:1	10'	20'	30'	40'
3:1	15'	30'	45'	60'
4:1 OR FLATTER	20'	40'	60'	80'

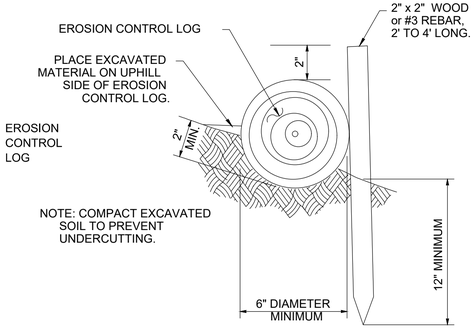
* ADJUSTMENTS CAN BE MADE FOR SOIL TYPE:
SOFT, LOAMY SOILS-ADJUST ROWS CLOSER TOGETHER;
HARD, ROCKY SOILS- ADJUST ROWS FARTHER APART



EROSION CONTROL LOGS ON SLOPES
STAKE AND LASHING ANCHORING

CL-SSL

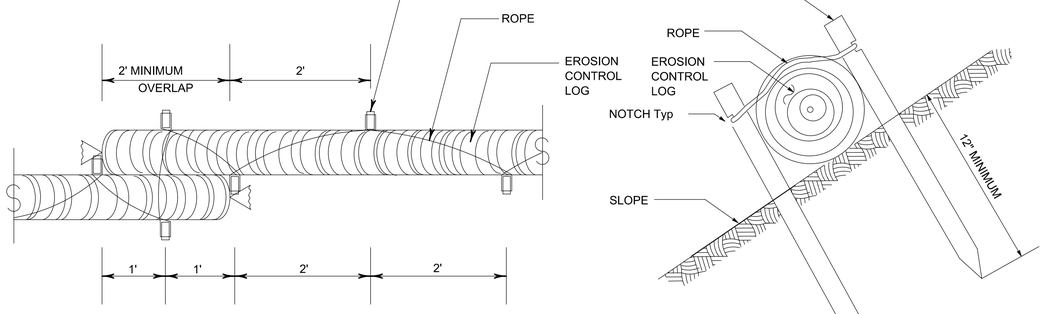




STAKE AND TRENCHING ANCHORING DETAIL

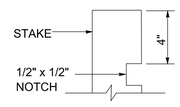
CL-SST

TRENCH DEPTH TABLE	
LOG DIAMETER	DEPTH
6"	2"
8"	3"
12"	4"
18"	5"



STAKE AND LASHING ANCHORING DETAIL

CL-SSL



STAKE NOTCH DETAIL

SHEET 2 OF 3

Texas Department of Transportation | Design Division Standard

TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL MEASURES

EROSION CONTROL LOG

EC(9)-16

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STATE OF TEXAS
BERNARDINO D. TRISTAN
117017
LICENSED PROFESSIONAL ENGINEER
Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

FS PROJECT # 21200.000

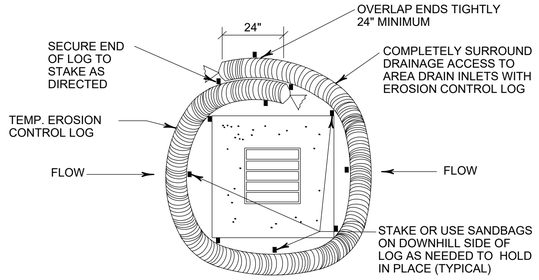
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EROSION CONTROL DETAILS

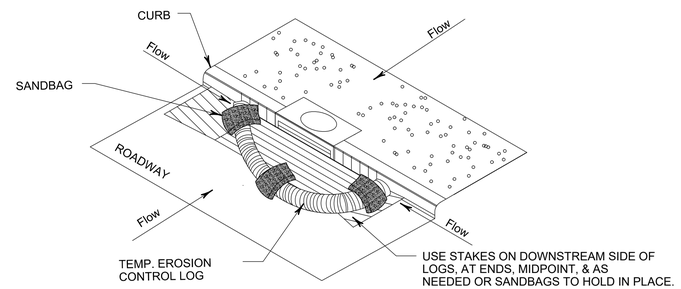
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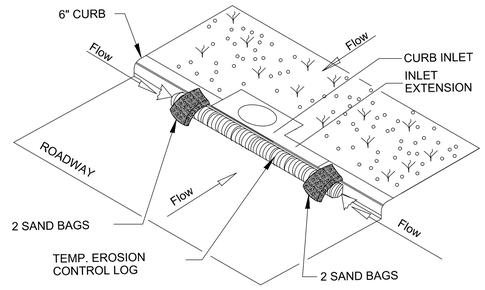
EROSION CONTROL LOG AT DROP INLET

CL-DI



EROSION CONTROL LOG AT CURB INLET

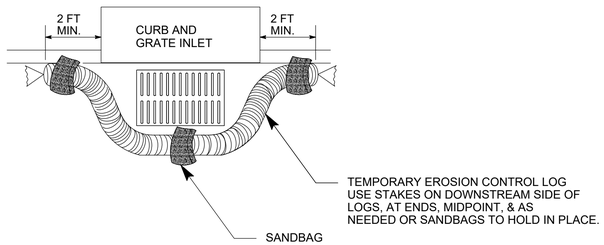
CL-CI



EROSION CONTROL LOG AT CURB INLET

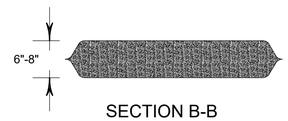
CL-CI

NOTE:
EROSION CONTROL LOGS USED AT CURB INLETS SHOULD ONLY BE USED IF THEY WILL NOT IMPEDE TRAFFIC OR FLOOD THE ROADWAY OR WHEN THE STORM SEWER SYSTEM IS NOT FULLY FUNCTIONAL.

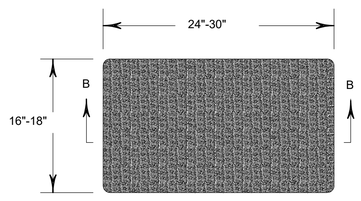


EROSION CONTROL LOG AT CURB & GRADE INLET

CL-GI



SECTION B-B



SANDBAG DETAIL

SHEET 3 OF 3

Texas Department of Transportation | Design Division Standard

TEMPORARY EROSION, SEDIMENT AND WATER POLLUTION CONTROL MEASURES

EROSION CONTROL LOG

EC(9)-16

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BERNARDINO D. TRISTAN
117017
LICENSED
PROFESSIONAL ENGINEER
Jan 09, 2023

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EROSION CONTROL DETAILS

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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. As shown on BC(2), the OBEY WARNING SIGNS STATE LAW sign, STAY ALERT TALK OR TEXT LATER (see Sign Detail G20-10T) and the WORK ZONE TRAFFIC FINES DOUBLE sign with plaque shall be erected in advance of the CSJ limits. However, the TRAFFIC FINES DOUBLE sign will not be required on projects consisting solely of mobile operation work, such as striping or milling edgeline rumble strips. The BEGIN ROAD WORK NEXT X MILES, CONTRACTOR and END ROAD WORK signs shall be erected at or near the CSJ limits.

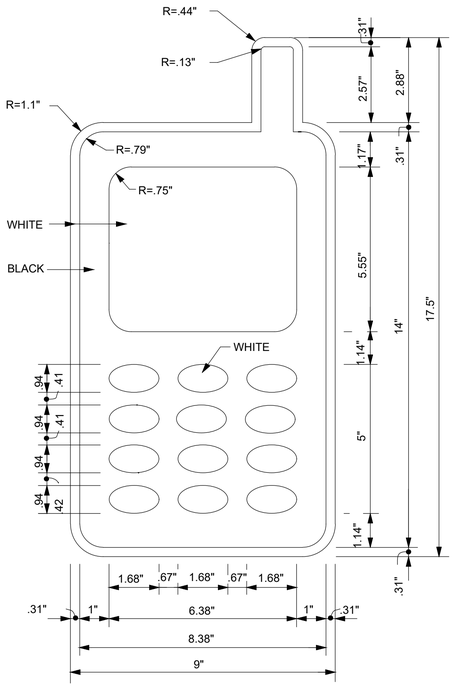
11. Except for devices required by Note 10, traffic control devices should be in place only while work is actually in progress or a definite need exists.

12. The Engineer has the final decision on the location of all traffic control devices.

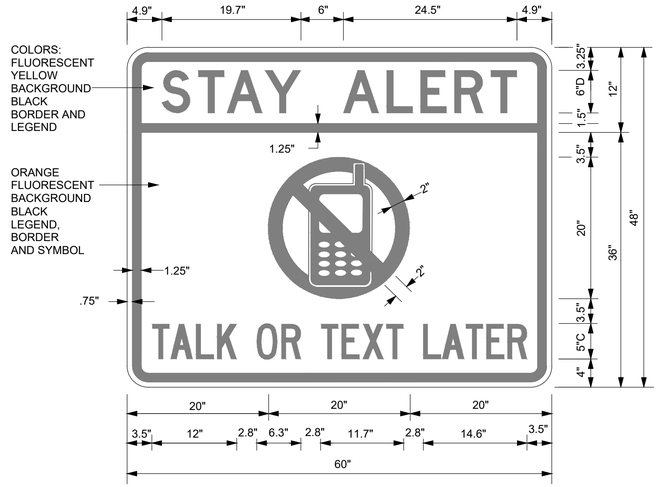
13. Inactive equipment and work vehicles, including workers' private vehicles must be parked away from travel lanes. They should be as close to the right-of-way line as possible, or located behind a barrier or guardrail, or as approved by the Engineer.

WORKER SAFETY APPAREL 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.



SIGN DETAIL (G20-10T)



3.0" Radius, 1.25" Border, 0.75" Indent, Black on Yellow;
[STAY ALERT] Font: D
3.0" Radius, 1.25" Border, 0.75" Indent, Black on Orange;
[TALK OR TEXT LATER] Font: C specified length;

Only pre-qualified products shall be used. The "Compliant Work Zone Traffic Control Devices List" (CWZTCD) describes pre-qualified products and their sources and may be found on-line at the web address given below or by contacting:

Texas Department of Transportation
Traffic Operations Division - TE
Phone (512) 416-3118

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

Texas Department of Transportation — Traffic Operations Division Standard

BARRICADE AND CONSTRUCTION GENERAL NOTES AND REQUIREMENTS

BC(1)-14

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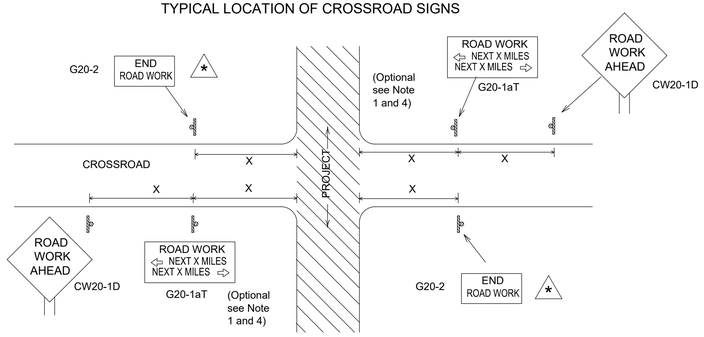
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CHECK BY:	B.T.
FS DRAWING NAME:	21200.000_CE_TXDOT TRAFFIC CONTROL DETAILS

TRAFFIC CONTROL DETAILS

C14.1

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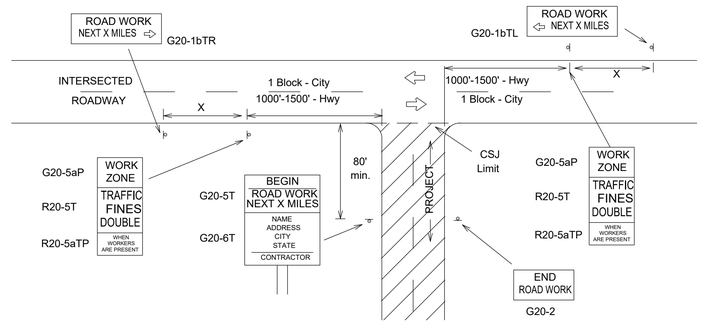
TYPICAL LOCATION OF CROSSROAD SIGNS



* 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. 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.

TYPICAL CONSTRUCTION WARNING SIGN SIZE AND SPACING [1,5,6]

SIZE

Sign Number or Series	Conventional Road	Expressway/ Freeway
CW20 [4] CW21 CW22 CW23 CW25	48" x 48"	48" x 48"
CW1, CW2, CW7, CW8, CW9, CW11, CW14	36" x 36"	48" x 48"
CW3, CW4, CW5, CW6, CW8-3, CW10, CW12	48" x 48"	48" x 48"

SPACING

Posted Speed	Sign Spacing "X" △
MPH	Feet (Apprx.)
30	120
35	160
40	240
45	320
50	400
55	500 [2]
60	600 [2]
65	700 [2]
70	800 [2]
75	900 [2]
80	1000 [2]
*	* [3]

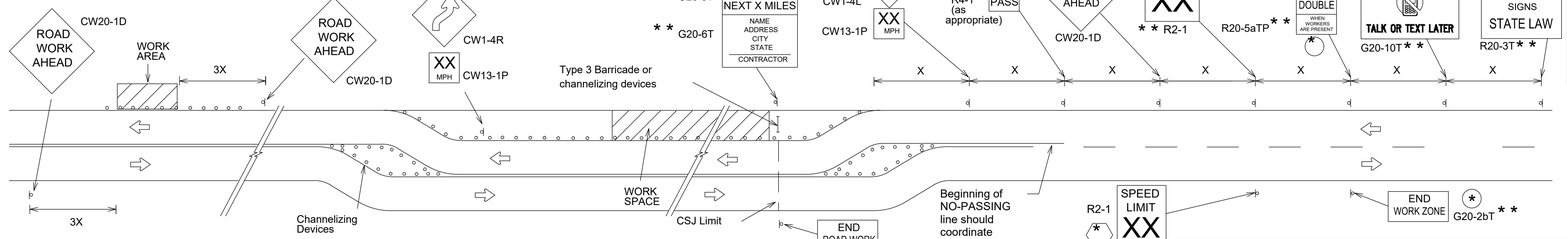
* For typical sign spacings on divided highways, expressways and freeways, see Part 6 of the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD) typical application diagrams or TCP Standard Sheets.

△ Minimum distance from work area to first Advance Warning sign nearest the work area and/or distance between each additional sign.

GENERAL NOTES

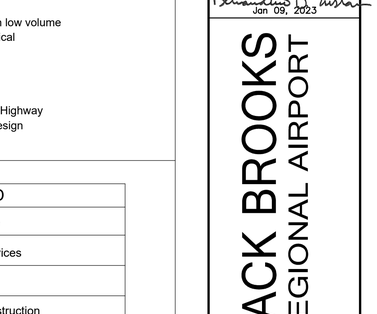
1. Special or larger size signs may be used as necessary.
2. Distance between signs should be increased as required to have 1500 feet advance warning.
3. Distance between signs should be increased as required to have 1/2 mile or more advance warning.
4. 36" x 36" "ROAD WORK AHEAD" (CW20-1D)signs may be used on low volume crossroads at the discretion of the Engineer. 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.

WORK AREAS IN MULTIPLE LOCATIONS WITHIN CSJ LIMITS

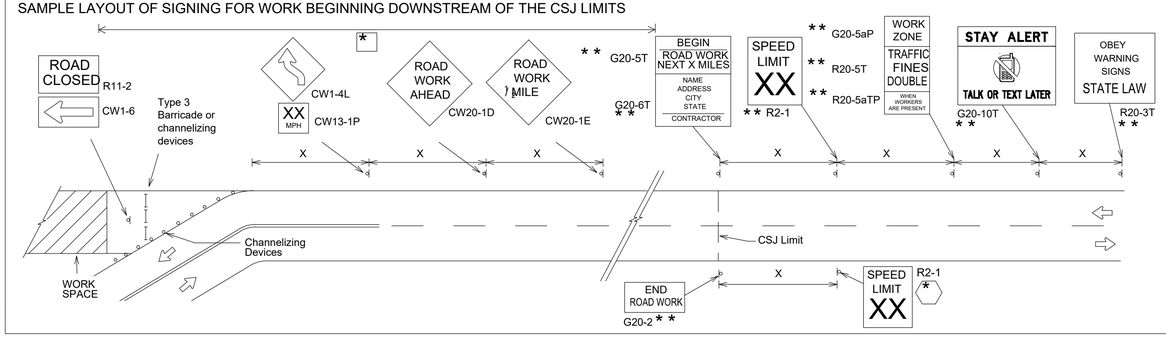


When extended distances occur between minimal work spaces, the Engineer/Inspector should ensure additional "ROAD WORK AHEAD"(CW20-1D)signs are placed in advance of these work areas to remind drivers they are still within the project limits. See the applicable TCP sheets for exact location and spacing of signs and channelizing devices.

SAMPLE LAYOUT OF SIGNING FOR WORK BEGINNING AT THE CSJ LIMITS



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.

* * Required CSJ Limit signing. See Note 10 on BC(1). TRAFFIC FINES DOUBLE signs will not be required on projects consisting solely of mobile operations work.

(*) 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.

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

Texas Department of Transportation

Traffic Operations Division Standard

BARRICADE AND CONSTRUCTION PROJECT LIMIT

BC(2)-14

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STATE OF TEXAS
BERNARDINO D. TRISTAN
117017
LICENSED PROFESSIONAL ENGINEER
Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

FS PROJECT # 21200.000

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CHECK BY:	B.T.

FS DRAWING NAME: 21200.000_CE_TXDOT TRAFFIC CONTROL DETAILS

TRAFFIC CONTROL DETAILS

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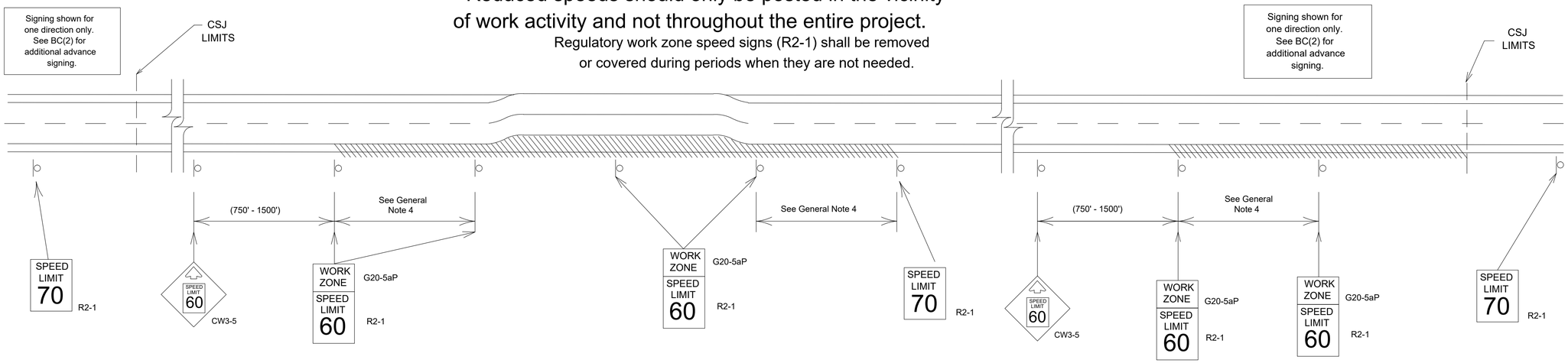
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TYPICAL APPLICATION OF WORK ZONE SPEED LIMIT SIGNS

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:

a) rough road or damaged pavement surface
b) substantial alteration of roadway geometrics (diversions)
c) construction detours
d) grade
e) width
f) 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 travelled 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

1. Regulatory work zone speed limits should be used only for sections of construction projects where speed control is of major importance.
2. Regulatory work zone speed limit signs shall be placed on supports at a 7 foot minimum mounting height.
3. Speed zone signs are illustrated for one direction of travel and are normally posted for each direction of travel.
4. 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
5. Regulatory speed limit signs shall have black legend and border on a white reflective background (See "Reflective Sheeting" on BC(4)).
6. 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.
7. Turning signs from view, laying signs over or down will not be allowed, unless as otherwise noted under "REMOVING OR COVERING" on BC(4).
8. 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.
9. Speeds shown on details above are for illustration only. Work Zone Speed Limits should only be posted as approved for each project.
10. 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.

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Texas Department of Transportation | Traffic Operations Division Standard

BARRICADE AND CONSTRUCTION WORK ZONE SPEED LIMIT

BC(3)-14

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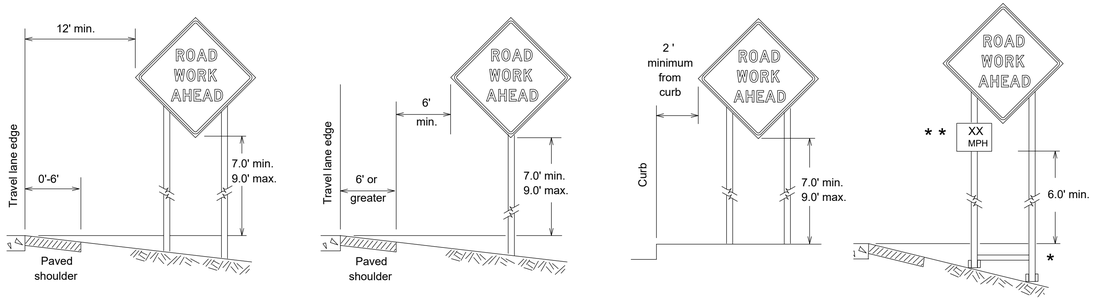
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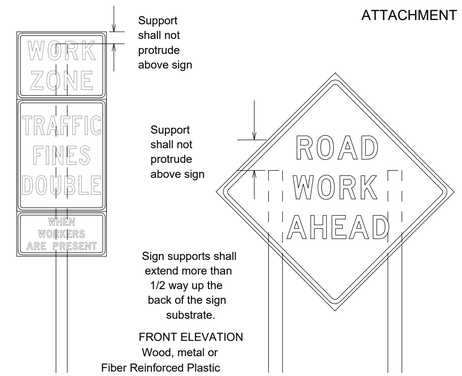
TYPICAL MINIMUM CLEARANCES FOR LONG TERM AND INTERMEDIATE TERM SIGNS



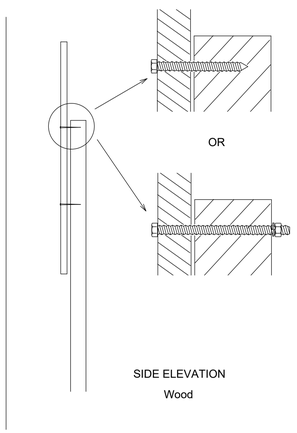
* When placing skid supports on unlevel ground, the leg post lengths must be adjusted so the sign appears straight and plumb. Objects shall NOT be placed under skids as a means of leveling.

** 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.

ATTACHMENT FOR SIGN SUPPORTS



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 spice 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.



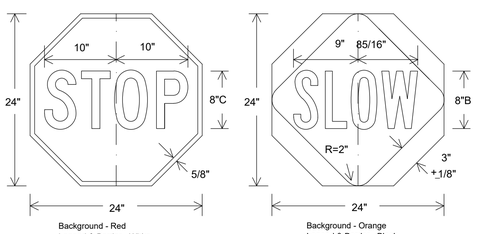
Attachment to wooden supports will be by bolts and nuts or screws. Use TxDOT's or manufacturer's recommended procedures for attaching sign substrates to other types of sign supports

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.

STOP/SLOW PADDLES

1. STOP/SLOW paddles are the primary method to control traffic by flaggers. The STOP/SLOW paddle size should be 24" x 24" as detailed below.
2. When used at night, the STOP/SLOW paddle shall be retroreflectorized.
3. STOP/SLOW paddles may be attached to a staff with a minimum length of 6' to the bottom of the sign.
4. 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 TMUTCD.



CONTRACTOR REQUIREMENTS FOR MAINTAINING PERMANENT SIGNS WITHIN THE PROJECT LIMITS

1. 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, 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.
2. 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.
3. When existing permanent signs are moved and relocated due to construction purposes, they shall be visible to motorists at all times.
4. 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.
5. If permanent signs are to be removed and relocated using temporary supports, the Contractor shall use crashworthy supports as shown on the BC sheets or the CWZTCD. The signs shall meet the required mounting heights shown on the BC Sheets or the SMD Standards during construction. This work should be paid for under the appropriate pay item for relocating existing signs.
6. 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.

GENERAL NOTES FOR WORK ZONE SIGNS

1. Contractor shall install and maintain signs in a straight and plumb condition and/or as directed by the Engineer.
2. Wooden sign posts shall be painted white.
3. Barricades shall NOT be used as sign supports.
4. 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.
5. 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 TMUTCD 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.
6. The Contractor shall furnish sign supports listed in the "Compliant Work Zone Traffic Control Device List" (CWZTCD). 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.
7. 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.
8. 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.
9. 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)

1. 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.
   a. Long-term stationary - work that occupies a location more than 3 days.
   b. 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.
   c. Short-term stationary - daytime work that occupies a location for more than 1 hour in a single daylight period.
   d. Short, duration - work that occupies a location up to 1 hour.
   e. Mobile - work that moves continuously or intermittently (stopping for up to approximately 15 minutes.)

SIGN MOUNTING HEIGHT

1. 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.
2. 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.
3. Long-term/Intermediate-term Signs may be used in lieu of Short-term/Short Duration signing.
4. 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 sign height.
5. 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

1. 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

1. 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.
2. "Mesh" type materials are NOT an approved sign substrate, regardless of the tightness of the weave.
3. 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

1. 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).
2. White sheeting, meeting the requirements of DMS-8300 Type A, shall be used for signs with a white background.
3. 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

1. 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

1. When sign messages may be confusing or do not apply, the signs shall be removed or completely covered.
2. 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.
3. 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.
4. 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.
5. Burlap shall NOT be used to cover signs.
6. Duct tape or other adhesive material shall NOT be affixed to a sign face.
7. Signs and anchor stubs shall be removed and holes backfilled upon completion of work.

SIGN SUPPORT WEIGHTS

1. Where sign supports require the use of weights to keep from turning over, the use of sandbags with dry, cohesionless sand should be used.
2. The sandbags will be tied shut to keep the sand from spilling and to maintain a constant weight.
3. Rock, concrete, iron, steel or other solid objects shall not be permitted for use as sign support weights.
4. Sandbags should weigh a minimum of 35 lbs and a maximum of 50 lbs.
5. Sandbags shall be made of a durable material that tears upon vehicular impact. Rubber (such as tire inner tubes) shall NOT be used.
6. Rubber ballasts designed 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.
7. 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.
8. Sandbags shall NOT be placed under the skid and shall not be used to level sign supports placed on slopes.

FLAGS ON SIGNS

1. 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.

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Texas Department of Transportation | *Traffic Operations Division Standard*

BARRICADE AND CONSTRUCTION TEMPORARY SIGN NOTES

BC(4)-14

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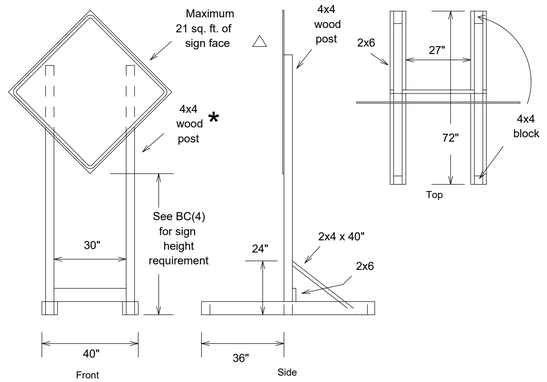
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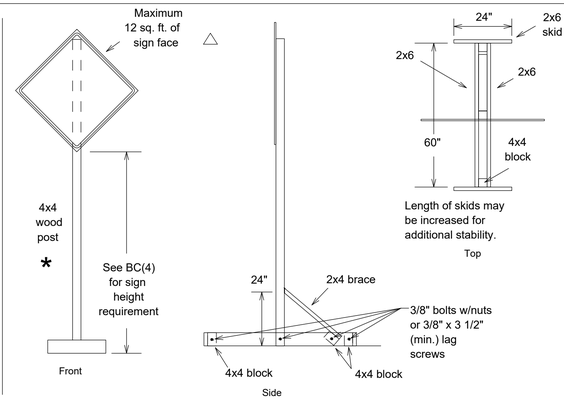
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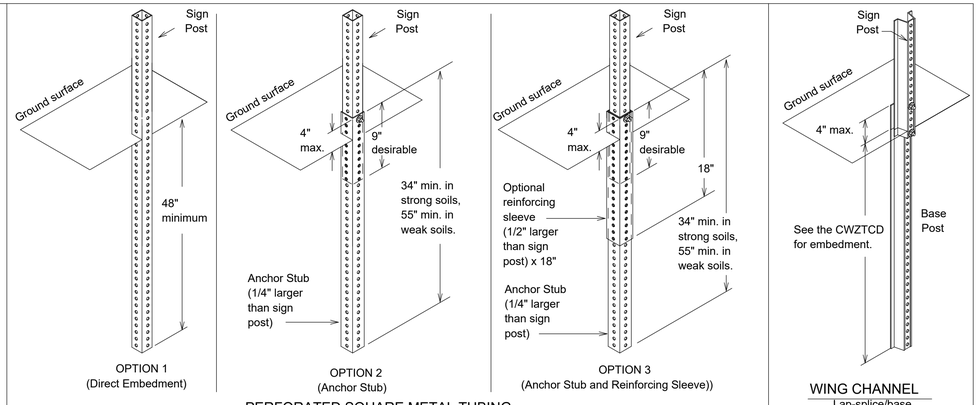
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SKID MOUNTED WOOD SIGN SUPPORTS

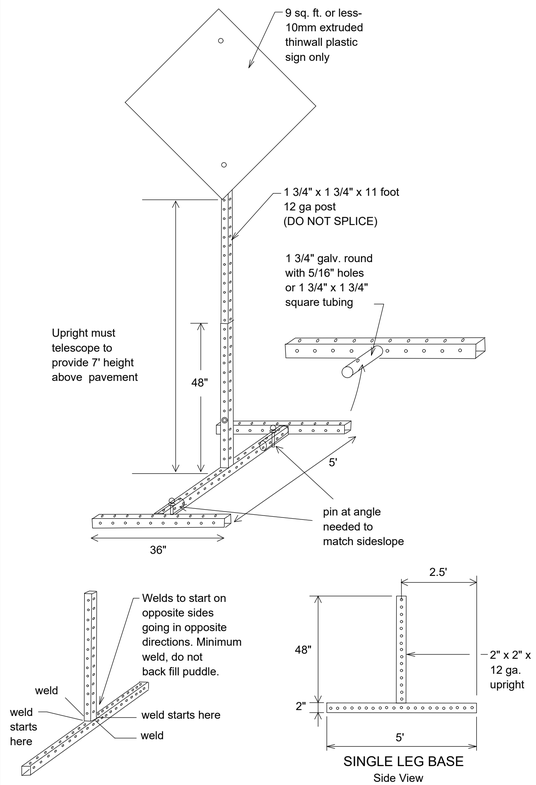
LONG/INTERMEDIATE TERM STATIONARY - PORTABLE SKID MOUNTED SIGN SUPPORTS □

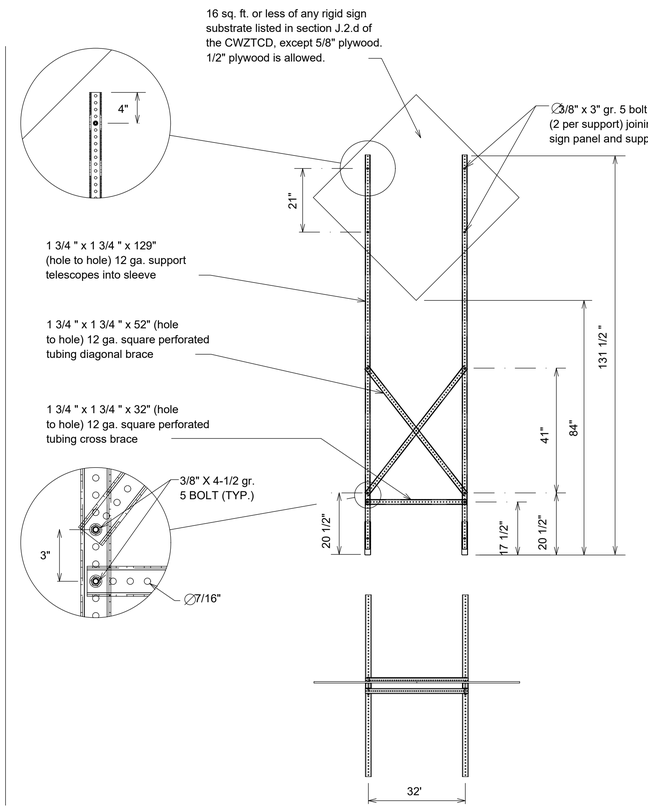


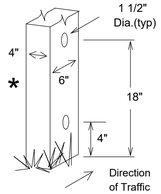
PERFORATED SQUARE METAL TUBING

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.

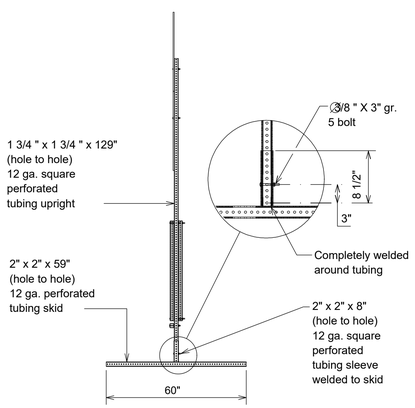






Nominal Post Size	Number of Posts	Maximum Sq. feet of Sign Face	Minimum Soil Embedment	Drill Hole(s) Required
4 x 4	1	12	36"	NO
4 x 4	2	21	36"	NO
4 x 6	1	21	36"	YES
4 x 6	2	36	36"	YES

WOOD POST SYSTEM FOR GROUND 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.

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BARRICADE AND CONSTRUCTION TYPICAL SIGN SUPPORT

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TRAFFIC CONTROL DETAILS

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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

1. The Engineer/Inspector shall approve all messages used on portable changeable message signs (PCMS).
2. 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.
3. Messages should consist of a single phase, or 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.
4. Use the word "EXIT" to refer to an exit ramp on a freeway; i.e., "EXIT CLOSED." Do not use the term "RAMP."
5. Always use the route or interstate designation (IH, US, SH, FM) along with the number when referring to a roadway.
6. When in use the bottom of a stationary PCMS message panel should be a minimum 7 feet above the roadway, where possible.
7. 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.
8. 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.
9. Do not "flash" messages or words included in a message. The message should be steady burn or continuous while displayed.
10. 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.
11. Do not use the word "Danger" in message.
12. Do not display the message "LANES SHIFT LEFT" or "LANES SHIFT RIGHT" on a PCMS. Drivers do not understand the message.
13. Do not display messages that scroll horizontally or vertically across the face of the sign.
14. 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 TMUTCD.
15. 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.
16. Each line of text should be centered on the message board rather than left or right justified.
17. 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
Access Road	ACCS RD
Alternate	ALT
Avenue	AVE
Best Route	BEST RTE
Boulevard	BLVD
Bridge	BRDG
Cannot	CANT
Center	CTR
Construction Ahead	CONST AHD
CROSSING	XING
Detour Route	DETOUR RTE
Do Not	DONT
East	E
Eastbound	(route) E
Emergency	EMER
Emergency Vehicle	EMER VEH
Entrance, Enter	ENT
Express Lane	EXP LN
Expressway	EXPWY
XXXX Feet	XXXX FT
Fog Ahead	FOG AHD
Freeway	FRWY, FWY
Freeway Blocked	FWY BLKD
Friday	FRI
Hazardous Driving	HAZ DRIVING
Hazardous Material	HAZMAT
High-Occupancy	HOV
Vehicle Highway	HWY
Hour (s)	HR, HRS
Information	INFO
It Is	ITS
Junction	JCT
Left	LFT
Left Lane	LFT LN
Lane Closed	LN CLOSED
Lower Level	LWR LEVEL
Maintenance	MAINT
Major	MAJ
Miles	MI
Miles Per Hour	MPH
Minor	MNR
Moday	MON
Normal	NORM
North	N
Nothbound	(route) N
Parking	PKING
Road	RD
Right Lane	RT LN
Saturday	SAT
Service Road	SERV RD
Shoulder	SHLDR
Slippery	SLIP
South	S
Southbound	(route) S
Speed	SPD
Street	ST
Sunday	SUN
Telephone	PHONE
Temporary	TEMP
Thursday	THURS
To Downtown	TO DWNTN
Traffic	TRAF
Travelers	TRVLRS
Tuesday	TUES
Time Minutes	TIME MIN
Upper Level	UPR LEVEL
Vehicles (s)	VEH, VEHS
Warning	WARN
Wednesday	WED
Weight Limit	WT LIMIT
West	W
Westbound	(route) W
Wet Pavement	WET PVMT
Will Not	WONT

DATE:
FILE:
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
XXXXXXXX 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-XX X PM-X AM
BEGINS MONDAY
BEGINS MAY 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

1. Only 1 or 2 phases are to be used on a PCMS.
2. The 1st phase (or both) should be selected from the "Road/Lane/Ramp Closure List" and the "Other Condition List".
3. A 2nd phase can be selected from the "Action to Take/Effect on Travel, Location, General Warning, or Advance Notice Phase Lists".
4. A Location Phase is necessary only if a distance or location is not included in the first phase selected.
5. 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.
6. 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

1. The words RIGHT, LEFT and ALL can be interchanged as appropriate.
2. Roadway designations IH, US, SH, FM and LP can be interchanged as appropriate.
3. EAST, WEST, NORTH and SOUTH (or abbreviations E, W, N and S) can be interchanged as appropriate.
4. Highway names and numbers replaced as appropriate.
5. ROAD, HIGHWAY and FREEWAY can be interchanged as needed.
6. AHEAD may be used instead of distances if necessary.
7. FT and MI, MILE and MILES interchanged as appropriate.
8. AT, BEFORE and PAST interchanged as needed.
9. 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

1. 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.
2. 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.
3. 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.
4. 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 Operations Division Standard

BARRICADE AND CONSTRUCTION PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)

BC(6)-14

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STATE OF TEXAS
BERNARDINO D. TRISTAN
117017
LICENSED PROFESSIONAL ENGINEER
Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

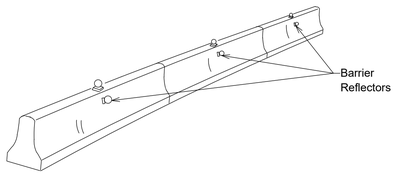
FS PROJECT # 21200.000
DATE: Jan 09, 2023
SCALE: N.T.S.
DRAWN BY: J.L.H.
CHECK BY: B.T.
FS DRAWING NAME: 21200.000_CE_TXDOT TRAFFIC CONTROL DETAILS

TRAFFIC CONTROL DETAILS

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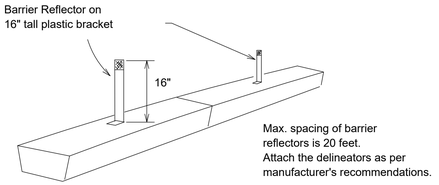
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1. Barrier Reflectors shall be pre-qualified, and conform to the color and reflectivity requirements of DMS-8600. A list of prequalified Barrier Reflectors can be found at the Material Producer List web address shown on BC(1).
2. Color of Barrier Reflectors shall be as specified in the TMUTCD. The cost of the reflectors shall be considered subsidiary to Item 512.

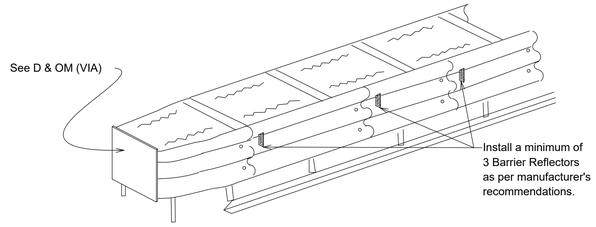


CONCRETE TRAFFIC BARRIER (CTB)

3. Where traffic is on one side of the CTB, two (2) Barrier Reflectors shall be mounted in approximately the midsection of each section of CTB. An alternate mounting location is uniformly spaced at one end of each CTB. This will allow for attachment of a barrier grapple without damaging the reflector. The Barrier Reflector mounted on the side of the CTB shall be located directly below the reflector mounted on top of the barrier, as shown in the detail above.
4. Where CTB separates two-way traffic, three barrier reflectors shall be mounted on each section of CTB. The reflector unit on top shall have two yellow reflective faces (Bi-Directional)while the reflectors on each side of the barrier shall have one yellow reflective face, as shown in the detail above.
5. When CTB separates traffic traveling in the same direction, no barrier reflectors will be required on top of the CTB.
6. Barrier Reflector units shall be yellow or white in color to match the edgeline being supplemented.
7. Maximum spacing of Barrier Reflectors is forty (40) feet.
8. Pavement markers or temporary flexible-reflective roadway marker tabs shall NOT be used as CTB delineation.
9. Attachment of Barrier Reflectors to CTB shall be per manufacturer's recommendations.
10. Missing or damaged Barrier Reflectors shall be replaced as directed by the Engineer.
11. Single slope barriers shall be delineated as shown on the above detail.



LOW PROFILE CONCRETE BARRIER (LPCB)

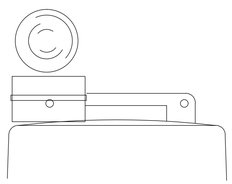


DELINEATION OF END TREATMENTS

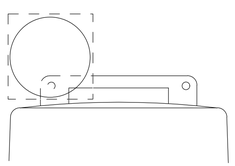
END TREATMENTS FOR CTB'S USED IN WORK ZONES

End treatments used on CTB's in work zones shall meet crashworthy standards as defined in the National Cooperative Highway Research Report 350. Refer to the CWZTCD List for approved end treatments and manufacturers.

BARRIER REFLECTORS FOR CONCRETE TRAFFIC BARRIER AND ATTENUATORS



Type C Warning Light or approved substitute mounted on a drum adjacent to the travel way.



Warning reflector may be round or square.Must have a yellow reflective surface area of at least 30 square inches

WARNING LIGHTS

1. Warning lights shall meet the requirements of the TMUTCD.
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 not be used with signs manufactured with Type B_{FL}or C_{FL}Sheeting meeting the requirements of Departmental Material Specification DMS-8300.
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 the warning lights meet the requirements of the latest ITE Purchase Specifications for Flashing and Steady-Burn Warning Lights.
7. When used to delineate curves, 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

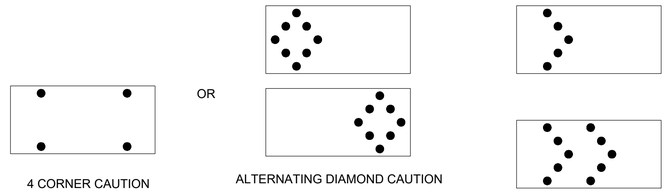
1. Type A flashing warning lights are intended to warn drivers that they are approaching or are in a potentially hazardous area.
2. Type A random flashing warning lights are not intended for delineation and shall not be used in a series.
3. A series of sequential flashing warning lights placed on channelizing devices to form a merging taper may be used for delineation. If used, the successive flashing of the sequential warning lights should occur from the beginning of the taper to 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 CWZTCD.
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.

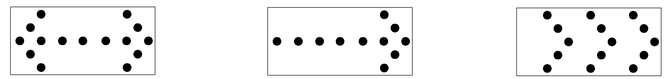
Arrow Boards may be located behind channelizing devices in place for a shoulder taper or merging taper, otherwise they shall be delineated with four (4) channelizing devices placed perpendicular to traffic on the upstream side of traffic.

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, barricades 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 symbols:



4 CORNER CAUTION

ALTERNATING DIAMOND CAUTION



DOUBLE ARROW

LEFT & RIGHT

CHEVRON ARROW
LEFT & RIGHT

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. The flashing rate of the lamps shall not be less than 25 nor more than 40 flashes per minute.
8. Minimum lamp "on time" shall be approximately 50 percent for the flashing arrow and equal intervals of 25 percent for each sequential phase of the flashing chevron.
9. The sequential arrow display is NOT ALLOWED.
10. The flashing arrow display is the TxDOT standard; however, the sequential Chevron display may be used during daylight operations.
11. The Flashing Arrow Board shall be mounted on a vehicle, trailer or other suitable support.
12. A Flashing Arrow Board SHALL NOT BE USED to laterally shift traffic.
13. A full matrix PCMS 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.
14. 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

TRUCK-MOUNTED ATTENUATORS

1. Truck-mounted attenuators (TMA) used on TxDOT facilities must meet the requirements outlined in the National Cooperative Highway Research Report No. 350 (NCHRP 350) or the Manual for Assessing Safety Hardware (MASH).
2. Refer to the CWZTCD for the requirements of Level 2 or Level 3 TMAs.
3. Refer to the CWZTCD 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. The only reason a TMA should not be required is when a work area is spread down the roadway and the work crew is an extended distance from the TMA.

SHEET 7 OF 12

Texas Department of Transportation | Traffic Operations Division Standard

BARRICADE AND CONSTRUCTION ARROW PANEL, REFLECTORS, WARNING LIGHTS & ATTENUATOR

BC(7)-14

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BERNARDINO D. TRISTAN
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LICENSED
PROFESSIONAL ENGINEER
Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

FS PROJECT # 21200.000

DATE:	Jan 09, 2023
SCALE:	N.T.S.
DRAWN BY:	J.L.H.
CHECK BY:	B.T.

FS DRAWING NAME: 21200.000_CE_TXDOT TRAFFIC CONTROL DETAILS

TRAFFIC CONTROL DETAILS

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GENERAL NOTES

1. For long term stationary work zones on freeways, drums shall be used as the primary channelizing device.
2. For intermediate term stationary work zones on freeways, drums should be used as the primary channelizing device but may be replaced in tangent sections by vertical panels, or 42" two-piece cones. In tangent sections one-piece cones may be used with the approval of the Engineer but only if personnel are present on the project at all times to maintain the cones in proper position and location.
3. For short term stationary work zones on freeways, drums are the preferred channelizing device but may be replaced in tapers, transitions and tangent sections by vertical panels, two-piece cones or one-piece cones as approved by the Engineer.
4. Drums and all related items shall comply with the requirements of the current version of the "Texas Manual on Uniform Traffic Control Devices" (TMUTCD) and the "Compliant Work Zone Traffic Control Devices List" (CWZTCD).
5. Drums, bases, and related materials shall exhibit good workmanship and shall be free from objectionable marks or defects that would adversely affect their appearance or serviceability.
6. The Contractor shall have a maximum of 24 hours to replace any plastic drums identified for replacement by the Engineer/Inspector. The replacement device must be an approved device.

GENERAL DESIGN REQUIREMENTS

Pre-qualified plastic drums shall meet the following requirements:

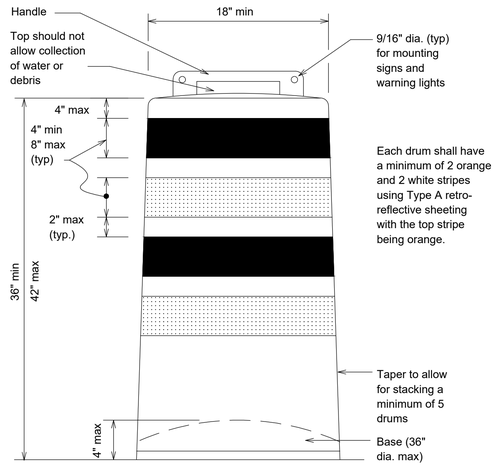
1. Plastic drums shall be a two-piece design; the "body" of the drum shall be the top portion and the "base" shall be the bottom.
2. The body and base shall lock together in such a manner that the body separates from the base when impacted by a vehicle traveling at a speed of 20 MPH or greater but prevents accidental separation due to normal handling and/or air turbulence created by passing vehicles.
3. Plastic drums shall be constructed of lightweight flexible, and deformable materials. The Contractor shall NOT use metal drums or single piece plastic drums as channelization devices or sign supports.
4. Drums shall present a profile that is a minimum of 18 inches in width at the 36 inch height when viewed from any direction. The height of drum unit (body installed on base) shall be a minimum of 36 inches and a maximum of 42 inches.
5. The top of the drum shall have a built-in handle for easy pickup and shall be designed to drain water and not collect debris. The handle shall have a minimum of two widely spaced 9/16 inch diameter holes to allow attachment of a warning light, warning reflector unit or approved compliant sign.
6. The exterior of the drum body shall have a minimum of four alternating orange and white retroreflective circumferential stripes not less than 4 inches nor greater than 8 inches in width. Any non-reflectorized space between any two adjacent stripes shall not exceed 2 inches in width.
7. Bases shall have a maximum width of 36 inches, a maximum height of 4 inches, and a minimum of two footholds of sufficient size to allow base to be held down while separating the drum body from the base.
8. Plastic drums shall be constructed of ultra-violet stabilized, orange, high-density polyethylene (HDPE) or other approved material.
9. Drum body shall have a maximum unballasted weight of 11 lbs.
10. Drum and base shall be marked with manufacturer's name and model number.

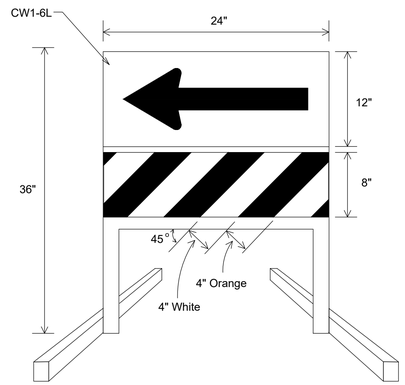
RETROREFLECTIVE SHEETING

1. The stripes used on drums shall be constructed of sheeting meeting the color and retroreflectivity requirements of Departmental Materials Specification DMS-8300, "Sign Face Materials." Type A reflective sheeting shall be supplied unless otherwise specified in the plans.
2. The sheeting shall be suitable for use on and shall adhere to the drum surface such that, upon vehicular impact, the sheeting shall remain adhered in-place and exhibit no delaminating, cracking, or loss of retroreflectivity other than that loss due to abrasion of the sheeting surface.

BALLAST

1. Unballasted bases shall be large enough to hold up to 50 lbs. of sand. This base, when filled with the ballast material, should weigh between 35 lbs (minimum) and 50 lbs (maximum). The ballast may be sand in one to three sandbags separate from the base, sand in a sand-filled plastic base, or other ballasting devices as approved by the Engineer. Stacking of sandbags will be allowed, however height of sandbags above pavement surface may not exceed 12 inches.
2. Bases with built-in ballast shall weigh between 40 lbs. and 50 lbs. Built-in ballast can be constructed of an integral crumb rubber base or a solid rubber base.
3. Recycled truck tire sidewalls may be used for ballast on drums approved for this type of ballast on the CWZTCD list.
4. The ballast shall not be heavy objects, water, or any material that would become hazardous to motorists, pedestrians, or workers when the drum is struck by a vehicle.
5. When used in regions susceptible to freezing, drums shall have drainage holes in the bottoms so that water will not collect and freeze becoming a hazard when struck by a vehicle.
6. Ballast shall not be placed on top of drums.
7. Adhesives may be used to secure base of drums to pavement.





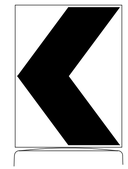
DIRECTION INDICATOR BARRICADE

1. The Direction Indicator Barricade may be used in tapers, transitions, and other areas where specific directional guidance to drivers is necessary.
2. If used, the Direction Indicator Barricade should be used in series to direct the driver through the transition and into the intended travel lane.
3. The Direction Indicator Barricade shall consist of One-Direction Large Arrow (CW1-6) sign in the size shown with a black arrow on a background of Type B_{FL}or Type C_{FL}Orange retroreflective sheeting above a rail with Type A retroreflective sheeting in alternating 4" white and orange stripes sloping downward at an angle of 45 degrees in the direction road users are to pass. Sheeting types shall be as per DMS 8300.
4. Double arrows on the Direction Indicator Barricade will not be allowed.
5. Approved manufacturers are shown on the CWZTCD List. Ballast shall be as approved by the manufacturers instructions.

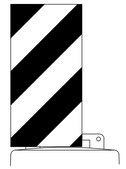
This detail is not intended for fabrication. See note 3 and the CWZTCD list for providers of approved Detectable Pedestrian Barricades

DETECTABLE PEDESTRIAN BARRICADES

1. When existing pedestrian facilities are disrupted, closed, or relocated in a TTC zone, the temporary facilities shall be detectable and include accessibility features consistent with the features present in the existing pedestrian facility.
2. Where pedestrians with visual disabilities normally use the closed sidewalk, a device that is detectable by a person with a visual disability traveling with the aid of a long cane shall be placed across the full width of the closed sidewalk.
3. Detectable pedestrian barricades similar to the one pictured above, longitudinal channelizing devices, some concrete barriers, and wood or chain link fencing with a continuous detectable edging can satisfactorily delineate a pedestrian path.
4. Tape, rope, or plastic chain strung between devices are not detectable, do not comply with the design standards in the "Americans with Disabilities Act Accessibility Guidelines for Buildings and Facilities (ADAAG)" and should not be used as a control for pedestrian movements.
5. Warning lights shall not be attached to detectable pedestrian barricades.
6. Detectable pedestrian barricades may use 8" nominal barricade rails as shown on BC(10) provided that the top rail provides a smooth continuous rail suitable for hand trailing with no splinters, burrs, or sharp edges.



18" x 24" Sign
(Maximum Sign Dimension)
Chevron CW1-8, Opposing Traffic Lane Divider, Driveway sign D70a, Keep Right R4 series or other signs as approved by Engineer



12" x 24"
Vertical Panel
mount with diagonals sloping down towards travel way

Plywood, Aluminum or Metal sign substrates shall NOT be used on plastic drums

SIGNS, CHEVRONS, AND VERTICAL PANELS MOUNTED ON PLASTIC DRUMS

1. Signs used on plastic drums shall be manufactured using substrates listed on the CWZTCD.
2. Chevrons and other work zone signs with an orange background shall be manufactured with Type B_{FL}or Type C_{FL}Orange sheeting meeting the color and retroreflectivity requirements of DMS-8300, "Sign Face Material," unless otherwise specified in the plans.
3. Vertical Panels shall be manufactured with orange and white sheeting meeting the requirements of DMS-8300 Type A Diagonal stripes on Vertical Panels shall slope down toward the intended traveled lane.
4. Other sign messages (text or symbolic) may be used as approved by the Engineer. Sign dimensions shall not exceed 18 inches in width or 24 inches in height, except for the R9 series signs discussed in note 8 below.
5. Signs shall be installed using a 1/2 inch bolt (nominal) and nut, two washers, and one locking washer for each connection.
6. Mounting bolts and nuts shall be fully engaged and adequately torqued. Bolts should not extend more than 1/2 inch beyond nuts.
7. Chevrons may be placed on drums on the outside of curves, on merging tapers or on shifting tapers. When used in these locations they may be placed on every drum or spaced not more than on every third drum. A minimum of three (3) should be used at each location called for in the plans.
8. R9-9, R9-10, R9-11 and R9-11a Sidewalk Closed signs which are 24 inches wide may be mounted on plastic drums, with approval of the Engineer.

SHEET 8 OF 12

Texas Department of Transportation | Traffic Operations Division Standard

BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES

BC(8)-14

FILE: bc-14.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
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4-03 7-13	DIST	COUNTY		SHEET NO.
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STATE OF TEXAS
BERNARDINO D. TRISTAN
117017
LICENSED PROFESSIONAL ENGINEER
Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

FS PROJECT # 21200.000

DATE:	Jan 09, 2023
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CHECK BY:	B.T.

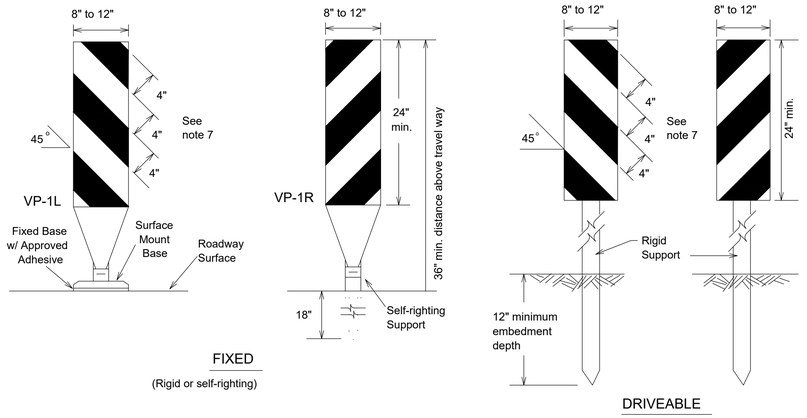
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TRAFFIC CONTROL DETAILS

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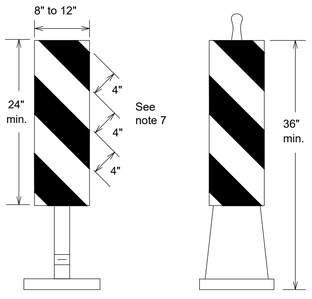
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FIXED

(Rigid or self-righting)

DRIVEABLE

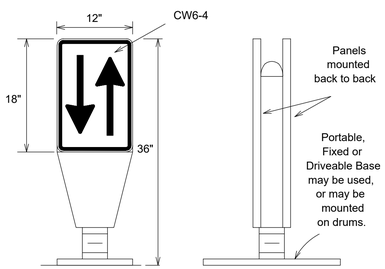


(Rigid or self-righting)

PORTABLE

1. Vertical Panels (VP's) are normally used to channelize traffic or divide opposing lanes of traffic.
2. 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 Appendix B "Treatment of Pavement Drop-offs in Work Zones" for additional guidelines on the use of VP's for drop-offs.
3. 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.
4. VP's used on expressways and freeways or other high speed roadways, may have more than 270 square inches of retroreflective area facing traffic.
5. Self-righting supports are available with portable base. See "Compliant Work Zone Traffic Control Devices List" (CWZTCD).
6. Sheeting for the VP's shall be retroreflective Type A conforming to Departmental Material Specification DMS-8300, unless noted otherwise.
7. Where the height of reflective material on the vertical panel is 36 inches or greater, a panel stripe of 6 inches shall be used.

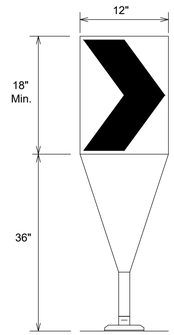
VERTICAL PANELS (VPs)



1. 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.
2. The OTLD may be used in combination with 42" cones or VPs.
3. Spacing between the OTLD shall not exceed 500 feet. 42" cones or VPs placed between the OTLD's should not exceed 100 foot spacing.
4. The OTLD shall be orange with a black non-reflective legend. Sheeting for the OTLD shall be retroreflective Type B_{FL} or Type C_{FL} conforming to Departmental Material Specification DMS-8300, unless noted otherwise. The legend shall meet the requirements of DMS-8300.

OPPOSING TRAFFIC LANE DIVIDERS (OTLD)

DATE:
FILE:



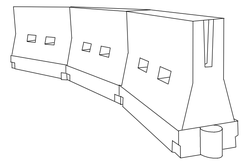
Fixed Base w/ Approved Adhesive (Driveable Base, or Flexible Support can be used)

1. The chevron shall be a vertical rectangle with a minimum size of 12 by 18 inches.
2. 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.
3. 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.
4. To be effective, the chevron should be visible for at least 500 feet.
5. Chevrons shall be orange with a black nonreflective legend. Sheeting for the chevron shall be retroreflective Type B_{FL} or Type C_{FL} conforming to Departmental Material Specification DMS-8300, unless noted otherwise. The legend shall meet the requirements of DMS-8300.
6. 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

GENERAL NOTES

1. 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).
2. 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.
3. 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).
4. 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.
5. Portable bases shall be fabricated from virgin and/or recycled rubber. The portable bases shall weigh a minimum of 30 lbs.
6. 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.
7. 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.



LONGITUDINAL CHANNELIZING DEVICES (LCD)

1. 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.
2. LCDs may be used instead of a line of cones or drums.
3. LCDs shall be placed in accordance to application and installation requirements specific to the device, and used only when shown on the CWZTCD list.
4. LCDs should not be used to provide positive protection for obstacles, pedestrians or workers.
5. LCDs shall be supplemented with retroreflective delineation as required for temporary barriers on BC(7) when placed roughly parallel to the travel lanes.
6. 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) placed near the top of the LCD along the full length of the device.

WATER BALLASTED SYSTEMS USED AS BARRIERS

1. 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 NCHRP 350 crashworthiness requirements based on roadway speed and barrier application.
2. 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.
3. 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.
4. 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.
5. 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 canes 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

Posted Speed *	Formula	Minimum Desirable Taper Lengths * * 10' Offset	11' Offset	12' Offset	Suggested Maximum Spacing of Channelizing Devices On a Taper	On a Tangent
30	$L=\frac{WS^2}{60}$	150'	165'	180'	30'	60'
35		205'	225'	245'	35'	70'
40		265'	295'	320'	40'	80'
45	L=WS	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

Texas Department of Transportation | Traffic Operations Division Standard

BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES

BC(9)-14

FILE: bc-14.dgn	DN: TxDOT	CK: TxDOT	DW: TxDOT	CK: TxDOT
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STATE OF TEXAS
BERNARDINO D. TRISTAN
117017
LICENSED PROFESSIONAL ENGINEER
Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

FS PROJECT # 21200.000

DATE:	Jan 09, 2023
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FS DRAWING NAME: 21200.000_CE_TXDOT TRAFFIC CONTROL DETAILS

TRAFFIC CONTROL DETAILS

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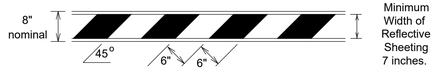
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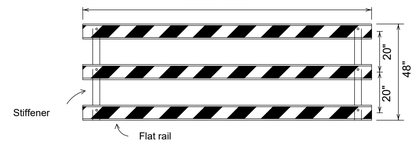
TYPE 3 BARRICADES

1. Refer to the Compliant Work Zone Traffic Control Devices List (CWZTCD) 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 tire 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 conforming to Departmental Material Specification DMS-8300 unless otherwise noted.

Barricades shall NOT be used as a sign support.



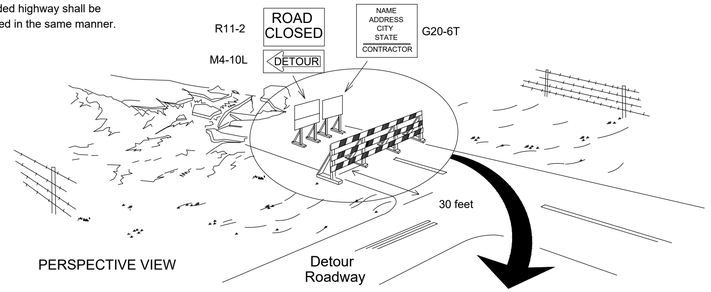
TYPICAL STRIPING DETAIL FOR BARRICADE RAIL



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

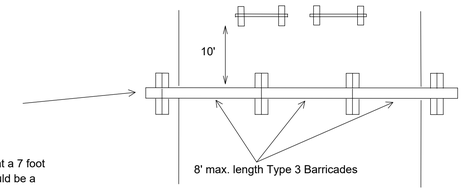
Each roadway of a divided highway shall be barricaded in the same manner.



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.

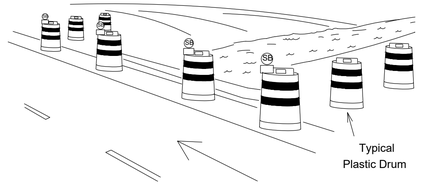
Barricade striping should slant downward in the direction of detour.



PLAN VIEW

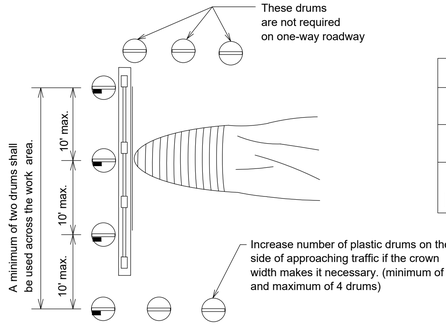
1. Signs should be mounted on independent supports at a 7 foot mounting height in center of roadway. The signs should be a minimum of 10 feet behind Type 3 Barricades.
2. Advance signing shall be as specified elsewhere in the plans.

TYPE 3 BARRICADE (POST AND SKID) TYPICAL APPLICATION



PERSPECTIVE VIEW

1. Where positive redirectional 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.

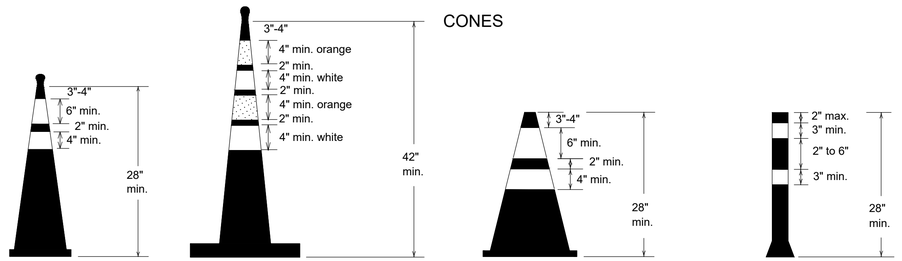


PLAN VIEW

LEGEND	
	Plastic drum
	Plastic drum with steady burn light or yellow warning reflector
SB	Steady burn warning light or yellow warning reflector

CULVERT WIDENING OR OTHER ISOLATED WORK WITHIN THE PROJECT LIMITS

CONES



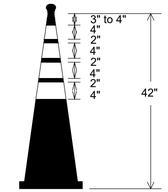
Two-Piece cones | One-Piece cones | Tubular Marker

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.

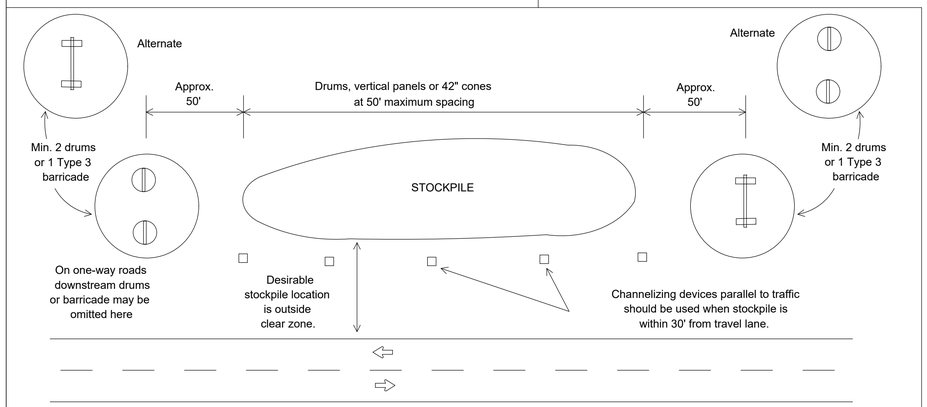
1. Traffic cones and tubular markers shall be predominantly orange, and meet the height and weight requirements shown above.
2. One-piece cones have the body and base of the cone molded in one consolidated unit. Two-piece cones have a cone shaped body and a separate rubber base, or ballast, that is added 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 used at night 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.
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.

THIS DEVICE SHALL NOT BE USED ON PROJECTS LET AFTER MARCH 2014.



EDGELINE CHANNELIZER

1. This device is intended only for use in place of a vertical panel to channelize traffic by indicating the edge of the travel lane. It is not intended to be used in transitions or tapers.
2. This device shall not be used to separate lanes of traffic (opposing or otherwise) or warn of objects.
3. This device is based on a 42 inch, two-piece cone with an alternate striping pattern: four 4 inch retroreflective bands, with an approximate 2 inch gap between bands. The color of the band should correspond to the color of the edgeline (yellow for left edgeline, white for right edgeline) for which the device is substituted or for which it supplements. The reflectorized bands shall be retroreflective Type A conforming to Departmental Material Specification DMS-8300, unless otherwise noted.
4. The base must weigh a minimum of 30 lbs.



TRAFFIC CONTROL FOR MATERIAL STOCKPILES

DATE:
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SHEET 10 OF 12

Texas Department of Transportation | Traffic Operations Division Standard

BARRICADE AND CONSTRUCTION CHANNELIZING DEVICES

BC(10)-14

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STATE OF TEXAS
BERNARDINO D. TRISTAN
117017
LICENSED PROFESSIONAL ENGINEER
Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

FS PROJECT # 21200.000

DATE:	Jan 09, 2023
SCALE:	N.T.S.
DRAWN BY:	J.L.H.
CHECK BY:	B.T.

FS DRAWING NAME: 21200.000_CE_TXDOT TRAFFIC CONTROL DETAILS

TRAFFIC CONTROL DETAILS

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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(12).
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.

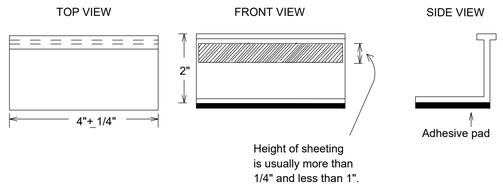
MAINTAINING WORK ZONE PAVEMENT MARKINGS

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).

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SHEET 11 OF 12

Texas Department of Transportation — Traffic Operations Division Standard

BARRICADE AND CONSTRUCTION PAVEMENT MARKINGS

BC(11)-14

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STATE OF TEXAS
BERNARDINO D. TRISTAN
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LICENSED PROFESSIONAL ENGINEER
Jan 09, 2023

JACK BROOKS REGIONAL AIRPORT

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CHECK BY: B.T.
FS DRAWING NAME: 21200.000_CE_TXDOT TRAFFIC CONTROL DETAILS

TRAFFIC CONTROL DETAILS

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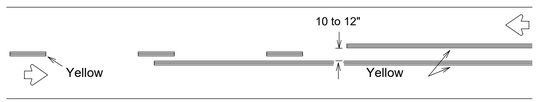
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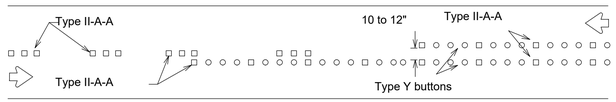
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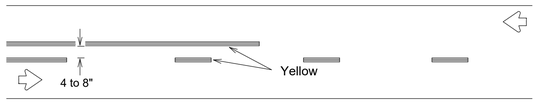
PAVEMENT MARKING PATTERNS



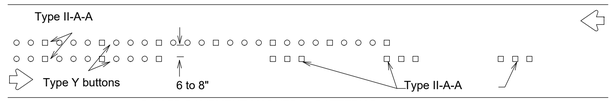
REFLECTORIZED PAVEMENT MARKINGS - PATTERN A



RAISED PAVEMENT MARKERS - PATTERN A



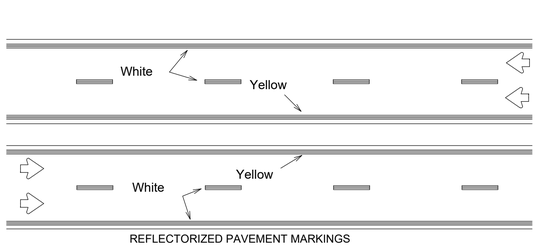
REFLECTORIZED PAVEMENT MARKINGS - PATTERN B



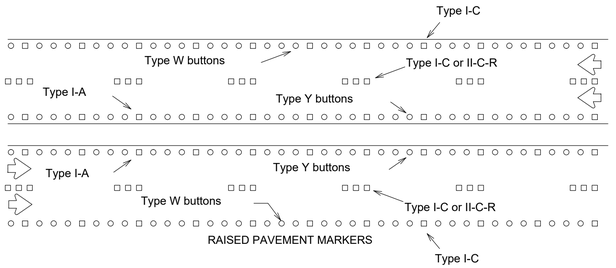
RAISED PAVEMENT MARKERS - PATTERN B

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



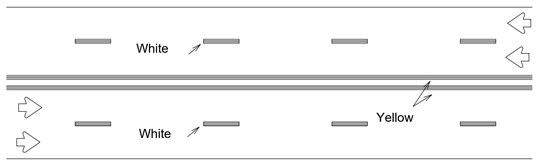
REFLECTORIZED PAVEMENT MARKINGS



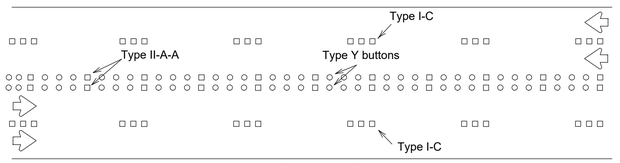
RAISED PAVEMENT MARKERS

Prefabricated markings may be substituted for reflectorized pavement markings.

EDGE & LANE LINES FOR DIVIDED HIGHWAY



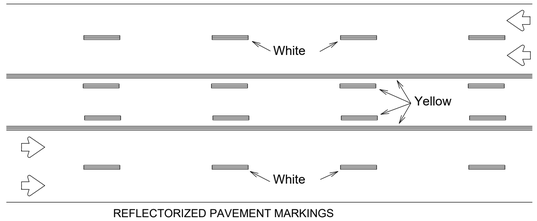
REFLECTORIZED PAVEMENT MARKINGS



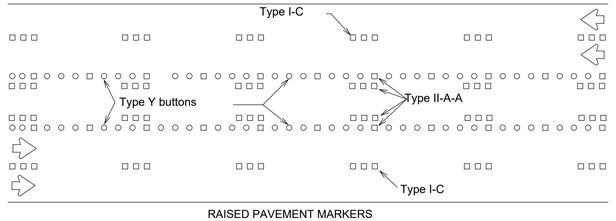
RAISED PAVEMENT MARKERS

Prefabricated markings may be substituted for reflectorized pavement markings.

LANE & CENTER LINES FOR MULTILANE UNDIVIDED HIGHWAYS



REFLECTORIZED PAVEMENT MARKINGS



RAISED PAVEMENT MARKERS

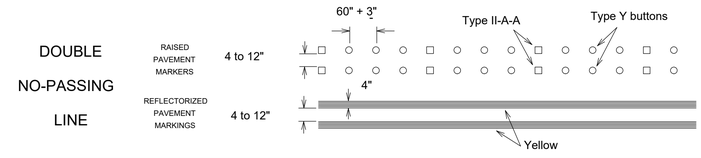
Prefabricated markings may be substituted for reflectorized pavement markings.

TWO-WAY LEFT TURN LANE

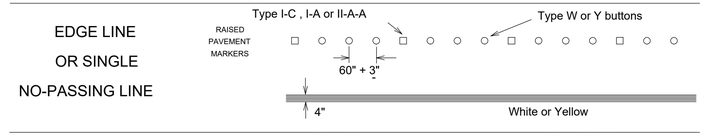
STANDARD WORK ZONE PAVEMENT MARKINGS DETAILS

SOLID LINES

DOUBLE NO-PASSING LINE

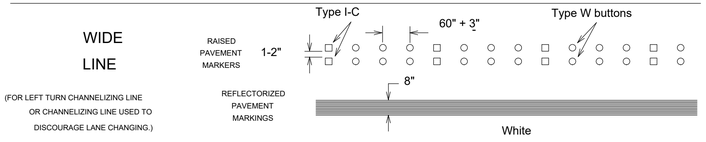


EDGE LINE OR SINGLE NO-PASSING LINE



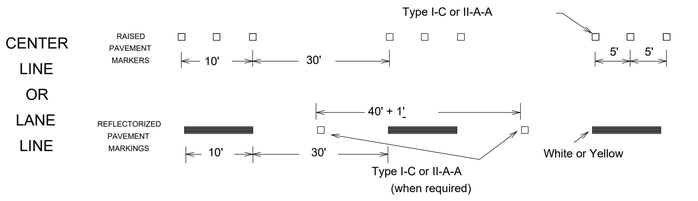
WIDE LINE

(FOR LEFT TURN CHANNELIZING LINE OR CHANNELIZING LINE USED TO DISCOURAGE LANE CHANGING.)

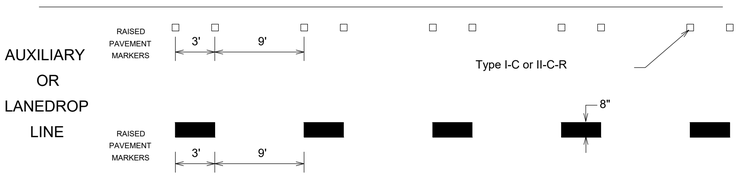


BROKEN LINES

CENTER LINE OR LANE LINE

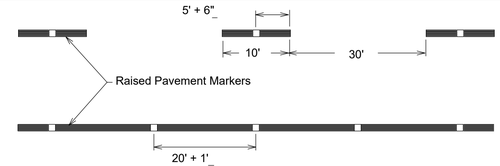


AUXILIARY OR LANEDROP LINE



REMOVABLE MARKINGS WITH RAISED PAVEMENT MARKERS

If raised pavement markers are used to supplement REMOVABLE markings, the markers shall be applied to the top of the tape at the approximate mid length of tape used for broken lines or at 20 foot spacing for solid lines. This allows an easier removal of raised pavement markers and tape.



Centerline only - not to be used on edge lines

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."

SHEET 12 OF 12

Texas Department of Transportation | Traffic Operations Division Standard

BARRICADE AND CONSTRUCTION PAVEMENT MARKING PATTERNS

BC(12)-14

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STATE OF TEXAS
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FS DRAWING NAME: 21200.000_CE_TXDOT TRAFFIC CONTROL DETAILS

TRAFFIC CONTROL DETAILS

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SEL GEOTECHNICAL ENVIRONMENTAL MATERIALS TESTING

GEOTECHNICAL INVESTIGATION

FOR

LANDSIDE PAVEMENT REPAIR AT JACK BROOKS REGIONAL AIRPORT

IN

BEAUMONT, TEXAS

REPORT NUMBER: 22130

REPORTED TO:

FITTZ & SHIPMAN, INC.
1405 CORNERSTONE COURT
BEAUMONT, TEXAS 77706

MARCH 2022

PREPARED BY:
SCIENCE ENGINEERING, LTD.
P.O. Box 2048 Nederland, Texas 77627 Ph: (409) 982-0686 Fax: (409) 982-0619
Email: yousef@science-engineer.com

GEOTECHNICAL INVESTIGATION
Pavement Repairs
Beaumont, Texas

INTRODUCTION

The study reported herein is an investigation of subsurface conditions for proposed landside pavement repairs at Jack Brooks Regional Airport in Beaumont, Texas.

AUTHORIZATION

This investigation was authorized by Mr. Ben Tristan, P.E. by signed proposal dated December 16, 2021.

SUBSURFACE EXPLORATION

The subsurface exploration at the site was accomplished by means of eleven (11) undisturbed sample core borings drilled to depths of approximately ten (10) feet below existing ground surface. Approximate locations of the borings are shown on the attached boring plan.

SUBSURFACE INVESTIGATION

The subsurface investigation consisted of drilling three-inch (3") nominal diameter core borings. Undisturbed samples of the cohesive soils were obtained from the borings by means of thin-wall, seamless steel Shelby tube samplers, in accordance with the ASTM D–1587 method. The shear strength of the cohesive soil samples was estimated by hand pentrometer in the field.

All undisturbed samples were extracted mechanically from the core barrels in the field, classified, wrapped in aluminum foil, and sealed in airtight plastic bags to prevent moisture loss and disturbance. The samples were transported to our laboratory for testing and further study.

LABORATORY INVESTIGATIONS

All samples from borings were examined and classified in the laboratory by a soil engineer, according to procedures outlined in ASTM D-2488. Laboratory tests were performed on selected soil samples in order to evaluate the engineering properties of the soil in accordance with the indicated standard procedures.

Laboratory Tests	ASTM Standard
Atterberg Limits [Liquid Limit (LL), Plastic Limit (PL), Plasticity Index (PI)]	D-4318
Soil Moisture Content	D-2216
Unconfined Compressive Strength	D-2166
Soils Classification	D-2487

Undrained shear strength of selected cohesive soils was determined by unconfined compression tests. Water content and dry unit weight of the foundation soils were determined as routine parts of the unconfined compression tests. Atterberg limits tests were performed on appropriate cohesive samples. The results of these tests are shown on the attached boring logs.

SUBSURFACE CONDITIONS

Specific types and depths of subsurface strata encountered on the site are shown on the attached boring logs. Review of the boring logs indicates that generalized stratography is approximately as follows:

Stratum No.	Average Depth, feet	Soil Description
I	0.00 - 0.54	Concrete on Borings B-1, B-3, B-5, B-6 and B-7
II	0.54 - 10.00	Dark Gray and Tan CLAY (CH) with ferrous and calcareous nodules and slickensides

The near surface soils are "CH" type soils when classified by the unified soils classification system. This type soil normally exhibits high swell potential during seasonal moisture variations.

GROUNDWATER

Hydrostatic water was not encountered at the time of drilling.

CONSTRUCTION VARIATIONS

The information contained in this report summarizes conditions found on the date that the borings were drilled. The depth to the static water table may be expected to vary with the environmental variations, such as frequency and magnitude of precipitation and the time of year that construction begins.

PAVING DESIGN

Based on the results of the field borings and laboratory tests, the following sections may be considered for use in new paving. Economics should dictate which section is utilized by the Structural Engineer.

PORTLAND CEMENT CONCRETE PAVEMENT

Concrete paving may be constructed using a Portland Cement Reinforced Concrete Pavement. Seven-inch (7") concrete over eight-inch (8") lime stabilized sub-grade should be considered. The thickness of the paving should meet the minimum requirements by the City of Beaumont.

In order to control vertical displacement and resulting cracking, which may occur due to potential swelling of the surface clays, it is recommended that the subgrade beneath the concrete pavement be stabilized by hydrated lime.

Subgrade preparation should consist of removing concrete. Then scarify the subgrade to a depth of eight (8) inches and stabilize with ten to twelve (10-12) percent of hydrated lime by dry unit weight and is usually sufficient for similar clay soils; however, the actual lime quality needed to stabilize on-site clays should be determined prior to construction. The soil-lime mixture should be compacted to a minimum of 95% of Standard Proctor Density (ASTM D-698).

Lime stabilization should conform to Texas Highway Department 2014 Standard Specifications Item 260, which describes material and construction methods for lime treatment of materials in place.

SITE PREPARATION

In order to remedy construction problems, which may develop if attempts are made to work the surface materials following prolonged periods of rainfall which are common to this area, it is recommended that prior to starting any work at the site that proper construction drainage is to be provided to maintain a relatively dry construction site. (Use a minimum slope of 5% within 10 feet of the foundation).

LIMITATIONS

The conclusions and recommendations given in this report are based on the analysis of the data collected for this project. Additive conclusions or recommendations made from this data by others are their responsibility.

Our study is based on the data obtained from soil borings made at the locations shown on boring plan. The nature and extent of variations between borings may become evident during construction. We should be requested to observe exposed conditions. After making these observations, and noting the engineering significance of variations, we will advise you of any changes in recommendations believed appropriate.

We appreciate this opportunity to provide our services to this project. Please let us know if you require additional information. Thank you.

Respectfully submitted for the firm,
TBPE Registration No. 4060



Yousef Rahmani, P.E.
President

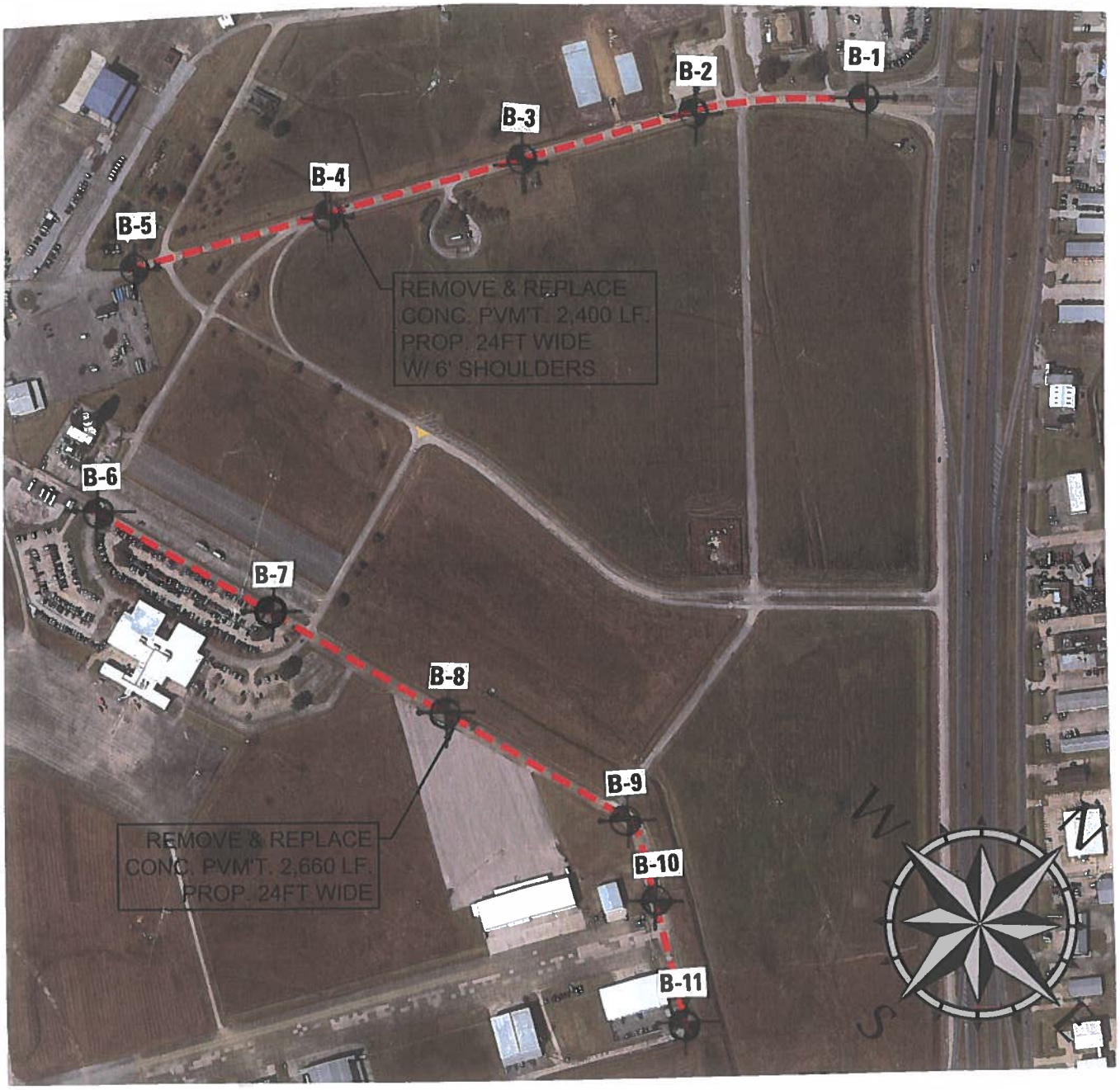
Enclosures: Boring Plan
Boring Logs 1 -11
Soils Classification

Copies: 1 – Client
1 – SEL File 22130

YR/mr

SEL GEOTECHNICAL ENVIRONMENTAL MATERIALS TESTING

Report Number 22130



LANDSIDE PAVEMENT REPAIR AT JACK BROOKS REGIONAL AIRPORT

BEAUMONT, TEXAS

MARCH 2022

NOT TO SCALE

P.O.Box 2048 Nederland, Texas 77627 Ph: (409) 982-0686 Fax: (409) 982-0619
Email: yousef@science-engineer.com

SEL GEOTECHNICAL ENVIRONMENTAL MATERIALS TESTING

LOG OF BORING

Project: Landside Pavement Repair at Jack Brooks Regional Airport in Beaumont, Texas
Project No: 22130
Boring Number: B-1
Date of Report: 03/07/2022
Location: See Attached Boring Plan
Date of Boring: 02/25/2022
Dry Auger: 0 to 10 Feet
Authorization: Mr. Jeff Carbone

DEPTH, FEET	SYMBOL	SAMPLE	BLOWS PER FOOT	STRATUM DESCRIPTION	WATER CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX (PI)	PERCENT PASSING NO. 200 SIEVE	SHEAR STRENGTH: POCKET PENETROMETER (TSF)	SHEAR STRENGTH: UNCONFINED COMPRESSIVE STRENGTH (TSF)
				3.75" concrete								
				Dark Gray CLAY with ferrous and calcarous nodules			82	26	56		0.50	
											0.50	
5				tan and gray with ferrous and calcareous nodules	28	89	88	27	61		0.75	0.50
											0.75	
				slickensides								
				CH	30	90	75	24	51		0.75	0.30
10				Bottom at 10 Feet								
				1. Water was not encountered during drilling.								

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SEL GEOTECHNICAL ENVIRONMENTAL MATERIALS TESTING

LOG OF BORING

Project: Landside Pavement Repair at Jack Brooks Regional Airport in Beaumont, Texas
Project No: 22130
Boring Number: B-2
Date of Report: 03/07/2022
Location: See Attached Boring Plan
Date of Boring: 02/25/2022
Dry Auger: 0 to 10 Feet
Authorization: Mr. Jeff Carbone

DEPTH, FEET	SYMBOL	SAMPLE	BLOWS PER FOOT	STRATUM DESCRIPTION	WATER CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX (PI)	PERCENT PASSING NO. 200 SIEVE	SHEAR STRENGTH	
											POCKET PENETROMETER (TSF)	UNCONFINED COMPRESSIVE STRENGTH (TSF)
				3.50" base								
				Dark Gray CLAY with ferrous nodules			71	23	48		0.50	
					32	87	88	26	62		0.75	0.50
5				tan and gray							0.65	
					26	93	81	24	57		1.00	0.50
				CH							1.00	
10				Bottom at 10 Feet								

1. Water was not encountered during drilling.

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SEL GEOTECHNICAL ENVIRONMENTAL MATERIALS TESTING

LOG OF BORING

Project: Landside Pavement Repair at Jack Brooks Regional Airport in Beaumont, Texas
Project No: 22130
Boring Number: B-3
Date of Report: 03/07/2022
Location: See Attached Boring Plan
Date of Boring: 02/25/2022
Dry Auger: 0 to 10 Feet
Authorization: Mr. Jeff Carbone

DEPTH, FEET	SYMBOL	SAMPLE	BLOWS PER FOOT	STRATUM DESCRIPTION	WATER CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX (PI)	PERCENT PASSING NO. 200 SIEVE	SHEAR STRENGTH: POCKET PENETROMETER (TSF)	SHEAR STRENGTH: UNCONFINED COMPRESSIVE STRENGTH (TSF)
				5.62" concrete								
				Dark Gray CLAY with ferrous and calcarous nodules			60	22	38		0.50	
											0.50	
5				tan and gray	26	93	87	25	62		0.75	0.70
											0.50	
				CH	24	98	71	23	52		1.00	0.70
10				Bottom at 10 Feet								
				1. Water was not encountered during drilling.								

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SEL GEOTECHNICAL ENVIRONMENTAL MATERIALS TESTING

LOG OF BORING

Project: Landside Pavement Repair at Jack Brooks Regional Airport in Beaumont, Texas
Project No: 22130
Boring Number: B-4
Date of Report: 03/07/2022
Location: See Attached Boring Plan
Date of Boring: 02/25/2022
Dry Auger: 0 to 10 Feet
Authorization: Mr. Jeff Carbone

DEPTH, FEET	SYMBOL	SAMPLE	BLOWS PER FOOT	STRATUM DESCRIPTION	WATER CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX (PI)	PERCENT PASSING NO. 200 SIEVE	SHEAR STRENGTH: POCKET PENETROMETER (TSF)	SHEAR STRENGTH: UNCONFINED COMPRESSIVE STRENGTH (TSF)
				Dark Gray CLAY with ferrous nodules								
							53	20	33		0.50	
					22	101	54	21	33		0.65	0.70
5				tan and gray with ferrous and calcareous nodules							0.75	
					22	99	95	28	67		1.00	0.50
				CH							1.00	
10				Bottom at 10 Feet								
				1. Water was not encountered during drilling.								

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SEL GEOTECHNICAL ENVIRONMENTAL MATERIALS TESTING

LOG OF BORING

Project: Landside Pavement Repair at Jack Brooks Regional Airport in Beaumont, Texas
Project No: 22130
Boring Number: B-5
Date of Report: 03/07/2022
Location: See Attached Boring Plan
Date of Boring: 02/25/2022
Dry Auger: 0 to 10 Feet
Authorization: Mr. Jeff Carbone

DEPTH, FEET	SYMBOL	SAMPLE	BLOWS PER FOOT	STRATUM DESCRIPTION	WATER CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX (PI)	PERCENT PASSING NO. 200 SIEVE	SHEAR STRENGTH: POCKET PENETROMETER (TSF)	SHEAR STRENGTH: UNCONFINED COMPRESSIVE STRENGTH (TSF)
				5.50" concrete								
				Dark Gray CLAY with ferrous nodules			57	22	35		0.25	
					34	87	58	22	36		0.50	0.40
5				tan and gray							0.50	
					28	89	90	27	63		0.75	0.60
				CH							0.75	
10				Bottom at 10 Feet								
				1. Water was not encountered during drilling.								

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SEL GEOTECHNICAL ENVIRONMENTAL MATERIALS TESTING

LOG OF BORING

Project: Landside Pavement Repair at Jack Brooks Regional Airport in Beaumont, Texas
Project No: 22130
Boring Number: B-6
Date of Report: 03/07/2022
Location: See Attached Boring Plan
Date of Boring: 02/25/2022
Dry Auger: 0 to 10 Feet
Authorization: Mr. Jeff Carbone

DEPTH, FEET	SYMBOL	SAMPLE	BLOWS PER FOOT	STRATUM DESCRIPTION	WATER CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX (PI)	PERCENT PASSING NO. 200 SIEVE	SHEAR STRENGTH: POCKET PENETROMETER (TSF)	SHEAR STRENGTH: UNCONFINED COMPRESSIVE STRENGTH (TSF)
				7.00" concrete								
				Dark Gray CLAY with ferrous nodules			77	23	44		0.25	
					37	79	105	29	76		0.35	0.40
				_ gray								
5				_ tan and gray with ferrous and calcareous nodules							0.50	
					25	96	89	26	63		0.75	0.60
				CH							1.00	
10				Bottom at 10 Feet								
				1. Water was not encountered during drilling.								

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SEL GEOTECHNICAL ENVIRONMENTAL MATERIALS TESTING

LOG OF BORING

Project: Landside Pavement Repair at Jack Brooks Regional Airport in Beaumont, Texas
Project No: 22130
Boring Number: B-7
Date of Report: 03/07/2022
Location: See Attached Boring Plan
Date of Boring: 02/25/2022
Dry Auger: 0 to 10 Feet
Authorization: Mr. Jeff Carbone

DEPTH, FEET	SYMBOL	SAMPLE	BLOWS PER FOOT	STRATUM DESCRIPTION	WATER CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX (PI)	PERCENT PASSING NO. 200 SIEVE	SHEAR STRENGTH: POCKET PENETROMETER (TSF)	SHEAR STRENGTH: UNCONFINED COMPRESSIVE STRENGTH (TSF)
				6.37" concrete								
				Dark Gray CLAY with ferrous nodules			51	21	30		0.25	
											0.75	
5				tan and gray with ferrous and calcareous nodules	26	95	85	23	62		0.75	0.60
											1.00	
				CH	21	101	67	22	45		1.00	0.75
10				Bottom at 10 Feet								
				1. Water was not encountered during drilling.								

SEL GEOTECHNICAL ENVIRONMENTAL MATERIALS TESTING

LOG OF BORING

Project: Landside Pavement Repair at Jack Brooks Regional Airport in Beaumont, Texas
Project No: 22130
Boring Number: B-8
Date of Report: 03/07/2022
Location: See Attached Boring Plan
Date of Boring: 02/25/2022
Dry Auger: 0 to 10 Feet
Authorization: Mr. Jeff Carbone

DEPTH, FEET	SYMBOL	SAMPLE	BLOWS PER FOOT	STRATUM DESCRIPTION	WATER CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX (PI)	PERCENT PASSING NO. 200 SIEVE	SHEAR STRENGTH: POCKET PENETROMETER (TSF)	SHEAR STRENGTH: UNCONFINED COMPRESSIVE STRENGTH (TSF)
				Dark Gray CLAY with ferrous nodules			69	23	46		0.25	
					39	77	96	28	68		0.25	0.40
5				_ gray and tan							0.30	
				_ tan and gray	30	90	87	24	63		0.50	0.44
				CH							0.50	
10				Bottom at 10 Feet								
				1. Water was not encountered during drilling.								

SEL GEOTECHNICAL ENVIRONMENTAL MATERIALS TESTING

LOG OF BORING

Project: Landside Pavement Repair at Jack Brooks Regional Airport in Beaumont, Texas
Project No: 22130
Boring Number: B-9
Date of Report: 03/07/2022
Location: See Attached Boring Plan
Date of Boring: 02/25/2022
Dry Auger: 0 to 10 Feet
Authorization: Mr. Jeff Carbone

DEPTH, FEET	SYMBOL	SAMPLE	BLOWS PER FOOT	STRATUM DESCRIPTION	WATER CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX (PI)	PERCENT PASSING NO. 200 SIEVE	SHEAR STRENGTH: POCKET PENETROMETER (TSF)	SHEAR STRENGTH: UNCONFINED COMPRESSIVE STRENGTH (TSF)
				Dark Gray CLAY with ferrous nodules			69	22	47		0.25	
					37	81	73	23	50		0.50	0.40
				tan and gray								
5											0.50	
											0.75	
				CH	35	77	100	28	72		0.70	0.38
10				Bottom at 10 Feet								

1. Water was not encountered during drilling.

SEL GEOTECHNICAL ENVIRONMENTAL MATERIALS TESTING

LOG OF BORING

Project: Landside Pavement Repair at Jack Brooks Regional Airport in Beaumont, Texas
Project No: 22130
Boring Number: B-10
Date of Report: 03/07/2022
Location: See Attached Boring Plan
Date of Boring: 02/25/2022
Dry Auger: 0 to 10 Feet
Authorization: Mr. Jeff Carbone

DEPTH, FEET	SYMBOL	SAMPLE	BLOWS PER FOOT	STRATUM DESCRIPTION	WATER CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX (PI)	PERCENT PASSING NO. 200 SIEVE	SHEAR STRENGTH: POCKET PENETROMETER (TSF)	SHEAR STRENGTH: UNCONFINED COMPRESSIVE STRENGTH (TSF)
				Gray CLAY with ferrous nodules								
							104	30	74		0.25	
					36	80	82	24	58		0.25	0.26
				tan and gray with calcareous and ferrous nodules								
5											0.50	
					36	82	99	26	73		0.75	0.40
				CH							0.75	
10				Bottom at 10 Feet								
				1. Water was not encountered during drilling.								

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SEL GEOTECHNICAL ENVIRONMENTAL MATERIALS TESTING

LOG OF BORING

Project: Landside Pavement Repair at Jack Brooks Regional Airport in Beaumont, Texas
Project No: 22130
Boring Number: B-11
Date of Report: 03/07/2022
Location: See Attached Boring Plan
Date of Boring: 02/25/2022
Dry Auger: 0 to 10 Feet
Authorization: Mr. Jeff Carbone

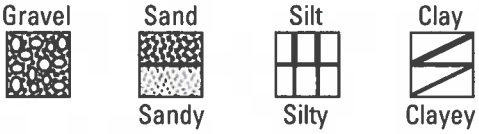
DEPTH, FEET	SYMBOL	SAMPLE	BLOWS PER FOOT	STRATUM DESCRIPTION	WATER CONTENT (%)	DRY DENSITY (PCF)	LIQUID LIMIT	PLASTIC LIMIT	PLASTICITY INDEX (PI)	PERCENT PASSING NO. 200 SIEVE	SHEAR STRENGTH: POCKET PENETROMETER (TSF)	SHEAR STRENGTH: UNCONFINED COMPRESSIVE STRENGTH (TSF)
				Gray CLAY with ferrous nodules								
							75	25	50		0.50	
					38	88	103	31	72		0.35	0.20
				tan and gray with calcareous and ferrous nodules								
5											0.85	
					33	85	105	32	73		1.00	0.80
				CH							1.00	
10				Bottom at 10 Feet								
				1. Water was not encountered during drilling.								

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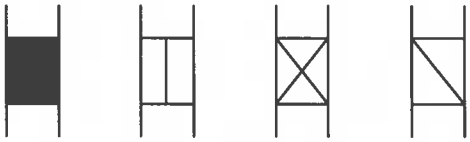
KEY TO SOIL CLASSIFICATION AND SYMBOLS

SOIL TYPE



Predominant type shown heavy

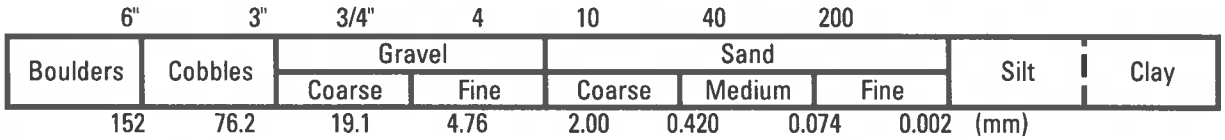
SAMPLE TYPE



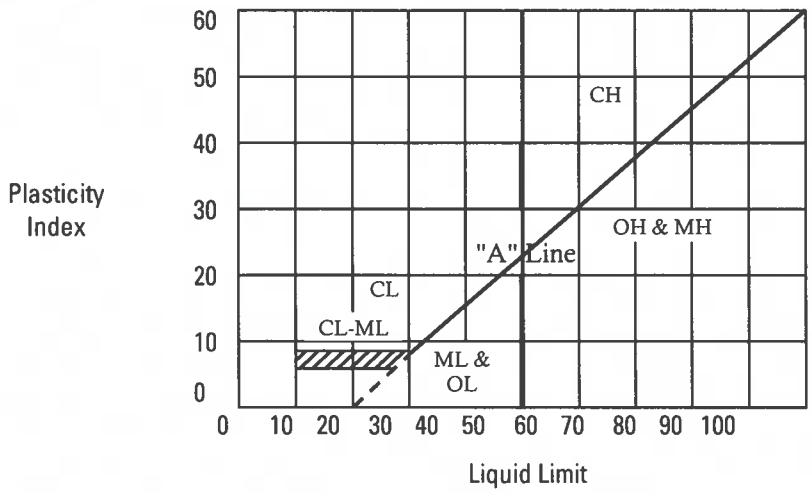
Un-Disturbed | Rock Core | Split Spoon | No Recovery

SOIL GRAIN SIZE

U.S. Standard Sieve



PLASTICITY CHART



CONSISTENCY OF COHESIVE SOILS

Penetration Resistance, blows per foot	Consistency	Cohesion TSF	Plasticity Index	Degree of Plasticity
0 - 2	Very Soft	0 - 0.125	0 - 5	None
2 - 4	Soft	0.125 - 0.25	5 - 10	Low
4 - 8	Firm	0.25 - 0.5	10 - 20	Moderate
8 - 15	Stiff	0.5 - 1.0	20 - 40	Plastic
15 -30	Very Stiff	1.0 - 2.0	> 40	Highly Plastic
> 30	Hard	> 2.0		

RELATIVE DENSITY OF COHESIONLESS SOILS

Penetration Resistance, blows per foot	Relative Density
0 - 4	Very Loose
4 - 10	Loose
10 - 30	Medium Dense
30 - 50	Dense
> 50	Very Dense

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