

Bid Invitation

Colorado County is accepting sealed bids for the furnishing of all materials, tools, services, labor, equipment, supervision, and incidentals required for the construction of a BRIDGE ON COUNTY ROAD 121 @ DRAW, Precinct No. 1. Inquiries should be directed to County Commissioner Doug Wessels (979) 234-2071.

Colorado County is accepting sealed bids for the furnishing of all materials, tools, services, labor, equipment, supervision, and incidentals required for the construction of a BRIDGE ON COUNTY ROAD 103 @ SKULL CREEK TRIBUTARY, Precinct No. 4. Inquiries should be directed to County Commissioner Darrell Gertson (979) 234-2633.

Specifications to be obtained from the Office of the County Judge, Colorado County Courthouse, 400 Spring Street, Room 107, Columbus, Texas 78934 or online at www.co.colorado.tx.us under Bid Opportunities. Sealed bids will be accepted in the Office of the County Judge, Colorado County Courthouse, 400 Spring Street, Room 107, Columbus, Texas 78934 until June 22, 2022 at 2:00 p.m., and at that time will be publicly opened in Room 101 of the Colorado County Courthouse. Colorado County reserves the right to reject any and or all bids or to accept any bid advantageous to the County.

**COLORADO COUNTY REQUESTS BIDS FOR
BRIDGE ON
CR 121**

ISSUED BY: THE COLORADO COUNTY COMMISSIONERS' COURT

Sealed bids, subject to the Terms and Conditions of this Invitation for Bids, for BRIDGE ON CR 121, as described in the attached specifications, will be received in the Office of the County Judge, Colorado County Courthouse, 400 Spring St., Room 107 Columbus, Texas 78934 until 2:00 p.m. on June 22, 2022. Bids received after the specific time will be returned unopened.

LEGAL NAME OF CONTRACTING COMPANY

FEDERAL I.D.# (Company or Corporation)

SOCIAL SECURITY # (Individual)

TELEPHONE NUMBER

FASCIMILE NUMBER

CONTACT PERSON

TITLE

COMPLETE MAILING ADDRESS

CITY & STATE

ZIP CODE

COMPLETE STREET ADDRESS

CITY & STATE

ZIP CODE

A. SCOPE:

It is the intent of the County of Colorado to contract for only materials, equipment, tools, services, labor and supervision necessary to construct bridge on BRIDGE ON CR 121 as specified herein.

B. POINT OF CONTACT:

Point of contact will be Colorado County Commissioner Doug Wessels at 979-234-2071.

C. BID FORM COMPLETION:

Fill out, initial each page, SIGN CONTRACT SHEET, and return to the Colorado County Judge one (1) complete bid form. An authorized representative of the bidder must sign the contract sheet. The contract will be binding only when signed by the County Judge, Colorado County and a purchase order authorizing the item(s) desired has been issued.

D. COMPLETION TIME AND PAYMENT:

1. The county shall pay the Contractor in current funds for the Contractor's performance of the contract the contract sum, as stated herein, after receipt of notice to proceed and a purchase order issued by the County of Colorado.
2. Based upon Applications for Payment submitted to Commissioner Wessels the county shall make progress payments on account of the contract sum to the Contractor as provide below and elsewhere in the contract documents.
 - a. The period covered by each Application for Payment shall be one calendar month ending on the last day of the month.
 - b. Provided an Application for Payment is received by the County Auditor, payment shall be made by the county within 30 days after the County Auditor receives the application for payment.
 - c. Application for Payment shall indicate the percentage of completion of each portion of the work as of the end of the period covered by the Application for Payment.
 - d. Subject to the provisions of the contract documents, the amount of each progress payment shall be computed as follows:
 1. Take that portion of the contract sum properly allocable to completed work less retainage of ten percent (10%).
 2. Add that portion of the contract sum properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the complete construction (or, if approved by the county, suitably stored off the site at a location agreed upon in writing), less retainage of ten percent (10%).
 3. Subtract the aggregate of previous payments made by the county.
 4. The progress payment amount determined in accordance with Paragraph 2 b., above shall be further modified under the following circumstances:
Add, upon substantial completion of the work, a sum sufficient to increase the total payment

D. COMPLETION TIME AND PAYMENT: (cont'd)

one hundred percent (100%) of the contract sum, less such amounts as the county's representative shall determine for incomplete work and unsettled claims.

5. Final payment, constituting the entire unpaid balance of the contract sum, shall be made by the county to the Contractor when the contract has been fully performed by the Contractor.

E. REFERENCES:

All bidders must submit, **WITH BID**, at least three (3) references from clients for whom a project similar to that specified herein has been successfully accomplished. References must include clients name, contact person and telephone number.

F. ADDENDA:

No interpretation of the meaning of the drawings, specifications or other bid documents will be made to any bidder orally. All requests for such interpretations must be made in writing addressed to Commissioner Doug Wessels, P.O. Box 129, Rock Island, Tx 77470, 979-234-2071.

G. BID BOND:

All bidders must submit, **WITH BID**, a cashier's check or certified check for five percent (5%) of the total bid price, payable to the order of the County of Colorado or a Bid Bond in the same amount issued by a surety, acceptable to the County of Colorado, authorized to do business in the State of Texas, as a guarantee that the Bidder will do the work described herein at the rates stated herein. Unsuccessful bidders' cashier's check or certified check will be returned only after a written request to do so is received by the Colorado County Auditor.

H. PERFORMANCE AND PAYMENT BONDS:

In the event the total accepted bid price exceeds \$25,000 the successful bidder must provide to the Office of the County Auditor, a performance bond and a payment bond, each in the amount of 100% of the total contract sum within ten (10) calendar days after receipt of notification of bid award. Such bonds shall be executed by a corporate surety duly authorized and admitted to do business in the State of Texas and licensed in the State of Texas to issue surety bonds with a Best Rating of "A" or better. COLORADO COUNTY RESERVES THE RIGHT TO ACCEPT OR REJECT ANY SURETY COMPANY PROPOSED BY THE BIDDER. IN THE EVENT COLORADO COUNTY REJECTS THE PROPOSED SURETY COMPANY, THE BIDDER WILL BE AFFORDED FIVE (5) ADDITIONAL DAYS TO SUBMIT THE REQUIRED BONDS ISSUED BY A SURETY COMPANY ACCEPTABLE TO COLORADO COUNTY.

I. POWER OF ATTORNEY:

An Attorney-in-fact who signs a bid bond, performance bond or payment bond must file with each bond a certified and effectively dated copy of his or her power of attorney.

J. INSURANCE:

1. All bidders must submit, **WITH BID**, a certificate of insurance indication coverage in the amounts stated below. In lieu of submitting a certificate of insurance, bidders may submit, **WITH BID**, a notarized statement from an Insurance company, authorized to conduct business in the State of Texas, and acceptable to the county, guaranteeing the issuance of an insurance policy, with the coverage stated below, to the Contractor named therein, if successful, upon award of this contract.
2. The successful bidder shall obtain at its sole expense, and shall submit to the office of the County Auditor, certificates of insurance satisfactory to the county, naming the county, the Contractor and its employees as insured.
 - a. Workers Compensation: See Worker's Compensation Insurance Coverage Statement at Enclosure#4.
 - b. Employer's Liability: \$500,000
 - c. General liability including:
 1. Premises/Operations
 2. Products/Completed Operation
 3. Contractual
 4. Owner's Protective
 5. Personal Injury/Advertising Liability
 6. Mobile EquipmentGeneral liability limits shall be equal to or greater than:
 1. \$100,000 Bodily Injury per person. 300,000 Bodily Injury per occurrence.
\$100,000 Property Damage per occurrence; or,
 2. \$500,000 Bodily Injury and Property Damage combined, two limit.
Specify annual aggregate, if any. The minimum available annual aggregate for the purposes of this Agreement shall be \$1,000,000. Claims-made policies shall not be acceptable. All policies shall be occurrence basis.
 - d. Automobile Liability:
All owned, non-owned or hired vehicles must be covered. Liability limits shall be greater than or equal to:
 1. \$100,000 Bodily Injury per person. \$300,000 Bodily Injury per occurrence.
\$100,000 Property Damage per occurrence; or,
 2. \$500,000 Bodily Injury and Property Damage combined, two limit.
 - e. Excess Liability Coverage shall be greater than or equal to \$1,000,000 combined, two limit. Specify aggregate, if any.
3. Contractor shall not commence any portion of the work under this Agreement until it has obtained the insurance required herein and certificates of such insurance have been filed with and approved by the county.
4. No cancellation of or changes to the certificates, or the policies, may be made without sixty (60) days prior, written notification to the county.
5. Approval of the insurance by the county shall not relieve or decrease the liability of the Contractor.

K. INDEMNIFICATION:

Contractor agrees to indemnify, defend and hold the county harmless from each and every claim, demand, suit, action, proceeding, lien or judgment caused by or arising out of, directly or indirectly, or in connection with the acts and omissions of Contractor pursuant to this Agreement.

1. Contractor shall timely report all such matters to the county and shall, upon the receipt of any such claim, demand, suit, action, proceeding, lien or judgment, not later than the fifteenth day of each month, provide the county with a written report on each such matter covered by this paragraph and by paragraph 2 below, setting forth the status of each matter, the schedule or planned proceedings with respect to each matter and the cooperation or assistance, if any, of the county required by Contractor in the defense of each matter.
2. The county shall timely forward to Contractor copies of any and all claims, demands, suits, actions, proceedings or judgments which it may receive and which it may contend is covered by this section. Thereafter, the county shall fully cooperate with Contractor in its defense of each such matter.
3. Contractor's duty to defend, indemnify and hold the county harmless shall be absolute. It shall not abate or end by reason of the expiration or termination of this Agreement unless otherwise agreed by the county in writing. The provisions of this section shall survive the termination of the Agreement and shall remain in full force and effect with respect to all such matters no matter when they arise.
4. In the event of any dispute between the parties as to whether a claim, demand, suit, action, proceeding, lien or judgment appears to have been caused by or appears to have arisen out of or in connection with acts or omissions of Contractor, Contractor shall never-the-less fully defend such claim, demand, suit, action, proceeding, lien or judgment until and unless there is a determination by a court of competent jurisdiction that the acts and omissions of Contractor are not at issue in the matter. In such event, the county shall promptly reimburse Contractor for its costs of defense.
5. In the event that any such matter being so defended by Contractor also involves any claim of negligence or wrongful action by the county, the county shall have the obligation to participate in the defense of the matter through separate counsel.
6. Contractor shall have full authority to resolve all matters being defended by it providing such settlement(s) shall not involve any findings adverse to the county or and shall not involve or require any payments or contributions by the county.
7. In the event of any final judicial determination or award of any matter covered by this section the county shall be responsible to third parties, pro rata, for any negligence determined to have been caused by the county.
8. Contractor's indemnification shall cover, and Contractor agrees to indemnify the county, in the manner provided for and to the extend described above, in the event the county is found to have been negligent for having selected Contractor to perform the work described in this Agreement.
9. The provision by Contractor of insurance shall not limit the liability of Contractor under this Agreement.

K. INDEMNIFICATION: (cont'd)

10. Contractor shall cause all Trade Contractors and any other Contractor who may have a contract to perform construction or installation work in the area where work will be performed under this Agreement, to agree to indemnify the county and to hold it harmless from all claims for bodily injury and property damage that arise from said Contractor's operations. Such provisions shall be in form satisfactory to the county.

11. Loss Deduction Clause--The county shall be exempt from, and in no way liable, for, any sums of money which may represent a deductible in any insurance policy. The payment of deductibles shall be the sole responsibility of Contractor and/or Trade Contractor providing such insurance.

L. PREVAILING WAGES:

Prevailing wage requirements of Art. 5159a Vernon's Texas Civil Statutes apply.

M. PERMITS:

It shall be the sole responsibility of the successful bidder to obtain all required permits.

N. CONTRACTOR'S RESPONSIBILITY FOR WORK:

1. The Contractor shall supervise and direct the work and shall be solely responsible for all construction methods, techniques, procedures and coordination of the work under this contract.
2. The Contractor shall employ a competent Superintendent who shall be in attendance at the Project Site during the progress of the work. The Superintendent shall be satisfactory to the county and shall not be changed except with the approval of the county.
3. The Contractor shall be responsible for initiating, maintaining and supervising safety precautions in connection with the work. He shall obtain approval for the location of the equipment, supplies and construction access during the work.
4. The Contractor shall take all reasonable precautions necessary for the safety of, and protective procedures to prevent damage, injury or loss to:
 - a. All employees of the work and all other persons who may be affected thereby.
 - b. All the work and all materials to be incorporated therein, whether all storage on or off the site.
 - c. All property at the sites and adjacent thereto including trees, shrubs, lawn walks, pavements, roadways, structured and utilities not designated for removal, relocation or replacement in the course of construction.
5. Materials and Workmanship: All work shall be executed in accordance with the contract documents, complete in all parts and in accordance with approved practices and customs, and of the best finish and workmanship. Unless otherwise specified, all materials and equipment incorporated in the work under the contract shall be new.

N. CONTRACTOR'S RESPONSIBILITY FOR WORK: (cont'd)

6. Test specimens of the various materials may be requested by the county at any time. The test specimens shall be furnished by the Contractor and test will be made by the county at the expense of the county.
7. All manufacturer products certifications required by the specifications shall be numbered consecutively, dated and submitted to the county as required.
8. Removal of Defective Work: If any materials provided under this Contract are condemned as not conforming with the requirements of the contract documents by Commissioner Reynolds, the Contractor shall, within a reasonable time after having received notice from the County Judge to that effect, proceed to remove from the project site all condemned materials, whether worked or not worked and to take down all portions of the work which have been condemned as unsound or improper or is in any way failing to conform to the specifications and Contractor shall make good all work damaged or destroyed thereby, including all adjacent work damaged thereby.
9. Cleaning: As directed by the county, the Contractor shall at all times keep the premises free from accumulation of waste materials or rubbish caused by the work under this contract. Upon completion of the work, the Contractor shall have the premises in a neat and clean condition.
10. The Contractor shall take particular notice of the following provisions: All employees shall wear hard hats at all times while on the construction project.
11. The county expressly disavows any responsibility for the safety of the Contractor's employees, agents, officers, subcontractors, licensees and guests.

O. TERMINATION:

1. The county may terminate the contract if the Contractor:
 - a. Persistently or repeatedly refuses or fails to supply enough properly skilled workers or proper materials.
 - b. Fails to make payment to Subcontractors for materials or labor in accordance with the respective agreements between the Contractor and the Subcontractor.
 - c. Persistently disregards laws, ordinances, or rules, regulations or orders of a public authority having jurisdiction.
 - d. Otherwise is guilty of substantial breach of a provision of the contract documents.
2. When any of the above reasons exists, the county may, without prejudice to any other rights or remedies of the county and after giving the Contractor and the Contractor's surety, if any, seven days' written notice terminate employment of the Contractor and may, subject to any prior rights of the surety:
 - a. Take possession of the site and of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor.
 - b. Finish the work by whatever reasonable method the county may deem expedient.

O. TERMINATION (cont'd):

3. When the county terminates the contract for one of the reasons stated in this section, the Contractor shall not be entitled to receive further payment until the work is finished. Therefore, the Contractor shall be promptly paid for all work actually and satisfactorily completed.

P. SUSPENSION BY THE OWNER FOR CONVENIENCE:

1. The county may, without cause, order the Contractor in writing to suspend, delay or interrupt the work in whole or in part for such period of time as the county may determine.

2. An adjustment shall be made for increase in the cost of performance, caused by suspension, delay or interruption. No adjustment shall be made to the extent.

a. That performance is, was or would have been so suspended, delayed or interrupted by another cause for which the Contractor is responsible.

b. That an equitable adjustment is made or denied under another provision of this contract.

3. Adjustments made in the cost of performance may have a mutually agreed fixed or percentage fee.

Q. TAX EXEMPT:

Texas Sales and Use Taxes: The County of Colorado is exempt from state and local sales and use taxes under Section 151.309 of the Texas Tax Code. This Contract is deemed to be a separate contract for Texas tax purposes, and as such, the county hereby issues its Texas Exemption for the purchase of any items qualifying for exemption under this agreement. Contractor is to issue its Texas Resale Certificate to vendors and subcontractors for such items qualifying for this exemption, and further, contractor should state these items at cost.

R. ENCLOSURES:

The following being incorporated herein by reference for all purposes as though fully set forth herein word for word.

1. Enclosure #1--General Requirements.
2. Enclosure #2--Purchase Order Terms and Conditions.
3. Enclosure #3--Worker's Compensation Insurance Coverage.
4. Enclosure #4--Technical Specifications and Drawings.

TOTAL BID PRICE TO ACCOMPLISH PROJECT ON BRIDGE ON CR 121:

LABOR: \$ _____

MATERIALS: \$ _____

TOTAL BID : \$ _____

All work required in this invitation for bids will be completed within _____ calendar days after issuance of a purchase order by the County of Colorado.

CONTRACT SHEET

**THE STATE OF TEXAS
COUNTY OF COLORADO**

This memorandum of agreement made and entered into on the _____ day of _____ 2022, by and between the County of Colorado in the State of Texas (hereinafter designated County), acting herein by the County Judge, Ty Prause, by virtue of an order of Colorado County Commissioners' Court, and _____ (company name) (hereinafter designated Contractor).

WITNESSETH:

The Contractor and the county agree that the bid and specifications for a roadway bridge which are hereto attached and made a part hereof, together with this instrument shall constitute the full agreement and contract between parties and for furnishing the items set out and described; the county agrees to pay the prices stipulated in the accepted bid.

It is further agreed that this contract shall not become binding or effective until signed by the parties hereto and a purchase order authorizing the items desired has been issued.

Executed at Colorado, Texas this _____ day of _____ 2022.

Colorado County, Texas

By: _____
County Judge

By: _____
Contractor

Purchase Order No. _____

Contract is not valid until this certificate is signed and purchase order issued.

GENERAL REQUIREMENTS

VENDOR INSTRUCTIONS:

READ THIS ENTIRE DOCUMENT CAREFULLY. FOLLOW ALL INSTRUCTIONS. YOU ARE RESPONSIBLE FOR FULFILLING ALL REQUIREMENTS AND SPECIFICATIONS. BE SURE YOU UNDERSTAND THEM.

General Requirements apply to all advertised bids, however, these may be superseded, whole or in part, by the SCOPE, SPECIAL REQUIREMENTS, SPECIFICATIONS, SPECIAL SPECIFICATIONS OR OTHER DATA CONTAINED HEREIN.

GOVERNING LAW

Bidder is advised that these requirements shall be fully governed by the laws of the State of Texas and that the County of Colorado may request and rely on advice, decisions and opinions of the Attorney General of Texas and the County Attorney concerning any portion of these requirements.

BID FORM COMPLETION

Fill out, **SIGN**, and return to the Colorado County Judge ONE (1) complete bid form. An authorized representative of the bidder must sign the contract sheet. The contract will be binding only when signed by the County Judge, Colorado County and a purchase order authorizing the item(s) desired has been issued.

BID RETURNS

Bidders must return all completed bids to the Colorado County Judge no later than 2:00 p.m. on the date specified, clearly marked "**Bridge, CR 121**". Late bids will not be accepted. Bids must be submitted in a sealed envelope, so contents are not visible, addressed as follows:

COMMISSIONERS' COURT OF COLORADO COUNTY

**Attn: Ty Prause, Colorado County Judge
400 Spring St. Rm 107
Columbus, Texas 78934**

GOVERNING FORMS

In the event of any conflict between the terms and provisions of these requirements and the specifications, the specifications shall govern. In the event of any conflict of interpretation of any part of this overall document, the County of Colorado's interpretation shall govern.

ADDENDUMS

When specifications are revised, the Colorado County Judge will issue an addendum addressing the nature of the change. Bidders must **sign and include it in the returned bid package.**

HOLD HARMLESS AGREEMENT

Contractor shall indemnify and hold the County of Colorado harmless from all claims for personal injury, death and/or property damage arising from any cause whatsoever, resulting directly or indirectly from contractor's performance. Contractor shall procure and maintain with respect to the subject matter of this bid, appropriate insurance coverage including, as a minimum, public liability and property damage with adequate limits to cover contractor's liability as may arise directly or indirectly from work performed under terms of this bid. Certification of such coverage must be provided to the county upon request.

WAIVER OF SUBROGATION

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

ENCLOSURE #1 (NOV 96)

SEVERABILITY

If any section, subsection, paragraph, sentence, clause, phrase or word of these requirements or the specifications shall be held invalid, such holding shall not affect the remaining portions of these requirements and the specifications and it is hereby declared that such remaining portions would have been included in these requirements and the specifications as though the invalid portion had been omitted.

BONDS

If this bid requires submission of bid guarantee and performance bond, there will be a separate page explaining those requirements. Bids submitted without the required bid bond or cashier's check will not be accepted.

TAXES

The County of Colorado is exempt from all federal excise, state and local taxes unless otherwise stated in this document. The County of Colorado claims exemption from all sales and/or use taxes under Chapter 20, Title 122a, Vernon's Texas Civil Statutes, as amended. Texas Limited Sales Tax Exemption Certificates will be furnished upon written request to the Colorado County Auditor.

FISCAL FUNDING

A multi-year lease or lease/purchase arrangement (if requested by the specifications), or any contract continuing as a result of an extension option, must include fiscal funding out. If, for any reason, funds are not appropriated to continue the lease or contract, said lease or contract shall become null and void. After expiration of the lease, leased equipment shall be removed by the bidder from the using department without penalty of any kind or form to the County of Colorado. All charges and physical activity related to delivery, installation, removal and redelivery shall be the responsibility of the bidder.

PRICING

Pricing for all goods and/or services shall be firm for the duration of this contract and shall be stated on the bid sheet. Prices shall be all inclusive. No price changes, additions, or subsequent qualifications will be honored during the course of the contract. All prices must be written in ink or typewritten. Pricing on all transportation, freight, drayage and other charges are to be prepaid by the contractor and included in the bid prices. If there are any additional charges of any kind, other than those mentioned above, specified or unspecified, bidder MUST indicate the items required and attendant costs or forfeit the right to payment for such items.

SILENCE OF SPECIFICATIONS

The apparent silence of specifications as to any detail, or the apparent omission from it of a detailed description concerning any point, shall be regarded as meaning that only the best commercial practice is to prevail and that only material and workmanship of the finest quality are to be used. All interpretations of specifications shall be made on the basis of this statement. Manufacturer furnishing these items shall be experienced in design and construction of such items and shall be an established supplier of the item bid.

SUPPLEMENTAL MATERIALS

Bidders are responsible for including all pertinent product data in the returned bid package. Literature, brochures, data sheets, specification information, completed forms requested as part of the bid package and any other facts, which may affect the evaluation, and subsequent contract award should be included. Materials such as legal documents and contractual agreements, which the bidder wishes to include as a condition of the bid, must also be in the returned bid package. Failure to include all necessary and proper supplemental materials may be cause to reject the entire bid.

MATERIAL SAFETY DATA SHEETS

Under the "Hazardous Communication Act", commonly known as the "Texas Right To Know Act", a bidder must provide to County AND using departments, with each delivery, material safety data sheets which are applicable to hazardous substances defined in the Act. Bidders are obligated to maintain a current, updated file in the County of Colorado. Failure of the bidder to maintain such a file, will be cause to reject any bid applying thereto.

ENCLOSURE #2 (NOV 96)

NAME BRANDS

Specifications may reference name brands and model numbers. It is not the intent of the County of Colorado to restrict these bids in such cases, but to establish a desired quality level of merchandise or to meet a pre-established standard due to like existing items. Bidders may offer items of equal stature and the burden of proof of such stature rests with them. The County of Colorado shall act as sole judge in determining equality and acceptability of products offered.

EVALUATION

Evaluation shall be used as a determinant as to which bid items or services are the most efficient and/or most economical for the county. It shall be based on all factors which have a bearing on price and performance of the items in the user environment. All bids are subject to tabulation by the Colorado County Auditor and are presented to the Colorado County Commissioners' Court. Compliance with all bid requirements, delivery and needs of the using department are considerations in evaluating bids.

Pricing is NOT the only criteria for making a recommendation. The County of Colorado reserves the right to contact any bidder, at any time, to clarify, verify or request information with regard to any bid.

INSPECTIONS

The County of Colorado reserves the right to inspect any item(s) or service location for compliance with specifications, requirements and needs of the using department. If a bidder cannot furnish a sample of a bid item, where applicable, for review, or fails to satisfactorily show an ability to perform, the county can reject the bid as inadequate.

TESTING

The County of Colorado reserves the right to test equipment, supplies, material and goods bid for quality, compliance with specifications and ability to meet the needs of the user. Demonstration units must be available for review. Should the goods or services fail to meet requirements and/or be unavailable for evaluation, the bid is subject to rejection.

DISQUALIFICATION OF BIDDER

Upon signing this bid document, a bidder offering to sell supplies, materials, services, or equipment to the County of Colorado certifies that the bidder has not violated the antitrust laws of this state codified in section 15.01, et seq., Business & Commerce Code, or the federal antitrust laws, and has not communicated directly or indirectly the bid made to any competitor or any other person engages in such line of business. Any or all bids may be rejected if the county believes that collusion exists among the bidders. Bids in which the prices are obviously unbalanced may be rejected. If multiple bids are submitted by a bidder and after the bids are opened, one of the bids are withdrawn, the result will be that all of the bids submitted by that bidder will be withdrawn, however, nothing herein prohibits a vendor from submitting multiple bids for different products or services.

AWARDS

The County of Colorado 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 bidder, to reject any or all bids. In the event the lowest dollar bidder meeting specifications is not awarded a contract, the bidder may appear before the Commissioners' Court and present evidence concerning his responsibility.

ASSIGNMENT

The successful vendor may not assign, sell or otherwise transfer this contract without written permission of the Colorado County Commissioners' Court.

TERM CONTRACTS

If the contract is intended to cover a specific time period, said time will be given in the specifications under SCOPE.
ENCLOSURE #1 (NOV 96)

MAINTENANCE

Maintenance required for equipment bid should be available in the County of Colorado by a manufacturer authorized maintenance facility. Costs for this service shall be shown on the bid sheet as requested or on a separate sheet, as required. If the County of Colorado 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.

CONTRACT OBLIGATION

Colorado County Commissioners' Court must award the contract and the County Judge must sign the contract before it becomes binding on the County of Colorado or the bidders. Department heads are NOT authorized to sign agreements for the County of Colorado. Binding agreements shall remain in effect until all products and/or services covered by this purchase have been satisfactorily delivered and accepted.

IRREVOCABLE STATEMENT

All submitted bids shall be irrevocable for a period of 30 days.

CONTRACT EXTENSIONS

Extensions may be made ONLY by written agreement between the County of Colorado and the bidder. Any price escalations are limited to those stated by the bidder in the original bid.

TERMINATION

The County of Colorado reserves the right to terminate the contract for default if Seller breaches 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 the County of Colorado may have in law or equity. Default may be construed as, but not limited to, failure to deliver the proper goods and/or services within the proper amount of time, and/or to properly perform any and all services required to the County of Colorado'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.

RECYCLED MATERIALS

The County of Colorado encourages the use of products made of recycled materials and shall give preference in purchasing to products made of recycled materials if the products meet applicable specifications as to quantity and quality. The County of Colorado will be the sole judge in determining product preference application.

ENCLOSURE #1 (NOV 96)

GENERAL SPECIFICATIONS

PROJECT ON
BRIDGE ON CR 121
INCLUDING

CONSTRUCTION AND ERECTION SPECIFICATIONS

FOR

COLORADO COUNTY COMMISSIONERS' COURT
DOUG WESSELS, PRECINCT #1

BRIDGE ON CR 121

I. GENERAL CONSIDERATIONS

A. DEFINITIONS:

Whenever used in the specifications or on the drawings, the following meaning shall be given the terms herein defined.

1. "Owner"- County of Colorado, Texas
2. "General Contractor"
3. "Plans"- Design, construction plans and specifications, prepared and furnished by Paul Malek, M.B.C. Management.

B. WORKMANSHIP AND MATERIALS:

1. Contractor shall do this work in accordance with the drawings and specifications and in the best and most workmanlike manner by qualified, careful and efficient workers, in strict conformity with the best accepted practices of each craft concerned, and at all times workmanship shall be subject to inspection and approval of the Owner.
2. All material used shall be of top quality and meet with the specified strengths, subject to the inspection and approval of the Owner.
3. Application for minor changes for improving architectural treatment or utilization of available materials shall be made to the Owner.
4. Structural steel connections shall be full strength welded joints and welding shall be done in accordance with American Welding Society requirements, except where shown otherwise or specified otherwise by the Owner.

C. DRAWINGS AND SPECIFICATIONS:

1. If a conflict occurs between information on the drawings and information in the specifications, the drawings shall apply unless it is clearly indicated otherwise.
2. Any work called for on the drawings, and not mentioned in the specifications, or vice versa, shall be furnished as though fully set forth in both.
3. Work not particularly detailed, marked or specified shall be the same as similar parts that are detailed, marked or specified.
4. Should an error appear on the drawings or in the specifications, or in the work done by others affecting this work, the Contractor shall notify the Owner at once and proceed according to the Owner's instructions. If the Contractor proceeds with work affected without, or contrary to, the Owner's instructions, he shall (at the Owner's discretion) repair, replace, or make adequate restitution for any resulting damage or defects. This includes typographical errors in the specifications, and notational errors on the drawings where doubtful of interpretation.

D. USE OF PREMISES:

1. The Contractor shall confine his apparatus, storage of materials and construction operations to the limits of the right of way. Any other construction easement or storage easement must be obtained by Contractor.
2. The Contractor shall not load or permit any part of the structure to be loaded to such an extent as to endanger its safety.
3. The Contractor shall enforce any instructions of the Owner regarding signs, advertising, fires, danger signals, and barricades.

II. LAYOUT

The owner shall employ competent personnel to lay out all center lines and to set whatever stakes, batter boards and bench marks which in the opinion of the Judge are necessary. The Commissioner may require the Contractor to check all measurements and levels as often as he deems advisable. Before starting the work, the Owner shall verify all lines and levels given on the drawings, and if any discrepancies appear they shall be reported to the Owner at once. The Contractor shall be held responsible for the maintenance of all levels, lines and grades involved in his work.

III. DESIGN AND LOADING CONSIDERATIONS

A. DIMENSIONS:

1. The bridge deck shall be 40 feet long.
2. The bridge shall have two lane and 28 feet of clearance between rails.

B. LOADING:

1. Design load bearing capacity of soil under footings is taken from information shown on the soil test reports furnished by Owner to the Contractor, or by field tests made on foundation excavation by the Contractor.
2. The load carrying capacity shall include the following:
 - a. Dead load weight of the bridge.
 - b. Forces impose laterally by wind and other natural elements.
 - c. Impact considerations.
 - d. Live load imposed by vehicular traffic (to match HS20 Highway loading).
 - e. Provisions to suit temperature changes.

IV. MISCELLANEOUS

A. SANDBLASTING- Where existing steel shapes are used, sandblast metal to SSPC-SP 10, near white metal, using #4 sand. Remove all visible oil, grease, dirt, dust, milscale, rust, paint, oxides, corrosion products, and other foreign matter. Primer coat shall be applied the same day the sandblasting is done.

B. PAINTING- Exposed metal surfaces shall be painted with Inorganic Zinc Primer, Sherwin Williams Zinc Clad 1 (or equal) in accordance with directions and supervision of the Commissioner.

- C. EXISTING BRIDGE- Contractor shall dismantle existing bridge and stack old bridge materials on side of bridge approach. County shall be responsible for disposal of old bridge materials.
- D. EXCAVATION- Contractor to provide all excavation necessary to install new bridge. Excavated material not used for backfill shall be removed from site by county.
- E. BACKFILL- If extra backfill is necessary, county shall provide suitable backfill material.
- F. CREEK CHANNEL- Contractor will excavate channel of creek at bridge area only. If rip rap is necessary in channel, county shall provide and install rip rap.

END OF SECTION

SECTION 01005- SUMMARY OF WORK

Descriptive Summary of the Work: Removal of existing bridge and construction of new bridge.

Identification: BRIDGE ON CR 121

Contract Documents: Requirements of the work are contained in the contract documents, and include cross-references herein to published information, which is not necessarily bound therewith.

Listing, Acceptance, Requirements: Refer to the individual work sections of specifications and other contract documents for requirements of work to be performed as "Alternates". Refer to Contract for indication of which Alternates (as listed in Instructions to Bidders) have been accepted or will be considered for acceptance during construction. Accepted Alternates are in full force and effect, as though included originally in base bid. Each must be completely integrated and coordinated with surrounding work.

Cutting and Patching:

Structural Work: Do not cut-and-patch structural work in a manner resulting in a reduction of load-carrying capacity or load/deflection ratio. Submit proposal and request and obtain Owner's approval before proceeding with cut-and-patch of structural work.

Operational/Safety Limitations: Do not cut-and-patch operational elements and safety components in a manner resulting in decreased performance, shortened useful life, or increased maintenance. Submit proposals and requests and obtain Owner's approvals before proceeding with cut-and-patch of structural work.

Visual/Quality Limitations: Do not cut-and-patch work exposed to view (exterior and interior) in a manner resulting in noticeable reduction of visual qualities and similar qualities, as judged by Owner.

Limitation of Approvals: Owner's approval to proceed with cutting and patching does not waive right to later require removal/replacement of work found to be cut-and-patched in an unsatisfactory manner, as judged by

Owner.

END OF SECTION

SECTION 01205- PROCEDURES AND CONTROLS

Administration and supervision:

Coordination: Coordinate various elements of the work and entities engaged to perform work; and coordinate the work with existing facilities/conditions, and with work by separate contractors (if any) and by Owner.

Surveying/Recording:

General: Working from established lines and levels at or near project site, establish and maintain dependable markers for lines and levels of the work, including markers for each story of construction. Calculate dimensions and measure for layout of work; do not scale the drawings. Maintain surveyor's log of layout work. Record deviations (if any) from drawing information on existing conditions, and review with owner at time of discovery.

Inspections and Testing:

General: Provide required inspection and testing services specified to be by independent agencies, where not indicated specifically as Owner's responsibility (this provision supplements General Conditions). Neither inspection-and-test results nor failure thereof to disclose deficiencies relieves Contractor of responsibility to comply with requirements of contract documents. Provide services to inspection and testing agencies (Owner's and Contractor's), including taking and delivery of samples, patching work and similar assistance. Require engaged agencies to perform indicated testing and submit reports promptly; and to report significant observations having an important bearing on the work, to the Owner by the most expeditious means possible.

Preparation for Installation:

Pre-Installation Conference: Prior to starting installation of each major component of the work, hold a pre-installation conference, attended by each entity involved or affected by planned installation.

Review significant aspects of requirements for the work. Record discussion and distribute as plan of action. Pre-installation conferences are specifically required for (but not limited to) the following installations:

Foundation work in completed excavations.

Anchor work securely in place, properly located by measured line and level, organized for best possible uniformity, visual effect, operational efficiency, durability, and similar benefit to Owner's use. Isolate non-compatible materials from contact, sufficiently to prevent deterioration.

Cleaning and Protection:

General: Clean each element of work at time of installation. Provide sufficient maintenance and protection

during construction to ensure freedom from damage and deterioration at time of substantial completion.

END OF SECTION

SECTION 01505- TEMPORARY FACILITIES

General Definitions:

Refer to General Conditions for basic commitments to provide temporary facilities. This section specifies certain minimum temporary facilities to be provided, regardless of methods and means selected for performance of the work, but not by the way of limitation and not assured for compliance with governing regulations. Use of alternate temporary facilities is Contractor's option, subject to Owner's acceptance. Temporary facilities are defined to exclude tools and construction machines, testing, demolition, alterations, soil borings, mock-ups and similar items.

Costs: Except as otherwise indicated, costs associated with temporary facilities are Contractor's (in Contract Sum), including power/fuel/water usage until time of substantial completion for each major area of project. Temporary facilities remain property of Contractor.

Temporary Support Facilities:

General: Provide facilities and services as may be needed to properly support primary construction process and meet governing regulations. Do not use permanent facilities except as otherwise indicated, and except after time of substantial completion.

Toilets: Where permitted by governing regulations, provide single-occupant, self-contained units; glass fiber reinforced polyester enclosure; equipped with both urinal and stool fixtures. Supply units with tissue and, where not located near separate wash facilities, supply with wet-type hand towels and wash containers. Locate units so that personnel with travel no more than 300'.

Security and Protection:

General: Provide facilities and services as necessary to effectively protect from losses and persons from injury during the course of construction.

Barricades: County will provide and maintain barricades at hazardous locations; complete with signs, general lighting, warning lights and similar devices where appropriate or required by regulations.

Environmental Protection: Review exposure to possible environmental problems, with Owner. Establish procedures and discipline among tradesmen and provide needed facilities which will protect against environmental problems (pollution of air, water and soil, excessive noise, and similar problems).

END OF SECTION

SECTION 01705- PROJECT CLOSEOUT

General Definitions:

The provisions of this section apply primarily to closeout of actual physical work, not to administrative matters such as final payment and changeover of insurances. Closeout requirements relate to both final completion and substantial completion of work, and apply to individual portions of completed work as well as the total work. Specific requirements in other sections have precedence over general requirements of this section.

Procedures at Substantial Completion:

Prerequisites: Comply with General Conditions and complete the following before requesting Owner's inspection of the work, or designated portion thereof, for substantial completion:

Complete final cleaning, and remove temporary facilities and tools.

Inspection Procedures: Upon receipt of Contractor's request, Owner will either proceed with inspection or advise Contractor of prerequisites not fulfilled. Following initial inspection, Owner will either prepare certificate of substantial completion or advise Contractor of work which must be performed prior to issuance of certificate; and repeat inspection when requested and assured that work has been substantially completed. Results of completed inspection will form initial "punch-list" for final acceptance.

Procedures at Final Acceptance:

Re-inspection Procedure: Upon receipt of Contractor's notice that work has been completed, including punch-list items resulting from earlier inspections and accepting incomplete items delayed because of acceptable circumstances. Owner will re-inspect work. Upon completion of re-inspection, Owner will either recommend final acceptance and final payment, or advise Contractor of work not completed or obligations not fulfilled as required for final acceptance. If necessary, procedure will be repeated.

Record Documentation:

Record Drawings: Maintain a complete set of blue/black-line prints of contract drawings and shop drawings for record mark-up purposes throughout the Contract Time. Mark-up drawings during course of the work to show changes and actual installation conditions, sufficient to form a complete record for Owner's purposes. Give particular attention to work, which may require servicing or replacement during life of project. Require entities marking prints to sign and date each mark-up. Bind prints into manageable sets, with durable paper covers, appropriately labeled.

Final Cleaning: At closeout time, clean or re-clean entire work to normal level for "first class" maintenance/cleaning of building projects of a similar nature. Remove non-permanent protection and labels, touch-up minor finish damage, remove debris and broom-clean non-occupied spaces, sweep and wash paved areas, police yards and grounds, and perform similar cleanup operations needed to produce a "clean"

condition as judged by Owner.

END OF SECTION

SECTION 022110- SITE CLEARING

Protections: Provide temporary fences, barricades, coverings, or other protections to preserve existing items indicated to remain and to prevent injury or damage to persons or property. Apply protections to adjacent properties as required.

Restore damage work to condition existing prior to start of work, unless otherwise directed.

Do not interfere with normal traffic on roads, streets, walks, and other adjacent occupied or used facilities. Provide alternate routes around closed or obstructed traffic ways as required by governing regulations.

Demolition: Includes complete wrecking of structures and removal and disposal of demolished materials from site. Comply with applicable codes and ordinances of authorities having jurisdiction concerning demolition operations.

Salvable items may be removed after demolition work starts; storage or sale on site of removed items will not be permitted.

Control air pollution caused by dust and dirt; comply with governing regulations.

Fill below-grade areas and void resulting from demolition operations. Use satisfactory soil materials, placed in 6" deep horizontal layers with each layer thoroughly compacted.

Grade ground surface to conform to required contours and to provide surface drainage.

Dispose of removed and demolished items, including trash and debris, off Owner's property.

Burning of waste materials on site is not permitted.

END OF SECTION

SECTION 02151- SHORING AND BRACING

Extent of shoring and bracing work is the responsibility of the General Contractor and shall comply with OSHA.

Supervision: Assign supervision of shoring and bracing work to a qualified foundation consultant.

Regulations: Comply with local codes and ordinances of governing authorities having jurisdiction.

Job Conditions: Before starting work, check and verify governing dimensions and elevations. Survey conditions of adjoining properties; take photographs, record existing settlement or cracking of structures,

pavements, and other improvements. Prepare list of such damages, verified by dated photographs, and signed by Contractor and others conducting investigation.

Survey adjacent structures and improvements; establishing exact elevations at fixed points to act as benchmarks. Clearly identify benchmarks and record existing elevations. Locate datum level used to establish benchmark elevations sufficiently distant so as not to be affected by movement resulting from excavation operations.

During excavation; re-survey benchmarks weekly. Maintain accurate log of surveyed elevations for comparison with original elevations. Promptly notify Owner if changes in elevations for comparison with original elevations sufficiently distant so as not to be affected by movement resulting from excavation operations.

Materials: Provide suitable shoring and bracing materials, which will support loads imposed. Materials need not be new, but should be in serviceable condition.

Shoring: Protect site from caving and unacceptable soil movement. Where shoring is required, locate system to clear permanent construction and to permit forming and finishing of concrete surfaces. Provide shoring system adequately anchored and braced to resist earth and hydrostatic pressures.

Shoring systems retaining earth on which support of stability of existing structures is dependent must be left in place at completion of work. If wood is part of shoring system near existing structures, use pressure preserved treated material or remove before placement of backfill.

Bracing: Locate bracing to clear columns, floor framing construction, and other permanent work. If necessary to move a brace, install new bracing prior to removal of original brace. Do not place bracing where it will be cast into or included in permanent concrete work, except as otherwise acceptable to Owner. Install internal bracing, if required, to prevent spreading or distortion to braced frames. Maintain bracing until structural elements are replaced by other bracing or until permanent floor construction is able to withstand lateral earth and hydrostatic pressures. Remove sheeting, shoring and bracing in stages to avoid disturbance to underlying soils and damage to structures, pavements, facilities, and utilities.

END OF SECTION

SECTION 02200- EARTHWORK

Existing Utilities: Locate by hand excavation and provide protection from drainage. Cooperate with Owner and utility companies for maintaining services. Do not break utility connections without providing temporary services.

Repair damages to existing utilities as directed by utility company.

Protections: Protect structures, utilities, sidewalks, pavements, and other facilities in area of work. Barricade open excavations and provide warning lights. Comply with regulations of authorities having jurisdiction.

Provide bracing and shoring as required in excavations, to maintain sides and to protect adjacent structures from settlement, complying with local codes and regulations. Maintain until excavations are back-filled.

Sub-base Fill Material: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, or crushed slag free of vegetation, debris, or other objectionable materials.

Excavation: Remove and dispose of material encountered to obtain required sub-grade elevations, including pavement, obstructions visible on ground surface, underground structures and utilities indicated to be removed.

Rock excavation (boulders over ½ cu. Yd., solid rock in ledges, and rock-hard cementitious aggregate deposits), if encountered, will be paid for in accordance with contract conditions relative to changes in work.

Unauthorized excavation (removal of materials beyond indicated sub-grade elevations) may be filled with lean concrete, or corrected by extending indicated bottom elevation of footing to lower elevation, as acceptable to Owner.

Stockpile excavated materials where directed, until required for backfill and fill.

Excavate for structure to elevations and dimensions shown, extending excavation a sufficient distance to permit placing and removal of other work and for inspection. Trim bottom to required lines and grades to provide solid base to receive concrete.

If unsatisfactory soil materials are encountered at design elevations, continue excavation as directed by Owner. If conditions are not a result of Contractor's negligence, additional excavation will be measured as directed by Owner and paid for in accordance with contract conditions relative to changes in work.

Backfill and Fill: Place and compact acceptable soil material in layers to required elevations. Use soil material free of clay, rock or gravel larger than 2" in any dimension, debris, vegetable matter, waste, and frozen materials.

Backfill excavations: As promptly as work permits.

Prepare ground surface to receive fill by removing vegetation, debris, unsatisfactory soil materials and obstructions. Scarify as required so that fill material will bond with existing surface.

Place backfill and fill materials in layers not more than 8" in loose depth; compacting each layer to the required maximum density. Do not place materials on surfaces that are muddy, frozen, or contain ice or frost.

Compaction: Compact each layer or backfill and fill soil materials and the top 12" of sub-grade for structures, slabs, and pavements to 90% maximum density of cohesive soils and 95% for cohesionless soils. At lawns or unpaved areas: 85% maximum density for cohesive soils and 90% for cohesion less soils.

Pavement Sub-base Course: Place sub-base material in layers of indicated thickness, over sub-grade surface to support walks and pavement. Place single layer for course 6" thick or less and equal layers for courses more

than 6" thick. Compact each lift.

Grading: Grade areas indicated, including adjacent transition areas, with uniform levels or slopes between finish elevations. Shape surface of areas to within 0.10' above or below required sub-grade elevation, compacted as required.

Maintenance: Repair and re-establish grades in settled, eroded, rutted, or otherwise damaged areas. In damaged compacted areas, scarify surface, re-shape, and compact to required density prior to further construction.

Disposal: Transport acceptable excess excavated material to designated soil storage areas on site, stockpile or spread as directed. Remove and dispose of unacceptable excavated material, trash, and debris from site.

Disposal: Remove excess excavated material, trash, debris, and waste material from site.

END OF SECTION

SECTION 022360- DRIVEN PILES

Welder Qualifications: Qualify welders, welding processes and procedures in accordance with AWS "Structural Welding Code".

Driving Records: Submit copies of driving record of each pile not later than 2 days after driving. Include project name and number, name of Contractor, pile location and number, computed pile capacity, type and size of hammer used, type of pile driving cap used, rate of operation of pile driving equipment, pile dimensions, elevation of point, elevation of butt before and after cut-off, ground elevation, continuous record of number of blows for each foot of penetration, pile deviation, pile uplift and reaction, and any unusual occurrences during pile driving.

Protection: Protect structures, underground utilities and other construction from damage caused by pile driving operations. Pre-excavate for piles if required.

Steel H-Section Piles:

Steel: Hot-rolled carbon steel structural shapes and plates, complying with ASTM A 36.

Provide pile point reinforcement of same basic steel as pile sections. Weld web reinforcement plates with a continuous fillet weld on top and bottom edge only; weld flange reinforcement plates, angles or shapes with a continuous fillet weld on edges; unless otherwise indicated.

Driving Piles:

General: Continuously drive piles at locations indicated, to require point elevation and driving resistance established by driving and loading of test piles.

Carefully maintain center of gravity for each group or cluster of piles to conform to locations shown on drawings.

Carefully plumb leads and pile before driving. Take care during driving to prevent and to correct any tendency of piles to twist or rotate.

Driving Tolerances: Drive piles within following maximum tolerances:

Location: 6" from location indicated for center of gravity of each single pile or pile groups; 1" for piles under walls.

Plumbness: Maintain 1" in 10'-0" from vertical, or a maximum of 4", measured when the pile is above ground, in leads.

Batter Angle: Maximum 1" in 10'-0" from required angle; measured when pile is above ground, in leads.

Damaged or Misdriven Piles: Damaged piles and piles driven outside required driving tolerances will not be accepted. Withdraw piles rejected after driving, and replace with new piles. Piles rejected after driving may be abandoned and cut-off, and additional piles driven to replace rejected units at designated locations.

Cutting-off: Cut-off tops of driven piles, square with pile axis and at elevations indicated. Dispose of excess materials off site. Re-coat cut-off tops of piles which have a protective coating. Use materials and methods to conform with existing coating.

Hammer shall weigh between 2000 and 5000 pounds. The minimum hammer energy, in foot-pounds, shall be 250 times the design load in tons. The drop shall be regulated to avoid injury to the piling, but in no case, shall the drop be greater than 10 feet. Ten ton loading minimum required.

Bearing Evaluation: Unless otherwise shown on the plans, the dynamic bearing resistance of piling shall be determined by the following formula:

Gravity Hammers

1.
$$P = \frac{2WH}{S+1.0}$$

2. When energy delivered (@ X H) by gravity hammer is 24,000 foot-pounds or greater, and the penetration does not exceed ½ inch per blow for the last 40 blows delivered (without increasing), determine bearing resistance by:

$$\frac{P+2WH}{3S}$$

Where,

P=Dynamic resistance in pounds,

S=Average penetration in inches, per blow, for the last 20 blows,

W=Weight of ream, in pounds

H=Height of fall of ram, in feet.

Measurement and Payment:

Test piles that become part of completed foundation system will be considered as an integral part of work. No payment will be made for rejected piles, including piles driven out of place, imperfect piles, or piles damaged in driving or handling.

END OF SECTION

SECTION 03010- CONCRETE

Codes and Standards: ACI 301 “Specifications for Structural Concrete Buildings”; ACI 318, “Building Code Requirements for Reinforced Concrete”, comply with applicable provisions except as otherwise indicated.

Concrete Testing Service: Employ acceptable testing laboratory to perform materials evaluation, testing and design of concrete mixes.

Owner will employ separate testing laboratory to evaluate concrete delivered to and placed at site.

Quality Control: Owner’s testing laboratory will perform sampling and testing during concrete placement, which may include the following, as directed by Owner. This testing does not relieve Contractor of responsibility of providing concrete in compliance with specifications. Contractor may perform additional testing as necessary, at no expense to Owner, to ensure quality of concrete.

Sampling: ASTM C 172

Slump: ASTM C 143, one test for each load at point of discharge. (Max. 5’)

Air Content: ASTM C 173, one for each set of compressive strength specimens.

Compressive Strength: ASTM C 39, one set for each truck for deck concrete and one set each 20 cu. Yds. or fraction thereof of each class of concrete; 2 specimens tested at 7 days, 3 specimens tested at 28 days, and one retained for later testing if required.

Test results will be reported in writing to Owner, Contractor and concrete producer on same day tests are made.

Manufacturer’s Data: Submit manufacturer’s product data with installation instructions for proprietary materials including reinforcement and forming accessories, admixtures, joint materials, hardeners, curing materials and others as requested by Owner.

Laboratory Reports: Submit 2 copies of laboratory test or evaluation reports for concrete materials and mix designs.

Mix Proportions and Design: Proportion mixes by either laboratory trial batch or field experience method complying with ACI 301.

Submit written report to Owner for each proposed concrete mix at least 15 days prior to start of work. Do not begin concrete production until mixes have been reviewed and are acceptable to Owner.

Mix designs may be adjusted when material characteristics, job conditions, weather, test result or other circumstances warrant. Do not use revised concrete mixes until submitted to and accepted by Owner.

Use air-entering admixture in all concrete, providing not less than 4% or more than 8% entrained air for concrete exposed to freezing and thawing, and from 2% to 4% for other concrete.

Concrete Materials:

Portland Cement: ASTM C 150, type as required.

Aggregates: ASTM C 33, except local aggregates of proven durability may be used when acceptable to Judge.

Water: Clean drinkable.

Air Entraining Admixture: ASTM C 260.

Water-Reducing Admixture: ASTM C 494. Only use admixtures which have been tested and accepted in mix designs, unless otherwise acceptable.

Form Materials:

Provide form materials with sufficient stability to withstand pressure of placed concrete without bow or deflection.

Exposed Concrete Surfaces: Suitable material to suit project conditions.

Reinforcing Materials:

Deformed Reinforcing Bars: ASTM A 615, Grade 60 unless otherwise indicated.

Welded Wire Fabric: ASTM A 185.

Forming and Placing Concrete:

Ready-Mix Concrete: ASTM C 94.

Form work: construct so that concrete members and structures are of correct size, shape, alignment, elevation and position.

Provide openings in formwork to accommodate work of other trades. Accurately place and securely support items built into forms.

Clean and adjust forms prior to concrete placement. Apply form release agents of wet forms, as required. Retighten forms during concrete placement if required to eliminate mortar leaks.

Reinforcement: Position, support and secure reinforcement against displacement. Locate and support with metal chairs, runners, bolsters, spacers, and hangers, as required. Set wire ties so ends are directed into concrete, not toward exposed concrete surfaces.

Install welded wire fabric in as long lengths as practicable, lapping at least one mesh.

Joints: Provide construction, isolation, and control joints as indicated or required. Locate construction joints so as to not impair strength and appearance of structure. Place isolation and control joints in slabs-on-ground to stabilize differential settlement and random cracking.

Installation of Embedded Items: Set and build into work anchorage devices and other embedded items required for other work that is attached to, or supported by cast-in-place concrete. Use setting diagrams, templates and instructions provided by others for locating and setting.

Concrete Placement: Comply with ACI, placing concrete in a continuous operation within planned joints or sections. Do not begin placement until work of other trades affecting concrete is completed.

Consolidate placed concrete using mechanical vibrating equipment with hand rodding and tamping, so that concrete is worked around reinforcement and other embedded items and into forms.

Protect concrete from physical damage or reduced strength due to weather extremes during mixing, placement and curing.

In hot weather comply with ACI 318.

Concrete Finishes:

Exposed-to-view-Surfaces: Provide a smooth finish for exposed concrete surfaces and surfaces that are to be covered with a coating or covering or covering material applied directly to concrete. Remove fins and projections, patch defective areas with cement grout, and rub smooth.

Curing: Begin initial curing as soon as free water has disappeared from exposed surfaces. Where possible, keep continuously moist for not less than 72 hours. Continue curing by use of moisture-retaining cover or membrane-forming curing compound. Cure formed surfaces by moist curing until forms are removed. Provide protections as required to prevent damage to exposed concrete surfaces.

Concrete shall be free to cure under exposure to normal atmospheric conditions existing at job site unless specified otherwise. During hot weather curing, apply 1100-CLEAR all-resin, water emulsion concrete curing compound.

END OF SECTION

SECTION 005120- STRUCTURAL STEEL

Codes and Standards: AISC “Code of Standard Practice for Steel Buildings and Bridges”; AISC “Specifications for the Design, Fabrication, and Erection of Structural Steel for Buildings: including “Commentary”, AWS “Structural Welding Code”; comply with applicable provisions except as otherwise indicated.

Shop Drawings: Show complete details and schedules (if required) for fabrication, assembly and erection. Furnish anchor bolts required for installation in other work; furnish templates for bolt installation.

Steel Pipe: ASTM A 53, Type E or S, Grade B.

Fasteners: High-strength bolts and nuts, ASTM A 325 or A 490; unfinished bolts and nuts, ASTM A 307, Grade A.

Shop Paint: FS TT-P_86, Type II; or, SSPC-Paint 14.

Fabrication: Comply with AISC “Specifications” and final shop drawings. Mark and match- mark units for field assembly.

Connections: As shown on drawings. Use high-strength bolts for field connections, except as otherwise indicated.

Comply with AWS Code for procedures, appearance, and quality of welds.

Provisions for Other Work: Fabricate structural steel members or portions of members embedded in concrete or mortar, and contact areas to be welded or riveted. Clean steel free of loose mill scale, rust, oil and grease. Apply prime paint to provide a minimum dry film thickness of 2.0 mils.

Erection: comply with AISC Code and Specifications, and maintain work in safe and stable condition during erection. Provide temporary bracing and shoring as required; remove when final connections are placed.

END OF SECTION

SECTION 05500- METAL FABRICATION

Codes and Standards: AISC “Specifications for the Design, Fabrication and Erection of Structural Steel for Buildings”, AWS “Structural Welding Code”; Comply with applicable provisions unless otherwise indicated.

Inserts and Anchorage’s: Furnish inserts and anchoring devices to be built into other work for installation of miscellaneous metal items; coordinate delivery to job site to avoid delay.

Steel Plates, Shapes, Bars: ASTM A 26.

Cold-formed Steel Tubing: ASTM A 500, Grade B.

Steel Pipe: ASTM A 53, Type E or S, Grade B.

Structural Cold-Rolled Steel Sheets: ASTM A 570.

Galvanized Structural Steel Sheets: ASTM A 466, Coating Designation G 90.

Concrete Inserts: Malleable iron (ASTM A 47) or cast steel (ASTM A 27) inserts, with steel bolts, washer and shims; hot dip galvanized.

Shop Paint: FS TT-P-86, Type II, or SSPC- Paint 14. Apply to clean and degreased steel surfaces at rate to provide a 2.0-mil dry film thickness.

Galvanizing: ASTM A 386 for assembled products; A 153 for iron and steel hardware.

Fabrication, General: Use materials of size and thickness shown or, if not shown, of required size, grade and thickness to produce strength and durability in finished product. Shop-paint all items not specified to be galvanized after fabrication. Weld corners and seams continuously, grind exposed welds smooth and flush. Form exposed connections with hairline, flush joints; use concealed fasteners where possible.

END OF SECTION

I. GENERAL

A. ALL PLAN DIMENSIONS ARE INTERPRETED FROM AND SHALL BE VERIFIED WITH THE STRUCTURAL DRAWINGS AND THE ENGINEER NOTIFIED IF DISCREPANCIES EXIST.

B. ALL ITEMS OF WORK SHALL BE PERFORMED FOR A LUMP SUM PRICE. UNIT QUANTITY PRICE SHALL NOT BE USED.

C. ANY UNUSUAL CONDITIONS ENCOUNTERED SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO CONCRETE PLACEMENT.

D. LOCATIONS OF CONCRETE CONSTRUCTION JOINTS NOT SHOWN SHALL BE APPROVED BY THE ENGINEER PRIOR TO CONCRETE PLACEMENT.

E. UNLESS OTHERWISE NOTED ALL ITEMS SHALL CONFORM TO THE TEXAS DEPARTMENT OF TRANSPORTATION'S (TXDOT) 'STANDARD SPECIFICATIONS FOR CONSTRUCTION AND MAINTENANCE OF HIGHWAYS, STREETS, AND BRIDGES' ADOPTED JUNE 1, 2004.

2. CONCRETE

A. ALL CONCRETE EXCEPT THE DECK CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS IN ACCORDANCE WITH ASTM C-39. THE DECK CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3600 PSI AT 28 DAYS IN ACCORDANCE WITH ASTM C-39 AND SHALL HAVE A MINIMUM MODULUS OF RUPTURE OF 450 PSI AS 28 DAYS IN ACCORDANCE WITH ASTM C-10. AN AIR ENTRAINMENT AGENT SHALL BE USED. FLY ASH SHALL NOT BE USED.

B. WHERE CONCRETE IS PLACED AGAINST FORMS REINFORCING BARS SHALL HAVE A MINIMUM OF 2 INCHES CLEAR COVER UNLESS SHOWN OTHERWISE. WHERE CONCRETE IS PLACED AGAINST EARTH, REINFORCING BARS SHALL HAVE A MINIMUM OF 3 INCHES CLEAR COVER.

C. APPLY FLOAT FINISH TO SLAB SURFACES TO RECEIVE A TROWEL FINISH.

D. APPLY A HEAVY BROOM FINISH TO DECK SURFACES IN ACCORDANCE WITH ACI 302.

E. DEPRESSIONS BETWEEN HIGH SPOTS SHALL NOT BE GREATER THAN 1/8 IN. BELOW A 10 FT. LONG STRAIGHTEDGE IN ACCORDANCE WITH ACI 302.

F. CONCRETE FACES SHALL NOT DEVIATE MORE THAN 3/16" FROM THE PLAN DIMENSIONS.

3. PILING

A. ALL PILING SHALL BE AS SHOWN ON THE PLANS AND AS SPECIFIED BY TXDOT ITEM 401 - STEEL PILING.

B. THE PILING SHALL BE DRIVEN AS SPECIFIED BY TXDOT ITEM 404 - PILE DRIVING. THE MINIMUM LENGTH SHALL BE AS SHOWN ON PLANS, THE PILES SHALL BE DRIVEN TO A GREATER DEPTH IF REQUIRED TO OBTAIN THE REQUIRED BEARING CAPACITY. THE MINIMUM BEARING CAPACITY OF THE PILES SHALL BE AS FOLLOW:
ABUTMENTS #1 & #2 - 40 TONS EACH

4. STEEL STRUCTURES

A. ALL STRUCTURAL SECTIONS SHALL BE ASTM A36, SUBJECT TO INSPECTION AND APPROVAL OF THE COUNTY. STRUCTURAL PIPE SHALL HAVE A MINIMUM YIELD STRENGTH OF 35,000 psi. ALL STRUCTURAL STEEL CONNECTIONS SHALL FULL WELDED JOINTS. WELDING SHALL BE IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY. REINFORCING STEEL SHALL CONFORM WITH ASTM A615.

B. EXPOSED STRUCTURAL METAL SURFACES SHALL BE PAINTED WITH INORGANIC ZINC COATING.

C. USED STEEL IS ACCEPTABLE WITH LESS THAN 5% CROSS SECTION CORROSION LOSS.

D. CAMBER BEAMS 1 1/2 INCHES.

BUILDING CODE:

1. THE INTERNATIONAL BUILDING CODE, 2012 EDITION.
2. AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 2010 EDITION.
3. ASCE-7, MINIMUM DESIGN LOADS FOR BUILDINGS & OTHER STRUCTURES.

LOADS:

1. DEAD LOAD = 81 PSF.
2. DECK LIVE LOAD = 125 PSF.
3. PEDESTRIAN LIVE LOAD = 75 PSF.
4. VEHICLE LOAD:
H-20 TRUCK

5. WIND LOAD:

BASIC WIND SPEED
V-UTL = 130 MPH.
V-ASD = 101 MPH.
WIND IMPORTANCE FACTOR = 1.0
WIND EXPOSURE 'C'
HORIZONTAL LOAD = -22.74 PSF

6. SEISMIC LOAD:

SEISMIC USE GROUP: I
SITE CLASS: D
SPECTRAL RESPONSE COEFFICIENTS
SDS = 0.074
SD1 = 0.055

7. SUPPORT REACTIONS

LOAD PER PILE / PIER (5- PILE EACH ABUTMENT END)

HORIZONTAL = 0.63 Kips

VERTICAL:

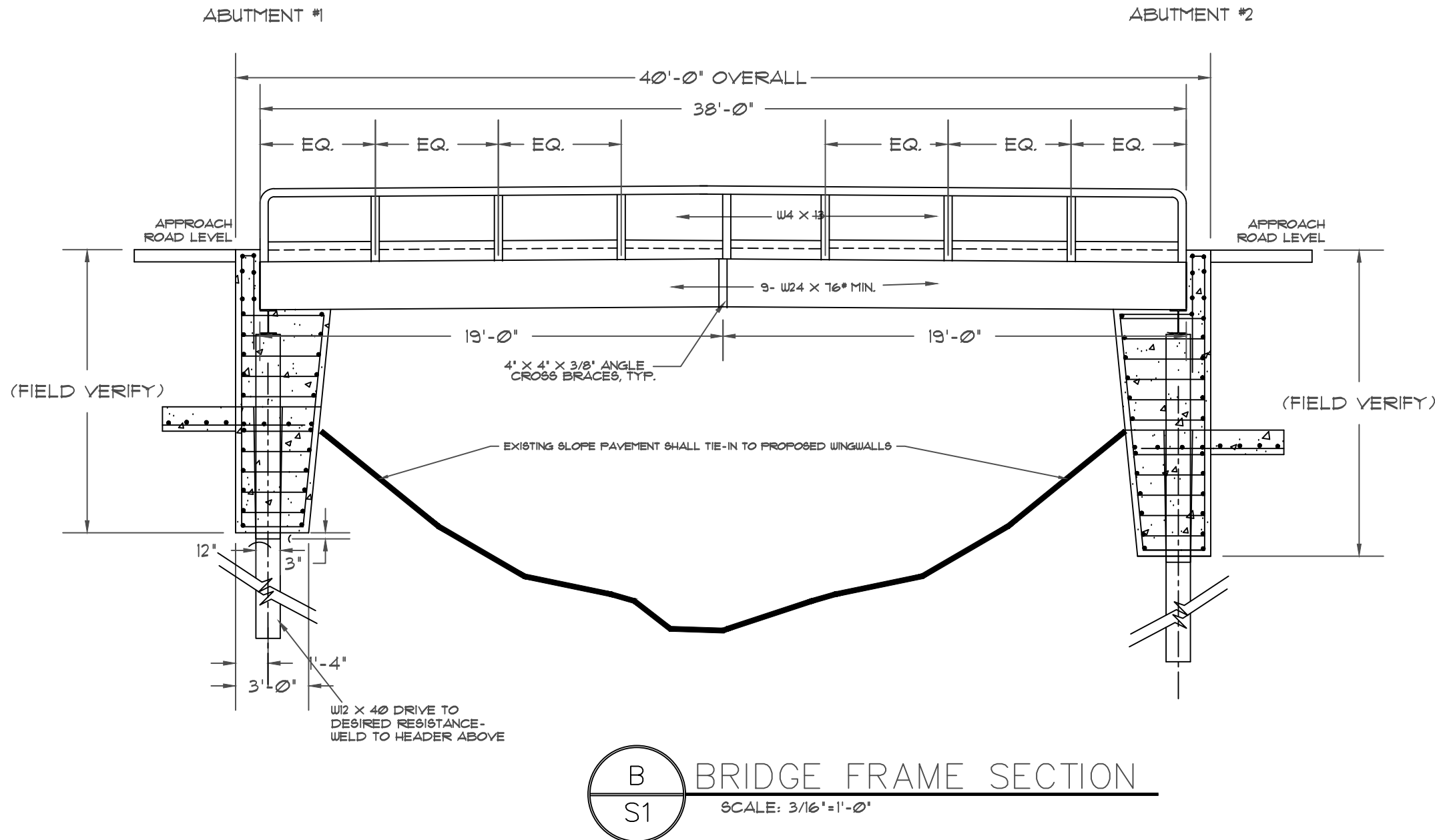
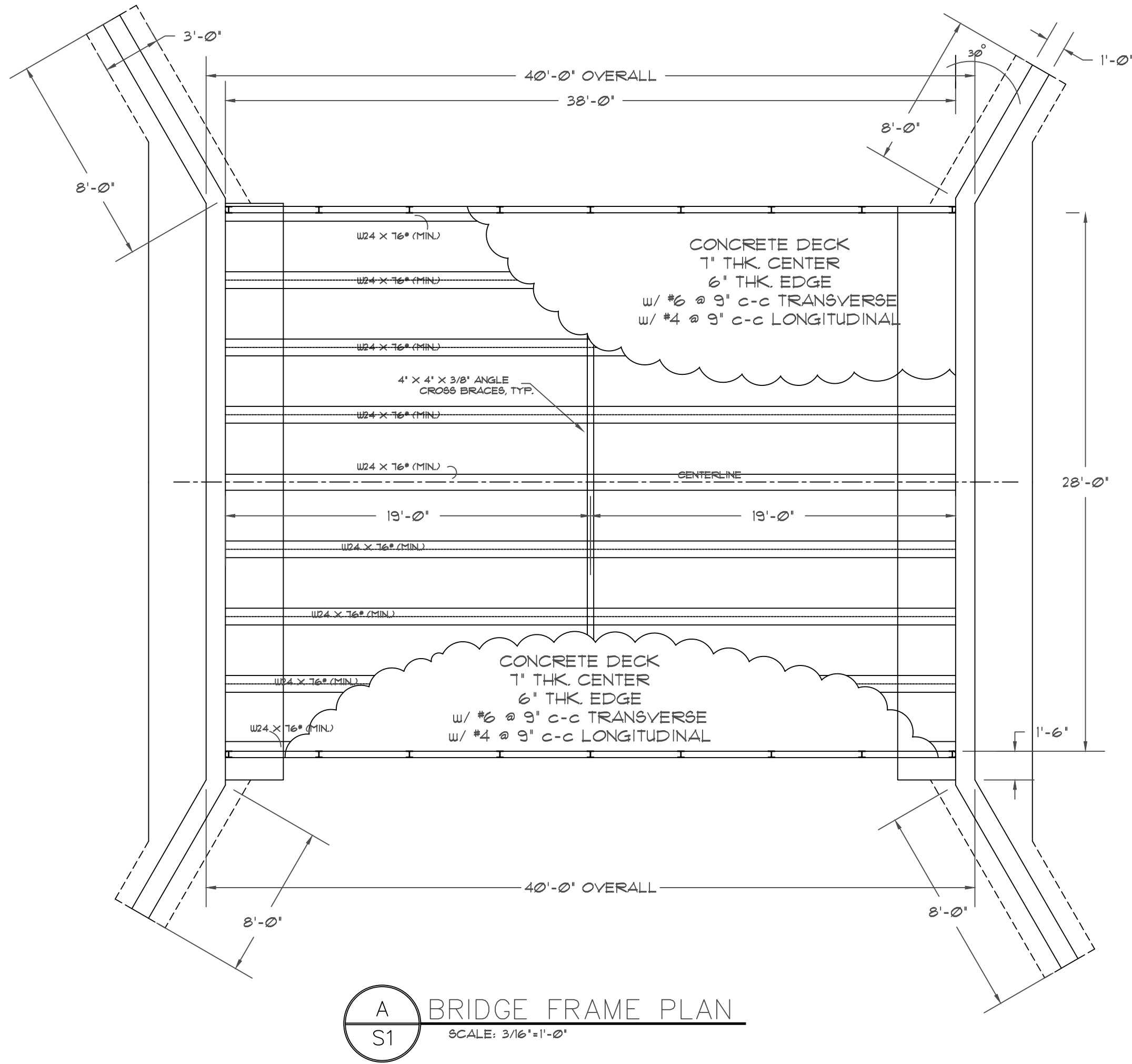
	LEFT	RIGHT
DEAD	13.70 Kips	13.70 Kips
DEAD+LIVE	29.45 Kips	29.45 Kips
DEAD+VEHICLE	56.75 Kips	56.75 Kips

NOTES:

1. STRUCTURAL STEEL SHALL MEET THE LATEST AASHTO (AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS) SPECIFICATIONS FOR MATERIALS.
2. ALL STRUCTURAL STEEL TO MEET ASTM A 36 - Fy = 36 KSI.
ALL TUBING TO MEET ASTM A 500, GRADE B - Fy = 46 KSI.
ALL PIPES TO MEET ASTM A-53, GRADE B - Fy = 35 KSI.
3. ALL BOLTS A 325 HIGH STRENGTH, WITH WASHERS AS REQUIRED.
4. WELDING SHALL CONFORM TO THE STANDARDS SET FORTH IN AWS PUBLICATION, WELDING IN BUILDING CONSTRUCTION.
5. ALL FIELD AND SHOP CONNECTIONS TO HAVE 3/16" FILLET WELDS MINIMUM UNLESS NOTED.
6. ALL FIELD WELDS TO BE WITH E70XX ELECTRODES.
7. NO OPENINGS TO BE PLACED IN BEAM WEBS OR FLANGES WITHOUT ENGINEER'S APPROVAL.

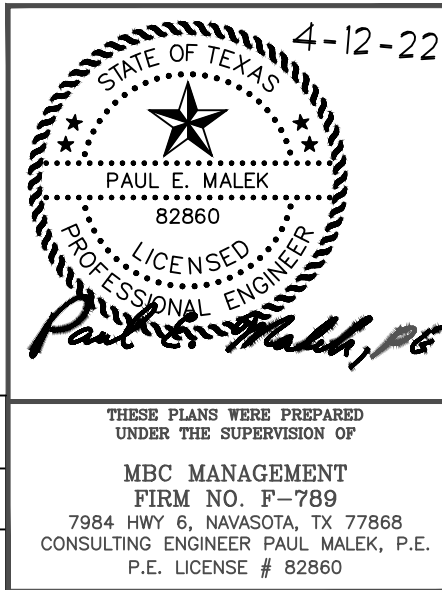
STRUCTURAL FILL

A. ALL FILL (IF REQUIRED) SHALL HAVE A MAXIMUM PLASTICITY INDEX (PI) OF 20 OR LESS. THE MINIMUM PLASTICITY INDEX (PI) SHALL BE 5 OR GREATER. ALL FILL SHALL PLACED IN A MAXIMUM LIFT THICKNESS OF SIX INCHES. EACH LIFT SHALL BE COMPACTED TO 95% OF STANDARD PROCTOR DENSITY (ASTM D-698) AT A MOISTURE CONTENT OF -1% TO +3% AND SHALL BE FIELD TESTED IN ACCORDANCE WITH ASTM D-2922.



NO.	REVISIONS	DATE	BY	DRAWN BY:
				PEM
				DATE
				APR. 12, 2022
				SCALE
				AS SHOWN

THE SEAL APPEARING ON THIS DOCUMENT WAS AUTHORIZED BY PAUL E. MALEK, P.E. 82860 ON APRIL 12, 2022.



BRIDGE ON COUNTY ROAD 121
AT DRAW
COLORADO COUNTY, PCT 1
COMMISSIONER - DOUG WESSELS

CONSTRUCTION MANAGEMENT AND DESIGN SERVICES

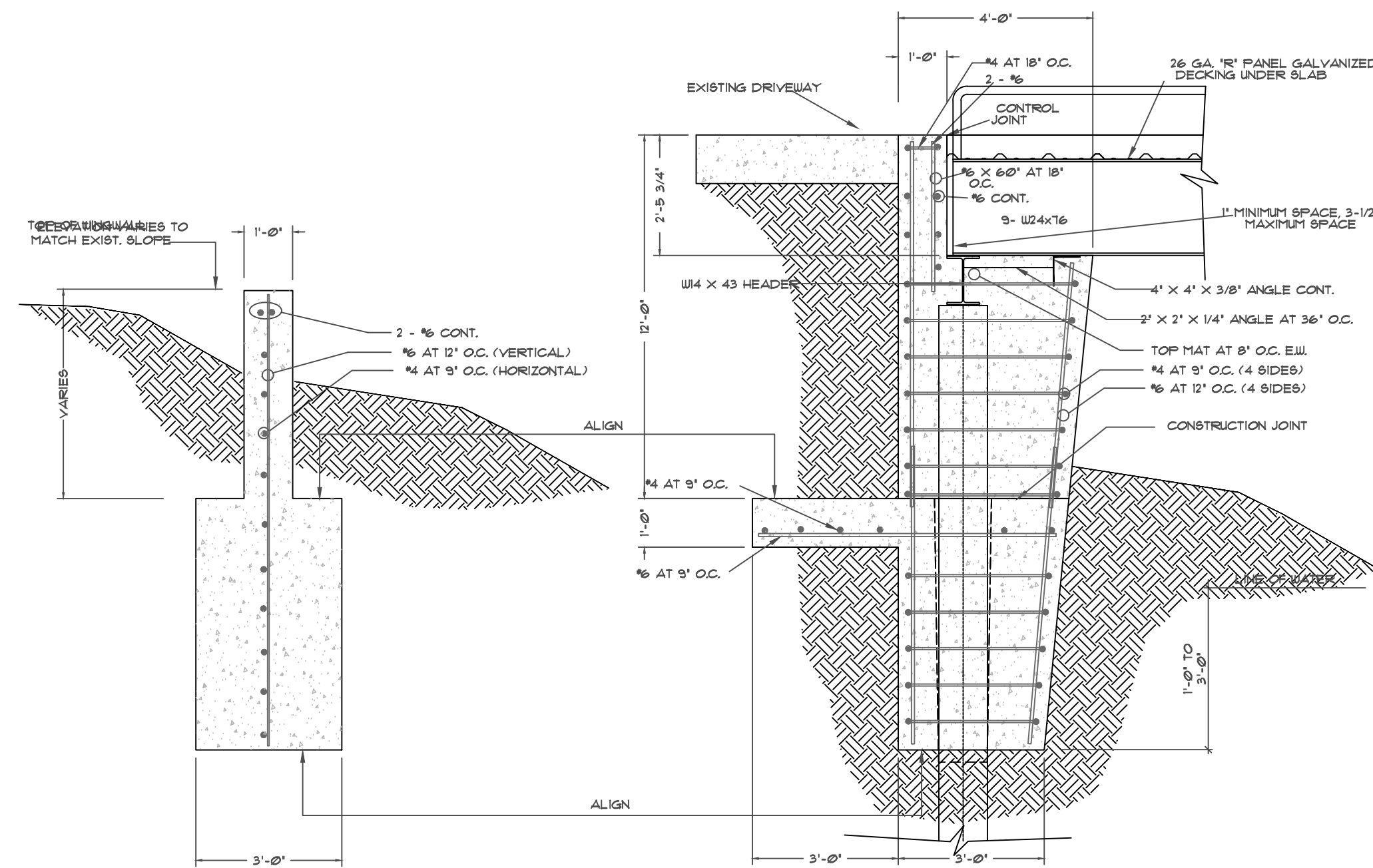
M.B.C. Management
design
design-build
general contracting
7984 HWY. 6
NAVASOTA, TX 77868
Ph. (936) 825-1603
Fax (936) 825-1624

BRIDGE PLAN
AND BRIDGE PROFILE
w/ CONCRETE DECK

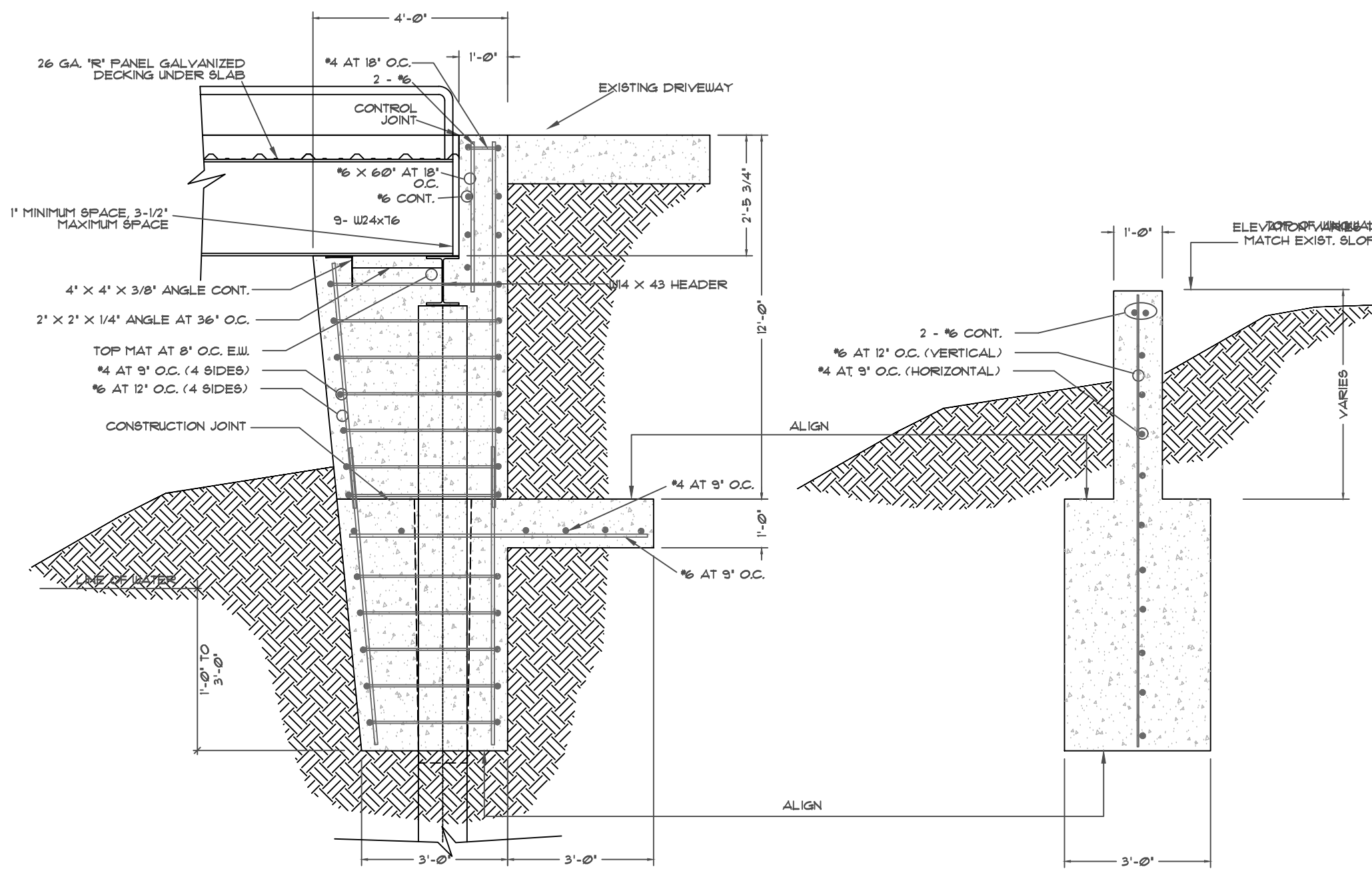
APPROVED:

DRAWING NO.

S1

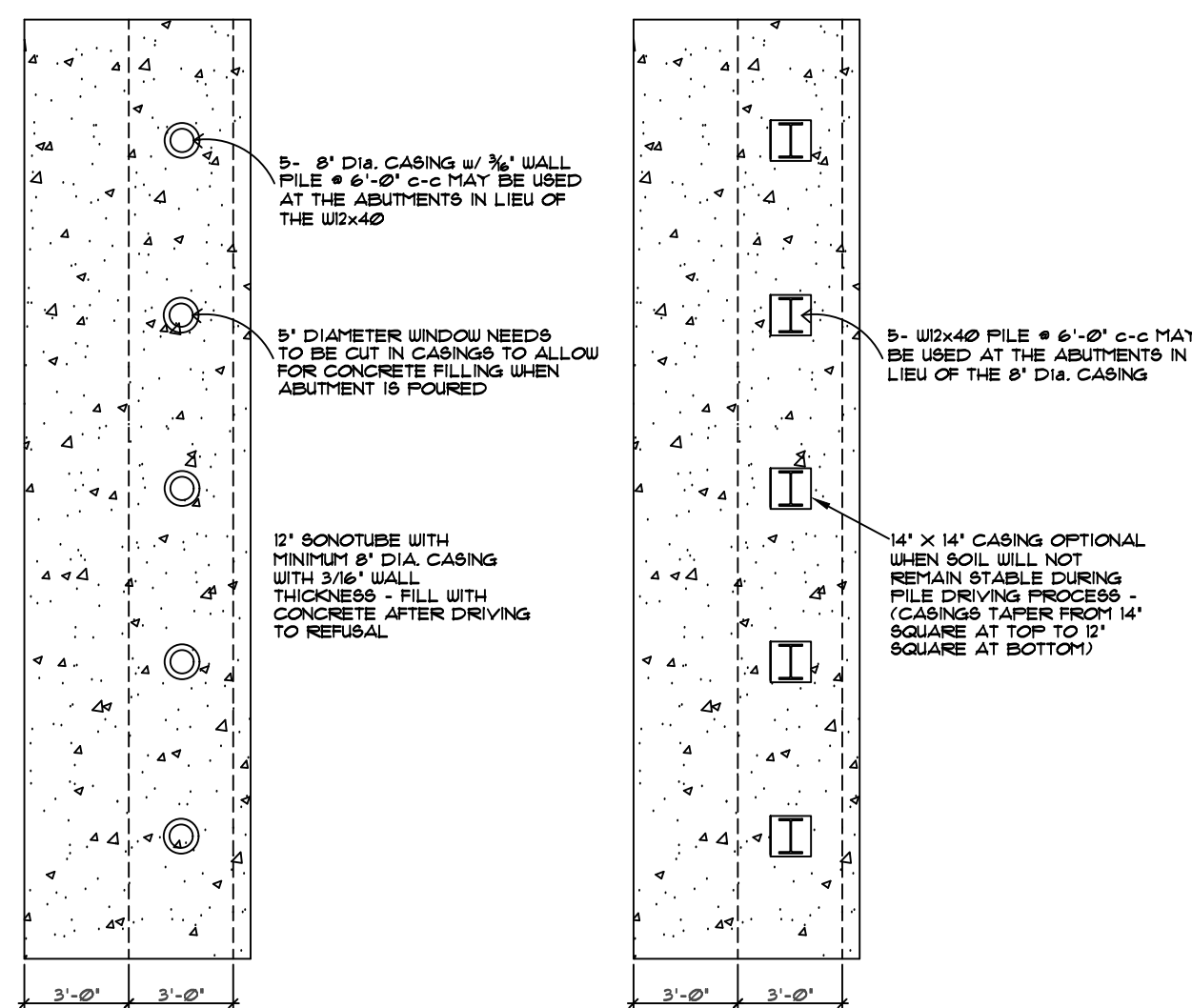


ABUTMENT #1

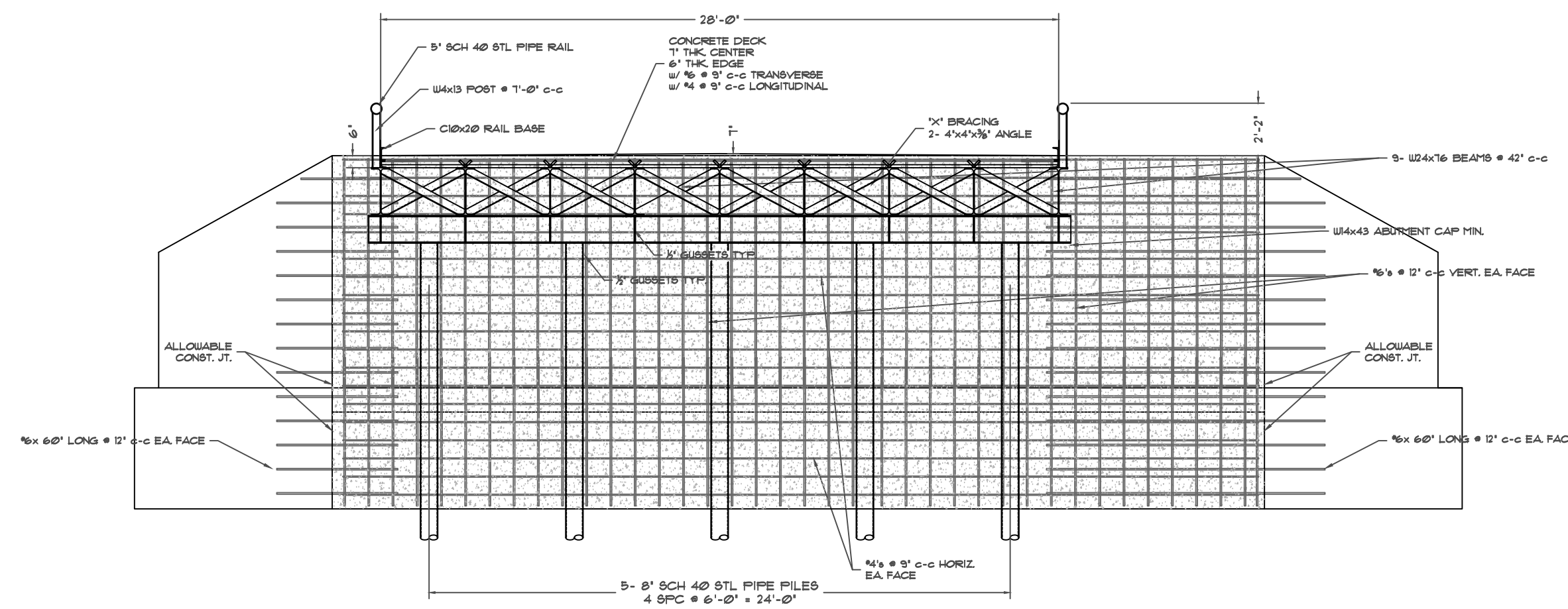


ABUTMENT #2

A SUPPORT REINFORCEMENT DETAILS
SCALE: NONE



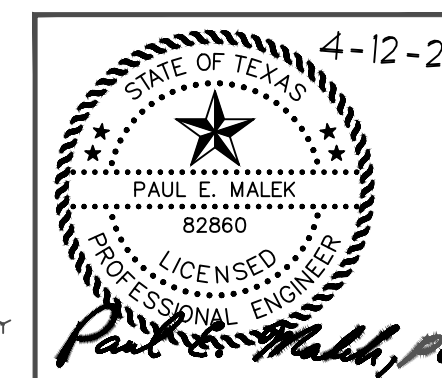
B ABUTMENT PLAN OPTIONS
SCALE: NONE



C ABUTMENT PROFILE
SCALE: NONE

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				PEM
				DATE
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				SCALE
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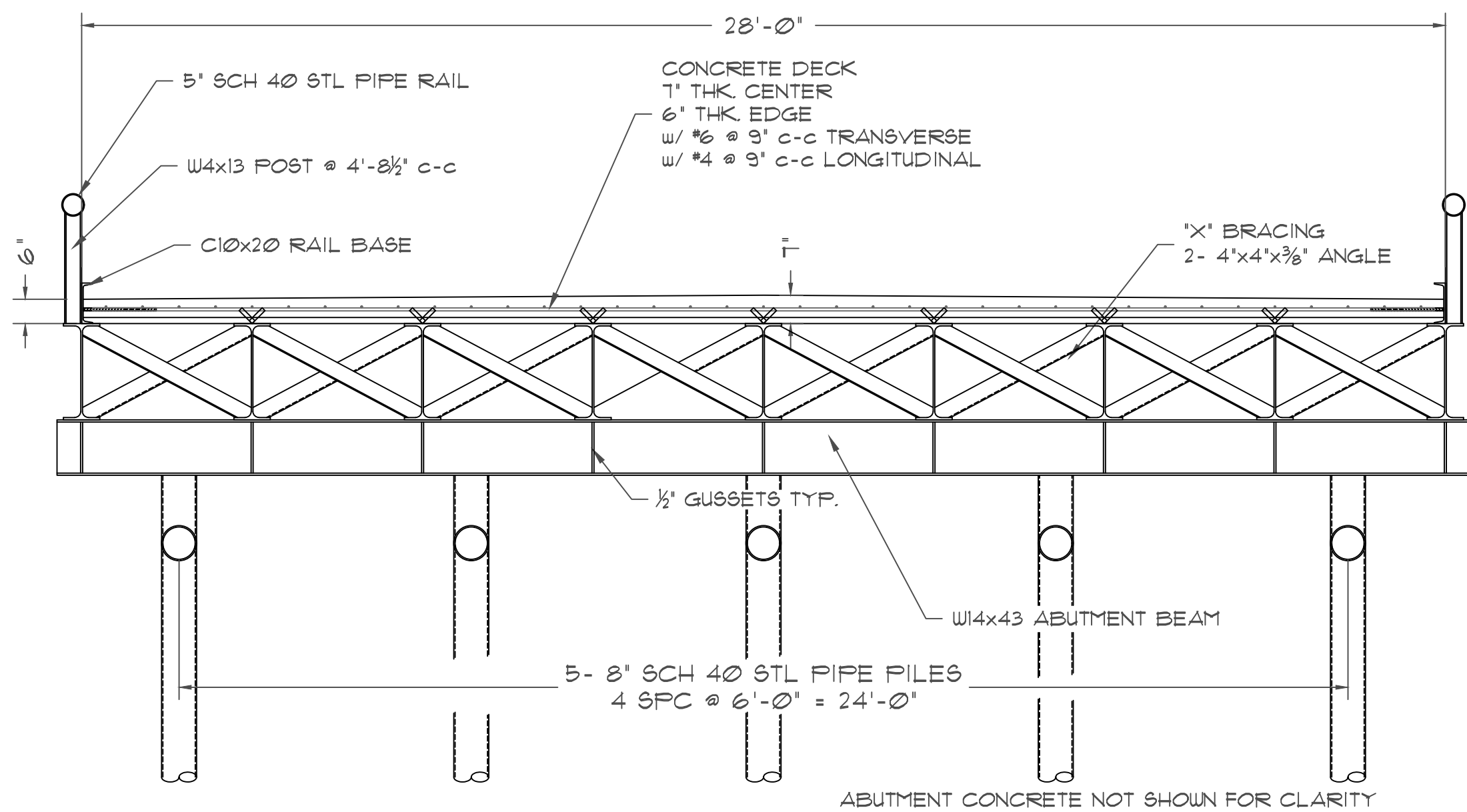
THESE PLANS WERE PREPARED UNDER THE SUPERVISION OF
MBC MANAGEMENT
FIRM NO. F-789
7984 HWY 6, NAVASOTA, TX 77868
CONSULTING ENGINEER PAUL MALEK, P.E.
P.E. LICENSE # 82860

BRIDGE ON COUNTY ROAD 121
AT DRAW
COLORADO COUNTY, PCT 1
COMMISSIONER - DOUG WESSELS

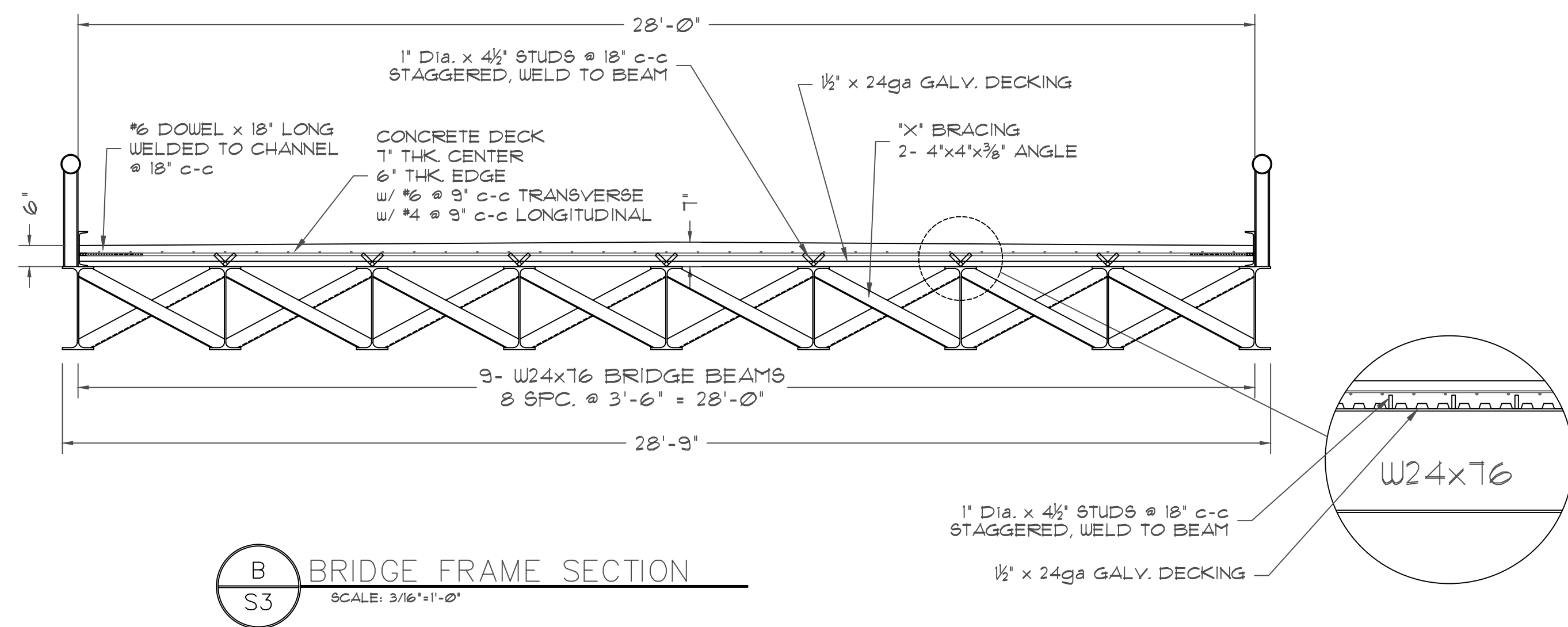
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Ph. (936) 825-1603
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BRIDGE SUPPORT DETAILS
ABUTMENTS #1 & #2

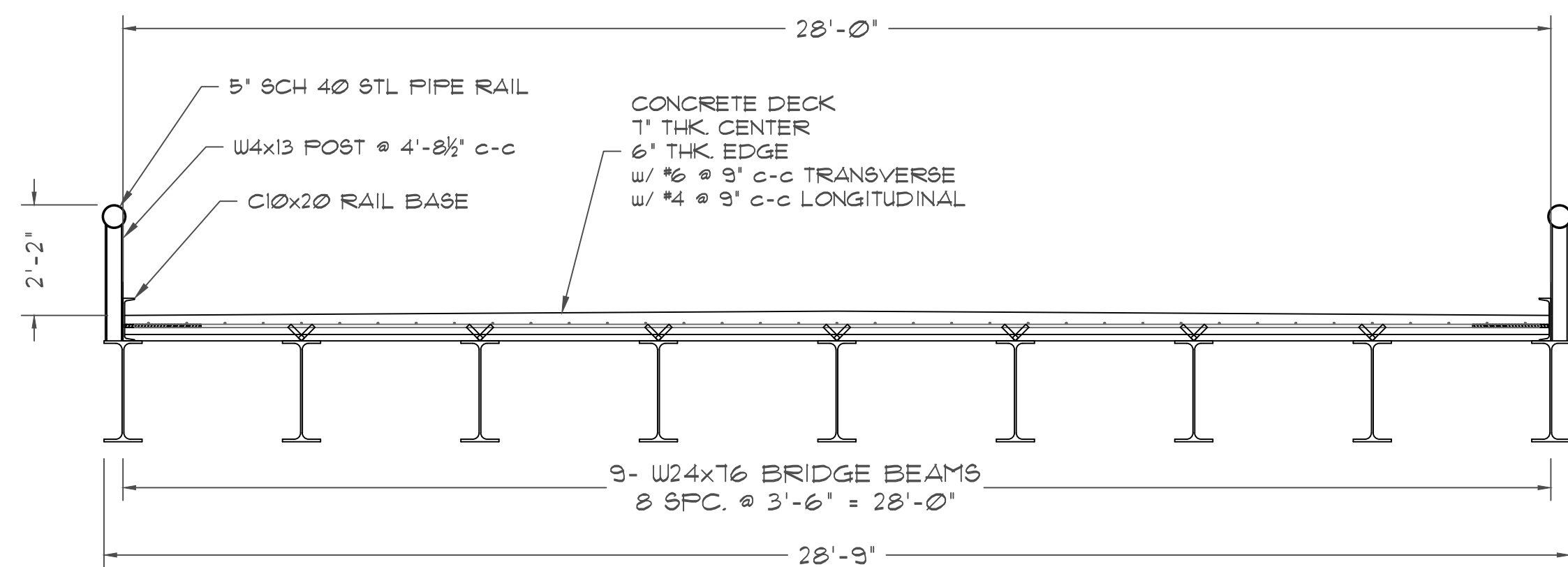
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S2



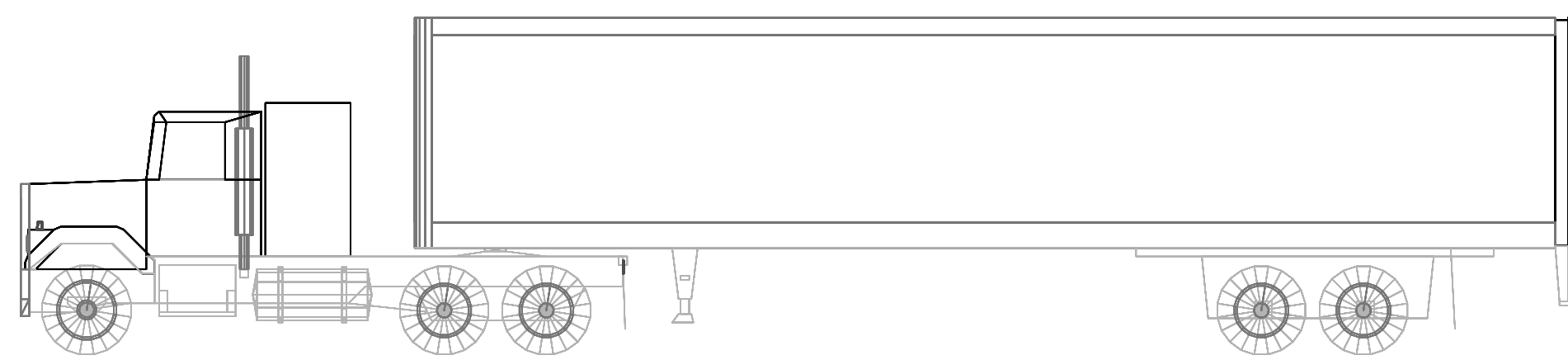
A
S3
BRIDGE FRAME SECTION
SCALE: 3/16"=1'-0"



B
S3
BRIDGE FRAME SECTION
SCALE: 3/16"=1'-0"



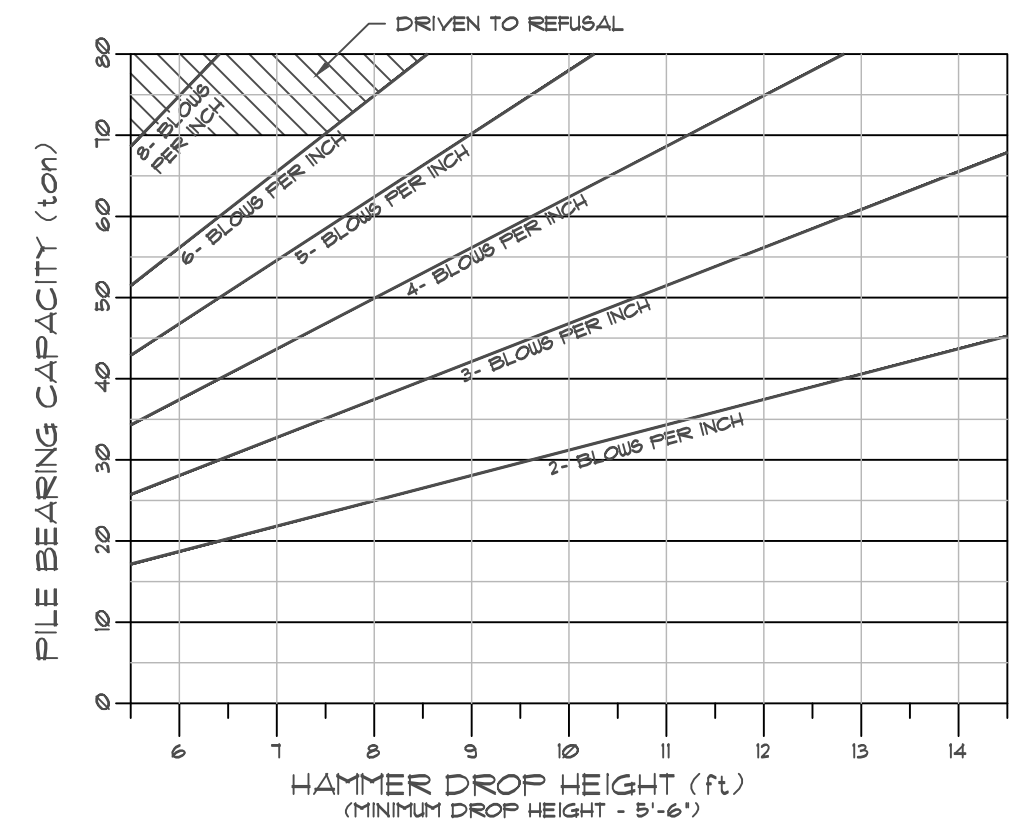
C
S3
BRIDGE FRAME SECTION
SCALE: 3/16"=1'-0"



TRUCK RATING	FRONT AXLE		REAR TANDEN		REAR TANDEN	TOTAL TRUCK & TRAILER WEIGHT
tons	kips		kips	kips	kips	lb
H-20	20		25.00	25.00	25.00	108,000

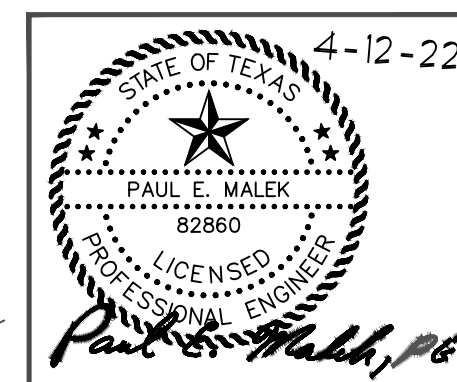
I CERTIFY THAT THE BRIDGE BUILT TO PLANS AND NOTES WILL SUPPORT THE HS-20 LOADS AS SHOWN IN THE CHART ABOVE. THE HS-20 LOAD RATING IS AN INVENTORY RATING PER AASHTO SPEC.

Paul E. Malek, P.E.



FILE BEARING CHART -
TXDOT ITEM: 404 (DRIVING PILING)
DROP HAMMER WEIGHT: 4600 lbs
MINIMUM DROP HEIGHT: 5'-6"
MAXIMUM DROP HEIGHT: 14'-6"
THE PENETRATION SHALL NOT EXCEED 1/2" PER BLOW FOR THE LAST 40 BLOWS (WITHOUT INCREASING).
DRIVEN TO REFUSAL WOULD BE MORE THAN 6" BLOWS PER INCH w/ 1.5' DROP.

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BRIDGE SECTIONS
AND DETAILS

APPROVED:
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S3

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				DATE
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