



COUNTY OF
IMPERIAL

DEPARTMENT OF
PUBLIC WORKS

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Public Works works for the Public

COUNTY OF IMPERIAL PUBLIC WORKS

Lack Road Bridge Replacement Over New River

County of Imperial Project No. 6421

ADDENDUM NO. 5

September 10, 2021

This *ADDENDUM* is hereby made part of the Contract Documents and specifications to the same extent as if originally included therein, and shall be signed by the Bidder and included with the proposal.

- 1. THE PROJECT PLANS HAVE BEEN REPLACED.** Bidders are directed to use the new set of plans dated 9/9/2021 hereby attached and entitled:

LACK ROAD BRIDGE REPLACEMENT OVER NEW RIVER, BR. NO. 58C-0224 COUNTY PROJECT NO. 6421

The new set of plans is also available at Imperial County Public Works Department's website under "Projects Out to Bid" at:

<https://publicworks.imperialcounty.org/projects-out-to-bid/>

It is recommended that original set of plans be destroyed to avoid any confusion.

- 2. REPLACE the Bid Item List (Pages 2 and 3 of Notice to Bidders) with the revised Bid Item List hereby attached.**
- 3. REPLACE DIVISION XIV – DOCUMENTS TO BE EXECUTED BY BIDDER with attached pages.**
- 4. REPLACE “STANDARD PLANS LIST” OF THE PROJECT SPECIFICATIONS with the attached Page 7 and 8.**
- 5. DELETE THE FOLLOWING SECTIONS FROM THE PROJECT SPECIFICATIONS:**
 - Section 6-1.06
 - Section 49-3.02B(6)(c)
 - Section 49-3.02C(5)
 - Section 75-3.04

6. REPLACE SECTION 1-1.01 on Page 10 with the Following SPECIAL PROVISIONS:

Add to section 1-1.01:

The work embraced herein shall be done in accordance with the Standard Specifications dated May 2018 and the Standard Plans dated May 2018, of the Department of Transportation insofar as the same may apply, the project plans and these special provisions. The special provisions shall take precedence over and be used in lieu of the conflicting portions.

Amendments to the Standard Specifications set forth in these special provisions shall be considered as part of the Standard Specifications for the purposes set forth in Section 5-1.02, "Contract Components," of the Standard Specifications. Whenever either the term "Standard Specifications is amended" or the term "Standard Specifications are amended" is used in these special provisions, the indented text or table following the term shall be considered an amendment to the Standard Specifications. In case of conflict between such amendments and the Standard Specifications, the amendments shall take precedence over and be used in lieu of the conflicting portions.

Bid Items and Applicable Sections

Item code	Item description	Applicable section
490782A	FURNISH PILING (CLASS 200) (ALTERNATIVE W) (MODIFIED)	49
490783A	DRIVE PILE (CLASS 200) (ALTERNATIVE W) (MODIFIED)	49
839600A	ALTERNATIVE CRASH CUSHION	83

7. REPLACE SECTION 5-1.20A on Page 22 with the Following SPECIAL PROVISIONS:

Add to Section 5-1.20A

PERMITS, LICENSES, AGREEMENTS, AND CERTIFICATIONS WITH OTHER ENTITIES

The Contractor shall coordinate with and be responsible for obtaining permission, permits and other documentation as necessary by the Imperial Irrigation District and any other agencies that may be affected by the project in order to obtain any required authorization to access, construct, and permit to operate.

Full compensation for all coordination with and obtaining such permits and licenses shall be at contractor expense, including any agency permit fees. All items within the required permits shall be considered as included in the various items of work and no additional payment shall be made therefor.

All bidders shall submit documents to the Imperial County Public Works Department showing proof of valid and current permits issued by the Air Pollution Control District, including the authorization to construct and the permit to operate. The permits shall be submitted after the bid opening and prior to the award of the Contract. Any bidders

failing to submit said documents within 10 days after bid opening shall render their bids nonresponsive.

Full compensation for all coordination with and obtaining such permits and licenses shall be at your expense, including any agency permit fees.

8. ADD THE FOLLOWING SPECIAL PROVISIONS TO DIVISION II GENERAL CONSTRUCTION, SECTION 10 GENERAL

Replace Section 10-1.05 with:

Provide protective covers for construction and removal work as necessary to prevent debris from entering the New River. Protective covers must:

1. Be constructed before starting removal or construction activities.
2. Prevent any materials, equipment, or debris from falling into the New River.
3. Be supported using the existing structure during removal operations, and using the new girders during placement of the deck reinforcement, deck concrete, and concrete barriers.
4. Be cleaned of debris and fines before being removed.

Payment for maintenance, removal, and disposal of debris and protective cover, shall be considered as included in the lump sum item for “Bridge Removal (Portion)”, and no additional compensation will be allowed therefor.

9. REPLACE SECTION 13-3 WITH THE FOLLOWING SPECIAL PROVISIONS

PART 1 – GENERAL

1.01 DESCRIPTION OF WORK

- A. The Contractor shall furnish all labor, materials, tools, supervision, transportation, and equipment necessary to perform all Work required to comply with all applicable local, state, and federal regulations and permits associated with Erosion and Sediment Control.
- B. Work activities require the project to be in compliance with “National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, Order No. 2009-009-DWQ as amended by Order 2010-0014-DWQ, NPDES No. CAS000002.”
- C. The Stormwater Pollution Prevention Plan (SWPPP) for the site shall be implemented and amended as necessary by the Contractor. The Contractor can find a draft SWPPP as part of the Information Handout. If amendment of the SWPPP is

required, Contractor shall submit request to the Engineer and the Qualified Developer of the SWPPP.

1.02 REFERENCES

- A. Project Plans
- B. 2009-0009-DWQ Construction General Permit as amended
- C. Latest version of the California Stormwater Quality Association (CASQA) Handbook Portal: Construction (CA Construction BMP Handbook).

1.03 SUBMITTALS

A. The Contractor shall submit the following to the Construction Manager 10 days prior to commencement of the Site Work:

1. Submit 3 copies of the SWPPP updated to incorporate the means and methods of the Contractor's planned construction and allow 5 working days for the Construction Manager's review. If revisions are required, the Construction Manager will provide comments to the Contractor timely.

2. Contractor is to change and resubmit the SWPPP within 3 working days of receipt of the Construction Manager's comments. The Construction Manager's review resumes when the revised SWPPP is resubmitted.

3. Submit an electronic and 4 printed copies of the revised SWPPP. Electronic copy shall be in PDF format and include all signed signature pages, Site Maps, and components required by the California Construction General Permit. The electronic copy shall additionally be posted to SMARTS by the Contractor's DEP.

4. If the Construction Manager requests changes to the SWPPP based on RWQCB comments, amend the SWPPP within 5 working days.

B. The Contractor shall submit all inspection reports and documents as required by the CA CGP, including but not limited to:

1. Rain Event information for Qualifying Rain Events (QRE) and associated storm event monitoring data. QRE and sampling data shall be submitted to the CM within 5 days of sample collection.

2. NAL Exceedance Reports, if requested by the RWQCB, in accordance with permit requirements.

3. Inspection Reports (Routine BMP, Pre-Storm, Post-Storm, During Storm, and Quarterly Non-Storm Water). Submit to the CM on a monthly basis.

C. Annual Reports

1. The Contractor shall complete the Stormwater Annual Report, using forms on SMARTS system for the reporting period of July 1 to June 30, or the Contractor's period of work if work is performed during a subset of the annual reporting period:
2. If construction occurs from July 1 through June 30, submit to Construction Manager no later than July 15 for the prior reporting period
3. If construction ends before June 30, then submit to Construction Manager within 15 calendar days after completion of all Work on the contract
4. The Contractor shall follow this process for Stormwater Annual Report submittal:
 - a. Submit 2 hardcopies of the Stormwater Annual Report and allow 10 working days for the Construction Manager's review. The Annual Report should be generated using project-specific forms on the SMARTS system and be completed by the DEP. Hard copies to be generated after the completion check in SMARTS by printing a pdf from SMARTS for County review. If revisions are required, the Construction Manager provides comments and specifies the date that the review stopped.
 - b. Change and resubmit the Stormwater Annual Report, by updating forms in SMARTS and regenerating a printed version, within 5 working days of receipt of the Construction Manager's comments. The Construction Manager's review resumes when the revised Stormwater Annual Report is resubmitted.
 - c. When the Construction Manager accepts the Stormwater Annual Report, the LRP will certify the Annual Report in SMARTS.
 - d. The contractor shall submit an electronic and 2 printed copies of the accepted Stormwater Annual Report. Electronic copy shall be in PDF format.

PART 2 – PRODUCTS

2.01 MATERIALS

A. Materials used for Erosion and Sediment Control including, but not limited to, silt fencing, fiber rolls, sand bags, gravel bags, and hydromulch shall conform to the requirements outlined in the SWPPP.

PART 3 – EXECUTION

3.01 GENERAL

A. The Contractor is advised that work under this contract shall be subject to the requirements of the National Pollutant Discharge Elimination System (NPDES) general requirements.

The Contractor shall be responsible for:

1. Filing a Change of Information (COI) within the existing project in SMARTS. The Contractor shall prepare and pay for filing of the COI, if applicable.
 2. Update the Storm Water Pollution Prevention Plan (SWPPP) as necessary for the construction of this project. Construction related activities, including but not limited to the elements of the SWPPP, shall be performed to eliminate both storm water and nonstorm discharges to storm water control system, by Contractor and subcontractor(s). The Construction Manager will notify Contractor of any non-compliance with the foregoing stipulations and appropriate actions shall be taken promptly. Contractor shall also notify the Construction Manager of any condition which could lead to noncompliance with the permit requirements.
- B. Contractor shall not be entitled to any time extensions or compensation for any cost due to any action required as a result of Contractor's failure to comply with those provisions of the SWPPP within Contractor's control. Contractor will be responsible for ensuring that Contractor's subcontractor(s) comply with the provisions of this Section. Contractor shall be liable for any action or fine imposed by the regulatory agencies on those incidents of noncompliance which are within Contractor's area of responsibility.
- C. The Contractor shall exercise every reasonable precaution to protect canals, channels, storm drains and bodies of water from pollution, including siltation arising from Contractor's operations, or erosion siltation from completed areas. Pollution control work shall consist of implementing practices or constructing facilities in accordance with local, state, or federal regulations which may be required to provide for retention and control of pollutants. The Contractor shall control site water in accordance with applicable permits.
- D. The Contractor shall:
1. Control and manage storm water runoff;
 2. Control discharges from dewatering activities;
 3. Direct use of water for dust control;
 4. Control water levels in all storm water sedimentation ponds on the site; and
 5. Remove ponded water on-site within 72 hours.
- E. At the completion of each work day, the Contractor shall take all necessary preventive measures to avoid or minimize damage resulting in erosion or impounding caused by storm water runoff within the construction area. Erosion control measures shall consist of constructing sandbag berms, desilting basins, drains, temporary storm water pumping facilities, and other such measures required to provide for the prevention, control and

abatement of storm water discharges and damage resulting therefrom. The cost for any repairs due to such damage shall be the sole responsibility of the Contractor. Adequate runoff water control shall be maintained at all times in waste excavation areas so that water is prevented from flowing from areas where waste is exposed to uncontaminated areas.

F. The Contractor shall install temporary drainage piping to control overland flow, route natural drainage under temporary roadways, and intercept groundwater flows, if necessary. The Contractor shall select the size and type of piping to be used, and shall be responsible for the performance of the temporary piping. The Contractor shall adequately compact materials around the drainage piping to ensure protection of the piping and adequacy of fill over the piping. The Contractor shall perform regular maintenance of any temporary piping as necessary to prevent plugging or reduced capacity.

G. Water coming into contact with waste shall be handled and disposed of as contaminated.

H. It is anticipated that nuisance water, such as rainfall or surface runoff, may be encountered within the construction site during the period of construction under this contract. The Contractor, by submitting his bid, will be held to have investigated the risks arising from such waters and to have made his bid in accordance therewith.

I. The Contractor shall at all times protect the work from damage by such waters and shall take all due measures to prevent delays in progress of the work caused by such waters. The cost for any repairs due to such damage shall be the responsibility of the Contractor. The Contractor shall dispose of nuisance water at his own expense and without adverse effects upon the work site or any other property.

PART 4 – MEASUREMENT AND PAYMENT

4.01 GENERAL

Full compensation for preparation of a Storm Water Pollution Prevention Plan shall be considered as included in the contract price paid per lump sum for “Water Pollution Control” and no separate or additional payment shall be considered therefor.

10. ADD THE FOLLOWING SPECIAL PROVISIONS TO DIVISION VI STRUCTURES, SECTION 49 PILING

Add to Section 49-1.01D(4):

The Department performs dynamic monitoring of the first production pile driven for each control zone at the support location shown in the following table:

Bridge no.	Control zone	Dynamic monitoring support location
<u>58C-0224</u>	<u>Nearest pile to bridge centerline</u>	<u>One at each abutment</u>

Add to Section 49-1.03:

Expect difficult pile installation due to the conditions shown in the following table:

Pile location		Conditions
Bridge no.	Support location	
<u>58C-0224</u>	<u>Abutments 1 and 2</u>	<u>Dense to very dense sand materials</u>

Add to Section 49-2.01A(3)(b):

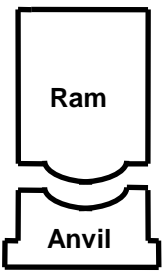
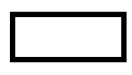
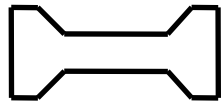
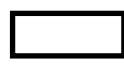
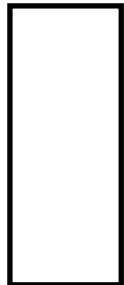
Before installing driven piles, submit a driving system submittal for each pile type for each of the support locations or control zones shown in the following table:

Bridge no.	Pile type	Support location or control zone
<u>58C-0224</u>	<u>Class 200 (Alternative W) (Modified)</u>	<u>Abutments 1 and 2</u>

CALIFORNIA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION LABORATORY

PILE AND DRIVING DATA FORM

Structure Name : _____ Contract No.: _____
 _____ Project: _____
 Structure No.: _____ Pile Driving Contractor or
 Dist./Co./Rte./Post Mi: _____ Subcontractor _____ (Pile Driven By)

 <p style="text-align: center;">Ram Anvil</p>	Hammer	Manufacturer: _____ Model: _____ Type: _____ Serial No.: _____ Min Rated Energy: _____ at _____ Length of Stroke _____ Fuel Setting Max Rated Energy: _____ at _____ Length of Stroke _____ Fuel Setting Ram Weight: _____ kips Modifications: _____ _____ _____						
	Capblock (Hammer Cushion)	Material: _____ Thickness: _____ in Area: _____ in ² Modulus of Elasticity - E: _____ ksi Coefficient of Restitution - e: _____						
	Pile Cap	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding: 2px;">Helmet</td> <td rowspan="4" style="padding: 0 10px; vertical-align: middle;">Weight: _____</td> <td rowspan="4" style="padding: 0 10px; vertical-align: middle;">kips</td> </tr> <tr> <td style="padding: 2px;">Bonnet</td> </tr> <tr> <td style="padding: 2px;">Anvil Block</td> </tr> <tr> <td style="padding: 2px;">Drivehead</td> </tr> </table>	Helmet	Weight: _____	kips	Bonnet	Anvil Block	Drivehead
Helmet	Weight: _____	kips						
Bonnet								
Anvil Block								
Drivehead								
	Pile Cushion	Material: _____ Thickness: _____ in Area: _____ in ² Modulus of Elasticity - E: _____ ksi Coefficient of Restitution - e: _____						
	Pile	Pile Type: _____ Length (In Leads): _____ ft Lb/ft.: _____ Taper: _____ Wall Thickness: _____ in Cross Sectional Area: _____ in ² Design Pile Capacity: _____ kips Description of Splice: _____ Tip Treatment Description: _____ _____ _____						

DISTRIBUTE:

Translab,
Foundation Testing

Translab,
Geotechnical Design

Resident Engineer

Note: If mandrel or follower is used to drive the pile, attach separate manufacturer's detail sheet(s) including weight and dimensions.

Submitted By: _____

Date: _____ Phone No.: _____

Replace Section 49-2.01C(3) with:

Do not use drilling to attain the specified tip elevation shown for driven piles.

Add to Section 49-2.01C(5):

If piles at Abutments 1 and 2 do not attain the nominal driving resistance at the specified tip elevation shown, the Engineer will select 2 piles or 10 percent of piles in the footing, whichever is greater, to stand 1 foot above specified cut-off elevation for a set period without driving. The set period must be at least 72 hours.

After the set period has elapsed, redrive the selected piles in the footing. Driving hammer must be warmed up before restrike begins by applying at least 20 blow counts to (1) another pile or (2) timber mats placed on the ground. Redriving consists of operating the driving hammer at full rated energy on the pile and calculating the nominal driving resistance of the pile.

If the nominal driving resistance is attained for each pile designated to be redriven, the remaining piles in that footing are considered satisfactory and further driving is not required. If redriving the designated piles demonstrates that the nominal driving resistance has not been attained, redrive all piles in the footing until the nominal driving resistance is attained.

Replace Section 49-2.01D with:

Full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in furnishing piling of the class, type, size, or alternative shown in the Bid Item List shall be considered as included in the contract price paid per linear foot for "Furnish Piling (Class 200) (Alternative W) (Modified)" and no separate or additional payment shall be considered therefor.

The payment quantity for furnish piling is the length measured along the longest side of the pile from the specified tip elevation shown to the plane of pile cutoff.

Full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in driving piles of the class, type, size, or alternative shown in the Bid Item List shall be considered as included in the contract price paid per each "Drive Pile (Class 200) (Alternative W) (Modified)" and no separate or additional payment shall be considered therefor.

If you are ordered to place additional lugs on steel piles, the Department does not pay for the additional work involved in driving piles due to these additional lugs.

11. ADD THE FOLLOWING SPECIAL PROVISIONS TO SECTION 52 REINFORCEMENT

Add to Section 52-2.01A(3):

52-2.01A(3)(c) Certificates

Submit a certificate of compliance for each shipment of dual-coated bar reinforcing steel. Include the following with the submittal:

1. Certification that the reinforcement complies with ASTM A1055
2. All certifications specified in ASTM A1055

Add to Section 52-2.01B:

You may use dual-coated bar reinforcing steel complying with ASTM A1055 as an alternative to epoxy-coated reinforcement or epoxy-coated prefabricated reinforcement. Bar reinforcing steel to be dual-coated must be deformed, Grade 60 bars complying with ASTM A706.

Dual-coated bar reinforcement must be the same bar size and must be placed at the same spacing as described for epoxy-coated reinforcement and epoxy-coated prefabricated reinforcement.

Add to Section 52-2.01C:

Do not bend bar reinforcing steel complying with ASTM A1055 after coating application if used as an alternative to epoxy coated prefabricated reinforcement.

Job site and PC plant practices for substituted bar reinforcement must comply with appendix X1 of ASTM A1055, except replace "should" with "must."

Replace the 2nd paragraph of Section 52-2.02A(1) with:

Epoxy coat reinforcement in the abutment footings as shown.

Replace Section 52-2.02D with:

Full compensation for furnishing all labor, materials, tools, equipment and incidentals, and for doing all the work involved in installing epoxy-coated bar reinforcing steel shall be considered as included in the contract price paid per pound of "Bar Reinforcing Steel (Epoxy-Coated) (Bridge)" and no separate or additional payment shall be considered therefor.

12. REPLACE SECTION 90-1.02H WITH THE FOLLOWING SPECIAL PROVISIONS

Add to section 90-1.02H:

Concrete at Abutment diaphragms and Abutment footings is in a corrosive environment.

For concrete at Abutment diaphragms and Abutment footings, the ratio of the quantity of free water to the quantity of cementitious material must not exceed 0.40.

13. Question: “The Foundation Report mentioned Epoxy Coated rebar due to the corrosive soils. Will this be required?”

Response: Type V cement shall be used for all substructure elements (i.e. piles, abutment footings, abutment diaphragms, and abutment backwalls). Epoxy-coated reinforcement shall be used for abutment footings.

See revised project specifications and plans included as part of this Addendum.

14. Question: “Section 5-1.20A make a very broad statement regarding permits with numerous entities and all others. It also states that the contractor is required to pay all fees. It is very difficult to ascertain the permits and fees for all other agencies that may be required for this bridge. Does the County have any idea regarding the number of permits required and the potential fees? If not, can an allowance be established so the contractors are not at risk on this vague item?”

Response: For this project the Contractor shall coordinate with and be responsible for obtaining permits and other documentation as necessary by the Imperial Irrigation District and other agencies. Other agencies that may be affected by the project including but not limited to California Department of Fish and Wildlife, USACE, RWQCB, and ICAPCD.

See revisions to the specifications in Item No. 7 of this Addendum.

15. Question: Does the dirt stock pile along Lack Road, just south of the bridge, belong to the County? What will be done with the dirt pile?

Response: Yes, the dirt pile belongs to the County of Imperial and will be removed by the County prior to construction. Contractor shall allow access to the County of Imperial at any time to remove or relocate stock pile.

16. Question: “Can nuisance water from the CIDH installation be discharged into the New River after treatment in a settling tank?”

Response: No, discharge is not allowed in the New River. Cast-In-Drilled-Hole (CIDH) piles will no longer be used for this project. See revised project specifications and plans included as part of this Addendum.

17. Question: “Will the County be completing the testing per Section 49-3.02A(4)(d)(ii), Gamma Gamma Logging?”

Response: Section 49-3.02A(4)(d)(ii) is no longer applicable to this project. CIDH piles will no longer be used for this project. See revised project specifications and plans included as part of this Addendum.

18. Question: “Can you please clarify what exactly Bid Item 23(F) 750501 Miscellaneous Metal (Bridge) 2,134 lb paying for?”

Response: Miscellaneous Metal (Bridge) has been removed from Bid Item List. See revised bid item list hereby attached.

19. Question: “MM-HAZ-1 – Prior to construction a soils investigation shall be conducted to determine the presence of contaminated soils on the project site. The Foundation Report by NV5 did not include an assessment of contaminants in the soil or groundwater. Will the contractor be required to perform a soils investigation to determine the presence of contaminated soils? Will the cost to comply with MM-HAZ-1 be paid for as extra work under bid item 32?”

Response: No, contractor will not be required to perform a soils investigation to determine the presence of contaminated soils or groundwater. Alta Environmental DBA NV5 has completed a Limited Environmental Soil Sampling Analysis at the project site. The Report of Limited Environmental Soil Sampling has been included in the Information Handout and is available at the same location as the Bid Documents.

20. Question: “MM-HAZ-4 – Calls for sampling & analysis of known or suspected hazardous materials. Will the cost to comply with MM-HAZ-4 be paid for as extra work under bid item 32?”

Response: Alta Environmental DBA NV5 has completed a Limited Environmental Soil Sampling Analysis at the project site. If during site construction activities, evidence of possible contamination such as odors or discoloration are observed, impacted soils should be segregated and sampled prior to reuse or disposal. Sampling and removal of contaminated soils will be considered as change order work. The Report of Limited Environmental Soil Sampling has been included in the Information Handout and is available at the same location as the Bid Documents.



John A. Gay, P.E.
Director of Public Works

Acknowledgement of Addendum No. 5

The general contractor is responsible for advising any and all subcontractors of this change. Each bidder must acknowledge receipt of this addendum in the noted space below and where indicated on the Bidder's Proposal Section of the Special Provisions. This Addendum must be attached to the proposal.

License No: _____

Print or Type Company Name: _____

Print or Type Authorized Name: _____

Authorized Signature of Contractor: _____

Date Signed: _____

Lack Road Bridge Replacement Over New River

County of Imperial Project No. 6421

ATTACHMENTS FOR ADDENDUM NO. 5

BID ITEM LIST

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity
1	999990	MOBILIZATION	LS	1
2	130100	JOB SITE MANAGEMENT	LS	1
3	130300	PREPARE STORM WATER POLLUTION PREVENTION PLAN	LS	1
4	141001	HEALTH AND SAFETY PLAN	LS	1
5	141120	TREATED WOOD WASTE	LB	8,020
6	170103	CLEARING AND GRUBBING (LS)	LS	1
7	190101	ROADWAY EXCAVATION	CY	900
8(F)	192003	STRUCTURE EXCAVATION (BRIDGE)	CY	716
9(F)	193003	STRUCTURE BACKFILL (BRIDGE)	CY	251
10	260203	CLASS 2 AGGREGATE BASE (CY)	CY	1,080
11	390132	HOT MIX ASPHALT (TYPE A)	TON	530
12	397005	TACK COAT	TON	0.9
13	398200	COLD PLANE ASPHALT CONCRETE PAVEMENT	SQYD	170
14 (F)	490782A	FURNISH PILING (CLASS 200) (ALTERNATIVE W) (MODIFIED)	LF	3,878
15 (F)	490783A	DRIVE PILE (CLASS 200) (ALTERNATIVE W) (MODIFIED)	EA	44
16(F)	510051	STRUCTURAL CONCRETE, BRIDGE FOOTING	CY	102
17(F)	510053	STRUCTURAL CONCRETE, BRIDGE	CY	122
18(F)	510054	STRUCTURAL CONCRETE, BRIDGE (POLYMER FIBER)	CY	120
19	512281	FURNISH PRECAST PRESTRESSED CONCRETE GIRDER (120'-130')	EA	4
20	512500	ERECT PRECAST PRESTRESSED CONCRETE GIRDER	EA	4
21	519088	JOINT SEAL (MR 1")	LF	76
22(F)	520102	BAR REINFORCING STEEL (BRIDGE)	LB	62,658
23(F)	520106	BAR REINFORCING STEEL (EPOXY-COATED) (BRIDGE)	LB	4,071
24	600114	BRIDGE REMOVAL (PORTION)	LS	1
25	820220	REMOVE MARKER	EA	4
26	839543	TRANSITION RAILING (TYPE WB-31)	EA	3
27	839584	ALTERNATIVE IN-LINE TERMINAL SYSTEM	EA	3
28	839600A	ALTERNATIVE CRASH CUSHION	EA	1

Item No.	Item Code	Item Description	Unit of Measure	Estimated Quantity
29	839741	CONCRETE BARRIER (TYPE 836)	LF	298
30	840656	PAINT TRAFFIC STRIPE (2-COAT)	LF	2,130
31	070030	LEAD COMPLIANCE PLAN	LS	1
32		LAND SURVEYING	LS	1
33		TIME AND MATERIAL ALLOCATION	LS	1

Plans, specifications, and proposal forms (bid documents) for bidding this project can be obtained at the office of the Imperial County Department of Public Works; 155 South 11th Street, El Centro, CA 92243. A \$100.00 fee is required (no refund will be made). Mail service is available at an additional cost of \$15.00 per set of documents. Make checks payable to the County of Imperial Department of Public Works.

Alternately, the bid documents can be found on Imperial County Public Works website under “Projects Out to Bid” at www.co.imperial.ca.us/PublicWorks/Index.htm.

Only those firms who have purchased the bid documents and the required trade journals will be directly provided any addendums that may be issued for this project prior to the bid opening date. Every attempt will be made to post addendums on the above mentioned Imperial County Public Works website as well.

This contract is subject to state contract nondiscrimination and compliance requirements pursuant to Government Code, Section 12990.

Inquiries or questions based on alleged patent ambiguity of the plans, specifications, or estimate must be communicated as a bidder inquiry prior to bid opening. Any such inquiries or questions, submitted after bid opening, will not be treated as a bid protest.

Bid security shall accompany the bid in the form of a certified or cashier's check, or a Bid Bond for ten (10) percent of the maximum bid amount being proposed.

The successful bidder shall furnish a payment bond and a performance bond, both equal to 100% of the contract amount. The submission of a labor and materials bond (payment bond) is required on projects in excess of \$25,000.00.

Bidders are advised that, they may substitute securities in place retained funds withheld by County. Cal. Pub. Cont. Code Section 22300. Alternatively, an escrow agreement, in the form prescribed by the code, may be used by the bidder.

The County of Imperial hereby affirms and notifies all bidders that it will affirmatively insure that in any contract entered into pursuant to this advertisement, disadvantaged business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, sex, color, or national origin in consideration for an award.

Federal, State and local regulations and reporting requirements applicable to the proposed work must be complied with for this project.

STANDARD PLANS LIST

The standard plan sheets applicable to this Contract include those listed below. The applicable revised standard plans (RSPs) listed below are included in the project plans.

ABBREVIATIONS, LINES, SYMBOLS, AND LEGEND

A3A	Abbreviations (Sheet 1 of 3)
A3B	Abbreviations (Sheet 2 of 3)
A3C	Abbreviations (Sheet 3 of 3)
A10A	Legend - Lines and Symbols (Sheet 1 of 5)
A10B	Legend - Lines and Symbols (Sheet 2 of 5)
A10C	Legend - Lines and Symbols (Sheet 3 of 5)
A10D	Legend - Lines and Symbols (Sheet 4 of 5)
A10E	Legend - Lines and Symbols (Sheet 5 of 5)

PAVEMENT MARKERS, TRAFFIC LINES, AND PAVEMENT MARKINGS

A20A	Pavement Markers and Traffic Lines - Typical Details
RSP A20B	Pavement Markers and Traffic Lines - Typical Details

EXCAVATION AND BACKFILL

A62A	Excavation and Backfill - Miscellaneous Details
A62C	Limits of Payment for Excavation and Backfill - Bridge

MIDWEST GUARDRAIL SYSTEM - STANDARD RAILING SECTIONS

RSP A77L1	Midwest Guardrail System - Standard Railing Section (Wood Post with Wood Block)
RSP A77L2	Midwest Guardrail System - Standard Railing Section (Steel Post with Notched Wood or Notched Recycled Plastic Block)
RSP A77M1	Midwest Guardrail System - Standard Hardware
RSP A77N1	Midwest Guardrail System - Wood Post and Wood Block Details
A77N2	Midwest Guardrail System - Steel Post and Notched Wood Block Details
RSP A77N3	Midwest Guardrail System - Typical Line Post Embedment and Hinge Point Offset Details

MIDWEST GUARDRAIL SYSTEM - TYPICAL LAYOUTS FOR STRUCTURES

RSP A77Q1	Midwest Guardrail System - Typical Layouts for Structure Approach
RSP A77Q4	Midwest Guardrail System - Typical Layouts for Structure Departure

MIDWEST GUARDRAIL SYSTEM - CONNECTION DETAILS AND TRANSITION RAILING TO BRIDGE RAILINGS, ABUTMENTS AND WALLS

A77U1	Midwest Guardrail System - Connections to Bridge Railings without Sidewalks Details No. 1
A77U2	Midwest Guardrail System - Connections to Bridge Railings without Sidewalks Details No. 2
RSP A77U4	Midwest Guardrail System - Transition Railing (Type WB-31)

BRIDGE DETAILS

RSP B0-1	Bridge Details
B0-3	Bridge Details
B0-5	Bridge Details
B0-13	Bridge Details

PILES

RSP B2-8	Piles Details – Class 200
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JOINT SEALS

B6-21 Joint Seals (Maximum Movement Rating = 2")

ADDITIONAL BRIDGE CONCRETE BARRIERS

RSP B11-79 Concrete Barrier Type 836 Details No. 1

RSP B11-80 Concrete Barrier Type 836 Details No. 2

DIVISION XIV
DOCUMENTS TO BE EXECUTED BY BIDDER

(Because some colored inks will not reproduce in copy machines, please use black ink to complete this proposal.)
(DO NOT DETACH)

PROPOSAL TO THE COUNTY OF IMPERIAL

DEPARTMENT OF PUBLIC WORKS
County Project No. 6421

NAME OF BIDDER _____

BUSINESS P.O. BOX _____

CITY, STATE, ZIP _____

BUSINESS STREET ADDRESS _____

(Please include even if P.O. Box used)

CITY, STATE, ZIP _____

TELEPHONE NO: AREA CODE () _____

FAX NO: AREA CODE () _____

CONTRACTOR LICENSE NO. _____

EMAIL ADDRESS _____

The work for which this proposal is submitted is for construction in conformance with the special provisions (including the payment of not less than the State general prevailing wage rates or Federal minimum wage rates), the project plans described below, including any addenda thereto, the contract annexed hereto, and also in conformance with the 2018 California Department of Transportation Standard Plans, Standard Specifications, and the Labor Surcharge and Equipment Rental Rates in effect on the date the work is accomplished.

The special provisions for the work to be done are dated May 18th, 2021 and are entitled:

**COUNTY OF IMPERIAL
DEPARTMENT OF PUBLIC WORKS**

**NOTICE TO BIDDERS
SPECIAL PROVISIONS
PROPOSAL AND BID BOOK
FOR**

**LACK ROAD BRIDGE REPLACEMENT OVER NEW RIVER
County of Imperial Project No. 6421**

The project plans for the work to be done were adopted on May 18th, 2021. The project plans have been revised and replaced per Addendum No. 5 and are entitled:

**LACK ROAD BRIDGE REPLACEMENT OVER NEW RIVER, BR. NO. 58C-0224
COUNTY PROJECT NO. 6421**

Bids are to be submitted for the entire work. The amount of the bid for comparison purposes will be the total of all items.

The bidder shall set forth for each unit basis item of work an item price and a total for the item, and for each lump sum item a total for the item, all in clearly legible figures in the respective spaces provided for this purpose. In the case of unit basis items the amount set forth under the "Total" column shall be the extension of the item price bid on the basis of the estimated quantity for the item.

In case of discrepancy between the unit price and the total set forth for a unit basis item, the item price shall prevail, provided in (a) or (b), as follows:

- (a) If the amount set forth as a unit price is unreadable or otherwise unclear, or is omitted, or is the same as the amount of the entry in the item total column, then the amount set forth in the item total column for the item shall prevail and shall be divided by the estimated quantity for the item and the price thus obtained shall be the unit price;
- (b) (Decimal Errors) If the product of the entered unit price and the estimated quantity is exactly off by a factor of ten, one hundred, etc., or one-tenth, or one-hundredth, etc. from the entered total, the discrepancy will be resolved by using the entered unit price or item total, whichever most closely approximates percentage-wise the unit price or item total in the County of Imperial's Final Estimate of cost.

If both the unit price and the item total are unreadable or otherwise unclear, or are omitted, the bid may be deemed irregular. Likewise if the item total for a lump sum item is unreadable or otherwise unclear, or is omitted, the bid may be deemed irregular unless the project being bid has only a single item and a clear, readable total bid is provided.

Symbols such as commas and dollar signs will be ignored and have no mathematical significance in establishing any unit price or item total or lump sums. Written unit prices, item totals and lump sums will be interpreted according to the number of digits and, if applicable, decimal placement. Cents symbols also have no significance in establishing any unit price or item total since all figures are assumed to be expressed in dollars and/or decimal fractions of a dollar. Bids on lump sum items shall be item totals only; if any unit price for a lump sum item is included in a bid and it differs from the item total, the items total shall prevail.

The foregoing provisions for the resolution of specific irregularities cannot be so comprehensive as to cover every omission, inconsistency, error or other irregularity which may occur in a bid. Any situation not specifically provided for will be determined in the discretion of the County of Imperial, and that discretion will be exercised in the manner deemed by the County of Imperial to best protect the public interest in the prompt and economical completion of the work. The decision of the County of Imperial respecting the amount of a bid, or the existence or treatment of an irregularity in a bid, shall be final.

If this proposal shall be accepted and the undersigned shall fail to enter into the contract and furnish the 2 bonds in the sums required by the State Contract Act, with surety satisfactory to the *County of Imperial*, within 8 days, not

including Saturdays, Sundays and legal holidays, after the bidder has received notice from the *County of Imperial* that the contract has been awarded, the *County of Imperial* may, at its option, determine that the bidder has abandoned the contract, and thereupon this proposal and the acceptance thereof shall be null and void and the forfeiture of the security accompanying this proposal shall operate and the same shall be the property of the *County of Imperial*.

The undersigned, as bidder, declares that the only persons or parties interested in this proposal as principals are those named herein; that this proposal is made without collusion with any other person, firm, or corporation; that he has carefully examined the location of the proposed work, the annexed proposed form of contract, and the plans therein referred to; and he proposes, and agrees if this proposal is accepted, that he will contract with the *County of Imperial*, in the form of the copy of the contract annexed hereto, to provide all necessary machinery, tools, apparatus and other means of construction, and to do all the work and furnish all the materials specified in the contract, in the manner and time therein prescribed, and according to the requirements of the Engineer as therein set forth, and that he will take in full payment therefore the following prices, to wit:

BID ITEM LIST

Item No.	Item Code	ITEM DESCRIPTION	Unit of Measure	Estimated Quantity	ITEM PRICE	TOTAL
1	999990	MOBILIZATION	LS	1		
2	130100	JOB SITE MANAGEMENT	LS	1		
3	130300	PREPARE STORM WATER POLLUTION PREVENTION PLAN	LS	1		
4	141001	HEALTH AND SAFETY PLAN	LS	1		
5	141120	TREATED WOOD WASTE	LB	8,020		
6	170103	CLEARING AND GRUBBING (LS)	LS	1		
7	190101	ROADWAY EXCAVATION	CY	900		
8(F)	192003	STRUCTURE EXCAVATION (BRIDGE)	CY	716		
9(F)	193003	STRUCTURE BACKFILL (BRIDGE)	CY	251		
10	260203	CLASS 2 AGGREGATE BASE (CY)	CY	1,080		
11	390132	HOT MIX ASPHALT (TYPE A)	TON	530		
12	397005	TACK COAT	TON	0.9		
13	398200	COLD PLANE ASPHALT CONCRETE PAVEMENT	SQYD	170		
14 (F)	490782 A	FURNISH PILING (CLASS 200) (ALTERNATIVE W) (MODIFIED)	LF	3,878		
15 (F)	490783 A	DRIVE PILE (CLASS 200) (ALTERNATIVE W) (MODIFIED)	EA	44		
16(F)	510051	STRUCTURAL CONCRETE, BRIDGE FOOTING	CY	102		
17(F)	510053	STRUCTURAL CONCRETE, BRIDGE	CY	122		
18(F)	510054	STRUCTURAL CONCRETE, BRIDGE (POLYMER FIBER)	CY	120		
19	512281	FURNISH PRECAST PRESTRESSED CONCRETE GIRDER (120'-130')	EA	4		
20	512500	ERECT PRECAST PRESTRESSED CONCRETE GIRDER	EA	4		
21	519088	JOINT SEAL (MR 1")	LF	76		
22(F)	520102	BAR REINFORCING STEEL (BRIDGE)	LB	62,658		
23(F)	520106	BAR REINFORCING STEEL (EPOXY-COATED) (BRIDGE)	LB	4,071		
24	600114	BRIDGE REMOVAL (PORTION)	LS	1		
25	820220	REMOVE MARKER	EA	4		
26	839543	TRANSITION RAILING (TYPE WB-31)	EA	3		
27	839584	ALTERNATIVE IN-LINE TERMINAL SYSTEM	EA	3		

Item No.	Item Code	ITEM DESCRIPTION	Unit of Measure	Estimated Quantity	ITEM PRICE	TOTAL
28	839600 A	ALTERNATIVE CRASH CUSHION	EA	1		
29	839741	CONCRETE BARRIER (TYPE 836)	LF	298		
30	840656	PAINT TRAFFIC STRIPE (2-COAT)	LF	2,130		
31	070030	LEAD COMPLIANCE PLAN	LS	1		
32		LAND SURVEYING	LS	1		
33		TIME AND MATERIAL ALLOCATION	LS	1	\$100,000	\$100,000

Total _____

Accompanying this proposal is _____

(NOTICE: INSERT THE WORDS "CASH(\$ _____)," "CASHIER'S CHECK,"
"CERTIFIED CHECK," OR "BIDDER'S BOND," AS THE CASE MAY BE.)

in amount equal to at least ten percent of the total of the bid.

The names of all persons interested in the foregoing proposal as principals are as follows:

IMPORTANT NOTICE: *If bidder or other interested person is a corporation, state legal name of corporation, also names of the president, secretary, treasurer, and manager thereof; if a copartnership, state true name of firm, also names of all individual copartners composing firm; if bidder or other interested person is an individual, state first and last names in full.*

Licensed in conformance with an act providing for the registration of Contractors,

License No. _____ Classification(s) _____

ADDENDA

This Proposal is submitted with respect to the changes to the contract included in addenda number/s

*(Fill in addenda numbers if addenda have been received and insert, in this Proposal, any
Engineer's Estimate sheets that were received as part of the addenda.)*

By my signature on this proposal I certify, under penalty of perjury under the laws of the State of California, that the foregoing questionnaire and statements of Public Contract Code Sections 10162, 10232 and 10285.1 are true and correct and that the bidder has complied with the requirements of Section 8103 of the Fair Employment and Housing Commission Regulations (Chapter 5, Title 2 of the California Administrative Code). By my signature on this proposal I further certify, under penalty of perjury under the laws of the State of California and the United States of America, that the Noncollusion Affidavit required by Title 23 United States Code, Section 112 and Public Contract Code Section 7106; and the Title 49 Code of Federal Regulations, Part 29 Debarment and Suspension Certification are true and correct.

Date: _____



Signature and Title of Bidder

Business Address _____

Place of Business _____

Place of Residence _____

**COUNTY OF IMPERIAL
DEPARTMENT OF PUBLIC WORKS
BIDDER'S BOND**

KNOW ALL MEN BY THESE PRESENTS,

We _____, as Principal,

and _____

as SURETY are bound unto the County of Imperial, State of California, hereafter referred to as "Obligee", in the penal sum of TEN PERCENT (10%) of THE TOTAL AMOUNT OF THE BID of the Principal submitted to the Obligee for the work described below, for the payment of which sum we bind ourselves, jointly and severally

THE CONDITION OF THIS OBLIGATION IS SUCH, THAT:

Whereas, the Principal is submitted the Oblige, For _____

(Copy here the exact description of work, including location as it appears on the proposal)

For which bids are to be opened at _____ on _____
(insert place where bids will be opened) (insert date of bid opening)

NOW, THEREFORE, If the Principal is awarded the contract and, within the time and manner required under the specifications, after the prescribed forms are presented to him for signature, enters into a written contract, in the prescribed form, in accordance with the bid, and files two bonds with the Obligee, one to guarantee faithful performance of the contract and the other to guarantee payment for labor and materials, as required by law, then this obligation shall be null and void; otherwise, it shall be and remain in full force.

In the event suit is brought upon this bond by the Obligee and judgment is recovered, the Surety shall pay all costs incurred by the Obligee in such suit, including a reasonable attorney's fee to be fixed by the court.

Dated: _____, 20_____.

Principal

Surety

By _____

Attorney-in-fact

CERTIFICATE OF ACKNOWLEDGEMENT

State of California
County of Imperial, SS

On this _____ Day of _____ in the year 20____ before me _____

_____, personally appeared _____, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person whose name is subscribed to this instrument as the attorney-in-fact of _____, and acknowledged to me that he (she) subscribed the name of the said company thereto as surety, and his (her) own name as attorney-in-fact.

(SEAL)

Notary Public

PUBLIC CONTRACT CODE

PUBLIC CONTRACT CODE SECTION 10285.1 STATEMENT

In conformance with Public Contract Code Section 10285.1 (Chapter 376, Stats. 1985), the bidder hereby declares under penalty of perjury under the laws of the State of California that the bidder has _____, has not _____ been convicted within the preceding three years of any offenses referred to in that section, including any charge of fraud, bribery, collusion, conspiracy, or any other act in violation of any state or Federal antitrust law in connection with the bidding upon, award of, or performance of, any public works contract, as defined in Public Contract Code Section 1101, with any public entity, as defined in Public Contract Code Section 1100, including the Regents of the University of California or the Trustees of the California State University. The term "bidder" is understood to include any partner, member, officer, director, responsible managing officer, or responsible managing employee thereof, as referred to in Section 10285.1.

Note: The bidder must place a checkmark after "has" or "has not" in one of the blank spaces provided. The above Statement is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Statement. Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

PUBLIC CONTRACT CODE SECTION 10162 QUESTIONNAIRE

In conformance with Public Contract Code Section 10162, the Bidder shall complete, under penalty of perjury, the following questionnaire:

Has the bidder, any officer of the bidder, or any employee of the bidder who has a proprietary interest in the bidder, ever been disqualified, removed, or otherwise prevented from bidding on, or completing a federal, state, or local government project because of a violation of law or a safety regulation?

Yes _____ No _____

If the answer is yes, explain the circumstances in the following space.

PUBLIC CONTRACT CODE 10232 STATEMENT

In conformance with Public Contract Code Section 10232, the Contractor, hereby states under penalty of perjury, that no more than one final unappealable finding of contempt of court by a federal court has been issued against the Contractor within the immediately preceding two-year period because of the Contractor's failure to comply with an order of a federal court which orders the Contractor to comply with an order of the National Labor Relations Board.

Note: The above Statement and Questionnaire are part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Statement and Questionnaire.
Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

**NONCOLLUSION AFFIDAVIT TO BE EXECUTED
BY BIDDER AND SUBMITTED WITH BID**

(Title 23 United States Code Section 112 and
Public Contract Code 7106)

**To the County of Imperial
Department of Public Works**

In conformance with Title 23 United States Code Section 112 and Public Contract Code 7106 the bidder declares that the bid is not made in the interest of, or on behalf of any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents therefor, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Note: The above Non-collusion Affidavit is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Non-collusion Affidavit.
Bidders are cautioned that making a false certification may subject the certifier to criminal prosecution.

The Bidder shall list the name and address, Contractor license number, and description of portion of work subcontracted of each subcontractor to whom the Bidder proposes to subcontract portions of the work, as required by the provisions of the Standard Specifications and of the special provisions.

LIST OF SUBCONTRACTORS

Business Name and Location	California Contractor License Number	Description of Portion of Work	Bid Items Numbers	Percentage of Bid Item Subcontracted

(THE BIDDER'S EXECUTION ON THE SIGNATURE PORTION OF THIS PROPOSAL SHALL ALSO CONSTITUTE AN ENDORSEMENT AND EXECUTION OF THOSE CERTIFICATIONS WHICH ARE A PART OF THIS PROPOSAL)

EQUAL EMPLOYMENT OPPORTUNITY CERTIFICATION

The bidder _____, proposed subcontractor _____, hereby certifies that he has _____, has not _____, participated in a previous contract or subcontract subject to the equal opportunity clauses, as required by Executive Orders 10925, 11114, or 11246, and that, where required, he has filed with the Joint Reporting Committee, the Director of the Office of Federal Contract Compliance, a Federal Government contracting or administering agency, or the former President's Committee on Equal Employment Opportunity, all reports due under the applicable filing requirements.

Note: The above certification is required by the Equal Employment Opportunity Regulations of the Secretary of Labor (41 CFR 60-1.7(b) (1)), and must be submitted by bidders and proposed subcontractors only in connection with contracts and subcontracts which are subject to the equal opportunity clause. Contracts and subcontracts which are exempt from the equal opportunity clause are set forth in 41 CFR 60-1.5. (Generally only contracts or subcontracts of \$10,000 or under are exempt.)

Currently, Standard Form 100 (EEO-1) is the only report required by the Executive Orders or their implementing regulations.

Proposed prime contractors and subcontractors who have participated in a previous contract or subcontract subject to the Executive Orders and have not filed the required reports should note that 41 CFR 60-1.7(b) (1) prevents the award of contracts and subcontracts unless such contractor submits a report covering the delinquent period or such other period specified by the Federal Highway Administration or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor.

Signature

DEBARMENT AND SUSPENSION CERTIFICATION

TITLE 49, CODE OF FEDERAL REGULATIONS, PART 29

The bidder, under penalty of perjury, certifies that, except as noted below, he/she or any other person associated therewith in the capacity of owner, partner, director, officer, manager:

- is not currently under suspension, debarment, voluntary exclusion, or determination of ineligibility by any Federal agency;
- has not been suspended, debarred, voluntarily excluded or determined ineligible by any Federal agency within the past 3 years;
- does not have a proposed debarment pending; and
- has not been indicted, convicted, or had a civil judgment rendered against it by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past 3 years.

If there are any exceptions to this certification, insert the exceptions in the following space.

Exceptions will not necessarily result in denial of award, but will be considered in determining bidder responsibility. For any exception noted above, indicate below to whom it applies, initiating agency, and dates of action.

Notes: Providing false information may result in criminal prosecution or administrative sanctions.
The above certification is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Certification.

DISCLOSURE OF LOBBYING ACTIVITIES
COMPLETE THIS FORM TO DISCLOSE LOBBYING ACTIVITIES PURSUANT TO 31 U.S.C. 1352

<p>1. Type of Federal Action:</p> <p><input type="checkbox"/> a. contract <input type="checkbox"/> b. grant <input type="checkbox"/> c. cooperative agreement <input type="checkbox"/> d. loan <input type="checkbox"/> e. loan guarantee <input type="checkbox"/> f. loan insurance</p>	<p>2. Status of Federal Action:</p> <p><input type="checkbox"/> a. bid/offer/application <input type="checkbox"/> b. initial award <input type="checkbox"/> c. post-award</p>	<p>3. Report Type:</p> <p><input type="checkbox"/> a. initial <input type="checkbox"/> b. material change</p> <p align="right">For Material Change Only: year _____ quarter _____ date of last report _____</p>
<p>4. Name and Address of Reporting Entity</p> <p><input type="checkbox"/> Prime <input type="checkbox"/> Subawardee Tier _____, if known</p> <p align="center">Congressional District, if known</p>	<p>5. If Reporting Entity in No. 4 is Subawardee, Enter Name and Address of Prime:</p> <p align="center">Congressional District, if known</p>	
<p>6. Federal Department/Agency:</p>	<p>7. Federal Program Name/Description:</p> <p align="right">CFDA Number, if applicable _____</p>	
<p>8. Federal Action Number, if known:</p>	<p>9. Award Amount, if known:</p>	
<p>10. a. Name and Address of Lobby Entity (If individual, last name, first name, MI)</p>	<p>b. Individuals Performing Services (including address if different from No. 10a) (last name, first name, MI)</p>	
(attach Continuation Sheet(s) if necessary)		
<p>11. Amount of Payment (check all that apply)</p> <p>\$ _____ <input type="checkbox"/> actual <input type="checkbox"/> planned</p>	<p>13. Type of Payment (check all that apply)</p> <p><input type="checkbox"/> a. retainer <input type="checkbox"/> b. one-time fee <input type="checkbox"/> c. commission <input type="checkbox"/> d. contingent fee <input type="checkbox"/> e. deferred <input type="checkbox"/> f. other, specify _____</p>	
<p>12. Form of Payment (check all that apply):</p> <p><input type="checkbox"/> a. cash <input type="checkbox"/> b. in-kind; specify: nature _____ value _____</p>		
<p>14. Brief Description of Services Performed or to be performed and Date(s) of Service, including officer(s), employee(s), or member(s) contacted, for Payment Indicated in Item 11:</p> <p align="center">(attach Continuation Sheet(s) if necessary)</p>		
<p>15. Continuation Sheet(s) attached: Yes <input type="checkbox"/> No <input type="checkbox"/></p>		
<p>16. Information requested through this form is authorized by Title 31 U.S.C. Section 1352. This disclosure of lobbying reliance was placed by the tier above when his transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to Congress semiannually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.</p>		
		<p>Signature: _____ Print Name: _____ Title: _____ Telephone No.: _____ Date: _____</p>
<p>Federal Use Only:</p>		<p>Authorized for Local Reproduction Standard Form - LLL</p>

**INSTRUCTIONS FOR COMPLETION OF SF-LLL,
DISCLOSURE OF LOBBYING ACTIVITIES**

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient, at the initiation or receipt of covered Federal action or a material change to previous filing pursuant to title 31 U.S.C. section 1352. The filing of a form is required for such payment or agreement to make payment to lobbying entity 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 a covered Federal action. Attach a continuation sheet for additional information if the space on the form is inadequate. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence, the outcome of a covered Federal action.
2. Identify the status of the covered Federal action.
3. Identify the appropriate classification of this report. If this is a follow-up report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last, previously submitted report by this reporting entity for this covered Federal action.
4. Enter the full name, address, city, state and zip code of the reporting entity. Include Congressional District if known. Check the appropriate classification of the reporting entity that designates if it is or expects to be a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the first tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.
5. If the organization filing the report in Item 4 checks "Subawardee" then enter the full name, address, city, state and zip code of the prime Federal recipient. Include Congressional District, if known.
6. Enter the name of the Federal agency making the award or loan commitment. Include at least one organization level below agency name, if known. For example, Department of Transportation, United States Coast Guard.
7. Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans and loan commitments.
8. Enter the most appropriate Federal identifying number available for the Federal action identification in item 1 (e.g., Request for Proposal (RFP) number, Invitation for Bid (IFB) number, grant announcement number, the contract grant, or loan award number, the application/proposal control number assigned by the Federal agency). Include prefixes, e.g., "RFP-DE-90-001."
9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitments for the prime entity identified in item 4 or 5.
10. (a) Enter the full name, address, city, state and zip code of the lobbying entity engaged by the reporting entity identified in item 4 to influenced the covered Federal action.
(b) Enter the full names of the individual(s) performing services and include full address if different from 10 (a). Enter Last Name, First Name and Middle Initial (MI).
11. Enter the amount of compensation paid or reasonably expected to be paid by the reporting entity (item 4) to the lobbying entity (item 10). Indicate whether the payment has been made (actual) or will be made (planned). Check all boxes that apply. If this is a material change report, enter the cumulative amount of payment made or planned to be made.
12. Check the appropriate box. Check all boxes that apply. If payment is made through an in-kind contribution, specify the nature and value of the in-kind payment.
13. Check the appropriate box. Check all boxes that apply. If other, specify nature.
14. Provide a specific and detailed description of the services that the lobbyist has performed or will be expected to perform and the date(s) of any services rendered. Include all preparatory and related activity not just time spent in actual contact with Federal officials. Identify the Federal officer(s) or employee(s) contacted or the officer(s) employee(s) or Member(s) of Congress that were contacted.
15. Check whether or not a continuation sheet(s) is attached.
16. The certifying official shall sign and date the form, print his/her name title and telephone number.

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including time for reviewing instruction, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, D.C. 20503.

SF-LLL-Instructions Rev. 06-04-90a(ENDDF)



COUNTY OF IMPERIAL

LACK ROAD BRIDGE REPLACEMENT OVER NEW RIVER, BR. NO. 58C-0224

COUNTY PROJECT NO. 6421

GENERAL NOTES

- STREET IMPROVEMENT GENERAL NOTES**
- COUNTY ENCROACHMENT PERMIT CONDITIONS AND PROVISIONS SHALL TAKE PRECEDENCE OVER THE APPROVED PLANS AND SPECIFICATIONS FOR ANY CONFLICTS.
 - THE STRUCTURAL SECTION SHALL BE IN ACCORDANCE WITH IMPERIAL COUNTY STANDARDS (OR CALTRANS IF IN STATE RW) AND AS APPROVED BY THE PUBLIC WORKS DIRECTOR (OR CALTRANS).
 - APPROVAL OF THESE IMPROVEMENT PLANS AS SHOWN DOES NOT CONSTITUTE APPROVAL OF ANY CONSTRUCTION OUTSIDE THE PROJECT BOUNDARY.
 - ALL UNDERGROUND UTILITIES WITHIN THE STREET RIGHT-OF-WAY SHALL BE CONSTRUCTED, CONNECTED AND TESTED PRIOR TO CONSTRUCTION OF BERM, CURB, CROSS GUTTER AND PAVING.
 - THE EXISTENCE AND LOCATION OF EXISTING UNDERGROUND FACILITIES SHOWN ON THESE PLANS WERE OBTAINED BY A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO OTHER EXISTING FACILITIES EXCEPT AS SHOWN ON THESE PLANS. HOWEVER, THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT ANY EXISTING FACILITY SHOWN HEREON AND ANY OTHER THAT IS NOT OF RECORD OR NOT SHOWN ON THESE PLANS.
 - LOCATION AND ELEVATIONS OF IMPROVEMENTS TO BE MET BY WORK TO BE DONE SHALL BE CONFIRMED BY FIELD MEASUREMENTS PRIOR TO CONSTRUCTION OF NEW WORK. CONTRACTOR WILL MAKE EXPLORATORY EXCAVATIONS AND LOCATE EXISTING UNDERGROUND FACILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION TO PERMIT REVISIONS TO PLANS IF REVISIONS ARE NECESSARY BECAUSE OF ACTUAL LOCATION OF EXISTING FACILITIES.
 - UTILITIES COORDINATION
NO LESS THAN 3 WORKING DAYS PRIOR TO ANY EXCAVATION OR TRENCHING, EACH CONTRACTOR DOING SUCH WORK SHALL CONTACT THE FOLLOWING AGENCIES SO THAT EXISTING UNDERGROUND UTILITIES MAY BE LOCATED. THE AGENCY MAY REQUIRE AN INSPECTOR TO BE PRESENT.
 - IMPERIAL IRRIGATION DISTRICT (POWER) (760) 339-9280
 - IMPERIAL IRRIGATION DISTRICT (WATER) (760) 339-9283
 - AT&T (800) 422-4133
 - SOUTHERN CALIFORNIA GAS CO. 811
 - THE CABLE COMPANY (SBC) (760) 312-6512

EXISTING UNDERGROUND UTILITIES

BEFORE EXCAVATING FOR THIS CONTRACT, VERIFY LOCATION OF UNDERGROUND UTILITIES. THE EXISTENCE AND LOCATION OF ANY UNDERGROUND UTILITY PIPES OR STRUCTURES SHOWN ON THESE PLANS HAVE BEEN OBTAINED FROM AVAILABLE RECORDS ONLY AND MAY NOT REFLECT ALL EXISTING UTILITIES. LOCATION OF ALL EXISTING UTILITIES SHALL BE CONFIRMED BY FIELD MEASUREMENTS BY CONTRACTOR PRIOR TO CONSTRUCTION OF WORK.

CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN HEREON AND ANY OTHER EXISTING LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS.

ACCURATE VERIFICATIONS AS TO SIZE, LOCATION AND DEPTH OF EXISTING UNDERGROUND SERVICES SHALL BE THE CONTRACTOR'S RESPONSIBILITY. THE CONTRACTOR SHALL NOTIFY THE SOUTHERN CALIFORNIA GAS COMPANY, AT&T, IMPERIAL IRRIGATION DISTRICT AND ANY OTHER AFFECTED UTILITY AGENCIES PRIOR TO STARTING HIS WORK NEAR SUCH UTILITY FACILITIES AND SHALL COORDINATE HIS WORK WITH UTILITY REPRESENTATIVES. FOR LOCATION OF UNDERGROUND UTILITIES AND APPURTENANCES, CONTACT "UNDERGROUND SERVICE ALERT" AT 811.
 - NO PAVING SHALL BE DONE UNTIL EXISTING POWER POLES ARE RELOCATED OUTSIDE THE AREAS TO BE PAVED.
 - PRIVATE ROAD IMPROVEMENTS SHOWN HEREON ARE FOR INFORMATION ONLY. COUNTY OFFICIALS SIGNATURE HEREON DOES NOT CONSTITUTE APPROVAL OR RESPONSIBILITY OF ANY KIND FOR THE DESIGN OR CONSTRUCTION OF THESE PRIVATE IMPROVEMENTS.
 - ALL SIGNS TO BE ALUMINUM WITH 3M HIGH INTENSITY TYPE REFLECTIVE FACE OR EQUIVALENT.
 - CONTRACTOR WILL BE RESPONSIBLE FOR THE REPLACEMENT OF ANY STRIPING, PAVEMENT MARKERS, OR LEGENDS OBLITERATED BY THE CONSTRUCTION OF THIS PROJECT.
 - THE CONTRACTOR SHALL DO ALL NEW STRIPING AND SANDBLASTING OF REDUNDANT STRIPING.
 - THE CONTRACTOR SHALL BE RESPONSIBLE TO SECURE AN ENCROACHMENT PERMIT FROM THE COUNTY OF IMPERIAL DEPARTMENT OF PUBLIC WORKS FOR ANY EXCAVATION OR CONSTRUCTION WITHIN COUNTY ROAD RIGHT-OF-WAY. FOR INSPECTIONS, 48 HOUR MINIMUM NOTICE IS REQUIRED, (760) 265-1818. ADDITIONALLY, UNDERGROUND SERVICE ALERT (USA) MUST BE CALLED TWO WORKING DAYS BEFORE THE CONTRACTOR MAY EXCAVATE. THEIR CONTRACT NUMBER IS 811. ALL WORK AND MATERIALS ARE SUBJECT TO THE INSPECTION AND APPROVAL FROM THE COUNTY DEPARTMENT OF PUBLIC WORKS OR THEIR REPRESENTATIVE.
 - NO REVISIONS OF ANY KIND SHALL BE MADE TO THESE PLANS WITHOUT THE PRIOR WRITTEN APPROVAL OF BOTH THE COUNTY ENGINEER (OR HIS REPRESENTATIVE) AND THE ENGINEER OF RECORD. A REPRODUCIBLE AS-BUILT PLAN SET WILL BE PROVIDED TO THE PUBLIC WORKS DEPARTMENT AS A CONDITION OF SUBSTANTIAL CONSTRUCTION COMPLETION AND PRIOR TO ACCEPTANCE.
 - ALL WORK AND MATERIALS SHALL CONFORM TO THESE PLANS AND SPECIFICATIONS, THE IMPERIAL COUNTY DEPARTMENT OF PUBLIC WORKS STANDARDS AND ENCROACHMENT PERMIT CONDITIONS, AND ANY REFERENCED STANDARDS AND SPECIFICATIONS OF THE AGENCIES REFERRED TO HEREIN. ALL WORK SHOWN OR INDICATED BY THESE PLANS SHALL BE COMPLETED IN ACCORDANCE WITH THE STANDARDS, POLICIES AND REGULATIONS OF IMPERIAL COUNTY, WHERE, OR IF, CONFLICTS OCCUR, THEN THE IMPERIAL COUNTY REQUIREMENTS SHALL GOVERN.

- UNLESS SPECIFICALLY INDICATED OTHERWISE METHODS EMPLOYED AND MATERIAL USED IN THE CONSTRUCTION OF ALL OFFSITE IMPROVEMENTS SHALL CONFORM TO THE APPLICABLE PROVISIONS OF THE "STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS DATED 2018". ALL WORK IS SUBJECT TO INSPECTION AND APPROVAL AS REQUIRED.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN AN EXCAVATION PERMIT FROM THE STATE OF CALIFORNIA DIVISION OF SAFETY AND TO ADHERE TO ALL PROVISIONS OF THE STATE CONSTRUCTION SAFETY ORDERS AND STANDARDS.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN A GENERAL CONSTRUCTION ACTIVITY STORM WATER PERMIT FROM THE STATE WATER RESOURCES CONTROL BOARD DIVISION OF WATER QUALITY. CONTACT "STATE WATER RESOURCES CONTROL BOARD, DIVISION OF WATER QUALITY, ATTENTION: STORM WATER PERMIT UNIT, P.O. BOX 1977, SACRAMENTO, CALIFORNIA, 95812".
- CONSTRUCTION PROJECTS DISTURBING MORE THAN ONE ACRE MUST OBTAIN A NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT. OWNER/DEVELOPERS ARE REQUIRED TO FILE A NOTICE OF INTENT (NOI) WITH THE STATE WATER RESOURCES CONTROL BOARD, PREPARE A STORM WATER POLLUTION PREVENTION PLAN (SWPPP) AND MONITORING PLAN FOR THE SITE.
- EXISTING STORM DRAIN PIPES/CULVERTS WHETHER TO BE CONNECTED TO, EXTENDED, ADJUSTED, DRAINED TO, OR JUST IN PROJECT VICINITY SHALL BE REPAIRED AND/OR CLEANED TO MAKE THEM FUNCTIONAL AND ACCEPTABLE AS DIRECTED BY THE PUBLIC WORKS DIRECTOR.
- TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE CURRENT MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AND THE CALIFORNIA SUPPLEMENT AS DIRECTED BY THE IMPERIAL COUNTY TRAFFIC ENGINEER.
- ANY EXISTING SURVEY MONUMENTS OR COUNTY RECOGNIZED BENCHMARKS SHALL BE PROTECTED BY THE CONTRACTOR. SHOULD ANY SUCH MONUMENTS OR BENCHMARKS BE REMOVED, DAMAGED, OBLITERATED OR ALTERED BY THE CONTRACTOR'S OPERATIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER RESETTING OF THE SAME AS PER THE SUBDIVISION MAP ACT, THE PROFESSIONAL LAND SURVEYORS ACT AND THE SATISFACTION OF THE COUNTY SURVEYOR/DIRECTOR OF PUBLIC WORKS. SUCH POINTS SHALL BE REFERENCED AND REPLACED WITH APPROPRIATE MONUMENTATION BY A LICENSED LAND SURVEYOR OR A REGISTERED CIVIL ENGINEER AUTHORIZED TO PRACTICE LAND SURVEYING. A CORNER RECORD OR RECORD OF SURVEY AS APPROPRIATE SHALL BE FILED BY THE LICENSED LAND SURVEYOR OR REGISTERED CIVIL ENGINEER.
- DUST SHALL BE CONTROLLED BY THE CONTRACTOR IN ACCORDANCE WITH ALL IMPERIAL COUNTY AIR POLLUTION CONTROL DISTRICT (APCD) FUGITIVE DUST CONTROL RULES AND REGULATIONS AND SHALL COMPLY WITH THEIR PERMITTING REQUIREMENTS, IF APPLICABLE.

ABBREVIATIONS

AB	AGGREGATE BASE	LF	LINEAR FEET
AC	ASPHALT CONCRETE	Lt	LEFT
BB	BEGINNING OF BRIDGE	Max	MAXIMUM
BC	BEGIN HORIZONTAL CURVE	Min	MINIMUM
BVC	BEGIN VERTICAL CURVE	MGS	MIDWAY GUARDRAIL SYSTEM
C	CENTERLINE	N	NORTH
Ctr	CENTER	No.	NUMBER
Dwg	DRAWING	OG	ORIGINAL GROUND
E	EAST	(P)	PROPOSED
(E)	EXISTING	PCC	PORTLAND CEMENT CONCRETE
EB	END OF BRIDGE	PG	PROFILE GRADE
EC	END HORIZONTAL CURVE	PVI	POINT OF VERTICAL INTERSECTION
Elev	ELEVATION	R	RADIUS
EP	EDGE OF PAVEMENT	RCP	REINFORCED CONCRETE PIPE
ETW	EDGE OF TRAVELED WAY	Rd	ROAD
EVC	END VERTICAL CURVE	Rt	RIGHT
FG	FINISH GRADE	RAW	RIGHT OF WAY
FO	FIBER OPTIC	S	SOUTH
GB	GRADE BREAK	S/C	SAWCUT
HMA	HOT MIX ASPHALT	Sta	STATION
Horiz	HORIZONTAL	Typ	TYPICAL
ICDPW	IMPERIAL COUNTY DEPARTMENT OF PUBLIC WORKS	Var	VARIES
IID	IMPERIAL IRRIGATION DISTRICT	Vert	VERTICAL
		W	WEST

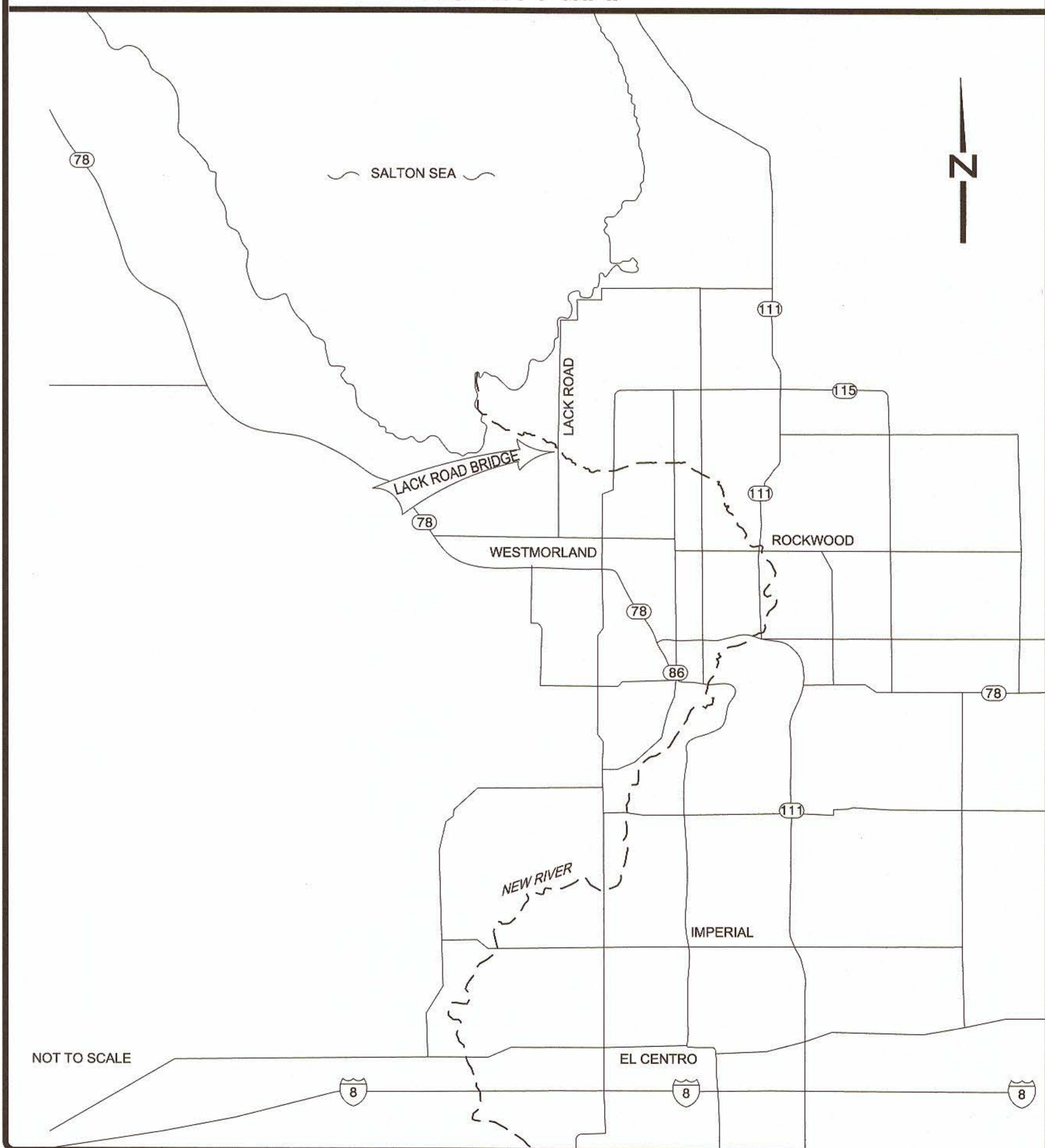
BENCHMARK

PROJECT BASIS OF BEARING:
THE BASIS OF BEARING IS THE CALIFORNIA STATE PLANE COORDINATE SYSTEM, NAD83, ZONE 6, BASED LOCALLY ON CONTROL STATION "DW0512". VERTICAL CONTROL IS BASED ON NAVD88.

PROJECT BENCHMARK:
TOP OF BRASS DISK STAMPED "CO C 24 1971 CA-025" SET ON TOP OF NORTHEAST CORNER OF THE CONCRETE HEADWALL FOR THE SIPHON OF DELIVERY 160 RUNNING UNDER FOULD ROAD, LOCATED AT THE SOUTHWEST QUADRANT OF THE INTERSECTION OF LACK ROAD AND FOULD ROAD.

NATIONAL GEODETIC SURVEY DESIGNATION "CO C 24" AND PID "DW052".
ELEVATION = -207.24 (NAVD 88)
EQUATION = ADD 996.91 FEET TO OBTAIN POSITIVE ELEVATION NUMBER VALUES = 789.67

VICINITY MAP



SYMBOLS

ITEM NO.	ITEM	SYMBOL
1	APPROXIMATE EDGE OF WATER	---
2	CENTERLINE/BASELINE	---
3	(E) GAS LINE	---
4	(E) OVERHEAD ELECTRICAL LINE	---
5	(E) STORM DRAIN LINE	---
6	ABANDON (E) UTILITY	---
7	(E) EDGE OF PAVEMENT	---
8	(P) EDGE OF PAVEMENT	---
9	DAYLIGHT LINE	---
10	COLD PLANE AC PAVEMENT	---
11	ASPHALT CONCRETE PAVING	---
12	HMA (TYPE A)	---
13	CLASS 2 AGGREGATE BASE	---
14	CRASH CUSHION	---
15	DIRECTION OF FLOW	---
16	LINE AND CURVE NUMBER	---
17	CONTOURS - MAJOR	---
18	CONTOURS - MINOR	---
19	CONTROL	---
20	SPOT ELEVATION	---

SHEET INDEX

1. TITLE SHEET	T-1	BRIDGE PLANS	S-01
2. TYPICAL SECTIONS AND DETAILS	X-1	5. GENERAL PLAN	S-02
3. PLAN AND PROFILE	PP-1	6. FOUNDATION PLAN	S-03
4. STRIPING PLAN	PD-1	7. PROPOSED GRADING	S-04
		8. DECK CONTOURS PLAN	S-05
		9. ABUTMENT 1 LAYOUT	S-06
		10. ABUTMENT 2 LAYOUT	S-07
		11. ABUTMENT DETAILS-1	S-08
		12. ABUTMENT DETAILS-2	S-09
		13. TYPICAL SECTION	S-10
		14. GIRDER LAYOUT	S-11
		15. PC/PS BULB-TEE GIRDER	S-12
		16. PC/PS BULB-TEE GIRDER DETAILS	S-13
		17. SOIL LEGEND	S-14
		18. SOIL LEGEND	S-14
		19. LOG OF TEST BORINGS	S-15



DECLARATION OF RESPONSIBLE CHARGE
I HEREBY DECLARE THAT I AM THE ENGINEER OF WORK FOR THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THE PROJECT AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS.

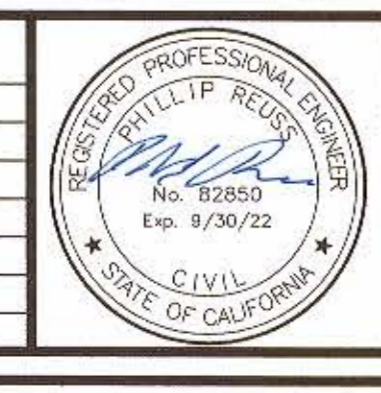
I UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS AND SPECIFICATIONS BY THE COUNTY OF IMPERIAL IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME, AS ENGINEER OF WORK, OF MY RESPONSIBILITIES FOR THE PROJECT DESIGN.

NVS
15092 AVENUE OF SCIENCE, SUITE 200
SAN DIEGO, CA 92128

Jack L. Abcarius
JACK ABCARIUS, ASSOCIATE
R.C.E. #: 40459
EXP. DATE 3/31/2023

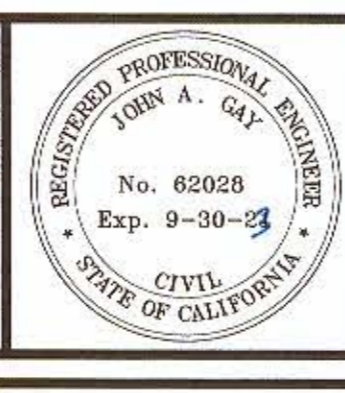
3/15/21
DATE

REVISION	DATE	COMMENTS



PREPARED UNDER THE DIRECT SUPERVISION OF:
Phillip Reuss
PHILLIP REUSS, P.E.
NVS
3/15/21
DATE

82850
R.C.E. No.
9/30/22
REG. EXP.



COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT
APPROVED FOR CONSTRUCTION BY:
John A. Gay
JOHN A. GAY, P.E.
ROAD COMMISSIONER
9/9/21
DATE

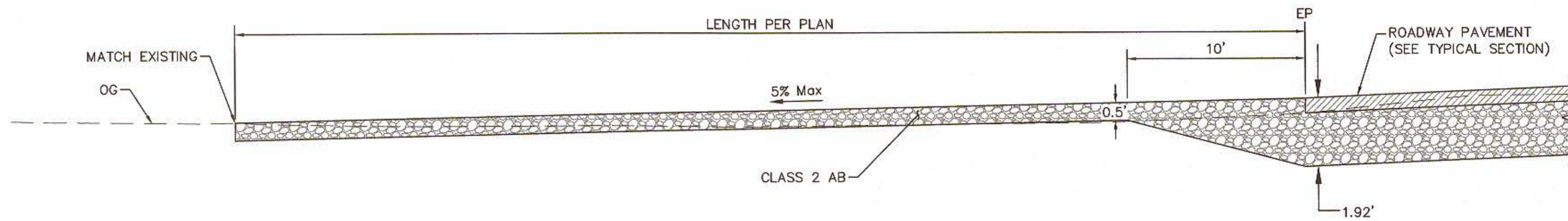
62028
R.C.E. No.
9/30/23
REG. EXP.

PUBLIC WORKS DEPARTMENT
COUNTY OF IMPERIAL
EL CENTRO, CALIFORNIA

DATE 9/8/2021
DRAWN PAR
SCALE AS SHOWN
CHECKED DB

LACK ROAD BRIDGE REPLACEMENT
OVER NEW RIVER
BRIDGE NO. 58C-0224

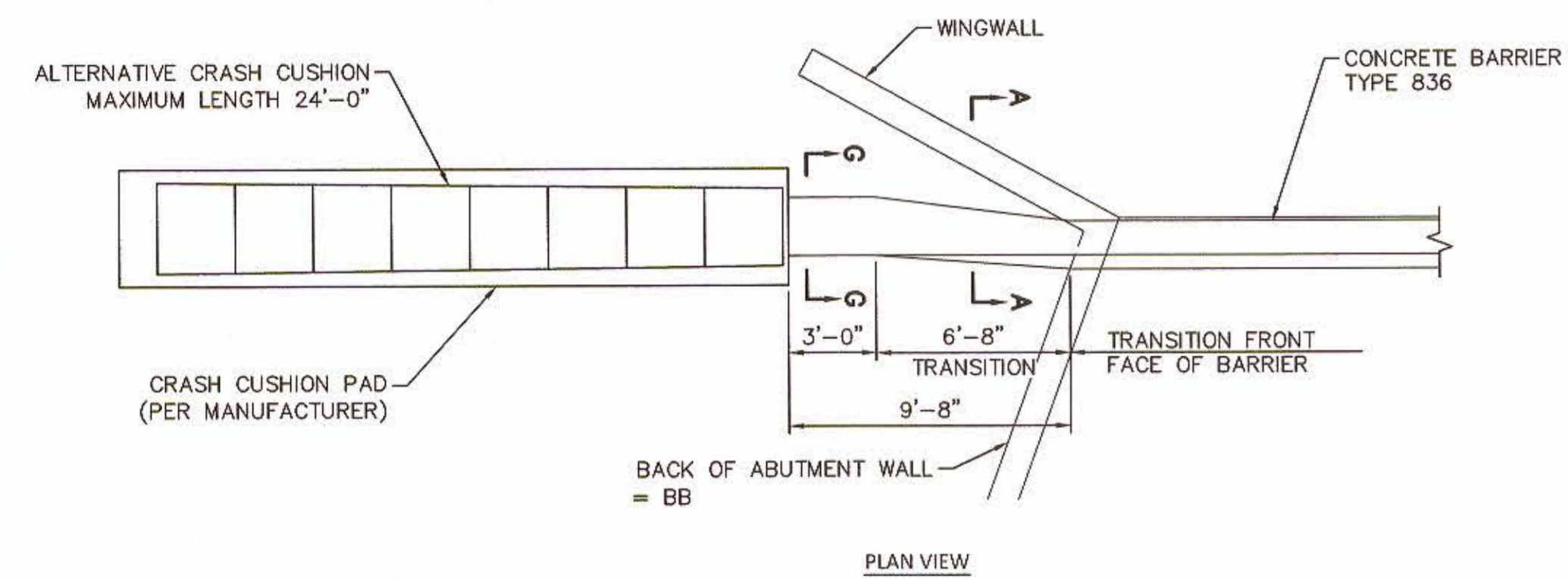
TITLE SHEET	
REFERENCE	B-197
T-1	SHEET OF
	1 19



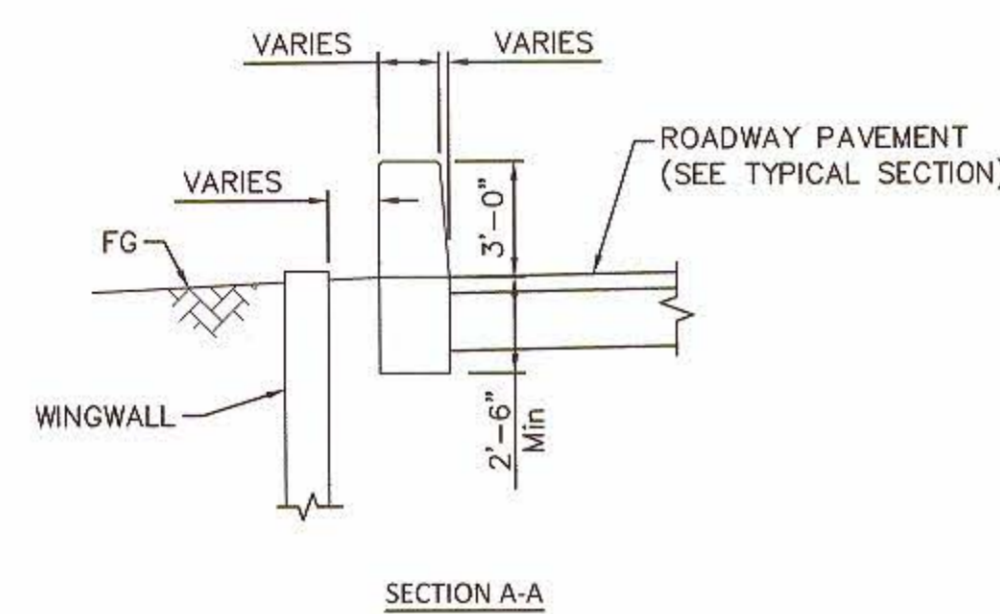
DRIVEWAY DETAIL
NO SCALE

NOTES:

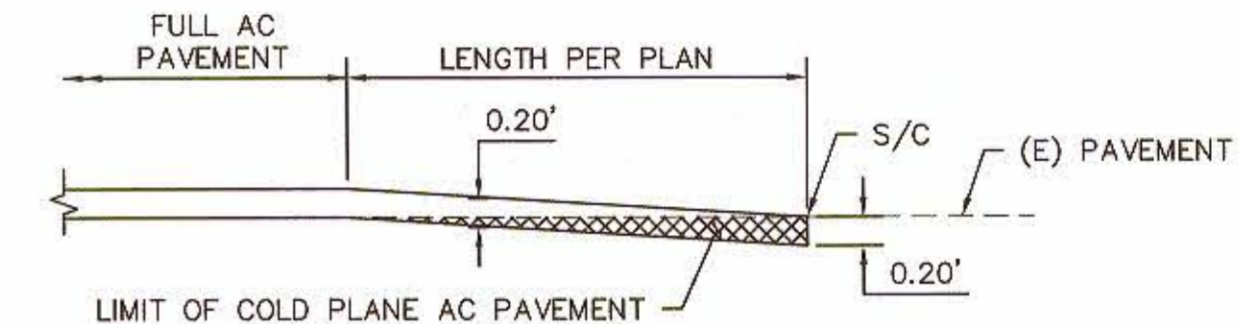
- PARTIAL VIEW OF ALTERNATIVE CRASH CUSHION IS SHOWN FOR REFERENCE ONLY. FOR COMPLETE DETAILS, SEE MANUFACTURERS' PRODUCT MANUAL OF SELECTED CRASH CUSHION. FOR ALLOWABLE ALTERNATIVE CRASH CUSHIONS, SEE SPECIAL PROVISIONS.
- FOR ABUTMENT AND WINGWALL DETAILS, SEE BRIDGE PLANS.
- FOR CONCRETE BARRIER DETAILS NOT SHOWN, SEE CALTRANS REVISED STANDARD PLAN RSP B11-79 AND RSP B11-80.



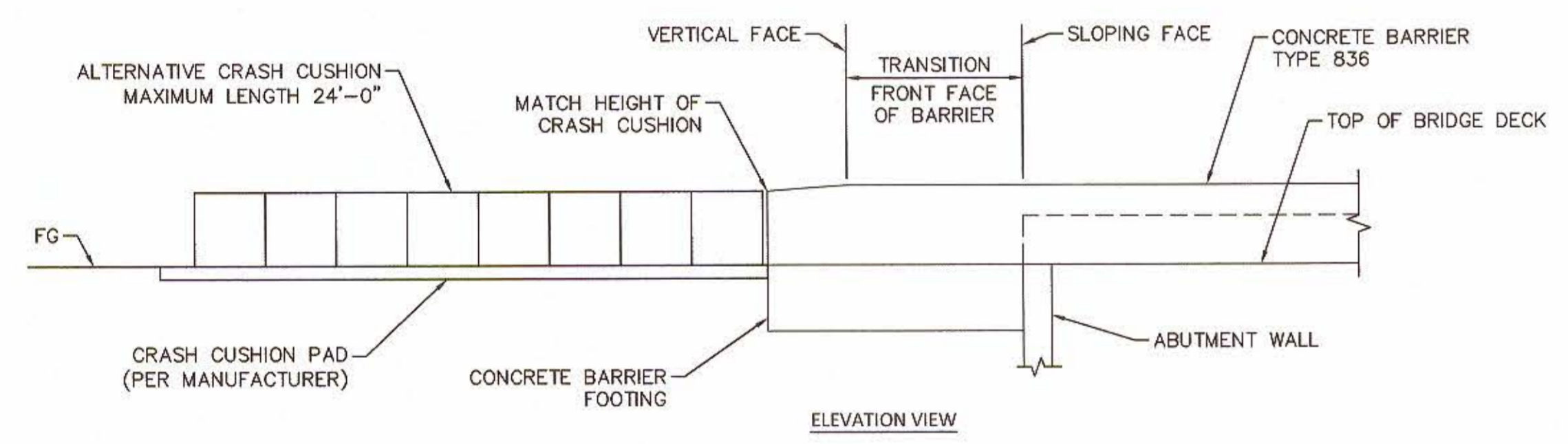
PLAN VIEW



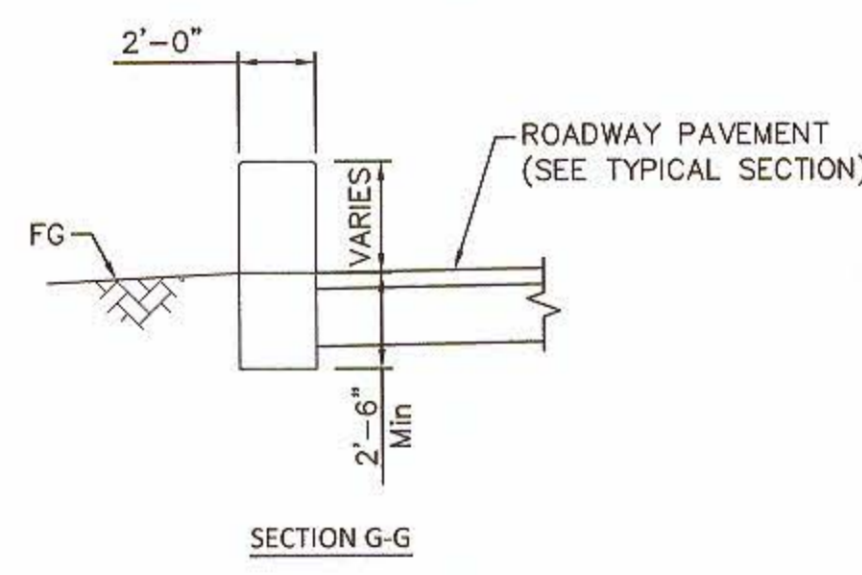
SECTION A-A



PAVEMENT CONFORM DETAIL
NO SCALE



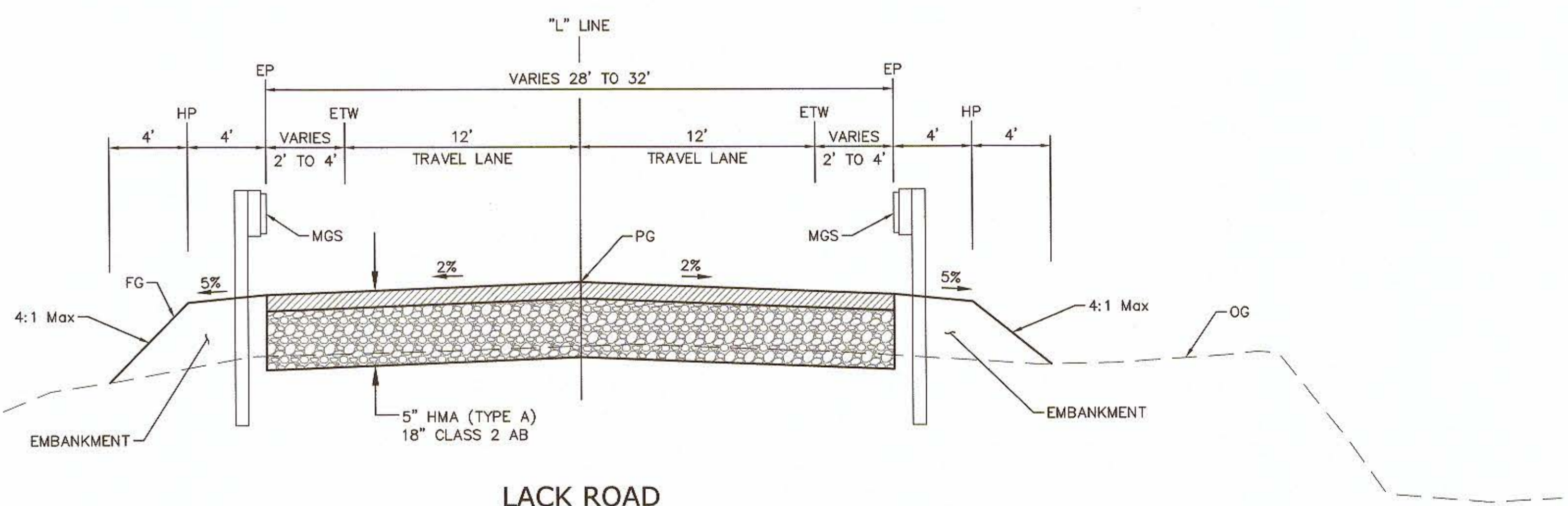
ELEVATION VIEW



SECTION G-G

NOTE:
FOR LOCATION OF MGS, SEE DRAWING PP-1.

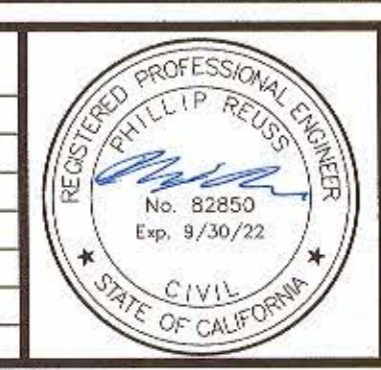
CRASH CUSHION DETAIL
NO SCALE



LACK ROAD
"L" Sta 18+00.00 TO Sta 20+23.58 (BB)
"L" Sta 21+48.58 (EB) TO Sta 24+50.00

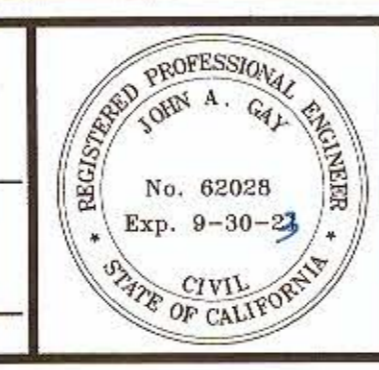
TYPICAL SECTION
NO SCALE

REVISION	DATE	COMMENTS



PREPARED UNDER THE DIRECT SUPERVISION OF:

 PHILLIP REUSS, P.E.
 NVS
 3/15/21
 DATE



COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT
 APPROVED FOR CONSTRUCTION BY:

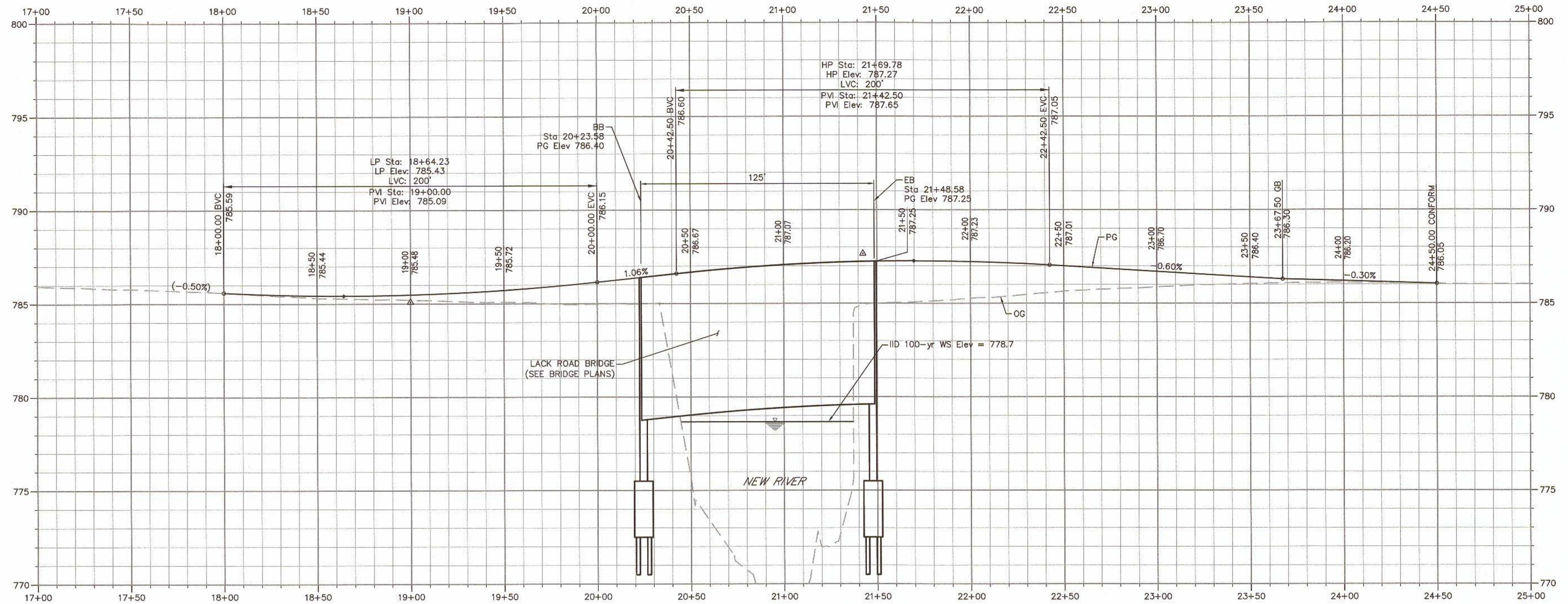
 JOHN A. GAY, P.E.
 ROAD COMMISSIONER
 9/9/21
 DATE

PUBLIC WORKS DEPARTMENT
 COUNTY OF IMPERIAL
 EL CENTRO, CALIFORNIA

DATE 9/8/2021
 DRAWN PAR
 SCALE AS SHOWN
 CHECKED DB

**LACK ROAD BRIDGE REPLACEMENT
 OVER NEW RIVER
 BRIDGE NO. 58C-0224**

TYPICAL SECTION AND DETAILS
 REFERENCE X-1
 SHEET 2 OF 19

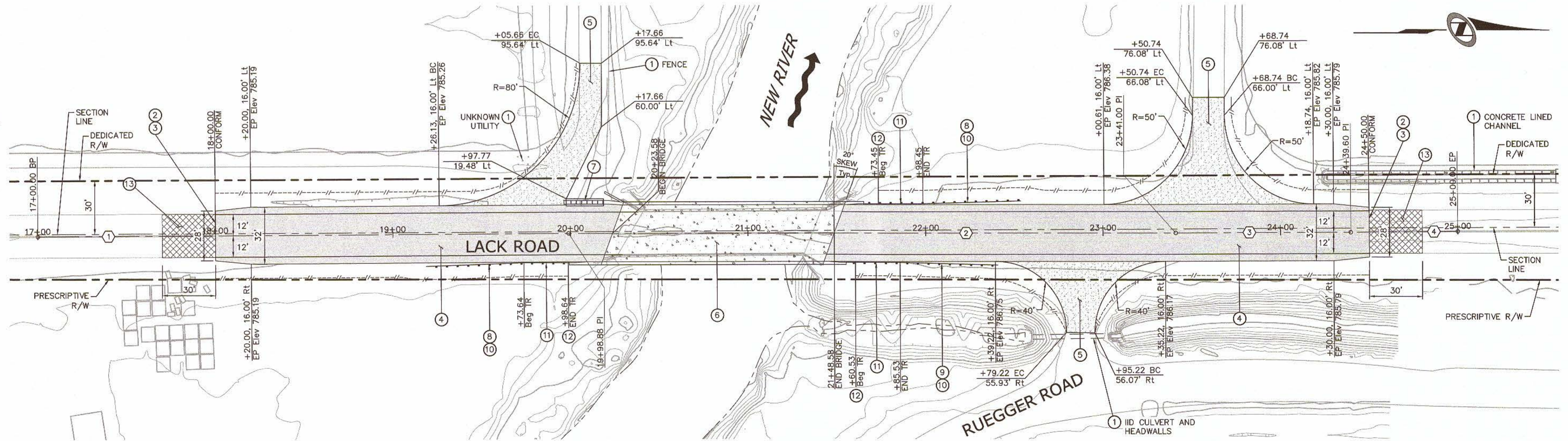


LACK ROAD - PROFILE

SCALES: Horiz 1"=30'
Vert 1"=3'

CONSTRUCTION NOTES

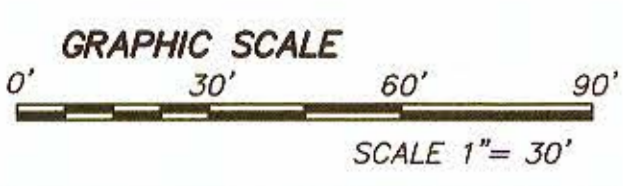
- 1 PROTECT IN PLACE.
- 2 SAWCUT EXISTING ASPHALT CONCRETE PAVEMENT.
- 3 MATCH EXISTING PAVEMENT. SEE ICDPW Dwg No. 453 FOR ADDITIONAL DETAILS.
- 4 NEW PAVEMENT SECTION PER TYPICAL SECTIONS. SEE ICDPW Dwg No. 440 FOR ADDITIONAL DETAILS.
- 5 GRADED DRIVEWAY. SEE DRAWING X-1 FOR DETAILS.
- 6 LACK ROAD BRIDGE. SEE BRIDGE PLANS.
- 7 ALTERNATIVE CRASH CUSHION. SEE CONSTRUCTION DETAIL ON DRAWING X-1.
- 8 MIDWEST GUARDRAIL SYSTEM FOR STRUCTURE APPROACH (TYPE 12A LAYOUT) PER CALTRANS REVISED STANDARD PLAN RSP A77Q1.
- 9 MIDWEST GUARDRAIL SYSTEM FOR STRUCTURE DEPARTURE (TYPE 12AA LAYOUT) PER CALTRANS REVISED STANDARD PLAN RSP A77Q4.
- 10 ALTERNATIVE IN-LINE TERMINAL SYSTEM. SEE SPECIAL PROVISIONS.
- 11 MIDWEST GUARDRAIL SYSTEM TRANSITION RAILING (TYPE WB-31) PER CALTRANS REVISED STANDARD PLAN RSP A77U4.
- 12 MIDWEST GUARDRAIL SYSTEM CONNECTION TO BRIDGE RAILING PER CALTRANS STANDARD PLAN A77U2.
- 13 COLD PLANE ASPHALT CONCRETE PAVEMENT. SEE DRAWING X-1 FOR DETAILS.



LACK ROAD - PLAN

SCALE: 1"=30'

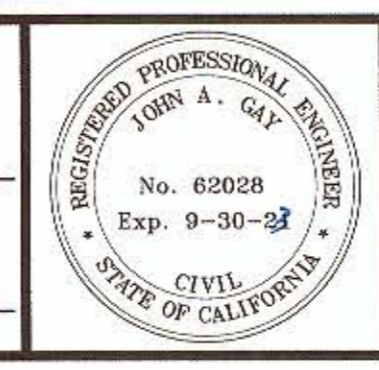
No.	BEARING	LENGTH
1	N0°28'33"W	298.88'
2	N0°11'42"W	342.12'
3	N0°18'50"W	98.60'
4	N0°40'08"W	60.40'



REVISION	DATE	COMMENTS



PREPARED UNDER THE DIRECT SUPERVISION OF:
 PHILLIP REUSS, P.E.
 NV5
 3/15/21
 DATE



COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT
 APPROVED FOR CONSTRUCTION BY:
 JOHN A. GAY, P.E.
 ROAD COMMISSIONER
 9/9/21
 DATE

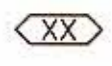
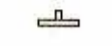
PUBLIC WORKS DEPARTMENT
 COUNTY OF IMPERIAL
 EL CENTRO, CALIFORNIA

DATE 9/8/2021
 DRAWN PAR
 SCALE AS SHOWN
 CHECKED DB

LACK ROAD BRIDGE REPLACEMENT
 OVER NEW RIVER
 BRIDGE NO. 58C-0224

PLAN AND PROFILE
 LACK ROAD
 REFERENCE PP-1
 SHEET 3 OF 19
B-197

LEGEND

-  PAINTED TRAFFIC STRIPE PER CALTRANS STRIPING DETAILS. SEE STANDARD PLAN A20A AND REVISED STANDARD PLAN RSP A20B.
-  EXISTING OBJECT MARKER

SURVEY CONTROL

VERTICAL CONTROL

PROJECT BENCHMARK:
 TOP OF BRASS DISK STAMPED "CO C 24 1971 CA-025" SET ON TOP OF NORTHEAST CORNER OF THE CONCRETE HEADWALL FOR THE SIPHON OF DELIVERY 160 RUNNING UNDER FOULDS ROAD, LOCATED AT THE SOUTHWEST QUADRANT OF THE INTERSECTION OF LACK ROAD AND FOULDS ROAD.
 NATIONAL GEODETIC SURVEY DESIGNATION "CO C 24" AND PID "DW052".
 ELEVATION = -207.24 (NAVD 88)
 EQUATION = ADD 996.91 FEET TO OBTAIN POSITIVE ELEVATION NUMBER VALUES = 789.67

BASIS OF COORDINATES

COORDINATES SHOWN HEREON ARE IN TERMS OF THE CALIFORNIA COORDINATE SYSTEM ZONE 6, NAD83, EPOCH 2009.00. EXISTING FIRST ORDER GPS CONTROL POINTS FOUND AND USED TO CONSTRAIN NETWORK.
 FIRST HORIZONTAL ORDER (NAD 83) REPEATER STATION IDENTIFIED AS "CRRS" "WESTMORLAND" LOCATED AT 7.7 MILES APPROXIMATELY NORTH AND ALONG STATE HIGHWAY 86 FROM THE CITY OF WESTMORLAND, THE STATION IS LOCATED IMMEDIATELY EAST OF THE NORTH BOUND LANE OF SAID STATE HIGHWAY 86 AND BY THE SOUTH CORNER OF THE EXISTING WATER RESERVOIR AND WAS USED FOR HORIZONTAL CALIBRATION, ACCORDING TO PUBLICATION FROM THE CALIFORNIA REAL TIME NETWORK (CRTN) AT SCRIPPS ORBIT AND PERMANENT ARRAY CENTER (SOPAC).
 DESIGNATION - WESTMORLAND, CODE CRRS
 NORTHING = 1969415.9770; EASTING = 6719424.2770

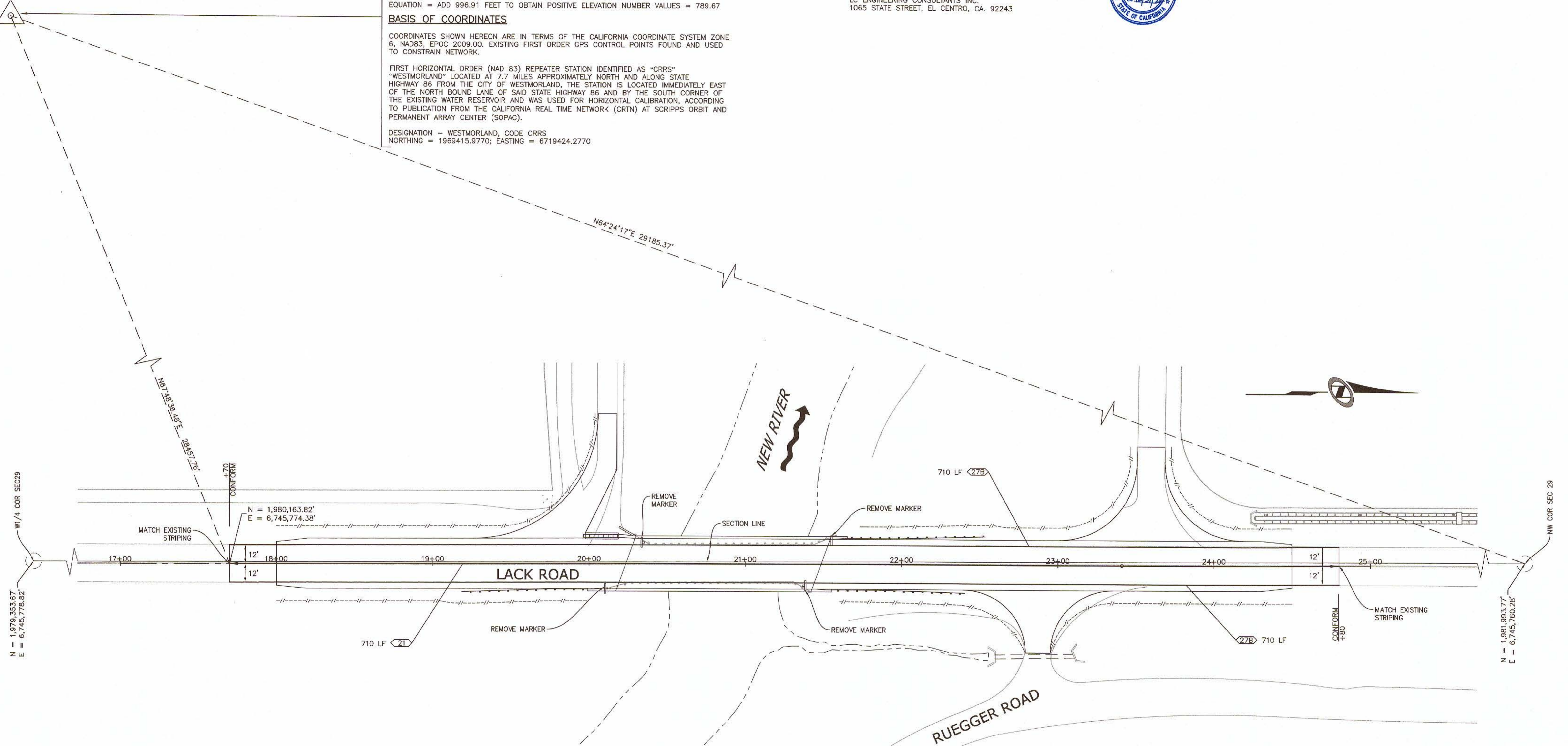
SURVEY CONTROL

I HAVE INSPECTED THE SITE AND DETERMINED THAT NO SURVEY MONUMENTS WERE FOUND WITHIN THE LIMIT OF WORK

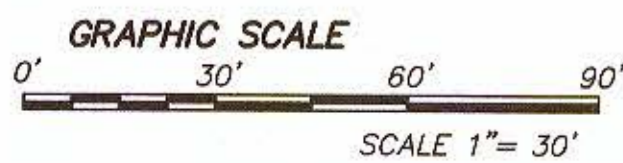

 MAURICIO LAM, PRINCIPAL ENGINEER
 LC ENGINEERING CONSULTANTS INC.
 1065 STATE STREET, EL CENTRO, CA. 92243
 P.L.S DATE 09.09.21



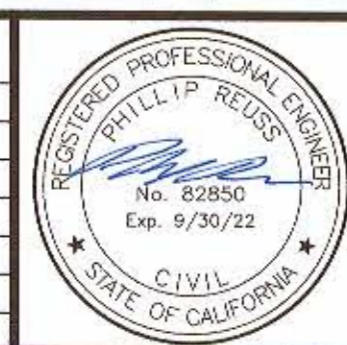
WESTMORLAND




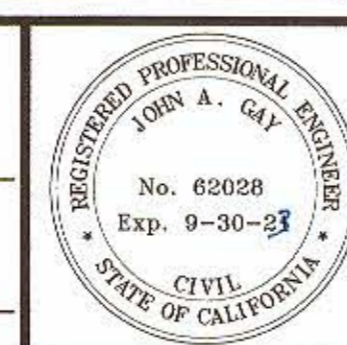
LACK ROAD - PLAN
 SCALE: 1"=30'

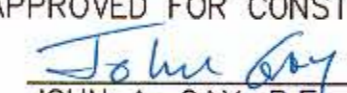



REVISION	DATE	COMMENTS



PREPARED UNDER THE DIRECT SUPERVISION OF:

 PHILLIP REUSS, P.E.
 NV5
 82850 R.C.E. No.
 9/30/22 REG. EXP.
 3/15/21 DATE



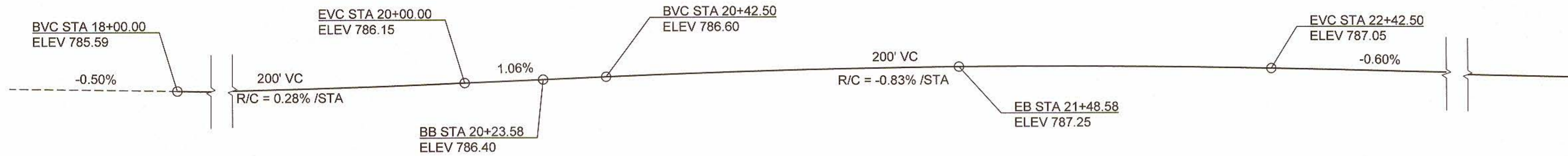
COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT
 APPROVED FOR CONSTRUCTION BY:

 JOHN A. GAY, P.E.
 ROAD COMMISSIONER
 62028 R.C.E. No.
 9/30/23 REG. EXP.
 9/9/21 DATE

 PUBLIC WORKS DEPARTMENT
 COUNTY OF IMPERIAL
 EL CENTRO, CALIFORNIA

DATE 9/8/2021
 DRAWN PAR
 SCALE AS SHOWN
 CHECKED DB

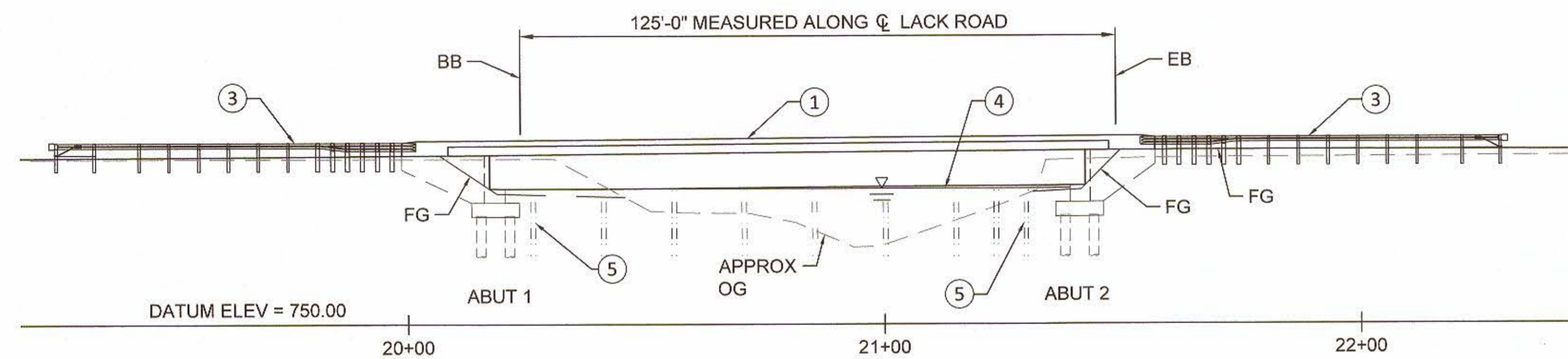
**LACK ROAD BRIDGE REPLACEMENT
 OVER NEW RIVER
 BRIDGE NO. 58C-0224**

STRIPING PLAN
 LACK ROAD
 REFERENCE PD-1
B-197
 SHEET 4 OF 19



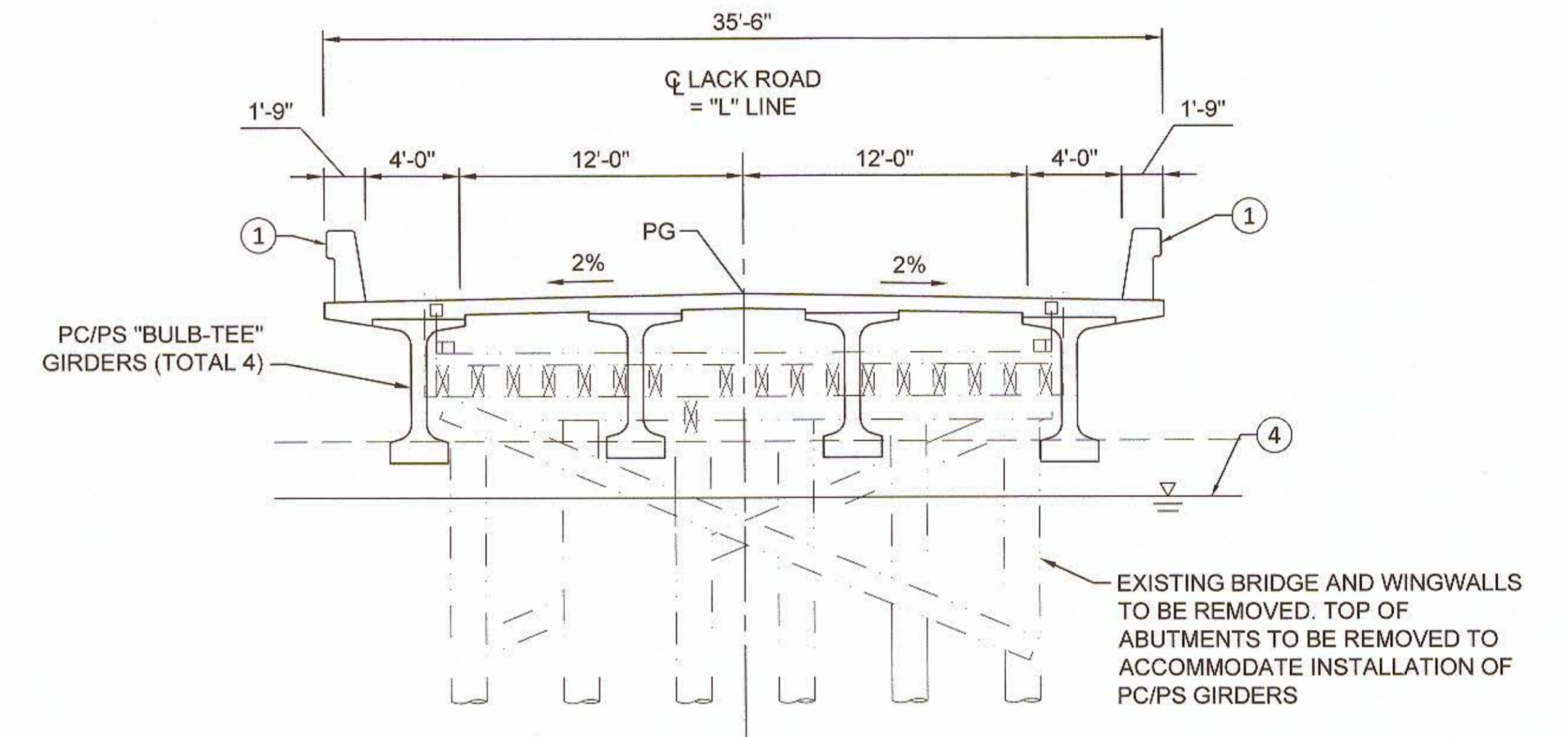
PROFILE GRADE

SCALE: 1"=20'



ELEVATION

SCALE: 1"=20'



TYPICAL SECTION

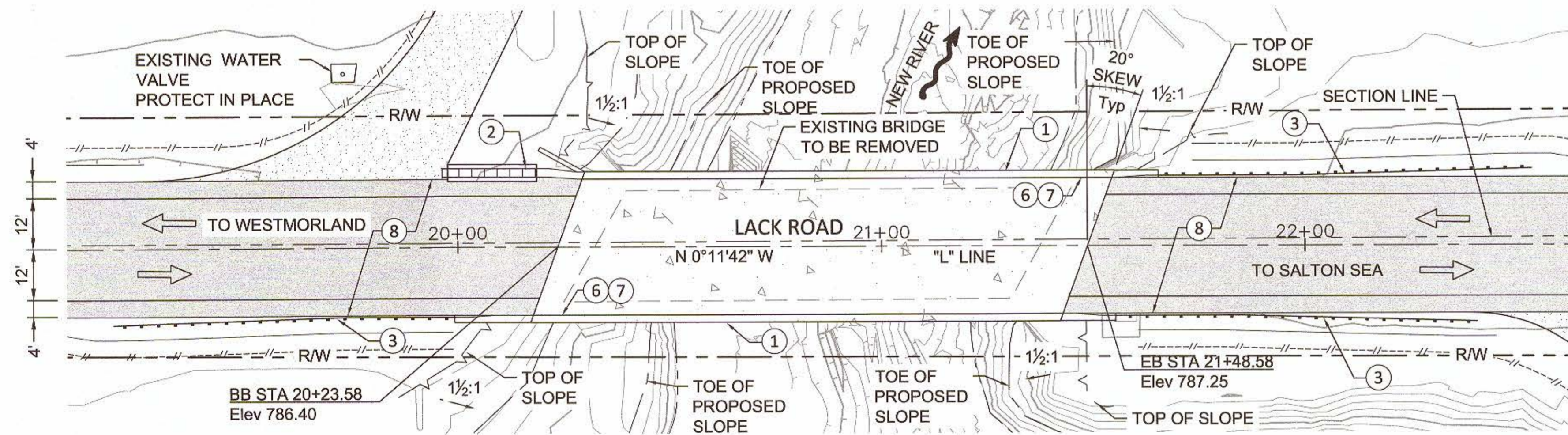
SCALE: 1"=5'

LEGEND:

- ← INDICATES DIRECTION OF TRAFFIC
- INDICATES EXISTING BRIDGE
- INDICATES PROPOSED BRIDGE
- ~ INDICATES DIRECTION OF FLOW

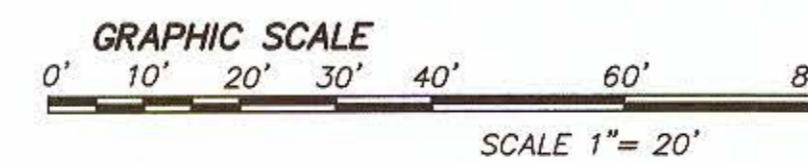
NOTES:

- ① CONCRETE BARRIER (TYPE 836)
- ② CRASH CUSHION, SEE ROADWAY PLANS
- ③ MIDWEST GUARDRAIL SYSTEM, SEE ROADWAY PLANS
- ④ IID Q100 WATER SURFACE ELEVATION = 778.70
- ⑤ EXISTING BRIDGE ABUTMENT REMAINS IN PLACE, CUT TOP PORTION TO AVOID NEW BRIDGE GIRDERS AND ABUT FOOTING
- ⑥ PAINT BRIDGE NAME "LACK ROAD BRIDGE"
- ⑦ PAINT BRIDGE NUMBER "58C-0224"
- ⑧ AC PAVEMENT OVER AGGREGATE BASE, SEE "PLAN AND PROFILE" SHEET



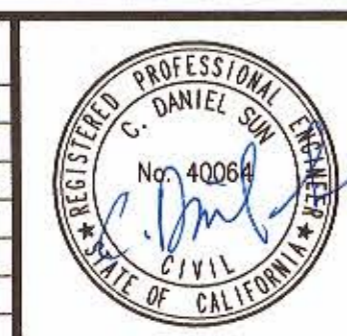
PLAN

SCALE: 1"=20'



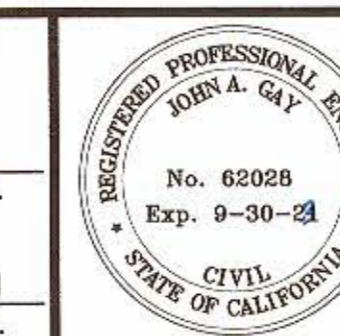
NOTES:
ANY UTILITIES LOCATED BY THE CONTRACTOR NOT SHOWN ON THESE PLANS SHALL BE PROTECTED IN PLACE OR REPLACED IN KIND IF DAMAGED BY THE CONTRACTOR.

REVISION	DATE	COMMENTS



PREPARED UNDER THE DIRECT SUPERVISION OF:
Daniel Sun
DANIEL SUN, P.E.
NVS
3/16/21
DATE

40064
R.C.E. No.
12/30/21
REG. EXP.



COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT
APPROVED FOR CONSTRUCTION BY:
John A. Gay
JOHN A. GAY, P.E.
ROAD COMMISSIONER
9/9/21
DATE

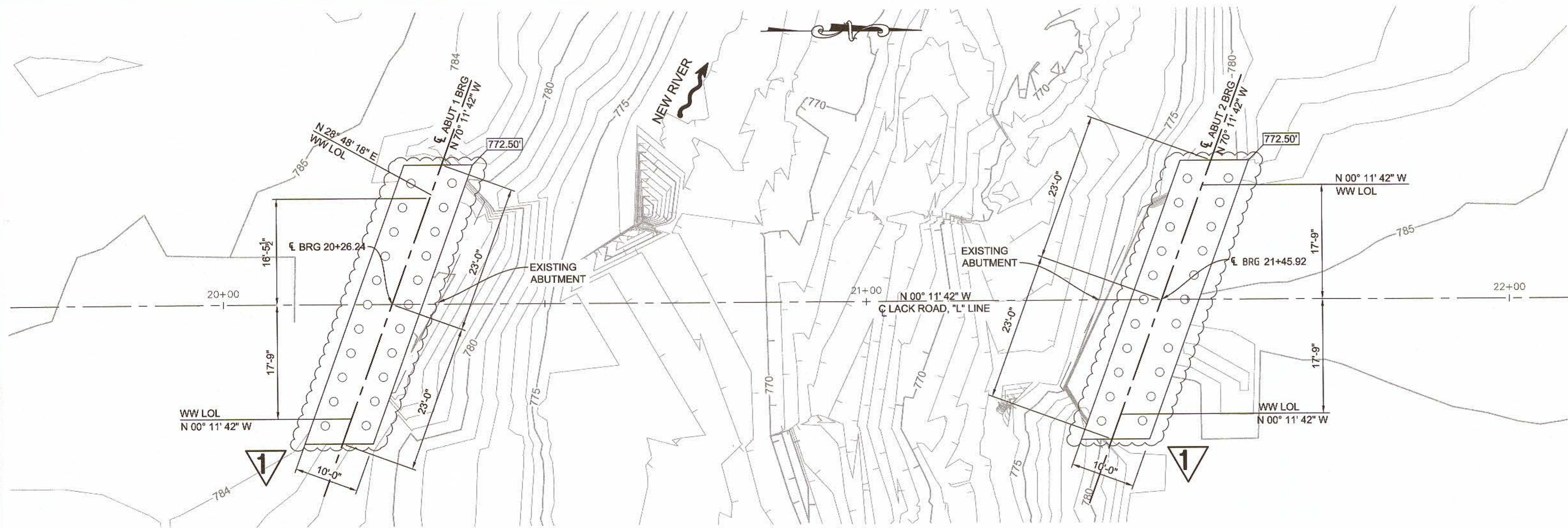
62028
R.C.E. No.
9/30/21
REG. EXP.

PUBLIC WORKS DEPARTMENT
COUNTY OF IMPERIAL
EL CENTRO, CALIFORNIA

DATE: 8/3/2021
DRAWN: GD
SCALE: AS SHOWN
CHECKED: CJK

**LACK ROAD BRIDGE REPLACEMENT
OVER NEW RIVER
BRIDGE NO. 58C-0224**

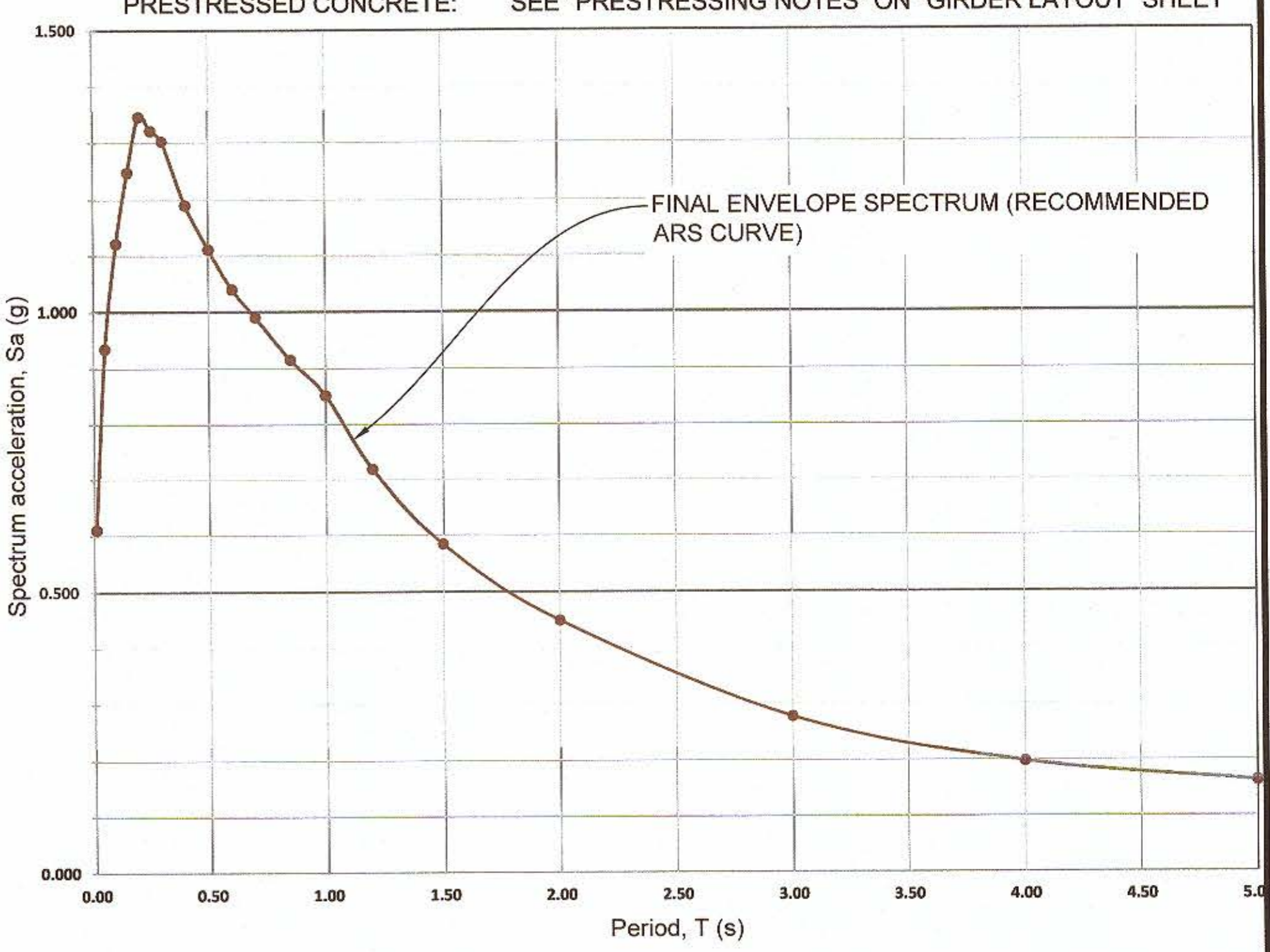
GENERAL PLAN	
REFERENCE: S-01	B-197
SHEET 5	OF 19



PLAN
SCALE: 1"=10'-0"

GENERAL NOTES
LOAD AND RESISTANCE FACTOR DESIGN

- DESIGN: AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 6TH EDITION AND THE CALTRANS AMENDMENTS, PREFACE DATED MARCH 10, 2014
- SEISMIC DESIGN: CALTRANS SEISMIC DESIGN CRITERIA (SDC), VERSION 2.0 DATED APRIL 2019
- DEAD LOAD: INCLUDES 35 PSF FOR FUTURE WEARING SURFACE.
- LIVE LOAD: HL93 AND PERMIT DESIGN LOAD
- SEISMIC LOAD:
- SOIL PROFILE: (VS30 = 886 ft/sec)
 MAXIMUM MAGNITUDE: 6.5
 PEAK GROUND ACCELERATION: 0.611g
- REINFORCED CONCRETE: $f_y = 60$ ksi
 $f_c = 4.0$ ksi
 $n = 8$
- PRESTRESSED CONCRETE: SEE "PRESTRESSING NOTES" ON "GIRDER LAYOUT" SHEET



ARS CURVE

SITE SPECIFIC ACCELERATION RESPONSE SPECTRA CURVE

LEGEND:

- INDICATES EXISTING ABUTMENT
- INDICATES NEW BRIDGE
- INDICATES DIRECTION OF FLOW
- INDICATES BOTTOM OF FOOTING ELEVATION
- INDICATES PP 16" x 0.625" PILE

NOTES:

FOR SURVEY CONTROL AND BENCHMARK, SEE "STRIPING PLAN" SHEET PD-1.

HYDROLOGIC SUMMARY			
	DESIGN FLOOD*	BASE FLOOD	OVER TOPPING FLOOD
FREQUENCY (YEARS)	50 YEAR	100 YEAR	>>> 500 YEAR
DISCHARGE (CUBIC FEET/SEC)	1000	1200	NA
WATER SURFACE (ELEVATION AT BRIDGE)	777.33 ft	777.86 ft	NA

* THE IMPERIAL IRRIGATION DISTRICT (IID) GAGE THAT IS APPROXIMATELY 5,000 FT DOWNSTREAM FROM THE BRIDGE MEASURED A FLOWRATE OF 1,550 CFS ON AUGUST 2ND, 2012. THIS CONSERVATIVE FLOWRATE WAS USED FOR DESIGN AND RESULTED IN A WATER SURFACE ELEVATION OF 778.7 FT AT THE BRIDGE.

SCOUR DATA TABLE		
SUPPORT NO.	LONG TERM (DEGRADATION AND CONTRACTION) SCOUR ELEVATION (FT)	SHORT TERM (LOCAL) SCOUR DEPTH (FT)
ABUT 1	778.6	2.0
ABUT 2	778.9	2.0

CALTRANS STANDARD PLANS DATED APRIL 2018

- A3A ABBREVIATIONS (SHEET 1 OF 3)
- A3B ABBREVIATIONS (SHEET 2 OF 3)
- A3C ABBREVIATIONS (SHEET 3 OF 3)
- A10A LEGEND - LINES AND SYMBOLS (SHEET 1 OF 5)
- A10B LEGEND - LINES AND SYMBOLS (SHEET 2 OF 5)
- A10C LEGEND - LINES AND SYMBOLS (SHEET 3 OF 5)
- A10D LEGEND - LINES AND SYMBOLS (SHEET 4 OF 5)
- A10E LEGEND - LINES AND SYMBOLS (SHEET 5 OF 5)
- A62C LIMITS OF PAYMENT FOR EXCAVATION AND BACKFILL BRIDGE
- RSP B0-1 BRIDGE DETAILS
- B0-3 BRIDGE DETAILS
- B0-5 BRIDGE DETAILS
- B0-13 BRIDGE DETAILS
- RSP B2-8 PILE DETAILS - CLASS 200
- B6-21 JOINT SEALS (MAXIMUM MOVEMENT RATING = 2")
- RSP B11-79 CONCRETE BARRIER TYPE 836 DETAIL No 1
- RSP B11-80 CONCRETE BARRIER TYPE 836 DETAIL No 2

PILE DATA TABLE					
LOCATION	PILE TYPE	NOMINAL RESISTANCE (KIPS)		DESIGN TIP ELEVATION (FT)	SPECIFIED TIP ELEVATION (FT)
		COMPRESSION	TENSION		
ABUT 1	PP 16" x 0.625" CLASS 200 (ALTERNATIVE W) (MODIFIED)	260	0	685.0 (A), 719.5 (B), 685.0 (C)	685.0
ABUT 2	PP 16" x 0.625" CLASS 200 (ALTERNATIVE W) (MODIFIED)	260	0	685.0 (A), 719.5 (B), 685.0 (C)	685.0

PILE DATA NOTES:

1. DESIGN TIP ELEVATIONS ARE CONTROLLED BY: (A) COMPRESSION, (B) LATERAL LOAD, (C) SETTLEMENT.
2. THE SPECIFIED TIP ELEVATION SHALL NOT BE RAISED ABOVE THE DESIGN TIP ELEVATIONS FOR LATERAL LOAD.
3. THE NOMINAL RESISTANCE REQUIRED IS EQUAL TO THE NOMINAL RESISTANCE NEEDED TO SUPPORT FACTORED LOADS PLUS POTENTIAL DOWNDRAW LOADS RESULTING FROM THE LIQUEFACTION.

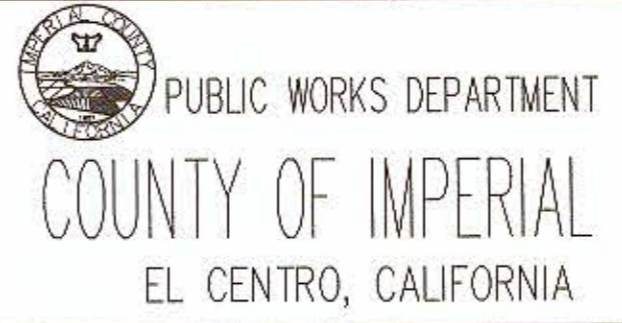
REVISION	DATE	COMMENTS
1	8/3/21	REVISED PILE TYPE AND TIP ELEVATIONS



PREPARED UNDER THE DIRECT SUPERVISION OF:
 Daniel Sun, P.E.
 NVS
 3/16/21 DATE
 12/30/21 REG. EXP.



COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT
 APPROVED FOR CONSTRUCTION BY:
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 ROAD COMMISSIONER
 9/9/21 DATE
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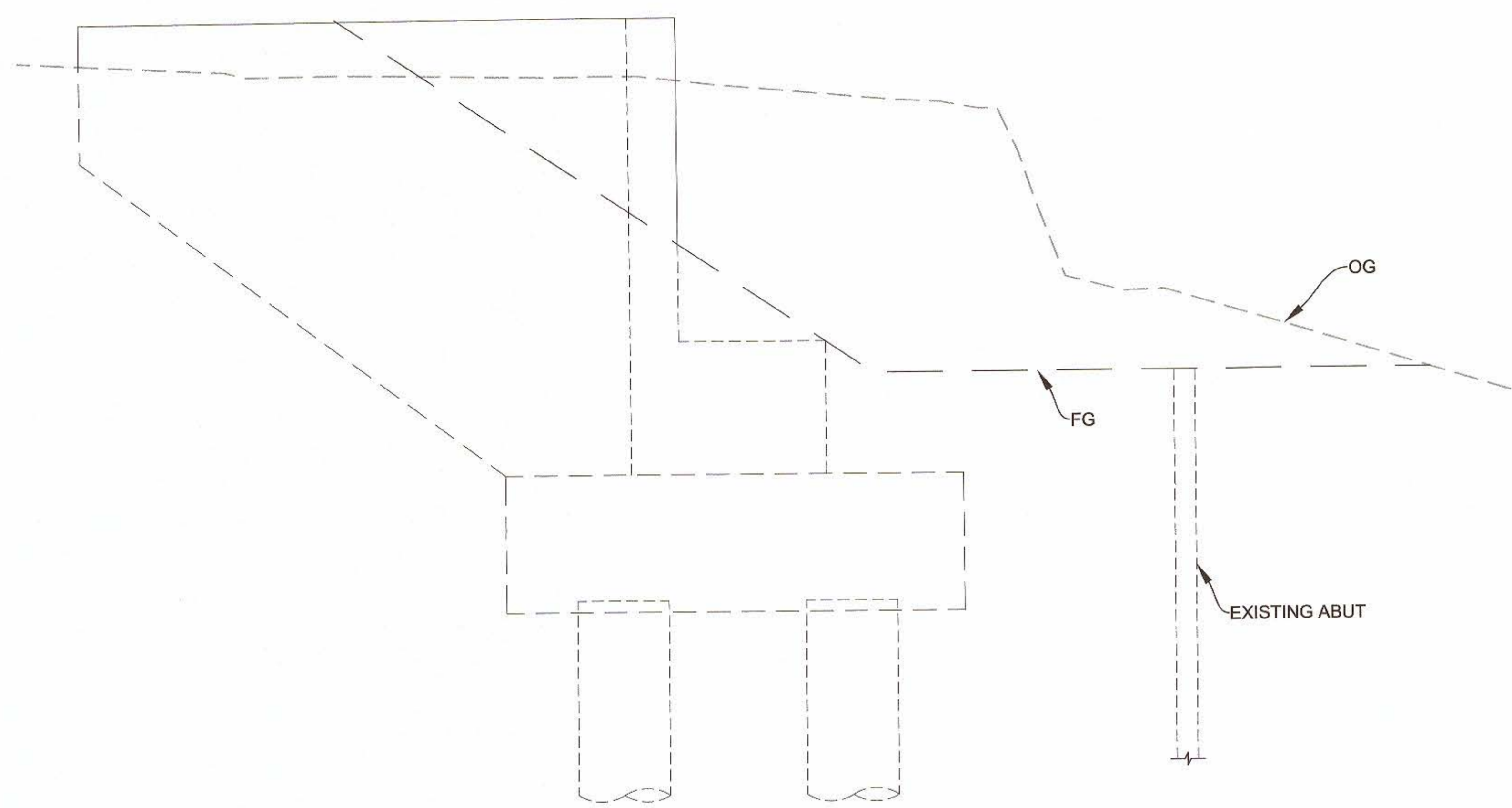


DATE 8/3/2021
 DRAWN GD
 SCALE AS SHOWN
 CHECKED CLK

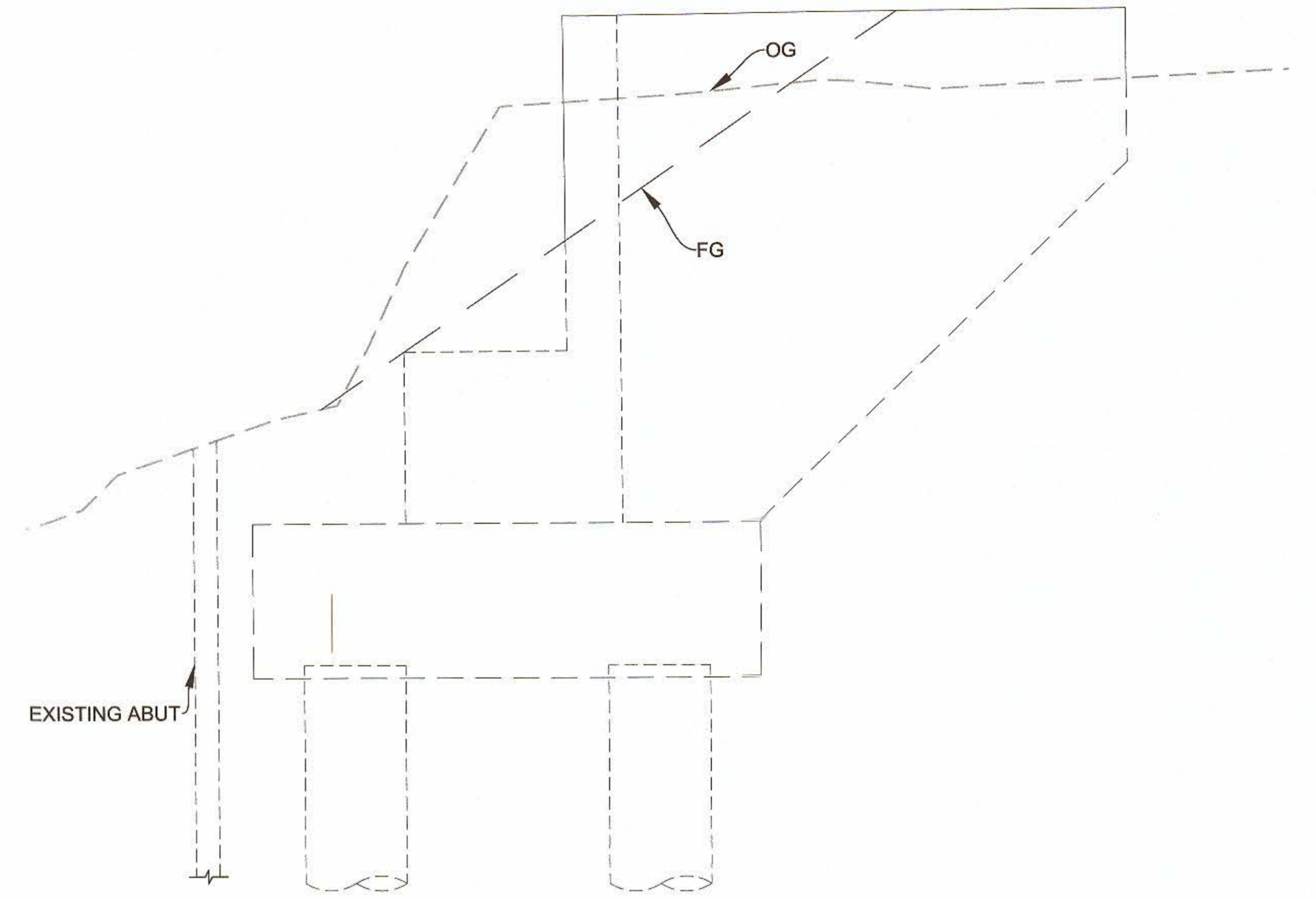
LACK ROAD BRIDGE REPLACEMENT OVER NEW RIVER BRIDGE NO. 58C-0224

FOUNDATION PLAN	
REFERENCE S-02	B-197
SHEET 6	OF 19

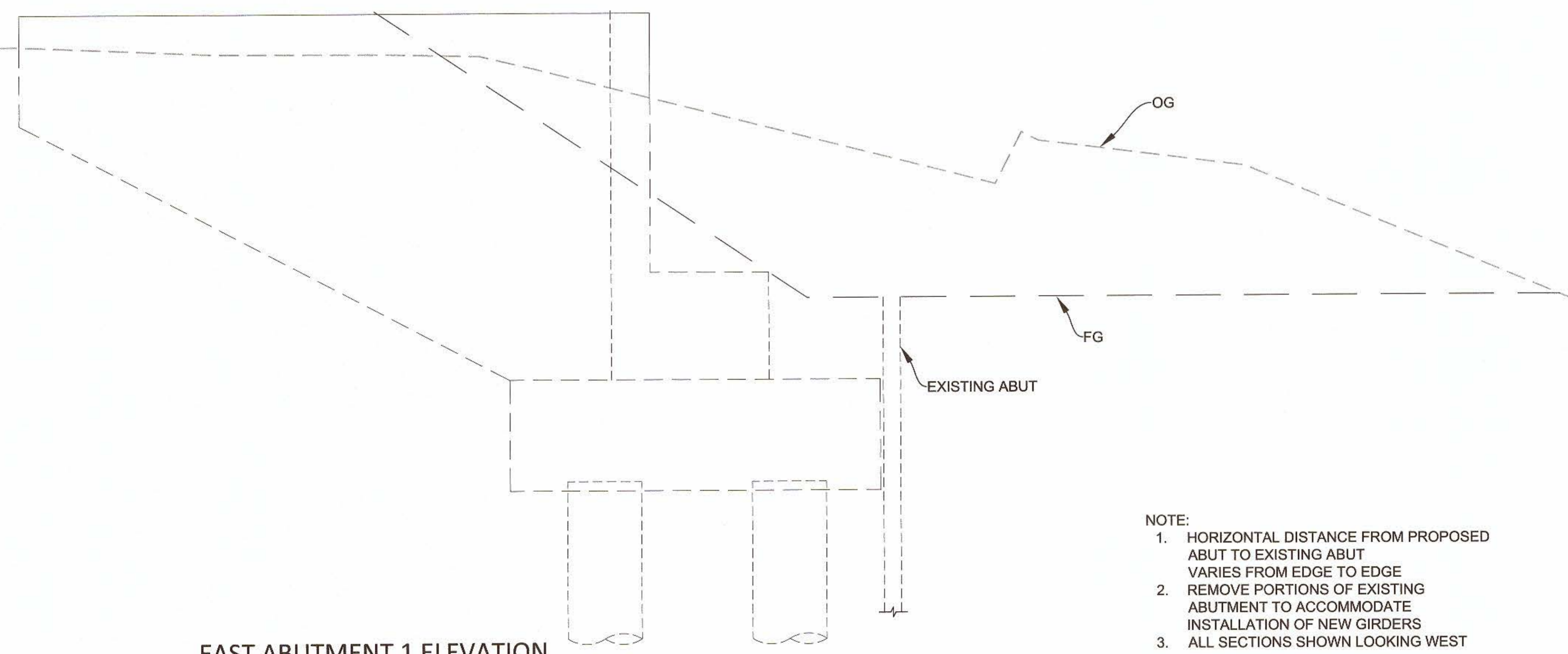
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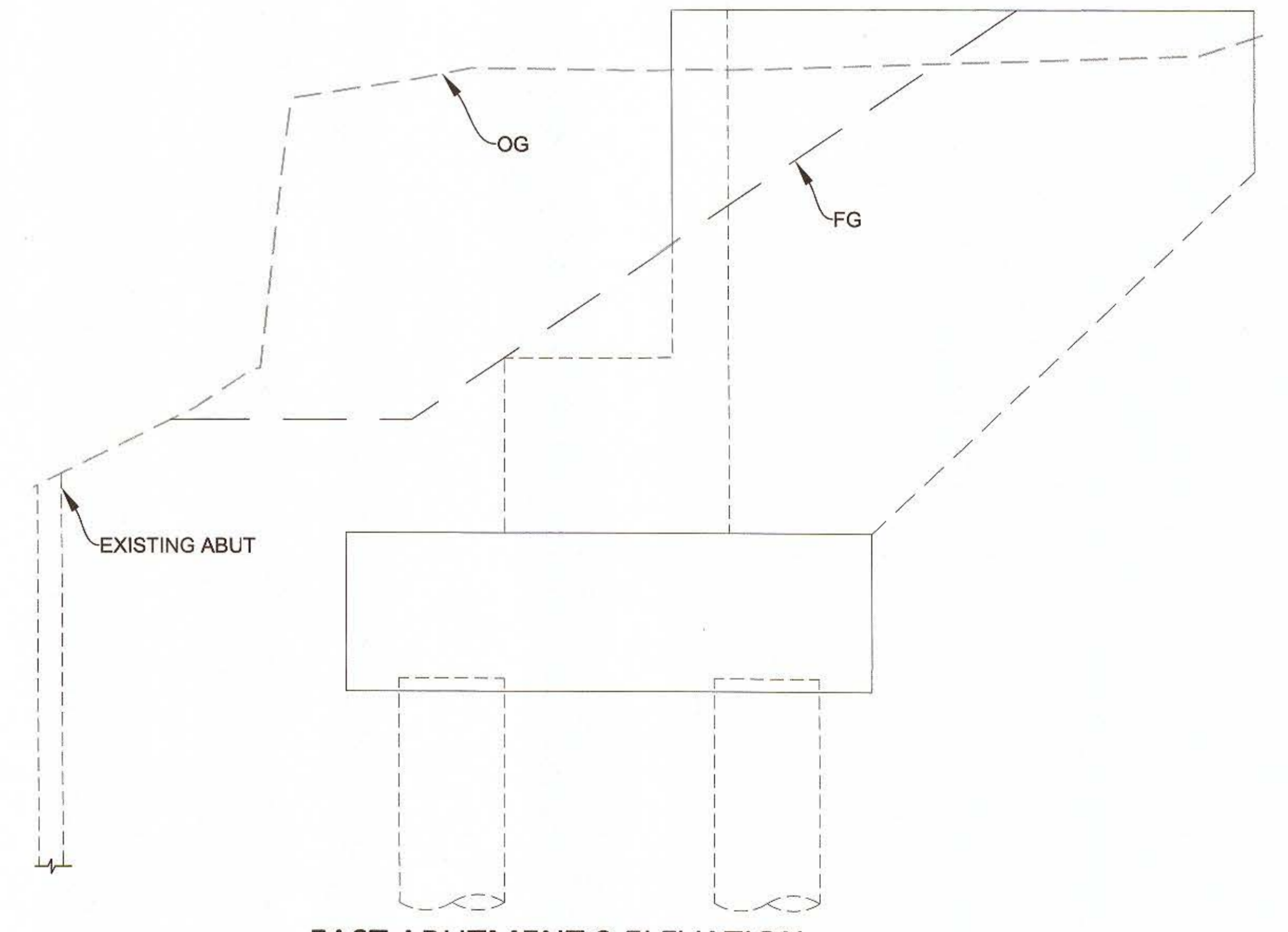
WEST ABUTMENT 1 ELEVATION
SCALE: 1/2" = 1'-0"



WEST ABUTMENT 2 ELEVATION
SCALE: 1/2" = 1'-0"



EAST ABUTMENT 1 ELEVATION
SCALE: 1/2" = 1'-0"



EAST ABUTMENT 2 ELEVATION
SCALE: 1/2" = 1'-0"

- NOTE:
1. HORIZONTAL DISTANCE FROM PROPOSED ABUT TO EXISTING ABUT VARIES FROM EDGE TO EDGE
 2. REMOVE PORTIONS OF EXISTING ABUTMENT TO ACCOMMODATE INSTALLATION OF NEW GIRDERS
 3. ALL SECTIONS SHOWN LOOKING WEST

REVISION	DATE	COMMENTS



PREPARED UNDER THE DIRECT SUPERVISION OF:
Daniel Sun
 DANIEL SUN, P.E.
 NVS
 3/16/21
 DATE



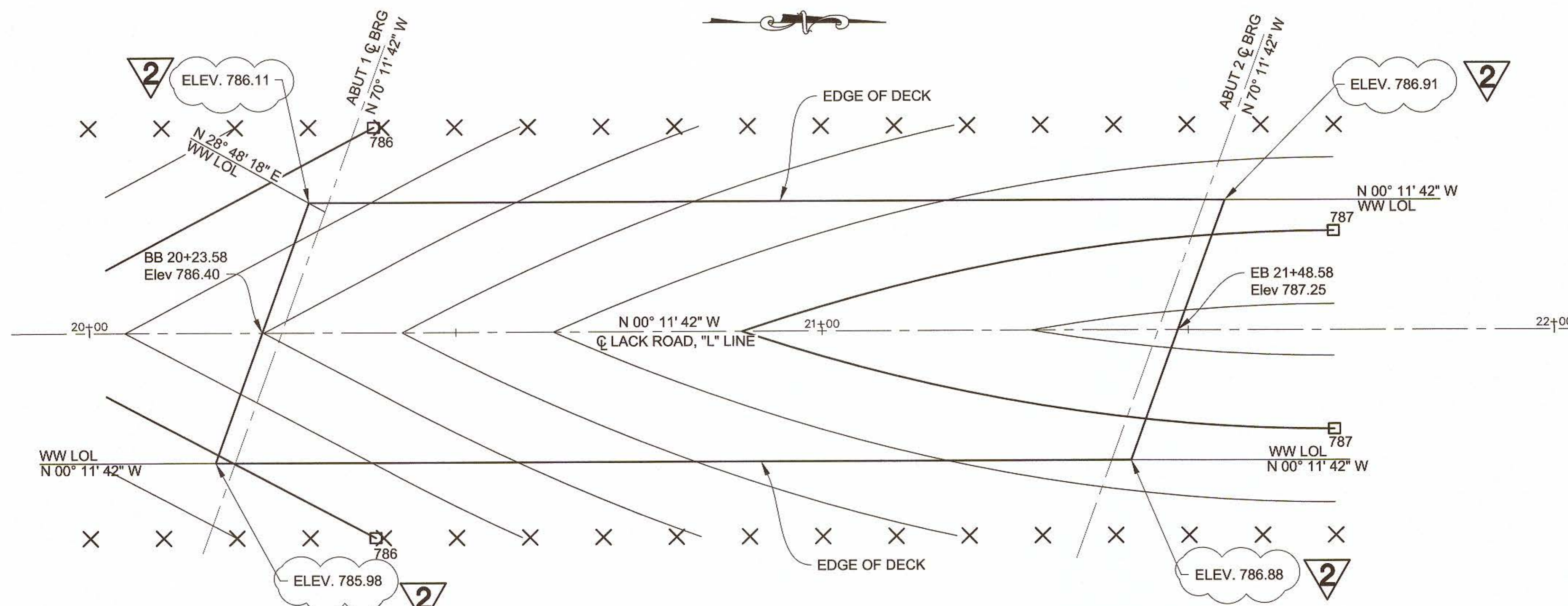
COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT
 APPROVED FOR CONSTRUCTION BY:
John A. Gay
 JOHN A. GAY, P.E.
 ROAD COMMISSIONER
 9/9/21
 DATE

PUBLIC WORKS DEPARTMENT
 COUNTY OF IMPERIAL
 EL CENTRO, CALIFORNIA

DATE: 8/3/2021
 DRAWN: GD
 SCALE: AS SHOWN
 CHECKED: CJK

LACK ROAD BRIDGE REPLACEMENT
 OVER NEW RIVER
 BRIDGE NO. 58C-0224

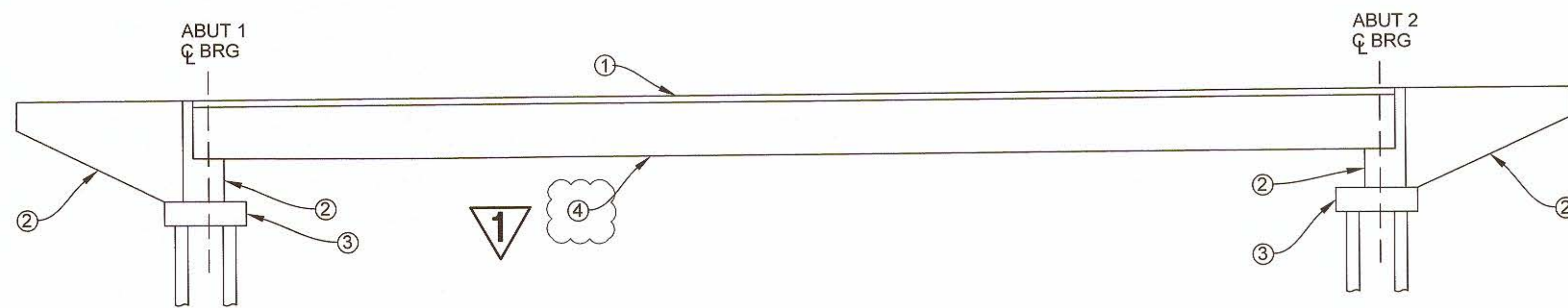
PROPOSED GRADING	
REFERENCE	B-197
S-03	SHEET 7 OF 19



DECK CONTOURS
SCALE: 1"=10'

NOTES

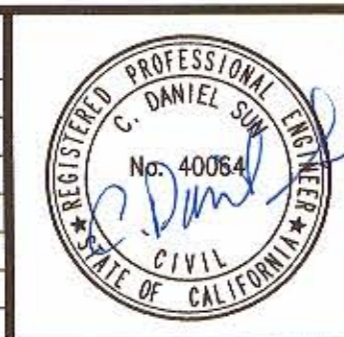
1. CONTOUR INTERVALS = 0.20 FT.
2. CONTOURS DO NOT INCLUDE CAMBER
3. □ - INDICATES EVEN FOOT CONTOUR
4. × - INDICATES 10FT INTERVALS



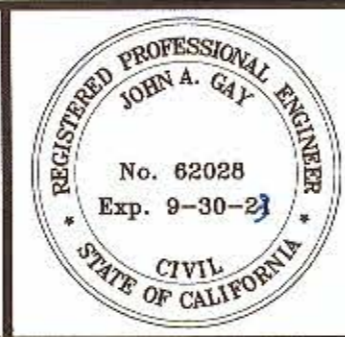
- ① STRUCTURAL CONCRETE, BRIDGE (POLYMER FIBER) (F'C = 4,500 PSI AT 28 DAYS)
- ② STRUCTURAL CONCRETE, BRIDGE (F'C = 4,000 PSI AT 28 DAYS)
- ③ STRUCTURAL CONCRETE, BRIDGE FOOTING (F'C = 4,000 PSI AT 28 DAYS)
- ④ STRUCTURAL CONCRETE, BRIDGE GIRDER (F'C = 6,500 PSI AT 28 DAYS)

CONCRETE TYPE LIMITS
SCALE: NTS

REVISION	DATE	COMMENTS
1	8/3/21	REMOVED CIDH PILES
2	9/3/21	ADDED CORNER ELEVATIONS



PREPARED UNDER THE DIRECT SUPERVISION OF:
Daniel Sun
 DANIEL SUN, P.E.
 NVS
 3/16/21
 DATE



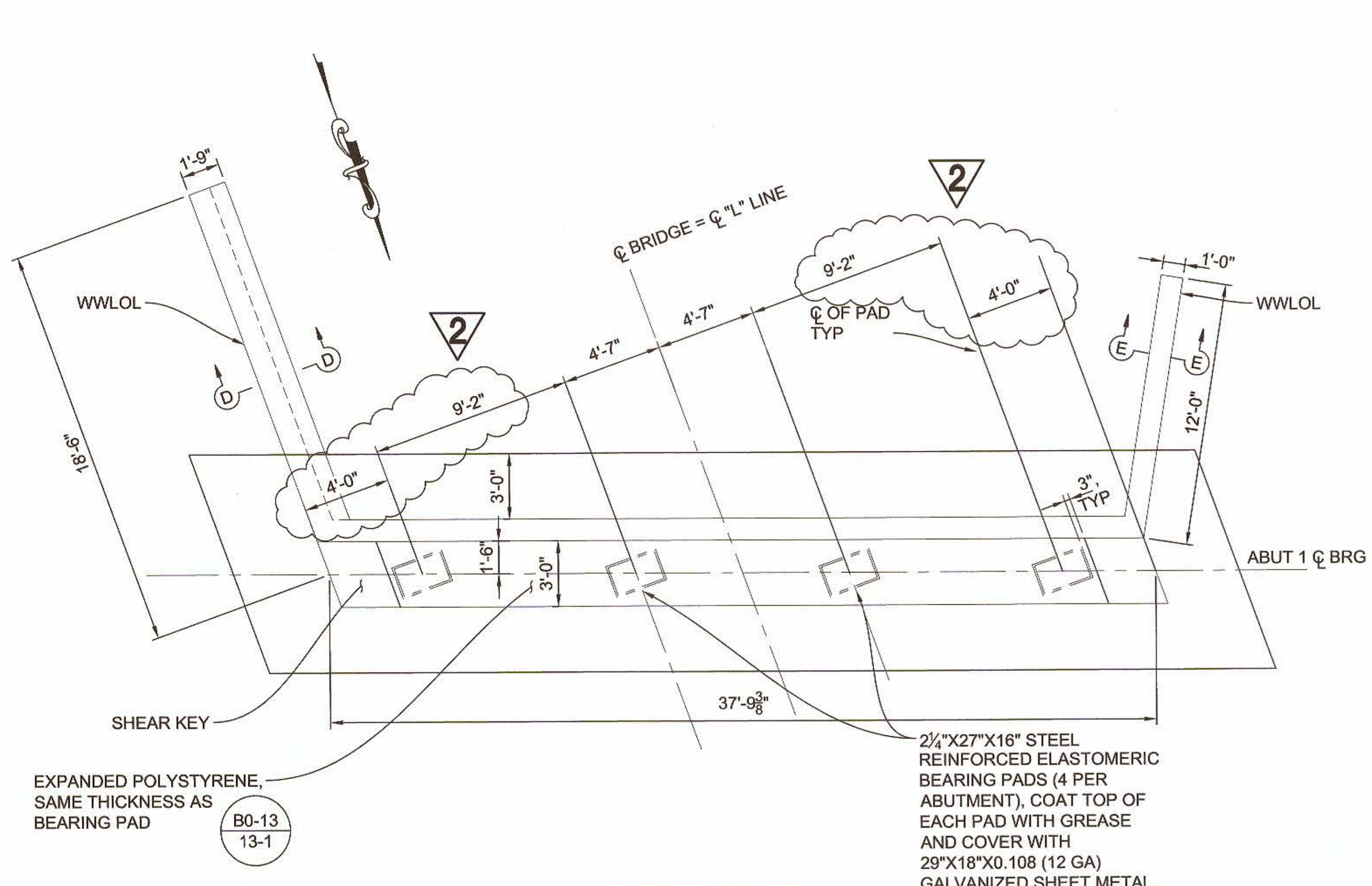
COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT
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John A. Gay
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 9/9/21
 DATE

PUBLIC WORKS DEPARTMENT
 COUNTY OF IMPERIAL
 EL CENTRO, CALIFORNIA

DATE: 8/3/2021
 DRAWN: GD
 SCALE: AS SHOWN
 CHECKED: CJK

**LACK ROAD BRIDGE REPLACEMENT
 OVER NEW RIVER
 BRIDGE NO. 58C-0224**

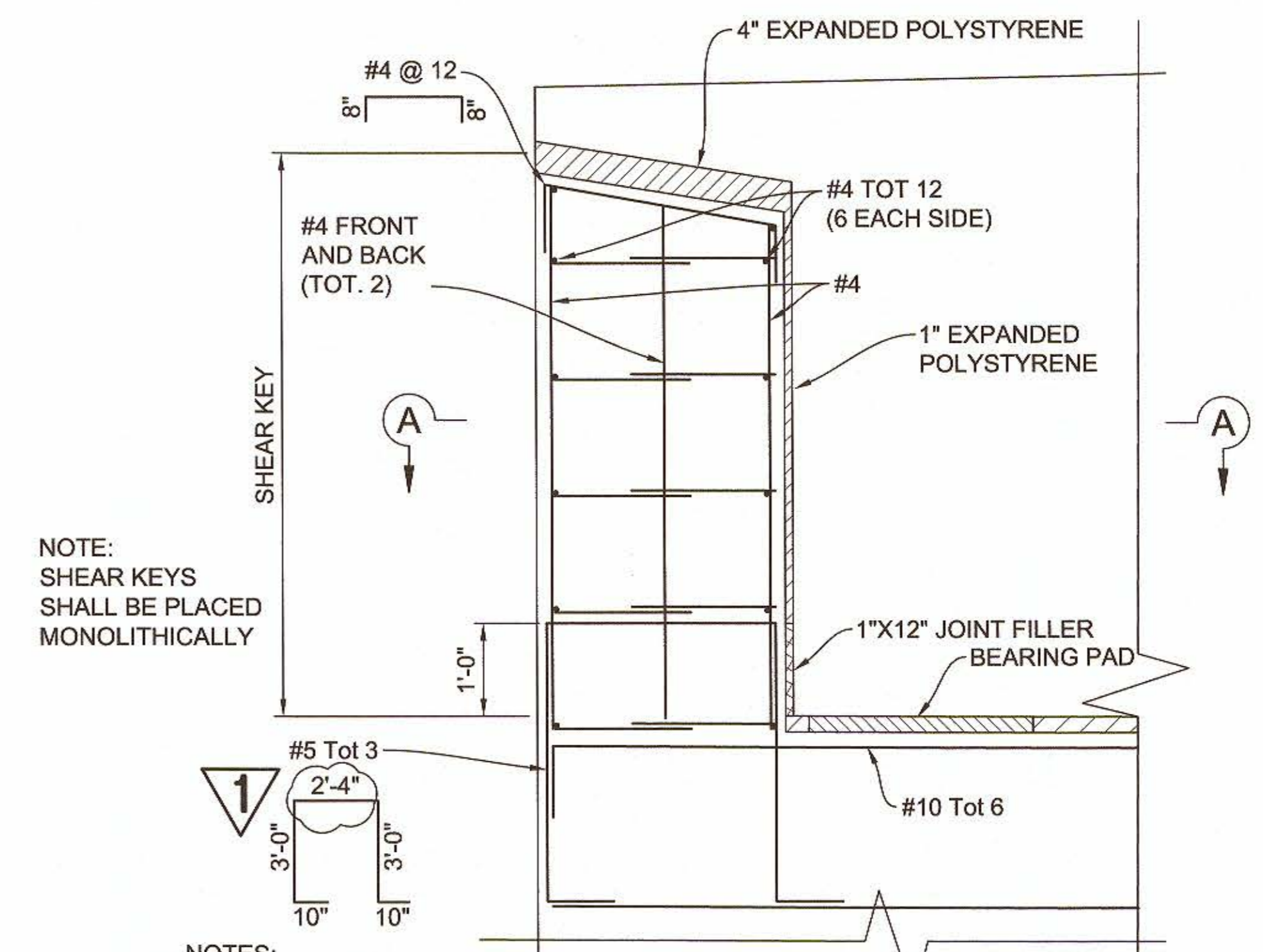
DECK CONTOURS PLAN	
REFERENCE: S-04	B-197
SHEET: 8	OF: 19



ABUTMENT 1 PLAN
SCALE: 1/4" = 1'-0"

2 1/4" X 27" X 16" STEEL REINFORCED ELASTOMERIC BEARING PADS (4 PER ABUTMENT), COAT TOP OF EACH PAD WITH GREASE AND COVER WITH 29" X 18" X 0.108 (12 GA) GALVANIZED SHEET METAL.

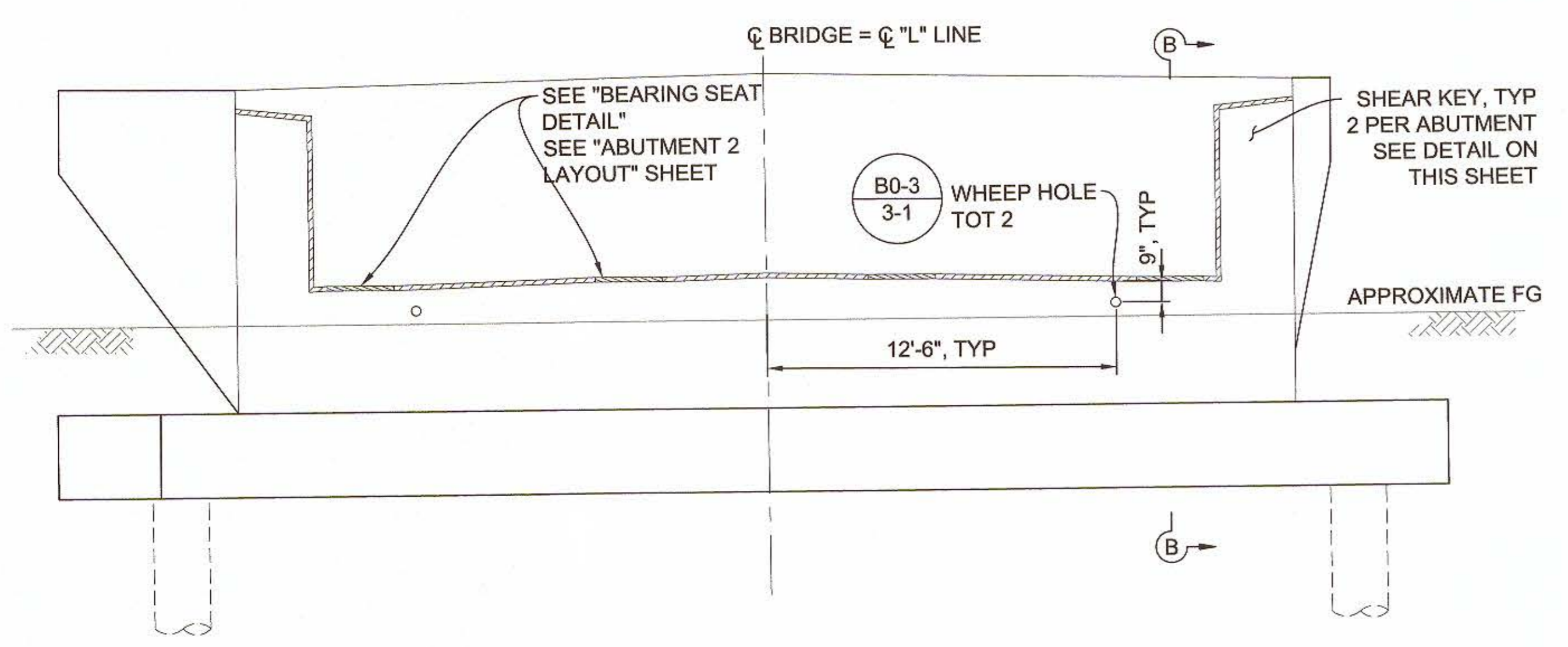
EXPANDED POLYSTYRENE, SAME THICKNESS AS BEARING PAD
B0-13
13-1



NOTE: SHEAR KEYS SHALL BE PLACED MONOLITHICALLY

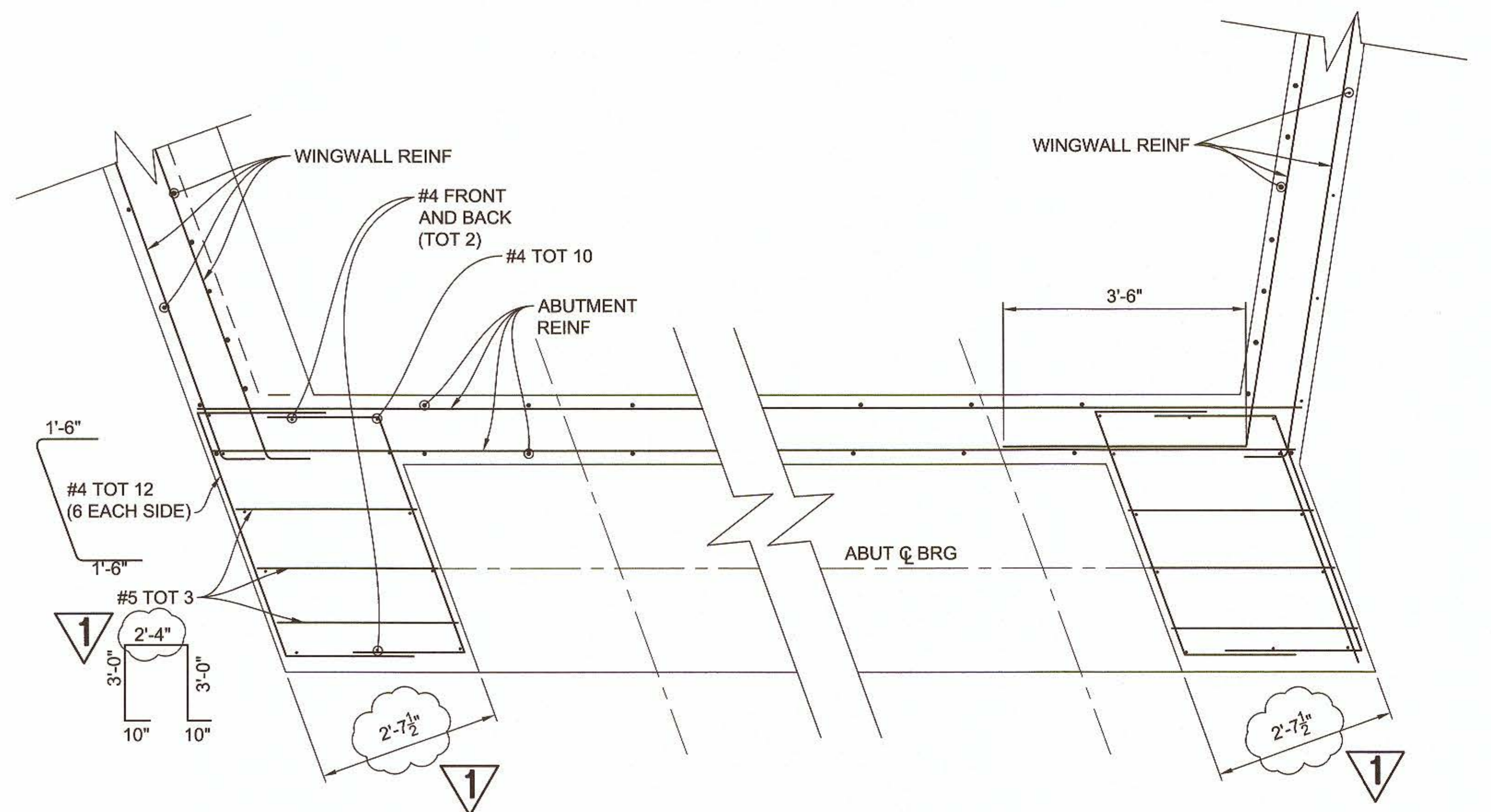
- NOTES:
1. TYP ABUTMENT REINFORCING NOT SHOWN FOR CLARITY.
 2. TYP VERTICAL ABUTMENT REINFORCING SHALL NOT EXTEND INTO SHEAR KEY.

TYPICAL SHEAR KEY
SCALE: 3/4" = 1'-0"



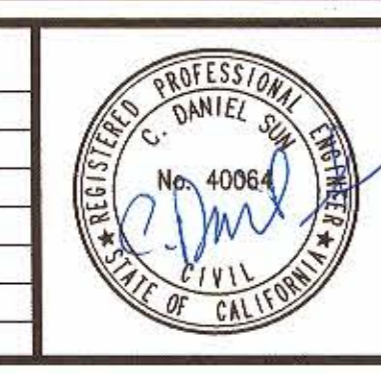
ABUTMENT 1 ELEVATION
SCALE: 1/4" = 1'-0"

NOTE: FOR SECTION B-B, D-D AND E-E SEE "ABUTMENT DETAILS -1" SHEET

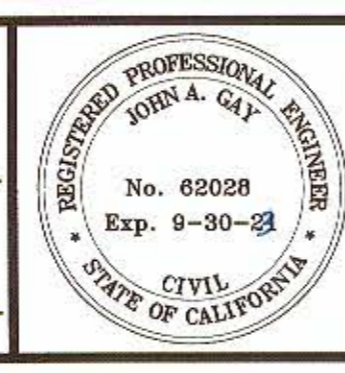


SECTION A-A
SCALE: 3/4" = 1'-0"

REVISION	DATE	COMMENTS
1	8/17/21	REVISED DIMENSIONS
2	8/17/21	REVISED PAD SPACING



PREPARED UNDER THE DIRECT SUPERVISION OF:
Daniel Sun
DANIEL SUN, P.E.
NVS
3/16/21
DATE



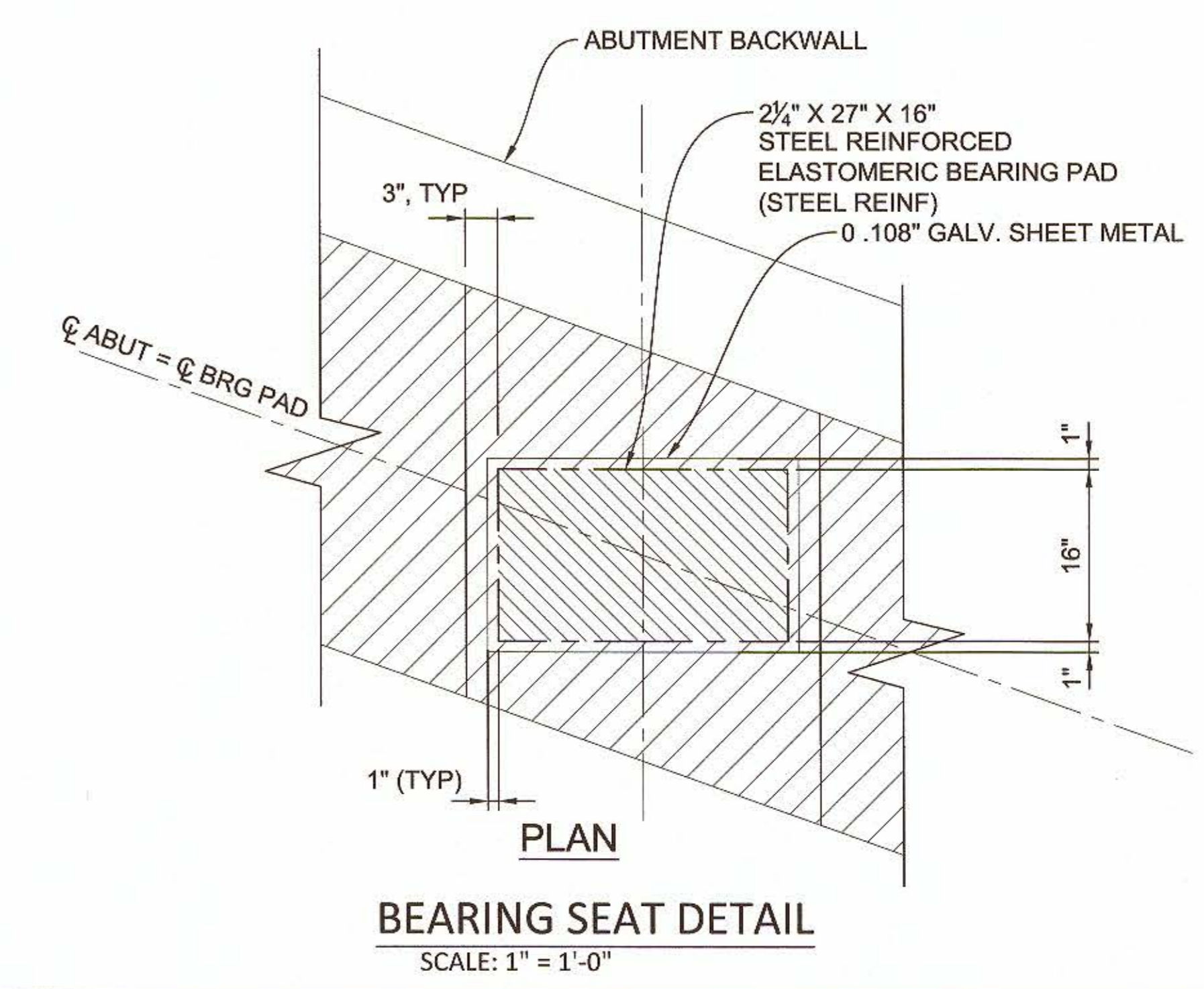
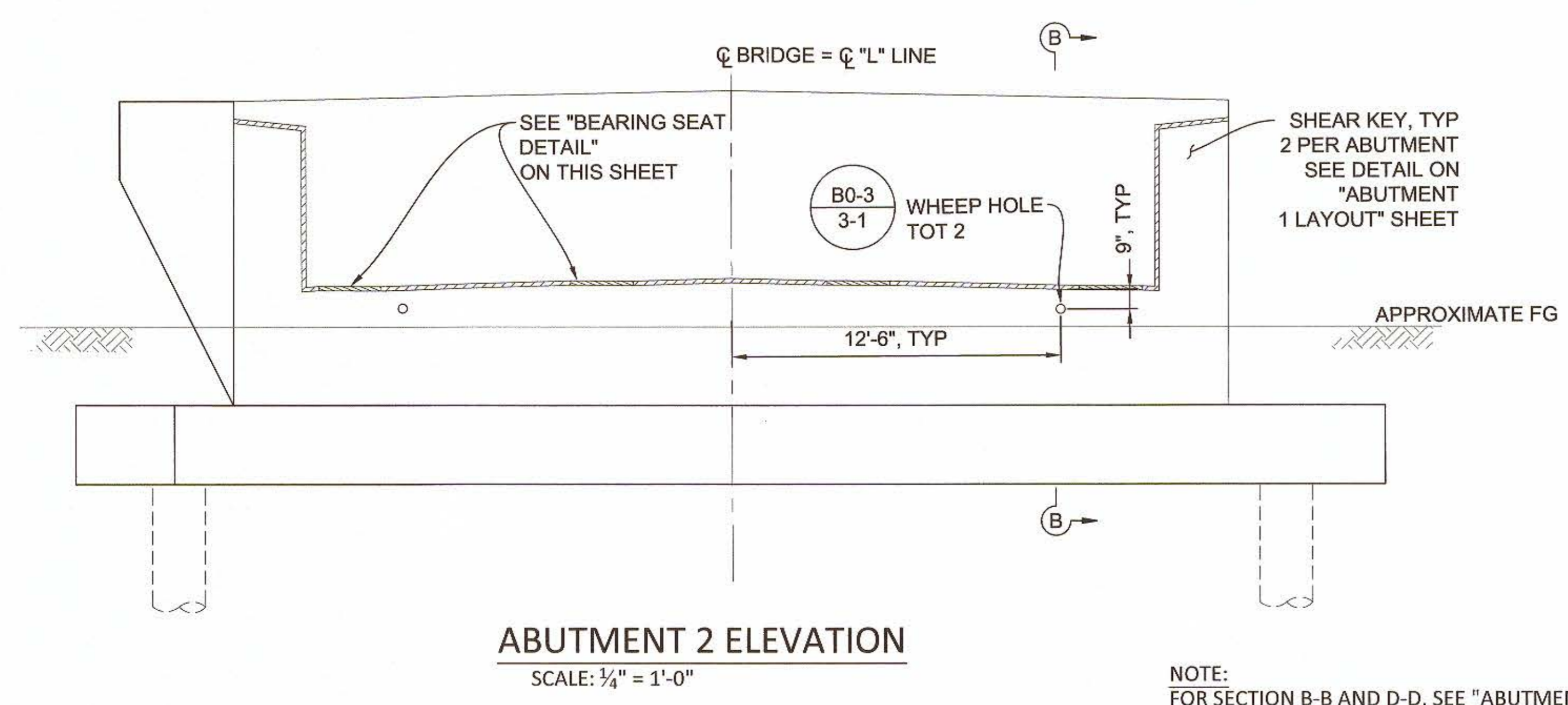
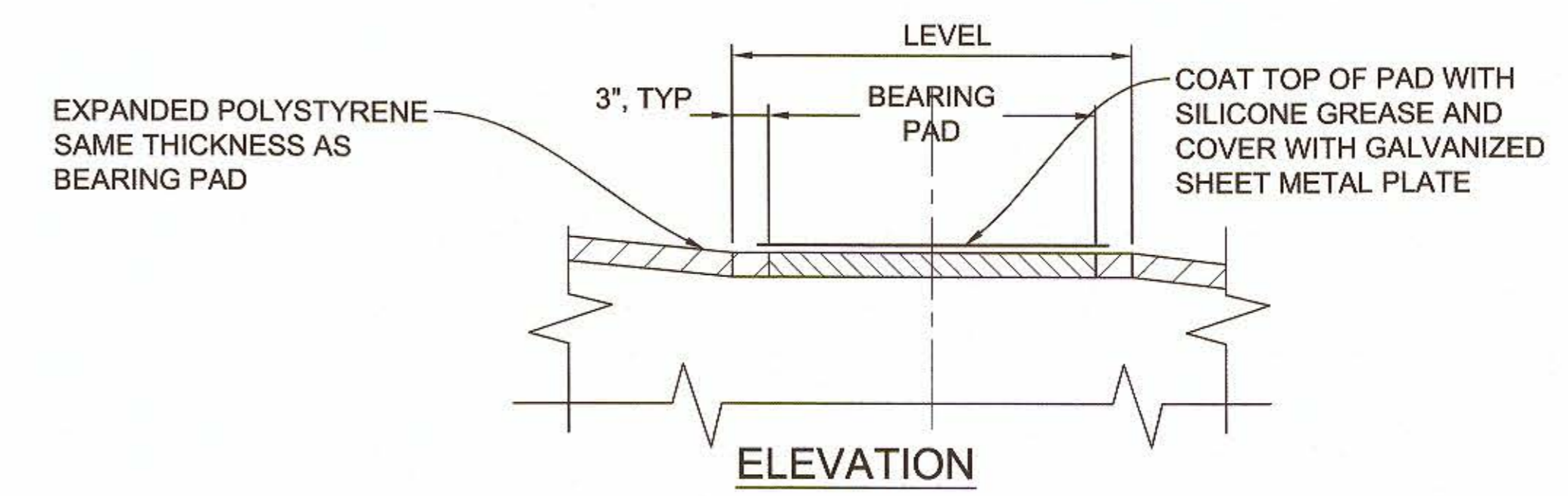
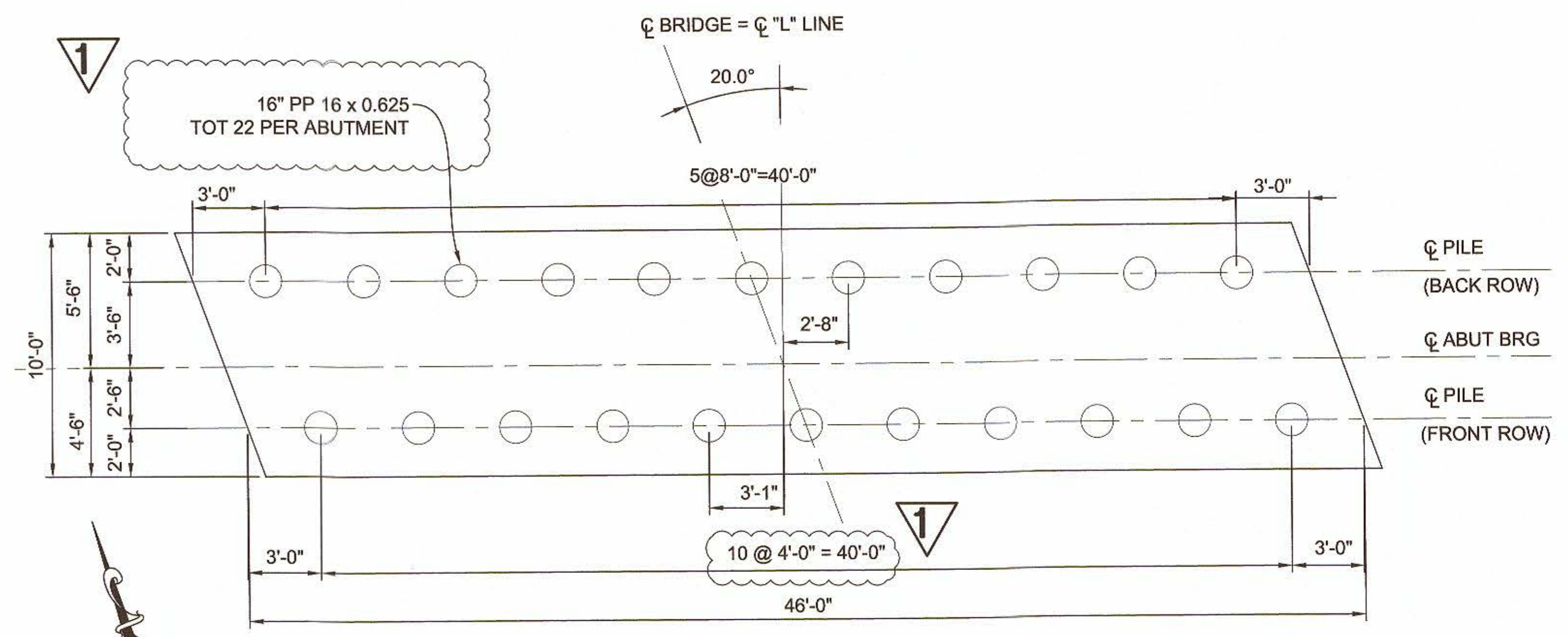
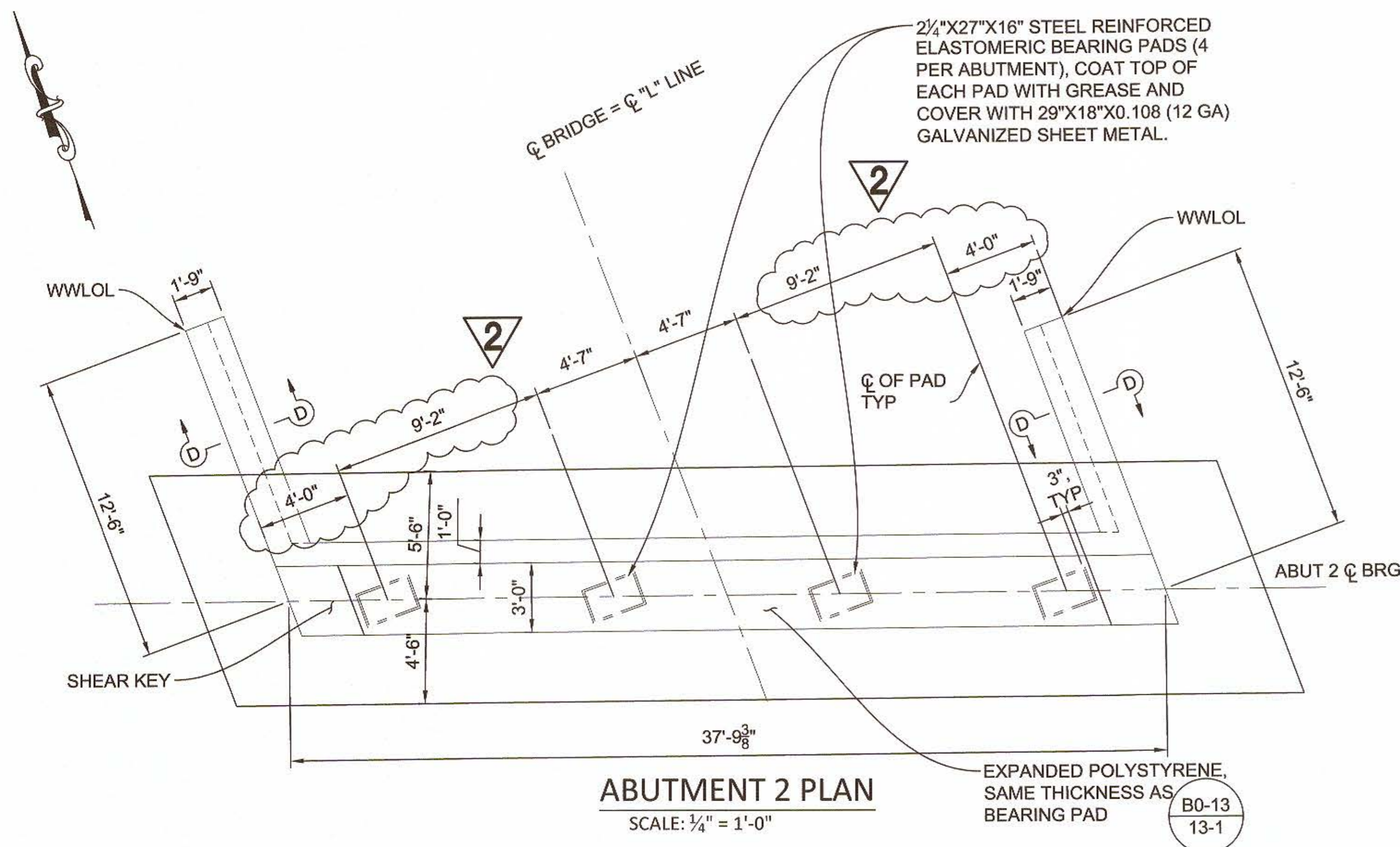
COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT
APPROVED FOR CONSTRUCTION BY:
John A. Gay
JOHN A. GAY, P.E.
ROAD COMMISSIONER
9/9/21
DATE

PUBLIC WORKS DEPARTMENT
COUNTY OF IMPERIAL
EL CENTRO, CALIFORNIA

DATE 8/3/2021
DRAWN GD
SCALE AS SHOWN
CHECKED CJK

LACK ROAD BRIDGE REPLACEMENT
OVER NEW RIVER
BRIDGE NO. 58C-0224

ABUTMENT 1 LAYOUT	
REFERENCE S-05	B-197
SHEET 9	OF 19



NOTE:
FOR SECTION B-B AND D-D, SEE "ABUTMENT DETAILS -1" SHEET

REVISION	DATE	COMMENTS
V	8/3/21	REVISED PILE TYPE AND LAYOUT
V	8/17/21	REVISED PAD SPACING

PREPARED UNDER THE DIRECT SUPERVISION OF:

Daniel Sun

DANIEL SUN, P.E.
NV5

3/16/21
DATE

40064
R.C.E. No.

12/30/21
REG. EXP.

COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT
APPROVED FOR CONSTRUCTION BY:

John A. Gay

JOHN A. GAY, P.E.
ROAD COMMISSIONER

9/9/21
DATE

62028
R.C.E. No.

9/30/28
REG. EXP.

PUBLIC WORKS DEPARTMENT
COUNTY OF IMPERIAL
EL CENTRO, CALIFORNIA

DATE 8/3/2021

DRAWN GD

SCALE AS SHOWN

CHECKED CJK

LACK ROAD BRIDGE REPLACEMENT
OVER NEW RIVER
BRIDGE NO. 58C-0224

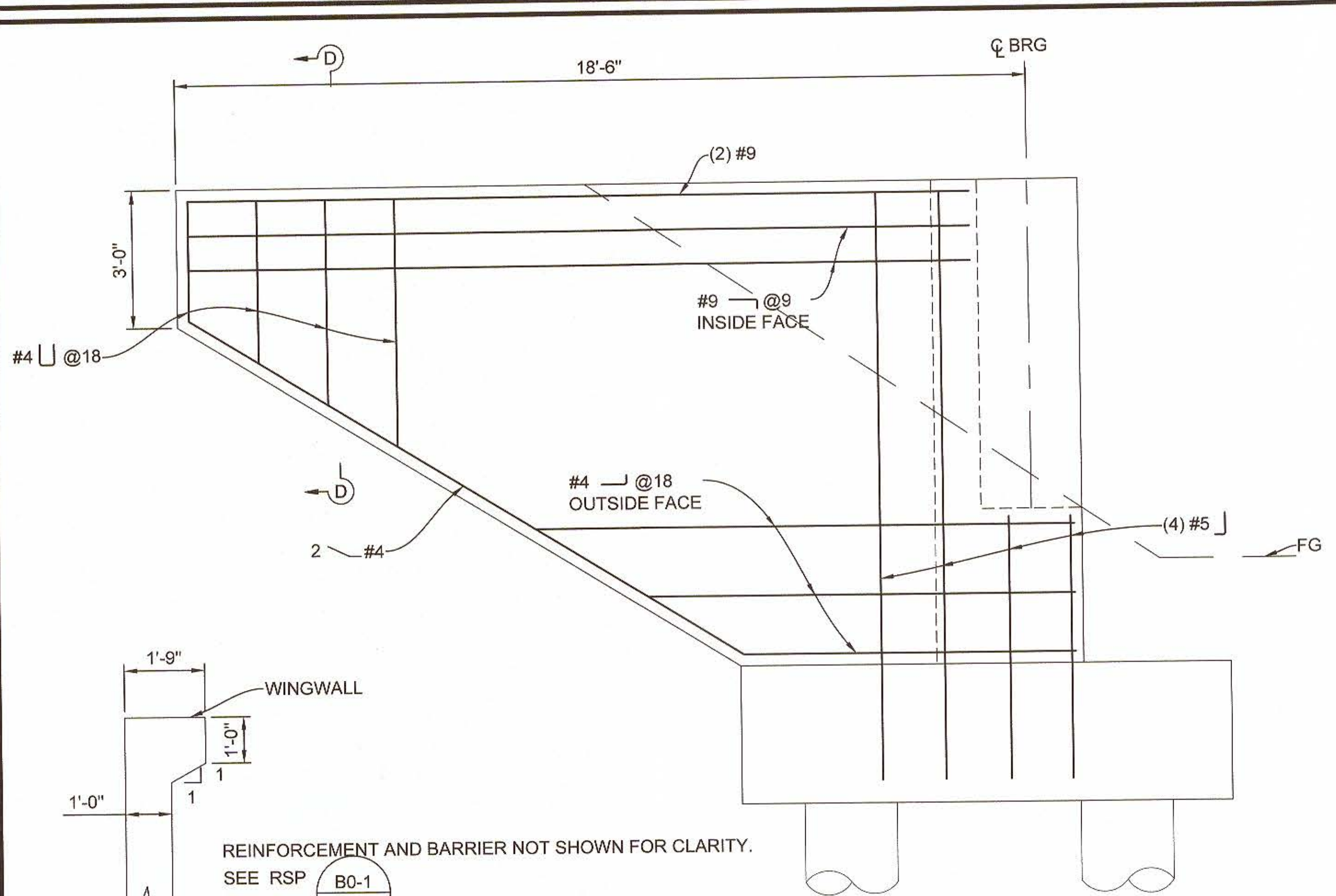
REFERENCE S-06

ABUTMENT 2 LAYOUT

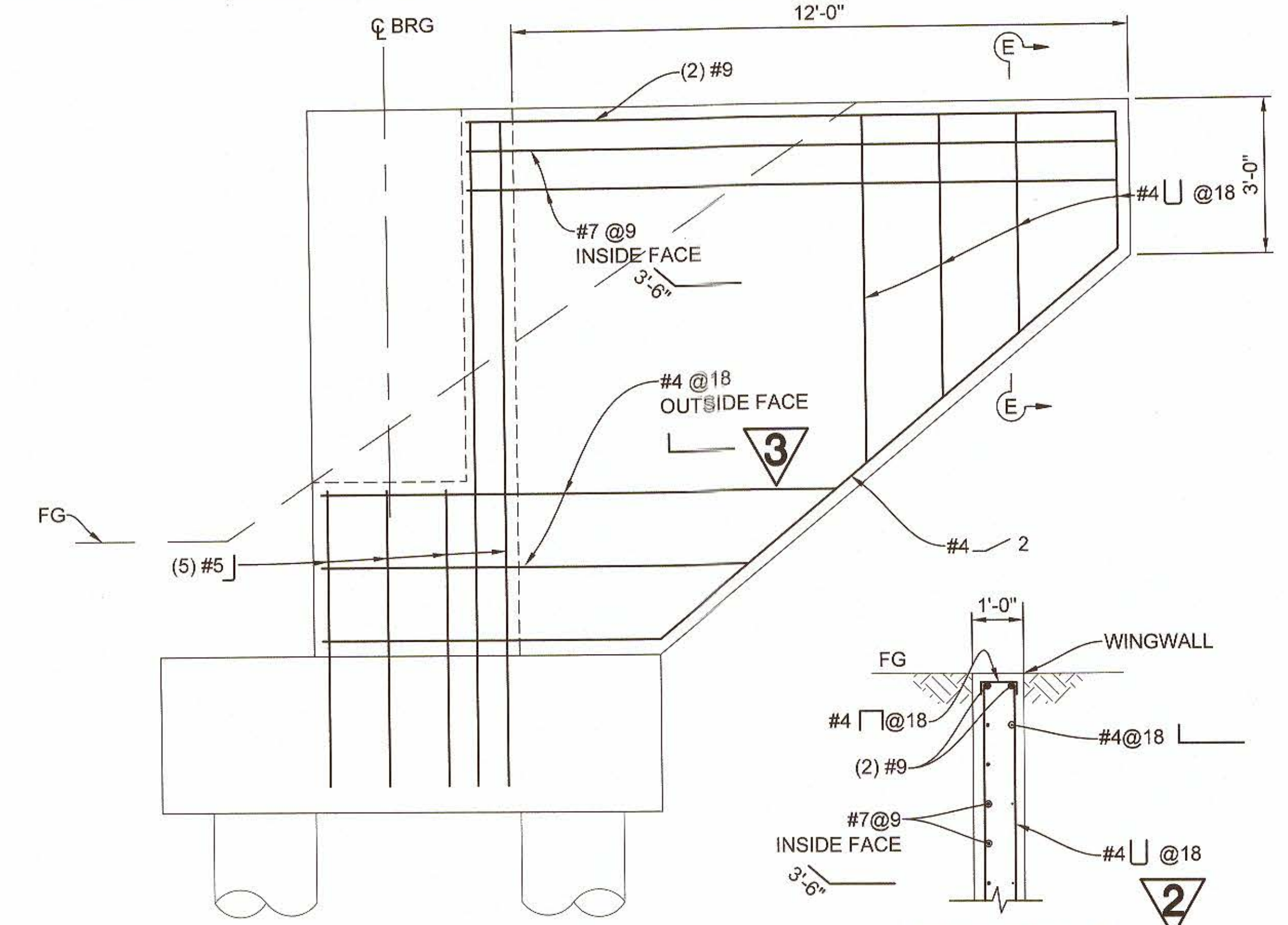
REFERENCE **B-197**

SHEET 10 OF 19

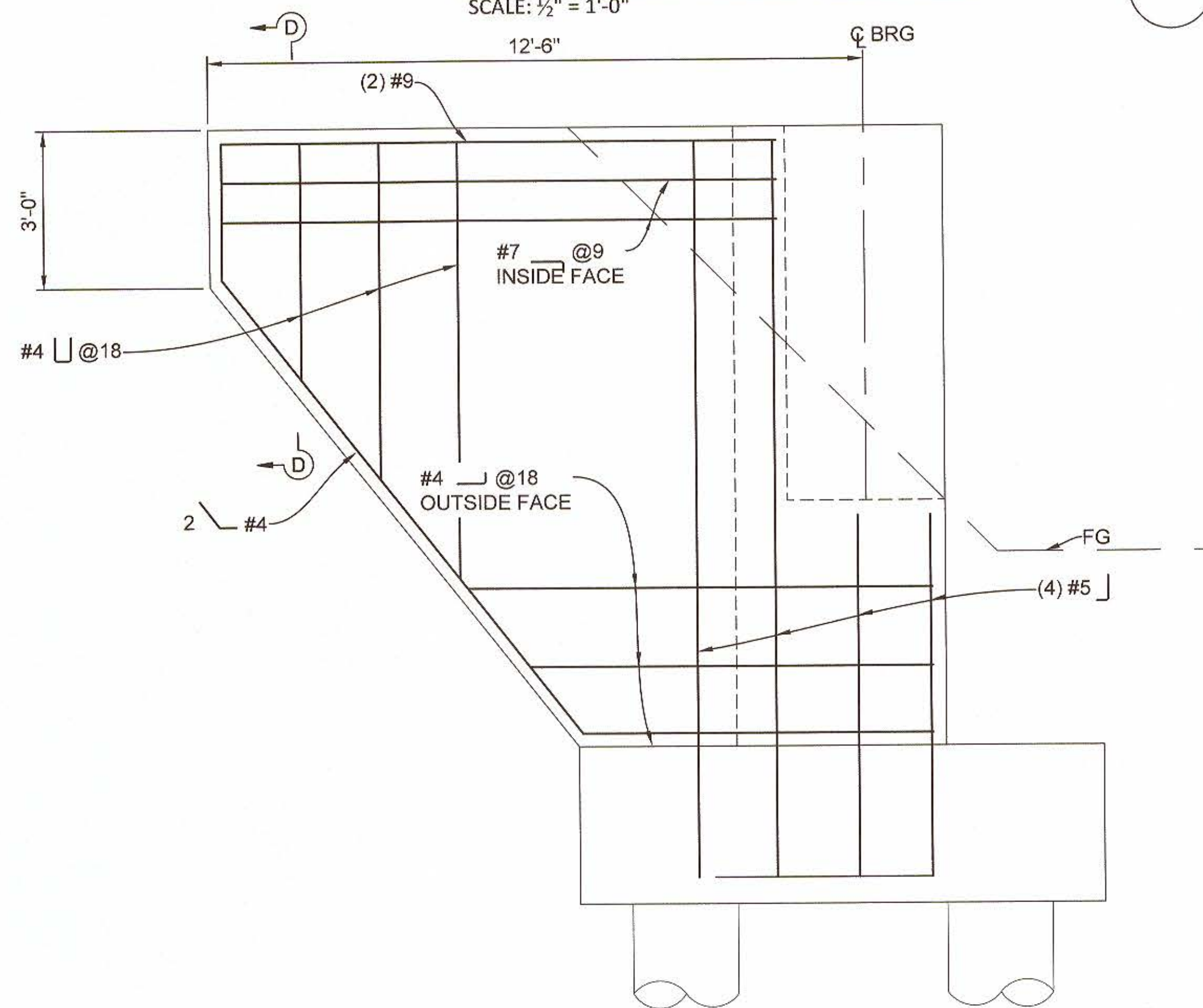
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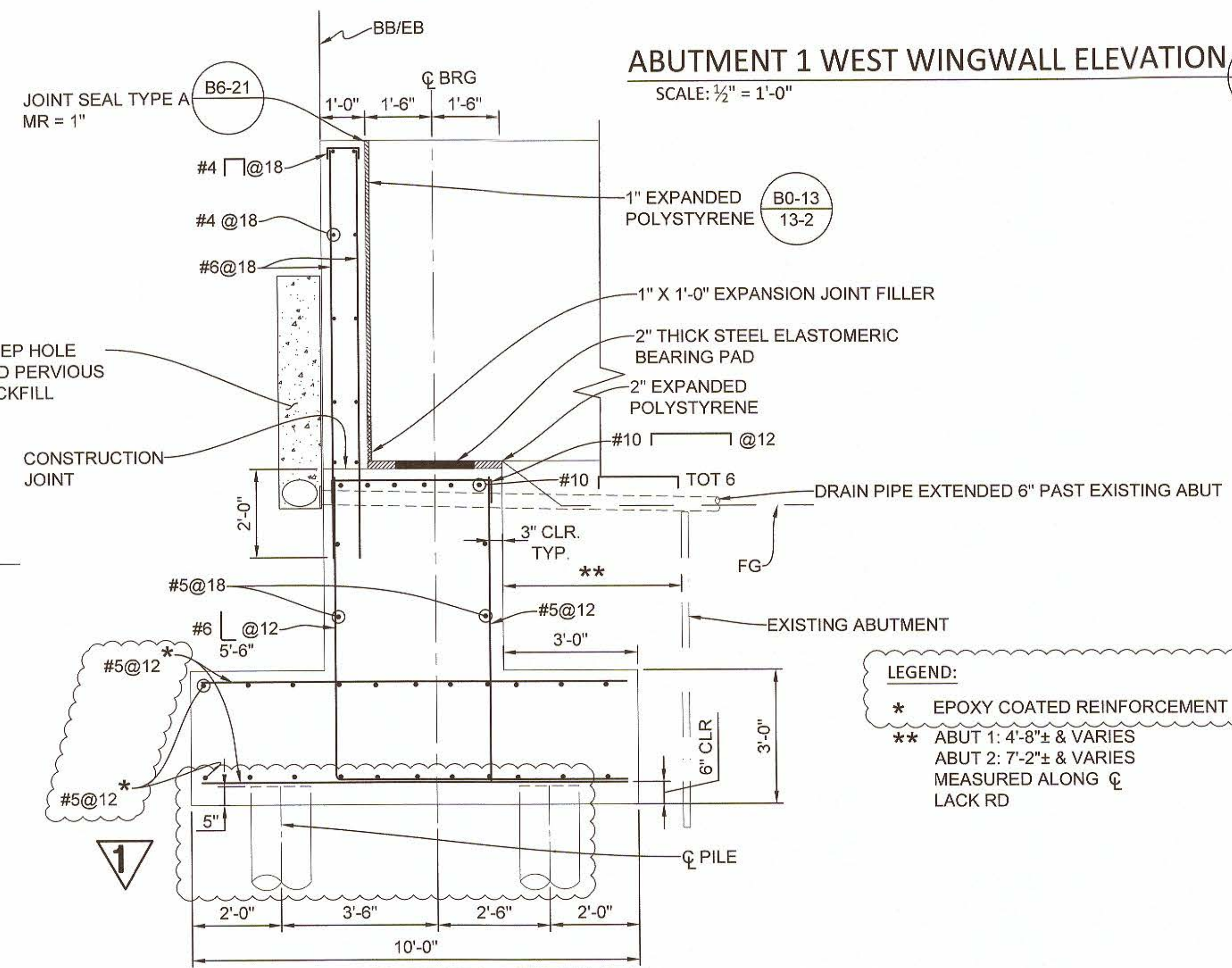
ABUTMENT 1 EAST WINGWALL ELEVATION
SCALE: 1/2" = 1'-0"



ABUTMENT 1 WEST WINGWALL ELEVATION
SCALE: 1/2" = 1'-0"



ABUTMENT 2 WINGWALL ELEVATION
SCALE: 1/2" = 1'-0"



TYPICAL ABUTMENT SECTION B-B
SCALE: 1/2" = 1'-0"

LEGEND:
* EPOXY COATED REINFORCEMENT
** ABUT 1: 4'-8"± & VARIES
ABUT 2: 7'-2"± & VARIES
MEASURED ALONG C LACK RD

REVISION	DATE	COMMENTS
1	8/3/21	REVISED EMBEDMENT DEPTH; SPECIFIED EPOXY COATING
2	9/3/21	ADDED WW REINFORCEMENT
3	9/3/21	REVISED BAR SHAPE



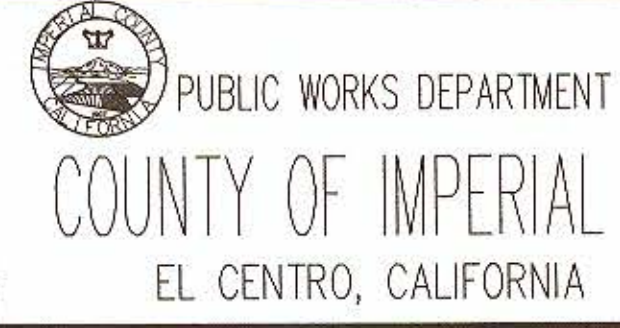
PREPARED UNDER THE DIRECT SUPERVISION OF:
Daniel Sun
DANIEL SUN, P.E.
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JOHN A. GAY, P.E.
ROAD COMMISSIONER
9/9/21
DATE

62028
R.C.E. No.
9/30/25
REG. EXP.

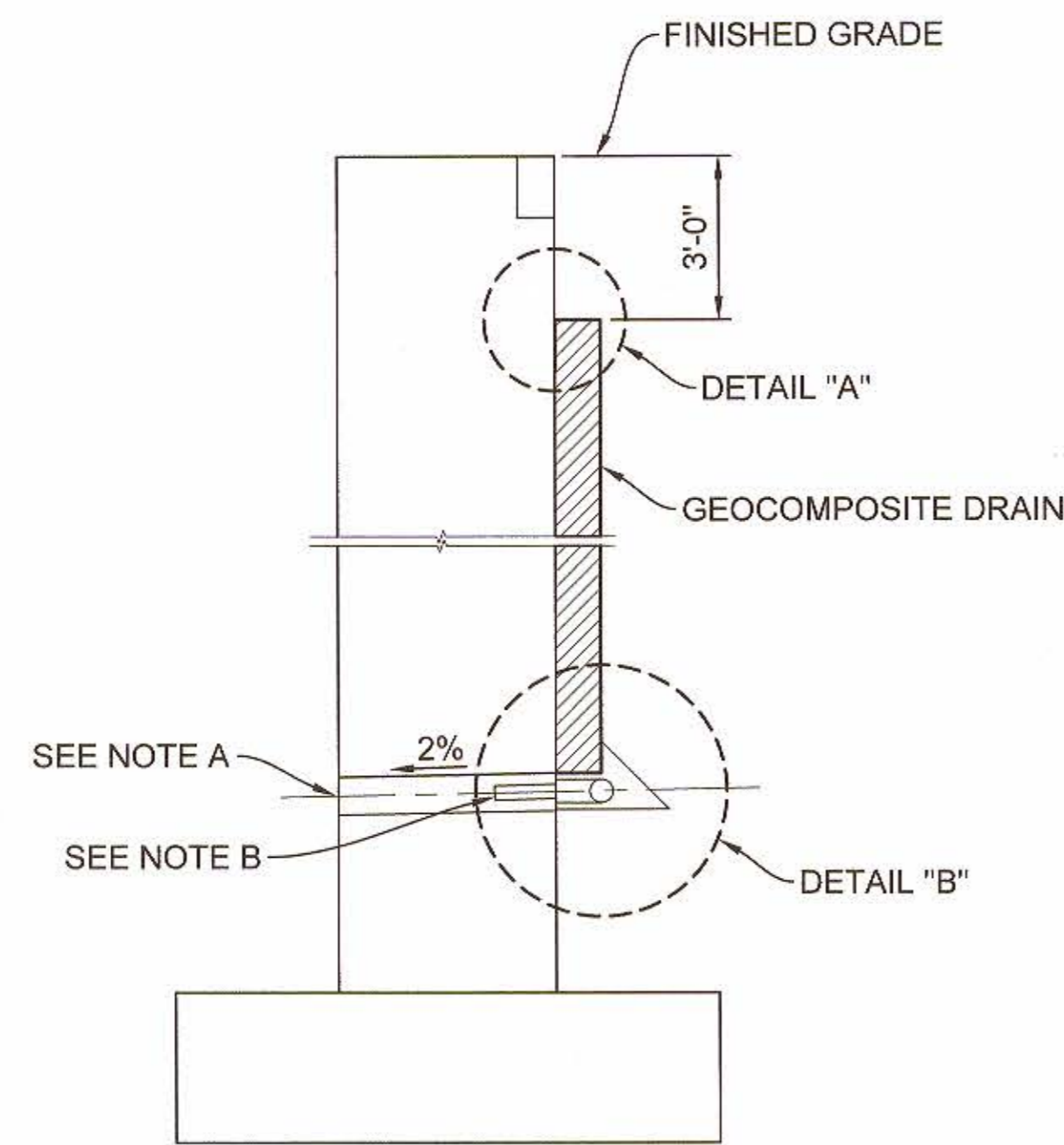


DATE 8/3/2021
DRAWN GD
SCALE AS SHOWN
CHECKED CJK

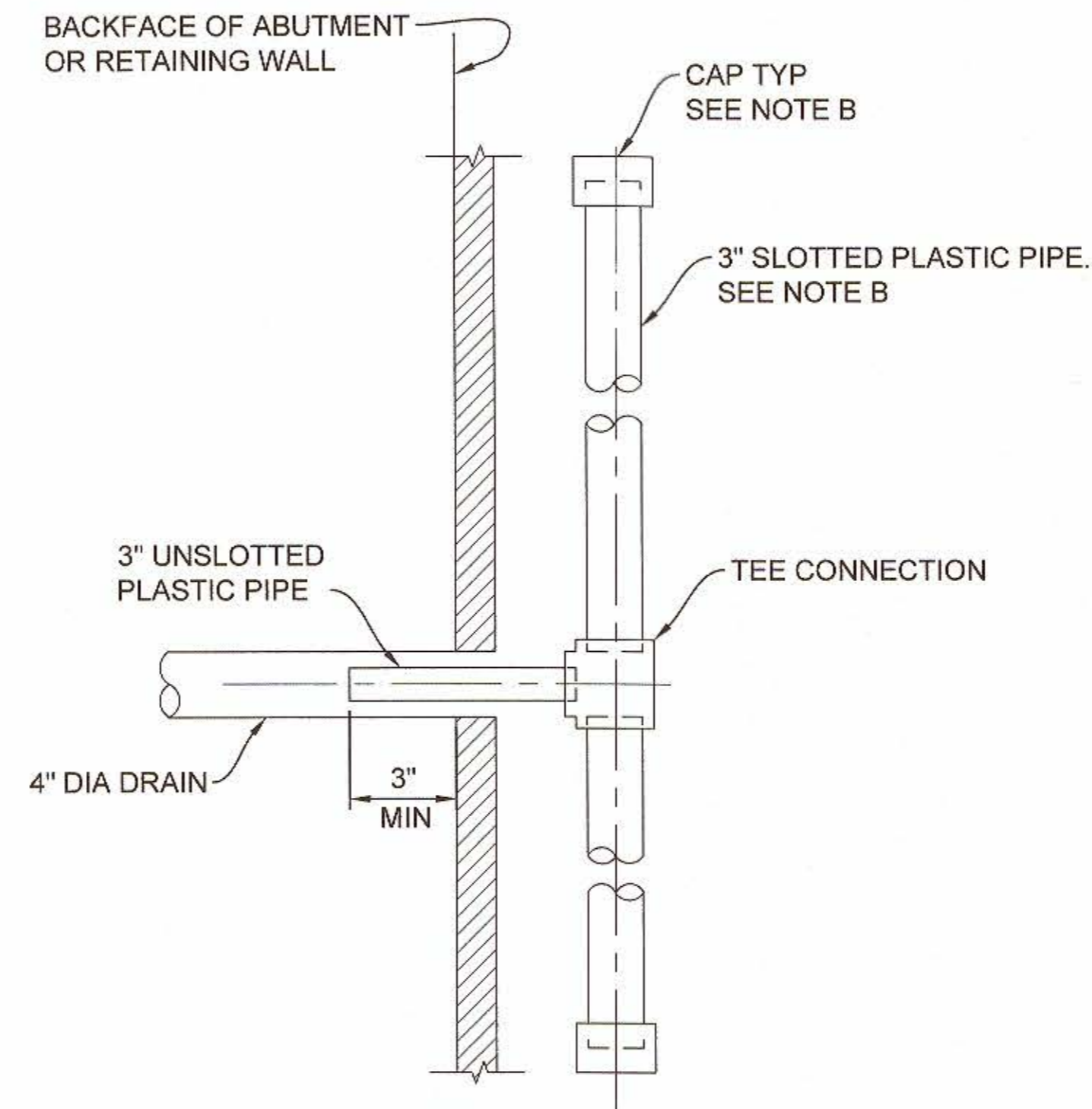
**LACK ROAD BRIDGE REPLACEMENT
OVER NEW RIVER
BRIDGE NO. 58C-0224**

ABUTMENT DETAILS-1	
REFERENCE S-07	B-197
SHEET 11	OF 19

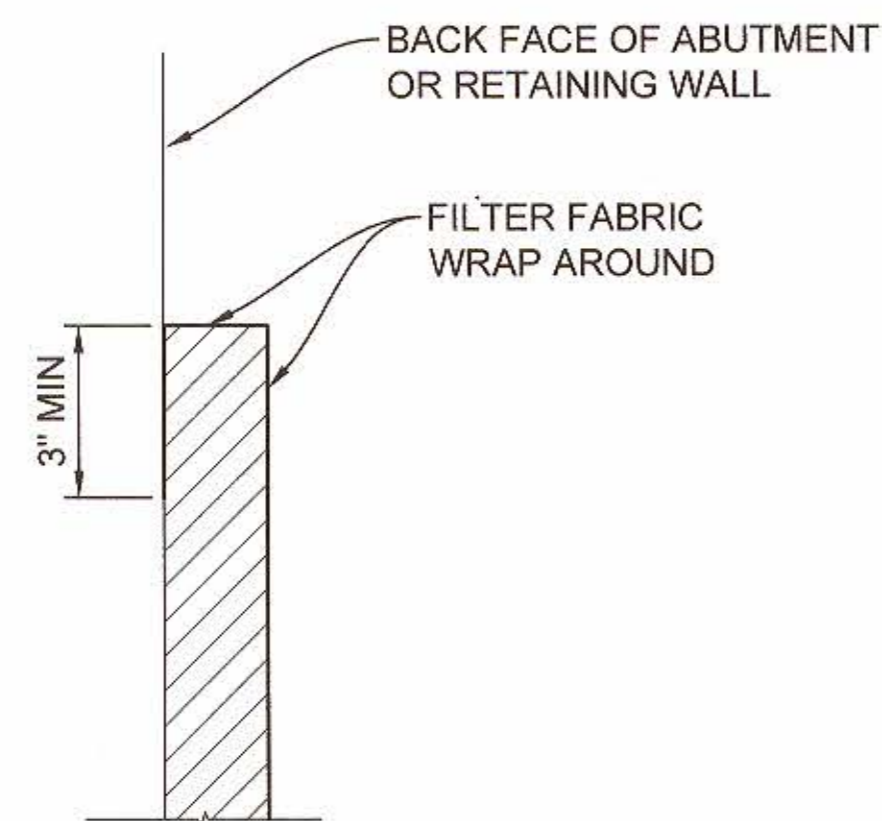
N:\118-0000439-Cadd\Civil\07-Lack_Road_Abument_Details-1.dwg [Sep-08-2021: 17:41]



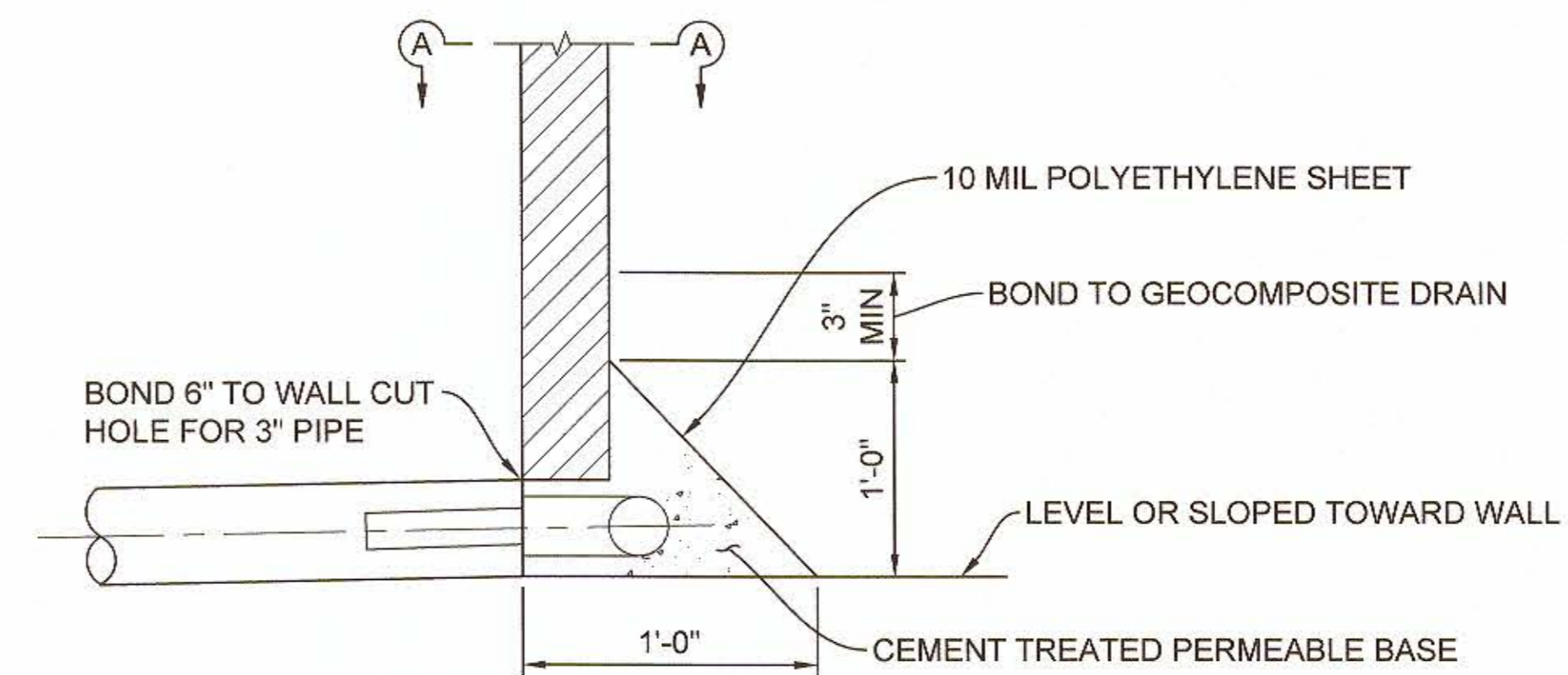
WALL SECTION
SCALE: NTS



SECTION A-A
SCALE: NTS



DETAIL A
SCALE: NTS



DETAIL B
SCALE: NTS

WEEP HOLE AND GEOCOMPOSITE DRAIN

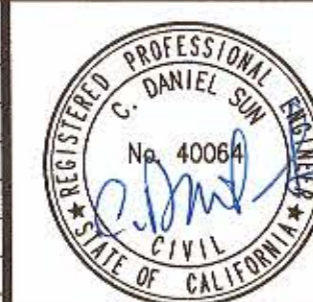
ALTERNATIVE TO BRIDGE DETAIL

B0-3
3-1

NOTES:

- A. 4" DIA DRAINS AT INTERMEDIATE SAG POINTS AND AT 25' MAX. CENTER TO CENTER. EXPOSED WALL DRAINS SHALL BE LOCATED 4" ± ABOVE FINISHED GRADE.
- B. GEOCOMPOSITE DRAIN, CEMENT TREATED PERMEABLE BASE, AND 3" DIA SLOTTED PLASTIC PIPE CONTINUOUS BEHIND RETAINING WALLS AND ABUTMENTS. CAP ENDS OF PIPE, PROVIDE "TEE" CONNECTION AT EACH 4" DIA DRAIN.
- C. CONNECT THE LOW END OF PLASTIC PIPE TO THE MAIN OUTLET PIPE AS APPLICABLE.

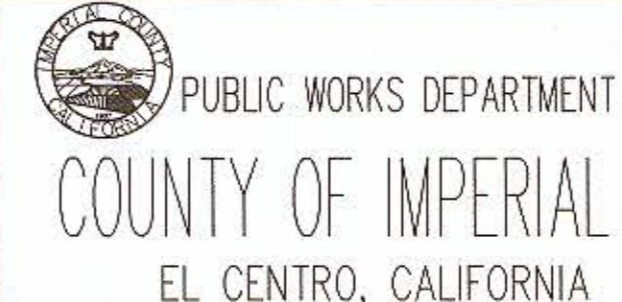
REVISION	DATE	COMMENTS



PREPARED UNDER THE DIRECT SUPERVISION OF:
Daniel Sun
 DANIEL SUN, P.E.
 NVS
 3/16/21 DATE
 40064 R.C.E. No.
 12/30/21 REG. EXP.



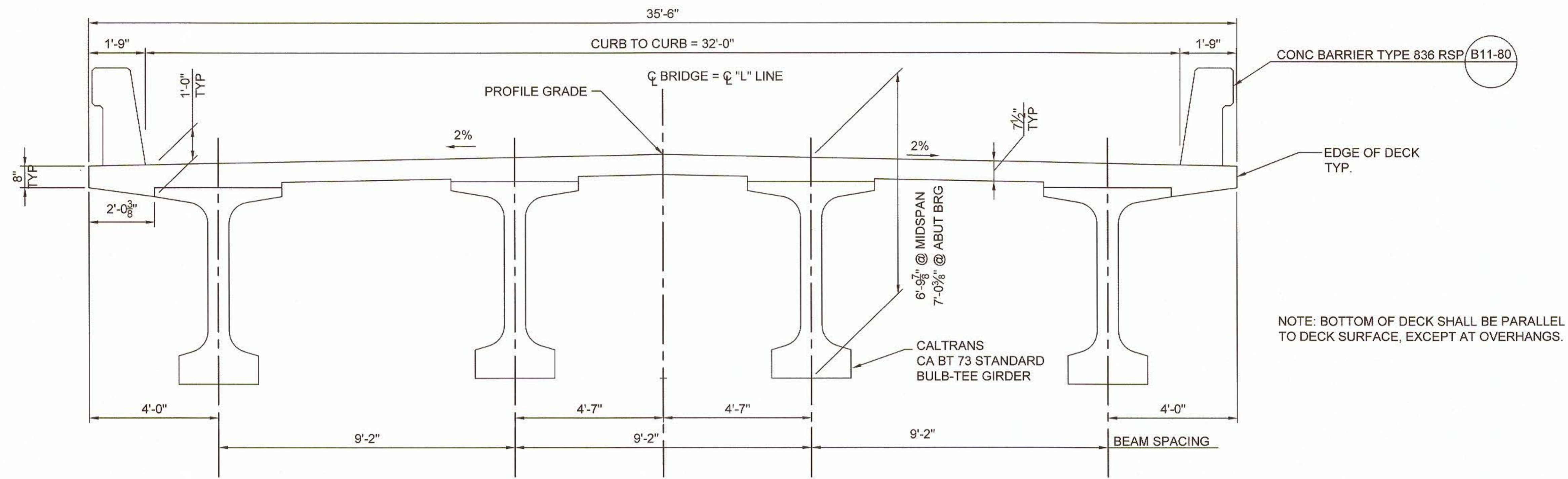
COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT
 APPROVED FOR CONSTRUCTION BY:
John A. Gay
 JOHN A. GAY, P.E.
 ROAD COMMISSIONER
 9/9/21 DATE
 62028 R.C.E. No.
 9/30/23 REG. EXP.



DATE 8/3/2021
 DRAWN GD
 SCALE AS SHOWN
 CHECKED CJK

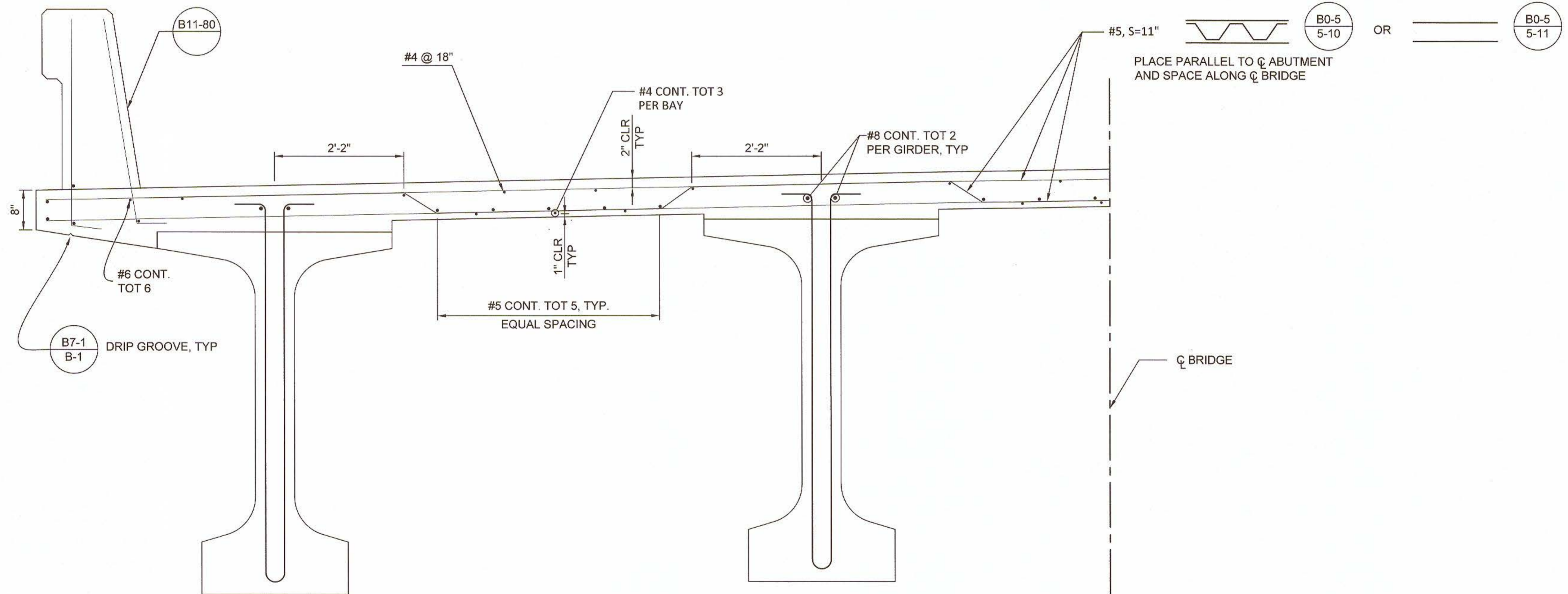
LACK ROAD BRIDGE REPLACEMENT
 OVER NEW RIVER
 BRIDGE NO. 58C-0224

ABUTMENT DETAILS-2	
REFERENCE S-08	B-197
SHEET 12	OF 19



TYPICAL SECTION

SCALE: 1/2" = 1'-0"



PARTIAL TYPICAL SECTION

SCALE: 1" = 1'-0"

REVISION	DATE	COMMENTS



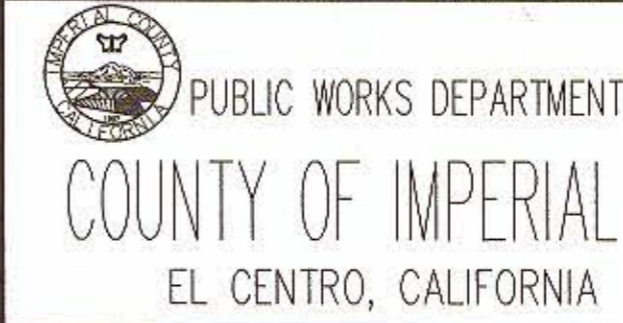
PREPARED UNDER THE DIRECT SUPERVISION OF:
Daniel Sun
 DANIEL SUN, P.E.
 NVS
 3/16/21
 DATE

40064
 R.C.E. No.
 12/30/21
 REG. EXP.



COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT
 APPROVED FOR CONSTRUCTION BY:
John Gay
 JOHN A. GAY, P.E.
 ROAD COMMISSIONER
 9/9/21
 DATE

62028
 R.C.E. No.
 9/30/25
 REG. EXP.

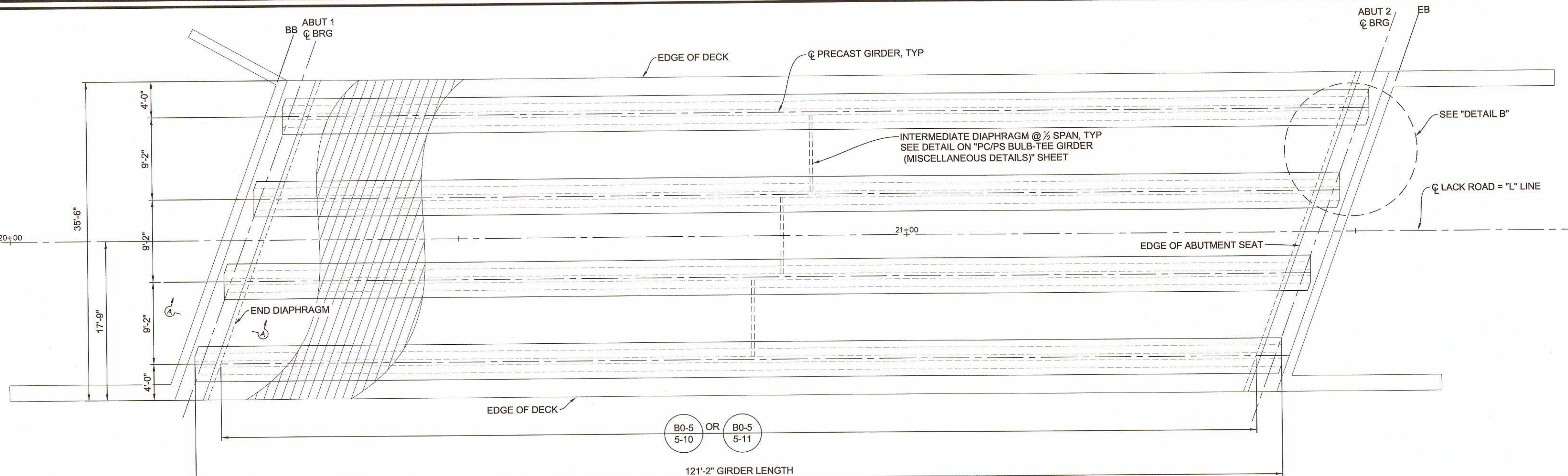


DATE 8/3/2021
 DRAWN GD
 SCALE AS SHOWN
 CHECKED CJK

LACK ROAD BRIDGE REPLACEMENT
 OVER NEW RIVER
 BRIDGE NO. 58C-0224

TYPICAL SECTION

REFERENCE S-09	B-197
SHEET 13	OF 19

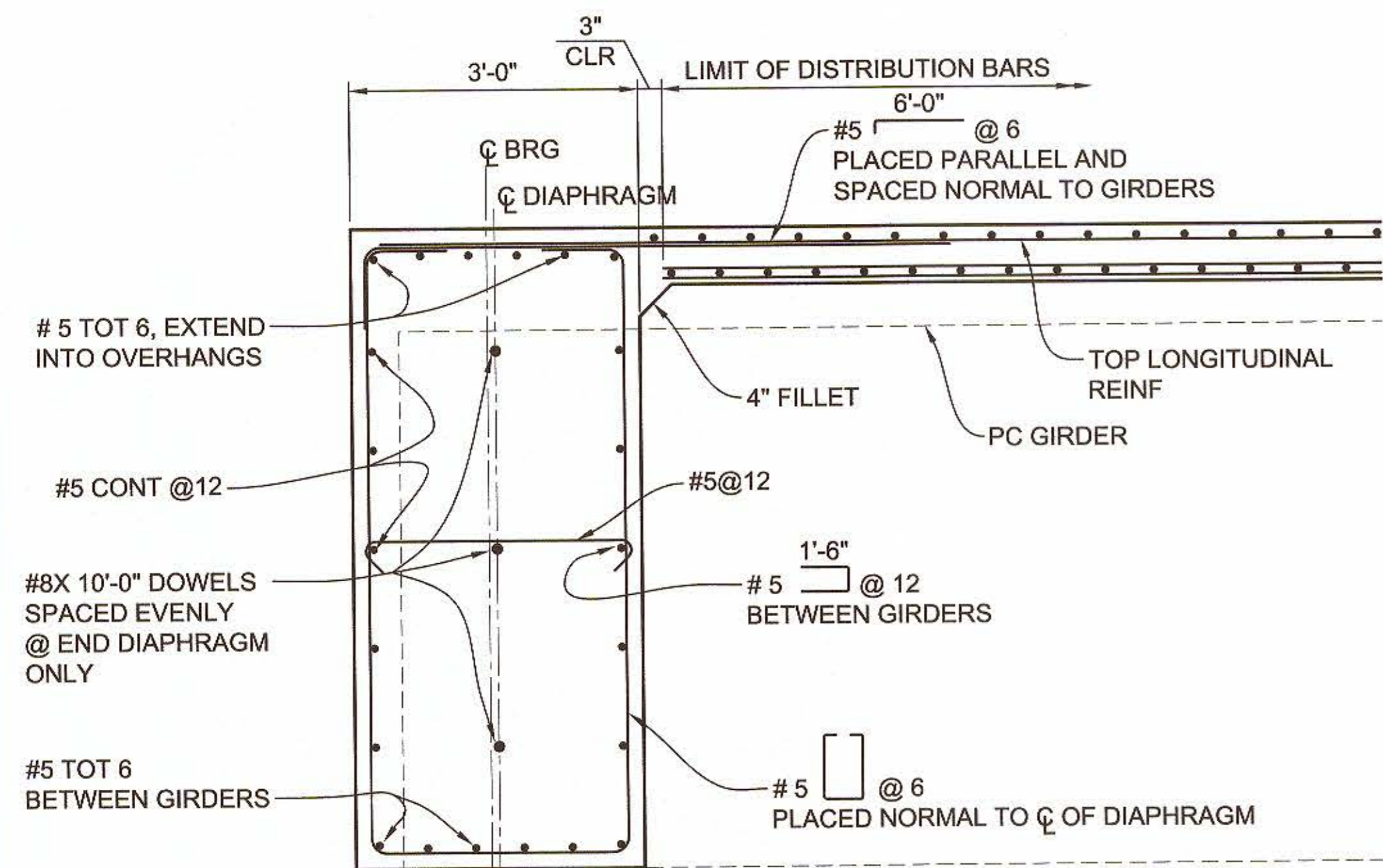


B0-5 OR B0-5
5-10 5-11

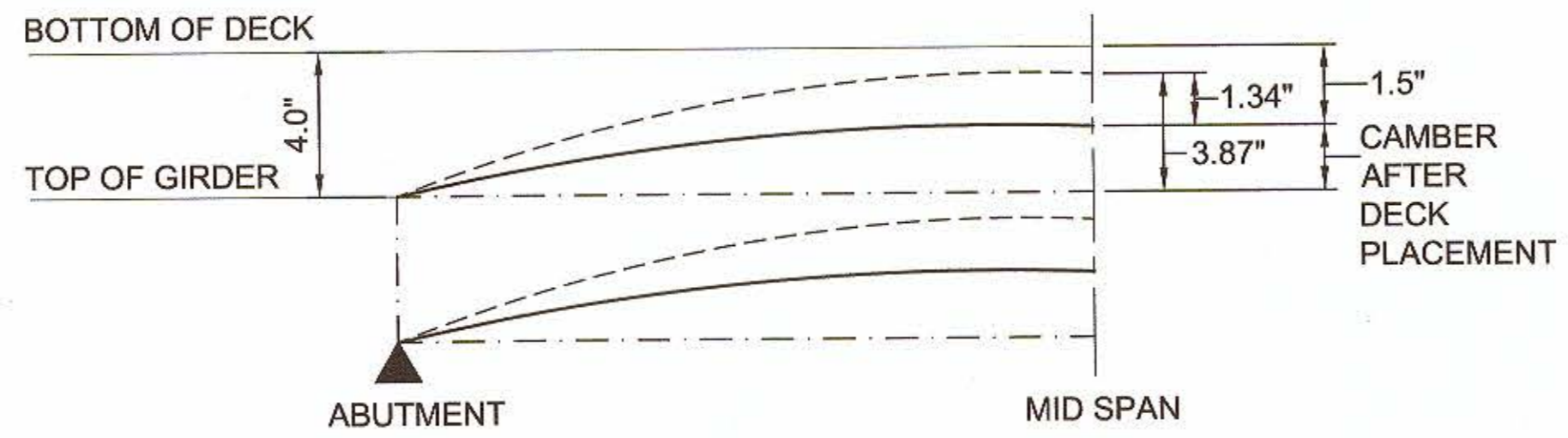
121'-2" GIRDER LENGTH

PLAN

SCALE: 3/16" = 1'-0"



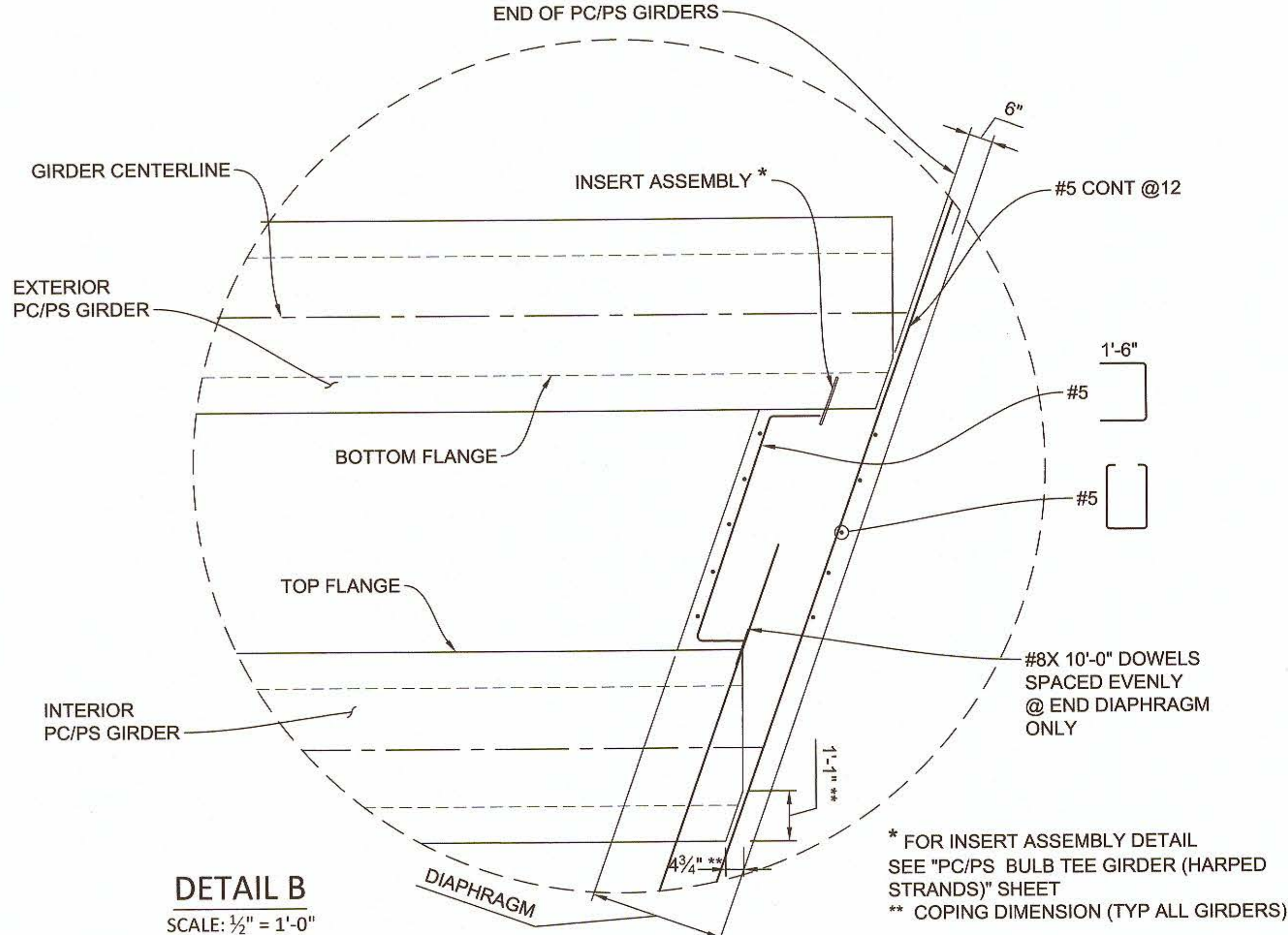
SECTION A-A
NOT TO SCALE



LEGEND:

- UN-DEFORMED SHAPE
- - - DEFORMED SHAPE (BEFORE DECK PLACEMENT)
- DEFORMED SHAPE (AFTER DECK PLACEMENT)

GIRDER HAUNCH THICKNESS
SCALE: NOT TO SCALE



DETAIL B
SCALE: 1/2" = 1'-0"

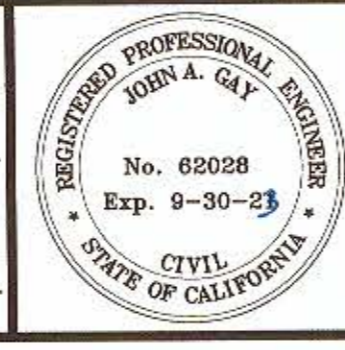
* FOR INSERT ASSEMBLY DETAIL SEE "PC/PS BULB TEE GIRDER (HARPED STRANDS)" SHEET
** COPING DIMENSION (TYP ALL GIRDERS)

REVISION	DATE	COMMENTS



PREPARED UNDER THE DIRECT SUPERVISION OF:
Daniel Sun
DANIEL SUN, P.E.
NVS
3/16/21
DATE

40064
R.C.E. No.
12/30/21
REG. EXP.



COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT
APPROVED FOR CONSTRUCTION BY:
John A. Gay
JOHN A. GAY, P.E.
ROAD COMMISSIONER
9/9/21
DATE

62028
R.C.E. No.
9/30/23
REG. EXP.

PUBLIC WORKS DEPARTMENT
COUNTY OF IMPERIAL
EL CENTRO, CALIFORNIA

DATE 5/3/2021
DRAWN GD
SCALE AS SHOWN
CHECKED CJK

**LACK ROAD BRIDGE REPLACEMENT
OVER NEW RIVER
BRIDGE NO. 58C-0224**

GIRDER LAYOUT	
REFERENCE S-10	B-197
SHEET 14	OF 19

N:\18-00004\39\Cadd\Civil\10-Lack_Road_Girder_Layout.dwg | Sep-08-2021 17:43

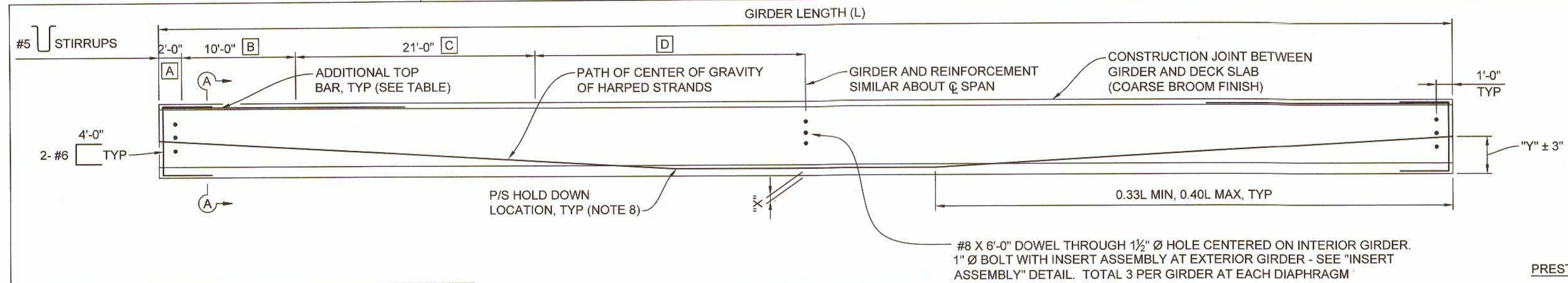
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	IMP	N/A		15	19

C. DANIEL SUN
REGISTERED CIVIL ENGINEER

9/6/19
DATE

PLANS APPROVAL DATE

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.



LOCATION	A	B	C	D
ALL GIRDERS	#5 @ 3"	#5 @ 6"	#5 @ 12"	#5 @ 18"

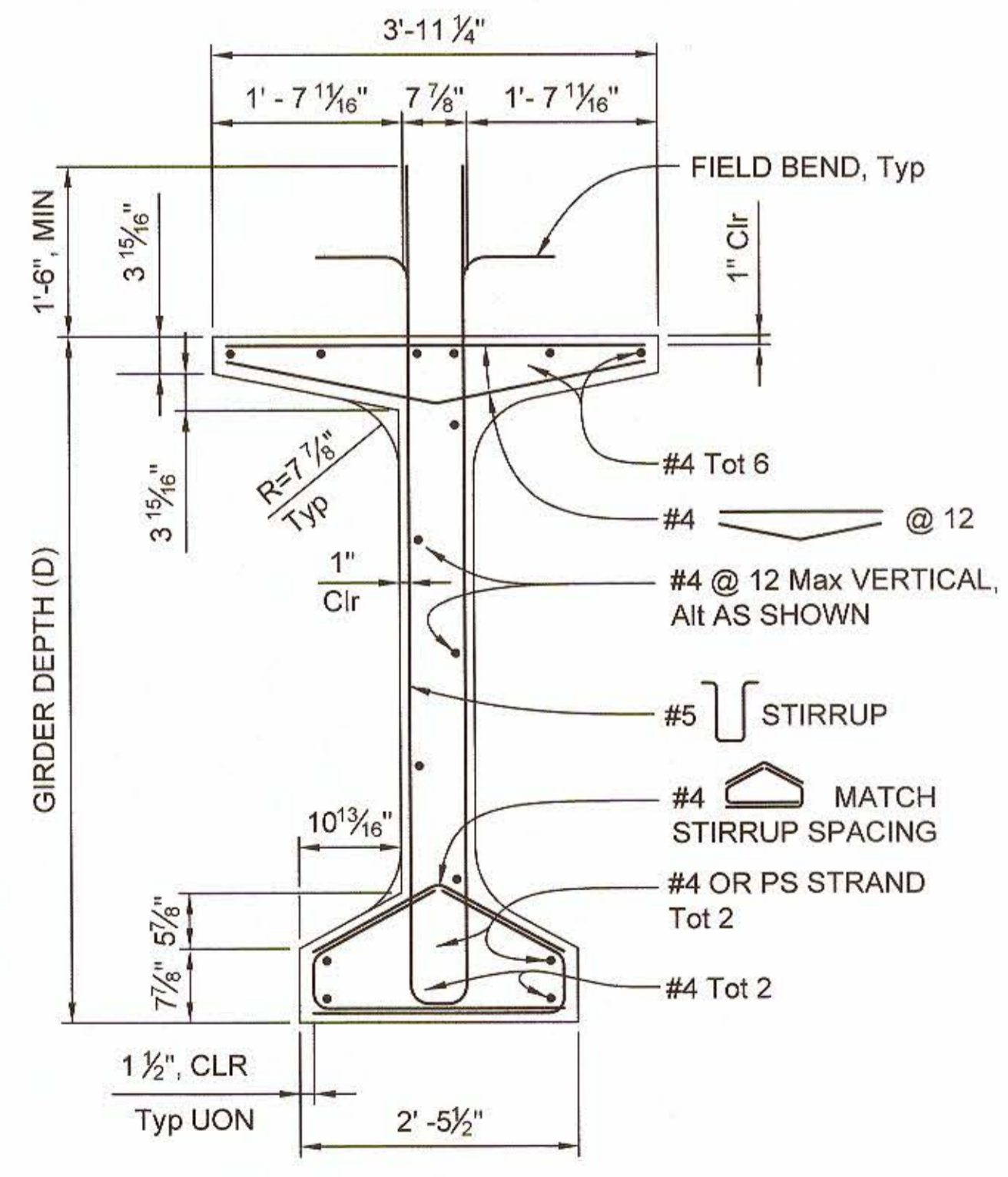
GIRDER ELEVATION

NOTE:
GIRDER ENDS TO BE CAST SUCH THAT A LEVEL SURFACE IS PROVIDED AT BEARING PADS

LOCATION	GIRDER LENGTH (L)	GIRDER DEPTH (D)	"x" (in)	JACKING FORCE (P) (kips)	As, Min (in ²)	"y" (in)	CONCRETE STRENGTH (ksi)		MIDSPAN DEAD LOAD DEFLECTION (in)		ADDITIONAL TOP BAR (EACH END)
							f'ci	f'c	DECK	RAIL	
ALL	121'-2"	6'-0 7/8"	4	1640	8.10	35	6.0	6.5	1.34	0.16	#4 x 15' (Tot 8)
			6	1690	8.35						

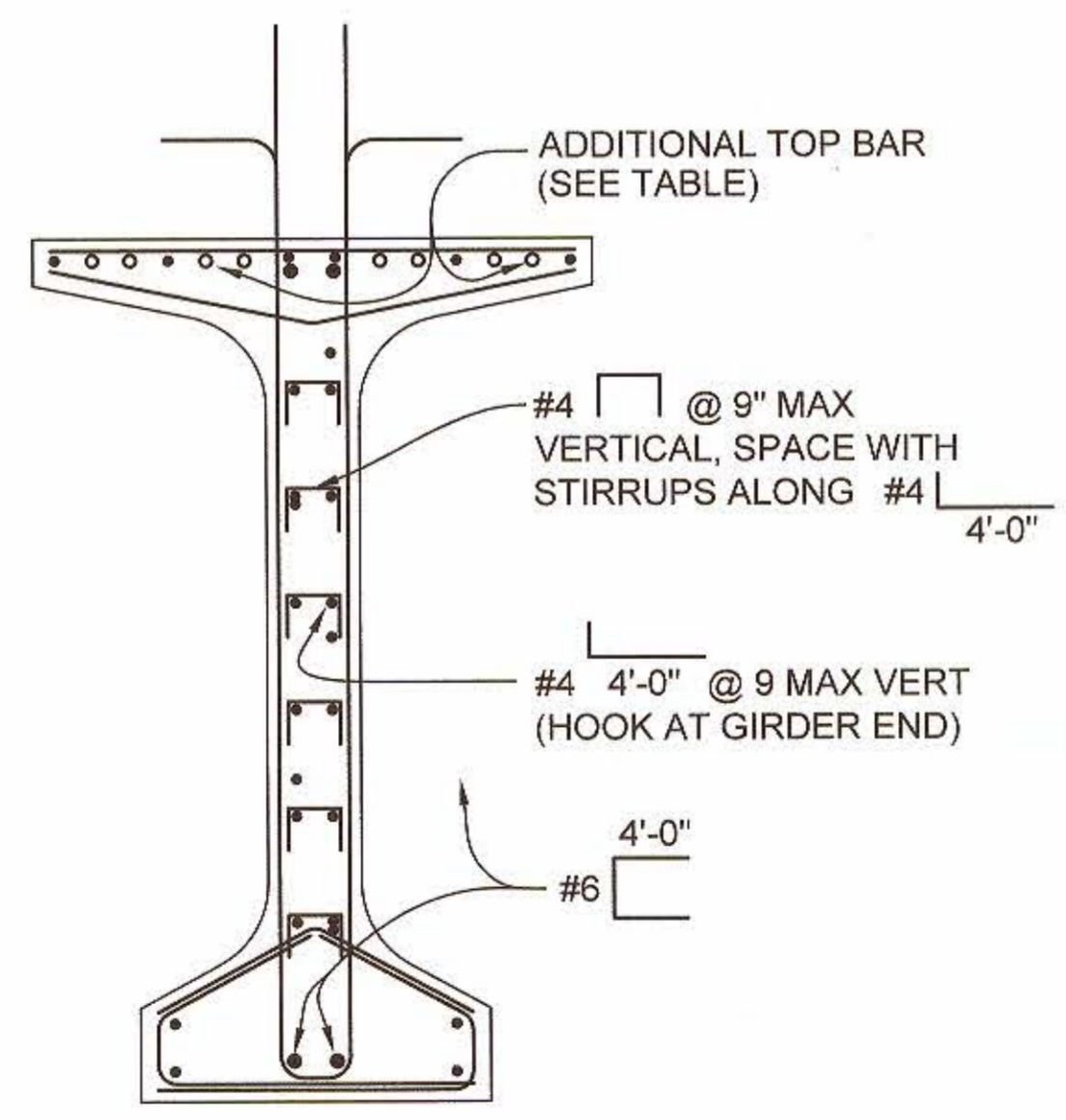
PRESTRESSING NOTES:

1. THE JACKING FORCE (P) IS THE JACKING FORCE REQUIRED AT THE POINT OF CONTROL ALONG THE SPAN. THE JACKING FORCE DOES NOT INCLUDE ANY FABRICATION SPECIFIC LOSSES
2. THE MAXIMUM TENSILE STRESS IN THE PRESTRESSING STEEL UPON RELEASE SHALL NOT EXCEED 75% OF THE SPECIFIED MINIMUM ULTIMATE TENSILE STRENGTH OF THE PRESTRESSING STEEL
3. THE MAXIMUM TEMPORARY TENSILE STRESS (JACKING STRESS) IN THE PRESTRESSING STEEL SHALL NOT EXCEED 80% OF THE SPECIFIED MINIMUM ULTIMATE TENSILE STRENGTH OF THE PRESTRESSING STEEL
4. CONCRETE STRENGTH:
F'CI IS AT TIME OF INITIAL STRESSING
F'c IS AT 28 DAYS
5. DEFLECTION COMPONENTS ARE INFORMATIONAL AND WILL BE USED TO SET SCREED LINE ELEVATIONS
6. SCREED LINE ELEVATIONS FOR DECK CONCRETE WILL BE DETERMINED BY THE ENGINEER
7. CONTRACTOR MAY INTERPOLATE "P" AND "X" VALUES BETWEEN THE LIMITS SHOWN, AS APPROVED BY THE ENGINEER
8. THERE SHALL BE A MINIMUM OF TWO HOLD DOWNS PER GIRDER FOR THE PRESTRESSING
9. PRESTRESSING STRAND SHALL BE 270 KSI LOW RELAXATION
10. AS, MIN IS THE MINIMUM AREA REQUIRED OF PRESTRESSING STEEL



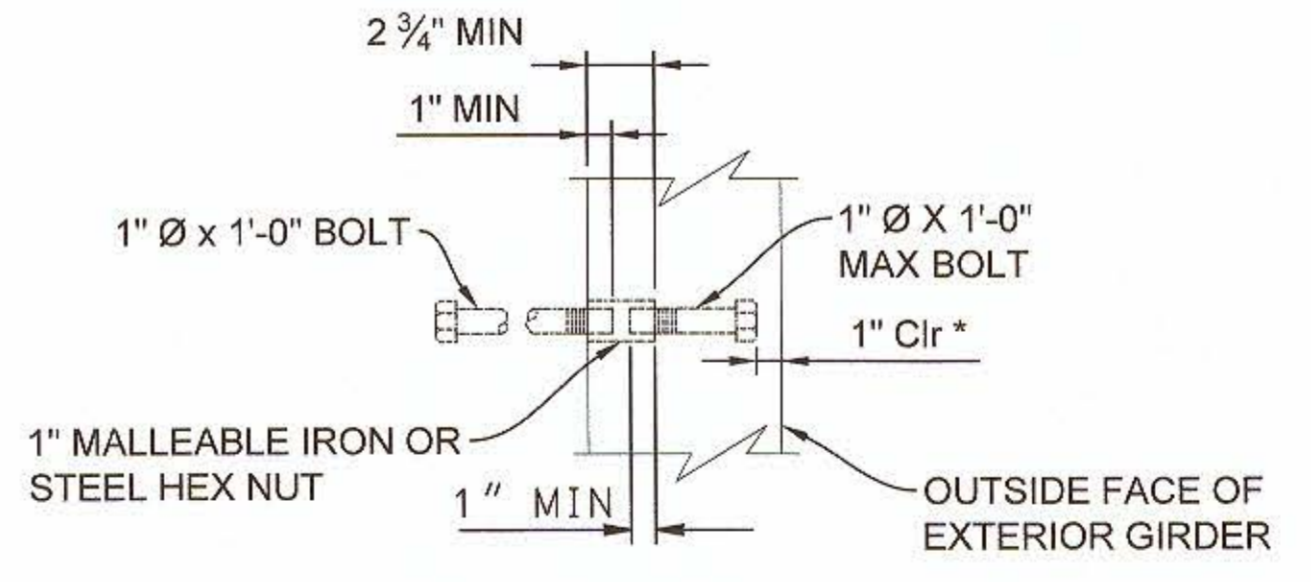
TYPICAL GIRDER SECTION

NOTE:
For "WELDED WIRE REINFORCEMENT (WWR) ALTERNATIVE", see "PC/PS BULB-TEE GIRDER (MISCELLANEOUS DETAILS)" sheet



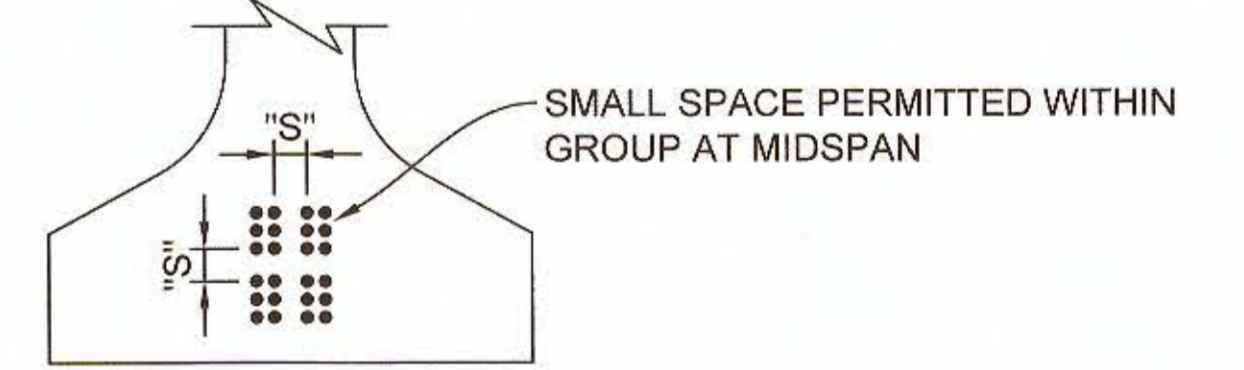
SECTION A-A

NOTE:
FOR DETAILS NOT SHOWN, SEE "TYPICAL GIRDER SECTION"



INSERT ASSEMBLY

* DIMENSION MAY BE INCREASED WHEN INSERT ASSEMBLY IS USED AT END BLOCK



CLEARANCES FOR PRETENSIONED STRANDS

NOTES:

1. Strands may be bundled in groups consisting of 3 vertically, 2 horizontally, and separated at the ends
2. The minimum distance "S" between groups or individual strands is 1-3/4" for 1/2" Ø strands and 2" for 0.6" Ø strands
3. "S" is measured between centers of adjacent strands
4. Approval by Engineer is required for deviation

STANDARD DRAWING

FILE NO. **xs8-010**

APPROVAL DATE July 2014

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

BRIDGE NO. 58C-0224
POST MILE X

LACK ROAD BRIDGE REPLACEMENT OVER NEW RIVER
PC/PS BULB-TEE GIRDER (HARPED STRANDS)

UNIT: X
PROJECT NUMBER & PHASE: X
CONTRACT NO.: X

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REVISION DATES	SHEET	OF
9.8.2021	15	19

9.8.2021

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

0 1 2 3

FILE => \$REQUEST

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
11	IMP	N/A		16	19

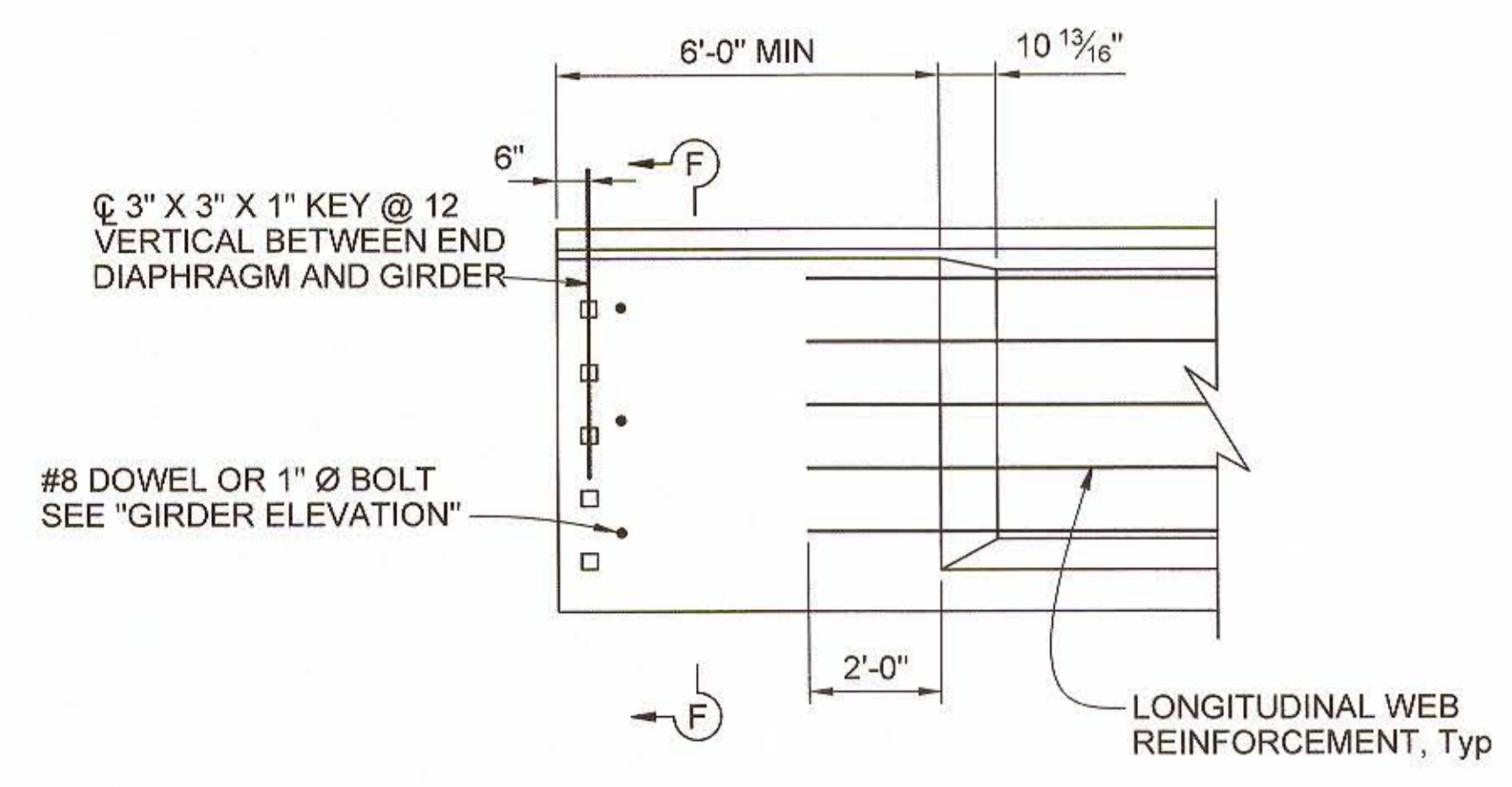
C. DANIEL SUN
REGISTERED CIVIL ENGINEER

9/6/19
DATE

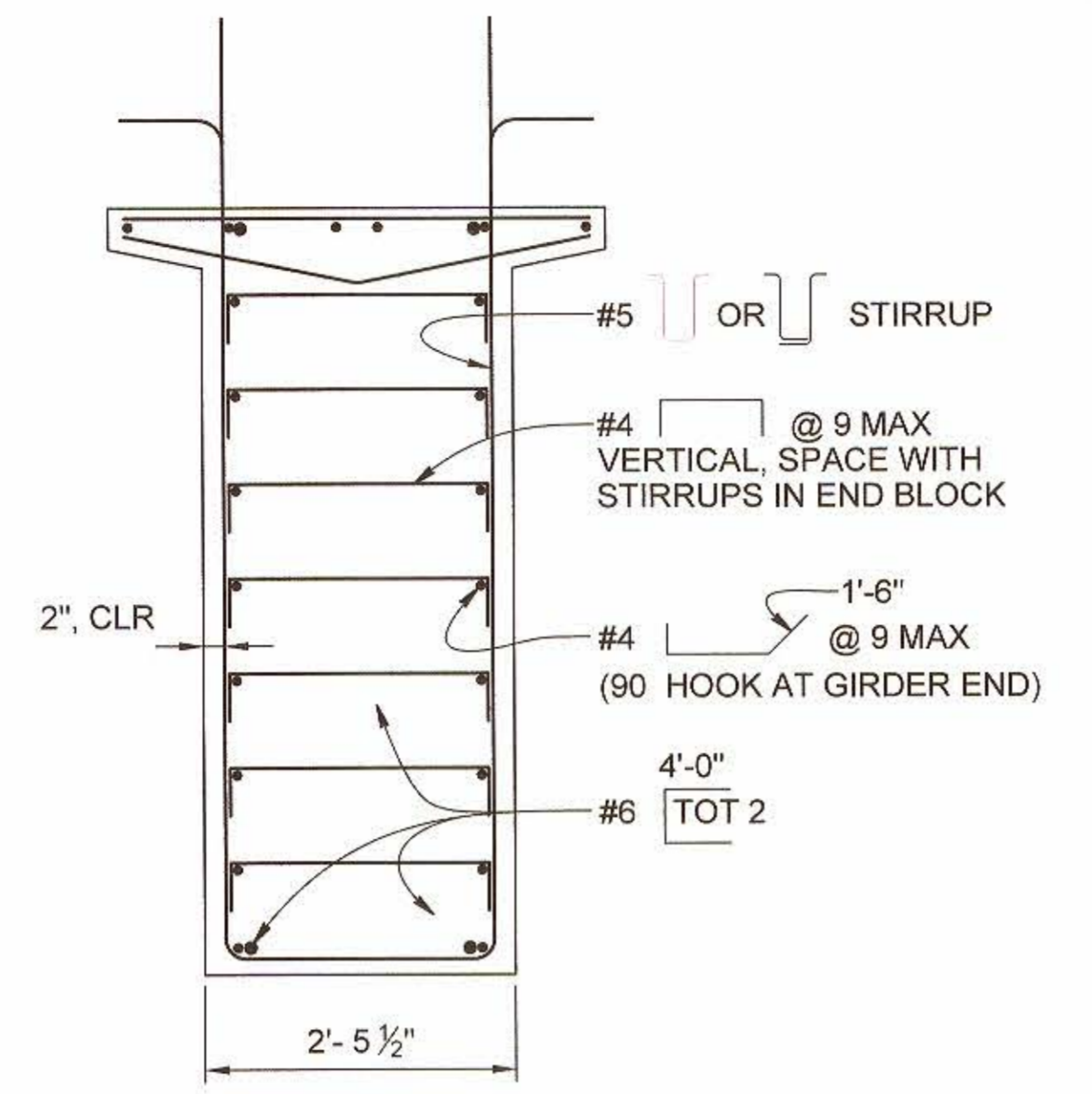


PLANS APPROVAL DATE _____

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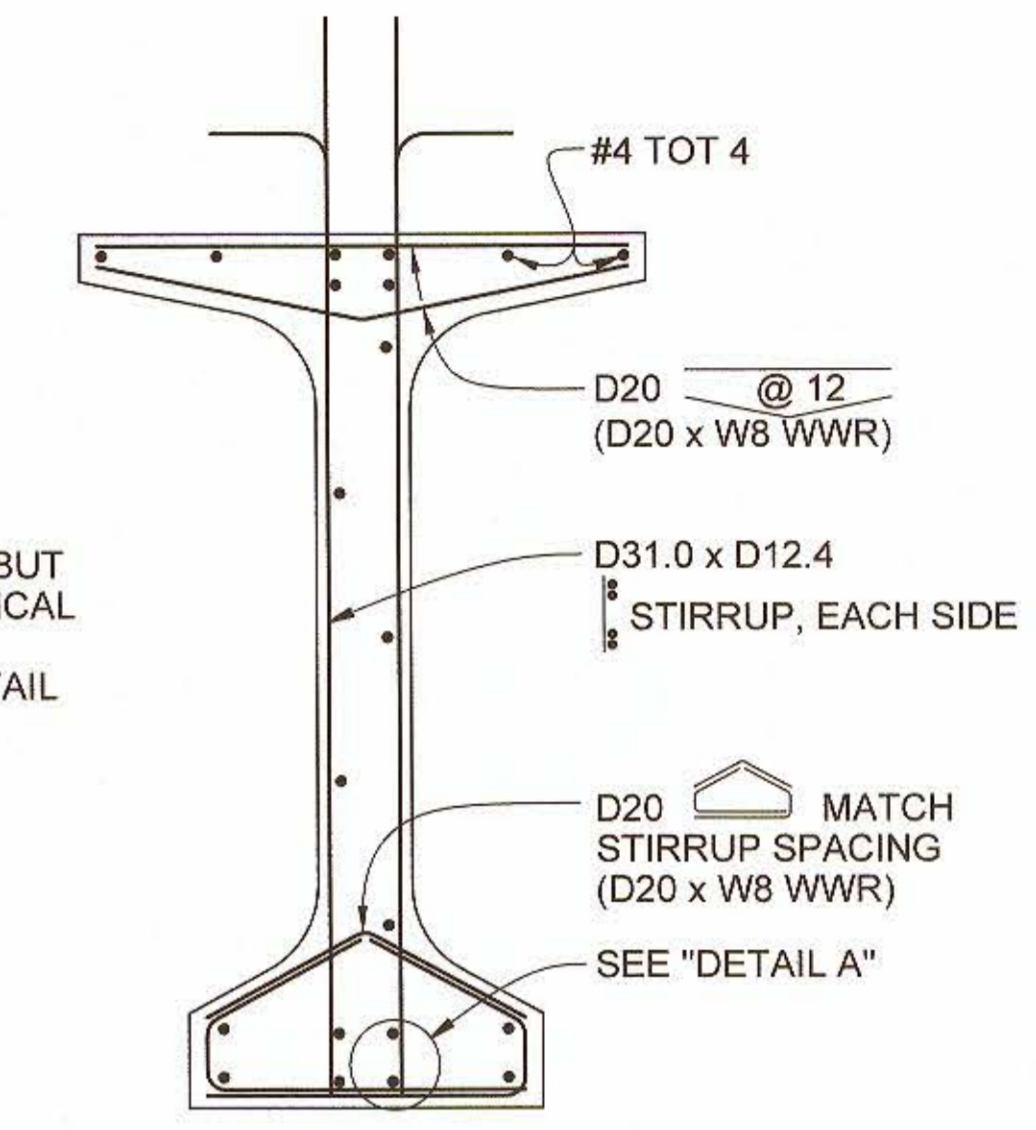
OPTIONAL END BLOCK - ELEVATION
SCALE: NTS



NOTE:
FOR DETAILS NOT SHOWN, SEE "TYPICAL GIRDER SECTION" DETAIL

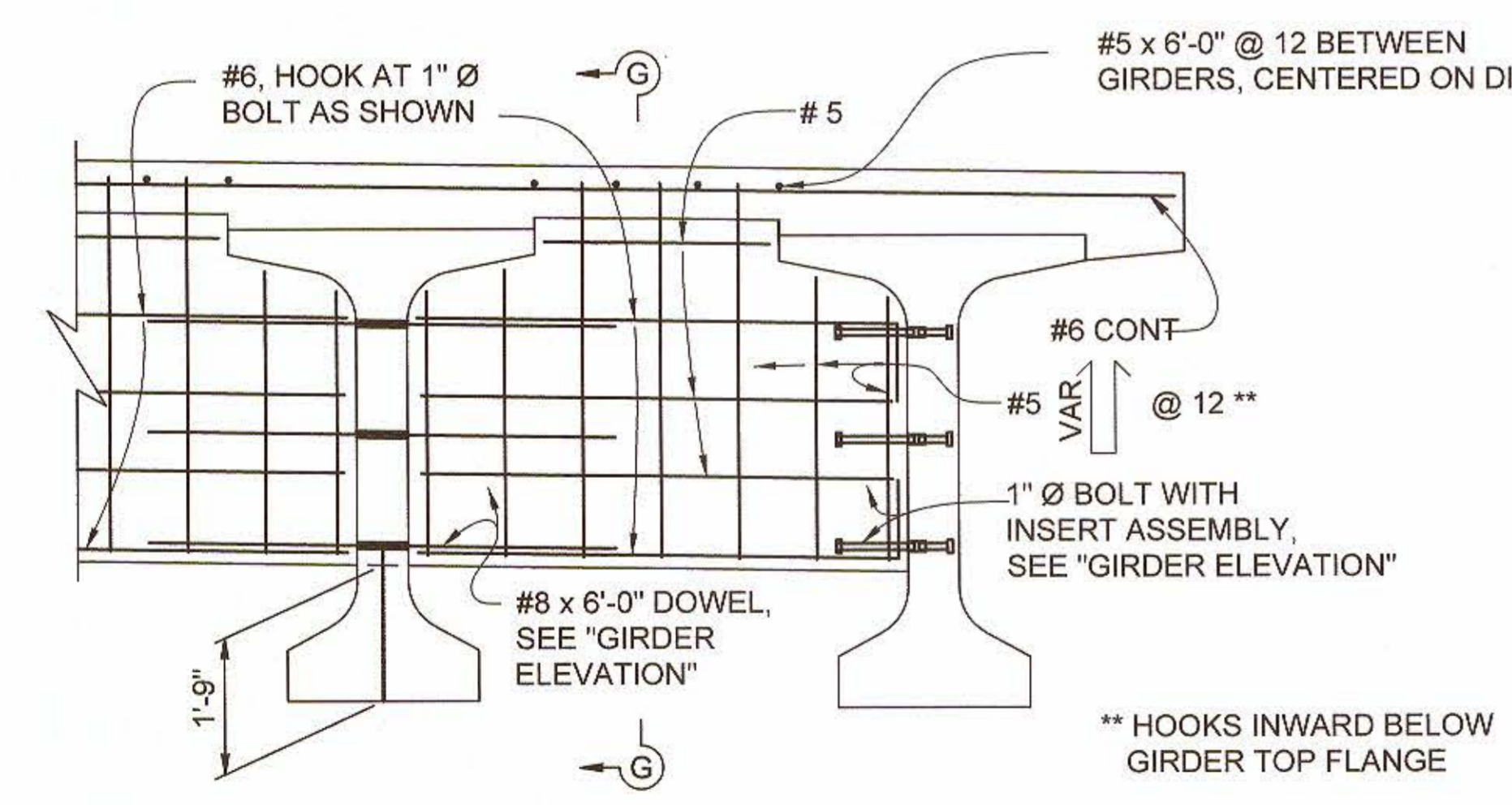
SECTION F-F
SCALE: NTS

NOTE:
FOR "GIRDER ELEVATION" AND "TYPICAL GIRDER SECTION", SEE "PC/PS BULB-TEE GIRDER (DEBONDED STRANDS)" SHEET

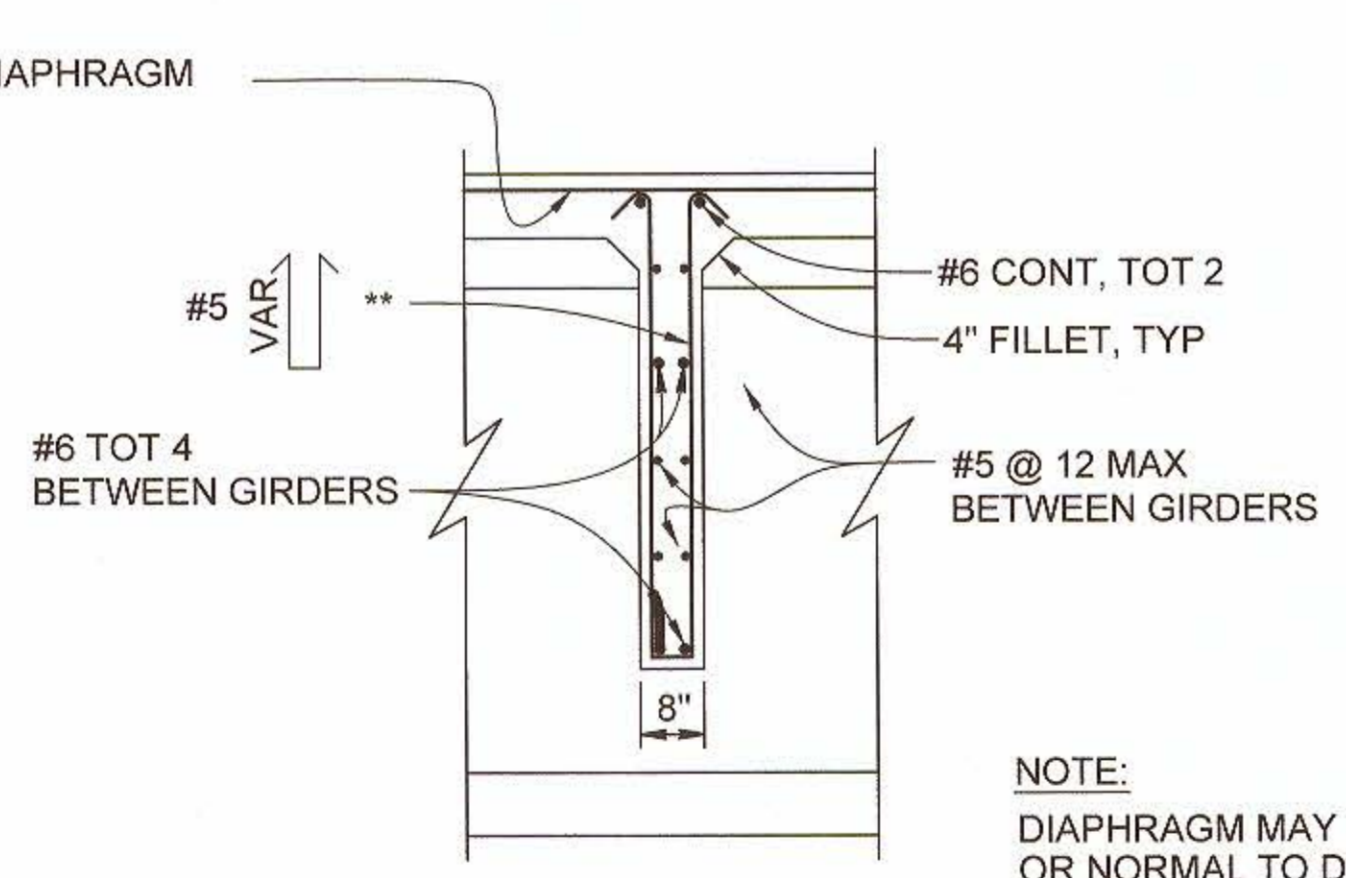


WELDED WIRE REINFORCEMENT (WWR) ALTERNATIVE
SCALE: NTS

NOTE:
1. FOR DETAILS SHOWN BUT NOT NOTED, SEE "TYPICAL"
2. GIRDER SECTION" DETAIL W8 WWR NOT SHOWN

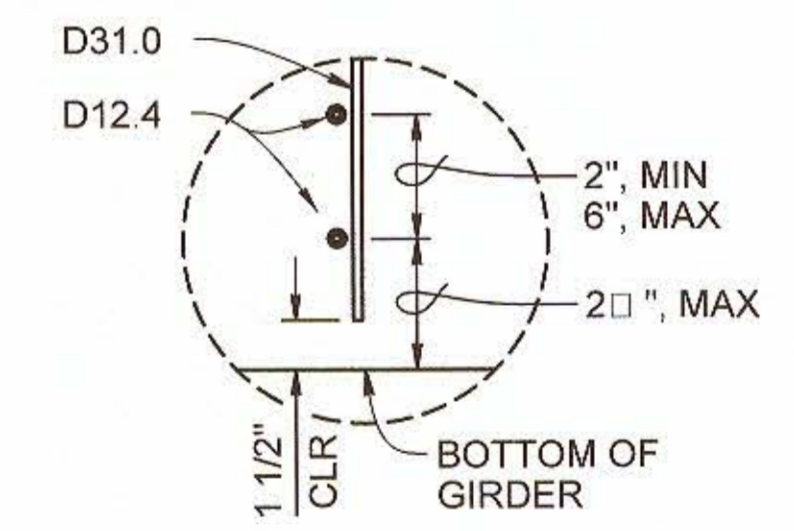


INTERMEDIATE DIAPHRAGM
SCALE: NTS



NOTE:
DIAPHRAGM MAY BE VERTICAL OR NORMAL TO DECK GRADE

SECTION G-G
SCALE: NTS



DETAIL A
SCALE: NTS

NOTE:
1. BOTTOM OF STIRRUP WWR DETAIL SHOWN, TOP SIMILAR
2. LONGITUDINAL WIRE AREA SHALL BE 40% OR GREATER OF VERTICAL DEFORMED WIRE'S AREA

STANDARD DRAWING	
FILE NO. xs8-010	APPROVAL DATE July 2014

STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION	
DMSION OF ENGINEERING SERVICES	
BRIDGE NO. 58C-0224	PROJECT NUMBER & PHASE: X
POST MILE X	CONTRACT NO.: X

LACK ROAD BRIDGE REPLACEMENT OVER NEW RIVER	
PC/PS BULB-TEE GIRDER (MISCELLANEOUS DETAILS)	
REVISION DATES	SHEET 16 OF 19

DISREGARD PRINTS BEARING EARLIER REVISION DATES	9.8.2021	16	19
---	----------	----	----

DS OSD 2147A (ENGLISH STANDARD DRAWING "XS" BORDER REV. (02-02-11))

ORIGINAL SCALE IN INCHES FOR REDUCED PLANS

UNIT: X
PROJECT NUMBER & PHASE: X
CONTRACT NO.: X

DISREGARD PRINTS BEARING EARLIER REVISION DATES

REFERENCE: CALTRANS SOIL & ROCK LOGGING, CLASSIFICATION, AND PRESENTATION MANUAL (2010)

GROUP SYMBOLS AND NAMES			
Graphic/Symbol	Group Names	Graphic/Symbol	Group Names
	Well-graded GRAVEL Well-graded GRAVEL with SAND		Lean CLAY Lean CLAY with SAND Lean CLAY with GRAVEL SANDY lean CLAY SANDY lean CLAY with GRAVEL GRAVELLY lean CLAY GRAVELLY lean CLAY with SAND
	Poorly graded GRAVEL Poorly graded GRAVEL with SAND		
	Well-graded GRAVEL with SILT Well-graded GRAVEL with SILT and SAND		SILTY CLAY SILTY CLAY with SAND SILTY CLAY with GRAVEL SANDY SILTY CLAY SANDY SILTY CLAY with GRAVEL GRAVELLY SILTY CLAY GRAVELLY SILTY CLAY with SAND
	Well-graded GRAVEL with CLAY (or SILTY CLAY) Well-graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)		
	Poorly graded GRAVEL with SILT Poorly graded GRAVEL with SILT and SAND		SILT SILT with SAND SILT with GRAVEL SANDY SILT SANDY SILT with GRAVEL GRAVELLY SILT GRAVELLY SILT with SAND
	Poorly graded GRAVEL with CLAY (or SILTY CLAY) Poorly graded GRAVEL with CLAY and SAND (or SILTY CLAY and SAND)		
	SILTY GRAVEL SILTY GRAVEL with SAND		ORGANIC lean CLAY ORGANIC lean CLAY with SAND ORGANIC lean CLAY with GRAVEL SANDY ORGANIC lean CLAY SANDY ORGANIC lean CLAY with GRAVEL GRAVELLY ORGANIC lean CLAY GRAVELLY ORGANIC lean CLAY with SAND
	CLAYEY GRAVEL CLAYEY GRAVEL with SAND		
	SILTY, CLAYEY GRAVEL SILTY, CLAYEY GRAVEL with SAND		ORGANIC SILT ORGANIC SILT with SAND ORGANIC SILT with GRAVEL SANDY ORGANIC SILT SANDY ORGANIC SILT with GRAVEL GRAVELLY ORGANIC SILT GRAVELLY ORGANIC SILT with SAND
	Well-graded SAND Well-graded SAND with GRAVEL		
	Poorly graded SAND Poorly graded SAND with GRAVEL		Fat CLAY Fat CLAY with SAND Fat CLAY with GRAVEL SANDY fat CLAY SANDY fat CLAY with GRAVEL GRAVELLY fat CLAY GRAVELLY fat CLAY with SAND
	Well-graded SAND with SILT Well-graded SAND with SILT and GRAVEL		
	Well-graded SAND with CLAY (or SILTY CLAY) Well-graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)		Elastic SILT Elastic SILT with SAND Elastic SILT with GRAVEL SANDY elastic SILT SANDY elastic SILT with GRAVEL GRAVELLY elastic SILT GRAVELLY elastic SILT with SAND
	Poorly graded SAND with SILT Poorly graded SAND with SILT and GRAVEL		
	Poorly graded SAND with CLAY (or SILTY CLAY) Poorly graded SAND with CLAY and GRAVEL (or SILTY CLAY and GRAVEL)		ORGANIC fat CLAY ORGANIC fat CLAY with SAND ORGANIC fat CLAY with GRAVEL SANDY ORGANIC fat CLAY SANDY ORGANIC fat CLAY with GRAVEL GRAVELLY ORGANIC fat CLAY GRAVELLY ORGANIC fat CLAY with SAND
	SILTY SAND SILTY SAND with GRAVEL		
	CLAYEY SAND CLAYEY SAND with GRAVEL		ORGANIC elastic SILT ORGANIC elastic SILT with SAND ORGANIC elastic SILT with GRAVEL SANDY ORGANIC elastic SILT SANDY ORGANIC elastic SILT with GRAVEL GRAVELLY ORGANIC elastic SILT GRAVELLY ORGANIC elastic SILT with SAND
	SILTY, CLAYEY SAND SILTY, CLAYEY SAND with GRAVEL		
	PEAT		ORGANIC SOIL ORGANIC SOIL with SAND ORGANIC SOIL with GRAVEL SANDY ORGANIC SOIL SANDY ORGANIC SOIL with GRAVEL GRAVELLY ORGANIC SOIL GRAVELLY ORGANIC SOIL with SAND
	COBBLES COBBLES and BOULDERS BOULDERS		

FIELD AND LABORATORY TESTING

- (C) Consolidation (ASTM D 2435)
- (CL) Collapse Potential (ASTM D 5333)
- (CP) Compaction Curve (CTM 216)
- (CR) Corrosivity Testing (CTM 643, CTM 422, CTM 417)
- (CU) Consolidated Undrained Triaxial (ASTM D 4767)
- (DS) Direct Shear (ASTM D 3080)
- (EI) Expansion Index (ASTM D 4829)
- (M) Moisture Content (ASTM D 2216)
- (OC) Organic Content-% (ASTM D 2974)
- (P) Permeability (CTM 220)
- (PA) Particle Size Analysis (ASTM D 422)
- (PI) Plasticity Index (AASHTO T 90)
Liquid Limit (AASHTO T 89)
- (PL) Point Load Index (ASTM D 5731)
- (PM) Pressure Meter
- (PP) Pocket Penetrometer
- (R) R-Value (CTM 301)
- (SE) Sand Equivalent (CTM 217)
- (SG) Specific Gravity (AASHTO T 100)
- (SL) Shrinkage Limit (ASTM D 427)
- (SW) Swell Potential (ASTM D 4546)
- (TV) Pocket Torvane
- Unconfined Compression-Soil (ASTM D 2166)
- (UC) Unconfined Compression-Rock (ASTM D 2938)
- (UU) Unconsolidated Undrained Triaxial (ASTM D 2850)
- (UW) Unit Weight (ASTM D 4767)
- (VS) Vane Shear (AASHTO T 223)

APPARENT DENSITY OF COHESIONLESS SOILS

Description	SPT N ₆₀ (Blows / 12 inches)
Very loose	0 - 4
Loose	5 - 10
Medium Dense	11 - 30
Dense	31 - 50
Very Dense	> 50

MOISTURE

Description	Criteria
Dry	Absence of moisture, dusty, dry to the touch
Moist	Damp but no visible water
Wet	Visible free water, usually soil is below water table

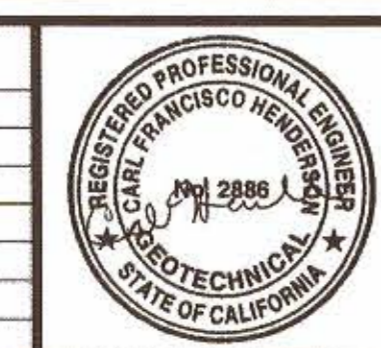
PERCENT OR PROPORTION OF SOILS

Description	Criteria
Trace	Particles are present but estimated to be less than 5%
Few	5 to 10%
Little	15 to 25%
Some	30 to 45%
Mostly	50 to 100%

PARTICLE SIZE

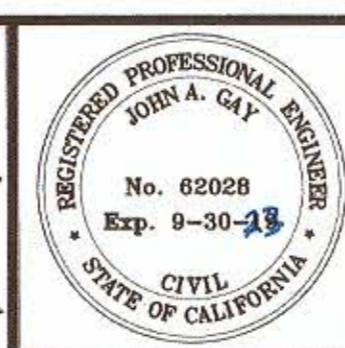
Description	Size	
Boulder	> 12"	
Cobble	3" to 12"	
Gravel	Coarse	3/4" to 3"
	Fine	No. 4 to 3/4"
Sand	Coarse	No. 10 to No. 4
	Medium	No. 40 to No. 10
	Fine	No. 200 to No. 40

REVISION	DATE	COMMENTS



PREPARED UNDER THE DIRECT SUPERVISION OF:

 2886
 G.E. No.
 3/16/2021
 DATE



COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT
 APPROVED FOR CONSTRUCTION BY:

 62028
 R.C.E. No.
 9/30/23
 REG. EXP.
 DATE

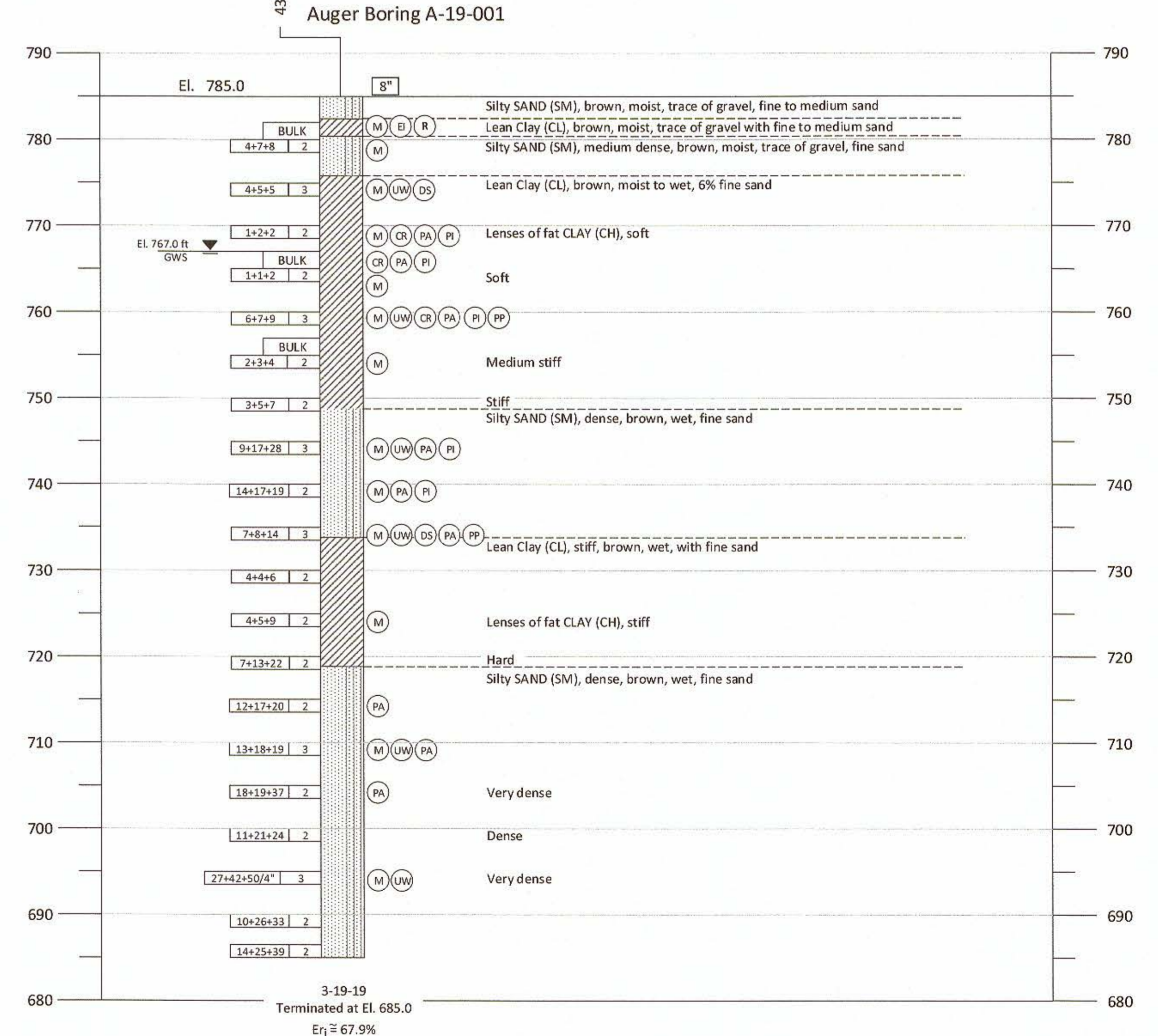
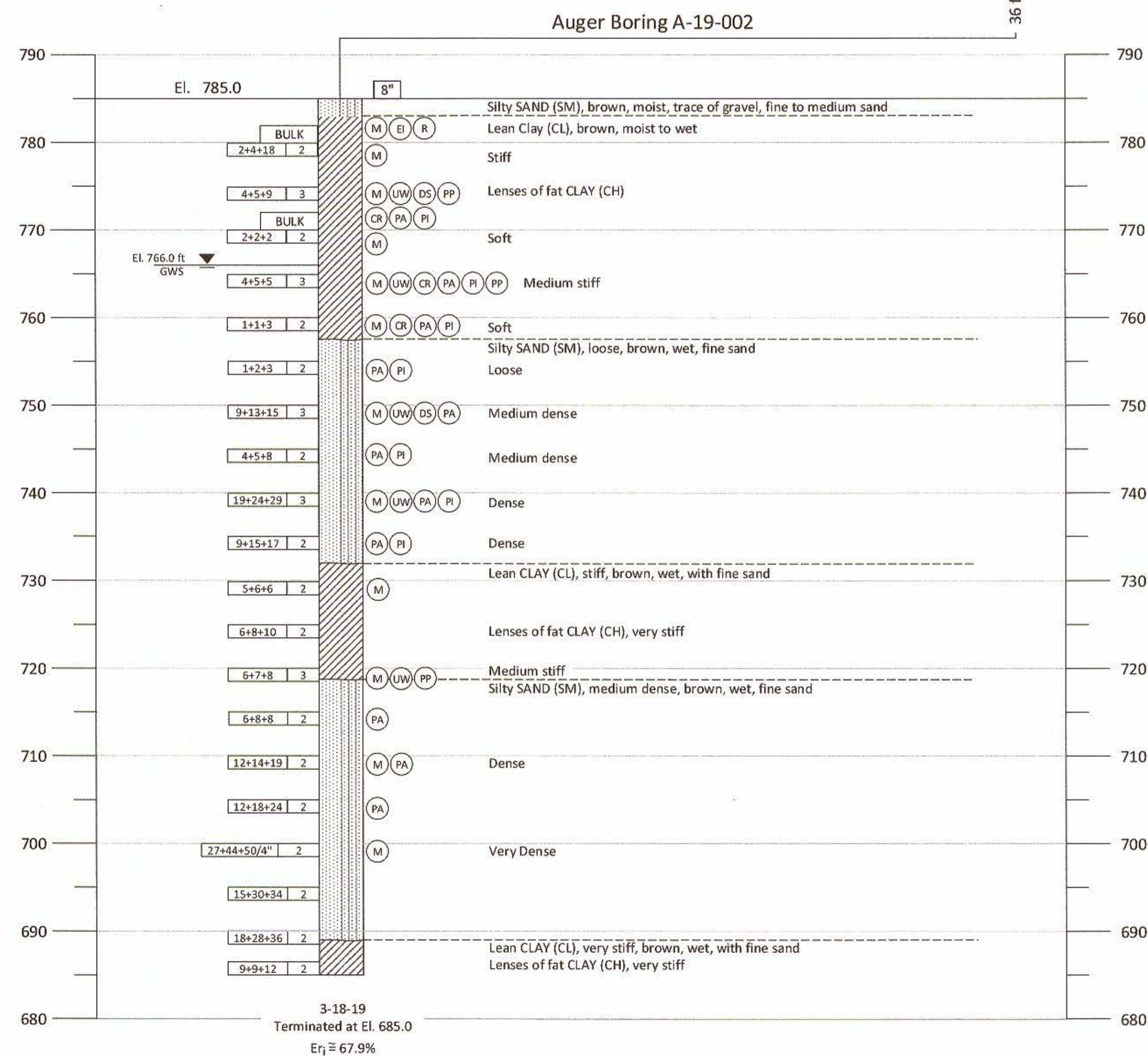
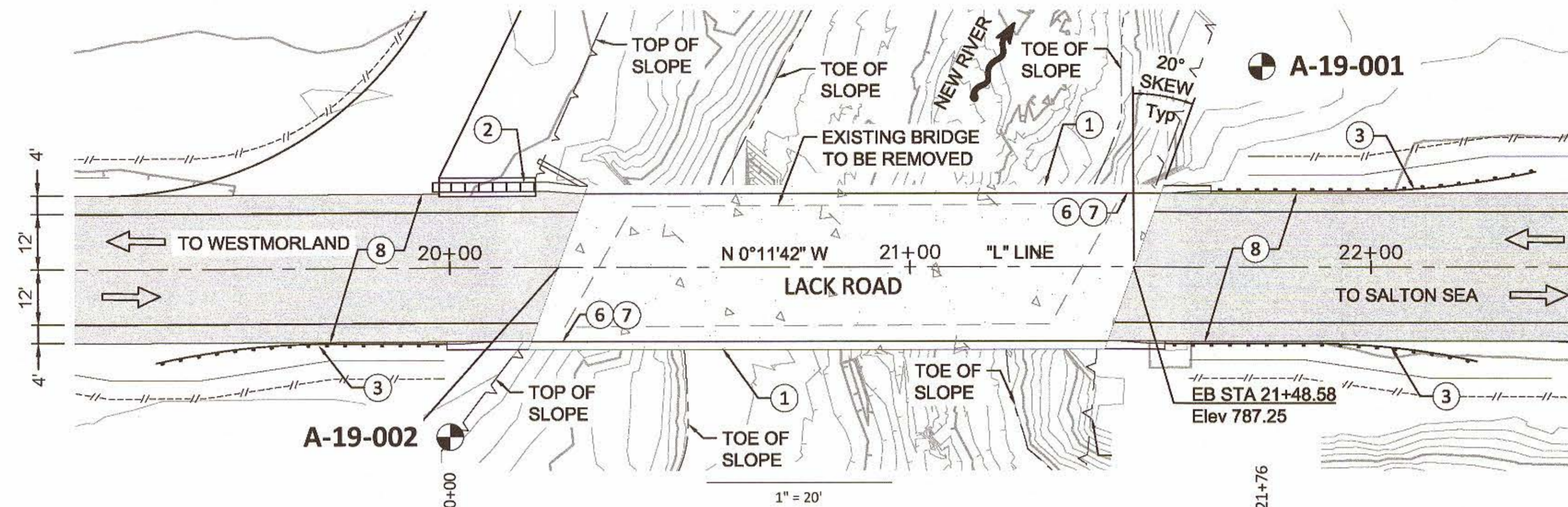
PUBLIC WORKS DEPARTMENT
 COUNTY OF IMPERIAL
 EL CENTRO, CALIFORNIA

DATE: 8/30/19
 DRAWN: GC
 SCALE: AS SHOWN
 CHECKED: CH

LOG OF TEST BORINGS-2
 LACK ROAD BRIDGE REPAACEMENT
 OVER NEW RIVER
 BRIDGE NO. 58C-0224

SOIL LEGEND
 S-14
 B-197
 SHEET 18 OF 19

REFERENCE: CALTRANS SOIL & ROCK LOGGING, CLASSIFICATION, AND PRESENTATION MANUAL (2010)



REVISION	DATE	COMMENTS



PREPARED UNDER THE DIRECT SUPERVISION OF:
John A. Gay
 2886 G.E. No.
 3/16/2021 DATE
 6/30/23 REG. EXP.



COUNTY OF IMPERIAL PUBLIC WORKS DEPARTMENT
 APPROVED FOR CONSTRUCTION BY:
John A. Gay
 JOHN A. GAY, P.E.
 ROAD COMMISSIONER
 9/9/21 DATE
 62028 R.C.E. No.
 9/30/23 REG. EXP.

PUBLIC WORKS DEPARTMENT
 COUNTY OF IMPERIAL
 EL CENTRO, CALIFORNIA

DATE 8/30/19
 DRAWN GC
 SCALE AS SHOWN
 CHECKED CH

LOG OF TEST BORINGS-3
 LACK ROAD BRIDGE REPLACEMENT
 OVER NEW RIVER
 BRIDGE NO. 58C-0224

LOG OF TEST BORINGS
 S-15
 B-197
 SHEET 19 OF 19