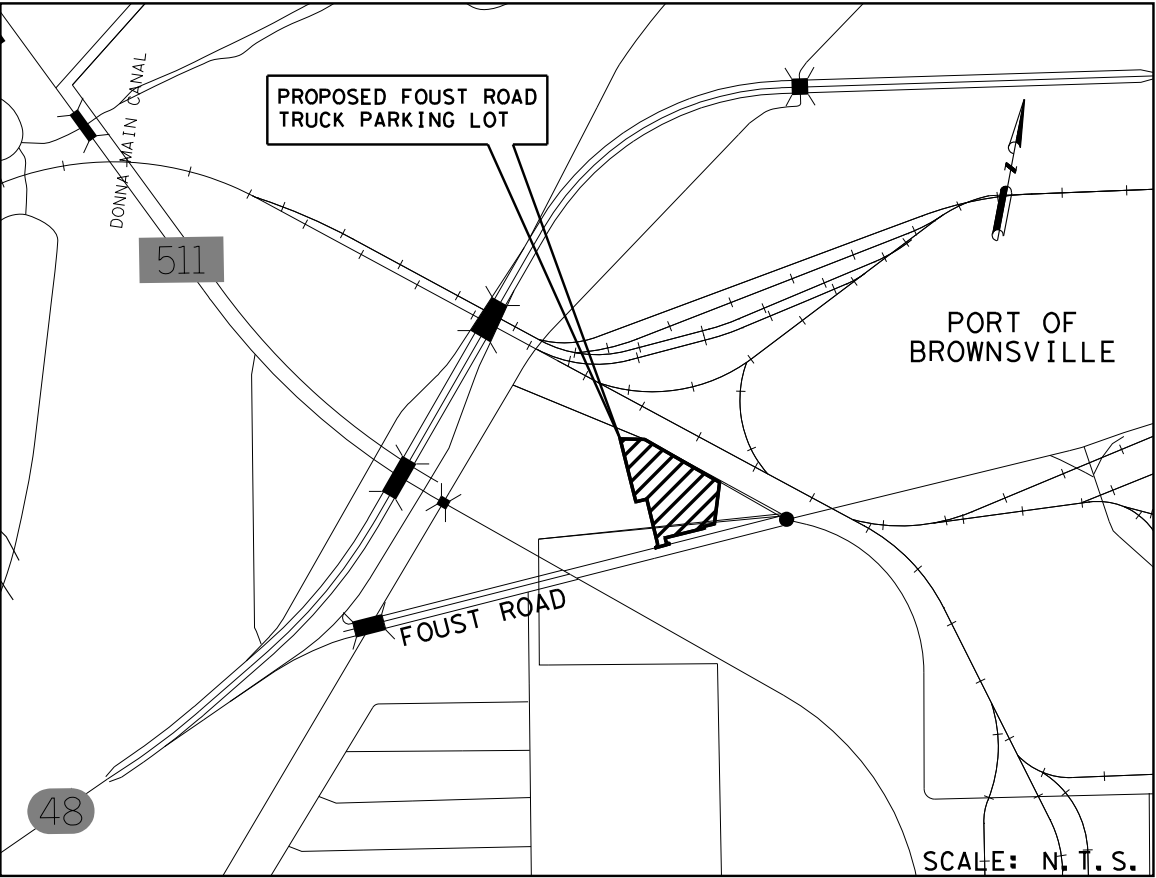


PLANS OF PROPOSED
FOUST ROAD TRUCK PARKING
IMPROVEMENTS (PHASE I)
PORT OF BROWNSVILLE TEXAS

INDEX OF SHEETS

1	TITLE SHEET
2	GENERAL NOTES
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8	PAVEMENT GRADING LAYOUT
9	PAVEMENT TYPICAL SECTIONS
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LOCATION MAP



PORT OF BROWNSVILLE
BOARD OF DIRECTORS

JOHN WOOD	CHAIRMAN
JOHN REED	VICE CHAIRMAN
SERGIO "TITO" LOPEZ	SECRETARY
CARLOS R. MASSO	COMMISSIONER
RALPH COWEN	COMMISSIONER

PLANS PREPARED BY:

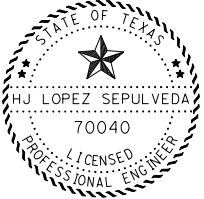


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TEXAS BOARD OF PROFESSIONAL ENGINEERS #: F-1582

HECTOR J. LOPEZ SEPULVEDA, P.E.
PROJECT MANAGER

DATE

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03-09-18



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GENERAL NOTES:

The Contractor shall notify Texas811 before proceeding with any construction work; for additional information see www.Texas811.org.

Field verify/spot exact locations and existing conditions of existing plumbing, electrical, and sanitary sewer utilities in the area.

It is the intent of these plans to provide a complete and workable system. Should bidder find omissions or discrepancies in the plans, bidder shall notify the engineer prior to the bid date and a written clarification will be issued.

Damaged items shall be replaced at no additional cost to owner, contractors are required to search and investigate for existing utilities before excavating.

Contractor is responsible for all permits and fees associated with project, including fees for inspections, applications, and provision of new services.

Contractor who will actually perform the work must apply for all required permits.

Equipment found defective prior to final acceptance shall be replaced at no cost to the owner.

Contractor shall not proceed with any work involving a change in project scope or cost without first having obtained the engineer's approval in writing. Unless engineer has agreed to such change prior to it being done, and has agreed that an increase in cost associated with such change is warranted, contractor will not be reimbursed for such change.

WORK PERFORMANCE

- The work shall be performed in accordance with the following:
- As noted in these plans
 - Texas Department of Transportation material specifications and testing.

A designated location adjacent to the work site is available for use as a laydown/storage area. Contractor is responsible for the safety and security of equipment and materials inside the laydown area for the duration of the project.

Contractor shall prepare the work area for materials and construction operations, and may have to remove and dispose of obstructions not specified in the plans. Payment for this work is to be considered subsidiary to the various bid items.

Contractor shall remove debris and ensure removal of debris blocking existing and proposed culverts.

MATERIALS

All materials shall be inspected by the engineer prior to installation.

The Brownsville Navigation District will provide Flexible Base Material (Crushed Limestone) and the 2" Electrical Conduit. The Contractor shall provide all other materials in accordance with the plans and specifications.

Various bid items are to be paid by the unit area (SY) installed. The estimated volume and/or weight of those materials is presented in the table below. The quantities are for informational purpose only and not considered a pay item.

Flexible Base	3,232	CY
Lime	345	TON
HMA TY-B	1,252	TON
Excavation	1,803	CY

ITEM 110 Excavation

Clear and grub site and remove existing topsoil materials to a minimum depth of 6 inches to expose natural clean soils.

Excavate natural clean soils to the required top of subgrade elevation in preparation for lime treatment stabilization activities. Haul excess soil material as directed by the Engineer to a location within the BND within a distance (radius) of 5 miles from the project site.

In the detention pond area, excavate soft soils (mud) to expose natural clean subgrade soils in preparation for backfilling to required top of subgrade elevations.

ITEM 132: Fill Detention Pond

Proof-roll exposed subgrade soils and remove and replace soft zones encountered. Scarify, moisture condition and compact exposed subgrade soils to a minimum depth of 6 in. Compact backfill soils to 95% standard proctor density per ASTM D698 at 0 to +4% of optimum moisture content.

Backfill pond area with clean, moisture conditioned subgrade soils excavated from site in loose lifts not exceeding 8-in. in thickness. Compact soils to a minimum of 95% standard proctor density per ASTM D698. An estimated soil backfill volume of approximately 290 bank cubic yards is estimated for backfilling the pond area.

ITEM 216: Proof Rolling

Proof roll exposed subgrade areas in preparation for lime treatment activities. Remediate soft zones by excavating and replacing with suitable soil fill materials per Item 132.

ITEM 247: Flexible Base

Flexible Base material will be composed of crushed limestone (TxDOT Item 277 Ty A Grade 1-2) provided by BND.

Place, moisture condition and compact Flexible Base material to a minimum relative density of 95% per Modified Proctor (ASTM D-1557) at +/- 3% of optimum moisture content. Place Flexible Base materials in loose lifts not greater than 8 inches for moisture conditioning and compacting.

The Contractor's attention is called to the fact that certain existing and/or proposed structures may be within the limits of the Flexible Base. It shall be the Contractor's responsibility to perform construction operations without damage to these structures.

For water added under Item 247, the sulfate content will not exceed 3000-ppm and the chloride content will not exceed 3000-ppm.

ITEM 260: Lime Treatment (Road Mixed)

The Contractor's attention is called to the fact that certain existing and/or proposed structures are within the limits of the lime-treated Subgrade. Unless otherwise directed by the Engineer, these structures shall be installed before the final rolling of this Subgrade. It shall be the Contractor's responsibility to perform the proper lime treating operation without damage to these structures.

The slurry method of applying lime will be required, except when the lime is to be added to naturally wet materials as directed by the Engineer.

For this project, the Engineer will direct a random number of lime trucks to be check weighed.

The Engineer shall approve the method of mixing.

Proof roll all constructed lime treated subgrade and bases courses in accordance with Item 216, "Proof Rolling." Correct soft spots as directed. Correction of soft spots in the subgrade or base courses will be at the Contractor's expense.

ITEM 341: Dense-Graded Hot-Mix Asphalt

The contractor shall exercise diligence in the application of "Tack Coat" by the use of flagging and rolling procedures to keep from spraying or splattering the traveling public with asphaltic material.

Blading (not to exceed more than 3-ft from the pavement edge) may also be necessary to clean dirt and grass from pavement edges and turnout areas as work under this bid Item. The cost of this blading will not be paid for directly, but shall be considered subsidiary to this bid Item.

Use a release agent from approved source to clean and to coat the inside of truck beds for hauling equipment. Hauling equipment shall be cleaned prior to hauling material to job site. Submit a copy of the bill of lading to the Engineer as part of the Quality Control Program. Ensure the pavement is free from any spillage of hydraulic oil or diesel from construction equipment. The Engineer may reject trucks that contain any foreign material and suspend production if the pavement is contaminated by any pollutants mentioned above.

The Contractor shall exercise diligence during milling operations in order to avoid contamination.

ITEM 421: Hydraulic Cement Concrete

Provide sulfate resistant concrete when sulfate concentrations in soil are greater than 1000ppm and when sulfate concentrations in water are greater than 500ppm.

Provide equipment at the batch plant for determining the free moisture and/or absorption of aggregates in accordance with applicable TXDOT Test.

ITEM 464: Reinforced Concrete Pipe

Use tongue and groove pipe where the RCP extends into the lime treated subgrade. The 4-foot depth restriction for heavy equipment passage over pipe structures is voided. The Contractor will be responsible for any construction damage to these facilities.

Do not use mortar joints.

All reinforced concrete pipe shall include rubber gaskets unless shown otherwise on the plans or directed by the engineer.

ITEM 465: Junction Boxes, Manholes & Inlets

For TY PSL with RG, FG, or SFG lids inlets, provide Class B concrete riprap with (6"x6" W3xW3 (no. 6 gauge) welded wire fabric) for any side that is touching the natural ground. The riprap will be 4-in thick and 3-ft wide with an 8-in deep by 6-in wide toe unless otherwise shown in the plans. The cost will be subsidiary to Item 465 unless otherwise shown in the plans.

ITEM 471: Frames, Grates, Rings and Covers

All grates will be tack welded to the frames in a manner satisfactory to the Engineer.

ITEM 506: Temporary Erosion, Sedimentation, and Environmental Controls

The Contractor Force Account "Erosion Control Maintenance" that has been established for this project is intended to be utilized for work zone Best Management Practice (BMP) maintenance, to improve the effectiveness of the Environmental Controls that may need maintenance attention and/or require replacement while the project is still under the construction stage. These procedures will be mutually agreed upon by the Engineer and the Contractor's Responsible Person based on weekly or more frequent BMP management reviews on the project. The "Erosion Control Maintenance" is not intended to be used in lieu of bid items established by the contract.

ITEM 618: Conduit

Conduit will be provided by BND.

Conduit shall be placed in a straight line 2.0 feet inside of the fence/site perimeter, variations not to exceed 1.0 foot in any direction. The minimum placement depth to the top of the conduit shall be 3.0 feet below existing grade. Any evidence of damage to the roadway during the jacking or boring operation shall be sufficient grounds to stop the method being used.

Trenches for conduit runs shall be a minimum 42 inches deep and 4 inches wide. The conduit shall be placed on a 2-inch sand cushion and then backfilled with material excavated from site, compacted to 95% Standard Proctor (ASTM D-698) compaction in 6 inch layers.

Installation of Conduit will require exposed joints every 100 feet. Conduit will be bent 90 degrees and exposed 3 feet above finished grade.

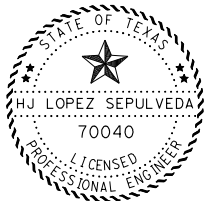
ITEMS 662 and 666: Work Zone Pavement Markings and Retroreflectorized Pavement Markings

Any permanent pavement markings or non-removal work zone pavement markings lacking reflectivity in accordance with test method Tex 828-B, will not be replaced at no cost to the owner.

Pavement surface preparation for markings and markers will not be paid for directly, but shall be considered subsidiary to Item 666.

Prior to any striping operations, an on-site coordination meeting between all the parties involved will be required to review striping details and requirements to ensure quality work.

03-09-18



PORT OF BROWNSVILLE

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FOUST ROAD TRUCK PARKING IMPROVEMENTS (PHASE 1) GENERAL NOTES

SHEET 1 OF 1

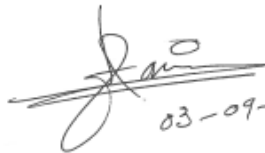
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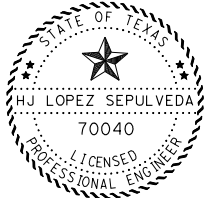
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FOUST ROAD TRUCK PARKING IMPROVEMENTS SUMMARY OF QUANTITIES						
ITEM-CODE			DESCRIPTION	UNIT	TOTAL	
ITEM NO	DESC CODE	SP NO			EST.	FINAL
110	6003		CUT AND FILL (EXCAVATION-GENERAL)	SY	11569	
132	6003		BACKFILL DETENTION POND (EMBANKMENT)	SY	273	
164	6033		DRILL SEEDING (PERM) (RURAL) (SANDY)	LS	1	
168	6001		VEGETATIVE WATERING OF LANDSCAPED AREAS	LS	1	
216	6001		SUBGRADE PREPARATION OF PAVEMENT AREAS (PROOF ROLLING)	SY	11569	
247	2201		PLACE FLEX BASE (CMP IN PLC) (CRUSHED LIMESTONE) (3" LAYER)	SY	2499	
247	2201		PLACE FLEX BASE (CMP IN PLC) (CRUSHED LIMESTONE) (12" LAYER)	SY	9070	
260	2017		LIME STABILIZATION TREATMENT (6% BY WEIGHT) (8" THICK)	SY	11569	
341	6075		D-GR HMA TY B SAC-B PG (64-22) (3")	SY	7832	
360	6002		CONCRETE PAVEMENT (CONT REINF - CRCP) (12")	SY	2499	
400	2003		INSTALL DRAINAGE PIPES (ALL INCLUSIVE)	LF	1814	
420	6074		REINFORCED CONCRETE CANASTA (CL C) (4,000 PSI)	CY	1	
464	6003		FURNISH AND INSTALL RCP (CL III) (18")	LF	625	
464	6005		FURNISH AND INSTALL RCP (CL III) (24")	LF	430	
464	6007		FURNISH AND INSTALL RCP (CL III) (30")	LF	814	
465	6166		INLET (TYPE AAD P) (5' X 2.5')	EA	5	
465	6167		INLET (TYPE AD P) (2.5' X 2.5')	EA	4	
467	6363		SET (TY II) (18 IN) (RCP) (6:1) (C)	EA	2	
481	6002		INSTALL 4" PVC DR-25 WATER LINE (ALL INCLUSIVE)	LF	554	
496	6007		CUT AND CAP 2" PVC WATER LINE	EA	2	
506	6020		CONSTRUCTION EXITS (INSTALL) (TY 1)	SY	94	
506	6024		CONSTRUCTION EXITS (REMOVE)	SY	94	
506	6038		TEMP SEDMT CONT FENCE (INSTALL)	LF	988	
506	6039		TEMP SEDMT CONT FENCE (REMOVE)	LF	988	
506	6042		BIODEG EROSN CONT LOGS (INSTL) (18")	LF	298	
506	6043		BIODEG EROSN CONT LOGS (REMOVE)	LF	298	
618	6023		INSTALL CONDT (PVC) (SCH 40) (2")	LF	1500	
662	6004		PAVEMENT MARKING (W) (4") (SOLID)	LF	5460	
5001	6002		TRIAXIAL TX 140 GEOGRID BASE REINFORCEMENT (2 LAYERS)	SY	9070	
5033	6002		FIXED CONCRETE BOLLARD (8")	EA	1	


03-09-18



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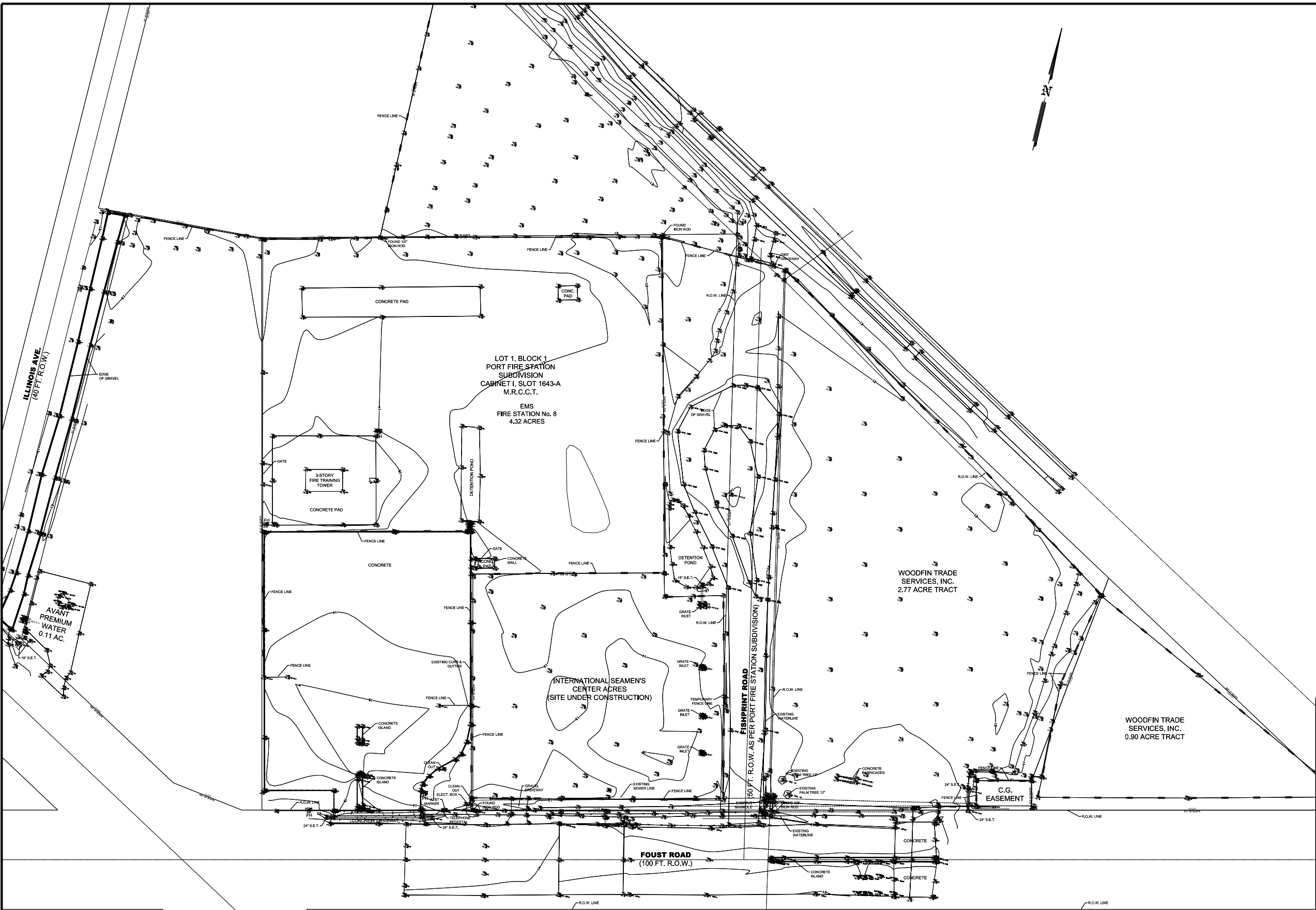
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FOUST ROAD
TRUCK PARKING
IMPROVEMENTS
(PHASE I)
QUANTITY SHEET

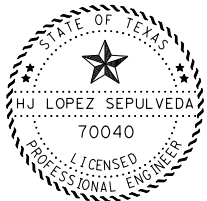
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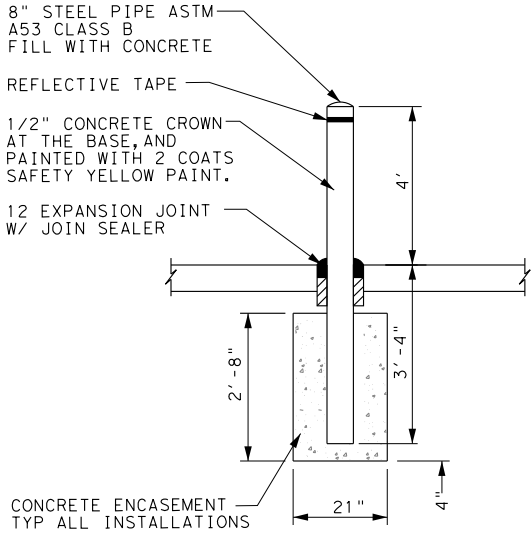
PORT OF BROWNSVILLE
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**FOUST ROAD
TRUCK PARKING
IMPROVEMENTS
(PHASE I)
TOPOGRAPHIC SURVEY**

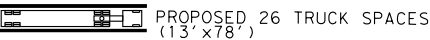
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STEEL PIPE BOLLARD
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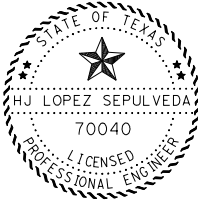
ITEM	DESCRIPTION	UNIT	TOTAL
100-6002	CLEAR AND GRUB PROJECT SITE	AC	4
110-6003	CUT AND FILL EXCAVATION (GENERAL)	SY	11,569
164-6033	DRILL SEEDING (PERM) (RURAL) (SANDY)	LS	1
168-6001	VEGETATIVE WATERING OF LANDSCAPED AREAS	SY	213
216-6001	SUBGRADE PREPARATION OF PAVEMENT AREAS	SY	11,569
247-2201	PLACE FLEX BASE (CMP IN PLC) (CRUSHED LIMESTONE) (3" LAYER)	SY	2,499
247-2201	PLACE FLEX BASE (CMP IN PLC) (CRUSHED LIMESTONE) (12" LAYER)	SY	9,070
260-2017	LIME STABILIZATION TREATMENT (6% BY WEIGHT) (8" THICK)	SY	11,569
341-6075	D-GR HMA TY B SAC-B PG (64-22) (3")	TON	7,833
360-6002	CONCRETE PAVEMENT (CONT REINF-CRCP) (12")	SY	2,499
662-6004	PAVEMENT MARKING (W) (4") (SOLID)	LF	5,460
5001-6002	TRIAxIAL TX 140 GEOGRID BASE REINFORCEMENT (2 LAYERS)	SY	9,070
5033-6002	FIXED BOLLARD (8")	EA	3

LEGEND



TOTAL PAVED AREA - 10,331 SY

03-09-18



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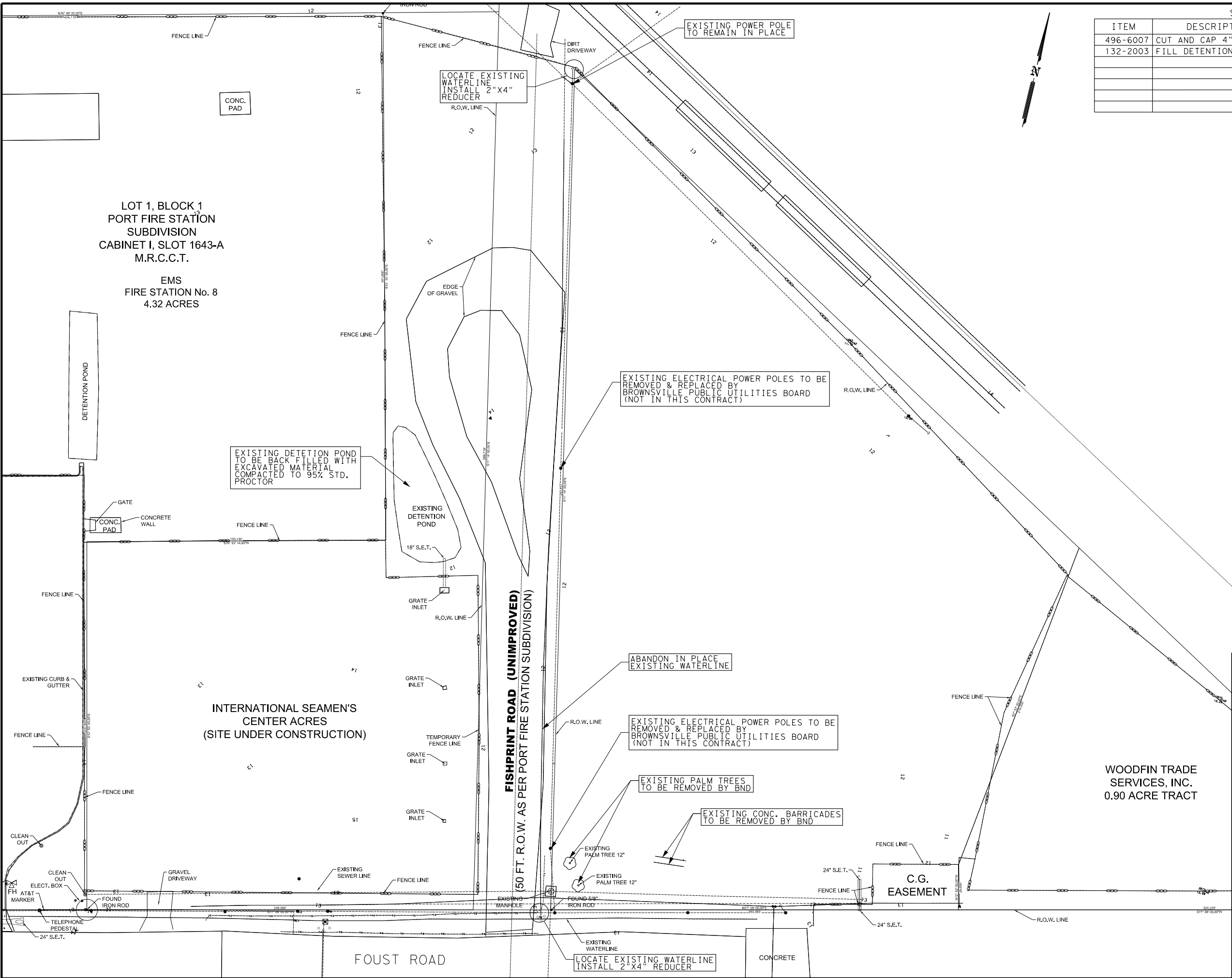
FOUST ROAD
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IMPROVEMENTS
(PHASE I)
SITE LAYOUT

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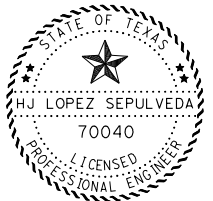
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SHEET SUMMARY			
ITEM	DESCRIPTION	UNIT	TOTAL
496-6007	CUT AND CAP 4" PVC WATER LINE	EA	2
132-2003	FILL DETENTION POND	SY	273

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FOUST ROAD TRUCK PARKING IMPROVEMENTS (PHASE I) REMOVAL & DEMOLITION PLAN

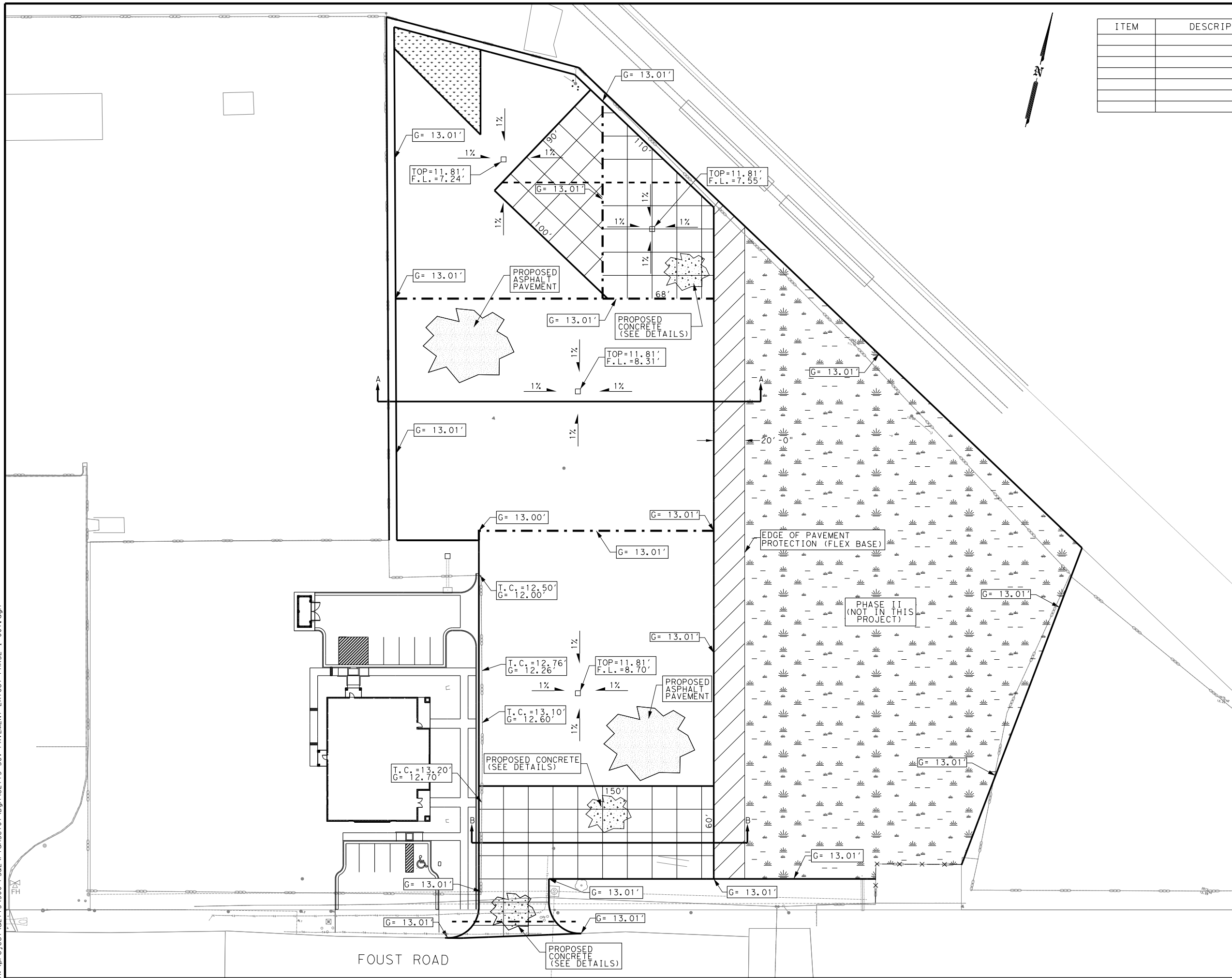
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ITEM	DESCRIPTION	UNIT	TOTAL

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STATE OF TEXAS
HJ. LOPEZ SEPULVEDA
70040
LICENSED PROFESSIONAL ENGINEER

PORT OF BROWNSVILLE
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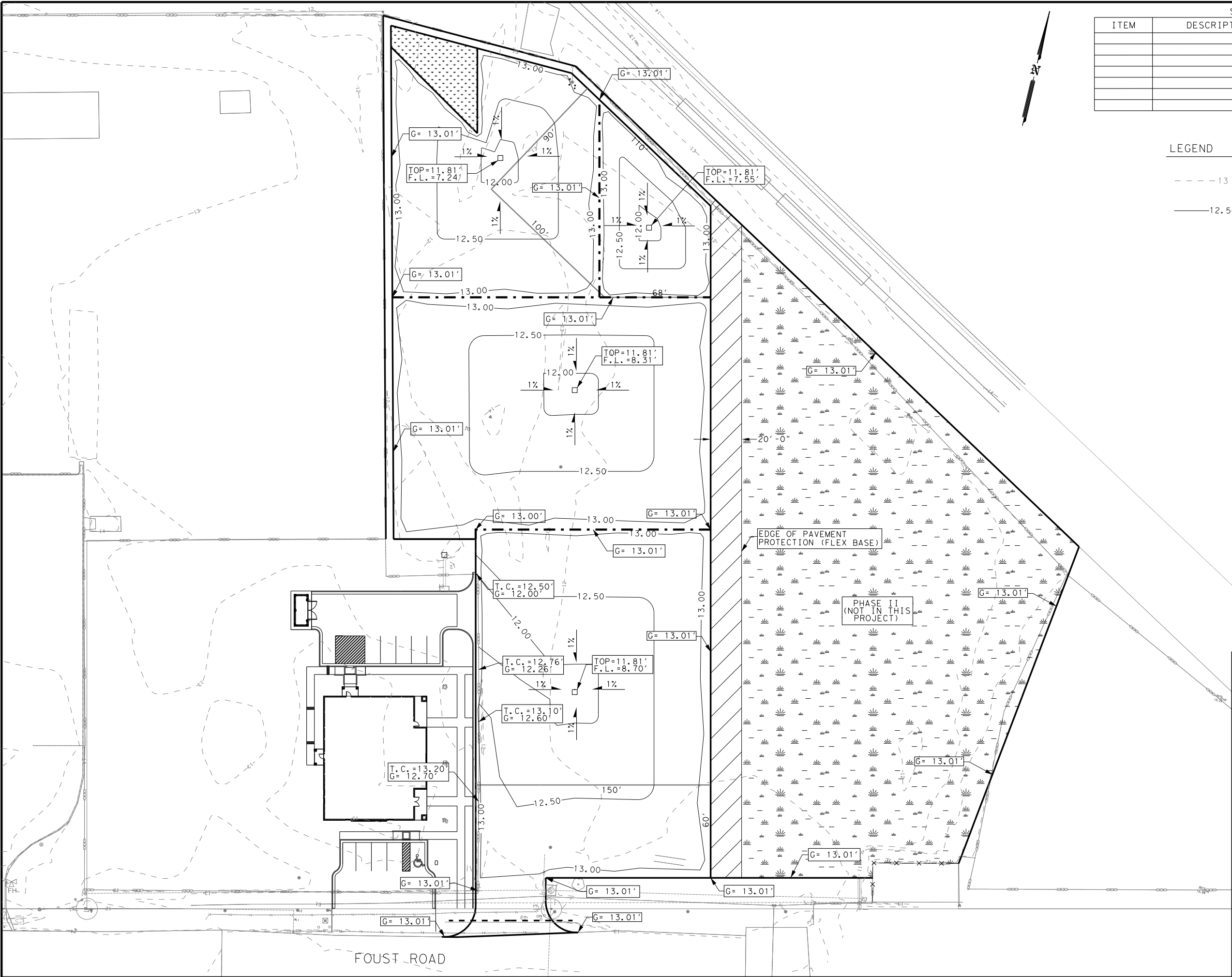
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TEXAS BOARD OF PROFESSIONAL ENGINEERS #: F-1582

FOUST ROAD TRUCK PARKING IMPROVEMENTS (PHASE I) PAVEMENT LAYOUT

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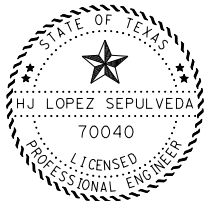
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PORT OF BROWNSVILLE
the port that works

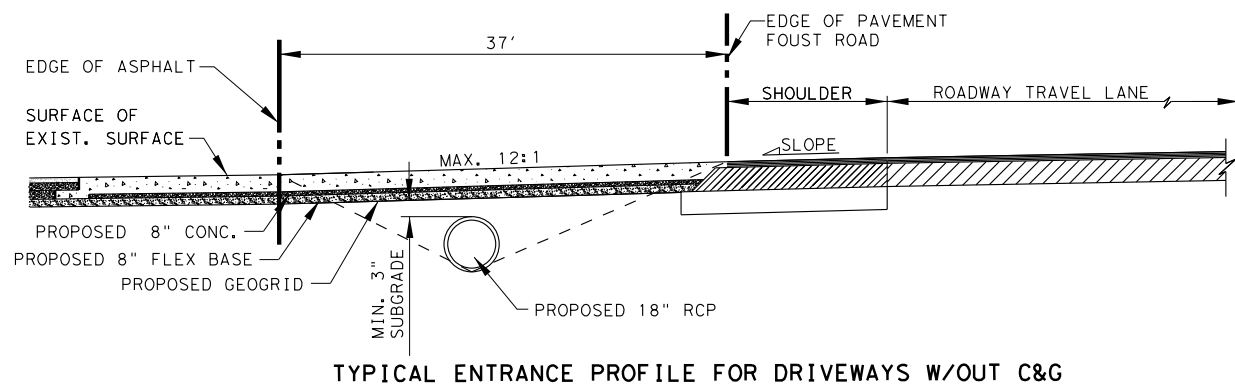
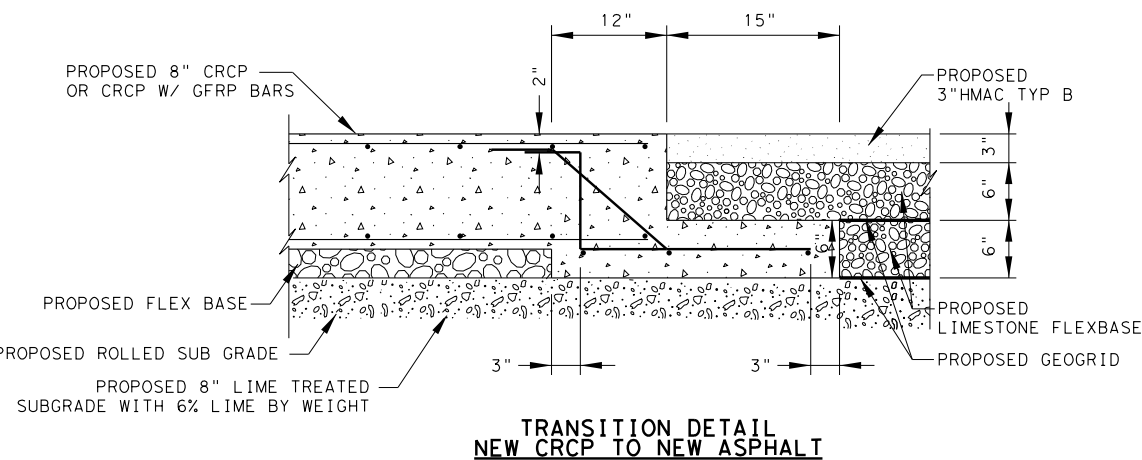
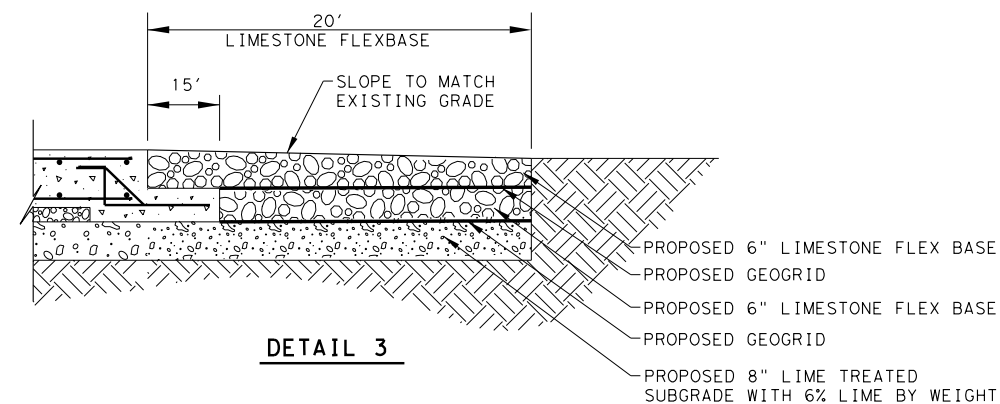
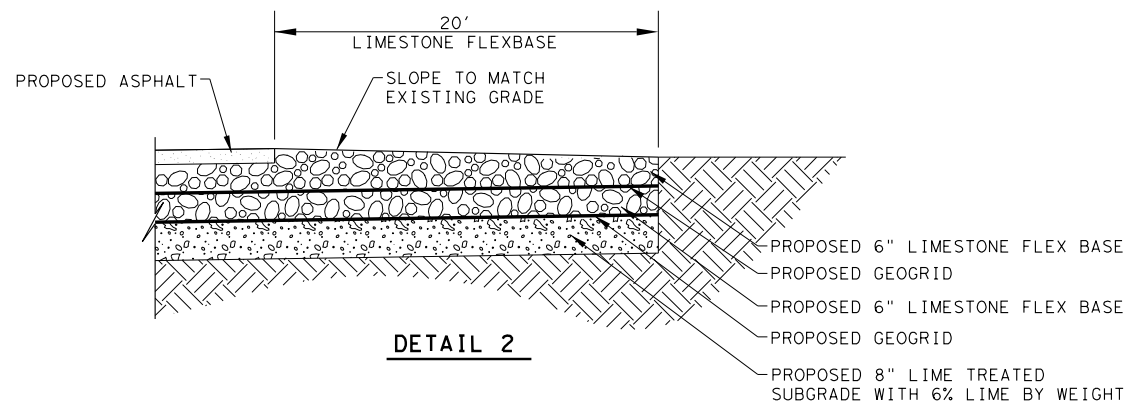
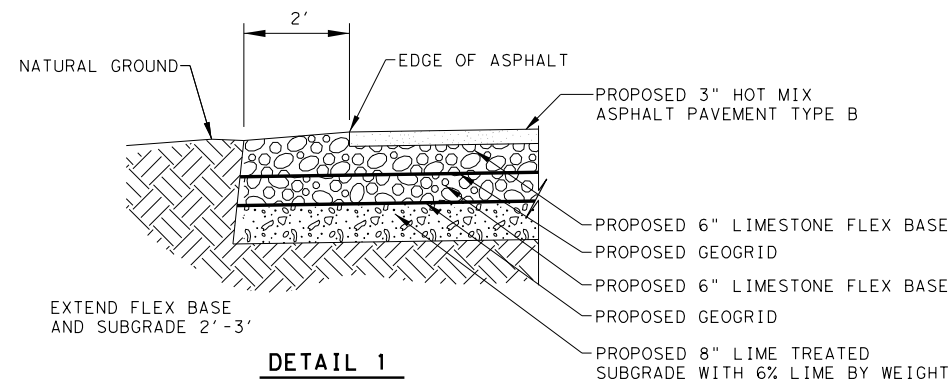
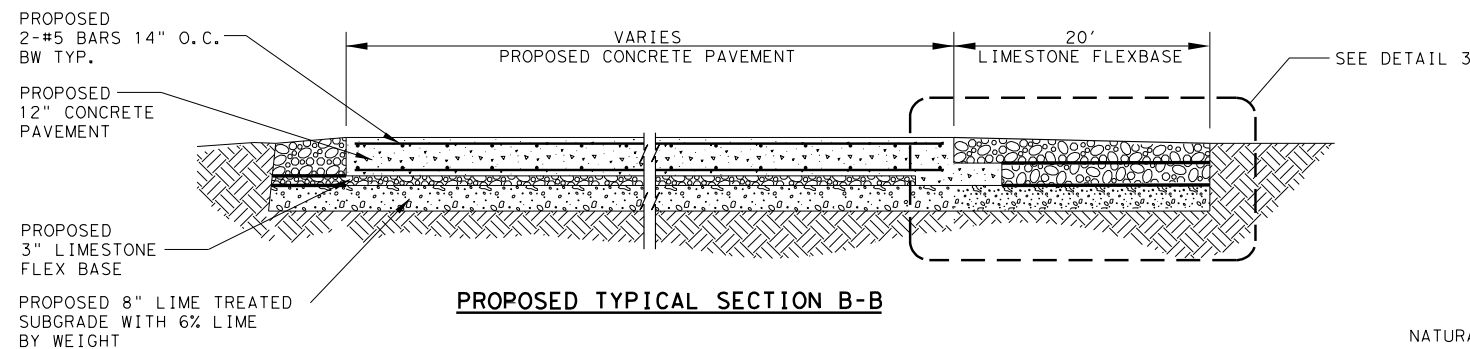
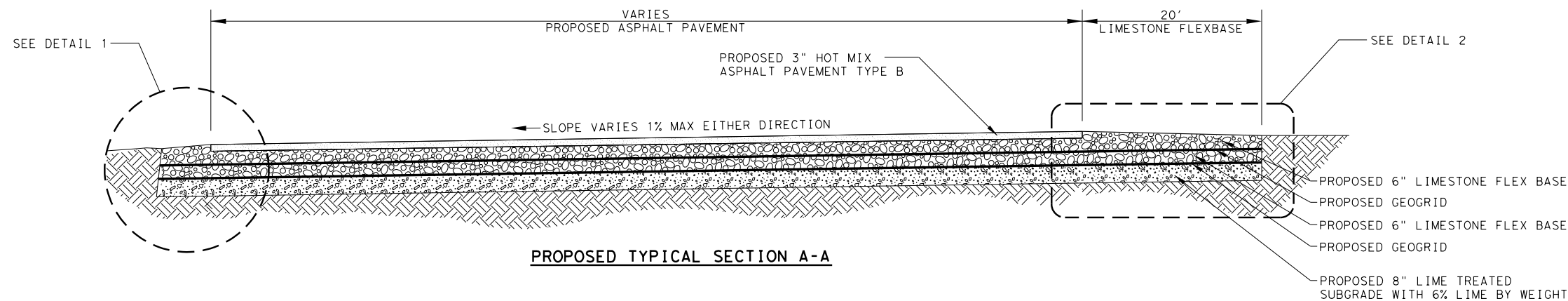
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FOUST ROAD
TRUCK PARKING
IMPROVEMENTS
(PHASE I)
PAVEMENT
GRADING LAYOUT

SCALE: 1"=60' SHEET 1 OF 1

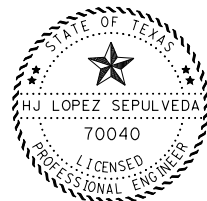
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- NOTES
- 1) PROPOSED GEOGRID WILL BE TENSAR TRIAXIAL TX 140 INSTALLED ACCORDING TO MANUFACTURER'S RECOMMENDATION
 - 2) PROPOSED LIMESTONE FLEX BASE WILL BE COMPACTED TO 95% BY MODIFIED PROCTOR (ASTM D-1557)
 - 3) PROPOSED SUBGRADE WILL BE COMPACTED TO 95% BY STANDARD PROCTOR (ASTM D-698).
 - 4) HOT MIX ASPHALT CONCRETE AS SPECIFIED IN TXDOT ITEM 340 TYPE B.
 - 5) CONCRETE WILL HAVE A MINIMUM PSI OF 4,000@28 DAYS.
 - 6) REINFORCING STEEL TO HAVE 40,000 PSI YIELD STRENGTH AND MINIMUM 2 IN. COVER.

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03-09-18



PORT OF BROWNSVILLE
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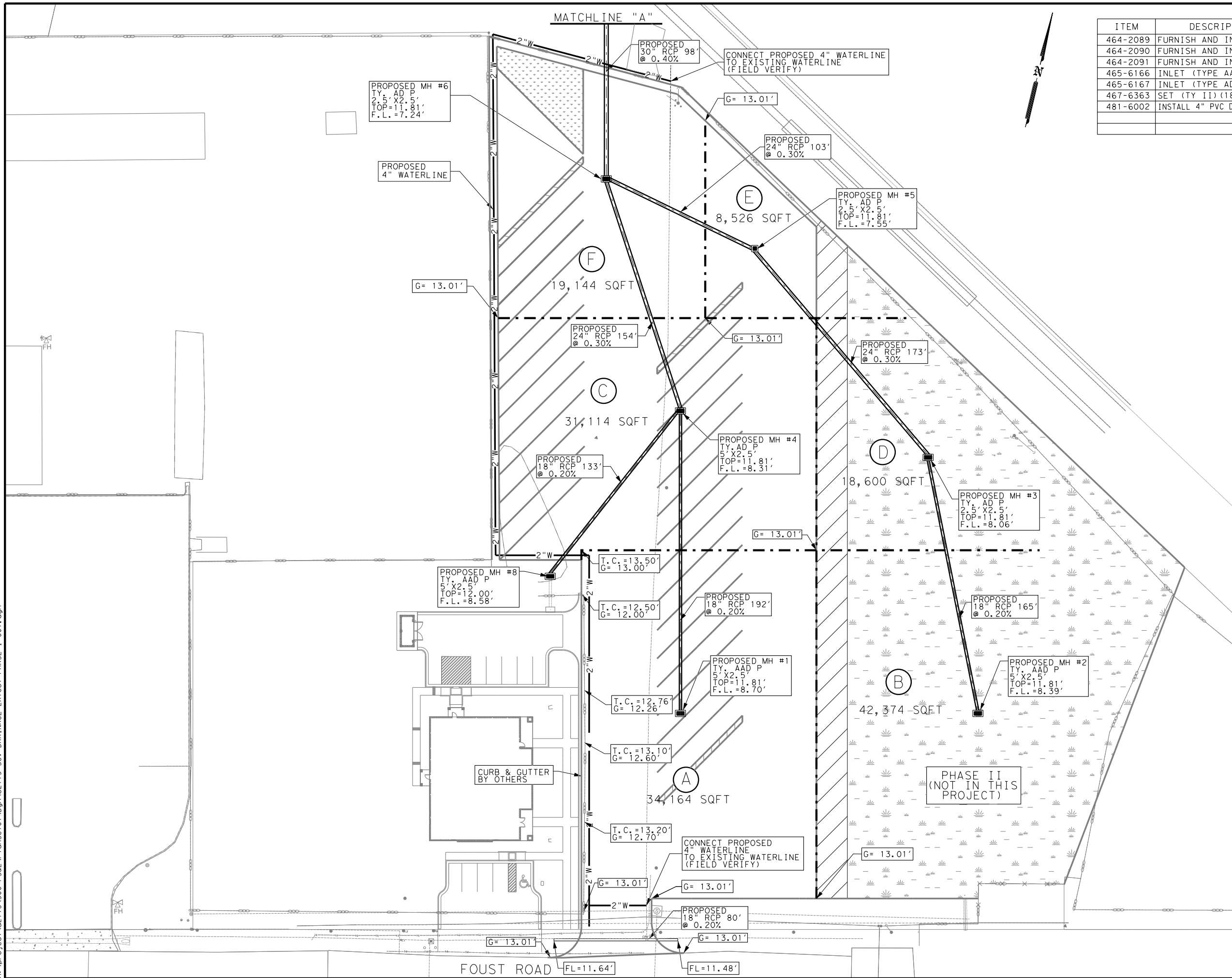
**FOUST ROAD
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IMPROVEMENTS
(PHASE I)
PAVEMENT TYP SECTIONS**

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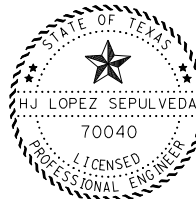
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SHEET SUMMARY			
ITEM	DESCRIPTION	UNIT	TOTAL
464-2089	FURNISH AND INSTALL RCP (CL III) (18")	LF	555
464-2090	FURNISH AND INSTALL RCP (CL III) (24")	LF	430
464-2091	FURNISH AND INSTALL RCP (CL III) (30")	LF	98
465-6166	INLET (TYPE AAD P) (5'X2.5')	EA	3
465-6167	INLET (TYPE ADP) (2.5'X2.5')	EA	4
467-6363	SET (TY II) (18IN) (RCP) (6:1) (C)	EA	2
481-6002	INSTALL 4" PVC DR-25 WATER LINE (ALL INCLUSIVE)	LF	750

[Signature]
03-09-18



PORT OF BROWNSVILLE
the port that works

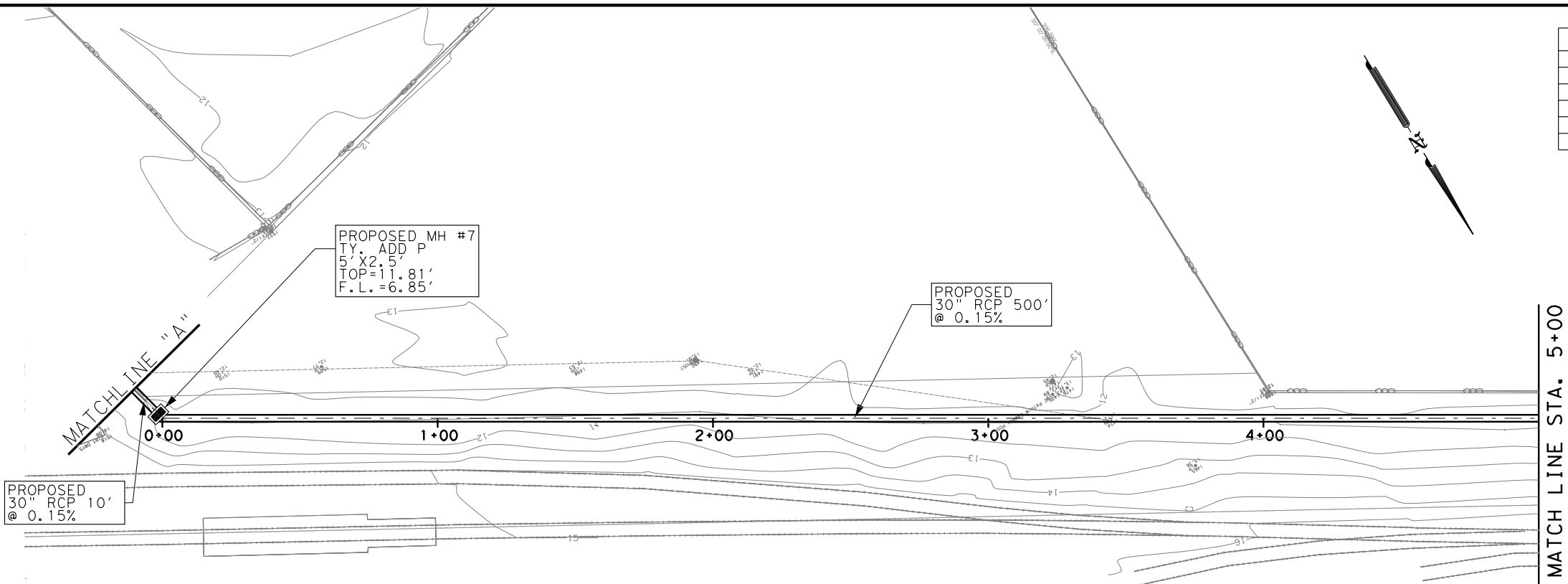
S&BI
S&B INFRASTRUCTURE, LTD.
TEXAS BOARD OF PROFESSIONAL ENGINEERS #: F-1582

FOUST ROAD
TRUCK PARKING
IMPROVEMENTS
(PHASE I)
STORM WATER LAYOUT

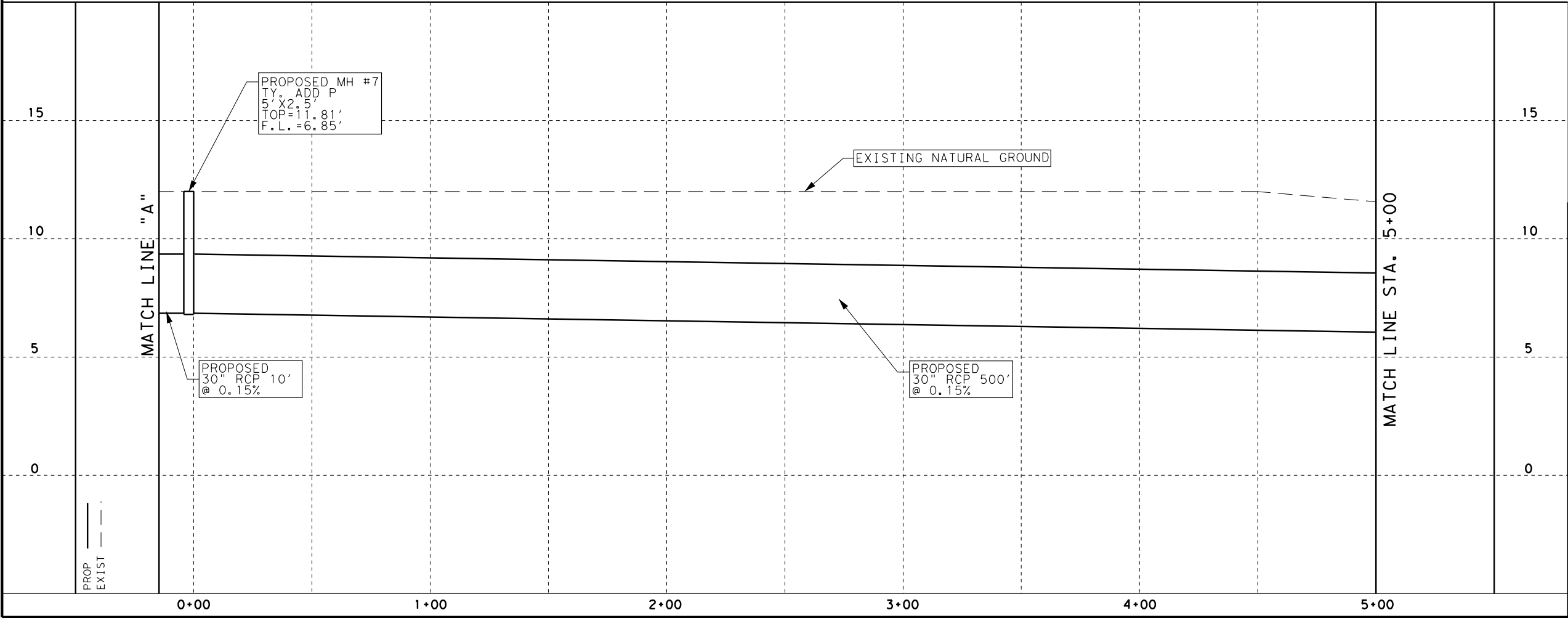
SCALE: 1"=60' SHEET 1 OF 3

STATE	COUNTY	SHEET NO.
TEXAS	CAMERON	10

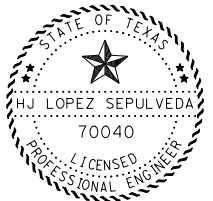
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SHEET SUMMARY			
ITEM	DESCRIPTION	UNIT	TOTAL
464-2091	FURNISH AND INSTALL RCP (CL III) (30")	LF	510
465-6166	INLET (TYPE AAD P) (5'X2.5')	EA	1



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PORT OF BROWNSVILLE
the port that works

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TEXAS BOARD OF PROFESSIONAL ENGINEERS #: F-1582

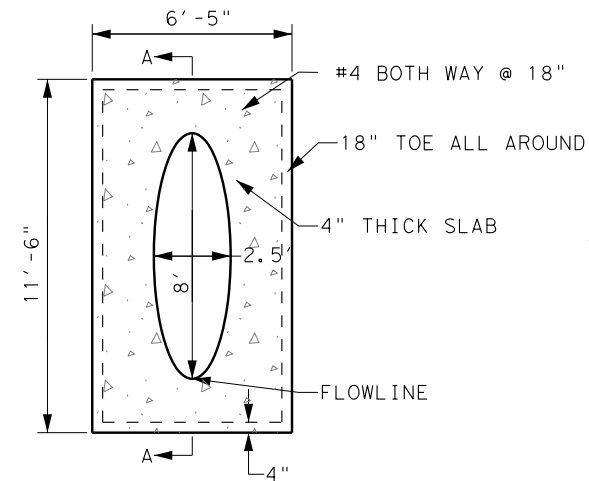
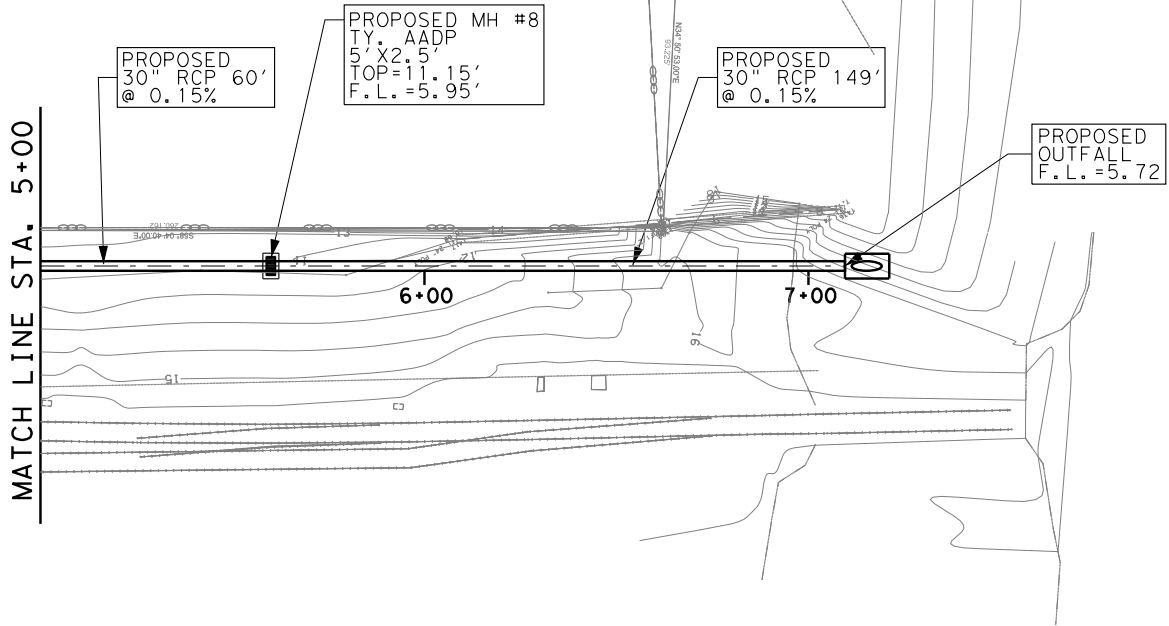
FOUST ROAD
TRUCK PARKING
IMPROVEMENTS
(PHASE 1)
STORM WATER LAYOUT

SCALE
HORZ: 1"=50'
VERT: 1"=5'

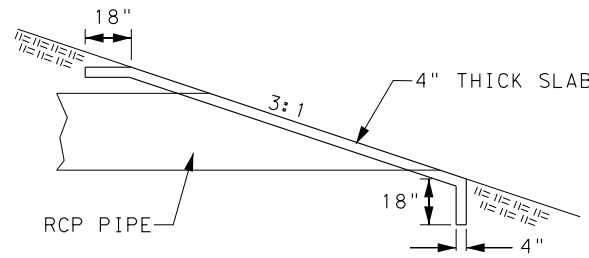
SHEET 2 OF 3
SHEET NO. 11

STATE TEXAS COUNTY CAMERON

SHEET SUMMARY			
ITEM	DESCRIPTION	UNIT	TOTAL
464-2091	FURNISH AND INSTALL RCP (CL III) (30")	LF	206
465-6166	INLET (TYPE AAD P) (5' X 2.5')	EA	1
420-6074	REINFORCED CONCRETE CANASTA (CL C) (4,000 PSI)	CY	1.23

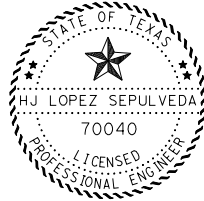


CONCRETE SLAB DETAIL



SECTION A-A

[Signature]
03-09-18



PORT OF BROWNSVILLE
the port that works



TEXAS BOARD OF PROFESSIONAL ENGINEERS # : F-1582

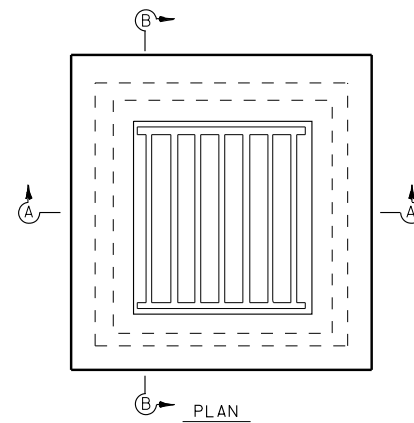
FOUST ROAD
TRUCK PARKING
IMPROVEMENTS
(PHASE I)
STORM WATER LAYOUT

SCALE
HORZ: 1"=50'
VERT: 1"=5'

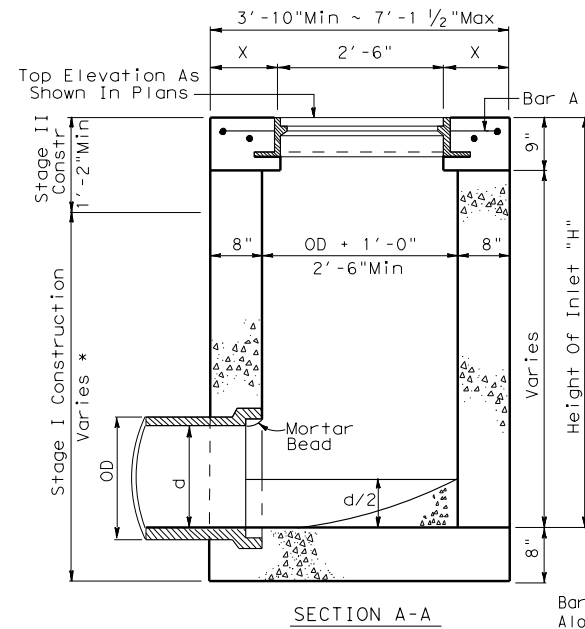
SHEET 3 OF 3

			SHEET NO.
			12
STATE		COUNTY	
TEXAS		CAMERON	

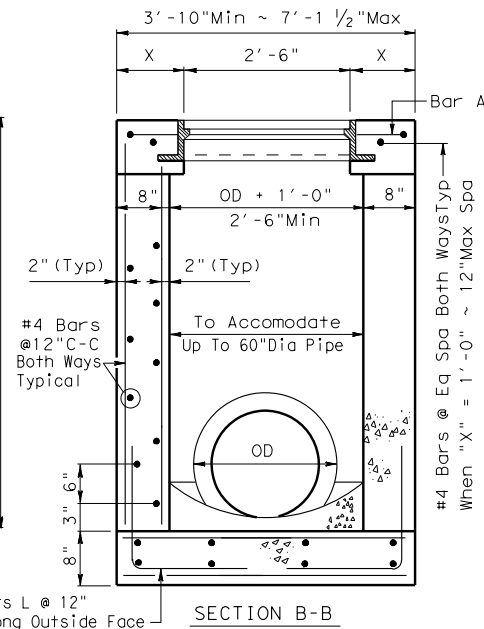
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N:\Project\2715\500*PS&E\PlanSet\01\Drawn\2715-SCV-DRAINAGE LAYOUT PHASE I-003.dgn



* But Not Less Than Six Inches Over Highest Entering Pipe.
X = 8" Min to 3'-9" Max

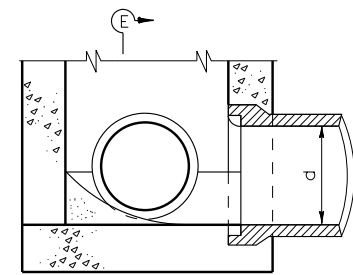


SECTION A-A

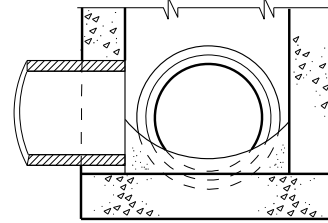


SECTION B-B

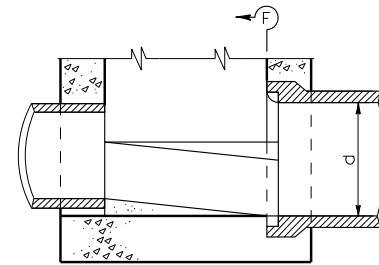
INLET TYPE AD



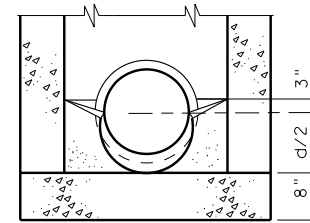
PART SECTION AT INVERT
Showing Shaping Of Invert, Pipe Entering From Adjacent Sides



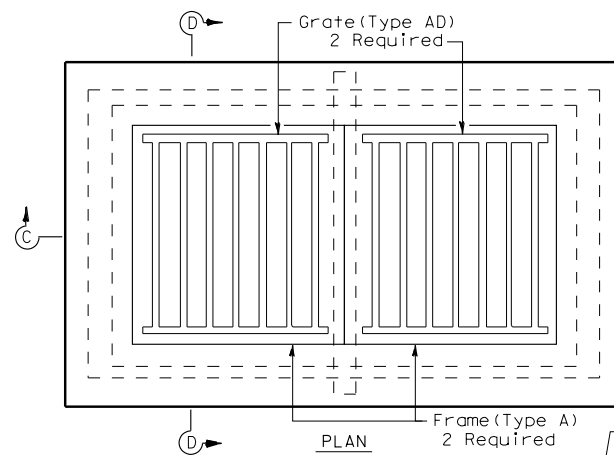
SECTION E-E



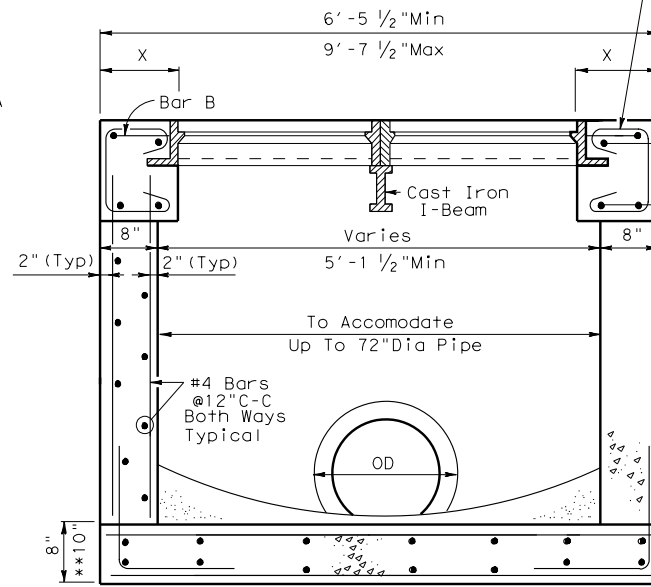
PART SECTION AT INVERT
Showing Shaping Of Invert, Pipe Entering From Opposite Sides



SECTION F-F

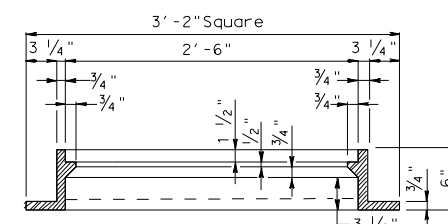


* But Not Less Than Six Inches Over Highest Entering Pipe.
** For Pipe Diameters 66" And Greater

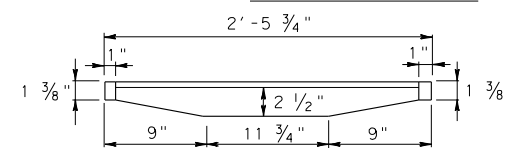


SECTION C-C

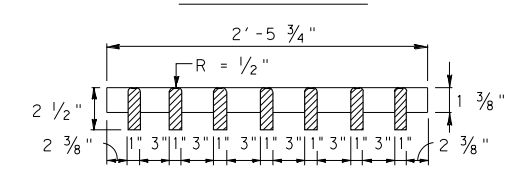
INLET TYPE AAD



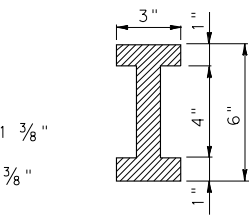
SECTION THRU FRAME



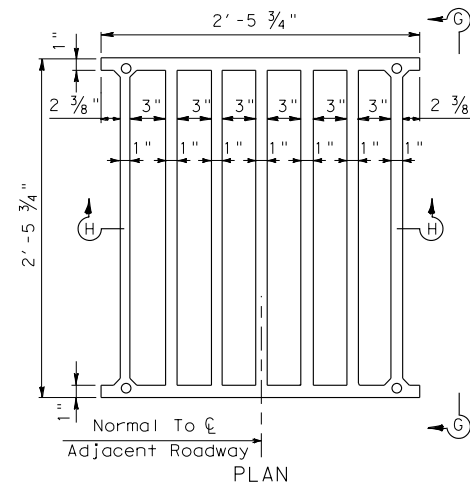
ELEVATION G-G



SECTION H-H



SECTION OF CAST IRON I-BEAM



PLAN

Provide 4 ~ Stainless Steel Hex Head Bolts per Grate

FRAME AND GRATE

Type AD ~ Neenah No.3418 or EJIW No.V-4880-2
Type AAD ~ Neenah No.3418-2 or EJIW No.V-4881-2

d = Diameter
R = Radius

GENERAL NOTES:

Type AD Inlet contains a single frame with grate. Type AAD Inlet contains a double frame and double grate with an I-beam.

Frame and Grates may be gray cast iron.

The Furnishing And Installation Of Cast Iron I-Beams Shall Be Considered Incidental To Inlet (Compl) (Ty AAD) Or Inlet (Stage II) (Ty AAD) As The Case May Be.

Where Size Of Pipes Passing Thru Inlet Exceeds 30", Increase Inside Width To Diameter Of Pipe Plus 1'-0" (OD + 1'-0")

Cast Iron Manhole Steps (See Manhole Details) Spaced At 16" Centers And Located On Wall Specified By The Engineer Shall Be Provided And Installed Where "D" Exceeds 5'-0".

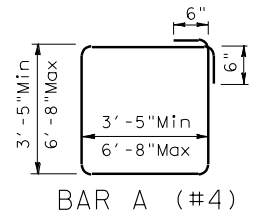
See Standard or Detail Sheet For Excavation and Backfill Diagrams.

Type AD & AAD Inlets Shall Be Built To Stage I And Finished After All Grading Operations Are Substantially Completed.

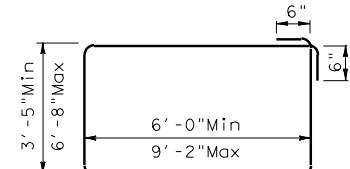
Shop Drawings Will Be Required For Precast Construction Of Inlets.

Upon installation of the grates the threads of the bolts shall be coated with thread lock type adhesive (Lockite or equal). Reapply thread lock adhesive each time grates are removed.

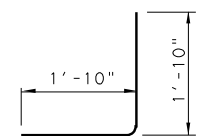
Bolted grates and frames are a matched set, do not unbolt without "Match Marking" so that grates and frames are re-installed as originally built.



BAR A (#4)



BAR B (#4)



BAR L (#4)

NOT FOR TRAFFIC LOADS

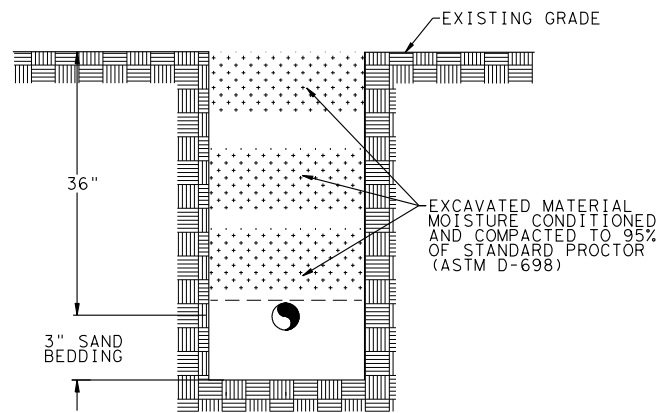
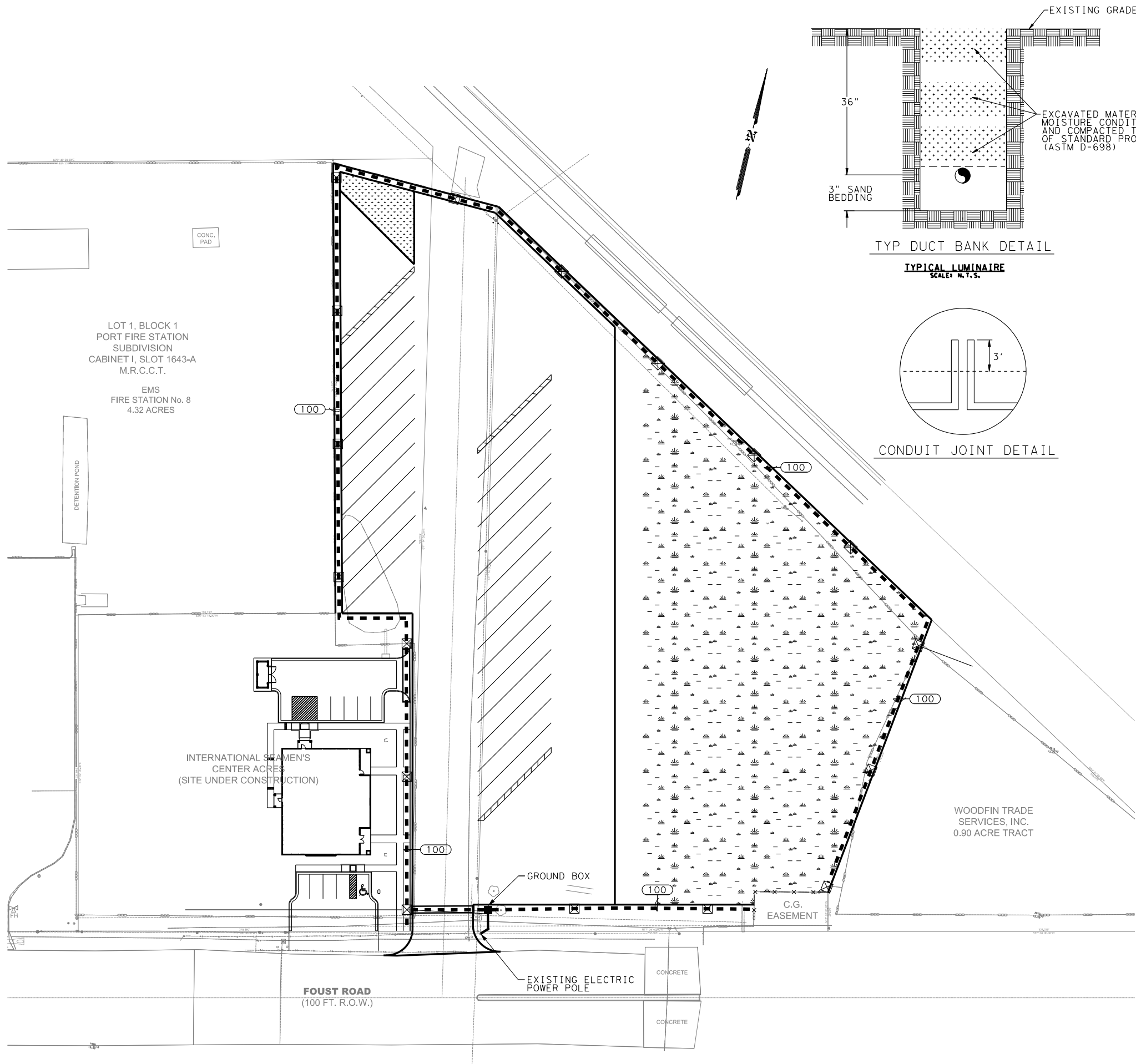


INLETS TYPE AD & AAD

HIL-AD/AAD

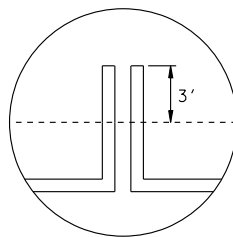
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© TXDOT	2014	DIST	FED REG	PROJECT NO.		SHEET
REVISIONS		HOUS	6			13
		COUNTY	CONTROL	SECT	JOB	HIGHWAY

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N:\Project\2715\500*PS&E\PlanSet\01\Drawn\2715-SCVE-ILLUMINATION LAYOUT.dgn



TYP DUCT BANK DETAIL

TYPICAL LUMINAIRE
SCALE: N.T.S.



CONDUIT JOINT DETAIL

SHEET SUMMARY

ITEM	DESCRIPTION	UNIT	TOTAL
506-6020	INSTALL CONDT (PVC) (SCH 40) (2")	LF	1,500

LEGEND

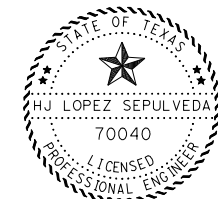
☒ CONDUIT JOINT

--- PROP CONDUIT (PVC) (SCHD 40)

NOTE:

- CONDUIT JOINT LOCATION MAY BE ADJUSTED BY 1' TO 3' IN ORDER TO AVOID THE EXISTING AND PROPOSED UTILITIES AND DRAINAGE STRUCTURES.
- ALL INDICATED LENGTHS IN CONDUIT AND CONDUCTOR RUNS SCHEDULE ARE HORIZONTAL ONLY. ALLOW FOR SPLICING AND VERTICAL REQUIREMENTS.
- THE CONTRACTOR SHALL VERIFY THE LOCATION OF ANY UNDERGROUND UTILITIES BEFORE DRILLING FOR LUMINAIRE POLE FOUNDATIONS AND SERVICE POLES.
- SERVICE POLE TO BE CONNECTED BY ELECTRICAL UTILITY COMPANY. USE OF ONE OR MORE STANDARDS SHOULD BE UTILIZED DEPENDING ON THE METHODOLOGY OF UTILITY SERVICE EMPLOYED.

[Signature]
03-09-18



PORT OF BROWNSVILLE
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TEXAS BOARD OF PROFESSIONAL ENGINEERS #: F-1582

**FOUST ROAD
TRUCK PARKING
IMPROVEMENTS
(PHASE I)
ILLUMINATION
DUCT PLAN**


SCALE: 1"=80'

SHEET 1 OF 1

STATE	COUNTY
TEXAS	CAMERON

SITE DESCRIPTION	EROSION AND SEDIMENT CONTROLS	OTHER REQUIREMENTS & PRACTICES																																																																
<p>PROJECT LIMITS: <u>COMMERCIAL LOT NORTHEAST OF THE INTERSECTION OF DONALD L FOUST RD. AND MILO RD.</u></p> <p>PROJECT SITE MAPS: <u>*Project Location Map: Title Sheet (Sheet I)</u> <u>*Drainage Patterns: Grading Plan/ Drainage/Hydraulic Data Sheet</u></p> <p><u>*Major Controls And Locations Of Erosion Practices:</u> <u>Sw3p Site Map Sheets</u> <u>*Project Specific Locations: To Be Specified By Project Field Office And Located In The Project Sw3p File</u> <u>*Surface Waters And Discharge Locations:</u> <u>Drainage Swales</u></p> <p>PROJECT DESCRIPTION: <u>Consisting Of Grading, Lime Treat, Flexbase, Lime Treated Subgrade, Concrete Pavement, Asphaltic Pavement, Pavement Marking, Drainage, and Illumination.</u></p> <p>MAJOR SOIL DISTURBING ACTIVITIES: <u>Soil disturbing activities will include preparation of right of way property, cleaning and grubbing, grading, excavation, embankment and erosion and sediment controls at the times and locations listed below.</u></p> <p>TOTAL PROJECT AREA: <u>3.84 Acres</u></p> <p>TOTAL AREA TO BE DISTURBED: <u>2.55 Acres (66%)</u></p> <p>WEIGHTED RUNOFF COEFFICIENT: <u>Before Construction: 0.20</u> <u>After Construction: 0.85</u></p> <p>EXISTING CONDITION OF SOIL & VEGETATIVE <u>Existing Soil Conditions within the the Sejita-Lomalta-Barrada soil association consisting of level, poorly-drained and very poorly-drained clays and silty clay loams.</u></p> <p>NAME OF RECEIVING WATERS: <u>Storm water from the project will be collected by a combination of surface overland flow and Drainage Inlets and will ultimately be carried off-site to Cameron County Drainage District No.I which flows into San Martin Lake hence to the Brownsville Ship Channel, and hence into the Laguna Madre & the Gulf of Mexico.</u></p> <p>ENDANGERED SPECIES, DESIGNATED CRITICAL HABITAT AND HISTORICAL PROPERTY: <u>I. The proposed project contains potential habitat for the Texas horned lizard which is a State listed threatened species.</u></p>	<p>SOIL STABILIZATION PRACTICES: (Select T = Temporary or P = Permanent, as applicable)</p> <table><tbody><tr><td><input type="checkbox"/> TEMPORARY SEEDING</td><td><input type="checkbox"/> PRESERVATION OF NATURAL RESOURCES</td></tr><tr><td><input type="checkbox"/> MULCHING (Hay or Straw)</td><td><input type="checkbox"/> FLEXIBLE CHANNEL LINER</td></tr><tr><td><input type="checkbox"/> BUFFER ZONES</td><td><input type="checkbox"/> RIGID CHANNEL LINER</td></tr><tr><td><input type="checkbox"/> PLANTING</td><td><input type="checkbox"/> SOIL RETENTION BLANKET</td></tr><tr><td><input type="checkbox"/> SEEDING</td><td><input type="checkbox"/> COMPOST MANUFACTURED COMPOST</td></tr><tr><td><input type="checkbox"/> SODDING</td><td><input type="checkbox"/> BIODEGRADABLE EROSION CONTROL SOCKS</td></tr><tr><td><input type="checkbox"/> OTHER: (Specify Practice)</td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr></tbody></table> <p>STRUCTURAL PRACTICES: (Select T = Temporary or P = Permanent, as applicable)</p> <table><tbody><tr><td><input type="checkbox"/> T SILT FENCES</td><td></td></tr><tr><td><input type="checkbox"/> BIODEGRADABLE EROSION CONTROL SOCKS</td><td></td></tr><tr><td><input type="checkbox"/> HAY BALES</td><td></td></tr><tr><td><input type="checkbox"/> ROCK FILTER DAMS</td><td></td></tr><tr><td><input type="checkbox"/> DIVERSION, INTERCEPTOR, OR PERIMETER DIKES</td><td></td></tr><tr><td><input type="checkbox"/> T DIVERSION, INTERCEPTOR, OR PERIMETER SWALES</td><td></td></tr><tr><td><input type="checkbox"/> DIVERSION DIKE AND SWALE COMBINATIONS</td><td></td></tr><tr><td><input type="checkbox"/> PIPE SLOPE DRAINS</td><td></td></tr><tr><td><input type="checkbox"/> PAVED FLUMES</td><td></td></tr><tr><td><input type="checkbox"/> T ROCK BEDDING AT CONSTRUCTION EXIT</td><td></td></tr><tr><td><input type="checkbox"/> TIMBER MATTING AT CONSTRUCTION EXIT</td><td></td></tr><tr><td><input type="checkbox"/> PIPE MATTING OR EQUAL AT CONSTRUCTION EXIT</td><td></td></tr><tr><td><input type="checkbox"/> CHANNEL LINERS</td><td></td></tr><tr><td><input type="checkbox"/> SEDIMENT TRAPS</td><td></td></tr><tr><td><input type="checkbox"/> SEDIMENT BASINS</td><td></td></tr><tr><td><input type="checkbox"/> T STORM INLET SEDIMENT TRAP</td><td></td></tr><tr><td><input type="checkbox"/> STONE OUTLET STRUCTURES</td><td></td></tr><tr><td><input type="checkbox"/> CURBS AND GUTTERS</td><td></td></tr><tr><td><input type="checkbox"/> P STORM SEWERS</td><td></td></tr><tr><td><input type="checkbox"/> VELOCITY CONTROL DEVICES</td><td></td></tr><tr><td><input type="checkbox"/> OTHER: (Specify Practice)</td><td></td></tr><tr><td></td><td></td></tr><tr><td></td><td></td></tr></tbody></table> <p>STORM WATER MANAGEMENT: <u>Storm water drainage will be provided by detention swales. These mechanisms will carry drainage to intermediate outfall locations through out the project. All drainage from project ultimately outfalls into the Cameron County Drainage District Drainage Network.</u></p> <p>STORM WATER MANAGEMENT ACTIVITIES: (Sequence of Construction) (Describe Storm Water Management Activities By Phases, See Example Below) <u>The Order Of Activities Will Be As Follows:</u> <u>1.- Install Perimeter Controls, Clear R.O.W. On Side Where Construction Will Take Place, And Make Required Utility Adjustments</u> <u>2. Install Proposed Trunk Lines/Inlets, Install Silt Fence Along Roadway Storm Sewer Network Outfalls As Shown On Plan & Profile Sheets.</u> <u>3. Construct Proposed Drainage Network</u> <u>4. Install Drop Inlet Sediment Traps</u> <u>5. Construct Paved Surface</u></p> <p>NON-STORM WATER MANAGEMENT DISCHARGES: <u>Non-storm water discharges should be filtered, or held in retention basins, before being allowed to mix with storm water. These discharges consist of non-polluted ground water, spring water, foundation and/or footing drain water;and water used for dust control, pavement washing and vehicle wastewater containing no detergents.</u></p>	<input type="checkbox"/> TEMPORARY SEEDING	<input type="checkbox"/> PRESERVATION OF NATURAL RESOURCES	<input type="checkbox"/> MULCHING (Hay or Straw)	<input type="checkbox"/> FLEXIBLE CHANNEL LINER	<input type="checkbox"/> BUFFER ZONES	<input type="checkbox"/> RIGID CHANNEL LINER	<input type="checkbox"/> PLANTING	<input type="checkbox"/> SOIL RETENTION BLANKET	<input type="checkbox"/> SEEDING	<input type="checkbox"/> COMPOST MANUFACTURED COMPOST	<input type="checkbox"/> SODDING	<input type="checkbox"/> BIODEGRADABLE EROSION CONTROL SOCKS	<input type="checkbox"/> OTHER: (Specify Practice)						<input type="checkbox"/> T SILT FENCES		<input type="checkbox"/> BIODEGRADABLE EROSION CONTROL SOCKS		<input type="checkbox"/> HAY BALES		<input type="checkbox"/> ROCK FILTER DAMS		<input type="checkbox"/> DIVERSION, INTERCEPTOR, OR PERIMETER DIKES		<input type="checkbox"/> T DIVERSION, INTERCEPTOR, OR PERIMETER SWALES		<input type="checkbox"/> DIVERSION DIKE AND SWALE COMBINATIONS		<input type="checkbox"/> PIPE SLOPE DRAINS		<input type="checkbox"/> PAVED FLUMES		<input type="checkbox"/> T ROCK BEDDING AT CONSTRUCTION EXIT		<input type="checkbox"/> TIMBER MATTING AT CONSTRUCTION EXIT		<input type="checkbox"/> PIPE MATTING OR EQUAL AT CONSTRUCTION EXIT		<input type="checkbox"/> CHANNEL LINERS		<input type="checkbox"/> SEDIMENT TRAPS		<input type="checkbox"/> SEDIMENT BASINS		<input type="checkbox"/> T STORM INLET SEDIMENT TRAP		<input type="checkbox"/> STONE OUTLET STRUCTURES		<input type="checkbox"/> CURBS AND GUTTERS		<input type="checkbox"/> P STORM SEWERS		<input type="checkbox"/> VELOCITY CONTROL DEVICES		<input type="checkbox"/> OTHER: (Specify Practice)						<p>OTHER EROSION AND SEDIMENT CONTROLS:</p> <p>MAINTENANCE: <u>All erosion and sediment controls will be maintained in good working order. If a repair is necessary, it will be done at the earliest date possible, but no later than 7 calendar days after the surrounding exposed ground has dried sufficiently to prevent further damage from heavy equipment. The areas adjacent to creeks and drainage ways shall have priority followed by devices protecting storm sewer inlets.</u></p> <p>INSPECTION: <u>For areas of the construction site that have not been finally stabilized, the area used for storage of materials, structural control measures, and locations where vehicles enter or exit the site. The personnel provided by the permittee and familiar with the SW3P must inspect disturbed areas at least once every fourteen (14) calendar days and within twenty-four (24) hours of the end of a storm event 0.5 inches or greater.</u></p> <p>WASTE MATERIALS: <u>All waste materials will be collected and stored in a securely lidded dumpster. All trash and construction debris from the site will be deposited as necessary at a local dump. No construction waste material will be buried on site.</u></p> <p>HAZARDOUS WASTE (INCLUDING SPILL REPORTING): <u>At a minimum, any products in the following categories to be hazardous: Paints, Acids for cleaning masonry surfaces, Cleaning Solvents, Asphalt products, Chemical additives for soil stabilization, or Concrete curing compounds and additives. In the event of a spill which may be hazardous, the spill Coordinator should be contacted immediately. Emptying of excess concrete should not be allowed on site. Likewise, washout of concrete trucks should not be performed on site. These discharges are considered non-allowable non-storm water discharges. Concrete trucks should never be allowed to dump into storm drains or sanitary sewers.</u></p> <p>SANITARY WASTE: <u>All sanitary waste will be collected from the portable units as necessary or as required by local regulation by a licensed sanitary waste management contractor.</u></p> <p>OFFSITE VEHICLE TRACKING: <u>The Contractor shall be required, on a regular basis or as may be directed by the Engineer, to dampen haul roads for dust control, stabilize construction entrances and to remove excess dirt from the roadway.</u></p> <p>MANAGEMENT PRACTICES:</p> <ol style="list-style-type: none"><u>1. Disposal areas, stockpiles, and haul roads shall be constructed in a manner that will minimize and control the amount of sediment that may enter receiving waters. Disposal areas shall not be located in any wet land, water body or stream bed.</u><u>2. Construction staging areas and vehicle maintenance areas shall be constructed by the Contractor in a manner to minimize the runoff of pollutants.</u><u>3. All waterways shall be cleared as soon as practicable of temporary embankment, temporary bridges, matting, false work, piling, debris or other obstructions placed during construction operations that are not a part of the finished work.</u> <p>OTHER:</p> <ol style="list-style-type: none"><u>1. Construction materials stored on site to be provided by Project Field Office.</u><u>2. The project SW3P File located at the project field office shall contain the N.O.I., CGP Coverage Notice, EPA NPDES Form, Signature Authorization, Certification/Qualification Statements, Inspection Reports, Required Maps, and the NPDES Permit, Part II.</u>
<input type="checkbox"/> TEMPORARY SEEDING	<input type="checkbox"/> PRESERVATION OF NATURAL RESOURCES																																																																	
<input type="checkbox"/> MULCHING (Hay or Straw)	<input type="checkbox"/> FLEXIBLE CHANNEL LINER																																																																	
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<input type="checkbox"/> HAY BALES																																																																		
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<input type="checkbox"/> DIVERSION, INTERCEPTOR, OR PERIMETER DIKES																																																																		
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<input type="checkbox"/> DIVERSION DIKE AND SWALE COMBINATIONS																																																																		
<input type="checkbox"/> PIPE SLOPE DRAINS																																																																		
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<input type="checkbox"/> T ROCK BEDDING AT CONSTRUCTION EXIT																																																																		
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<input type="checkbox"/> VELOCITY CONTROL DEVICES																																																																		
<input type="checkbox"/> OTHER: (Specify Practice)																																																																		

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Texas Department of Transportation

STORM WATER POLLUTION PREVENTION PLAN (SW3P) NOTES

REV. 2-20-14 SHEET 1 OF 1 SW3P.DGN

FED. RD. DIV. NO. 6	PROJECT NO.		SHEET NO. 16
STATE TEXAS	DIST. PHARR	COUNTY CAMERON	
CONT.	SECT.	JOB	HIGHWAY NO.

During the planning phase of project development, the following Environmental Permits, Issues and Commitments have been developed during coordination with resource agencies, local governmental entities and the general public. Any change orders and/or deviations from the final design must be reported to the Engineer prior to the commencement of construction activities as additional environmental clearances may be required.

I. Clean Water Act, Section 402; Stormwater Pollution Prevention

Action Items Required : 1,2,3 ☐ No Action Required

- 1.☒ The contractor must implement the SW3P by installing Best Management Practices (BMPs) as indicated in the construction plans and maintained appropriately throughout construction. BMPs must be in place prior to the start of construction. The SW3P may need to be revised as necessary as construction progresses.
- 2.☒ For all construction PSL’s off the ROW, the contractor must certify compliance with all applicable laws, rules and regulations pertaining to the preservation of cultural resources, natural resources and the environment.
- 3.☒ Based on the acreage of impact, select the appropriate box below:

☐ This project will disturb less than 1 acre of soil and is not part of a larger common plan of development; therefore, a NOI and TPDES Site Notice are not required for this project.

or

☒ This project will disturb equal to or more than 1 acre of soil but less than 5 acres; therefore a NOI is not required but a TPDES Site Notice is required. The Construction Site Notice (CSN) is required to be posted at the construction site in a publicly accessible location for review by the public, TCEQ, EPA and other Inspectors.

or

☐ This project will disturb equal to or more than 5 acres of soil and will require a NOI and TPDES Site Notice. The NOI and Site Notice are required to be posted at the construction site in a publicly accessible location.
- 4.☐ Need to address MS4 requirements (Cameron & Hidalgo Counties only) ☒ MS4 requirements not needed

II. Clean Water Act, Sections 401 and 404 Compliance

Action Items Rquired : 2,3 ☒ No Action Required

- 1.☐ Filling, dredging or excavating in any water bodies, rivers, creeks, streams, wetlands or wet areas is prohibited unless specified in the USACE permit and approved by the Engineer. The contractor shall adhere to all agreements, mitigation plans, and BMPs required by the NWP as regulated by the USACE.
- The Contractor must adhere to all of the terms and conditions associated with the following permit(s):

☒ No Permit Required

☐ Nationwide Permit 14 - PCN not Required (less than 1/10th acre waters or wetlands affected)

☐ Nationwide Permit 14 - PCN Required (1/10th to <1/2 acre, 1/3 in tidal waters)

☐ Individual 404 Permit Required

☐ Other Nationwide Permit Required: NWP# _____
- 2.☒ The contractor is responsible for obtaining new or revised Section 404 permit(s) for Contractor initiated changes in construction methods that change Impacts To Waters Of The U.S., including wetlands. The Contractor will ensure that the water quality of the State will be maintained and not degraded.
- 3.☒ Best Management Practices for applicable Section 401 General Conditions:

General Condition 12 - Categories I and II BMPs required
Category I (Erosion Control)

- ☐ Temporary Vegetation

☒ Interceptor Swale

☐ Mulch Filter Berms and/or Socks
- ☐ Blankets, Matting

☐ Diversion Dike

☐ Compost Filter Berms and/or Socks
- ☐ Mulch

☐ Erosion Control Compost

☐ Compost Blankets
- ☐ Sodding

Category II (Sedimentation Control)

- ☒ Silt Fence

☐ Hay (Straw) Bale Dike

☐ Mulch Filter Berms and/or Socks
- ☐ Rock Berm

☐ Brush Berms

☐ Compost Filter Berms and/or Socks
- ☐ Triangular Filter Dike

☐ Sediment Basins

☒ Stone Outlet Sediment Traps
- ☐ Sand Bag Berm

☒ Erosion Control Compost

General Condition 21 - Category III BMPs required
Category III (Post-Construction TSS Control)

- ☐ Vegetative Filter Strips

☐ Wet Basins

☐ Mulch Filter Berms and/or Socks
- ☐ Retention/Irrigation

☒ Grassy Swales

☐ Compost Filter Berms and/or Socks
- ☐ Extended Detention Basin

☐ Vegetation-Lined Ditches

☐ Sand Filter Systems
- ☐ Constructed Wetlands

☐ Erosion Control Compost

☐ Sedimentation Chambers

II. Clean Water Act, Sections 401 and 404 Compliance - Continued:

- 4.☒ The Contractor’s designated and qualified Contractor Responsible Person Environmental (CRPe) will monitor the project site daily to ensue compliance with SW3P and TPDES General Permit TXR 150000. Daily Monitoring Reports shall be provided to TxDOT within 48 hours, in accordance with Item 506.3.1.
- 5.☐ Other Project Specific Actions:

III. Cultural Resources

Action Items Required : ☒ No Action Required

- 1.☐ Refer to the 2014 TxDOT Standard Specifications For Construction And Maintenance Of Highways, Streets, And Bridges, Item 7.7.1., in the event historical issues or archeological artifacts are found during construction. Upon discovery of archeological artifacts (bones, burnt rock, flint, pottery, etc.) cease work in the immediate area and contact the Engineer immediately.
- 2.☐ Other Project Specific Actions:

IV. Vegetation Resources

Action Items Required : 2,3 ☐ No Action Required

- 1.☐ In accordance with the 2014 TxDOT Standard Specifications; Item 164 - Seeding For Erosion Control; provide and install temporary or permanent seeding for erosion control as shown on the plans or as directed by the Engineer for all seeding and replanting of right of way where possible. (Required for Urban Settings)
- 2.☒ In accordance with Executive Order 13112 on invasive species and the Executive Memorandum on Beneficial Land-scaping, native species of plants shall be used for all seeding and replanting of right of way where possible for rural roadways. (Required for Rural Settings)
- 3.☒ Preserve vegetation where possible throughout the project and minimize clearing, grubbing and excavation within stream banks, bed and approach sections.
- 4.☐ Other Project Specific Actions:

Pharr District Contact No. 956-702-6100

Revised 08/16/2016

List of Abbreviations

BMP: Best Management Practice	NWP: Nationwide Permit
CGP: Construction General Permit	PCN: Pre-Construction Notification
CRPe: Contractor Responsible Person Environmental	PSL: Project Specific Location
DSHS: Texas Department of State Health Services	SPCC: Spill Prevention Control and Countermeasure
FEMA: Federal Emergency Management Agency	SW3P: Storm Water Pollution Prevention Plan
FHWA: Federal Highway Administration	TCEQ: Texas Commission on Environmental Quality
MOA: Memorandum of Agreement	THC: Texas Historical Commission
MOU: Memorandum of Understanding	TPDES: Texas Pollutant Discharge Elimination System
MS4: Municipal Separate Stormwater Sewer System	TPWD: Texas Parks and Wildlife Department
MSAT: Mobile Source Air Toxic	TxDOT: Texas Department of Transportation
MBTA: Migratory Bird Treaty Act	T&E: Threatened and Endangered Species
NOI: Notice of Intent	USACE: U.S. Army Corp of Engineers
NOT: Notice of Termination	USFWS: U.S. Fish and Wildlife Service



ENVIRONMENTAL PERMITS,
ISSUES AND COMMITMENTS
(EPIC)

SHEET 1 OF 2

FED. RD. DIV. NO.	PROJECT NO.		HIGHWAY NO.
6			SHEET NO.
STATE	DISTRICT	COUNTY	
TEXAS	PHR	CAMERON	
CONTROL	SECTION	JOB	
			17

V. Federal Listed, and Proposed Threatened and Endangered Species, Critical Habitat, State Listed Species, Candidate Species and Migratory Birds

Action Items Required : ☐ No Action Required

- 1.☒ Under the Migratory Bird Treaty Act of 1918 (MBTA), codified at 16 U.S.C. § 703-712 and as enforced by the USFWS, the proposed construction work will not remove active nests from bridges, trees, ground and other structures during migratory bird nesting season, (February 15th. through October 1st.). If the Contractor needs to perform work within right of way during nesting season, a qualified Biologist shall conduct a survey to determine if nests are present. If present, Contractor shall maintain a buffer zone of vegetation around the nest as determined by the biologist until the young have fledged or the nest is not occupied.
- 2.☒ There is the potential for the presence of state-listed species & species of concern in the project area and state law prohibits the taking (incidental or otherwise) of state-listed species. Taking is defined as the collection, hooking, hunting, netting, shooting, or share by any means or devices. If any listed species are observed, cease work in the immediate area, do not disturb species or habitat and contact the Engineer immediately.
- 3.☒ Other Project Specific Actions:

1. Amphibians: Black spotted newt, Mexican tree frog, South Texas siren and white lipped frog. Amphibians BMPS to be implemented

•Impelment TCEQ Storm Water pollution Prevention Plan.

•Contractor will be advised of potential occurence in the project area, and to avoid harming the species if encountered.

•Maintain hydrologic regime and connections between open water features, including depressions and riverine habitats.

•Project Specific Locations proposed within the state owned ROW should be located in uplands away from aquatic features.

•Sheep Frog; minimize disturbance to burrows or downed woody debris.

2. Reptiles: Texas Horned lizard and Texas indigo snake.

•Texas Horned lizard; avoid harvester ant mounds in the selection of Project Specific Locations (PSLs) where feasible.

•Texas Horned lizard and Texas indigo snake; apply hydromulching and / or hydroseeding in areas for soil stabilization and to revegetate disturbed areas where feasible. If these are not feasible due to site conditions, utilize erosion control blankets or mats that contain no netting or contain loosely woven, natural fiber netting is preferred. Plastic netting should be avoided to the extent practicable.

•Inform contractor that if reptiles are found on project site allow species to safely leave the project area. Contractor will be advised of potential occurrence in the project area, and to avoid harming the species if encountered.

3. Bird Bmps

•Not disturbing, destroying, or removing active nests, including ground nesting birds, during the nesting season.

•Avoiding the removal of unoccupied, inactive nests as practical

•Preventing the establishment of active nest during nesting season on TxDot owned and operated facilities

•No collecting, capturing, relocating or transporting birds, eggs, young or active nests without a permit.
- VI. Hazardous Materials on Contamination Issues
- Action Items Required : ☐ No Action Required
- General (applies to all projects):
- Comply with the Hazard Communication Act (HCA) for personnel who will be working with hazardous materials by conducting safety meetings prior to beginning construction and making workers aware of potential hazards in the workplace. Ensure that all workers are provided with personal protective equipment appropriate for any hazardous materials used.

Obtain and keep on-site Material Safety Data Sheets (MSDS) for all hazardous products used on the project, which may include but are not limited to the following categories: Paints, acids, solvents, asphalt products, chemical additives, fuels and concrete curing compounds or additives. Provide protected storage, off bare ground and covered, for products which may be hazardous. Maintain product labelling as required by the HCA.

Maintain an adequate supply of on-site spill response materials as indicated in the MSDS. In the event of a spill, take immediate action to mitigate the spill as indicated in the MSDS and in accordance with safe work practices. Contact the TxDOT Pharr District Spill Coordinator immediately. The Contractor shall be responsible for the proper containment and cleanup of all product spills.

Contact the Engineer if any of the following are detected:

• Dead or distressed vegetation (identified as not normal)

• Trash piles, drums, canisters, barrels, etc.

• Undesirable smells or odors

• Evidence of leaching or seepage of contaminant substances

Any other evidence indicating possible hazardous materials or contamination discovered on site.

1.☒ If potentially hazardous material and/or contaminated media (i.e.: soil, groundwater, surface water, sediment, building materials) are unexpectedly encountered during construction, assure that such materials and contamination are handled according to applicable federal and state regulations, cease work in the immediate area and contact the Engineer immediately.
- VI. Hazardous Materials on Contamination Issues - Continued:
2. Does the project involve any bridge class structure rehabilitation or replacements (bridge class structures not including box culverts)?

☐ Yes

☒ No

If "No", then no further action required.
If "Yes", then TxDOT is responsible for completing an asbestos assessment/inspection.

3. Are the results of the asbestos inspection positive (is asbestos present)?

☐ Yes

☐ No

If "Yes", then TxDOT must retain a Texas Department of State Health Services (DSHS) licensed asbestos consultant to assist with the notification, develop abatement/mitigation procedures, and perform management activities as necessary. The notification form to DSHS must be postmarked at least 15 working days prior to scheduled abatement activities and/or demolition.

If "No", then TxDOT is still required to notify DSHS 15 working days prior to any scheduled demolition.

4.☐ The Contractor is responsible for providing the date(s) for abatement activities and/or demolition with careful coordination between the Engineer and an Asbestos Consultant in order to minimize construction delays and subsequent claims.
- VII. Other Environmental Issues
- Action Items Required : 1,2 ☐ No Action Required
- 1.☒ Noise

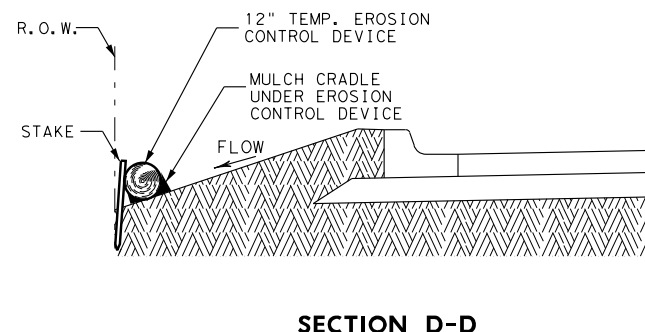
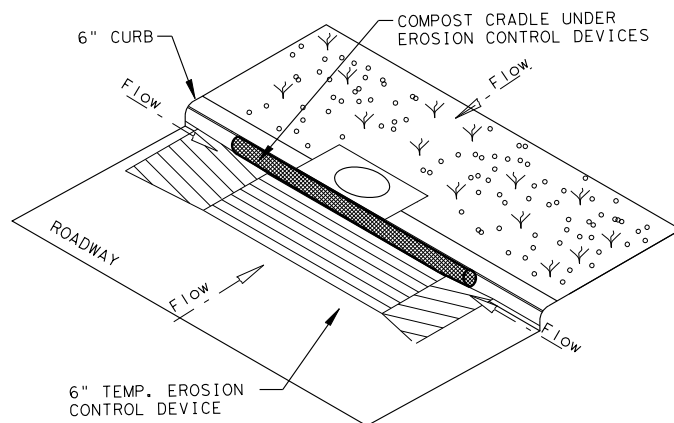
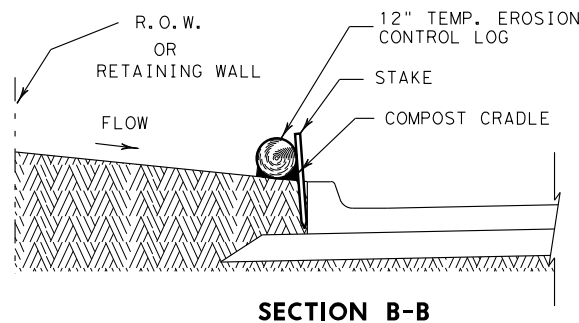
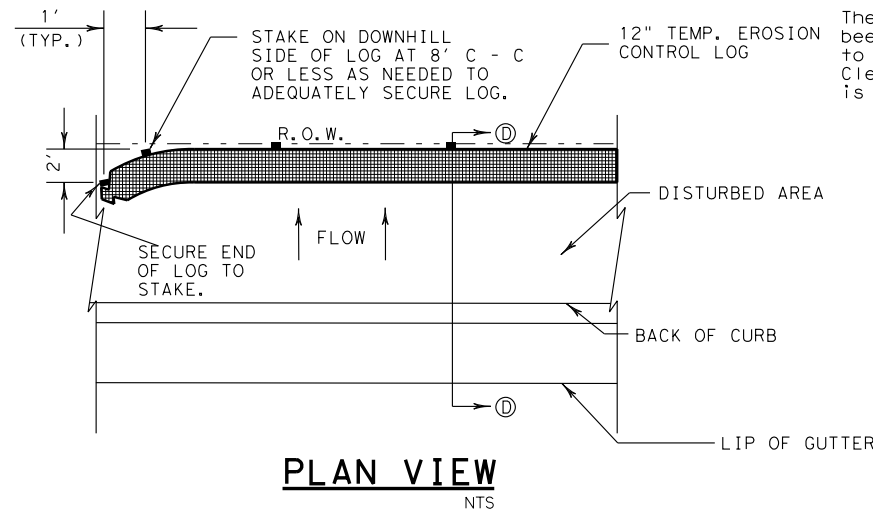
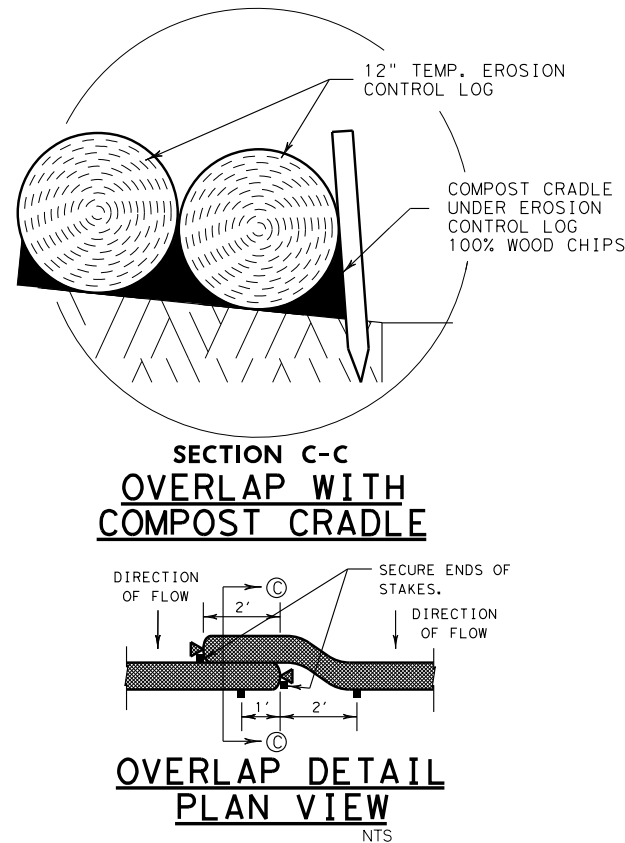
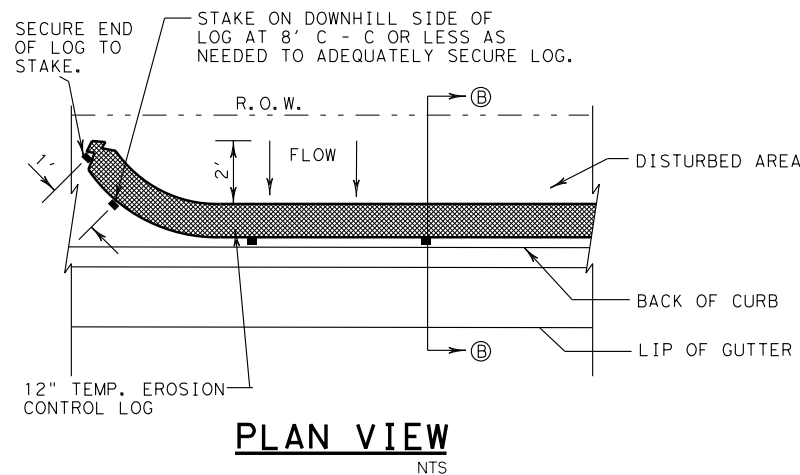
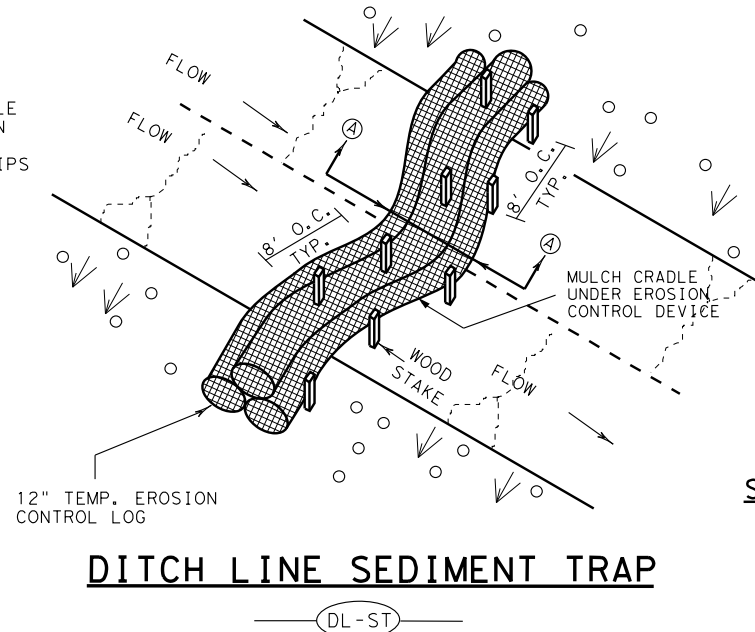
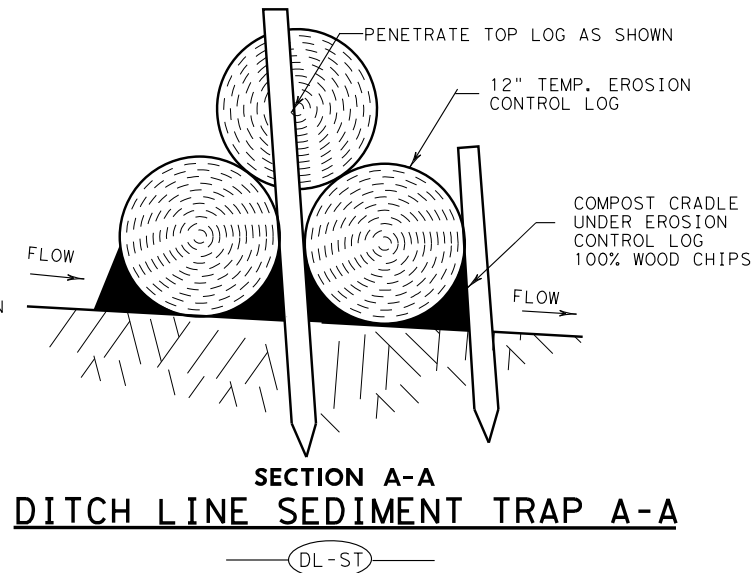
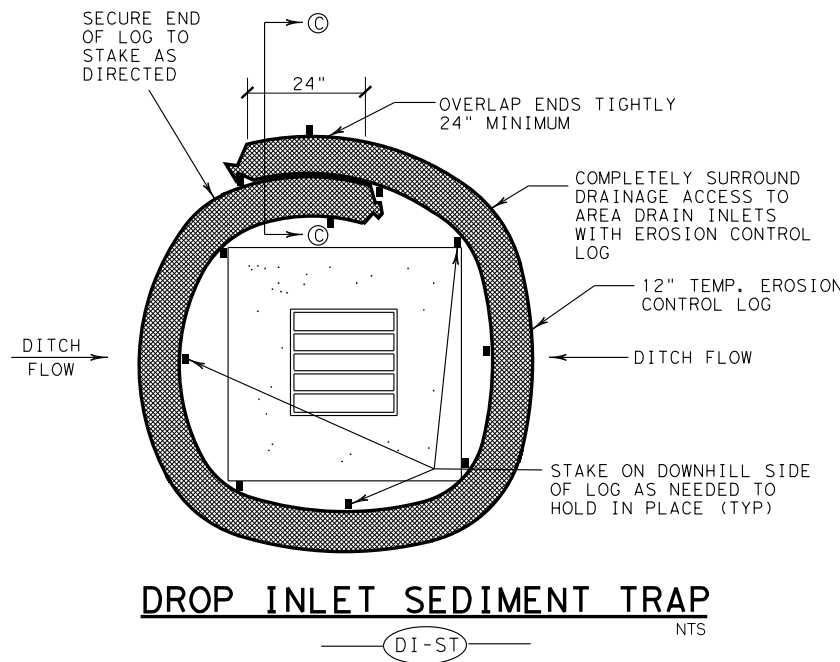
Contractor shall make every reasonable effort to minimize construction noise through abatement measures such as work hour controls and proper maintenance of equipment mufflers.

2.☒ Air

Contractor shall practice common dust control techniques such as surface chemical treatment or watering of unpaved road surfaces and vehicle speed reduction shall be implemented to minimize and prevent airborne dust during construction.

Contractor should minimize MSAT by utilizing measures to encourage use of EPA required cleaner diesel fuels, limits on idling, increase use of cleaner burning diesel engines, and other emission limitation techniques, as appropriate.
- Pharr District Contact No. 956-702-6100
- Revised 08/16/2016
- List of Abbreviations
- BMP: Best Management Practice
CGP: Construction General Permit
CRPe: Contractor Responsible Person Environmental
DSHS: Texas Department of State Health Services
FEMA: Federal Emergency Management Agency
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MOU: Memorandum of Understanding
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TPDES: Texas Pollutant Discharge Elimination System
TPWD: Texas Parks and Wildlife Department
TxDOT: Texas Department of Transportation
T&E: Threatened and Endangered Species
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-
- PHARR DISTRICT
- ENVIRONMENTAL PERMITS,
ISSUES AND COMMITMENTS
(EPIC)
- SHEET 2 OF 2
- | FED. RD. DIV. NO. | PROJECT NO. | | HIGHWAY NO. |
|-------------------|-------------|---------|-------------|
| 6 | | | FM 493 |
| STATE | DISTRICT | COUNTY | |
| TEXAS | PHR | CAMERON | SHEET NO. |
| CONTROL | SECTION | JOB | |
| | | | 18 |

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PLANS SHEET LEGEND

- DI-ST DROP INLET SEDIMENT TRAP
- DL-ST DITCH LINE SEDIMENT TRAP
- BOCI-ST BACK OF CURB INLET SEDIMENT TRAP
- ROW-ST RIGHT OF WAY SEDIMENT TRAP
- CI-ST CURB INLET SEDIMENT TRAP

SEDIMENT BASIN & TRAP USAGE GUIDELINES

A sediment trap may be used to precipitate sediment out of runoff draining from an unstabilized area.

Traps: the drainage area for a sediment trap should not exceed 5 acres. The trap capacity should be 1800 CF/Acre (0.5" over the drainage area).

- Sediment traps should be placed in the following locations:
1. Immediately preceding drain inlets
 2. Just before the drainage enters a water course
 3. Just before the drainage leaves the right of way
 4. Just before the drainage leaves the construction limits where drainage flows away from the project

The trap should be cleaned when the capacity has been reduced by 1/2 or the sediment has accumulated to a depth of 1', whichever is less. Cleaning and removal of accumulated sediment deposits is incidental and will not be paid for separately.

GENERAL NOTES

1. LENGTHS OF EROSION CONTROL LOGS SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND AS REQUIRED FOR THE PURPOSE INTENDED. MAXIMUM LENGTH OF LOGS SHALL BE 30' FOR 12" DIAMETER LOGS.
2. UNLESS OTHERWISE DIRECTED, USE BIODEGRADABLE OR PHOTODEGRADABLE CONTAINMENT MESH ONLY WHERE LOG WILL REMAIN IN PLACE AS PART OF A VEGETATIVE SYSTEM. FOR TEMPORARY INSTALLATIONS, USE RECYCLABLE CONTAINMENT MESH.
3. STUFF LOGS WITH SUFFICIENT FILTER MATERIAL TO ACHIEVE DENSITY THAT WILL HOLD SHAPE WITHOUT EXCESSIVE DEFORMATION.
4. STAKES SHALL BE 2" X 2" WOOD 4' LONG, EMBEDDED SUCH THAT 2" PROTRUDES ABOVE LOG.
5. COMPOST CRADLE MATERIAL IS INCIDENTAL AND WILL NOT BE PAID FOR SEPARATELY.

PHARR DISTRICT STANDARD



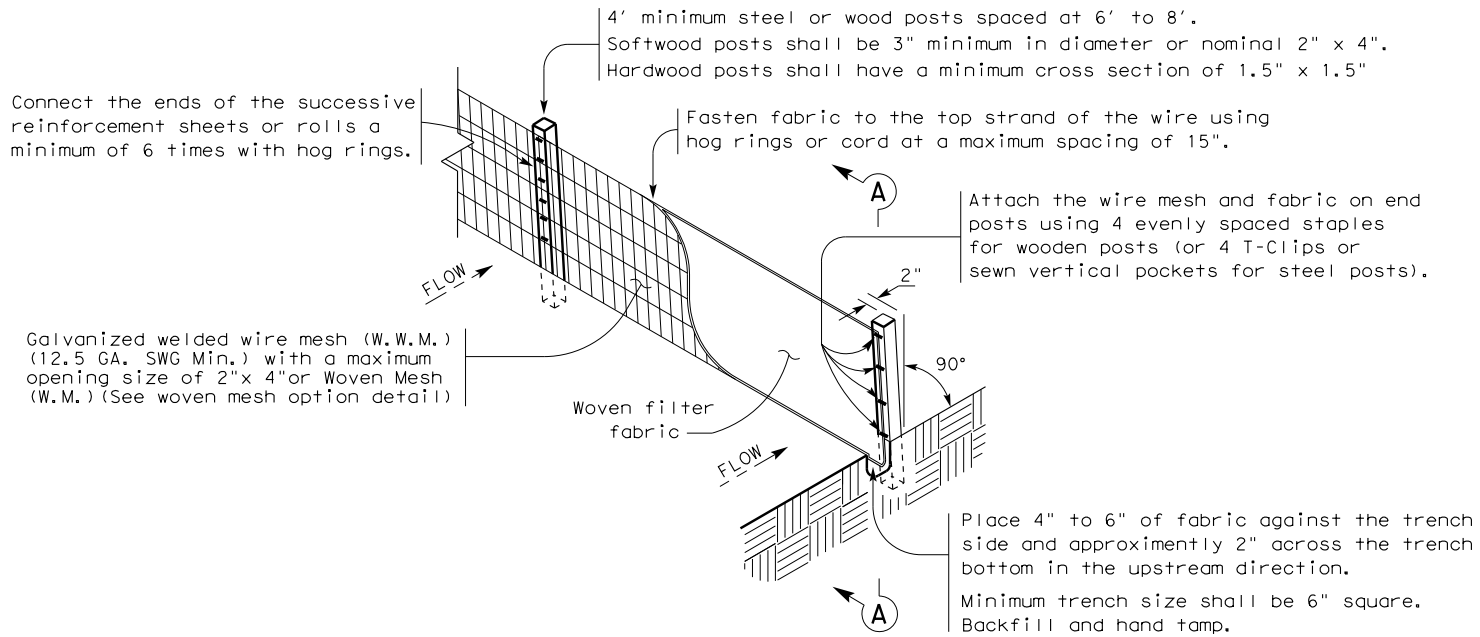
TEMPORARY EROSION CONTROL LOGS TECL-17 (PHR)

FED. RD. DIV. NO.	PROJECT NO.		HIGHWAY NO.
6			
STATE	DISTRICT	COUNTY	SHEET NO.
TEXAS	PHARR	CAMERON	19
CONTROL	SECTION	JOB	

LEVELS DISPLAYED
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
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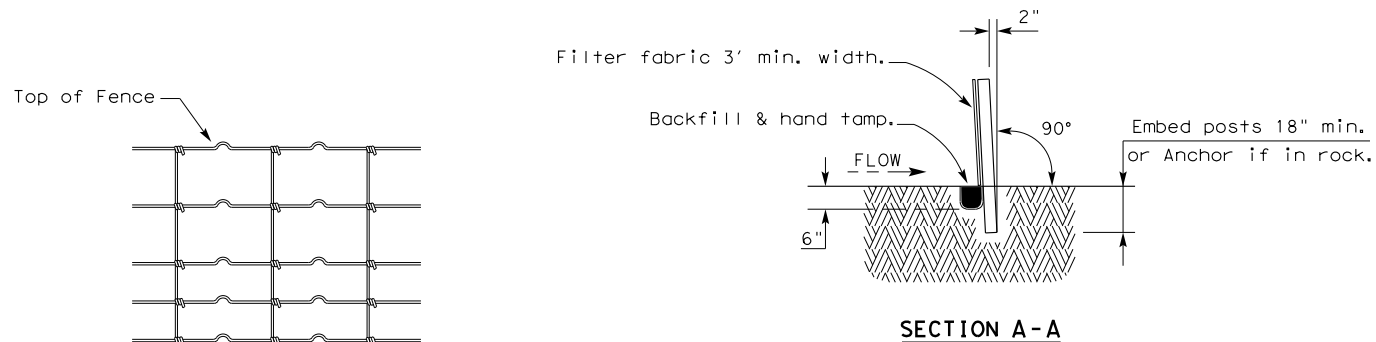
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DATE
FILE



TEMPORARY SEDIMENT CONTROL FENCE

SCF



HINGE JOINT KNOT WOVEN MESH (OPTION) DETAIL

Galvanized hinge joint knot woven mesh (12.5 GA. SWG Min.) requires a minimum of five horizontal wires spaced at a maximum of 12 inches apart and all vertical wires spaced at a maximum of 12 inches apart.

SEDIMENT CONTROL FENCE USAGE GUIDELINES

A sediment control fence may be constructed near the downstream perimeter of a disturbed area along a contour to intercept sediment from overland runoff. A 2 year storm frequency may be used to calculate the flow rate to be filtered.

Sediment control fence should be sized to filter a maximum flow through rate of 100 GPM/FT². Sediment control fence is not recommended to control erosion from a drainage area larger than 2 acres.

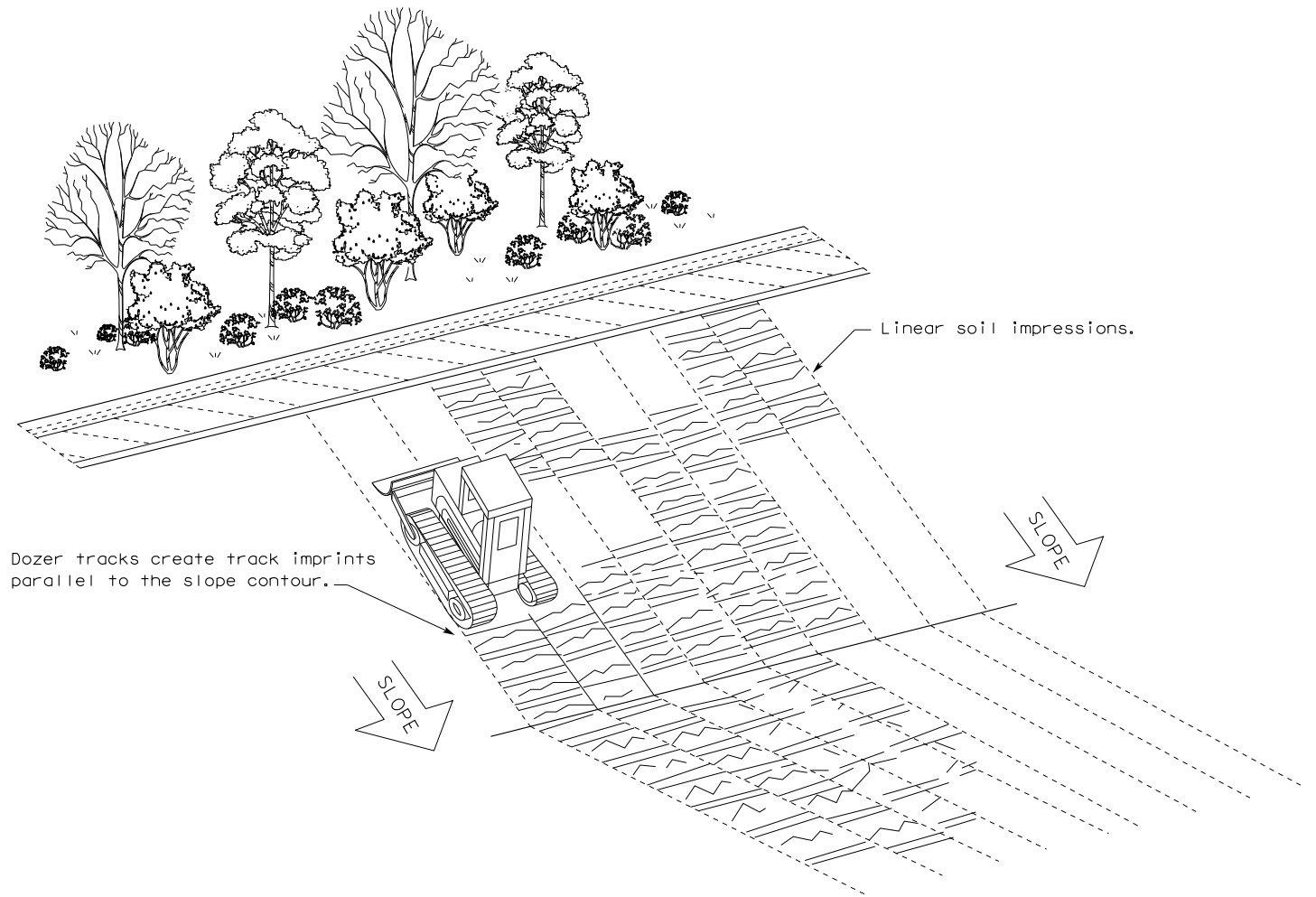
LEGEND

Sediment Control Fence


SCF

GENERAL NOTES

- Vertical tracking is required on projects where soil distributing activities have occurred unless otherwise approved.
- Perform vertical tracking on slopes to temporarily stabilize soil.
- Provide equipment with a track undercarriage capable of producing linear soil impressions measuring a minimum of 12" in length by 2" to 4" in width by 1/2" to 2" in depth.
- Do not exceed 12" between track impressions.
- Install continuous linear track impressions where the minimum 12" length impressions are perpendicular to the slope or direction of water flow.



VERTICAL TRACKING



Texas Department of Transportation

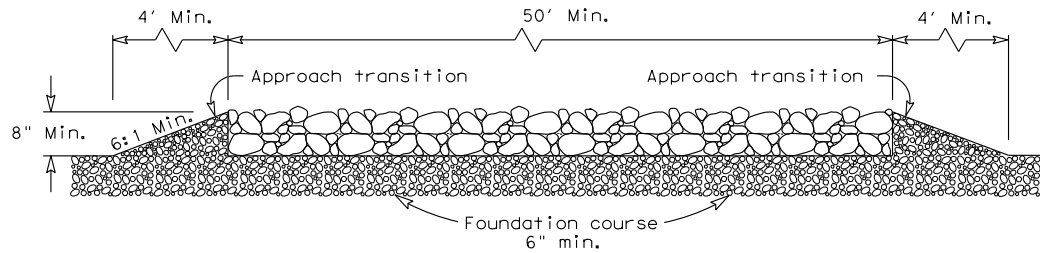
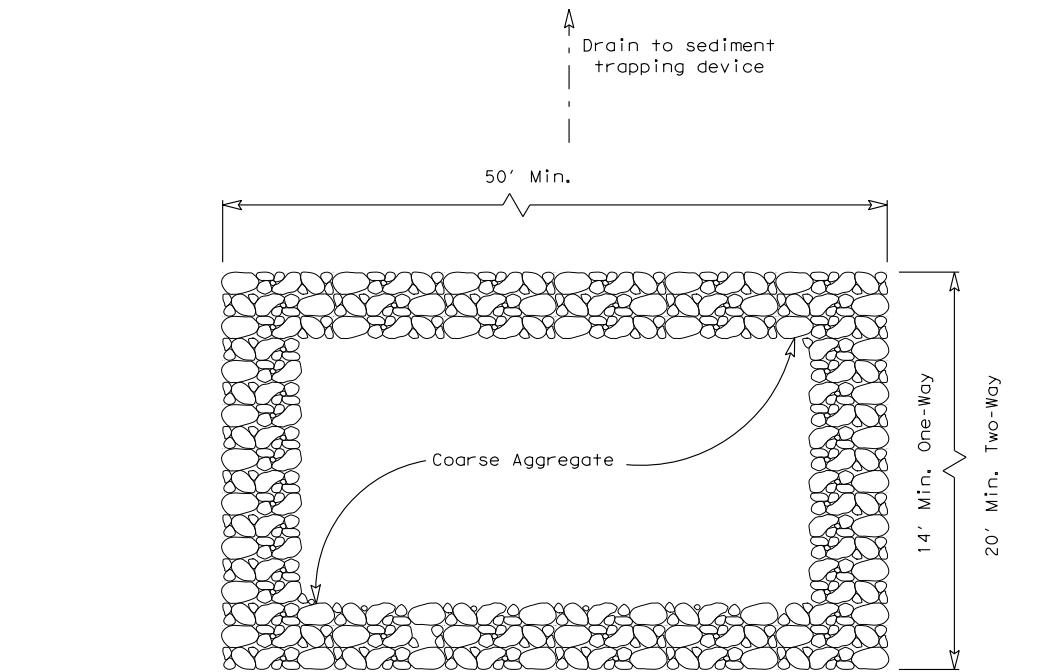
Design
Division
Standard

TEMPORARY EROSION,
SEDIMENT AND WATER
POLLUTION CONTROL MEASURES
FENCE & VERTICAL TRACKING
EC(1) - 16

FILE: ec116	DN: TxDOT	CK: KM	DW: VP	DN/CK: LS
© TxDOT: JULY 2016	CONT	SECT	JOB	HIGHWAY
REVISIONS	DIST	COUNTY		SHEET NO.
		CAMERON		20

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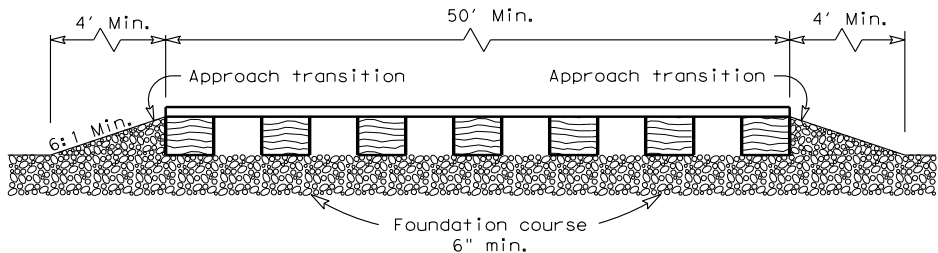
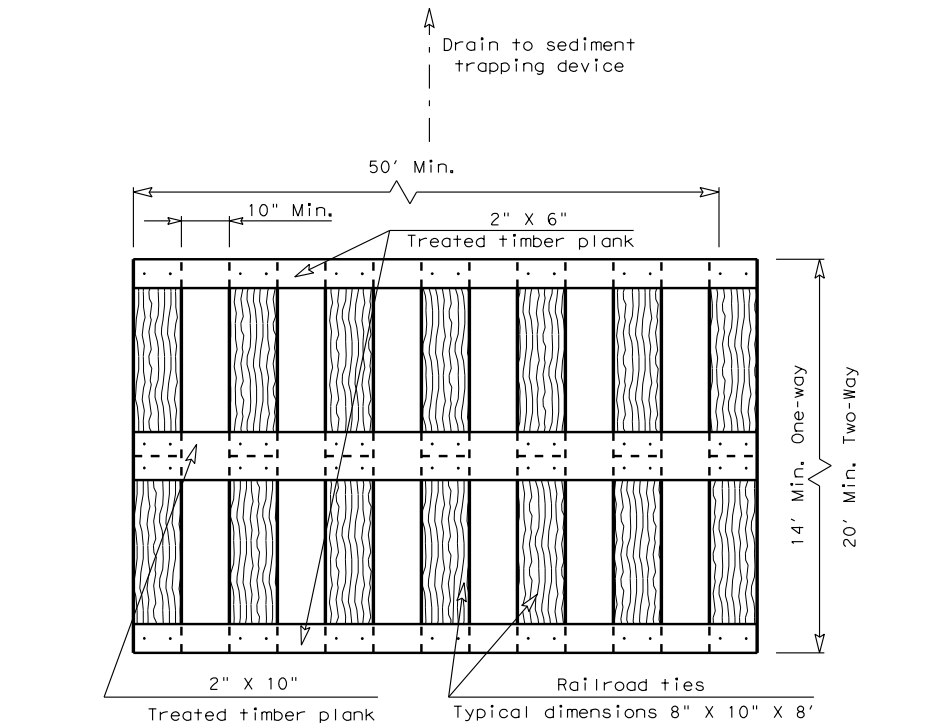
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CONSTRUCTION EXIT (TYPE 1)
ROCK CONSTRUCTION (LONG TERM)

GENERAL NOTES (TYPE 1)

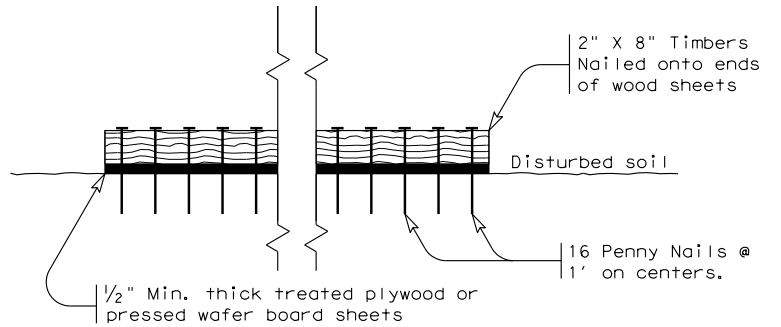
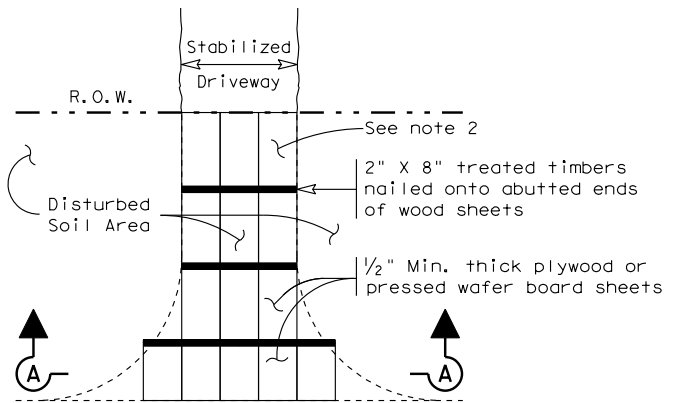
1. The length of the type 1 construction exit shall be as indicated on the plans, but not less than 50'.
2. The coarse aggregate should be open graded with a size of 4" to 8".
3. The approach transitions should be no steeper than 6:1 and constructed as directed by the Engineer.
4. The construction exit foundation course shall be flexible base, bituminous concrete, portland cement concrete or other materials approved by the Engineer.
5. The construction exit shall be graded to allow drainage to a sediment trapping device.
6. The guidelines shown hereon are suggestions only and may be modified by the Engineer.
7. Construct exits with a width of at least 14 ft. for one-way and 20 ft. for two-way traffic for the full width of the exit, or as directed by the engineer.



CONSTRUCTION EXIT (TYPE 2)
TIMBER CONSTRUCTION (LONG TERM)

GENERAL NOTES (TYPE 2)


1. The length of the type 2 construction exit shall be as indicated on the plans, but not less than 50'.
2. The treated timber planks shall be attached to the railroad ties with 1/2" X 6" min. lag bolts. Other fasteners may be used as approved by the Engineer.
3. The treated timber planks shall be #2 grade min., and should be free from large and loose knots.
4. The approach transitions shall be no steeper than 6:1 and constructed as directed by the Engineer.
5. The construction exit foundation course shall be flexible base, bituminous concrete, portland cement concrete or other material as approved by the Engineer.
6. The construction exit should be graded to allow drainage to a sediment trapping device.
7. The guidelines shown hereon are suggestions only and may be modified by the Engineer.
8. Construct exits with a width of at least 14 ft. for one-way and 20 ft. for two-way traffic for the full width of the exit, or as directed by the engineer.



CONSTRUCTION EXIT (TYPE 3)
SHORT TERM

GENERAL NOTES (TYPE 3)

1. The length of the type 3 construction exit shall be as shown on the plans, or as directed by the Engineer.
2. The type 3 construction exit may be constructed from open graded crushed stone with a size of two to four inches spread a min. of 4" thick to the limits shown on the plans.
3. The treated timber planks shall be #2 grade min., and should be free from large and loose knots.
4. The guidelines shown hereon are suggestions only and may be modified by the Engineer.

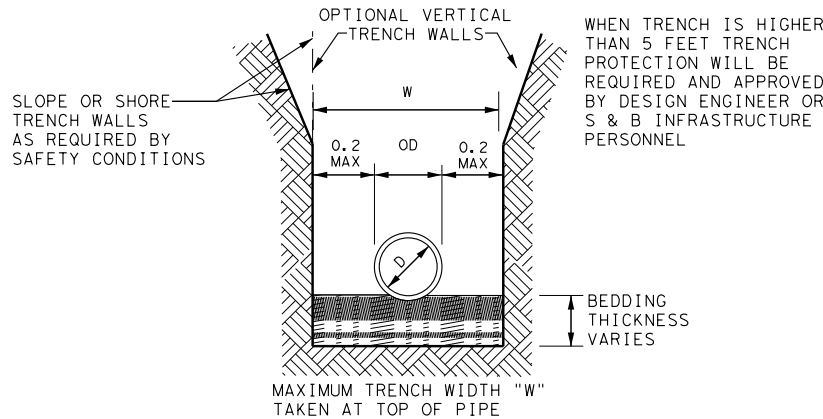


Texas Department of Transportation

Design Division Standard

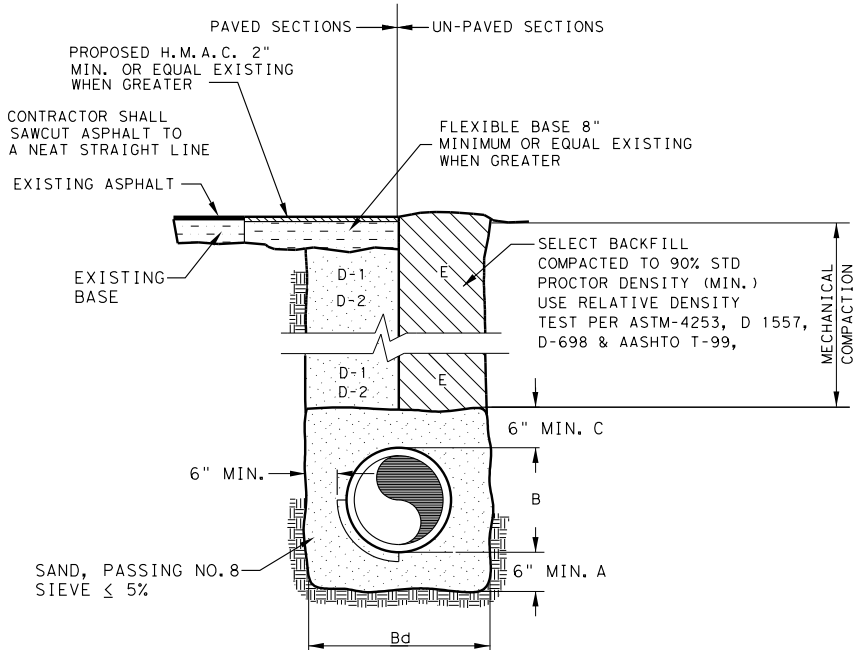
TEMPORARY EROSION,
SEDIMENT AND WATER
POLLUTION CONTROL MEASURES
CONSTRUCTION EXITS
EC(3) - 16

FILE: ec316	DN: <u>TxDOT</u>	CK: KM	DN: VP	DN/CK: LS
© TxDOT: JULY 2016	CONT	SECT	JOB	HIGHWAY
REVISIONS				
	DIST	COUNTY		SHEET NO.
	PHR	CAMERON		21



NOTE:
PROVIDE BEDDING IN ACCORDANCE WITH
THE SPECIFICATIONS.

STANDARD PIPE TRENCH WIDTH
N. T. S.



A. SAND BEDDING PLACED BEFORE PIPE IS LAID UP TO FLOW LINE OF PIPE (MIN. THICKNESS=6", PASSING NO. 8 SIEVE)

B. SAND BACKFILL PLACED AFTER PIPE IS LAID FROM BOTTOM OF PIPE TO SPRING LINE OF PIPE. (4" LIFTS, HAND TAMPED, PASSING NO. 8 SIEVE)

Bd - TRENCH WIDTHS SHALL BE PIPE O.D. + 12" (EACH SIDE) OR IN ACCORDANCE WITH AWWA C608, C900 & ASTM 2321 FOR PVC PIPE.

C. SAND BACKFILL PLACED FROM SPRING LINE OF PIPE TO 6" ABOVE TOP OF PIPE. (6" LIFTS, HAND TAMPED, PASSING NO. 8 SIEVE)

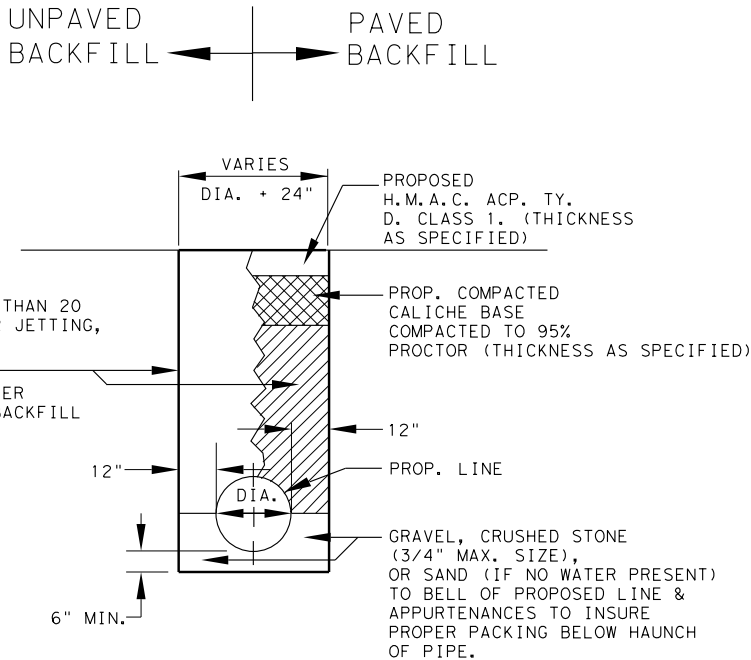
D-1. (CITY STREETS, PARKING AREAS) SELECT BACKFILL OR EXCAVATED MATERIAL COMPACTED TO 95% STD. PROCTOR DENSITY (8" LIFTS, MECHANICAL COMPACTION). PLASTICITY INDEX TO BE MAX. 30. **IF Bd IS LESS THAN 30", D-1 SHALL BE SAND PASSING NO. 8 SIEVE**

D-2. (STATE MAINTAINED ROADWAY) COMPACTED SAND/CEMENT STABILIZED BACKFILL WITH 10% PORTLAND CEMENT COMPACTED AS PER ASTM D-4253 AND ASTM D-698

E. SELECT BACKFILL OR EXCAVATED MATERIAL BACKFILL COMPACTED TO 95% STANDARD PROCTOR ASTM D-658

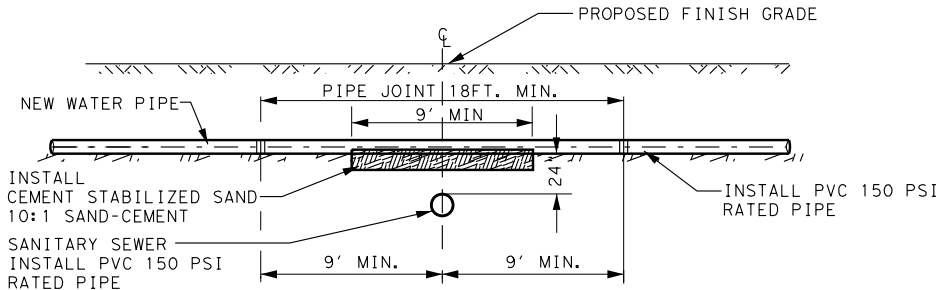
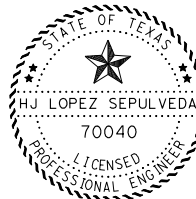
D-4253 & ASTM D-698, 8" LIFTS, MECHANICAL COMPACTION). PLASTICITY INDEX TO BE MAX. 30.

WATER LINE BEDDING DETAIL
N. T. S.

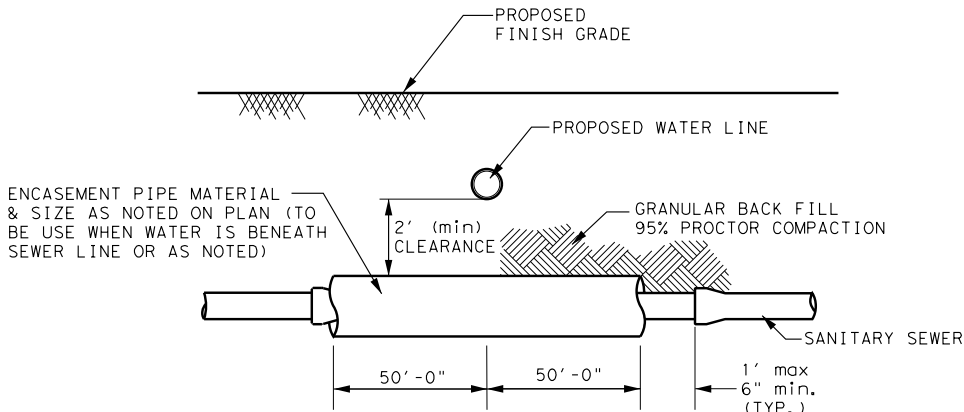


**REINFORCED CONCRETE
PIPE BEDDING DETAILS**
N. T. S.

[Signature]
03-09-18



TYPICAL VERTICAL WATER/SANITARY CROSSING
N. T. S.



TYPICAL WATER/SANITARY CROSSING
N. T. S.

PORT OF BROWNSVILLE
the port that works

S&BI
S&B INFRASTRUCTURE, LTD.
TEXAS BOARD OF PROFESSIONAL ENGINEERS #: F-1582

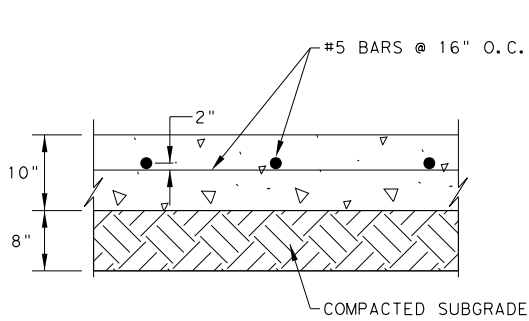
**FOUST ROAD
TRUCK PARKING
IMPROVEMENTS
(PHASE I)
TRENCHING DETAILS**

SHEET 1 OF 1

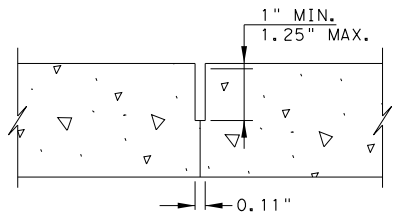
SHEET NO.

22

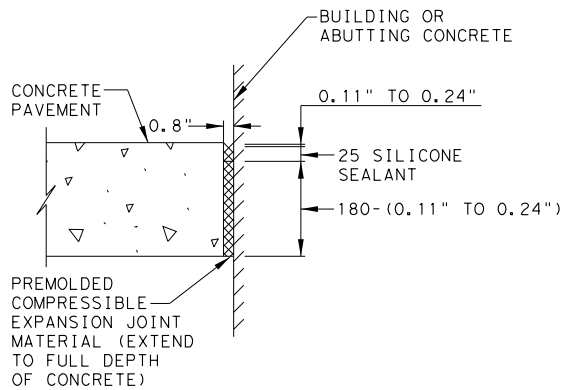
STATE TEXAS COUNTY CAMERON



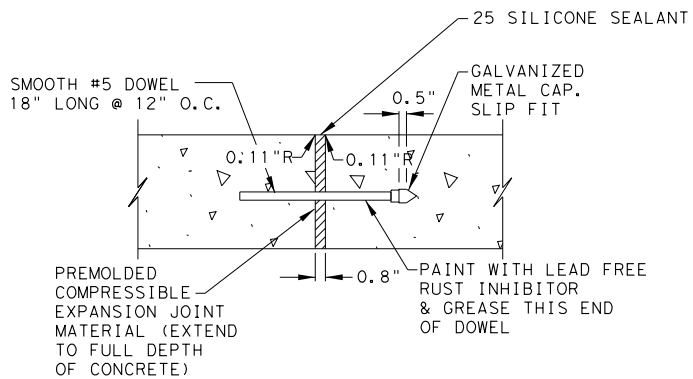
HEAVY DUTY CONCRETE PAVEMENT
N. T. S.



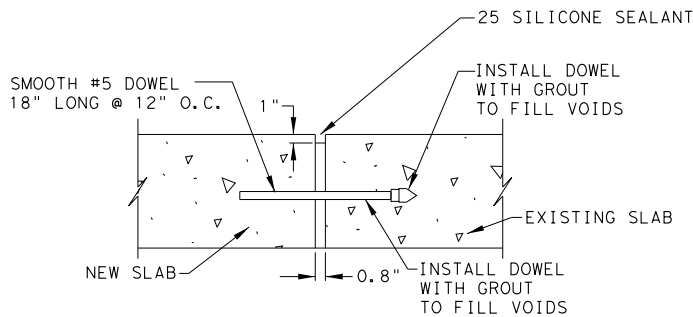
HEAVY DUTY SAWED JOINT
N. T. S.



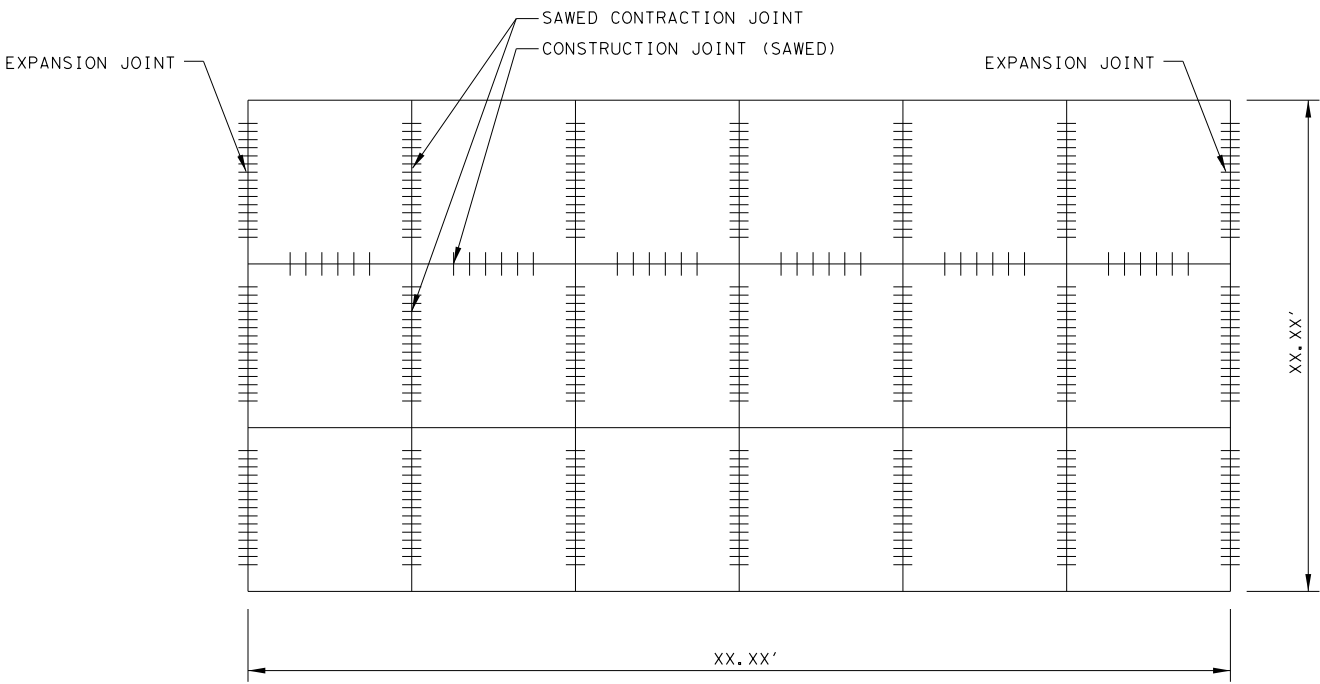
EXPANSION JOINT
N. T. S.



DOWELED EXPANSION JOINT
N. T. S.

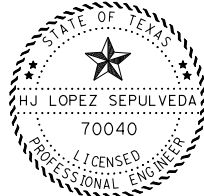


CONSTRUCTION JOINT
N. T. S.



CONCRETE PAVEMENT JOINTING
N. T. S.

[Signature]
03-09-18



PORT OF BROWNSVILLE
the port that works

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TEXAS BOARD OF PROFESSIONAL ENGINEERS #: F-1582

**FOUST ROAD
TRUCK PARKING
IMPROVEMENTS
(PHASE I)
CONCRETE DETAILS**

SHEET 1 OF 1

			SHEET NO.
			23
STATE		COUNTY	
TEXAS		CAMERON	

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nt:\project\2715\500*PS&E\PlanSet\01\Drawn\2715-SCV-DETAILS-001.dgn