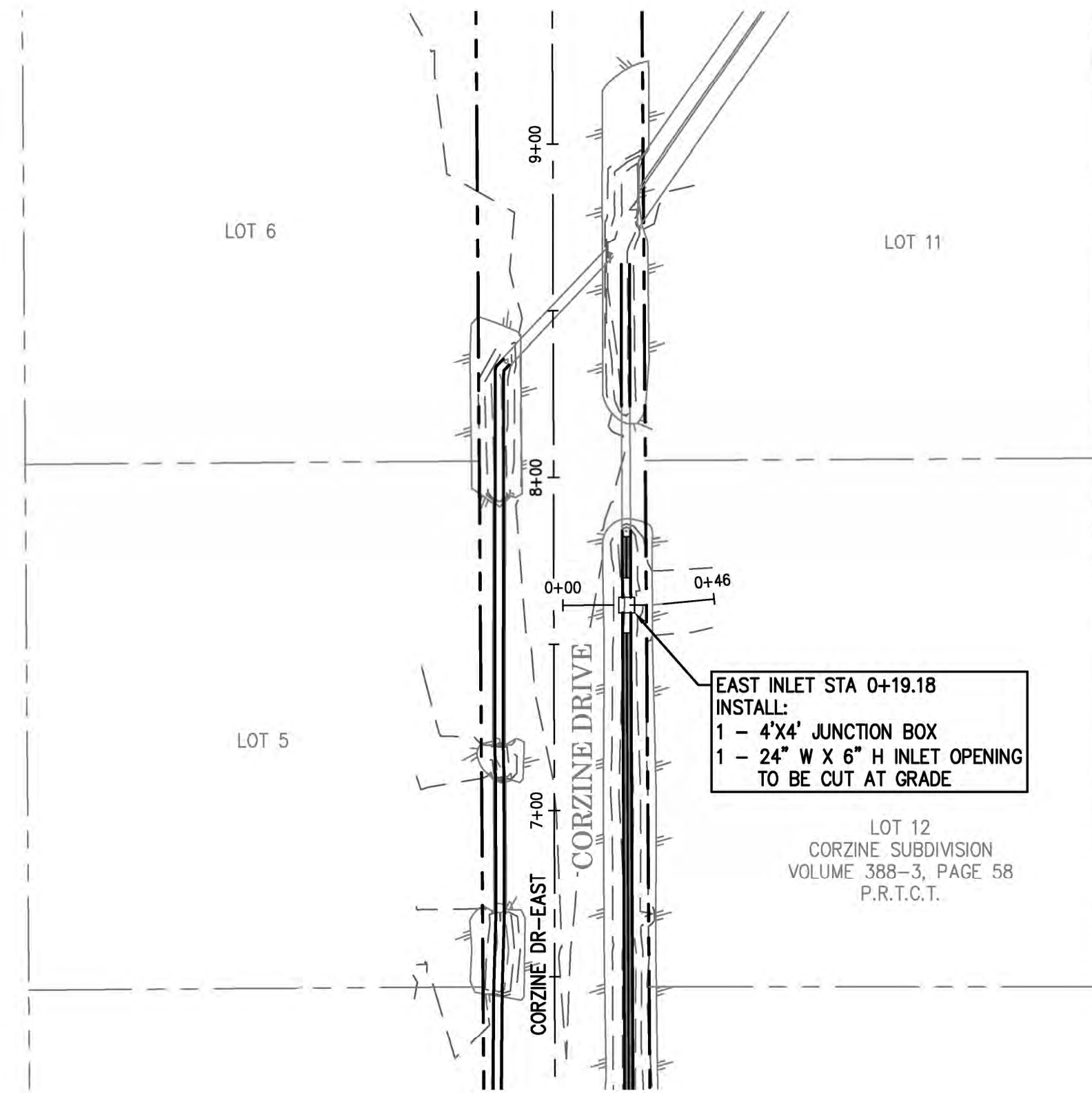
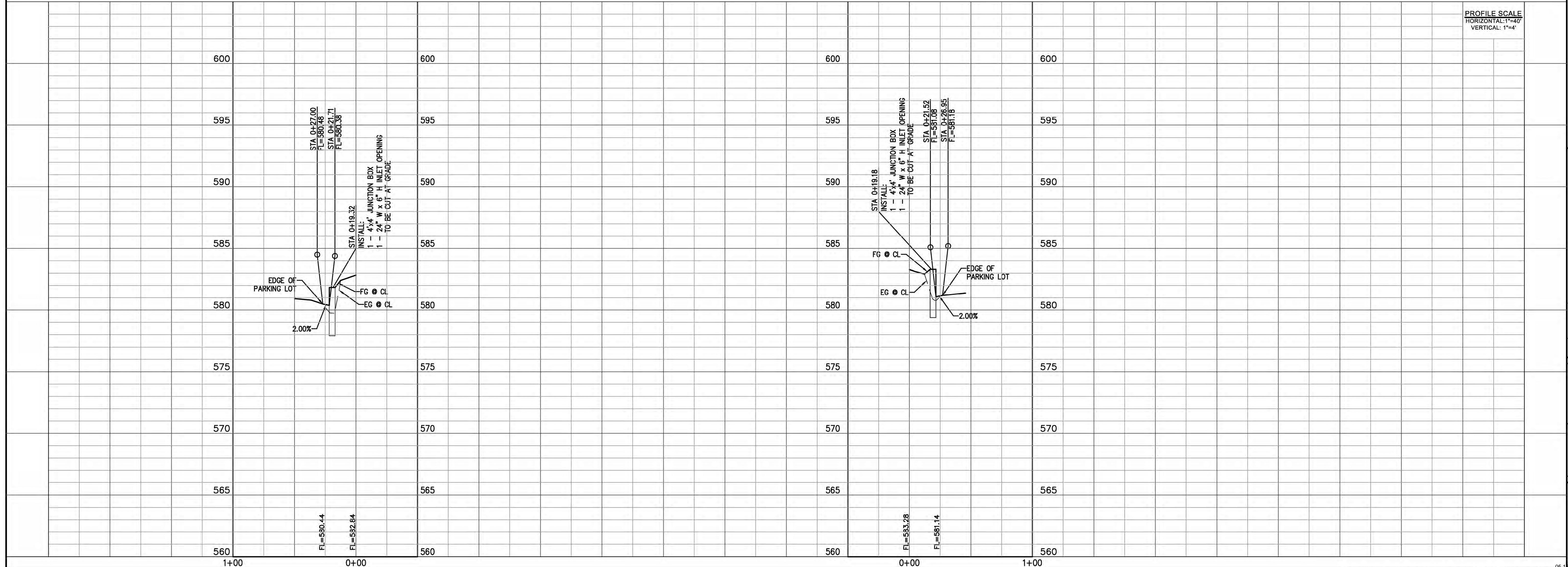
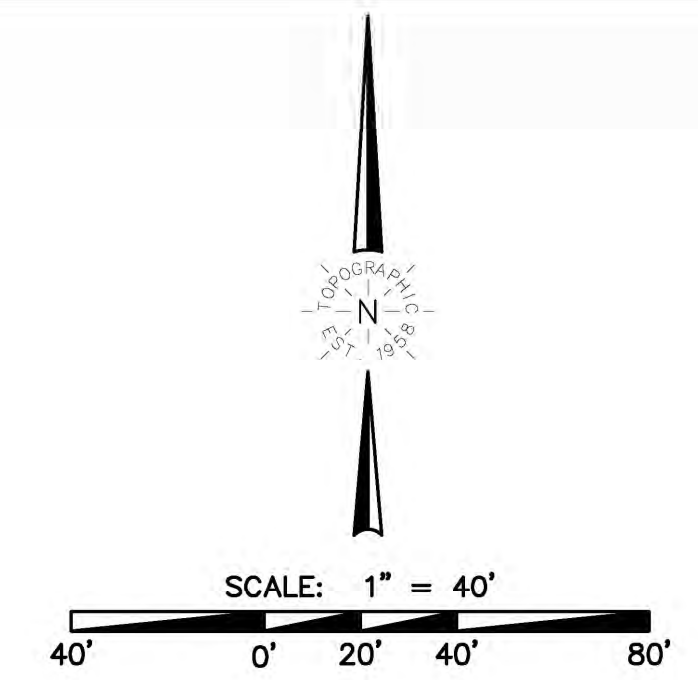
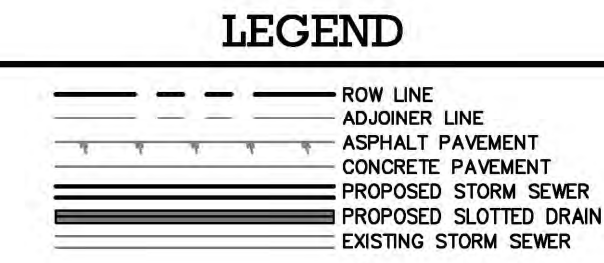


WEST INLET



EAST INLET



PROFILE SCALE
HORIZONTAL: 1"=40'
VERTICAL: 1"=4'

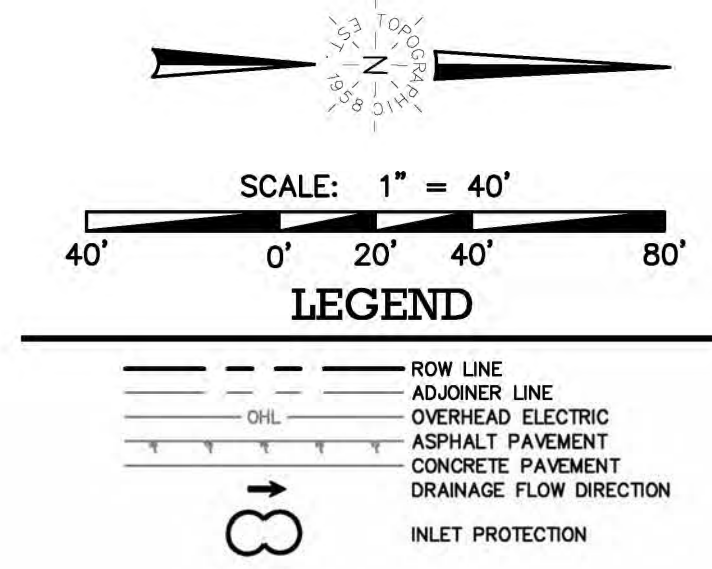
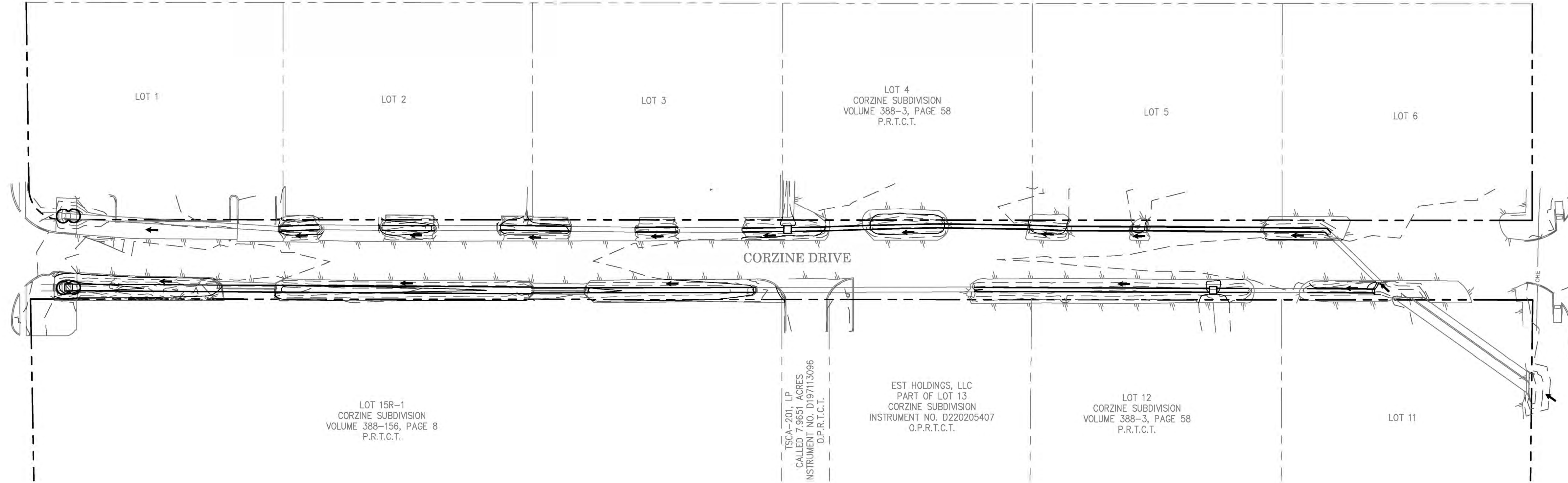
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SHEET NO.
C6.3

W ARKANSAS LANE



**CORZINE DRIVE STORM DRAIN IMPROVEMENTS
DALWORTHINGTON GARDENS, TARRANT COUNTY, TX**

EROSION CONTROL PLAN

NO.	DATE	REVISION DESCRIPTION

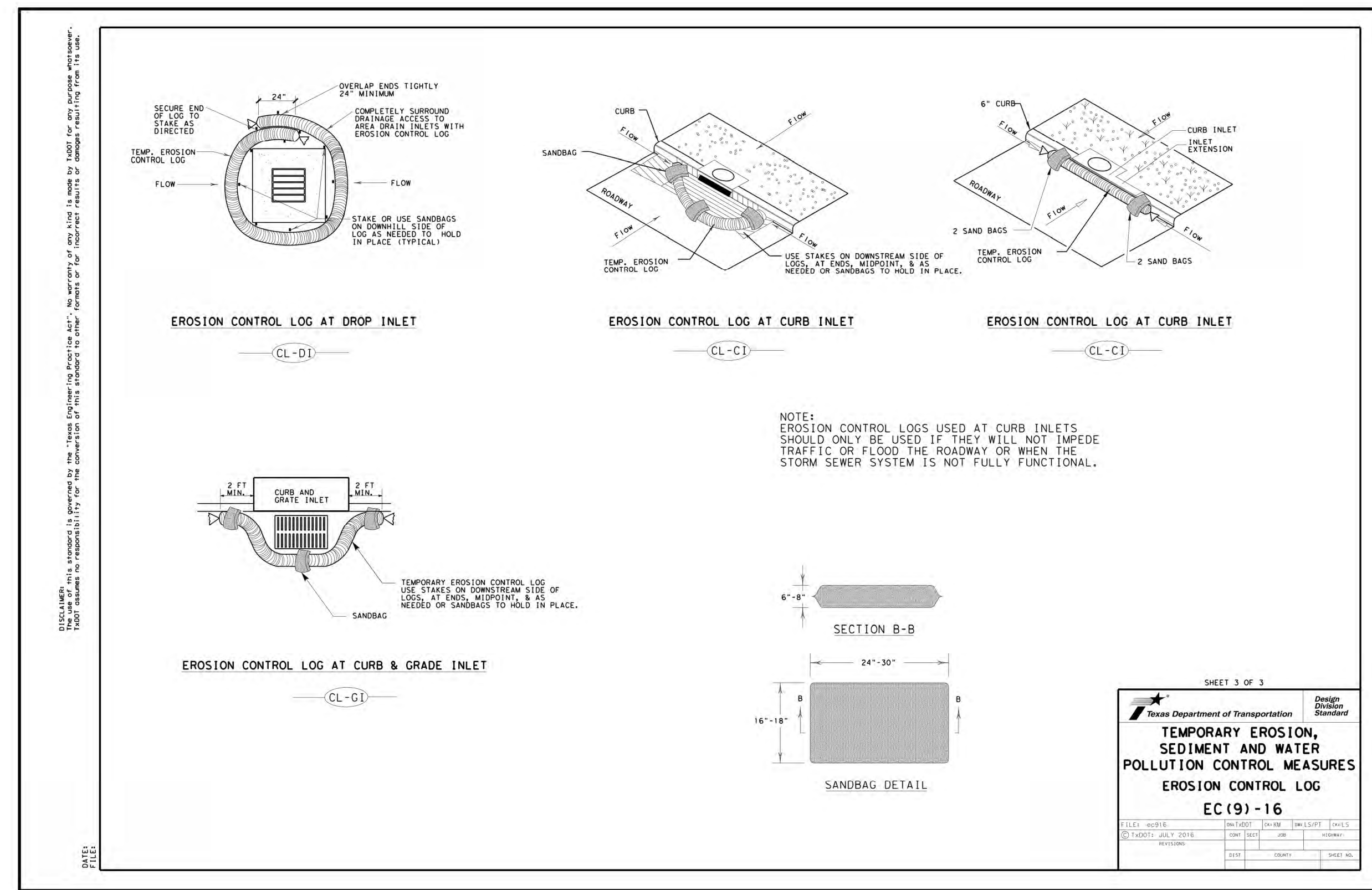
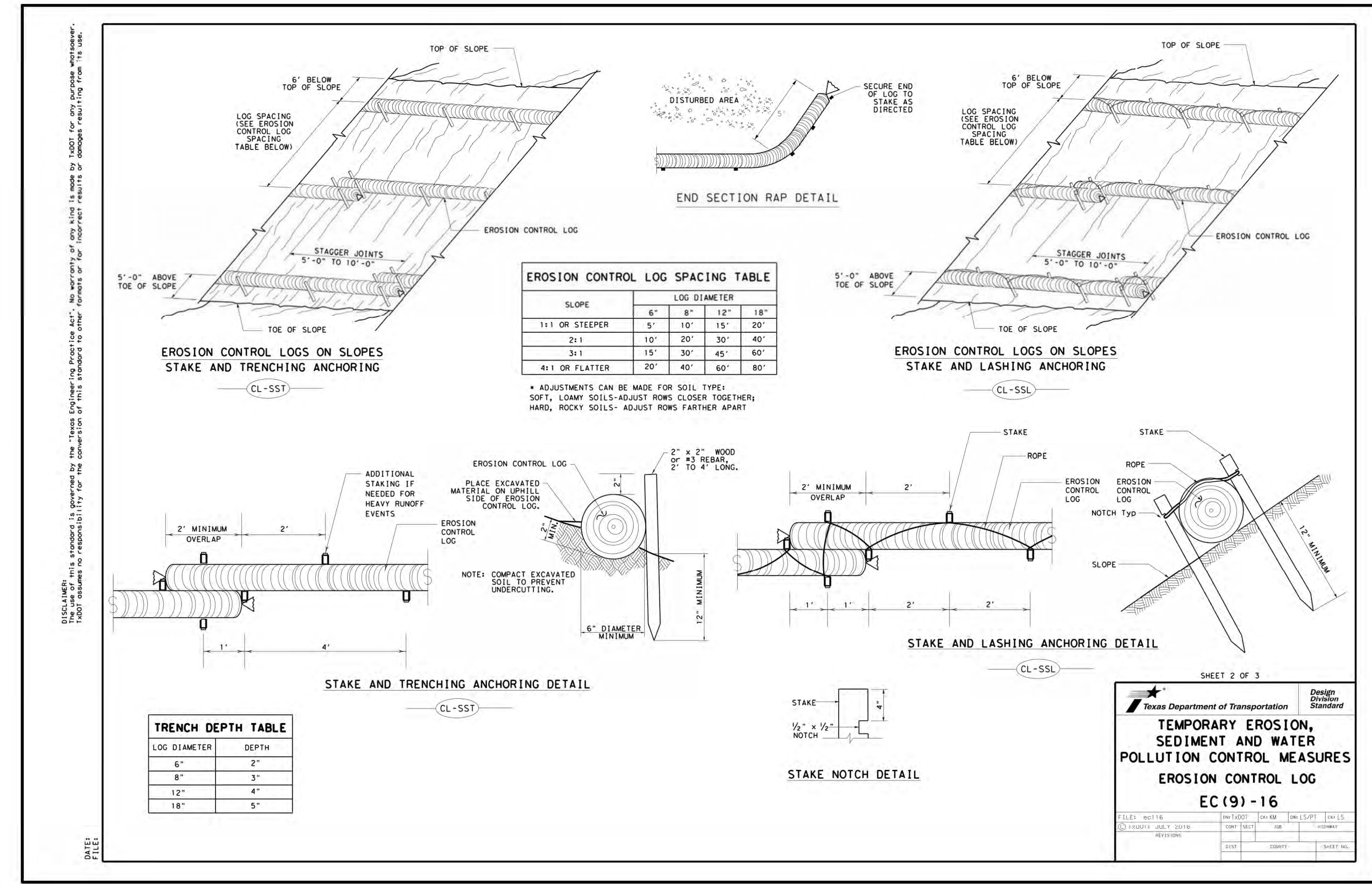
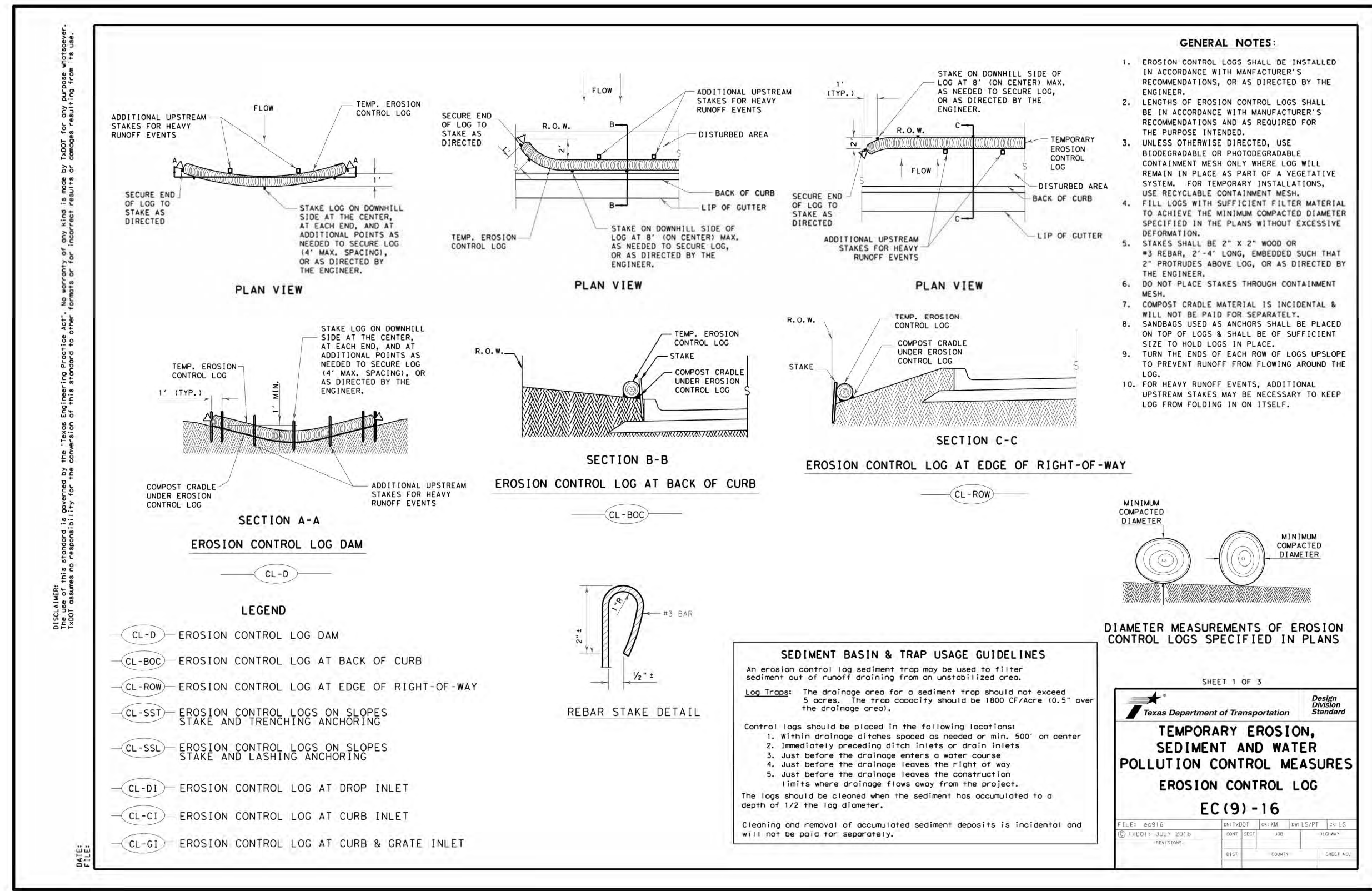
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SHEET NO.
C7.1

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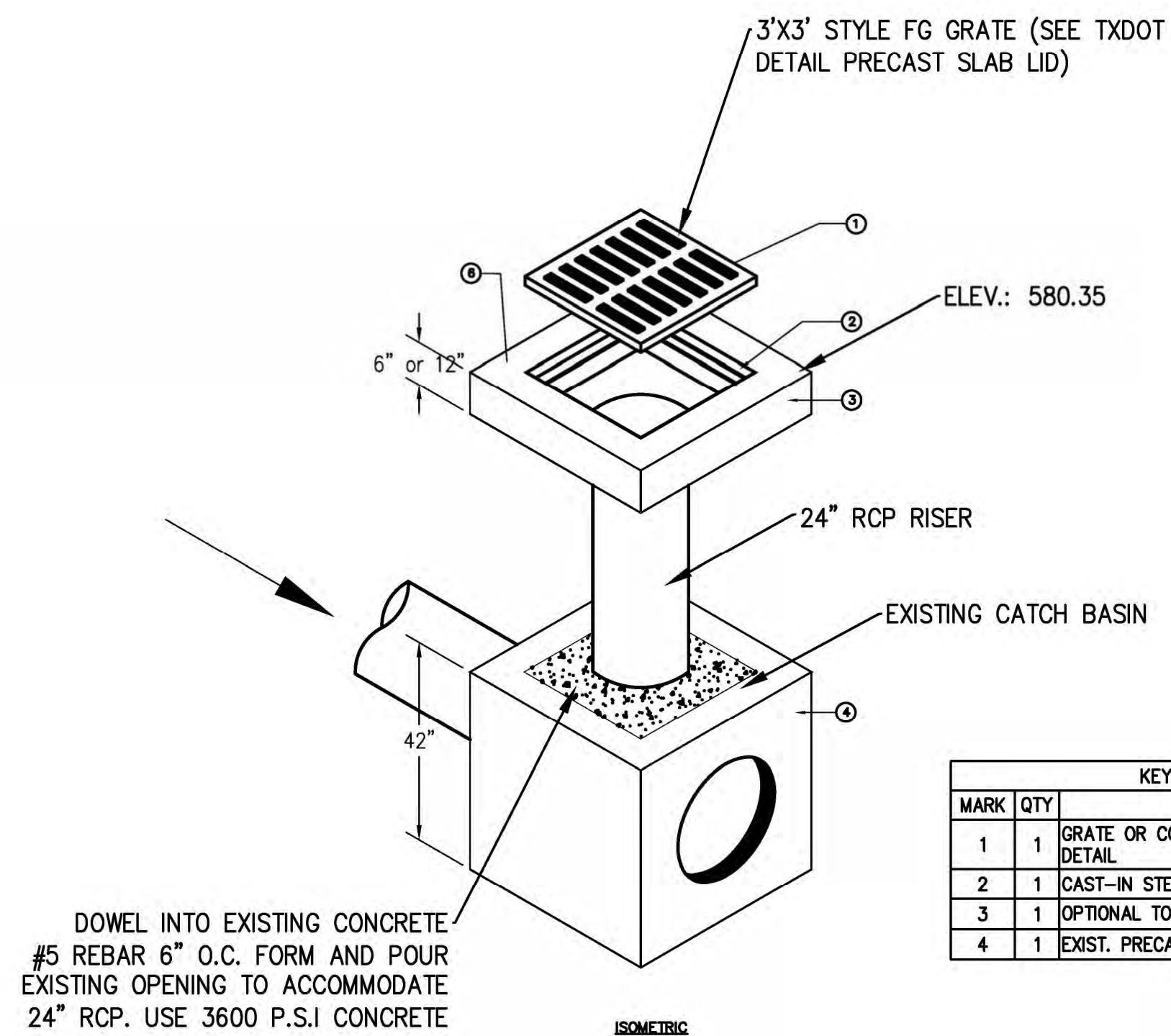
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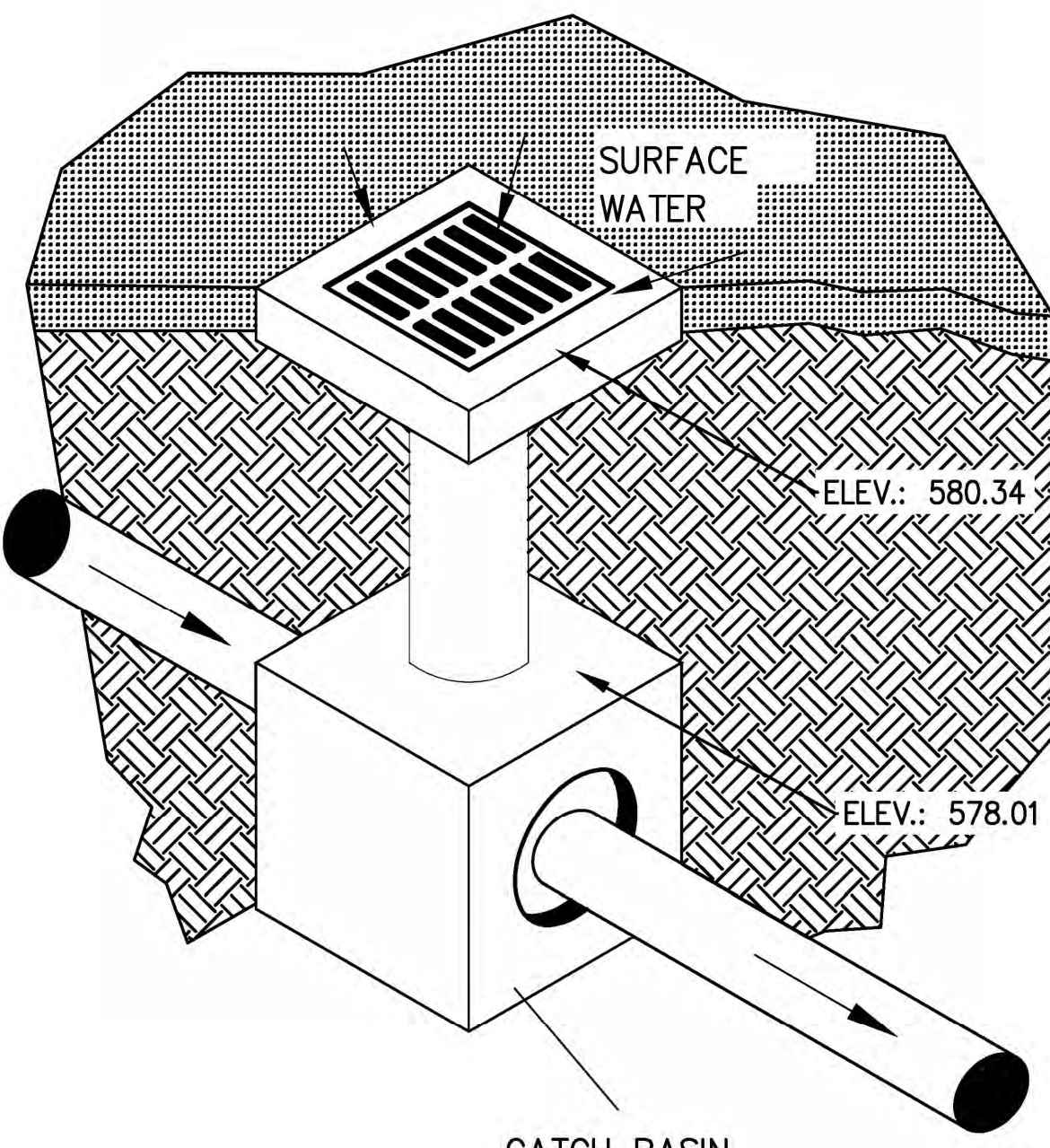
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KEYED NOTES		
MARK	QTY	DESCRIPTION
1	1	GRATE OR COVER AS REQUESTED, SEE DETAIL
2	1	CAST-IN STEEL FRAME
3	1	OPTIONAL TOP/EXTENSION 6\"/>
4	1	EXIST. PRECAST CONCRETE BASIN SECTION

DOWEL INTO EXISTING CONCRETE #5 REBAR 6\"/>



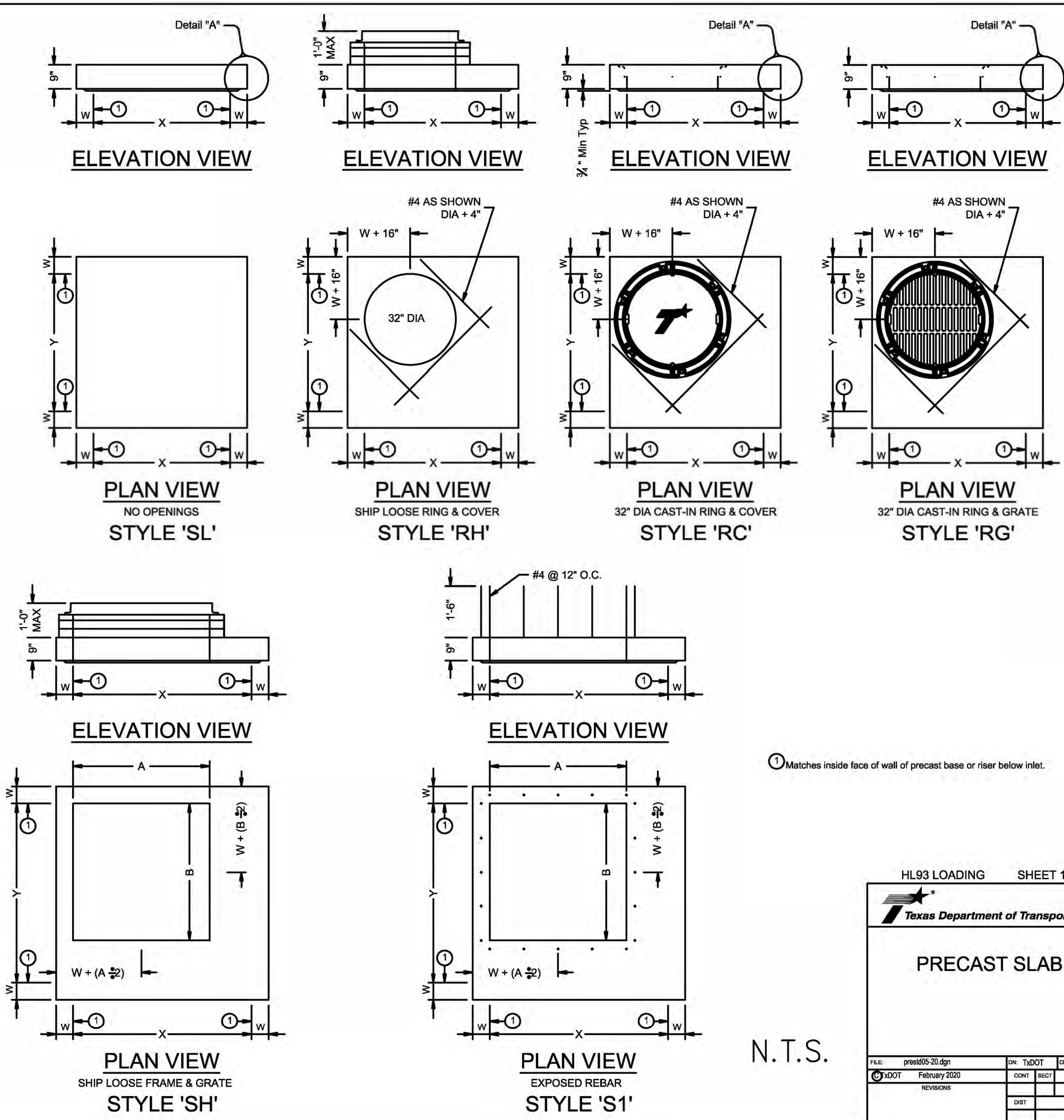
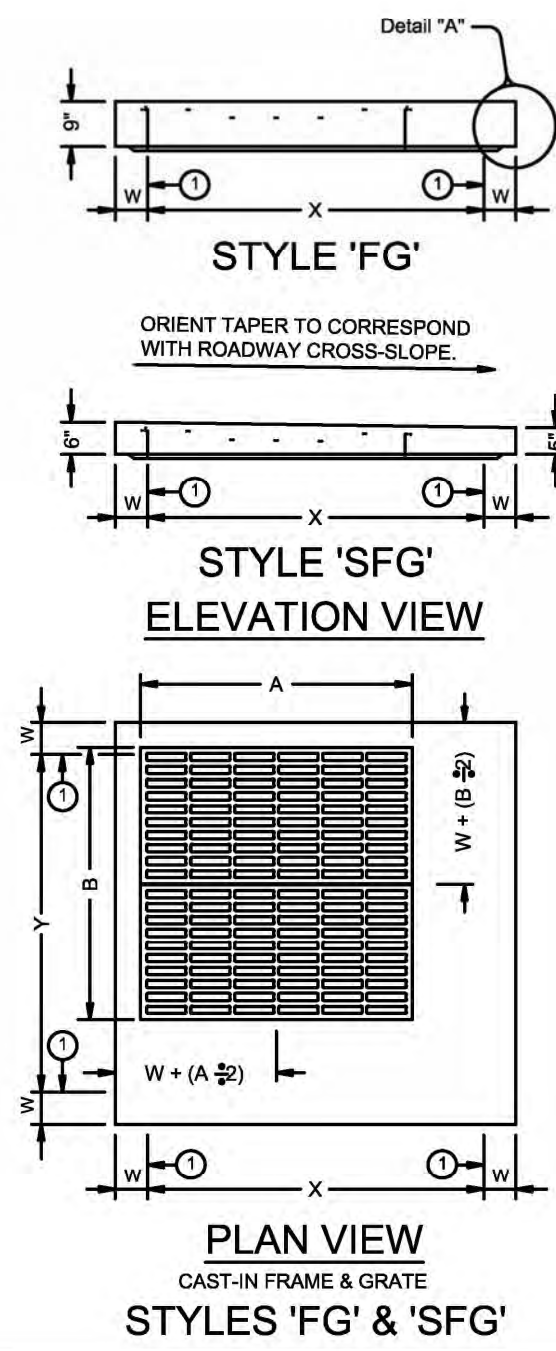
42\"/>

SPECIFICATIONS
CONCRETE : CLASS H CONCRETE WITH DESIGN STRENGTH OF 5000 PSI AT 28 DAYS. UNIT IS OF MONOLITHIC CONSTRUCTION AT FLOOR AND FIRST STAGE OF WALL WITH SECTIONAL RISER TO REQUIRED DEPTH.
REINFORCEMENT: GRADE 60 REINFORCED STEEL REBAR CONFORMING TO ASTM A615 ON REQUIRED CENTERS OR EQUAL.
C.I. CASTINGS: CAST IRON FRAMES AND GRATES ARE MANUFACTURED OF GREY CAST IRON CONFORMING TO ASTM A48-76 CLASS 30.

N.T.S.

NOTE: THE USER OF THIS DRAWING SHALL BE RESPONSIBLE FOR THE PROPER SELECTION OF MATERIALS AND METHODS OF CONSTRUCTION. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS. THE USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY INFORMATION FROM THE CONTRACTOR AND FOR OBTAINING ALL NECESSARY INFORMATION FROM THE CONTRACTOR.

DATE: FILE:



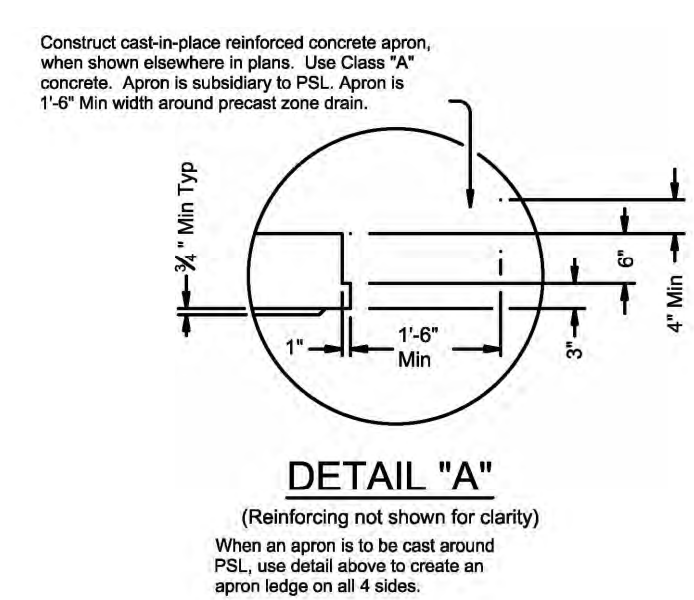
Matches inside face of wall of precast base or riser below inst.

HL93 LOADING SHEET 1 OF 2		Texas Department of Transportation		Bridge Division Standard	
PRECAST SLAB LID					
PSL					
REV	DESCRIPTION	DATE	BY	CHECKED	DATE
0	ISSUED	February 2022			

N.T.S.

Style	Size (X x Y)	W	A x B (nominal)	Short Span Reinf Steel Area	Long Span Reinf Steel Area
SL	3'x3'	6"	n/a	0.37 in ² /ft	0.37 in ² /ft
RH,RC,RG,SH,SL,FG	3'x3'	6"	3'x3' or 32" Dia	0.37 in ² /ft	0.37 in ² /ft
SFG	3'x3'	6"	3'x3'	0.52 in ² /ft	0.52 in ² /ft
SL	4'x4'	6"	n/a	0.54 in ² /ft	0.54 in ² /ft
RH,RC,RG,SH,SL,FG	4'x4'	6"	3'x3' or 32" Dia	0.41 in ² /ft	0.41 in ² /ft
SH,SL,FG	4'x4'	6"	4'x4'	0.41 in ² /ft	0.41 in ² /ft
SFG	4'x4'	6"	4'x4'	0.52 in ² /ft	0.52 in ² /ft
SL	3'x5'	6"	n/a	0.39 in ² /ft	0.39 in ² /ft
RH,RC,RG,SH,SL,FG	3'x5'	6"	3'x3' or 32" Dia	0.48 in ² /ft	0.48 in ² /ft
SH,SL,FG	3'x5'	6"	3'x5'	0.39 in ² /ft	0.39 in ² /ft
SFG	3'x5'	6"	3'x5'	0.52 in ² /ft	0.52 in ² /ft
SL	4'x5'	6"	n/a	0.42 in ² /ft	0.42 in ² /ft
RH,RC,RG,SH,SL,FG	4'x5'	6"	3'x3' or 32" Dia	0.42 in ² /ft	0.42 in ² /ft
SH,SL,FG	4'x5'	6"	4'x4'	0.63 in ² /ft	0.63 in ² /ft
SH,SL,FG	4'x5'	6"	3'x5'	0.60 in ² /ft	0.60 in ² /ft
SL	3'x5'	6"	n/a	0.39 in ² /ft	0.39 in ² /ft
RH,RC,RG,SH,SL,FG	3'x5'	6"	3'x3' or 32" Dia	0.43 in ² /ft	0.43 in ² /ft
SH,SL,FG	3'x5'	6"	4'x4'	0.63 in ² /ft	0.63 in ² /ft
SH,SL,FG	3'x5'	6"	3'x5'	0.63 in ² /ft	0.63 in ² /ft
SL	3'x5'	6"	n/a	0.48 in ² /ft	0.48 in ² /ft
RH,RC,RG,SH,SL,FG	3'x5'	6"	3'x3' or 32" Dia	0.48 in ² /ft	0.48 in ² /ft
SH,SL,FG	3'x5'	6"	4'x4'	0.60 in ² /ft	0.60 in ² /ft
SH,SL,FG	3'x5'	6"	3'x5'	0.60 in ² /ft	0.60 in ² /ft
SL	6'x6'	6"	n/a	0.43 in ² /ft	0.43 in ² /ft
RH,RC,RG,SH,SL,FG	6'x6'	6"	3'x3' or 32" Dia	0.56 in ² /ft	0.56 in ² /ft
SH,SL,FG	6'x6'	6"	6'x6'	0.56 in ² /ft	0.56 in ² /ft
SH,SL,FG	6'x6'	6"	6'x6'	0.59 in ² /ft	0.59 in ² /ft
SL	6'x6'	6"	n/a	0.59 in ² /ft	0.59 in ² /ft
RH,RC,RG,SH,SL,FG	6'x6'	6"	6'x6'	0.45 in ² /ft	0.45 in ² /ft
SH,SL,FG	6'x6'	6"	6'x6'	0.45 in ² /ft	0.45 in ² /ft
SH,SL,FG	6'x6'	6"	6'x6'	0.45 in ² /ft	0.45 in ² /ft

See sheet PDD for corresponding wall thickness (W) of base unit or riser.



FABRICATION NOTES:
1. Locate penetration (Style 'RH'), ring and cover (Style 'RC'), ring and grate (Style 'RG'), and frame and grate (Style 'FG') in a corner. Only one penetration is allowed per slab lid.
2. Provide Class 'H' concrete in accordance with Item 421 and having a minimum compressive strength of 5,000 psi.
3. Provide Grade 60 reinforcing steel or equivalent area of WWR.
4. Provide clear cover of 1" to reinforcing from lower outside shoulder of slab for structural reinforcement, and 2" from top of slab for shrinkage and temperature reinforcement. Place short span reinforcing closest to surface.
5. Slabs with a thickness of 6" or greater require shrinkage and temperature reinforcing. Provide steel area = 0.11 ft²/ft each way.
6. No substitution is allowed for diagonal #4 bars around openings.
7. Design tongue and groove joints for full closure on both shoulders. Minimum joint depth is 1/2".
8. Provide lifting devices in conformance with Manufacturer's recommendations.

INSTALLATION NOTES:
1. Precast slab lids are intended for direct traffic and may be placed in roadway.
2. Seal tongue and groove joints with performed or bulk mastic in conformance with Manufacturer's recommendations. Tongue and groove joints may be grouted no more than 1" between each section, or 1/2" the joint depth, whichever is greater.
3. Do not grout rubber gasket joints without Manufacturer's recommendation.
4. Initial installation of grade adjustment rings for Styles 'RH' and 'SH' is limited to 1" Max as shown.
5. Grade adjustment rings for Styles 'RH' and 'SH' may be increased to 2" Max when future construction affects final grade of structure. Make adjustments greater than 2" with additional risers. Adjustments can be made up to Max depth shown on sheet PDD. Structure must be evaluated if Max depth will be exceeded.
6. Orient long dimension of grate slots perpendicular to traffic, unless noted otherwise on plans.

GENERAL NOTES:
1. Designed according to ASTM C913.
2. Payment for lid is per item #95, 'Junction Boxes, Manholes, and Inlets' by type, style, size, and opening size (when applicable).

N.T.S.

HL93 LOADING SHEET 2 OF 2		Texas Department of Transportation		Bridge Division Standard	
PRECAST SLAB LID					
PSL					
REV	DESCRIPTION	DATE	BY	CHECKED	DATE
0	ISSUED	February 2022			

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CORZINE DRIVE STORM DRAIN IMPROVEMENTS
DALWORTHINGTON GARDENS, TARRANT COUNTY, TX
GRATE INLET RISER & JUNCTION BOX DETAILS

NO.	DATE	REVISION DESCRIPTION

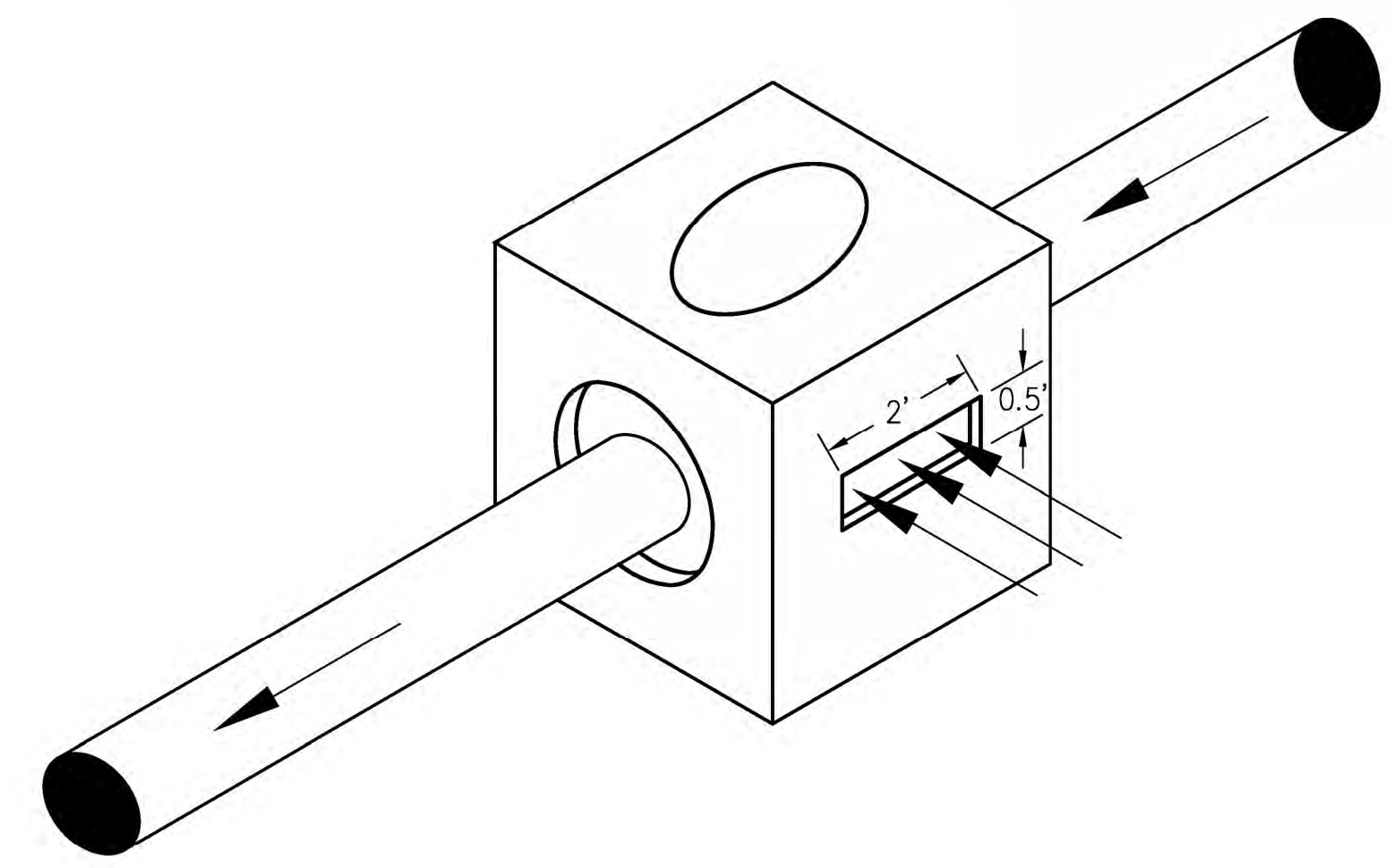
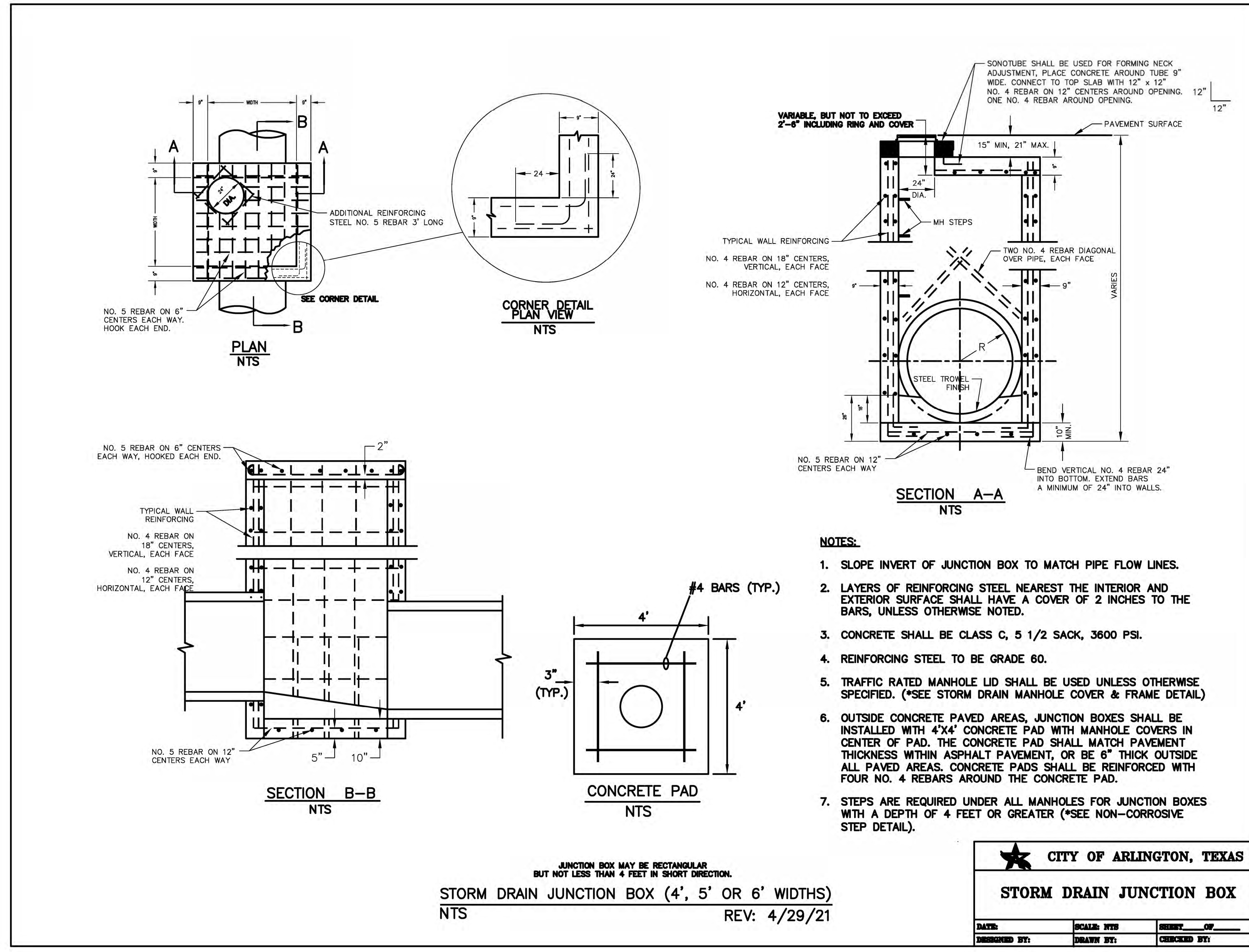
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SHEET NO.
C8.1

NO.	DATE	REVISION DESCRIPTION

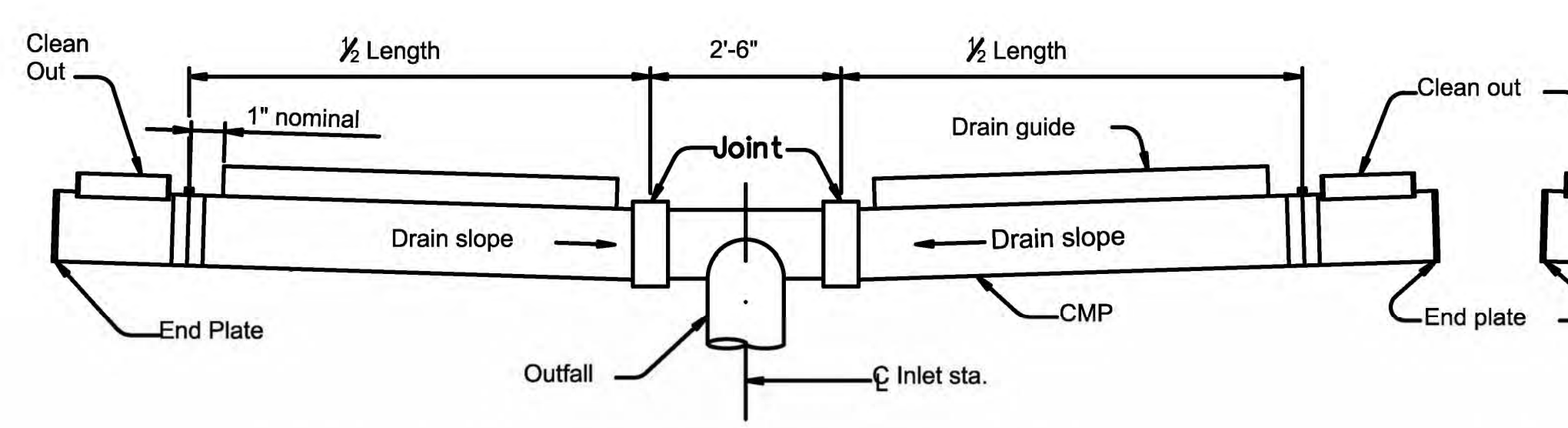
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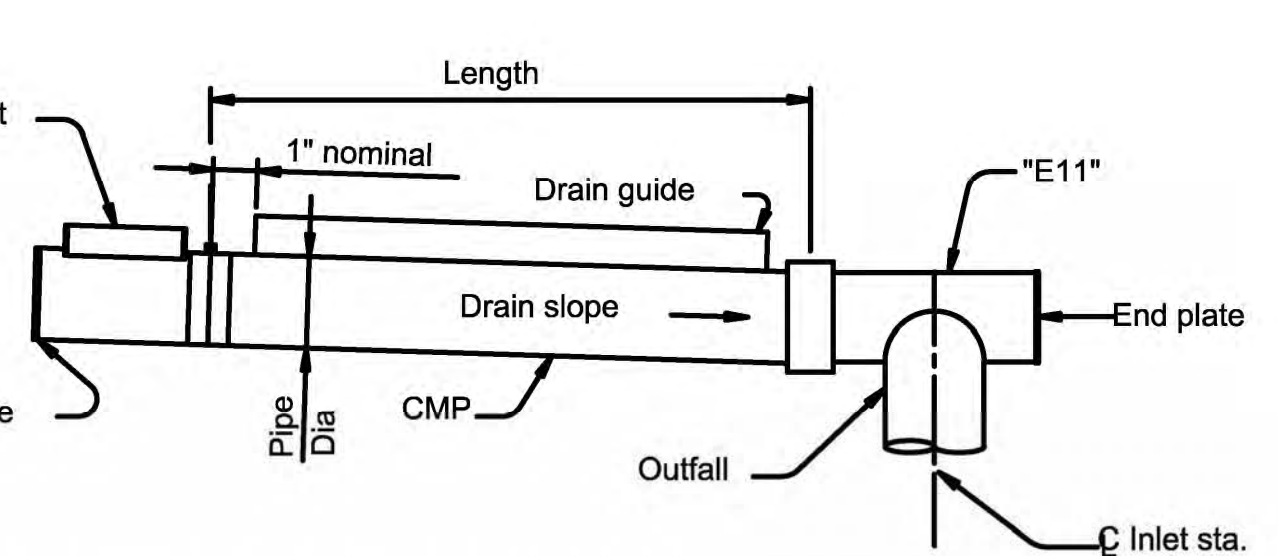


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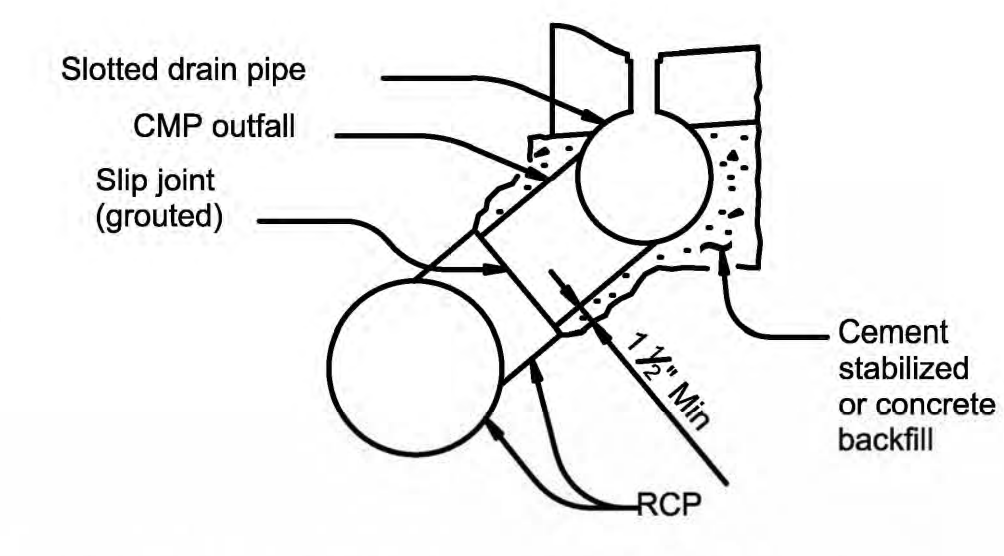
RECTANGULAR OPENING ON JUNCTION BOX	
C =	2.64 Discharge coefficient (check Table 2.4)
L =	2.00 Bottom width of weir (ft)
H =	0.50 Water depth from bottom of weir (ft)
Q =	1.87 Release rate (cfs)



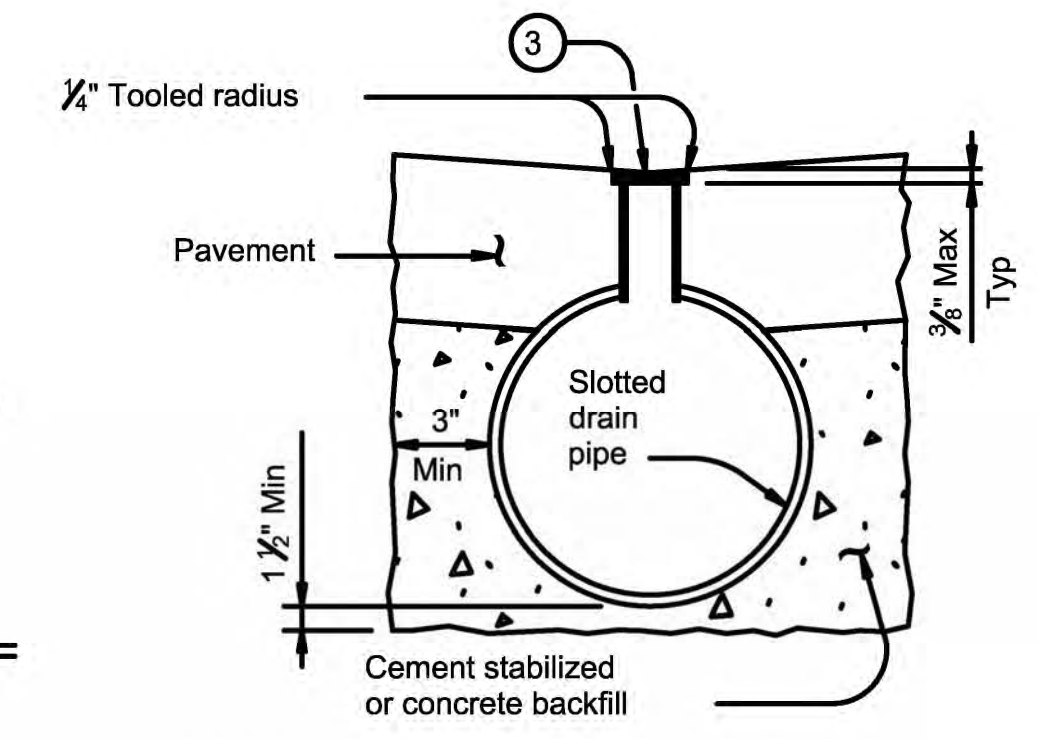
TYPICAL TYPE "T" DRAIN INSTALLATION



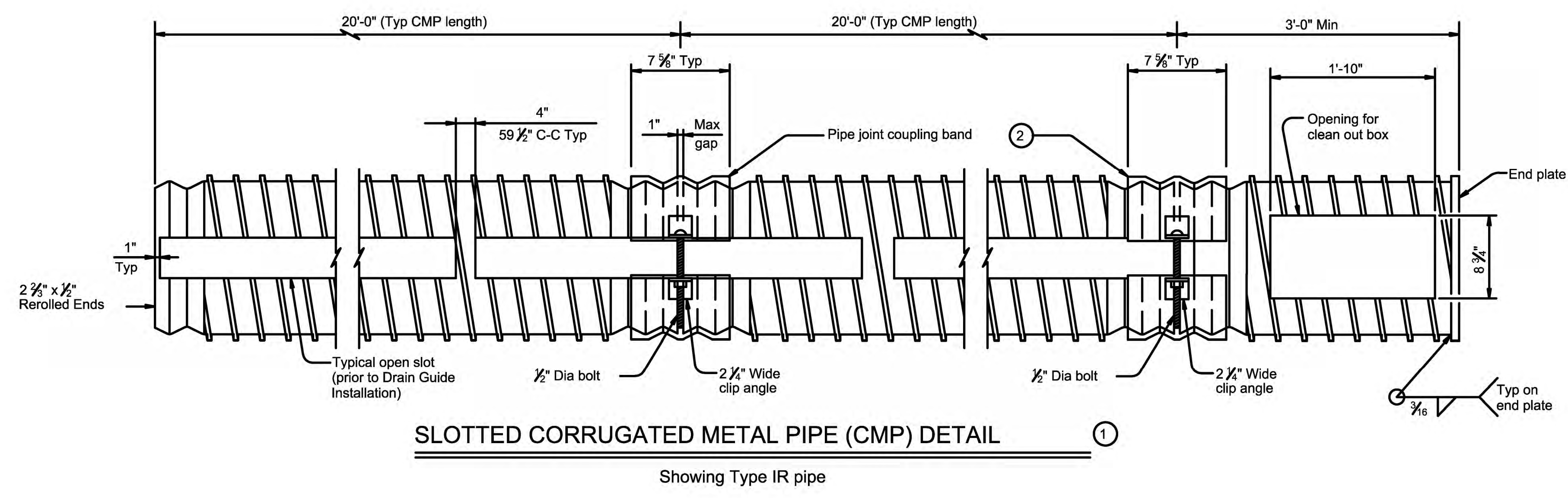
TYPICAL TYPE "L" DRAIN INSTALLATION



BACKFILL DETAIL AT OUTFALL



TYPICAL BACKFILL DETAIL



SLOTTED CORRUGATED METAL PIPE (CMP) DETAIL

Showing Type IR pipe

- ① Provide 16 gauge (Min) x 12" to 36" Dia Corrugated Metal Pipe (Type I ~ 2 5/8" x 1/2" corrugations or Type IR ~ 3/4" x 3/4" x 7 1/2" corrugations)
- ② Alternate methods of joining lengths of pipe, as recommended by the manufacturer, may be used with the approval of the Engineer.
- ③ Wood Strip (Nom 3/8" Max x 2 1/2"). Wood strip may be omitted if suitable protection is provided during pavement placement.
- ④ Install frame and grate flush with pavement and centered over clean out box.
- ⑤ See pavement details for slab thickness.

FABRICATION NOTES:

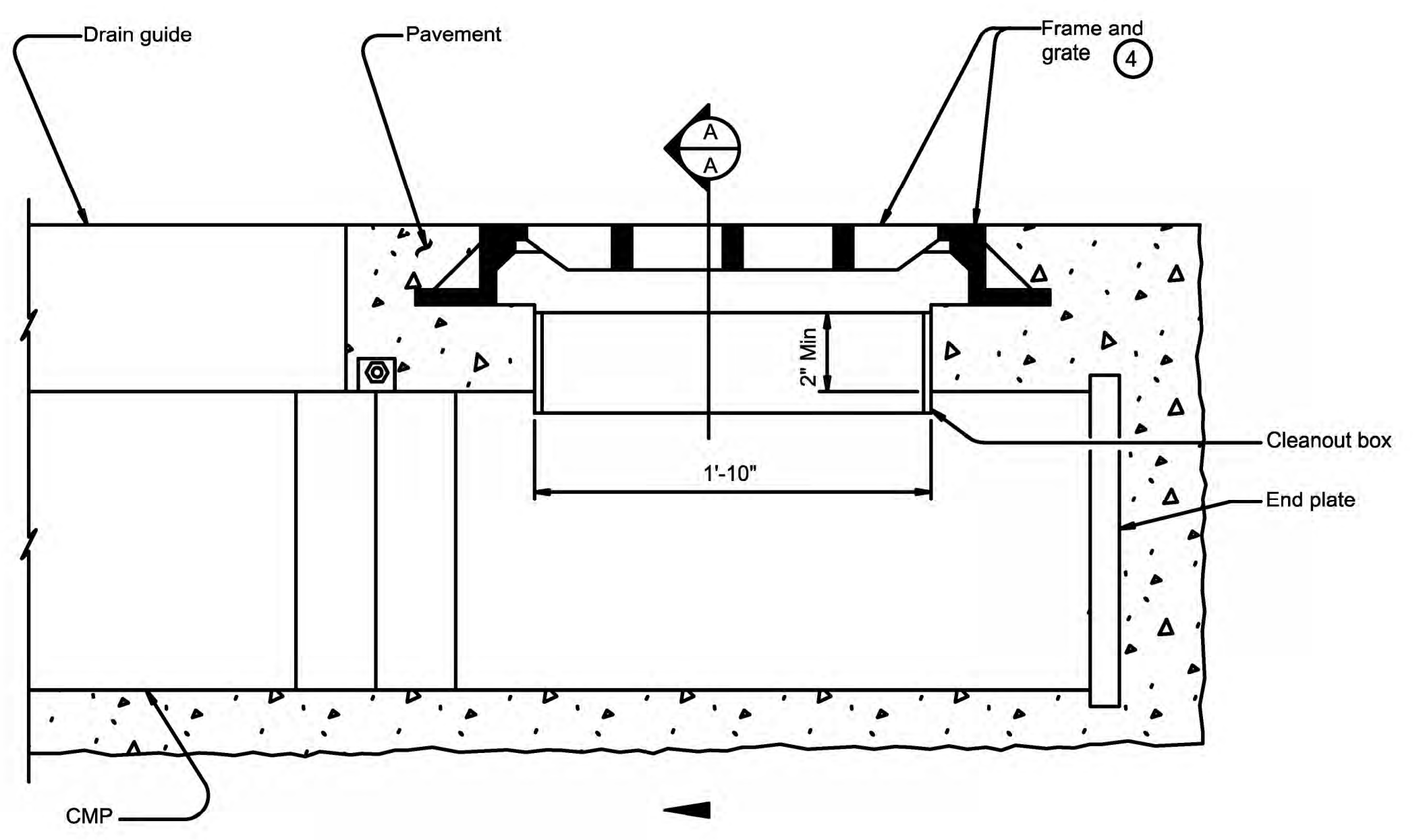
Provide circular corrugated steel pipe, galvanized or aluminized, in accordance with Item 460, "Corrugated Metal Pipe".
Provide drain guide assemblies conforming to Item 474, "Linear Drains".
Fabricate bearing bars, cross bar spacers, end plates, and clean out boxes from 3/16" plate, ASTM A36. Galvanize in accordance with Item 445, "Galvanizing".
Furnish slotted drain in 20'-0" lengths, when practical, to minimize number of joints.
Furnish pedestrian cap when specified in the plans.

INSTALLATION NOTES:

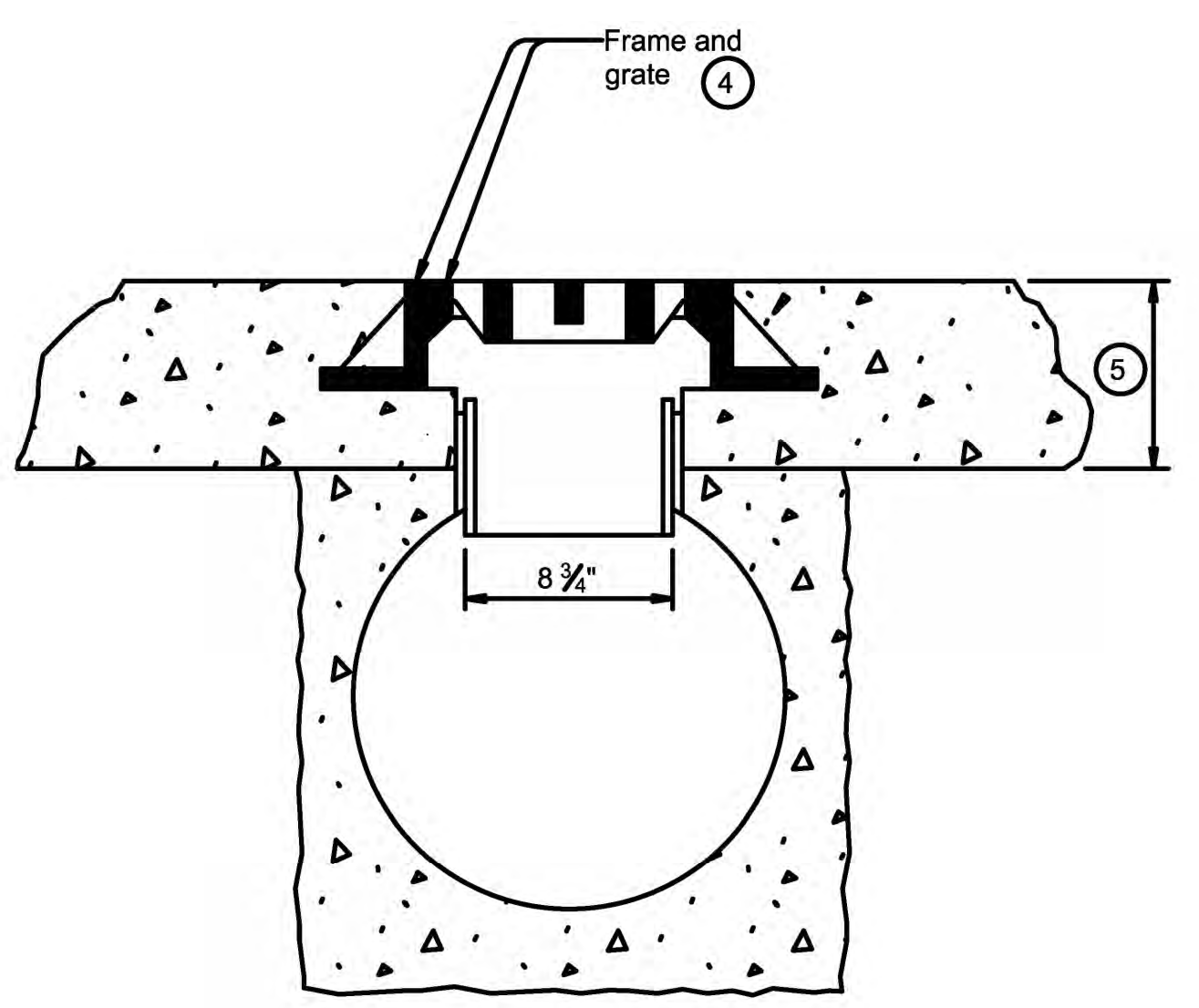
Backfill trenches for slotted drains and outfall pipe with low strength concrete (minimum 2 sacks or cement per cubic yard) or cement stabilized backfill as shown or directed by the Engineer.
Place suitable compressible material in the outfall connection slip joint, to retain grout during curing.
Provide heavy duty frame and grate from one of the following, or approved equal (clear opening 22" x 8 3/4" Min, 25 1/2" x 12 Max).
Neenah R-3471
EJ V-4274
USF 4621 frame and 6296 grate

GENERAL NOTES:

Unless otherwise shown on the plans, the Contractor may furnish any of the designs as shown.
Frame and grate is subsidiary to Slotted Drain.



CLEAN OUT BOX ELEVATION



SECTION A-A

SHEET 1 OF 2

Texas Department of Transportation
Bridge Division Standard

**ROADWAY LINEAR DRAIN
(SLOTTED DRAIN)**

SD

FILE: sdstds01-20.dgn	DN: TxDOT	CK: TxDOT	DW: DKC	CK: AES
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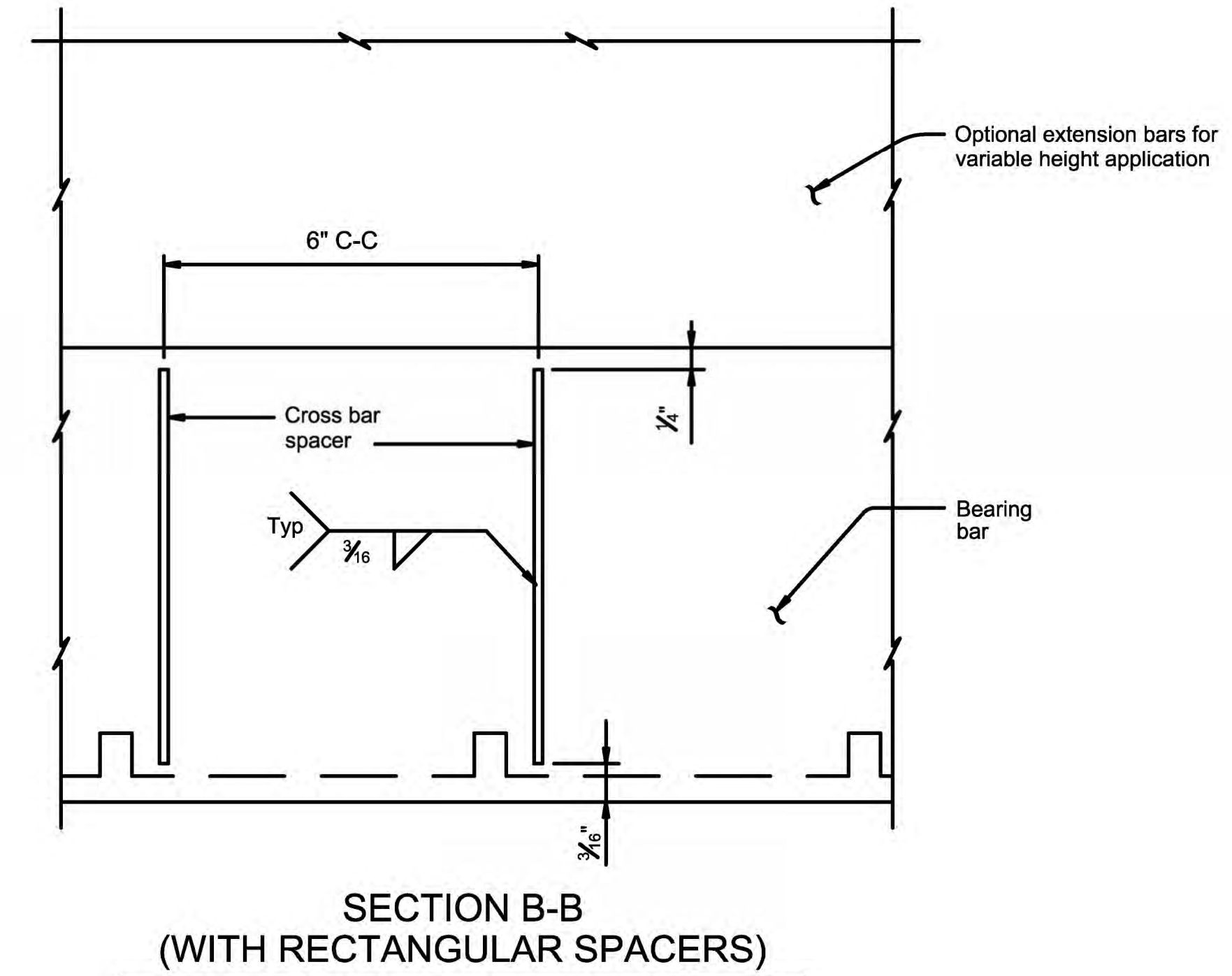
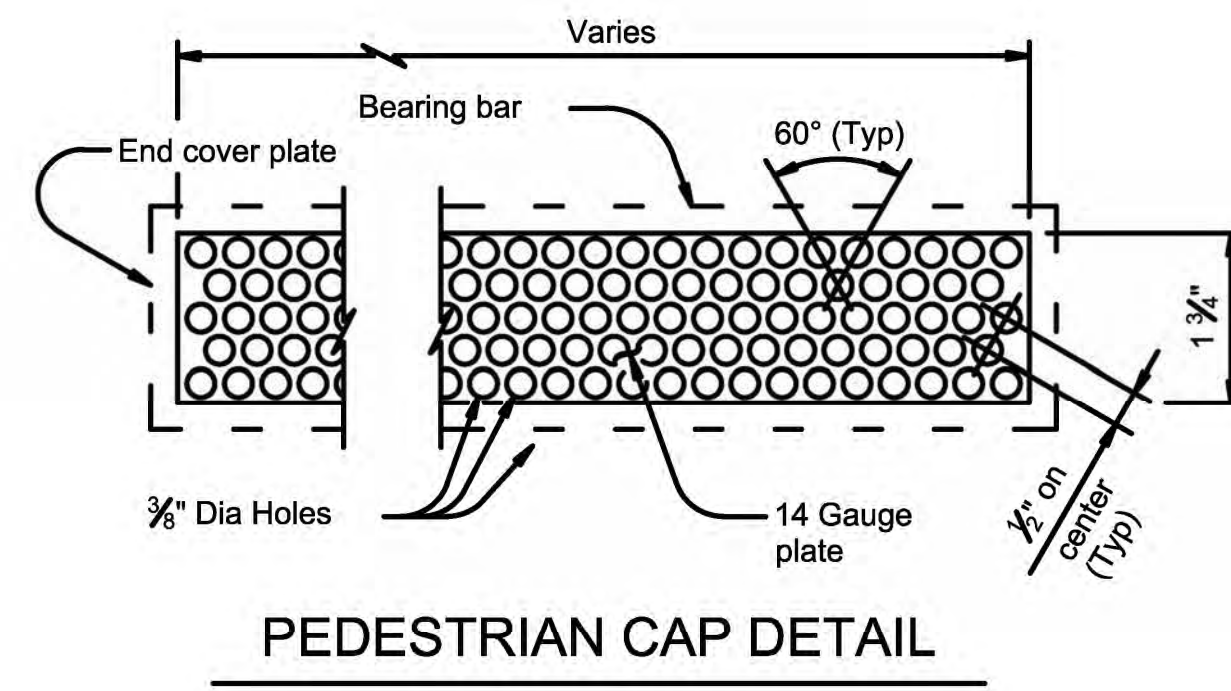
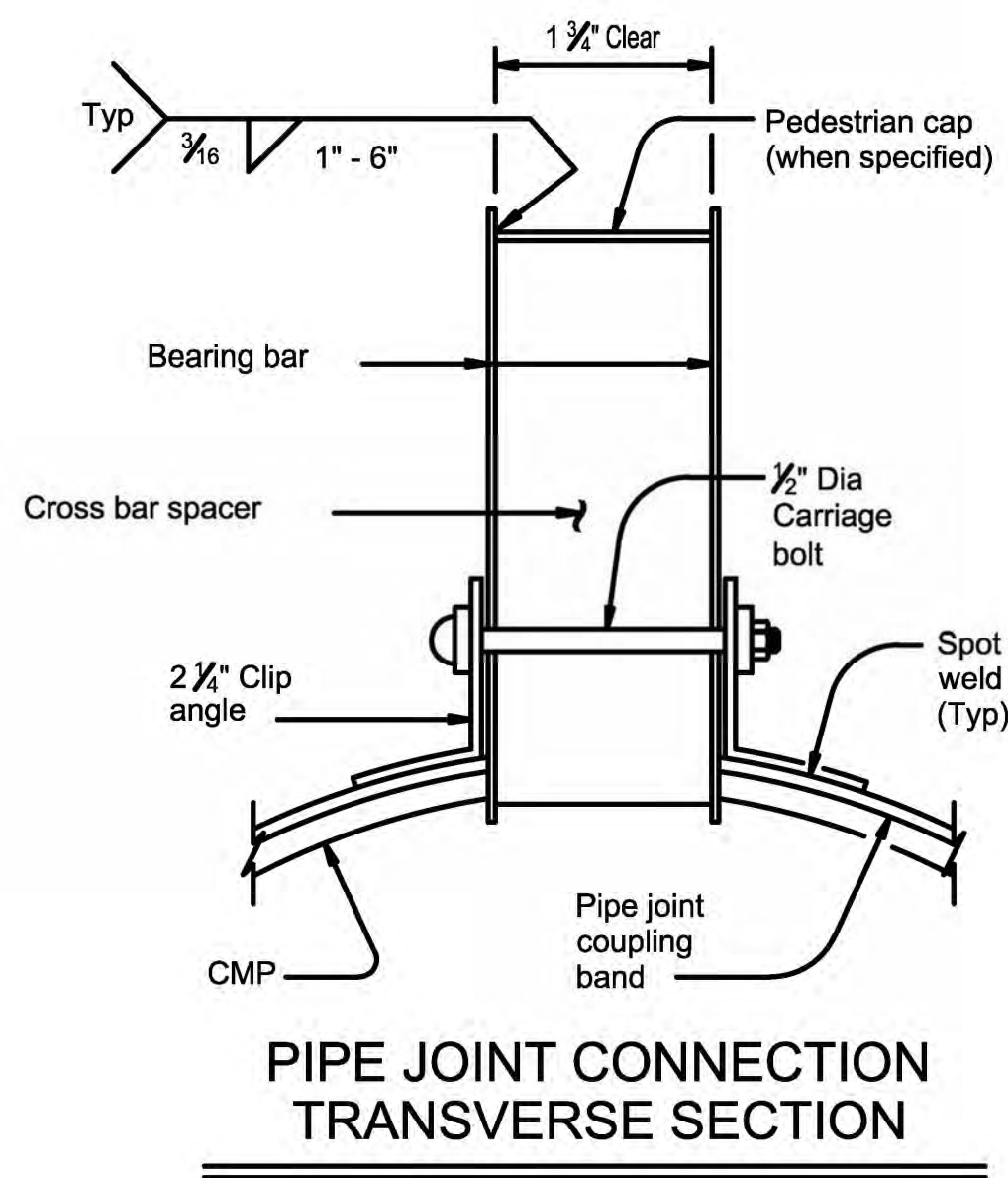
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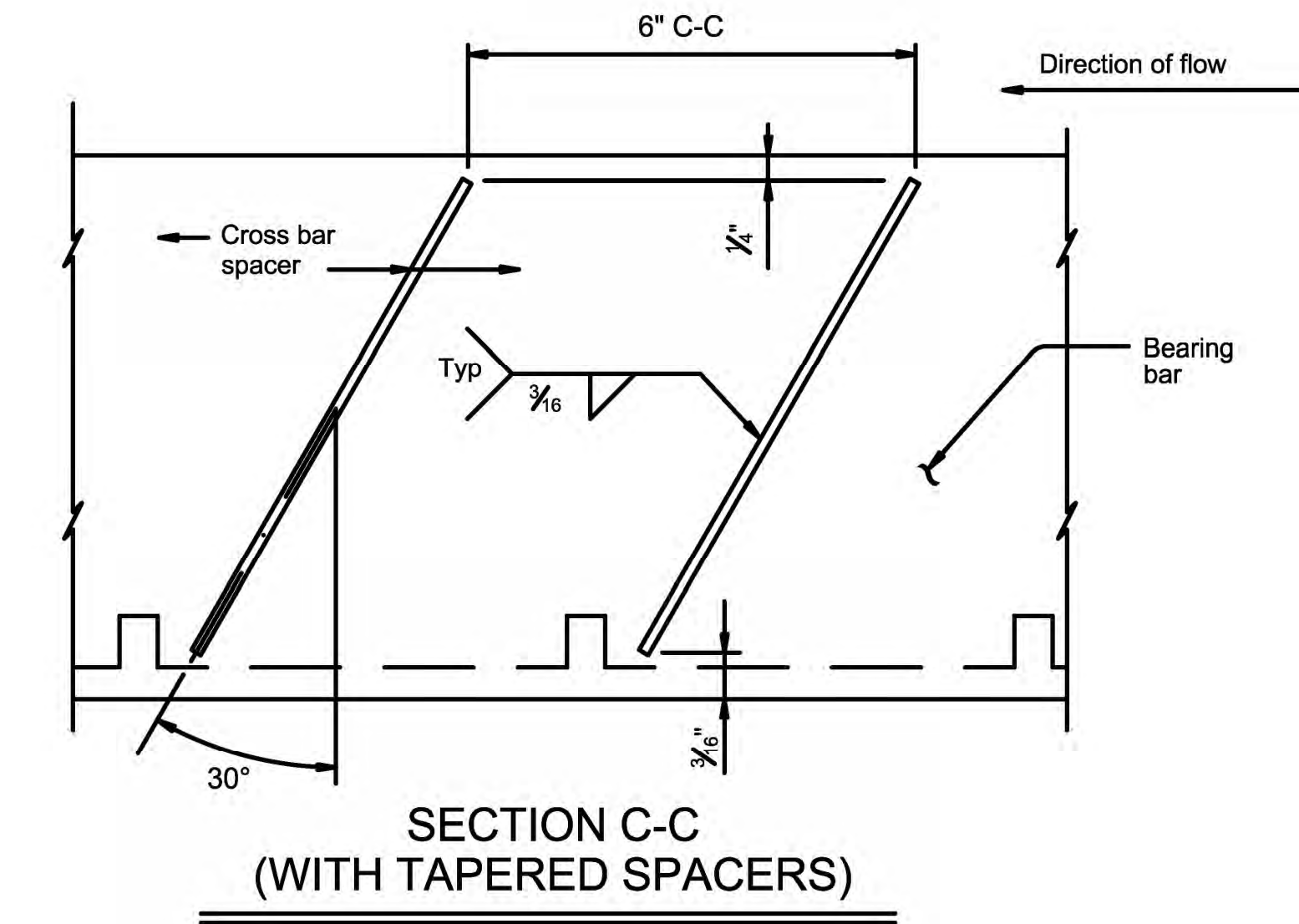
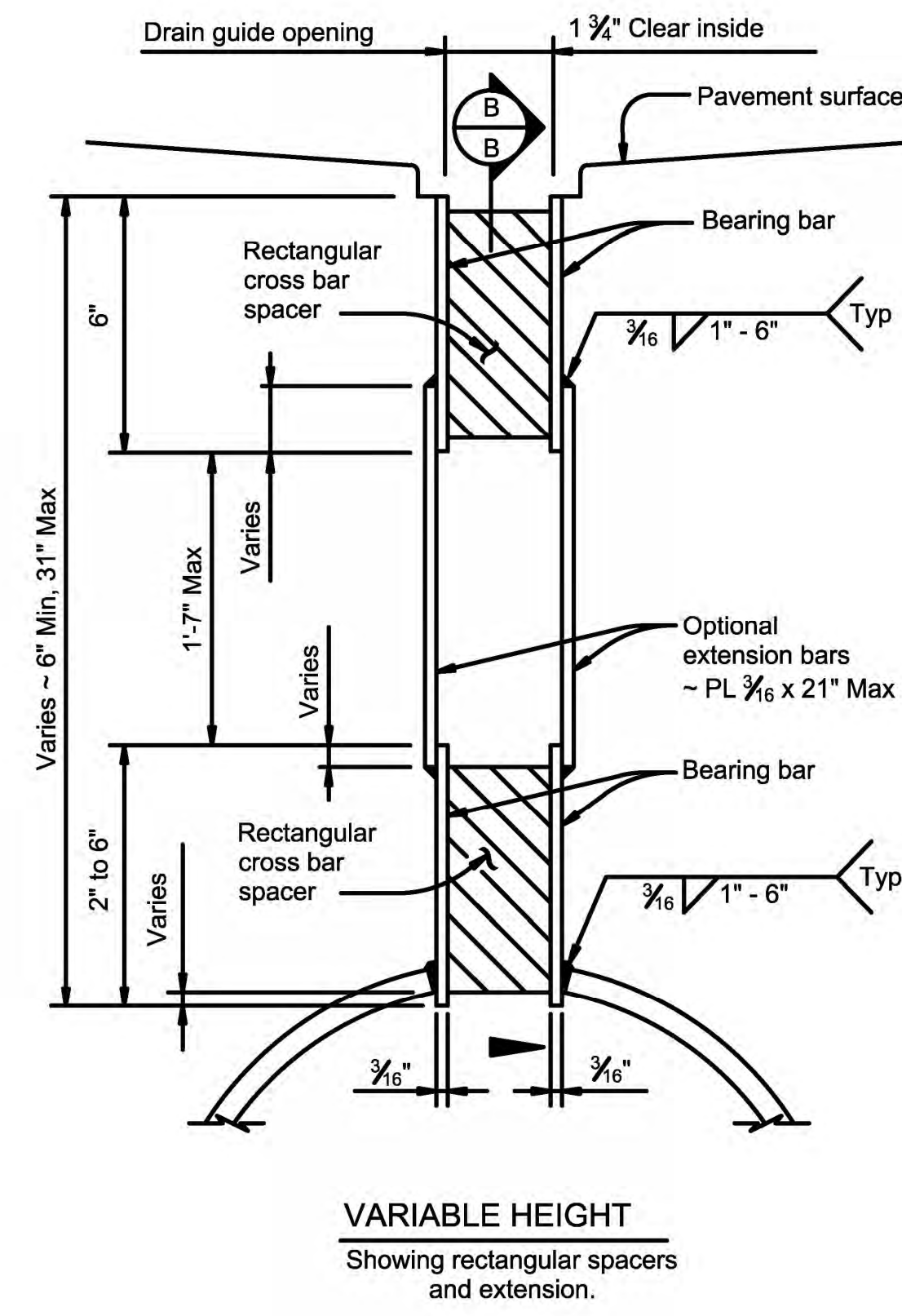
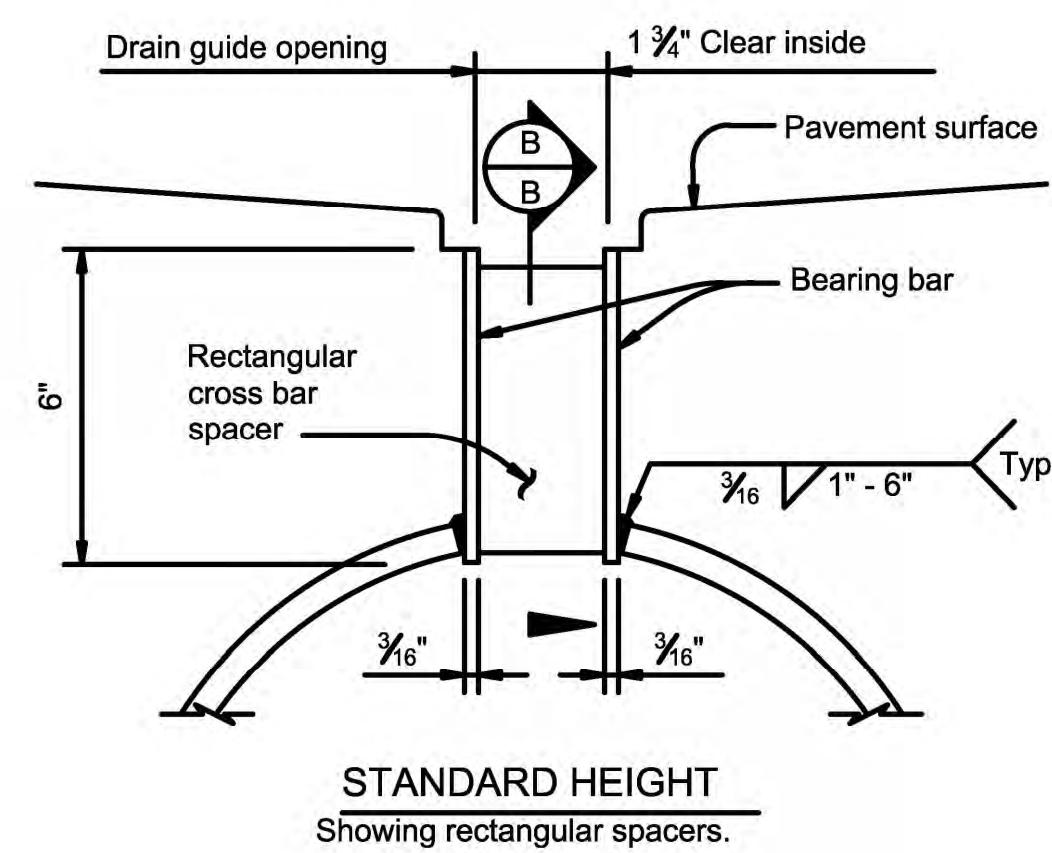
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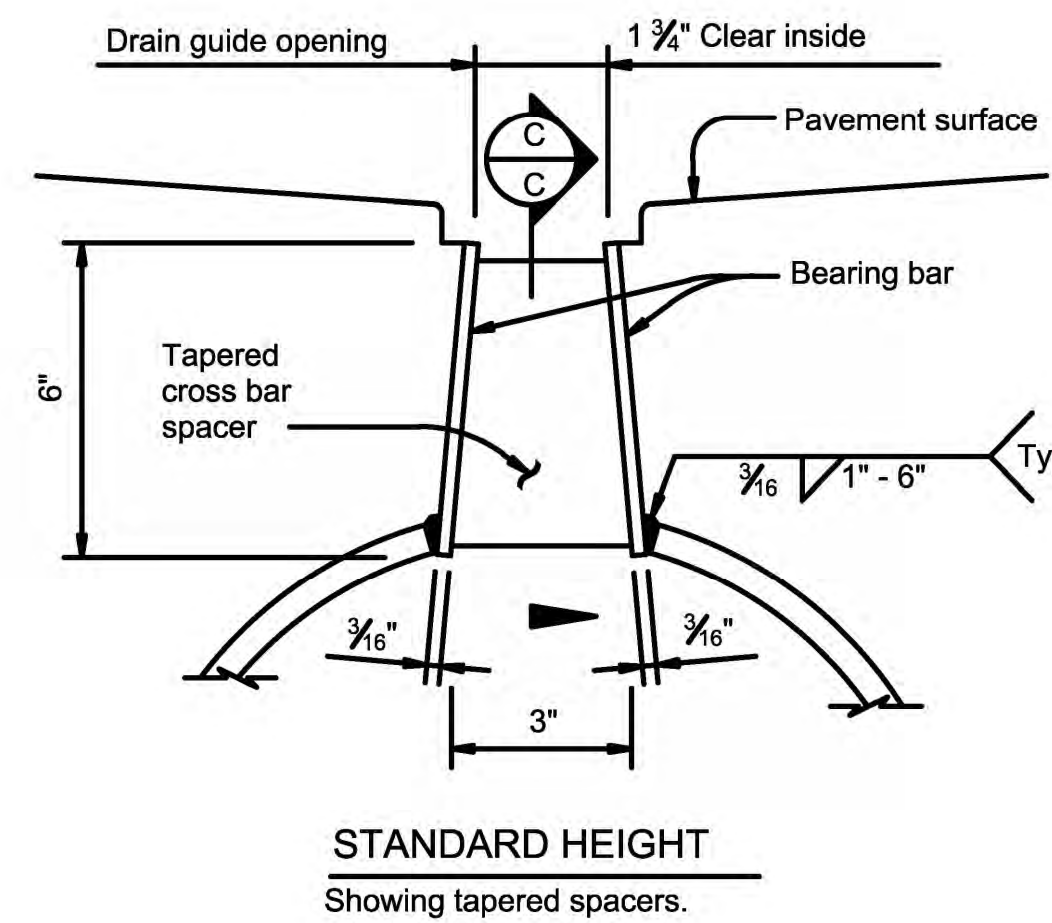
DATE:
FILE:



Showing installation of cross bar spacers in longitudinal section.



Showing installation of cross bar spacers in longitudinal section.



TYPICAL SECTIONS THRU DRAIN GUIDE INSTALLATION

SHEET 2 OF 2

Texas Department of Transportation
Bridge Division Standard

ROADWAY LINEAR DRAIN (SLOTTED DRAIN)

SD

FILE: sdstds01-20.dgn	DN: TxDOT	CK: TxDOT	DW: DKC	CK: AES
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	DIST	COUNTY	SHEET NO.	

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