

DESIGN DATA

MATERIAL:
CLASS A CONCRETE
REINFORCING STEEL

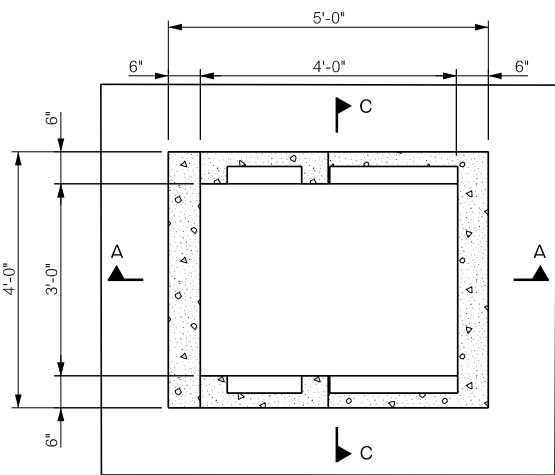
$f'_c = 4 \text{ KSI}$
 $f_y = 60 \text{ KSI}$

LOADING:
HL-93

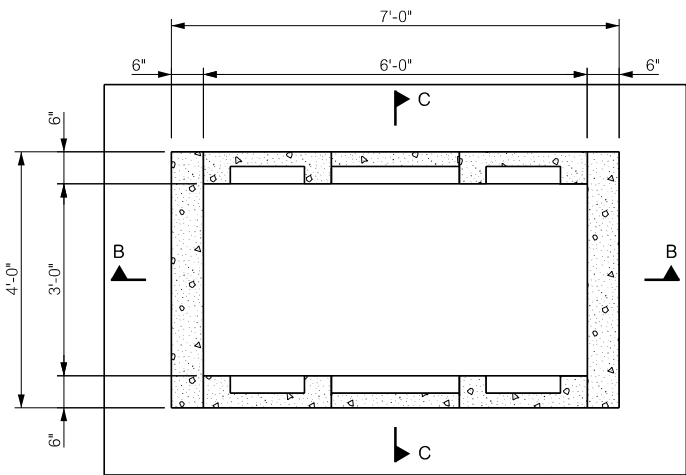
DESIGN:
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, 7TH EDITION
ASTM C890
ASTM C913

GENERAL NOTES

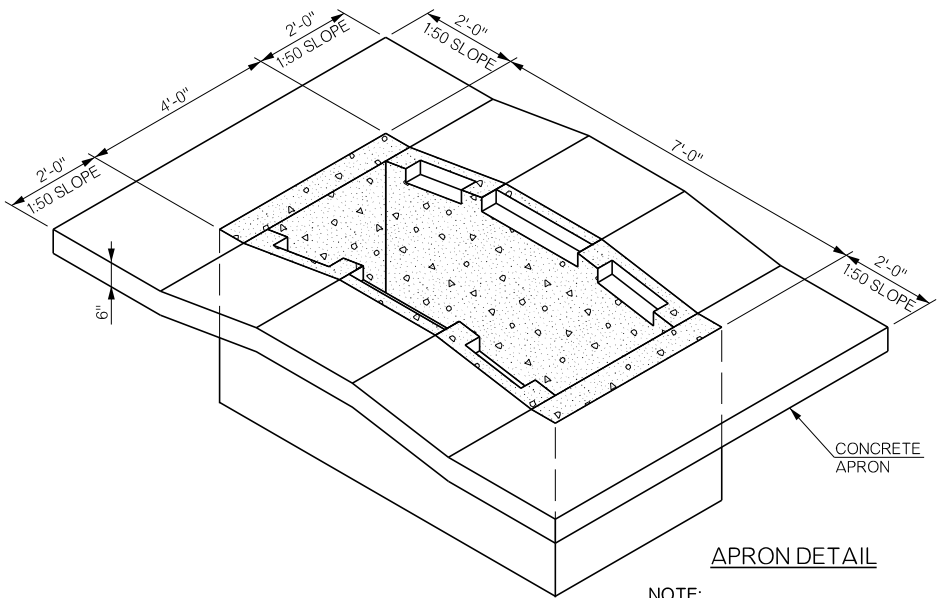
- ALL CONSTRUCTION AND MATERIAL REQUIREMENTS SHALL BE IN ACCORDANCE WITH THE 2019 ODOT STANDARD SPECIFICATIONS.
- FOR DETAILS OF GRATES SEE ROADWAY STANDARDS GPI-5. COST OF GRATES SHALL BE INCLUDED IN THE COST OF THE STRUCTURE.
- THERE SHALL BE A MINIMUM VERTICAL DISTANCE OF 6 INCHES BETWEEN AN OPENING AND ANY EDGE.
- PROVIDE LIFTING DEVICES IN CONFORMANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- PROVIDE GRADE 60 REINFORCING STEEL CONFORMING TO ASTM A615 OR EQUIVALENT AREA OF WELDED WIRE REINFORCING CONFORMING TO ASTM A1064.
- PROVIDE A MINIMUM CLEAR COVER OF 1½ INCHES TO REINFORCING STEEL.
- IF THE MANUFACTURER ELECTS TO USE WALLS OR SLABS WITH A THICKNESS OF 8 INCHES OR GREATER, THE WALLS OR SLABS WILL REQUIRE A SECONDARY LAYER OF REINFORCING STEEL EQUAL TO 0.11 IN²/FT EACH WAY IN THE SECONDARY LAYER.
- BLOCKOUTS IN WALLS MAY BE FORMED FOR GRATE SUPPORT.
- MAXIMUM OPENING DIAMETER SHALL BE 4 INCHES LARGER THAN OUTSIDE DIAMETER OF PIPE.
- DO NOT GROUT RUBBER GASKET JOINTS WITHOUT THE MANUFACTURER'S RECOMMENDATIONS.
- THE FOUNDATION SHALL BE STABILIZED OR REMOVED AND REPLACED WITH FIRM AND STABLE FOUNDATION MATERIAL. A MINIMUM 3 INCHES THICK LEVELING COURSE SHALL BE PROVIDED BELOW THE BASE AREA OF THE INLET AND EXTEND 6 INCHES BEYOND THE BASE AREA. THE LEVELING COURSE SHALL BE CONSTRUCTED WITH AGGREGATE BASE TYPE A. COSTS ASSOCIATED WITH THE FOUNDATION AND LEVELING COURSE SHALL BE INCLUDED IN THE PRICE BID OF THE STRUCTURE.
- FLEXURAL REINFORCING STEEL SHALL NOT EXCEED SPACING OF 6 INCHES CENTER TO CENTER.
- THE CONCRETE APRON SHALL BE CONSTRUCTED WITH CLASS C CONCRETE AND 6X6 W6.5XW6.5 WIRE MESH. COST OF APRON SHALL BE INCLUDED IN THE COST OF THE STRUCTURE.



PLAN - TYPE 1



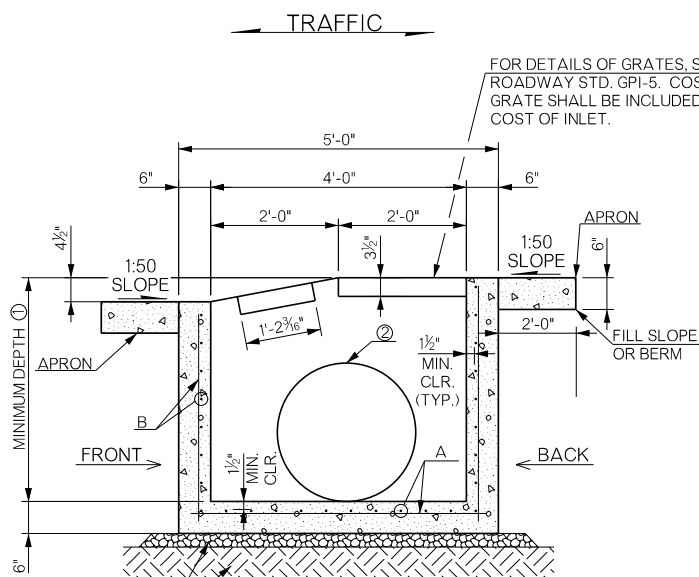
PLAN - TYPE 2



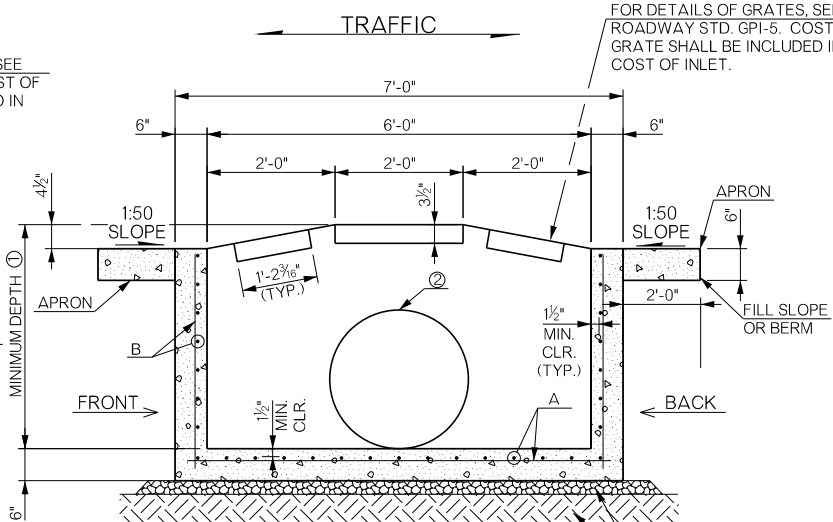
APRON DETAIL

NOTE:
TYPE 2 INLET SHOWN, TYPE 1 SIMILAR.

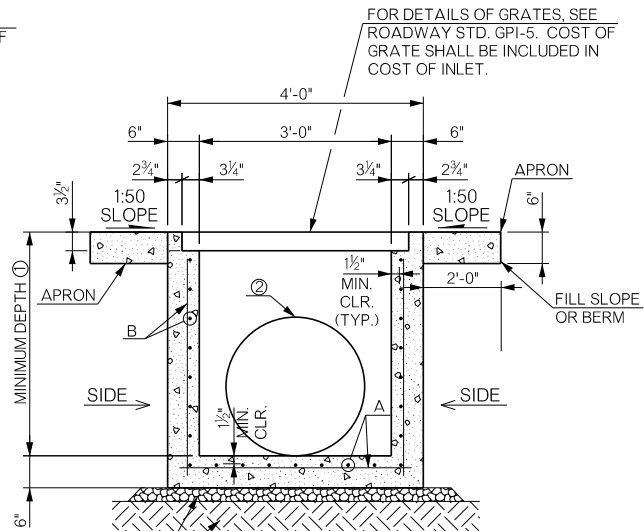
REINFORCING STEEL VALUES LISTED IN "SCHEDULE OF DIMENSIONS AND REINFORCING STEEL" ARE MINIMUM VALUES. STRUCTURES THAT PROVIDE VALUES LARGER THAN THOSE SHOWN WILL BE CONSIDERED ACCEPTABLE.



SECTION A-A



SECTION B-B



SECTION C-C

SCHEDULE OF DIMENSIONS AND REINFORCING STEEL

DEPTH ≤ 6 FT. ③							
	DESIGN NO.	PIPE SIZE	MINIMUM DEPTH ①	A BARS (IN ² /FT)		B BARS (IN ² /FT)	
				TYPE 1	TYPE 2	TYPE 1	TYPE 2
TYPE 1	PIPE AT SIDES	1	18"	3'-6"	0.20	0.20	0.12
		2	24"	3'-6"	0.20	0.20	0.12
		3	30"	4'-0"	0.20	0.20	0.12
		4	36"	5'-0"	0.20	0.20	0.12
TYPE 2	PIPE AT FRONT OR BACK	5	18"	3'-6"	0.20	0.20	0.12
		6	24"	3'-6"	0.20	0.20	0.12
		7	18"	3'-6"	0.20	0.20	0.12
		8	24"	3'-6"	0.20	0.20	0.12
	PIPE AT SIDES	9	30"	4'-0"	0.20	0.20	0.12
		10	36"	5'-0"	0.20	0.20	0.12
	PIPE AT FRONT OR BACK	11	18"	3'-6"	0.20	0.20	0.12
		12	24"	3'-6"	0.20	0.20	0.12

- ① FOR INLET DEPTH GREATER THAN THE MINIMUM DEPTH LISTED, PAY ITEM FOR ADDITIONAL DEPTH IN PRECAST INLET (GPI TYPE X DES. X) PAID AS VERTICAL FEET SHALL BE USED. AS AN EXAMPLE, A TYPE 2, DES. 8 WILL BE USED WITH A NEEDED DEPTH OF 4'-2". THE DIFFERENCE BETWEEN THIS HEIGHT AND THE MINIMUM DEPTH IS 8 INCHES. THE ADDITIONAL DEPTH IS USED WITH A QUANTITY OF 0.67 VF. SPECIFIC ADDITIONAL DEPTH DATA FOR EACH STRUCTURE SHALL BE SHOWN ON THE PLANS.
- ② ONLY 18" AND 24" PIPES MAY ENTER AT THE FRONT OR BACK. ALL PIPES MAY ENTER AT THE SIDES. PIPE SHAPES MAY BE ROUND, ARCH OR HORIZONTAL ELLIPTICAL.
- ③ MAXIMUM DEPTH IS 6 FEET, USING STEEL AREAS SHOWN IN TABLE. IF THE INLET IS GREATER THAN 6 FEET DEEP, IT SHALL BE MADE WITH SPECIAL DESIGN.

BASIS OF PAYMENT		
ITEM NO.	ITEM	UNIT
611(G)	PRECAST INLET (GPI TYPE 1 DES. 1)	EA
611(G)	PRECAST INLET (GPI TYPE 1 DES. 2)	EA
611(G)	PRECAST INLET (GPI TYPE 1 DES. 3)	EA
611(G)	PRECAST INLET (GPI TYPE 1 DES. 4)	EA
611(G)	PRECAST INLET (GPI TYPE 1 DES. 5)	EA
611(G)	PRECAST INLET (GPI TYPE 1 DES. 6)	EA
611(G)	PRECAST INLET (GPI TYPE 2 DES. 7)	EA
611(G)	PRECAST INLET (GPI TYPE 2 DES. 8)	EA
611(G)	PRECAST INLET (GPI TYPE 2 DES. 9)	EA
611(G)	PRECAST INLET (GPI TYPE 2 DES. 10)	EA
611(G)	PRECAST INLET (GPI TYPE 2 DES. 11)	EA
611(G)	PRECAST INLET (GPI TYPE 2 DES. 12)	EA
611(H)	ADD'L DEPTH IN PRECAST INLET (GPI TYPE 1 DES. ▲)	VF
611(H)	ADD'L DEPTH IN PRECAST INLET (GPI TYPE 2 DES. ◆)	VF

- ▲ SPECIFY TYPE 1 INLET DESIGN NUMBER. SEE CHART ON LEFT
- ◆ SPECIFY TYPE 2 INLET DESIGN NUMBER. SEE CHART ON LEFT

APPROVED BY
ROADWAY ENGINEER: *[Signature]* DATE: 4/1/2025
ROADWAY DESIGN DIVISION STANDARD



PRECAST GRATED PIPE DROP INLET

2019 SPECIFICATIONS

PGPI 0
R-44