GENERAL NOTES:

1. Use Class II Concrete.

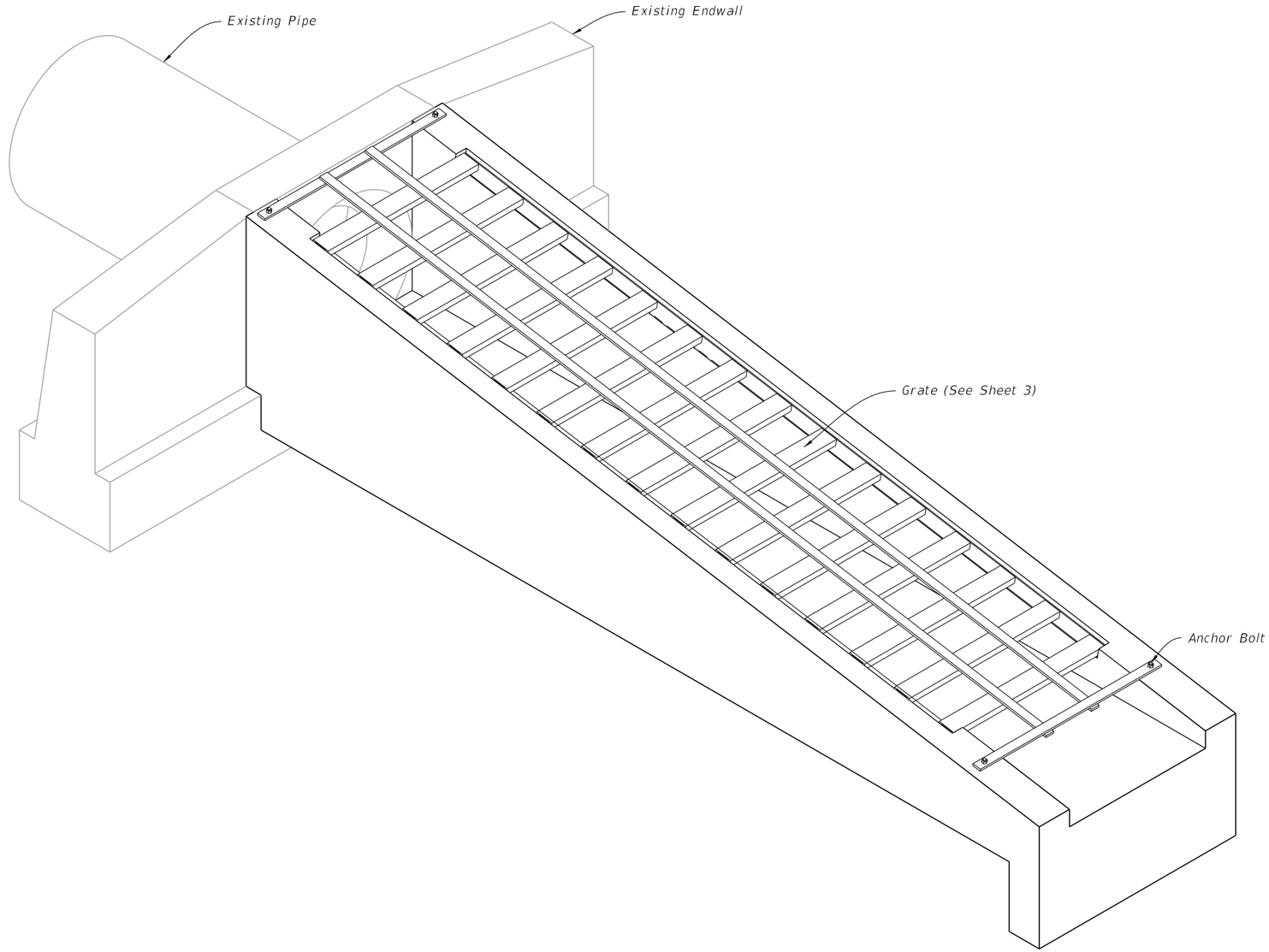
2. Channel section C3 x 6.0 may be substituted for the C4 x 5.4 channel.

3. All steel reinforcing bars are #4 with 2" cover except as noted. Spacing shown are center to center. Lap bars 1'-5" minimum. Welded wire fabric (two cages max.) with an equivalent cross section area (0.20 sq. in.) may be substituted for bar reinforcement.

4. Drill 1¼" holes 8" deep with a rotary drill in existing endwall for dowel bars. Thoroughly clean holes prior to installing Adhesive-Bonded Dowels.

5. Quantities shown are for estimating purposes only.

6. For supplemental details, see Index 425-001.



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Sheet	Description
1	General Notes and Contents
2	Endwalls for 1:4 and 1:6 Slopes
3	Steel Grate

SAFETY MODIFICATIONS

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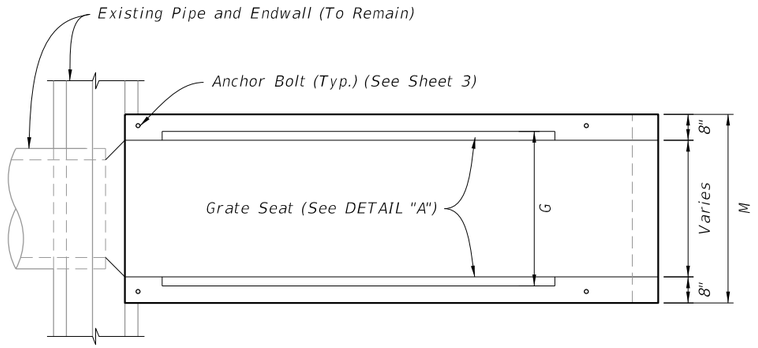
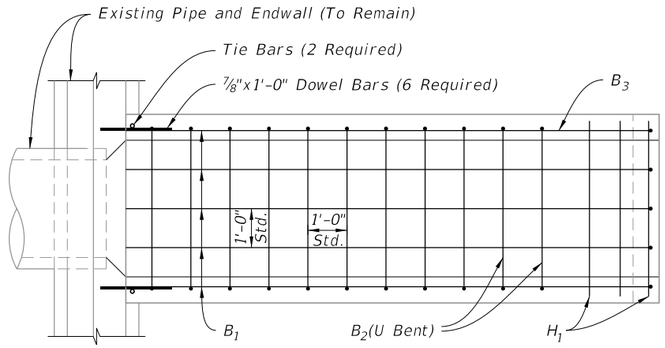


PLAN

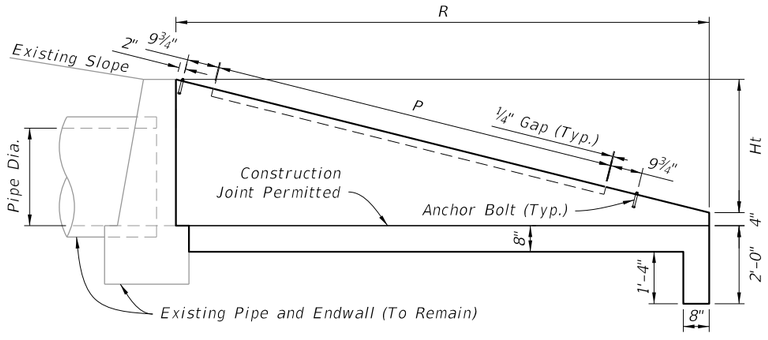


PLAN

LEGEND:

H = Horizontal Bars

B = Bent Bars



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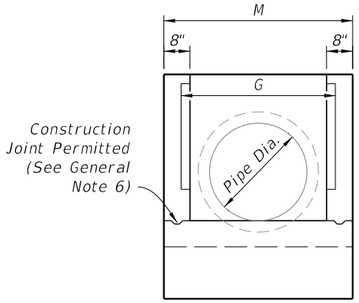
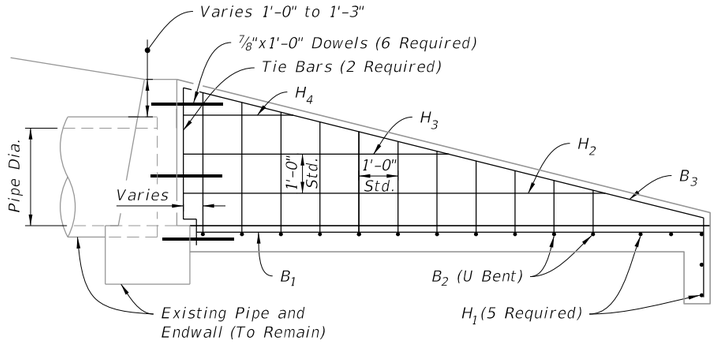


END VIEW



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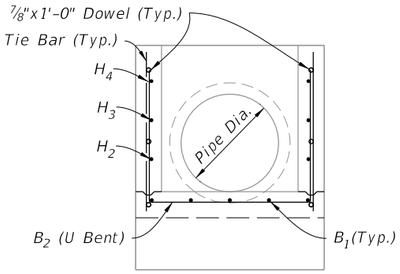
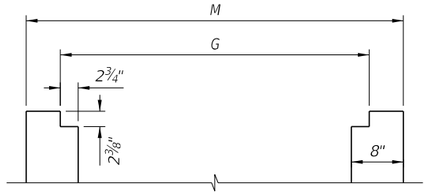


BACK VIEW

DIMENSIONAL DETAILS



GRATE SEAT

DETAIL "A"

REINFORCING DETAILS

TABLE 1
U-ENDWALL DIMENSIONS AND QUANTITIES

Slope	Pipe Dia.	G	M	Ht	R	P	Class II Concrete-CY	Reinforcing Steel-lbs.	Sod SY
1:6	15"	2'-8½"	3'-7"	2'-2"	13'-0"	9'-4"	2.12	167	23
	18"	2'-11½"	3'-10"	2'-5"	14'-6"	11'-4"	2.53	173	25
	24"	3'-5½"	4'-4"	2'-11"	17'-6"	14'-4"	3.48	238	29
	30"	3'-11½"	4'-10"	3'-5"	20'-6"	17'-4"	4.57	315	32
1:4	15"	2'-8½"	3'-7"	2'-2"	8'-8"	5'-4"	1.44	120	19
	18"	2'-11½"	3'-10"	2'-5"	9'-8"	6'-4"	1.72	130	20
	24"	3'-5½"	4'-4"	2'-11"	11'-8"	8'-4"	2.36	167	22
	30"	3'-11½"	4'-10"	3'-5"	13'-8"	10'-4"	3.09	225	25

ENDWALLS FOR 1:4 AND 1:6 SLOPES

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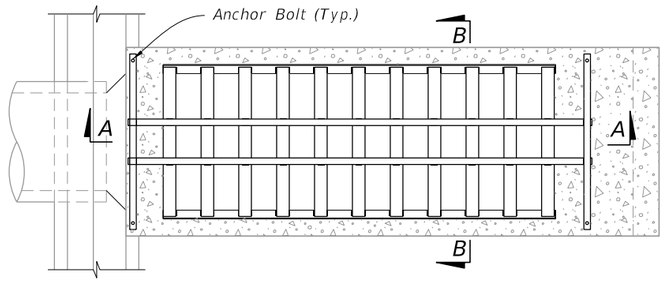
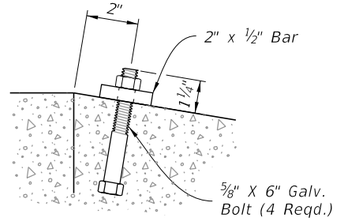
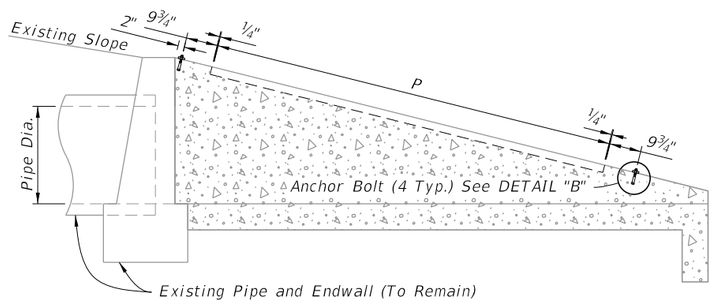
TABLE 2 GRATE DIMENSIONS AND QUANTITIES									
Slope	Pipe Dia.	Channels @ 5.4 Lbs./LF			Bars @ 3.4 lbs/LF (2 ea.)			Angles @ 3.2 Lbs./LF	
		Quantity	F	lbs.	L	M-4"	lbs.	P	lbs.
1:6	15"	10	2'-6 7/8"	139	11'-3"	3'-3"	99	9'-4"	60
	18"	12	2'-9 7/8"	183	13'-3"	3'-6"	114	11'-4"	73
	24"	15	3'-3 7/8"	269	16'-3"	4'-0"	138	14'-4"	92
	30"	18	3'-9 7/8"	372	19'-3"	4'-6"	162	17'-4"	111
1:4	15"	6	2'-6 7/8"	83	7'-3"	3'-3"	71	5'-4"	34
	18"	7	2'-9 7/8"	107	8'-3"	3'-6"	80	6'-4"	41
	24"	9	3'-3 7/8"	161	10'-3"	4'-0"	97	8'-4"	53
	30"	11	3'-9 7/8"	227	12'-3"	4'-6"	114	10'-4"	66



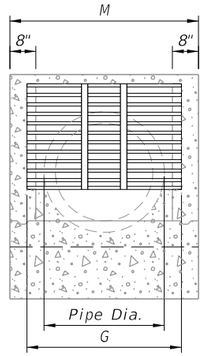
PLAN



Anchor Bolt Detail
DETAIL "B"

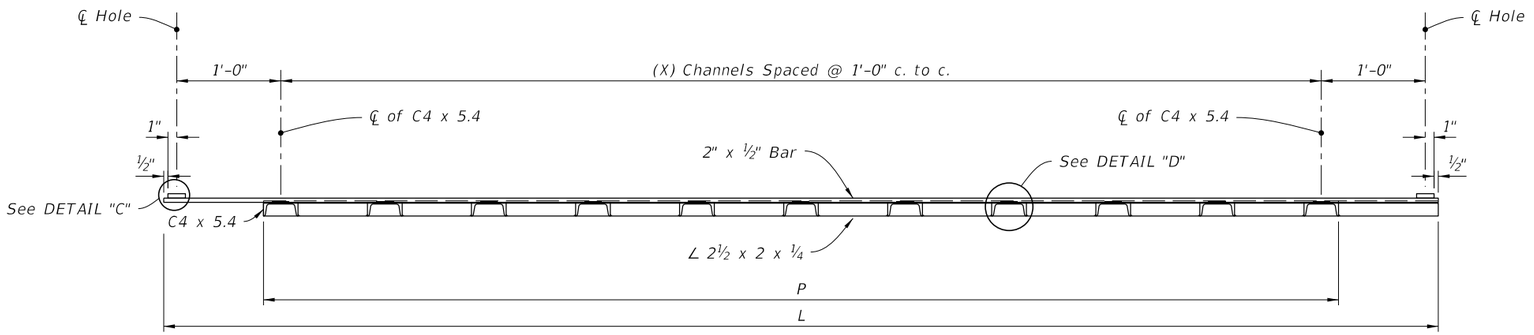


ELEVATION

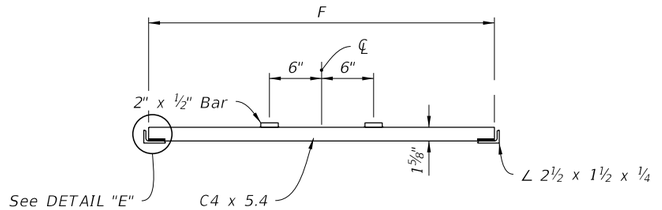


END VIEW

STEEL GRATE MOUNTING



SECTION A-A



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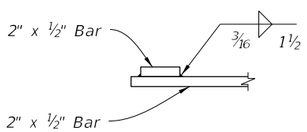
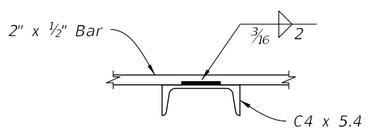
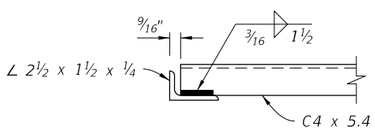


Bar to Bar Weld
DETAIL "C"



Bar to Channel Weld
DETAIL "D"



Channel to Angle Weld
DETAIL "E"

STEEL GRATE DETAILS

STEEL GRATE

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