

## Index 430-011

### U-Type Concrete Endwalls – Baffles and Grate Optional

### 15" to 30" Pipe

#### ORIGINATION

**Date:** May 7, 2018

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#### COMMENTARY

Added Sheets and Reorganized information. Moved pay item notes to Specifications. Updated Bar notations.

Sodding quantities were moved to Index 570-001 to provide the information for sodding around end treatments in a single location.

#### COMMENTS AND RESPONSES

**BLACK** = Industry Review Comments    **RED** = Standard Plans Response

**Name:** Erin Yao

**Date:** August 8, 2019

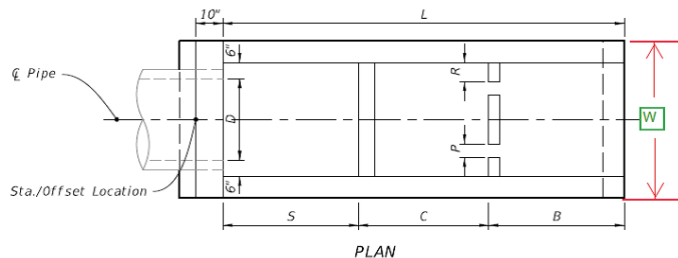
#### **COMMENT:**

Sheet 1:

#### *GENERAL NOTES:*

1. Use Class I concrete
2. Construct Baffles only when called for in Plans.
3. See Sheet 5 when steel grating is required on endwall. ← is it necessary to say this?
4. All reinforcing #4 bars with 2" clearance except as noted.
5. Channel section C 3x6 may be substituted for C 4x5.4 channel.

Sheet 4:



#### **RESPONSE.**

**Date August 8, 2019**

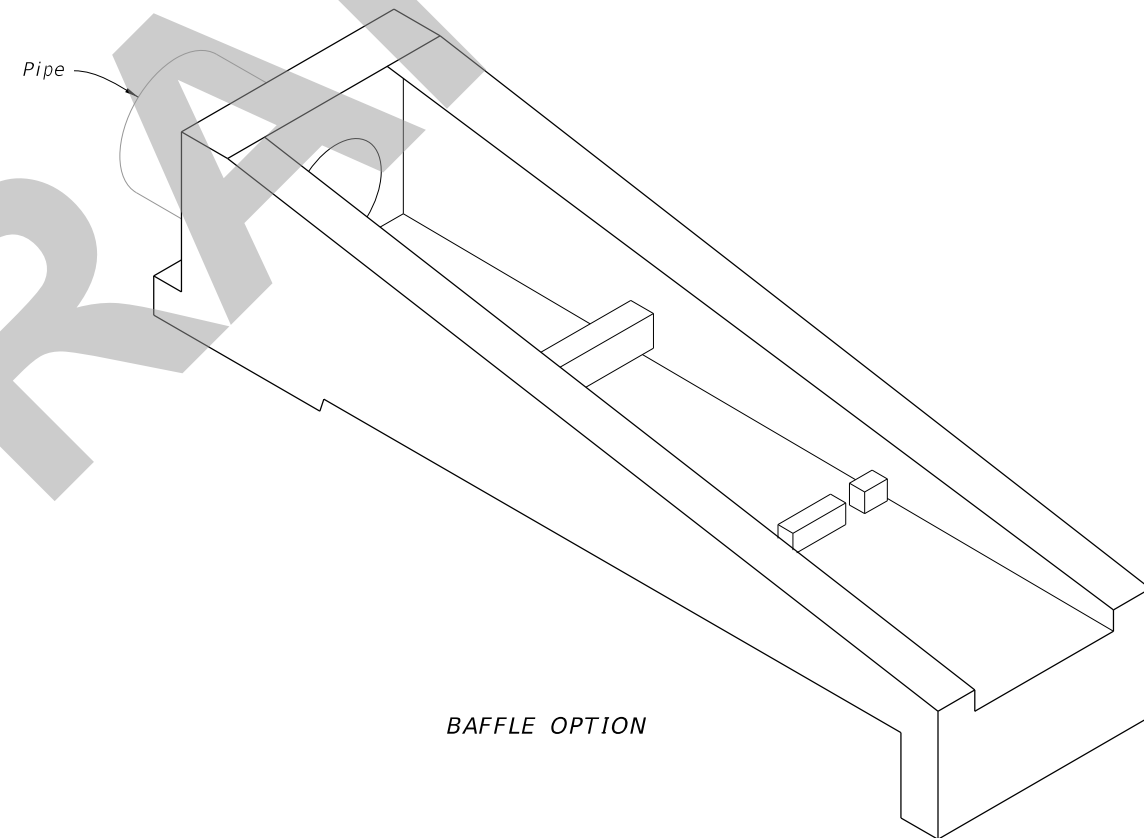
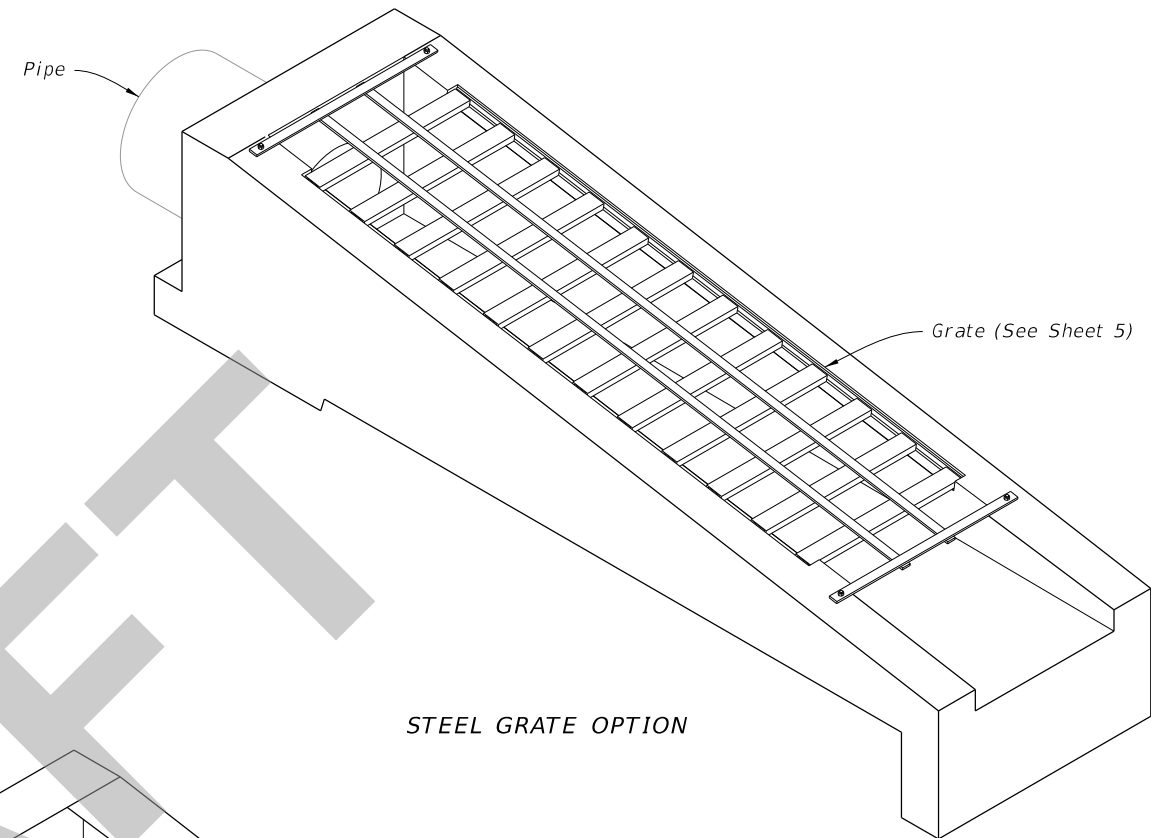
Sheet 1: Agree that the note may not be a necessity, but this was a legacy note and we left it as it did not seem to cause an issue.

Sheet 4: Added "W" Dimension.

**GENERAL NOTES:**

1. Use Class I concrete
2. Construct Baffles only when called for in Plans.
3. See Sheet 5 when steel grating is required on endwall.
4. All reinforcing #4 bars with 2" clearance except as noted.
5. Channel section C 3x6 may be substituted for C 4x5.4 channel.
6. Endwall may be cast in place or precast concrete. Construct precast units to dimensions shown, or as shown in approved shop drawings. Submit requests for shop drawing approvals to the Engineer. Use Index 425-001 for opening and grouting details.
7. Quantities shown are for estimating purposes only.

TABLE OF CONTENTS:	
Sheet	Description
1	General Notes and Contents
2	Endwalls for 1:2 Slopes With Baffles
3	Endwalls for 1:2 Slopes Without Baffles and Bending Bar Diagram
4	Endwalls for 1:3, 1:4, and 1:6 Slopes
5	Steel Grate Option



U-TYPE CONCRETE ENDWALLS

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LAST REVISION	DESCRIPTION:
11/01/19	



FY 2020-21  
STANDARD PLANS

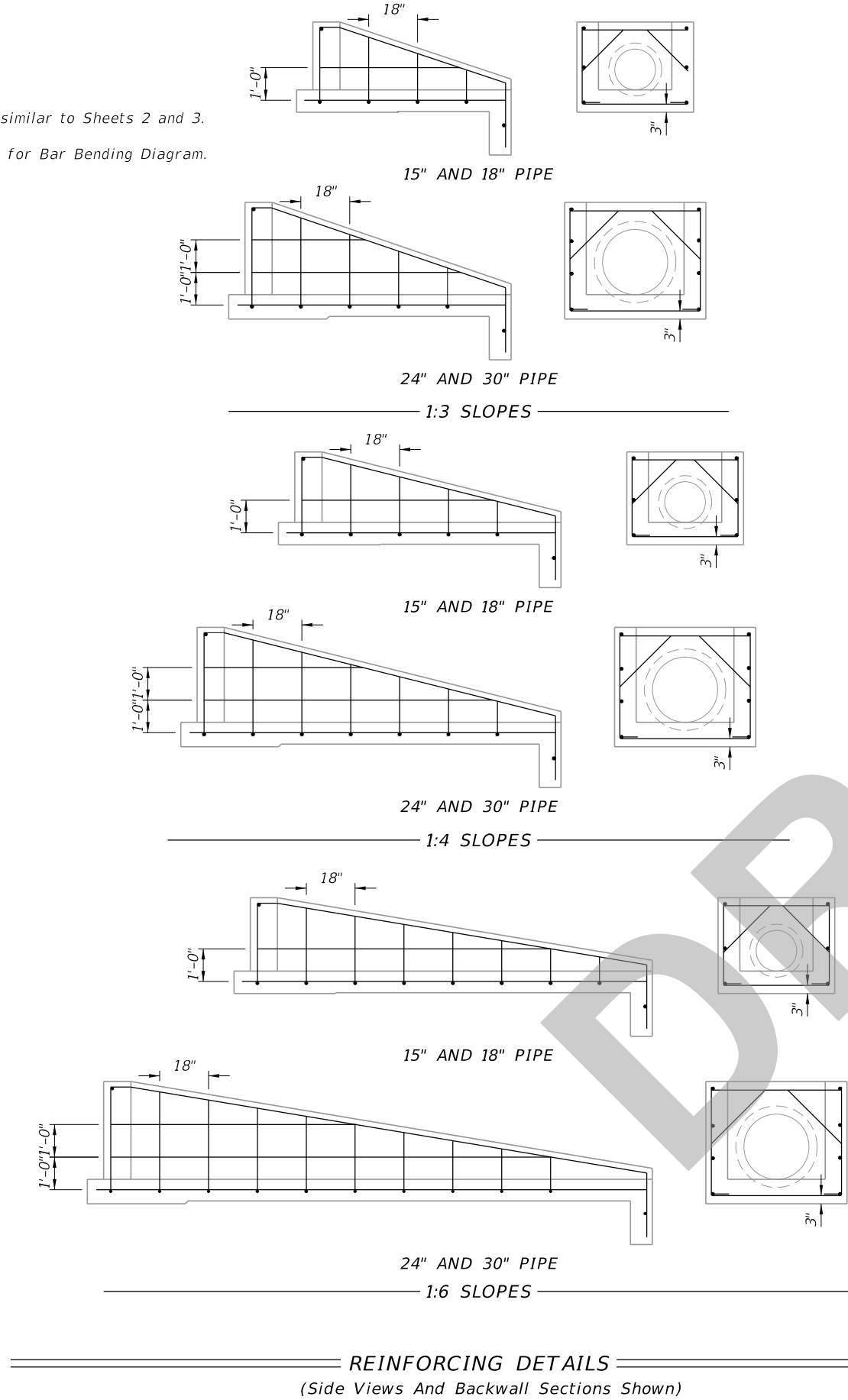
U-TYPE CONCRETE ENDWALLS BAFFLES  
& GRATE OPTIONAL 15" TO 30" PIPE

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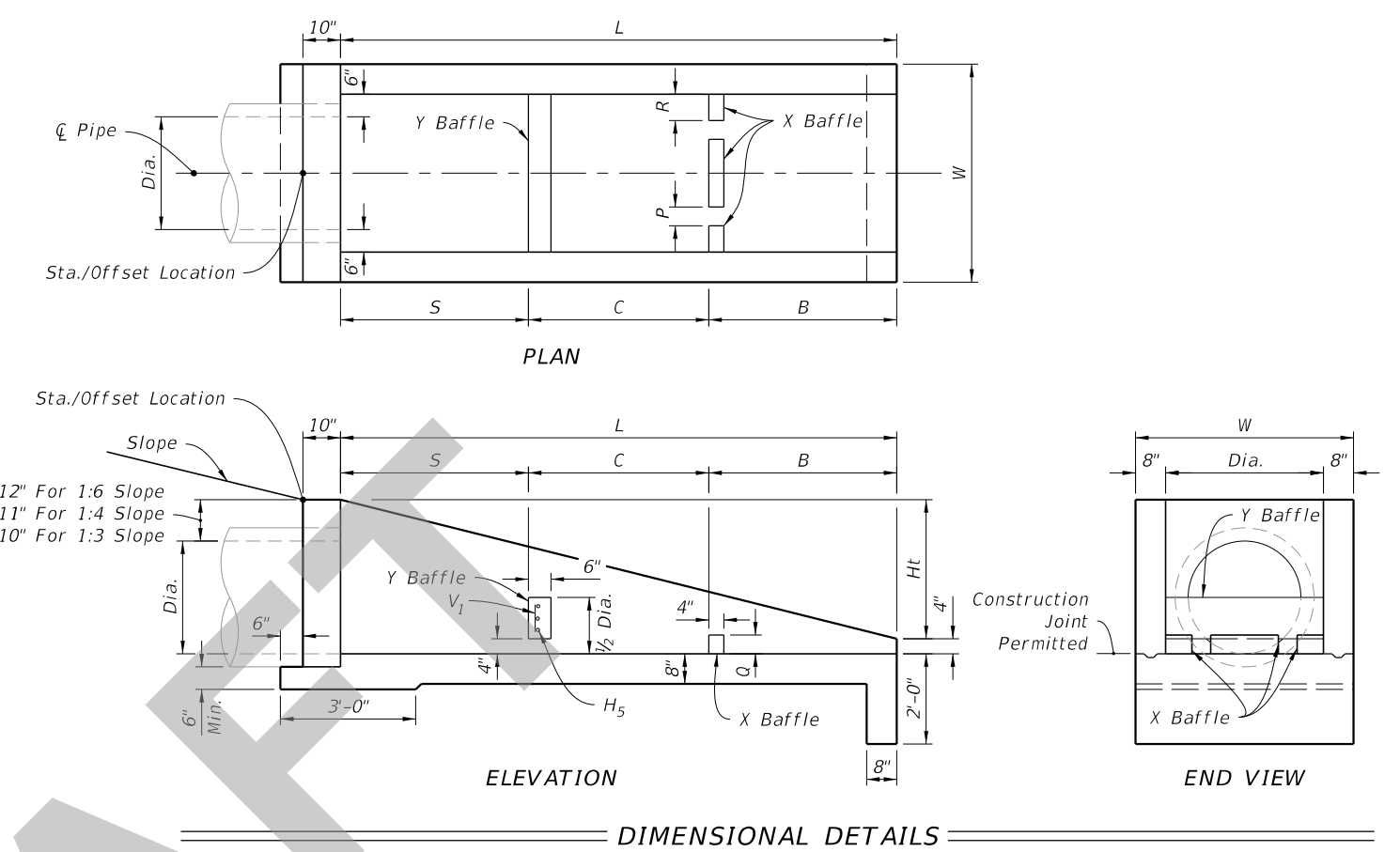
SHEET  
1 of 5

**NOTE:**

1. Reinforcing similar to Sheets 2 and 3.
2. See Sheet 3 for Bar Bending Diagram.



**REINFORCING DETAILS**  
(Side Views And Backwall Sections Shown)



**DIMENSIONAL DETAILS**

DIMENSIONS AND QUANTITIES FOR BAFFLES							
Pipe Dia.	X Baffle			Y Baffle Reinf. Steel		Class I Concrete Cu. Yd.	Reinf. Steel lbs.
	P Width	Q Height	R Length	Bar V <sub>1</sub>	Bar H <sub>5</sub>		
15"	4"	4"	4"	2- #4	1- #4	0.10	4
18"	4"	4"	5"	3- #4	2- #4		8
24"	5"	5"	6"	4- #4	3- #4		12
30"	5"	5"	7"	4- #4	4- #4		16

DIMENSIONS AND QUANTITIES FOR ONE U-ENDWALL										
Rate Of Slope	Pipe		L	Ht	W	Baffle Locations (When Required)			Class I Concrete Cu. Yd.	Reinf. Steel lbs.
	Dia.	Area (Sq. Ft.)				S	B	C		
1 : 3	15"	1.23	5'-3"	1'-9"	3'-7"	1'-9"	1'-9"	1'-9"	1.19	51
	18"	1.77	6'-0"	2'-0"	3'-10"	2'-0"	2'-0"	2'-0"	1.42	56
	24"	3.14	7'-6"	2'-6"	4'-4"	2'-6"	2'-6"	2'-6"	1.94	77
	30"	4.91	9'-0"	3'-0"	4'-10"	3'-0"	3'-0"	3'-0"	2.54	96
1 : 4	15"	1.23	7'-4"	1'-10"	3'-7"	2'-6"	2'-6"	2'-4"	1.54	64
	18"	1.77	8'-4"	2'-1"	3'-10"	2'-10"	2'-10"	2'-8"	1.84	71
	24"	3.14	10'-4"	2'-7"	4'-4"	3'-6"	3'-6"	3'-4"	2.53	92
1 : 6	15"	1.23	11'-6"	1'-11"	3'-7"	3'-10"	3'-10"	3'-10"	2.19	89
	18"	1.77	13'-0"	2'-2"	3'-10"	4'-4"	4'-4"	4'-4"	2.63	103
	24"	3.14	16'-0"	2'-8"	4'-4"	5'-4"	5'-4"	5'-4"	3.59	143
	30"	4.91	19'-0"	3'-2"	4'-10"	6'-4"	6'-4"	6'-4"	4.81	180

**ENDWALLS WITH AND WITHOUT BAFFLES FOR 1:3, 1:4, AND 1:6 SLOPES**

**U-TYPE CONCRETE ENDWALLS BAFFLES & GRATE OPTIONAL 15" TO 30" PIPE**



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LAST REVISION	DESCRIPTION:
11/01/19	