
Index 219

Curb and Gutter Barrier Inlet

ORIGINATION

Date: September 5, 2017

Name: Richard Stepp

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COMMENTARY

1. Update concrete sections and reinforcing steel for new Single-Slope Barrier. Clarify drawing labels.
2. Replace 18" wide Drainage Slot with 3 qty. PVC Pipes to improve concrete and reinforcing steel continuity.
3. Remove upstream throat.
4. Change Index name to "Curb & Gutter Barrier Inlet" to better describe function with new Concrete Barrier Index.

COMMENTS AND RESPONSES

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

Name: Donald Rogers

Date: Tuesday, September 26, 2017 9:13 AM

COMMENT:

The drainage slot shown in the current index provides 45 square inches of flow area. The proposed triple 3" pvc pipes only provide 9 square inches of available flow area but will have a smoother roughness coefficient and steeper slope. Has the inlet capacity been evaluated as this will affect spread and inlet spacing? Also has debris tolerance been considered?

RESPONSE:

Date: 10/13/2017

The proposed PVC pipes have a 3.5 inch inner diameter, and they provide nearly 29 square inches of flow area. Capacity and debris have been considered and approved by Carl Spirio, State Drainage Engineer.

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Curb and Gutter Barrier Inlet

Name: Karina Fuentes, P.E.

Friday, October 6, 2017 4:51 PM

COMMENT:

1. Sheet 1 of 3 (Section C-C): Label the “sidewalk or sod”.
2. Sheet 2 of 3 (Section E-E): Remove the label “shoulder or roadway pavement” and show “edge of pavement”, for consistency with Sections A-A and B-B on sheet 1.

RESPONSE:

Date:

1. Paper space is restricted, and the trend established with identical shapes and patterns in Sections A-A and B-B make the “Sidewalk or Sod” area in Section C-C apparent. Okay as-is.
2. Label “Shoulder or Roadway Pavement” okay as-is for curbed segment. Added “Edge of Pavement” label for continuity with Sheet 1. Change made.

Name: Stephanie Sharp, P.E. (TPE compiled comments)

Date: Tuesday, September 26, 2017 9:13 AM

COMMENT:

If previous comment above regarding combining Indices 425-030, -031, & -032 is not implemented, then: The title is being changed from “Concrete Barrier Wall Inlet” to “Curb and Gutter Barrier Inlet”. However, General Note 1 states the inlet is to be used in conjunction with concrete barrier wall, curb and gutter, index 410. Will this cause confusion with current Index 300 if notes aren’t read or understood. Suggest adding more description to General Note 1. For example, is this inlet intended for use next to walls without full width shoulders? Does there have to be a sidewalk on the back side of the barrier?

RESPONSE:

Date: 10/13/2017

General Note 1 explains inlet’s usage with Curb and Gutter Barrier in 521-001, which is correct. Index 521-001 and its supporting criteria then further define use of Curb and Gutter Barrier.

Curb and Gutter Barrier details show different shape structures from previous Index 300, so incorrect usage is not reasonably possible. Additionally, the word “Barrier” in the title differentiates from curb that is not part of a 38-inch-height Single-Slope barrier. It’s expected that titles and notes will be read.

There does not have to be a sidewalk on the back of the barrier per the detail callout “Sidewalk or Sod”. Okay as-is.

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Name: Hailing Zhang, P.E.

Date: Tuesday, September 26, 2017 9:13 AM

COMMENT:

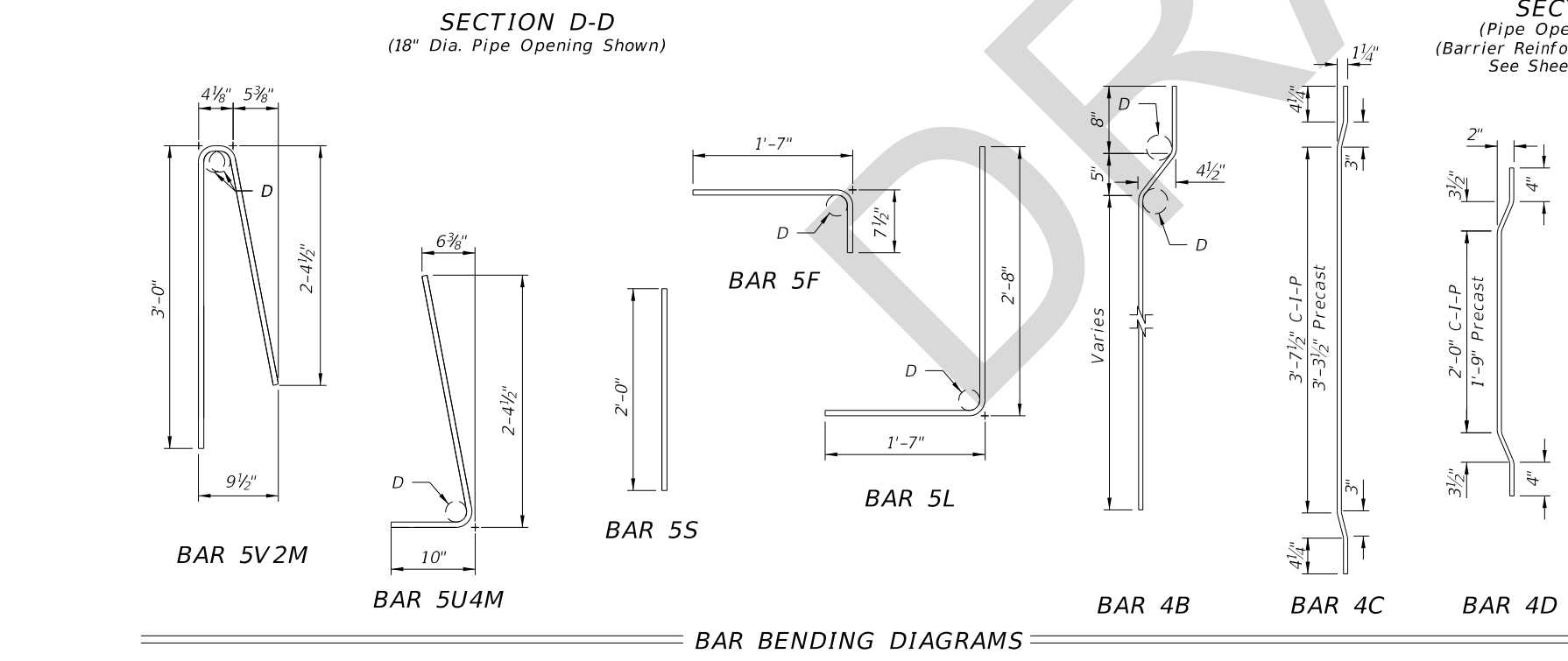
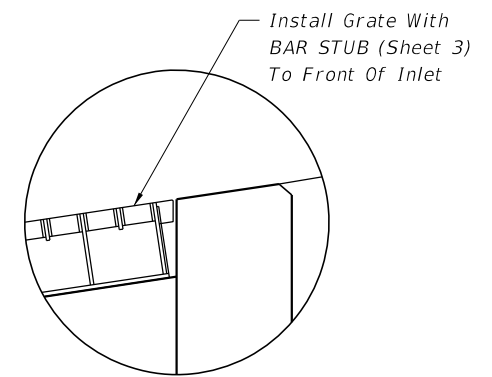
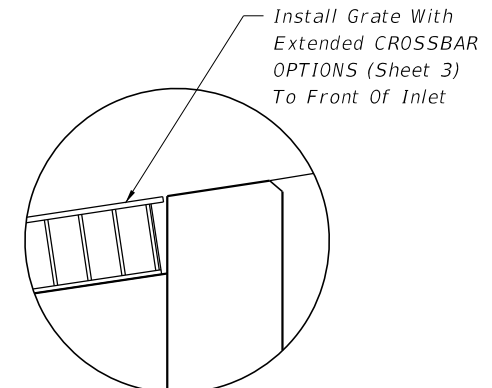
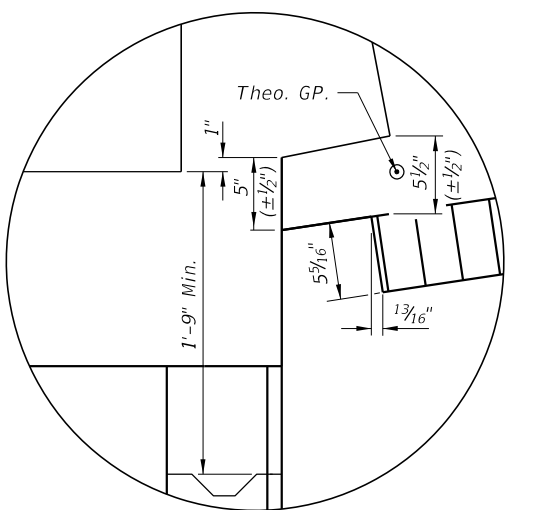
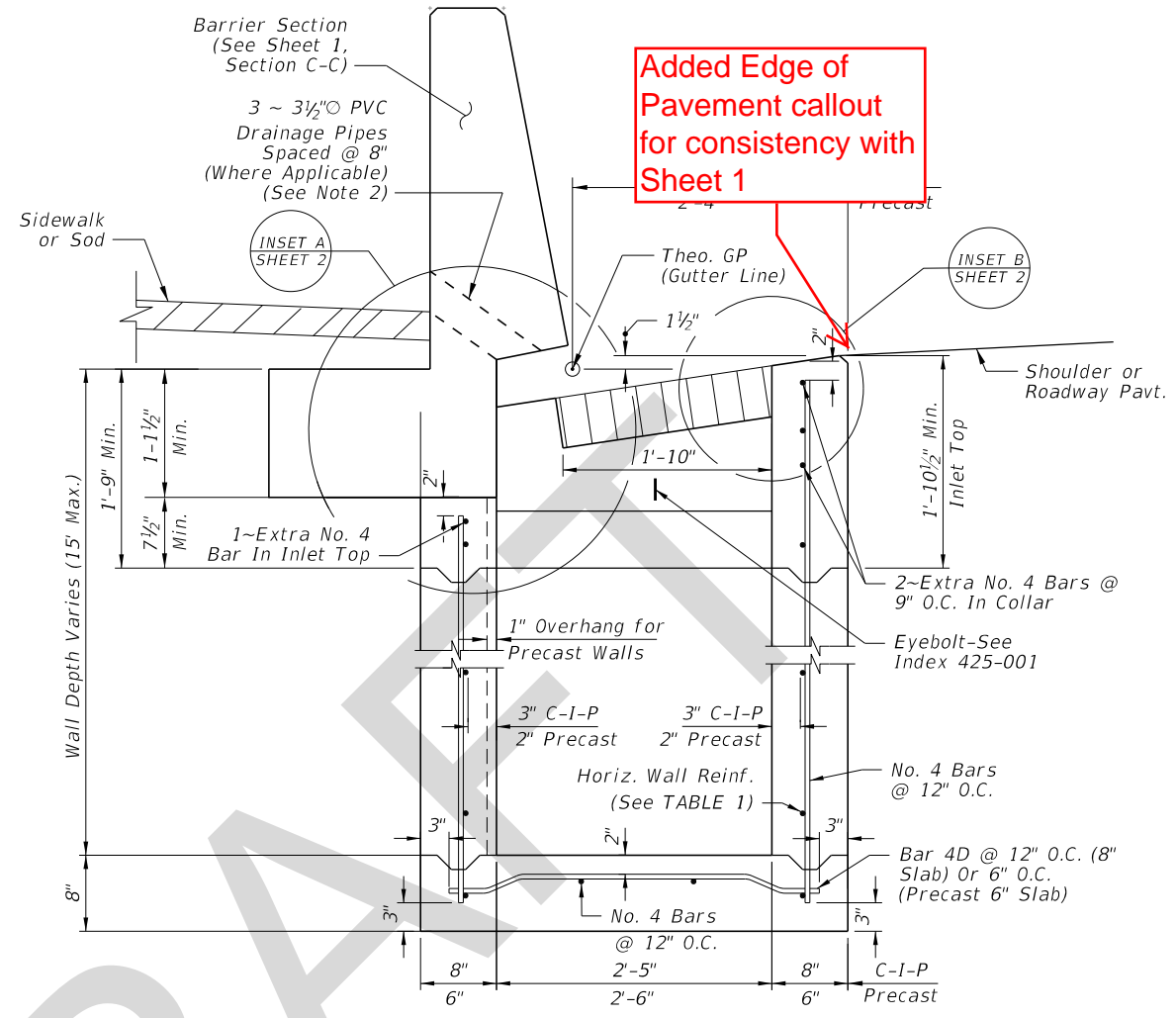
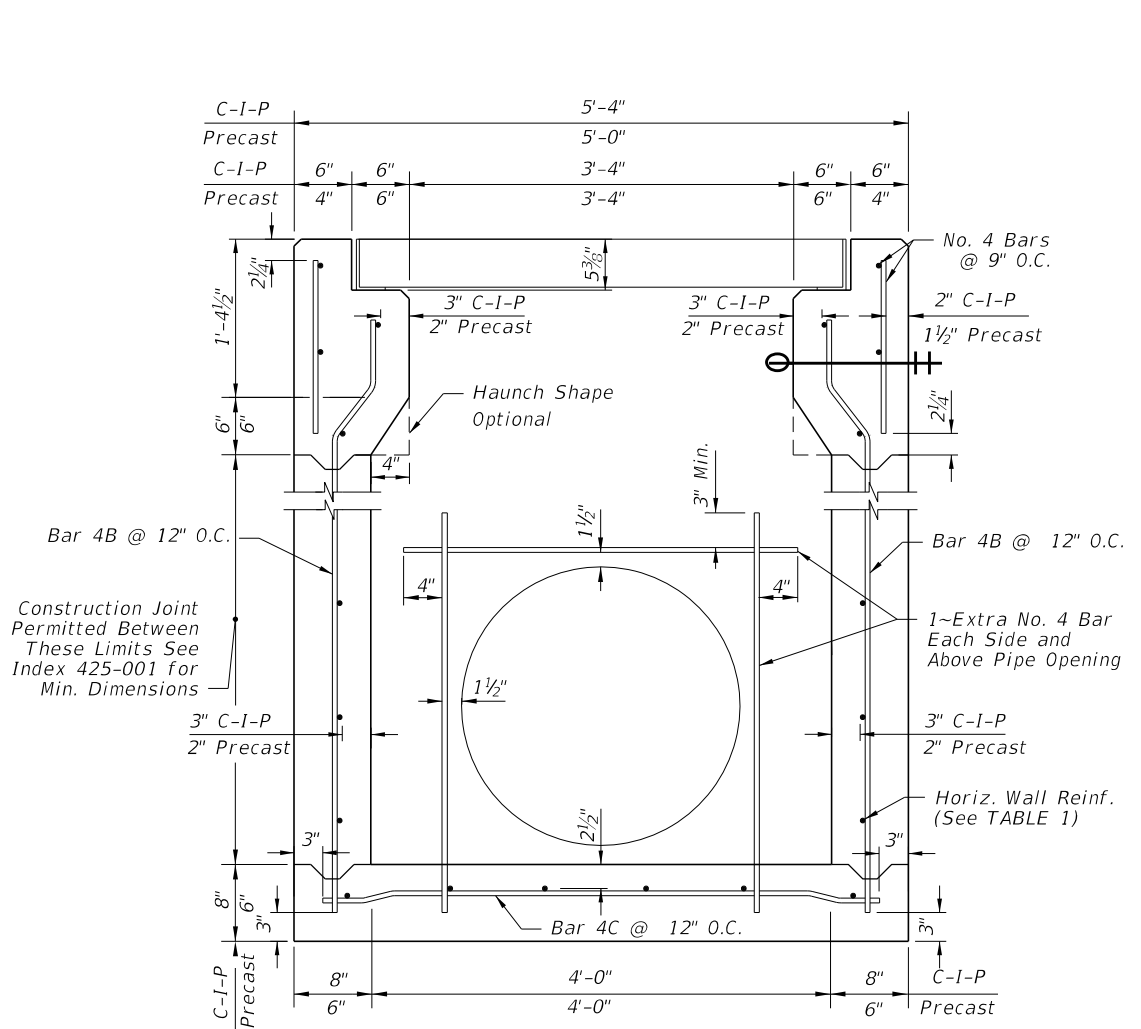
425-032 Sheet 1: Use fewer (contour) lines in isometric view

RESPONSE:

Date: 10/13/2017

Superficial aesthetic. Okay as-is.

9/1/2017 3:05:46 PM

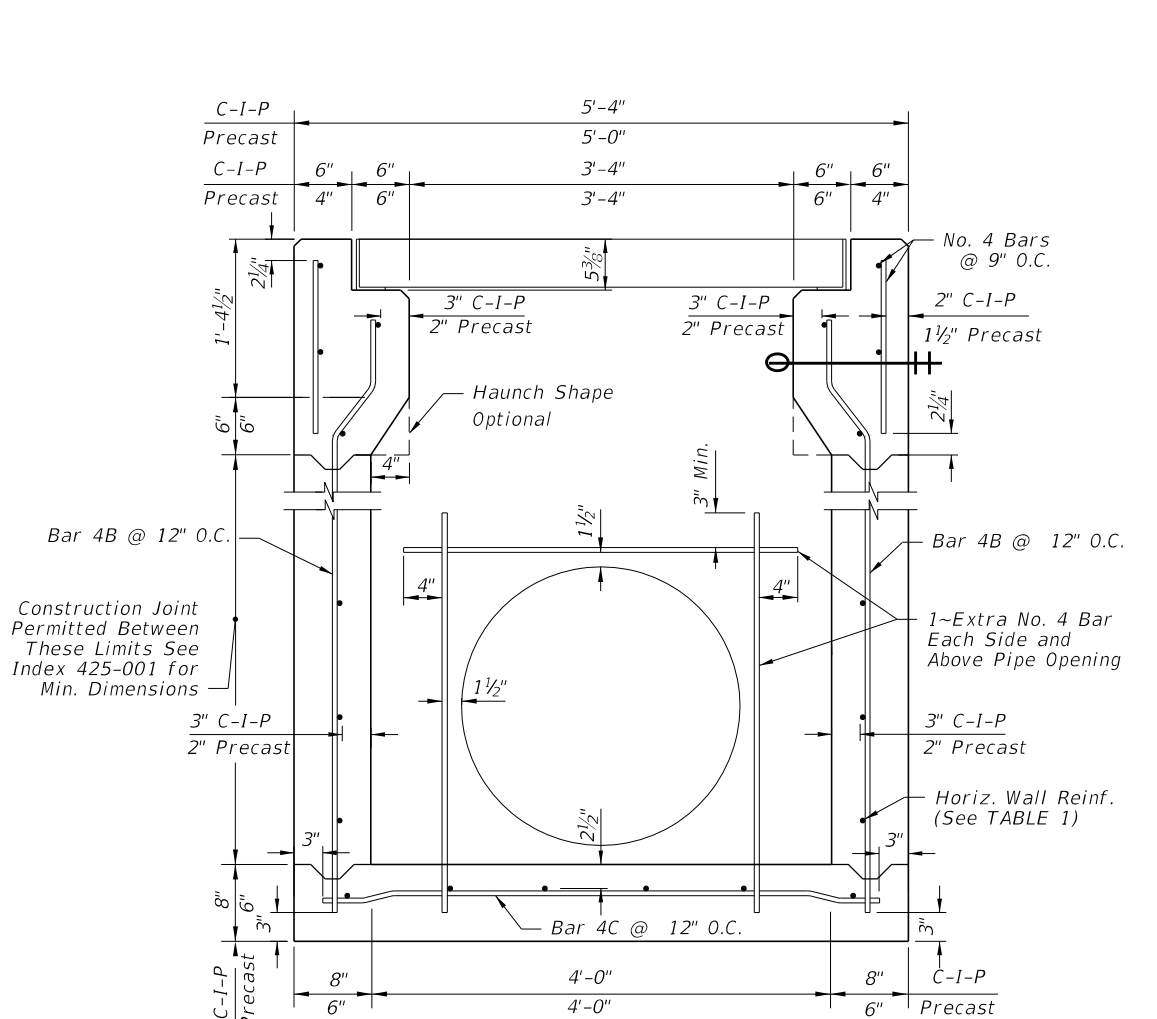


WALL DEPTH	SCHEDULE	AREA	MAX. SPACING		
C-I-P PRECAST		(in. ² /ft.)	BARS	WWR	
0'-4"	0'-3"	A12	12"	8"	
4'-9"	3'-6"	A6	6"	5"	
9'-15"	6'-10"	B5.5	5 1/2"	5"	
10'-15"		C6.5	6 1/2"	6"	

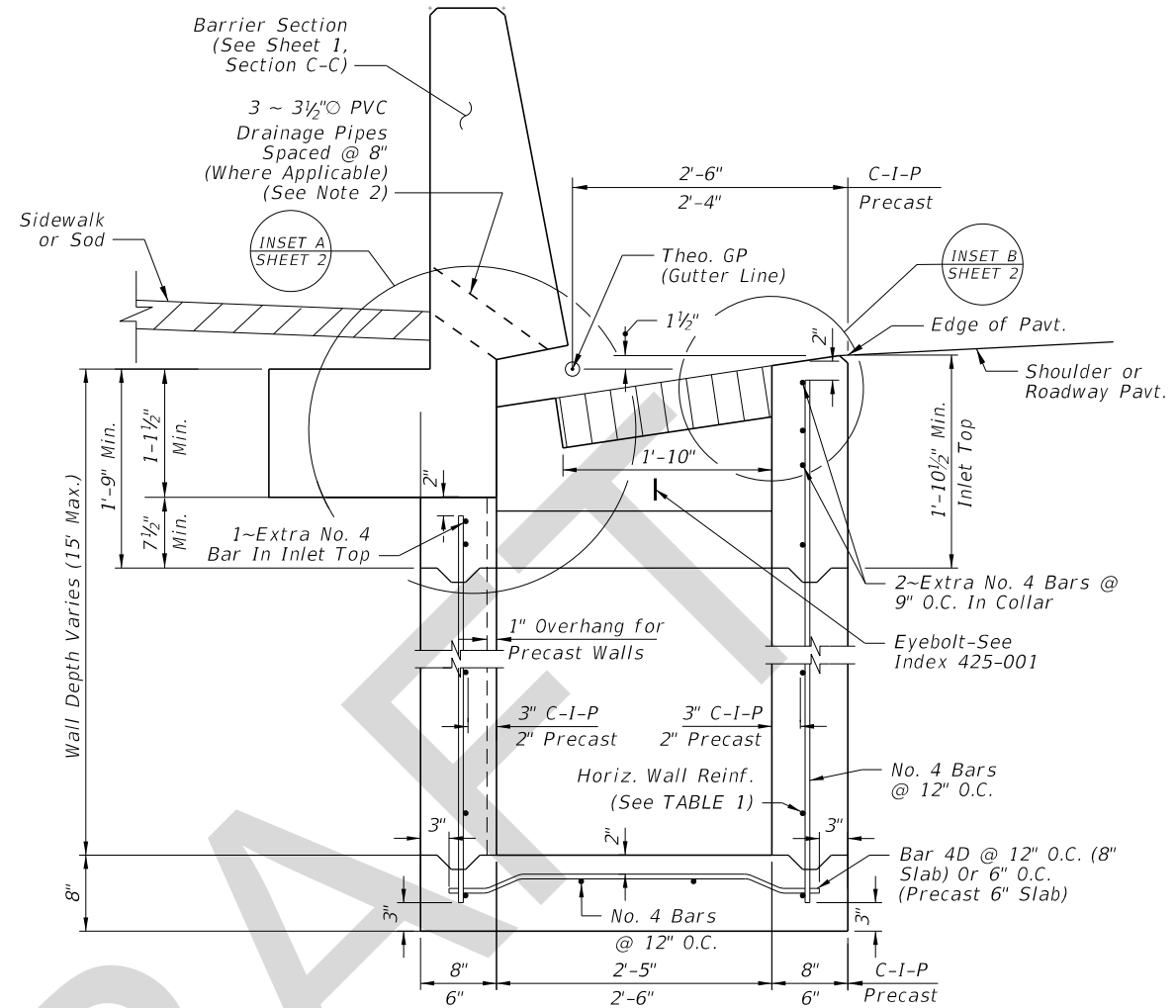
TABLE 1: HORIZONTAL WALL REINFORCING SCHEDULE

- NOTES:**
- For Bar Bending Diagrams of Bars 5V2 & 5U4, See Index 521-001. Bars 5V2M, 5U4M, & 5S may be field cut from Bars 5V2 & 5U4.
 - Install PVC drainage pipes at the inlet centerline when the inlet is located in a sag curve or when drainage pipes are called for in the plans. Install a total of 3 ~ 3 1/2" PVC Pipes longitudinally spaced at 8", with the center pipe as near to the inlet centerline as practical without conflicting with the steel reinforcing.

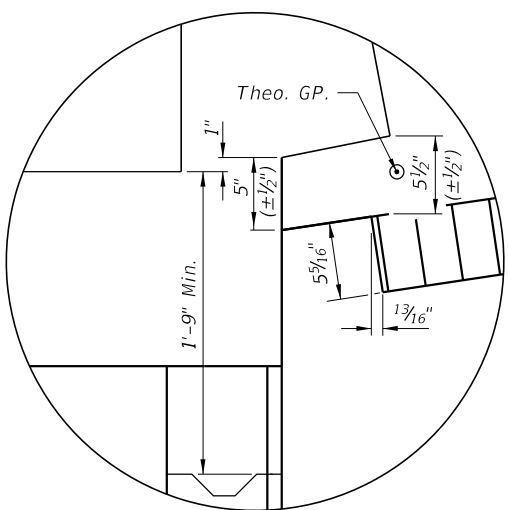
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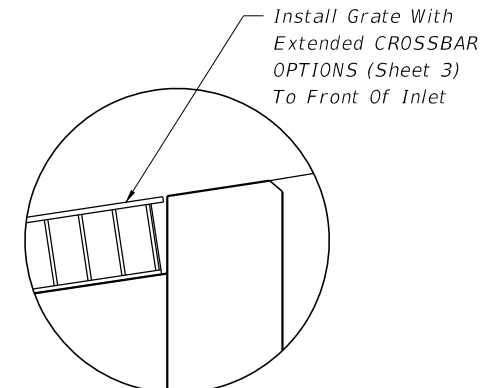
**SECTION D-D
INLET STRUCTURE**
(18" Dia. Pipe Opening Shown)



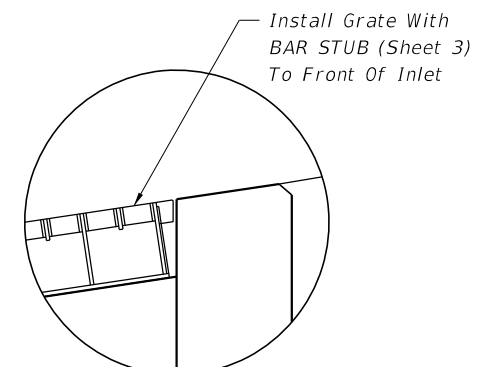
SECTION E-E
(Pipe Opening Not Shown)
(Barrier Reinforcing Steel Not Shown,
See Sheet 1, Section C-C)



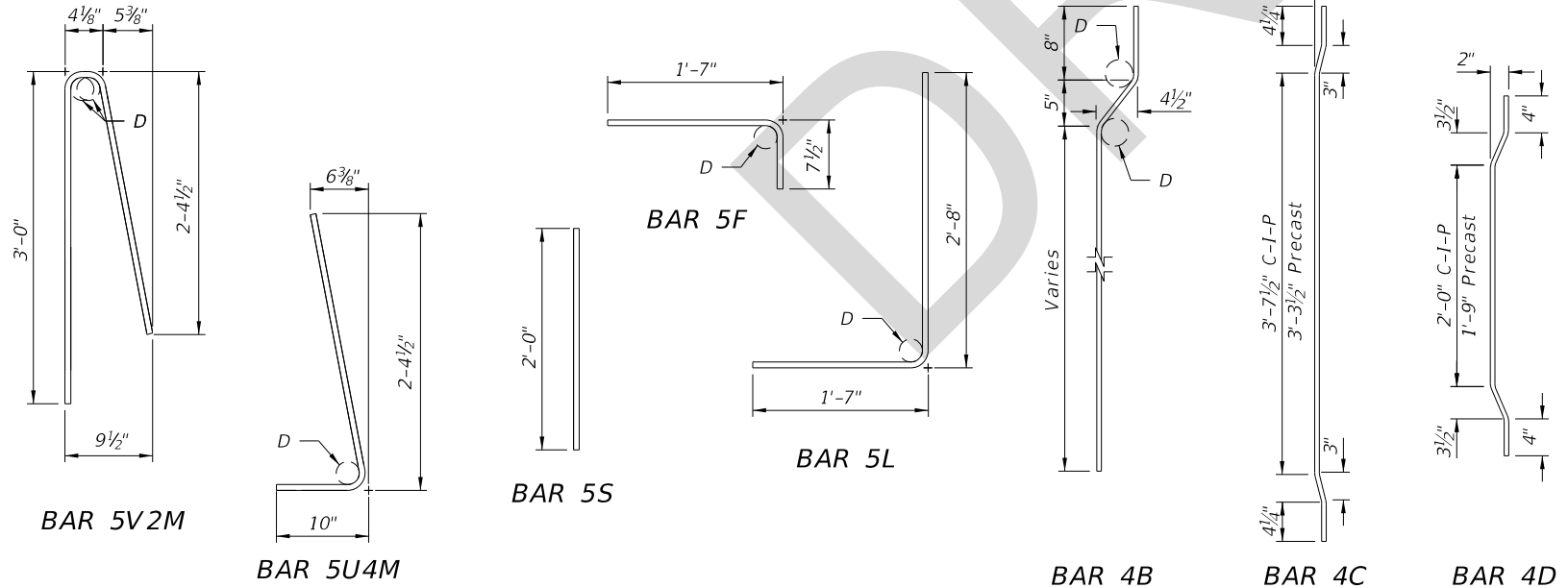
INSET A



INSET B
(See General Note 10)



INSET B ALTERNATE
(See General Note 10)



BAR BENDING DIAGRAMS

WALL DEPTH C-I-P PRECAST	SCHEDULE	AREA (in. ² /ft.)	MAX. SPACING BARS	WWR
0'-4"	A12	0.20	12"	8"
4'-9"	A6	0.20	6"	5"
9'-15"	B5.5	0.24	5 1/2"	5"
10'-15"	C6.5	0.37	6 1/2"	6"

**TABLE 1: HORIZONTAL
WALL REINFORCING SCHEDULE**

NOTES:

- For Bar Bending Diagrams of Bars 5V2 & 5U4, See Index 521-001. Bars 5V2M, 5U4M, & 5S may be field cut from Bars 5V2 & 5U4.
- Install PVC drainage pipes at the inlet centerline when the inlet is located in a sag curve or when drainage pipes are called for in the plans. Install a quantity of 3 ~ 3 1/2" O (I.D.) NPS Schedule 40 Pipes longitudinally spaced at 8", with the center pipe as near to the inlet centerline as practical without conflicting with the steel reinforcing.

LAST REVISION 11/01/17	DESCRIPTION:
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