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## ORIGINATION FORM

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Proposed Revisions to a Standard Plans Index  
(Please provide all information — Incomplete forms will be returned)

**Contact Information:**

Date: November 1, 2019

Originator: Rick Jenkins

Phone: (850) 414-4355

Email: Rick.Jenkins@dot.state.fl.us

**Standard Plans:**

Index Number: 425-040

Sheet Number (s): ALL

Index Title: Gutter Inlet Type S

**Summary of the changes:**

Reorganized Index, Added additional Sheet.

Sheet 1: General Notes

Sheet 2: Dimensional and Reinforcement Details

Sheet 3: Transition and Apron Details

Sheet 4: Steel Grate Details

Sheet 5: Alternate A Structure Bottom - Top Slab Details

Deleted "INLET WITH STRUCTURE BOTTOM" Detail, referenced 425-010.

Deleted Intermediate Bars from Reticuline Grate, changed all bars to Bearing Bars.

**Commentary / Background:**

Reorganized Details and Sheets to de-clutter Index. Moved information from detail callouts to Notes in order to decrease clutter of the drawing. Moved specifications and payment information to Specifications and SPI.

Reticuline grate changed to all bearing bars to support heavy traffic loads (i.e. HL-93 loadings). With possibility for full roadway width travel in emergencies, these grates could see repeated traffic loading.

**Other Affected Offices / Documents:** (Provide name of person contacted)

- | Yes                      | No                       |                             |
|--------------------------|--------------------------|-----------------------------|
| <input type="checkbox"/> | <input type="checkbox"/> | Other Standard Plans –      |
| <input type="checkbox"/> | <input type="checkbox"/> | FDOT Design Manual –        |
| <input type="checkbox"/> | <input type="checkbox"/> | Basis of Estimates Manual – |
| <input type="checkbox"/> | <input type="checkbox"/> | Standard Specifications –   |
| <input type="checkbox"/> | <input type="checkbox"/> | Approved Product List –     |
| <input type="checkbox"/> | <input type="checkbox"/> | Construction –              |
| <input type="checkbox"/> | <input type="checkbox"/> | Maintenance –               |

**Origination Package Includes:**

(Email or hand deliver package to Rick Jenkins)

- | Yes                                 | N/A                      |  |
|-------------------------------------|--------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Redline Mark-ups                         |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Proposed Standard Plan Instruction (SPI) |
| <input type="checkbox"/>            | <input type="checkbox"/> | Revised SPI                              |
| <input type="checkbox"/>            | <input type="checkbox"/> | Other Support Documents                  |

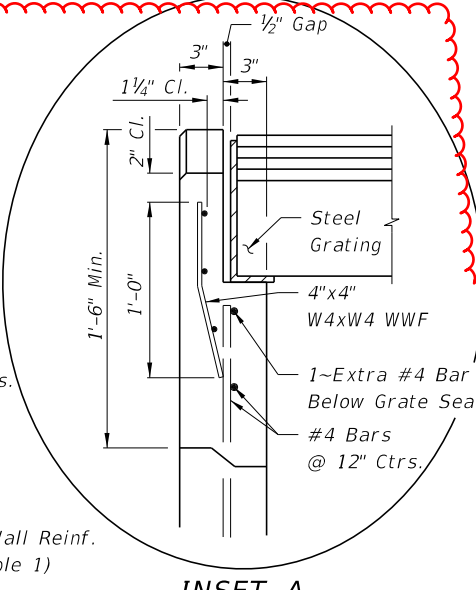
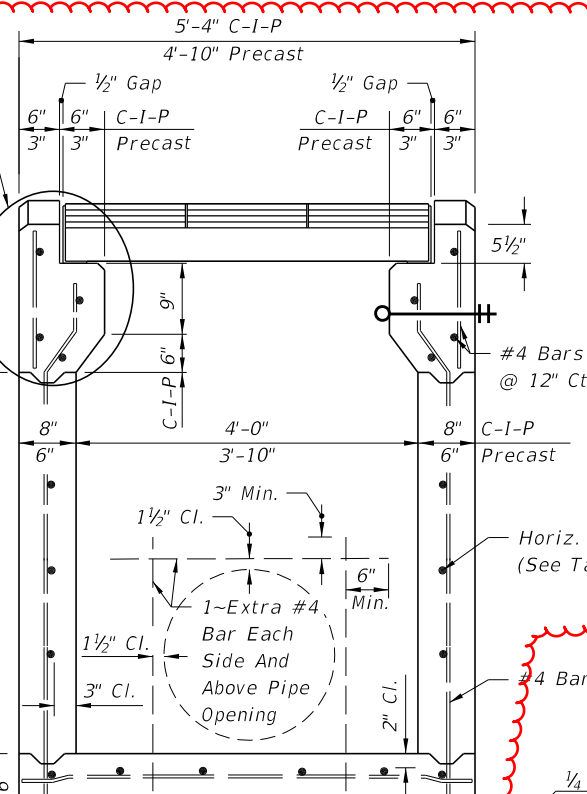
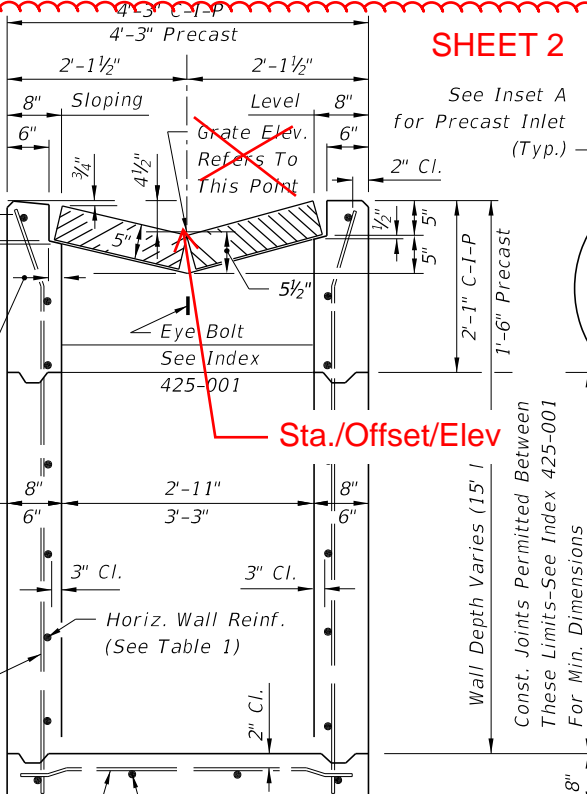
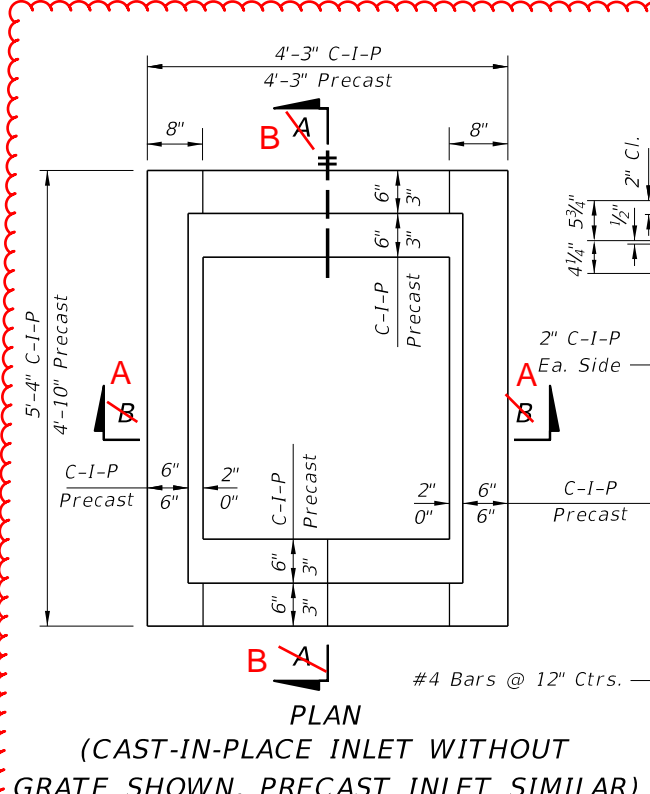
**Implementation:**

- |                                     |                                  |
|-------------------------------------|----------------------------------|
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| <input type="checkbox"/>            | DCE Memo                         |
| <input type="checkbox"/>            | Program Mgmt. Bulletin           |
| <input checked="" type="checkbox"/> | FY-Standard Plans (Next Release) |

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Contact the Roadway Design Office for assistance in completing this form

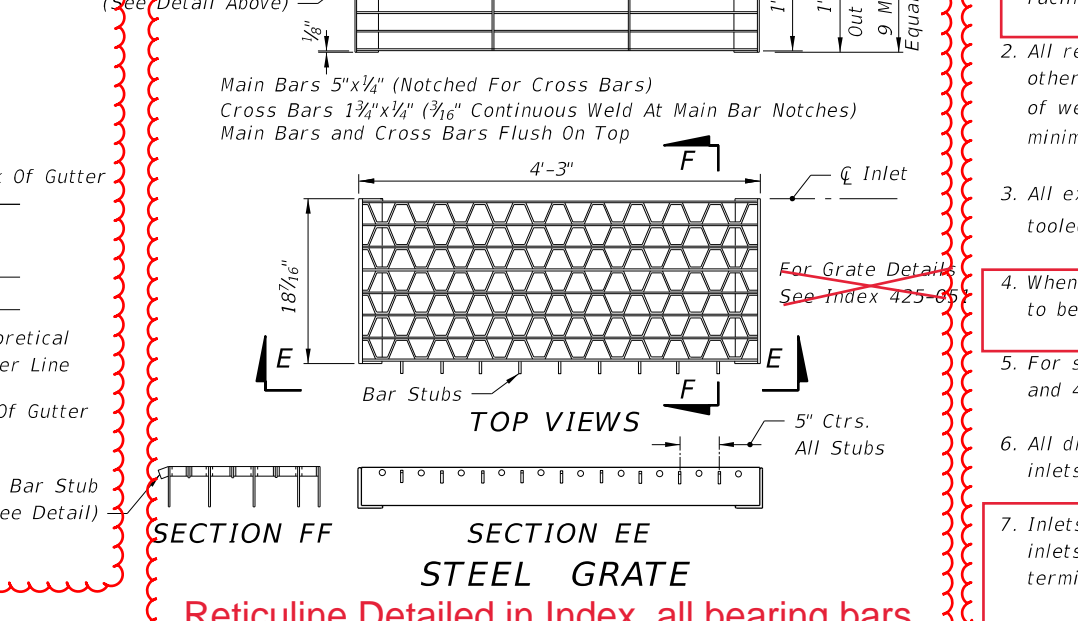
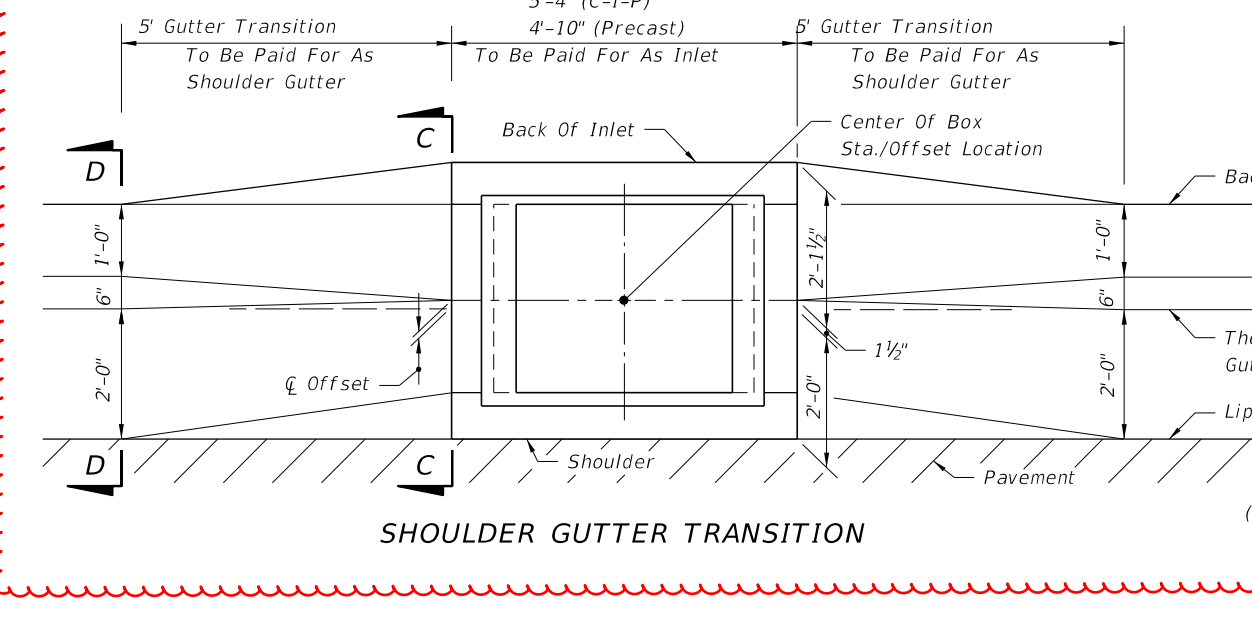
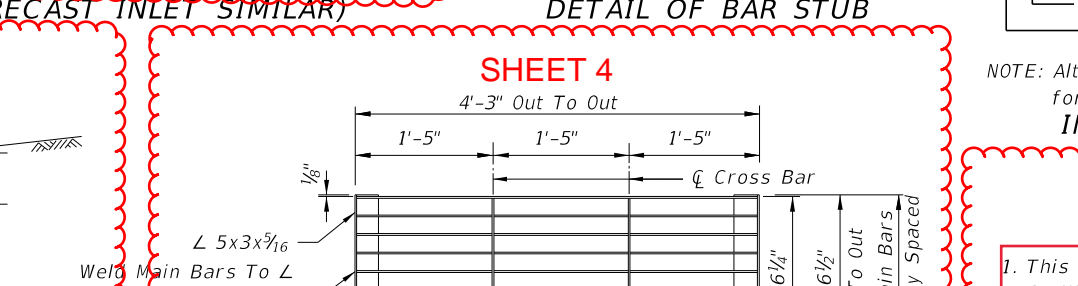
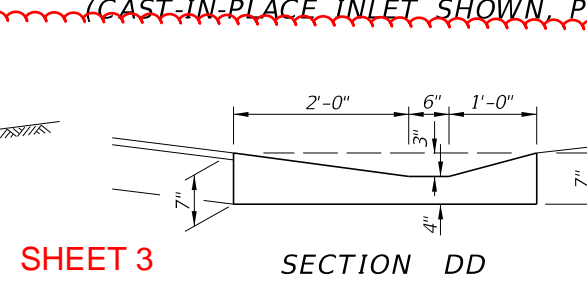
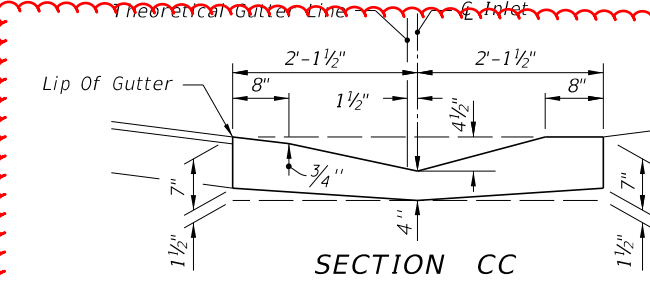
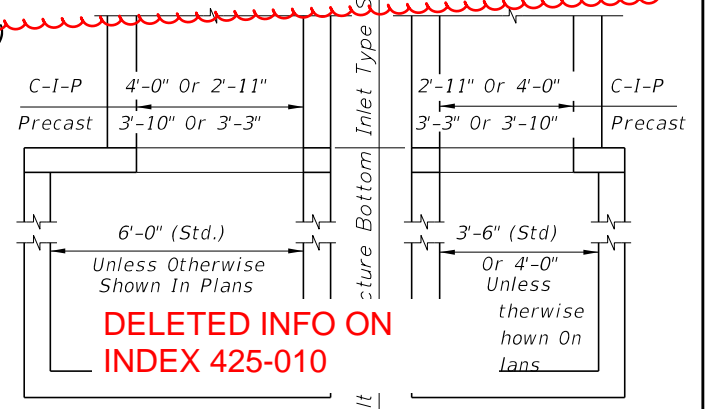
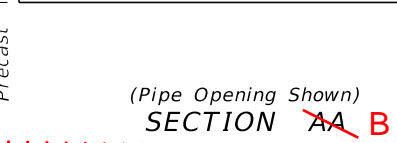
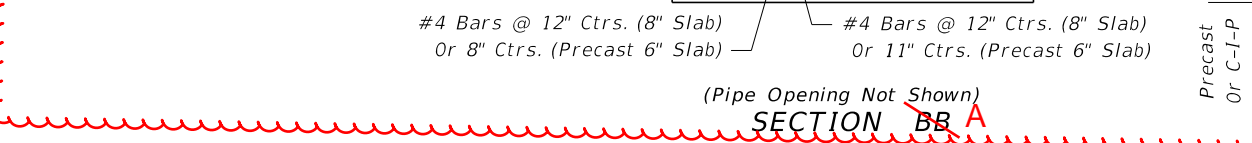
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INLET INSIDE WIDTH	PIPE SIZE
2'-11" or 3'-3"	24"
4'-0" or 3'-10"	30"

Note: Recommended sizes **MOVED TO SPI** te pipe. Sizes for other types of pipe must be verified for fit in accordance with Index 425-001. For larger pipe see bottom detail below and Index 425-010.

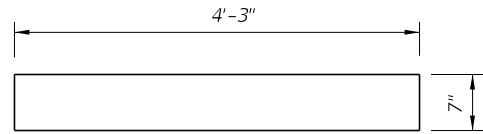
WALL DEPTH	SCHEDULE	AREA (in <sup>2</sup> /ft)	MAX. SPACING	
			BARS	WWF
0'-5'	A12	0.20	12"	8"
5'-9'	A6	0.20	6"	5"
9'-12'	A4	0.20	4"	3"
9'-15'	B5.5	0.24	5 1/2"	5"



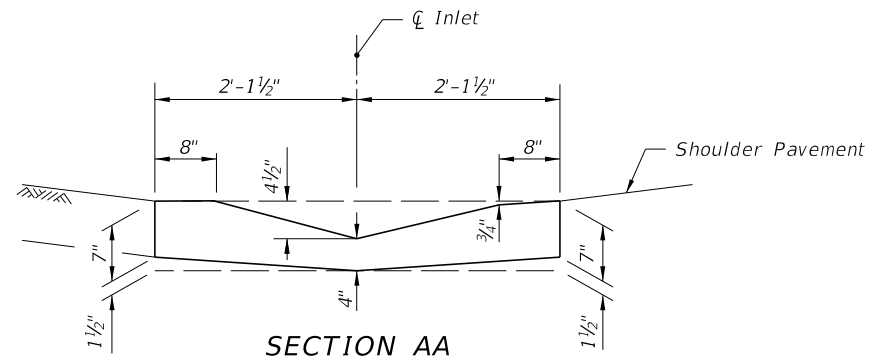
NOTE: Alt. B Structure Bottom Only. See Index 425-010 for structure bottom details and hole reinforcement.

- SHEET 1 GENERAL NOTES**
- This inlet is intended for use in shoulder gutter on facilities subject to heavy wheel loads. **SPI**
  - All reinforcing is Grade 60 bars with 2" min. cover unless otherwise noted. See Index 425-001 for equivalent area of welded wire fabric. Bars to be cut or bent for 1 1/2" minimum clearance around pipe.
  - All exposed edges and corners must be 3/4" chamfer or tooled to 1/4" radius.
  - When Alternate G grate is specified in plans, the grate is to be hot-dip galvanized after fabrication. **SPI**
  - For supplementary details and notes see Indexes 425-001 and 425-010.
  - All dimensions are for both precast and cast-in-place inlets unless otherwise noted.
  - Inlets to be paid for under the contract unit price for inlets (Gutter Type S), EA. Cost of concrete apron at terminal inlets to be included in the cost of the inlet. **Spec**

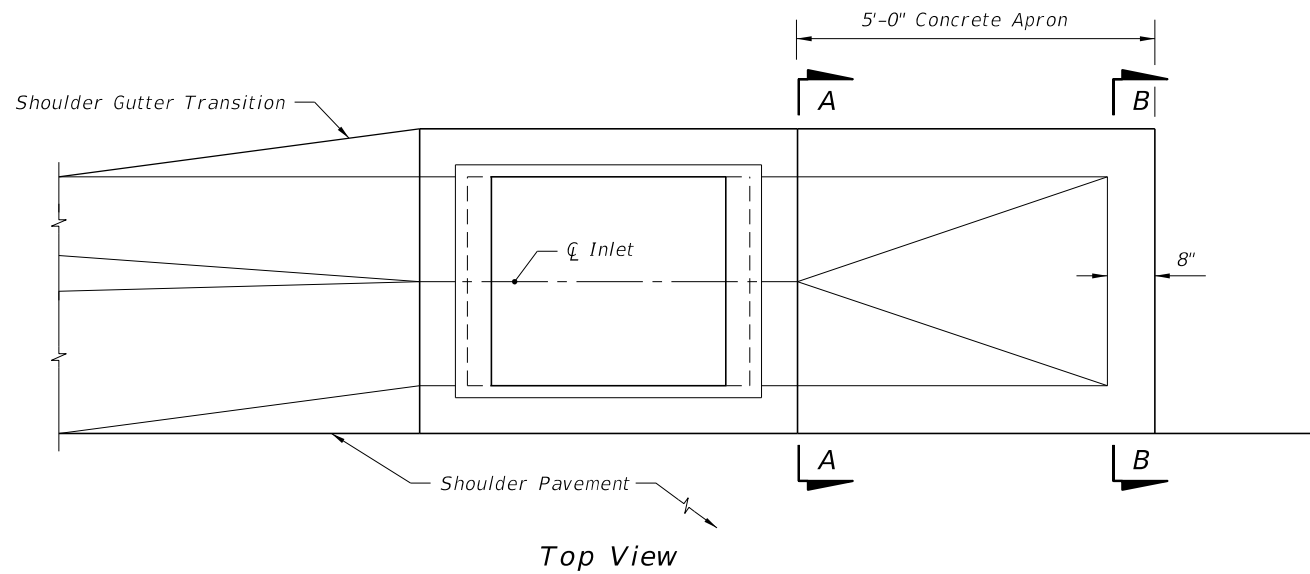
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11/01/17	11/01/20



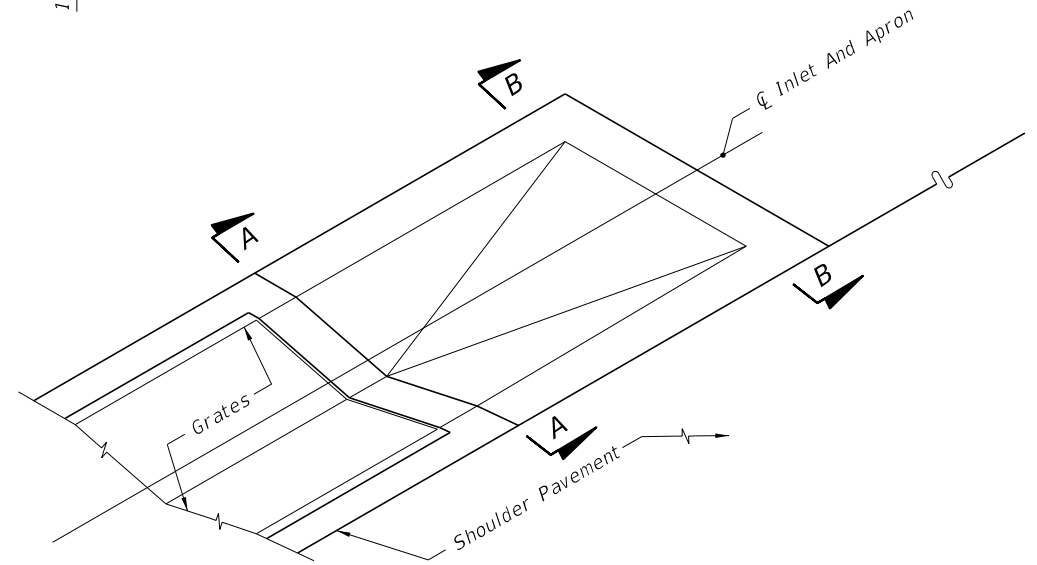
SECTION BB  
(Enlarged)



SECTION AA  
(Enlarged)



Top View



PICTORIAL VIEW

Apron To be Constructed At The Most Downstream Inlet In A Run Of Shoulder Gutter  
**CONCRETE APRON AT TERMINAL INLETS**

10/18/2018 10:51:18 AM

11/01/20

NEW SHEET 3

LAST REVISION	DESCRIPTION:
11/01/17	

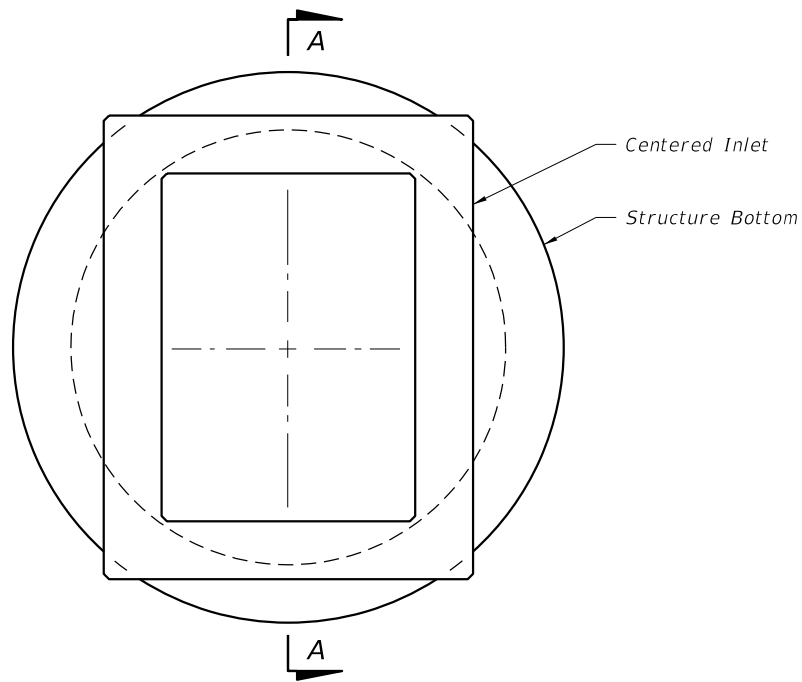


FY 2019-20  
STANDARD PLANS

GUTTER INLET TYPE S

INDEX  
425-040

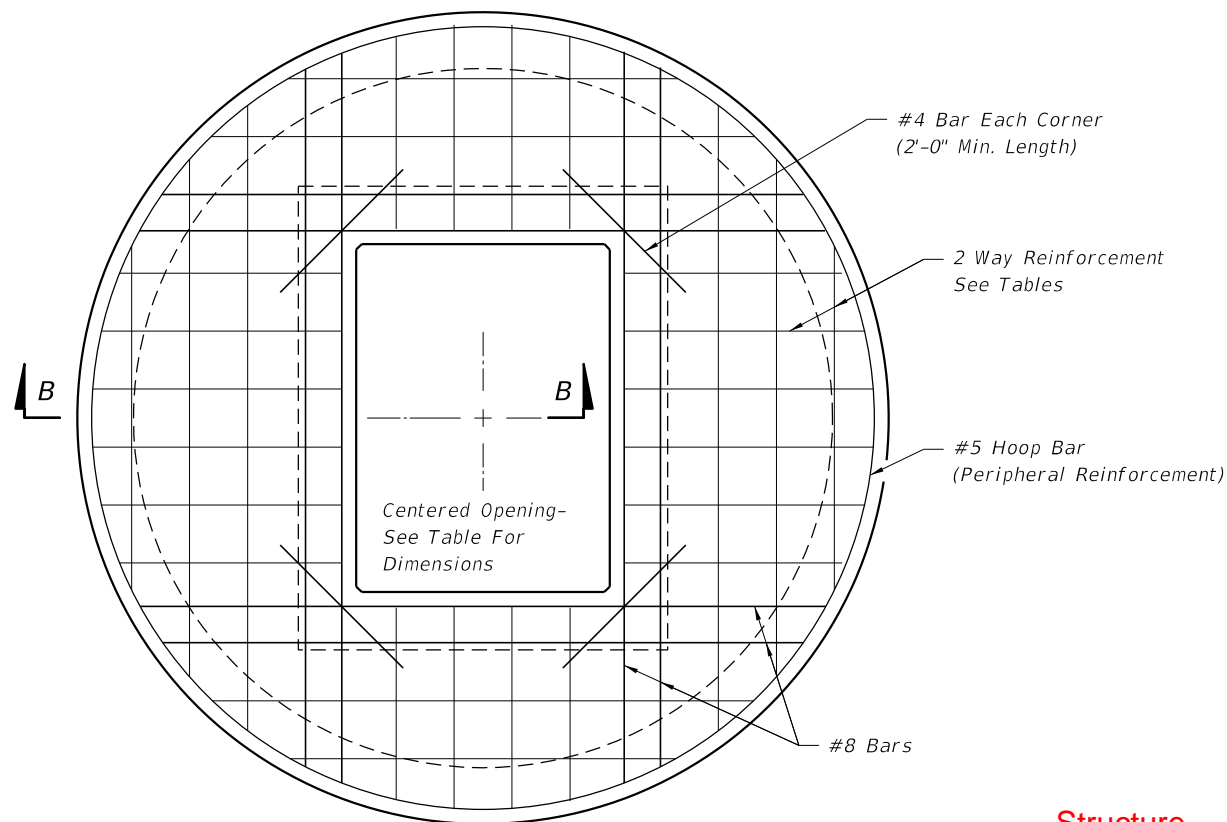
SHEET  
2 of 3



TOP VIEW

TABLE 2

TOP SLAB OPENINGS		
DIAMETER	OPENING SIZE	
	MIN.	MAX.
5'-0" To 8'-0"	2'-11" x 4'-0"	3'-3" x 3'-10"



TOP SLAB REINFORCING DIAGRAM

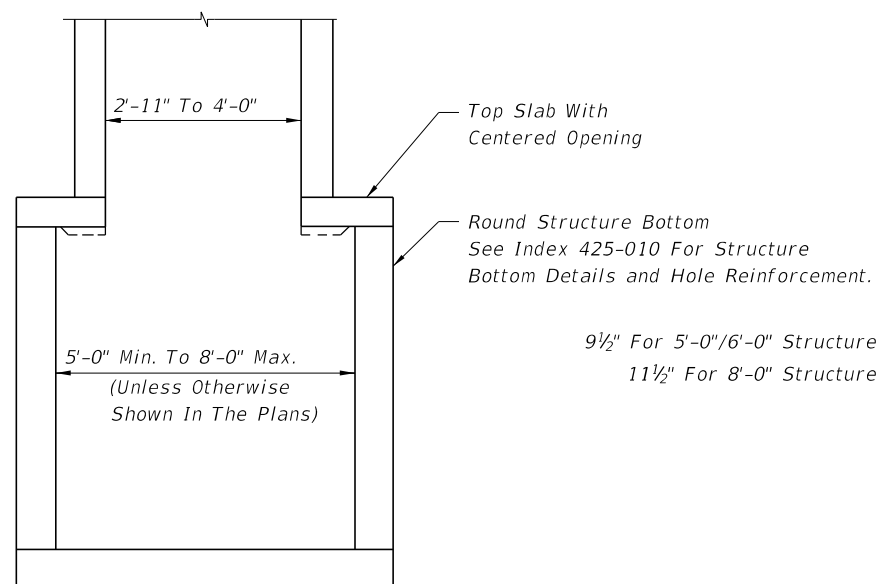
TABLE 3

TOP SLAB REINFORCING SCHEDULE	
GRADE 60 (BAR) OR 65 KSI & 70 KSI (WIRE FABRIC)	
SCHEDULE	In <sup>2</sup> /ft.
A	0.20
B	0.24
C	0.37
D	0.53
E	0.73
F	1.06
G	1.45

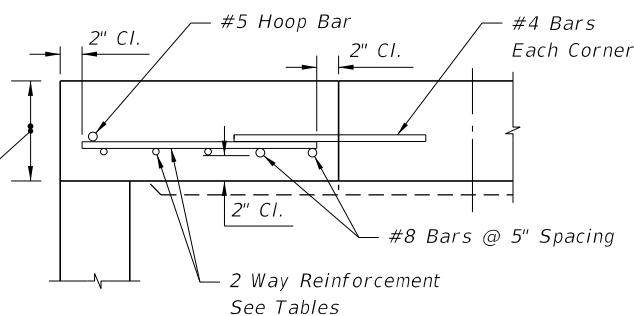
TABLE 4

TOP SLAB WITH CENTERED OPENING		
SLAB DEPTH	SLAB THICKNESS	REINFORCING (2 WAYS) SCHEDULE
SIZE: 5'-0"		
≥0.5' < 30'	9½"	C
30'-40'	9½"	D
SIZE: 6'-0"		
≥0.5' < 8'	9½"	B
8' < 18'	9½"	C
18' < 30'	9½"	D
30' < 37'	9½"	E
37'-40'	9½"	G
SIZE: 8'-0"		
≥0.5' < 9'	11½"	C
9' < 15'	11½"	D
15' < 23'	11½"	E
23' < 33'	11½"	E
33'-40'	11½"	G

Structure



SECTION AA



SECTION BB

Added Ref. Note to see Index 425-010

ALT. A STRUCTURE BOTTOM FOR INLET TYPE S

11/01/20

NEW SHEET 5

10/18/2018 10:51:20 AM

LAST REVISION	DESCRIPTION:
11/01/17	
11/01/20	



FY 2019-20  
STANDARD PLANS

GUTTER INLET TYPE S

INDEX  
425-040

SHEET  
3 of 3

**GENERAL NOTES:**

1. Work this Index with Index 425-001 and Index 425-010.
2. Use Grade 60 reinforcing bars with 2" minimum cover unless otherwise noted. See Index 425-001 for equivalent area of welded wire fabric. Cut or bend bars to provide 1½" minimum clearance around pipe.
3. Chamfer all exposed edges and corners ¾" or tool to ¼" radius.
4. Dimensions are for both precast and cast-in-place inlets unless otherwise noted.

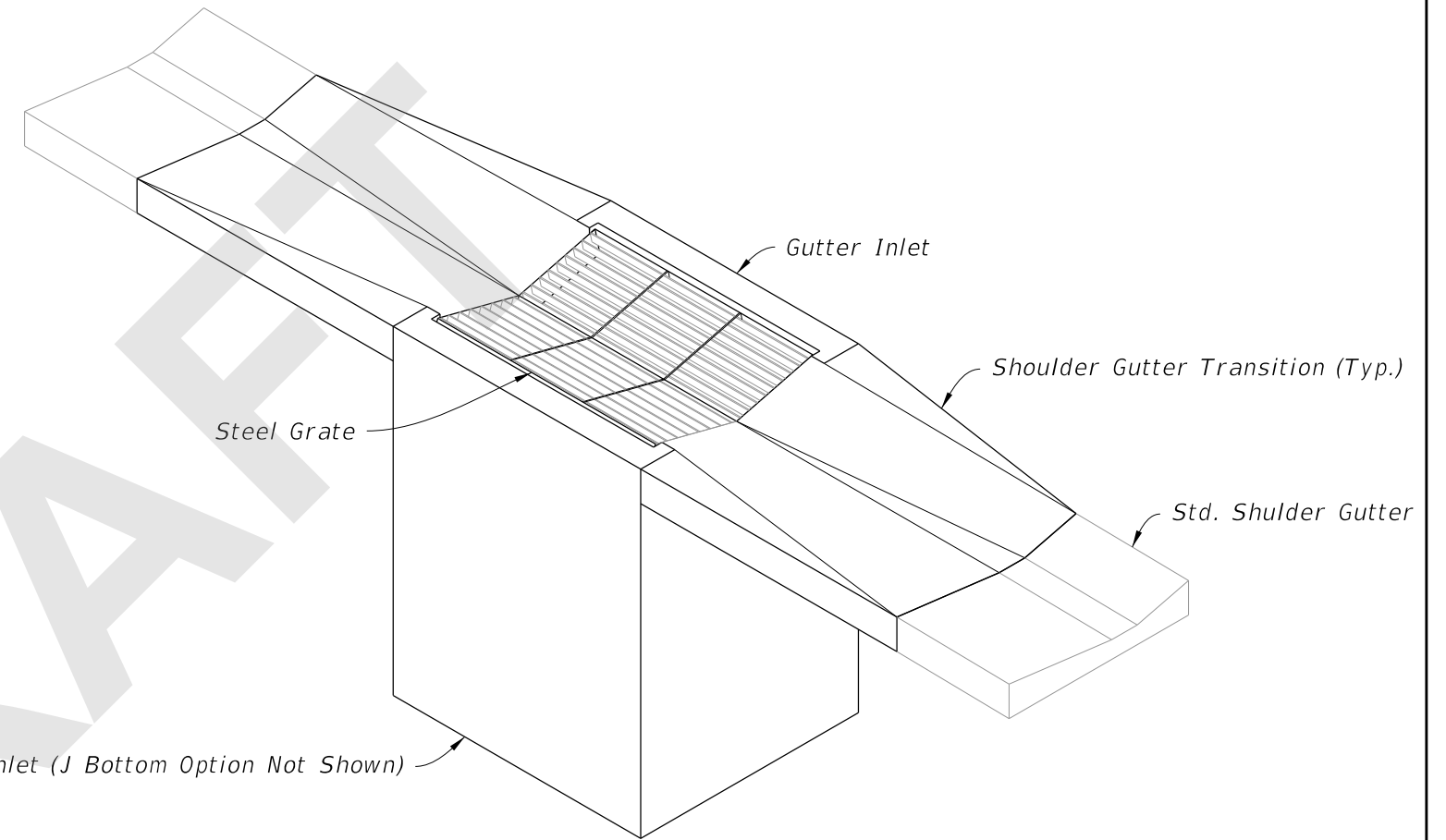


TABLE OF CONTENTS:	
Sheet	Description
1	General Notes and Contents
2	Dimensional and Reinforcement Details
3	Transition and Apron Details
4	Steel Grate Details
5	Alternate A Structure Bottom - Top Slab Details

**GUTTER INLET TYPE S**

(Pipe Opening Not Shown)

9/18/2020 8:50:09 AM

LAST REVISION	DESCRIPTION:
11/01/20	

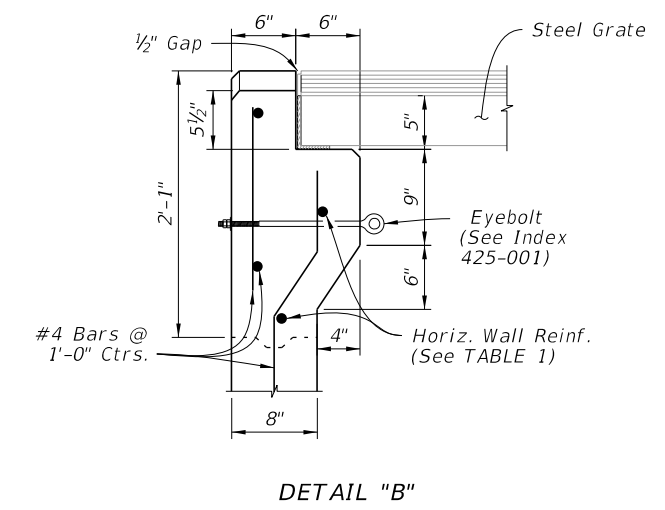
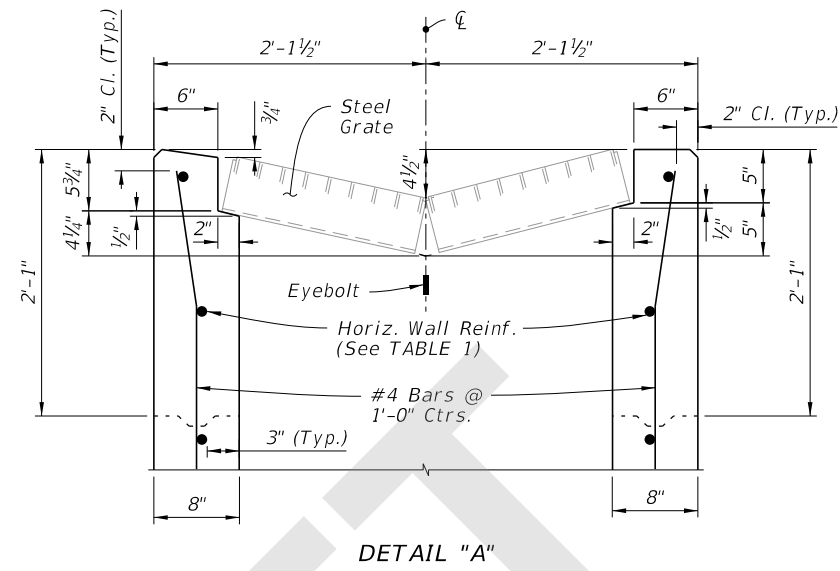
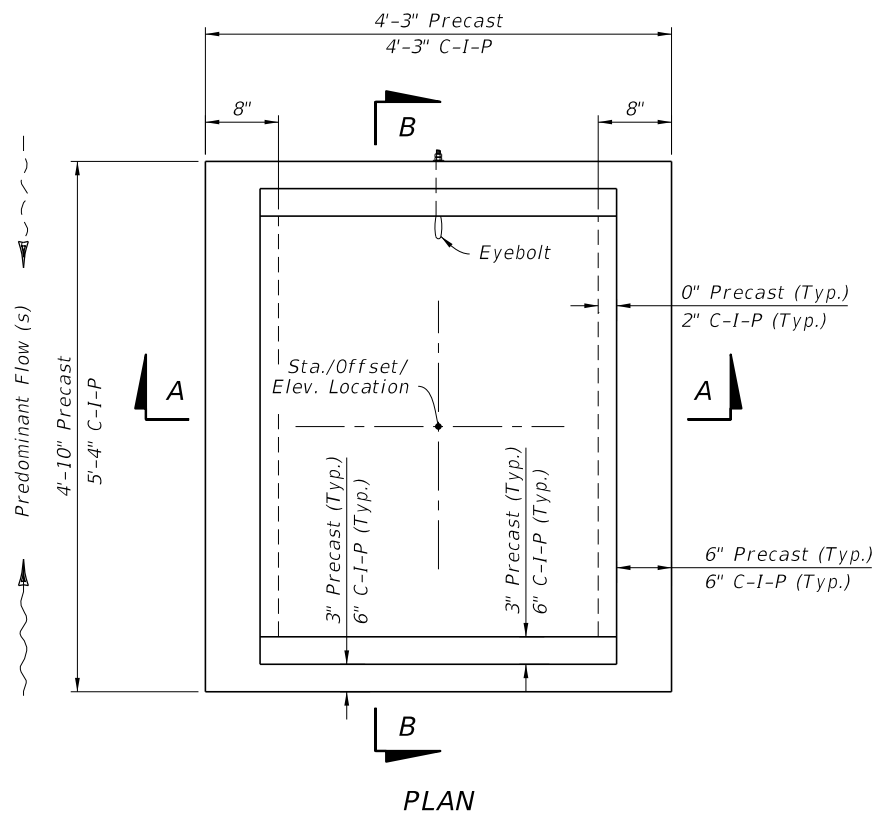


FY 2021-22  
STANDARD PLANS

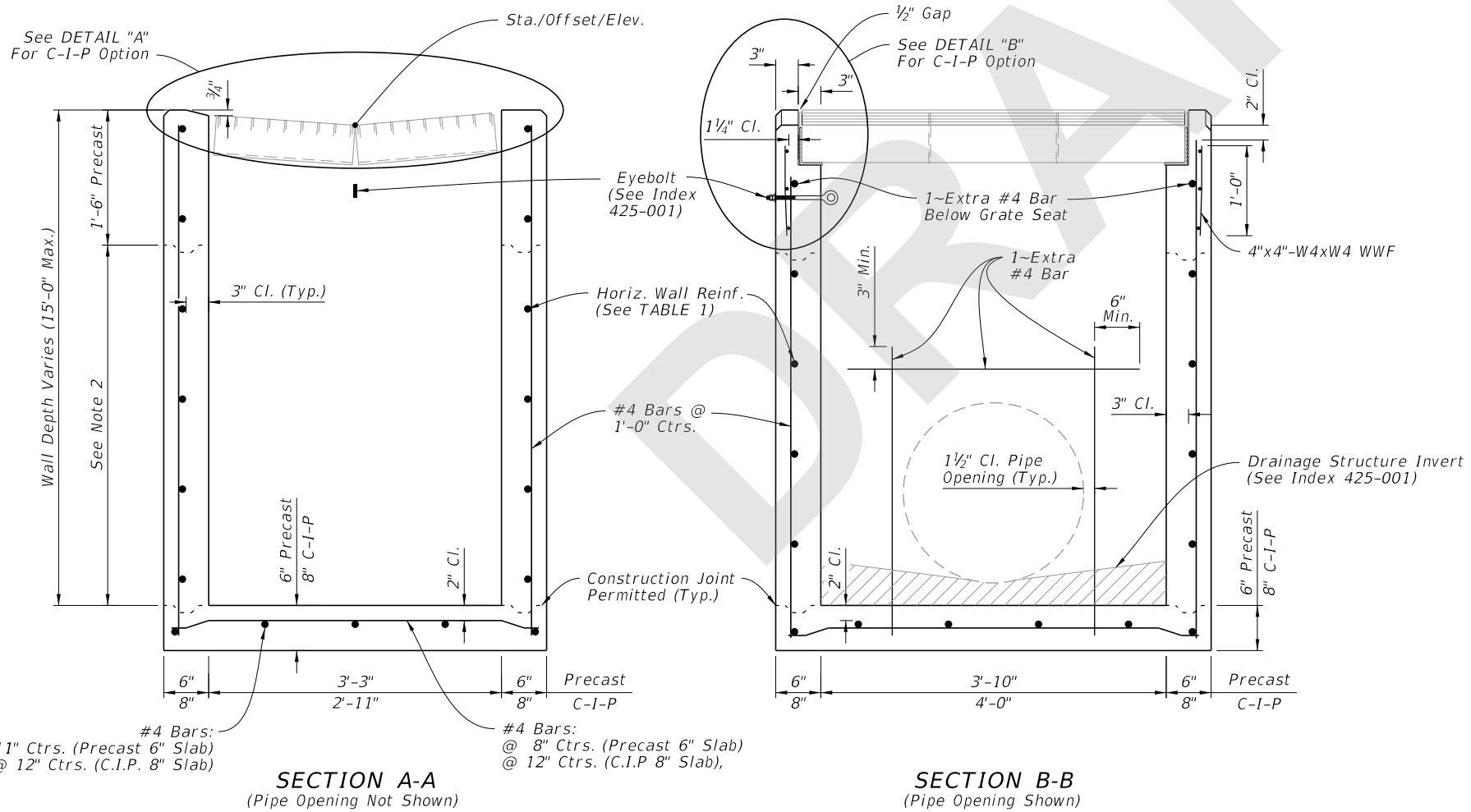
GUTTER INLET TYPE S

INDEX  
425-040

SHEET  
1 of 5



CAST-IN-PLACE OPTION



**TABLE 1**  
HORIZONTAL WALL REINFORCING SCHEDULE

WALL DEPTH	SCHEDULE	AREA (in. <sup>2</sup> /ft.)	MAX. SPACING	
			BARS	WWR
0' - 5'	A12	0.20	12"	8"
5' - 9'	A6	0.20	6"	5"
9' - 12'	A4	0.24	4"	3"
9' - 15'	B5.5	0.24	5 1/2"	5"

**NOTES:**

- Concrete Apron/Transition not shown.
- Construction joints permitted between these limits. See Index 425-001 for minimum dimensions.

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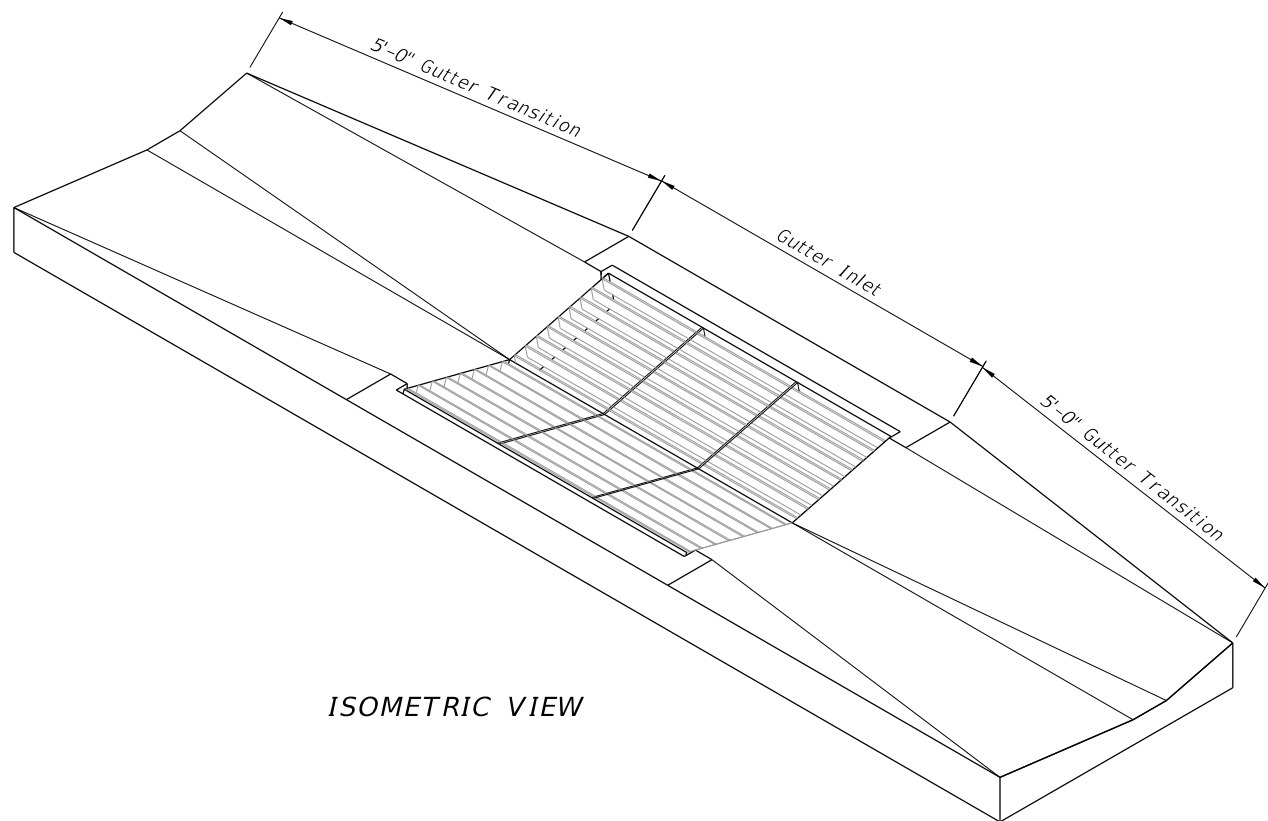
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**FDOT**  
FY 2021-22  
STANDARD PLANS

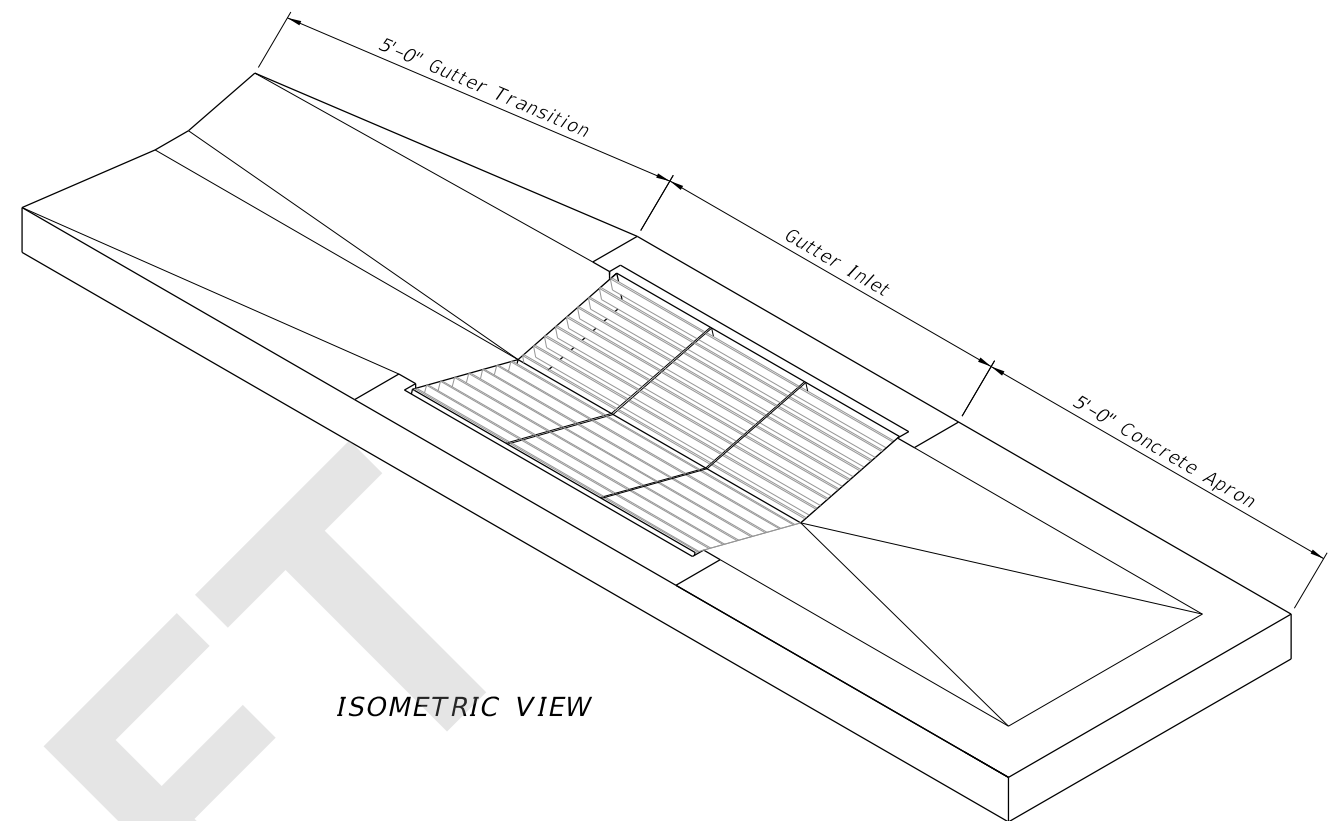
GUTTER INLET TYPE S

INDEX  
425-040

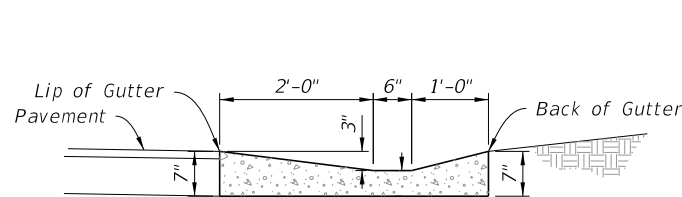
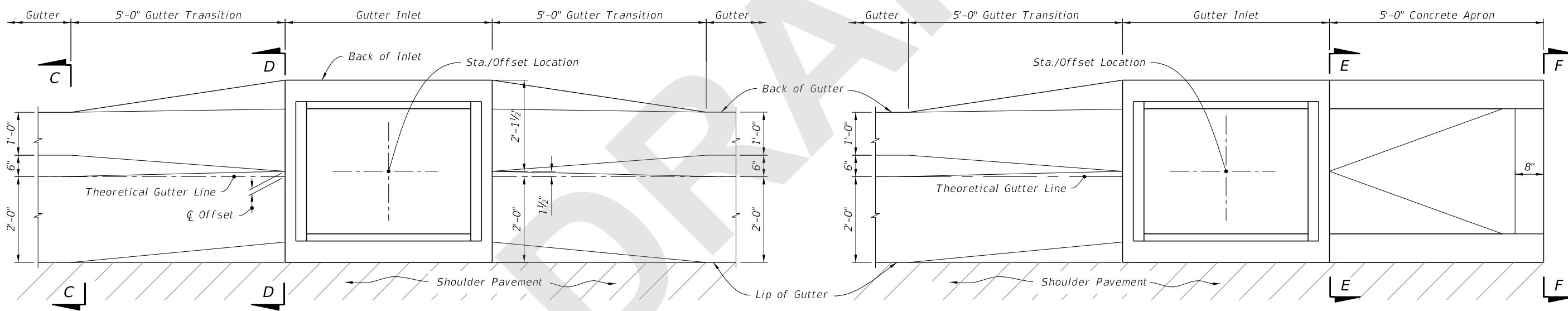
SHEET  
2 of 5



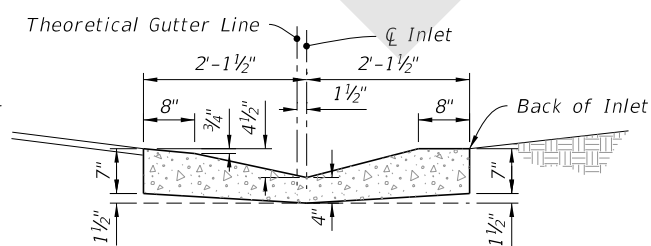
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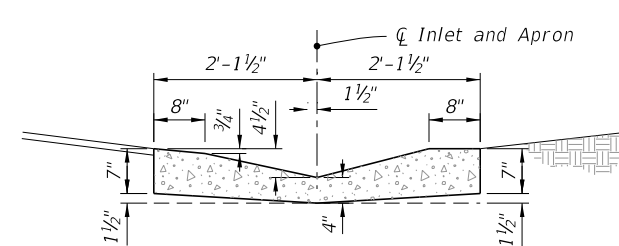
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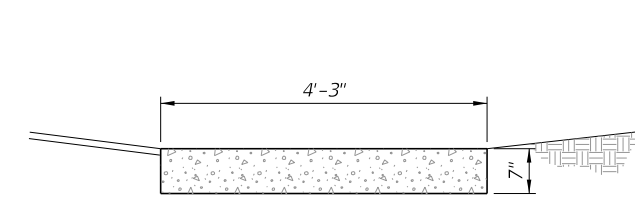
SECTION C-C



SECTION D-D



SECTION E-E



SECTION F-F

SHOULDER GUTTER TRANSITION

APRON AT TERMINAL INLETS

TRANSITION AND APRON DETAILS

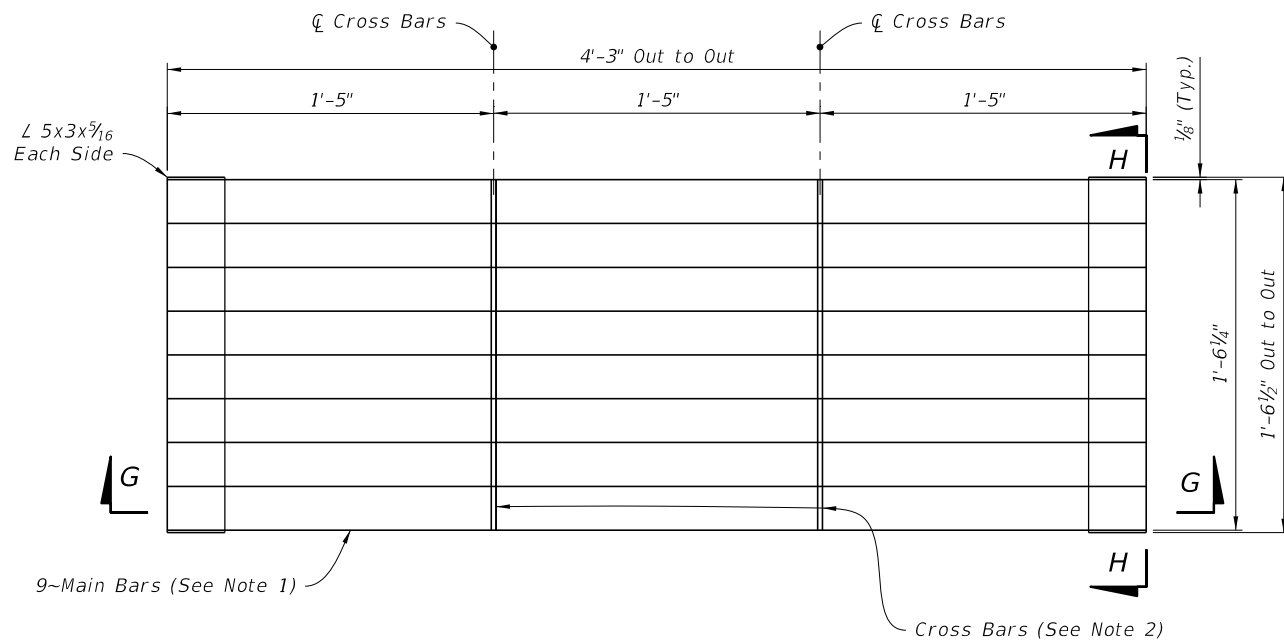
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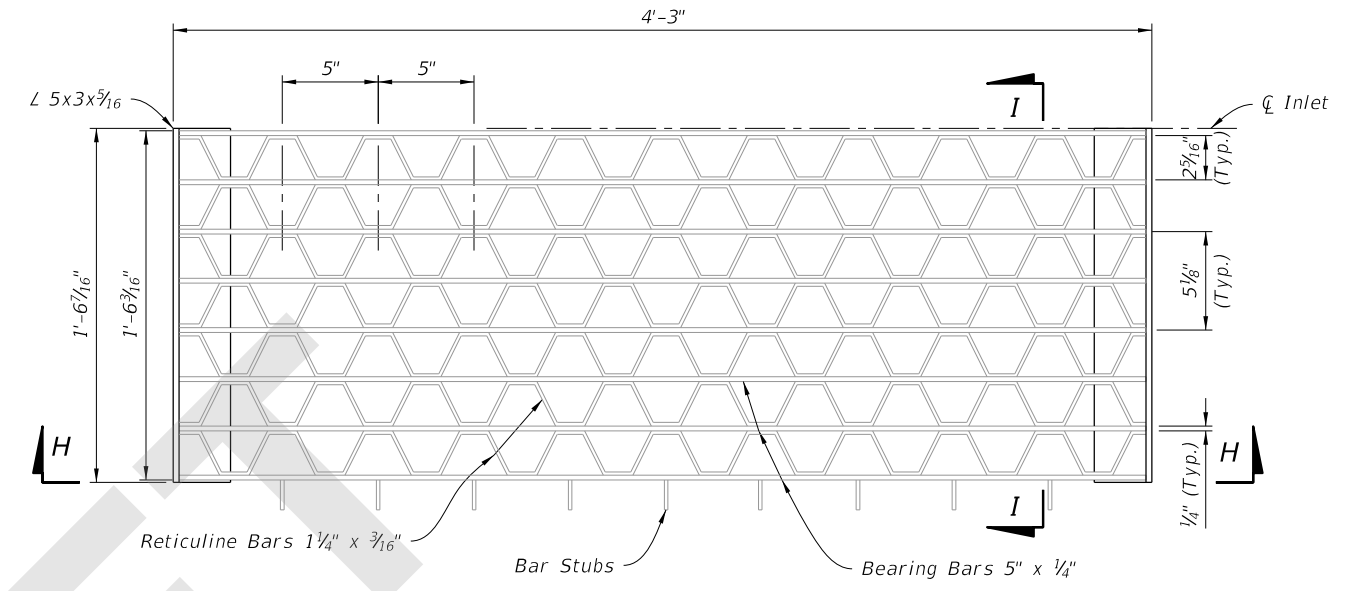

**FY 2021-22  
STANDARD PLANS**

**GUTTER INLET TYPE S**

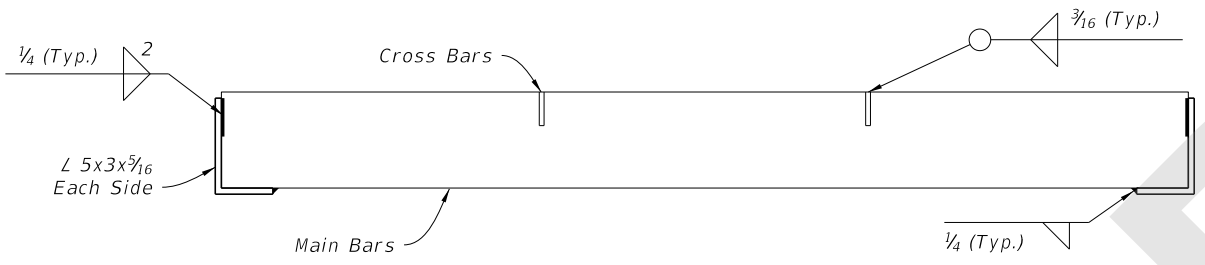
INDEX 425-040	SHEET 3 of 5
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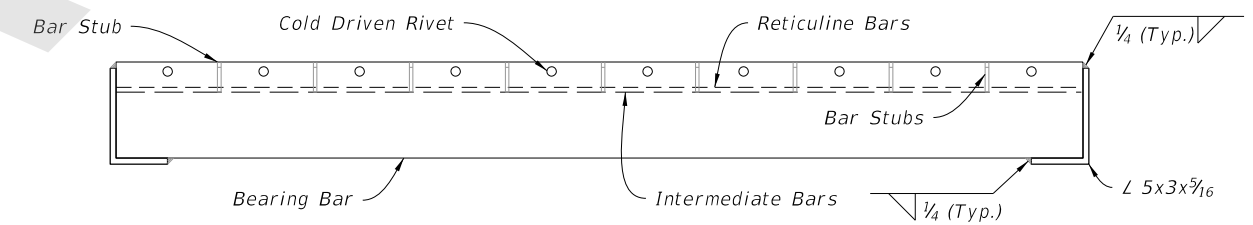
PLAN



PLAN

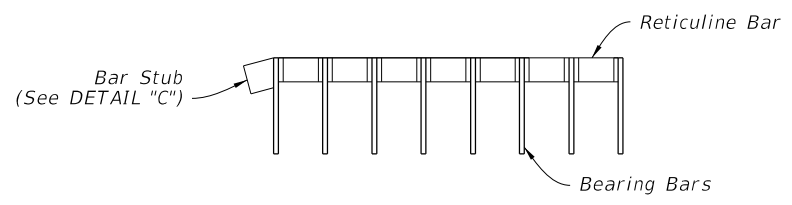


SECTION G-G

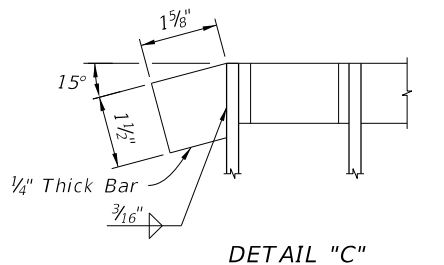


SECTION H-H

- NOTES:**
1. Main Bars are 5"x1/4", notched for Cross Bars, and spaced equally apart.
  2. Cross Bars are 1 3/4"x1/4" and continuously welded at Main Bar Notches.
  3. Main Bars and Cross Bars are flush on top.



SECTION I-I



DETAIL "C"

PARALLEL BARS

RETICULINE BARS

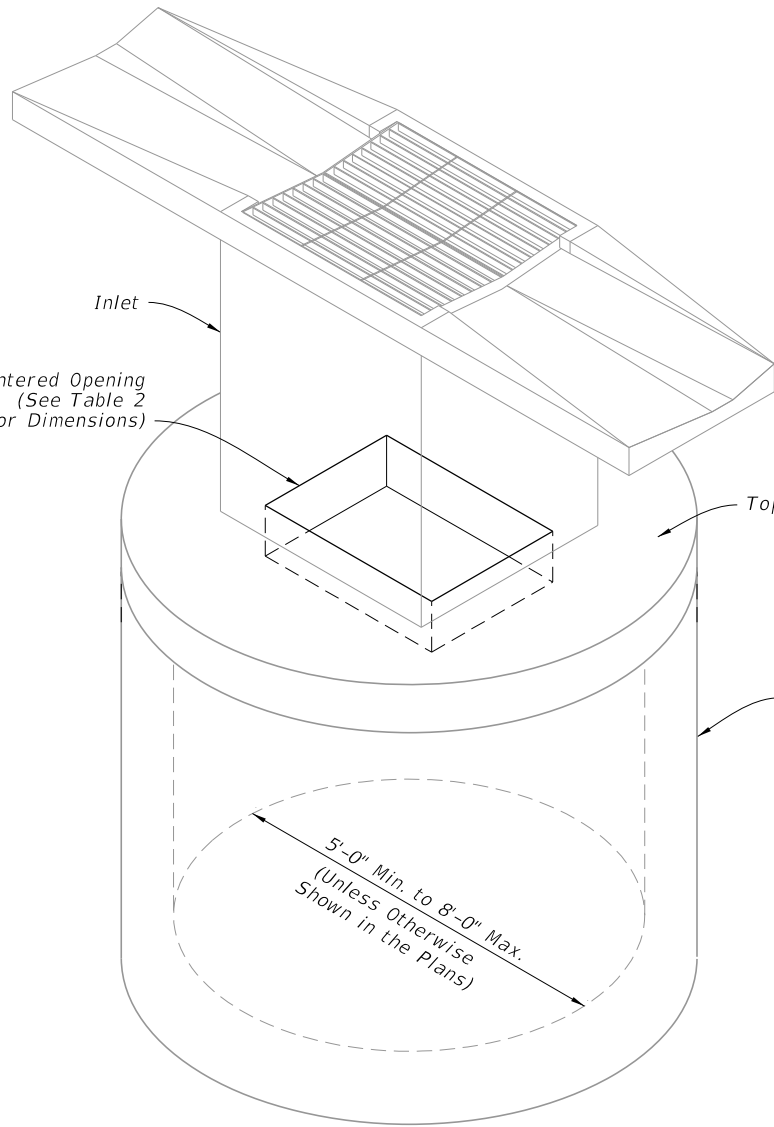
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LAST REVISION 11/01/20	REVISION	DESCRIPTION:		FY 2021-22 STANDARD PLANS	GUTTER INLET TYPE S	INDEX 425-040	SHEET 4 of 5
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STEEL GRATE DETAILS



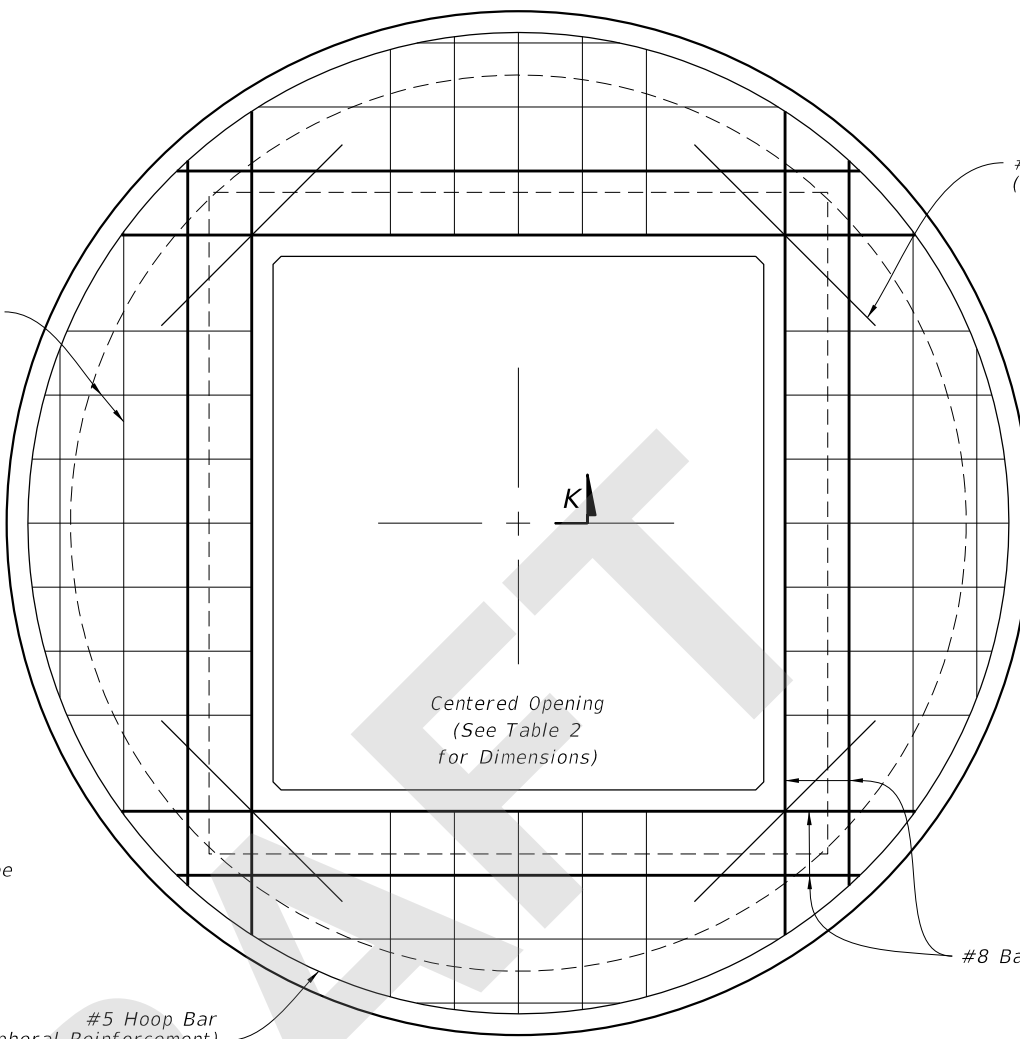
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DIAMETER	OPENING SIZE	
	Min.	Max.
5'-0" to 8'-0"	2'-11" x 4'-0"	3'-3" x 3'-10"

2 Way Reinforcement  
(See Tables 3 & 4)

K



#4 Bar Each Corner  
(2'-0" Min. Length)

SCHEDULE	GRADE 60 (BAR) OR 65 KSI & 70 KSI (WIRE FABRIC) In. <sup>2</sup> /ft.
A	0.20
B	0.24
C	0.37
D	0.53
E	0.73
F	1.06
G	1.45

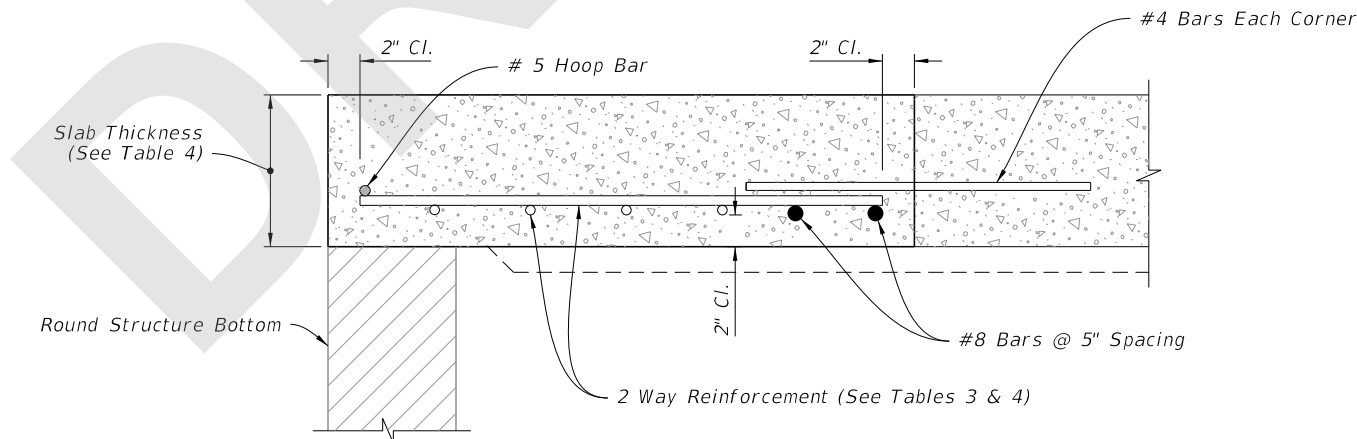
Alternate A Structure Bottom (See  
Index 425-010 for Alternate B  
and additional details)

#5 Hoop Bar  
(Peripheral Reinforcement)

#8 Bars

STRUCTURE DEPTH	SLAB THICKNESS	REINFORCING (2 WAY) SCHEDULE
SIZE: 5'-0"		
≥0.5' < 30'	9 1/2"	C
30' < 40'	9 1/2"	D
SIZE: 6'-0"		
≥0.5' < 8'	9 1/2"	B
8' < 18'	9 1/2"	C
18' < 30'	9 1/2"	D
30' < 37'	9 1/2"	E
37' - 40'	9 1/2"	G
SIZE: 8'-0"		
≥0.5' < 9'	11 1/2"	C
9' < 15'	11 1/2"	D
15' < 23'	11 1/2"	E
23' < 33'	11 1/2"	E
33' - 40'	11 1/2"	G

PLAN



SECTION K-K

ISOMETRIC VIEW

TOP SLAB REINFORCEMENT DETAILS

ALTERNATE A STRUCTURE BOTTOM - TOP SLAB DETAILS

LAST REVISION	DESCRIPTION:
11/01/20	