
ORIGINATION FORM

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: 425-041

Sheet Number (s): ALL

Index Title: Gutter Inlet Type V

Summary of the changes:

Reorganized Index, Added additional Sheet.

Sheet 1: General Notes and Overview.

Sheet 2: Dimensional and Reinforcement Details.

Sheet 3: Steel Grate Details

Sheet 4: Alternate A structure Bottom Slab Details.

Changed Intermediate Bars for Grate to all Bearing Bars.

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

Commentary / Background:

Reorganized Details and Sheets to declutter Index. Moved information from detail callouts to Notes in order to decrease clutter of the drawing. Moved design information to SPI.

Grate change consistent with 425-040. Removed reference to 425-051 for Grate and included detail of the grate specific to this Index. Changing the Grate to all Bearing Bars provides a grate that can handle HL-93 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 |

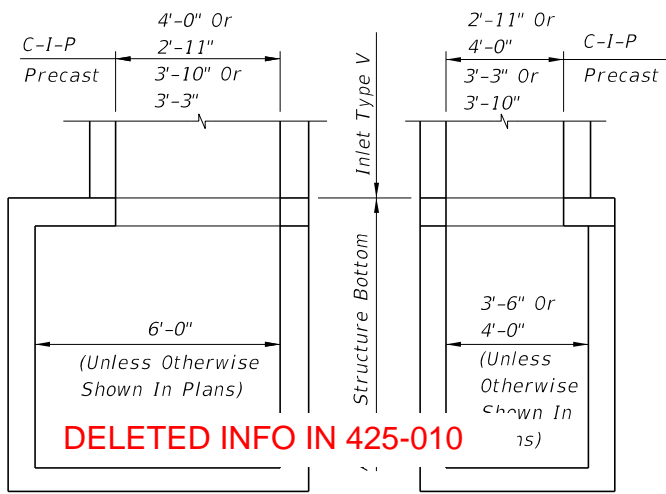
Implementation:

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

Contact the Roadway Design Office for assistance in completing this form

NEW SHEET

GENERAL NOTES AND OVERVIEW



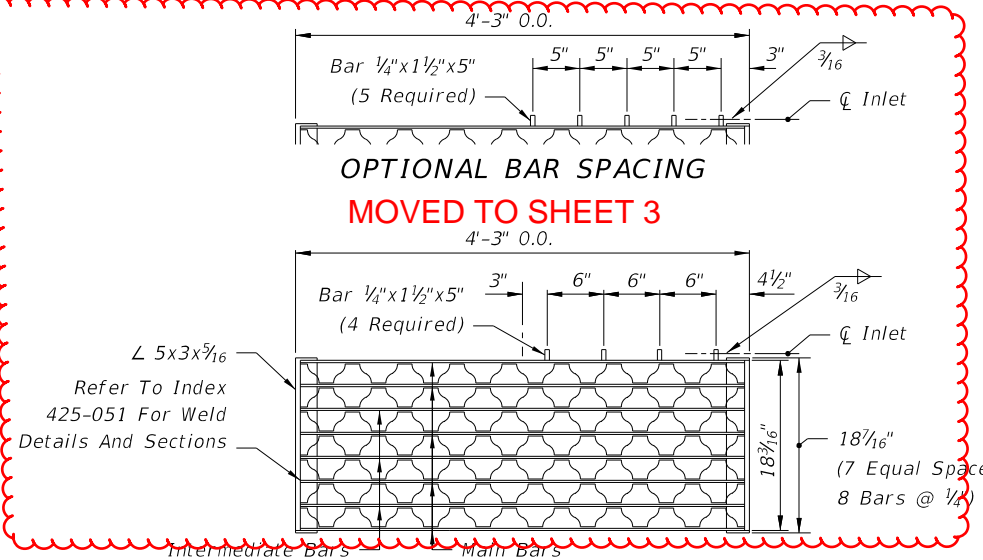
NOTE: Alt. B Structure Bottom Only. See Index 425-010 for structure bottom details and hole reinforcement. (For Pipes 30" Dia. And Larger)

INLET WITH STRUCTURE BOTTOM

RECOMMENDED MAXIMUM PIPE SIZES

Inlet Inside Width	Pipe Size
2'-11" Or 3'-3"	24"
4'-0" Or 4'-3"	30"

Note: Recommendations for other types of pipe must be verified for fit in accordance with Index 425-001. For larger pipe see bottom detail above and Index 425-010.



TWO REQUIRED PER INLET

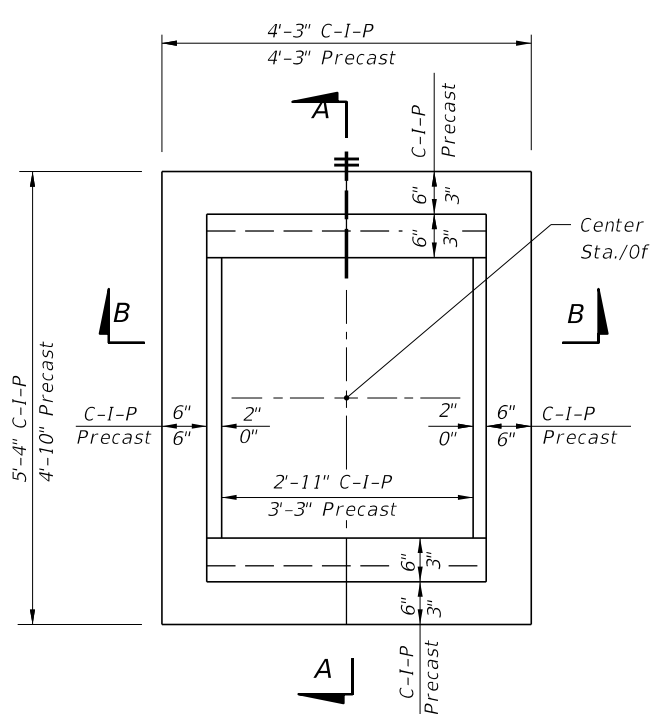
5" Steel Grate: Main Bars 5"x1/4"
 Intermediate Bars 1 1/2"x1/4"
 Reticuline Bars 1 1/4"x3/16"

NEW SHEET 2

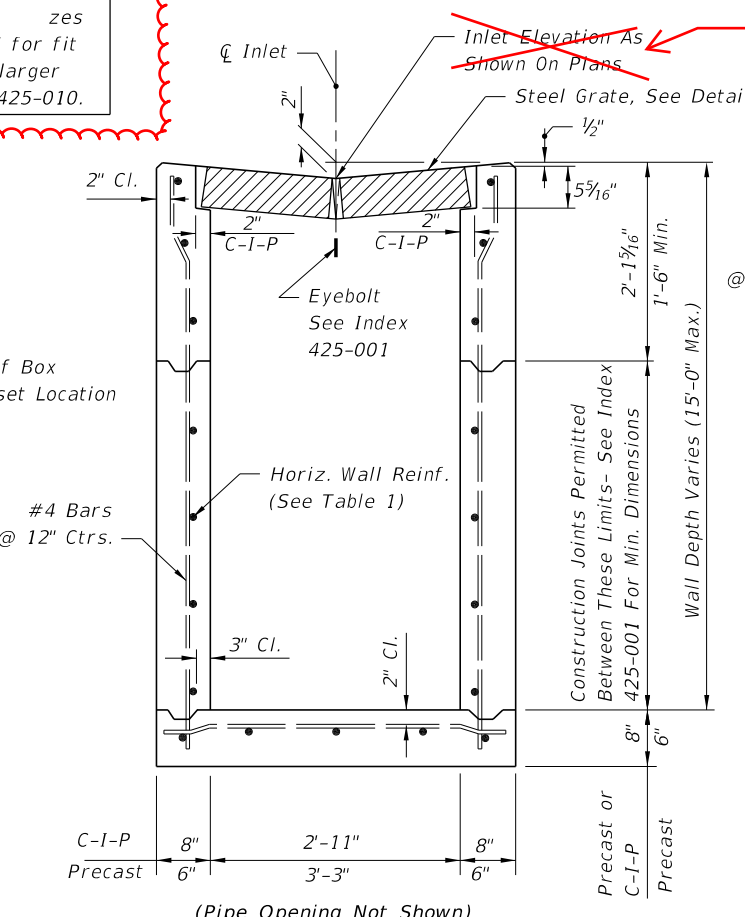
- GENERAL NOTES**
- This inlet is suitable for village swales, ditches, or other areas subject to heavy wheel loads, minimum debris. This inlet may be placed in areas subject to occasional pedestrian traffic such as landscaped areas and pavement areas where pedestrians can walk around the inlet. This inlet is not for use in a bicycle way. **SPI**
 - When alternate "G" grate is specified in plans, the grate is to be hot dip galvanized after fabrication. **Spec**
 - All reinforcing is Grade 60 bars with 2" min. cover unless otherwise noted. See Index 425-001 for equivalent area of welded wire fabric. Cut or bend bars out of way of pipe to clear pipe 1 1/2". **MOVED TO SHEET 1**
 - All exposed edges and corners shall be 3/4" chamfer or tooled to 1/4" radius.
 - All dimensions are for both precast and cast-in-place inlets unless otherwise noted.
 - For supplementary details see Index 425-001. **Spec**

HORIZONTAL WALL REINFORCING SCHEDULE (TABLE 1)

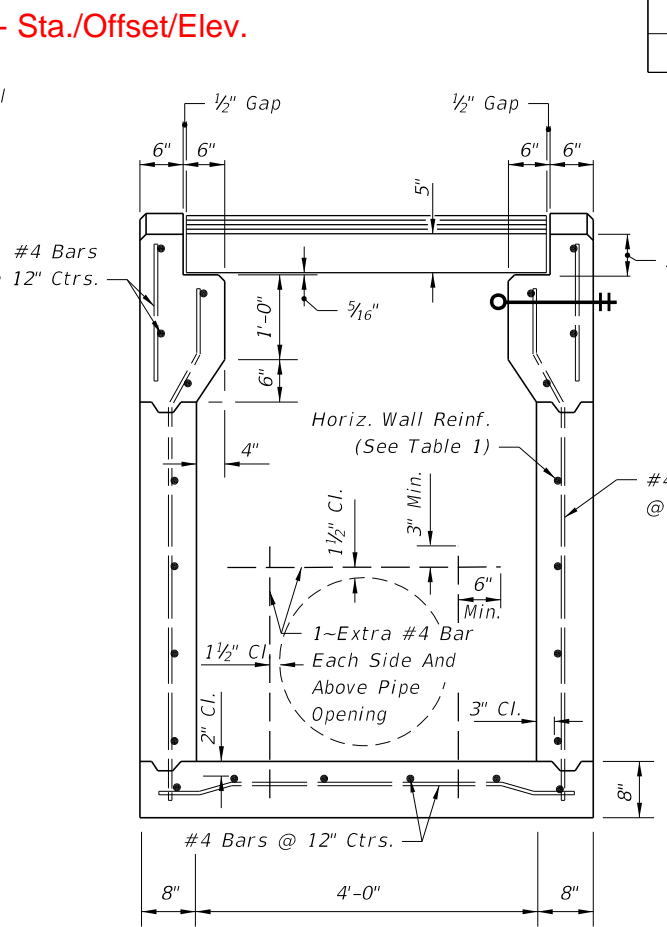
WALL DEPTH	SCHEDULE	AREA (in. ² /ft.)	MAX. SPACING	
			BARS	WWF
0' - 5'	A12	0.20	12"	8"
5' - 9'	A6	0.20	6"	5"
9' - 12'	A4	0.20	4"	3"
9' - 15'	B5.5	0.24	5 1/2"	5"



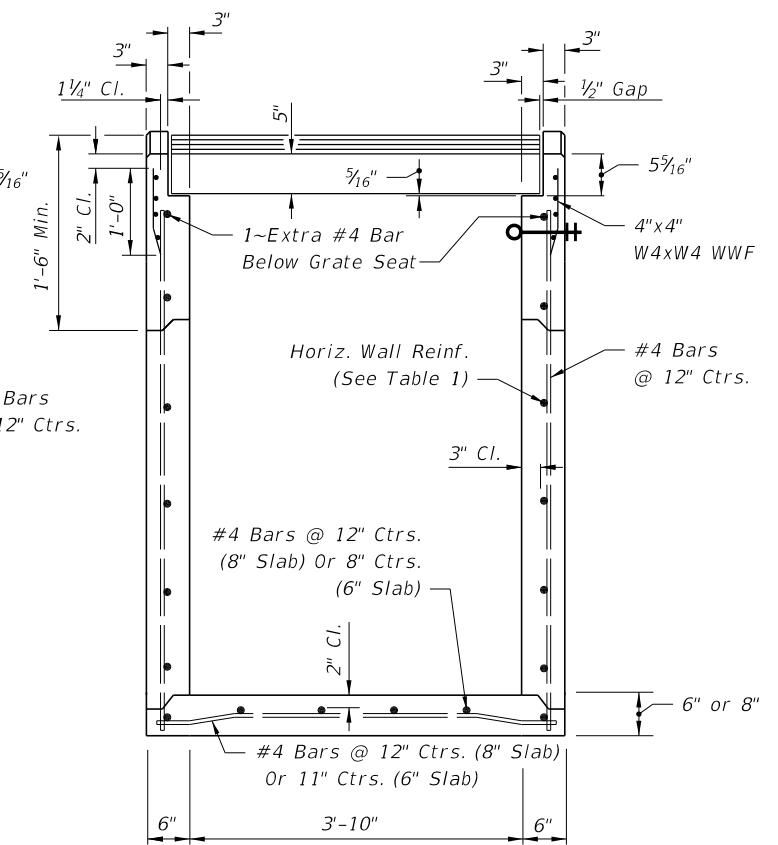
PLAN
 (CAST-IN-PLACE INLET SHOWN WITHOUT GRATE; PRECAST INLET SIMILAR)



SECTION BB
 (CAST-IN-PLACE INLET SHOWN PRECAST INLET SIMILAR)



SECTION AA
 (CAST-IN-PLACE INLET)



SECTION AA
 (PRECAST INLET)

9/18/2018 2:45:45 PM

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

FDOT FY 2019-20 STANDARD PLANS

GUTTER INLET TYPE V RENUMBERED 2 of 3

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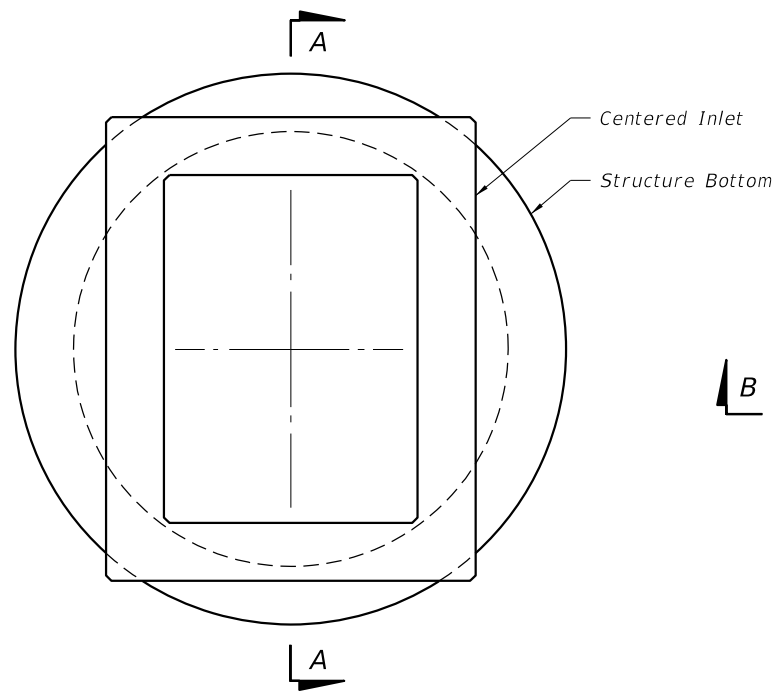
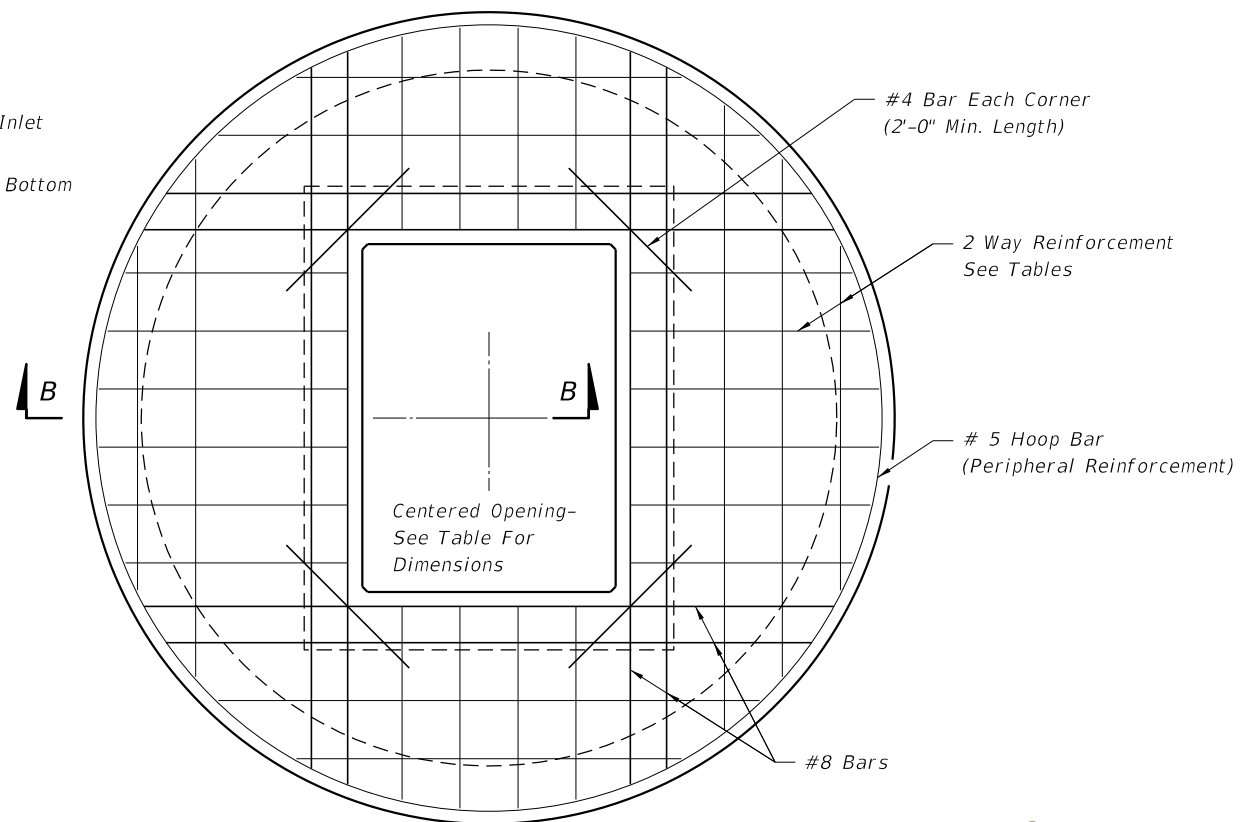


TABLE 2

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

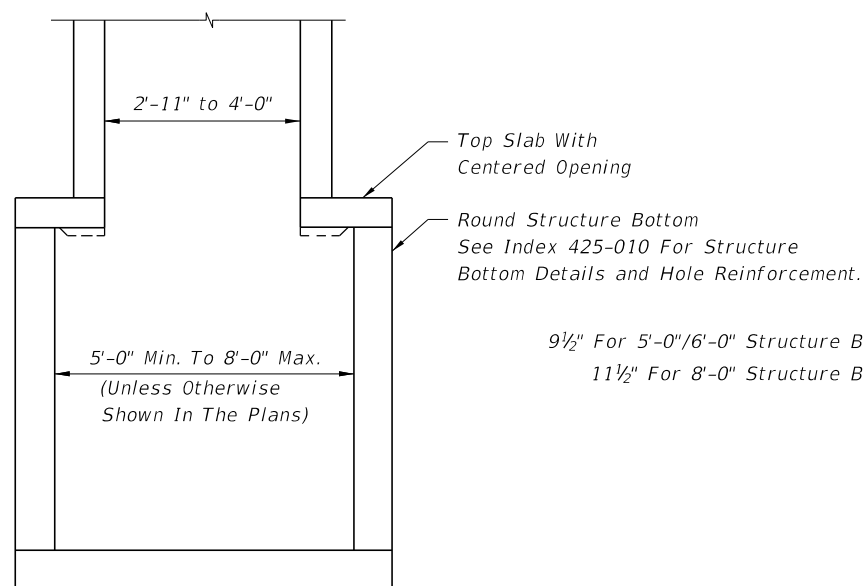
TABLE 3

TOP SLAB REINFORCING SCHEDULE	
SCHEDULE	GRADE 60 (BAR) OR 65 KSI & 70 KSI (WIRE FABRIC) In. ² /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

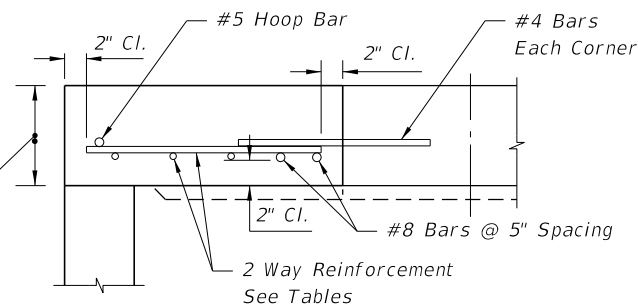
NEW SHEET 4



SECTION AA

Added Ref. Note to see Index 425-010

ALT. A STRUCTURE BOTTOM FOR INLET TYPE V



SECTION BB

Structure →

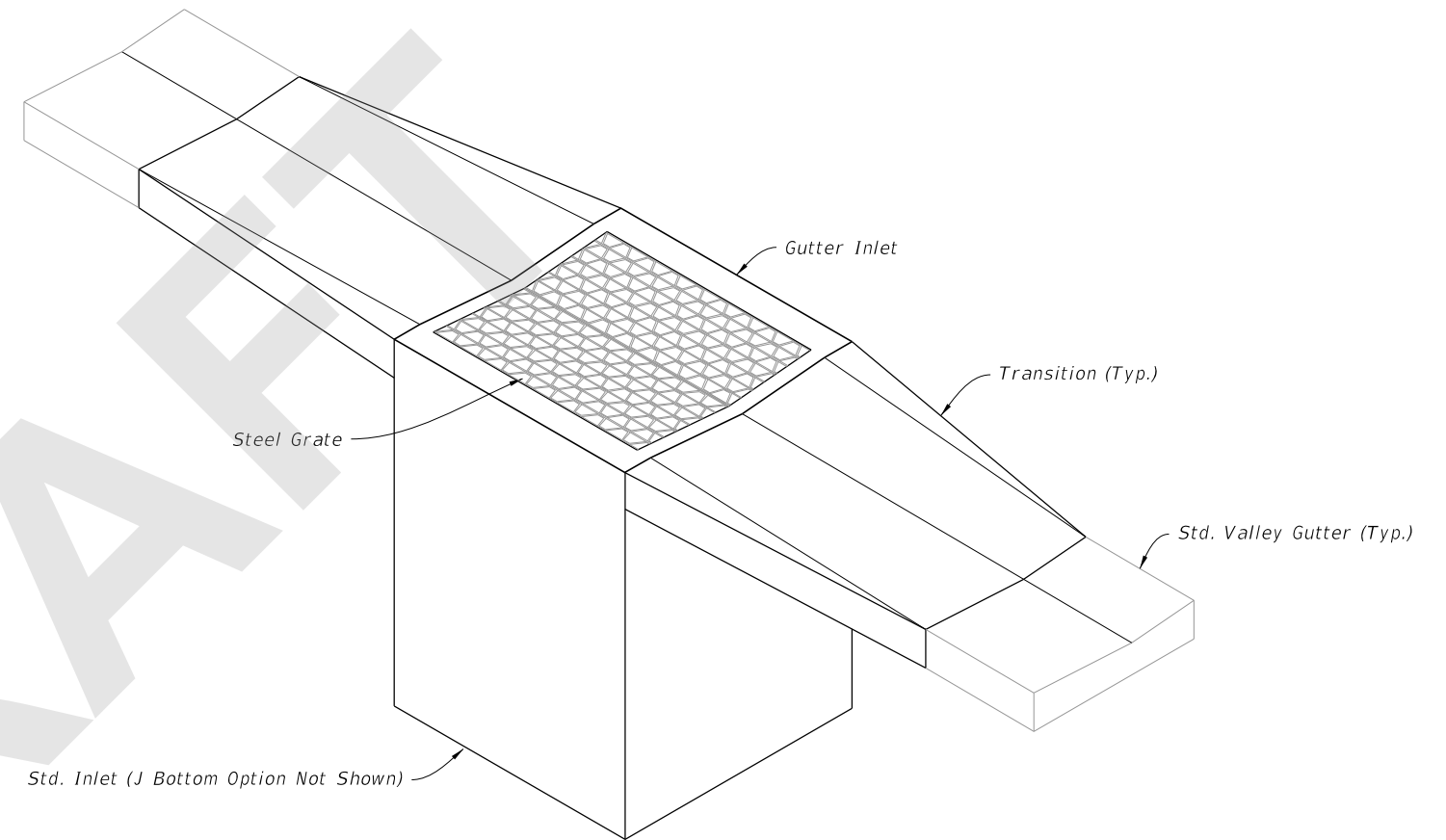
RENUMBERED 3 of 3

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GENERAL NOTES:

1. Work this Index with Index 425-001 and Index 425-010.
2. All reinforcing is Grade 60 bars with 2" min. cover unless otherwise noted.
See Index 425-001 for equivalent area of welded wire fabric. Cut or bend bars out of way of pipe to clear pipe 1½".
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.

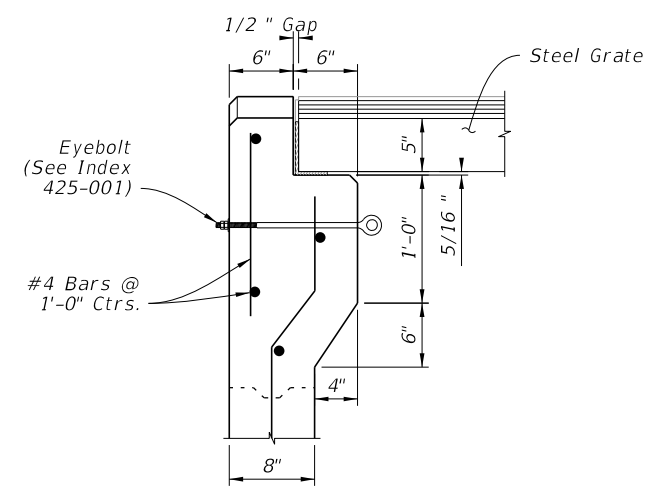
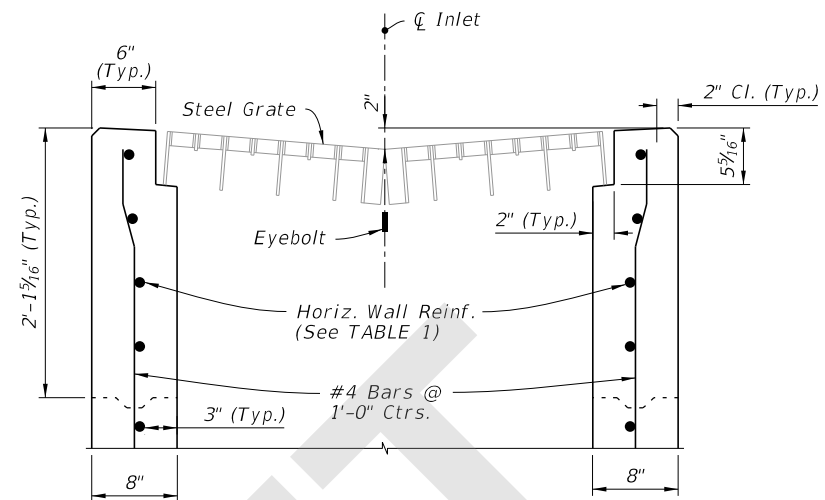
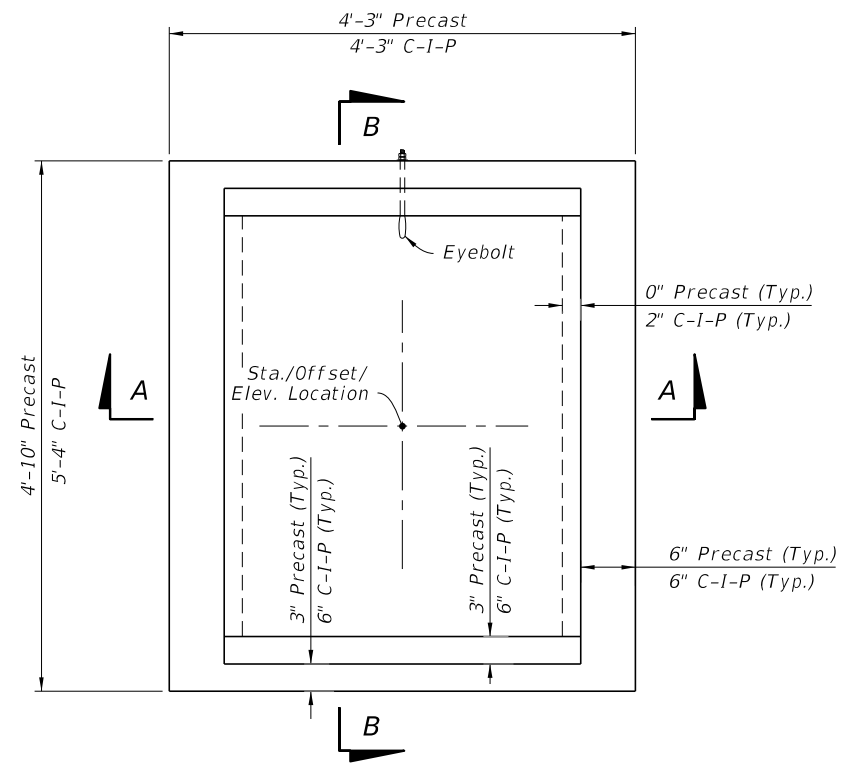
TABLE OF CONTENTS:	
Sheet	Description
1	General Notes and Contents
2	Dimensional and Reinforcement Details
3	Steel Grate Details
4	Alternate A Structure Bottom - Top Slab Details



GUTTER INLET TYPE V

(Pipe Opening Not Shown)

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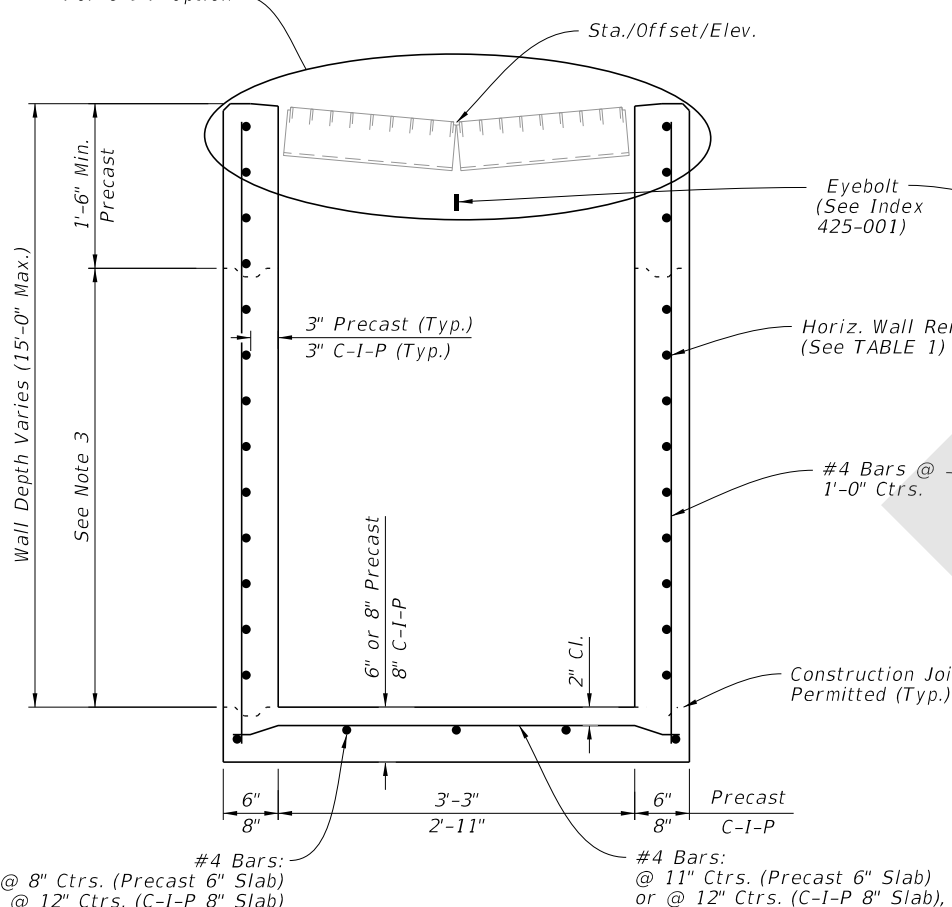


DETAIL "A"

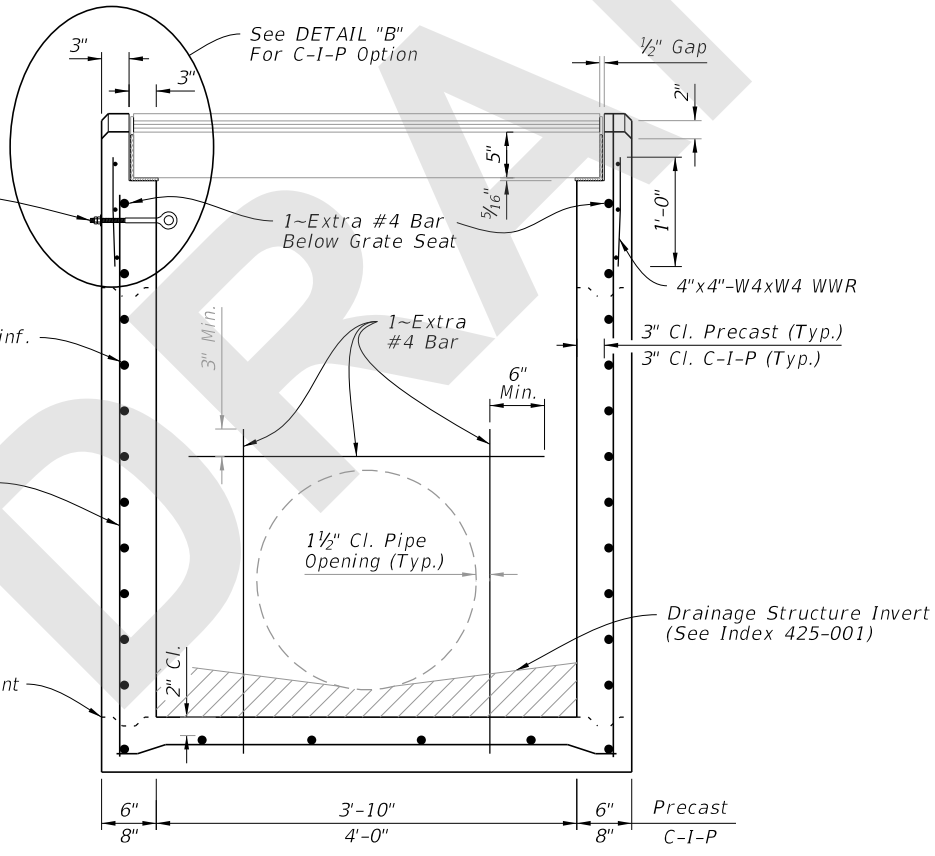
DETAIL "B"

CAST-IN-PLACE OPTION

PLAN



SECTION A-A
(Pipe Opening Not Shown)



SECTION B-B
(Pipe Opening Shown)

DIMENSIONAL AND REINFORCEMENT DETAILS

TABLE 1
HORIZONTAL WALL REINFORCING SCHEDULE

WALL DEPTH	SCHEDULE	AREA (in. ² /ft.)	MAX. SPACING	
			BARS	WWR
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"

NOTES:

1. Plan View: Grate, Concrete Ditch Pavement, and Sod not shown on structure detail.
2. Precast Shown, Cast-In-Place (C-I-P) similar.
3. Construction joints permitted between these limits. See Index 425-001 for minimum dimensions.

DIMENSIONAL AND REINFORCEMENT DETAILS

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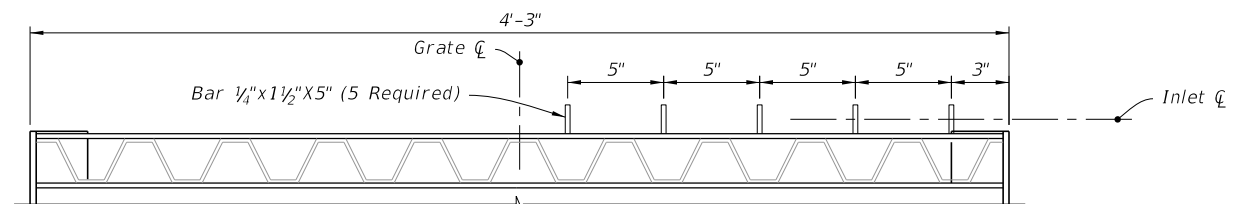
LAST REVISION	DESCRIPTION:
11/01/20	



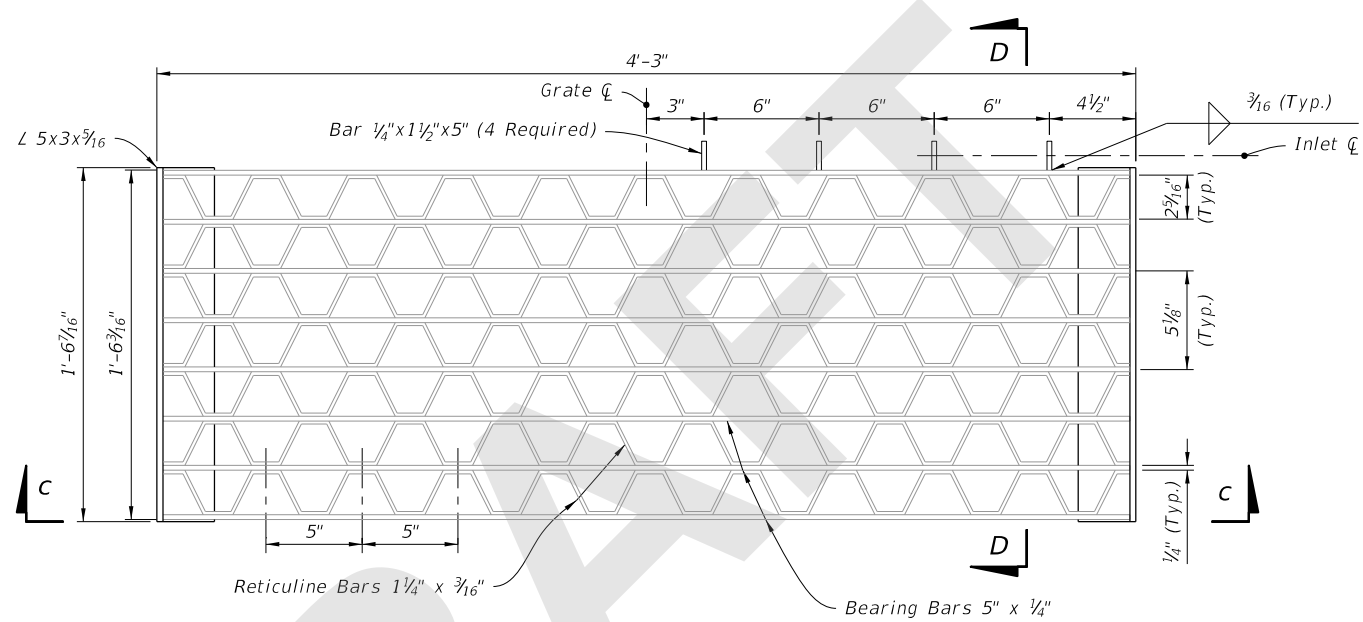
 FY 2021-22
 STANDARD PLANS

GUTTER INLET TYPE V

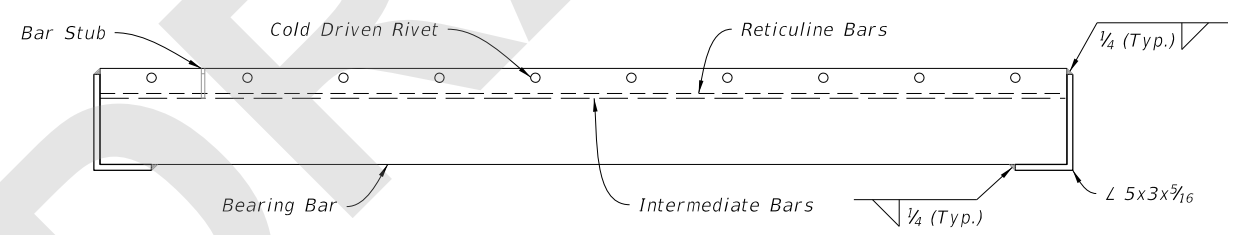
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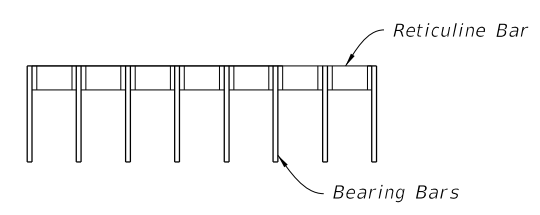
OPTIONAL BAR SPACING



PLAN



SECTION C-C



SECTION D-D

RETICULINE GRATE DETAIL

(Two Grates Required per Inlet)

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STEEL GRATE DETAILS

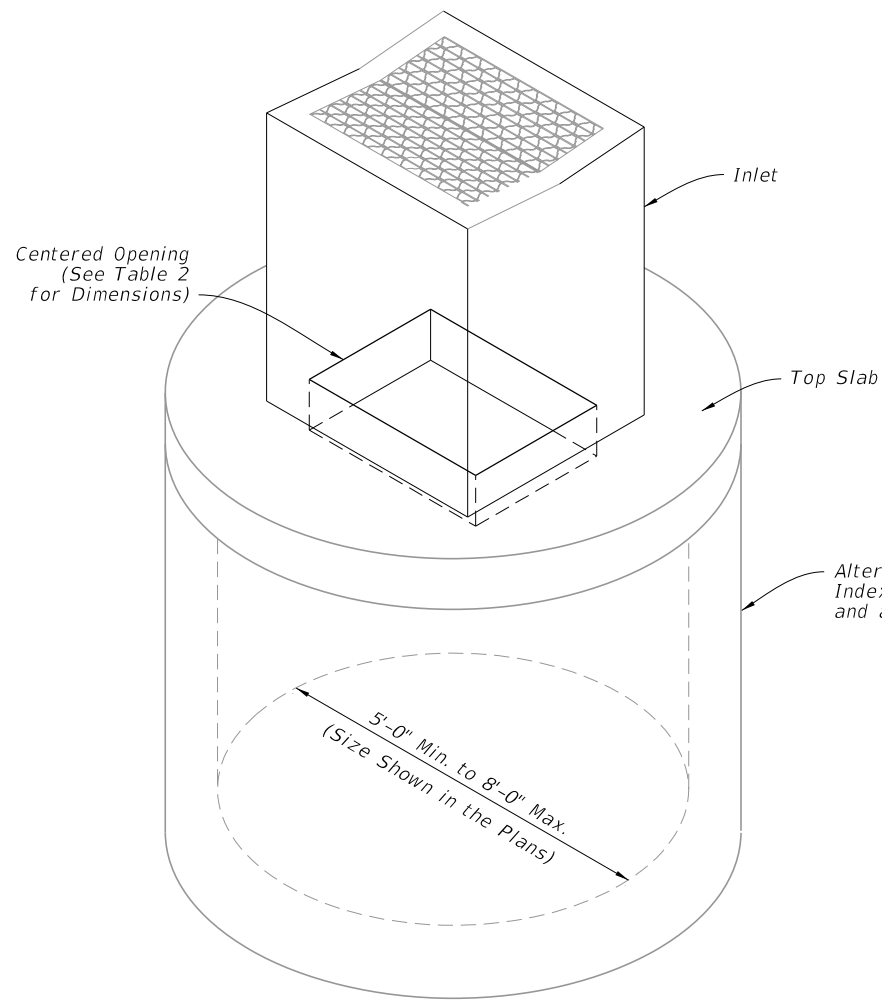
LAST REVISION 11/01/20	DESCRIPTION:
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FY 2021-22
STANDARD PLANS

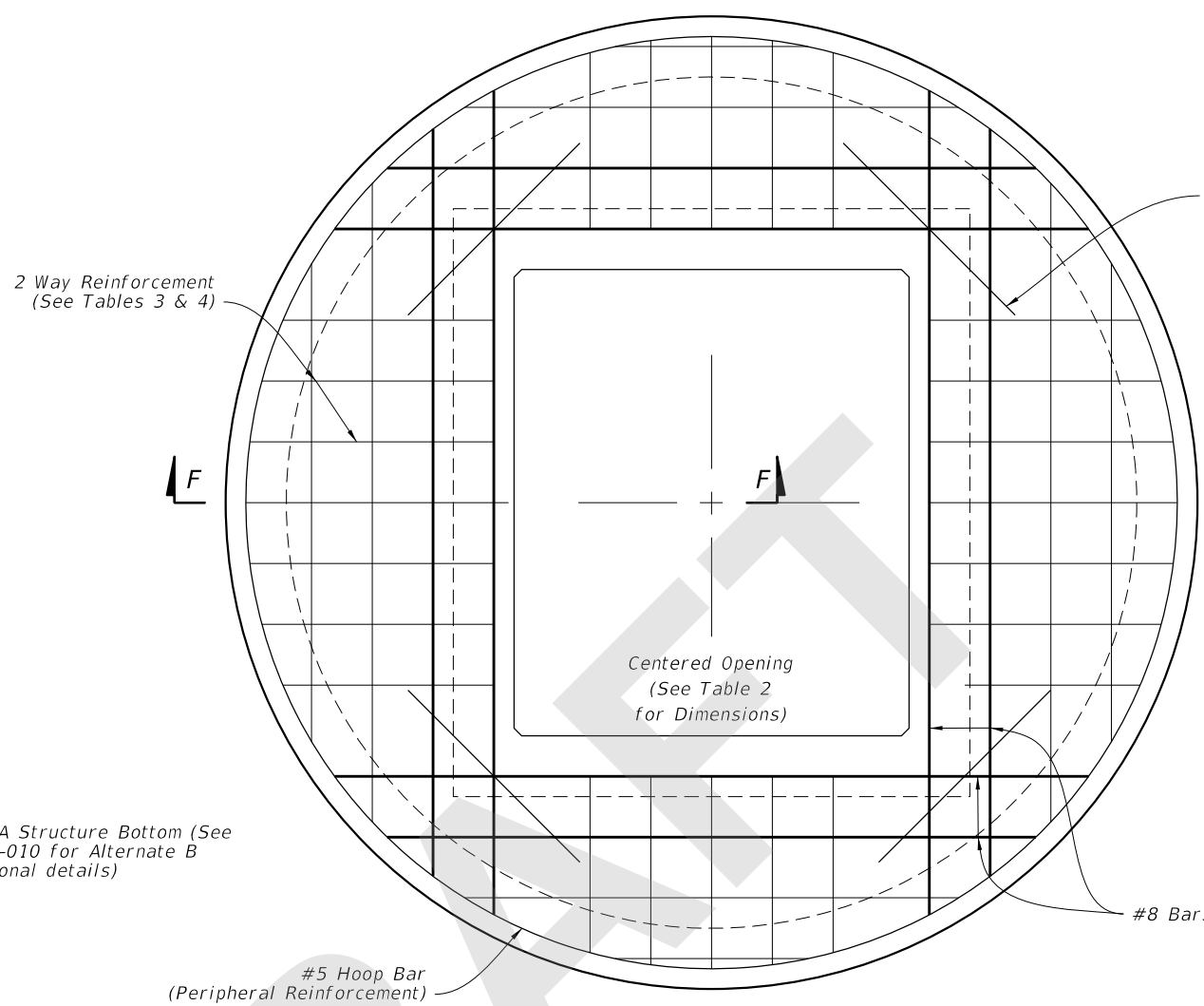
GUTTER INLET TYPE V

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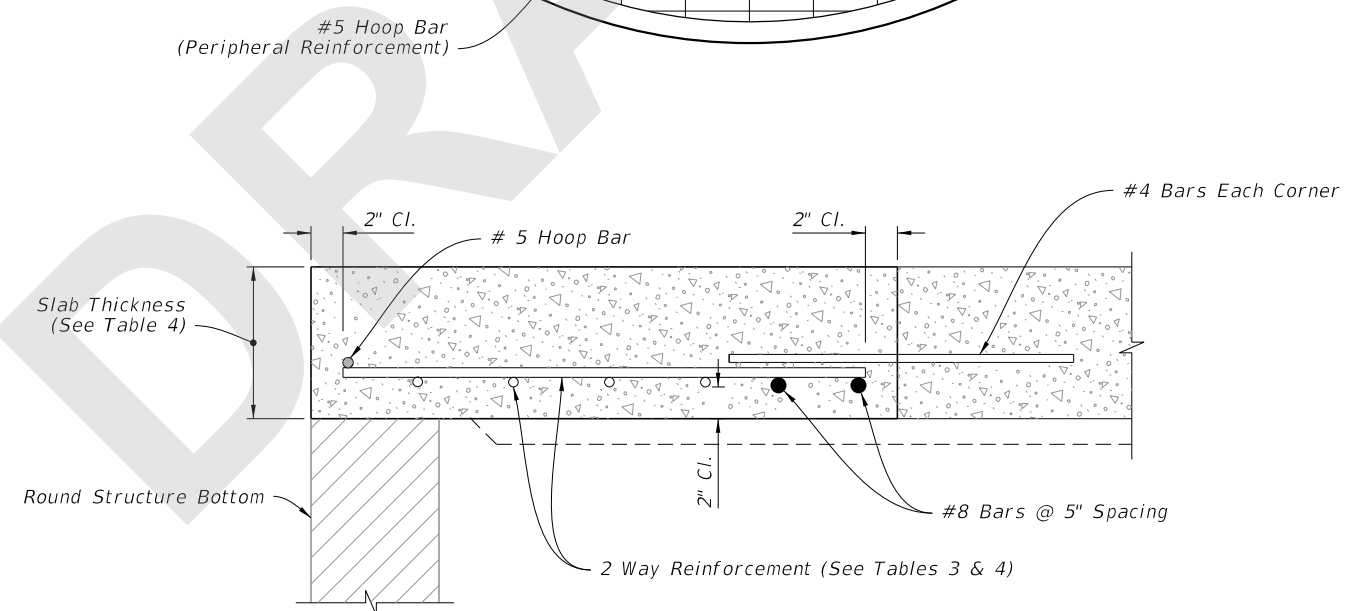


DIAMETER	OPENING SIZE	
	Min.	Max.
5'-0" to 8'-0"	2'-11" x 4'-0"	3'-3" x 3'-10"



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

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



SECTION F-F

ISOMETRIC VIEW

TOP SLAB REINFORCEMENT DETAILS

ALTERNATE A STRUCTURE BOTTOM - TOP SLAB DETAILS

LAST REVISION	DESCRIPTION:
11/01/20	


**FY 2021-22
STANDARD PLANS**

GUTTER INLET TYPE V

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