ORIGINATION FORM

Proposed Revisions to a Standard Plans Index

(Please provide all information – Incomplete forms will be returned)

Contact Information:

Date: July 1, 2019
Originator: **Richard Stepp**
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Email: richard.stepp@dot.state.fl.us

Standard Plans:

Index Number: **425-031**
Sheet Number (s): All
Index Title: Old: Shoulder Barrier Inlet
New: Adjacent Barrier Inlet

Summary of the changes:

All Sheets: Changed Index title to: "Adjacent Barrier Inlet"

Sheet 1: Changed GENERAL NOTE 1 to include median barriers. Updated section labels to include median barriers.

Commentary / Background:

Index 425-031 can be used for median barriers where the options of Index 425-030 do not cover the project-specific configuration. To facilitate this, Index 425-031 notes and labels have been updated to include median barriers, and the previously required drainage engineer approval for median barriers has been removed.

Other Affected Offices / Documents: (Provide name of responsible personnel)

Yes	No	
☑	☐	Other Standard Plans –
☐	☑	FDOT Design Manual –
☑	☐	Basis of Estimates Manual – Melissa Hollis
☐	☑	Standard Specifications –
☐	☑	Approved Product List –
☐	☑	Construction –
☐	☐	Maintenance –

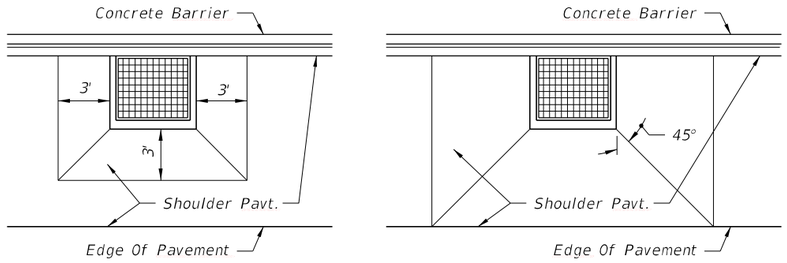
Origination Package Includes: (Email or hand deliver package to Derwood Sheppard)

Yes	N/A	
☑	☐	Redline Mark-ups
☐	☐	Proposed Standard Plan Instructions (SPI)
☐	☐	Revised SPI
☐	☐	Other Support Documents

Implementation:

☐ Design Bulletin (Interim) ☐ DCE Memo ☐ Program Mgmt. Bulletin ☑ FY-Standard Plans (Next Release)

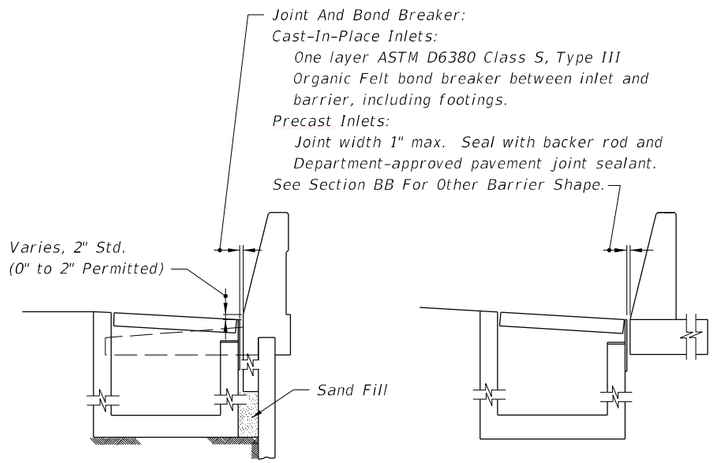
Contact the Roadway Design Office for assistance in completing this form



LOW SIDE SUPERELEVATION

HIGH SIDE TRANSITION

PAVEMENT WARP FOR SHOULDERS IN SUPERELEVATION

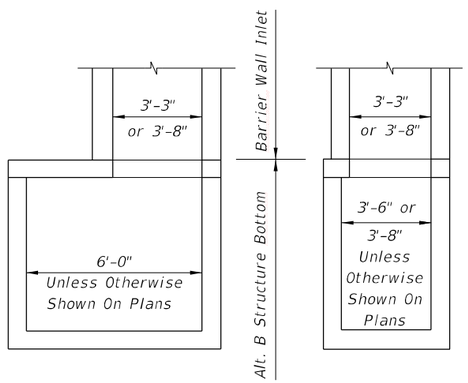


BARRIER - JUNCTION SLAB AND WALL COPING

SHOULDER BARRIER - FOOTING

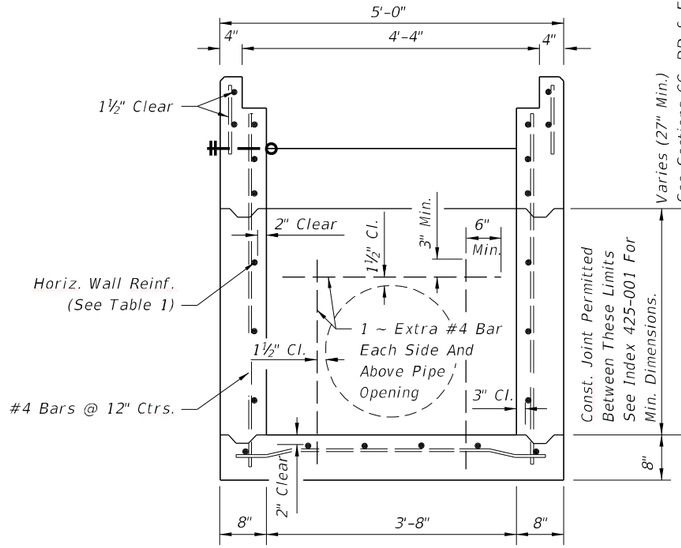
INLET SECTION AT BARRIERS

CHANGED TO " - EXAMPLE BARRIER TYPES" (TO NOT EXCLUDE MEDIAN BARRIER)



Note: Alt. B Structure Bottom Only. See Index 425-010

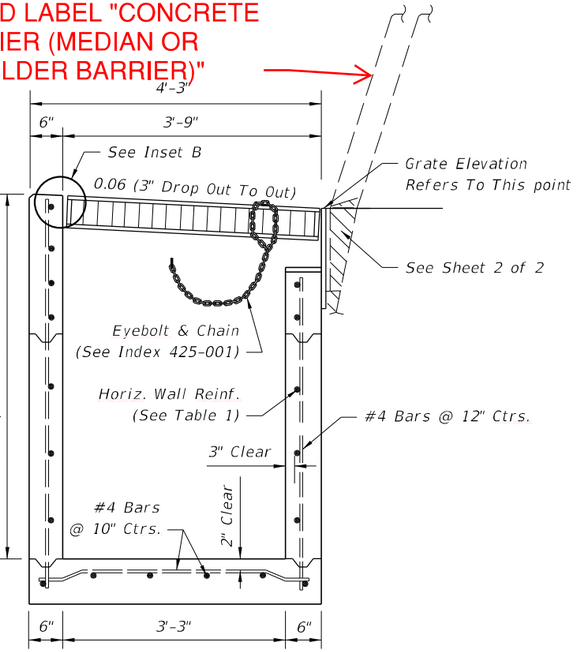
INLET WITH STRUCTURE BOTTOM



SECTION A-A (WITHOUT GRATE)

(Pipe Opening Shown)

ADDED LABEL "CONCRETE BARRIER (MEDIAN OR SHOULDER BARRIER)"



SECTION B-B

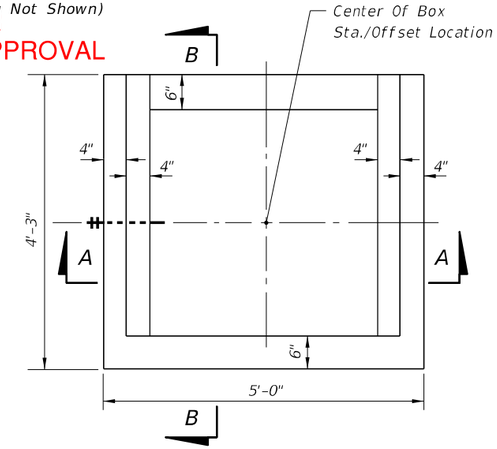
(Pipe Opening Not Shown)

CHANGED NOTE 1 TO INCLUDE OTHER BARRIER TYPES WITHOUT SPECIAL APPROVAL

GENERAL NOTES:

1. Where called for in the Plans, use this inlet in conjunction with Shoulder Barrier per Index 521-001 or a Wall Coping with Barrier and Junction Slab per Index 521-610. Use of the inlet adjacent to other Concrete Barrier or Traffic Railing types requires approval of the Drainage Engineer. The inlet is suitable for bicycle and occasional pedestrian traffic, with roller bar installation (see INSET B), but should not be placed in a designated pedestrian travel way.
2. Inlets located in embankments constructed with earth anchored retaining wall shall be designed with minimum depths to reduce adverse impact on the anchorage system. Runs of pipe parallel to and near anchored wall shall be avoided wherever practical. Special coordination must be exercised during the design and construction of storm water systems within anchored wall systems.
3. Inlet bottoms and/or tops may be either precast or cast-in-place. Whether cast as a single unit or as multiple segments, and whether precast or cast-in-place, the upper 2'-3" of the inlet shall be reinforced in accordance with sections CC, DD and EE.
4. All exposed edges and corners shall be ¾" chamfer or tooled to ¼" radius.
5. When Alternate G grate is specified in the plans, the grate is to be hot-dip galvanized after fabrication. Field installation of the filler bar called for in Inset B will not be permitted, thereby requiring tolerance adjustment during fabrication and/or casting, or, matching grate to structure prior to galvanizing.
6. All reinforcing is Grade 60 bars. See Index 425-001 for equivalent area of welded wire fabric.
7. All dimensions are for both precast and cast-in-place inlets unless otherwise noted.
8. For supplemental details see Indexes 425-001 and 425-010.
9. Inlets to be paid for under the contract unit for Inlets (Concrete Barrier), Ea.

CHANGED TO: ADJACENT



TOP VIEW (WITHOUT GRATE)

TABLE 1: HORIZONTAL WALL REINFORCING SCHEDULE

WALL DEPTH	SCHEDULE	AREA (in.²/ft.)	MAX. SPACING	
			BARS	WWF
0'-5'	A12	0.20	12"	8"
5'-10'	A6	0.20	6"	5"
10'-15'	A4	0.20	4"	3"
10'-15'	B5.5	0.24	5½"	5"

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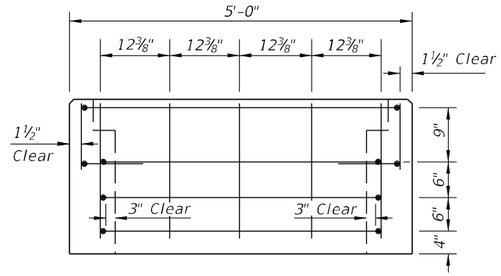
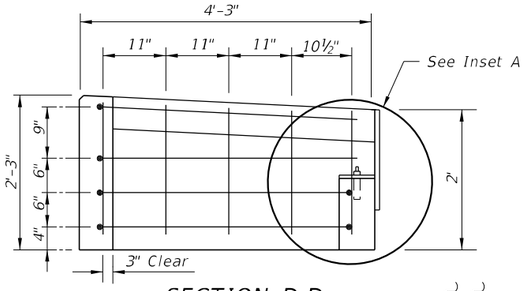
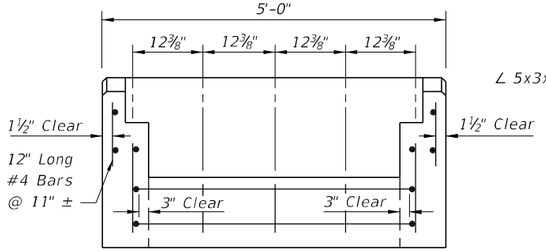
LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2019-20 STANDARD PLANS	SHOULDER BARRIER INLET	INDEX	SHEET
~~12/07/17~~		11/01/19				425-031	1 of 2



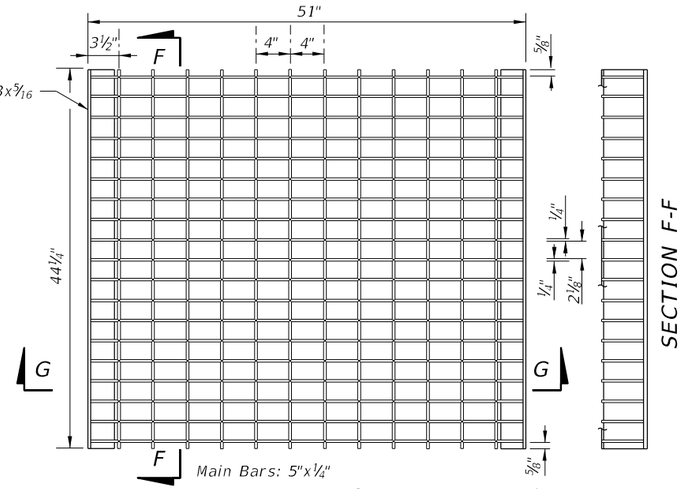
SECTION C-C



SECTION D-D

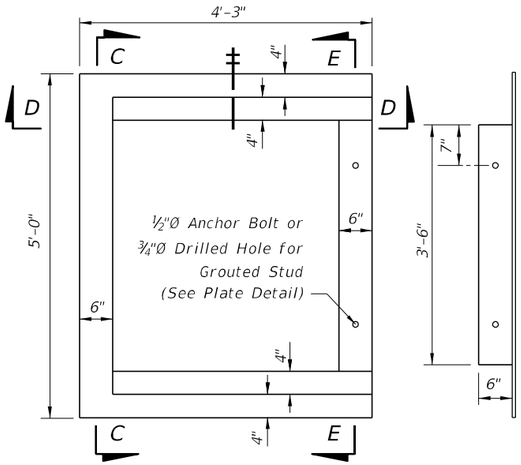


SECTION E-E



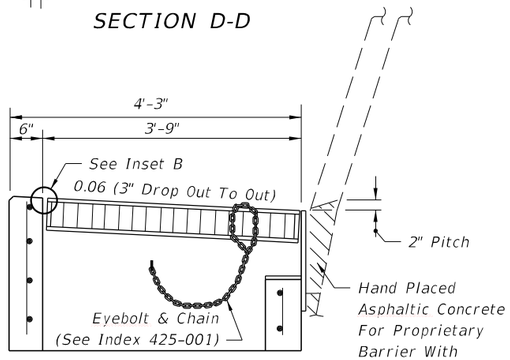
SECTION F-F

TOP VIEW

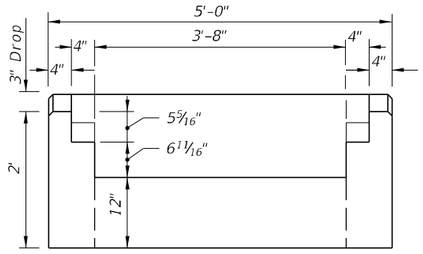


TOP VIEW OF INLET WITHOUT GRATE

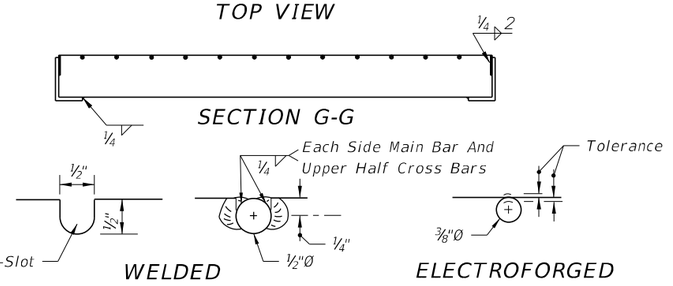
TOP VIEW OF METAL PLATE



TRANSVERSE SECTION WITH GRATE & PLATE



BACK VIEW WITHOUT BACK PLATE

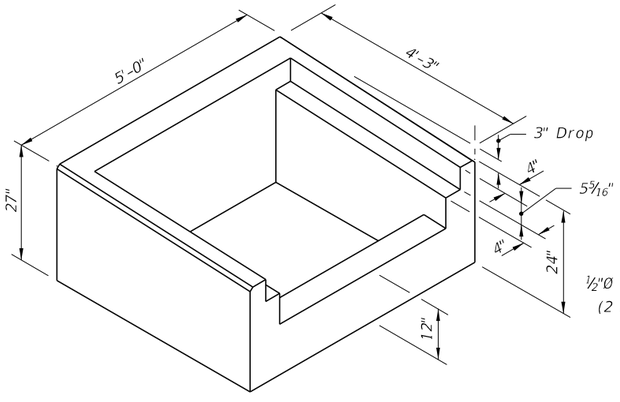


SECTION G-G

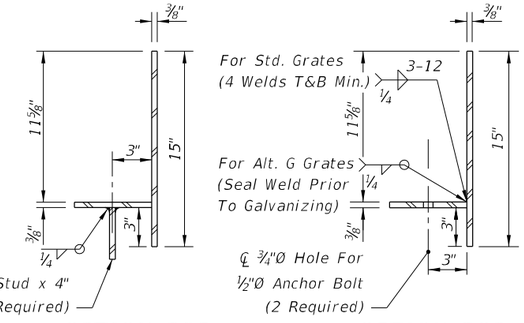
WELDED ELECTROFORGED

CROSS BAR OPTIONS

STEEL GRATE



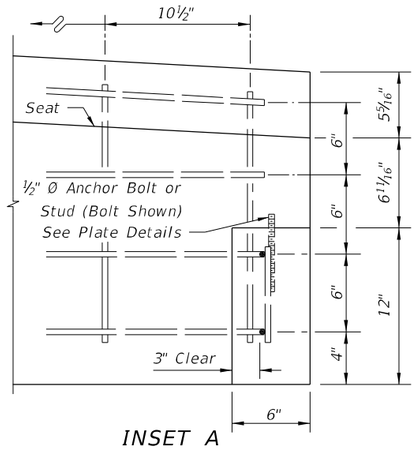
PICTORIAL VIEW OF INLET COLLAR



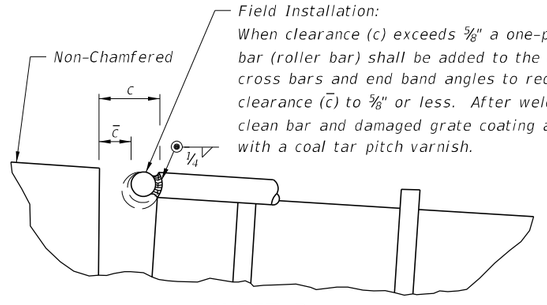
OPTION FOR GROUT STUD

OPTION FOR ANCHOR BOLT

TRANSVERSE SECTIONS THRU BACKWALL PLATE



INSET A



INSET B
(See Sheet 1,
General Note 1)

NOTES

1. All reinforcing steel bars shown are #4 bars.

2. Anchor bolts shall be either ASTM A307 hex head bolts cast-in-place, or ASTM A36 or F1554 (Grade 36) galvanized fully threaded rod, adhesive bonded anchors installed in accordance with Specification Section 416. Bolts or rods shall be 6" long (4" min. embedment) with one heavy hex head nut (ASTM 194 or A563) and one flat washer (ASTM F436) each. All anchor bolts, nuts and washers shall be hot-dip galvanized.

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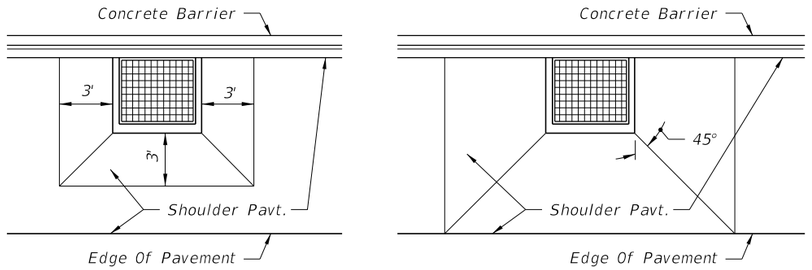
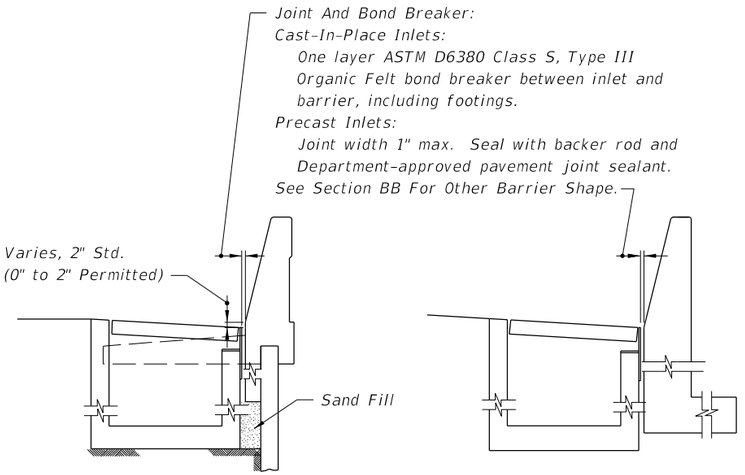
CHANGED TO: ADJACENT

LAST REVISION ~~11/01/17~~	REVISION	DESCRIPTION: 11/01/19	FDOT FY 2019-20 STANDARD PLANS	~~SHOULDER~~ BARRIER INLET	INDEX 425-031	SHEET 2 of 2



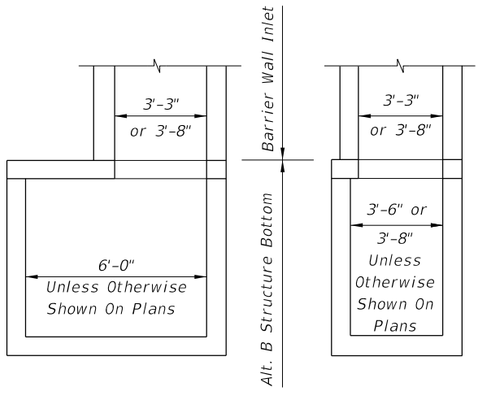
LOW SIDE SUPERELEVATION — HIGH SIDE TRANSITION

PAVEMENT WARP FOR SHOULDERS IN SUPERELEVATION



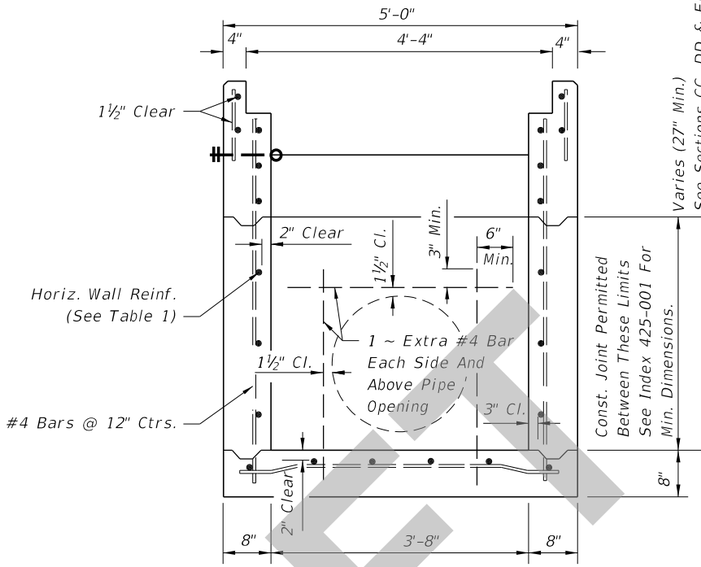
BARRIER WITH JUNCTION SLAB AND WALL COPING — BARRIER WITH STEM AND FOOTING

INLET SECTIONS - EXAMPLE BARRIER TYPES



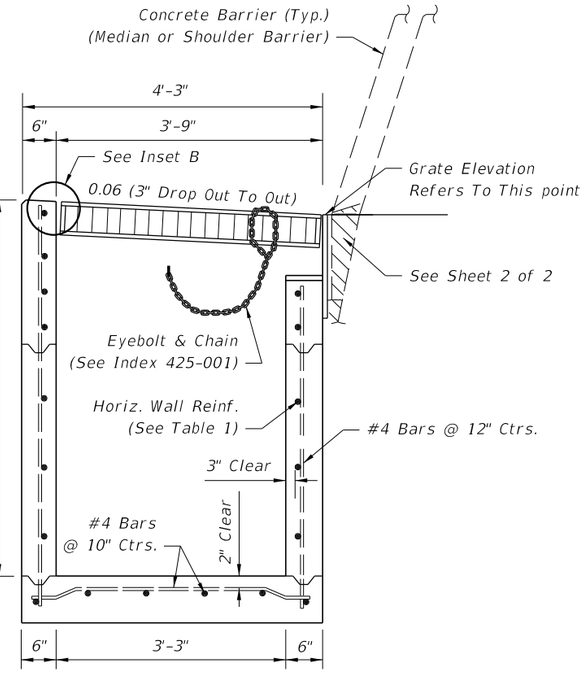
Note: Alt. B Structure Bottom Only. See Index 425-010

INLET WITH STRUCTURE BOTTOM



SECTION A-A (WITHOUT GRATE)

(Pipe Opening Shown)



SECTION B-B

(Pipe Opening Not Shown)

GENERAL NOTES:

1. Where called for in the Plans, use this inlet in conjunction with median or shoulder barrier per Index 521-001 or a barrier with junction slab and wall coping per Index 521-610. The inlet is suitable for bicycle and occasional pedestrian traffic, with roller bar installation (see INSET B), but should not be placed in a designated pedestrian travel way.

2. Inlets located in embankments constructed with earth anchored retaining wall shall be designed with minimum depths to reduce adverse impact on the anchorage system. Runs of pipe parallel to and near anchored wall shall be avoided wherever practical. Special coordination must be exercised during the design and construction of storm water systems within anchored wall systems.

3. Inlet bottoms and/or tops may be either precast or cast-in-place. Whether cast as a single unit or as multiple segments, and whether precast or cast-in-place, the upper 2'-3" of the inlet shall be reinforced in accordance with sections CC, DD and EE.

4. All exposed edges and corners shall be ¾" chamfer or tooled to ¼" radius.

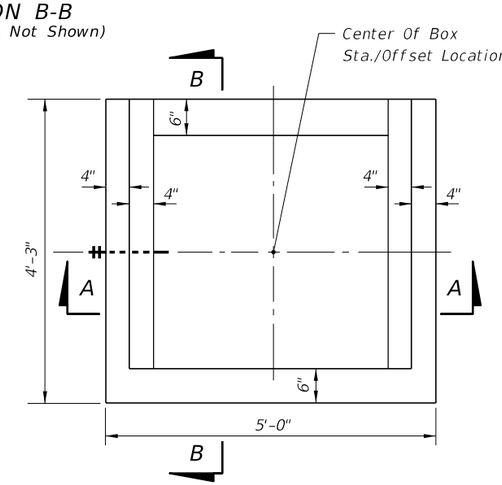
5. When Alternate G grate is specified in the plans, the grate is to be hot-dip galvanized after fabrication. Field installation of the filler bar called for in Inset B will not be permitted, thereby requiring tolerance adjustment during fabrication and/or casting, or, matching grate to structure prior to galvanizing.

6. All reinforcing is Grade 60 bars. See Index 425-001 for equivalent area of welded wire fabric.

7. All dimensions are for both precast and cast-in-place inlets unless otherwise noted.

8. For supplemental details see Indexes 425-001 and 425-010.

9. Inlets to be paid for under the contract unit for Inlets (Concrete Barrier), Ea.



TOP VIEW (WITHOUT GRATE)

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'-10'	A6	0.20	6"	5"
10'-15'	A4	0.20	4"	3"
10'-15'	B5.5	0.24	5½"	5"

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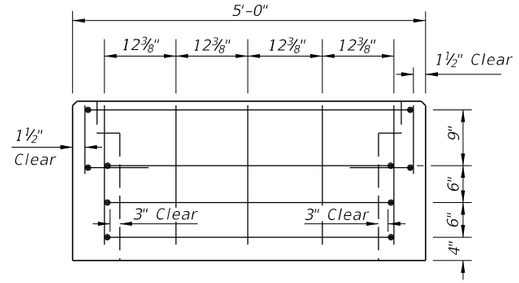
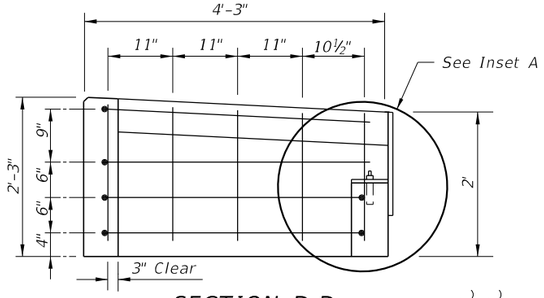
LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
11/01/19			FDOT FY 2020-21 STANDARD PLANS	ADJACENT BARRIER INLET	425-031	1 of 2



SECTION C-C



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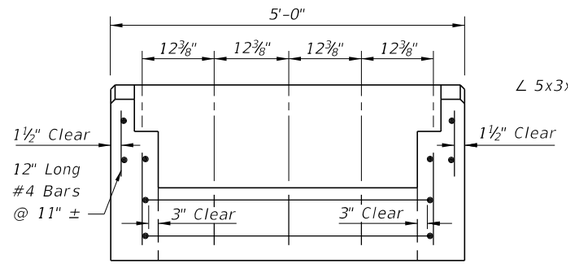
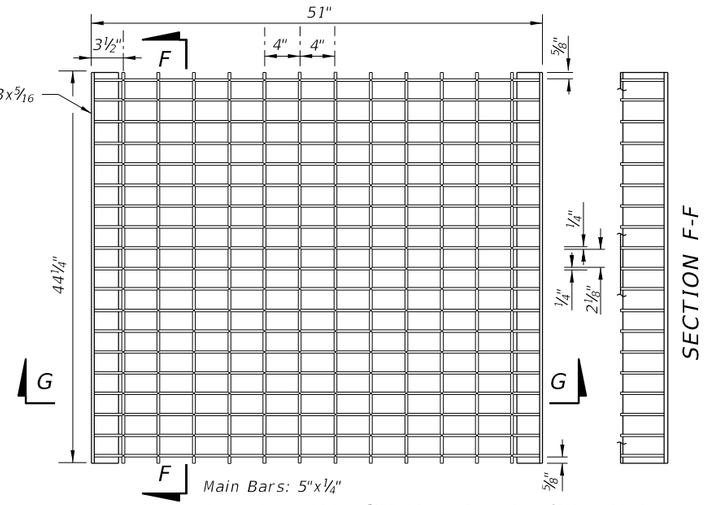
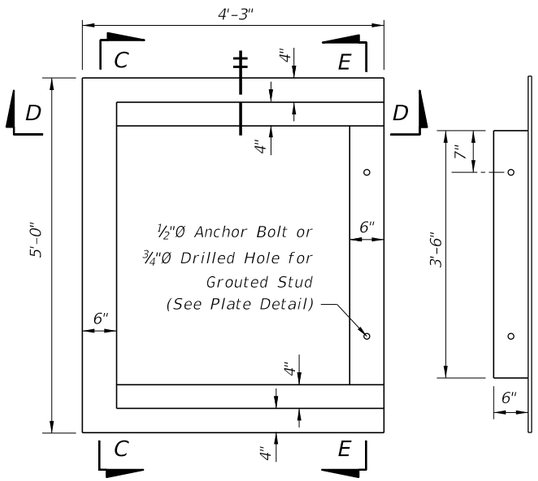


SECTION E-E



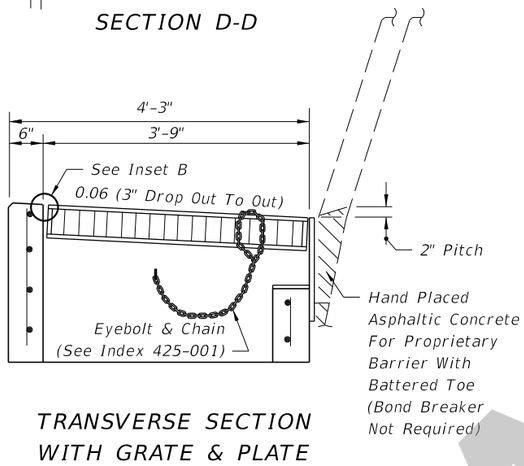
SECTION F-F

TOP VIEW

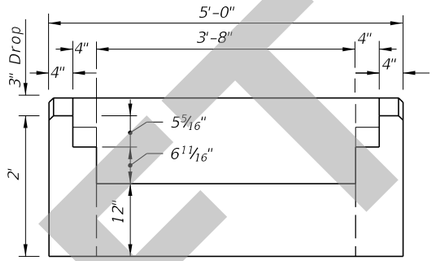


TOP VIEW OF INLET WITHOUT GRATE

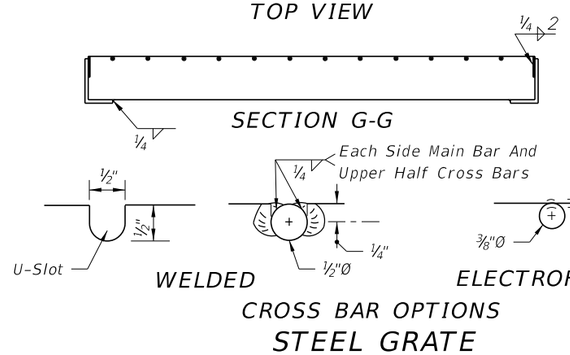
TOP VIEW OF METAL PLATE



TRANSVERSE SECTION WITH GRATE & PLATE



BACK VIEW WITHOUT BACK PLATE

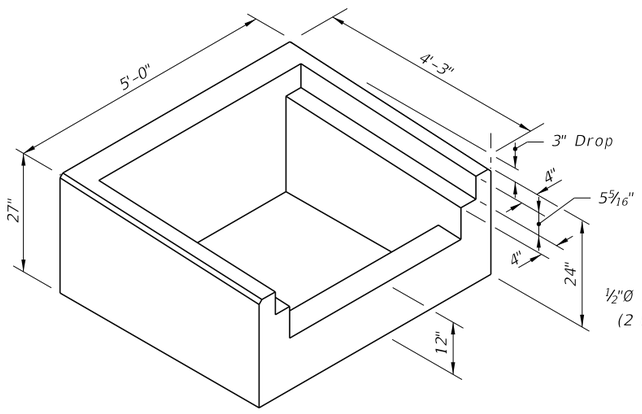


SECTION G-G

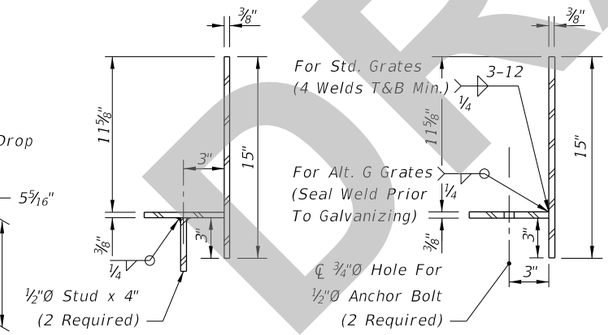
WELDED ELECTROFORGED

CROSS BAR OPTIONS

STEEL GRATE



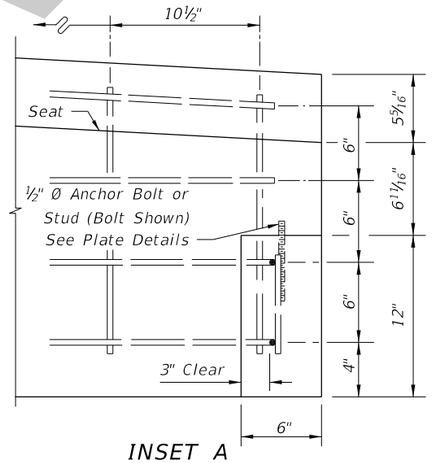
PICTORIAL VIEW OF INLET COLLAR



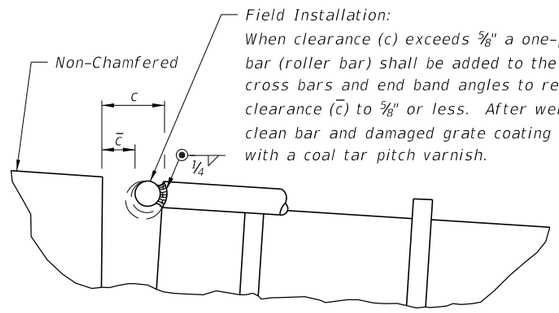
OPTION FOR GROUT STUD

OPTION FOR ANCHOR BOLT

TRANSVERSE SECTIONS THRU BACKWALL PLATE



INSET A



INSET B
(See Sheet 1,
General Note 1)

NOTES

1. All reinforcing steel bars shown are #4 bars.

2. Anchor bolts shall be either ASTM A307 hex head bolts cast-in-place, or ASTM A36 or F1554 (Grade 36) galvanized fully threaded rod, adhesive bonded anchors installed in accordance with Specification Section 416. Bolts or rods shall be 6" long (4" min. embedment) with one heavy hex head nut (ASTM 194 or A563) and one flat washer (ASTM F436) each. All anchor bolts, nuts and washers shall be hot-dip galvanized.

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LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2020-21 STANDARD PLANS	ADJACENT BARRIER INLET	INDEX	SHEET
11/01/19						425-031	2 of 2