

Origination Form
Proposed Revisions to a Standard Plans Index

Originator:	Johnson, Jenn	Index Number:	425-031
Date:	7/9/2025	Sheet Number(s):	1,2, and 4
E-mail:	Jenn.Johnson@dot.state.fl.us	Index Title:	Adjacent Barrier Inlet

Summary of the changes:

Sheet 1: Clarified the 2" Dimension from the Grate elevation to the Barrier Gutter Line in the ADJACENT BARRIER INLET detail; Changed "Edge of Pavement" callout to "Edge of Traveled Way"; Added Barrier Gutter line callout. Sheet 2: Deleted outdated "battered toe" details and clarified the 2" Dimension from the Grate elevation to the Barrier Gutter Line in SECTION B-B. Sheet 4: Clarified the 2" Dimension from the Grate elevation to the Barrier Gutter Line in the BARRIER TYPE EXAMPLES details; Changed "Edge of Pavement" callout to "Edge of Traveled Way"; Added Slope Break (Typ. as Required) callout; Renamed "LOW SIDE SUPERELEVATION" detail to "STANDARD LOCATION"; Renamed "HIGH SIDE TRANSITION" detail to "SUPERELEVATION - HIGH SIDE LOCATON" in the "SHOULDER PAVEMENT WARP" details; Renamed "SHOULDER PAVEMENT WARP" details to "SHOULDER PAVEMENT TRANSITIONS".

Commentary/Background:

Standard Plans Index 425-031 previously called for a 2-inch target elevation difference between the barrier's gutter line (bottom of barrier face) and the top of the inlet structure. This 2" depression helps with water conveyance to the inlet. That said, the previous tolerance on this 2-inch dimension allowed for variability that included no elevation difference, which is the simplest construction process but not the desired result. These current revisions will now clarify the 2-inch elevation difference need in all details and remove the variable dimension to ensure that the 2-inch offset is constructed as intended.

Other Affected Documents/Offices	Person Contacted	Affected (Yes/No)
Other Standard Plans	Richard Stepp	Yes
FDOT Design Manual		
Standard Specifications		
Basis of Estimates Manual		
Approved Product List		
Construction Office		
Maintenance Office		

Implementation

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GENERAL NOTES:

1. Work this Index with Index 425-001 and Index 425-010.
2. When 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.
3. Reinforce the upper 2'-3" of the inlet in accordance with sections CC, DD, and EE regardless of construction method.
4. Chamfer exposed edges and corners to $\frac{3}{4}$ " or tool to $\frac{1}{4}$ " radius.
5. Do not field install roller bars when Alt. G grates are specified in the Plans in accordance with Specification 425. Adjust tolerance during fabrication or casting, or match grate to structure prior to galvanizing.
6. Use Grade 60, #4 bars for reinforcing steel. See Index 425-001 for equivalent area of welded wire fabric.
7. Dimensions are for both precast and cast-in-place inlets unless otherwise noted.
8. Anchor bolts: Use 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 416. Rods must be a minimum of 6" long with 4" minimum embedment with one ASTM 194 or A563 heavy hex head nut and one ASTM F436 flat washer each. Hot-dip galvanize anchor bolts, nuts, and washers.
9. Reduce Cross Slope: Use a flatter cross slope as required to match adjacent grading per the Plans. Reduce vertical dimensions and bar spacing as needed to maintain concrete cover as shown.

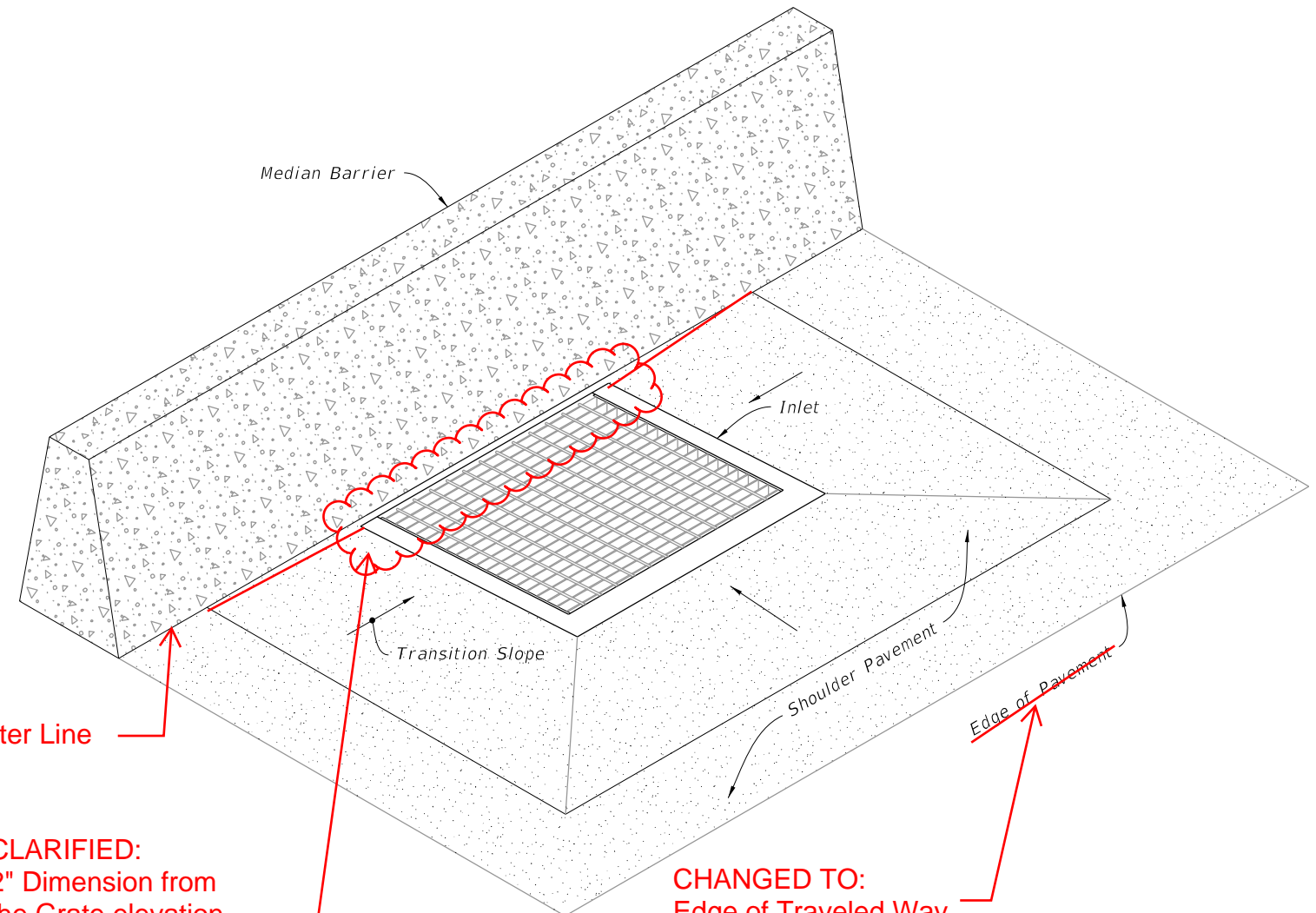
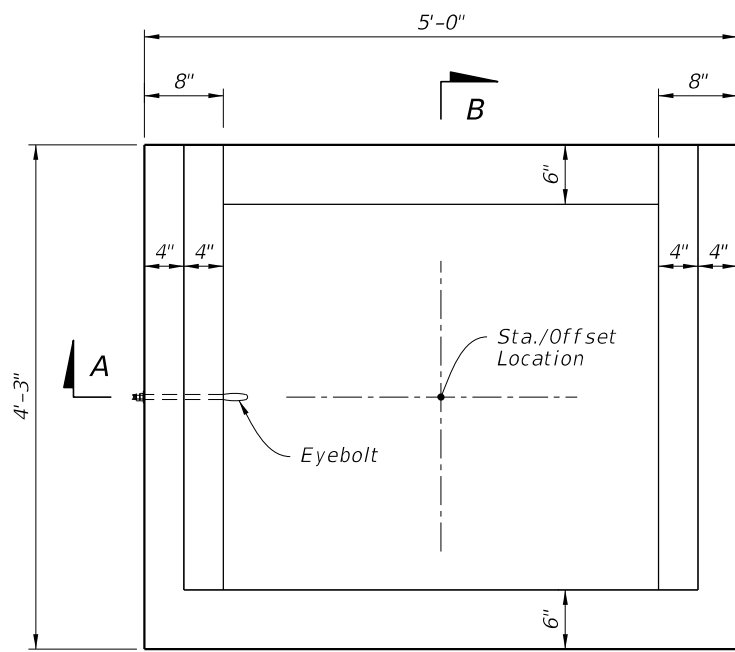


TABLE OF CONTENTS:	
Sheet	Description
1	General Notes and Contents
2	Dimensional, Reinforcing, and Steel Grate Details
3	Inlet Collar Dimensional, Reinforcing, and Backwall Plate Details
4	Shoulder Pavement Wrap, Barrier Type Examples, and Structure Bottoms

ADJACENT BARRIER INLET
(Shoulder Barrier Similar)

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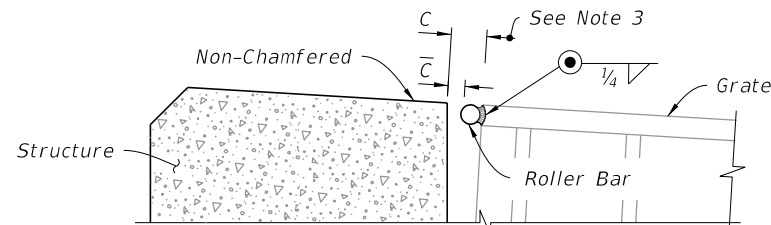
PLAN

NOTES:

1. See Sections E-E, F-F, and G-G on Sheet 3 for reinforcing details.
2. Construction joints permitted between these limits. See Index 425-001 for minimum dimensions.
3. Field Installation: When clearance (C) exceeds $\frac{5}{8}$ " weld a one-piece round bar (roller bar) to the end of the cross bars and end band angles to reduce the clearance (C) to $\frac{5}{8}$ " or less. After welding the bar, clean bar and damaged grate coating and coat with a coal tar pitch varnish.

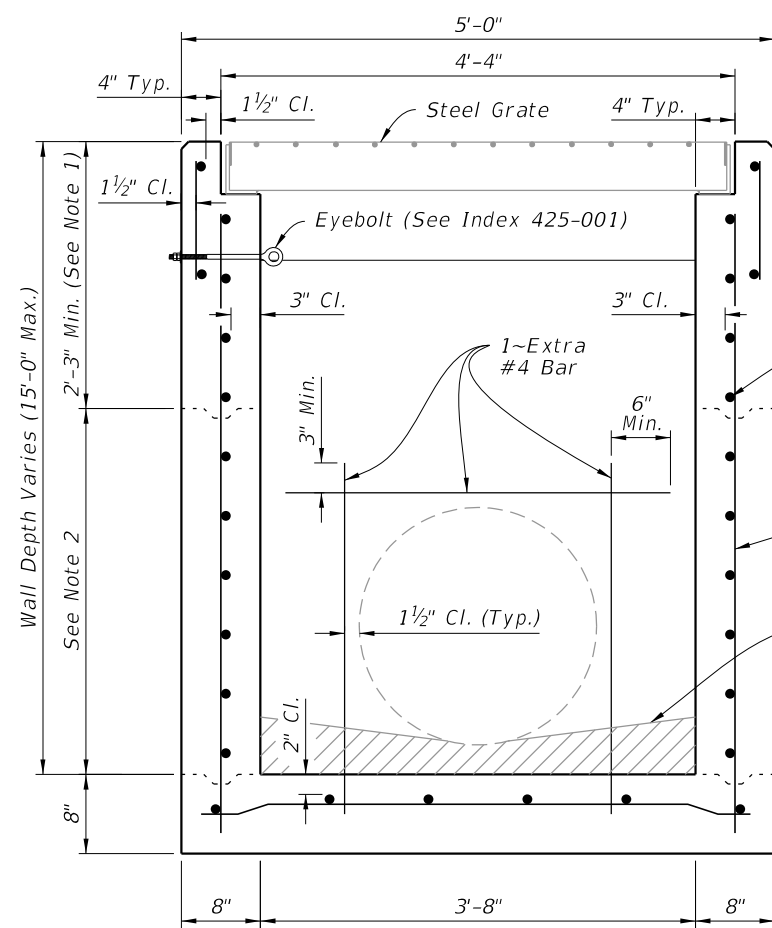
TABLE 1: HORIZONTAL WALL REINFORCING SCHEDULE

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"

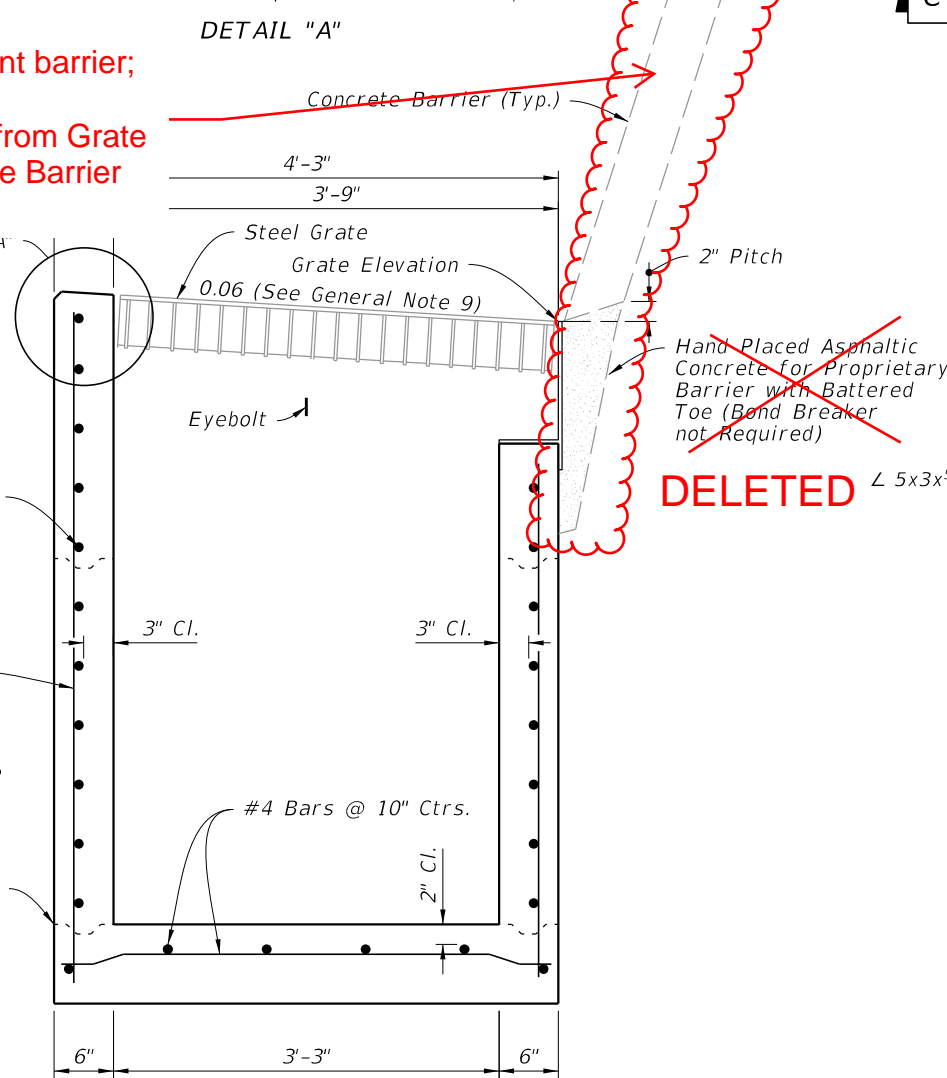


DETAIL "A"

UPDATED:
To show current barrier;
ADDED:
2" Dimension from Grate Elevation to the Barrier Gutter Line

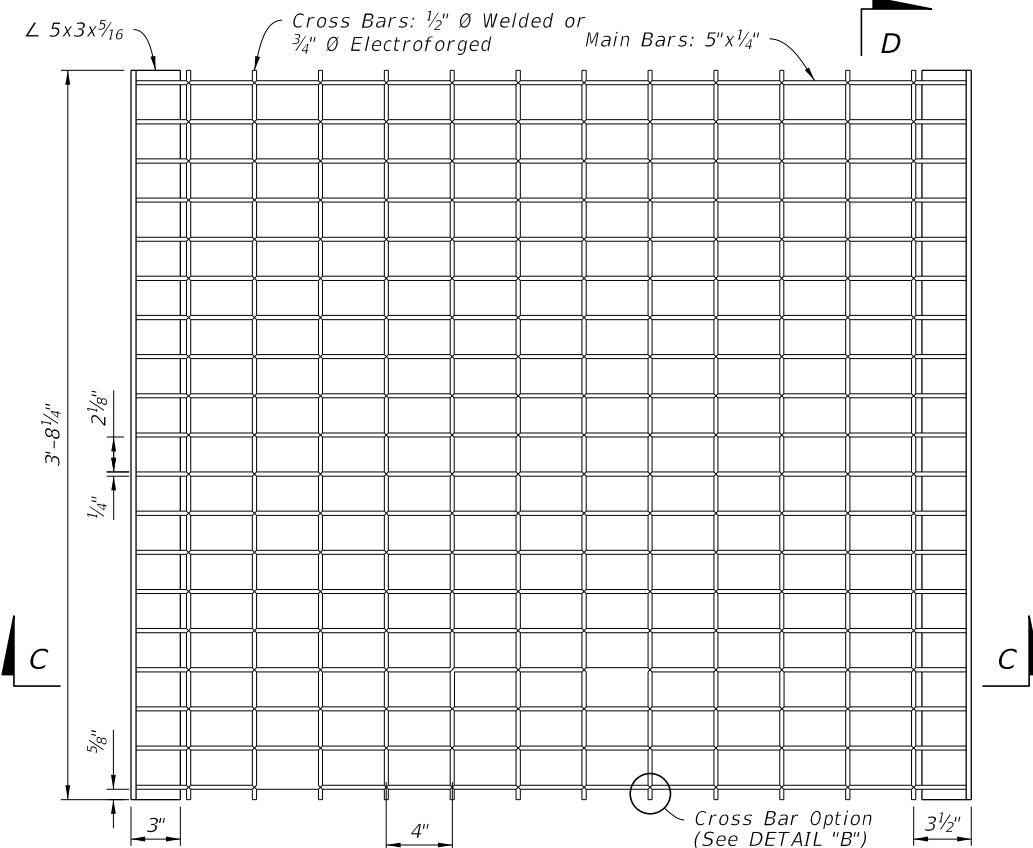


SECTION A-A
(Pipe Opening Shown)

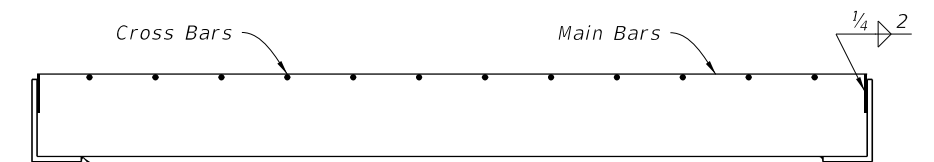


SECTION B-B
(Pipe Opening Not Shown)

DIMENSIONAL AND REINFORCEMENT



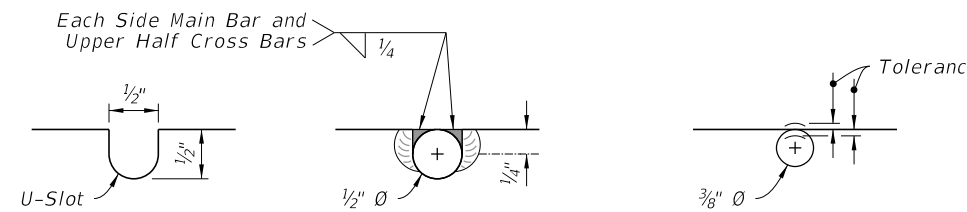
PLAN



SECTION C-C



SECTION D-D



WELDED

DETAIL "B"

ELECTROFORGED

STEEL GRATE

2026-27

DIMENSIONAL, REINFORCING, AND STEEL GRATE DETAILS

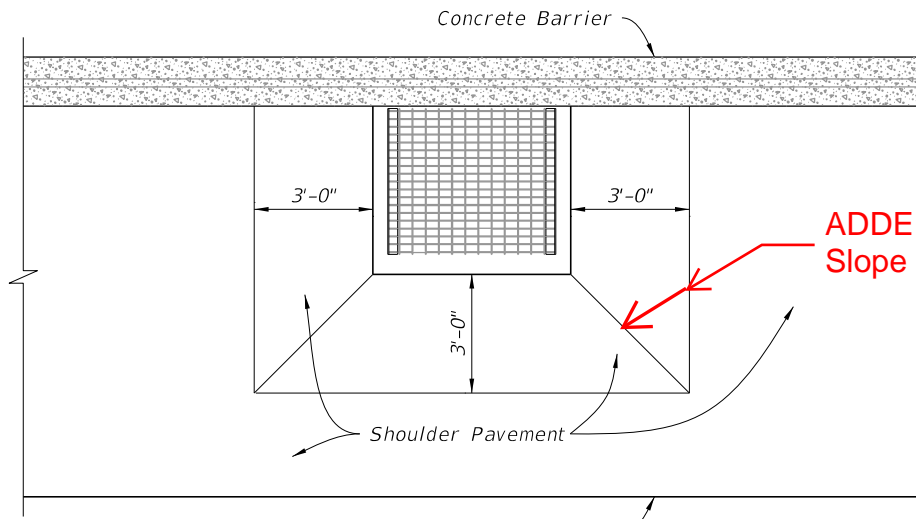
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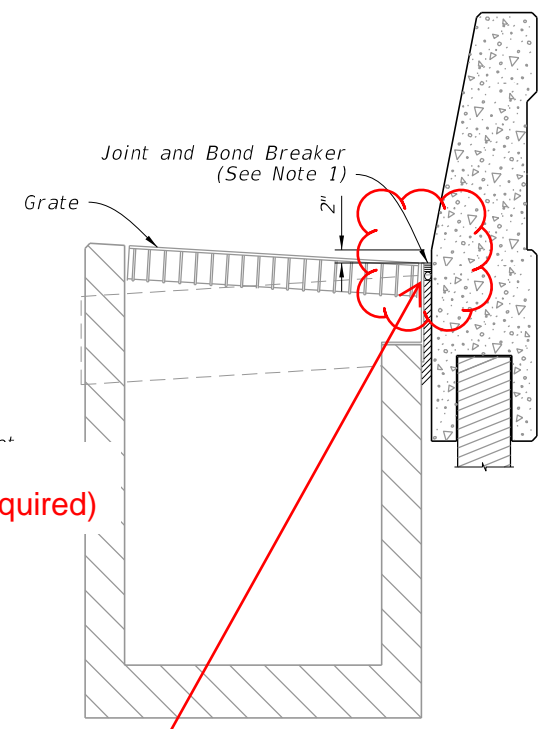
FDOT
FY 2025-26
STANDARD PLANS

ADJACENT BARRIER INLET

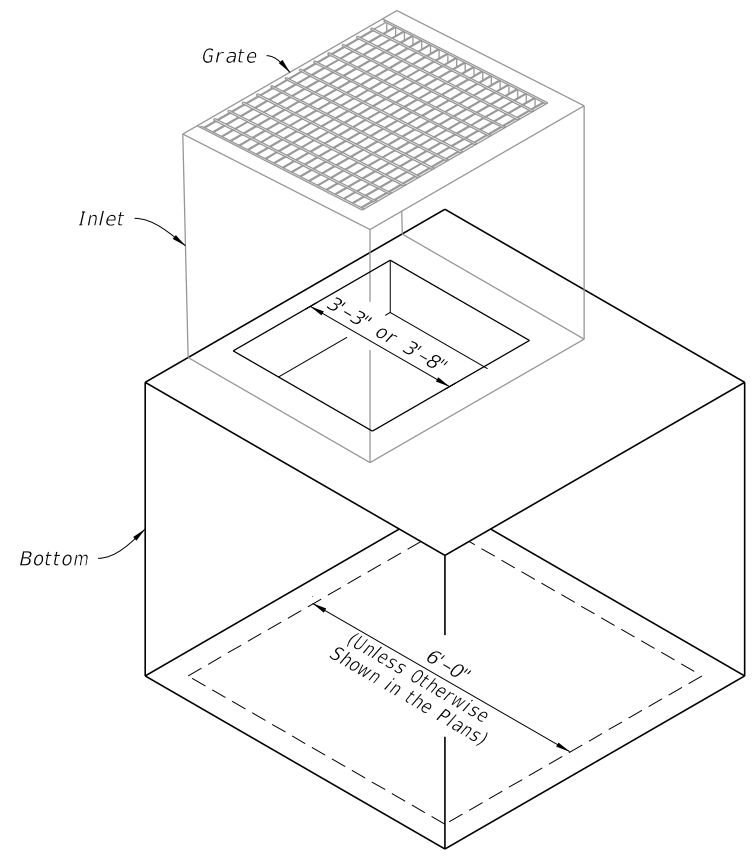
INDEX	SHEET
425-031	2 of 4



ADDED:
Slope Break (Typ. as Required)



JUNCTION SLAB AND WALL COPING



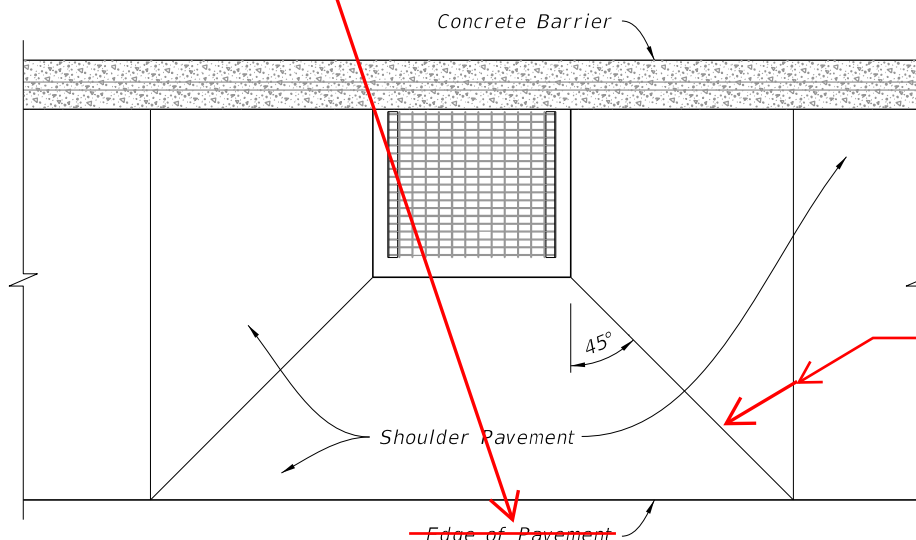
ALTERNATE B STRUCTURE BOTTOM

~~LOW SIDE SUPERELEVATION~~

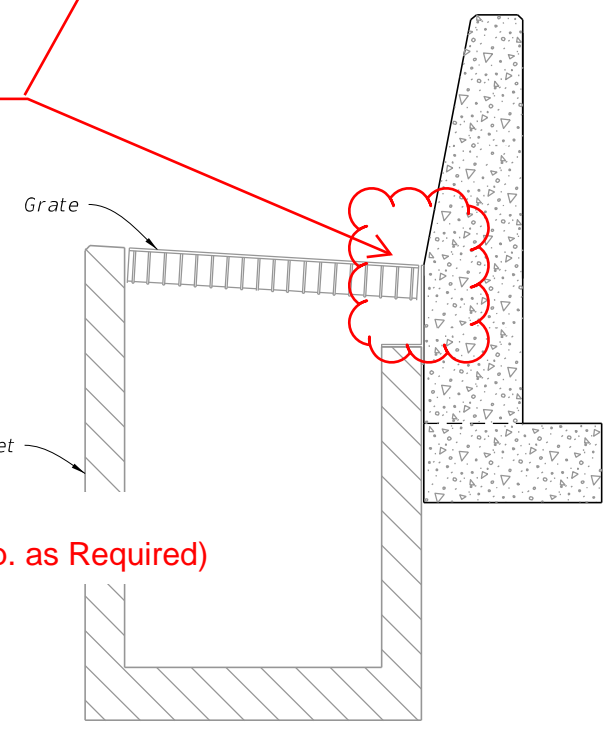
Renamed "STANDARD LOCATION"

CLARIFIED:
2" Dimension from
the Grate elevation
and the Gutter Line

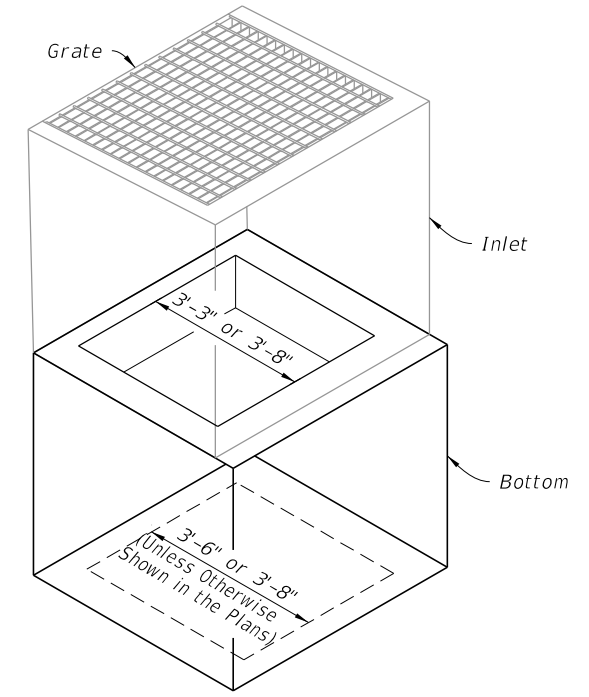
CHANGED TO: Edge
of Traveled Way



ADDED:
Slope Break (Typ. as Required)



STEM AND FOOTING



ALTERNATE B STRUCTURE BOTTOM

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

~~HIGH SIDE SUPERELEVATION~~
Renamed "SUPERELEVATION - HIGH SIDE LOCATION"

~~SUPERELEVATION SHOULDER PAVEMENT WRAP~~

Renamed " SHOULDER PAVEMENT TRANSITIONS"

~~BARRIER TYPE EXAMPLES~~

~~INLET WITH STRUCTURE BOTTOM~~

2026-27 SHOULDERS PAVEMENT WRAP, BARRIER TYPE EXAMPLES, AND STRUCTURE BOTTOMS

9/10/2024 11:37:12 AM

LAST REVISION	DESCRIPTION:
11/01/20	11/01/25



FY 2025-26
STANDARD PLANS

ADJACENT BARRIER INLET

INDEX
425-031

SHEET
4 of 4

GENERAL NOTES:

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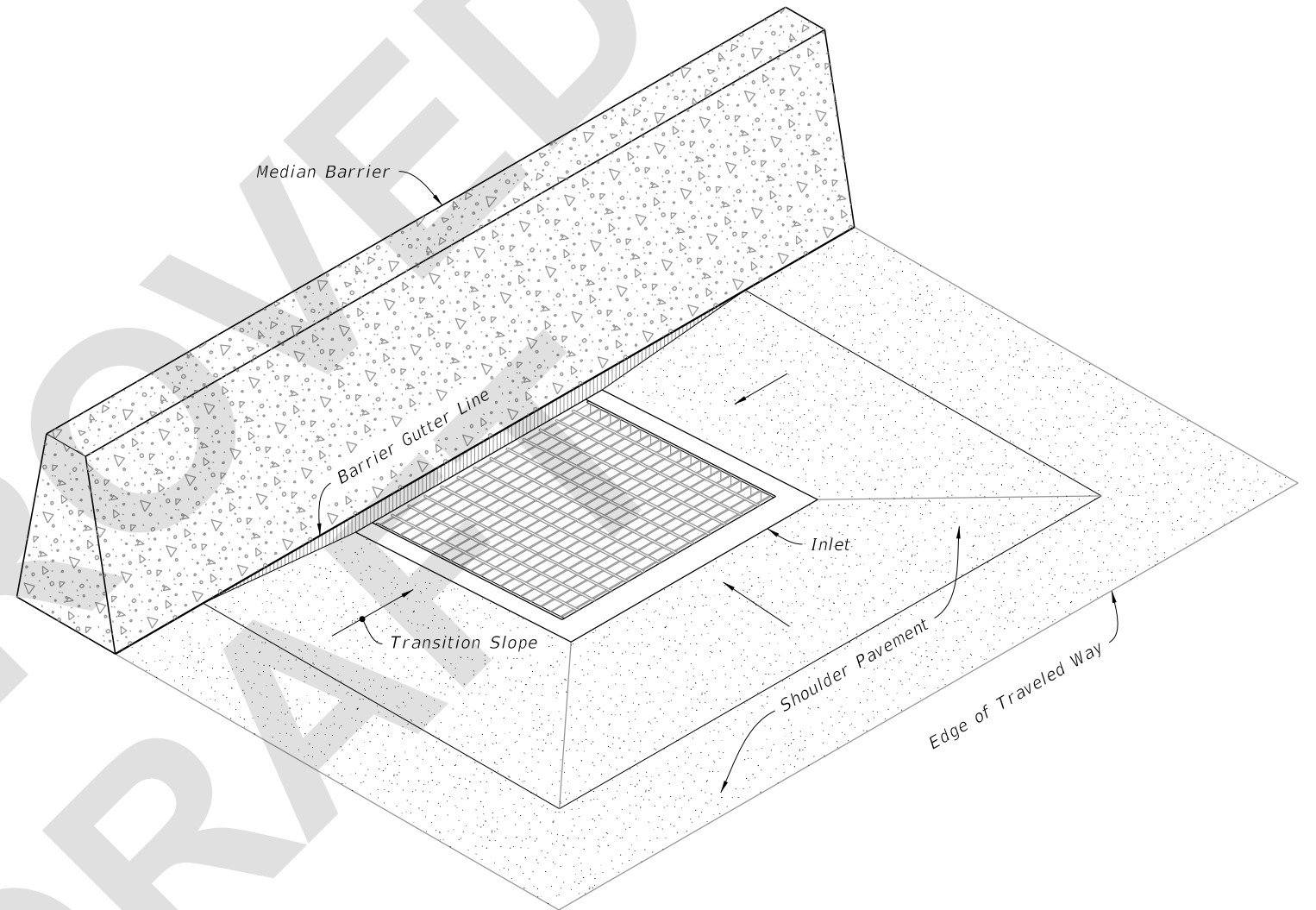
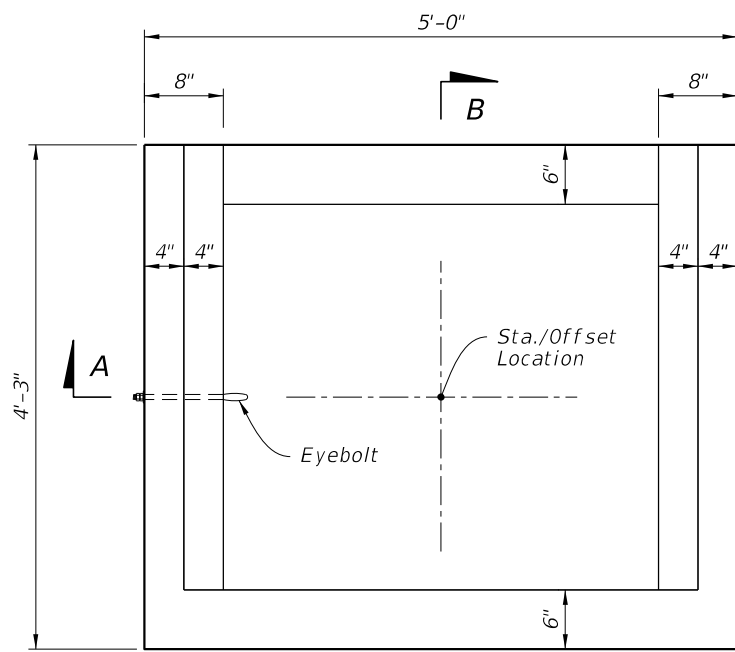


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ADJACENT BARRIER INLET
(Shoulder Barrier Similar)

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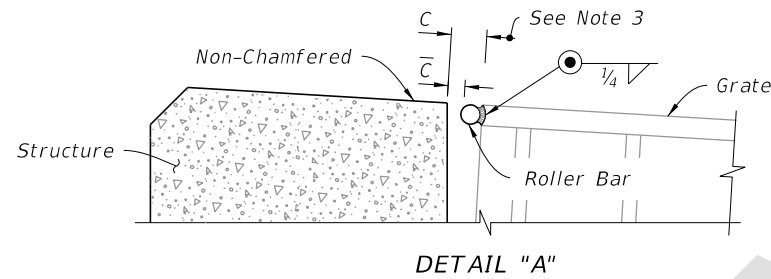


PLAN

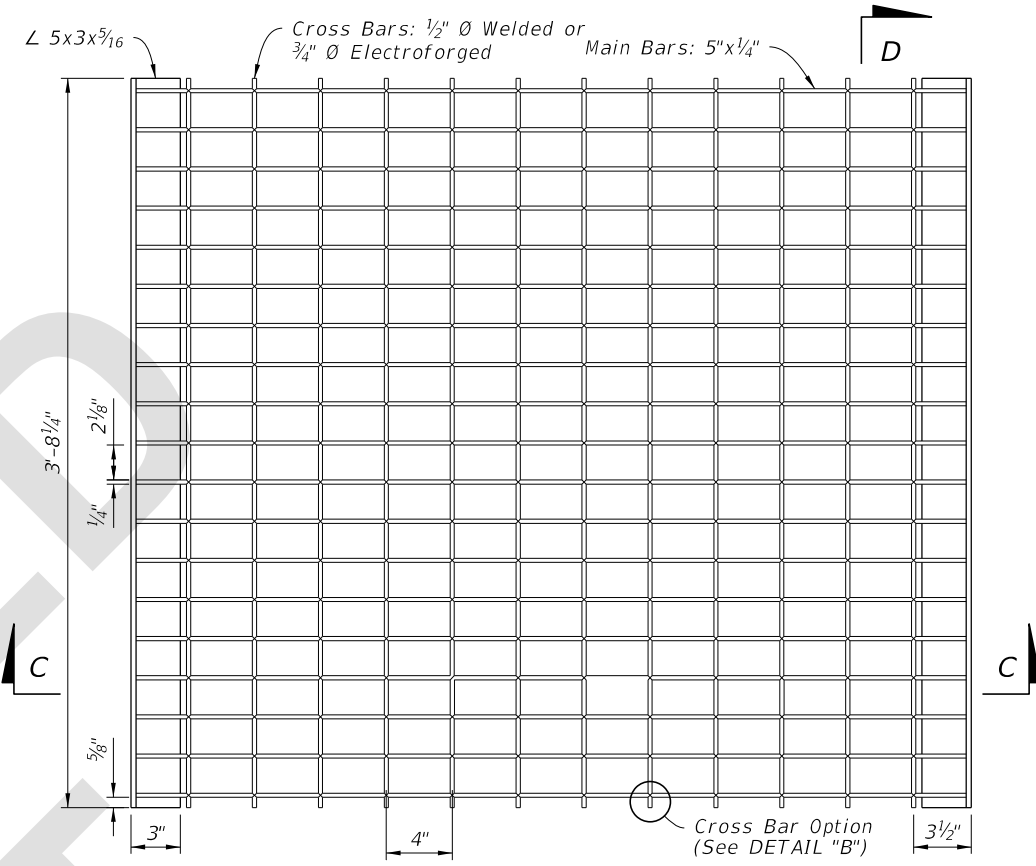
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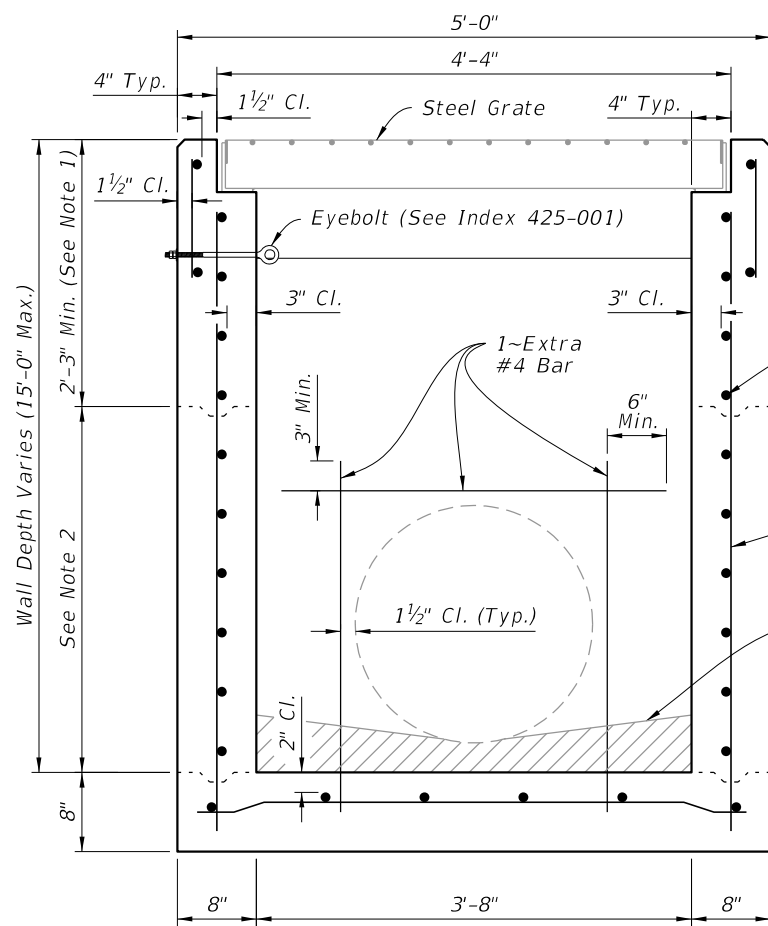
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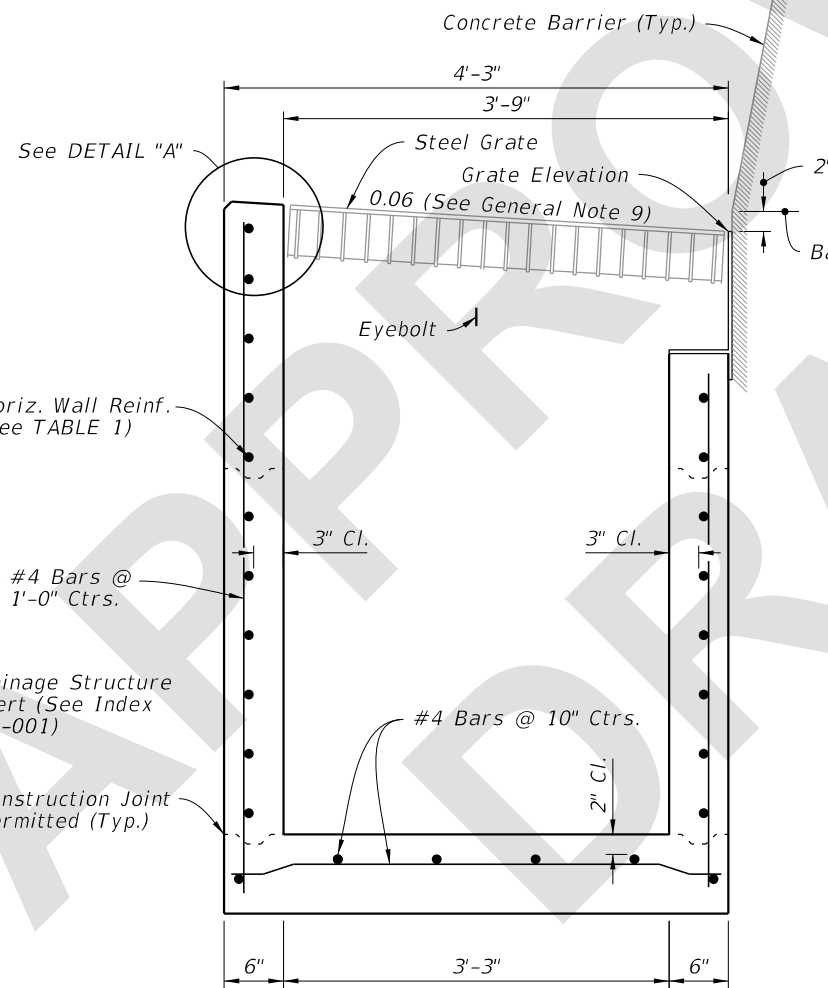
DETAIL "A"



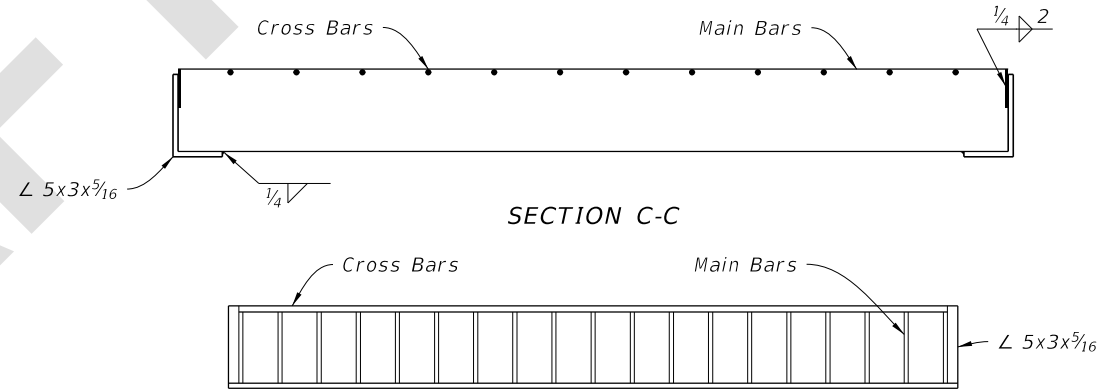
PLAN



SECTION A-A
(Pipe Opening Shown)

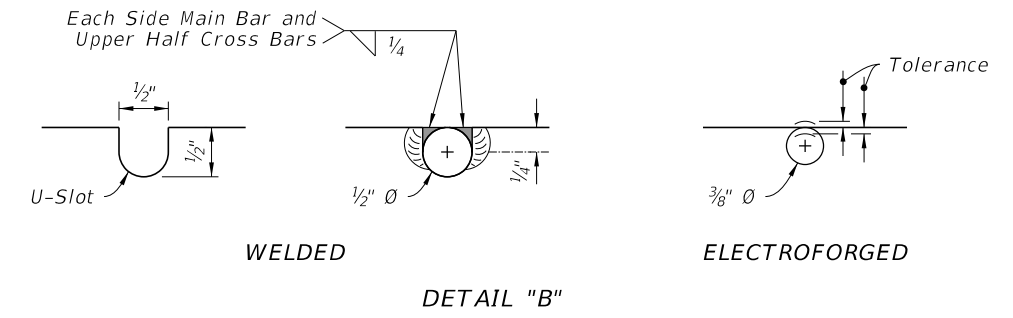


SECTION B-B
(Pipe Opening Not Shown)



SECTION C-C

SECTION D-D



WELDED

DETAIL "B"

ELECTROFORGED

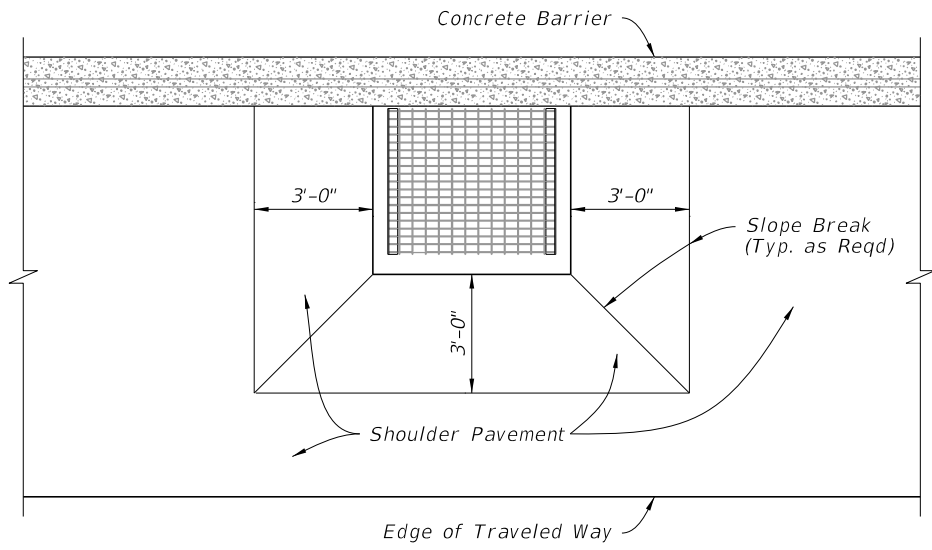
DIMENSIONAL AND REINFORCEMENT

STEEL GRATE

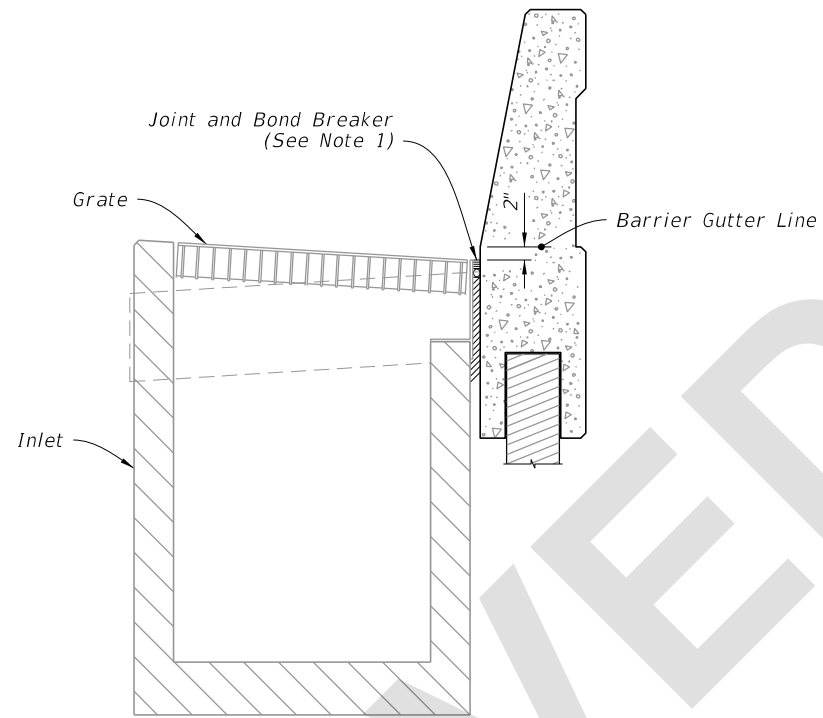
DIMENSIONAL, REINFORCING, AND STEEL GRATE DETAILS

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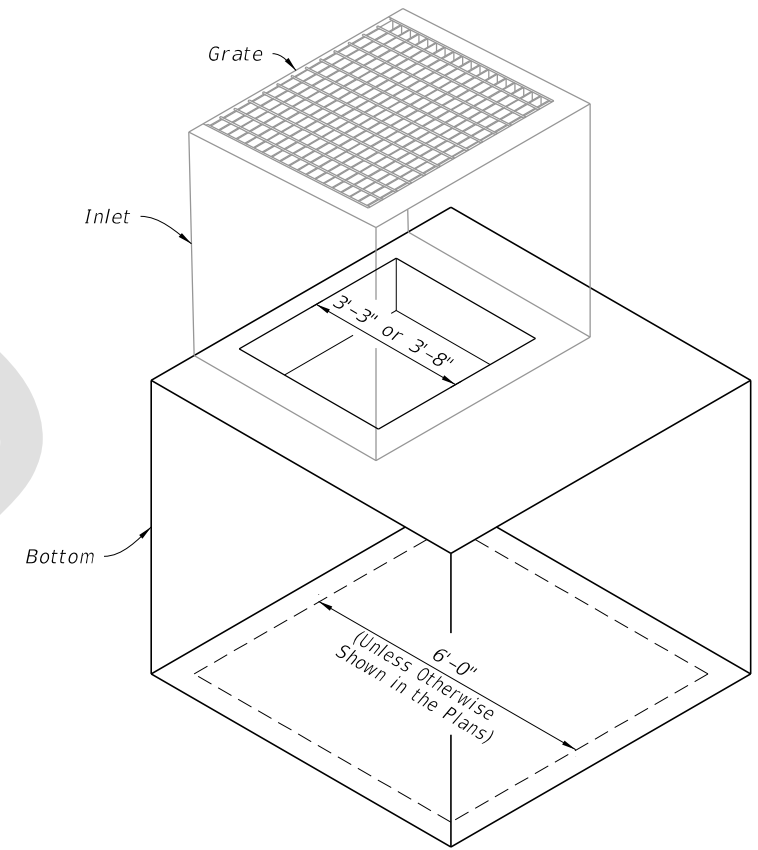
LAST REVISION 11/01/25	DESCRIPTION:		FY 2026-27 STANDARD PLANS	ADJACENT BARRIER INLET	INDEX 425-031	SHEET 2 of 4
REVISION						



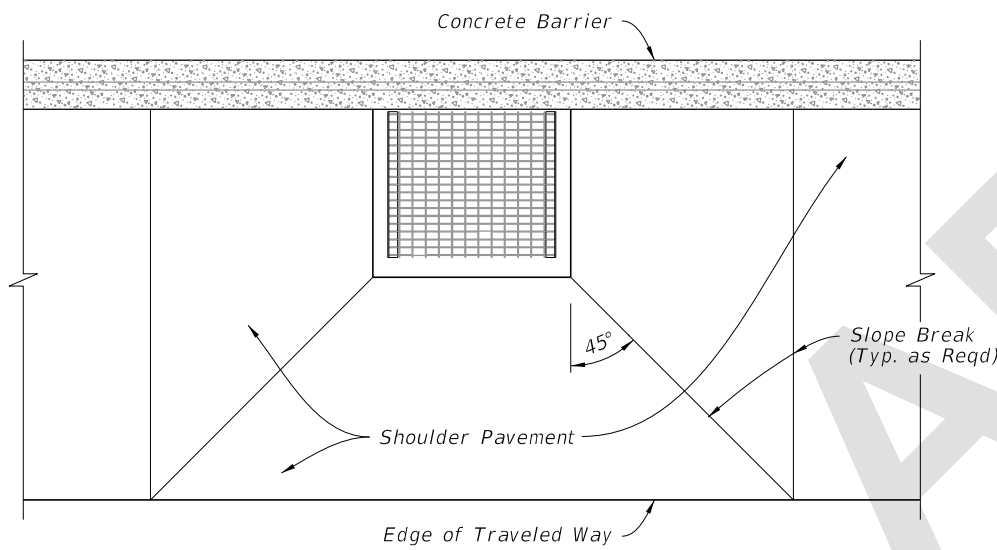
STANDARD LOCATON



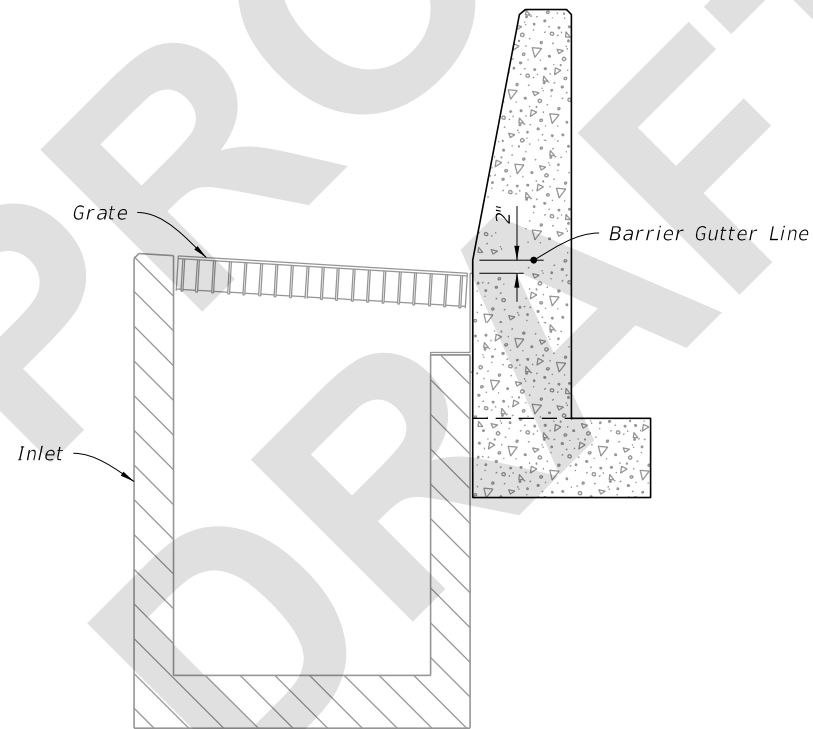
JUNCTION SLAB AND WALL COPING



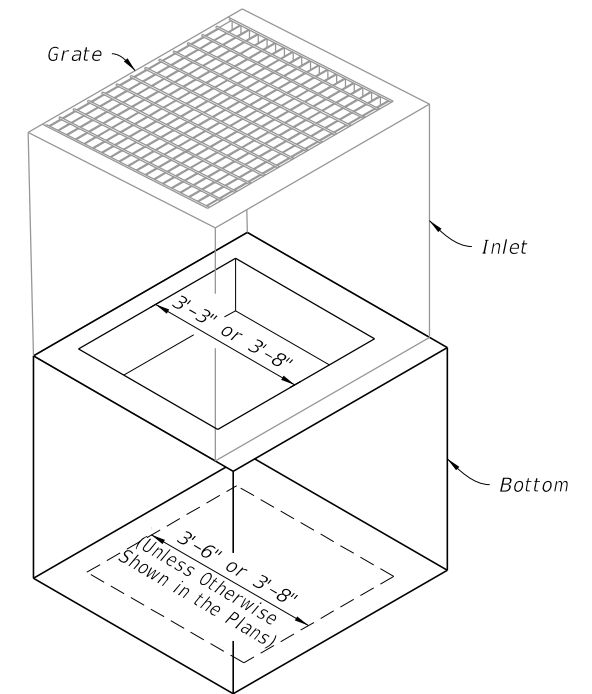
ALTERNATE B STRUCTURE BOTTOM



SUPERELEVATION - HIGH SIDE LOCATION



STEM AND FOOTING



ALTERNATE B STRUCTURE BOTTOM

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


SHOULDER PAVEMENT TRANSITIONS

BARRIER TYPE EXAMPLES

INLET WITH STRUCTURE BOTTOM

SHOULDER PAVEMENT WRAP, BARRIER TYPE EXAMPLES, AND STRUCTURE BOTTOMS

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LAST REVISION 11/01/25	DESCRIPTION:		FY 2026-27 STANDARD PLANS	ADJACENT BARRIER INLET	INDEX 425-031	SHEET 4 of 4