

ORIGINATION FORM

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

Contact Information:

Date: September 5, 2017
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Standard Plans:

Index Number: **217**
Sheet Number (s): 1,2
Index Title: Median Barrier Inlets Types 1, 2, 3, 4, & 5

Summary of the changes:

1. Update concrete sections and reinforcing steel for new Single-Slope Barrier. Clarify drawing labels.
2. Remove "Grate Slope & Drop Height" Table to simplify process, where only throat opening dimension governs.
3. Remove upstream and downstream throat(s). Now, only two inlet "Types" are needed (for defining inlet on one side of barrier or inlets on both sides of barrier). +

Commentary / Background:

This is part of the Index redevelopment project for Single-Slope Concrete Barrier and Pier Protection Barrier.

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

- | Yes | No | |
|-------------------------------------|-------------------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Other Standard Plans – Richard Stepp |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | FDOT Design Manual – |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Basis of Estimates Manual – Rick Jenkins, Melissa Hollis |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Standard Specifications – |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Approved Product List – |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Construction – |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Maintenance – |

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

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

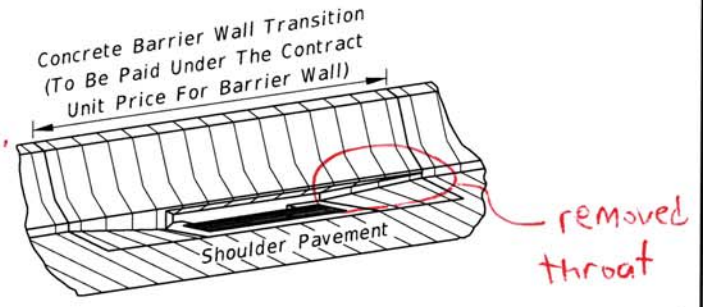
Revised all for single-slope, improve labels

GRATE SLOPE & DROP HEIGHT				
Shoulder Slope	Grate Slope Rate	Drop Height		Remarks
		CIPL	Precast	
0.03	1:6	1 7/16"	1 1/16"	Std. Median Concrete Shoulder
0.05	1:6	1 1/16"	7/8"	Std. Median Flexible Shoulder
0.06	1:6	1 3/16"	5/8"	
0.07	1:5	1 5/8"	1 3/8"	
0.08	1:5	1 3/8"	1 3/16"	
0.09	1:5	1 1/8"	1 1/16"	
0.10	1:5	7/8"	1 1/16"	e (max)

Revised for single-slope...

Throat opening now simply 4 1/2" Min 5 1/2" Max...

Moved throat opening detail to here from Sheet 2



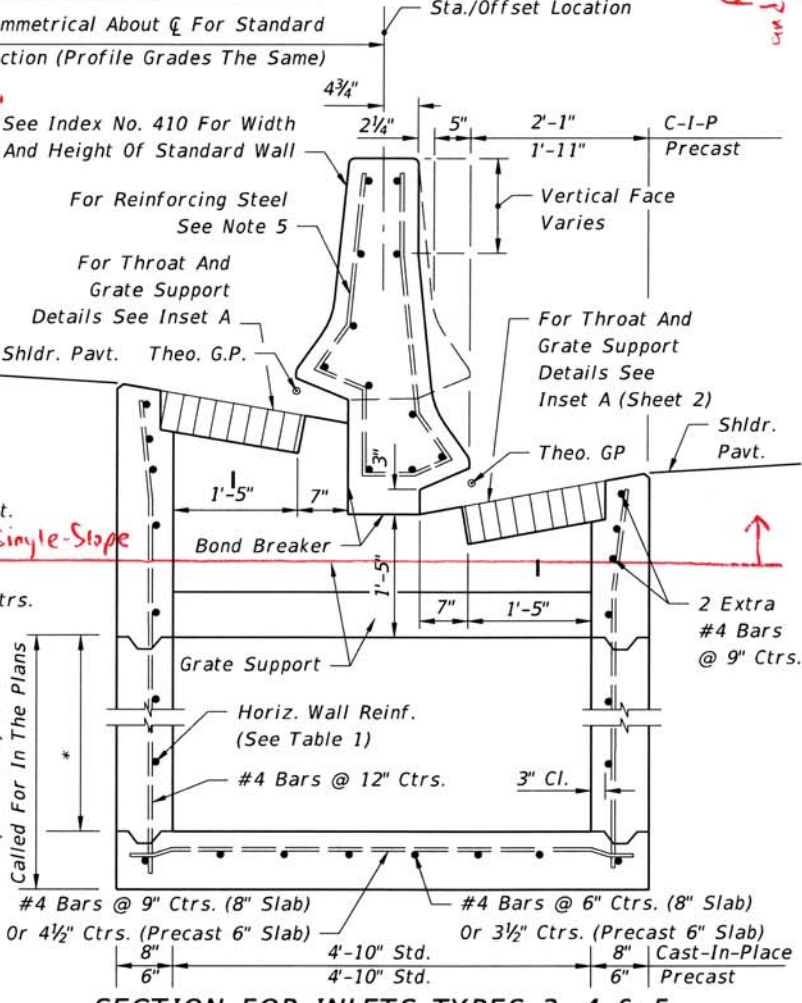
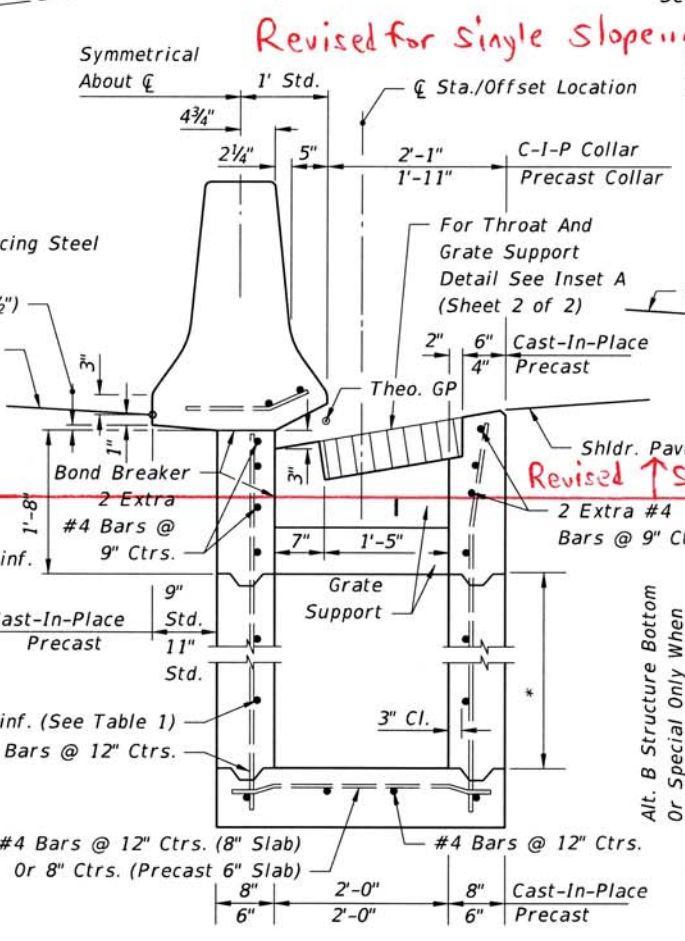
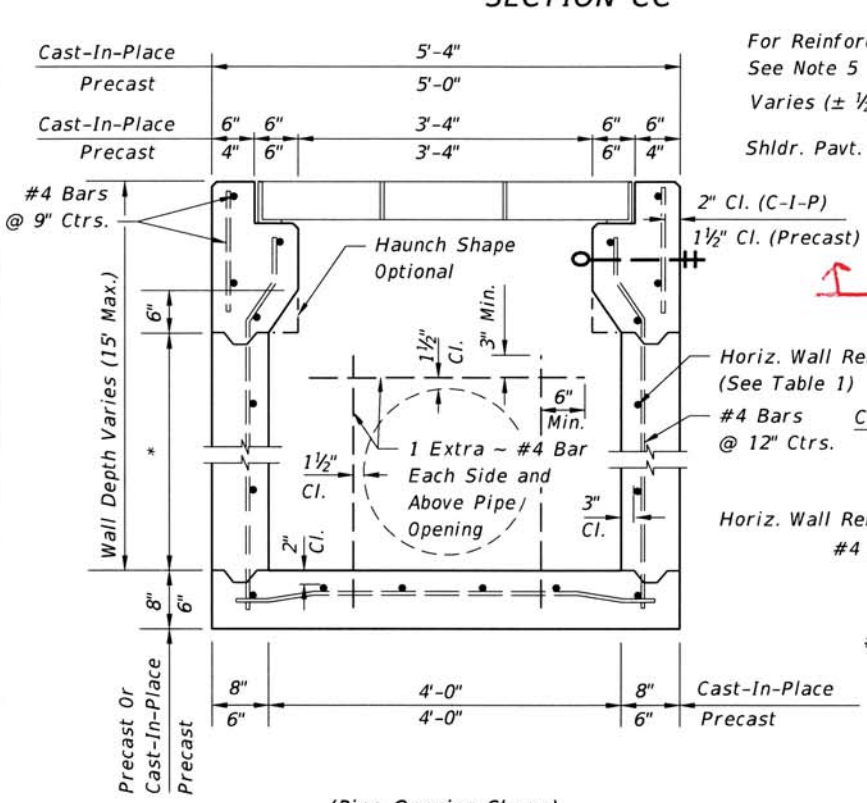
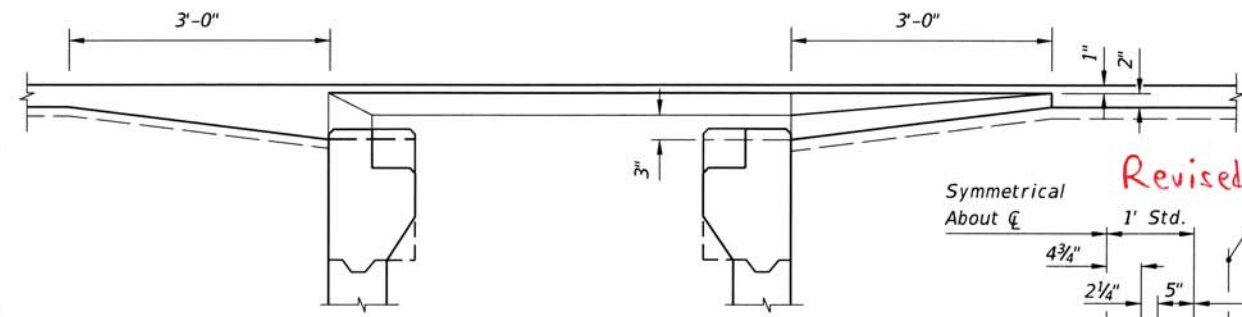
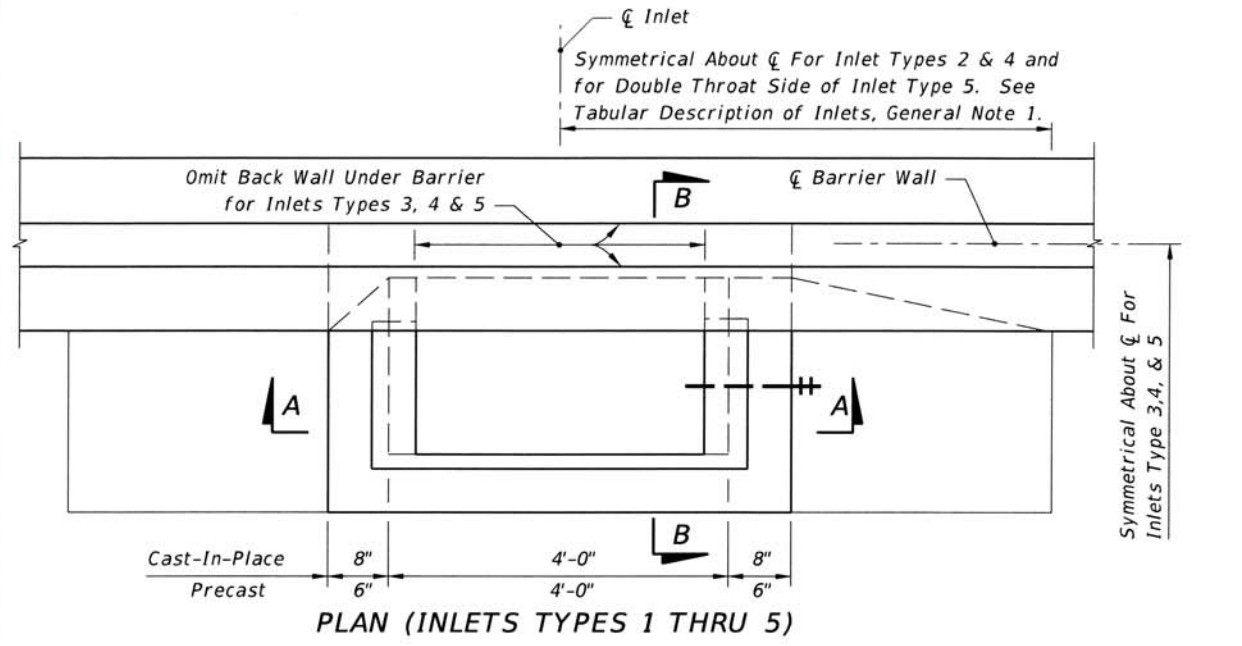
PICTORIAL VIEW (TYPE I SHOWN)

HORIZONTAL WALL REINFORCING SCHEDULE (TABLE 1)

WALL DEPTH	SCHEDULE	AREA (in. ² /ft.)	MAX. SPACING	
			BARS	WWF
0'-3'	A12	0.20	12"	8"
3'-6'	A6	0.20	6"	5"
6'-9'	B5.5	0.24	5 1/2"	5"
9'-15'	C6.5	0.37	6 1/2"	6"

GENERAL NOTES

- Inlet Descriptions:
 - Type 1 ~~Single throat~~, one side of barrier wall.
 - Type 2 ~~Double throats~~, both sides of barrier wall.
 - Type 3 ~~Two single throats~~, opposite side of barrier wall.
 - Type 4 ~~Two double throats~~, opposite sides of barrier wall.
 - Type 5 ~~Double throats~~, one side of barrier wall, and single throat other side of barrier wall.
- For grate details see Index No. 220. The parallel bar grate shall be used unless the reticuline grate is called for in the plans. The reticuline grate shall be specified where bicycle traffic is anticipated. Used in areas of occasional pedestrian traffic. Not suitable for use in pedestrian traffic or bicycle way.
- All exposed edges and corners shall be 3/4" chamfer or tooled to 1/4" radius.
- For standard concrete barrier wall dimensions, and for dimensions of concrete barrier wall incorporating light standards within the wall, see Index No. 410.
- Reinforcing steel shall have 2" minimum cover. Horizontal wall reinforcing must be positioned 3" from the inside face unless otherwise shown.
- All reinforcing is Grade 60 #4 bars. See Index No. 201 for equivalent area of welded wire fabric for inlet. Longitudinal steel bars extend over full length of concrete barrier wall transition. Tie bars @ 12" ctrs. Reinforcing to be paid for under the contract unit price for Concrete Barrier Wall, LF.
- For supplemental details see Index No. 201.
- 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 (Median Barrier Type), EA. Barrier wall to be paid for under the contract unit price for Concrete Barrier Wall, LF.
- Bond Breaker: One layer of ASTM D6380 Class S, Type III organic felt between inlet and barrier, including footings.



SECTION FOR INLETS TYPES 1 & 2

SECTION FOR INLETS TYPES 3, 4 & 5 (NON-SYMMETRICAL SECTION SHOWN)

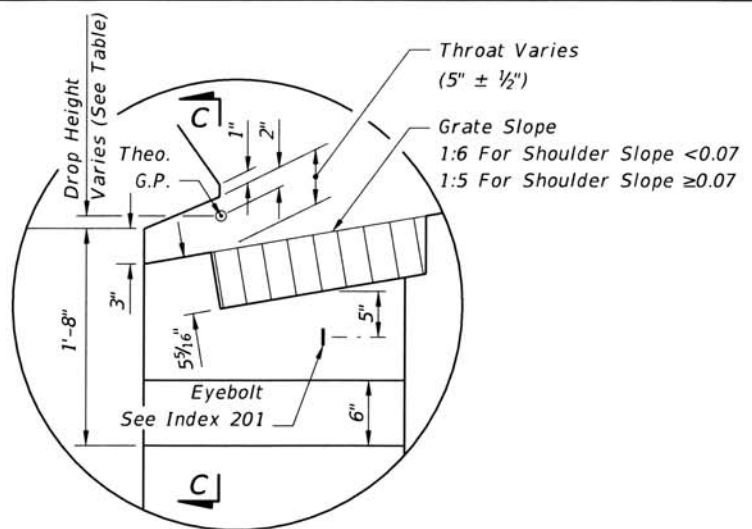
SECTION AA (Pipe Opening Shown)

SECTION BB (Pipe Opening Shown)

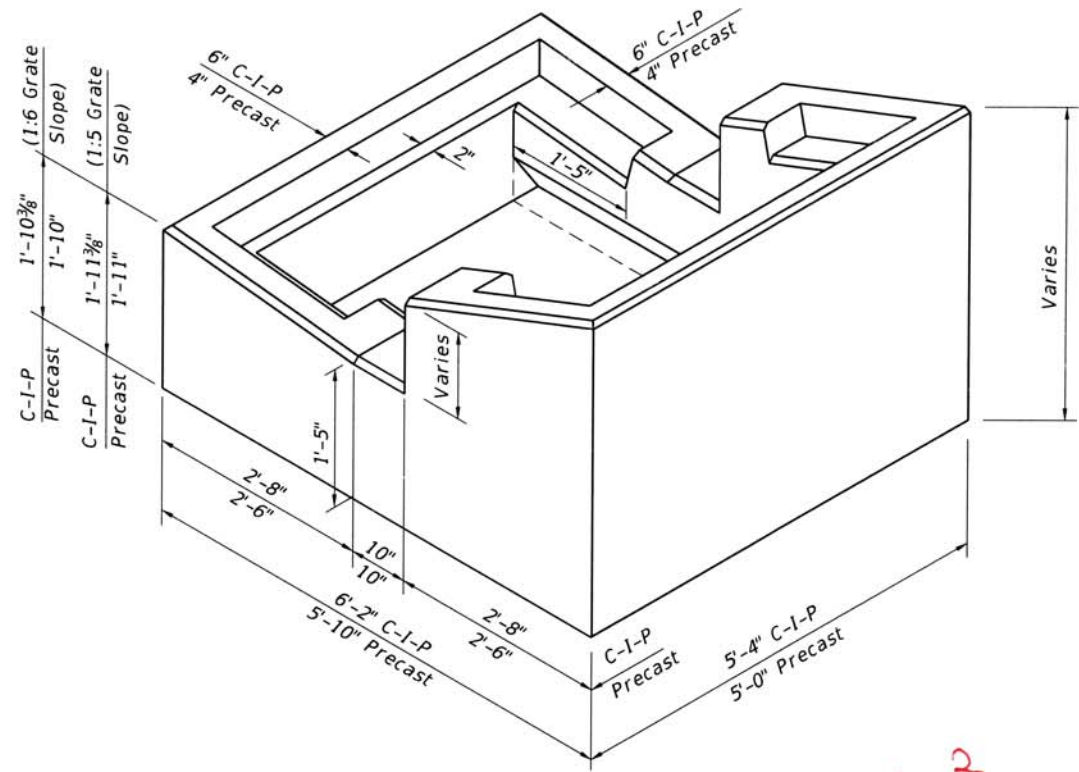
* Const. Joint Permitted Between These Limits See Index No. 201 For Min. Dimensions

10/25/2016 8:15:33 AM

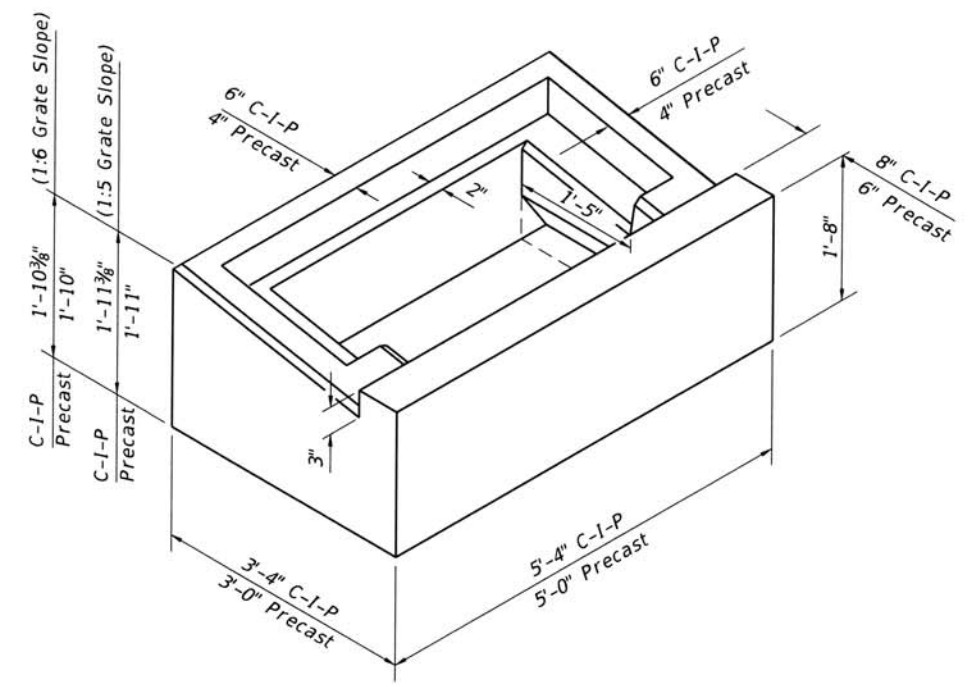
Move "Inset A" to Sheet 1



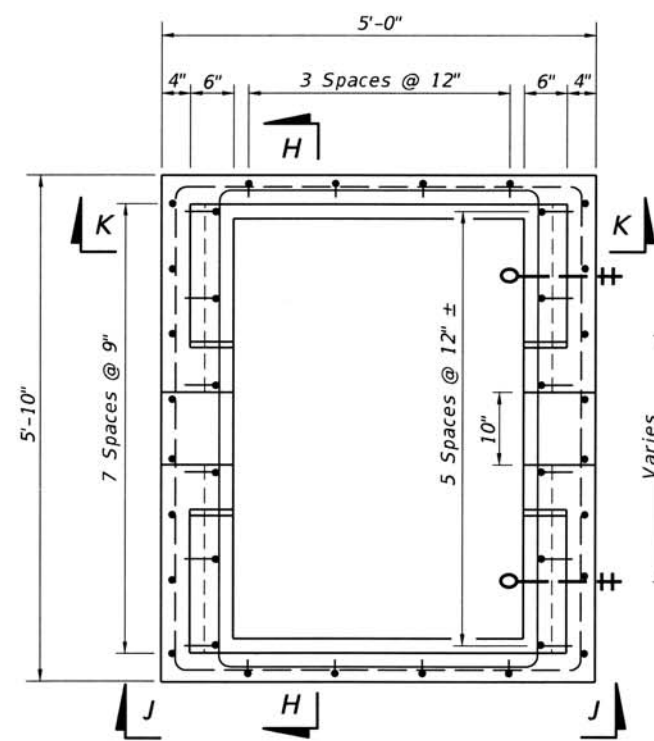
INSET A



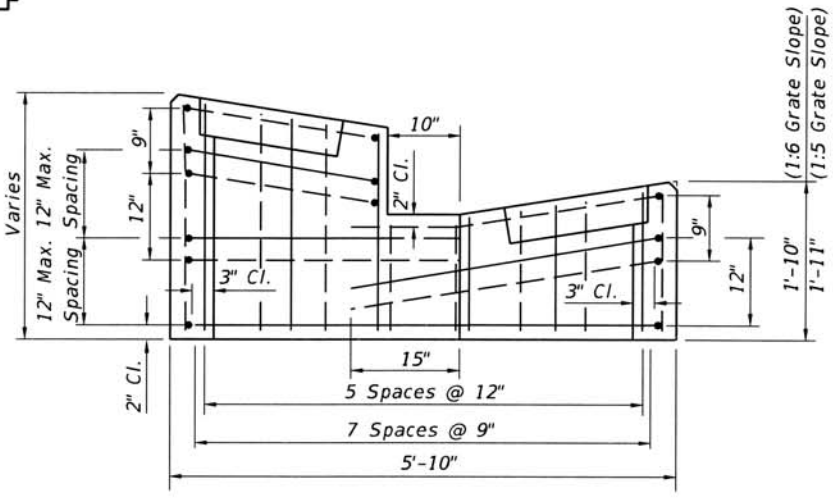
PICTORIAL VIEW OF INLET COLLAR (TYPES ~~3, 4, & 5~~ ²)



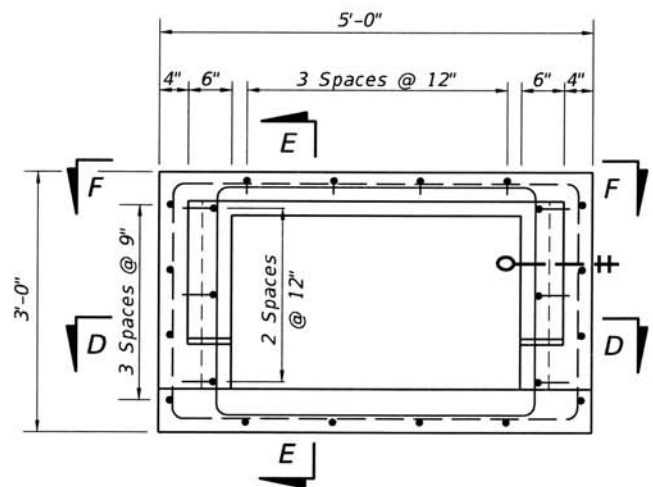
PICTORIAL VIEW OF INLET COLLAR (TYPES ~~1 & 2~~)



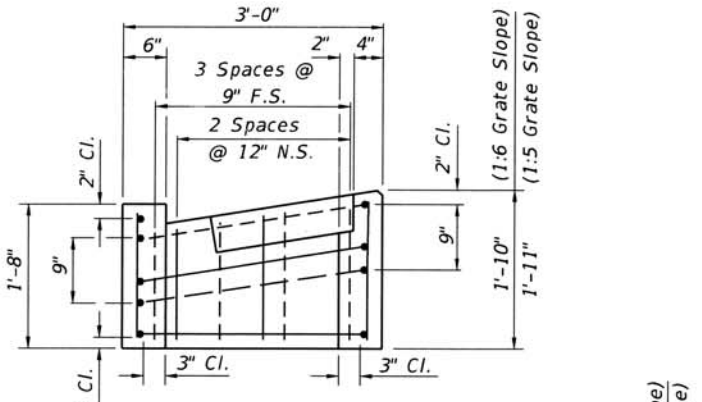
TOP VIEW OF INLET COLLAR WITHOUT GRATE



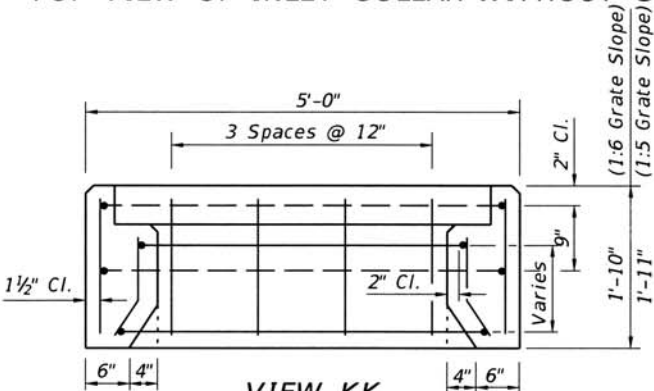
SECTION HH



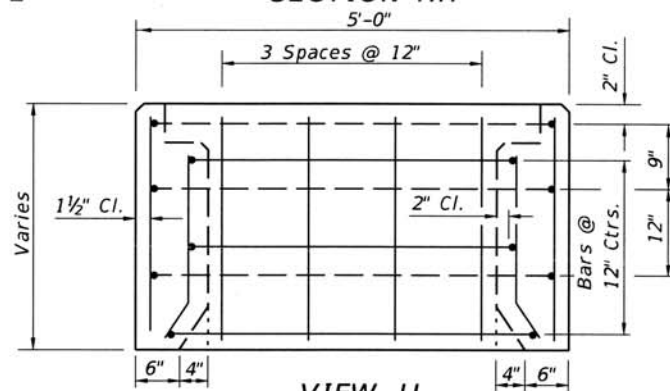
TOP VIEW OF INLET COLLAR WITHOUT GRATE



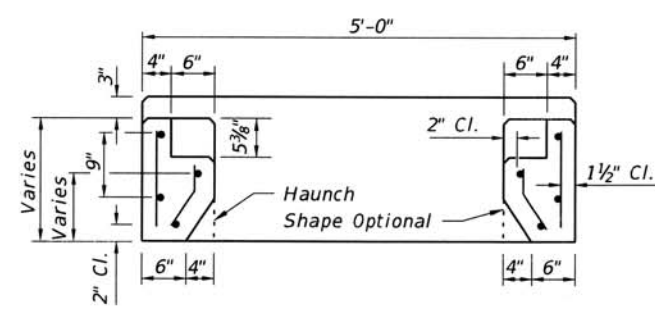
SECTION EE



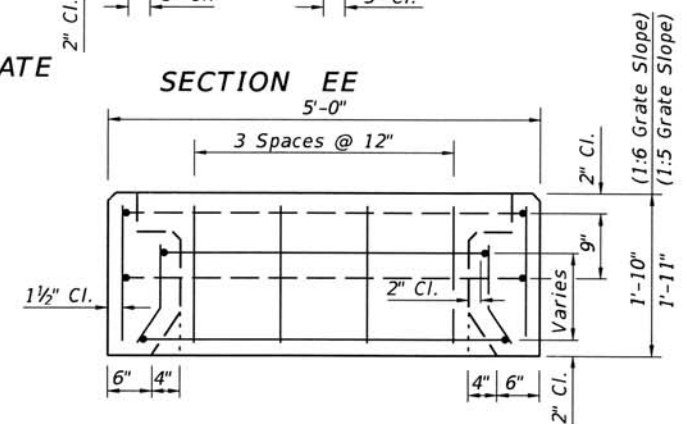
VIEW KK



VIEW JJ



SECTION DD



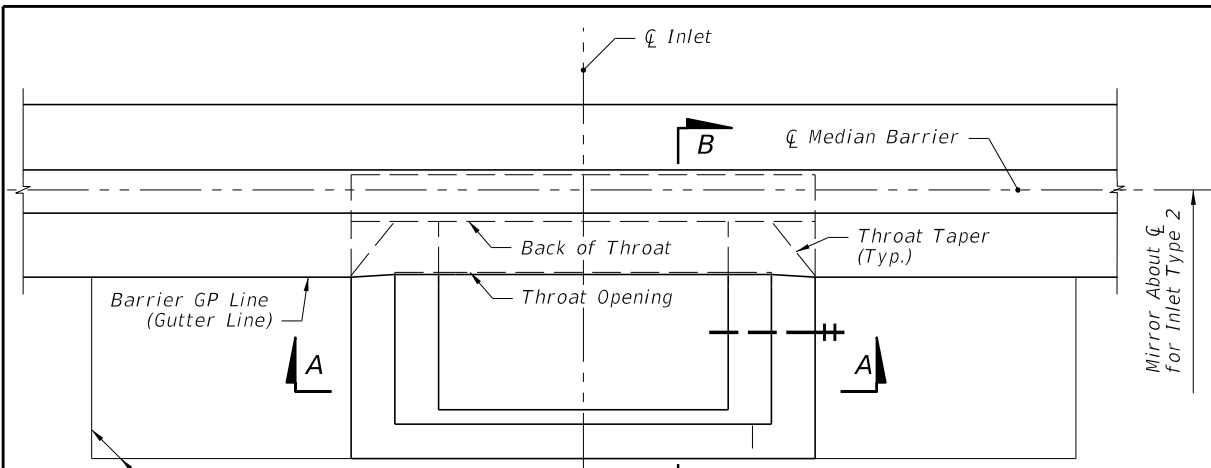
VIEW FF

PRECAST COLLAR REINFORCING DETAILS (TYPES ~~3, 4 & 5~~)
(C-I-P COLLAR REINFORCING DETAILS SIMILAR) ²

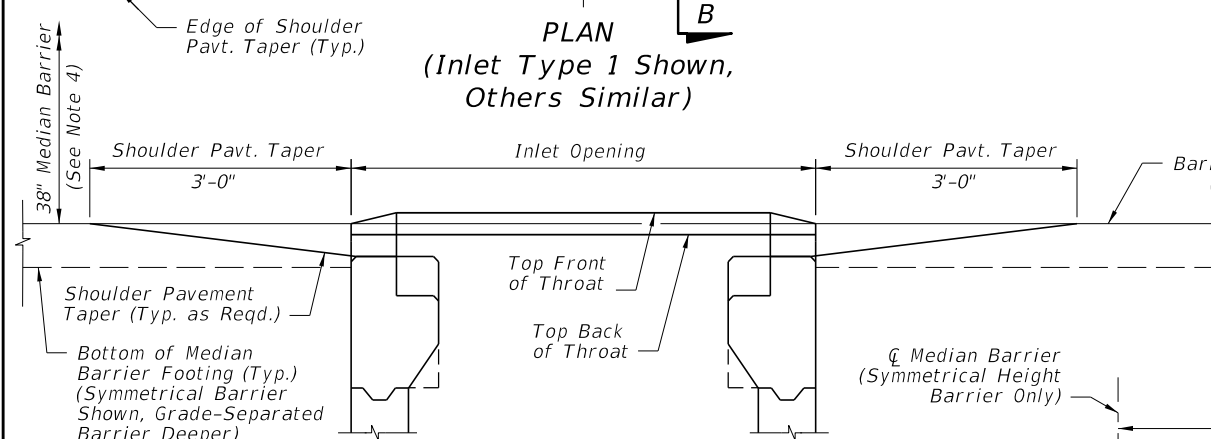
PRECAST COLLAR REINFORCING DETAILS (TYPES ~~1 & 2~~)
(C-I-P COLLAR REINFORCING DETAILS SIMILAR)

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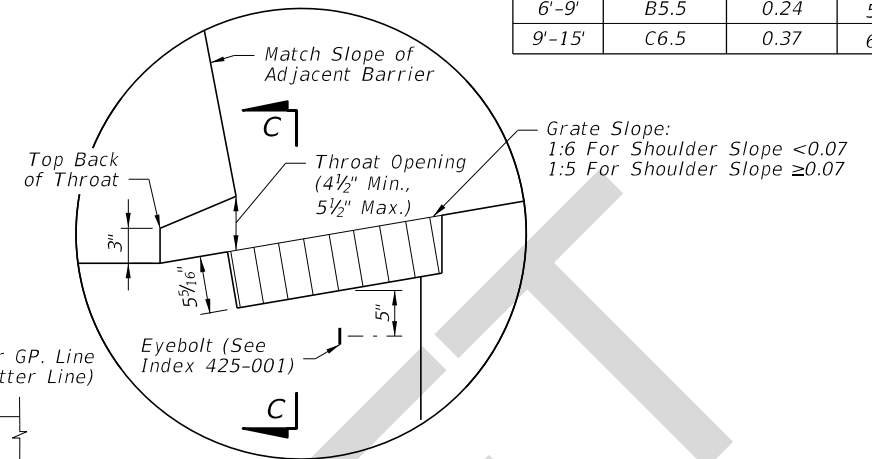
LAST REVISION 07/01/05	DESCRIPTION:		FY 2017-18 DESIGN STANDARDS	MEDIAN BARRIER INLETS TYPES 1, 2, 3, 4 AND 5 AND ² 425-030-217	INDEX NO. 217	SHEET NO. 2 of 2
REVISION						



PLAN
(Inlet Type 1 Shown,
Others Similar)



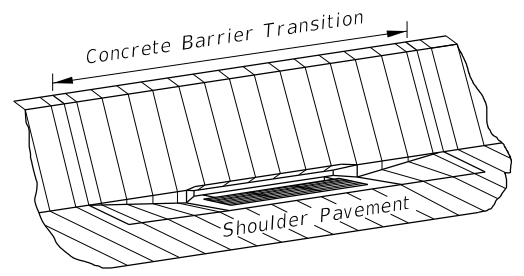
ELEVATION - VIEW C-C
(Grate Not Shown for Clarity)



INLET DETAIL

TABLE 1: HORIZONTAL WALL REINFORCING SCHEDULE

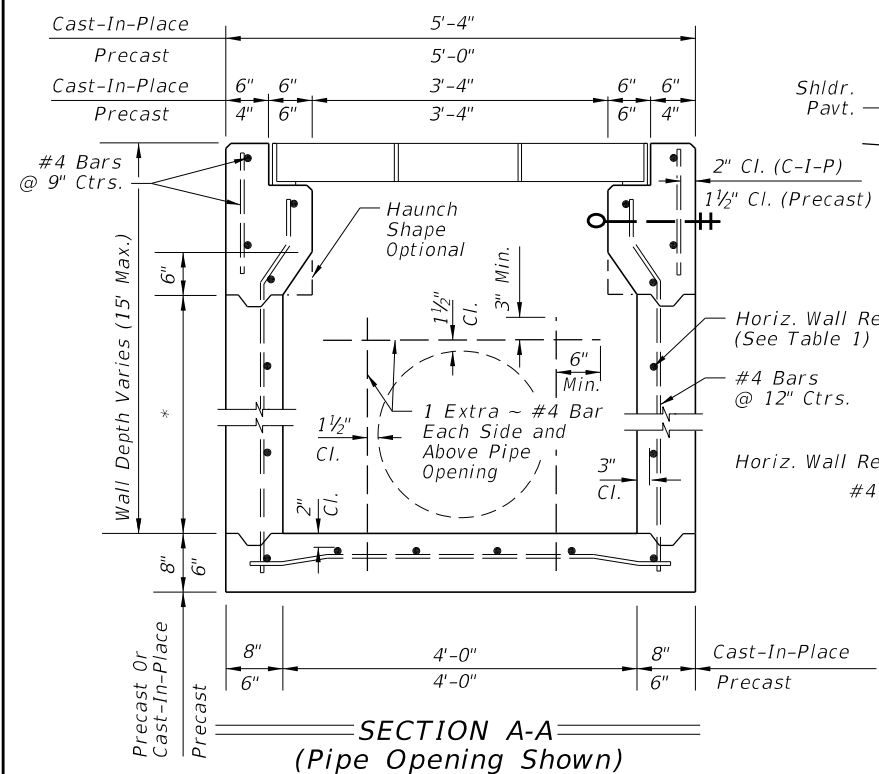
WALL DEPTH	SCHEDULE	AREA (in. ² /ft.)	MAX. BARS	SPACING WWF
0'-3'	A12	0.20	12"	8"
3'-6'	A6	0.20	6"	5"
6'-9'	B5.5	0.24	5 1/2"	5"
9'-15'	C6.5	0.37	6 1/2"	6"



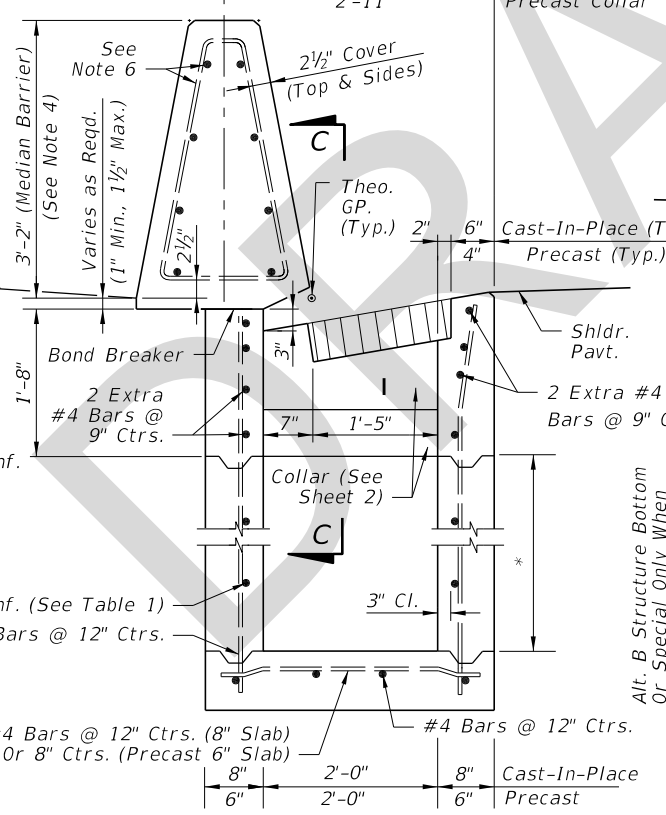
ISOMETRIC VIEW

GENERAL NOTES:

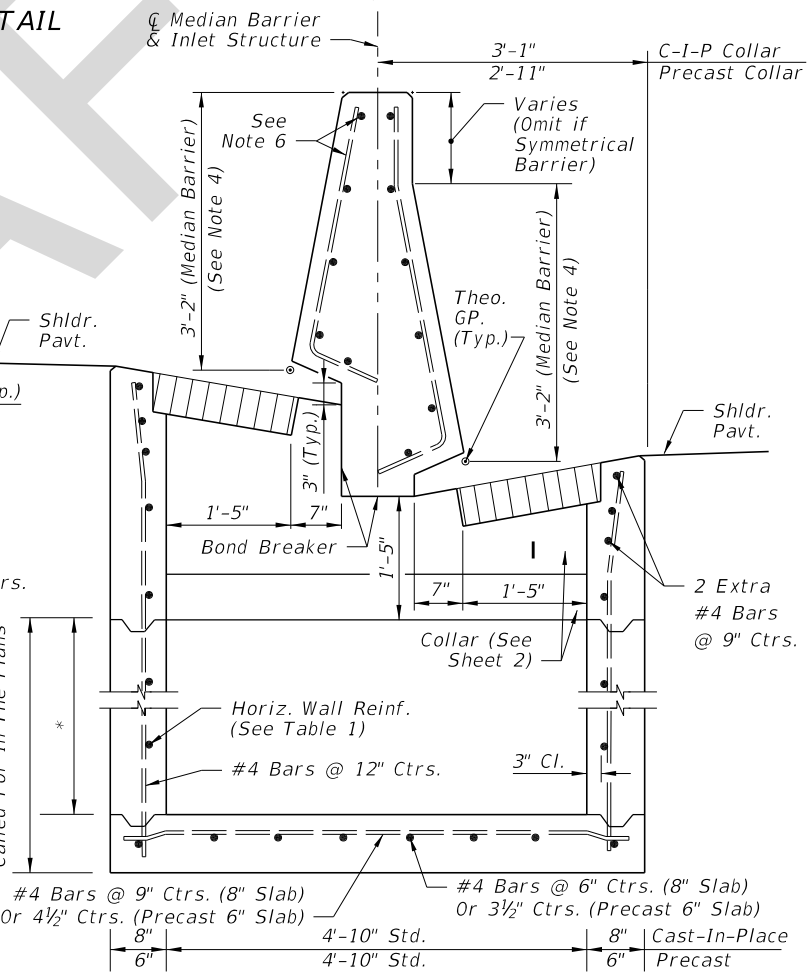
- Inlet Descriptions:**
Type 1: Inlet on one side of barrier wall.
Type 2: Inlet on both sides of barrier wall.
- For grate details, see Index 425-020. The parallel bar grate shall be used unless the reticuline grate is called for in the plans. The reticuline grate shall be specified where bicycle traffic is anticipated. Used in areas of occasional pedestrian traffic. Not suitable for use in pedestrian traffic or bicycle way.
- All exposed edges and corners shall be 3/4" chamfer or tooled to 1/4" radius.
- For standard Concrete Barrier dimensions, see Index 521-001.
- Inlet wall reinforcing is Grade 60 #4 bars. The horizontal wall reinforcing must be positioned 3" from the inside face unless otherwise shown. Per Index 425-001, the equivalent area of welded wire fabric is permitted.
- Barrier reinforcing is Grade 60 #4 bars or #5 bars, as required to match the stirrups and longitudinal steel of the adjacent Concrete Barrier per Index 521-001. Barrier reinforcing steel cover may be either 2" or 2 1/2" as needed to match the adjacent barrier reinforcing cover, unless otherwise shown. Match the stirrup spacing of the adjacent barrier. Run Longitudinal steel bars over the full length of the Concrete Barrier Transition and run continuously with the longitudinal steel of the adjacent barriers, using lap splices as required.
- For supplemental details see Index 425-001.
- 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 (Median Barrier Type), EA. Barrier wall to be paid for under the contract unit price for Concrete Barrier Wall, LF.
- Bond Breaker: One layer of ASTM D6380 Class S, Type III organic felt between inlet and barrier, including footings.



SECTION A-A
(Pipe Opening Shown)



SECTION FOR INLET TYPE 1
(SYMMETRICAL HEIGHT BARRIER ONLY)

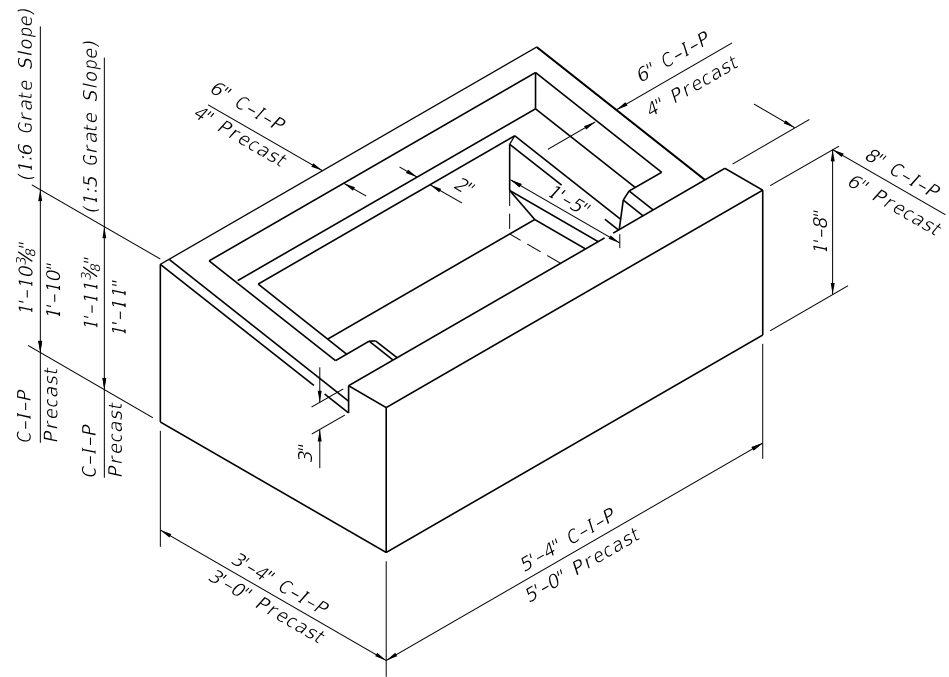


SECTION FOR INLET TYPE 2
(GRADE-SEPARATED BARRIER SHOWN,
SYMMETRICAL HEIGHT BARRIER SIMILAR)

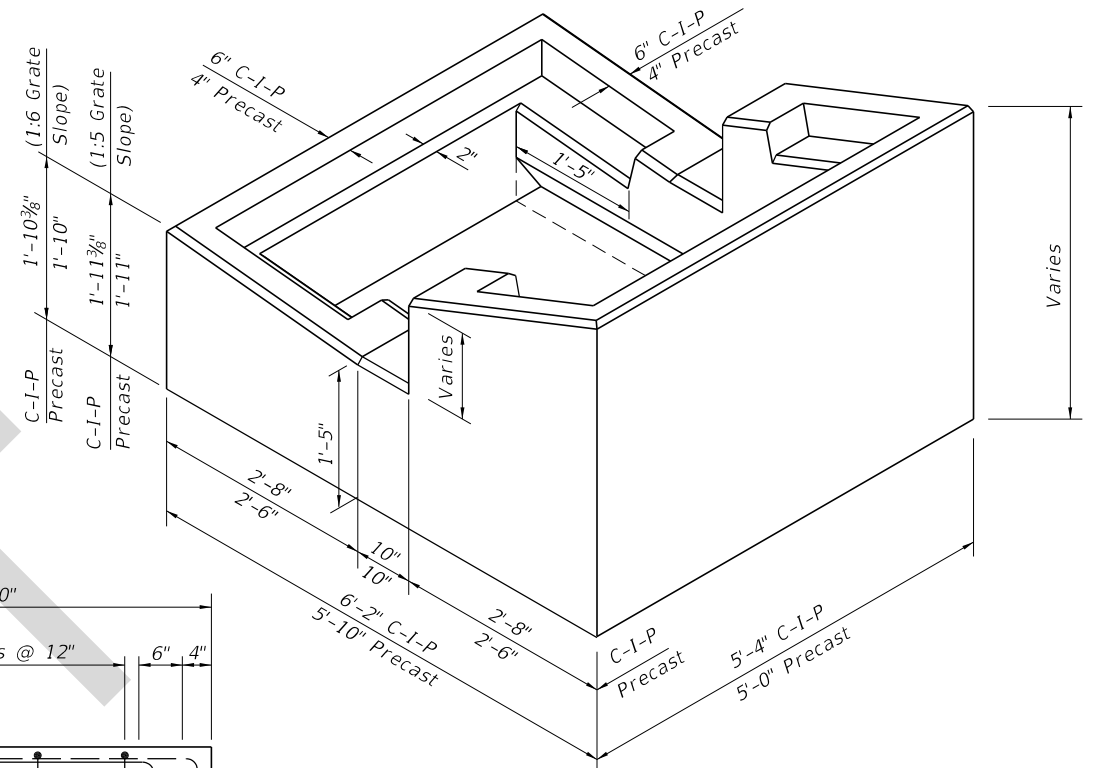
* Const. Joint Permitted Between These Limits See Index 425-001 For Min. Dimensions

SECTION B-B
(Pipe Opening Not Shown)

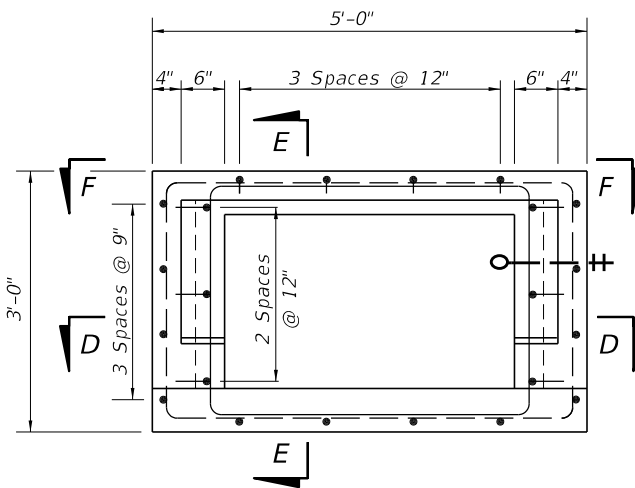
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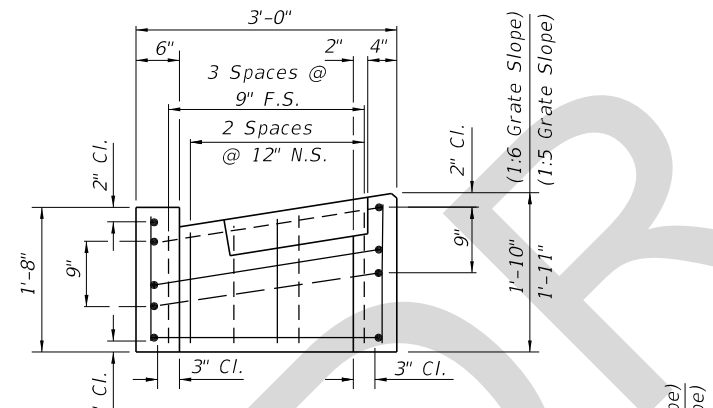
ISOMETRIC VIEW OF INLET COLLAR (TYPE 1)



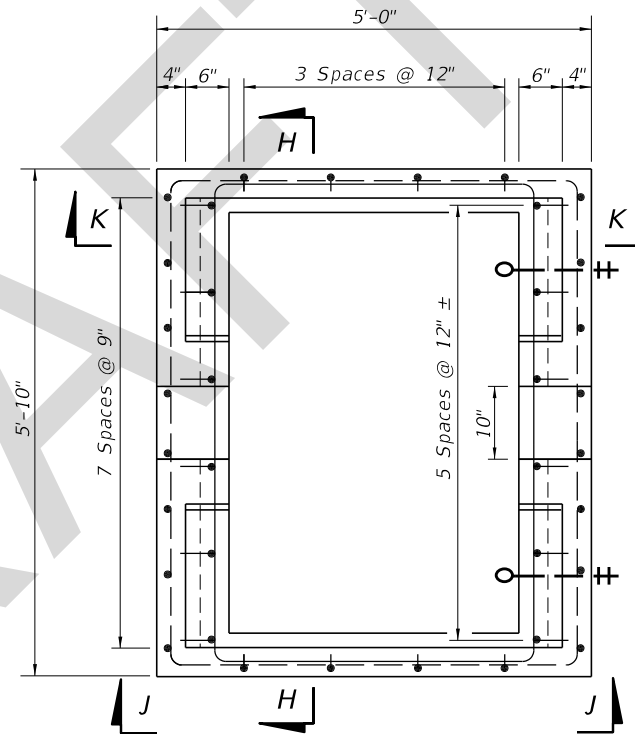
ISOMETRIC VIEW OF INLET COLLAR (TYPE 2)



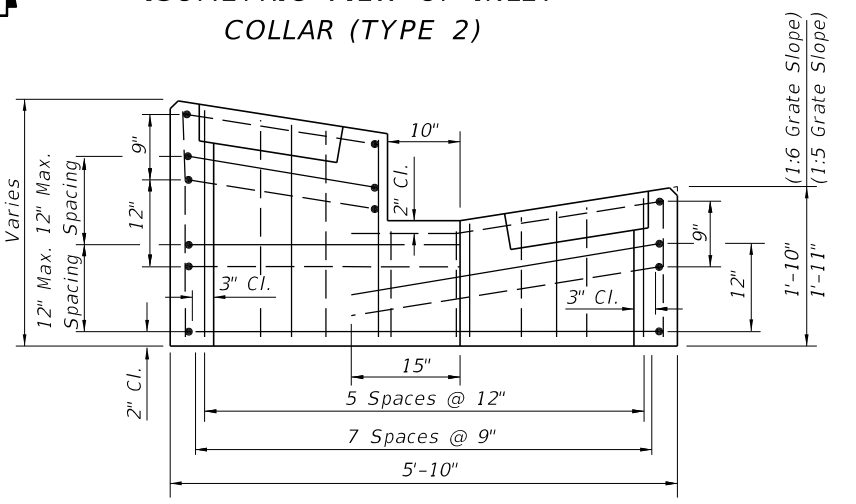
TOP VIEW OF INLET COLLAR WITHOUT GRATE



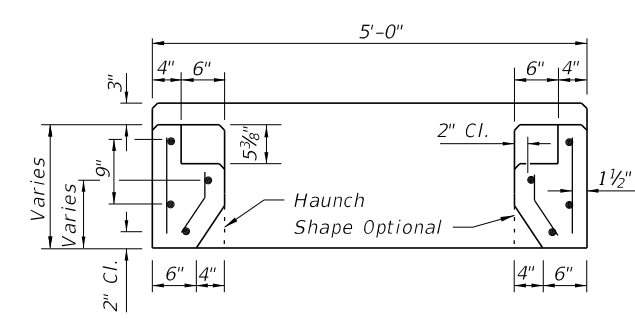
SECTION EE



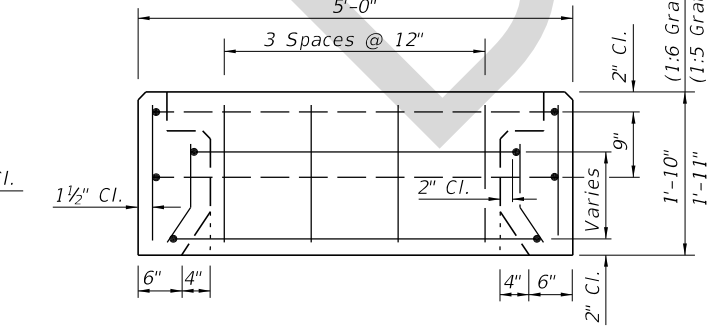
TOP VIEW OF INLET COLLAR WITHOUT GRATE



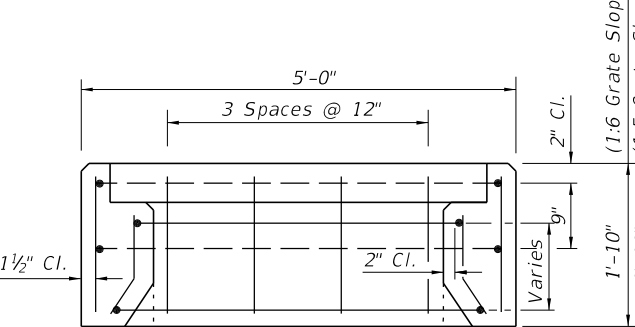
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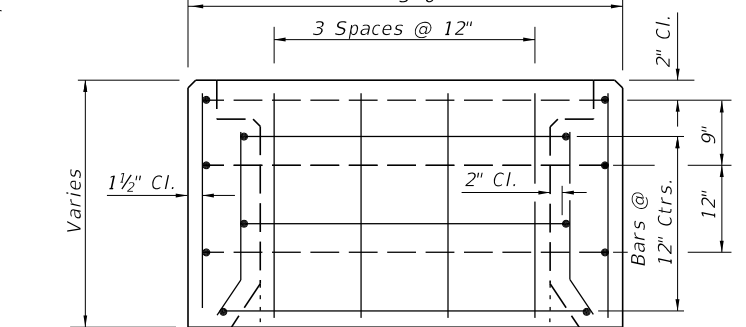
SECTION DD



VIEW FF



VIEW KK



VIEW JJ

PRECAST COLLAR REINFORCING DETAILS (TYPE 1)
(C-I-P COLLAR REINFORCING DETAILS SIMILAR)

PRECAST COLLAR REINFORCING DETAILS (TYPE 2)
(C-I-P COLLAR REINFORCING DETAILS SIMILAR)

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LAST REVISION 11/01/17	DESCRIPTION:
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