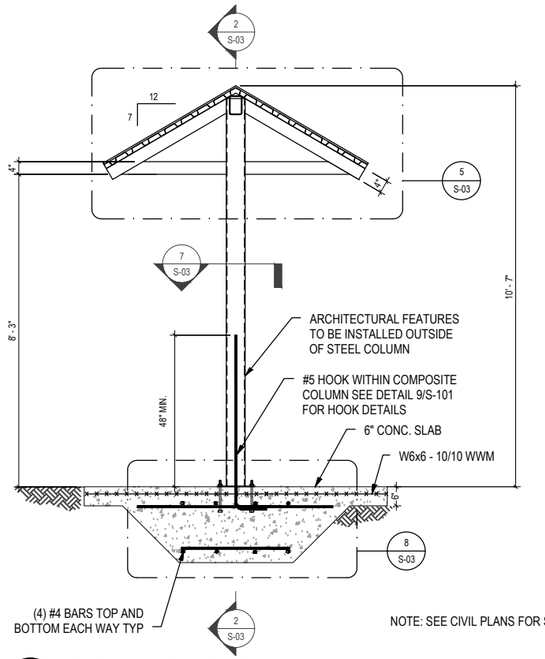
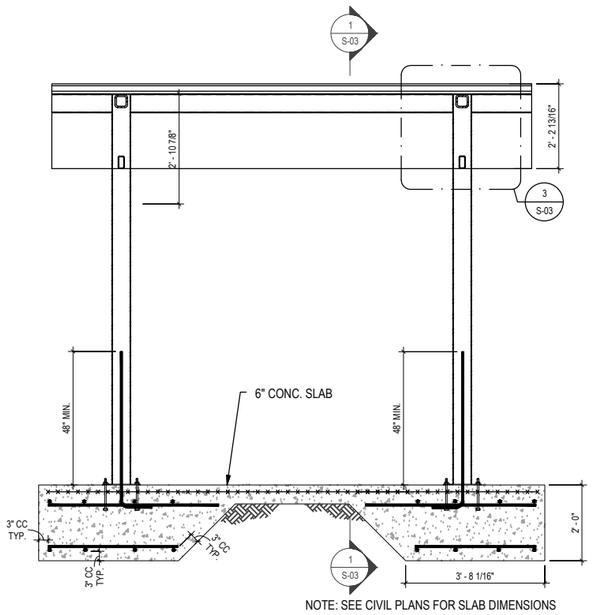


NOTE: CONCRETE SLAB / SIDEWALK AND FOOTING SHALL BE POURED MONOLITHICALLY

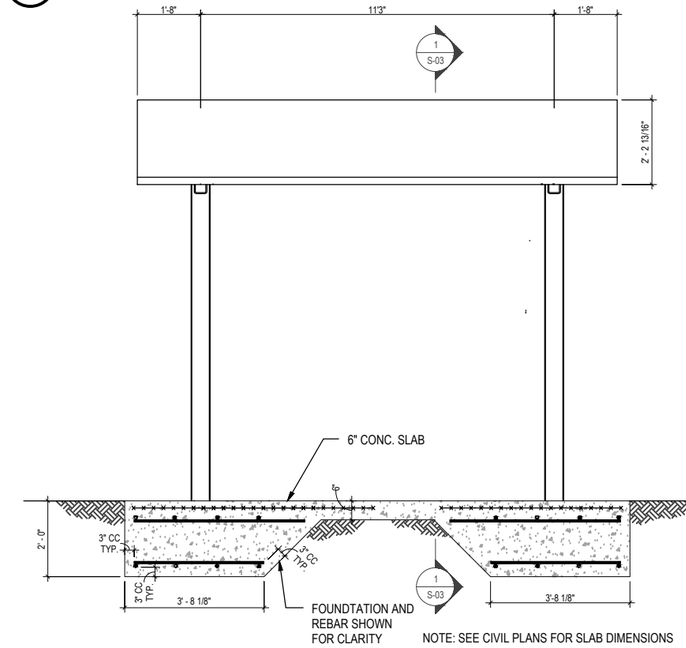
NOTE: SEE CIVIL PLANS FOR SLAB DIMENSIONS

1 S-03 SIDE - SECTION CUT
1/2" = 1'-0"



NOTE: SEE CIVIL PLANS FOR SLAB DIMENSIONS

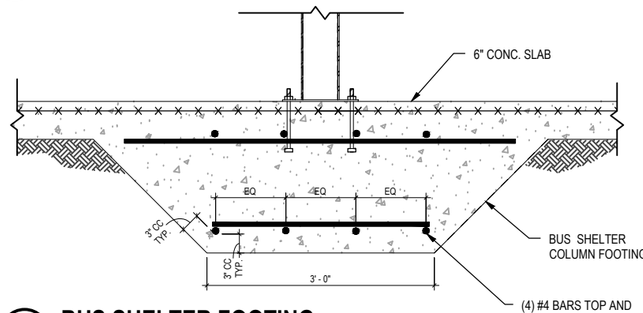
2 S-03 SOUTH SECTION CUT
1/2" = 1'-0"



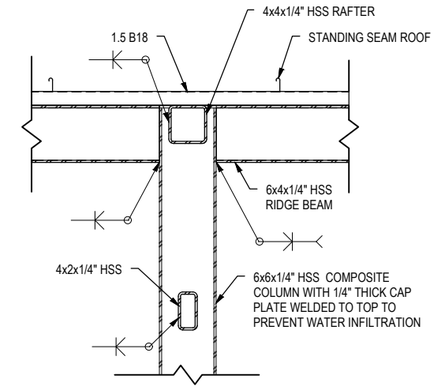
NOTE: SEE CIVIL PLANS FOR SLAB DIMENSIONS

4 S-03 SOUTH ELEVATION
1/2" = 1'-0"

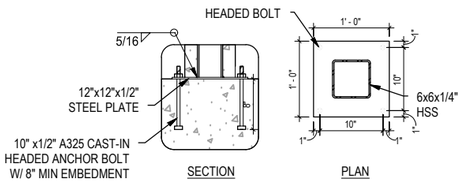
5 S-03 ENLARGED SECTION
1" = 1'-0"



8 S-03 BUS SHELTER FOOTING
1" = 1'-0"

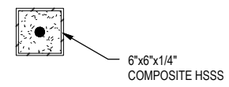


3 S-03 ENLARGED SECTION CUT
1 1/2" = 1'-0"

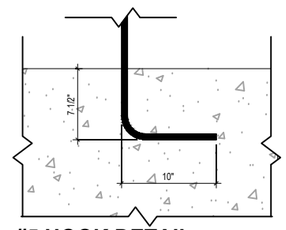


6 S-03 ANCHOR PLATE
1" = 1'-0"

NOTE: STEEL PLATES FOR LARGE BUS SHELTER SHALL BE 12" x 12" x 3/4"



7 S-03 COMPOSITE COLUMN
1 1/2" = 1'-0"



9 S-03 #5 HOOK DETAIL
1 1/2" = 1'-0"

REVISIONS								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

Stantec
901 Ponce de Leon Blvd. Suite 900
Coral Gables, Florida 33134
www.stantec.com

	NAME	DATE		NAME	DATE
DESIGNED BY			DRAWN BY		
CHECKED BY			CHECKED BY		
SUPERVISED BY:					

MIAMI-DADE COUNTY
DEPARTMENT OF TRANSPORTATION AND PUBLIC WORKS
HIGHWAY DIVISION
STEPHEN P. CLARK CENTER
111 NW 1 ST
MIAMI, FLORIDA 33128

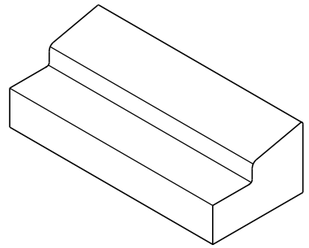
STRUCTURAL DETAILS

GENERAL NOTES:

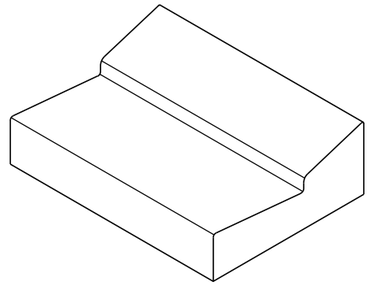
1. For curb, gutter and curb & gutter provide ⅛" – ¼" contraction joints at 10' centers (max.). Contraction joints adjacent to concrete pavement on tangents and flat curves are to match the pavement joints, with intermediate joints not to exceed 10' centers.

2. Locate expansion joints for curb, gutter and curb & gutter in accordance with Specification 520.

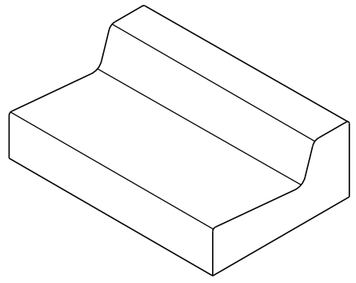
TABLE OF CONTENTS:



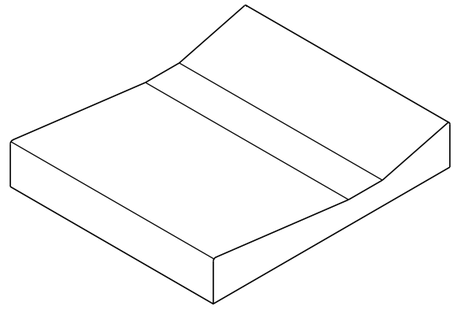
TYPE A



TYPE E

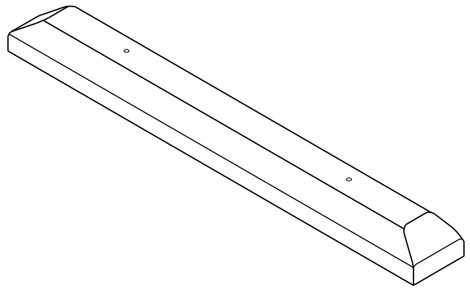


TYPE F



SHOULDER GUTTER

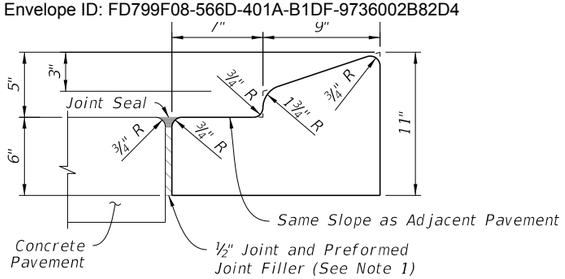
TYPE A, TYPE E, TYPE F, AND SHOULDER GUTTER
(Other Types Similar)



CONCRETE BUMPER GUARD

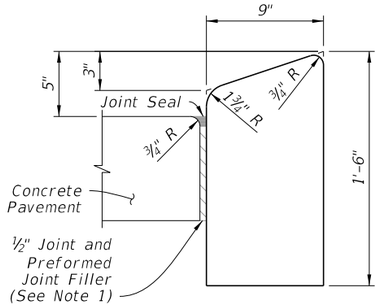
9/21/2021 2:33:06 PM

LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2022-23 STANDARD PLANS	CURB AND GUTTER	INDEX	SHEET
11/01/21						520-001	1 of 3



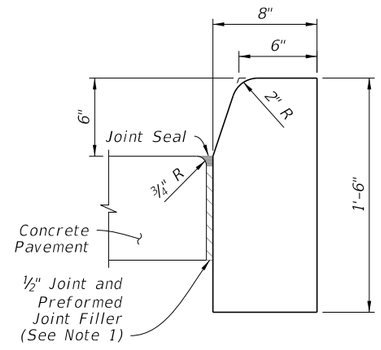
NOTE: For use adjacent to concrete or flexible pavement, concrete shown (See Note 4).

TYPE A



NOTE: For use adjacent to concrete or flexible pavement, concrete shown.

TYPE B

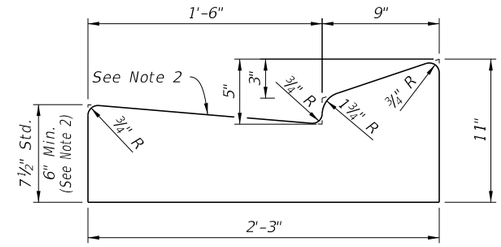


NOTE: For use adjacent to concrete or flexible pavement, concrete shown.

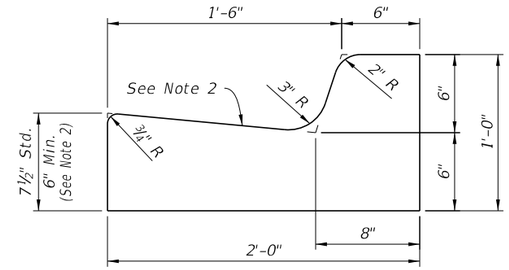
TYPE D

NOTES:

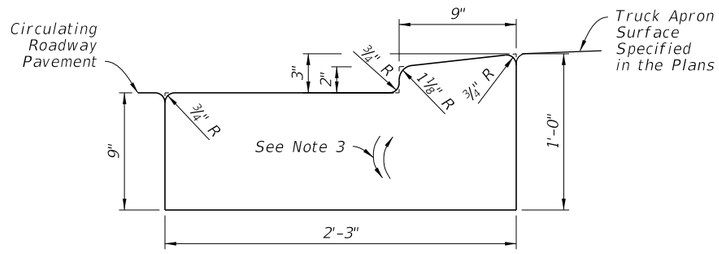
1. For Type A, Type B, and Type D Curb: Expansion joint, preformed joint filler and joint seal are required between curbs and concrete pavement only, see Sheet 3.
2. For Type E, Type F, Drop Curb, and Valley Gutter: When used on high side of roadways, match the cross slope of the gutter to the cross slope of the adjacent pavement. The thickness of the lip is 6", unless otherwise shown on Plans.
3. For Type RA, rotate entire section so that gutter cross slope matches slope of adjacent circulating roadway pavement.
4. For details depicting usage of Type A Curb adjacent to flexible pavement see Sheet 3.



TYPE E

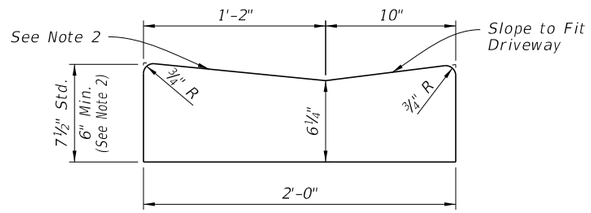


TYPE F

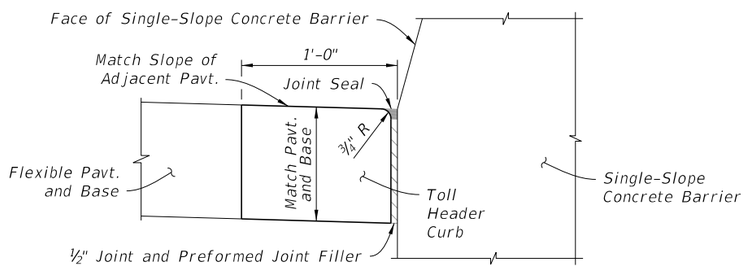


NOTE: Traffic Bearing Sections for use in Roundabout Central Island Construction.

TYPE RA

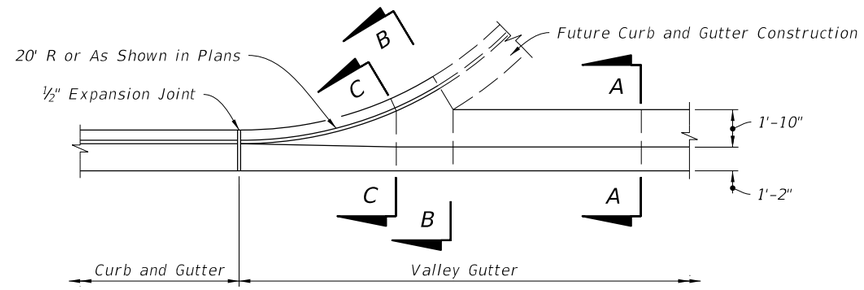


DROP CURB

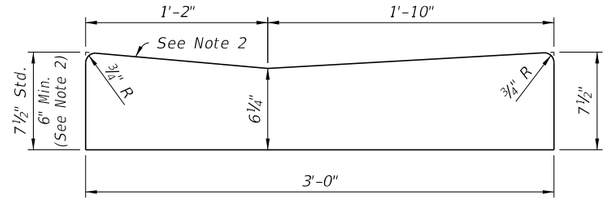


NOTE: See the toll site details for conduit requirements.

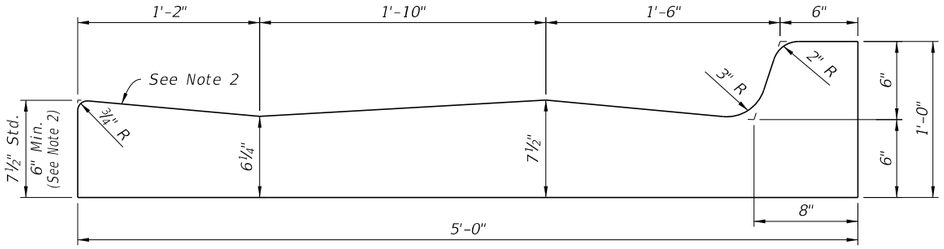
TOLL HEADER CURB



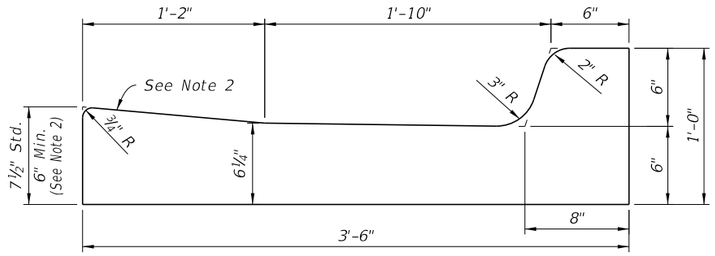
PLAN VIEW



SECTION A-A

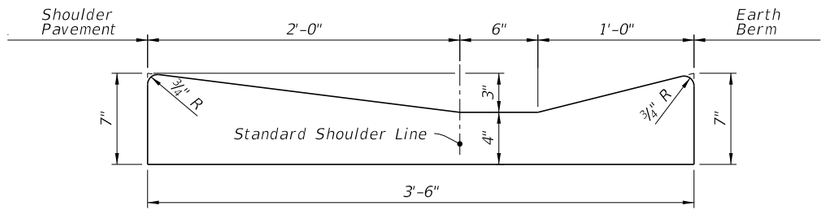


SECTION B-B



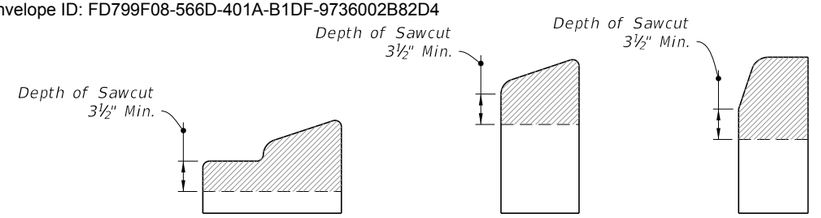
SECTION C-C

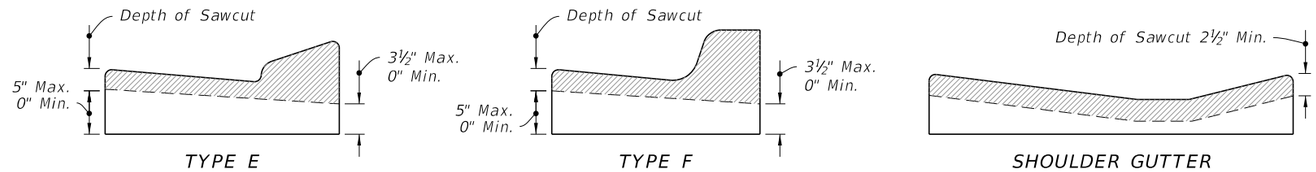
VALLEY GUTTER



SHOULDER GUTTER

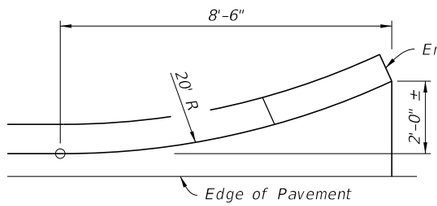
CONCRETE CURB AND GUTTER

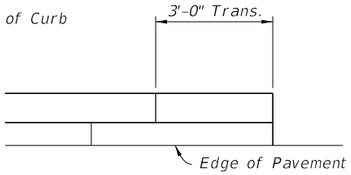


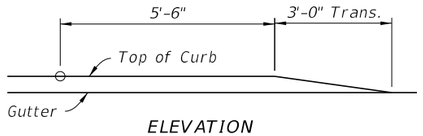


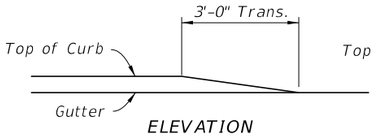
NOTE: Sawcuts should be avoided within valley gutter and within curb and gutter endings.

CONTRACTION JOINTS IN CURB



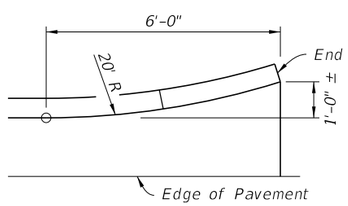


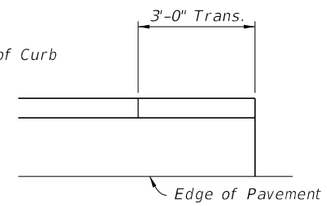


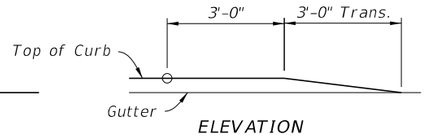


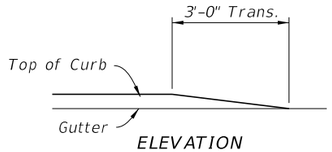
CURB TYPE A

CONTRACTION JOINTS IN CURB & GUTTER





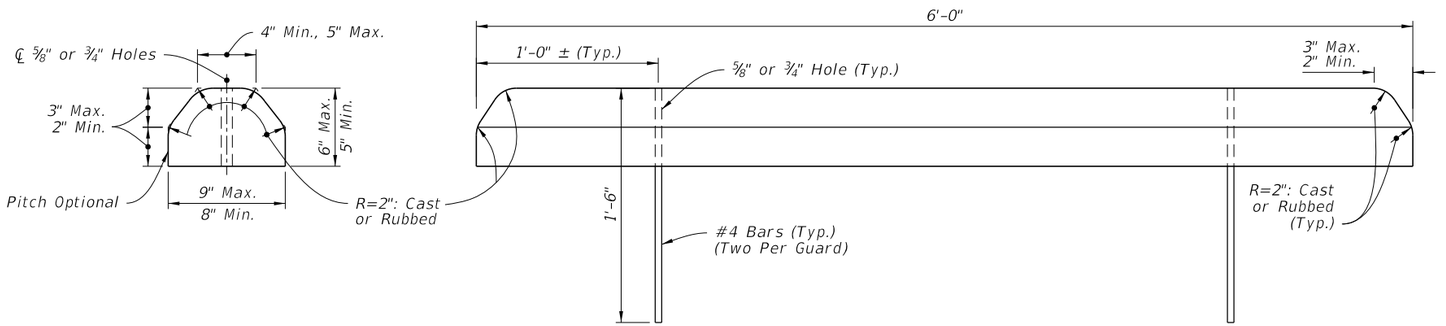




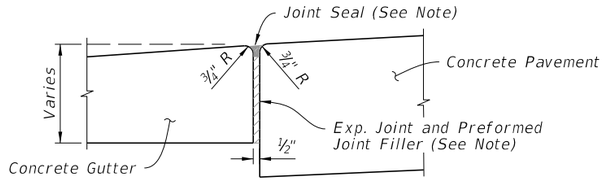
CURB AND GUTTER TYPE E AND TYPE F

NOTE: Ends of Type B and D Curb transition from full to zero heights in 3 ft.

CURB AND CURB & GUTTER ENDINGS

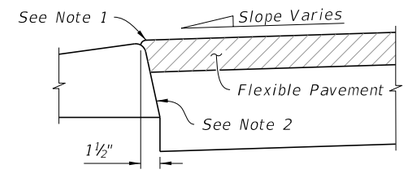


CONCRETE BUMPER GUARD



NOTE: Joint Seal application applies to both high and low sides of pavement, low side shown.

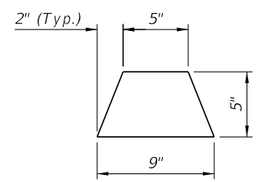
EXPANSION JOINT BETWEEN GUTTER AND CONCRETE PAVEMENT



NOTES:

1. Surface on Low Side of Pavement to be ¼" Above Lip of Gutter. Surface on High Side to be Flush With Lip of Curb or Curb & Gutter.
2. Applies to both high and low sides of pavement, low side shown. Applies to shoulder gutter only where adjoining traffic lanes.

CURB AND GUTTER AND TYPE A CURB ADJACENT TO FLEXIBLE PAVEMENT



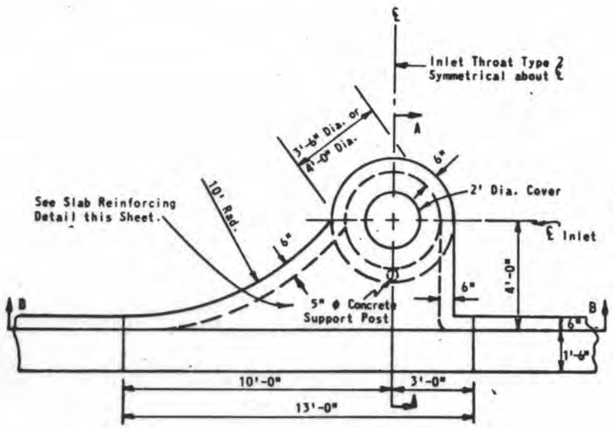
ASPHALTIC CONCRETE CURB

CURB AND GUTTER JOINTS AND ENDINGS, CONCRETE BUMPER GUARD, AND ASPHALTIC CONCRETE CURB

LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
11/01/21			FY 2022-23 STANDARD PLANS	CURB AND GUTTER	520-001	3 of 3

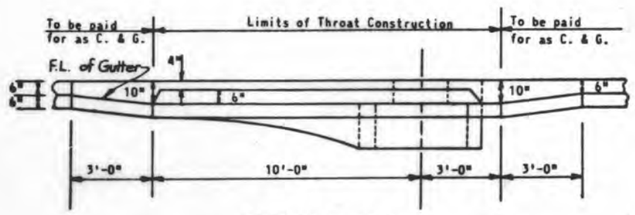
9/21/2021 2:33:07 PM

FED. ROAD DIV. No.	STATE	PROJECT No.	FISCAL YEAR	SHEET No.
8	FLA.			

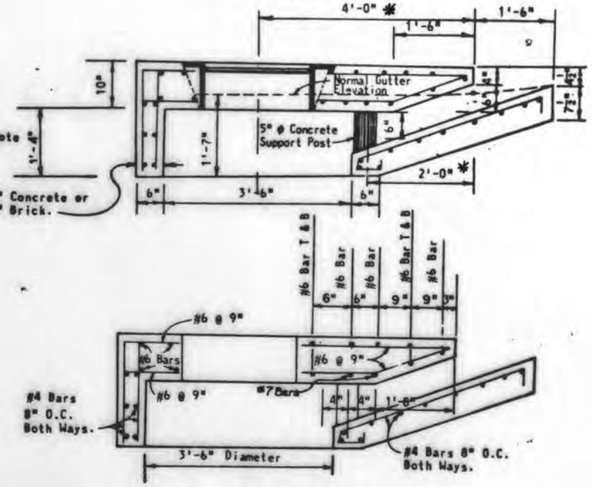


INLET THROAT TYPE 1

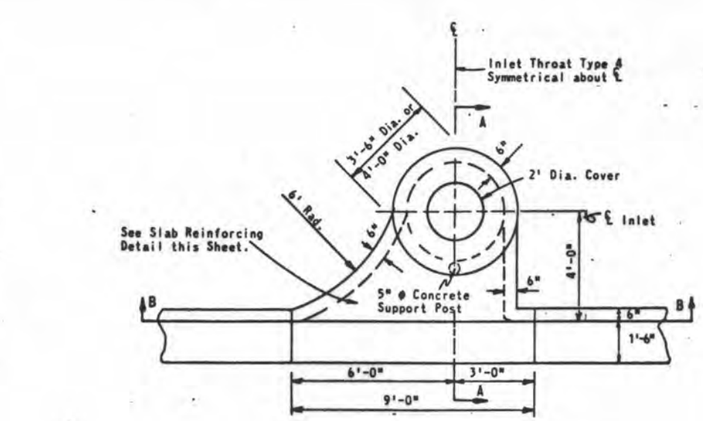
Inlet Throat Type 2
Symmetrical about ℄



SECTION B-B

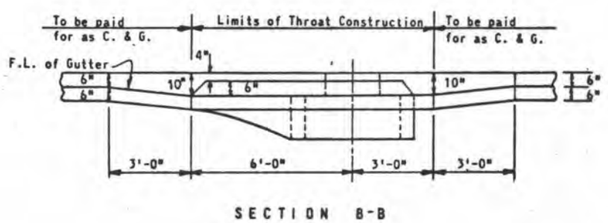


3'-6" DIAMETER

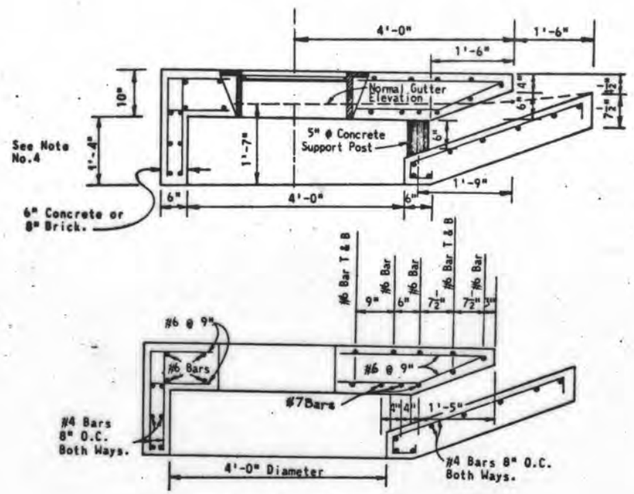


INLET THROAT TYPE 3

Inlet Throat Type 4
Symmetrical about ℄



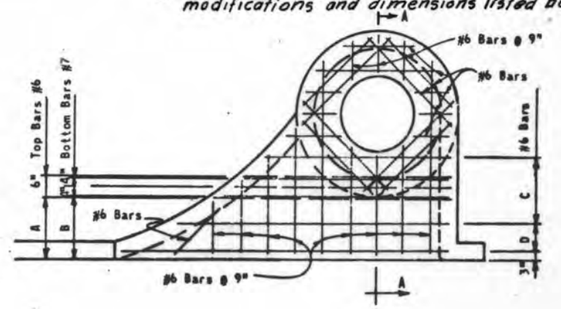
SECTION B-B



4'-0" DIAMETER

GENERAL NOTES

1. The finished grade and slope of the inlet tops are to conform with the finished cross slope and grade of the proposed sidewalk and/or parkway.
2. When inlets are to be constructed on a curve, refer to the plans to determine the radius and, where necessary, modify the inlet details accordingly. Bend steel when necessary.
3. All steel in throats shall have 1½" minimum cover unless otherwise shown. Inlet throats shall be either cast-in-place or precast concrete.
4. The rear wall portion of throat Types 1, 2, 3 & 4 may be constructed with brick. Dowels to top slab required.
5. Only round concrete support post will be acceptable.
6. For supplemental details see index no. DSD-01.
7. These inlet throats were designed for use with std. curb & gutter and Type E curb. Locate outside of pedestrian cross traffic if possible.
8. For 5' sidewalks the contractor must utilize a 3'-6", See modifications and dimensions listed below.



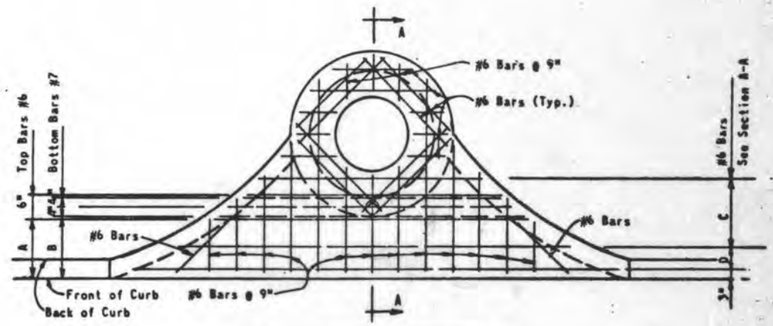
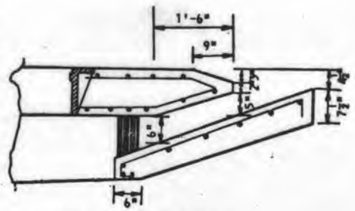


TABLE OF VARIABLE DIMENSIONS		
DIMENSION	3'-6"	4'-0"
A	1'-9"	1'-6"
B	1'-8"	1'-5"
C	1'-0"	1'-10½"
D	9"	7½"

SLAB REINFORCING DETAILS
INLETS 1, 2, 3 & 4



* INLET TOP MODIFICATION
FOR TYPE "E" CURB

* For 5' Sidewalks change 4'-0" To 3'-3" and 2'-0" To 1'-3"

SECTION A-A FOR INLETS TYPE 1, 2, 3 & 4

FHWA Approved: 5-1-75

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DADE COUNTY PUBLIC WORKS DEPARTMENT
HIGHWAY DIVISION

REVISIONS	
Dates	Descriptions
5-76	Redrawn-Chg'd Index No.

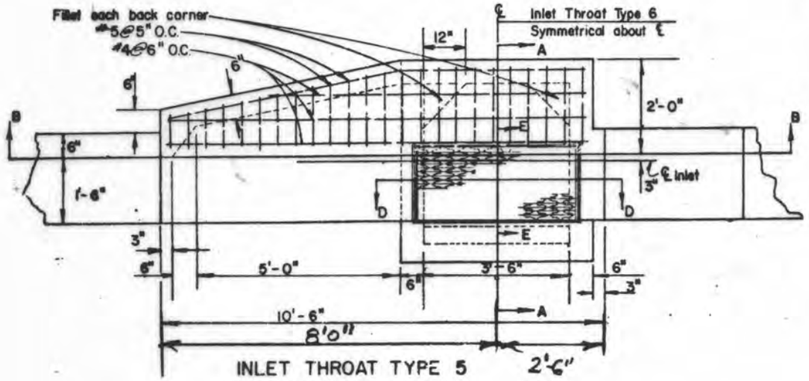
DESIGN
DRAWN
CHECK
PROPOSED

DCI-01

CURB INLET
TYPES 1,2,3 & 4

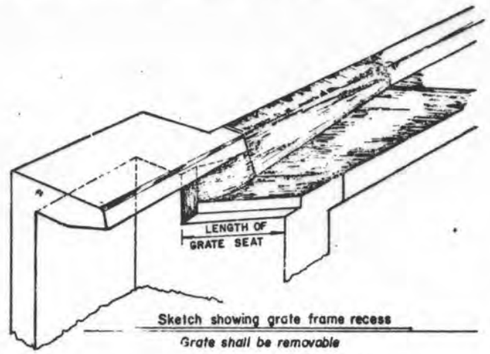
SUBMITTED	RECOMMENDED	APPROVED
HIGHWAY ENGINEER	CHIEF ENGINEER	DIRECTOR
DATE	PROJ.	SHEET 1 OF 1

STATE PROJ. NO.	SHEET NO.
86215	



INLET THROAT TYPE 5

Inlet Throat Type 6
Symmetrical about ℄

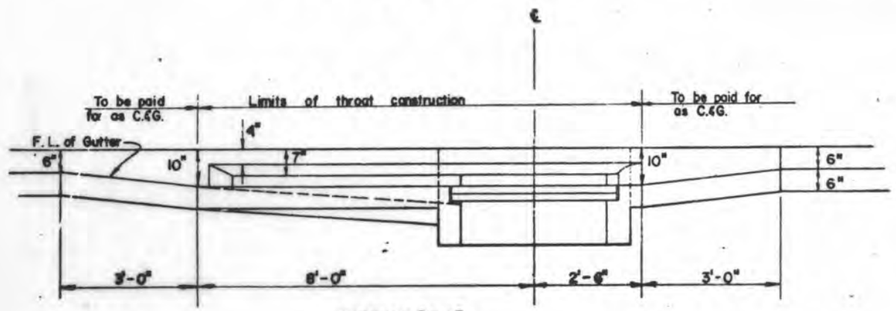


Sketch showing grate frame recess

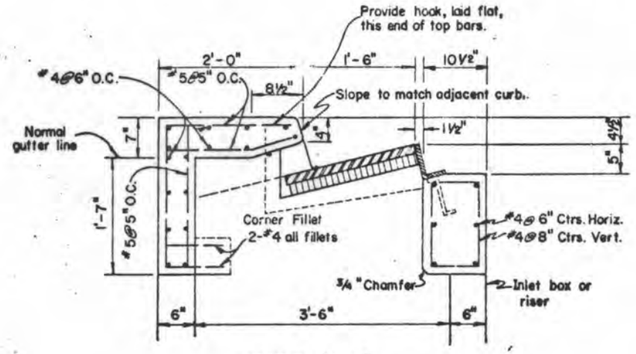
Grate shall be removable

GENERAL NOTES:

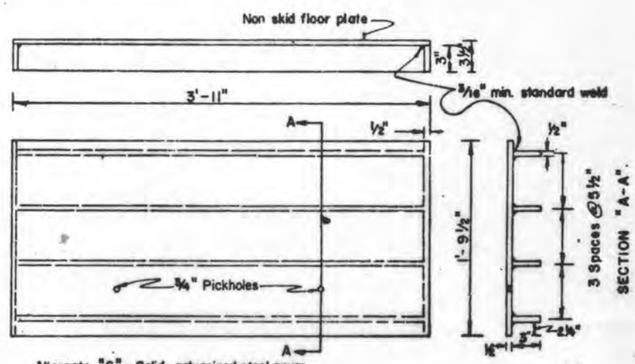
1. The finished grade and slope of the inlet tops are to conform with the finished cross slope and grade of the proposed sidewalk and / or parkway.
2. When inlets are to be constructed on a curve, refer to the plans to determine the radius and, where necessary, modify the inlet details accordingly. Bend steel when necessary.
3. All steel in throats shall have 1¼" minimum cover unless otherwise shown. Inlet throats shall be either cast-in-place or precast concrete.
4. The corner fillets shown for rectangular throats (Type 5&6) are necessary only when throats are to be used in conjunction with circular inlet boxes or when used on skew with rectangular inlet boxes.
5. See Index DSD-01 for means of locking grate or cover to inlet.
6. These inlet throats were designed for use with std. curb & gutter and Type E curb. Locate outside of pedestrian cross traffic if possible.



SECTION "B-B"

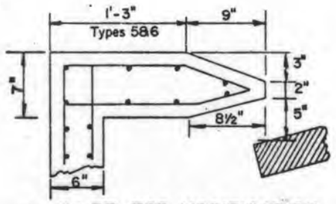


SECTION "A-A"

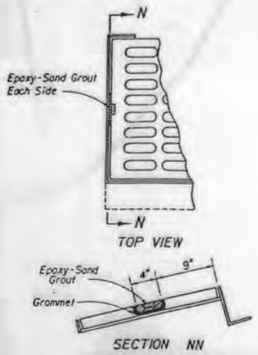


SECTION "A-A"

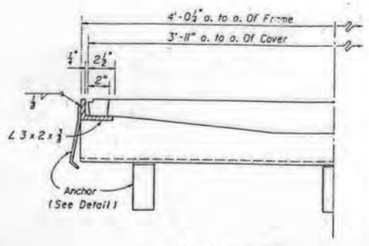
Alternate "G" - Solid, galvanized steel cover for Type 5&6 inlets. Cover to be hot dip galvanized after fabrication. To be used where specified on the plans.



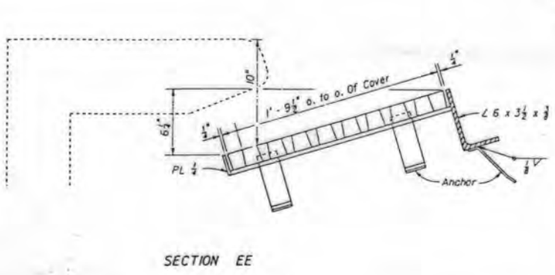
INLET TOP MODIFICATION
FOR TYPE "E" CURB



SECTION NN
GROUTING DETAILS

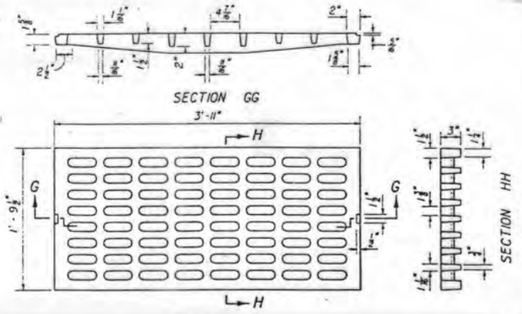


HALF SECTION DD



SECTION EE

CAST IRON COVER



SECTION GG

TOP VIEW

FHWA Approved: 5-1-75

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REVISIONS	
Dates	Descriptions
5-74	Redrawn - Chgd Index No

DADE COUNTY PUBLIC WORKS DEPARTMENT
HIGHWAY DIVISION

DESIGN
DRAWN
CHECK
PROPOSED

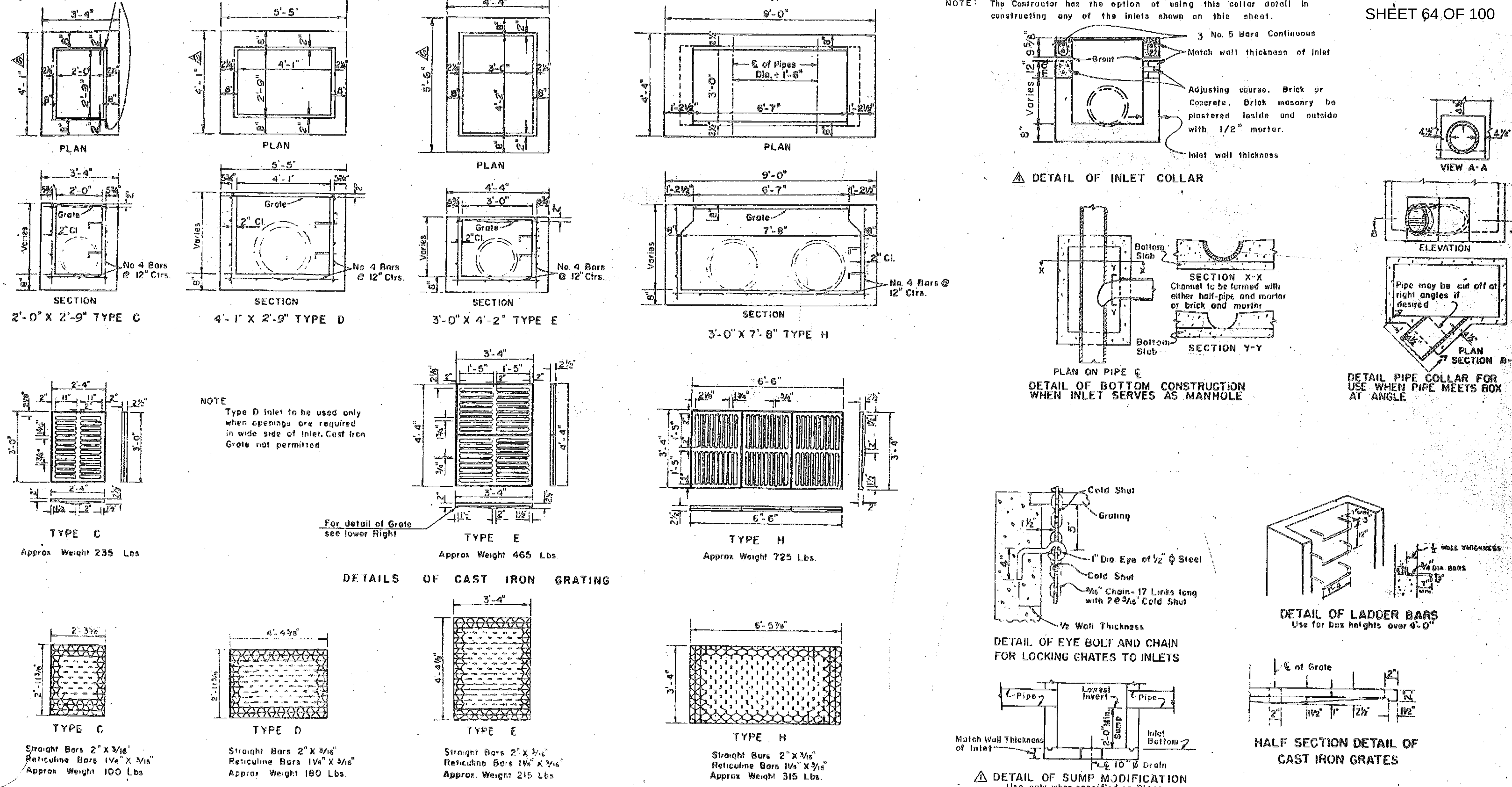
DCI - 02
CURB INLET
TYPES "5" & "6"

SUBMITTED	RECOMMENDED	APPROVED
HIGHWAY ENGINEER	CHIEF ENGINEER	DIRECTOR
DATE	PROJ	SHEET 1 OF 6

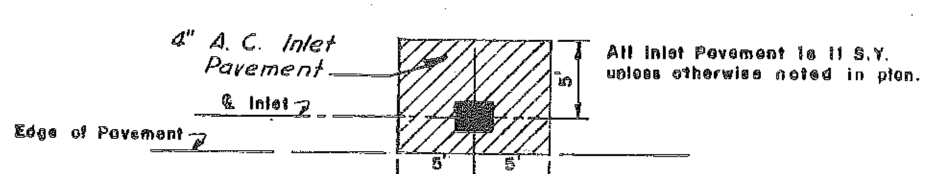
PLEASE RETAIN THIS SHEET FOR STANDARD MYLAR SHEET YOUR, PERMANENT FILES.

NOTE: Recess Sill to receive and provide support for 2½" deep portion of Cast Iron Grate (Types C & E).

NOTE: The Contractor has the option of using this collar detail in constructing any of the inlets shown on this sheet.


PLAN
SECTION
2'-0" X 2'-9" TYPE C
4'-1" X 2'-9" TYPE D
3'-0" X 4'-2" TYPE E
3'-0" X 7'-8" TYPE H
Grate
2" Cl
No 4 Bars @ 12" Ctrs.
Varies
¢ of Pipes Dia. + 1'-6"
DETAIL OF INLET COLLAR
3 No. 5 Bars Continuous
Match wall thickness of inlet
Grout
Adjusting course. Brick or Concrete. Brick masonry be plastered inside and outside with 1/2" mortar.
Inlet wall thickness
VIEW A-A
ELEVATION
Pipe may be cut off at right angles if desired
PLAN SECTION B-B
DETAIL PIPE COLLAR FOR USE WHEN PIPE MEETS BOX AT ANGLE
Bottom Slab
SECTION X-X
Channel to be formed with either half-pipe and mortar or brick and mortar
SECTION Y-Y
PLAN ON PIPE ¢
DETAIL OF BOTTOM CONSTRUCTION WHEN INLET SERVES AS MANHOLE
NOTE
Type D inlet to be used only when openings are required in wide side of inlet. Cast Iron Grate not permitted
TYPE C
Approx Weight 235 Lbs
TYPE E
Approx Weight 465 Lbs
TYPE H
Approx Weight 725 Lbs.
For detail of Grate see lower Right
DETAILS OF CAST IRON GRATING
Cold Shut
Grating
1" Dia Eye of ½" ϕ Steel
5/16" Chain - 17 Links long with 2 @ 5/16" Cold Shut
½ Wall Thickness
DETAIL OF EYE BOLT AND CHAIN FOR LOCKING GRATES TO INLETS
DETAIL OF LADDER BARS
Use for box heights over 4'-0"
¢ of Grate
HALF SECTION DETAIL OF CAST IRON GRATES
TYPE C
Straight Bars 2" X 3/16"
Reticuline Bars 1¼" X 3/16"
Approx Weight 100 Lbs
TYPE D
Straight Bars 2" X 3/16"
Reticuline Bars 1¼" X 3/16"
Approx Weight 180 Lbs
TYPE E
Straight Bars 2" X 3/16"
Reticuline Bars 1¼" X 3/16"
Approx. Weight 215 Lbs
TYPE H
Straight Bars 2" X 3/16"
Reticuline Bars 1¼" X 3/16"
Approx Weight 315 Lbs.
DETAILS OF STEEL GRATING
Lowest Invert
Pipe
Match Wall Thickness of Inlet
2'-0" Min. Sump
Inlet Bottom
10" ϕ Drain
DETAIL OF SUMP MODIFICATION
Use only when specified on Plans

NOTE: Cast iron grates shall be used unless otherwise noted and shall be chain locked to inlet.



DETAILS OF INLET PAVING

GENERAL NOTES:

BEVELED EDGES: All exposed corners and edges to be chamfered 3/4"

FOUNDATION MATERIAL: Where material unsatisfactory for foundation is encountered at FL. EL. of floor and carry walls down to satisfactory foundation. Backfill to FL. with clean sand.

CAST IRON: In accordance with Florida State Road Department Specifications

STEEL DECKING: Manufactured by Borden, Florida Steel, Irving, Reliance, Groulich, (or Equal).

REVISION	DATE	DESCRIPTION	BY	REVISION	DATE	DESCRIPTION	BY
					10-68	Detail of Inlet Collar	OGB
					12-67	Detail of Inlet Paving	A.R.
	7-71	Dimensions of Box	JWB		9-67	Note, Re: Cast Iron Grates	R.J.S.
	7-71	Note, Re: Recess in Box	JWB		4-66	Detail of Sump Modification	H.W.

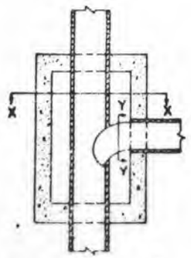
DADE COUNTY PUBLIC WORKS DEPARTMENT
HIGHWAY DIVISION 20

STANDARD DITCH BOTTOM INLETS, TYPE C, D, E, & H

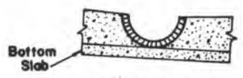
DESIGN S. R. D.

DDI - 03

FED. ROAD DIV. NO.	STATE	PROJECT NO.	TYPICAL SHEET NO.	SHEET NO.
3	FLA.			



PLAN ON PIPE ℄



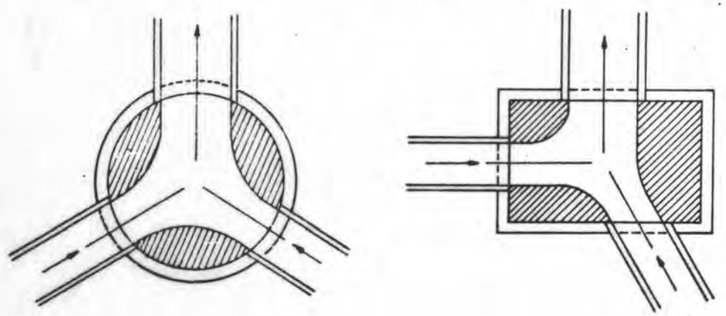
SECTION X-X

Channel to be formed with either half-pipe and mortar or brick and mortar.

SECTION Y-Y

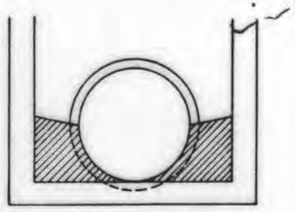
DETAIL OF BOTTOM CONSTRUCTION WHEN INLET SERVES AS MANHOLE

GENERAL NOTE:
Mortar used to seal the pipe into the walls of precast units will be of such a mix that shrinkage will not cause leakage into or out of the units. Maximum opening for pipe shall be the O.D. of the pipe required plus 6".

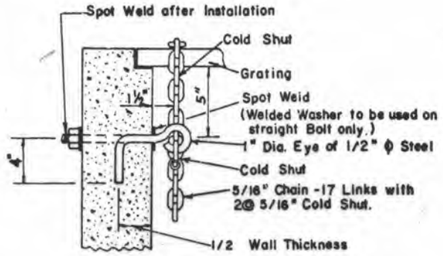


DETAIL OF CHANNELIZATION

Note: Channelization required at all drainage structures with two or more pipes.

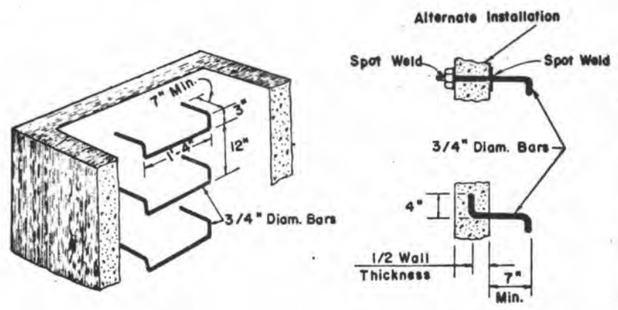


Smooth flow channels composed of concrete, or brick and mortar shall be constructed in the bottoms of all structures to a depth equal to half the diameter of the largest pipe.



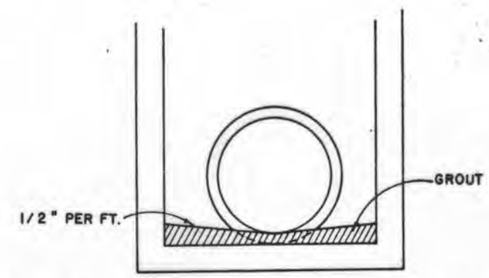
DETAIL OF EYE BOLT AND CHAIN FOR LOCKING GRATES TO INLETS

Note: One required per inlet grate.



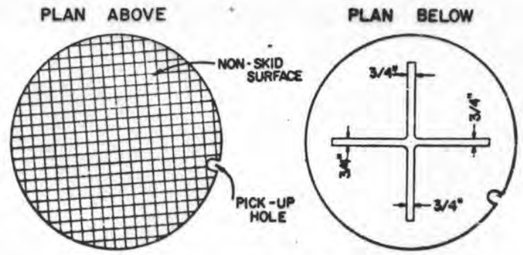
DETAIL OF LADDER BARS

Use for box heights over 10'-0"

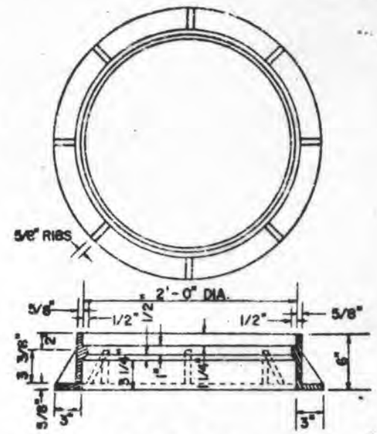


ALTERNATE LOCATION OF PIPE IN STRUCTURE WHEN PREFABRICATED FLOOR SLAB IS USED

COMPLETE FLOW CHANNEL IS REQUIRED WHEN THERE IS FLOW THROUGH THE STRUCTURE

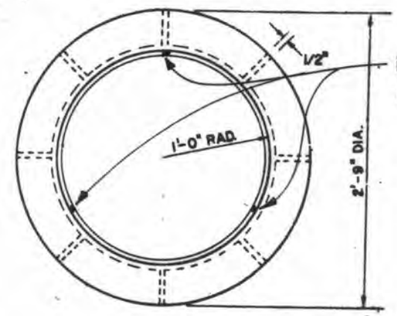


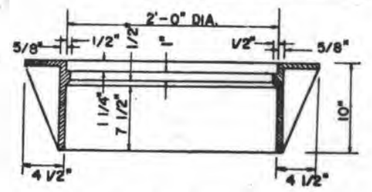
COVER FOR ALL FRAMES
(WHEEL LOADS H-20)



TYPE I FRAME FOR MANHOLES
AS SHOWN ON INDEX DSB-01

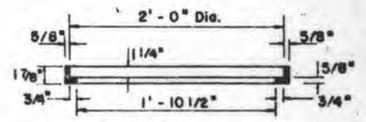
PROVIDE 3- 1/4" TACK WELDS ON MANHOLE TOPS IN SIDEWALK





TYPE II FRAME
For Type 1, 2, 3 & 4 Inlets

CAST IRON



TYPE III FRAME
For Type 7 & 8 Inlets

FRAME AND COVER DETAILS

Note: Tack Weld all Covers to Frames (3 places) as directed by the Engineer.

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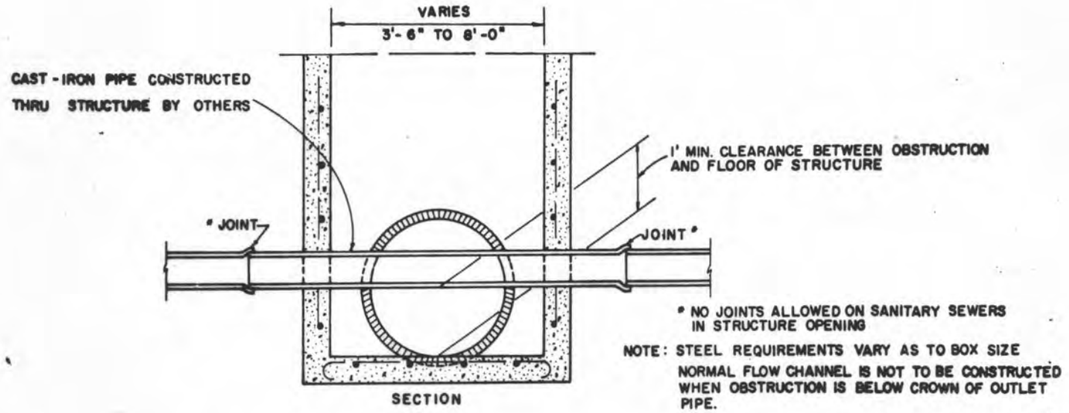
FHWA Approved: 5-1-75

DADE COUNTY PUBLIC WORKS DEPARTMENT
HIGHWAY DIVISION

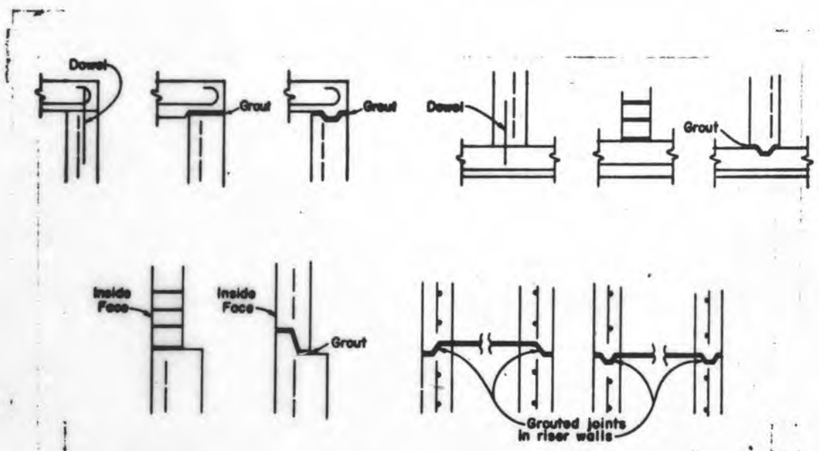
DESIGN	D3D-01
DRAWN	
CHECK	SUPPLEMENTARY DET. FOR MANHOLE & INLET STRUCT.
PROPOSED	

SUBMITTED	RECOMMENDED	APPROVED
HIGHWAY ENGINEER	CHIEF ENGINEER	DIRECTOR
DATE	PROJ.	SHEET 1 OF 2

REVISIONS	
Date	Description



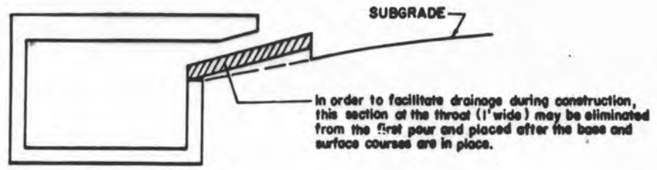
DETAIL SHOWING PIPE CONSTRUCTED THRU STORM SEWER STRUCTURE



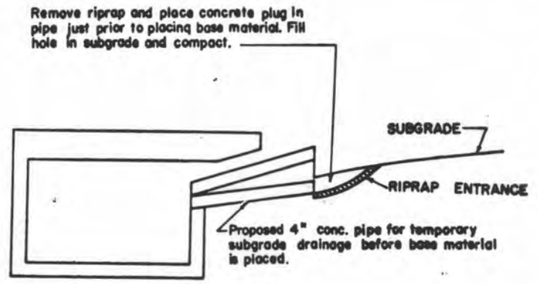
NOTES -

1. Any type joint may be used in conjunction with any other type joint.
2. All grouted joints are to have a maximum thickness of 1".
3. Keyways are to be a minimum of 1 1/2" deep.
4. Joint dowels are to be #4 bars, 12" long with a minimum of 6 bars per joint evenly spaced.
5. Minimum cover on reinforcing bars is 1 1/4".

OPTIONAL CONSTRUCTION JOINTS



ALTERNATE A



ALTERNATE B

(Cost to be included in the unit price bid for inlets.)

DETAIL OF TEMPORARY SUBGRADE DRAINS

(Optional with Contractor)

NOTE:
For all manhole, inlet and junction box structures the mortar used to seal the pipe into the walls of the precast units will be of such a mix that shrinkage will not cause leakage into or out of the units. Maximum opening for pipe shall be max. reqd O D + 6".

FHWA Approved: 5-1-75

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REVISIONS	
Date	Description
2-75	REDRAWN

DADE COUNTY PUBLIC WORKS DEPARTMENT
HIGHWAY DIVISION

DESIGN	DSD-01
DRAWN	
CHECK	SUPPLEMENTARY DET. FOR
PROPOSED	MANHOLE & INLET STRUCTURES

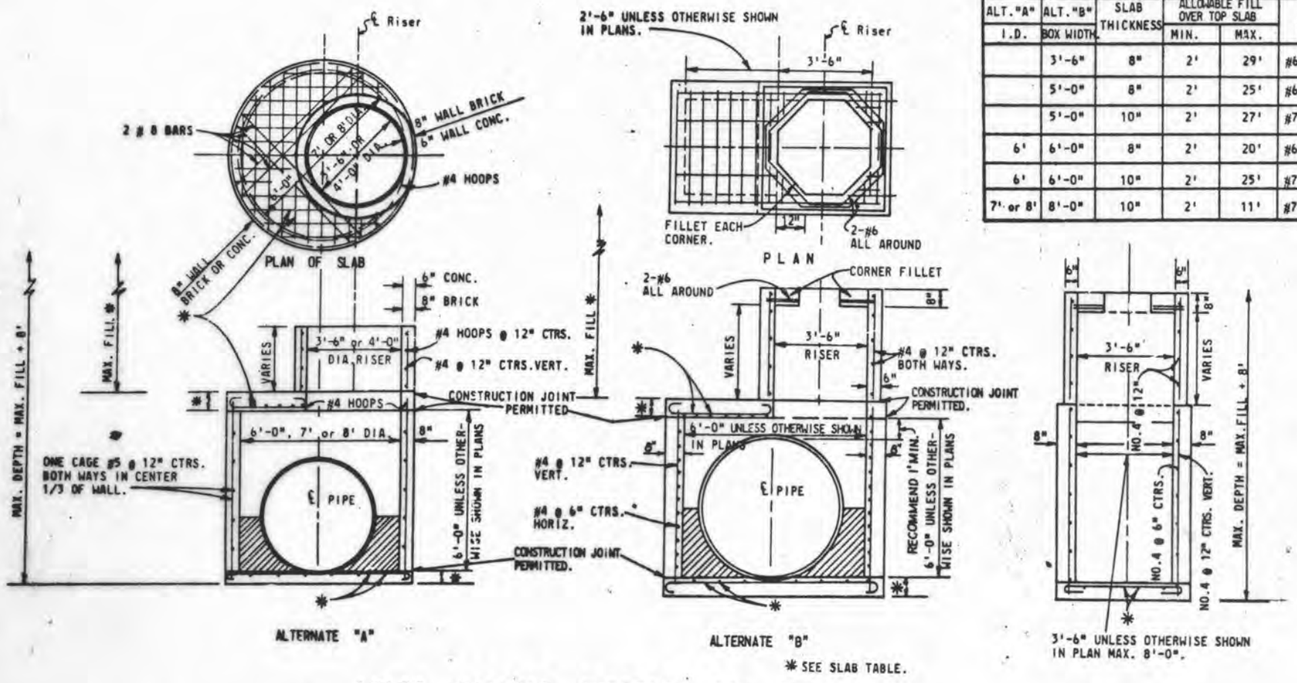
SUBMITTED	RECOMMENDED	APPROVED
HIGHWAY ENGINEER	CHIEF ENGINEER	DIRECTOR

DATE ____ PROJ ____ SHEET 2 OF 2

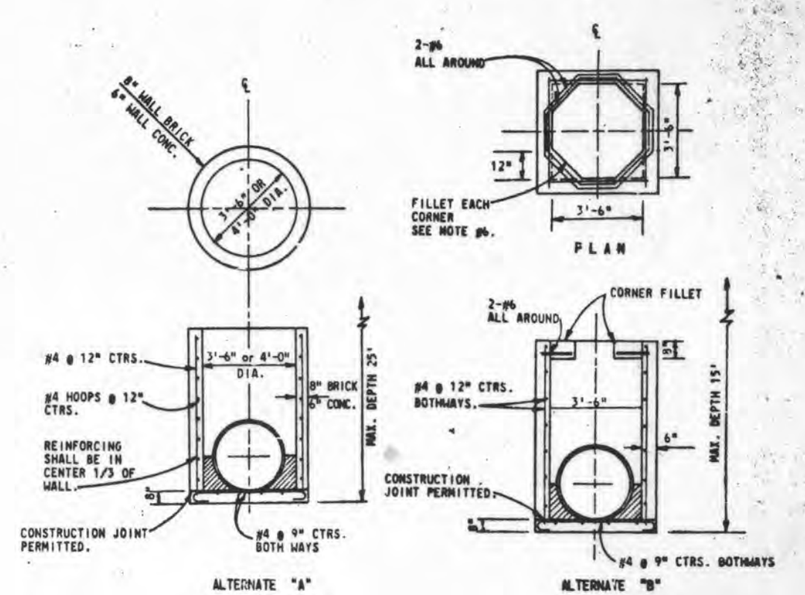
FED. ROAD DIV. No.	STATE	PROJECT No.	FISCAL YEAR	SHEET No.
0	FLA.			

TOP AND FLOOR SLAB TABLE TYPE "J"

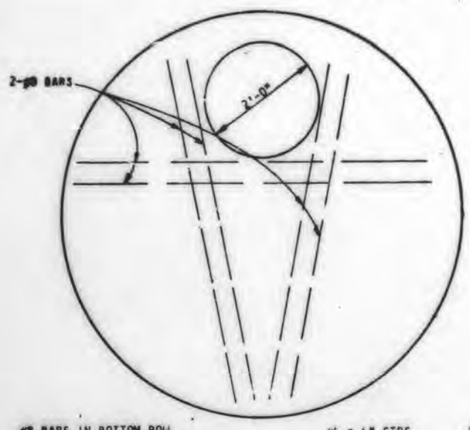
ALT. "A" I.D.	ALT. "B" BOX WIDTH	SLAB THICKNESS	ALLOWABLE FILL OVER TOP SLAB MIN.	ALLOWABLE FILL OVER TOP SLAB MAX.	REINFORCING TOP & FLOOR SLABS
	3'-6"	8"	2'	29'	#6 @ 6" CTRS. B.W.
	5'-0"	8"	2'	25'	#6 @ 6" CTRS. B.W.
	5'-0"	10"	2'	27'	#7 @ 6" CTRS. B.W.
6'	6'-0"	8"	2'	20'	#6 @ 6" CTRS. B.W.
6'	6'-0"	10"	2'	25'	#7 @ 6" CTRS. B.W.
7' or 8'	8'-0"	10"	2'	11'	#7 @ 6" CTRS. B.W.

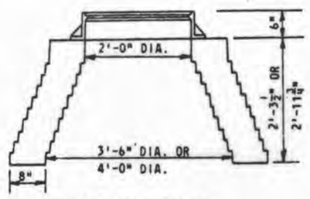


INLET, MANHOLE, JUNCTION BOX TYPE J



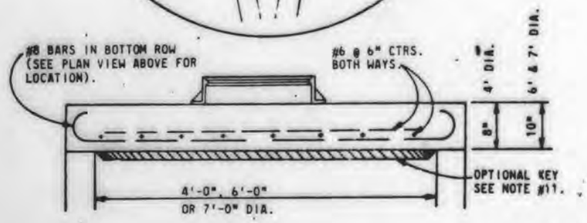
INLET, MANHOLE, JUNCTION BOX TYPE P





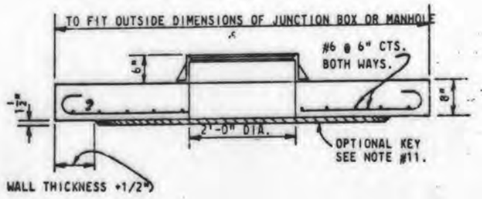
MANHOLE TOP TYPE 8

NOTE: DETAIL SHOWN IS FOR BRICK CONSTRUCTION.



JUNCTION BOX OR MANHOLE TOP TYPE 7-T

FOR USE WHEN TOP SLAB IS SUBJECTED TO WHEEL LOADS (H-20) (TRAFFIC)



JUNCTION BOX OR MANHOLE TOP TYPE 7-NT

FOR USE WHEN TOP SLAB IS NOT SUBJECTED TO WHEEL LOADS (NON-TRAFFIC)

GENERAL NOTES

1. WALLS OF CIRCULAR STRUCTURES (ALTERNATE "A") MAY BE CONSTRUCTED OF CONCRETE OR BRICK, BUT RECTANGULAR STRUCTURES (ALTERNATE "B") SHALL BE CONSTRUCTED OF CONCRETE ONLY. THE CONCRETE MAY BE CAST-IN-PLACE OR PRECAST.
2. WALL REINFORCEMENT AND THICKNESS ARE FOR EITHER CAST-IN-PLACE OR PRECAST CONCRETE UNITS EXCEPT THAT THE MANUFACTURER MAY FURNISH PRECAST CIRCULAR UNITS IN ACCORDANCE WITH A.S.T.M. SPECIFICATION C-478 UP TO 72" IN DIA. OR PRECAST CIRCULAR UNITS A.S.T.M. SPECIFICATION C-76, TABLE III. FOR "B" WALL CONCRETE PIPE. TOP AND FLOOR SLAB THICKNESS AND REINFORCEMENT ARE FOR ALL TYPES OF CONSTRUCTION.
3. ELLIPTICAL STEEL, ASTM SPECIFICATION C-76, TABLE III, "B" WALL, IS MODIFIED TO USE A CIRCULAR CAGE OF STEEL AREA EQUAL TO THAT OF THE ELLIPTICAL CAGE AND PLACED IN THE CENTER ONE-THIRD OF THE WALL. THIS MODIFICATION IS FOR PRECAST CIRCULAR UNITS PRODUCED IN ACCORDANCE WITH ASTM C-76.
4. TOP AND FLOOR SLABS FOR TYPE J UNITS AND TYPE 7 MANHOLE TOPS SHALL BE OF CLASS II CONCRETE. CONCRETE AS SPECIFIED IN ASTM C-478 MAY BE USED FOR PRECAST UNITS.
5. ANY INLET, MANHOLE OR JUNCTION BOX MAY BE USED IN CONJUNCTION WITH ANY INLET THROAT OR MANHOLE TOP. FOR EXAMPLE, AN INLET WITH A TYPE J BOX AND A TYPE 2 THROAT WOULD BE CALLED AN INLET TYPE J-2 IN THE PLANS. THE CONTRACTOR MAY AT HIS OPTION USE EITHER ALTERNATE A OR B STRUCTURES, UNLESS OTHERWISE SHOWN IN THE PLANS.
6. RECTANGULAR STRUCTURES MAY BE ROTATED AS DIRECTED BY THE ENGINEER IN ORDER TO FACILITATE CONNECTIONS BETWEEN THE STRUCTURE WALLS AND STORM SEWER PIPES.
7. THE CORNER FILLETS SHOWN FOR RECTANGULAR STRUCTURES ARE NECESSARY ONLY WHEN STRUCTURES ARE USED IN CONJUNCTION WITH CIRCULAR INLET THROATS (TYPES 1, 2, 3 & 4) OR WHEN USED ON SKEW WITH RECTANGULAR INLET THROATS (TYPES 5 & 6).
8. INLET THROATS, RISERS OR MANHOLE TOPS SHALL BE SECURED TO STRUCTURES WITH A MINIMUM OF 6 - NO. 4 BARS 12" LONG OR AS SHOWN ON INDEX NO.DSD-01.
9. STRUCTURES WITH DEPTHS OVER 14' ARE TO BE CHECKED FOR FLOTATION BY DESIGNER OF PROJECT DRAINAGE.
10. ALL STEEL BARS SHALL HAVE 1½" MINIMUM COVER UNLESS OTHERWISE SHOWN AND SHALL BE HOOKED WHERE INDICATED. HORIZONTAL STEEL IN RECTANGULAR STRUCTURES SHALL BE LAPPED A MINIMUM OF 24 BAR DIAMETERS AT CORNERS. ON PRECAST UNITS, FLOOR SLABS MAY BE SECURED TO STRUCTURE WALLS BY NO. 4 DOWEL BARS (A MINIMUM OF 6 DOWELS) PUSHED INTO THE WET CONCRETE AFTER THE FLOOR SLAB IS PLACED.
11. TYPE 7 TOP SLABS MAY BE OF CAST-IN-PLACE OR PRECAST CONSTRUCTION. THE OPTIONAL KEY IS FOR PRECAST TOPS AND IS IN LIEU OF DOWELS. FRAME AND SLAB OPENINGS ARE TO BE OMITTED WHEN TOP IS USED OVER A JUNCTION BOX. FRAME CAN BE ADJUSTED WITH FROM ONE TO SIX COURSES OF BRICK.
12. MANHOLE TOP TYPE 8 MAY BE OF CAST-IN-PLACE OR PRECAST CONCRETE CONSTRUCTION OR BRICK CONSTRUCTION. FOR CONCRETE CONSTRUCTION, THE CONCRETE AND STEEL REINFORCEMENT SHALL BE THE SAME AS THE SUPPORTING WALL UNIT. AN ECCENTRIC CONE MAY BE USED.
13. LARGER THAN SPECIFIED STANDARD UNITS MAY BE SUBSTITUTED AT THE CONTRACTOR'S OPTION WHEN THESE UNITS WILL NOT CAUSE OR INCREASE THE SEVERITY OF UTILITY CONFLICTS. SUCH LARGER UNITS SHALL BE FURNISHED AT NO ADDITIONAL COST TO THE DEPARTMENT. LARGER ALTERNATE "A" UNITS CANNOT REPLACE ALTERNATE "B" UNITS WITHOUT APPROVAL OF THE ENGINEER. THIS NOTE APPLIES TO THIS INDEX ONLY.
14. FOR SUPPLEMENTARY DETAILS SEE INDEX NO.DSD-01 AND 3-E OR 3-E-1.

FHWA Approved: 5-1-75

29

REVISIONS	
Dates	Descriptions
10-78	Changed Index No.

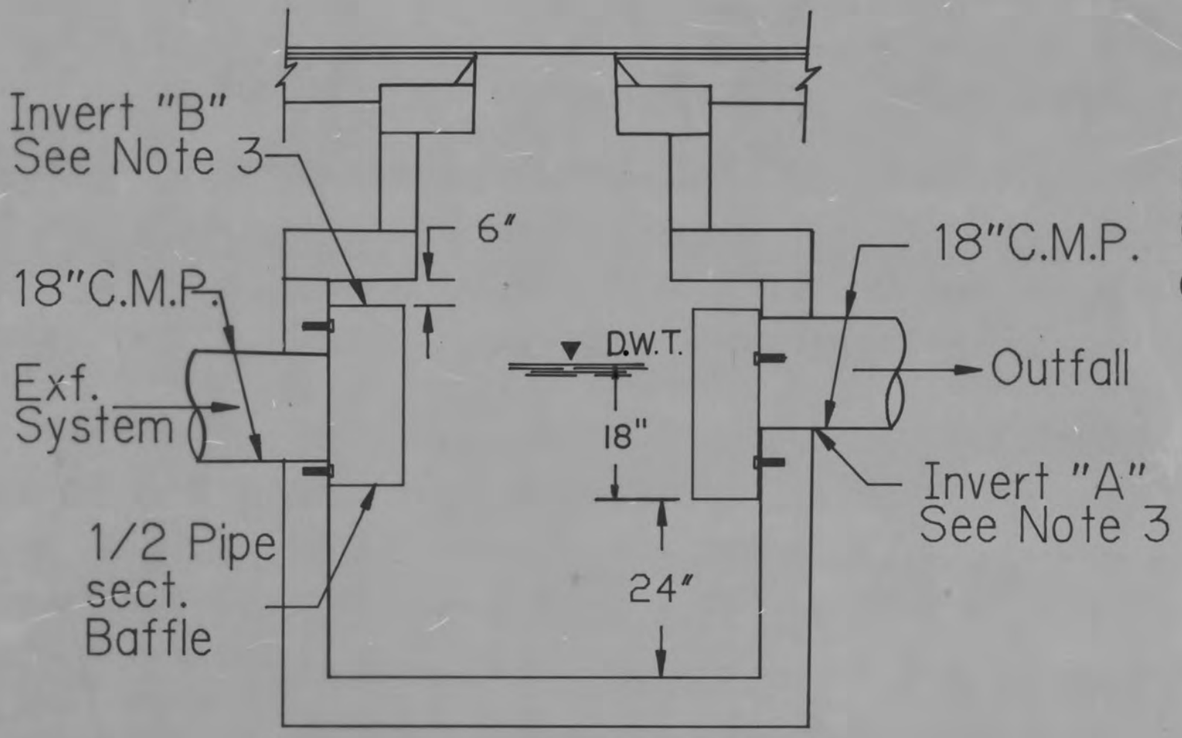
DADE COUNTY PUBLIC WORKS DEPARTMENT
HIGHWAY DIVISION

DESIGN	DSB-01
DRAWN	INLET, MANHOLE, JUNCTION BOX TYPES J & P
CHECK	
PROPOSED	

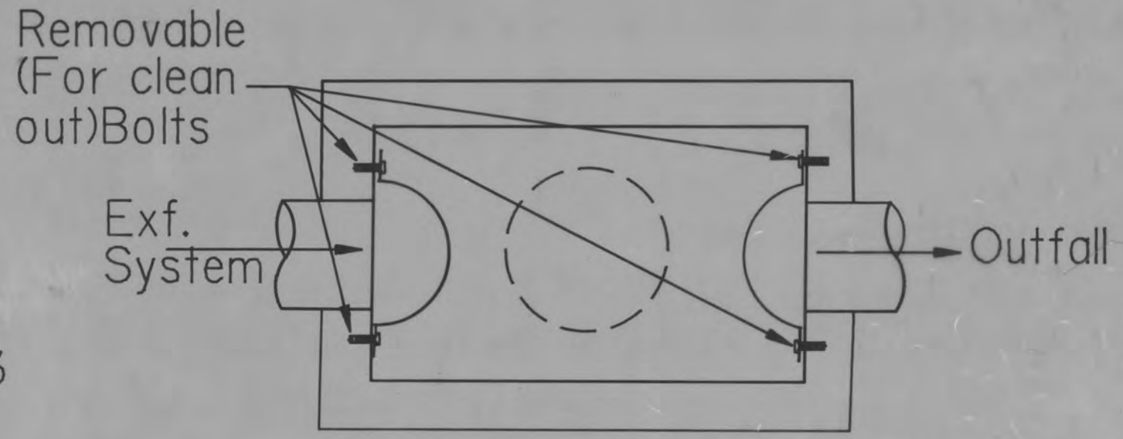
SUBMITTED	RECOMMENDED	APPROVED
HIGHWAY ENGINEER	CHIEF ENGINEER	DIRECTOR

DATE _____ PROJ. _____ SHEET 1 OF 1

POLLUTION CONTROL STRUCTURE



SIDE VIEW



TOP VIEW

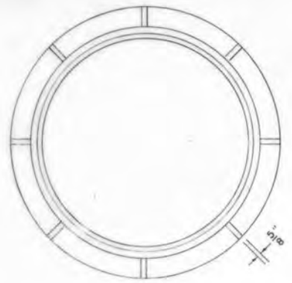
NOTES:

1. All dimensions are minimum.
2. Standard 3'-6" x6' "J" Box. See Index DSB-01 for details.
3. Invert "A" to be set at weir elevation. Where not possible, invert "B" to be weir elevation with bottom of 1/2 pipe closed. If neither possible, next box into exfiltration system to have weir.
4. There will be a neoprene seal between the structure wall and 1/2 pipe.

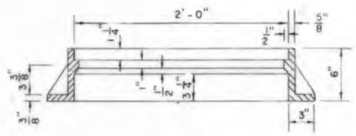
29.2

DADE COUNTY PUBLIC WORKS DEPARTMENT		
HIGHWAY DIVISION		29.2
DESIGN	P. C. S. - 1	
DRAWN		
CHECK		
PROPOSED		
SUBMITTED	RECOMMENDED	APPROVED
DATE July, 1989 PROJ		SHEET OF

DADE COUNTY PUBLIC WORKS DEPT.
HIGHWAY DIVISION
PROJECT NO. _____ SHEET ___ OF ___



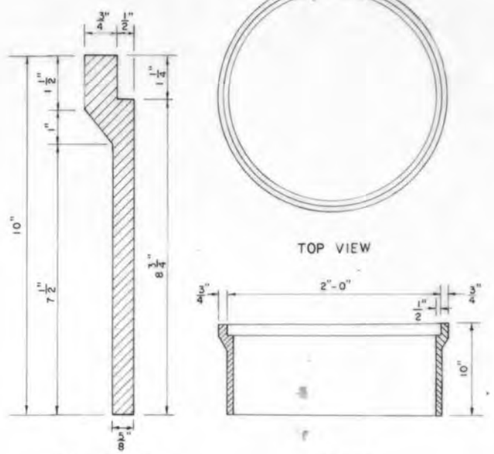
TOP VIEW



SECTION

TYPE I

FOR MANHOLES

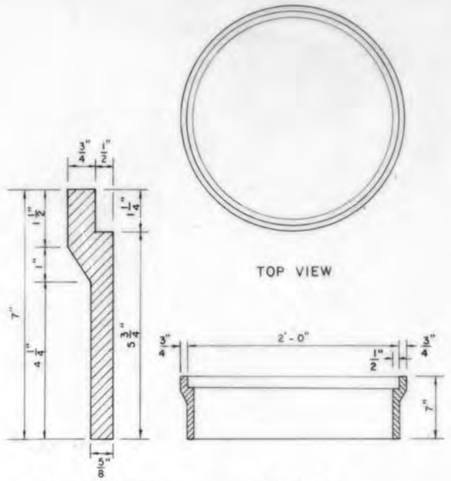


TOP VIEW

WALL SECTION SECTION

TYPE II

FOR CURB INLETS TYPES 1, 2, 3, & 4



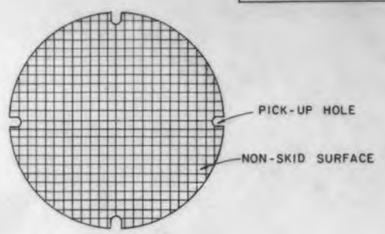
TOP VIEW

WALL SECTION SECTION

TYPE III

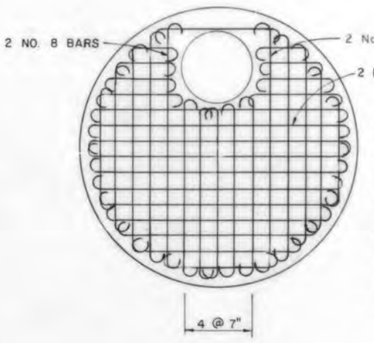
FOR CURB INLETS TYPES 7 & 8

CAST IRON FRAMES



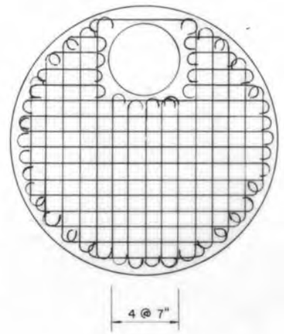
TOP VIEW

BOTTOM VIEW



ALL REINFORCEMENT No. 6 BARS EXCEPT 6 No. 8 BARS SHOWN. BARS SPACED @ 6" CENTERS BOTH WAYS EXCEPT MIDDLE BARS SHOWN @ 7" CENTERS. ALL BARS WITH ACI STANDARD HOOKS CANTED APPROX. 45°, OR EMBEDDED IN ACCORDANCE WITH THE SLAB REINFORCEMENT DETAIL SHOWN UNDER OPTIONAL CONSTRUCTION JOINTS, SHEET NO. 2 of 2 EXCEPT ALL NO. 8 BARS AND NO. 6 BARS AROUND MANHOLE OPENING SHALL BE HOOKED.

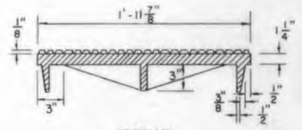
REINFORCEMENT PLAN



REINFORCEMENT PLAN

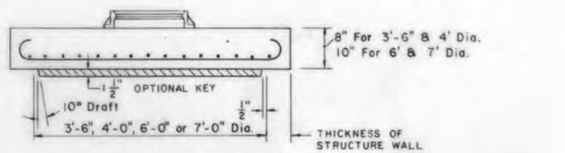
REINFORCING BARS @ 6" CENTERS BOTH WAYS EXCEPT MIDDLE BARS SHOWN @ 7" CENTERS. ALL BARS WITH ACI STANDARD HOOKS CANTED APPROX. 45°, OR EMBEDED IN ACCORDANCE WITH THE SLAB. REINFORCEMENT DETAIL SHOWN UNDER OPTIONAL CONSTRUCTION JOINTS. SHEET 3 OF 3, EXCEPT BARS AROUND MANHOLE OPENING SHALL BE HOOKED.

BAR SIZE	TOP DIAMETER
No. 4	3'-6" & 4'
No. 5	6'
No. 6	7'



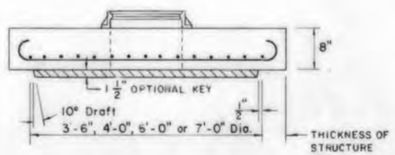
SECTION

COVER FOR ALL FRAMES



SECTION

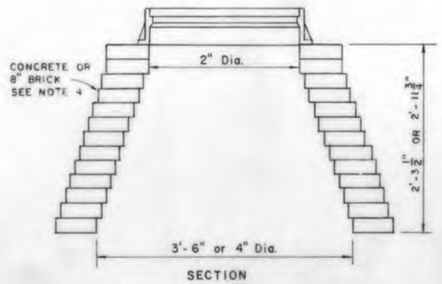
TYPE 7-T (TRAFFIC) (H-20)



SECTION

TYPE 7-NT (NON-TRAFFIC)

MANHOLES OR JUNCTION BOXES



SECTION

TYPE 8

MANHOLES

STRUCTURE TOPS

NOTES (TOPS, FRAMES AND COVER):

1. ALL STEEL BARS SHALL BE NEW BARS IN ACCORDANCE WITH ASTM A 615, GRADE 60 AND HAVE 1 1/4" MINIMUM COVER UNLESS OTHERWISE SHOWN AND SHALL BE HOOKED WHERE INDICATED.
2. MANHOLE TOP TYPE 7 SLABS SHALL BE OF CLASS II CONCRETE (fc' = 3400 P.S.I.).
3. MANHOLE TOP TYPE 7 SLABS MAY BE OF CAST-IN-PLACE OR PRECAST CONSTRUCTION. THE OPTIONAL KEY IS FOR PRECAST TOPS AND IN LIEU OF DOWELS. FRAME AND SLAB OPENINGS ARE TO BE OMITTED WHEN TOP IS USED OVER A JUNCTION BOX. FRAMES CAN BE ADJUSTED WITH FROM ONE TO SIX COURSES OF BRICK.
4. MANHOLE TOP TYPE 8 MAY BE OF CAST-IN-PLACE OR PRECAST CONCRETE CONSTRUCTION OR BRICK CONSTRUCTION. FOR CONCRETE CONSTRUCTION, THE CONCRETE AND STEEL REINFORCEMENT SHALL BE THE SAME AS THE SUPPORTING WALL UNIT. AN ECCENTRIC CONE MAY BE USED.
5. MANHOLE TOPS SHALL BE SECURED TO STRUCTURES BY OPTIONAL CONSTRUCTION JOINTS AS SHOWN ON SHEET NO. 2 OF THIS DETAIL.
6. ALL COVERS TO BE TACK WELDED TO FRAMES AT THIRD POINTS OR GROUTED AT THIRD POINTS WITH EXPOXY (TOTAL ELEVEN (11) OUNCES OF MIXED EPOXY).
7. THE 212 LB. COVER IS THE REPLACEMENT FOR ALL PREVIOUS 1 1/4" DEEP FRAMES (TRAFFIC TYPE). THE 185 LB. COVER IS THE REPLACEMENT FOR ALL PREVIOUS 1/2" DEEP FRAMES (NON-TRAFFIC TYPE).

WEIGHT OF CASTINGS	
TYPE I	126 Lbs.
TYPE II	134 Lbs.
TYPE III	98 Lbs.
COVER	212 Lbs.

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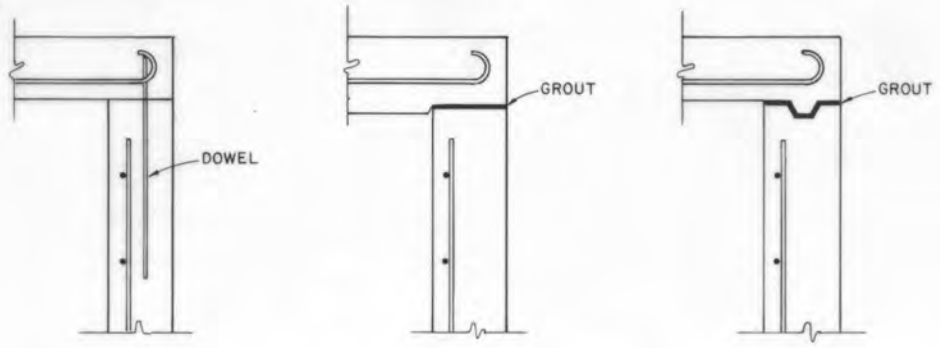
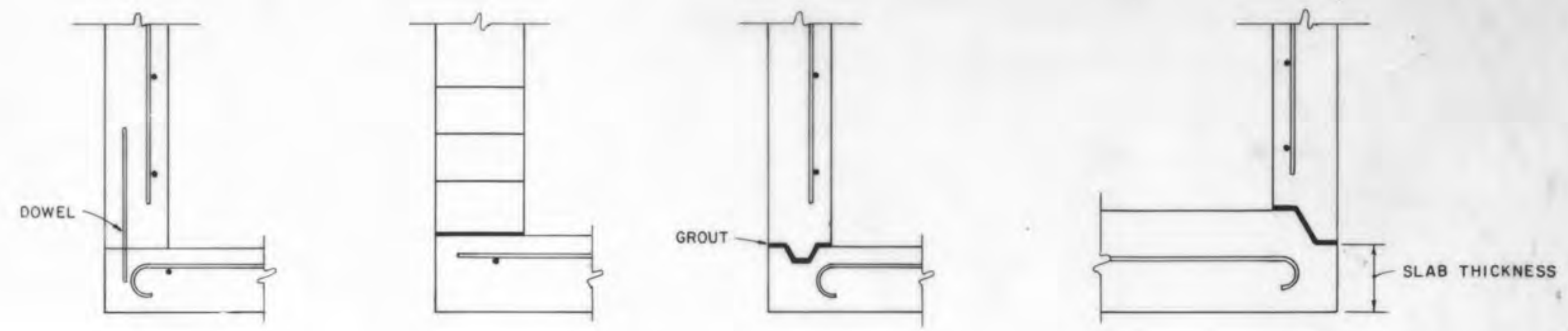
DADE COUNTY PUBLIC WORKS DEPARTMENT
HIGHWAY DIVISION

DESIGN S.R.D.	SUPPLEMENTARY DETAILS FOR MANHOLES AND INLETS
DRAWN F.B.	SMI-1
CHECK W. Stevens	
PROPOSED	

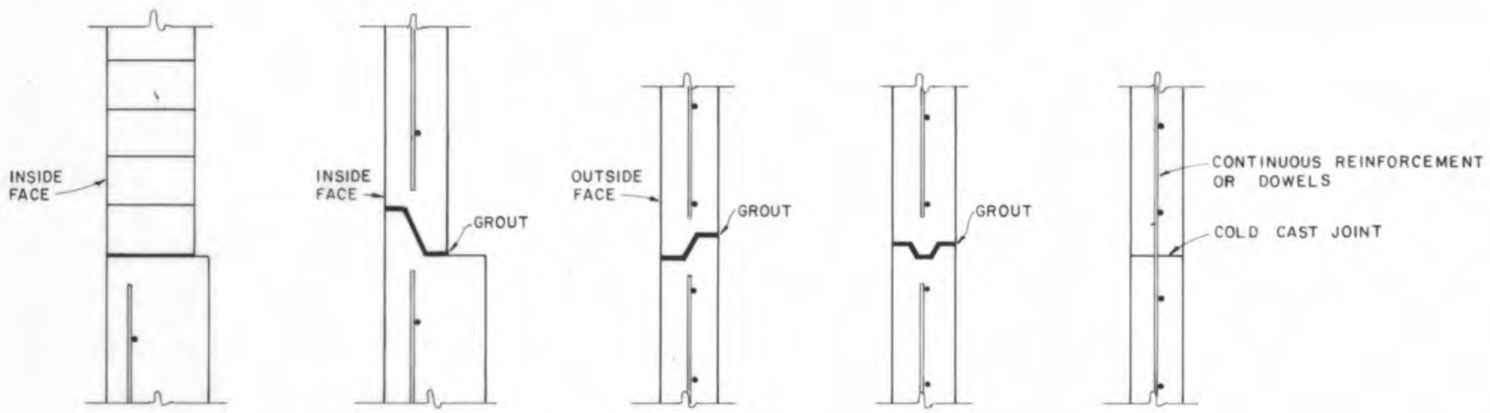
SUBMITTED	RECOMMENDED	APPROVED
DATE NOV. 1983	PROJ.	SHEET 1 OF 2



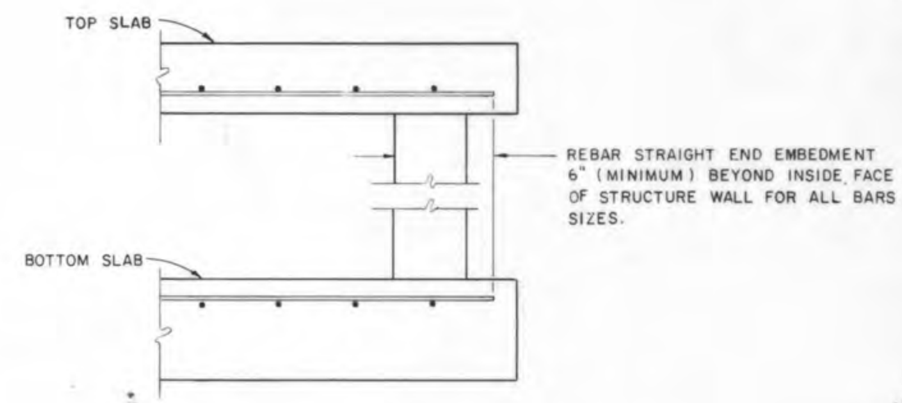
TOP SLABS TO WALLS



BOTTOM SLABS TO WALLS



WALL JOINTS



REBAR STRAIGHT END EMBEDMENT IN LIEU OF ACI STANDARD HOOKS FOR TOP AND BOTTOM SLABS

1. ONE OR MORE TYPES OF JOINTS MAY BE USED IN A SINGLE STRUCTURE, EXCEPT BRICK WALL STRUCTURE. BRICK WALL CONSTRUCTION IS PERMITTED ON CIRCULAR UNITS ONLY

2. ALL GROUTED JOINTS ARE TO HAVE A MAXIMUM THICKNESS OF 1".

3. KEYWAYS ARE TO BE A MINIMUM OF $1\frac{1}{2}$" DEEP.

4. JOINT DOWELS ARE TO BE #4 BARS, 12" LONG WITH A MINIMUM OF 6 BARS PER JOINT, APPROXIMATELY EVENLY SPACED.

5. MINIMUM COVER ON REINFORCING BARS IS $1\frac{1}{4}$".

6. REBAR STRAIGHT AND EMBEDMENT MAY BE USED IN LIEU OF ACI STANDARD HOOKS FOR TOP AND BOTTOM SLABS EXCEPT WHEN HOOKS ARE SPECIFICALLY CALLED FOR IN PLANS OR STANDARD DRAWINGS.

OPTIONAL CONSTRUCTION JOINTS

GENERAL NOTES

1. FOR SQUARE OR RECTANGULAR PRECAST DRAINAGE STRUCTURES EITHER DEFORMED OR SMOOTH WELDED WIRE FABRIC MAY BE USED BASED ON SUBSTITUTION OF EQUAL STEEL AREAS PROVIDED:

   a) THE SMOOTH WELDED WIRE FABRIC SHALL COMPLY WITH ASTM A-185, AND DEFORMED WELDED WIRE FABRIC SHALL COMPLY WITH ASTM A-497.

   b) WIDTH AND LENGTH OF THE UNIT IS FOUR TIMES THE SPACING OF THE CROSS WIRES.

   c) WIRE FABRIC SHALL BE CONTINUOUS AROUND THE BOX, SPLICED AT QUARTER POINT (S) WITH OVERLAP OF NOT LESS THAN THE SPACING OF CROSS WIRES PLUS TWO INCHES.

2. WELDING OF SPLICES AND LAPS IS PERMITTED. THE REQUIREMENTS AND RESTRICTIONS PLACED ON WELDING IN AASHTO M-259 SHALL APPLY.

3. HORIZONTAL STEEL IN RECTANGULAR STRUCTURES SHALL BE LAPPED A MINIMUN OF 24 BAR DIAMETER AT CORNERS.

33

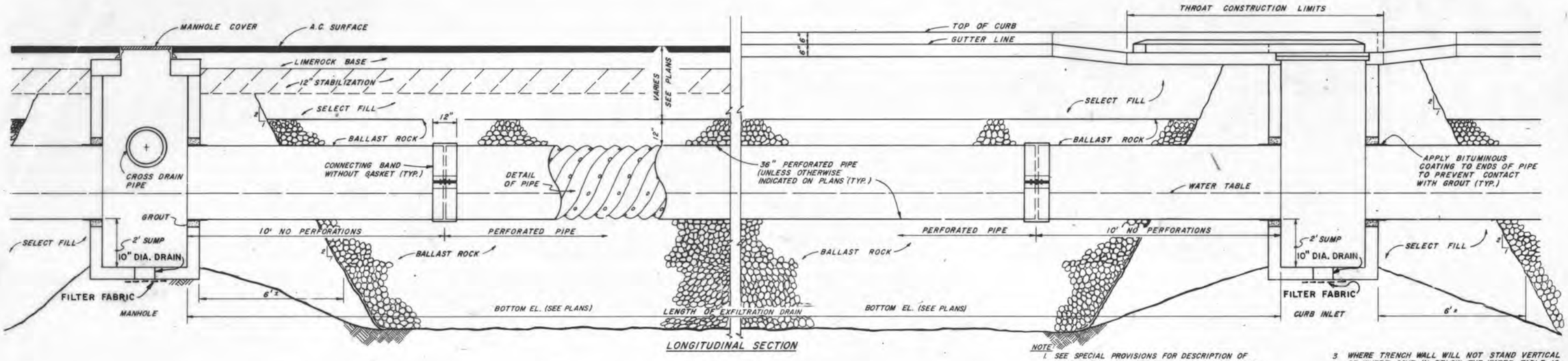
DADE COUNTY PUBLIC WORKS DEPARTMENT
HIGHWAY DIVISION

DESIGN S.R.D.	SUPPLEMENTARY DETAILS FOR MANHOLES AND INLETS
DRAWN F.B.	
CHECK	SMI-02
PROPOSED	

SUBMITTED	RECOMMENDED	APPROVED
HIGHWAY ENGINEER	CHIEF ENGINEER	DIRECTOR
DATE NOV. 1983	PROJ.	SHEET 2 OF 2

DADE COUNTY PUBLIC WORKS DEPT.
HIGHWAY DIVISION

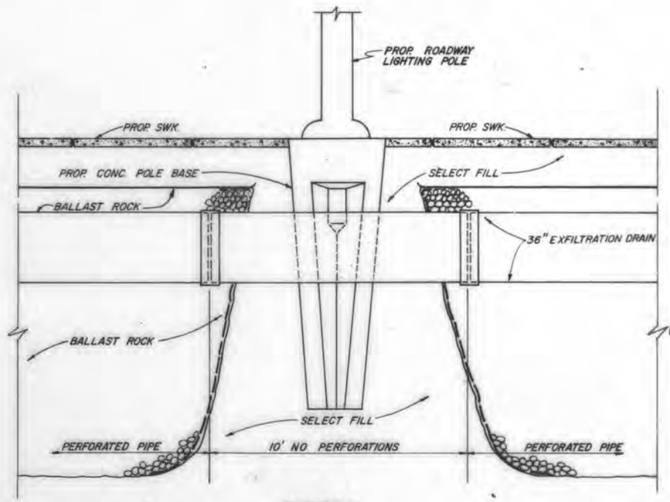
PROJECT NO. _____ SHEET ___ OF ___



LONGITUDINAL SECTION

NOTE:

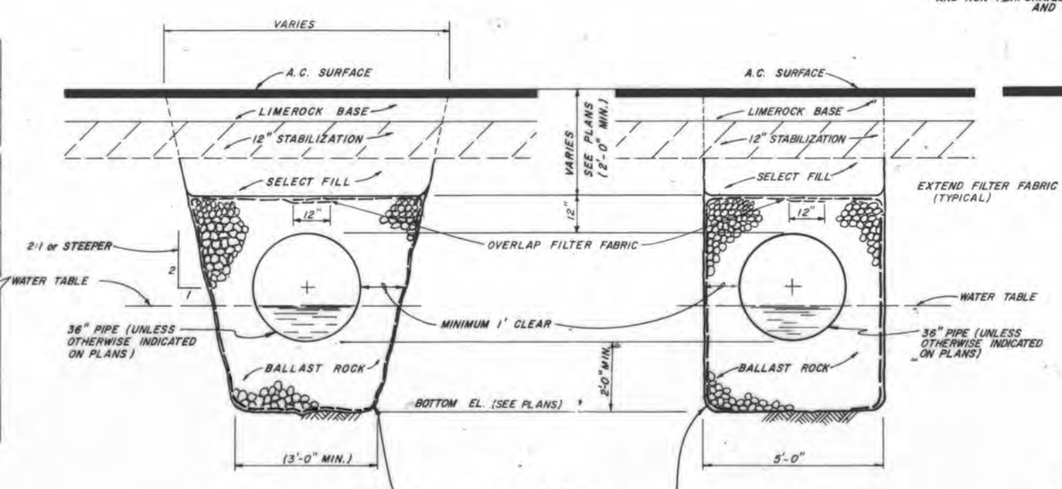
1. SEE SPECIAL PROVISIONS FOR DESCRIPTION OF SELECT FILL, BALLAST ROCK, PERFORATED PIPE AND POLYPROPYLENE FILTER FABRIC.
2. THE COST OF CONSTRUCTION OF THE EXFILTRATION DRAIN (ITEM NO. 443-70, PER LINEAR FOOT) SHALL INCLUDE THE COST OF EXCAVATION, BOTH PERFORATED AND NON-PERFORATED PIPE, BALLAST ROCK, AND BACKFILLING WITH SELECT FILL.
3. WHERE TRENCH WALL WILL NOT STAND VERTICAL OR WHERE CAVE-IN BELOW THE WATER TABLE IS LIKELY, ALTERNATE SECTION IS TO BE USED AT THE DISCRETION OF THE ENGINEER. THERE WILL BE NO ADDITIONAL PAYMENT FOR THIS CROSS SECTION.



DETAIL

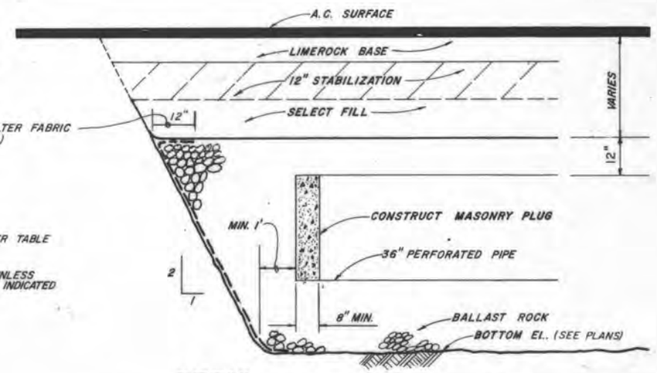
CONSTRUCTION OF EXFILTRATION DRAIN ADJACENT TO PROPOSED ROADWAY LIGHTING POLES

(FOR USE WHEN ℄ PIPE IS 7FT. OR LESS FROM ℄ OF POLE BASE)



ALTERNATE CROSS-SECTION FOR SANDY SOIL CONDITION

TRANSVERSE SECTION



DETAIL

FOR ENDING EXFILTRATION DRAIN WITHOUT A DRAINAGE STRUCTURE.

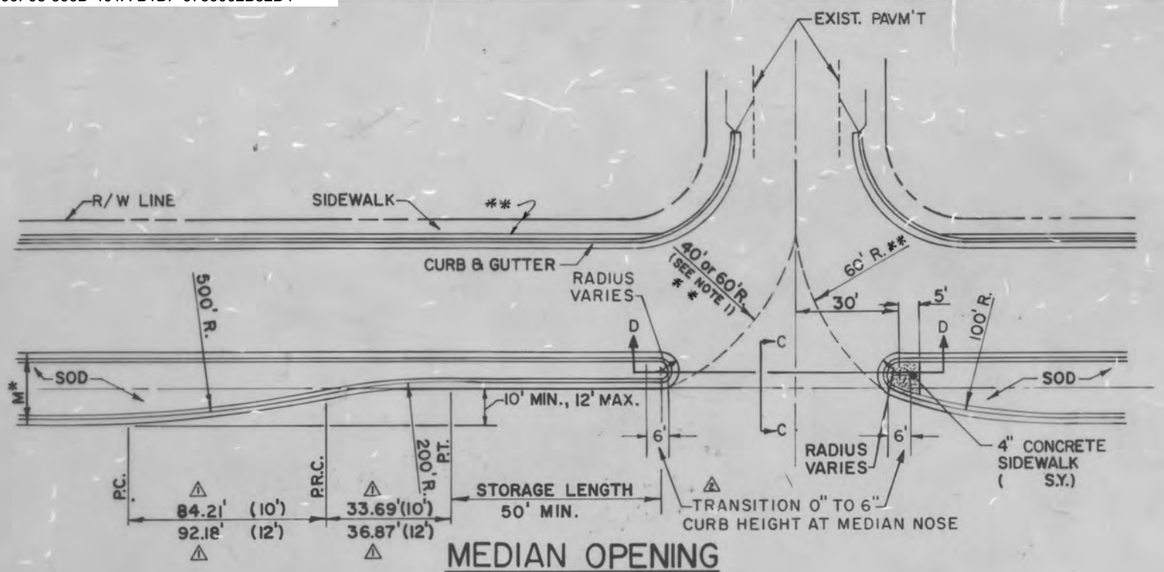
REV. 11/89

36

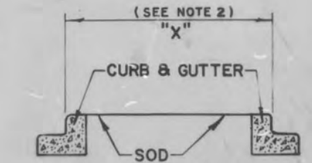
3-E

DETAIL OF EXFILTRATION DRAIN WITH PERFORATED PIPE

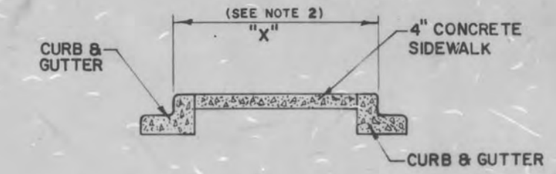
G.M.	J.D.L.	1-79
DRAWN BY	CHECKED BY	DATE



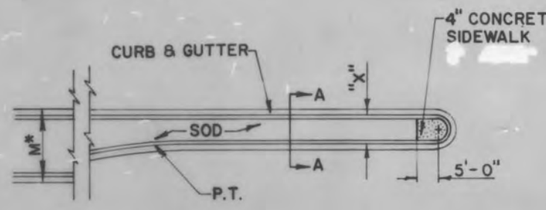
MEDIAN OPENING



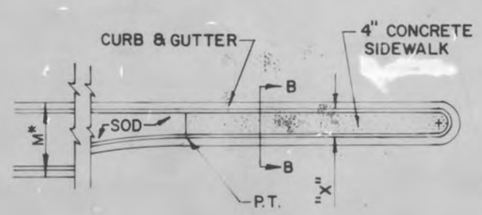
SECTION A-A



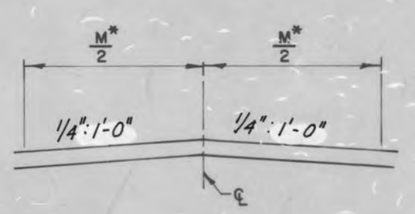
SECTION B-B



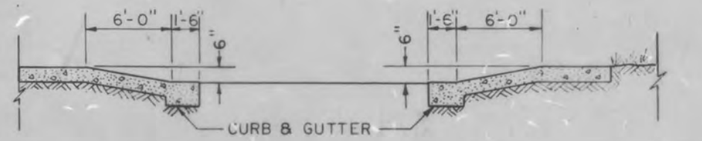
DETAIL 'A'



DETAIL 'B'



SECTION C-C



SECTION D-D

* M=TOTAL EFFECTIVE MEDIAN WIDTH

*** THESE ITEMS MAY NOT BE TYPICAL, SEE CONSTRUCTION PLANS FOR PROPER DETAILING.*

NOTES:

1. MINOR INTERSECTIONS 40' R.(LOCAL STREETS)
   MAJOR INTERSECTIONS 60' R. (ARTERIAL STREETS)
2. WHEN DIMENSION "x" IS MORE THAN 6'-0"
   USE DETAIL A; WHEN LESS THAN 6'-0" USE DETAIL B

REVISION	DATE	DESCRIPTION	BY
2	2-27-75	Curb Height Transition	L.C.
1	3-15-74	Distance, P.C., P.R.C. & P.T.	G.L.

DADE COUNTY PUBLIC WORKS DEPARTMENT
HIGHWAY DIVISION

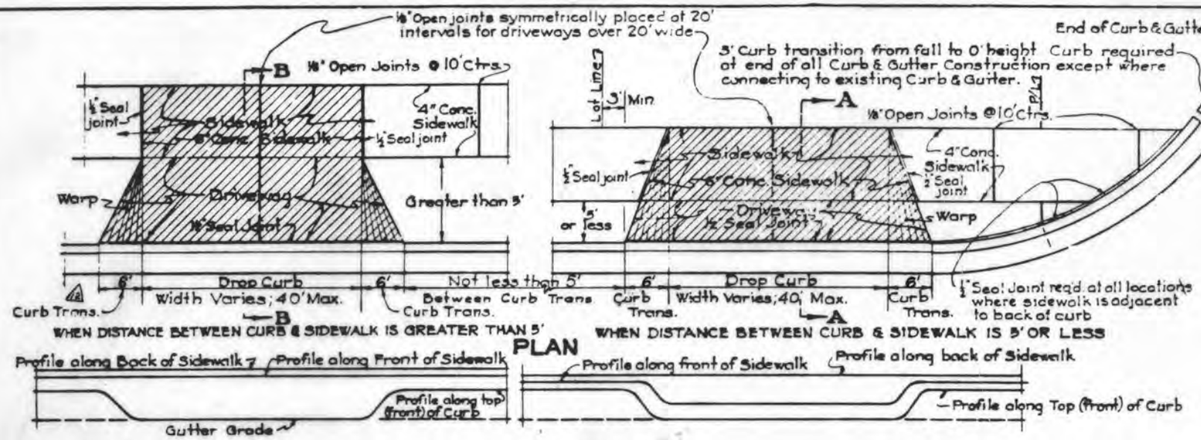
DESIGN: KEDWIN
DRAWN: S.L.
CHECKED: R. Young
PROPOSED:
SUBMITTED: RECOMMENDED: APPROVED:

MEDIAN OPENING ON DIVIDED ROADWAYS

15-B

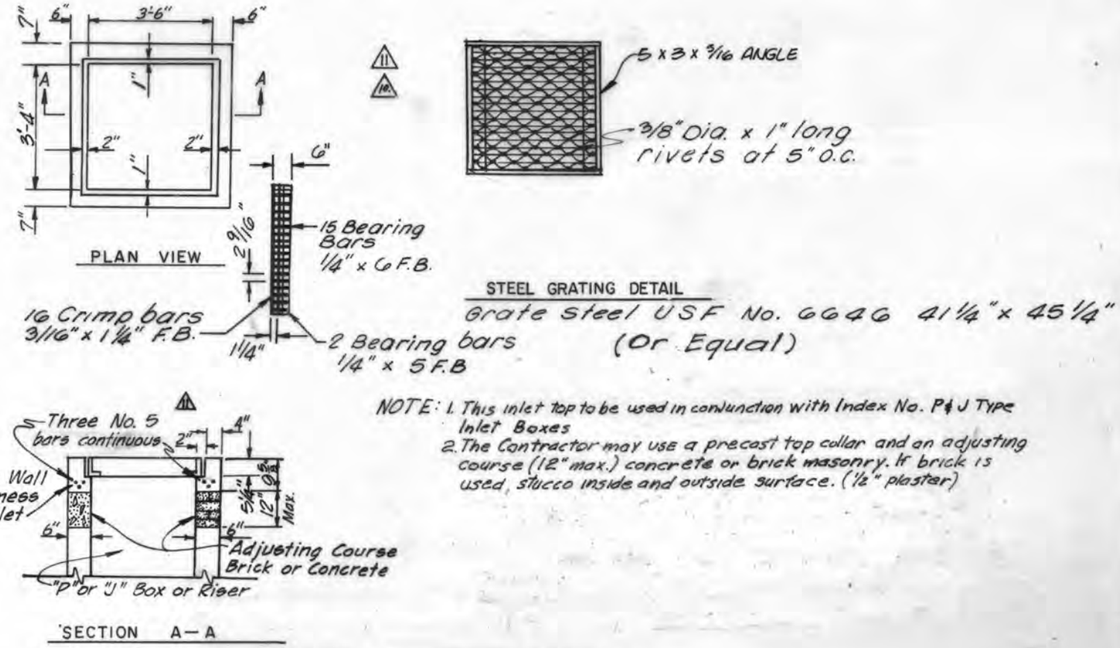
55

92



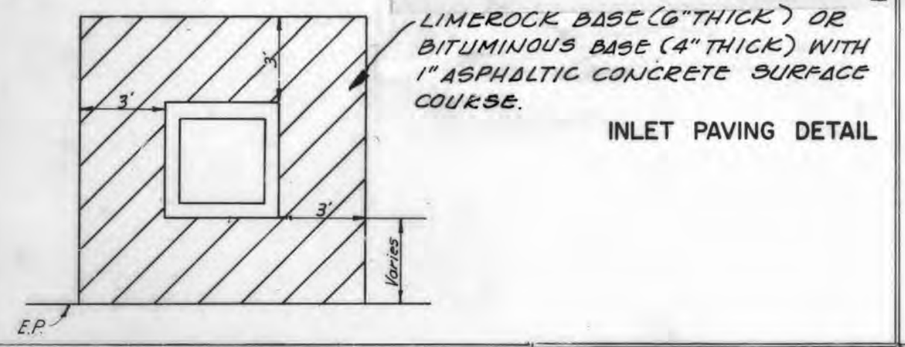
DETAIL OF SIDEWALK AND PAVED DRIVEWAY CONSTRUCTION

No paved driveways are to be constructed without compensation for materials from the owner except for replacement of driveways existing at the time of beginning of construction of the project and if desired by the owner, and at all other locations where the need becomes evident prior to the completion of the construction of the curb and gutter and sidewalk at a particular location. All new or reconstructed driveways must conform to the size limits as indicated above.

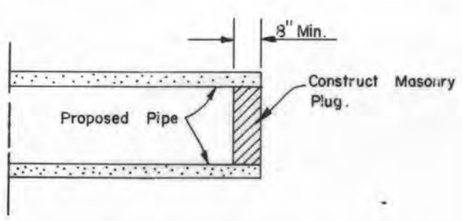


NOTE: 1. This inlet top to be used in conjunction with Index No. P# J Type Inlet Boxes
2. The Contractor may use a precast top collar and an adjusting course (12" max.) concrete or brick masonry. If brick is used, stucco inside and outside surface. (½" plaster)

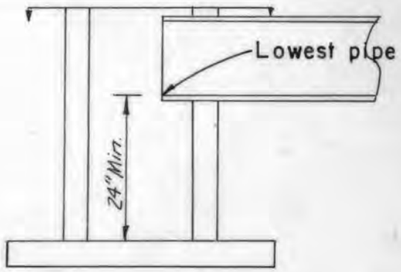
INLET TOP TYPE 10



INLET PAVING DETAIL

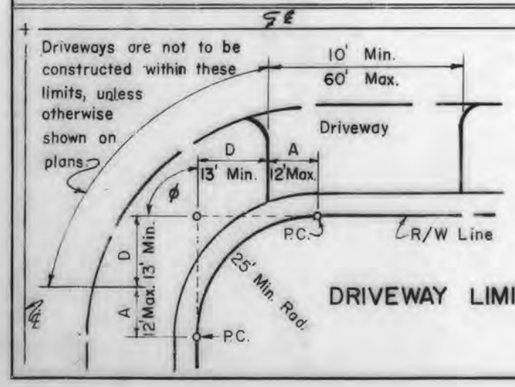


DETAIL OF PIPE PLUG



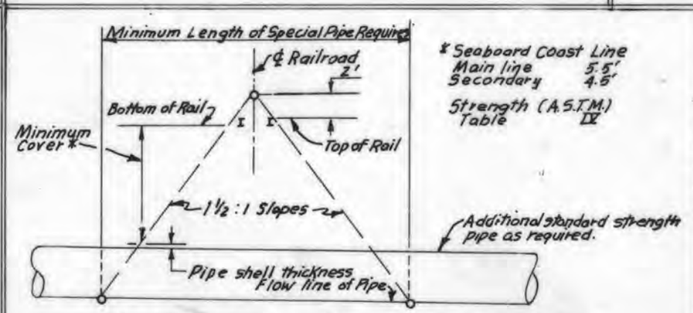
SUMP DETAIL

FOR DRAINAGE STRUCTURES



NOTE:
1. Where the intersection angle ϕ is 90° or less, dimension "A" controls.
2. Where the intersection angle ϕ is over 90°, dimension "D" controls.

DRIVEWAY LIMITS NEAR INTERSECTIONS



METHOD FOR DETERMINING THE LENGTH OF EXTRA STRENGTH PIPE REQUIRED UNDER RAILROAD

REVISION	DATE	DESCRIPTION	BY
12	12/73	Add 6' Curb Transition	R.M.
11	9-15	Dimensions of Grating and Box	JWB
10	5-71	Dimensions of Grating	RBM
9	11-68	2' Sump Detail	C.G.
8	10-68	Special Pipe Detail	A.R.
7	10-68	Added Pipe Plug	C.G.
6	9-68	Added Inlet Top Type #10	C.G.
5	9-68	Added Inlet Paving Detail	C.G.
4	8-68	Remove 1 & 3	C.G.
3	2-67	Adjust for Flexible Pavement	M.J.A.
2	3-65	Added Driveway Limits Near Intersect.	JAD
1	10-64	Added Detail of 9" Curb and Gutter	RC

61

DADE COUNTY PUBLIC WORKS DEPARTMENT
HIGHWAY DIVISION

MISCELLANEOUS DETAILS

14-A

DESIGN	DRAWN	CHECK	PROPOSED
S. R. D.	—	Herndon	

SUBMITTED	RECOMMENDED	APPROVED
DATE 6-6-1961	PROJ.	SHEET OF

FED. ROAD DIV. No.	STATE	PROJECT No.	FISCAL YEAR	SHEET No.
2	FLA.			

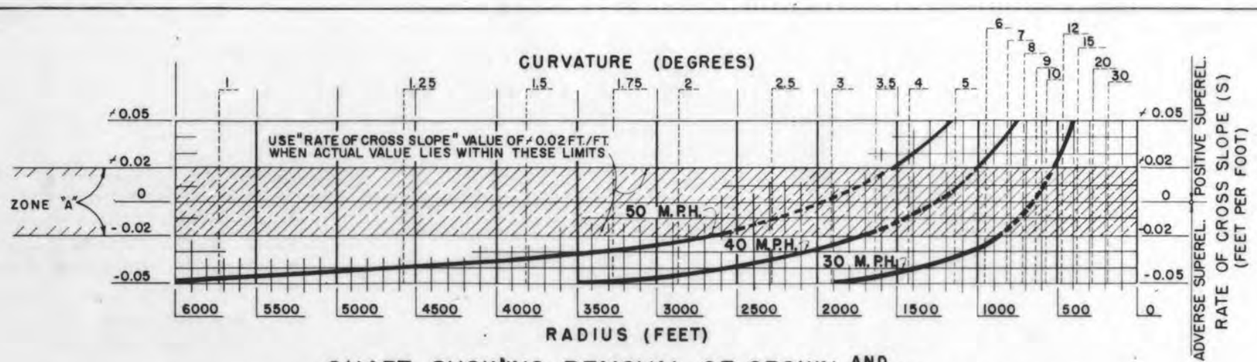
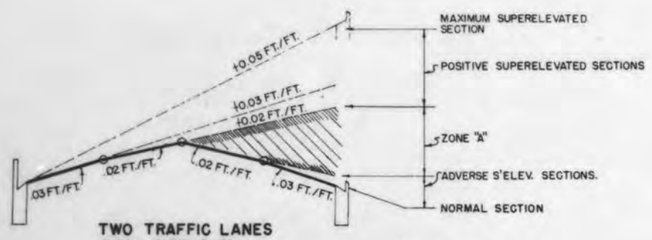
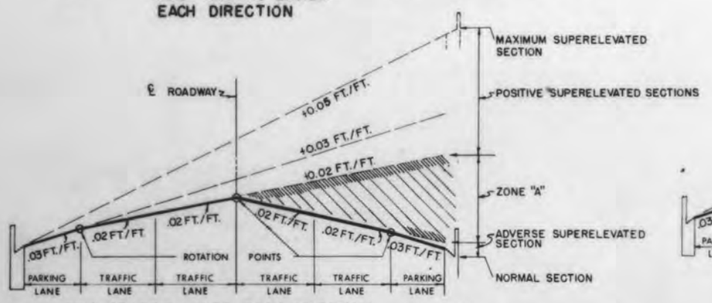


CHART SHOWING REMOVAL OF CROWN AND OR SUPERELEVATON NECESSARY FOR CURVATURE AT VARIOUS DESIGN SPEEDS

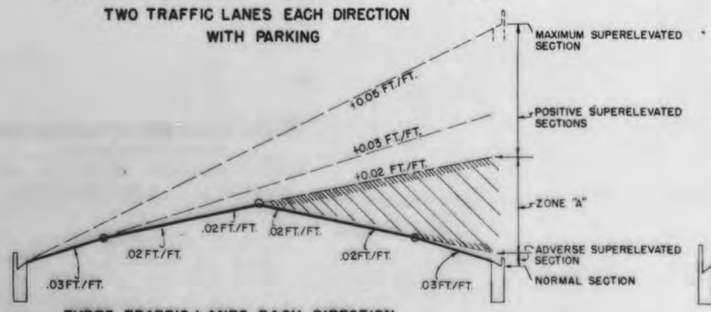
NOTE: WHEN THE ACTUAL SUPERELEVATION VALUE LIES WITHIN ZONE "A", USE A POSITIVE RATE OF 0.02 FT./FT.
THE SUPERELEVATION RATES SHOWN ABOVE ARE TO BE USED FOR URBAN (CURB & GUTTER) CONSTRUCTION IN BUILT UP AREAS.



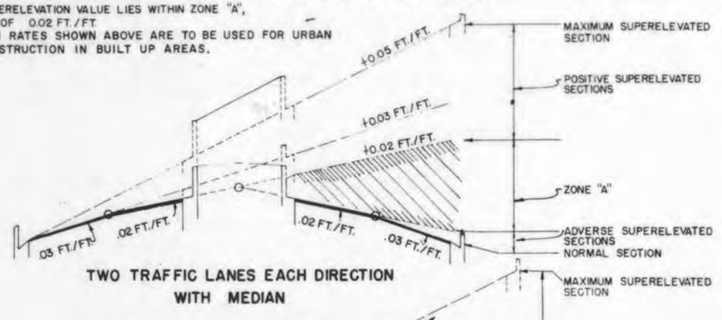
TWO TRAFFIC LANES EACH DIRECTION



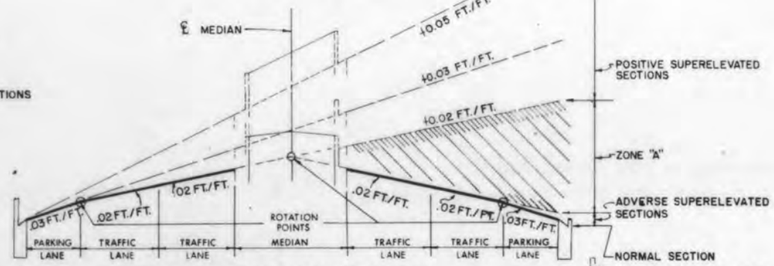
TWO TRAFFIC LANES EACH DIRECTION WITH PARKING



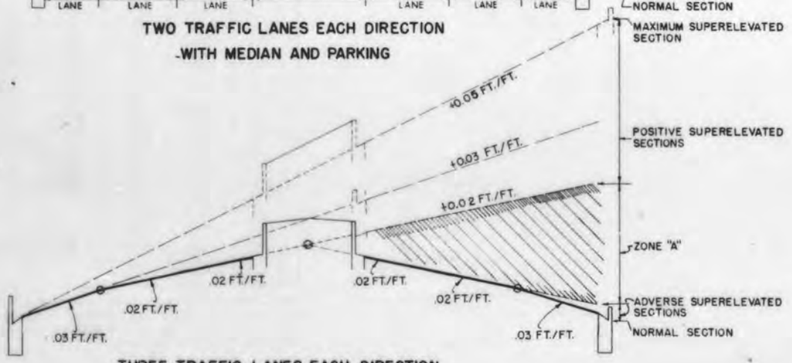
THREE TRAFFIC LANES EACH DIRECTION



TWO TRAFFIC LANES EACH DIRECTION WITH MEDIAN



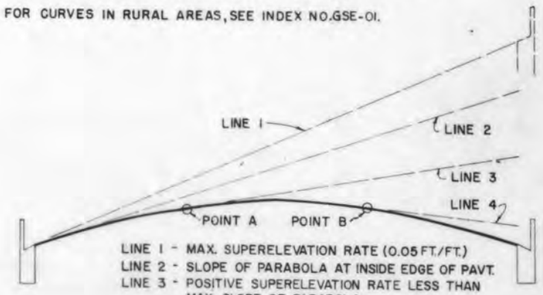
TWO TRAFFIC LANES EACH DIRECTION WITH MEDIAN AND PARKING



THREE TRAFFIC LANES EACH DIRECTION WITH MEDIAN

GENERAL NOTES FOR SUPERELEVATION

1. MAXIMUM RATE OF SUPERELEVATION (IN MUNICIPAL CONSTRUCTION) SHALL BE 0.05 FT./FT.
2. SUPERELEVATION SHALL BE OBTAINED BY ROTATING THE PLANE SUCCESSIVELY ABOUT THE BREAK POINTS OF THE SECTION UNTIL THE PLANE HAS ATTAINED A SLOPE EQUAL TO THAT REQUIRED BY THE CHART. SHOULD THE ROTATION TRAVERSE THE ENTIRE SECTION AND FURTHER SUPERELEVATION BE REQUIRED, THE REMAINING ROTATION OF THE PLANE SHALL BE ABOUT THE LOW EDGE OF THE INSIDE TRAVEL LANE.
   ADVERSE SUPERELEVATION OF SECTIONS WITH PARKING LANES. NO SUPERELEVATION WILL BE REQUIRED WHEN THE MAXIMUM ADVERSE SUPERELEVATION RATE IS GREATER THAN THE NORMAL SLOPE OF THE TRAFFIC LANE ADJACENT TO THE PARKING LANE.
3. WHEN POSITIVE SUPERELEVATION IS REQUIRED, THE SLOPE OF THE GUTTER ON THE HIGH SIDE SHALL BE A CONTINUATION OF THE SLOPE OF THE SUPERELEVATED PAVEMENT.
4. IN CONSTRUCTION, SHORT VERTICAL CURVES SHALL BE PLACED AT ALL ANGULAR PROFILE BREAKS WITHIN THE LIMITS OF THE SUPERELEVATION TRANSITION.
5. MINIMUM GUTTER GRADES WITHIN THE LIMITS OF THE SUPERELEVATION TRANSITION SHALL BE 0.2%.
6. THE VARIABLE SUPERELEVATION TRANSITION LENGTH "L" SHALL HAVE A MINIMUM VALUE OF 50 FEET FOR DESIGN SPEEDS UNDER 40 M.P.H. AND 75 FEET FOR DESIGN SPEEDS OF 40 M.P.H. OR GREATER.
7. MUNICIPAL SECTIONS HAVING LANE ARRANGEMENTS DIFFERENT FROM THOSE SHOWN, BUT COMPOSED OF A SERIES OF PLANES, SHALL BE SUPERELEVATED IN A SIMILAR MANNER.
8. FOR CURVES IN RURAL AREAS, SEE INDEX NO. GSE-01.



LINE 1 - MAX. SUPERELEVATION RATE (0.05 FT./FT.)
LINE 2 - SLOPE OF PARABOLA AT INSIDE EDGE OF PAVT.
LINE 3 - POSITIVE SUPERELEVATION RATE LESS THAN MAX. SLOPE OF PARABOLA.
LINE 4 - ADVERSE SUPERELEVATION.

VALUES OBTAINED FROM THE CHART ARE ALSO APPLICABLE TO A PARABOLIC CROWN SECTION. WHEN THIS TYPE SECTION IS USED, SUPERELEVATION IS ESTABLISHED BY ROTATING A TANGENT ABOUT THE ARC OF THE PARABOLIC CROWN UNTIL THE DESIRED SLOPE IS ATTAINED (POINTS A & B ON SKETCH). THE NORMAL PARABOLIC CROWN WILL BE MAINTAINED OUTSIDE THE LIMITS OF THE PLANE THUS FORMED.

SUPERELEVATION OF PARABOLIC SECTION

65

FHWA APPROVED: 5-20-77

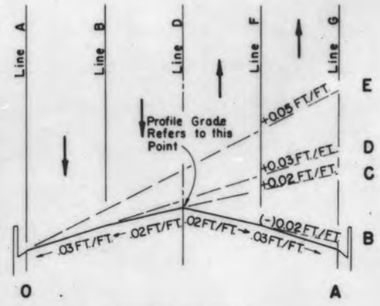
FLORIDA DEPARTMENT OF TRANSPORTATION
ROADWAY PLANS SECTION - 65

SUPERELEVATION DETAILS FOR MUNICIPAL CONSTRUCTION

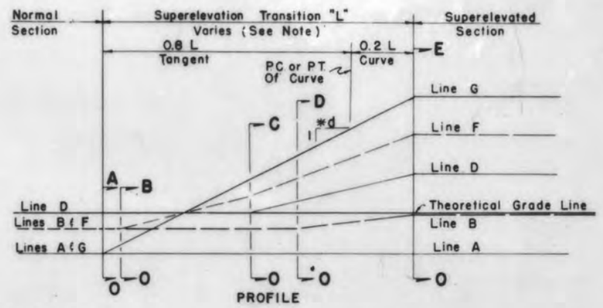
REVISIONS		REVISIONS	
Dates	Descriptions	Dates	Descriptions
5-77 LMF	Added note under I.S.E. Chart	3-67 M.J.T.	REVISED FOR PLANE SECTION
		1-73 BWS	Changed all fractions to decimals.
		10-74 LMF	Changed Index No. Updated pav't slope to current policy

ROAD NO.	COUNTY		PROJECT NO.	
	Names	Dates	Recommended for Approval by	Engineer of Road Design
Detailed by	W. L. B	2-66	APPROVED BY	Asst. State Highway Engineer
Checked by	R. L. O.	12-66		
Quantities by				
Checked by				
Traced by	C. D. R.	1-67	Drawing No. 1 OF 2	Index No. GSE-02-1

FED. ROAD DIV. No.	STATE	PROJECT No.	FISCAL YEAR	SHEET No.
3	FLA.			

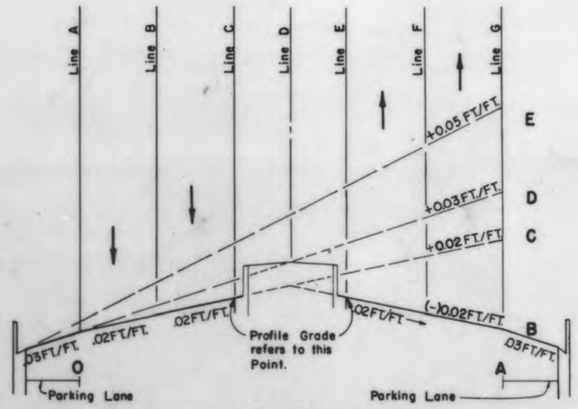


SECTION O-A TO O-E

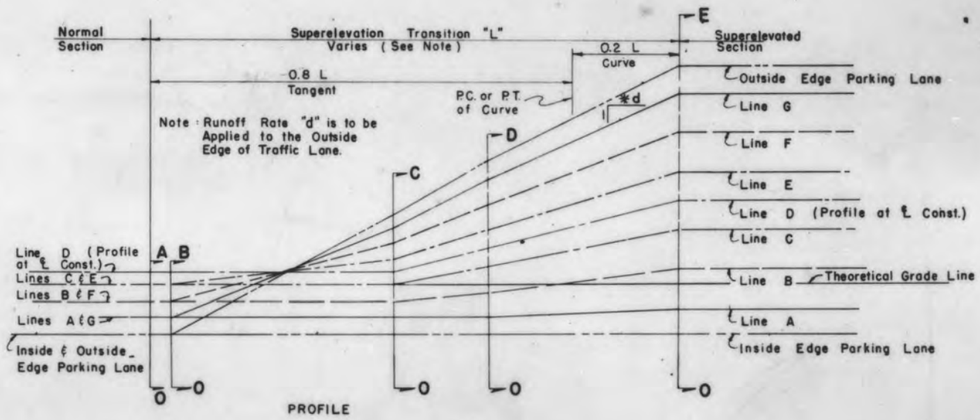


DETAIL OF SUPERELEVATION TRANSITION FOR TWO TRAFFIC LANES EACH DIRECTION

LINE	DESCRIPTION
A	INSIDE TRAFFIC LANE
B	INSIDE LANE LINE
C	INSIDE MEDIAN EDGE PAVEMENT
D	℄ CONSTRUCTION
E	OUTSIDE MEDIAN EDGE PAVEMENT
F	OUTSIDE LANE LINE
G	OUTSIDE TRAFFIC LANE



SECTION O-A TO O-E



DETAIL OF SUPERELEVATION TRANSITION FOR TWO TRAFFIC LANES EACH DIRECTION WITH MEDIAN AND PARKING

*d (SLOPE RATIO)	
30 MPH	1 : 100
40 MPH	1 : 125
50 MPH	1 : 150

D	R	V=30mph e	V=40mph e	V=50mph e
0° 15'	22918'	NC	NC	NC
0° 30'	11459'	NC	NC	NC
0° 45'	7639'	NC	NC	RC
1° 00'	5730'	NC	RC	RC
1° 30'	3820'	RC	RC	.024
2° 00'	2865'	RC	.022	.028
2° 30'	2292'	RC	.026	.031
3° 00'	1910'	.020	.029	.033
3° 30'	1637'	.023	.032	.036
4° 00'	1432'	.025	.033	.038
5° 00'	1146'	.028	.036	.043
6° 00'	955'	.031	.039	.047
7° 00'	819'	.032	.041	
8° 00'	716'	.034	.044	
9° 00'	637'	.035	.046	
10° 00'	573'	.037	.048	
11° 00'	521'	.038		
12° 00'	477'	.039		
13° 00'	441'	.040		
14° 00'	409'	.043	e Max.=0.05	
16° 00'	358'	.045		
18° 00'	318'	.047		
20° 00'	286'	.050		

The superelevation rates shown above are to be used for urban (curb & gutter) arterials in suburban areas where sufficient R/W may be acquired to make suitable connections.

NOTE : THE SECTIONS AND PROFILES SHOWN ON THIS SHEET ARE EXAMPLES OF THE SUPERELEVATION TRANSITIONS. SIMILAR SCHEMES SHOULD BE USED FOR ROADWAYS HAVING DIFFERENT SECTION DESIGNS.

FHWA APPROVED: 5-20-77

66

FLORIDA DEPARTMENT OF TRANSPORTATION
ROADWAY PLANS SECTION

SUPERELEVATION DETAILS FOR MUNICIPAL CONSTRUCTION

REVISIONS Dates	Descriptions
1-75 BJS	Changed all fractions to decimals.
10-76 LMF	Changed Index N° Up dated pavt slope to current policy
5-77 LMF	Added S.E. chart for e Max 0.05

ROAD NO.	COUNTY	PROJECT NO.

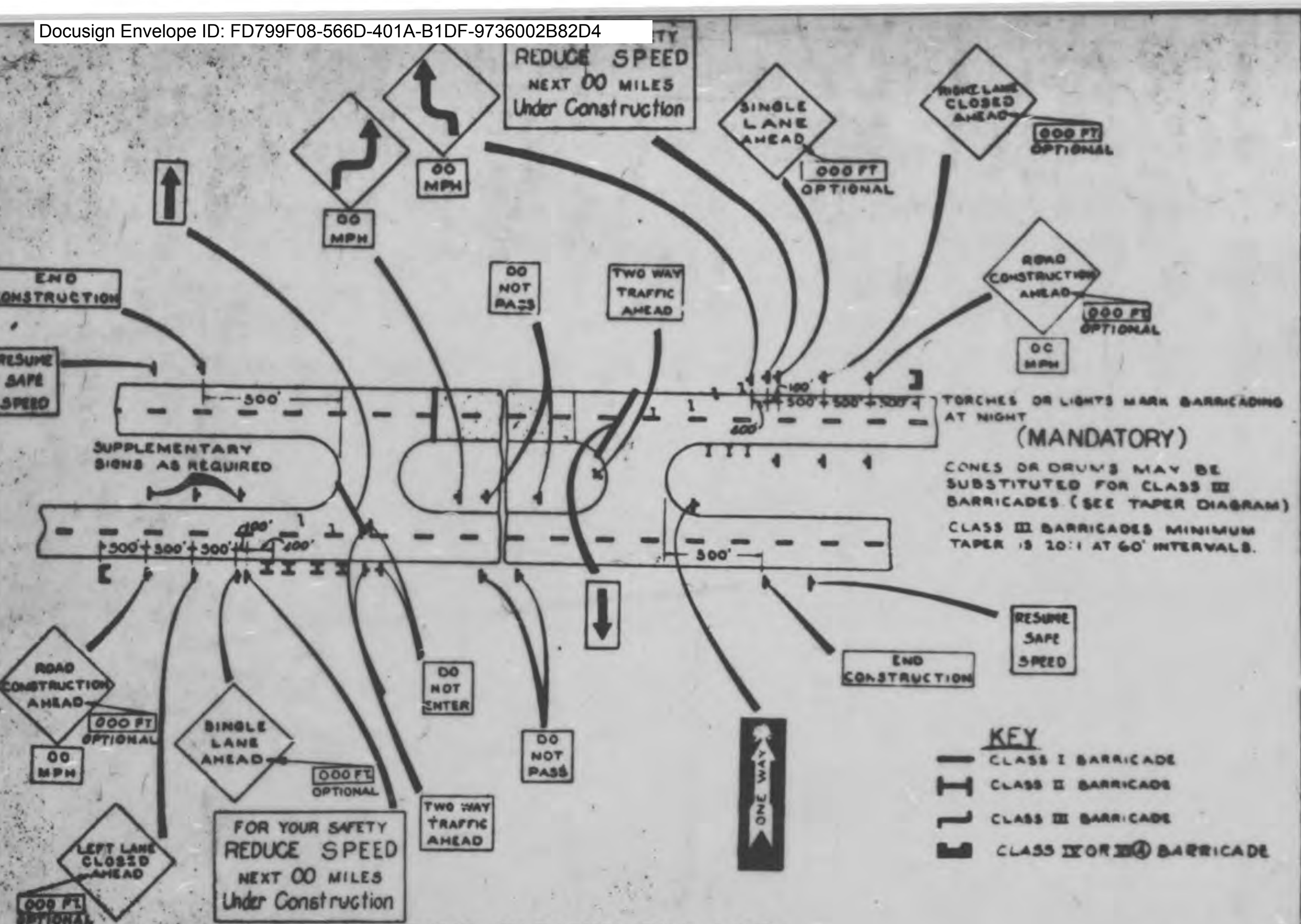
	Names	Dates
Detailed by	W. L. B.	2-66
Checked by	R. L. O.	12-66
Quantities by		
Checked by		
Traced by	C. D. P.	1-67

Recommended For Approval by: Engineer of Roadways
APPROVED BY: Asst. State Highway Engineer

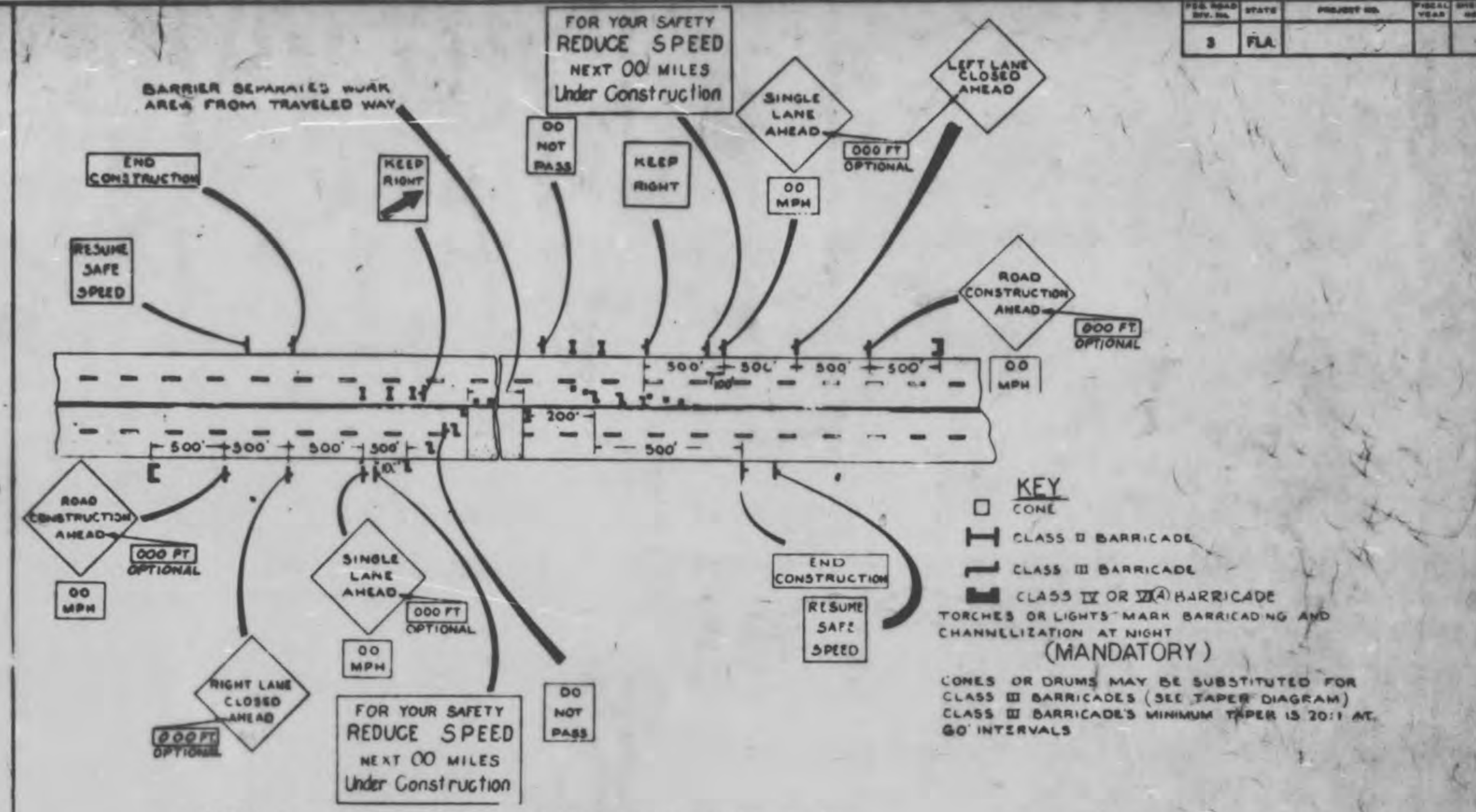
Drawing No. 2 OF 2

Index No. GSE-02-1

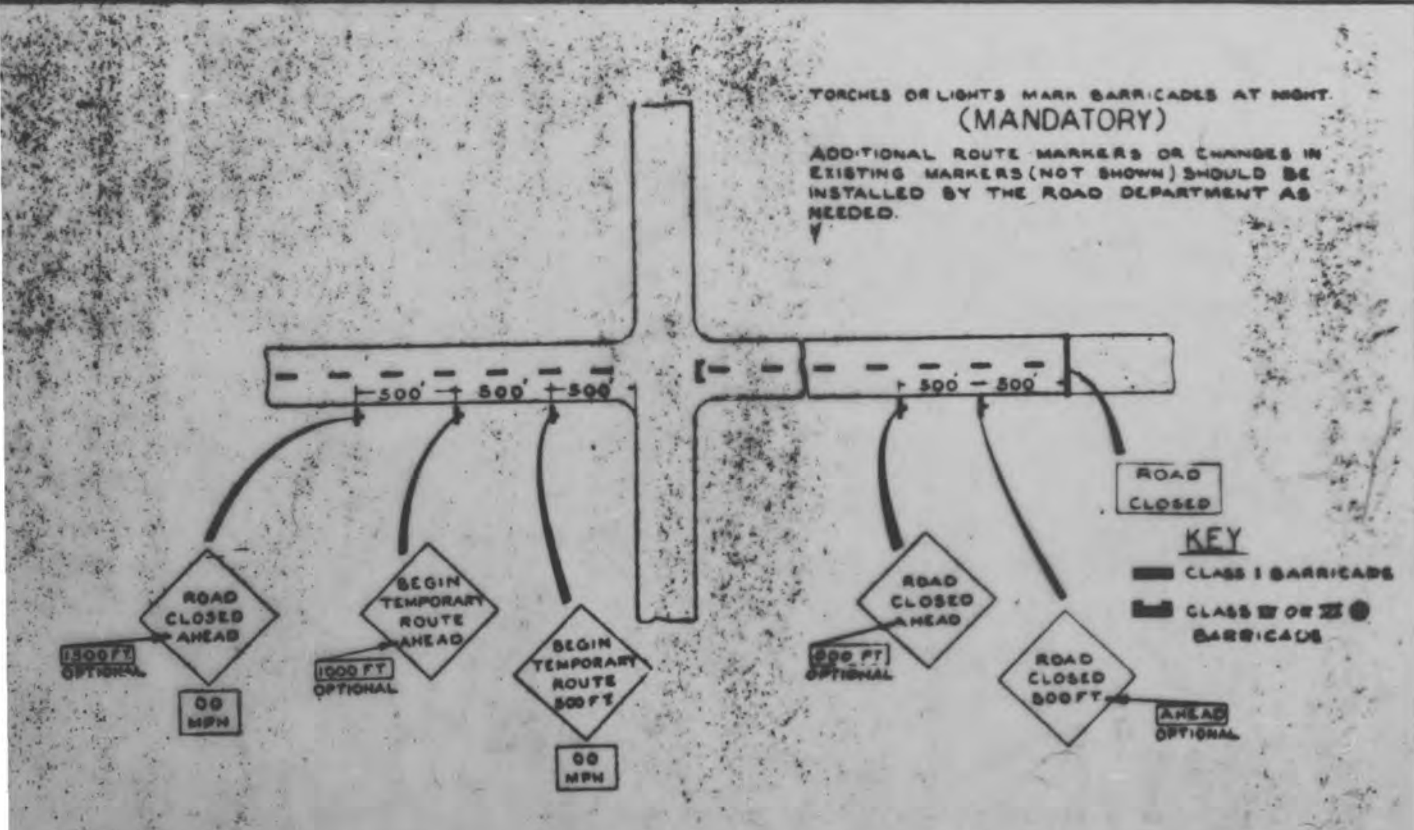
FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.
3	FLA.			



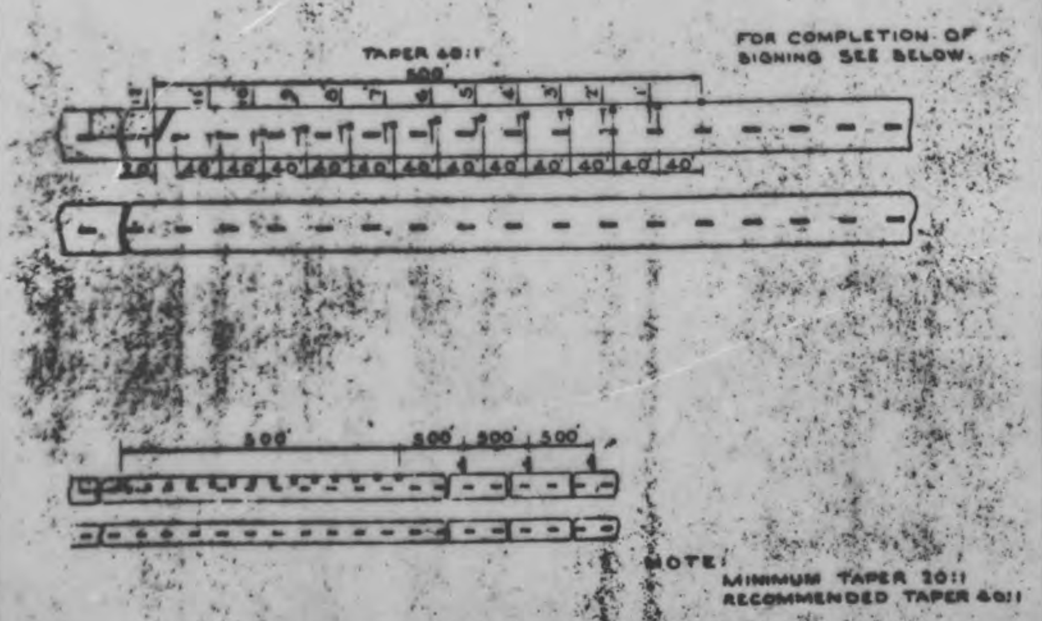
TYPICAL APPLICATION ON DIVIDED FOUR-LANE



TYPICAL APPLICATION ON UNDIVIDED FOUR-LANE



TYPICAL APPLICATION ON TWO-LANE HIGHWAY



TAPER DIAGRAM
CONES AND DRUMS

-GENERAL NOTES-

1. ANY SIGNING REQUIREMENTS NOT COVERED BY THIS INDEX WILL BE IN ACCORDANCE WITH THE "UNIFORM TRAFFIC CONTROL DEVICES MANUAL".
2. STATE ROAD DEPARTMENT TO FURNISH SIGNS AND MARKERS
3. OTHER TRAFFIC CONTROL SIGNS AS DETERMINED BY THE PROJECT ENGINEER AND THE CONTRACTORS SUPERINTENDENT SHALL BE FURNISHED BY THE STATE ROAD DEPARTMENT.
4. OTHER SPECIAL SIGNS MAY BE FURNISHED BY THE CONTRACTOR WITH THE APPROVAL OF THE STATE HIGHWAY ENGINEER.
5. SIGNS SHOWN INDICATE LOCATIONS AND TYPES OF SIGN ONLY.
6. EXACT MESSAGE, ARROW DIRECTIONS AND SUPPLEMENTARY SIGNS TO BE DETERMINED BY THE ENGINEER.
7. SPEED SIGNS TO INDICATE 20 OR 30 MPH AS DIRECTED BY THE ENGINEER.
8. DRIVE WITH CAUTION SIGNS TO BE PLACED AT INTERVALS THROUGH CONSTRUCTION AREA AS DIRECTED BY THE ENGINEER.
9. THE CLASS II AND CLASS III BARRICADES ARE INTERCHANGEABLE UNLESS ONE TYPE OR THE OTHER IS SPECIFICALLY CALLED FOR ELSEWHERE IN THE PLANS.
10. THE STRIPES ON THE BARRICADES SHALL POINT DOWNWARDS TOWARDS THE DIRECTION OF FLOW OF TRAFFIC AROUND THE BARRICADE, ON THE SIDE FACING APPROACHING TRAFFIC.

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STANDARD WARNING SIGN DETAILS

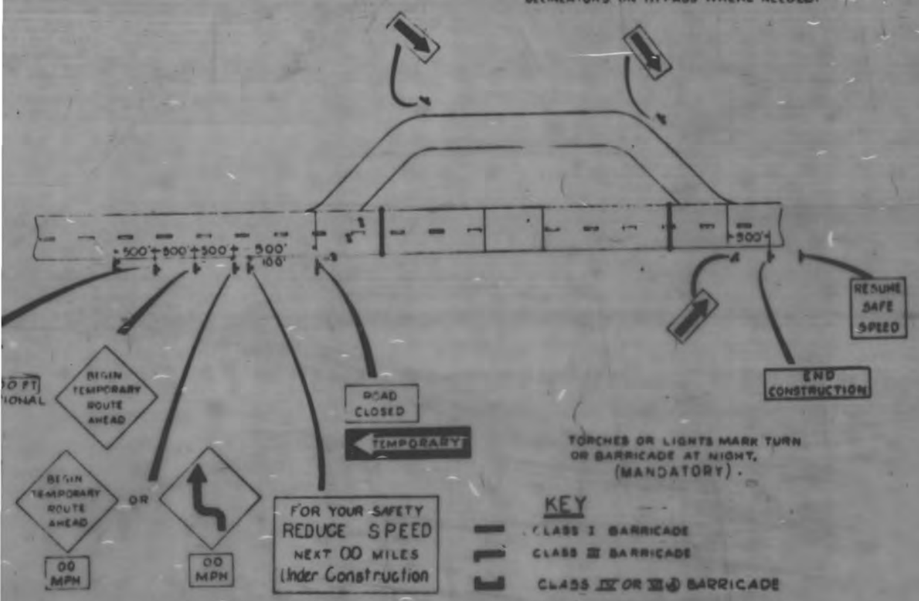
Revisions Date	Description
9-65 GB	ADDITIONAL SIGNS & NOTES ADDED SHEET 1 & 2
12 65 NLB	[illegible]
5-4-66 GCB	NOTES 7 & 8 HAVE BEEN ADDED

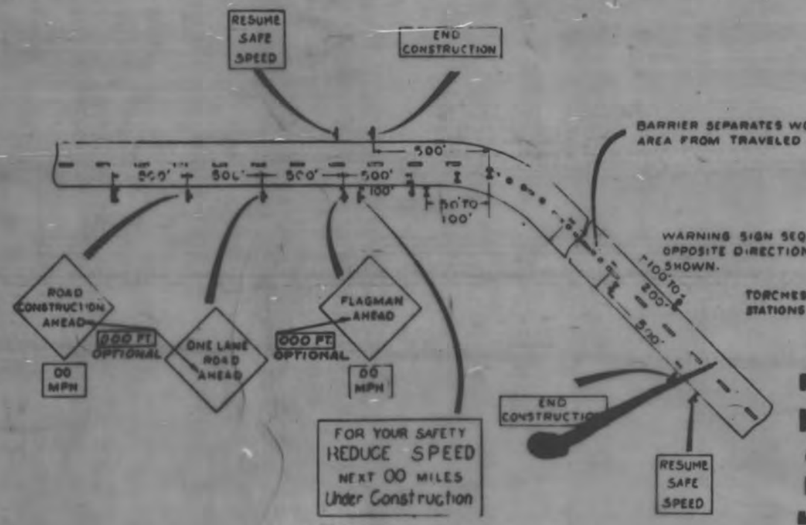
	Name	Date
Detailed by		
Checked by		
Quantities by		
Checked by		
Traced by	h.f.w	5-65

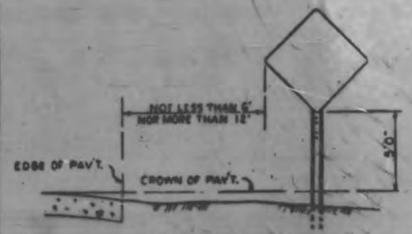
Recommended For Approval by [signature] Engineer of Road Design

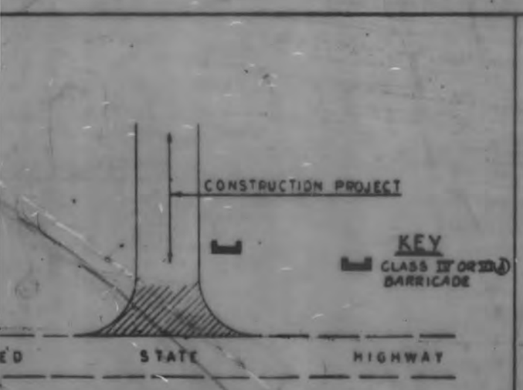
APPROVED BY [signature] Supt. State Highway Engineer

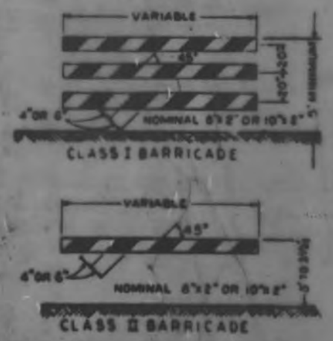
Sheet No. 1 of 2 — Index No. 2613-M

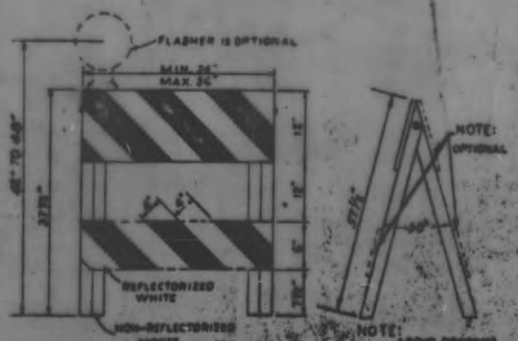


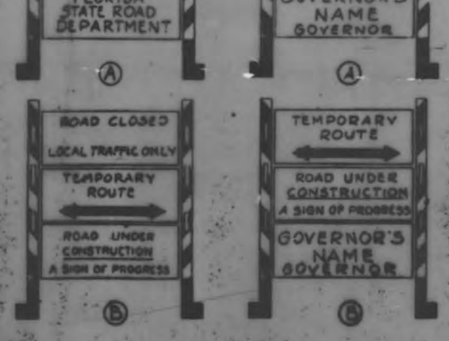


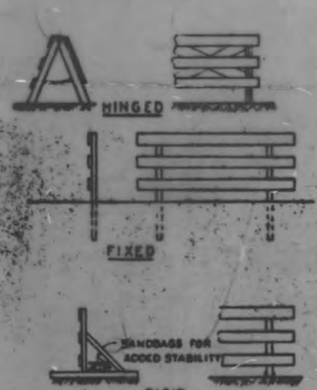












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FED. ROAD DIV. NO.	STATE	PROJECT NO.	FISCAL YEAR	SHEET NO.
3	FLA.			

TYPICAL APPLICATION ON TWO-LANE HIGHWAY

TYPICAL APPLICATION ON TWO LANE HIGHWAY

TYPICAL PLACEMENT OF SIGNS

AT THE JUNCTION OF A CONSTRUCTION PROJECT AND A PAVED STATE HIGHWAY, APPROPRIATE SIGNS AND MARKERS SHALL BE PLACED ALONG THE STATE HIGHWAY ONLY DURING THE TIMES WHEN CONSTRUCTION IS IMMEDIATELY ADJACENT TO, OR WHEN CONSTRUCTION EQUIPMENT IS BEING OPERATED ON THE STATE HIGHWAY.

CLASS II AND III INTERCHANGEABLE UNLESS OTHERWISE

NOTE: (1) THE MO[illegible] CLASS I & II BARRICADE IS OPT[illegible]
(2) BOTTOM PANEL ON CLASS III BARRICADE IS OPTION[illegible]

[illegible]ARRICADE [illegible]AILS

NOTES: (1) SIGNS FOR CL[illegible] TO BE FURNISHED [illegible] ROAD DEPARTMENT.
(2) CLASS III & VI BARRI[illegible] TO BE USED ON STATE JOBS

81

STATE ROAD DEPARTMENT OF FLORIDA
ROADWAY PLANS DEPARTMENT 81

STANDARD WARNING SIGN DETAILS

4-67 RHC	ADDED CLASS [illegible] BARRICADE	Detailed by
9-67 RHC	4-LANE DIVIDED SIGN SPACING	Checked by
3-66 RHC	CHANGED [illegible] TO TEMPORARY [illegible]	Quantities by
[illegible]	[illegible]DED NOTES [illegible]	Checked by
		Traced by

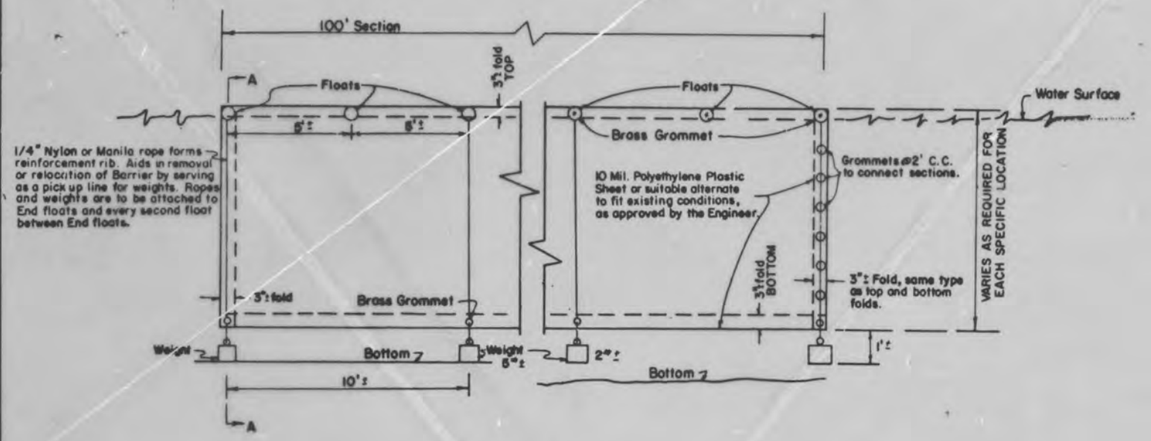
Recommended For Approval by [illegible] Engineer of Road Design

APPROVED BY [illegible] State Highway Engineer

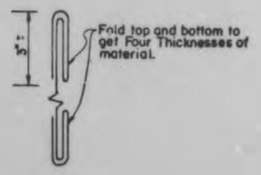
C.B. 3-65 2 of 2 2613-M

15-11-6

10 3

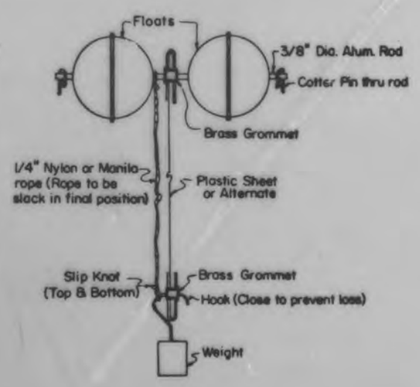


FRONT VIEW



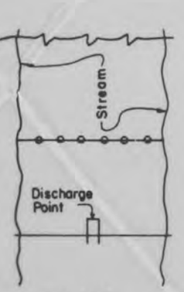
SIDE VIEW

FOLDING DETAIL

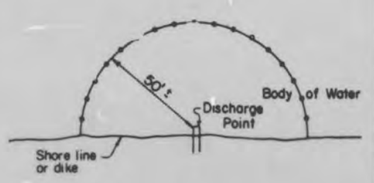


SECTION A-A

NOTE: At shallow water locations the plastic sheet or suitable alternate may be fastened to stakes driven into the bottom in lieu of floats and weights.



TYPICAL APPLICATION



TYPICAL APPLICATION

GENERAL NOTES

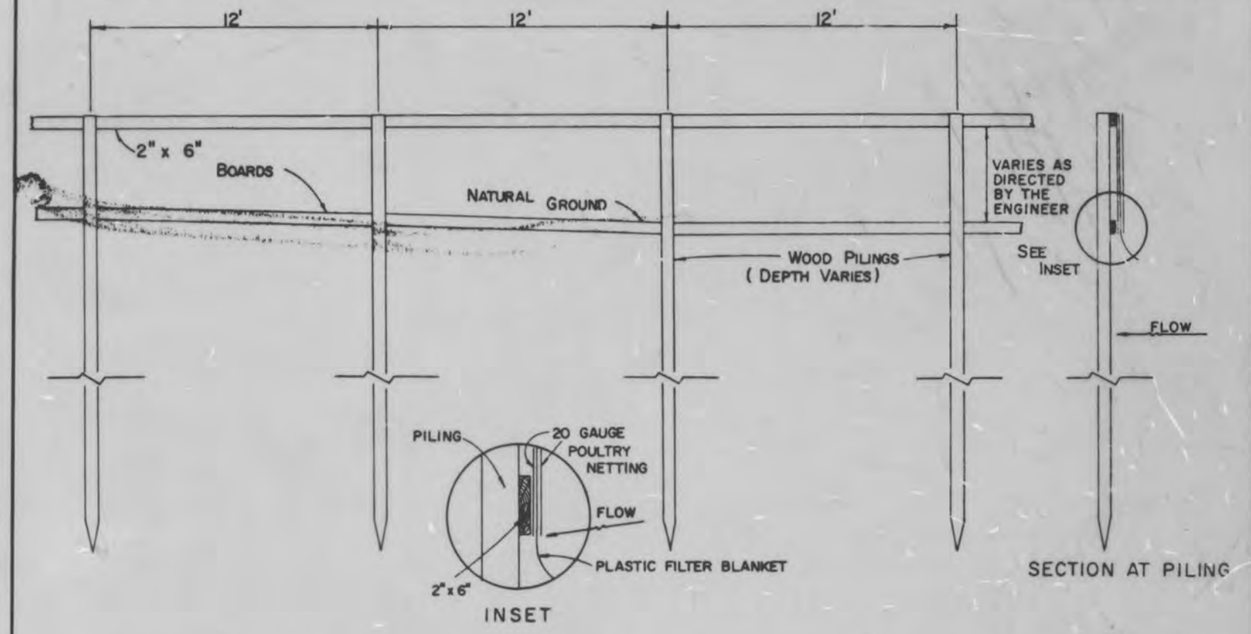
Silt Barrier to Prevent drifting of Silt caused by discharge of Storm Sewers during Construction, dredging or filling Operations.

Exact placement of silt barrier shall be so as to effectively control silt dispersion under the conditions present on a particular project.

The details shown on this sheet are suggested methods only. Alternate solutions and usage of materials may be used as approved by the Engineer.

DETAIL OF FLOATING SILT BARRIER

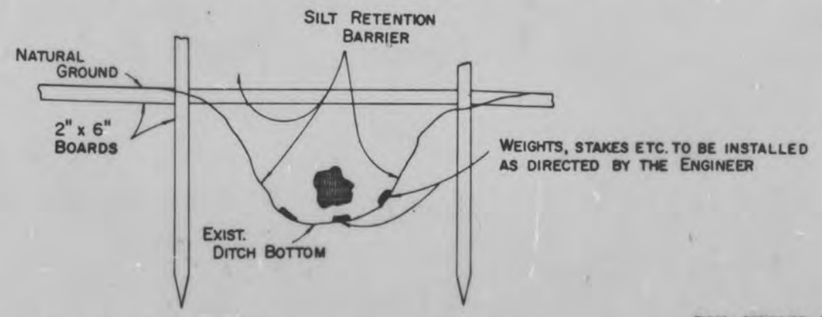
STATE PROJ. NO.	SHEET NO.



DETAIL OF STAKED SILT BARRIER

NOTES

THE FRAME WILL BE CONSTRUCTED WITH 2" x 6" BOARDS. PILINGS WILL BE A MINIMUM OF 6" IN DIAMETER AT THE BUTT END. THE DEPTH OF PILINGS WILL BE AT THE DISCRETION OF THE PROJECT ENGINEER. ATTACHED TO THE FRAME WILL BE 20 GAUGE POULTRY NETTING WITH 1" NET. THE SILT RETAINER WILL BE PLASTIC FILTER BLANKET, EXTENDING FROM THE TOP 2" X 6" BOARD TO 4' BEYOND THE BOTTOM 2" X 6" BOARD. IN THE DITCH BOTTOM, THE BLANKET AND POULTRY NETTING SHOULD EXTEND TO THE DITCH BOTTOM AND BE ANCHORED IN PLACE BY MEANS AVAILABLE TO THE CONTRACTOR TO EFFECTIVELY PREVENT SILT FROM ESCAPING FROM UNDER THE BOTTOM OF THE BARRIER. (SEE DETAIL BELOW)



DETAIL SHOWING PLACEMENT OF STAKED SILT BARRIER AT EXISTING DITCH LOCATIONS

82

FHWA APPROVED: 3-13-75

FLORIDA DEPARTMENT OF TRANSPORTATION
Road Design Section

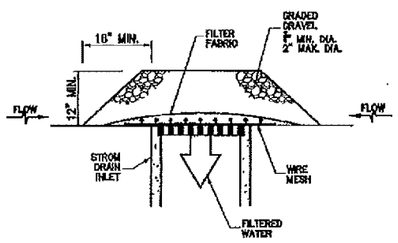
EROSION CONTROL DEVICES
SILT BARRIERS

REVISIONS			INITIALS	DATES
Dates	Descriptions	Designed by	WJR	5/74
		Checked by	HLB	6/74
		Quantities by		
		Checked by		
		Supervised by	DCB	

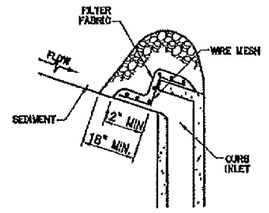
Recommended for approval
by _____
Deputy Design Engineer - Roadways

Approved
by _____
State Design Engineer

DRAWING NO.	INDEX NO.
1 OF 1	GEC-04



DROP INLET PROTECTION-GRAVEL



CURB INLET PROTECTION-GRAVEL

GRAVEL APPLICATIONS (TYP.) OR APPROVED ALTERNATIVE

NOTES FOR INLET PROTECTION GRAVEL:

1- INSTALLATION/APPLICATION CRITERIA:

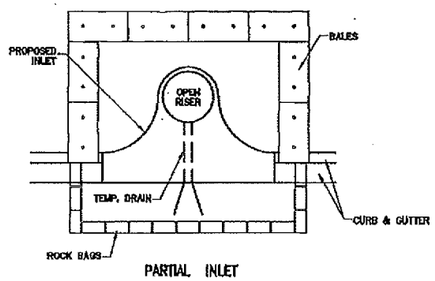
- PLACE WIRE MESH (WITH ½ INCH OPENINGS) OVER THE INLET GRATE EXTENDING ONE FOOT PAST THE GRATE IN ALL DIRECTIONS.
- PLACE FILTER FABRIC OVER THE MESH. FILTER FABRIC SHOULD BE SELECTED BASED ON SOIL TYPE.
- PLACE GRADED GRAVEL, TO A MINIMUM DEPTH OF 12 INCHES, OVER THE FILTER FABRIC AND EXTENDING 18 INCHES PAST THE GRATE IN ALL DIRECTIONS.

2- MAINTENANCE:

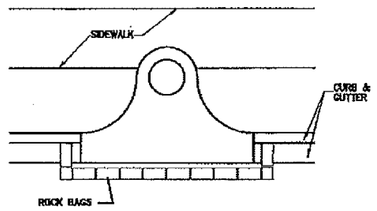
- INSPECT INLET PROTECTION AFTER EVERY LARGE STORM EVENT AND AT A MINIMUM OF ONCE MONTHLY.
- REMOVE SEDIMENT ACCUMULATED WHEN IT REACHES 4 INCHES IN DEPTH.
- REPLACE FILTER FABRIC AND CLEAN OR REPLACE GRAVEL IF CLOGGING IS APPARENT.

3- LIMITATIONS:

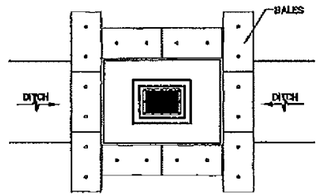
- RECOMMENDED FOR MAXIMUM DRAINAGE AREA OF ONE ACRE.
- EXCESS FLOWS MAY BYPASS THE INLET REQUIRING DOWN GRADIENT CONTROLS.
- PONDING WILL OCCUR AT INLET.



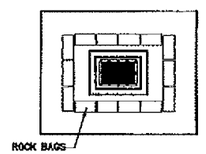
PARTIAL INLET



COMPLETED INLET



DITCH BOTTOM INLET



SWALE INLET

PROTECTION ALONG INLETS WITH ROCK BAGS BALES OR APPROVED ALTERNATIVES

NOTES FOR SYNTHETIC BALES OR BALE TYPE BARRIERS:

1-TYPE I AND II SYNTHETIC BARRIER SHOULD BE SPACED IN ACCORDANCE WITH CHART 1, SHEET 1 OF 2010 FDOT DESIGN STANDARDS INDEX 102.

2-BALES SHALL BE ANCHORED WITH TWO (2) 1"x2" (or 1" dia.) x 4' WOOD STAKES. STAKES OF OTHER MATERIAL OR SHAPE PROVIDING EQUIVALENT STRENGTH MAY BE USED IF APPROVED BY THE ENGINEER. STAKES OTHER THAN WOOD SHALL BE REMOVED UPON COMPLETION OF THE PROJECT.

3-RAILS AND POSTS SHALL BE 2"x4" WOOD. OTHER MATERIALS PROVIDING EQUIVALENT STRENGTH MAYBE USED IF APPROVED BY THE ENGINEER.

4-ADJACENT BALES SHALL BE BUTTED FIRMLY TOGETHER.

5-WHERE USED IN CONJUNCTION WITH SILT FENCE, BALES SHALL BE PLACED ON THE UPSTREAM SIDE OF THE FENCE.

INLET PROTECTION SYSTEM (TYP.) OR APPROVED ALTERNATIVE

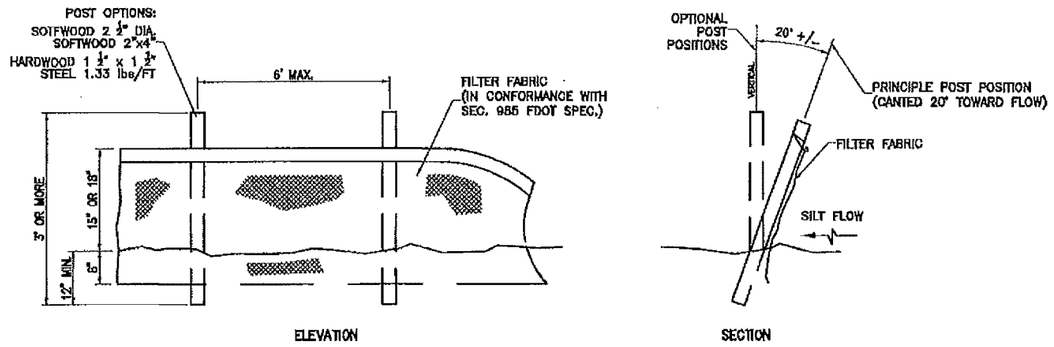
REVISIONS								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY			DRAWN BY		
CHECKED BY			CHECKED BY		
SUPERVISED BY					

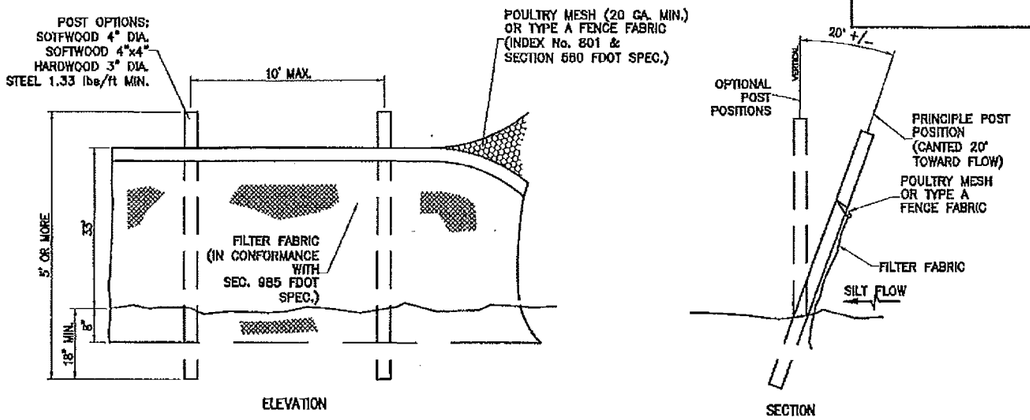
MIAMI-DADE COUNTY

PUBLIC WORKS AND WASTE MANAGEMENT DEPARTMENT
HIGHWAY DIVISION
STEPHEN P. CLARK CENTER
111 NW 1 ST
MIAMI, FLORIDA 33128

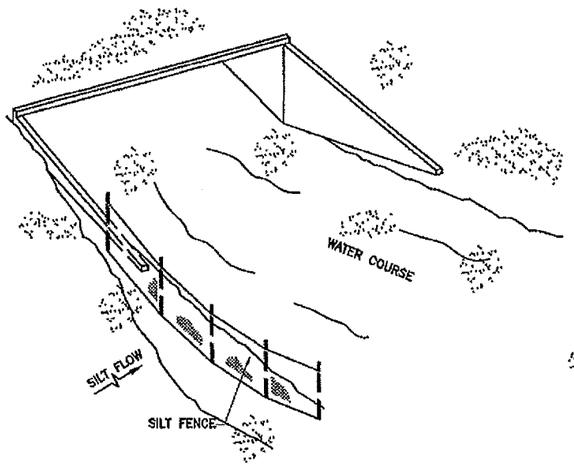
INLET PROTECTION SYSTEMS DETAILS

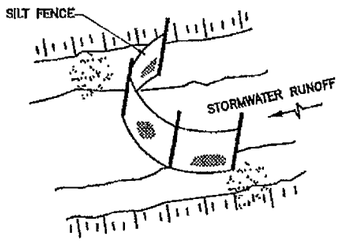


TYPE III SILT FENCE (TYP.)

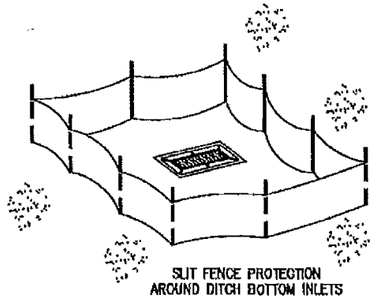


TYPE IV SILT FENCE (TYP.)



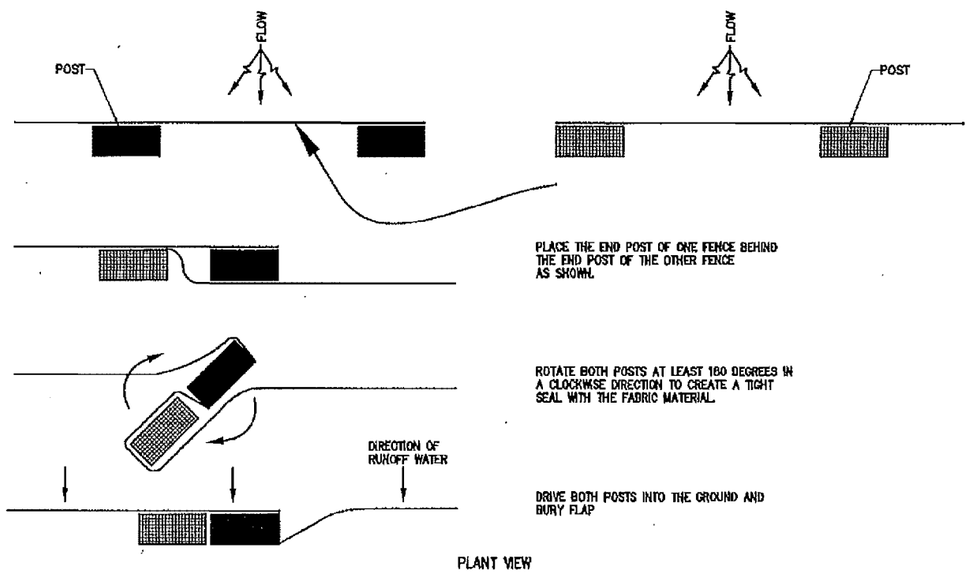


SILT FENCE PROTECTION IN
DITCHES WITH INTERMITTENT FLOW



SILT FENCE PROTECTION
AROUND DITCH BOTTOM INLETS

SILT FENCE APPLICATIONS (TYP.)



JOINING TWO SILT FENCES (TYP.)

NOTES FOR SILT FENCES:

1- TYPE III SILT FENCE TO BE USED AT MOST LOCATIONS. WHERE USED IN DITCHES, THE SPACING FOR TYPE III SILT FENCE SHALL BE IN ACCORDANCE WITH CHART 1, SHEET 1 OF 2010 FDOT DESIGN STANDARDS INDEX 102.

2- TYPE IV SILT FENCE TO BE USED WHERE LARGE SEDIMENT LOADS ARE ANTICIPATED. SUGGESTED USE IS WHERE FILL SLOPE IS 1:2 OR STEEPER AND LENGTH OF SLOPE EXCEEDS 25 FEET. AVOID USE WHERE THE DETAINED WATER MAY BACK INTO TRAVEL LANES OR OFF THE RIGHT OF WAY.

3- DO NOT CONSTRUCT SILT FENCES ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.

4- WHERE USED AS SLOPE PROTECTION, SILT FENCE IS TO BE CONSTRUCTED ON 0% LONGITUDINAL GRADE TO AVOID CHANNELIZING RUNOFF ALONG THE LENGTH OF THE FENCE.

SEDIMENT BARRIERS (TYP.) OR APPROVED ALTERNATIVE

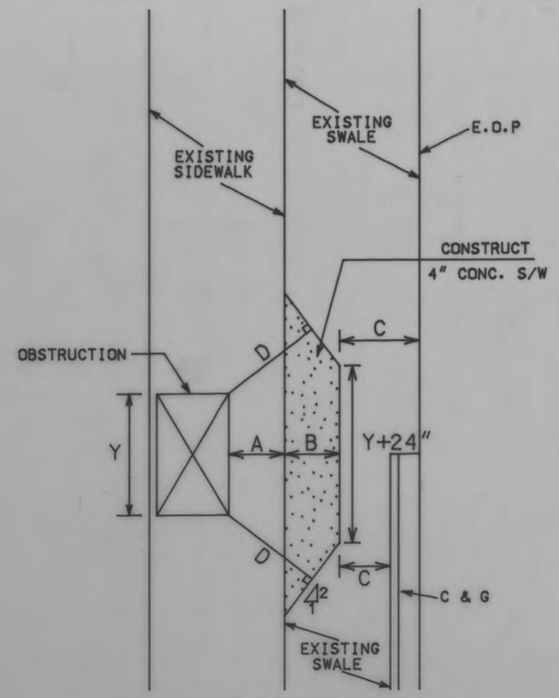
REVISIONS								
DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION	DATE	BY	DESCRIPTION

	NAME	DATE		NAME	DATE
DESIGNED BY			DRAWN BY		
CHECKED BY			CHECKED BY		
SUPERVISED BY					

MIAMI-DADE COUNTY

PUBLIC WORKS AND WASTE MANAGEMENT DEPARTMENT
HIGHWAY DIVISION
STEPHEN P. CLARK CENTER
111 NW 1 ST
MIAMI, FLORIDA 33128

SEDIMENT BARRIERS DETAILS



SIDEWALK WIDENING DETAIL

CRITERIA TO BE USED TO AVOID RELOCATING EXISTING OBSTRUCTIONS WHERE SWALE AREA IS AVAILABLE:

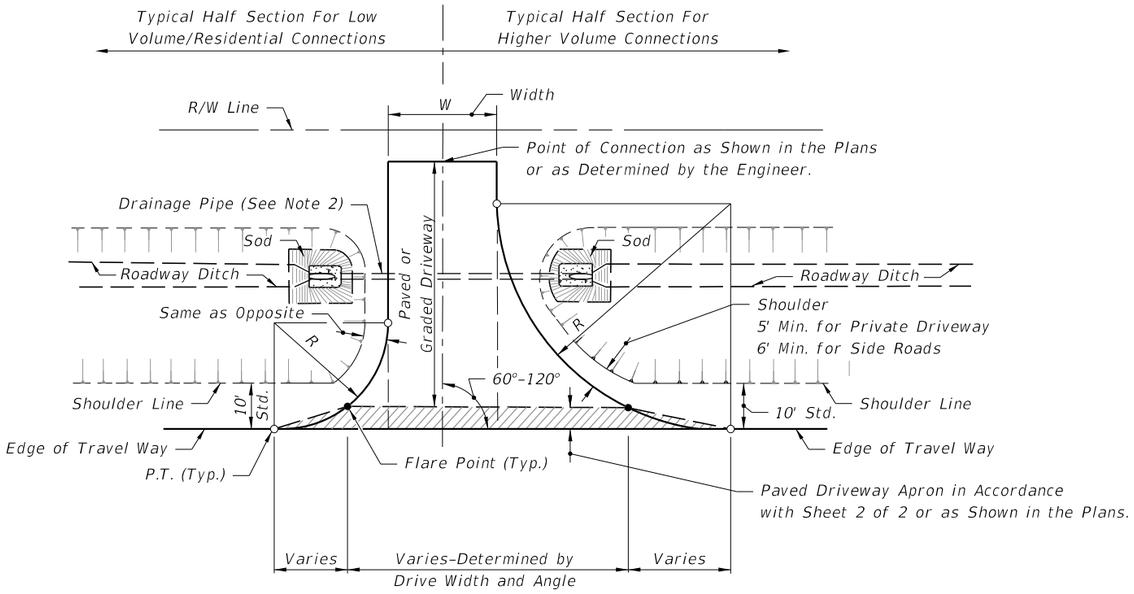
$Y \leqslant 24"$ AND $A < 32"$ OR $Y > 24"$ AND $A < 36"$

THEN: A+B= 36" MIN.
B= 24" MIN.
FOR C&G SECTIONS, IF $C \leqslant 24"$ THEN "B" SHALL EXTEND TO BACK OF CURB.
$C \geqslant 4'$ FOR SECTIONS WITHOUT CURB & GUTTER
D= 36" MIN.

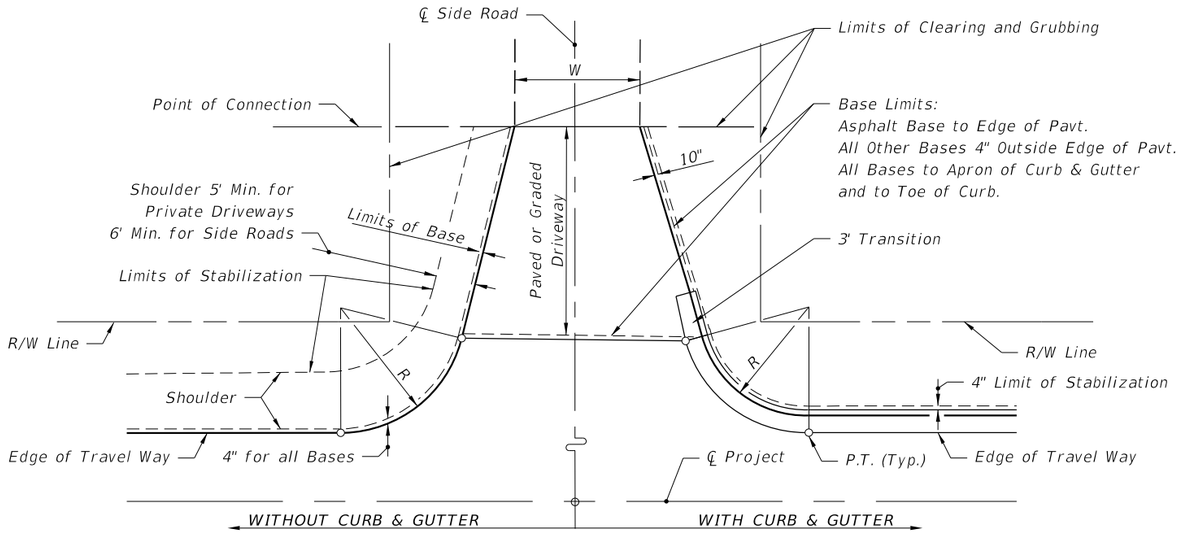
DADE COUNTY PUBLIC WORKS DEPT.
HIGHWAY DIVISION

DESIGN DM	SIDEWALK WIDENING DETAIL
DRAWN DM	
CHECK M.T	I-PR-A
PROPOSED M.T	

SUBMITTED — HIGHWAY ENGINEER — DATE
RECOMMENDED — CHIEF ENGINEER PROJ.
APPROVED — DIRECTOR
SHEET 1 OF 1

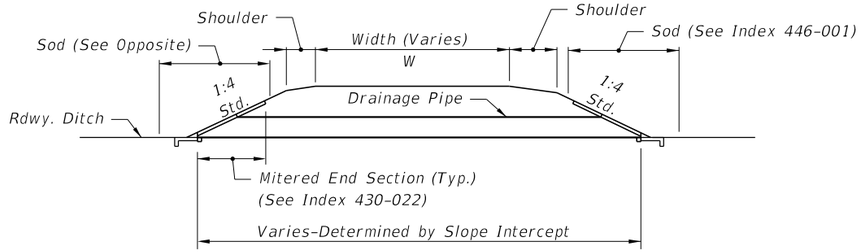


PLAN

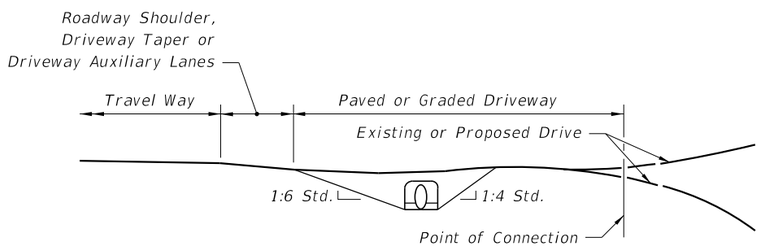


PLAN

LIMITS OF CLEARING & GRUBBING, STABILIZING AND BASE AT DRIVEWAYS



DRAINAGE SECTION



DRIVEWAY PROFILE AND END VIEW

FLUSH SHOULDER ROADWAY - DRIVEWAY CONSTRUCTION

DRIVEWAY ENTRANCES NOTES:

1. See Plans for Driveway Width (W) and Return Radius (R).

2. See the Plans for drainage pipe size and length or as determined by the Engineer. The size will be no less than 15" diameter or equivalent.

3. Stable material may be required for graded driveways to private property as directed by the Engineer in accordance with Specification 102-8.

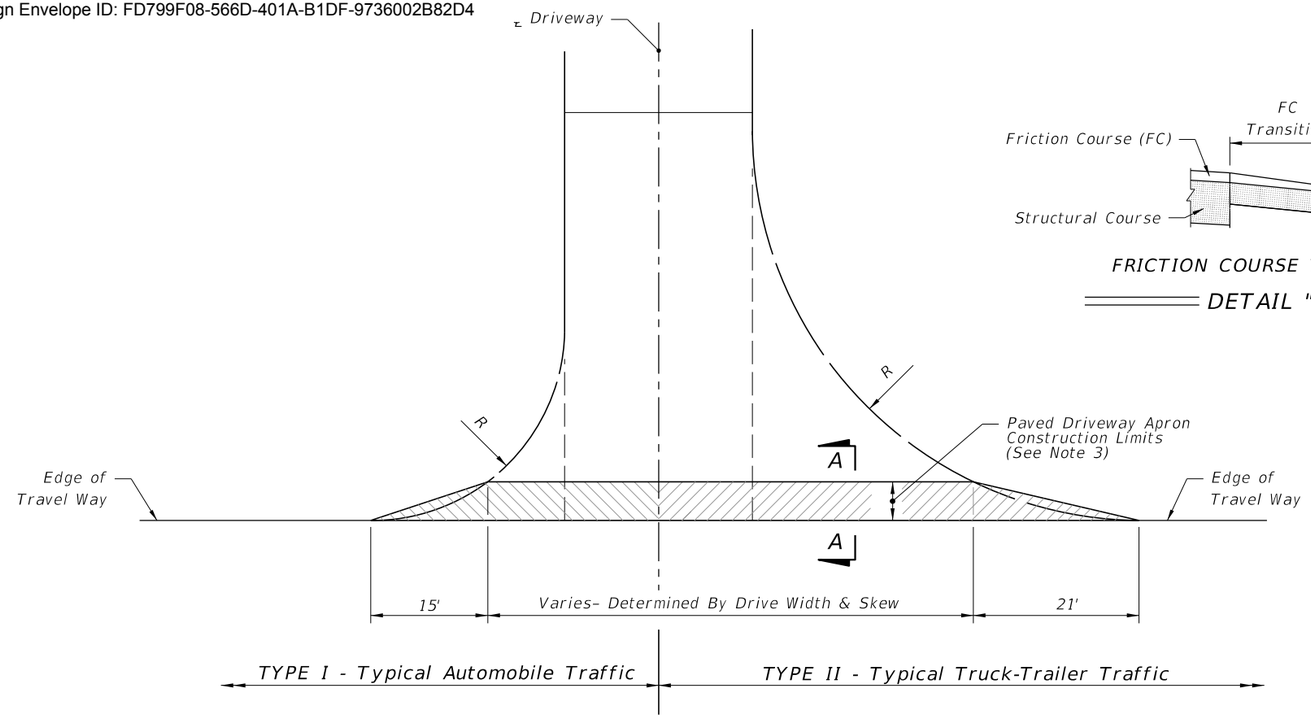
4. The driveway pavement requirement at graded connections may be waived for connections serving one or two homes or field entrances with less than 20 trips per day, or 5 trips per hour as approved by the Engineer, or when not shown in the Plans.

5. Point of Connection:

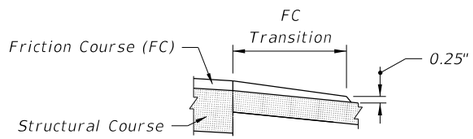
   a. Construct paved driveways for all paved connecting facilities. The connecting point will be determined by the Engineer.

   b. Construct paved driveways for all business, commercial, industrial or high volume residential graded connecting facilities. Construct the connecting point 30'-0' from edge of travel way or at R/W line, whichever is less.

   c. Construct paved driveways for all side road connections. The R/W is the connecting point.

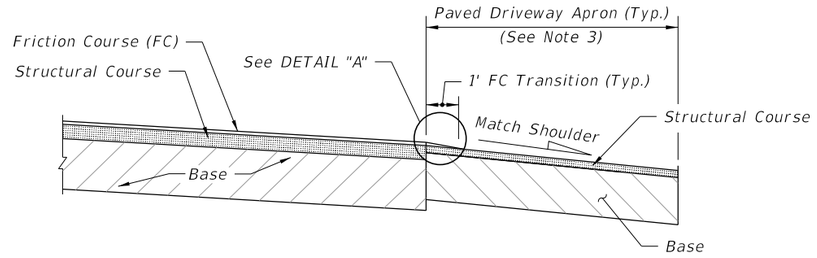


DRIVEWAY TYPES

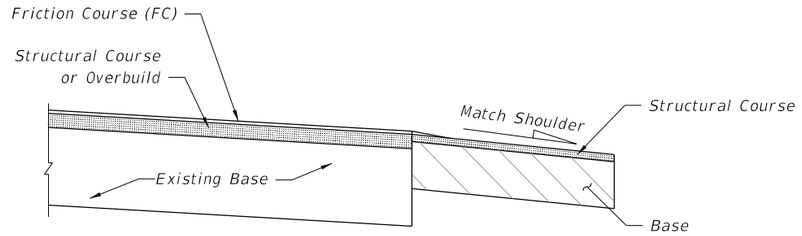


FRICTION COURSE TRANSITION

DETAIL "A"



SECTION AA - NEW CONSTRUCTION



SECTION AA - RESURFACING

NEW DRIVEWAY

AREAS FOR ONE 5' DEEP DRIVEWAY APRON (SY)

Drive Width (Ft.)	Intersection			
	Normal		Skewed	
	Type I	Type II	Type I	Type II
12	26	51	31	60
14	27	52	33	61
16	28	53	34	63
18	29	54	35	64
20	31	55	37	65
22	32	56	38	67
24	33	57	39	68
26	34	58	40	69
28	35	59	42	70
30	36	61	43	72
32	37	62	44	73
34	38	63	46	74
36	39	64	47	76
38	41	65	48	77
40	42	66	49	78
42	43	67	51	79
44	44	68	52	81
46	45	69	53	82
48	46	71	55	83
50	47	72	56	85
52	48	73	57	86
54	49	74	58	87
56	51	75	60	88
58	52	76	61	90
60	53	77	62	91

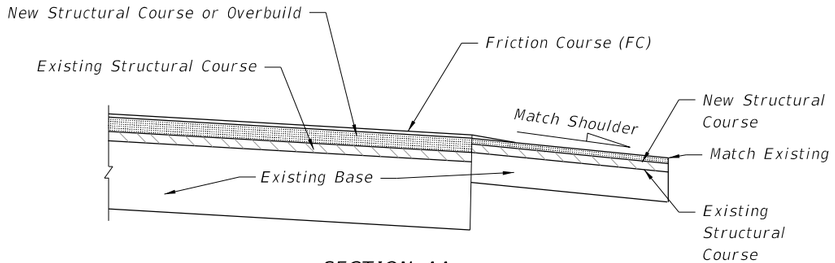
MATERIAL TYPES AND THICKNESSES FOR PAVED CONNECTIONS

Course	Materials	Minimum Thickness (in.)	
		Connections	Roadway*
Structural	Asphaltic Concrete	1½"	1½"
Bases	Optional Base (See Specification 285)	O.B.G. 2	O.B.G. 3

* Travel way flares (bypass lanes), auxiliary lanes serving more than a single connection, and all median crossovers including their auxiliary lanes and/or transition tapers.

NOTES

1. Use same material for driveway structural course and roadway overbuild or structural course, except as approved by the Engineer for graded connections. Other Department-approved equivalent pavements may be used at the discretion of the Engineer.
2. Auxiliary lanes and their transition tapers shall be the same structure as the abutting travel way pavement thickness or any of the roadway structures tabulated above, whichever is thicker.
3. If an asphalt base course is used for a driveway, its thickness may be increased to match the edge of travel way pavement thickness in lieu of a separate structural course. 6" of Portland cement concrete will be acceptable in lieu of the asphalt base and structural courses. See Notes 4 and 5 below.
4. A structural course is required for flexible pavements when they are used for auxiliary lanes serving more than a single connection.
5. Use Class NS concrete at least 6" thick for driveways paved with Portland Cement Concrete. Construct in accordance with Specifications 347, 350, and 522.
6. The Department may require other pavement criteria where local conditions warrant.



SECTION AA

RESURFACING EXISTING DRIVEWAY

GENERAL NOTES:

1. Driveways are to be constructed or resurfaced for low volume (single family, duplex, farm, etc.) residential connections as directed by the Engineer.
2. Driveways construction is not required for low volume residential connections where roadway shoulders are paved.
3. Match existing paved shoulder widths ≥ 4'. For all other shoulders conditions, construct at 5' wide.
4. Connections beyond the shoulder width are to be constructed as directed by the Engineer.
5. Construct Driveway Base in accordance with Specification 286.
6. Payment for structural course and friction course is to be included in roadway pavement pay item.

9/21/2021 1:00:39 PM

LAST REVISION	REVISION	DESCRIPTION:				
11/01/18			FDOT FY 2022-23 STANDARD PLANS	PAVED AND GRADED DRIVEWAYS	INDEX 330-001	SHEET 2 of 2

GENERAL NOTES:

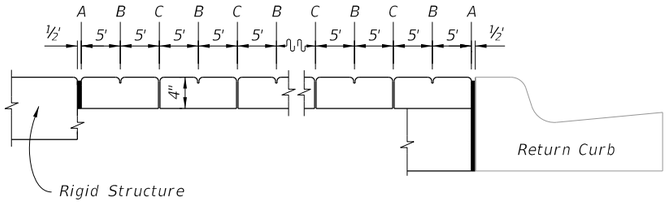
1. Construct sidewalks in accordance with Specification 522. Use 6" concrete for Sidewalks and Curb Ramps Located within Curb Returns (See Plan View). Install all other concrete with thickness as shown, unless otherwise detailed in the Plans.

2. Include detectable warnings on sidewalk curb ramps in accordance with Index 522-002.

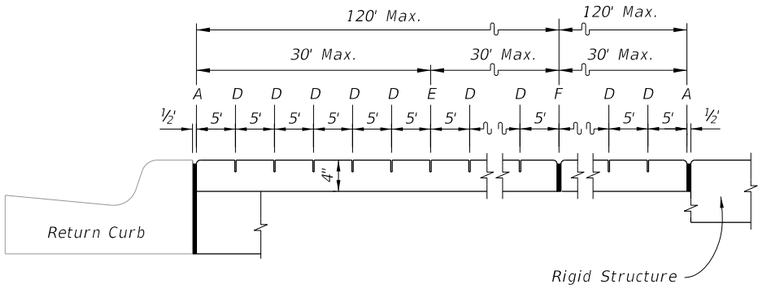
3. For Driveways see Index 522-003.

4. Bond breaker material can be any impermeable coated or sheet membrane or preformed material having a thickness of not less than 6 mils and not more than ½".

5. Construct sidewalks with Edge Beam through the limits of any surface mounted Pedestrian/Bicycle Railing or Pipe Guiderail shown in the plans. (See RAILING DETAIL)



OPEN JOINTS



SAWED JOINTS

LONGITUDINAL SECTION

LEGEND:

A- ½" Expansion Joints (Preformed Joint Filler) between the sidewalk and; driveways, sidewalk-intersections, and all other fixed objects (e.g. drainage inlets and utility poles).

B- ⅛" Dummy Joints, Tooled

C- ⅛" Formed Open Joints

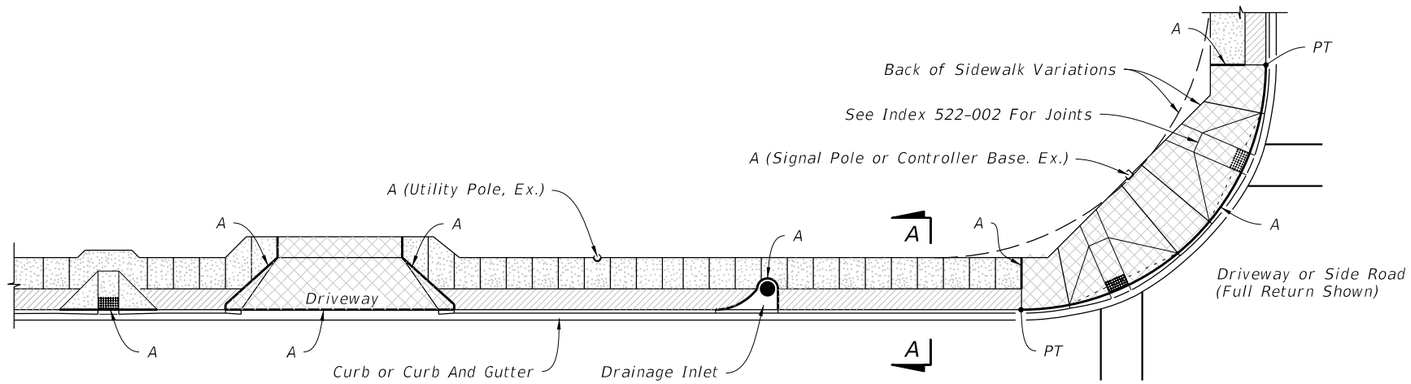
D- 3/16" Saw Cut Joints, 1½" Deep (within 96 hours) Max. 5' Centers

E- 3/16" Saw Cut Joints, 1½" Deep (within 12 hours) Max. 30' Centers Joint(s) Required When Length Exceeds 30'

F- ½" Expansion Joint When Run Of Sidewalk Exceeds 120'. Intermediate locations when called for in the plans or at locations as directed by the Engineer.

G- Cold Joint With Bond Breaker, Tooled

SIDEWALK JOINTS

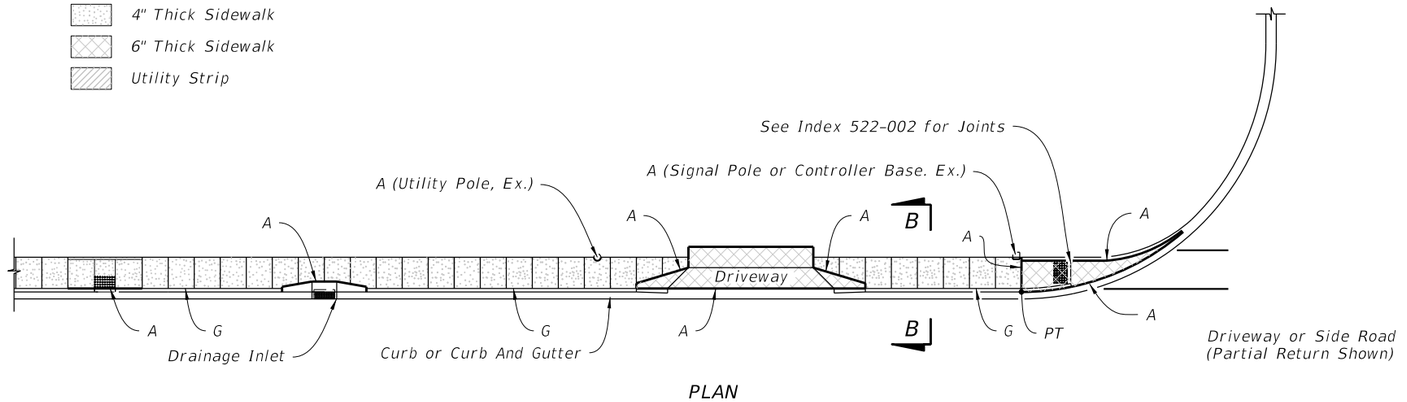


PLAN

SIDEWALK WITH UTILITY STRIP

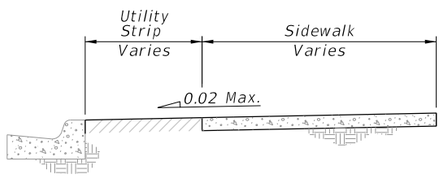
LEGEND:

- 4" Thick Sidewalk
- 6" Thick Sidewalk
- Utility Strip

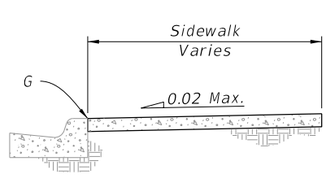


PLAN

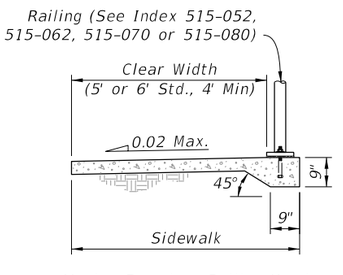
SIDEWALK WITHOUT UTILITY STRIP



SECTION A-A



SECTION B-B



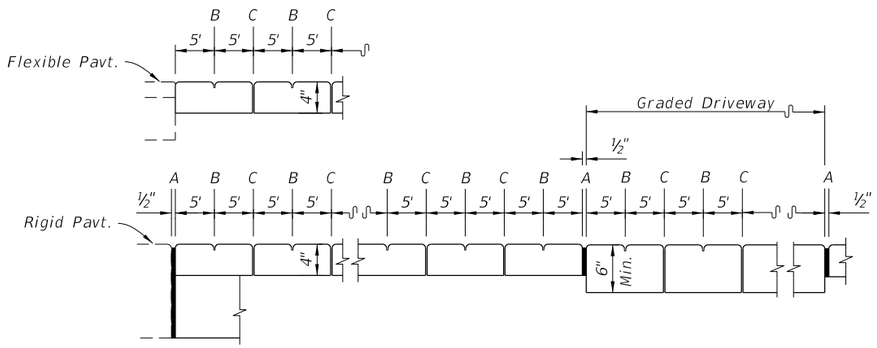
Varies Based on Railing Used

RAILING DETAIL

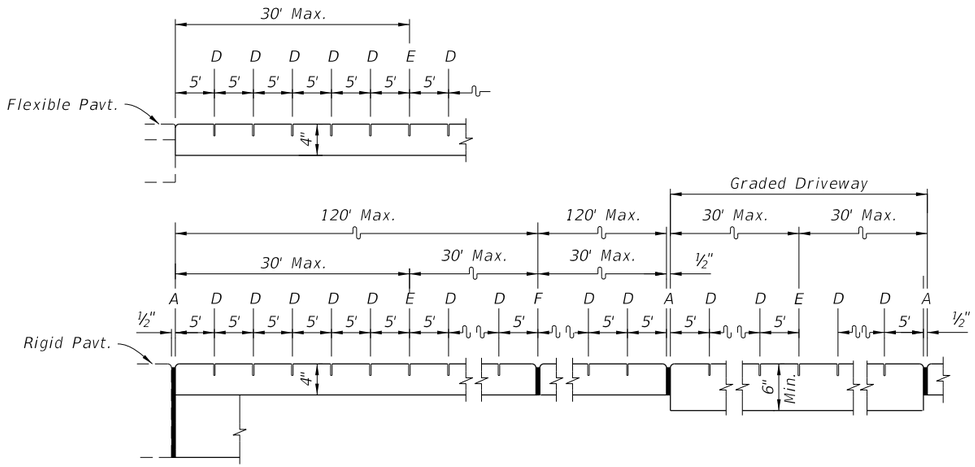
GENERAL NOTES AND CONCRETE SIDEWALK ON CURBED ROADWAYS

LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
11/01/18			FY 2022-23 STANDARD PLANS	CONCRETE SIDEWALK	522-001	1 of 2

9/22/2021 8:49:04 AM



OPEN JOINTS



SAWED JOINTS

LONGITUDINAL SECTION

LEGEND:

A– ½" Expansion Joints (Preformed Joint Filler) between the sidewalk and driveways, sidewalk-intersections, and all other fixed objects (e.g. drainage inlets and utility poles).

B– ⅛" Dummy Joints, Tooled

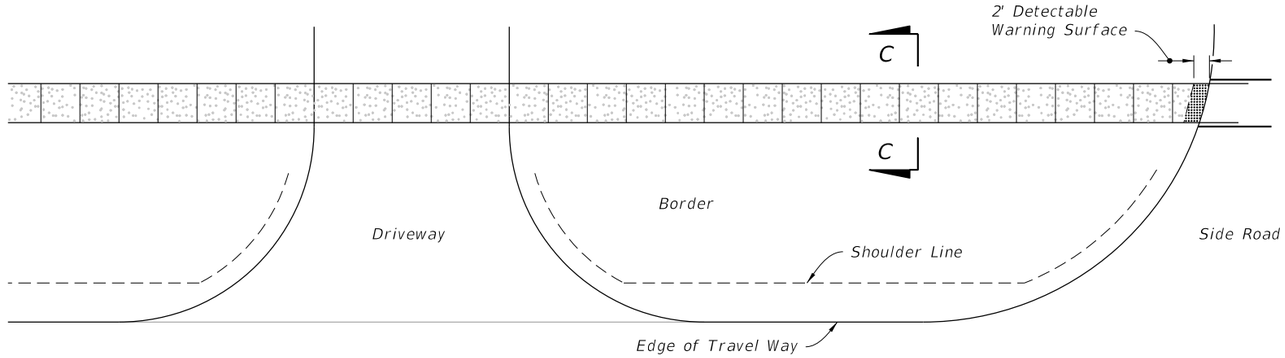
C– ⅛" Formed Open Joints

D– 3/16" Saw Cut Joints, 1½" Deep (within 96 hours) Max. 5' Centers

E– 3/16" Saw Cut Joints, 1½" Deep (within 12 hours) Max. 30' Centers Joint(s) Required When Length Exceeds 30'

F– ½" Expansion Joint When Run Of Sidewalk Exceeds 120'. Intermediate locations when called for in the plans or at locations as directed by the Engineer.

SIDEWALK JOINTS

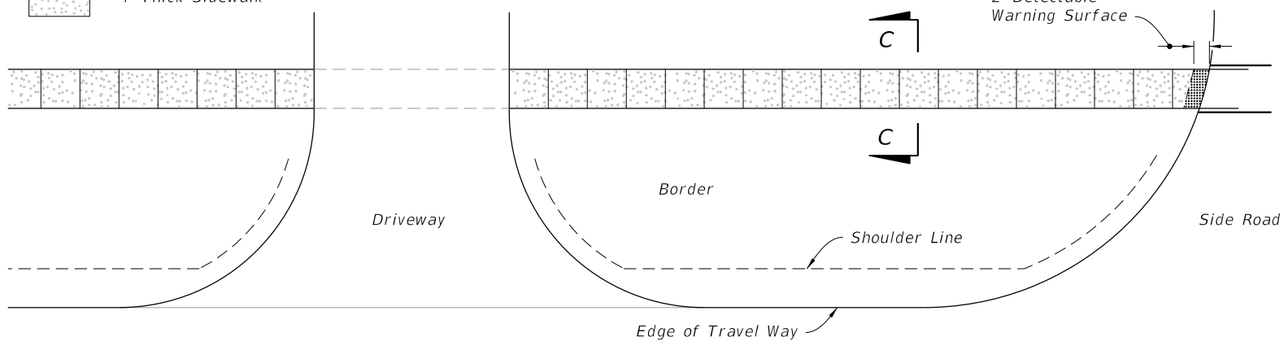


PLAN

CONTINUOUS SIDEWALK

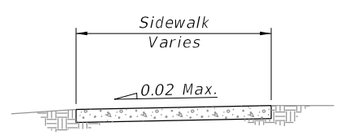
LEGEND:

4" Thick Sidewalk



PLAN

DISCONTINUOUS SIDEWALK



SECTION C-C

CONCRETE SIDEWALK ON FLUSH SHOULDER ROADWAYS

LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
11/01/18			FY 2022-23 STANDARD PLANS	CONCRETE SIDEWALK	522-001	2 of 2

9/22/2021 8:49:07 AM

GENERAL NOTES:

1. Cross Slopes and Grades:

   A. Sidewalk, ramp, and landing slopes (i.e. 0.02, 0.05, and 1:12) shown in this Index are maximums. With approval of the Engineer, provide the minimum feasible slope where the requirements cannot be met.

   B. Landings must have cross-slopes less than or equal to 0.02 in any direction.

   C. Maintain a single longitudinal slope along each side of the curb ramp. Ramp slopes are not required to exceed 15 feet in length.

   D. Joints permitted at the location of Slope Breaks. Otherwise locate joints in accordance with Index 522-001. No joints are permitted within the ramp portion of the Curb Ramp.

2. Curb, Curb and Gutter and/or Sidewalk:

   A. Refer to Index 522-001 for concrete thickness and sidewalk details.

   B. Remove any existing curb, curb and gutter, or sidewalk to the nearest joint beyond the curb transition or to the extent that no remaining section is less than 5 feet long.

   C. Width of Curb Ramp is 4'-0" minimum. Match sidewalk or Shared Use Path width as shown in the Plans.

3. Curb Ramp Alpha-Identification:

   A. Sidewalk curb ramp alpha-identifications (e.g. CR-A) are provided for reference purposes in the Plans.

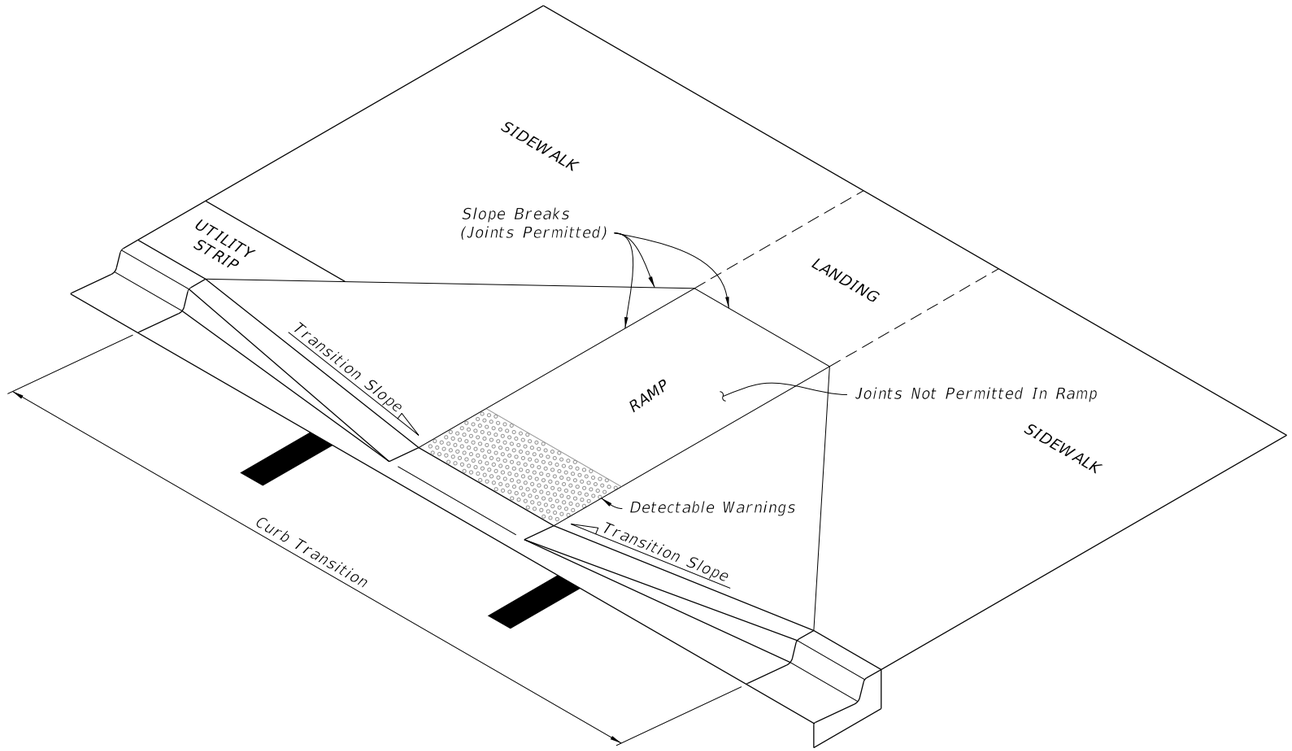
   B. Alpha-identifications CR-I and CR-J are intentionally omitted.

4. Detectable Warnings:

   A. Install detectable warnings in accordance with Specification 527.

   B. Place detectable warnings across the full width of the ramp or landing, to a minimum depth of 2 feet measured perpendicular to the curb line and no greater than 5 feet from the back of the curb or edge of pavement.

   C. If detectable warnings are shown in the Plans on slopes greater than 5%, align the truncated domes with the centerline of the ramp; otherwise, the truncated domes are not required to be aligned.



CURB RAMP NOMENCLATURE

8:50:28 AM

9/22/2021

LAST REVISION	REVISION	DESCRIPTION:	FDOT	FY 2022-23 STANDARD PLANS	DETECTABLE WARNINGS AND SIDEWALK CURB RAMPS	INDEX	SHEET
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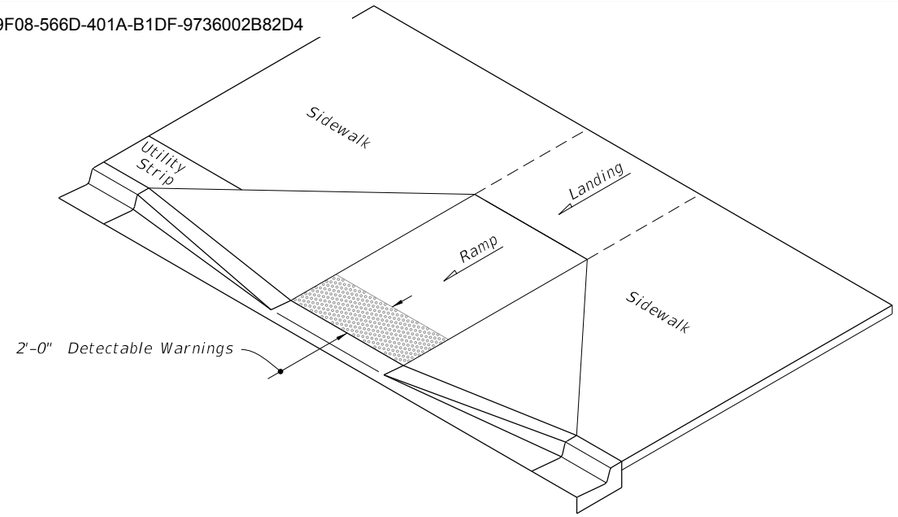
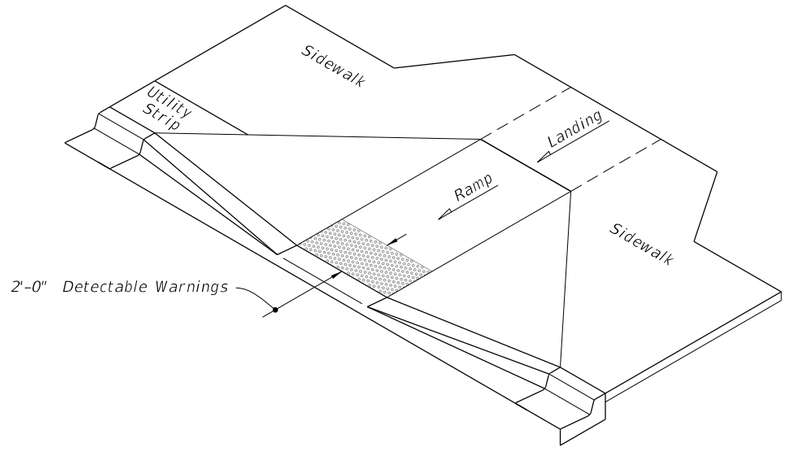


ISOMETRIC VIEW



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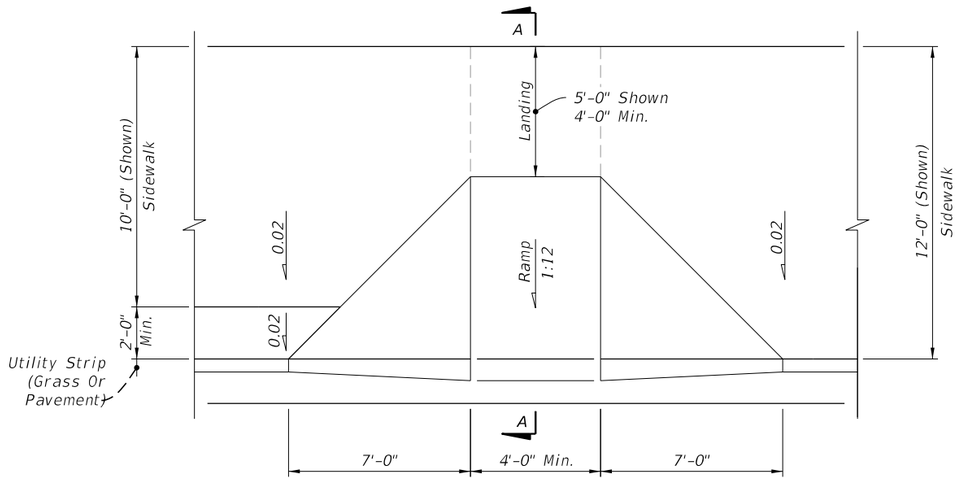
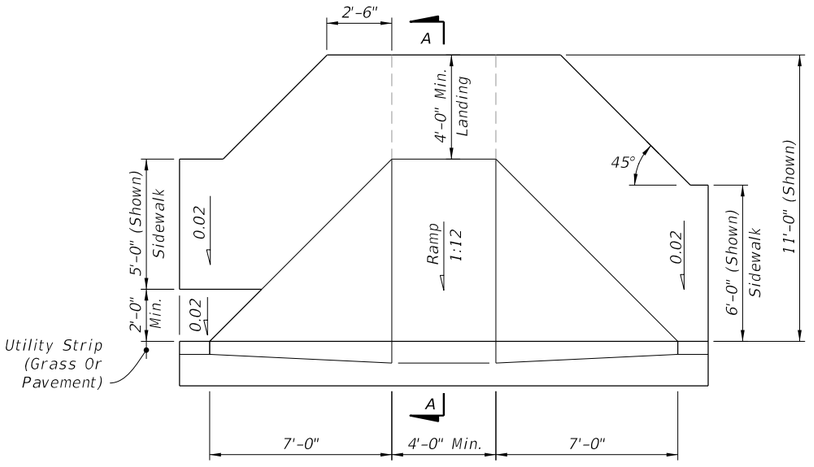


PLAN VIEW

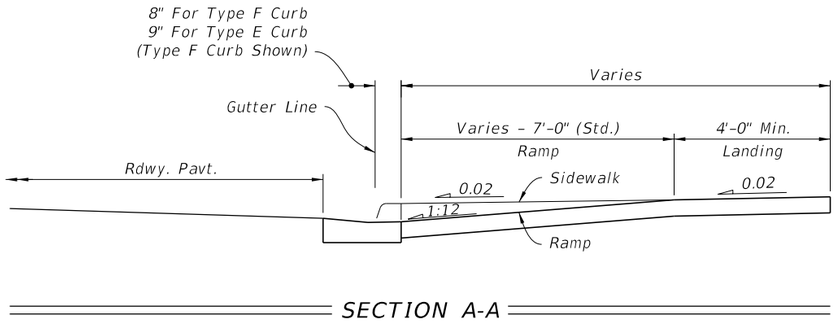
NOTE: For Example of CR-A used in Radial Curb Returns, See Sheet 8.

CR-A



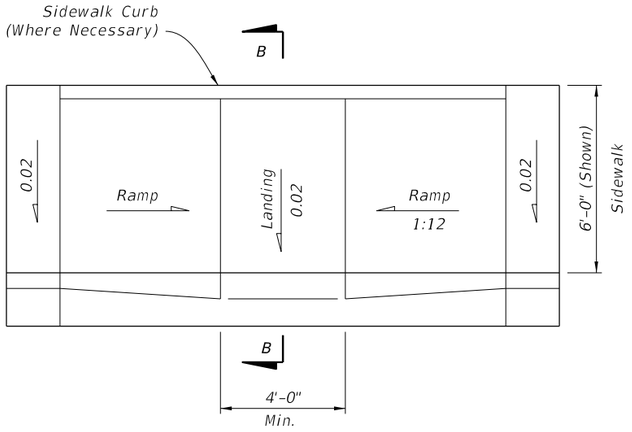
PLAN VIEW

CR-B



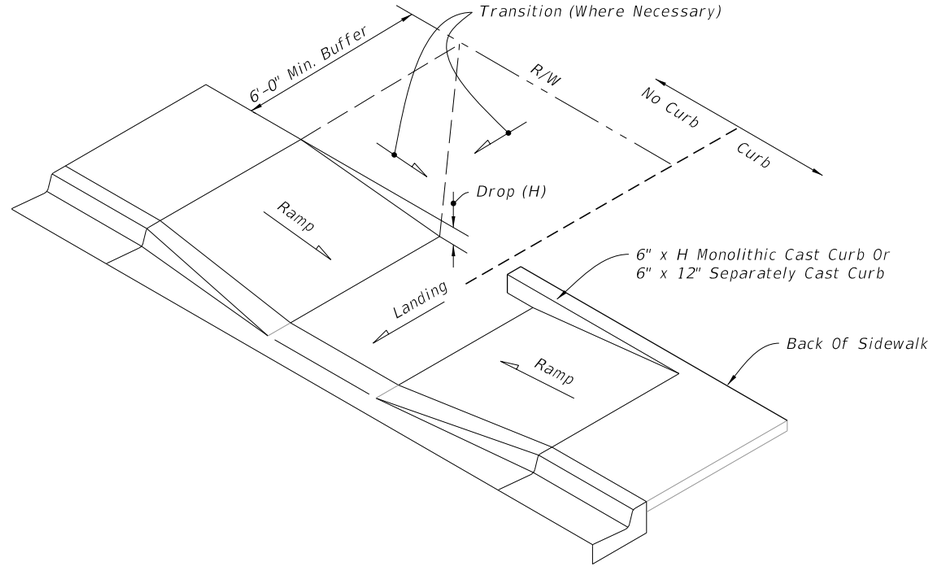
SECTION A-A

SIDEWALK CURB RAMPS CR-A AND CR-B

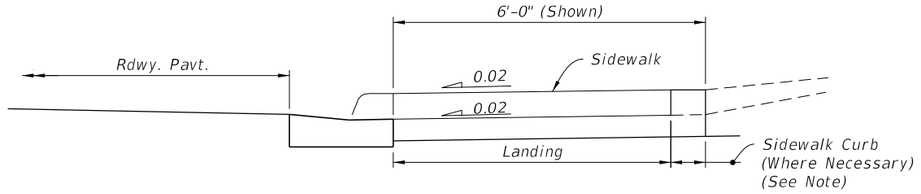


PLAN VIEW

CR-C

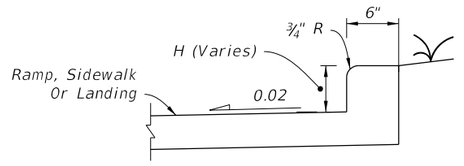


CONSTRUCTION OF SIDEWALK CURB IN CUT SECTIONS

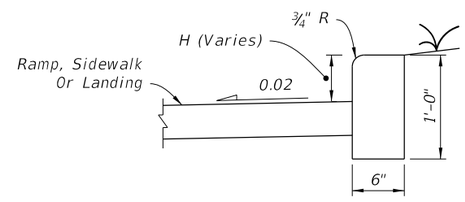


NOTE: For additional information on sidewalk curb construction, see SIDEWALK CURB OPTIONS details.

SECTION B-B



MONOLITHIC CAST CURB



SEPARATELY CAST CURB

SIDEWALK CURB OPTIONS

SIDEWALK CURB RAMPS CR-C AND SIDEWALK CURB

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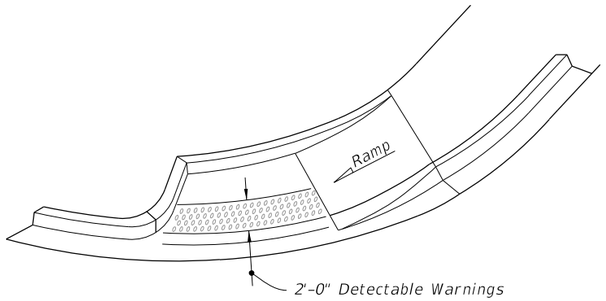
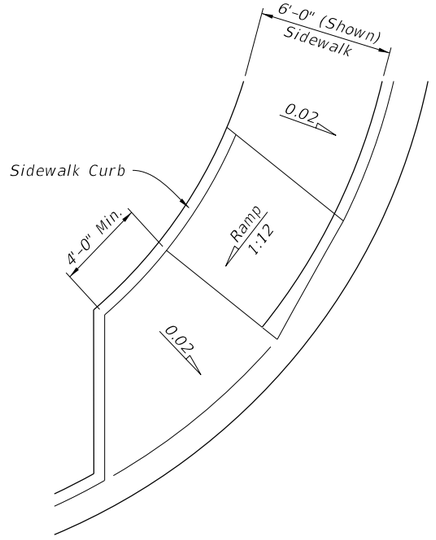
11/01/20			FDOT FY 2022-23 STANDARD PLANS	DETECTABLE WARNINGS AND SIDEWALK CURB RAMPS	522-002	3 of 7

9/22/2021 8:50:34 AM

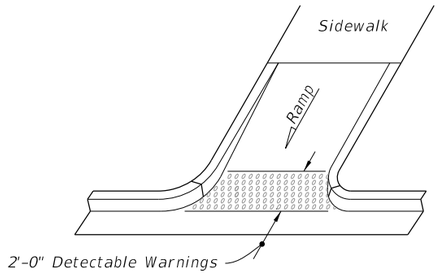


ISOMETRIC VIEW



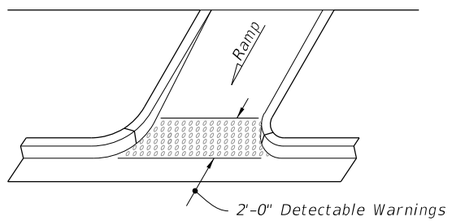
PLAN VIEW

CR-D



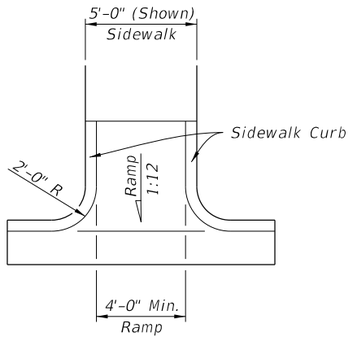
OPTION A

Sidewalk



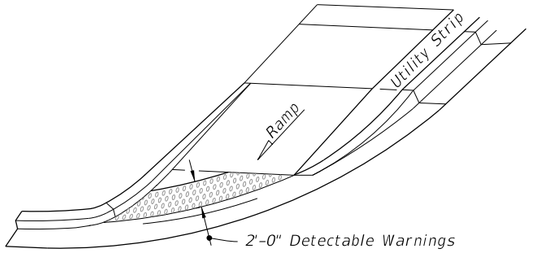
OPTION B

ISOMETRIC VIEW



PLAN VIEW

CR-E



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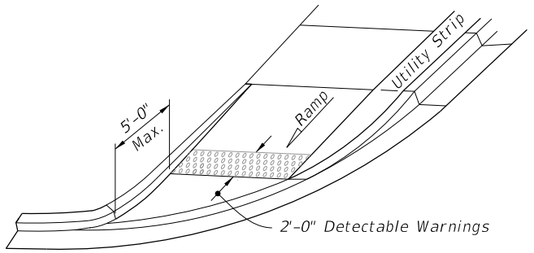
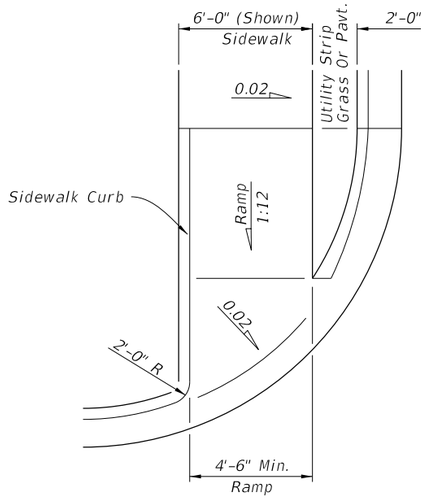


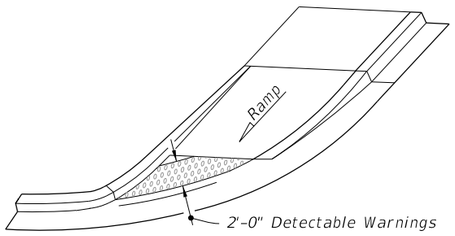
OPTION B

ISOMETRIC VIEW

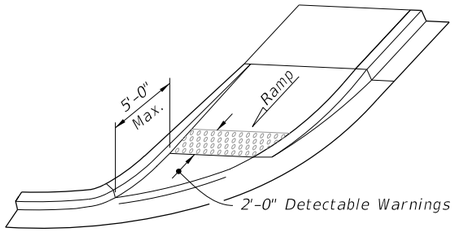


PLAN VIEW

CR-F

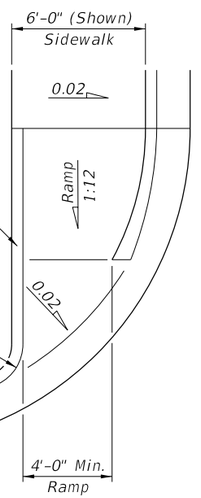


OPTION A



OPTION B

ISOMETRIC VIEW



PLAN VIEW

CR-G

SIDEWALK CURB RAMPS CR-D, CR-E, CR-F & CR-G

LAST REVISION	REVISION	DESCRIPTION:				
11/01/21			FDOT FY 2022-23 STANDARD PLANS	DETECTABLE WARNINGS AND SIDEWALK CURB RAMPS	INDEX 522-002	SHEET 4 of 7

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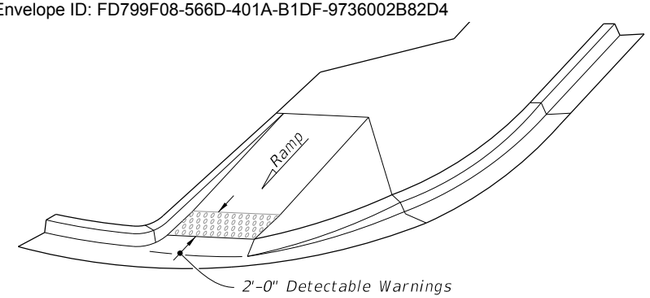

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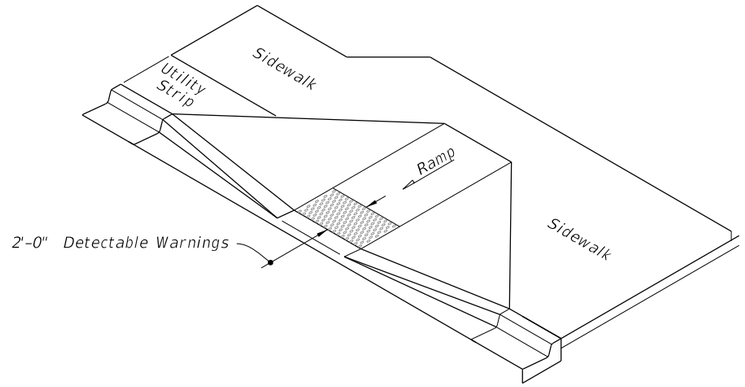

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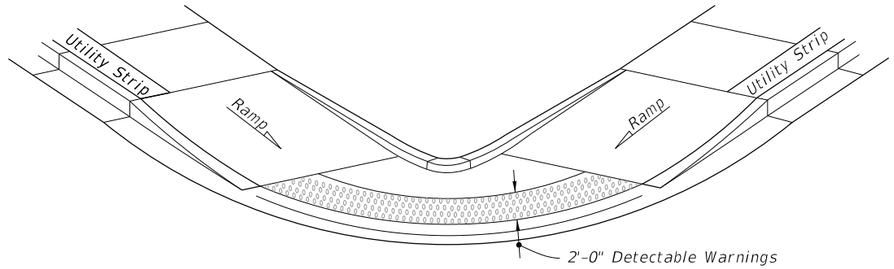
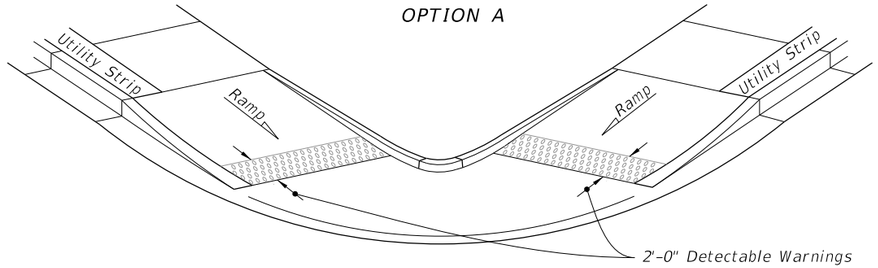
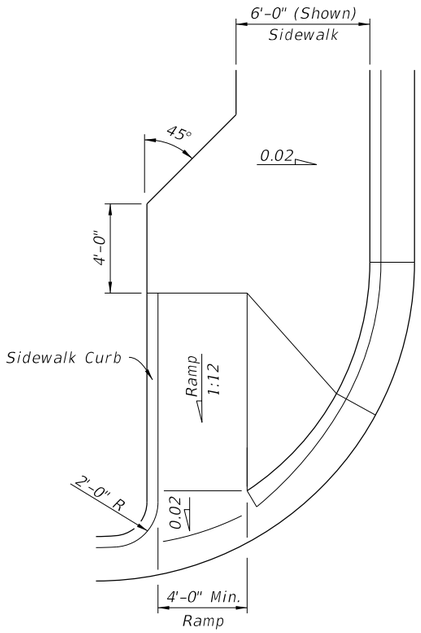


OPTION A



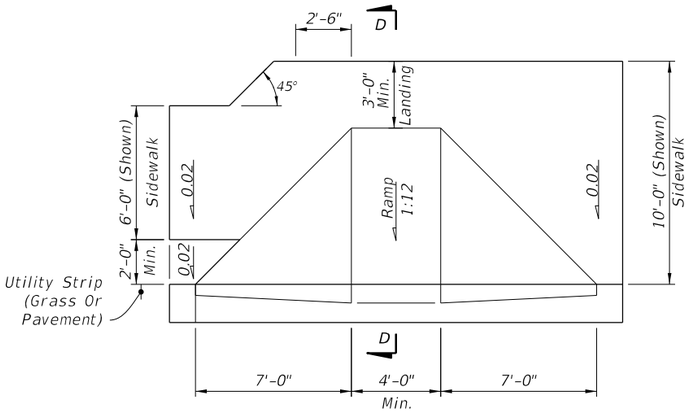
OPTION B

ISOMETRIC VIEW



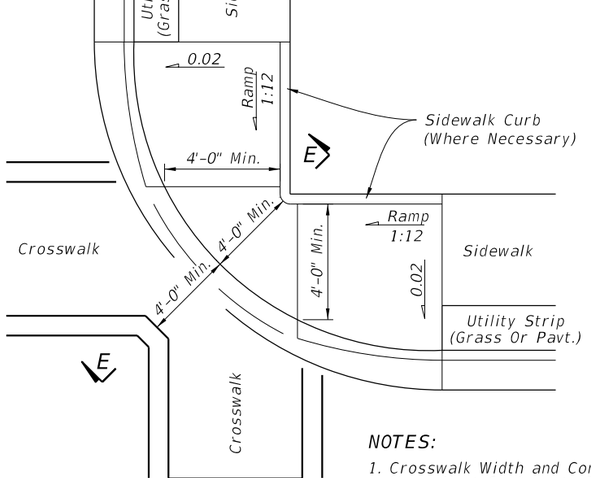
PLAN VIEW

CR-H



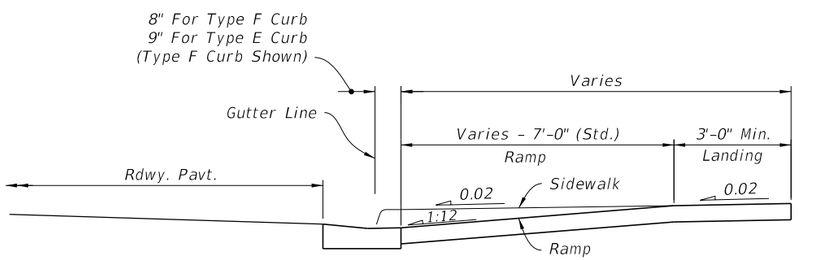
PLAN VIEW

CR-K

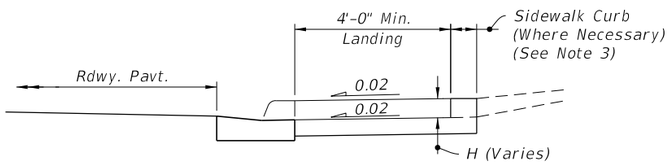


PLAN VIEW

CR-L



SECTION D-D



SECTION E-E

NOTES:

1. Crosswalk Width and Configuration Vary; Must Conform to Index 711-001.
2. 15' Radius Curve Shown for CR-L.
3. For additional information on sidewalk curb construction, see SIDEWALK CURB OPTIONS details, on Sheet 3.

SIDEWALK CURB RAMPS CR-H, CR-K & CR-L

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11/01/20						522-002	5 of 7

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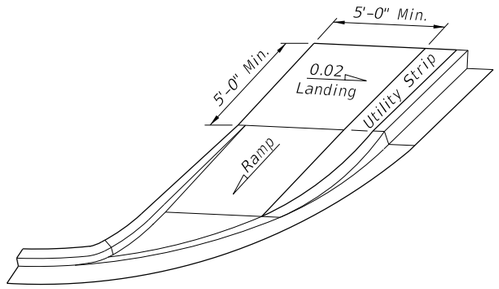
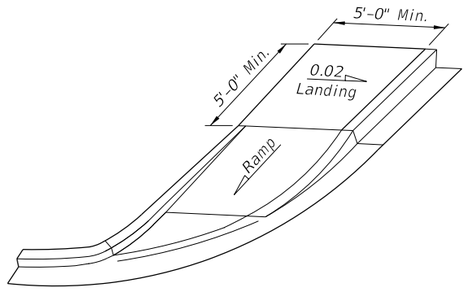
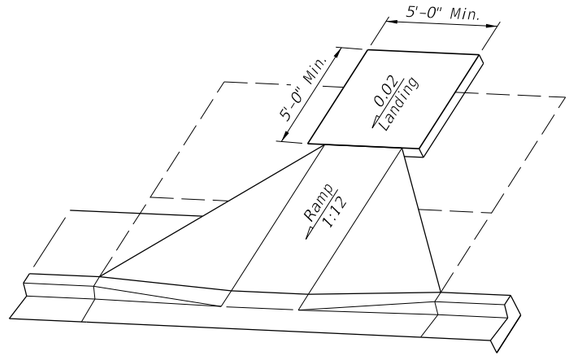
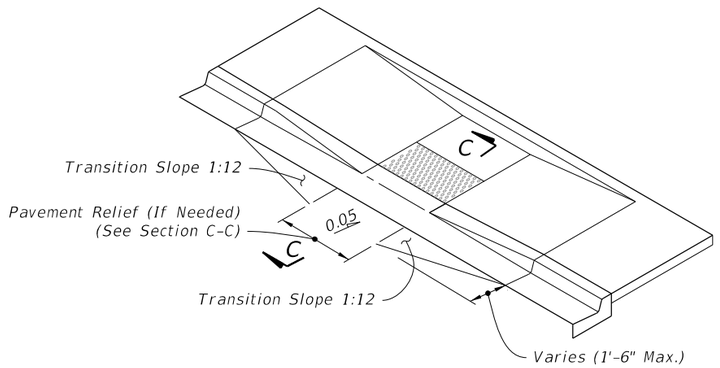






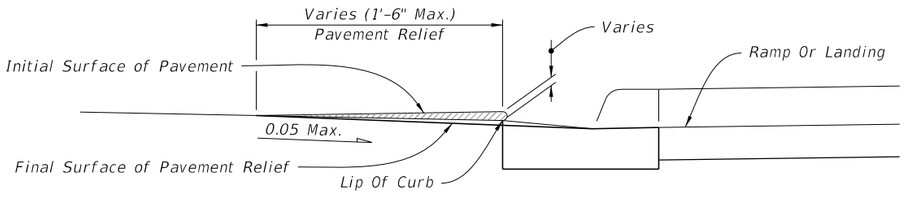
LANDINGS FOR CURB RAMPS WITHOUT SIDEWALKS

(See CR-F, CR-G & CR-K Respectively For Detectable Warning Details/Options)



ISOMETRIC VIEW

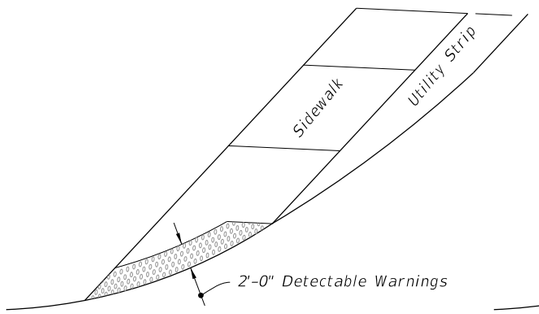
(CR-C Shown, Other Similar)



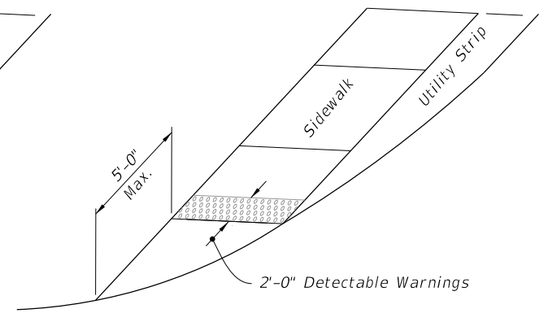
NOTE: Remove Elevated Pavement By Spading And Rolling, Smooth Milling, or Grinding.

SECTION C-C

PAVEMENT RELIEF DETAILS



OPTION A



OPTION B

DETECTABLE WARNING ON FLUSH SHOULDER SIDEWALKS

9/22/2021 8:50:40 AM

CURB RAMPS WITHOUT SIDEWALKS AND FLUSH SHOULDER SIDEWALKS

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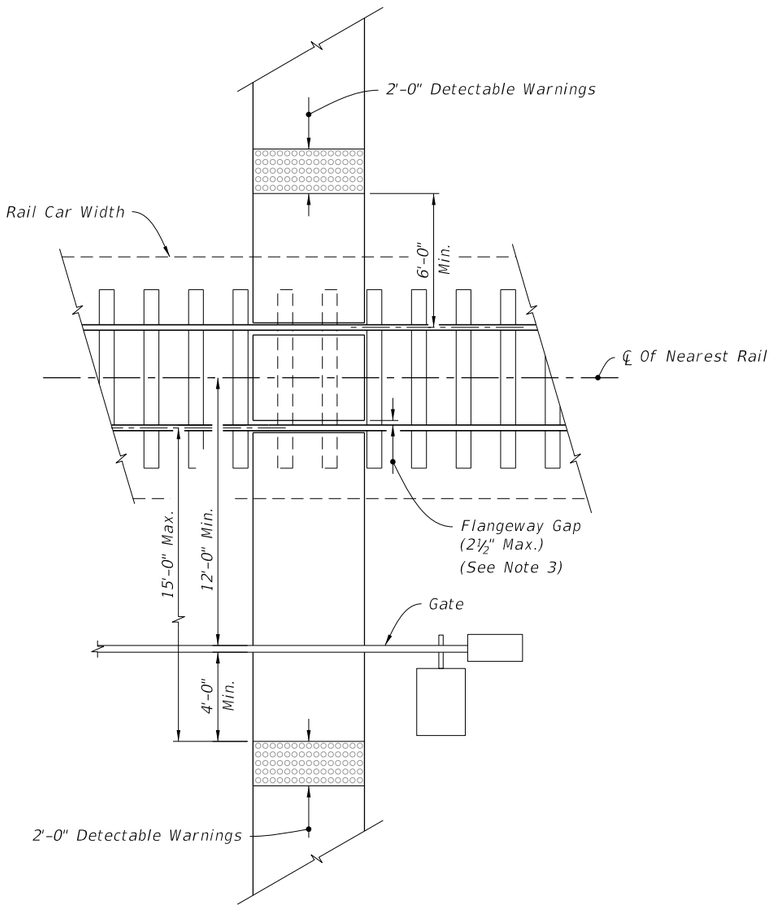
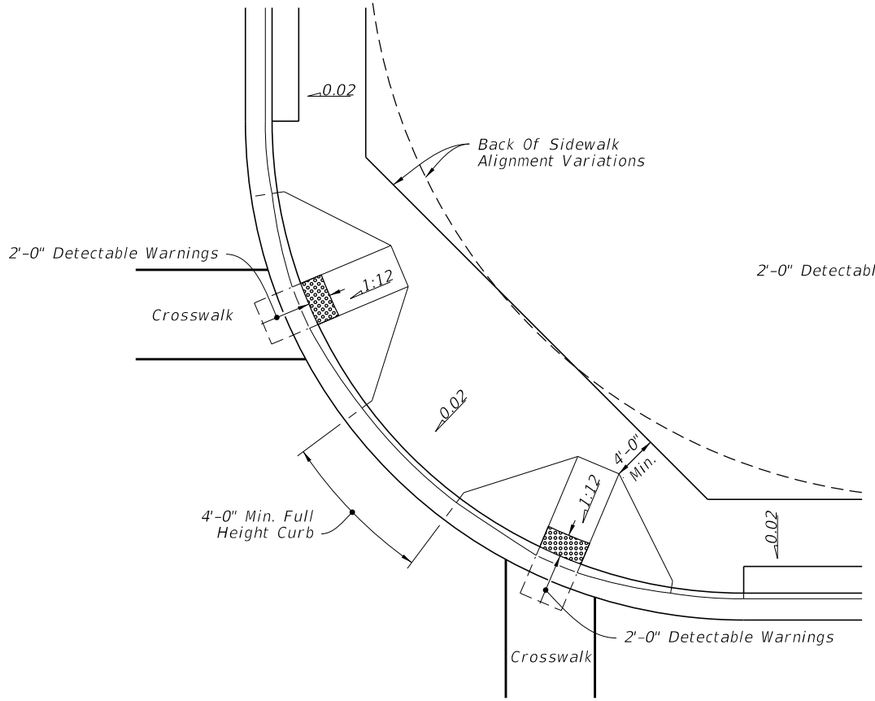
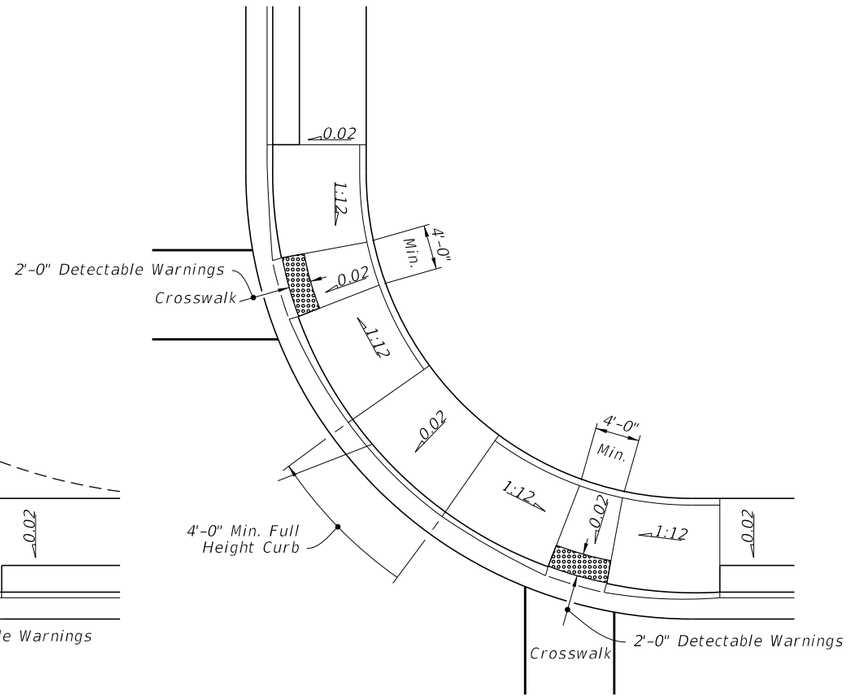
NOTES:

1. Where crosswalk markings are used, ramps must fall within the crosswalk limits. A clear space of 48" minimum is required at the bottom of the ramp within a marked crosswalk. If crosswalk markings are not present, a clear space of 48" minimum is required at the bottom of the ramp outside of active travel lanes.
2. Crosswalk widths and configurations vary; must conform to Index 711-001.
3. Flangeway Gap may be up to 3" for Freight-only Railways.

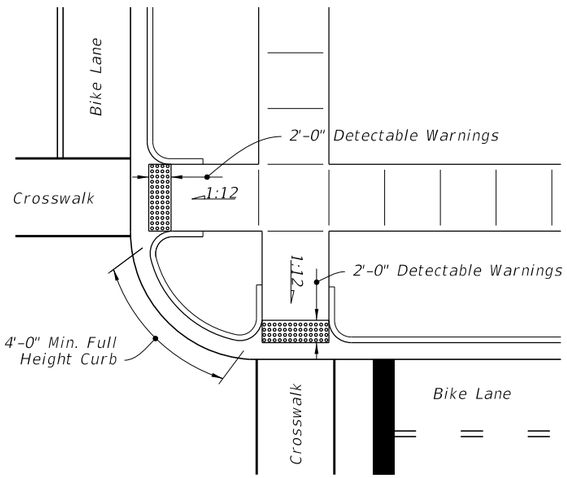


RAILROAD CROSSING

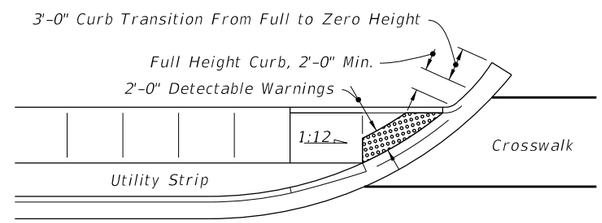




CURB RAMPS WITHIN RADIAL RETURN



CURB RAMPS OUTSIDE RADIAL RETURN



LINEAR SIDEWALK RAMPS

PLACEMENT OF SIDEWALK CURB RAMPS AT CURBED RETURNS (TYP.)

RAILROAD CROSSING AND CURB RAMPS AT CURBED RETURNS

LAST REVISION	REVISION	DESCRIPTION:			INDEX	SHEET
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GENERAL NOTES:

1. The French Drain Skimmer is a hooded cover, mounted over an outlet in a catchbasin, that prevents oil and floating debris from exiting the basin.

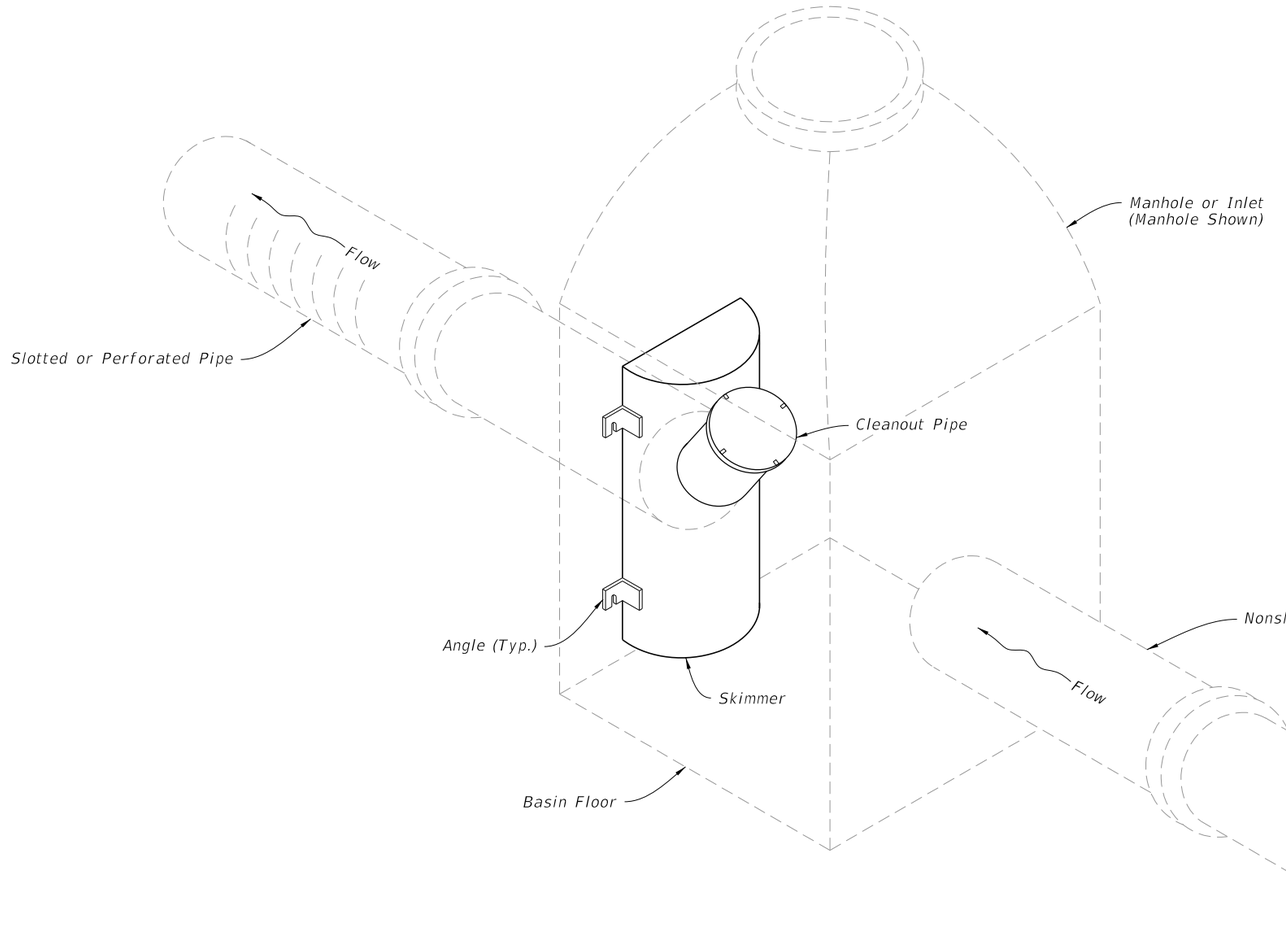
2. Place neoprene gasket material between the skimmer and the catchbasin at all points of contact. Trim the gasket to extend 1/2 inch beyond the joint on all sides.

3. Provide skimmer baffle, cleanout pipe and angles constructed of either galvanized steel, aluminum, polyvinyl chloride, polyethylene, fiberglass or acrylonitrite butadiene styrene. Provide hot-dip galvanized steel components, unless stainless.

4. Use Mounting hardware, hinges and latches made of stainless steel. Loss prevention device can use either stainless steel chain or riveted nylon strap.

5. Provide skimmer bodies (baffles) and cleanout pipe meeting Specification 943 for steel, 945 for aluminum or 948 for plastics.

6. Work this Index in accordance with Specification 425.



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SKIMMER FOR FRENCH DRAIN OUTLETS ASSEMBLY

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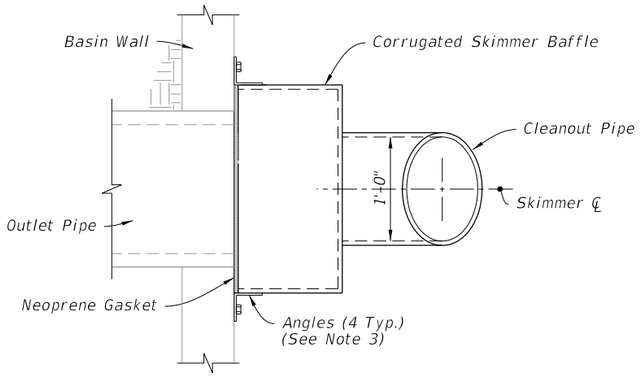
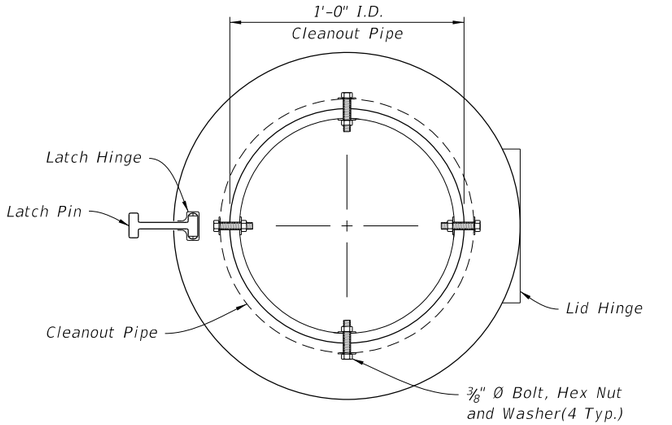


PLAN

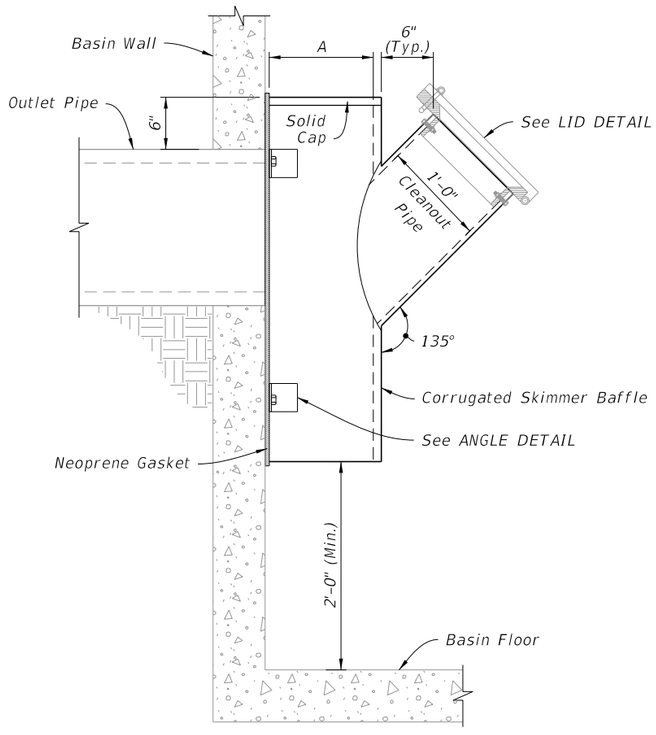
NOTES:

1. Conform the backs of skimmers to the shape of the basin walls on which they are mounted.
2. "R" is the radii required for curved back skimmers. Applies to both skimmer types. See Plans.
3. Weld Angles at all points of contact with skimmer.

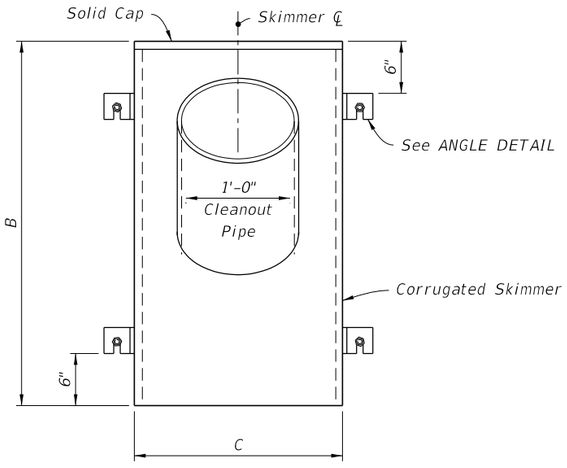
DIMENSION TABLE			
OUTLET PIPE	A	B	C
18"	12"	42"	24"
24"	15"	48"	30"
30"	18"	54"	36"
36"	21"	60"	42"



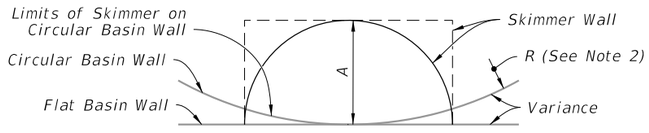
PLAN



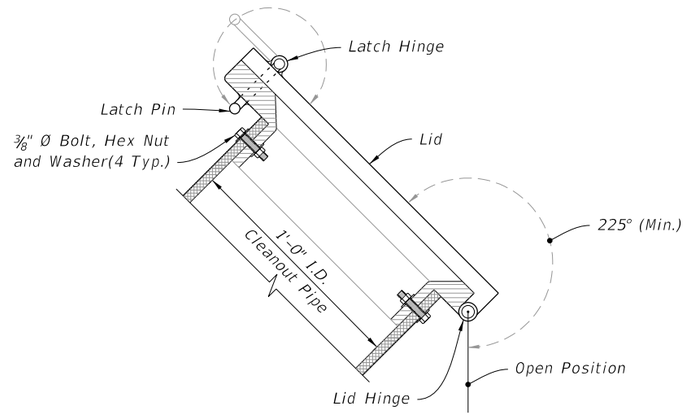
SIDE ELEVATION



FRONT ELEVATION

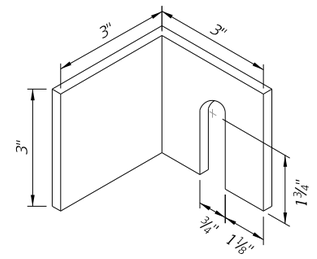


SCHEMATIC VIEW



SIDE ELEVATION

LID DETAIL



ANGLE DETAIL

TYPE I DETAILS

TYPE I SKIMMERS

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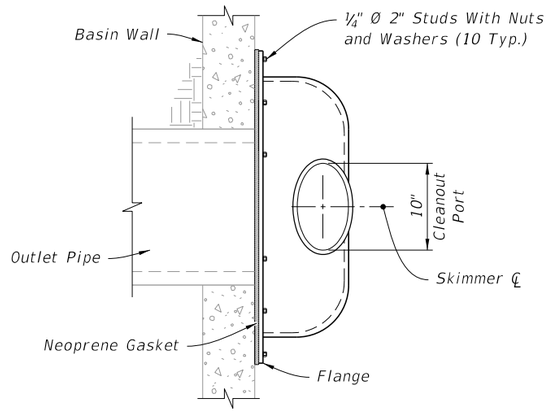
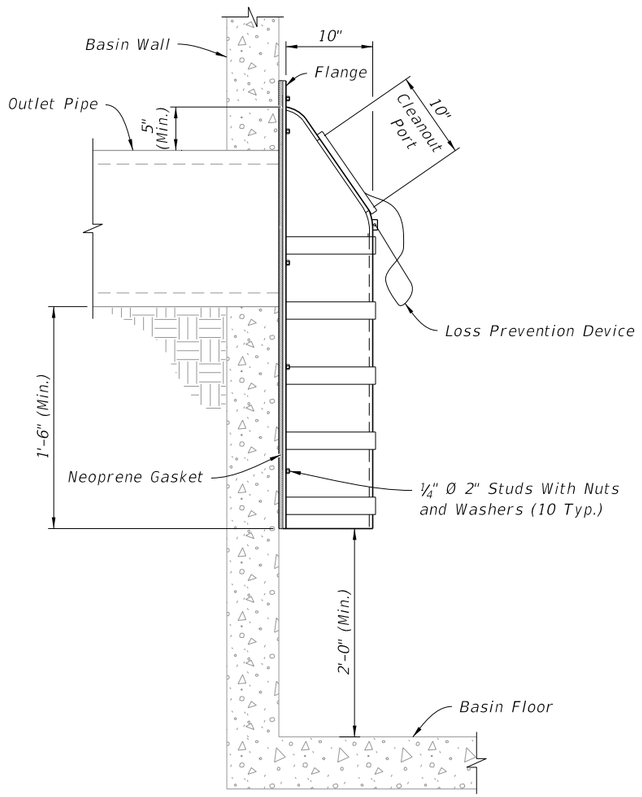


PLAN

NOTE:

1. Install a gasket for the cleanout with either a threaded screw-in lid or a lid secured by four stainless steel quick-release latches.



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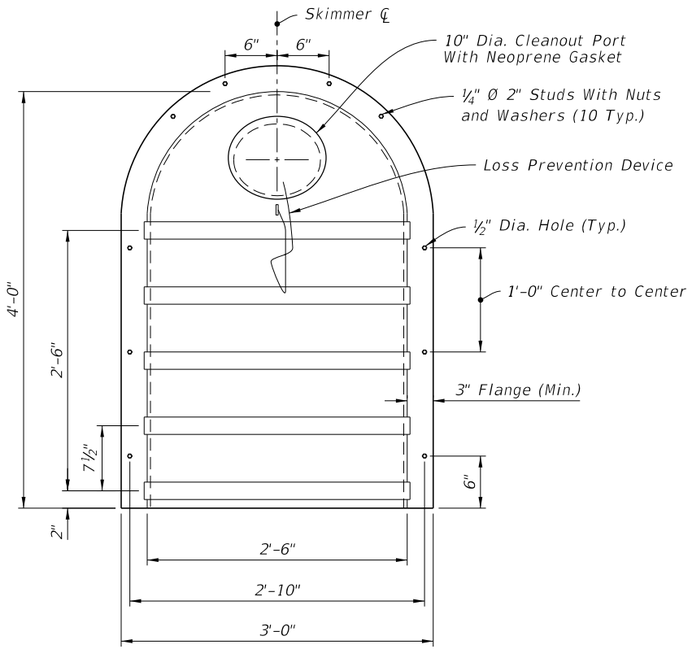

FRONT ELEVATION

TYPE II DETAILS

TYPE II SKIMMERS

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