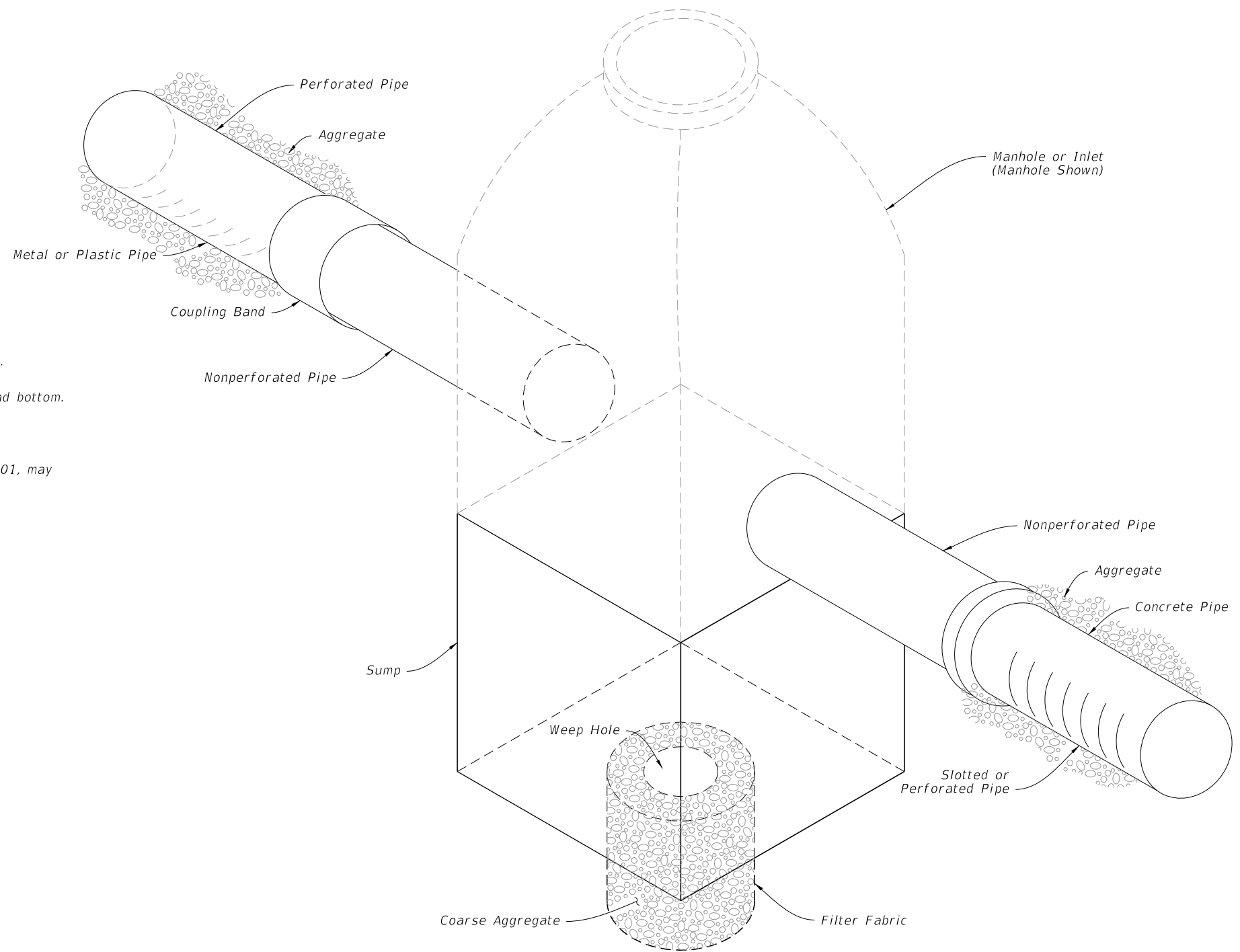


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GENERAL NOTES:

1. Install light duty cast iron cover and frame in accordance with Specifications 962.
2. Use Class I concrete. Use No. 3 bars (Grade 60) on 8" centers both ways, sides and bottom.
3. Furnish covers with pick holes. Do not use fitted lifts or handles.
4. Manhole Type P Alternate A, Index 425-010, Type I Frame and Cover, Index 425-001, may be used in lieu of the box detailed in this Index.

TABLE OF CONTENTS:	
Sheet	Description
1	General Notes and Contents
2	Typical Inspection Box Installation
3	Typical Urban, Slope, and Top Adjustment Installations

FRENCH DRAIN ASSEMBLY

LAST REVISION 11/01/19	REVISION	DESCRIPTION:
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STANDARD PLANS

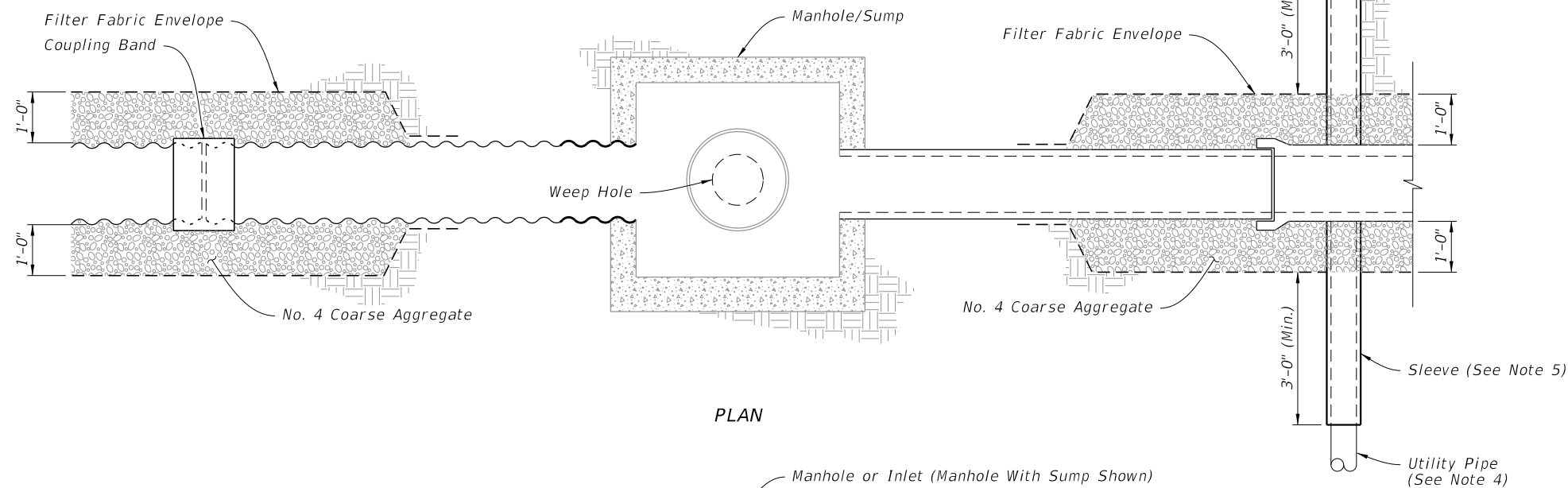
FRENCH DRAIN

INDEX
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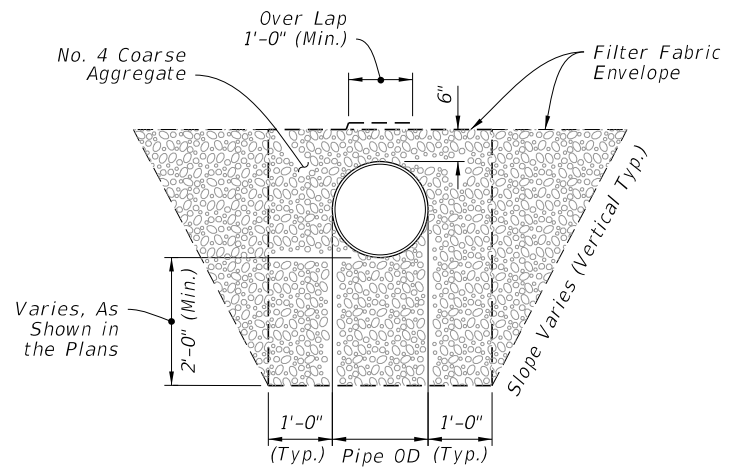
SHEET
1 of 3

NOTES:

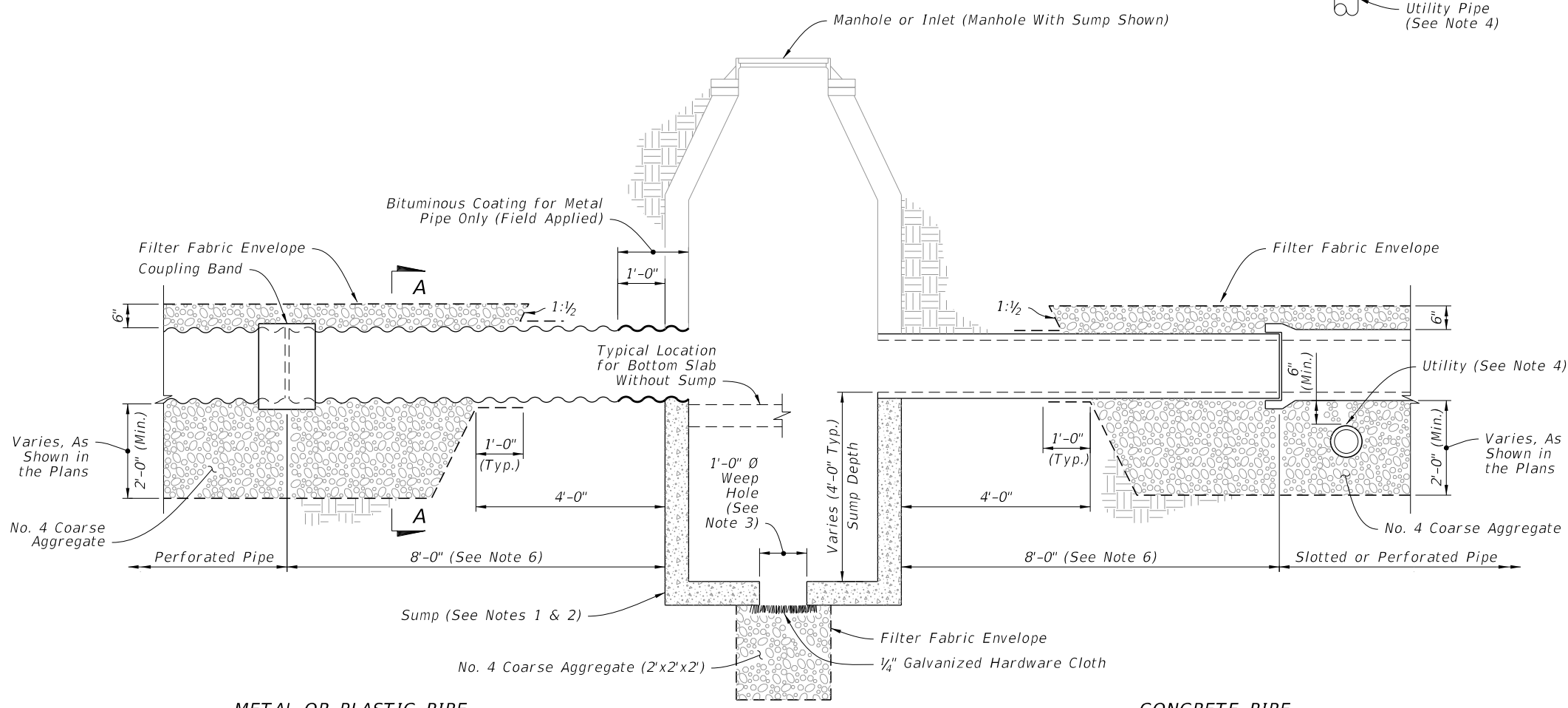
1. Construct sumps unless excluded in the Plans.
2. For additional sump bottom information see Index 425-001.
3. Construct weep holes only where called for in the Plans.
4. Only cast and ductile iron sanitary sewer, or cast iron, ductile and steel water mains will be allowed to pass directly through french drain (without sleeve).
5. Use only steel, cast or ductile iron sleeves.
6. No slots or perforations.



PLAN



SECTION A-A



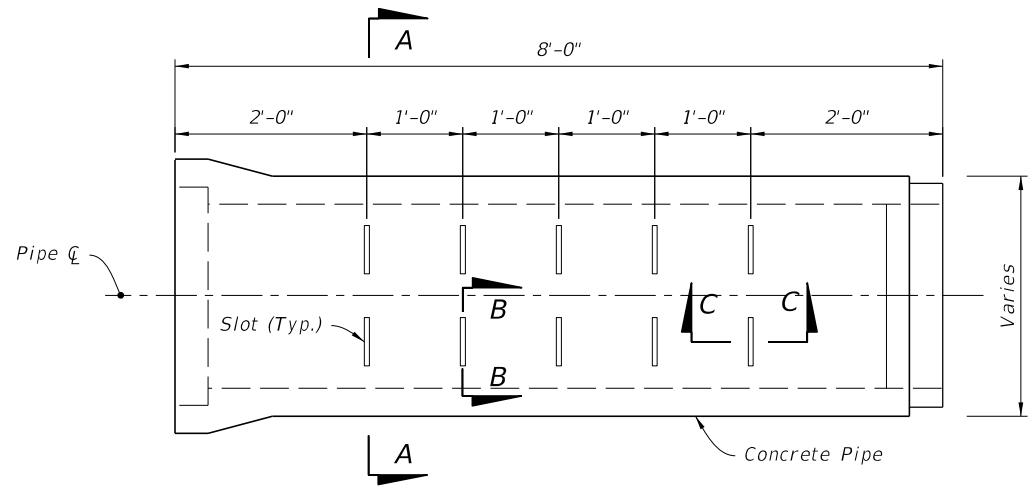
ELEVATION

FRENCH DRAIN
(Round Pipe Shown)

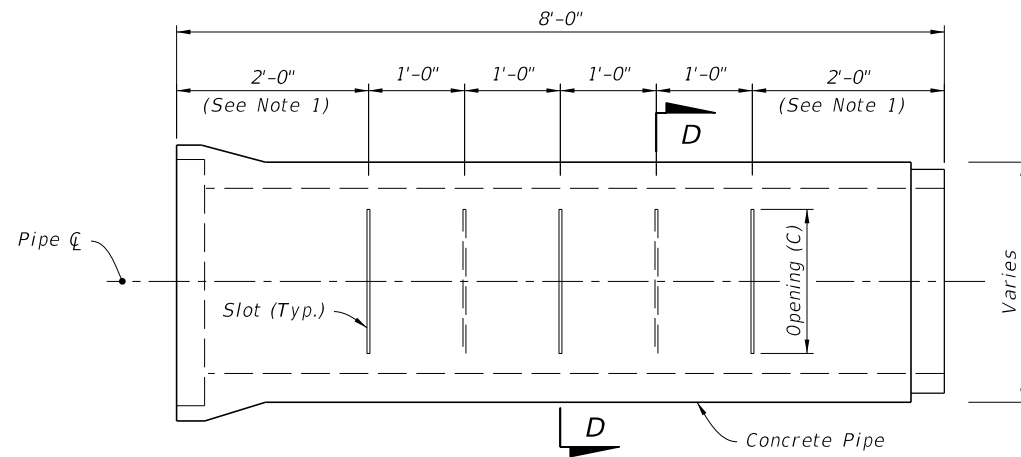
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LAST REVISION 11/01/19	REVISION	DESCRIPTION:	 FY 2020-21 STANDARD PLANS	FRENCH DRAIN	INDEX 443-001	SHEET 2 of 3
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FRENCH DRAIN SYSTEM



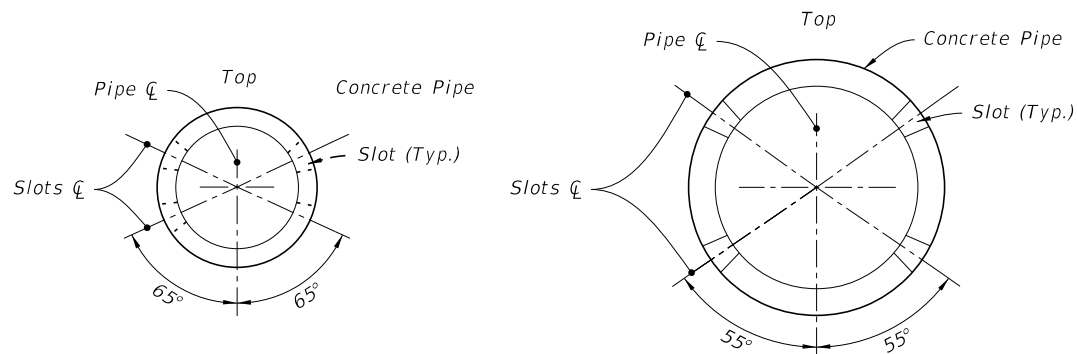
SIDE VIEW



SIDE VIEW

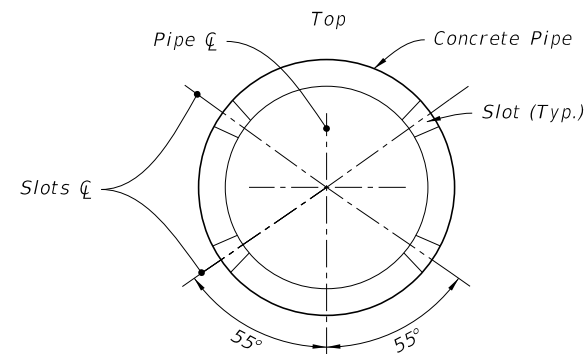
NOTES:

1. 2'-0" for 8'-0" joints of pipe;
2'-6" for 12'-0" joints of pipe
2. A curved cut is acceptable provided the control dimension is maintained.

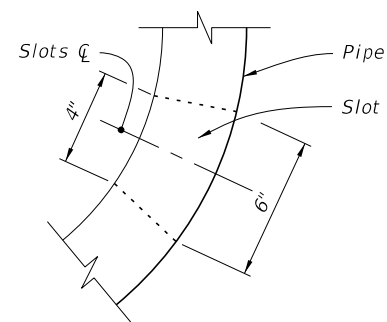


15" to 30"

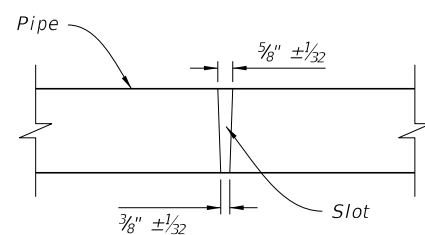
SECTION A-A



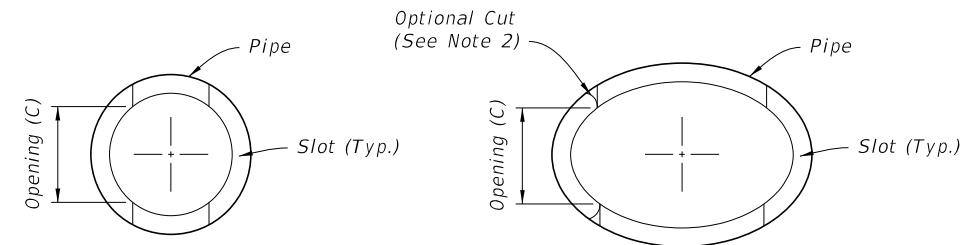
36" to 72"



SECTION B-B

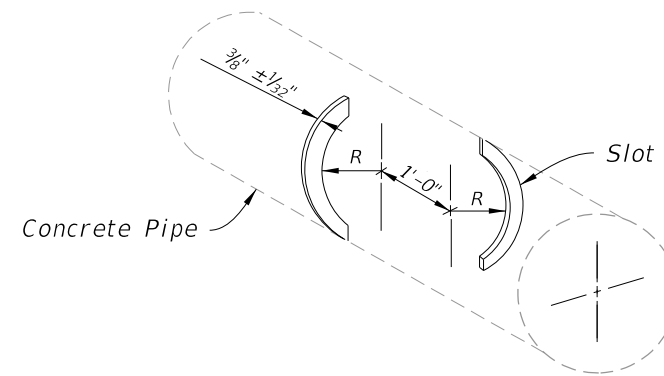


SECTION C-C



ROUND PIPE

ELLIPTICAL PIPE



ISOMETRIC VIEW
(Round Pipe Shown)

SECTION D-D

ROUND PIPE		
Pipe Size	Slot Cut	
	Opening (C)	
	Min.	Max.
15"	12"	14"
18"	12"	14"
24"	16"	18"
30"	16"	18"
36"	22"	24"
42"	22"	24"
48"	22"	24"
54"	24"	26"
60"	24"	26"
66"	24"	26"
72"	24"	26"

ELLIPTICAL PIPE		
Pipe Size	Slot Cut	
	Opening (C)	
	Min.	Max.
14"x23"	10"	12"
19"x30"	14"	16"
24"x38"	14"	16"
29"x45"	20"	22"
34"x53"	20"	22"
38"x60"	20"	22"

OPTION A - ROUND PIPE

OPTION B - ROUND OR ELLIPTICAL PIPE

CONCRETE SLOTTED PIPE OPTIONS

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LAST REVISION 11/01/19	DESCRIPTION:
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FRENCH DRAIN

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