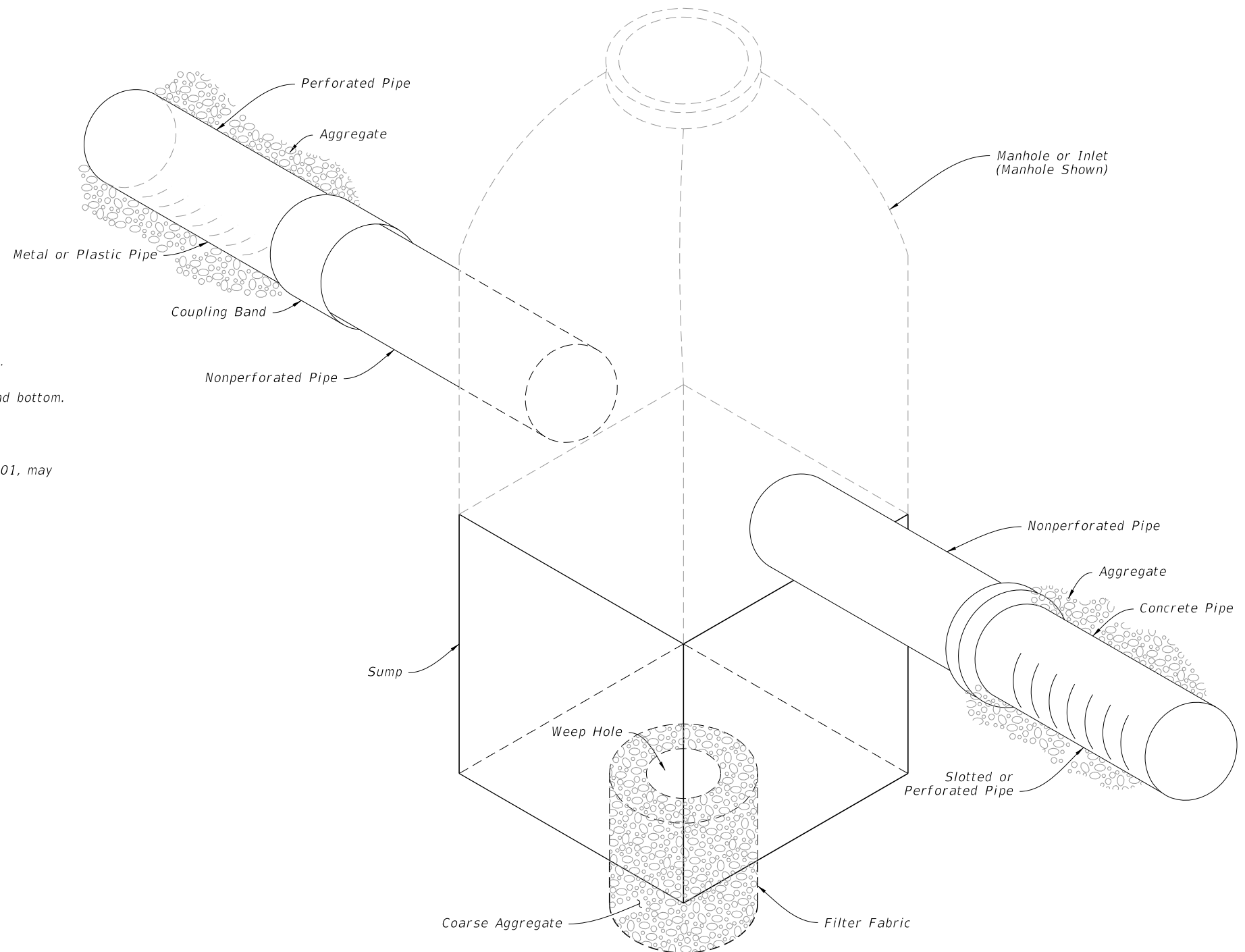


10/14/2019 10:07:12 AM



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:



FY 2020-21
STANDARD PLANS

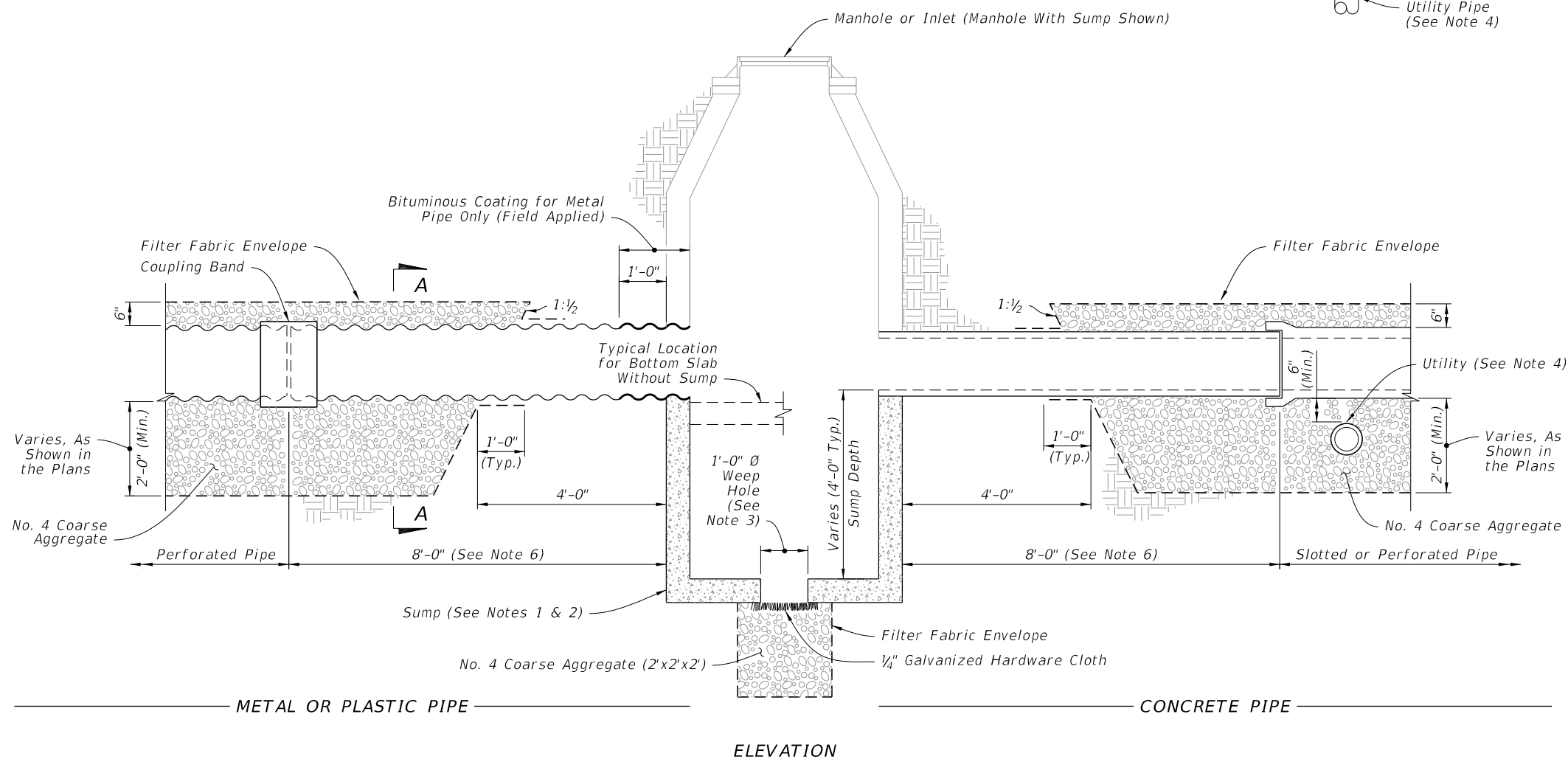
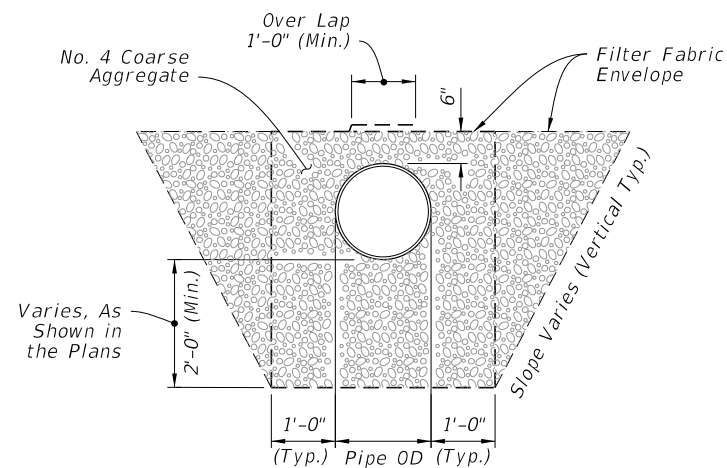
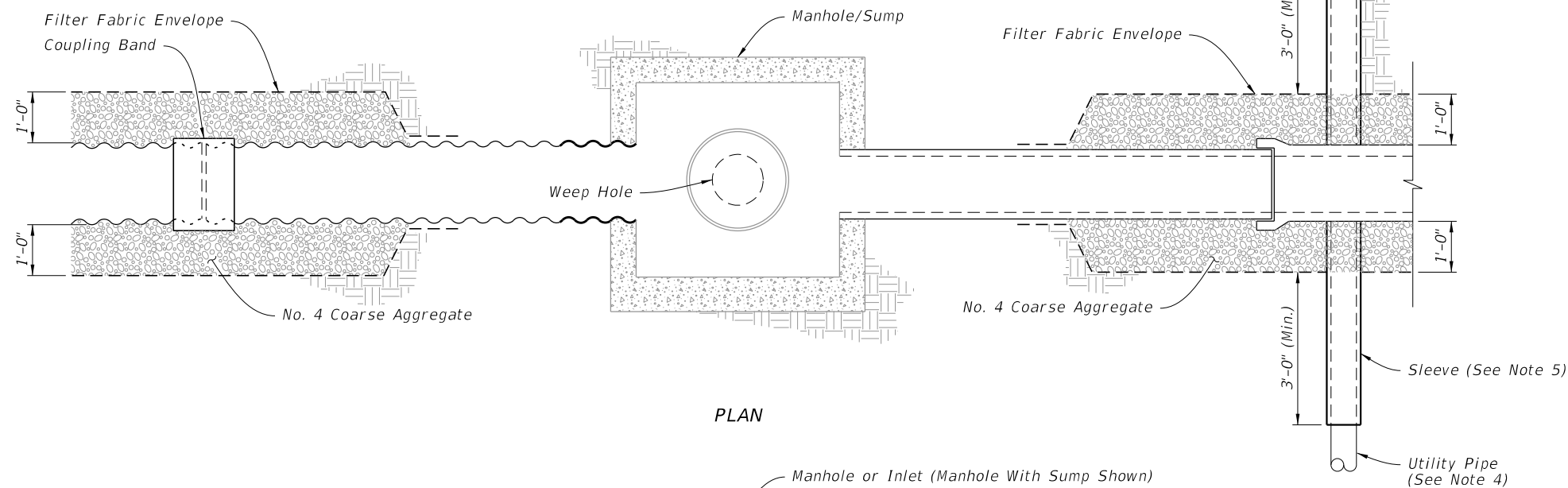
FRENCH DRAIN

INDEX
443-001

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.



FRENCH DRAIN
(Round Pipe Shown)

FRENCH DRAIN SYSTEM

10/14/2019 10:07:13 AM

LAST REVISION 11/01/19	DESCRIPTION:
---------------------------	--------------

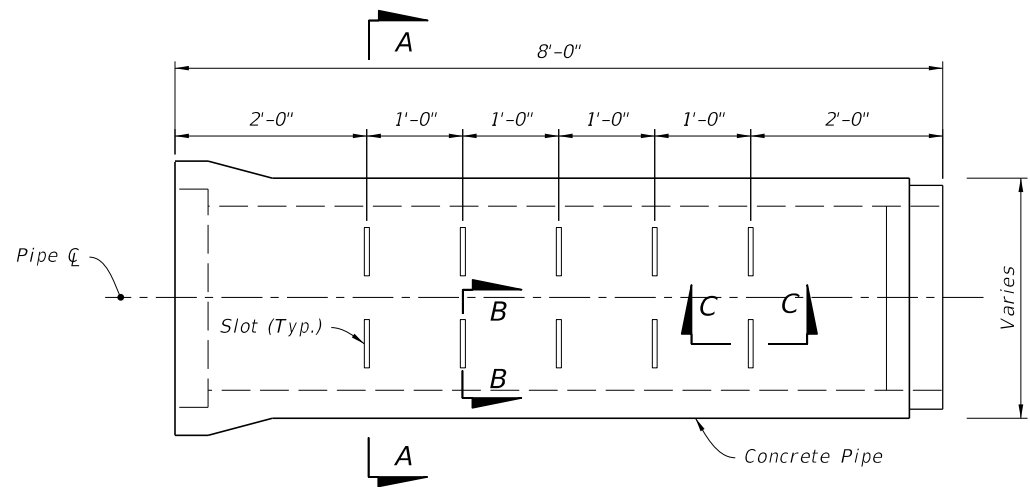


FY 2020-21
STANDARD PLANS

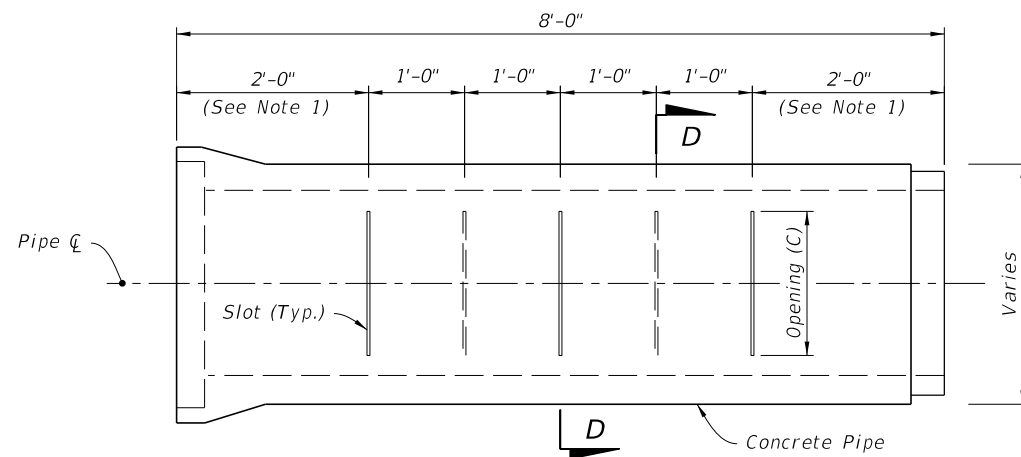
FRENCH DRAIN

INDEX
443-001

SHEET
2 of 3



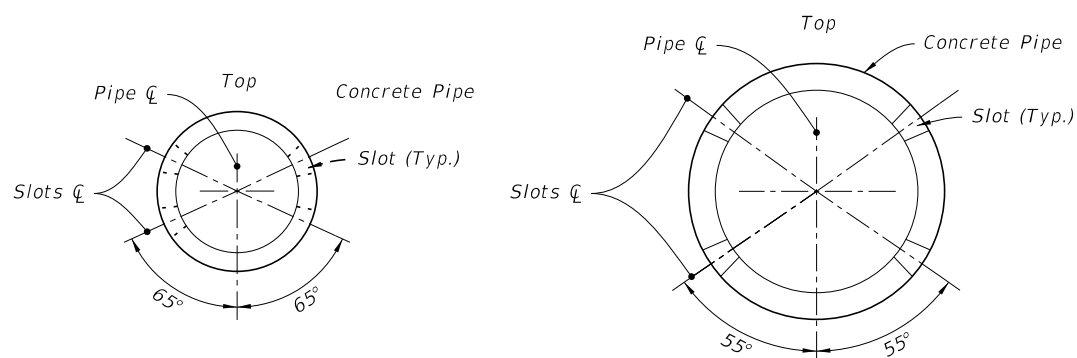
SIDE VIEW



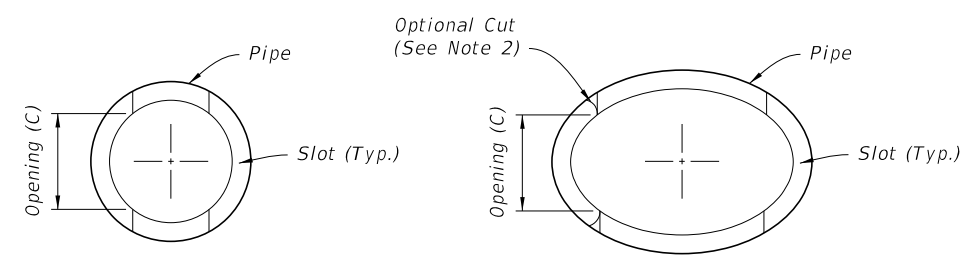
SIDE VIEW

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.

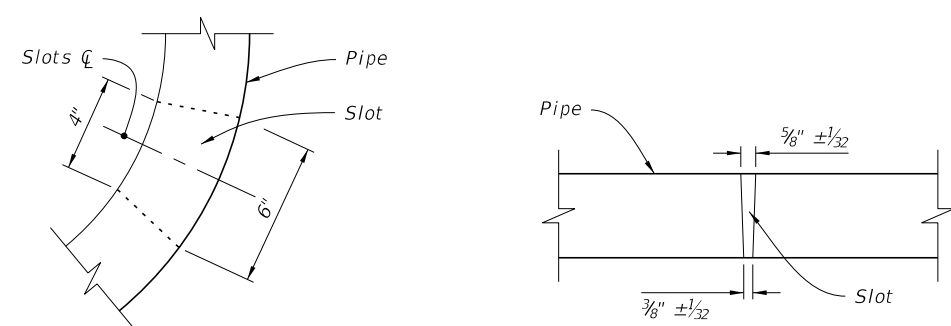


SECTION A-A



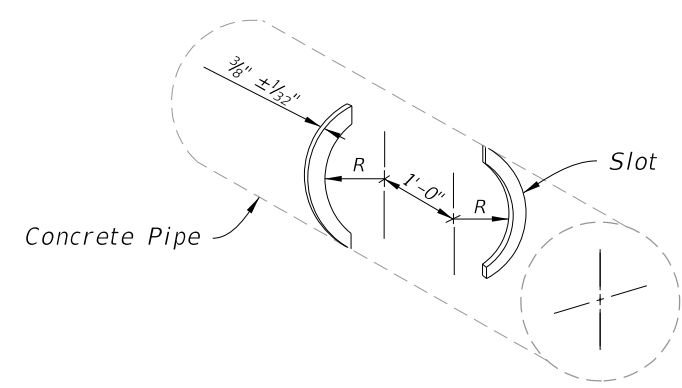
ROUND PIPE

ELLIPTICAL PIPE



SECTION B-B

SECTION C-C



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

10/14/2019 10:07:13 AM

LAST REVISION 11/01/19	REVISION	DESCRIPTION:
---------------------------	----------	--------------



FY 2020-21
STANDARD PLANS

FRENCH DRAIN

INDEX
443-001

SHEET
3 of 3