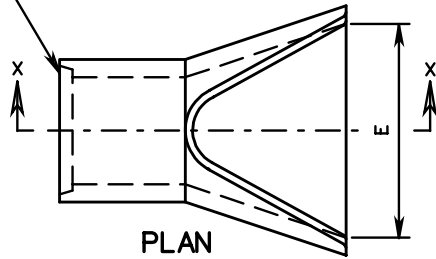


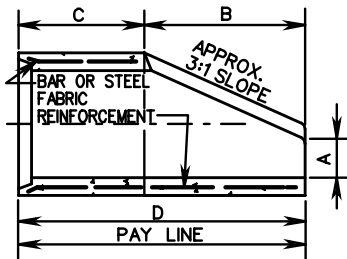
END-SECTION 12" - 60" PIPE

HUB END ON OUTLET END-SECTIONS
SPIGOT END ON INLET END-SECTION

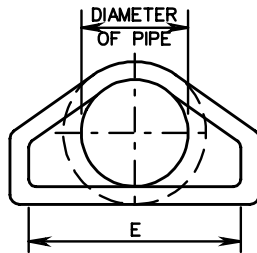


PLAN

CONCRETE TO BE
4000 PSI MINIMUM



SECTION X-X



END VIEW

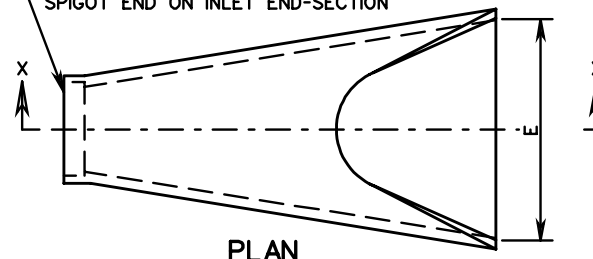
END SECTION DIMENSIONS

PIPE DIAMETER	A	B	C	D	E
12"	4"	2'-0"	2'-0"	4'-0"	2'-0"
15"	6"	2'-3"	1'-9"	4'-0"	2'-6"
18"	9"	2'-3"	1'-9"	4'-0"	3'-0"
21"	9 1/4"	2'-11"	2'-1"	5'-0"	3'-6"
24"	9 1/2"	3'-7"	2'-6"	6'-1"	4'-0"
27"	10 3/4"	4'-0"	2'-1"	6'-1"	4'-6"
30"	1'-0"	4'-6"	1'-7 3/4"	6'-1 3/4"	5'-0"
33"	1'-1 1/2"	4'-10 1/2"	2'-3 1/4"	7'-1 3/4"	5'-6"
36"	1'-3"	5'-3"	2'-10 3/4"	8'-1 3/4"	6'-0"
42"	1'-9"	5'-3"	2'-11"	8'-2"	6'-6"
48"	2'-0"	6'-0"	2'-2"	8'-2"	7'-0"
54"	2'-3"	5'-5"	2'-9 1/4"	8'-2 1/4"	7'-6"
60"	2'-11"	5'-0"	3'-3"	8'-3"	8'-0"

ALTERNATE END-SECTION 12" - 60" PIPE

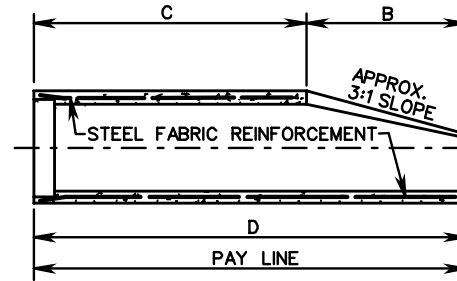
ES-1

HUB END ON OUTLET END-SECTIONS
SPIGOT END ON INLET END-SECTION

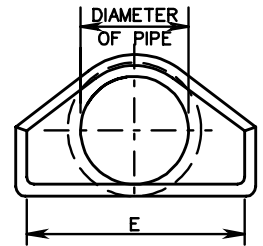


PLAN

CONCRETE TO BE
4000 PSI MINIMUM



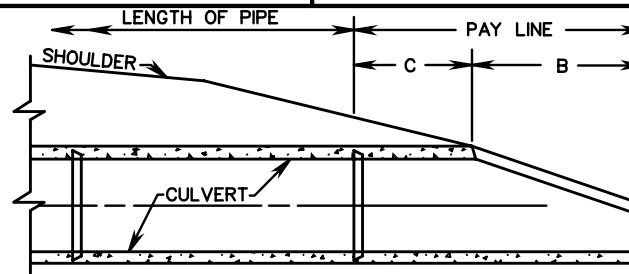
SECTION X-X



END VIEW

END SECTION DIMENSIONS

PIPE DIAMETER	A	B	C	D	E
12"	4"	2'-0"	4'-1"	6'-1"	2'-0"
15"	6"	2'-3"	3'-10"	6'-1"	2'-6"
18"	9"	2'-3"	3'-10"	6'-1"	3'-0"
21"	9"	2'-11"	3'-2"	6'-1"	3'-6"
24"	10"	3'-7"	2'-8"	6'-3"	4'-0"
27"	10 1/2"	4'-0"	2'-1 1/2"	6'-1 1/2"	4'-6"
30"	1'-0"	4'-6"	1'-7 3/4"	6'-1 3/4"	5'-0"
33"	1'-1 1/2"	4'-10 1/2"	2'-3 1/4"	8'-1 3/4"	5'-6"
36"	1'-3"	5'-3"	2'-10 3/4"	8'-1 3/4"	6'-0"
42"	1'-9"	5'-3"	2'-11"	8'-2"	6'-6"
48"	2'-0"	6'-0"	2'-2"	8'-2"	7'-0"
54"	2'-3"	5'-5"	2'-11"	8'-4"	7'-6"
60"	2'-6"	5'-0"	3'-3"	8'-3"	8'-0"



SLOPE DETAIL

NOTES:

PIPE LENGTHS SHOWN ON PLANS ARE BASED ON END-SECTION DESIGN SHOWN ON THE LEFT. IF THE CONTRACTOR ELECTS TO USE THE ALTERNATE DESIGN SHOWN ON THE RIGHT, LENGTHS WILL BE REDUCED BY THE DIFFERENCE IN DIMENSION "D".

SPECIFICATION REFERENCE

302

FLARED END SECTION
12" - 60" CONCRETE PIPE CULVERTS

VIRGINIA DEPARTMENT OF TRANSPORTATION

VDOT

ROAD AND BRIDGE STANDARDS

REVISION DATE

SHEET 1 OF 1

102.01