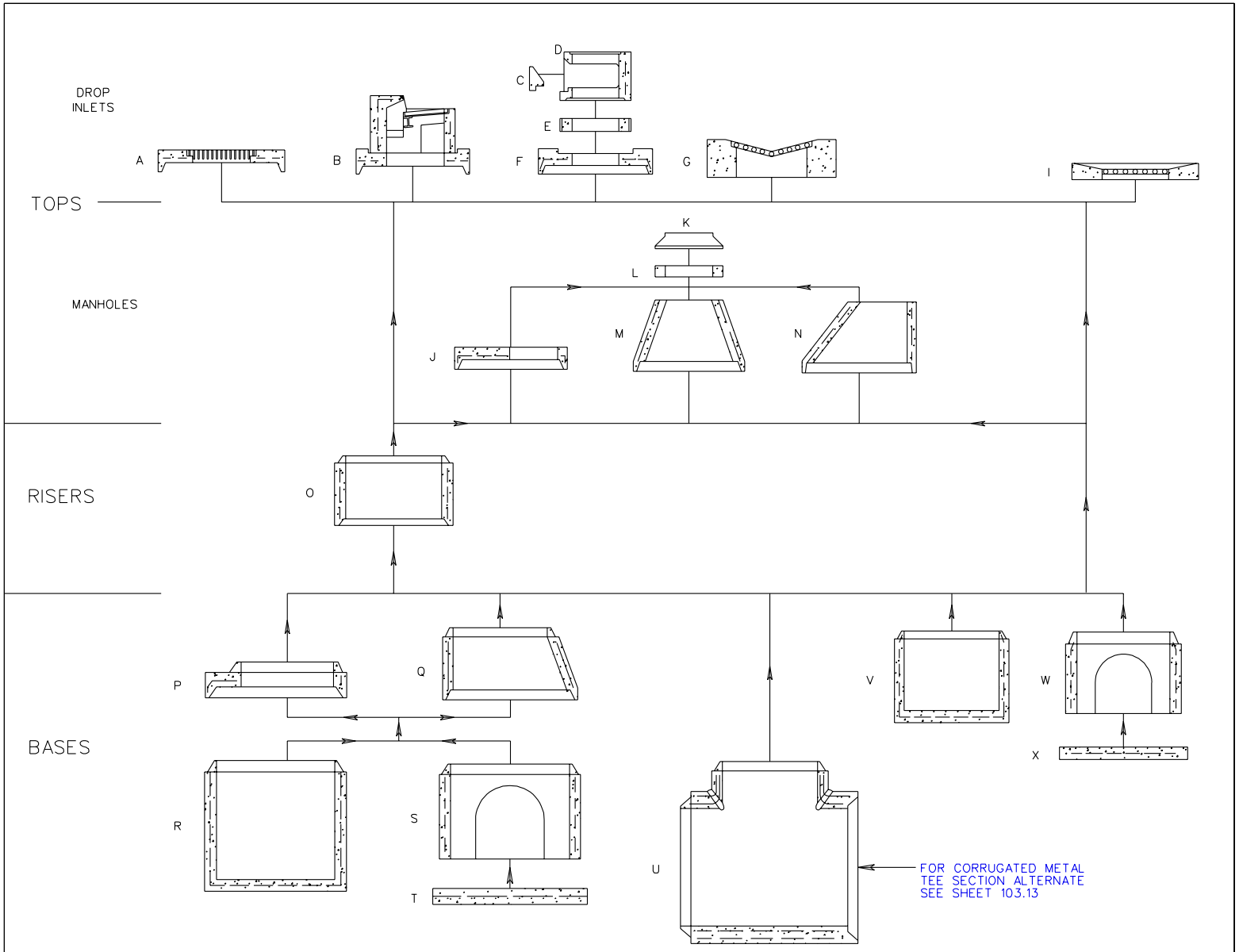


PRECAST UNIT ASSEMBLY DIAGRAM

VIRGINIA DEPARTMENT OF TRANSPORTATION

LEGEND

GENERAL NOTES - PRECAST

PRECAST STRUCTURES WILL CONFORM TO SECTION 105.04 OF THE SPECIFICATIONS. THE MANUFACTURER WILL HAVE THE OPTION OF SELECTING THE COMBINATION OF PRECAST UNITS TO COMPLETE A STRUCTURE UNLESS OTHERWISE NOTED ON THE PLANS.

THE "H" (LINEAR FEET FOR MANHOLES) DIMENSION SHOWN ON THE STANDARDS AND SPECIFIED ON THE PLANS WILL BE MEASURED FROM THE INVERT OF THE OUTFALL PIPE TO THE TOP OF THE MASONARY STRUCTURE. PLAN "H" DIMENSIONS ARE APPROXIMATE ONLY FOR ESTIMATING PURPOSES AND THE ACTUAL DIMENSIONS SHALL BE DETERMINED BY THE CONTRACTOR FROM FIELD CONDITIONS.

IN THE EVENT THE INVERT OF THE OUTFALL PIPE IS HIGHER THAN THE BOTTOM OF THE STRUCTURE, THE INVERT OF THE STRUCTURE SHALL BE SHAPED WITH CEMENT MORTAR TO PREVENT STANDING OR PONDING OF WATER IN THE STRUCTURE. THIS WILL APPLY TO ALL STRUCTURES MEETING THIS CONDITION AND IS NOT TO BE CONFUSED WITH STANDARD IS-1. THE COST FOR INVERT SHAPING SHALL BE INCLUDED IN THE PRICE BID FOR THE STRUCTURE.

WHEN SPECIFIED ON THE PLANS THE INVERT IS TO BE SHAPED IN ACCORDANCE WITH STANDARD IS-1. THE COST OF FURNISHING AND PLACING ALL MATERIALS INCIDENTAL TO THE SHAPING IS TO BE INCLUDED IN THE PRICE BID FOR THE STRUCTURE.

ALL PRECAST STRUCTURES TO BE CONSTRUCTED WITH 4000 PSI MINIMUM CONCRETE.

STEPS IN ACCORDANCE WITH STANDARD ST-1 ARE TO BE PROVIDED IN ALL MANHOLES AND IN ALL DROP INLETS WITH AN "H" DIMENSION OF 4'-0" OR GREATER.

3" DIAMETER WEEP HOLES WILL BE REQUIRED IN PRECAST STRUCTURE LOCATED ADJACENT TO THE PAVEMENT TO DRAIN SUBBASE. PLACEMENT OF WEEP HOLES IN THE PRECAST UNIT WILL BE DETERMINED BY THE PROXIMITY OF THE STRUCTURE TO THE SUBBASE. WEEP HOLES MAY ALSO BE REQUIRED IN OTHER STRUCTURES WHEN CALLED FOR ON THE PLANS OR DIRECTED BY THE ENGINEER.

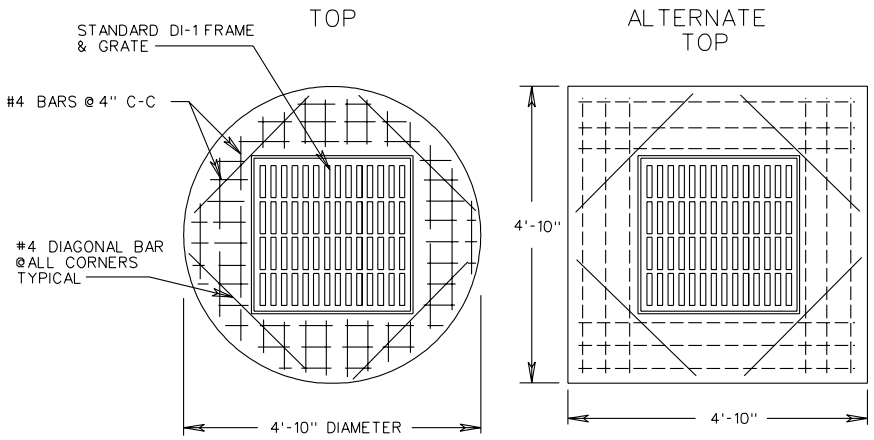
WEEP HOLES WILL HAVE 12" X 12" PLASTIC HARDWARE CLOTH, 1/4" MESH OR GALVANIZED STEEL WIRE, MINIMUM WIRE DIAMETER 0.03", NUMBER 4 MESH HARDWARE CLOTH ANCHORED FIRMLY TO OUTSIDE OF STRUCTURE.

PRECAST UNITS LOCATED ADJACENT TO CAST-IN-PLACE CONCRETE ITEMS, SUCH AS FLUMES, DITCHES, GUTTERS, AND SIDEWALKS SHALL BE CONNECTED TO THE ADJACENT UNIT BY MEANS OF NO. 4 SMOOTH STEEL DOWELS SPACED ON APPROXIMATELY 12" CENTERS THOUGHOUT THE CONTACT LENGTH AND EXTENDING AT LEAST 4" INTO BOTH THE PRECAST UNIT AND THE CAST-IN-PLACE ITEM. IF THE HOLES ARE PROVIDED IN THE PRECAST UNIT TO RECEIVE THE DOWELS, THEY SHALL NOT EXCEED 5/8" DIAMETER.

THE STANDARD SAFETY SLAB (SL-1) IS TO BE USED WHEN SPECIFIED IN THE PLANS ON THE DRAINAGE SUMMARY SHEET AND/OR THE DRAINAGE DESCRIPTION. ADDITIONAL SAFETY SLABS (SL-1) WILL BE REQUIRED ON PRECAST STRUCTURES THAT ARE SUBSTITUTED FOR CAST-IN-PLACE STRUCTURES IF THE WIDTH AND LENGTH OR DIAMETER OF THE PRECAST STRUCTURE IS 4'-0" OR LARGER AND THE HEIGHT OF THE STRUCTURE IS 12' FEET OR LARGER. REFER TO STANDARD SL-1 FOR SAFETY SLAB INFORMATION.

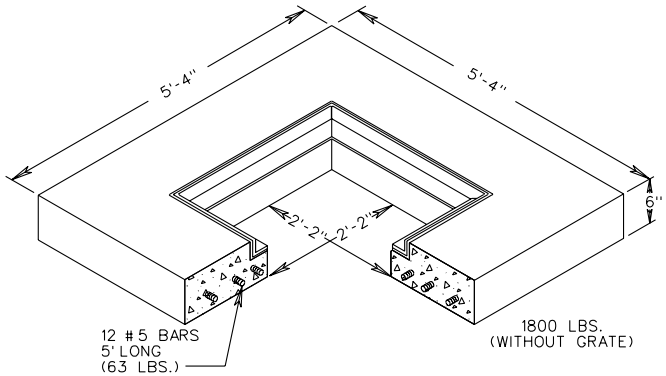
3/4" CHAMFER MAY BE PROVIDED ON ALL EDGES AT MANUFACTURER'S OPTION.

T-DI-1



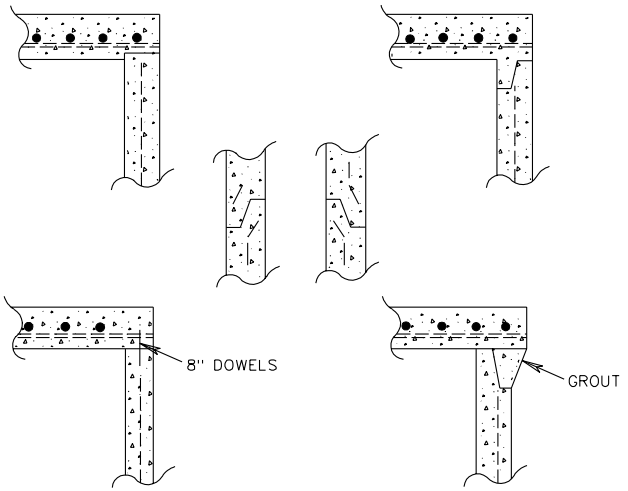
RECOMMENDED MINIMUM HEIGHT CHART		
PIPE SIZE	H DIMENSION	
	CONCRETE	CORR. METAL
12"	2'-6"	2'-5"
15"	2'-9¼"	2'-8"
18"	3'-0½"	2'-11"
21"	3'-3¾"	3'-2"
24"	3'-7"	3'-5"

DI-1, 1A PC



NOTES:

1. SEE GENERAL NOTES PRECAST FOR ADDITIONAL DETAILS.
2. CONCRETE TO BE 4000 PSI MINIMUM.
3. REINFORCING STEEL IN ACCORDANCE WITH ASTM C-478, ASTM A-497 (WIRE FABRIC) AND ASTM A-615 (REINFORCING BARS).
4. CONCRETE COVER AND GRATE ARE TO BE FURNISHED AS A SINGLE UNIT.
5. SEE STANDARD DI-1, 1A FOR DETAILS OF FRAME AND GRATE.
6. DIMENSIONS SHOWN ARE MINIMUM. ACTUAL DIMENSIONS MAY VARY WITH MANUFACTURER.



NOTES:

1. TONGUE AND GROOVE JOINT TO BE OF FABRICATOR'S DESIGN MEETING THE APPROVAL OF THE ENGINEER. JOINTS ARE TO BE SEALED WITH MORTAR, OR O-RING GASKETS OR BUTYL RUBBER.
2. ALTERNATE JOINT DETAILS APPLY TO ALL PRECAST UNITS.

ALTERNATE JOINT DETAILS

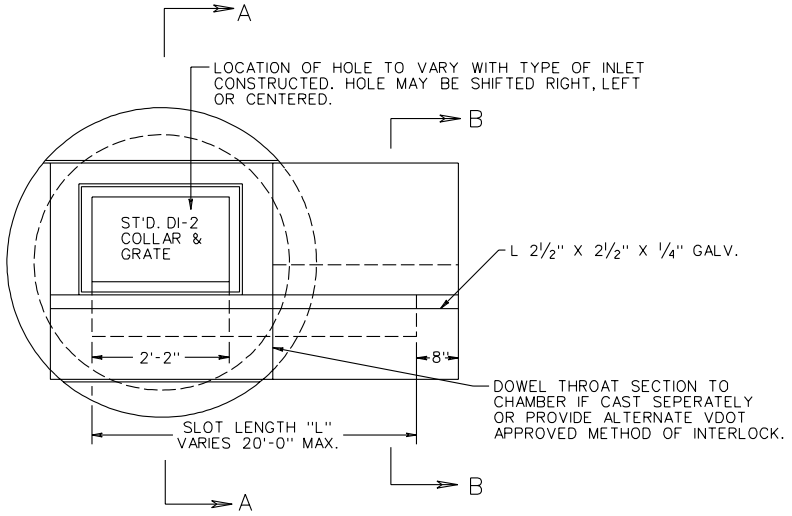
STANDARD PRECAST TOP UNITS

VIRGINIA DEPARTMENT OF TRANSPORTATION

SPECIFICATION REFERENCE

105
233
302

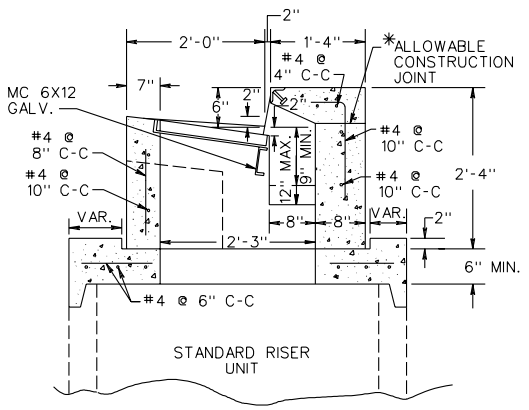
103.03



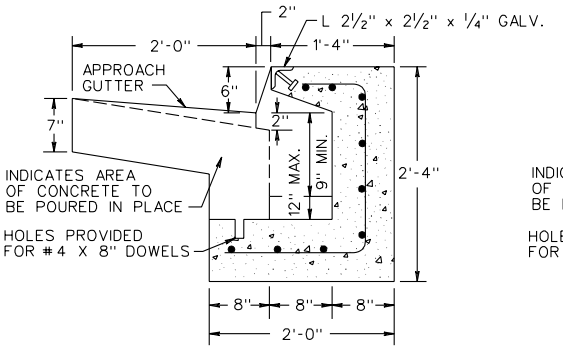
PLAN

NOTES

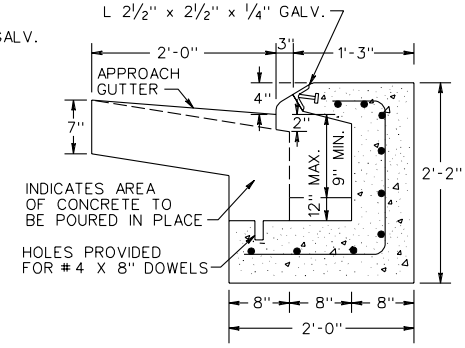
1. SEE GENERAL NOTES - PRECAST FOR ADDITIONAL DETAILS.
2. CONCRETE TO BE 4000 PSI MINIMUM.
3. REINFORCING STEEL IN ACCORDANCE WITH ASTM-615.
4. DIMENSIONS SHOWN ARE MINIMUM. ACTUAL DIMENSIONS MAY VARY WITH MANUFACTURER.
5. FOR DETAILS OF FRAME AND GRATE SEE STANDARD DI-2A, B, C.
6. * VERTICAL REINFORCING BARS TO BE CONTINUOUS THROUGH JOINT.
7. STANDARD ST-1 STEPS NOT REQUIRED IN THIS TOP UNIT.



SECTION A-A



SECTION B-B
(CG-6 CURB AND GUTTER)



ALTERNATE SECTION B-B
(FOR USE WITH CG-7 CURB AND GUTTER)

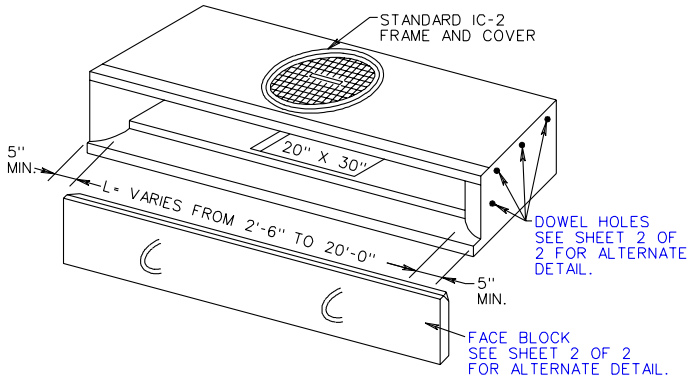
SPECIFICATION REFERENCE
105 233 302

STANDARD PRECAST TOP UNITS

VIRGINIA DEPARTMENT OF TRANSPORTATION

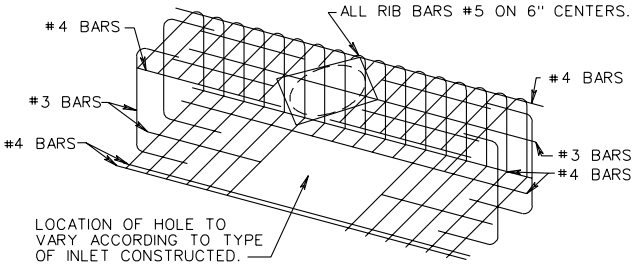
T-DI-3,4

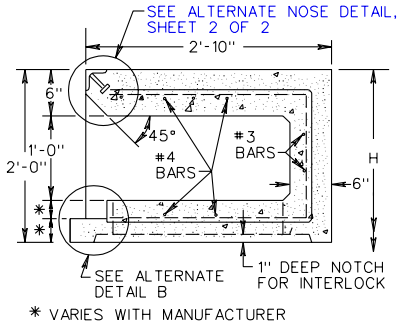
CURB DROP INLET THROAT SECTION



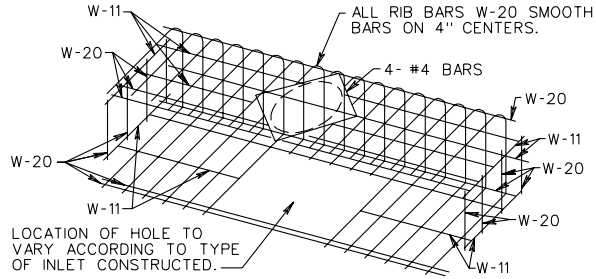
NOTES:

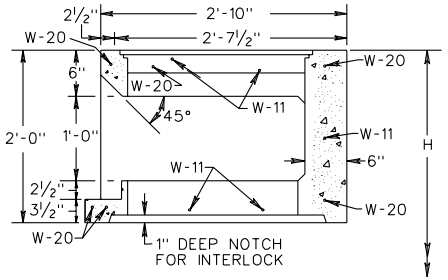
1. SEE GENRERAL NOTES - PRECAST FOR ADDITIONAL DETAILS.
2. CONCRETE TO BE 4000 PSI MINIMUM COMPRESSIVE STRENGTH.
3. REINFORCING STEEL IN ACCORDANCE WITH ASTM A-615 FOR REINFORCING BARS.
4. REINFORCING IN ACCORDANCE WITH ASTM A-185 FOR WELDED WIRE MESH.
5. DIMENSIONS SHOWN ARE MINIMUM. ACTUAL DIMENSIONS MAY VARY WITH MANUFACTURER.
6. THIS UNIT MAY BE USED WITH ALL STANDARD DI-3 & DI-4 CURB DROP INLETS.
7. EACH FACE BLOCK SHALL HAVE 2 OR MORE LOOPS (#3 BARS) CAST IN FACE AS SHOWN. THESE LOOPS MAY BE USED FOR LIFTING, AND FOR TIEING IN THE POURED IN PLACE GUTTER SECTION. FACE BLOCKS ARE TO BE SEALED WITH GROUT OR POLYSULFIDE SEALER.
8. STANDARD ST-1 STEPS NOT REQUIRED IN THIS TOP UNIT.





TYPICAL MINIMUM BAR REINFORCEMENT





TYPICAL MINIMUM WELDED WIRE REINFORCEMENT

RECOMMENDED MINIMUM HEIGHT CHART

	PIPE SIZE	H DIMENSION CONC.	H DIMENSION C.M.
DI-3A,B,C FOR 36" BASE UNIT	6"	2'-11"	2'-11"
	8"	3'-1¼"	3'-1"
	10"	3'-3¼"	3'-3"
	12"	3'-6"	3'-5"
	15"	3'-9¼"	3'-8"
	18"	4'-0½"	3'-11"
	21"	4'-3¾"	4'-2"
DI-3A,B,C,D,E, & F FOR 48" I.D. BASE UNIT	6"	3'-9"	3'-9"
	8"	3'-11¼"	3'-11"
	10"	4'-1¼"	4'-1"
	12"	4'-4"	4'-3"
	15"	4'-7¼"	4'-6"
	18"	4'-10½"	4'-9"
	21"	5'-1¾"	5'-0"
	24"	5'-5"	5'-3"
	27"	5'-8¼"	5'-6"
DI-3A,B,C,D,E & F FOR 60" or 72" BASE UNIT AND DI-4A,B,C,D,E & F	12"	4'-7"	4'-6"
	15"	4'-10¼"	4'-9"
	18"	5'-1½"	5'-0"
	21"	5'-4¾"	5'-3"
	24"	5'-8"	5'-6"
	27"	5'-11¼"	5'-9"
	30"	6'-2½"	6'-0"
	33"	6'-5¾"	6'-3"
	36"	6'-9"	6'-6"
	42"	7'-3½"	7'-0"
	48"	7'-10"	7'-6"

SHEET 1 OF 2

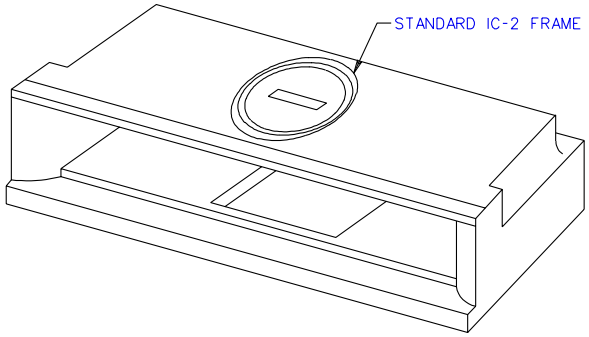
STANDARD PRECAST TOP UNITS

VIRGINIA DEPARTMENT OF TRANSPORTATION

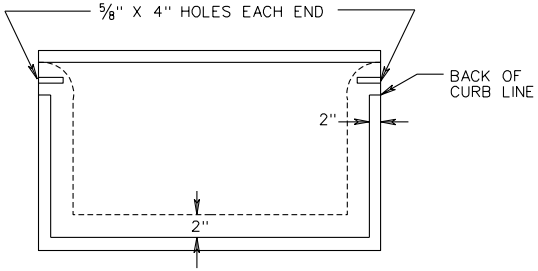
103.05

SPECIFICATION REFERENCE

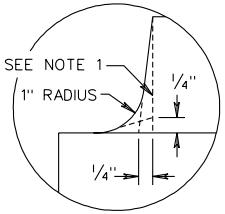
105
233
302



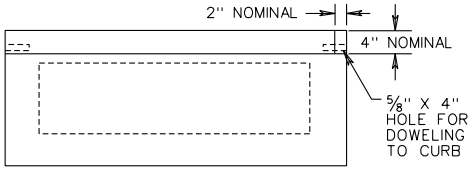
ISOMETRIC
CURB DROP INLET THROAT SECTION
ALTERNATE DESIGN



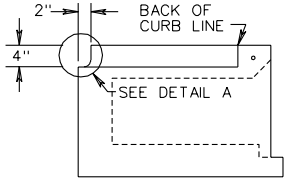
PLAN



DETAIL A



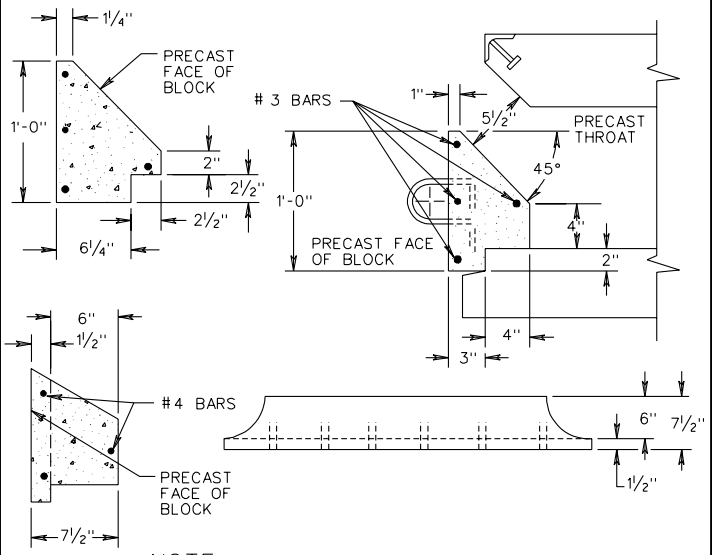
BACK VIEW



END VIEW

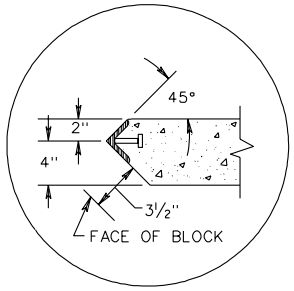
NOTES:

1. 2" x 4" NOTCH MAY BE FORMED WITH STRAIGHT SIDES, TAPERED SIDES OR TAPERED SIDES WITH RADIUS.
2. ALL DETAILS NOT SHOWN TO BE IN ACCORDANCE WITH SHEET 1 OF 2.



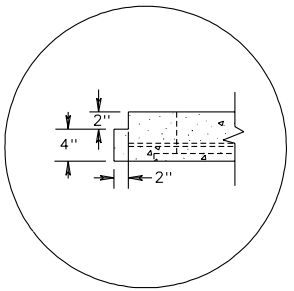
NOTE:
DOWEL HOLES PROVIDED TO PREVENT SETTLEMENT OF ADJECENT CONCRETE.

ALTERNATE DETAIL FOR FACE BLOCK
(NOSE TYPE B)



ALTERNATE
NOSE
DETAIL A

(FOR USE WITH MOUNTABLE CURB)



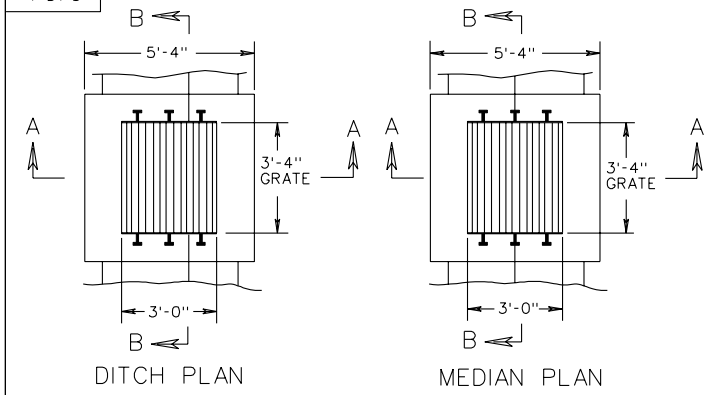
ALTERNATE
DETAIL B

SPECIFICATION REFERENCE
105
233
302

STANDARD PRECAST TOP UNITS

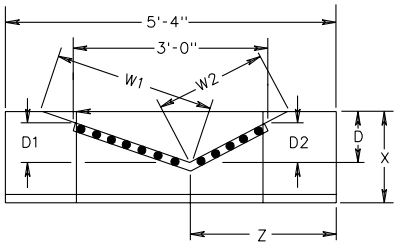
VIRGINIA DEPARTMENT OF TRANSPORTATION

T-D1-5

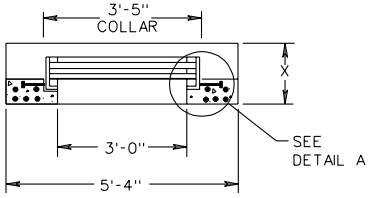


DITCH PLAN

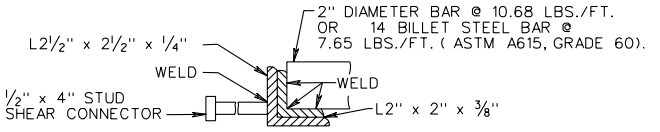
MEDIAN PLAN



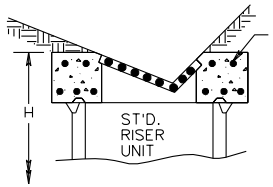
SECTION A-A



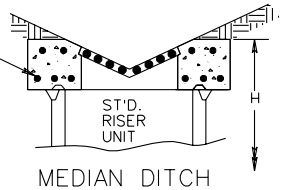
SECTION B-B



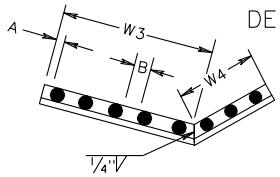
DETAIL A



DITCH LINE SECTION

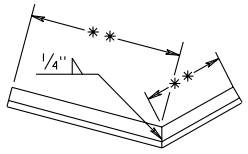


MEDIAN DITCH SECTION

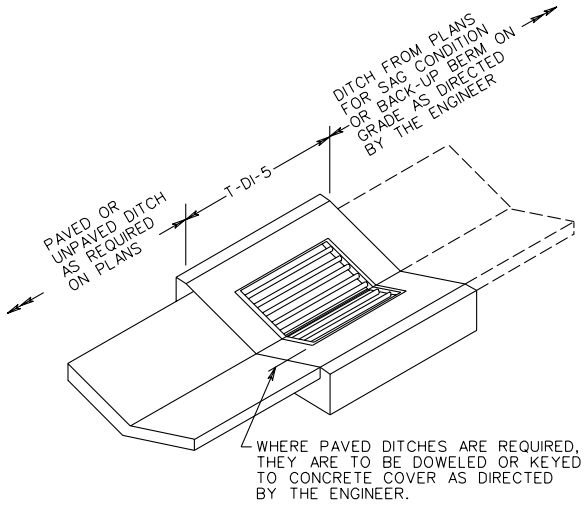


GRATE (GALVANIZED)

** COLLAR DIMENSIONS TO BE ¼" BE LARGER THAN GRATE DIMENSIONS W3 AND W4.



COLLAR (GALVANIZED)



GRATE BAR SPACING CHART		
GRATE TYPE	MAXIMUM DIMENSION	
	a	b
A I	1½"	3"
A III	1"	1"

* TOLERANCE ½" ±

ST'D PG-2A TYPE	COVER DIMENSIONS AND QUANTITIES								
	W1	W2	W3	W4	D*	D1	D2	X	Z
A1,A2,A3	3'-0½"	2'-0 1/16"	2'-0 5/16"	1'-0⅜"	6"	4"	3"	14"	2'-2"
B1,B2,B3,B4, C1,C2,C3	2'-9"	2'-9"	1'-6 9/16"	1'-6 9/16"	8"	4½"	4½"	16"	2'-8"
E	2'-3"	2'-3"	1'-8 1/16"	1'-8 1/16"	12"	9"	9"	19"	2'-8"

NOTES:

1. SEE GENERAL NOTES-PRECAST FOR ADDITIONAL DETAILS.
2. CONCRETE SHALL BE 4000 PSI MINIMUM.
3. REINFORCING STEEL SHALL BE IN ACCORDANCE WITH ASTM-A 615.
4. CONCRETE COVER AND GRATE ARE TO BE FURNISHED AS A SINGLE UNIT.
5. DIMENSIONS SHOWN ARE MINIMUM. ACTUAL DIMENSIONS MAY VARY WITH MANUFACTURER.
6. GRATE BARS ARE TO BE INSTALLED SO THEY WILL BE ALIGNED PARALLEL TO THE DITCH FLOW.
7. WHERE DITCH SLOPES DO NOT MATCH THOSE OF INLET COVER, THE AREA ADJACENT TO THE INLET IS TO BE GRADED TO PROVIDE A SMOOTH TRANSITION.

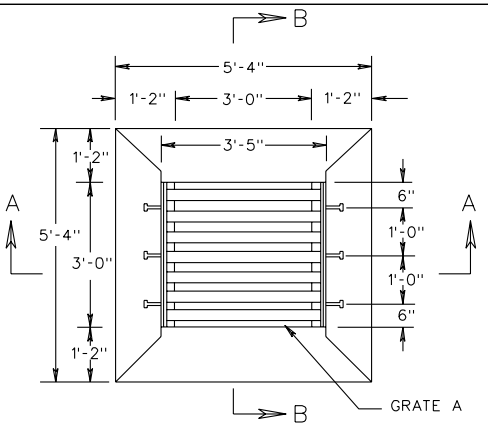
STANDARD PRECAST TOP UNITS

VIRGINIA DEPARTMENT OF TRANSPORTATION

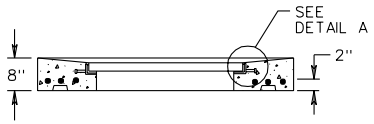
SPECIFICATION REFERENCE

105
233
302

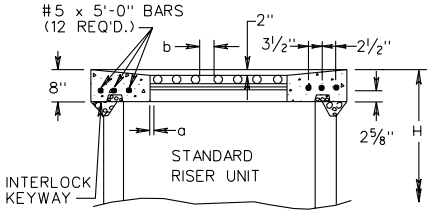
103.07



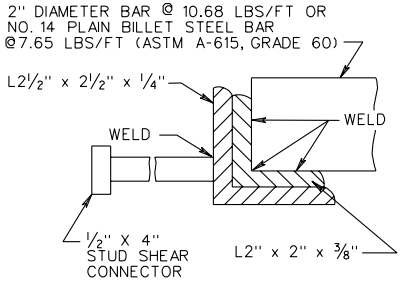
PLAN VIEW



SECTION A-A



SECTION B-B



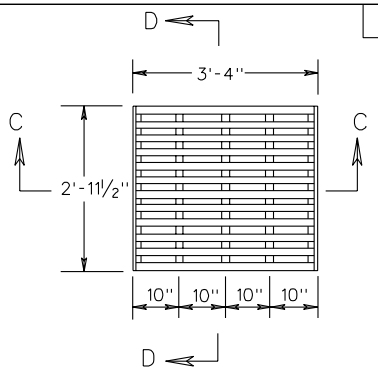
DETAIL A

NOTES:

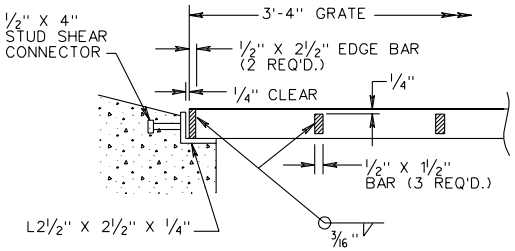
1. SEE GENERAL NOTES-PRECAST FOR ADDITIONAL DETAILS.
2. CONCRETE COVER AND GRATE ARE TO BE FURNISHED AS A SINGLE UNIT. OUTSIDE DIMENSIONS OF GRATE ARE TO BE 3'-4" X 2'-11¾" (GRATE A) OR 3'-4" X 2'-11½" (GRATE B).
3. DIMENSIONS SHOWN ARE MINIMUM. ACTUAL DIMENSIONS MAY VARY WITH MANUFACTURER.
4. GRATE A IS TO BE USED WHEN INLET IS LOCATED IN MEDIAN OR OTHER AREAS NOT NORMALLY SUBJECT TO TRAFFIC. GRATE B IS TO BE USED WHEN INLET IS LOCATED ON SHOULDERS OR OTHER AREAS SUBJECT TO TRAFFIC.
5. ALTERNATE METHODS OF ANCHORING ANGLE IRON WILL BE ACCEPTABLE IF APPROVED BY THE ENGINEER.
6. GRATE AND COLLAR ARE TO BE GALVANIZED AFTER FABRICATION.
7. JOINTS BETWEEN CONCRETE COVER AND GUTTERS (WHEN REQUIRED) ARE TO BE DOWELED, KEYED, OR OTHER VDOT APPROVED METHODS.
8. CONCRETE SHALL BE 4000 PSI MINIMUM.
9. REINFORCING STEEL SHALL BE IN ACCORDANCE WITH ASTM A-615.
10. GRATE BARS ARE TO BE INSTALLED SO THEY WILL BE ALIGNED PARALLEL TO THE DITCH FLOW.
11. SEE STANDARD DI-7, 7A, 7B FOR DETAILS OF GUTTER, METHOD OF PLACEMENT, ALTERNATE METHODS OF CONSTRUCTION.

DETAILS OF CONCRETE COVER AND GRATE A

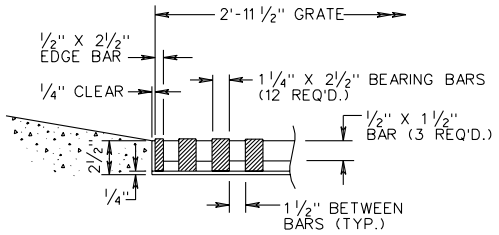
GRATE A BAR SPACING CHART		
GRATE TYPE	MAXIMUM DIMENSION	
	a	b
A I	1½"	3"
A III	1"	1"



GRATE B



PARTIAL SECTION C-C



PARTIAL SECTION D-D

NOTES:

1. GRATE B IS TO BE USED WHEN INLET IS LOCATED ON SHOULDERS OR OTHER AREAS SUBJECT TO TRAFFIC.

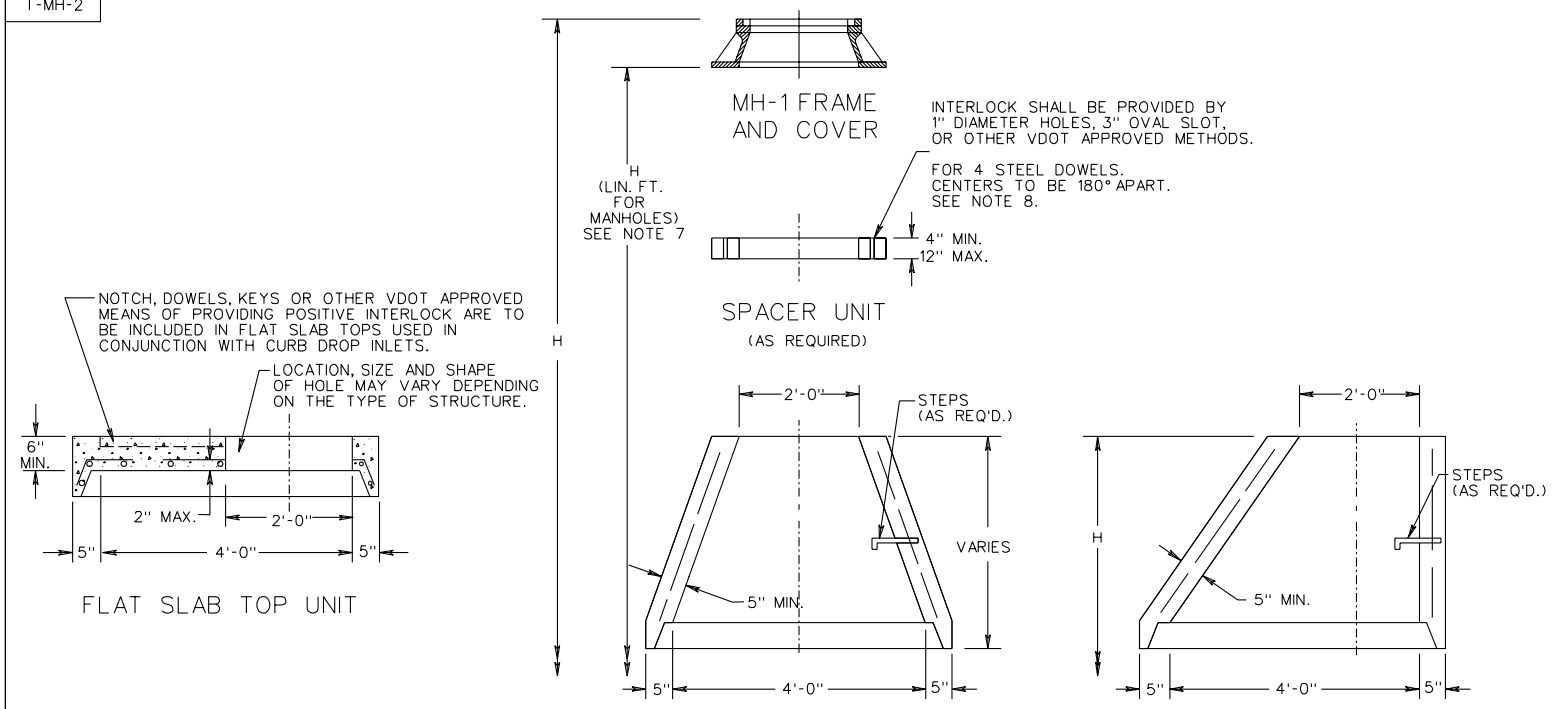
DETAILS OF LOAD CARRYING GRATE B

SPECIFICATION REFERENCE
105 233 302

STANDARD PRECAST TOP UNITS

VIRGINIA DEPARTMENT OF TRANSPORTATION

T-MH-2



NOTES:

1. SEE GENERAL NOTES FOR ADDITIONAL INFORMATION ON WEEP HOLES, STEP REQUIREMENTS, "H" (LIN. FT. FOR MANHOLES) DIMENSION, ETC.
2. ALL SPACER UNITS, FLAT SLAB TOPS, AND TAPER UNITS ARE TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF AASHTO M199.
3. CONCRETE SHALL BE 4000 PSI.
4. FOR STEP DETAILS SEE STANDARD ST-1.
5. DIMENSIONS SHOWN ARE MINIMUM. ACTUAL DIMENSIONS MAY VARY WITH MANUFACTURER.
6. SPACER UNITS SHOWN HEREON ARE ALSO KNOWN AS "GRADE RINGS" OR ADJUSTMENT RINGS".
7. WHEN SPACER UNITS ARE REQUIRED, "H" IS TO BE MEASURED FROM THE TOP OF THE UPPERMOST SPACER.
8. SPACER UNIT IS TO BE DOWELED OR MORTARED TO TAPER UNIT OR FLAT SLAB TOP.

STANDARD PRECAST MANHOLE TOP UNITS

VIRGINIA DEPARTMENT OF TRANSPORTATION

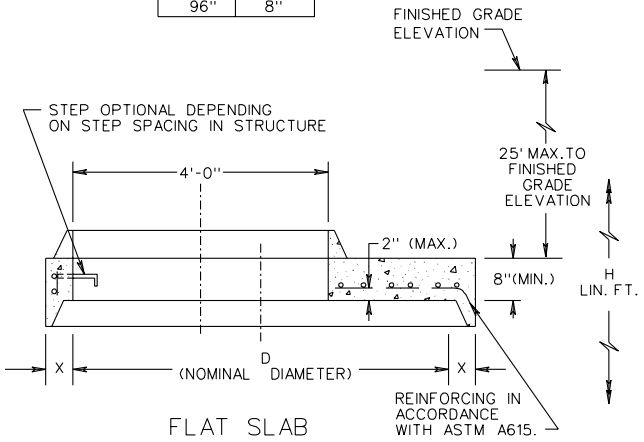
SPECIFICATION REFERENCE

105
302

103.09

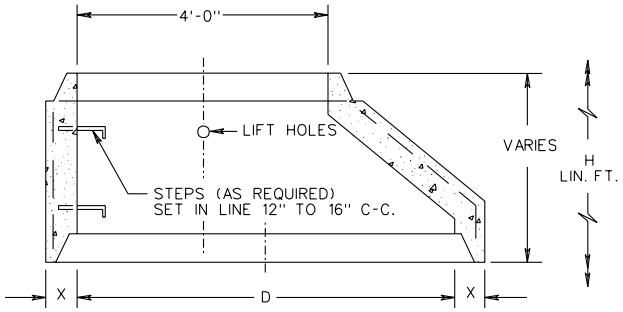
R-1,2,3

DIMENSIONS	
D	MIN. X
60"	5"
72"	6"
84"	7"
96"	8"



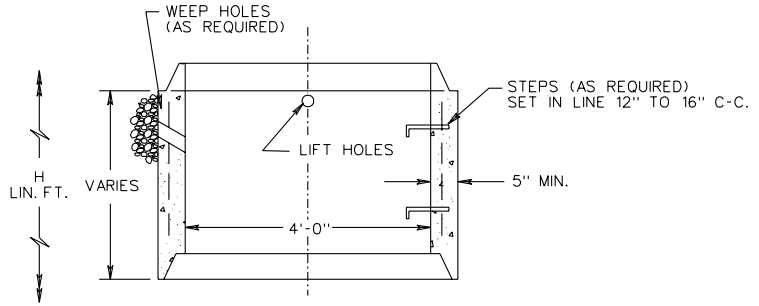
FLAT SLAB

R-2



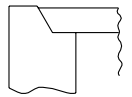
TAPER REDUCER

R-3



RISER

R-1



ALTERNATE JOINT DETAIL

NOTES:

1. SEE GENERAL NOTES FOR ADDITIONAL INFORMATION ON WEEP HOLES, STEP REQUIREMENTS, "H" (LIN. FT. FOR MANHOLES) DIMENSIONS, ETC.
2. ALL REDUCER AND RISER UNITS ARE TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF AASHTO M199.
3. CONCRETE SHALL BE 4000 PSI.
4. WHERE OPENINGS ARE REQUIRED FOR PIPE, THEY SHALL BE FORMED, DRILLED, OR NEATLY CUT AS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH THE FABRICATOR WITH THE ANGLES BETWEEN CENTER LINES, THE INVERT ELEVATIONS, AND THE SIZE OF ALL PIPES TO ENTER THE MANHOLE.
5. FOR STEP DETAILS SEE STANDARD ST-1.
6. DIMENSIONS SHOWN ARE MINIMUM. ACTUAL DIMENSIONS MAY VARY WITH MANUFACTURER.
7. "D" IS NOMINAL DIAMETER.
8. WHEN USING R-2 FLAT SLAB, HEIGHT OF STRUCTURE FROM THE SLAB UP TO THE FINISHED GRADE ELEVATION IS LIMITED TO A MAXIMUM OF 25'.
9. TONGUE AND GROOVE JOINT TO BE OF FABRICATOR'S DESIGN MEETING THE APPROVAL OF THE ENGINEER. JOINTS ARE TO BE SEALED WITH MORTAR, O-RING GASKETS, OR BUTYL RUBBER.

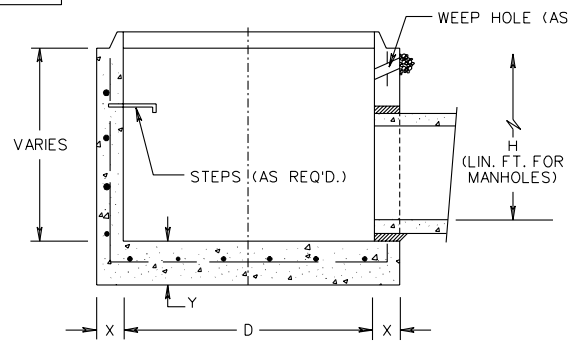
SPECIFICATION REFERENCE
105 302

STANDARD PRECAST REDUCER AND RISER UNITS

VIRGINIA DEPARTMENT OF TRANSPORTATION

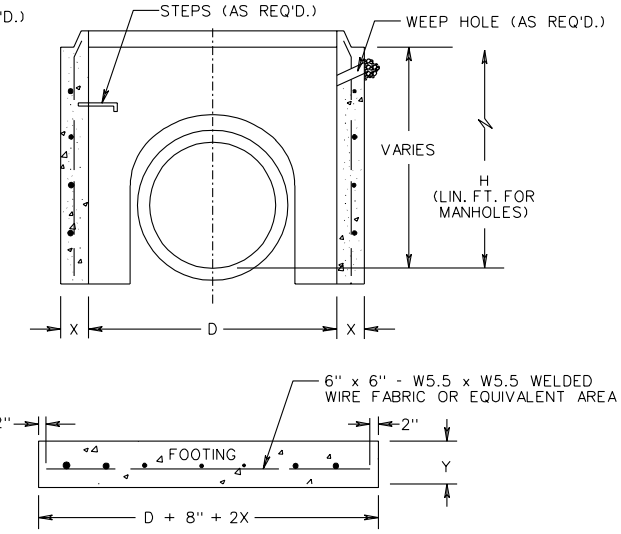
103.10

B-1,B-2



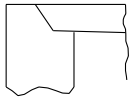
B-1

MONOLITHIC



B-2

DOGHOUSE WITH FOOTING



ALTERNATE JOINT DETAIL

NOTES:

1. SEE GENERAL NOTES FOR ADDITIONAL INFORMATION ON WEEP HOLES, STEP REQUIREMENTS, "H" (LIN. FT. FOR MANHOLES) DIMENSIONS, ETC.
2. ALL BASE UNITS ARE TO BE IN ACCORDANCE WITH THE REQUIREMENTS OF AASHTO M199.
3. CONCRETE SHALL BE 4000 PSI.
4. WHERE OPENINGS ARE REQUIRED FOR PIPE, THEY SHALL BE FORMED, DRILLED, OR NEATLY CUT AS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL FURNISH THE FABRICATOR WITH THE ANGLES BETWEEN CENTER LINES, THE INVERT ELEVATIONS, AND THE SIZE OF ALL PIPES TO ENTER THE MANHOLE. HOLES ARE TO BE A MINIMUM OF 4" TO A MAXIMUM OF 8" LARGER THAN THE OUTSIDE DIAMETER OF THE PROPOSED PIPE.
5. DIMENSIONS SHOWN ARE MINIMUM. ACTUAL DIMENSIONS MAY VARY WITH MANUFACTURER.
6. "D" IS NOMINAL DIAMETER.
7. IN THE EVENT THE INVERT OF THE OUTFALL PIPE IS HIGHER THAN THE BOTTOM OF THE STRUCTURE, THE INVERT OF THE STRUCTURE SHALL BE SHAPED WITH CEMENT MORTAR TO PREVENT STANDING OR PONDING OF WATER IN THE STRUCTURE.
8. TONGUE AND GROOVE JOINT ARE TO BE OF FABRICATOR'S DESIGN MEETING VDOT APPROVAL. JOINTS ARE TO BE SEALED WITH MORTAR, O-RING GASKETS, OR BUTYL RUBBER.

DIMENSIONS

D	X MINIMUM	Y MINIMUM	SUGGESTED MAX. PIPE SIZE	ABSOLUTE MAXIMUM ☆
✳ 36"	4"	6"	18"	21"
48"	5"	6"	24"	27"
60"	5"	8"	36"	42"
72"	6"	8"	48"	54"
84"	7"	8"	60"	66"
96"	8"	8"	66"	72"

✳ DEPTH "H" OF 36" DIAMETER BASE UNIT RESTRICTED TO 4'-0" MAXIMUM.

☆ ONE THROUGH PIPE ONLY. (ONE PIPE ENTERING AND ONE PIPE EXITING STRUCTURE)

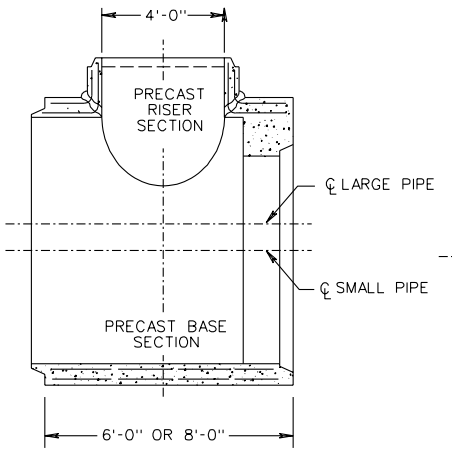
STANDARD PRECAST BASE UNITS

VIRGINIA DEPARTMENT OF TRANSPORTATION

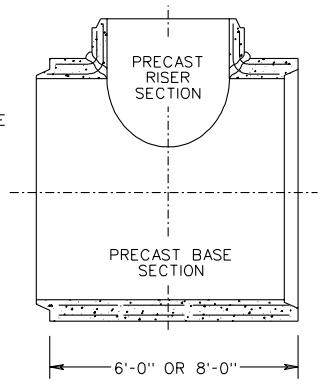
SPECIFICATION REFERENCE

105
302

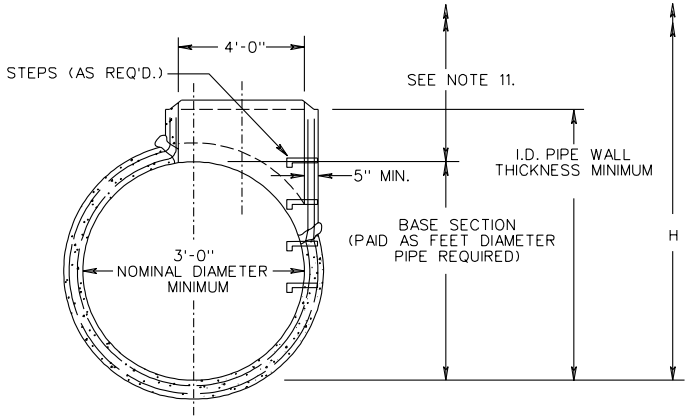
103.11



REDUCER SECTION



LONGITUDINAL SECTION



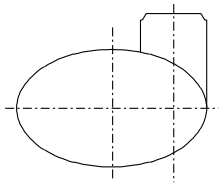
TRANSVERSE SECTION

TEE SECTION

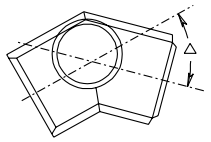
NOTES:

1. SEE GENERAL NOTES FOR ADDITIONAL INFORMATION ON WEEP HOLES, STEP REQUIREMENTS, "H" DIMENSION, ETC.
2. THE TEE UNIT IS TO BE PRECAST FOR DELIVERY TO THE CONSTRUCTION SITE AS A COMPLETE UNIT. ALTERNATE DESIGNS MEETING THE APPROVAL OF THE ENGINEER MAY BE SUBSTITUTED FOR THAT SHOWN HEREON.
3. THE PRECAST BASE SECTION IS TO CONFORM TO THE REQUIREMENTS OF AASHTO M170.
4. THE PRECAST RISER SECTION IS TO CONFORM TO THE REQUIREMENTS OF AASHTO M199, EXCEPT THAT MINIMUM WALL THICKNESS IS TO BE 5".
5. THE BASE SECTION IS TO BE THE SAME CLASS AND STRENGTH AS THE ADJOINING PIPE CULVERT AND THE TONGUE AND GROOVE JOINTS ARE TO BE OF AN IDENTICAL DESIGN.
6. CONCENTRIC RISER SECTION MAY BE SUBSTITUTED WHEN APPROVED BY THE ENGINEER.
7. OTHER MANUFACTURER'S DESIGNS FOR REDUCER SECTION MAY BE SUBSTITUTED WHEN APPROVED BY THE ENGINEER.
8. REDUCER SECTIONS WITH PIPE CROWNS OR CENTER LINES MATCHED ARE AVAILABLE IN ADDITION TO THE MATCHED INVERTS SHOWN HEREON.
9. WELD AND SPLICE LONGITUDINAL AND CIRCUMFERENTIAL STEEL OF RISER AND BASE SECTIONS TO MAINTAIN CONTINUITY OF REINFORCEMENT.
10. HAND OR PNEUMATICALLY PLACE MORTAR AND SHAPE INTO COLLAR.
11. RISER SECTION PAID AS STANDARD DROP INLET OR LIN. FT. MANHOLE DEPENDING ON USE OF STRUCTURE.

OPTIONAL VARIATIONS AVAILABLE WHEN SPECIFIED AS A MODIFIED B-3



SECTION
ELLIPTICAL TEE MANHOLE



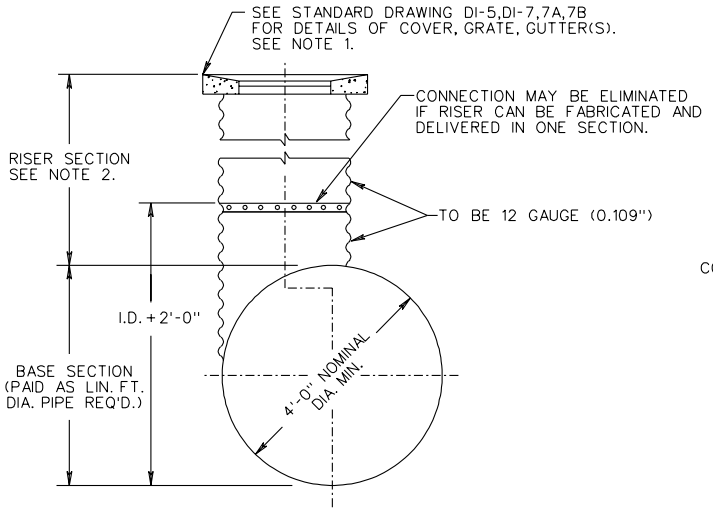
MAX. △ 90°
THRU 72" PIPE

PLAN
MANHOLE TEE BEND

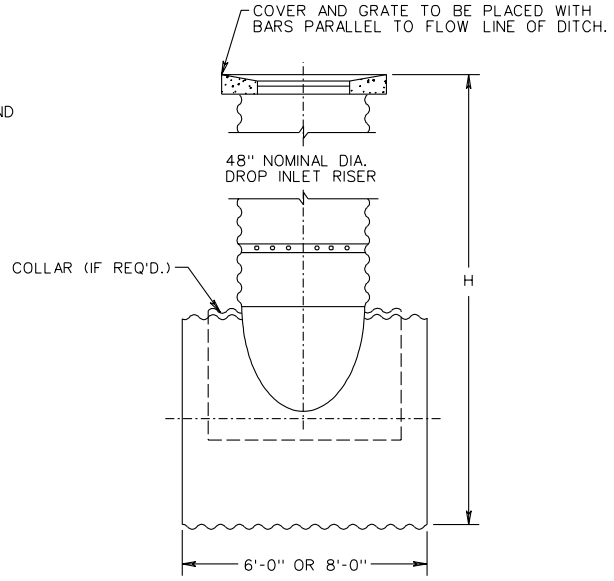
SPECIFICATION REFERENCE
105 302

STANDARD PRECAST BASE UNITS
MAX. DEPTH (H) 25'

VIRGINIA DEPARTMENT OF TRANSPORTATION



TRANSVERSE SECTION



LONGITUDINAL SECTION

NOTES:

1. OTHER STANDARD GRATES OR DROP INLET THROAT SECTIONS MAY BE SUBSTITUTED WHEN SPECIFIED ON PLANS.
2. RISER SECTION PAID AS STANDARD DROP INLET OR LIN. FT. OF MANHOLE DEPENDING ON USE OF STRUCTURE.
3. THE TEE UNIT IS TO BE FABRICATED FOR DELIVERY TO THE CONSTRUCTION SITE AS A COMPLETE UNIT. ACTUAL DESIGN DETAILS AND METHODS OF CONSTRUCTION WILL BE AT THE OPTION OF THE FABRICATOR AND MEETING THE APPROVAL OF THE ENGINEER, EXCEPT THE SHEET THICKNESS CORRUGATION, AND SPECIFICATIONS TO BE MET WILL BE THE SAME AS THOSE REQUIRED FOR THE ADJOINING PIPE CULVERT. IF ASPHALT COATING IS SPECIFIED FOR THE CULVERT, THE TEE UNIT SHALL ALSO BE COATED.
4. WHEN REQUIRED, CONNECTION BETWEEN DROP INLET RISER AND TEE UNIT MAY BE BOLTED OR RIVETED.

CORRUGATED METAL TEE SECTION
MAX. DEPTH (H) 25'

VIRGINIA DEPARTMENT OF TRANSPORTATION

SPECIFICATION REFERENCE

302