EXISTING AS-BUILT BMP INFORMATION

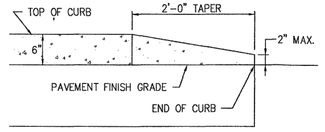
	BMP #1
BMP TYPE	EXT. DET. POND
LEVEL OF TREATMENT (LEVEL 1 OR LEVEL 2)	--
TECHNICAL REQUIREMENTS MET (PART IIB OR IIC)	IIC
TOTAL AREA TREATED (AC)	81.30
IMPERVIOUS AREA TREATED BY BMP (AC)	16.13
MANAGED TURF AREA TREATED BY BMP (AC)	45.03
OPEN SPACE / FOREST AREA TREATED BY BMP (AC)	20.14
SURFACE AREA OF BMP (AC)	0.592
STORAGE VOLUME OF BMP (AC-FT)	3.976
MAXIMUM AVERAGE DEPTH (FT)	7'
QUALITY, QUANTITY, OR BOTH?	BOTH
TMDL ADDRESSED? (PHOSOPHORUS, BACTERIA, SEDIMENT, ETC)	PHOSPHORUS
LATITUDE (DECIMAL DEGREES XX.XXXX)	37.2736
LONGITUDE (DECIMAL DEGREES -XX.XXXX)	-80.0869
NAME OF RECEIVING WATER	ROANOKE RIVER-SAWMILL HOLLOW
HYDROLOGIC UNIT CODE FOR PROJECT SITE (ALPHANUMERIC CODE RU14, ETC)	RU09

STORMWATER SITE STATISTICS

	EXISTING	PROPOSED
TOTAL DISTURBED AREA (AC)	---	4.20
TOTAL SITE AREA (AC)	4.20	4.20
IMPERVIOUS AREA (AC)	0.00	1.48
MANAGED TURF AREA (AC)	4.20	2.72
OPEN SPACE / FOREST AREA (AC)	0.00	0.00
RIGHT OF WAY DISTURBANCE (SF)	---	
KARST PRESENT (Y/N)	UNDETERMINED	UNDETERMINED

NOTE:
FOR AN EXCAVATED SUBGRADE: THE SUBGRADE AREA SHALL BE SCARIFIED TO A DEPTH OF 6 INCHES FOR A DISTANCE OF 2 FEET BEYOND THE PROPOSED EDGES OF THE PAVEMENT ON EACH SIDE. SUBGRADE MATERIAL SHALL BE COMPACTED AT OPTIMUM MOISTURE (±20%) TO THE REQUIREMENTS SET FORTH BY SEC. 305.03 OF THE VDOT ROAD AND BRIDGE SPECIFICATIONS

FOR AN IMPORTED SUBGRADE: THE TOP 6 INCHES OF THE FINISHED SUBGRADE SHALL BE COMPACTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE ABOVE PROVISIONS.



CURB TAPER DETAIL – SECTION

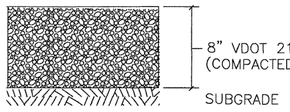
NO SCALE

NOTE:
THE PRELIMINARY PAVEMENT DESIGNS SHOWN ARE BASED ON A PREDICTED SUBGRADE CBR VALUE OF 7.0 AND A RESILIENCY FACTOR (RF) OF 2.0 AS SHOWN IN APPENDIX I OF THE "2000 VIRGINIA DEPARTMENT OF TRANSPORTATION PAVEMENT DESIGN GUIDE FOR SUBDIVISION AND SECONDARY ROADS". THE SUBGRADE SOIL IS TO BE TESTED BY AN INDEPENDENT LABORATORY AND THE RESULTS SUBMITTED TO THE VIRGINIA DEPARTMENT OF TRANSPORTATION PRIOR TO BASE CONSTRUCTION. SHOULD THE SUBGRADE CBR VALUE AND/OR THE RF VALUE BE LESS THAN THE PREDICTED VALUES, VDOT MAY REQUIRE AN INCREASE IN THE STRUCTURE BASED ON THE ACTUAL RESULTS. REFER TO THE SAME MANUAL FOR THE NUMBER AND LOCATIONS OF THE REQUIRED SOIL SAMPLES TO BE TESTED. ALL PAVEMENT DESIGNS SHALL BE SUBMITTED TO THE DEPARTMENT FOR REVIEW AND APPROVAL.

THE SUBGRADE SHALL BE APPROVED BY VDOT PRIOR TO PLACEMENT OF THE BASE. BASE SHALL BE APPROVED BY VDOT FOR DEPTH, TEMPLATE AND COMPACTION BEFORE SURFACE IS APPLIED. THE SUBBASE WILL NOT BE INSPECTED BY VDOT PRIOR TO RECEIVING THE CBR TESTS AND SOIL CLASSIFICATIONS. CONTACT VDOT SEVEN (7) DAYS PRIOR TO SCHEDULING PLACEMENT OF AGGREGATE BASE COURSE(S) FOR AN INSPECTION.

DEVELOPER SHALL REFER TO THE VDOT LAND DEVELOPMENT INSPECTION AND DOCUMENTATION MANUAL, APPENDICES A AND C, FOR DEVELOPER RESPONSIBILITIES FROM PRE-CONSTRUCTION THROUGH VDOT STREET ACCEPTANCE.

VDOT BACKFILLING AND COMPACTION:
1.) BACKFILL MATERIAL SHALL BE VDOT NO. 21A AGGREGATE, PLACED IN LOOSE LIFTS NOT EXCEEDING 6", AND COMPACTED TO AT LEAST 95% MAXIMUM DRY DENSITY WITHIN 2 PERCENTAGE POINTS OF OPTIMUM MOISTURE (VTM-1) WITH THE USE OF MECHANICAL TAMPERS OR VIBRATORY ROLLERS. WATER COMPACTION IS NOT PERMITTED. LOCAL MATERIAL CLASSIFIED AS TYPE I SELECT MATERIAL MAY BE USED AS BACKFILL UPON PRIOR APPROVAL BY THE COUNTY ENGINEER. MATERIAL CLASSIFICATION SHALL BE PERFORMED ON THE ACTUAL SOIL TO VERIFY THAT SOIL MEETS VDOT SPECIFICATIONS FOR TYPE I SELECT MATERIAL BY A QUALIFIED TESTING LABORATORY AND TEST RESULTS SHALL BE CERTIFIED BY A VIRGINIA REGISTERED PROFESSIONAL ENGINEER. DENSITY REQUIREMENTS ARE THE SAME AS ABOVE, HOWEVER, MOISTURE CONTENT FOR SOILS MAY BE WITHIN 20% OF OPTIMUM.
2.) DENSITY AND MOISTURE TESTING IS REQUIRED ON BOTH THE AGGREGATE AND SOIL BACKFILL USED IN ANY TRENCHWORK. ALL TESTING SHALL BE PERFORMED AND CERTIFIED BY A GEOTECHNICAL ENGINEER OR A VDOT CERTIFIED TECHNICIAN. RESULTS SHALL BE PROVIDED TO THE INSPECTOR WITHIN 24-HOURS OF TESTING COMPLETION. THE COST OF ALL TESTING IS THE SOLE RESPONSIBILITY OF THE PERMITTEE. THE PERMITTEE SHALL SUBMIT WRITTEN TEST RESULTS TO THE INSPECTOR'S OFFICE.
3.) FIELD DENSITY TESTING METHODS SHALL BE APPROVED BY THE COUNTY ENGINEER PRIOR TO PERFORMING ANY TESTING. A PERMITTEE THAT PERFORMS MORE THAN TEN (10) EXCAVATIONS A MONTH UNDER THESE STANDARDS MAY SUBMIT A WRITTEN QUALITY CONTROL PLAN TO REDUCE THE NUMBER OF REQUIRED FIELD DENSITY TESTS. THE QUALITY CONTROL PLAN MUST INCLUDE THE EXCLUSIVE USE OF A VDOT-CERTIFIED AGGREGATE. THE QUALITY CONTROL PLAN SHALL BE SUBMITTED TO THE COUNTY ENGINEER FOR REVIEW AND APPROVAL.
4.) FLOWABLE FILL MAY BE USED AS AN ALTERNATE TO AGGREGATE OR SELECT MATERIAL. FLOWABLE FILL SHALL MEET THE REQUIREMENTS OF VDOT SPECIAL PROVISIONS FOR FLOWABLE BACKFILL. THE MATERIAL MUST BE PLANT-CERTIFIED TO PROVIDE A 28-DAY COMPRESSIVE STRENGTH BETWEEN 30 AND 200 PSI. A CERTIFICATE OF MIX DESIGN MUST BE SUBMITTED TO THE INSPECTOR PRIOR TO PLACING THE MATERIAL IN THE TRENCH. A MINIMUM OF FOUR 6 X 12 TEST CYLINDERS SHALL BE TAKEN EVERY 50 CY OF PLACEMENT. CYLINDERS SHALL BE TESTED BY A QUALIFIED TESTING LABORATORY FOR 28-DAY STRENGTH. RESULTS SHALL BE PROVIDED TO THE INSPECTOR'S OFFICE WITHIN 24 HOURS OF TESTING COMPLETION. THE COST OF ALL TESTING IS THE RESPONSIBILITY OF THE PERMITTEE. IF THE REPORT INDICATED THE COMPRESSIVE STRENGTHS ARE NOT BETWEEN 30 AND 200 PSI, THE PERMITTEE WILL BE RESPONSIBLE FOR REMOVING AND REPLACING THE BACKFILL WITH ACCEPTABLE BACKFILL AND COMPLETING THE RESTORATION OF THE STREET AT NO COST TO THE COUNTY.



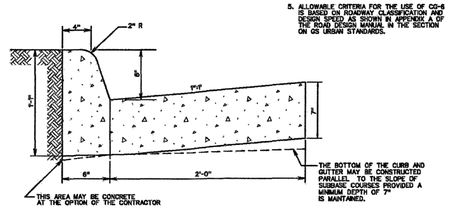
STANDARD GRAVEL PAVEMENT SECTION

NO SCALE

1. 8" STONE BASE MUST BE PLACED IN TWO LIFTS OF NO MORE THAN 4" EACH.
2. G.C. TO ENSURE A MINIMUM OF 95% COMPACATION OF THE SUBGRADE.

CG-6

NOTES:
1. THIS ITEM MAY BE PRECAST OR CAST IN PLACE.
2. CONCRETE TO BE CLASS A3 IF CAST IN PLACE, 4000 PSI IF PRECAST.
3. COMBINATION CURB & GUTTER HAVING A RADIUS OF 300 FEET OR LESS (ALONG FACE OF CURB) SHALL BE RAD FOR AS RADIAL COMBINATION CURB & GUTTER.
4. FOR USE WITH STABILIZED OPEN-GRADED DRAINAGE LAYER, THE BOTTOM OF THE CURB & GUTTER SHALL BE CONSTRUCTED PARALLEL TO THE SLOPE OF THE BITUMINOUS COURSES AND TO THE DEPTH OF THE PAVEMENT.
5. ALLOWABLE CRITERIA FOR THE USE OF CG-6 IS BASED ON ROADWAY CLASSIFICATION AND DESIGN SPEED, AS SHOWN IN APPENDIX A OF THE ROAD DESIGN MANUAL IN THE SECTION ON GS URBAN STANDARDS.

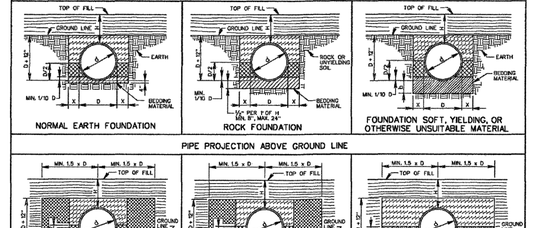


SPECIFICATION REFERENCE	COMBINATION 6" CURB AND GUTTER	VDOT ROAD AND BRIDGE STANDARDS
105 502	VIRGINIA DEPARTMENT OF TRANSPORTATION	REVISION DATE: 201.03 — SHEET 1 OF 1

2016 ROAD & BRIDGE STANDARDS

PB-1

NO PROJECTION OF PIPE ABOVE GROUND LINE



PIPE PROJECTION ABOVE GROUND LINE

BEDDING MATERIAL IN ACCORDANCE WITH SECTION 302 OF THE ROAD AND BRIDGE SPECIFICATIONS.
FOR PLASTIC PIPE CLASS 2 BACKFILL MATERIAL IN ACCORDANCE WITH SECTION 302 OF THE ROAD AND BRIDGE SPECIFICATIONS.
FOR ALL OTHER PIPE REGULAR BACKFILL MATERIAL IN ACCORDANCE WITH SECTION 302 OF THE ROAD AND BRIDGE SPECIFICATIONS.
EMBANKMENT
REGULAR BACKFILL MATERIAL IN ACCORDANCE WITH SECTION 302 OF THE ROAD AND BRIDGE SPECIFICATIONS.

NOTES:
FOR GENERAL NOTES ON PIPE BEDDING, SEE INSTALLATION OF PIPE CULVERTS AND STORM SEWERS GENERAL NOTES ON SHEET 107.06.
CRUSHED GLASS CONFORMING TO THE SIZE REQUIREMENTS FOR CRUSHER RUN AGGREGATE SIZE 23, AND 26 MAY BE USED IN PLACE OF CLASS 2 BACKFILL.

VDOT ROAD AND BRIDGE STANDARDS	INSTALL. OF PIPE CULVERTS AND STORM SEWERS CIRC. PIPE BEDDING AND BACKFILL - METHOD "A"	SPECIFICATION REFERENCE
SHEET 1 OF 4 — REVISION DATE: 07/12	VIRGINIA DEPARTMENT OF TRANSPORTATION	302 303

2016 ROAD & BRIDGE STANDARDS

** NOTE: #57 AGGREGATE IS NOT AN ALLOWABLE BACKFILL OR PIPE BEDDING MATERIAL **

MAINTENANCE OF TRAFFIC NOTES:

GENERAL NOTES:

1: PROJECT CATEGORY (MINIMUM TMP REQUIREMENTS):
A: THIS WILL BE A CATEGORY 1 PROJECT (MINIMAL LEVEL OF CONSTRUCTION)
I. THIS WILL BE PERMITTED WORK.
II. THIS PROJECT WILL INVOLVE TRAFFIC CONTROL DEVICES AND A LANE CLOSURE TO ENSURE SAFE TRAVEL AROUND THE WORK ZONE.

2: SIGNS AND OTHER TRAFFIC CONTROL MEASURES ARE SHOWN GRAPHICALLY FOR INFORMATIONAL PURPOSES ONLY AND ARE NOT SHOWN IN ACTUAL LOCATIONS. G.C. SHALL BE RESPONSIBLE FOR ENSURING THAT ALL SIGNAGE IS PLACED THE CORRECT DISTANCE BEFORE OR AFTER THE WORK ZONE AS SHOWN IN THE WORK AREA PROTECTION MANUAL (LATEST ADDITION) AND AS DICTATED BY THE SPECIFIC SITE. ALL SIGN LOCATIONS SHALL BE COORDINATED WITH VDOT.

3: IF TRAFFIC CONTROL MEASURES ARE NECESSARY, THE G.C. SHALL PROVIDE VDOT WITH A COMPLETE MAINTENANCE OF TRAFFIC PLAN PRIOR TO COMMENCEMENT OF WORK WITHIN THE EXISTING RIGHT-OF-WAY AND THE G.C. SHALL ULTIMATELY BE RESPONSIBLE FOR ENSURING SAFE TRAVEL AROUND ALL WORK AREAS.

4: PUBLIC COMMUNICATION PLAN
A. ROANOKE COUNTY
1. SALEM TRAFFIC OPERATIONS CENTER (540) 375-0170*
*THE TOC SHALL BE NOTIFIED OF PROPOSED LANE CLOSURES AT THE BEGINNING AND END OF EACH WORK DAY.
2. ROANOKE COUNTY POLICE (540) 777-8601
3. ROANOKE COUNTY FIRE & RESCUE (540) 777-8701
4. ROANOKE COUNTY COMMUNICATION CENTER (540) 562-3265
5. ROANOKE COUNTY SCHOOLS – DR. LORRAINE LANGE (540) 562-3900
6. ROANOKE COUNTY BOARD OF SUPERVISORS ADMINISTRATOR OFFICE (540) 772-2003
7. VIRGINIA STATE POLICE (540) 375-9500

TRAFFIC CONTROL NOTES:

1: THE G.C. SHALL COORDINATE DIRECTLY WITH VDOT TO DETERMINE IF MAINTENANCE OF TRAFFIC MEASURES ARE NECESSARY FOR THE PROJECT. THESE TRAFFIC CONTROL NOTES SHALL APPLY FOR ANY MAINTENANCE OF TRAFFIC. ALL WORK TO BE PERFORMED IN ACCORDANCE WITH THE MOST CURRENT EDITION OF THE VIRGINIA WORK AREA PROTECTION MANUAL.

2: G.C. SHALL CONTACT THE VDOT REPRESENTATIVE IN WRITING WITH A WORK SCHEDULE TWO WEEKS BEFORE STARTING WORK. THE VDOT REPRESENTATIVE WILL DETERMINE IF POLICE PATROL IS NECESSARY FOR TRAFFIC CONTROL.

3: THE CONTRACTOR SHALL COORDINATE THE SEQUENCE OF CONSTRUCTION WITH VDOT.

4: TRAFFIC CONTROL DEVICES/SIGNAGE SHALL BE PROVIDED ALONG MILLWHEEL DRIVE AND RUSSLEN DRIVE AS NECESSARY. SPACING MAY BE ADJUSTED TO FIT FIELD CONDITIONS WITH VDOT APPROVAL.

5: ANY PAVEMENT MARKINGS CONFLICTING WITH TRAFFIC PATTERNS SHALL BE ERADICATED AND RE-STRIPED AS NECESSARY.

6: WHEN WORK IS NOT BEING PERFORMED, THE CLEAR ZONE OF THE ROADWAY SHALL BE FREE OF STORED MATERIALS AND PARKED EQUIPMENT.

7: ALL WORK IS TO BE PERFORMED IN ACCORDANCE WITH THE MUTCD (LATEST EDITION), THE VIRGINIA WORK AREA PROTECTION MANUAL (LATEST EDITION), AND AS DIRECTED BY VDOT AND SHALL COMPLY WITH ALL REGULATIONS PROVIDED IN THE ENTRANCE PERMIT.

8: THE SPEED LIMIT ON THESE ROADWAYS IS 25 MPH. ALL TAPER LENGTHS, BUFFER LENGTHS, AND CHANNELIZING SHALL BE BASED ON THIS SPEED.

9: NO WORK SHALL BE PERFORMED ON-SITE UNTIL AN ENTRANCE PERMIT HAS BEEN ISSUED FOR THE SUBJECT PROPERTY.

10: SAFE ACCESS TO ALL EXISTING PUBLIC ROADWAYS SHALL BE MAINTAINED AT ALL TIMES.

11: CHANNELIZING DEVICES SUCH AS CONES OR BARRELS SHALL BE UTILIZED WHERE REQUIRED AND FOLLOW THE WORK AREA PROTECTION MANUAL.

12: G.C. SHALL MAINTAIN ALL EXISTING ROADWAY SIGNAGE.

Typical Traffic Control
Shoulder Operation with Minor Encroachment
(Figure TTC-5.1)

NOTES

Standard

1. For required sign assemblies for multi-lane roads see Note 1, TTC-A1.

Guidance

2. *Sign spacing should be 1300'-1500' for Limited Access highways. For all other roadways, the sign spacing should be 500'-800' where the posted speed limit is greater than 45 mph, and 350'-500' where the posted speed limit is 45 mph or less.*
3. *When work takes up part of a lane on a high volume roadway; vehicular traffic volumes, vehicle mix, speed and capacity should be analyzed to determine whether the affected lane should be closed. Unless the lane encroachment analysis permits a remaining lane width of 10 feet, the lane should be closed. If the closure operation is on a Limited Access highway, the minimum lane width is 11 feet.*

Option:

4. The ROAD WORK AHEAD (W20-1) sign on an intersecting roadway may be omitted where drivers emerging from that roadway will encounter another advance warning sign prior to this activity area.

Standard:

5. **A shadow vehicle with either an arrow board operating in the caution mode, or at least one high-intensity amber rotating, flashing, oscillating light shall be parked 80' - 120' in advance of the first work crew.**
6. **Vehicle hazard warning signals shall not be used instead of the vehicle's high-intensity amber rotating, flashing, or oscillating lights. Vehicle hazard warning signals can be used to supplement high-intensity amber rotating, flashing, or oscillating lights.**
7. **Taper length (L) and channelizing device spacing shall be at the following:**

Taper Length (L)				
Speed Limit (mph)	Lane Width (Feet)			
	9	10	11	12
25	95	105	115	125
30	135	150	165	180
35	185	205	225	245
40	240	270	295	320
45	405	450	495	540
50	450	500	550	600
55	495	550	605	660
60	540	600	660	720
65	585	650	715	780
70	630	700	770	840
Minimum taper lengths for Limited Access highways shall be 1000 feet.				
Shoulder Taper = ½ L Minimum				

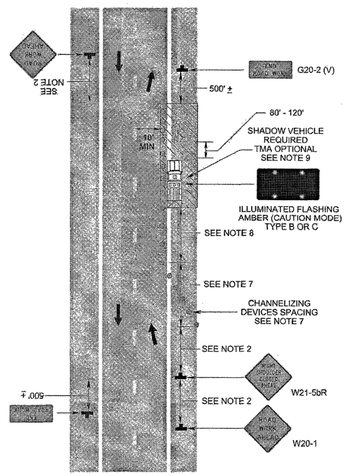
Channelizing Device Spacing		
Location	Speed Limit (mph)	
	0 - 35	36 +
Transition Spacing	20'	40'
Travelway Spacing	40'	80'
Construction Access*	80'	120'
* Spacing may be increased to this distance, but shall not exceed one access per ¼ mile.		

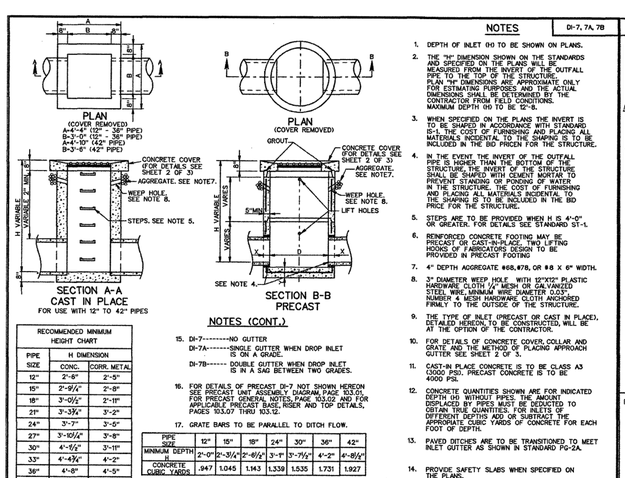
On roadways with paved shoulders having a width of 8 feet or more, channelizing devices shall be used to close the shoulder in advance of the merging taper to direct vehicular traffic to remain within the traveled way.

8. **The buffer space length shall be as shown in Table 6II-3 on Page 6II-5 for the posted speed limit.**
9. **A truck-mounted attenuator (TMA) shall be used on Limited Access highways and multi-lane roadways with posted speed limit equal to or greater than 45 mph.**
10. **When a side road intersects the highway within the temporary traffic control zone, additional traffic control devices shall be placed as needed.**

1: Revision 1 – 4/1/2015

Shoulder Operation with Minor Encroachment
(Figure TTC-5.1)





RECOMMENDED MINIMUM HEIGHT CHART		
PIPE SIZE	H DIMENSION	
	CONC.	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"
27"	3'-10¼"	3'-8"
30"	4'-1½"	3'-11"
33"	4'-4¾"	4'-2"
36"	4'-8"	4'-5"
42"	5'-2½"	4'-11"

NOTES DI-7, 7A, 7B

1. DEPTH OF INLET 0G TO BE SHOWN ON PLANS.
2. THE "H" 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 STRUCTURE. PLAN "H" DIMENSIONS ARE APPROXIMATE ONLY FOR ESTIMATING PURPOSES AND THE ACTUAL DIMENSIONS SHALL BE DETERMINED BY THE CONTRACTOR FROM FIELD CONDITIONS. MAXIMUM DEPTH SHALL BE 12'-6".
3. 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 BID PRICEN FOR THE STRUCTURE.
4. IN THE EVENT THE INVERT OF THE OUTFALL PIPE IS LOWER 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. THE COST OF FURNISHING AND PLACING ALL MATERIALS INCIDENTAL TO THE SHAPING IS TO BE INCLUDED IN THE BID PRICE FOR THE STRUCTURE.
5. STEPS ARE TO BE PROVIDED WHEN H IS 4'-0" OR GREATER. FOR DETAILS SEE STANDARD ST-1.
6. REINFORCED CONCRETE FOOTING MAY BE PRECAST OR CAST-IN-PLACE. TWO LIFTING HOOKS OF FABRICATORS DESIGN TO BE PROVIDED IN PRECAST FOOTING
7. 4" DEPTH AGGREGATE #68,#78,OR #8 X 6" WIDTH.
8. 3" DIAMETER WEEP HOLE WITH 12"X12" PLASTIC HARDWARE CLOTH ¼" MESH OR GALVANIZED STEEL WIRE, HAVING WIRE DIAMETER 0.03", NUMBER 4 MESH HARDWARE CLOTH ANCHORED FIRMLY TO THE OUTSIDE OF THE STRUCTURE.
9. THE TYPE OF INLET (PRECAST OR CAST IN PLACE), DETAILED HEREON, TO BE CONSTRUCTED, WILL BE AT THE OPTION OF THE CONTRACTOR.
10. FOR DETAILS OF CONCRETE COVER, COLLAR AND GRATE, AND THE METHOD OF PLACING PEDESTRIAN GUTTER SEE SHEET 2 OF 3.
11. CAST IN PLACE CONCRETE TO BE CLASS A3 (4000 PSI). PRECAST CONCRETE IS TO BE 4000 PSI.
12. CONCRETE QUANTITIES SHOWN ARE FOR INDICATED DEPTH (H) WITHOUT PIPES. THE AMOUNT DISPLACED BY PIPES MUST BE DEDUCTED TO OBTAIN TRUE QUANTITIES. FOR INLETS OF DIFFERENT DEPTHS ADD OR SUBTRACT THE APPROPRIATE CUBIC YARDS OF CONCRETE FOR EACH FOOT OF DEPTH.
13. PAVED DITCHES ARE TO BE TRANSITIONED TO MEET INLET GUTTER AS SHOWN IN STANDARD PG-2A.
14. PROVIDE SAFETY SLABS WHEN SPECIFIED ON THE PLANS.

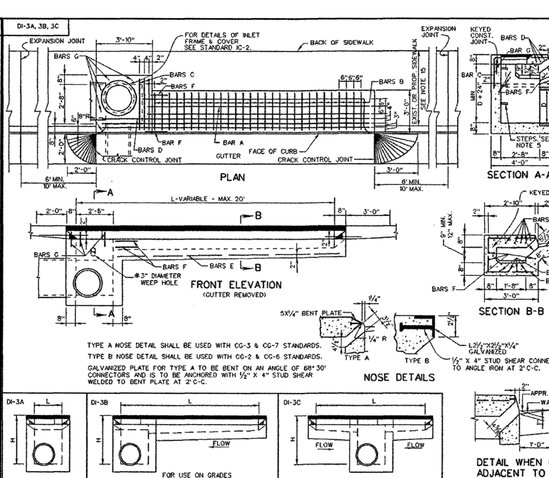
NOTES (CONT.)

15. DI-7--------NO GUTTER
DI-7A-------SINGLE GUTTER WHEN DROP INLET IS ON A GRADE.
DI-7B-------DOUBLE GUTTER WHEN DROP INLET IS IN A SAG BETWEEN TWO GRADES.
16. FOR DETAILS OF PRECAST DI-7 NOT SHOWN HEREON SEE PRECAST UNIT ASSEMBLY DIAGRAM, PAGE 103.03, FOR PRECAST GENERAL NOTES, PAGE 103.02 AND FOR APPLICABLE PRECAST BASE, RISER AND TOP DETAILS, PAGES 103.07 THRU 103.12.
17. GRATE BARS TO BE PARALLEL TO DITCH FLOW.

PIPE SIZE	12"	15"	18"	24"	30"	36"	42"
MINIMUM DEPTH H	2'-0"	2'-3¼"	2'-6½"	3'-1"	3'-7½"	4'-2"	4'-8½"
CONCRETE CUBIC YARDS	.947	1.045	1.143	1.339	1.535	1.731	1.927

INCREMENT PER FOOT OF ADDITIONAL DEPTH 0G { = 0.362 CU. YDS. (12" - 36" PIPE) / = 0.410 CU. YDS. (42" PIPE)

SPECIFICATION REFERENCE	STANDARD MEDIAN DROP INLET 12" TO 42" PIPE	VDOT ROAD AND BRIDGE STANDARDS
241 503	VIRGINIA DEPARTMENT OF TRANSPORTATION	REVISION DATE — SHEET 1 OF 3 — 104.22



SPECIFICATION REFERENCE	STANDARD CURB DROP INLET 12" - 30" PIPE: MAXIMUM DEPTH (H) = 8'	VDOT ROAD AND BRIDGE STANDARDS
233 302	VIRGINIA DEPARTMENT OF TRANSPORTATION	SHEET 1 OF 2 — REVISION DATE 08/10 — 104.09

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COMMONWEALTH OF VIRGINIA
CHRISTOPHER P. BURNS
Lic. No. 47338
10/1/19
PROFESSIONAL ENGINEER

FOXFIELD - SECTION 7
RUSSLEN DRIVE
CONSTRUCTION DETAILS
CATAWBA DICTRICT
ROANOKE COUNTY, VIRGINIA

DRAWN BY	KRO
DESIGNED BY	CPB
CHECKED BY	CPB
DATE	3/22/2019
SCALE	N/A

REVISIONS:
5/9/2019
5/23/2019
10/1/2019

SHEET NO.
C13
JOB NO. 04180072.00