

GENERAL GRADING NOTES:

1. THE CONTRACTOR SHALL REVIEW THE EROSION & SEDIMENT CONTROL NARRATIVE FOR PHASING OF EROSION & SEDIMENT CONTROL MEASURES. THE CONTRACTOR SHALL COMPLY WITH LOCAL CODES IN OBSERVING EROSION CONTROL MEASURES BOTH ON AND OFF THE SITE. REFER TO THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK FOR DETAILS AND SPECIFICATIONS OF THOSE EROSION CONTROL ITEMS FOUND ON THESE DRAWINGS.
2. THE CONTRACTOR SHALL PROVIDE ALL GRADING, GENERAL EXCAVATION, AND FINISH GRADING AS INDICATED ON THE DRAWINGS. WORK SHALL BE ACCOMPLISHED IN ACCORDANCE WITH VDOT STANDARDS AND SPECIFICATIONS. ALL FILLS AND BACKFILLS SHALL BE UNIFORMLY COMPACTED TO AT LEAST 95% OF THE STANDARD PROCTOR MAXIMUM DENSITY. THE CONTRACTOR SHALL PROVIDE POSITIVE DRAINAGE AT ALL TIMES.
3. A DEQ VSPM PERMIT IS REQUIRED FOR THIS PROJECT. A COPY OF THE DEQ PERMIT, STORMWATER POLLUTION PREVENTION PLAN, AND MAINTENANCE LOGS SHALL BE KEPT ON SITE AND AVAILABLE FOR REVIEW AS REQUESTED.
4. ALL EARTH SLOPES AND DENUDE AREAS SHALL BE SEEDED AND MULCHED AS REQUIRED FOR STABILIZATION WITHIN SEVEN (7) DAYS OF COMPLETION OF EXCAVATION OPERATIONS. REFERENCE IS DIRECTED TO THE SEEDING REQUIREMENTS.

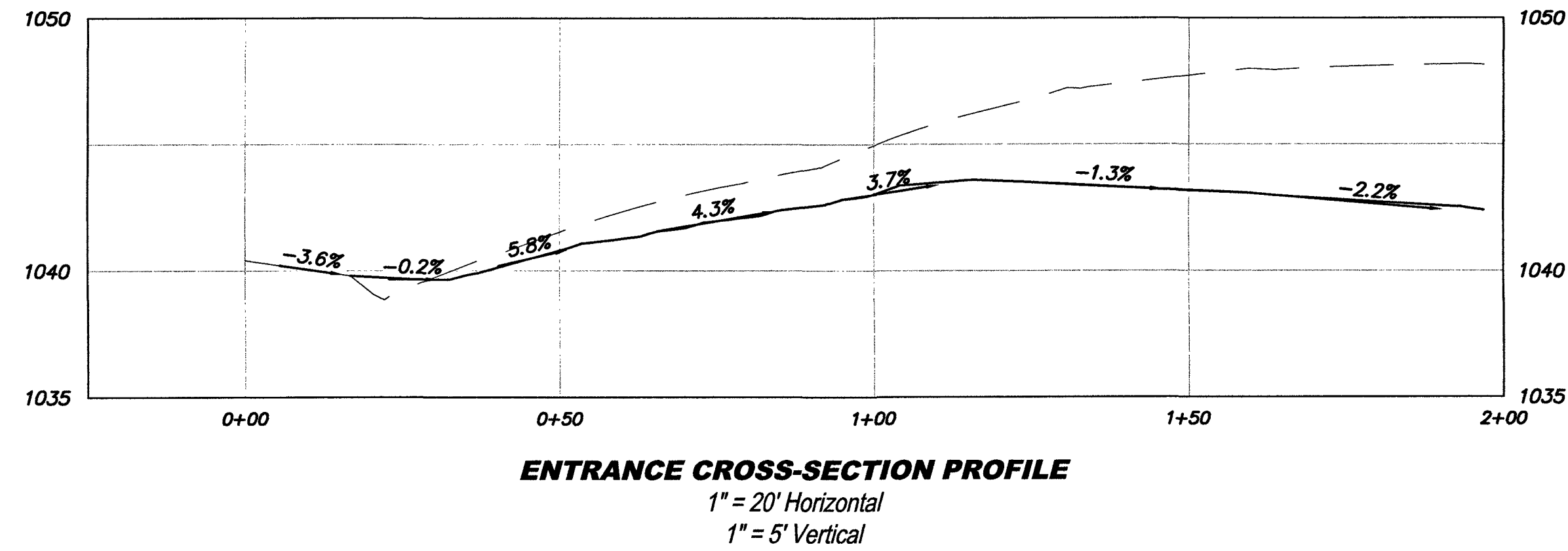
EROSION AND SEDIMENT CONTROL MEASURES:

PROVIDE THE FOLLOWING:

- CE CONSTRUCTION ENTRANCE MEETING VA ESCH STD. & SPEC. 3.02
- SF SILT FENCE MEETING VA ESCH STD. & SPEC. 3.05
- IP INLET PROTECTION MEETING VA ESCH STD. & SPEC. 3.07
- CIP CULVERT INLET PROTECTION MEETING VA ESCH STD. & SPEC. 3.08
- DD TEMPORARY DIVERSION DIKE MEETING VA ESCH STD. & SPEC. 3.09
- OP OUTLET PROTECTION MEETING VA ESCH STD. & SPEC. 3.18
- TS TEMPORARY SEEDING MEETING VA ESCH STD. & SPEC. 3.31
- PS PERMANENT SEEDING MEETING VA ESCH STD. & SPEC. 3.32
- B/M SOIL STABILIZING BLANKETS AND MATTING MEETING VA ESCH STD. & SPEC. 3.36
- TP TREE PROTECTION MEETING VA ESCH STD. & SPEC. 3.38
- DC DUST CONTROL MEETING VA ESCH STD. & SPEC. 3.39

GENERAL EROSION AND SEDIMENT CONTROL MEASURES / CONSTRUCTION SEQUENCE:

- CONSTRUCTION WILL BE SEQUENCED TO INSTALL INITIAL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO DEMOLITION.
- CONTRACTOR SHALL MAINTAIN THE CONSTRUCTION ENTRANCE PER VA ESCH STD. & SPEC. 3.02.
 - CONTRACTOR SHALL INSTALL CULVERT INLET PROTECTION AT DOWNSIDE 15" CROSS PIPE (AT THE CORNER OF WILLIAMSON RD. AND MIDDLETON ST.) BEFORE GROUND DISTURBANCE OR TREE/VEGETATION REMOVAL. CONTRACTOR SHALL REVIEW, REPAIR AND MAINTAIN CULVERT INLET PROTECTION THROUGHOUT CONSTRUCTION ACTIVITIES.
 - CONTRACTOR SHALL VERIFY OR INSTALL SILT FENCE AS SHOWN ON PLANS.
 - CONTRACTOR SHALL VERIFY OR INSTALL DIVERSION DIKES & OTHER INITIAL ESC MEASURES AS NECESSARY.
 - CONTRACTOR SHALL INSTALL THE PROPOSED SANITARY SEWER WITHOUT MAKING CONNECTION TO EXISTING MANHOLES. PRIOR TO MAKING CONNECTIONS, CONTRACTOR SHALL SET DIVERSION PUMPING FOR EX. MANHOLE A. ONCE DIVERSION IS SET, CONTRACTOR MAY MAKE CONNECTIONS TO EXISTING MANHOLE AS SHOWN ON PLAN SHEET C03.
 - AFTER THE PROPOSED SANITARY SEWER IS INSTALLED, THE CONTRACTOR MAY BEGIN GRADING, INSTALLATION OF STORM PIPE AND UTILITIES. INSTALL OUTLET PROTECTION AS NEEDED AS STORM IS INSTALLED.
 - ONCE INSTALLATION OF THE PROPOSED UNDERGROUND UTILITIES ARE COMPLETED, CONTRACTOR MAY BEGIN FINAL GRADING. AS FINAL GRADES ARE MET, NECESSARY ESC MEASURES ARE TO BE INSTALLED.
 - ONCE THE SITE HAS BEEN STABILIZED, THE TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES MAY BE REMOVED AND THOSE AREAS BROUGHT TO FINAL GRADE AND STABILIZED. THE CONTRACTOR SHALL COORDINATE WITH LOCAL AUTHORITY PRIOR TO REMOVING THE EROSION AND SEDIMENT CONTROL MEASURES. ALL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL SITE STABILIZATION OR AFTER TEMPORARY MEASURES ARE NO LONGER NEEDED, UNLESS OTHERWISE AUTHORIZED BY THE LOCAL PROGRAM AUTHORITY. ALL ESC MEASURES TO BE ALTERED OR REMOVED REQUIRE LOCAL AUTHORITY APPROVAL.
 - THE SILT FENCE, INLET PROTECTION, CULVERT INLET PROTECTION, AND DIVERSION DIKES SHALL BE REMOVED FROM THE PROJECT ONCE ALL DISTURBED AREAS ARE STABILIZED AND PERMANENT VEGETATION IS ESTABLISHED. THE USE OF A FILTER DEVICE SHALL BE USED TO DEWATER SEDIMENT LADEN WATER.



DETENTION STAGE STORAGE

ELEVATION	AVG. END INC. VOL. (CU. FT.)	AVG. END TOTAL VOL. (CU. FT.)
1038.00	0.0	0.0
1038.35	62.6	62.6
1038.70	281.0	343.0
1039.05	420.0	763.0
1039.40	487.0	1250.0
1039.75	518.0	1768.0
1040.10	518.0	2286.0
1040.45	487.0	2773.0
1040.80	419.0	3192.0
1041.15	280.0	3473.0
1041.50	62.4	3535.0

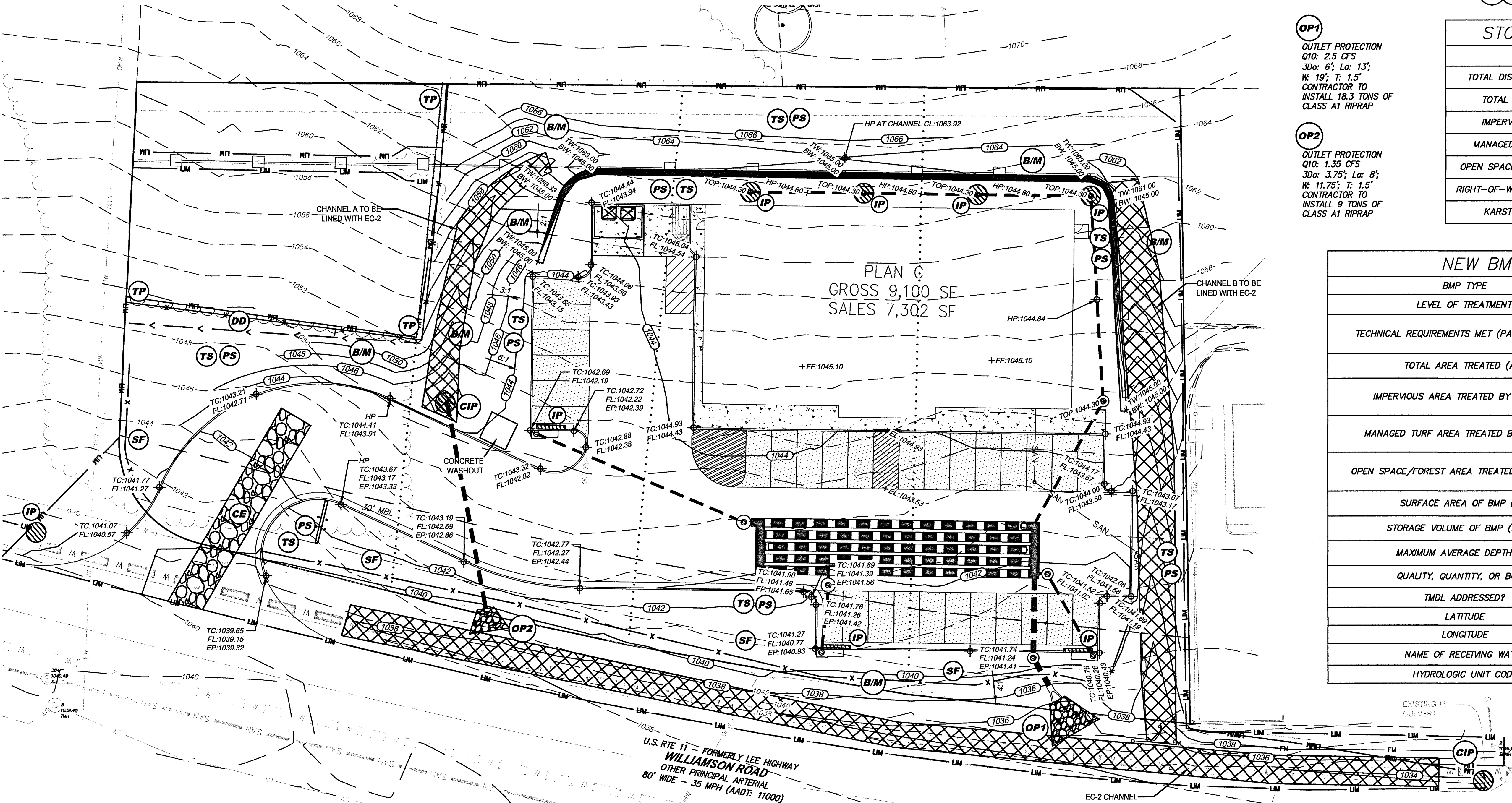
- FIELD REVISION #1 AS OUTLINED (4/14/17):**
1. BUILDING PAD AND PARKING LOT RAISED UP TO 0.5'. GRADING PLAN REVISED.
 2. COMMERCIAL ENTRANCE PROFILE REVISED TO ALLOW BUILDING ELEVATION CHANGES.
 3. UPDATED STAGE STORAGE VOLUME TABLE TO REFLECT NEW SYSTEM ELEVATIONS.
- FIELD REVISION #2 AS OUTLINED (5/30/17):**
1. REVISED WALL DESIGN BEHIND BUILDING.
- FIELD REVISION #3 AS OUTLINED (8/18/17):**
1. REVISED WALL DESIGN BEHIND BUILDING.
- FIELD REVISION #4 AS OUTLINED (10/31/17):**
1. REVISED FORCE MAIN WITH ADDITION OF CAP, TEE, AND LATERAL PRESSURE ASSEMBLY.
- FIELD REVISION #5 AS OUTLINED (11/06/17):**
1. REVISED ENTRANCE LOCATION AND CULVERT 21.

STORMWATER SITE STATISTICS

	EXISTING	PROPOSED
TOTAL DISTURBED AREA (AC.)	0 AC	1.67 AC
TOTAL SITE AREA (AC.)	1.67 AC	1.67 AC
IMPERVIOUS AREA (AC.)	0 AC	0.82 AC
MANAGED TURF AREA (AC.)	0 AC	0.85 AC
OPEN SPACE/FOREST AREA (AC.)	1.67 AC	0.00 AC
RIGHT-OF-WAY DISTURBANCE (SF.)	0 AC	0.18 AC
KARST PRESENT (Y/N)	NO	NO

NEW BMP INFORMATION

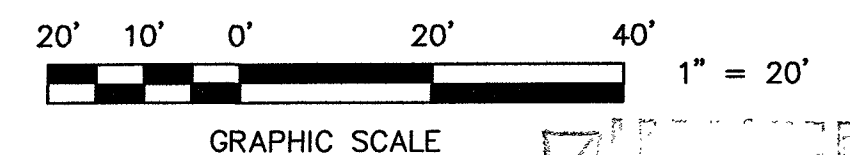
BMP TYPE	UG DET.
LEVEL OF TREATMENT	N/A
TECHNICAL REQUIREMENTS MET (PART IIB OR IIC)	N/A
TOTAL AREA TREATED (AC)	0.80 AC
IMPERVIOUS AREA TREATED BY BMP (AC)	0.63 AC
MANAGED TURF AREA TREATED BY BMP (AC)	0.17 AC
OPEN SPACE/FOREST AREA TREATED BY BMP (AC)	0.00 AC
SURFACE AREA OF BMP (AC)	N/A
STORAGE VOLUME OF BMP (AC-FT)	0.08 AC-FT
MAXIMUM AVERAGE DEPTH (FT)	3
QUALITY, QUANTITY, OR BOTH?	QUANTITY
TMDL ADDRESSED?	N/A
LATITUDE	N37.3404
LONGITUDE	W79.9562
NAME OF RECEIVING WATER	CARVIN CREEK
HYDROLOGIC UNIT CODE	RU12



- OP1**
OUTLET PROTECTION
Q10: 2.5 CFS
30o: 6'; La: 13';
W: 19'; T: 1.5'
CONTRACTOR TO
INSTALL 18.3 TONS OF
CLASS A1 RIPRAP

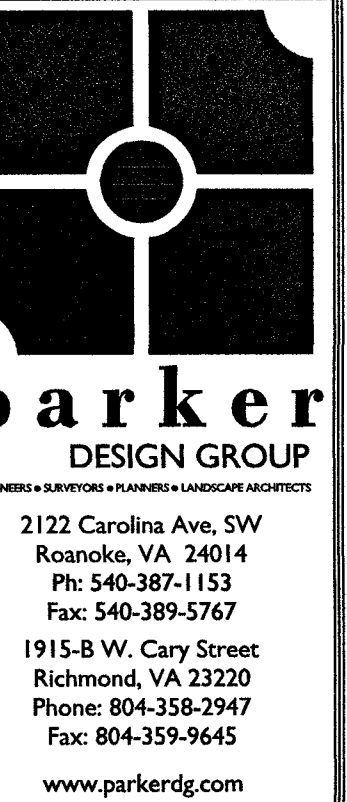
- OP2**
OUTLET PROTECTION
Q10: 1.35 CFS
30o: 3.75'; La: 8';
W: 11.75'; T: 1.5'
CONTRACTOR TO
INSTALL 9 TONS OF
CLASS A1 RIPRAP

MERIDIAN OF VA STATE
PLANE COORDINATE SYSTEM
NORTH ZONE - 4501 (NAD '83)

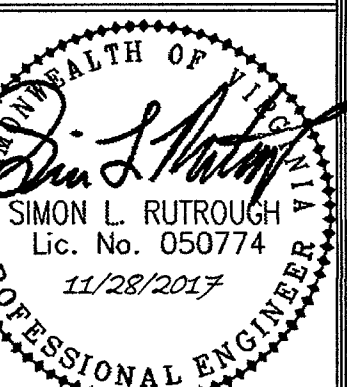


REVISIONS:

2/8	Addressed County Comments
3/8	Addressed Comments
4/14	Field Revision #1
5/30	Field Revision #2
8/18	Field Revision #3
10/31	Field Revision #4
11/06	Field Revision #5
11/28	Field Revision #6



COMMERCIAL RETAIL STORE
ROANOKE COUNTY
WILLIAMSON ROAD
ROANOKE COUNTY, VIRGINIA



DATE: 10-31-2017

DRAWING TITLE: GRADING & ESC PLAN

SCALE: 1" = 20'
SHEET NO.

C06