

STORMWATER SITE STATISTICS		
	EXISTING	PROPOSED
TOTAL DISTURBED AREA (AC.)	0 AC	8.50 AC
TOTAL SITE AREA (AC.)	22.21 AC	22.21 AC
IMPERVIOUS AREA (AC.)	5.71 AC	7.24 AC
MANAGED TURF AREA (AC.)	16.50 AC	14.97 AC
OPEN SPACE/FOREST AREA (AC.)	0.00 AC	0.00 AC
RIGHT-OF-WAY DISTURBANCE (SF.)	0.00 AC	0.24 AC
KARST PRESENT (Y/N)	NO	NO

Nutrient Credits:  
4.32 lb/yr of phosphorus credits to be purchased from Virginia Nutrient Bank to address all stormwater quality requirements.

FIELD REVISION #1 AS OUTLINED (7/02/18):  
1. ADDED BORROW AREA.  
\*DISTURBED AREA INCLUDES ADDED BORROW AREA.

**PHASE II EROSION AND SEDIMENT CONTROL MEASURES / CONSTRUCTION SEQUENCE:**  
CONSTRUCTION WILL BE SEQUENCED TO INSTALL INITIAL EROSION AND SEDIMENT CONTROL MEASURES PRIOR TO DEMOLITION.  

- CONTRACTOR SHALL ENSURE THAT TRAILER LOADING DOCK ACCESS REMAINS AVAILABLE THROUGHOUT THE ENTIRETY OF CONSTRUCTION ACTIVITIES.
- CONTRACTOR SHALL VERIFY/INSTALL CONSTRUCTION ENTRANCE AS SHOWN ON PLANS. CONTRACTOR SHALL MAINTAIN THE CONSTRUCTION ENTRANCE PER VA ESCH STD. & SPEC 3.02.
- AFTER THE INITIAL MEASURES ARE INSTALLED AND DEMOLITION IS COMPLETE, THE CONTRACTOR MAY BEGIN GRADING AND INSTALLATION OF PROPOSED BUILDING PAD, UTILITIES, AND STORM PIPE. INSTALL INLET/OUTLET PROTECTION AS NEEDED.
- ONCE ALL UTILITIES AND STORM ARE INSTALLED, THE CONTRACTOR MAY BEGIN FINAL GRADING. AS FINAL GRADES ARE MET, NECESSARY ESC MEASURES ARE TO BE INSTALLED.
- TOPSOIL STOCKPILING IS NOT ANTICIPATED FOR THIS PROJECT. IF REQUIRED, SUITABLE LOCATIONS ARE TO BE DETERMINED BY THE CONTRACTOR. SILT FENCE SHALL BE PLACED AROUND THE PERIMETER OF THE STOCKPILE.
- THE CONTRACTOR SHALL CHECK AND VERIFY ALL EXISTING PERIMETER EROSION AND SEDIMENT CONTROL MEASURES AROUND THE SITE. ANY PERIMETER EROSION CONTROL MEASURES THAT ARE DAMAGED SHALL BE REPAIRED TO CONTROL SEDIMENT LADEN RUNOFF FROM ENTERING ADJACENT PROPERTIES AND/OR STREAMS AND SWALES.
- 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 AND CULVERT INLET PROTECTION 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.

## GENERAL GRADING NOTES:

- 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.
- 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.
- A DEQ VSMP 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.
- ALL EARTH SLOPES AND DENUDED 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:

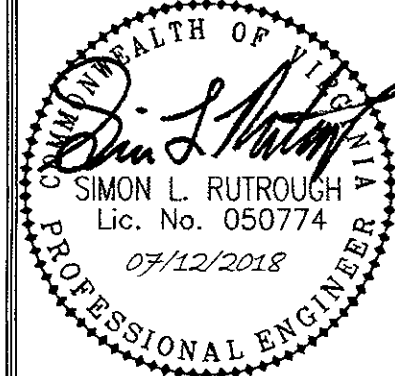
PROVIDE THE FOLLOWING:

- (CE) CONSTRUCTION ENTRANCE MEETING VA ESCH STD. & SPEC. 3.02
- (SF) SILT FENCE MEETING VA ESCH STD. & SPEC. 3.05
- (CIP) CULVERT INLET PROTECTION MEETING VA ESCH STD. & SPEC. 3.08
- (OP) OUTLET PROTECTION MEETING VA ESCH STD. & SPEC. 3.18
- (TO) TOPSOILING MEETING VA ESCH STD. & SPEC. 3.30
- (TS) TEMPORARY SEEDING MEETING VA ESCH STD. & SPEC. 3.31
- (PS) PERMANENT SEEDING MEETING VA ESCH STD. & SPEC. 3.32
- (BM) SOIL STABILIZING BLANKETS 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

**OP#1**  
OUTLET PROTECTION  
Q10: 9.61 CFS  
D<sub>o</sub>: 2.0'; 3D<sub>o</sub>: 6.0'  
L<sub>a</sub>: 10.0'; W: 6.0'  
CONTRACTOR TO INSTALL 9 TONS OF CLASS A1 RIPRAP @ 2' DEPTH

**OP#2**  
OUTLET PROTECTION  
Q10: 9.61 CFS  
D<sub>o</sub>: 2.0'; 3D<sub>o</sub>: 6.0'  
L<sub>a</sub>: 10.0'; W: 6.0'  
CONTRACTOR TO INSTALL 9 TONS OF CLASS A1 RIPRAP @ 2' DEPTH

**OP#3**  
OUTLET PROTECTION  
Q10: 6.59 CFS  
L<sub>a</sub>: 10.0'; W: 6.0'  
CONTRACTOR TO INSTALL 9 TONS OF CLASS A1 RIPRAP @ 2' DEPTH



**Warehouse Expansion  
for Blue Ridge Beverage**  
4446 Barley Drive  
Roanoke County, Virginia

**REVISIONS:**  

Address 1st Review Comments	12 February 2018
Field Revision #1: Borrow Site	12 July 2018
Address County Comments to FR#1	12 July 2018

**DESIGNED BY:** JLK  
**DRAWN BY:** JLK  
**CHECKED BY:** SLR

**DATE:**  
11 December 2017  
**SHEET TITLE:**  
GRADING & ESC PLAN  
**SCALE:**  
1" = 50'  
**SHEET NO.**

**C04**