

EROSION AND SEDIMENT CONTROL NARRATIVE

PROJECT DESCRIPTION

The purpose of this project is to develop lot 3 of Blue Hills Village into a retail / eating establishment with associated infrastructure. The total disturbed area will be 1.23 Acres. Utilities are planned for this development. The amount of disturbance to the ground surface will be confined to within the site entrance connections onto Blue Hills Village Drive. Fill material will be hauled to this site to reach finished grade. The contractor shall provide a separate erosion and sediment control plan for the offsite borrow area prior to permit issuance.

EXISTING SITE CONDITIONS

This property is lot 3 of the Blue Hills Village subdivision and was rough graded with the development of the overall subdivision. The site slopes from northwest to southeast at an average slope of 8%.

ADJACENT PROPERTY

Properties to the west and east are currently undeveloped the approved concept plan for the overall subdivision shows these as restaurant lots. The site is bordered on the north by Blue Hills Village Drive and by U.S. Route 460 to the south.

OFF-SITE AREAS

There are no offsite borrow or stockpile areas associated with this plan and no offsite areas will be affected by the construction of this project.

SOILS

The proposed site is underlain by the Rome Formation of the Cambrian Age. It consists of shale, limestone and dolomite. The onsite soils have a low shrink swell potential. The soil on-site with more shale material is readily compacted. The soils on-site with more clay material may require drying before compaction.

CRITICAL EROSION AREAS

Critical erosion areas include any disturbed slopes steeper than 3:1. There are no planned slopes steeper than 3:1.

EROSION AND SEDIMENT CONTROL MEASURES

Unless otherwise indicated, all vegetative and structural erosion and sediment control practices shall be constructed and maintained according to minimum standards and specifications of the 1992 Virginia Erosion and Sediment Control Handbook. The minimum standards of the Virginia Erosion and Sediment Control Regulations shall be adhered to unless otherwise waived or approved by a variance.

STRUCTURAL PRACTICES

1. CE-TEMPORARY CONSTRUCTION ENTRANCE-3.02

A temporary construction entrance shall be installed where the access area intersects with Blue Hills Village Drive.

2. CRS-CONSTRUCTION ROAD STABILIZATION- 3.03

Temporary stabilize access road with stone immediately after grading. The design aggregate base section shown on the pavement section detail of the plan set will act as the CRS.

3. SF-SILT FENCE BARRIER-3.05

Silt fence barriers will be installed down slope of areas with minimal grade to filter sediment runoff from sheet flow.

4. IP-STORM DRAIN INLET PROTECTION- 3.07

All storm sewer drains shall be protected during construction.

5. DD-DIVERSION DIKE-3.09

A temporary ridge constructed at the top or base of a sloping disturbed area to divert sediment runoff to the sediment trap and sediment basins as shown on the plans.

VEGETATIVE PRACTICES

1. TS-TEMPORARY SEEDING-3.31

All denuded areas, which will be left dormant for more than 30 days, shall be seeded with fast germinating temporary vegetation immediately following grading.

2. PS-PERMANENT SEEDING-3.32

All final -graded areas where permanent cover is desired or rough-graded areas that will not be brought of final grade for a year or more shall be seeded with perennial vegetation within 7 days of reaching final grade.

3. MU-MULCH-3.35

Mulching prevents erosion and increases moisture for new plant growth.

MAINTENANCE

In general, all erosion and sediment control measures will be checked daily and after each significant rainfall. The following items will be checked in particular:

1. The gravel outlets will be checked regularly for sediment buildup that may prevent drainage. If the gravel is clogged by sediment, it shall be removed and cleaned, or replaced.

2. The silt fence barriers will be checked regularly for undermining or deterioration of the fabric. Sediment shall be removed when the level of sediment deposition reaches half way to the top of the barrier.

3. The seeded areas will be checked regularly to ensure that a good stand is maintained. Areas shall be fertilized and re-seeded as needed.

PERMANENT STABILIZATION

All areas disturbed by construction shall be stabilized with permanent seeding within 7 days of reaching final grades. Seeding shall be done with Kentucky 31 tall Fescue according to Std. on Spec. 3.32, PERMANENT SEEDING, of the 1992 Virginia Erosion and Sediment Control Handbook. Mulch (straw or fiber) will be used on all seeded areas. In all seeding operations, seed, fertilizer and lime will be applied prior to mulching. Erosion control blankets may be installed over fill slopes, which have been brought to final grade and have been seeded to protect the slopes properly.

STORM WATER MANAGEMENT

The flow generated on site will travel through the proposed stormwater pipe system to City Pond #1 located on lot 4 of Blue Hills Village. Pond #1 was designed to provide stormwater management for lot 3. The outfall pipe from pond #1 connects to an existing storm drain in Blue Hills Drive.

C weighted value calculation

Post Pond #1 Cw=0.74

Post dev. Lot 3 Cw=0.67

0.74-0.67= 0.07

Cw post development of lot #3 is less than the overall post development design Cw.

EROSION CONTROL PHASING NOTES

1. INSTALL CONSTRUCTION ENTRANCE AND PERIMETER SILT FENCE AS STEP 1.
2. INSTALL THE DIVERSION AS STEP 2.
3. INSTALL INLET PROTECTION AS THE STORM SYSTEM IS INSTALLED.
4. INSTALL AGGREGATE BASE COURSE AS IDENTIFIED IN THE PERMANENT PAVEMENT SECTION FOR CONSTRUCTION ROAD STABILIZATION.
5. CONTRACTOR SHALL REMOVE EROSION CONTROL MEASURES ONLY AFTER DISTURBED AREAS ARE STABILIZED AND APPROVAL HAS BEEN OBTAINED FROM THE CITY OF ROANOKE.

EROSION AND SEDIMENT CONTROL NOTES

1. THE EROSION CONTROL NARRATIVE BY ENGINEERING CONCEPTS, INC. SHALL BE ADHERED TO AS A PART OF THE CONTRACT. ALL NEW EROSION CONTROL DEVICES SHALL BE INSTALLED PER THE NARRATIVE AND PLAN.
2. UNLESS OTHERWISE INDICATED ALL VEGETATIVE AND STRUCTURAL PRACTICES SHALL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VA. EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION.
3. SCHEDULE OPERATIONS SO THAT GROUND SURFACE WILL BE DISTURBED FOR THE SHORTEST POSSIBLE TIME BEFORE PERMANENT CONSTRUCTION IS INSTALLED.
4. A COPY OF THE APPROVED EROSION CONTROL PLANS AND PERMIT SHALL BE KEPT ON SITE AT ALL TIMES.
5. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLING ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE CITY OF ROANOKE INSPECTORS.
6. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL DEVICES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES UNTIL FINAL STABILIZATION IS ACHIEVED.
7. PERMANENT OR TEMPORARY SOIL STABILIZATION SHALL BE APPLIED TO DISTURBED AREAS WITHIN SEVEN DAYS OF REACHING FINAL GRADES. TEMPORARY, DENuded AREAS THAT ARE TO BE EXPOSED LONGER THAN THIRTY DAYS SHALL BE SEEDDED WITH TEMPORARY VEGETATION.
8. DURING CONSTRUCTION, SOIL STOCKPILES SHALL BE STABILIZED AND PROTECTED WITH SEDIMENT TRAPPING MEASURES AND STABILIZED WITH TEMPORARY VEGETATION IF UNUSED FOR 30 DAYS OR LONGER.
9. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH MAJOR RAINFALL EVENT. ANY REPAIRS NECESSARY SHALL BE MADE IMMEDIATELY TO ENSURE THE PROTECTION OF OFFSITE PROPERTIES.
10. TEMPORARY AND PERMANENT SEEDING SHALL ADHERE TO THE SPECIFICATIONS SHOWN HEREON.
11. REFER TO THE MINIMUM STANDARD REFERENCES FOR STATE SPECIFIC REFERENCES TO EROSION SEDIMENT CONTROL REQUIREMENTS.
12. FLUSH ALL STORM DRAIN LINES PRIOR TO REMOVAL OF SEDIMENT TRAPPING MEASURES.

NOTE:
USE EXISTING TEMPORARY SEDIMENT TRAP

General Erosion and Sediment Control Notes

ES-1: Unless otherwise indicated, all vegetative and structural erosion and sediment control practices will be constructed and maintained according to minimum standards and specifications of the Virginia Erosion and Sediment Control Handbook, latest edition, and Virginia Regulations VR 625-02-00 Erosion and Sediment Control Regulations.

ES-2: The plan approving authority must be notified one week prior to the onsite preconstruction conference, one week prior to the commencement of land disturbing activity, and one week prior to the final inspection.

ES-3: All erosion and sediment control measures are to be placed prior to or as the first step in clearing. "SEE NOTE 'A' AT END"

ES-4: A copy of the approved erosion and sediment control plan and narrative, as well as a copy of the Land Disturbing Permit, shall be maintained on the site at all times. The Erosion and Sediment Control Administrator will deliver these materials at the onsite preconstruction conference.

ES-5: Prior to commencing land disturbing activities in areas other than indicated on these plans (including, but not limited to, off-site borrow or waste areas), the contractor shall submit a supplementary erosion control plan to the owner for review and approval by the plan approving authority.

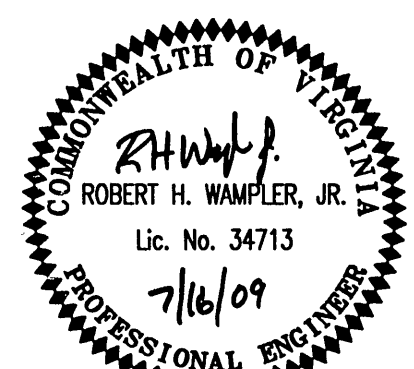
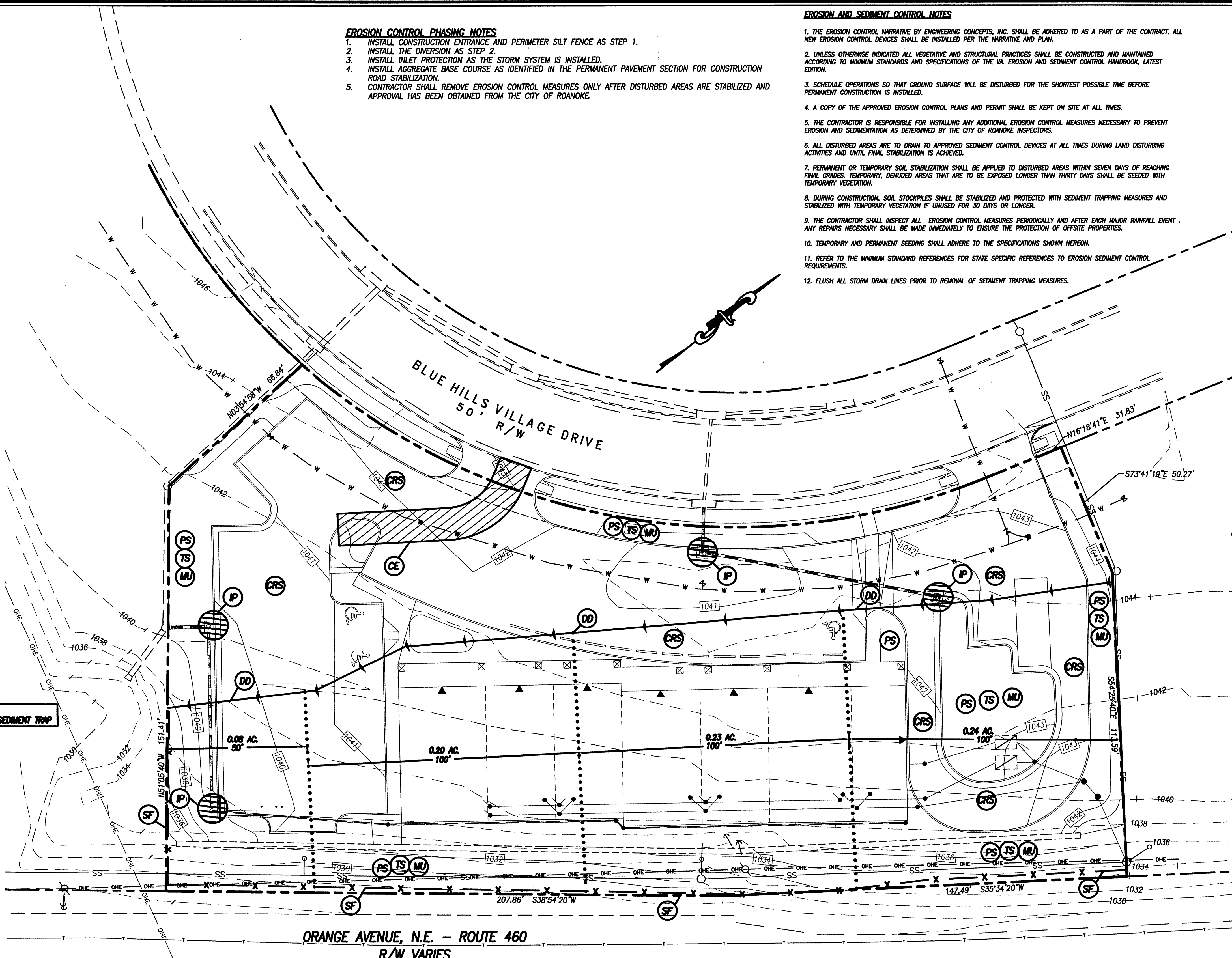
ES-6: The contractor is responsible for installation of any additional erosion control measures necessary to prevent erosion and sedimentation as determined by the plan approving authority.

ES-7: All disturbed areas are to drain to approved sediment control measures at all times during the land disturbing activities and during site development until final stabilization is achieved.

ES-8: During dewatering operations, water will be pumped into an approved filtering device.

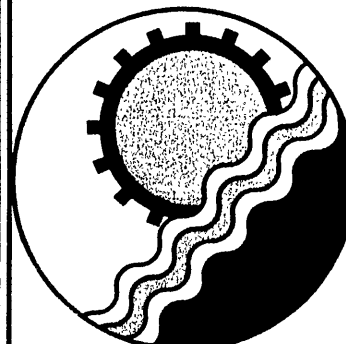
ES-9: The contractor shall inspect all erosion control measures periodically and after each runoff-producing rainfall event. Any necessary repairs or cleanup to maintain the effectiveness of the erosion control devices shall be made immediately. An inspection report must be filed with the City of Roanoke Erosion and Sediment Control Administrator once every two weeks, beginning with commencement of the land disturbing activity, and within 48 hours of any runoff-producing rainfall event. Failure to submit a report will be grounds for immediate revocation of the Land Disturbing Permit. Reports must be postmarked within 24 hours of the deadline. A standard inspection report form will be supplied, which should be copied as necessary. This provision in no way waives the right of Roanoke City personnel to conduct site inspections, nor does it deny the right of the permittee(s) to accompany the inspector(s).

NOTE: "A" The contractor shall clean the accumulated sediment from the existing sediment trap / basin as a first step in preparing this site for erosion and sediment control protection.



Scale 1" = 20'

APPROVED
JUL 28 2009



ENGINEERING CONCEPTS, INC.

20 S. ROANOKE ST., PO BOX 619
FINCASTLE, VIRGINIA 24090
540.473.1253 FAX: 540.473.1254

No.	Revision	By	Appd.	Date	Drawn
1	ROANOKE CITY COMMENTS	JSC	RHW	7/15/09	DRB/JSC
					Designed/ DRB/JDE
					Checked JSC
					Approved RHW

DEVELOPEMENT PLAN FOR
LOT 3 - BLUE HILLS VILLAGE
EROSION CONTROL PLAN
ROANOKE, VIRGINIA

1"=20'
JUNE 24, 2009
PROJECT: 07047.01
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