

EROSION & SEDIMENT CONTROL NOTES

UTILITY NOTES

All excavated material is to be placed on the uphill side of trench.

All storm and sanitary sewer lines not in streets are to be mulched and seeded within 7 days after backfill. No more than 500 feet of trench is to be open at one time.

Construction access roads shall be located on the uphill side of the trench or over the trench whenever possible.

All construction discharge water shall be adequately filtered to remove silt prior to discharge into waterways and wetlands.

Material used for backfilling trenches shall be properly compacted in order to minimize erosion and promote stabilization.

All work must be in compliance with applicable safety regulations.

All stream crossings and stream diversions require approval from the Environmental Engineer prior to any instream work (see STREAM CROSSINGS / DIVERSIONS / WORK IN STREAMS).

SILT FENCE NOTES

Silt fence and filter fabric must be entrenched.

Posts for silt fences shall be either 2-inch diameter oak, 4-inch diameter pine or 1.33 pounds per linear foot steel. Posts will be a minimum of 5 feet in length. Steel posts shall have projections for fastening wire to them.

Wire fence reinforcement for silt fences using standard strength filter cloth shall be a minimum of 42 inches in height, a minimum of 14 gauge and shall have a maximum mesh spacing of 6 inches.

Post shall be spaced a maximum of 10 feet apart at the barrier location and driven securely into the ground (min. of 12 inches) when extra strength fabric is used. Without the wire support fence, post spacing shall not exceed 6 feet.

When extra strength filter fabric and closer post spacing are used, the wire mesh support fence may be eliminated. In such a case, the filter fabric is stapled or wired directly to the post.

Sediment must be removed when deposits reach approximately one – half the height of the barrier.

Any sediment deposits remaining in place after the silt fence or filter barrier is no longer required shall be dressed to conform with the existing grade, prepared, and seeded.

Under no circumstances should silt fence be installed in live streams.

Silt fence shall be removed upon completion of the project.

STREAM CROSSINGS / DIVERSIONS / WORK IN STREAMS

When a live watercourse must be crossed by construction vehicles or temporarily diverted, a plan/sketch showing appropriate details of the crossing/diversion must be submitted for approval to Henrico County's Environmental Engineer prior to any work involving the stream. The plan shall include but is not limited to: all pipes, mats, channel details, erosion control devices, sequence for construction, etc. Guidelines for pipe diameters can be found in table 3.24-A of the Virginia Erosion and Sediment Control Handbook. Channel liners will be in accordance with Section 3.25 of the Handbook.

No motorized equipment will at any time be within a waterway unless supported by floatation equipment or a temporary construction pad composed of clean non-erodible material (rocks, rip-rap, mats).

Clearing and grubbing of wetland areas will be kept to a minimum. All wetlands temporarily disturbed during construction will be restored to their original elevation, by removing excess material, grading and seeding with a wetland seed mix. In no case shall wetland areas be reseeded with any species of fescue.

The bed and banks of a watercourse shall be stabilized immediately after work in the watercourse has been completed.

SWM FACILITIES INSPECTIONS / CERTIFICATIONS

Inspections of proposed stormwater management (SWM) facilities must be conducted at two phases of construction – "rough grading" and "final conformance". County staff, the Developer or his/her representative, and the Developer's engineer should be present at the inspections.

The Developer or his/her representative is responsible for notifying the Environmental Inspector at the appropriate times during construction when the inspections should occur. Failure to request the inspections may result in delay of final acceptance of the SWM facility. Three inches of topsoil is required for areas of the SWM facility that will be stabilized with vegetation.

The Developer or his/her representative is responsible for having a professional registered in the Commonwealth of Virginia present during SWM facility construction (including, but not limited to: initial site preparation, excavation/grading, installation of the embankment, principal outlet structure, and emergency spillway, etc.) to certify that the SWM facility is constructed in accordance with the approved Environmental Compliance Plan and so that appropriate information can be gathered for the construction record drawing.

A construction record drawing prepared by a professional registered in the Commonwealth of Virginia is required for each permanent SWM facility and must be submitted to the Administrator for review and approval prior to termination of the General Construction Permit and/or release of the Environmental Compliance bond. (Section 9.6 – Henrico County Environmental Compliance Manual) The construction record drawing must accurately depict as-built details such as, but not limited to, inverts, lengths, depths, material types and sizes, grading, and the location of all required components.

RESPONSIBLE LAND DISTURBER (RLD) POLICY

As a prerequisite to engaging in the land-disturbing activities shown on this plan, the individual responsible for carrying out the plan and holding a certificate of competence shall be identified (the RLD).

The RLD will:

- Attend the Pre-Construction meeting and sign the approved plans,
- Inspect the ESC measures periodically at least once every two weeks, or within 48 hours of any runoff producing storm event,
- For projects with site area of 1 acre or greater, submit inspection reports using a standard form supplied by the County to the Environmental Inspector listing all deficiencies or stating no deficiencies were found, and
- Coordinate the implementation and maintenance of all erosion and sediment control measures in accordance with the approved plan.

MOSQUITO CONTROL NOTES

All construction sites and erosion and sediment control measures must be inspected and maintained to eliminate or minimize areas that promote mosquito breeding. Remove or empty all containers and trapped water in tarps. Fill and grade tire ruts or other imperfections in grade. Any standing water that remains for FIVE (5) days or more must be treated with an appropriate larvicide, including water in sediment basins and traps.

When a mosquito breeding area is found, removal or treatment of the area is required immediately. Inspection and treatment questions may be directed to Henrico County at (804) 501-7333. Other pesticide application questions should be directed to the Virginia Department of Agricultural & Consumer Services (VDACS) at (804) 371-6560.

GENERAL EROSION AND SEDIMENT CONTROL NOTES

Henrico County's Environmental Inspector (804-727-8328) must be contacted at least 48 hours prior to any land disturbing activity.

All activities on the site must comply with Chapter 10 of the Henrico County Code.

All erosion and sediment control (ESC) measures must be placed prior to, or as the first step in grading. The preliminary limits of disturbance must be the minimum necessary to allow installation of the ESC measures and should include all areas necessary for installing the initial ESC measures, including stockpiles, borrow areas, staging areas, etc. Disturbance outside of the preliminary limits of land disturbance may not occur until the Environmental Inspector has approved the ESC measure installation.

If additional ESC devices are found necessary during construction, they must be installed as directed by the Environmental Inspector for Henrico County.

Unless otherwise approved by the Environmental Engineer, all runoff must drain to a sediment basin or trap during all phases of construction.

All ESC devices must be installed and maintained in accordance with the latest version of the Virginia Erosion and Sediment Control Handbook and the Virginia Erosion and Sediment Control Regulations.

A construction entrance must be constructed and properly maintained in accordance with Std. & Spec. 3.05 – Construction Entrance, in the latest version of the Virginia Erosion and Sediment Control Handbook. If mud tracking becomes a problem, the Environmental Inspector will require additional measures (i.e. wash rack).

If dust becomes a problem during construction, a water truck will be required on-site at all times, and dust must be controlled in accordance with Std. & Spec. 3.39 – Dust Control, in the latest version of the Virginia Erosion and Sediment Control Handbook.

Dewatering of footings, excavated trenches, sediment basins/traps, etc. must be done in accordance with Std. & Spec. 3.26 – Dewatering Structure, in the latest version of the Virginia Erosion and Sediment Control Handbook. The Environmental Inspector must approve the method prior to beginning dewatering.

All temporary stockpile locations must be shown on the plan. Stockpiles may remain in place one year from the final plan approval date, unless the Director of Public Works grants an extension in response to a written request.

Any soil or fill material intentionally transported from the project site must be taken to an approved location, such as an active landfill or other active site that is operating under an approved Erosion and Sediment Control Plan.

In subdivision developments, temporary sediment basins/traps must remain in place until at least 80% of homes that drain to the basins/traps are complete and the associated disturbed areas are stabilized. Sediment basins/traps cannot be removed without approval of the Environmental Inspector. Once the temporary sediment basin/traps have been removed, the developer, contractor, and/or homebuilder are responsible for erosion and sediment control on individual lots until stabilization is achieved.

In the event a contractor dumps, discharges or spills any oil or chemical that reaches or has the potential to reach a waterway, the contractor shall immediately notify all appropriate jurisdictional State, Federal, and County (501-5000) agencies and shall take immediate actions for containment and removal of the oil or chemical.

SEEDING NOTES

All stabilization/seeding will be accomplished in accordance with the Virginia Erosion and Sedimentation Control Handbook.

Any disturbed area not paved, sodded, or built upon, will have a vegetative cover prior to final inspection, and in the opinion of the Environmental Engineer will be mature enough to control soil erosion satisfactorily and survive severe weather conditions.

Stream diversion areas, waterways, banks, and related areas will be seeded and mulched immediately after work in watercourse is completed. In no case shall wetland areas be reseeded with any species of fescue.

Winterization – any disturbed area not paved, sodded, or built upon by October 15 is to be seeded and mulched on that date unless waived by the Environmental Engineer.

Permanent or temporary soil stabilization shall be applied to denuded areas with in seven (7) days after final grade is reached on any portion of the site. Temporary soil stabilization shall be applied within seven (7) days to denuded areas that may not be at final grade, but will remain dormant for longer than thirty (30) days. Permanent stabilization shall be applied to areas that are to be left dormant for more than one year.

Electric power, telephone, and gas supply trenches must be compacted, seeded, and mulched within 7 days after backfill.

All temporary earth berms, diversions, and silt dams are to be mulched and seeded for vegetative cover immediately after grading. Straw or hay mulch is required. The same applies to all stockpiles, on site as well as soil (intentionally) transported from the project site.

Nutrients shall be applied in accordance with manufacturer's recommendations or an approved nutrient management plan and shall not be applied during rainfall events.

RESOURCE PROTECTION AREAS, STREAM PROTECTION AREAS, WETLANDS, AND WATERS OF THE U.S.

Prior to beginning any land disturbing activity, all Resource Protection Areas (RPAs), Stream Protection Areas (SPAs), wetlands, and Waters of the U.S. (WOUS) not permitted for impact shall be delineated for protection with orange safety fence or non-tearable yellow and black barricade tape. This includes, but is not limited to, clearing limits associated with roadways, utilities, and buildings.

Additional restoration or replanting may be required for RPAs, SPAs, wetlands, and WOUS disturbed during construction.

Plans must accurately show all RPA, SPA, and RMA features.

RESOURCE PROTECTION AREAS (RPA):

- Is there a tributary stream located on the parcel?.....YES (NO)
- Are there any tidal wetlands present on the parcel?.....YES (NO)
- Are there any non-tidal wetlands connected by surface flow .....(YES) NO and contiguous to tidal wetlands or tributary streams?
- Are there any tidal shores on the parcel? .....YES (NO)
- Does the site lie within 100 feet of any of the above site .....YES (NO) characteristics designated as Resource Protection Areas (RPAs)?

If the answer to any of the above questions is "YES", the parcel contains a Resource Protection Area (RPA).

RESOURCE MANAGEMENT AREAS (RMA):

- Are there any special flood hazard areas (100-year floodplain) .....YES (NO) located on the parcel?
- Are highly erodible soils, including steep slopes, present on .....YES (NO) the parcel and contiguous to any of the above RPA features?
- Does the parcel contain any highly permeable soils .....(YES) NO contiguous to an RPA?
- Does any portion of the parcel lie within 100 feet of a .....YES (NO) Resource Protection Area?
- Does the entire site (outside of the RPA) lie within a .....(YES) NO Resource Management Area?

STREAM PROTECTION AREAS (SPA):

- Is there any non-perennial stream with greater than 100 acres .....YES (NO) of contributing drainage area located on the parcel?
- Does any of the site lie within 50 feet of the stream bank of .....YES (NO) a SPA stream?

OTHER ENVIRONMENTAL SITE INFORMATION:

- Are there any wetlands/waters of the United States .....YES (NO) located on the parcel?
- Is development or land disturbance proposed in any .....YES (NO) wetlands/waters of the United States?



REVISION DESCRIPTION

DATE

6/30/2019

DRAWN BY

KPO

DESIGNED BY

KPO

CHECKED BY

CMK

SCALE

N/A

YOUR VISION ACHIEVED THROUGH OURS.

THIS DRAWING PREPARED AT THE CORPORATE OFFICE

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TIMMONS GROUP

Site Development | Residential | Infrastructure | Technology

EAST RAMP 3 ACCESS ROAD

HENRICO COUNTY - VIRGINIA

EROSION & SEDIMENT CONTROL NOTES & DETAILS

JOB NO.  
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SHEET NO.  
02D(02)

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