



EROSION & SEDIMENT CONTROL NARRATIVE

Project Description:

The project consists of grading and construction of drives, parking lots and associated utilities including storm drain, sanitary sewer and water for a flour mill. Approximately 8 acres of land will be disturbed with this project.

Existing Site Conditions:

The site is relatively open with some moderate brush and trees. The entire site drains into a Creek located in Northwestern side.

Adjacent Areas:

The site is surrounded by penn Forest subdivision in the Northwest, by commercial development in Northeast and Southwest and by Norfolk Western Railway in the East.

Off-site areas:

No offsite borrow or fill sites are expected to be associated with this project.

Soils:

No soil information has been furnished to Lumsden Associates, P.C.

Critical Areas:

It is critical that the erosion and sediment control measures be maintained to prevent any sediment from reaching the downstream areas.

General Standards:

All erosion and sediment control practices and procedures shall be in accordance with the latest edition of the Virginia Erosion and Sediment Control Handbook.

Erosion and Sediment Control Measures:

Construction Entrance (CE) - Std. & Spec. 3.02

A temporary construction entrance shall be installed where the construction access road leaves existing pavement. During wet weather conditions, drivers of construction vehicles will be required to wash their wheels before entering the street. When construction vehicles must enter disturbed areas, the tires of the vehicle shall be manually cleaned prior to leaving the site, if necessary.

Construction Road Stabilization (CRS) - Std. & Spec. 3.03

Construction Road Stabilization will be installed as shown on the plan as soon as the area has been brought to subgrade. Construction traffic shall be limited to CRS access roads and areas to be graded. Traffic is prohibited from entering drainage swales or streams unless absolutely necessary.

Silt Fence (SF) - Std. & Spec. 3.05

Silt Fence shall be installed at the lower edge of disturbed areas as shown on the plan. Two types of silt fence are shown on the plans in accordance with VDOT standards. The taller fence is specified as silt fence, "SF". A shorter fence is specified as filter barrier, "FB".

Inlet Protection (IP) - Std. & Spec. 3.07

Inlet Protection shall be installed at storm drain drop or curb inlets as shown on the plan to stop the sediments from entering the storm drain system.

Culvert Inlet Protection

is a sediment filter located at the inlet to culverts to prevent sediment from entering, accumulating in and being transferred by a culvert and associated drainage system.

Temporary Diversion Dike (DD) - Std. & Spec. 3.09

A Diversion Dike is a temporary ridge of compacted soil constructed at the top or base of a sloping disturbed area to either divert runoff from upslope area away from unprotected disturbed area to a stabilized outlet, or to divert sediment-laden runoff from a disturbed area to a sediment trap or basin.

Diversion (DV) - Std. & Spec. 3.12

A Diversion is a channel constructed across a slope with a supporting ridge of soil on the lower side to intercept and divert runoff to stabilized outlets at non-erosive velocities.

Stormwater Conveyance Channel (SCC) - Std. & Spec. 3.17

Stormwater Conveyance Channel shall be installed as shown on the plan.

Outlet Protection (OP) - Std. & Spec. 3.18

is structurally lined aprons or other energy dissipating devices placed at the outlets of pipes or paved channels to prevent scour at the outlets.

Rock Check Dam (CD) - Std. & Spec. 3.20

Rock Check Dams shall be installed as shown on the plan to minimize sediment laden runoff from exiting the site.

Temporary Sediment Trap (ST) - Std. & Spec. 3.13

is a temporary ponding area formed by constructing an earthen embankment with a stone outlet. It detains sediment laden runoff from small disturbed areas.

Temporary Seeding (TS) - Std. & Spec. 3.31

The temporary diversion dikes, topsoil stockpiles and all areas to be rough graded, but not finish graded during the initial phase of construction, shall be seeded with fast germinating, temporary vegetation immediately following grading, or installation if a temporary measure. See also Minimum Standards.

Permanent Seeding (PS) - Std. & Spec. 3.32

Permanent Seeding shall be installed on all disturbed areas of the site not otherwise stabilized.

Mulching (MU) - Std. & Spec. 3.35

All disturbed areas shall be mulched after seeding. Straw mulch shall be applied at a rate of two tons per acre and anchored with 750 lbs per acre of fiber mulch over the seeded area.

Maintenance:

All erosion and sediment control measures shall be inspected bi-weekly and after every runoff producing rainfall. A log of dates and inspections shall be kept. Any deficiencies that are found shall be corrected immediately. Accumulated sediment at trapping measures shall be routinely removed.

All ditches, swales, and natural watercourses downstream of this project shall be field inspected during and after construction by the RLD to ensure compliance with DCR's MS-19. If erosion or scour is occurring the developer shall be responsible for all corrective measures.

Erosion and sediment control measures shall be maintained until after all disturbed areas have been permanently stabilized and then temporary measures properly removed.

CONSTRUCTION SEQUENCE

- Contractor's Certified Responsible Land Disturber shall be named and provide a copy of his RLD Certificate to Roanoke County Department of Community Development at least two days prior to the pre-construction meeting. RLD shall also attend pre-con meeting.
- Contractor shall apply for DCR Land Disturbance Permit at least two (2) days prior to land disturbance and provide Roanoke County Department of Community Development copy of said permit within five (5) days of issuance.
- Install Construction Entrance and silt fence as the first step in the construction process.
- Construct and stabilize SWM facility.
- Install the diversions.
- Install storm drain from structure "B" to structure "GW".
- Install all the sediment trapping measures including sediment traps and inlet protection.
- Areas to be cut and filled are to be cleared and graded in phases. This phasing will be done to minimize the length of time areas are subject to erosion.
- Install remainder of storm drain as grading permits.
- Temporary erosion and sediment control measures shall be removed after those affected areas have been brought to final grade and permanently stabilized with improvements or established vegetation.