

EROSION & SEDIMENT CONTROL NARRATIVE

PROJECT DESCRIPTION

THE PURPOSE OF THIS PLAN IS TO BUILD A TWO STORY FACILITY WITH AN UNDERGROUND PARKING GARAGE FOR A MEDICAL OFFICE ON A VACANT 1.14 AC LOT IN ROANOKE COUNTY. DEVELOPMENT WILL INCLUDE A PARKING LOT, SITE ENTRANCE TO PETERS CREEK ROAD, UTILITIES, GRADING AND LANDSCAPING.

EXISTING SITE CONDITIONS

THE EXISTING SITE IS CURRENTLY UNDEVELOPED WITH GROUND COVER CONSISTING OF SPARSE GRASS WITH LITTLE TO NO TOPSOIL AND GRAVEL DRIVE AREAS.

ADJACENT PROPERTY

THE SITE IS BORDERED BY RESIDENTIAL PROPERTIES TO THE NORTH, COMMERCIAL PROPERTIES TO THE EAST AND WEST AND PETERS CREEK ROAD TO THE SOUTH.

SOILS

SOILS FOUND AT THIS SITE ARE UDORTHENTS--URBAN LAND COMPLEX AND HAVE A LARGE VARIETY OF CHARACTERISTICS AND GENERALLY NEED SOILS TEST TO DETERMINE SUITABILITY. THE SOIL HAS VARIABLE PERMEABILITY AND LOW EROSION POTENTIAL.

CRITICAL EROSION AREAS

THE POTENTIAL CRITICAL EROSION AREAS ARE:

1. THERE ARE NO POTENTIALLY CRITICAL EROSION CONTROL AREAS.

EROSION AND SEDIMENT CONTROL MEASURES

UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO THE MINIMUM STANDARDS AND SPECIFICATIONS OF THE "VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK", CURRENT EDITION.

STRUCTURAL PRACTICES

1. **TEMPORARY CONSTRUCTION ENTRANCE (SECTION 3.02)**  
A STABILIZED STONE PAD WITH A FILTER FABRIC UNDERLINER LOCATED AS SHOWN ON PLANS FOR VEHICULAR INGRESS AND EGRESS ON THE CONSTRUCTION SITE.
2. **SILT FENCE (SECTION 3.05)**  
A TEMPORARY SEDIMENT BARRIER CONSISTING OF A SYNTHETIC FILTER FABRIC STRETCHED ACROSS AND ATTACHED TO SUPPORTING POST AND ENTRENCHED, AS INDICATED ON PLANS.
3. **STORM DRAIN INLET PROTECTION (SECT. 3.07)**  
A SEDIMENT FILTER OR AN EXCAVATED IMPOUNDING AREA AROUND A STORM DRAIN DROP INLET OR CURB INLET.
3. **RIPRAP (SECT. 3.19)**  
A PERMANENT, EROSION-RESISTANT GROUND COVER OF LARGE, LOOSE, ANGULAR STONE WITH FILTER FABRIC OR GRANULAR UNDERLINING.

STORMWATER MANAGMENT

POST DEVELOPED STORMWATER WILL SHEET FLOW ACROSS THE PARKING LOT TO DROP INLETS AND FLOW TO AN UNDERGROUND BASIN LOCATED AT THE SOUTHEAST CORNER OF THE SITE. THE UNDERGROUND BASIN WILL ACT AS A STORMWATER DETENTION POND TO SATISFY ROANOKE COUNTY'S STORMWATER MANAGEMENT REGULATIONS.

VEGETATIVE PRACTICES

1. **TEMPORARY SEEDING (SECT. 3.31)**  
THE ESTABLISHMENT OF A TEMPORARY VEGETATIVE COVER ON DISTURBED AREAS, SHOWN ON PLANS, BY SEEDING WITH APPROPRIATE RAPIDLY GROWING ANNUAL PLANTS.
2. **PERMANENT SEEDING (SECTION 3.32)**  
THE ESTABLISHMENT OF PERENNIAL VEGETATIVE COVER ON DISTURBED AREAS THAT ARE AT FINAL GRADE BY PLANTING SEED IN AREAS SHOWN ON PLANS.
3. **MULCHING (SECTION 3.35)**  
APPLICATION OF PLANT RESIDUES OR OTHER SUITABLE MATERIAL TO THE SOIL SURFACE IN AREAS SHOWN ON PLANS.

MANAGEMENT STRATEGIES

1. CONSTRUCTION SHOULD BE SEQUENCED SO THAT GRADING OPERATIONS CAN BEGIN AND END AS QUICKLY AS POSSIBLE.
2. EROSION AND SEDIMENT CONTROL DEVICES SHALL BE INSTALLED AS THE FIRST STEP OF CONSTRUCTION.
3. AREAS WHICH ARE NOT TO BE DISTURBED SHALL BE CLEARLY MARKED BY FLAGS, SIGNS, ETC.
4. PRIOR TO ANY WORK BEING PERFORMED ON THE PROPOSED PROJECT, A TEMPORARY CONSTRUCTION ENTRANCE SHALL BE PROVIDED OFF OF THE EXISTING PAVEMENT. THE ENTRANCE SHALL BE COMPOSED OF GRADED 3" STONE TO A MINIMUM DEPTH OF 6". THE ENTRANCE SHALL ALSO RUN FOR A MINIMUM DISTANCE OF NOT LESS THAN 70' BACK FROM THE EXISTING PAVEMENT EDGES. THE ENTRANCE SHALL BE CONTINUALLY MAINTAINED, INSPECTED, REPAIRED, OR OTHERWISE BE KEPT IN GOOD FUNCTIONAL ORDER THROUGHOUT THE EXTENT OF THE WORK ON THE SITE.
5. REGARDLESS OF FUTURE DEVELOPMENT PLANS, THE CONTRACTOR SHALL IMMEDIATELY INSTALL EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN ON THE PLANS. THIS WORK SHALL BE COORDINATED IN ORDER OF THE WORK WHICH IS TO FOLLOW. CONTROL AT CENTERS OF FLOW, AND OTHER POINTS OF CONCENTRATION SHOWN SHALL BE CONSTRUCTED IN PLACE FIRST.
3. AFTER THE INSTALLED CONTROL DEVICES ARE FOUND TO BE FUNCTIONAL, THE CONTRACTOR SHALL IMMEDIATELY PROCEED WITH CLEARING, GRUBBING, AND PRELIMINARY GRADING OPERATIONS. ALL EXPOSED DENUDED AREAS SHALL BE SEEDED WITHIN SEVEN (7) DAYS AFTER FINAL GRADING, AND SHALL BE ACCOMPLISHED IN STRICT ACCORDANCE WITH THE "VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK", THIRD EDITION.
4. IN GENERAL, ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED WEEKLY AND AFTER EACH SIGNIFICANT RAINFALL. IN PARTICULAR:
  - A. THE CONSTRUCTION ENTRANCE SHALL BE MAINTAINED IN A CONDITION TO PREVENT TRACKING OR FLOW OF MUD ONTO PUBLIC RIGHT-OF-WAYS.
  - B. ALL SILT FENCE BARRIERS AND INLET PROTECTIONS SHALL BE CHECKED REGULARLY FOR UNDERMINING AND SEDIMENT BUILDUP.
  - C. ALL SEEDED AREAS WILL BE CHECKED REGULARLY TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHALL BE FERTILIZED AND RESEEDED AS NEEDED.
5. FOLLOWING THE COMPLETION OF DEVELOPMENT AND STABILIZATION OF ALL AREAS AND AFTER IT HAS BEEN DETERMINED THAT EROSION OR SEDIMENTATION IS NO LONGER OCCURRING ON THE SITE OR AT ITS BOUNDARIES AND THAT DRAINAGE FLOWS ARE FUNCTIONING ACCORDING TO DESIGN, THE CONTRACTOR MAY THEN BEGIN TO REMOVE THE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES. THIS WORK SHALL BE DONE IN A CAREFUL, NEAT, ORGANIZED MANNER.
6. FOR DETAILED MAINTENANCE OF INDIVIDUAL MEASURES REFER TO THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION, OR REFER DETAILS SHOWN ON PLANS.

PERMANENT STABILIZATION

ALL UNPAVED AREAS DISTURBED BY CONSTRUCTION SHALL BE STABILIZED WITH PERMANENT SEEDING IMMEDIATELY FOLLOWING FINISH GRADING. SEEDING SHALL BE IN ACCORDANCE TO STD. & SPEC. 3.32 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION. MULCH SHALL BE USED ALONG WITH PERMANENT SEEDING AND SHALL BE APPLIED IN ACCORDANCE WITH STD. AND SPEC. 3.35 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.

MAINTENANCE

IN GENERAL, ALL EROSION AND SEDIMENT CONTROL MEASURES WILL BE CHECKED DAILY AND AFTER EACH SIGNIFICANT RAINFALL. ANY ITEMS NOT FOUND IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK WILL BE IMMEDIATELY REPLACED AND/OR REPAIRED. THE FOLLOWING ITEMS WILL BE CHECKED IN PARTICULAR:

1. THE GRAVEL OUTLETS WILL BE CHECKED REGULARLY FOR SEDIMENT BUILDUP WHICH WILL PREVENT DRAINAGE. IF THE GRAVEL IS CLOGGED BY SEDIMENT, IT SHALL BE REMOVED AND CLEANED OR REPLACED.
2. THE SILT FENCE BARRIER 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 SHOULD BE FERTILIZED AND RE-SEEDED AS NEEDED.
4. SEE DETAILS FOR MORE SPECIFIC INFORMATION ON INDIVIDUAL MAINTENANCE PROCEDURES.

GENERAL

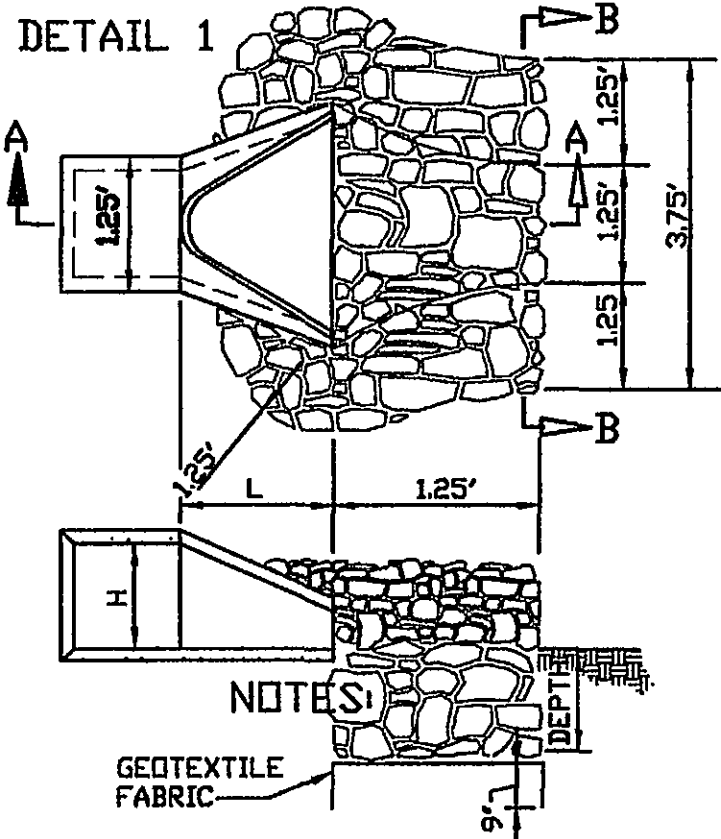
THE EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE CONSTRUCTION PLANS ARE THE MINIMUM MEASURES REQUIRED. DUE TO CONSTRUCTION PHASING AND OTHER CONSIDERATIONS ALL MEASURES CAN NOT BE SHOWN. THE OWNER, THROUGH HIS CONTRACTOR, WILL EMPLOY WHATEVER MEASURES WHICH MAY BE REQUIRED TO ASSURE THAT SEDIMENT LADEN RUNOFF DOES NOT LEAVE THE SITE.

ALL MATERIALS AND MEASURES EMPLOYED FOR EROSION AND SEDIMENT CONTROL WILL BE IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION.

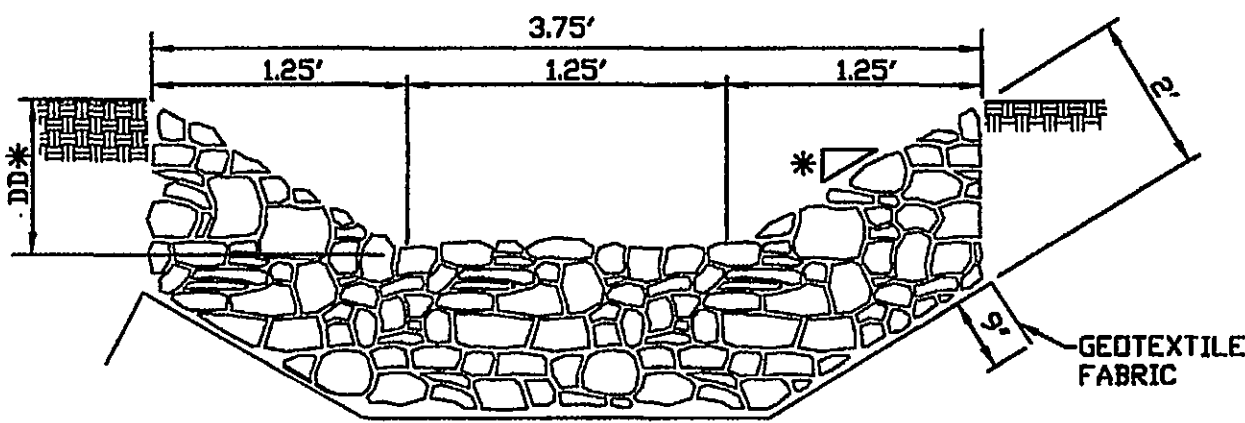
IF, DURING CONSTRUCTION, ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES ARE DEEMED NECESSARY, THEY SHALL BE INSTALLED AS DIRECTED BY THE OWNER, ENGINEER OR LOCAL GOVERNMENT AGENT.

THIS PROJECT IS TO BE CONSTRUCTED CONSISTENT WITH THE LATEST VIRGINIA EROSION AND SEDIMENT CONTROL REGULATIONS.

THE LOCATION OF ALL OFF-SITE FILL OR BORROW AREAS ASSOCIATED WITH THE CONSTRUCTION PROJECT WILL BE PROVIDED TO ROANOKE COUNTY DEPARTMENT OF COMMUNITY DEVELOPMENT. AN EROSION CONTROL PLAN OR MEASURES MAY BE REQUIRED FOR THIS AREA



SECTION A-A



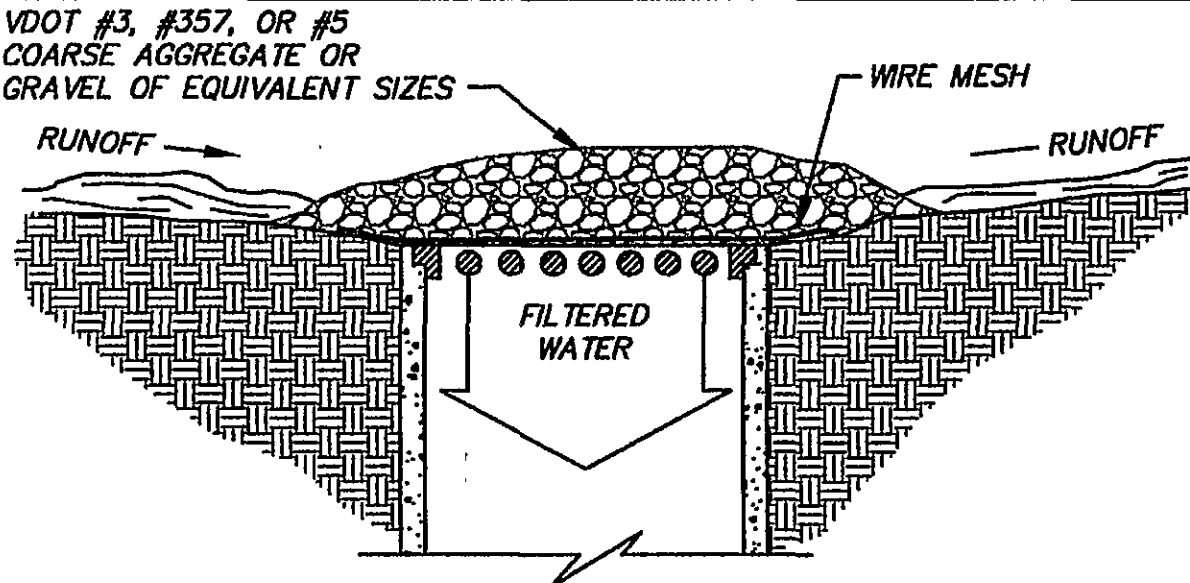
SECTION B-B

\* USE TYPICAL SECTION SHOWN ON PLANS OR NORMAL SIDE SLOPE, BOTTOM WIDTH, AND DEPTH OF CHANNEL, DITCH OF NATURAL GROUND.

FOR MULTIPLE LINE INSTALLATIONS DIMENSION D IS TO GOVERN THE PROTECTION OUTSIDE THE CHANNEL WIDTH (W). ON ANY SECONDARY ROADS INSTALLATION REQUIRING EROSION CONTROL STONE WHERE NO ENDWALL OR ENDSECTION IS SPECIFIED ON PLANS, CONSTRUCTION IS TO BE IN ACCORDANCE WITH DETAIL 2 SHOWN ABOVE.

GEOTEXTILE FABRIC TO BE INSTALLED UNDER ALL EROSION CONTROL STONE IN ACCORDANCE WITH THE SPECIFICATIONS.

RR EC-1 STONE FOR EROSION CONTROL



IP INLET PROTECTION

GENERAL NOTES:

1. THE METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY CONCENTRATED FLOWS ARE EXPECTED, BUT NOT WHERE PONDING AROUND THE STRUCTURE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS.
2. WIRE MESH SHALL BE LAID OVER DROP INLET SO THAT THE WIRE EXTENDS MIN. 1' BEYOND EACH SIDE OF INLET STRUCTURE. WIRE MESH WITH 1/2" OPENINGS SHALL BE USED. IF MORE THAN ONE STRIP OF MESH IS NECESSARY, THE STRIPS SHALL BE OVERLAPPED.
3. AFTER EACH RUNOFF PRODUCING RAINFALL THE GRAVEL SHALL BE CHECKED TO SEE IF IT HAS BECOME CLOGGED, THE CONTRACTOR SHALL CLEAN OR REPLACE GRAVEL AS REQUIRED.

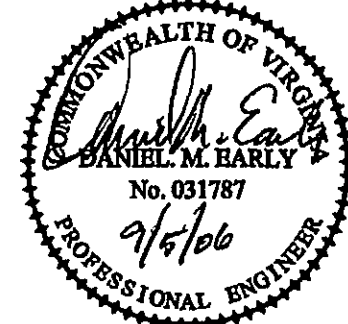
GRAVEL AND WIRE DROP INLET SEDIMENT FILTER

- A.) WIRE MESH SHALL BE LAID OVER THE DROP INLET SO THAT THE WIRE EXTENDS A MINIMUM OF 1 FOOT BEYOND EACH SIDE OF THE STRUCTURE. WIRE MESH WITH 1/2-INCH OPENINGS SHALL BE USED. IF MORE THAN ONE STRIP OF MESH IS NECESSARY, THE STRIPS SHALL BE OVERLAPPED.
- B.) COARSE AGGREGATE SHALL BE PLACED OVER THE WIRE MESH AS INDICATED IN THE DETAIL. THE DEPTH OF STONE SHALL BE AT LEAST 12 INCHES OVER THE ENTIRE INLET OPENING. THE STONE SHALL EXTEND BEYOND THE INLET OPENING AT LEAST 18 INCHES ON ALL SIDES.
- C.) IF THE STONE FILTER BECOMES CLOGGED WITH SEDIMENT SO THAT IT NO LONGER ADEQUATE PERFORMS ITS FUNCTION, THE STONES MUST BE PULLED AWAY FROM THE INLET, CLEANED AND/OR REPLACED.

NOTE: THIS FILTERING DEVICE HAS NO OVERFLOW MECHANISM; THEREFORE, PONDING IS LIKELY ESPECIALLY IF SEDIMENT IS NOT REMOVED REGULARLY. THIS TYPE OF DEVICE MUST NEVER BE USED WHERE OVERFLOW MAY ENDANGER AN EXPOSED FIL SLOPE. CONSIDERATION SHOULD ALSO BE GIVEN TO THE POSSIBLE EFFECTS OF PONDING ON TRAFFIC MOVEMENT, NEARBY STRUCTURES, WORKING AREAS, ADJACENT PROPERTY, ETC.

MAINTENANCE

1. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
2. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE HALF THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
3. TEMPORARY STRUCTURES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY STABILIZED.



ACS DESIGN

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VISTAR EYE CENTER  
SITE PLAN  
ROANOKE COUNTY, VIRGINIA

DRAWN BY: KAL

DESIGNED BY: KAL

CHECKED BY: DME

DATE: 03/28/2006

SCALE: 1"=20'

REVISIONS

DATE	REVISION	COMMENT

SHEET No.

C1.5

EROSION CONTROL  
NARRATIVE AND DETAILS

JOB No. 06005