SOIL EROSION CONTROL NARRATIVE

PROJECT DESCRIPTION:

THE PURPOSE OF THIS PROJECT IS TO PROVIDE HANDICAP ACCESS AND INSTALL NEW UTILITY SERVICE LATERALS AND TO UPGRADE EXISTING WATER LINES FROM THE METERS TO THE BUILDINGS. THE AMOUNT OF LAND DISTURBANCE IS ESTIMATED AT 57,320 SQUARE FEET (1.32 ACRES). RUNOFF IS DIRECTED TO PROPOSED GRATE INLETS AND EXISTING GUTTERS ALONG BLUEMONT AVENUE, S.W.. PAVEMENT BEHIND BUILDING 5 TO BE REWORKED FOR HANDICAP PARKING AND DUMPSTER PAD INSTALLATION. SANITARY SEWER AND WATER LATERALS WILL BE INSTALLED ON THIS PROJECT. THE EROSION & SEDIMENT CONTROL MEASURES SHOWN HERE ARE DESIGNED IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK (VA ESCH).

EXISTING SITE CONDITIONS:

THE EXISTING SITE CONDITIONS INCLUDE THE SIDEWALKS ALONG BLUEMONT AVENUE, S.W. AND DUNMORE STREET, S.W. AND PORTIONS OF THE SIDEWALKS BEHIND BUILDINGS 3, 4, 5, AND PAVEMENT BEHIND BUILDING 5. RUNOFF FROM THESE AREAS SHEET FLOW TO THE EXISTING COLLECTION SYSTEM; GRATE INLETS AND CURB & GUTTER ALONG BLUEMONT AVENUE AND DUNMORE STREET. THE RUNOFF FROM THIS SITE DRAINS TO PUBLIC STORM SEWER SYSTEM AND EVENTUALLY REACHING THE ROANOKE RIVER.

SOILS:

AS IDENTIFIED BY THE U.S. DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, GENERAL SOIL MAP, THE BASIC SOIL MATERIAL IS CHISWELL-LITZ-URBAN LAND.

CRITICAL AREAS:

THE CONTRACTOR SHALL PROVIDE INLET PROTECTION ON THE EXISTING GRATE INLETS AS SHOWN ON THE PLANS. INSTALL SILT FENCE AS SHOWN ON THE PLANS TO CAPTURE SEDIMENT LADEN RUNOFF AND FILTER RUNOFF PRIOR TO ENTERING DOWNSTREAM AREAS. ALL SILT FENCE SHALL BE INSTALLED AND CHECKED REGULARLY. THE CONTRACTOR SHALL INSURE THAT PROVISIONS BE MADE TO MINIMIZE SEDIMENT BY CONSTRUCTION VEHICLES FROM REACHING THE PAVED SURFACES. ALL MUD AND SEDIMENT MUST BE WASHED FROM THE VEHICLES PRIOR TO ENTERING THE PUBLIC ROAD. THE CONTRACTOR SHALL HAVE EQUIPMENT ON-SITE TO KEEP SEDIMENT OFF OF EXISTING PAVED AREAS. THE CONTRACTOR SHALL INSTALL TREE PROTECTION ON TREES, AS SHOWN ON THE PLANS. THE CONTRACTOR SHALL PROVIDE PERMANENT SEEDING WITHIN SEVEN (7) DAYS OF OBTAINING FINAL GRADES. THE CONTRACTOR SHALL PROVIDE DUST CONTROL MEASURES IN ACCORDANCE WITH THE VA ESCH REQUIREMENTS TO KEEP DUST TO A MINIMUM.

ADJACENT PROPERTY: THIS SITE IS ADJOINED BY PUBLIC ROADWAYS ON ALL SIDES.

EROSION & 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", THIRD EDITION.

1. REGARDLESS OF FUTURE DEVELOPMENT PLANS, THE CONTRACTOR SHALL IMMEDIATELY INSTALL EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN ON THE PLANS, IN A MANNER THAT PROTECTS DOWNSTREAM AREAS FROM SEDIMENT LADEN RUNOFF. 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.

2. AFTER THE INSTALLED CONTROL DEVICES ARE FOUND TO BE FUNCTIONAL, THE CONTRACTOR SHALL IMMEDIATELY PROCEED WITH DEMOLITION, CLEARING, 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.

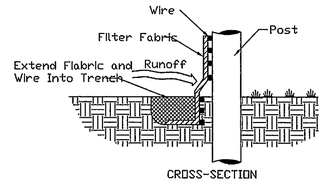
3. IN GENERAL, ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED WEEKLY AND AFTER EACH SIGNIFICANT RAINFALL. IN PARTICULAR:

   A. MEASURES SHALL BE MAINTAINED 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.

4. 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.

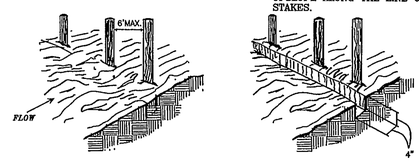
GENERAL EROSION & SEDIMENT CONTROL NOTES

1. ALL SOIL EROSION & SEDIMENT CONTROL MEASURES AS SHOWN ON THE PLAN SHALL BE ACCOMPLISHED IN STRICT ACCORDANCE WITH THE STANDARDS AND SPECIFICATIONS CONTAINED IN THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION.
2. THE APPROVING AUTHORITY MAY ADD TO, DELETE, RELOCATE, CHANGE, OR OTHERWISE MODIFY CERTAIN EROSION AND SEDIMENT CONTROL MEASURES WHERE FIELD CONDITIONS ARE ENCOUNTERED THAT WARRANT SUCH MODIFICATIONS.
3. ALL SOIL EROSION AND SEDIMENT CONTROL MEASURES AS SHOWN ON THE PLAN SHALL BE PLACED IN ADVANCE OF THE WORK BEING PERFORMED, AS FAR AS PRACTICAL.
4. IN NO CASE DURING CONSTRUCTION SHALL WATER RUNOFF BE DIVERTED OR ALLOWED TO FLOW TO LOCATIONS WHERE ADEQUATE PROTECTION HAS NOT BEEN PROVIDED.
5. DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING DEVICE.
6. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LEAVE THE SITE ADEQUATELY PROTECTED AGAINST EROSION, SEDIMENTATION, OR ANY DAMAGE TO ANY ADJACENT PROPERTY AT THE END OF EACH DAY'S WORK.
7. FOR THE EROSION CONTROL KEY SYMBOLS SHOWN ON THE PLANS, REFER TO THE VIRGINIA UNIFORM CODING SYSTEM FOR EROSION AND SEDIMENT CONTROL PRACTICES CONTAINED IN THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION.
8. REFERENCE IS DIRECTED TO PLAN SHEETS FOR SITE DEPICTING EROSION AND SEDIMENT CONTROL MEASURES.
9. THE JOB SUPERINTENDENT SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL PRACTICES.
10. NO WORK SHALL PROCEED ON THE SITE UNTIL THE PROPER AUTHORIZATION OR PERMIT HAS BEEN OBTAINED FROM THE APPROVING AUTHORITY.
11. WHILE THE ENGINEER, PARKER DESIGN GROUP, HAS PREPARED THE PLAN IN ACCORDANCE TO THE VA ESCH, THE ENGINEER ASSUMES NO RESPONSIBILITY FOR QUALITY OR EROSION CONTROL METHODS PERFORMED BY THE CONTRACTOR OR SUBCONTRACTOR.

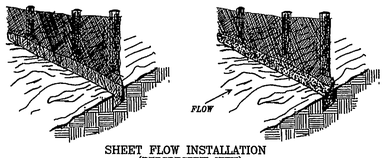


CROSS-SECTION

1. SET THE STAKES.
2. EXCAVATE A 4"X 4" TRENCH UPSLOPE ALONG THE LINE OF STAKES.

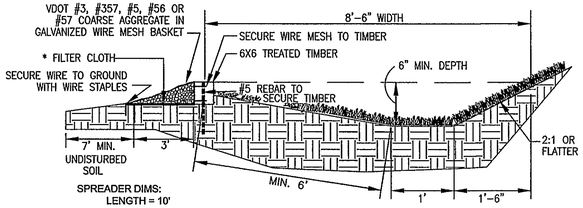


3. STAPLE FILTER MATERIAL TO STAKES AND EXTEND IT INTO THE TRENCH.
4. BACKFILL AND COMPACT THE EXCAVATED SOIL.



SHEET FLOW INSTALLATION
(PERSPECTIVE VIEW)

(SF) *SILT FENCE*
VA ESCH STD. & SPEC. 3.05

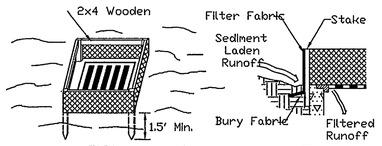


CROSS SECTION

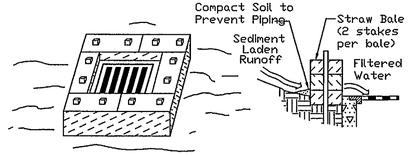
* MIN. PHYSICAL REQUIREMENTS OF FILTER CLOTH NOTED IN STD. & SPEC. 3.19, RIP-RAP.

PERMANENT LEVEL SPREADERS WITH RIGID LIP

(LS) *MODIFIED LEVEL SPREADER*
VA ESCH STD & SPEC 3.21

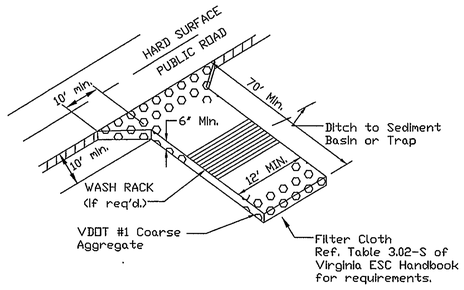


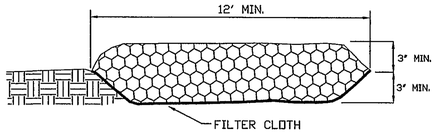
FABRIC DROP INLET SEDIMENT FILTER

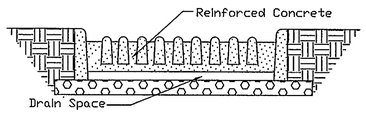


STRAW BALE DROP INLET SEDIMENT FILTER

(IP) *STORM DRAIN INLET PROTECTION*
VA ESCH STD. & SPEC. 3.07



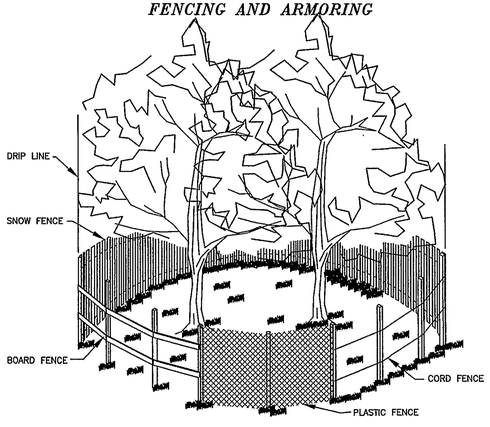




WASH RACK DETAIL

(CE) *TEMPORARY SEEDING MIXTURE*
VA ESCH STD & SPEC 3.31

FENCING AND ARMORING



CORRECT METHODS OF TREE FENCING

(TP) *TREE PROTECTION*
VA ESCH STD. & SPEC. 3.38

01 MARCH TO 30 APRIL
WINTER RYE (SECALE CERALE) @ 2 1/2 LB / 1000 SF
OR ANNUAL RYEGRASS (LOLIUM MULTI-FLORUM) @ 1 1/2 LF / 1000 SF
OR KOREAN LESPEDEZA (LESPEDEZA STIPULACEA) @ 1 1/2 LF / 1000 SF

01 MAY TO 15 AUGUST
GERMAN MILLET (SETARIA ITALICA) @ 1 LB / 1000 SF
OR WEEPING LOVEGRASS (ERAGROSTIS CLRVULA) @ 5 1/2 OZ / 1000 SF
OR KOREAN LESPEDEZA (LESPEDEZA STIPULACEA) @ 1 1/2 LF / 1000 SF

15 AUGUST TO 01 NOVEMBER
WINTER RYE (SECALE CERALE) @ 1 LB / 1000 SF
AND ANNUAL RYEGRASS (LOLIUM MULTI-FLORUM) @ 1 LF / 1000 SF

MULCH: SHALL BE USED OVER ALL SEEDED AREAS AND SHALL BE APPLIED IN ACCORDANCE WITH SECTION 3.35 OF THE VIR-GINIA EROSION AND SEDIMENT CONTROL HANDBOOK, 3rd ED.

SEED APPLICATION: APPLY SEED UNIFORMLY WITH A CYCLONE SEEDER, DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER ON A FIRM, FRIABLE SEEDBED. MAX. SEEDING DEPTH SHALL BE 1/4 INCH.

(TS) *TEMPORARY SEEDING MIXTURE*
VA ESCH STD & SPEC 3.31

TYPE A (SLOPES FLATTER THAN 3:1)

15 OCTOBER TO 1 FEBRUARY
K-31 FESCUE @ 5 LB / 1000 SF
BORZY WINTER RYE @ 1/2 LB / 1000 SF

1 FEBRUARY TO 1 JUNE
K-31 FESCUE @ 5 LB / 1000 SF
ANNUAL RYE @ 1/2 LB / 1000 SF

1 JUNE TO 1 SEPTEMBER
K-31 FESCUE @ 5 LB / 1000 SF
GERMAN MILLET @ 1/2 LB / 1000 SF

1 SEPTEMBER TO 15 OCTOBER
K-31 FESCUE @ 5 LB / 1000 SF
ANNUAL RYE @ 1/2 LB / 1000 SF

TYPE B (SLOPES 3:1 OR STEEPER)

15 MARCH TO 1 MAY
CROWN VETCH @ 1/2 LB / 1000 SF
PERENNIAL RYEGRASS @ 1/2 LB / 1000 SF
RED TOP @ 1/8 LB / 1000 SF

15 AUGUST TO 1 OCTOBER
CROWN VETCH @ 1/2 LB / 1000 SF
PERENNIAL RYEGRASS @ 1/2 LB / 1000 SF
RED TOP @ 1/8 LB / 1000 SF

LIME: 140 LB / 1000 SF PULVERIZED AGRICULTURAL LIMESTONE

FERTILIZER: 5-20-10 @ 25 LB / 1000 SF
38-0-0 @ 7 LB / 1000 SF

MULCH: SHALL BE USED OVER ALL SEEDED AREAS AND SHALL BE APPLIED IN ACCORDANCE WITH SECTION 3.35 OF THE VA ESCH.
SOIL CONDITIONING: INCORPORATION OF LIME AND FERTILIZER, SELECTION OF CERTIFIED SEED, MULCHING, MAINTENANCE OF NEW SEEDLINGS, AND RESEEDING SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS CONTAINED WITHIN THE VA ESCH. ADDITIONAL SEEDING TO BE PERFORMED AS REQUIRED BY THE INSPECTOR.
SEED APPLICATION: APPLY SEED UNIFORMLY WITH A CYCLONE SEEDER, DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER ON A FIRM, FRIABLE SEEDBED. MAX. SEEDING DEPTH SHALL BE 1/4 INCH.

(PS) *PERMANENT SEEDING MIXTURE*
VA ESCH STD & SPEC 3.32

THE CONTRACTOR SHALL UTILIZE SOME MEASURE OF BLANKET MATTING, SOIL STABILIZATION, OR HYDROMULCH MATERIAL TO STABILIZE DISTURBED SLOPES AT 3:1 SLOPE OR STEEPER.

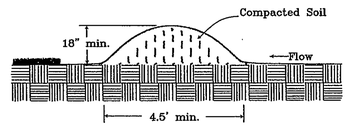
SOIL STABILIZATION BLANKETS & MATTING: VESCH STD & SPEC 3.36
TREATMENT-1: DEGRADABLE SOIL STABILIZATION BLANKET
EXAMPLES: JUTE MESH,
LANDSCAPE SUPPLY (NORTH AMERICAN GREEN) P300, C350, C125
EQUIVALENT SUPPLIERS
USE TO HELP ESTABLISH VEGETATIVE GROWTH, TEMPORARY MEASURES.

TREATMENT-2: NON-DEGRADABLE SOIL STABILIZATION BLANKET
EXAMPLES: LANDSCAPE SUPPLY (NORTH AMERICAN GREEN) P550
PYRAMAT

HYDRO MULCH: COMBINATION OF THERMALLY REFINED WOOD AND MULTI DIMENSIONAL TACKIFIER INSTALLED DURING THE HYDROSEEDING PROCESS OF STEEP SLOPES. MATERIAL CAN BE USED IN PLACE OF TREATMENT-1.
EXAMPLES: CONWED FIBERS HYDRO MULCH 2500
MAT, INC SOIL GUARD
HYDROGRASS - GEOPERM
EQUIVALENT SUPPLIERS
INSTALLATION RATE PER MANUFACTURER RECOMMENDATIONS
INSTALLATION: USE 50' AN TYPE NOZZLE
APPLICATION RATES: 3:1 OR FLATTER, USE 3,000 LBS/AC
2:1 USE 3,500 LBS/AC
PRODUCT CONTENTS: THERMALLY REFINED WOOD FIBER = 90%
BLENDED MULTI-DIMENSIONAL HYDRO-COLLOID BASED TACKIFIER = 10%
GREEN COLOR
MOISTURE: 10-13% +/- 2%
APPLICATION: RAIN DOWN ON SURFACE TO IMPROVE SOIL COVERAGE.
APPLY FROM OPPOSING DIRECTIONS TO .
MUST CURE OR DRY COMPLETELY TO BE EFFECTIVE.
SHOULD NOT BE APPLIED WITHIN 24 HOURS OF EXPECTED RAINFALL.

(B/M) *SOIL STABILIZATION BLANKETS/MATTING/HYDROMULCH*
VA ESCH STD & SPEC 3.36

FOR THE PURPOSE OF THIS PROJECT, THE CONTRACTOR SHALL ANTICIPATE UTILIZATION OF TREATMENT-2 MATTING WITH STAPLE PATTERN A OR HYDRO MULCH.



(DD) *TEMPORARY DIVERSION DIKE*
VA ESCH STD & SPEC 3.09

parker
DESIGN GROUP
ENGINEERS ▪ SURVEYORS ▪ PLANNERS ▪ LANDSCAPE ARCHITECTS
816 Boulevard
Salem, Virginia 24153
Phone: 540-387-1153
Fax: 540-389-5767
www.parkerdg.com

COMMONWEALTH OF VIRGINIA
SHELDON R. BOWER
Lic. No. 039439
10/3/07
PROFESSIONAL ENGINEER

Handicap Access & Utility Upgrade Terrace Apartments for TAAP Terrace, LLC

Roanoke, Virginia

REVISIONS:
1: revised per City Roanoke comments 05/01/07
revised per City Roanoke comments 10/03/2007
N.B.; JR-277

DESIGNED BY:	SRB, JJB
DRAWN BY:	JJB
CHECKED BY:	SRB
SCALE:	As Shown
DATE:	28 February 2007

SHEET TITLE:
ESC Narrative & Details

C07
07 OF 11
PROJECT NUMBER:
06-0360-07