## SOIL EROSION CONTROL NARRATIVE

PROJECT DESCRIPTION: THE PURPOSE OF THIS PROJECT IS TO DEVELOP LAND WHERE SEVERAL EXISTING HOUSES ONCE EXISTED. TO PROVIDE GRADING NECESSARY TO CONSTRUCT NEW BUILDINGS TO BE USED FOR RESIDENTIAL MULTIFAMILY USE. PORTIONS OF THE EXISTING PUBLIC CURB AND PAVEMENT WILL BE RECONSTRUCTED. STORMWATER MANAGEMENT IN THIS AREA IS DIFFICULT CONSIDERING ITS LOCATION TO TROUT RUN AND THE ASSOCIATED FLOODWAY AND FLOODPLAIN. THIS PROJECT WILL <u>DISTURB APPROXIMATELY 1.8 ACRES</u> FOR THE GRADING SHOWN.

> REGARDLESS OF THE PHASING, THE SITE WILL UTILIZE TWO CONSTRUCTION ENTRANCES, SILT FENCE, AND EXCAVATED DROP INLETS AS SEDIMENT TRAPS, INLET PROTECTION, AND PERMANENT SEEDING.

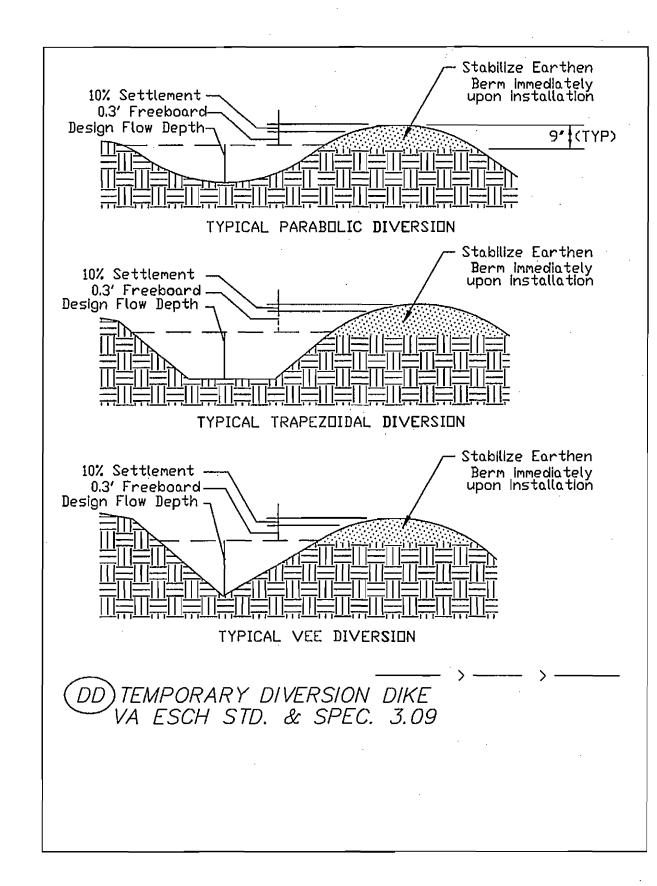
THE SITE CONTAINS A DRAINAGE DIVIDE. APPROXIMATELY 1/3 OF THE SITE DRAINS TOWARD CENTRE AVENUE, WHILE A LARGER MAJORITY DRAINS TOWARD LOUDON AVENUE. ALL RUNOFF IS PIPED TO TROUT RUN, LOCATED APPROXIMATELY 70 FEET TO THE NORTHEAST OF THE

EXISTING SITE CONDITIONS:

THE SITE IS CURRENTLY A SERIES OF RESIDENTIAL LOTS, SOME DEVELOPED AND SOME VACANT. THE PROPERTY HAS A SERIES OF TAX NUMBERS AS SHOWN ON THE PLAT PROVIDED WITH THIS SET OF PLANS. THE PROPERTY HAS RECENTLY UNDERGONE A REZONING REQUEST. ALL PROPERTIES ARE LOCATED THE CITY OF ROANOKE, VIRGINIA.

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

THE SILT FENCE ALONG CENTRE AVENUE AND LOUDON AVENUE SHOULD BE PLACED TO KEEP SEDIMENT OFF THE EXISTING PAVEMENT. ALL CRITICAL AREAS: SILT FENCE SHALL BE INSTALLED AND CHECKED REGULARLY. THE PROPOSED DRAINAGE STRUCTURES SHALL BE CONSTRUCTED AS ONE OF THE FIRST ITEMS. EACH STRUCTURE WILL THEN SERVE AS AN EXCAVATED DROP INLET OR HAVE INLET PROTECTION TO FILTER SEDIMENT FROM THE RUNOFF. EXCAVATED DEPTHS IN THIS AREA ARE A CONCERN AS THE LAND IS RELATIVELY FLAT, AND THE PROXIMITY TO TROUT RUN IMPEDES THE ABILITY TO GRADE WITHIN THE FLOODWAY. THE CONTRACTOR SHALL INSTALL TEMPORARY DIVERSION DIKE IN LOCATIONS SHOWN ON THE PLANS. THE CONTRACTOR SHALL STABILIZE EARTHEN BERMS, DIKES, AND DAMS IMMEDIATELY UPON INSTALLATION. THE CONTRACTOR SHALL PROVIDE PERMANENT SEEDING WITHIN SEVEN (7) DAYS OF OBTAINING FINAL GRADES. THE CONTRACTOR MAY BE REQUIRED TO SEED CERTAIN AREAS AT FINAL GRADE WHILE OTHER AREAS ARE NOT TO FINAL GRADE. A CONSTRUCTION ENTRANCE SHALL BE UTILIZED ALONG LOUDON AVENUE AND ALONG CENTRE AVENUE. THIS WILL ALLOW THE CONTRACTOR TO STAGE MATERIAL IN ONE AREA WHILE WORKING IN ANOTHER. INLET PROTECTION OF EXISTING AND PROPOSED STRUCTURES IS CRITICAL. AS THE RUNOFF IS PIPED DIRECTLY INTO TROUT RUN.



## **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", THIRD EDITION.

> 1. 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

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

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 COMMENTS: 1. THE JOB SUPERINTENDENT SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL PRACTICES.

2. THE <u>CITY OF ROANOKE</u> RESERVES THE RIGHT TO ADD TO, DELETE, OR OTHERWISE CHANGE EROSION CONTROL DEVICES AS MAY BE DEEMED NECESSARY BY WRITTEN NOTIFICATION TO THE CONTRACTOR.

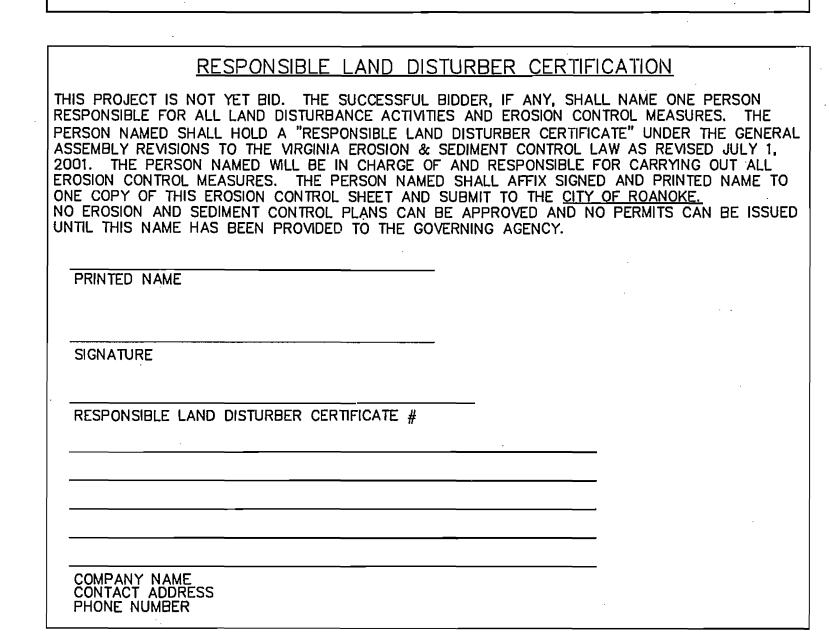
3. NO WORK SHALL PROCEED ON THE SITE UNTIL THE PROPER AUTHORIZATION OR PERMIT HAS BEEN OBTAINED FROM THE CITY OF ROANOKE.

4. THE ENGINEER, PARKER DESIGN GROUP, ASSUMES NO RESPONSIBILITY FOR ANY WORK BEING PERFORMED.

## 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. 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.
- 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.
- REFERENCE IS DIRECTED TO "GRADING & EROSION CONTROL" PLAN FOR SITE DEPICTING EROSION AND SEDIMENT CONTROL MEASURES.

	BOND COST ESTIMATE			
ITEM - E & S	<u>UNITS</u>	UNIT COST	QUANTITY	TOTAL
CONSTRUCTION ENTRANCE SILT FENCE EXCAVATED DROP INLET INLET PROTECTION DIVERSION DIKE PERMANENT SEEDING	EA LF EA EA LF ACRE	\$ 1,500.00 \$ 4.00 \$ 500.00 \$ 200.00 \$ 5.00 \$ 1,500.00	2 750 2 10 115 1.0	\$ 3,000.00 \$ 3,000.00 \$ 1,000.00 \$ 2,000.00 \$ 575.00 \$ 1,500.00
			SUBTOTAL  10% CONTINGENCY	\$ 11,075.00° \$ 1,108.00
			TOTAL	\$12,183.00



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) CROWN VETCH @ 1/2 LB / 1000 SF

PERENNIAL RYEGRASS @ 1/2 LB / 1000 SF

PERENNIAL RYEGRASS @ 1/2 LB / 1000 SF RED TOP 6 1/8 LB / 1000 SF 15 AUGUST TO 1 OCTOBER CROWN VETCH @ 1/2 LB / 1000 SF

RED TOP @ 1/8 LB / 1000 SF

140 LB / 1000 SF PULVERIZED AGRICULTURAL LIMESTONE

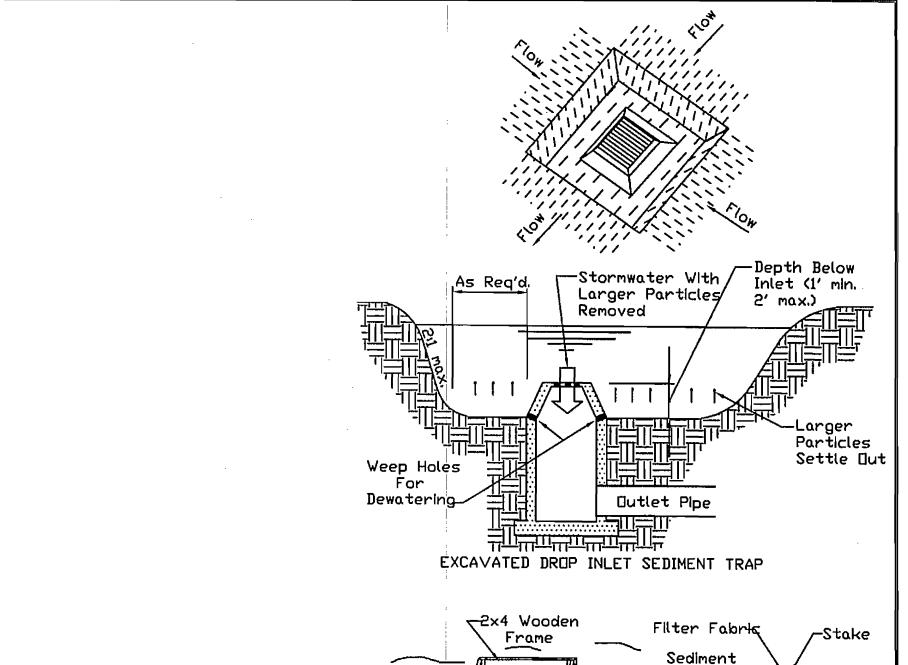
FERTILIZER: 5-20-10 @ 25 LB / 1000 SF 38-0-0 @ 7 LB / 1000 SF

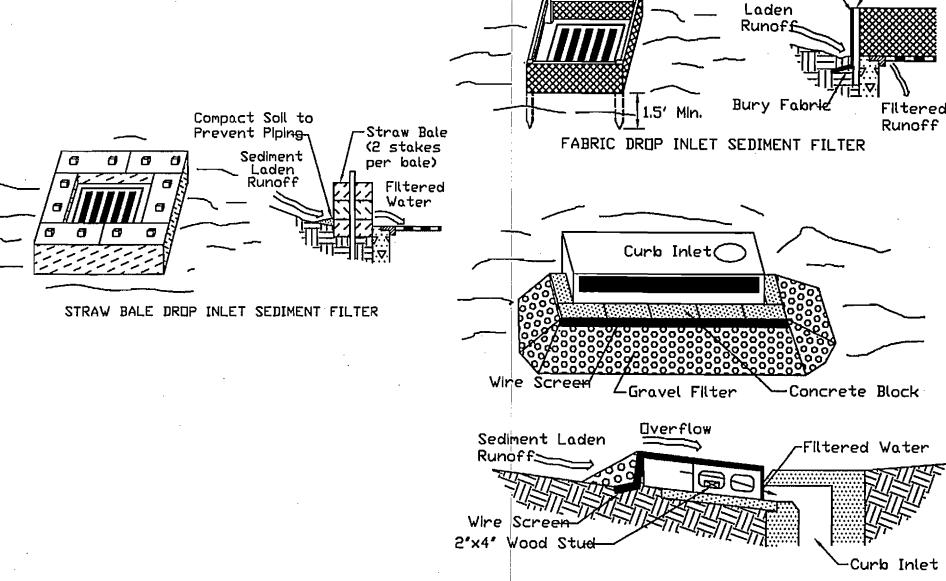
SHALL BE USED OVER ALL SEEDED AREAS AND SHALL BE APPLIED IN ACCORDANCE WITH SECTION 3.35 OF THE VIR-GINIA EROSION AND SEDIMENT CONTROL HANDBOOK, 3rd ED.

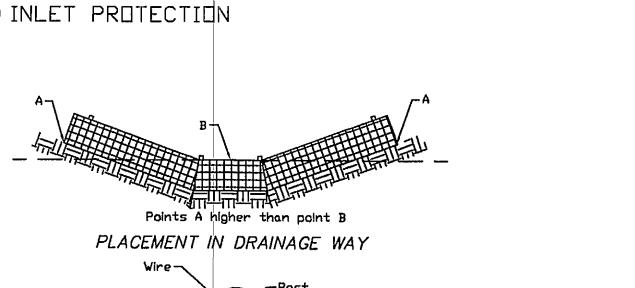
SOIL CONDITIONING: INCORPORATION OF LIME AND FERTILIZER, SELECTION OF CERTIFIED SEED, MULCHING, MAINTENANCE OF NEW SEED-LINGS, AND RESEEOING SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS CONTAINED WITHIN THE VIRGINIA SOIL ERO-SION AND SEDIMENT CONTROL HANDBOOK, THIRD EDITION. ADDITIONAL SEEDING TO BE PERFORMED AS REQUIRED BY

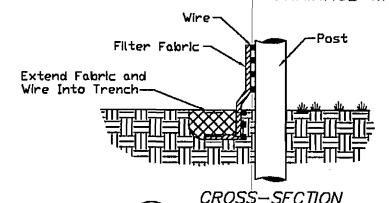
SEED APPLICATION: APPLY SEED UNIFORMLY WITH A CYCLONE SEEDER. DRILL, CULTIPACKER SEEDER, OR HYDROSEEDER ON A FIRM, FRIABLE SEEDBED. MAX. SEEDING DEPTH SHALL BE 1/4 INCH.

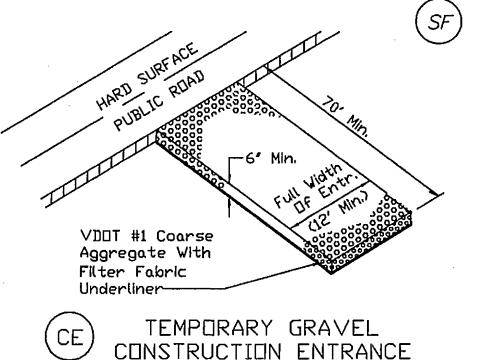
PERMANENT SEEDING MIXTURE

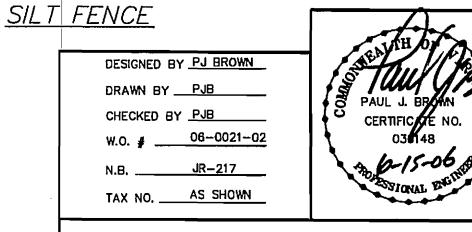










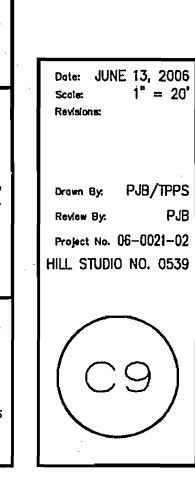


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