

NARRATIVE:

PROJECT DESCRIPTION

The purpose of this project is to provide demolition and grading for the construction of a Office building. The site is located on the south side of Hersherberger Road N.W. The site will consist of construction of an one story building and a parking area. The amount of land disturbance is estimated at 9,820 square feet (0.23 acres).

EXISTING CONDITIONS

The undeveloped site slopes from Hersherberger Road in a southerly direction, to the rear of site. Slopes range from from 8 % to 2:1 slopes. Runoff flows to two depressed areas along the eastern edge of residential property. The site is grassed with scattered trees as shown on the plans.

ADJACENT PROPERTY

The site fronts on Hersherberger Road along the North side, while property owned by TACOMA Inc. (Taco Bell) bounds to the east, the property on the west side is owned by Southwest Telco Federal Credit Union and the property to the south is owned by Billy C. & Emma G. Franklin (a residential use).

SOILS

As Identified By The U.S. Department Of Agriculture, Soil Conservation Service, General Soil Map, The Basic Soil Material Is Frederick-Urban Land-Chilhowie (21C).

CRITICAL EROSION AREAS

There are no critical erosion areas. Retaining Walls remove the need to for steep slopes. See Submittal Package for Phased Erosion & Sediment Control Measures.

EROSION AND SEDIMENT CONTROL MEASURES

Unless otherwise stated all erosion and sediment control measures shall be constructed and maintained in accordance with minimum standards and specifications of the latest edition of the "Virginia Erosion and Sediment Control Handbook".

STRUCTURAL PRACTICES

**Temporary Construction Entrance (3.02)** - A stone pad, located at points of vehicular ingress and egress on a construction site, to reduce the soil transported onto public roads and other paved areas.

A Temporary Construction Entrance has been included in this project and is shown on the drawings.

**Construction Road Stabilization (3.03)** - Temporary stabilization with stone of access roads, subdivision streets, parking areas and other traffic areas immediately after grading to reduce erosion caused by vehicles during wet weather, and to prevent having to regrade permanent roadbeds between initial grading and final stabilization.

Construction Road Stabilization will be used on this project and is shown on the drawings.

**Silt Fence (3.05)** - A temporary sediment barrier constructed of posts, filter fabric and, in some cases, a wire support fence, placed across or at the toe of a slope or in a minor drainage way to intercept and detain sediment and decrease flow velocities from drainage areas of limited size; applicable where sheet and rill erosion or small concentrated flows may be a problem. Maximum effective life of 6 months.

Silt Fence will be used on this project and is shown on the drawings.

**Storm Drain Inlet Protection (3.07)** - The installation of various kinds of sediment trapping measures around drop inlets or curb inlet structures prior to permanent stabilization of the disturbed area; limited to drainage areas not exceeding one acre, and not intended to control large, concentrated stormwater flows.

Storm Drain Inlet Protection will be used for this project and is shown on the drawings.

**Diversion Dike (3.09)** - A ridge of compacted soil constructed at the top or base of a sloping disturbed area which diverts off-site runoff away from unprotected slopes and to a stabilized outlet, or to divert sediment-laden runoff to a sediment trapping structure. Maximum effective life is 18 months.

Diversion Dike is part of this project to protect the infiltration area during construction.

**Topsailing (3.30)** - Preserving and using topsoil to provide a suitable growth medium for vegetation used to stabilize disturbed areas. Applicable where preservation or importation of topsoil is most cost-effective method of providing a suitable growth. Topsoil Stockpile location is shown on the plans.

**Temporary Seeding (3.31)** - Establishment of temporary vegetative cover on disturbed areas that will not be brought to final grade for periods of 30 days to one year by seeding with appropriate rapidly-growing plants.

Temporary Seeding will be used on this project and is shown on the drawings.

**Permanent Seeding (3.32)** - Establishment of perennial vegetative cover by planting seed on rough-graded areas that will not be brought to final grade for a year or more or where permanent, long-lived vegetative cover is needed on fine-graded areas.

Permanent Seeding will be used on all finished areas outside of the parking and driveway areas.

**Tree Preservation and Protection (3.38)** - Protecting existing trees from mechanical and other injury during land-disturbing and construction activity to ensure the survival of desirable trees where they will be effective for erosion and sediment control and provide other environmental and aesthetic benefits.

Tree Preservation and Protection will be used to protect some of the existing trees along the eastern property line.

MANAGEMENT STRATEGIES

1. Construction will be sequenced to begin and end grading operations as quickly as possible.
2. The Silt fence along the perimeter of the property and inlet protections will be installed as the first step of the grading process.
3. All areas shall be seeded with permanent stabilization as soon as they reach final grade.
4. The contractor shall be responsible for installation and maintenance of all erosion and sediment control measures.
5. Once the site has been stabilized, the temporary erosion and sediment control measures may be removed and those areas brought to final grade and stabilized.

PERMANENT STABILIZATION

All disturbed areas shall receive permanent stabilization accordance with the "Virginia Erosion and Sediment Control Handbook", STD and Spec. 3.32 as soon as those areas are brought to final grade. For permanent seeding mixture see the Erosion and Sediment Control detail sheet.

MAINTENANCE

All sediment and erosion control measures shall be checked daily and after all significant rainfall. In particular:

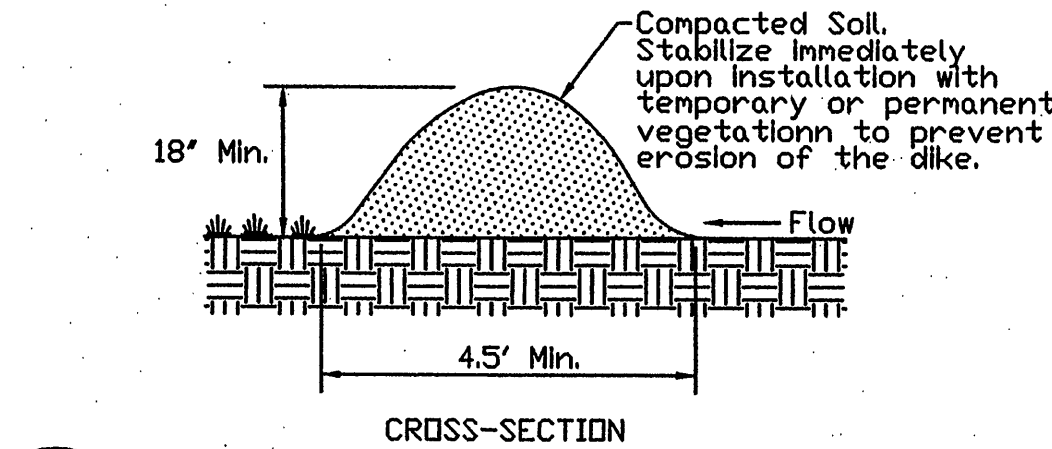
1. Silt Fence shall be checked regularly to ensure that the fabric has not been undermined or has deteriorated. Sediment shall be removed when level of buildup reaches halfway up the barrier.
2. Areas which have received seeding shall be checked regularly to ensure that a good stand of grass is maintained. Areas shall be fertilized and reseeded as required.

GENERAL EROSION & SEDIMENT CONTROL NOTES:

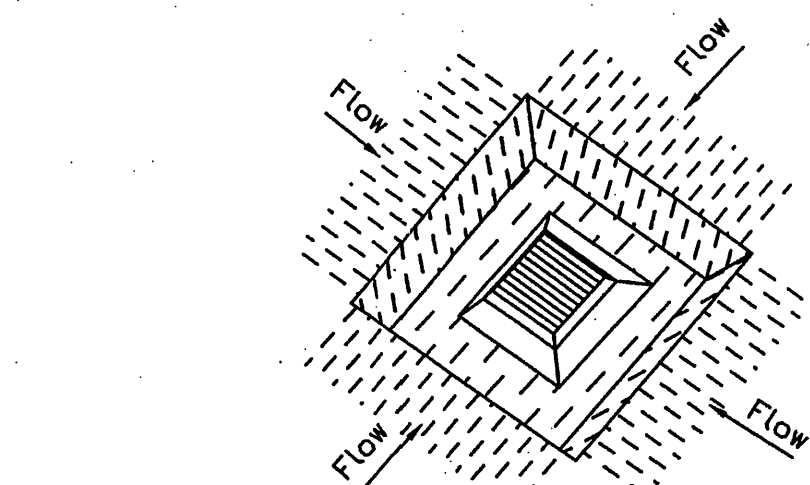
1. All soil erosion & sediment control measures as shown on the plan shall be accomplished in strict accordance with the standards and specifications contained in the Virginia Erosion and Sediment Control Handbook, latest edition.
2. The approving authority may add to, delete, relocate, change, or otherwise 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.
6. 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.
7. Reference is directed to plan sheets for site depicting erosion and sediment control measures.

GENERAL COMMENTS:

1. The job superintendent shall be responsible for the installation and maintenance of all erosion and sediment control practices.
2. The approving authority 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 approving authority.
4. 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.



DD TEMPORARY DIVERSION DIKE  
VA ESCH STD. & SPEC. 3.09



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

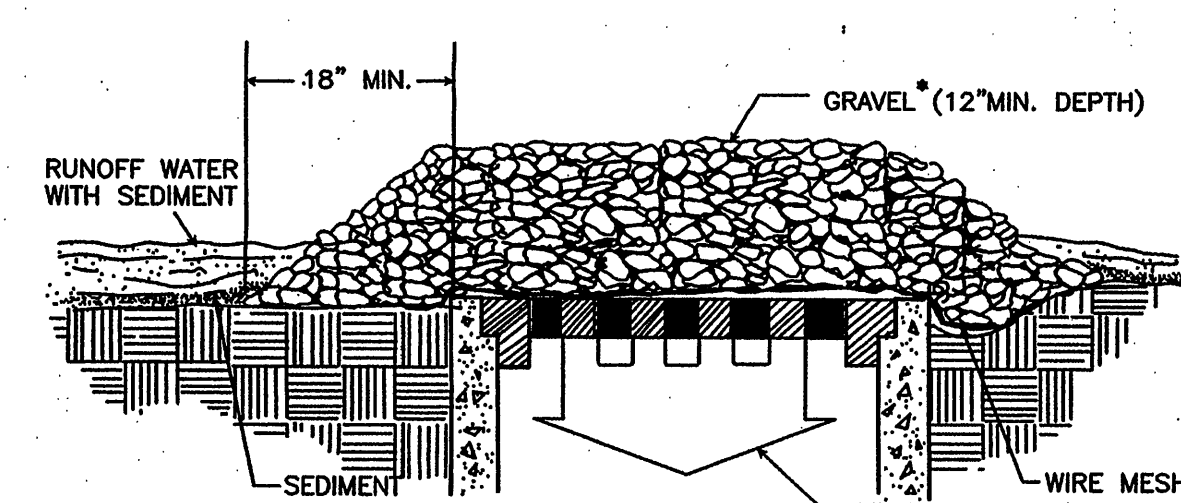
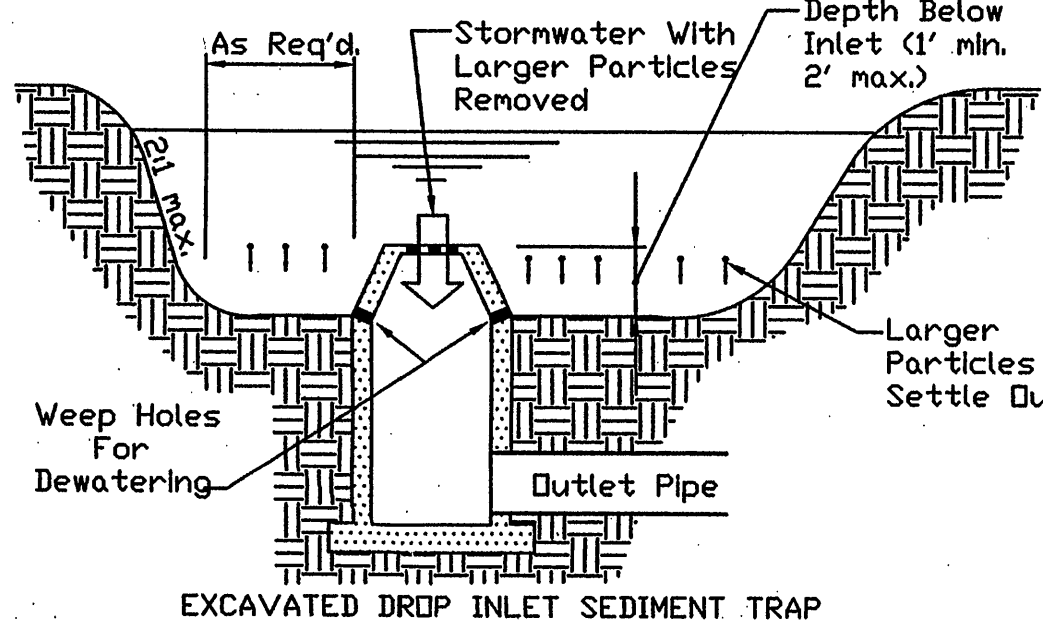
1 FEBRUARY TO 1 JUNE  
K-31 FESCUE @ 5 LB / 1000 SF  
ANNUAL RYE @ 1/2 LB / 1000 SF  
1 JUNE TO 1 SEPTEMBER  
K-31 FESCUE @ 5 LB / 1000 SF  
GERMAN MILLET @ 1/2 LB / 1000 SF  
1 SEPTEMBER TO 15 OCTOBER  
K-31 FESCUE @ 5 LB / 1000 SF  
ANNUAL RYE @ 1/2 LB / 1000 SF

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

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 SEEDINGS, 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



IP\* GRAVEL AND WIRE MESH DROP INLET SEDIMENT FILTER  
SPECIFIC APPLICATION

THIS METHOD OF INLET PROTECTION IS APPLICABLE WHERE HEAVY CONCENTRATED FLOWS ARE EXPECTED BUT NOT WHERE PONDING AROUND THE STRUCTURE MIGHT CAUSE EXCESSIVE INCONVENIENCE OR DAMAGE TO ADJACENT STRUCTURES AND UNPROTECTED AREAS.

\* GRAVEL SHALL BE VDOT #3, #357 OR #5 COARSE AGGREGATE.

EROSION-SILTATION CONTROL COST ESTIMATE				
ALL COSTS GIVEN ARE COMPLETE IN PLACE				
DESCRIPTION	UNIT	QUANTITY	UNIT COST	TOTAL COST
CONSTRUCTION ENTRANCE	EA	1	\$ 1,250.00	\$ 1,250.00
SILT FENCE	LF	160	4.00	640.00
INLET PROTECTION	EA	4	250.00	1,000.00
CONSTRUCTION ROAD STABILIZATION	TON	100	15.00	1,500.00
DIVERSION DIKE	LF	170	5.00	850.00
TOPSOILING	LS	---	600.00	600.00
TEMPORARY SEEDING	AC.	0.06	1,800.00	108.00
PERMANENT SEEDING	AC.	0.06	2,400.00	144.00
SUB-TOTAL				\$ 6,092.00
10% CONTINGENCY				\$ 610.00
TOTAL PROJECT COST				\$ 6,702.00

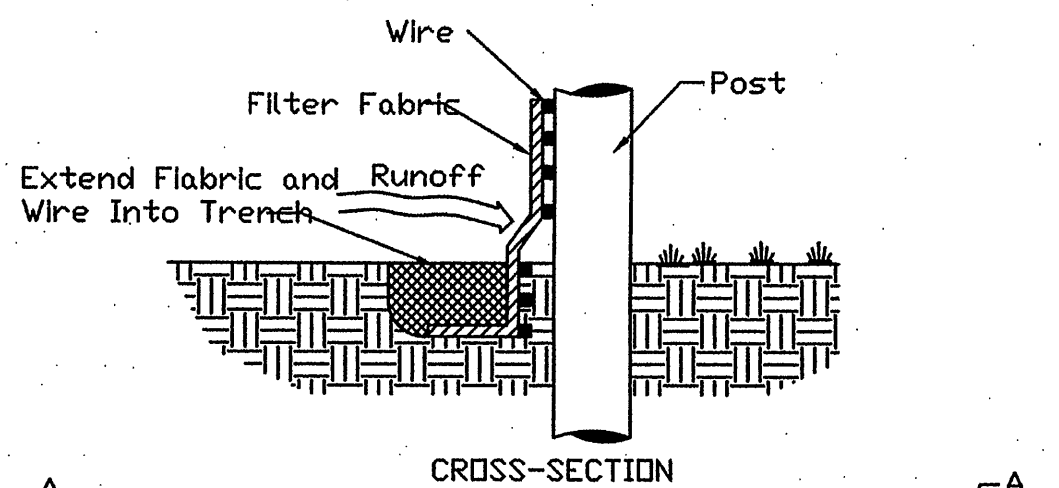
NO.	TITLE	KEY	SYMBOL	NO.	TITLE	KEY	SYMBOL
3.01	SAFETY FENCE	SAF	[Symbol]	3.20	ROCK CHECK DAMS	CD	[Symbol]
3.02	TEMPORARY GRAVEL CONSTRUCTION ENTRANCE	CE	[Symbol]	3.21	LEVEL SPREADER	LS	[Symbol]
3.03	CONSTRUCTION ROAD STABILIZATION	CRS	[Symbol]	3.22	VEGETATIVE STREAMBANK STABILIZATION	VSS	[Symbol]
3.04	STRAW BALE BARRIER	STB	[Symbol]	3.23	STRUCTURAL STREAMBANK STABILIZATION	SSS	[Symbol]
3.05	SILT FENCE	SF	[Symbol]	3.24	TEMPORARY VEHICULAR STREAM CROSSING	VSC	[Symbol]
3.06	BRUSH BARRIER	BB	[Symbol]	3.25	UTILITY STREAM CROSSING	USC	[Symbol]
3.07	STORM DRAIN INLET PROTECTION	IP	[Symbol]	3.26	DEWATERING STRUCTURE	DS	[Symbol]
3.08	CULVERT INLET PROTECTION	CIP	[Symbol]	3.27	TURBIDITY CURTAIN	TC	[Symbol]
3.09	TEMPORARY DIVERSION DIKE	DD	[Symbol]	3.28	SUBSURFACE DRAIN	SD	[Symbol]
3.10	TEMPORARY FILL DIVERSION	FD	[Symbol]	3.29	SURFACE ROUGHENING	SR	[Symbol]
3.11	TEMPORARY RIGHT-OF-WAY DIVERSION	RVD	[Symbol]	3.30	TOPSOILING	TD	[Symbol]
3.12	DIVERSION	DV	[Symbol]	3.31	TEMPORARY SEEDING	TS	[Symbol]
3.13	TEMPORARY SEDIMENT TRAP	ST	[Symbol]	3.32	PERMANENT SEEDING	PS	[Symbol]
3.14	TEMPORARY SEDIMENT BASIN	SB	[Symbol]	3.33	SODDING	SD	[Symbol]
3.15	TEMPORARY SLOPE DRAIN	STD	[Symbol]	3.34	BERMUDA GRASS AND ZOYSIAURASS ESTABLISHMENT	BK	[Symbol]
3.16	PAVED FLUME	PF	[Symbol]	3.35	MULCHING	MU	[Symbol]
3.17	STORMWATER CONVEYANCE CHANNEL	CCC	[Symbol]	3.36	SOIL STABILIZATION BLANKETS AND MATTING	SSB	[Symbol]
3.18	OUTLET PROTECTION	OP	[Symbol]	3.37	TREES, SHRUBS, VINES AND GROUND COVERS	VEG	[Symbol]
3.19	RIPRAP	RR	[Symbol]	3.38	TREE PRESERVATION AND PROTECTION	TP	[Symbol]
				3.39	DUST CONTROL	DC	[Symbol]

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 CLIVULA) @ 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

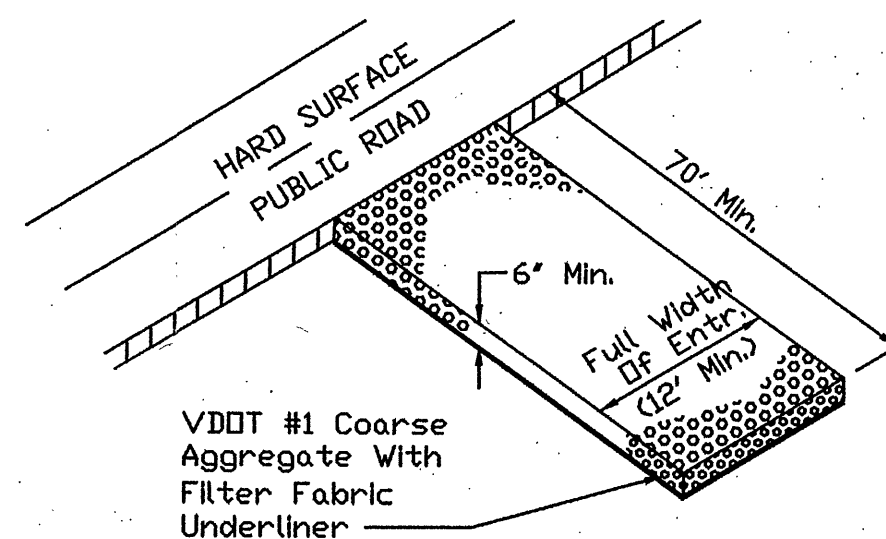
MULCH: SHALL BE USED OVER ALL SEEDED AREAS AND SHALL BE APPLIED IN ACCORDANCE WITH SECTION 3.35 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, 3rd Ed.

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

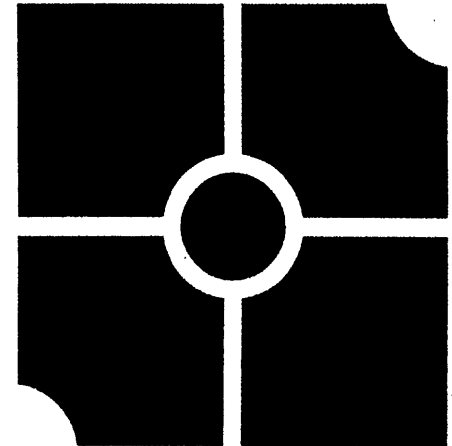
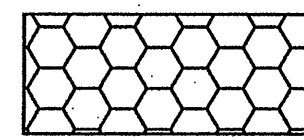


SF SILT FENCE  
VA ESCH STD. & SPEC. 3.05  
Points A higher than point B  
PLACEMENT IN DRAINAGE WAY



NOTE: CONSTRUCTION ENTRANCE WILL NEED TO REMAIN LOCATED ON THE JEFFERSON ST. SIDE OF SITE DUE TO THE SEQUENCE OF CONSTRUCTION. ONCE THE NEW CURB AND SIDEWALK ALONG JEFFERSON STREET HAS BEEN INSTALLED, THAN THE CONSTRUCTION ENTRANCE WILL BE RELOCATED TO THE BULLITT AVENUE ENTRANCE.

CE TEMPORARY GRAVEL CONSTRUCTION ENTRANCE  
VA ESCH STD. & SPEC. 3.02



parker  
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Comprehensive Site Plan for  
Star City Developers, Inc.  
Hersherberger Station  
Hersherberger Road, N.W.  
City of Roanoke, Virginia

REVISIONS:

Address City of Roanoke Comments  
PJB 4-8-08  
Address City of Roanoke Comments  
PJB 4-8-08

DESIGNED BY: MFW

DRAWN BY: MFW

CHECKED BY: PJB

SCALE: 1"=10'

DATE: 27 February 2008

SHEET TITLE:

Erosion and  
Sediment Control  
Notes & Details

C06  
06 OF 08  
PROJECT NUMBER:  
08-0022-02