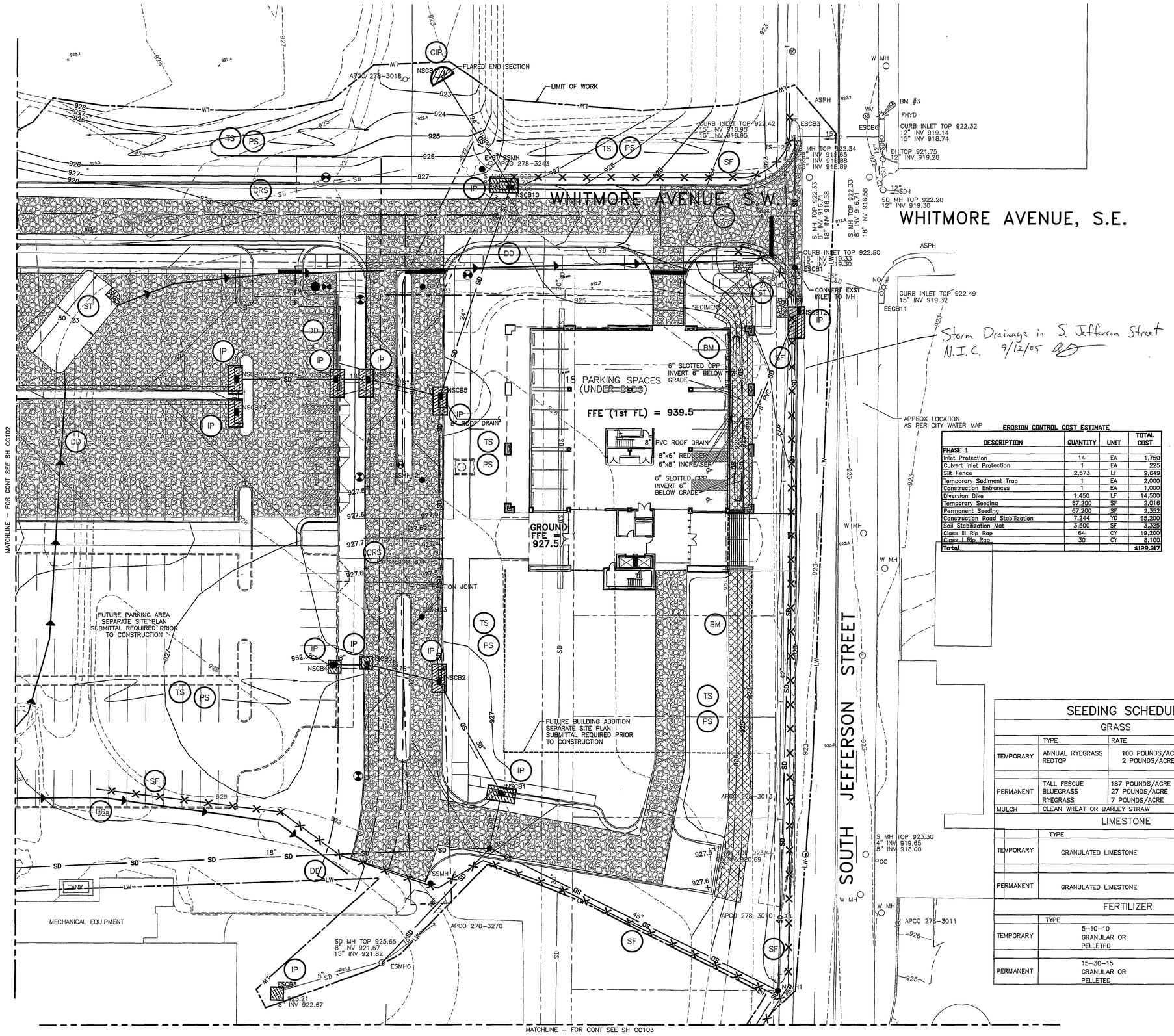

EROSION AND SEDIMENT CONTROL NOTES:

THE PURPOSE OF THE EROSION CONTROL MEASURES SHOWN ON THESE PLANS SHALL BE TO PRECLUDE THE TRANSPORT OF ALL WATERBORNE SEDIMENTS RESULTING FROM CONSTRUCTION ACTIVITIES FROM ENTERING ONTO ADJACENT PROPERTIES OR STATE WATERS. IF FIELD INSPECTION REVEALS THE INADEQUACY OF THE PLAN TO CONFINE SEDIMENT TO THE PROJECT SITE, APPROPRIATE MODIFICATIONS WILL BE MADE TO CORRECT ANY PLAN DEFICIENCIES.

1. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED AND MAINTAINED IN ACCORDANCE WITH PROCEDURES APPROVED BY THE STATE OF VIRGINIA. THE CONTRACTOR SHALL BE THOROUGHLY FAMILIAR WITH ALL APPROVED PROCEDURES WHICH MAY BE PERTINENT TO THE PROJECT.
2. WHERE POSSIBLE, POINTS OF CONSTRUCTION INGRESS AND EGRESS SHALL BE PROTECTED BY A TEMPORARY CONSTRUCTION ENTRANCE AT LOCATIONS ON THE SITE AGREED UPON BY THE CITY OF ROANOKE AND THE OWNER'S REPRESENTATIVE. AN ENTRANCE PERMIT FROM CITY OF ROANOKE IS REQUIRED PRIOR TO ANY CONSTRUCTION ACTIVITIES WITHIN CITY RIGHT-OF-WAYS. CONSTRUCTION ENTRANCES SHALL BE CONSTRUCTED PER VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.
3. SEDIMENT CONTROL DEVICES, SUCH AS SEDIMENT BASINS AND TRAPS, PERIMETER DIKES, CHECK DAMS OR OTHER MEASURES NOT LOCATED IN PROPOSED FILL OR EXCAVATION AREAS, SHALL BE CONSTRUCTED PRIOR TO ALL OTHER LAND DISTURBANCE. THE CONTRACTOR SHALL ARRANGE A PRECONSTRUCTION CONFERENCE WITH THE DEVELOPMENT INSPECTOR.
4. MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE ACCOMPLISHED IN ACCORDANCE WITH PROCEDURES APPROVED BY THE STATE OF VIRGINIA. MAINTENANCE WILL INCLUDE THE REPAIR OF MEASURES DAMAGED BY ANY SUBCONTRACTOR INCLUDING THOSE OF THE PUBLIC UTILITY COMPANIES. AT THE PRECONSTRUCTION MEETING, THE CONTRACTOR WILL SUPPLY CITY OF ROANOKE WITH THE NAME OF THE INDIVIDUAL WHO WILL BE RESPONSIBLE FOR ENSURING MAINTENANCE OF INSTALLED MEASURES ON A DAILY BASIS.
5. SURFACE FLOWS OVER CUT AND FILL SLOPES SHALL BE CONTROLLED BY EITHER REDIRECTING FLOWS FROM TRANSVERSING THE SLOPES OR BY INSTALLING MECHANICAL DEVICES TO SAFELY LOWER WATER DOWNSLOPE WITHOUT CAUSING EROSION.
6. SEDIMENT CONTROL MEASURES MAY REQUIRE MINOR FIELD ADJUSTMENTS AT THE TIME OF CONSTRUCTION TO INSURE THEIR INTENDED PURPOSE IS ACCOMPLISHED. CITY OF ROANOKE APPROVAL WILL BE REQUIRED FOR OTHER DEVIATION FROM THE APPROVED PLANS.
7. TEMPORARY VEGETATIVE COVER SHALL BE PROVIDED IN ALL AREAS WHICH ARE NOT DESIGNATED FOR PAVING, UNDERGROUND UTILITIES OR STRUCTURAL USES. SUCH AREAS SHALL NOT BE EXPOSED FOR PERIODS EXCEEDING 30 DAYS. TEMPORARY VEGETAL COVER MAY BE ELIMINATED IN FAVOR OF FINAL VEGETAL COVER IF CONSTRUCTION AND SEASONAL CONDITIONS PERMIT. SEE SEEDING SCHEDULE BELOW.
8. ALL AREAS DESIGNATED FOR UNDERGROUND UTILITIES AND STRUCTURAL USE SHALL BE STABILIZED AS SOON AS POSSIBLE, BUT NOT EXCEEDING 15 DAYS FOLLOWING INSTALLATION. NO MORE THAN 300' OF SANITARY SEWER, STORM SEWER, OR WATER LINES ARE TO BE OPEN AT ONE TIME.
9. ALL AREAS DESIGNATED FOR PAVING SHALL BE STABILIZED WITH A 6-INCH COURSE OF VDOT #1 COARSE AGGREGATE IMMEDIATELY AFTER GRADING OR THE COMPLETION OF UTILITY INSTALLATION WITHIN THE RIGHT-OF-WAY.
10. THE TERM SEEDING, FINAL VEGETATIVE COVER OR STABILIZATION, ON THIS PLAN SHALL MEAN THE SUCCESSFUL GERMINATION AND ESTABLISHMENT OF A STABLE GRASS COVER FROM A PROPERLY PREPARED SEEDBED CONTAINING THE SPECIFIED AMOUNTS OF SEED, LIME, AND FERTILIZER. IRRIGATION SHALL BE REQUIRED AS NECESSARY TO ENSURE ESTABLISHMENT OF GRASS COVER.
11. ALL SLOPES STEEPER THAN 4:1 SHALL REQUIRE THE USE OF EROSION CONTROL BLANKETS SUCH AS EXCELSIOR BLANKETS TO AID IN THE ESTABLISHMENT OF A VEGETATIVE COVER. INSTALLATION SHALL BE IN ACCORDANCE WITH MULCHING AND MANUFACTURER'S INSTRUCTIONS.
12. INLET PROTECTION SHALL BE PROVIDED FOR ALL STORM DRAIN INLETS AS SOON AS PRACTICAL FOLLOWING CONSTRUCTION OF SAME. ALL EXISTING STORM DRAIN INLETS THAT REMAIN ACTIVE UNTIL NEW STORM SYSTEM HAS BEEN INSTALLED SHALL BE PROTECTED WITH INLET PROTECTION PRIOR TO ANY LAND DISTURBING ACTIVITY.
13. BASE COURSE MATERIAL SHALL BE PLACED IN ALL STREET AREAS WITHIN 30 DAYS OF FINAL GRADING.
14. TEMPORARY EROSION CONTROL MEASURES ARE NOT TO BE REMOVED UNTIL ALL DISTURBED AREAS ARE STABILIZED. AFTER STABILIZATION IS COMPLETE, ALL MEASURES SHALL BE REMOVED WITHIN 30 DAYS. TRAPPED SEDIMENT SHALL BE SPREAD AND SEEDED.
15. OFF-SITE WASTE OR BORROW AREAS SHALL BE APPROVED BY CITY OF ROANOKE. AN APPROVED EROSION AND SEDIMENT CONTROL PLAN FOR THE BORROW AND WASTE SITE SHALL BE SUBMITTED PRIOR TO THE ISSUANCE OF A LAND DISTURBANCE PERMIT.

EROSION CONTROL COST ESTIMATE

DESCRIPTION	QUANTITY	UNIT	TOTAL COST
PHASE 1			
Inlet Protection	14	EA	1,750
Culvert Inlet Protection	1	EA	225
Silt Fence	2,573	LF	9,649
Temporary Sediment Trap	1	EA	2,000
Construction Entrances	1	EA	1,000
Diversion Dike	1,450	LF	14,500
Temporary Seeding	67,200	SF	2,016
Permanent Seeding	67,200	SF	2,352
Construction Road Stabilization	7,244	YD	65,200
Soil Stabilization Mat	3,500	SF	3,325
Class III Rip Rap	64	CY	19,200
Class I Rip Rap	30	CY	8,100
Total			$129,317

SEEDING SCHEDULE

GRASS	TYPE	RATE	TIME
TEMPORARY	ANNUAL RYEGRASS REDTOP	100 POUNDS/ACRE 2 POUNDS/ACRE	
PERMANENT	TALL FESCUE BLUEGRASS RYEGRASS	187 POUNDS/ACRE 27 POUNDS/ACRE 7 POUNDS/ACRE	APRIL 1 TO MAY 31 OR AUGUST 16 TO OCTOBER 15
MULCH	CLEAN WHEAT OR BARLEY STRAW		

LIMESTONE	TYPE	RATE
TEMPORARY	GRANULATED LIMESTONE	PER SOIL TEST
PERMANENT	GRANULATED LIMESTONE	PER SOIL TEST

FERTILIZER	TYPE	RATE
TEMPORARY	5-10-10 GRANULAR OR PELLETED	PER SOIL TEST
PERMANENT	15-30-15 GRANULAR OR PELLETED	PER SOIL TEST

EROSION AND SEDIMENT CONTROL LEGEND

CE	CONSTRUCTION ENTRANCE
SF	SILT FENCE
CIP	CULVERT INLET PROTECTION
IP	INLET PROTECTION
DD	DIVERSION DIKE
ST	TEMPORARY SEDIMENT TRAP
TS	TEMPORARY SEEDING
PS	PERMENANT SEEDING
BM	STABILIZATION BLANKET
CRS	CONSTRUCTION ROAD STABILIZATION
OP	OUTLET PROTECTION CLASS III RIP RAP
RR	CLASS I RIP RAP

1"=20' 20' 10' 0 20' 40'

GRAPHIC SCALES

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ARCHITECTS ENGINEERS PLANNERS

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SEALS

COMMONWEALTH OF VIRGINIA
MARTY L. CROW
NO. 036331
9/9/05
PROFESSIONAL ENGINEER

CONSULTANT

CONSULTANT

CARILION
Health System

RIVERSIDE CORPORATE CENTRE OFFICE BUILDING

CARILION HEALTH SYSTEM

ROANOKE, VIRGINIA

REV	DATE	DESCRIPTION	APP

COMM NO: 40049
ISSUE DATE: SEPTEMBER 2, 2005
DESIGNED BY: ARG DRAWN BY: ARG
CHECKED BY: MLC SUBMITTED BY: GLH

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CIVIL

EROSION CONTROL, GRADING, AND DRAINAGE PLAN

CC101

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