(PS) PERMANENT SEEDING MIXTURE

TYPE A		TYPE B (SLOPES 2:1 OR STEEPER)	
15 OCTOBER TO 1 FEBRUARY		KENTUCKY 31 FESCUE:	108 LBS./ACRE
K-31 FESCUE @ 5 LB / 1000 SF		RED TOP GRASS:	2 LBS./ACRE
BORZY WINTER RYE @ 1/2 LB / 1000 SF		SEASONAL NURSE CROP:	20 LBS./ACRE
1 FEBRUARY TO 1 JUNE		CROWNVETCH:	20 LBS./ACRE
K-31 FESCUE @ 5 LB / 1000 SF		TOTAL:	150 LBS./ACRE
ANNUAL RYE @ 1/2 LB / 1000 SF			
1 JUNE TO 1 SEPTEMBER		SEASONAL NURSE CROP SEEDING DATES:	
K-31 FESCUE @ 5 LB / 1000 SF		MARCH, APRIL - 15 MAY	ANNUAL RYE
GERMAN MILLET @ 1/2 LB / 1000 SF		16 MAY - 15 AUGUST	FOXTAIL MILLET
1 SEPTEMBER TO 15 OCTOBER		16 AUGUST - OCTOBER	ANNUAL RYE
K-31 FESCUE @ 5 LB / 1000 SF		NOVEMBER - FEBRUARY	WINTER RYE
ANNUAL RYE @ 1/2 LB / 1000 SF			

LIME: 2 TONS/ACRE (90 LBS./1000 SF) PULVERIZED AGRICULTURAL LIMESTONE

FERTILIZER: 10-20-10 OR EQUIVALENT NUTRIENTS
RATE: 1000 LBS./ACRE (23 LBS./1000 SF.)

MULCH: STRAW OR FIBER MULCH SHALL BE USED OVER ALL SEEDED AREAS AND SHALL BE APPLIED IN ACCORDANCE WITH SECTION 1.75 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION.

MULCHING RATE: STRAW OR HAY: 1.5-2 TONS/ACRE (70-90 LBS./1000 SF.)
FIBER MULCH: 1500 LBS./ACRE (35 LBS./1000 SF.)
ANCHOR MULCH BY KRIMPER TOOL OR MULCH NETTING
FIBER MULCH MAY BE USED TO TACK (ANCHOR) STRAW MULCH.

SOIL CONDITIONING:
INCORPORATION OF LIME AND FERTILIZER, SELECTION OF CERTIFIED SEED, MULCHING, MAINTENANCE OF NEW SEEDLINGS, AND RESEEDING SHALL BE IN ACCORDANCE WITH SPECIFICATIONS CONTAINED WITHIN THE VIRGINIA SOIL EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION. 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. MAXIMUM SEEDING DEPTH SHALL BE 1/4 INCH.

EROSION AND SEDIMENT CONTROL NARRATIVE

PROJECT DESCRIPTION

The purpose of this project is to construct a 8,900 sf. building addition onto the existing building of Covenant Presbyterian Church. Additonal development includes slightly revising the parking lot layout and installing new water lines. Land disturbance and earthwork activities area minimal. Approximately 37,700 sf. will be disturbed. Control measures include; silt fence and seeding.

EXISTING SITE CONDITIONS

Within the project area is a paved parking lot that slope gently from south to north at approximately 4.0% grade.

ADJACENT PROPERTY

The site is bound by residential property on the southern and western sides, by Deyerle Road on the eastern side and by Renfield Drive on the northern side.

OFF-SITE AREAS

The location of all off-site fill areas or borrow areas associated with this construction project will be provided to Roanoke City by the grading contractor. An Erosion and Sediment Control Plan may be required for these areas.

SOILS

The soils are classified as urban soils with low erosion potential.

CRITICAL EROSION AREAS

There are no potentially critical erosion control areas.

EROSION AND SEDIMENT CONTROL MEASURES

Unless otherwise stated, all vegetative and structural erosion and sediment control practices will be will be constructed and maintained in accordance with the minimum standards and specifications of the Virginia Erosion and Sediment Control Handbook (1992 Edition). If during construction, additional erosion control devices are deemed necessary, they will be installed as directed by city personnel.

STRUCTURAL PRACTICES

1. *Silt Fence - 3.05*
   Silt fence to be installed as shown on the plans.

VEGETATIVE PRACTICES

Temporary Seeding - 3.31

All denuded areas which will be left dormant for extend periods of time shall be seeded with fast germinating temporary vegetation immediately following grading.

Permanent Seeding - 3.32

Permanent or temporary soil stabilization shall be applied to denuded areas within seven days after final grade is reached on any portion of the site. Permanent stabilization shall be applied to areas that are to be left dormant for more than a year. Permanent vegetation shall not be considered established until a ground cover is achieved that in the opinion of the local program administrator or his designated agent, is uniform, mature enough to survive and will inhibit erosion. Reference is made to the 1992 Erosion and Sediment Control Handbook addressing minimum numbers one and three (MS-1, MS-3). Refer to the Erosion Control Detail sheet for the seeding schedule.

MANAGEMENT STRATEGIES

1. *Erosion and sediment control devices will be installed as a first step of construction.*
2. *The grading contractor will be responsible for the installation and maintenance of all erosion and sediment control measures. Inspections are to be made periodically and after every erodible rainfall.*
3. *The grading inspection personnel will make repairs to damaged or deficient control measures immediately upon discovery of damage or upon notification of the deficiency.*

STORMWATER MANAGEMENT

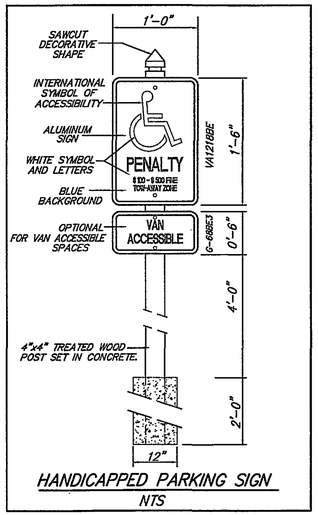
There is no increase in post-developed runoff from that of pre-developed runoff. Drainage patterns will remain the same after development, with stormwater outfalling to an existing detention pond.

REMOVAL OF CONTROL MEASURES

All temporary erosion and sediment control measures will be removed within thirty days after final site stabilization or after the temporary measures are no longer needed, unless otherwise directed by the local program administrator.

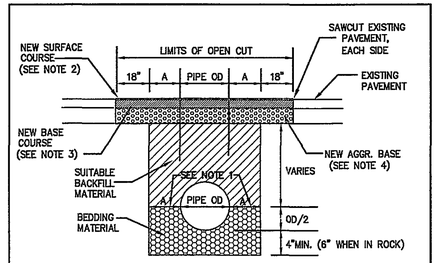
FEES & SURETY

The contractor is responsible for obtaining a land-disturbing permit and posting any required surety.



HANDICAPPED PARKING SIGN

NTS



NOTE 1. DIMENSION "A" SHALL BE 12" WHEN TRENCH IS 10 FEET OR LESS DEEP FROM INVERT OF PIPE, & 18" WHEN TRENCH IS GREATER THAN 10 FEET DEEP.

NOTE 2. COMPACTED ASPHALT CONCRETE SURFACE COURSE, 1.5" OF TYPE SM-9.5 AL

NOTE 3. COMPACTED ASPHALT CONCRETE BASE COURSE, 3" OF TYPE BM-2

NOTE 4. COMPACTED AGGREGATE BASE MATERIAL SHALL BE 6" TYPE 1, SIZE 21 OR 21A.

THE BACKFILL IN THE TRENCH SHALL BE SUITABLE AND THOROUGHLY COMPACTED IN 6" LAYERS BY TAMPING OR BY OTHER APPROVED METHOD BEFORE THE OPENING IS PAVED. NO EXCAVATIONS UNDER THE EXISTING PAVEMENT WILL BE PERMITTED. SHEETING OR SHORING SHALL BE USED WHEN REQUIRED BY THE DEPTH OF THE TRENCH OR MATERIAL IN ACCORDANCE WITH THE VIRGINIA O.S.H.A. STANDARDS. BACKFILL MATERIAL SHALL BE FREE FROM RUBBISH, MUCK, LARGE STONES, GREATER THAN 6" DIAMETER, OR OTHER UNSUITABLE MATERIALS.

BEDDING MATERIAL SHALL BE WELL-GRADED, HARD, DURABLE AGGREGATES AND SHALL BE NO. 21, 21A, OR 22 AS DEFINED IN THE LATEST REVISION OF THE VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE SPECIFICATIONS

PAVEMENT REPLACEMENT-OPEN CUT TRENCH

NTS

NOTICE: ALL LANDOWNERS, DEVELOPERS AND CONTRACTORS

FAILURE TO COMPLY WITH CONSTRUCTION PROCEDURE REQUIREMENTS LISTED BELOW MAY RESULT IN THE COSTLY REMOVAL OF STRUCTURES, TIME DELAYS OR THE ISSUANCE OF A STOP WORK ORDER.

CONSTRUCTION PROCEDURE REQUIREMENTS

1. CITY INSPECTIONS - TO INSURE THE COORDINATION OF TIMELY AND PROPER INSPECTIONS, A PRE-CONSTRUCTION CONFERENCE SHALL BE INITIATED BY THE APPLICANT, BUILDING, ETC. WITH THE DEVELOPMENT INSPECTOR. CALL (540) 853-1227 TO ARRANGE A CONFERENCE AT LEAST THREE (3) DAYS PRIOR TO ANTICIPATED CONSTRUCTION.
2. RIGHT-OF-WAY EXCAVATION PERMIT - PRIOR TO THE COMMENCEMENT OF ANY DIGGING, ALTERATION OR CONSTRUCTION WITHIN THE PUBLIC RIGHT-OF-WAY (STREETS, ALLEYS, PUBLIC EASEMENTS), A RIGHT-OF-WAY EXCAVATION PERMIT SHALL BE APPLIED FOR AND OBTAINED BY THE CONTRACTOR FROM THE CITY OF ROANOKE.
3. LAND DISTURBANCE PERMIT - AN APPROVED EROSION AND SEDIMENT CONTROL PLAN FOR ANY BORROW/FILL SITES ASSOCIATED WITH THE PROJECT MUST BE SUBMITTED PRIOR TO THE ISSUANCE OF A LAND DISTURBANCE PERMIT.
4. PLANS AND PERMITS - A COPY OF THE PLANS AS APPROVED BY THE CITY (SIGNED BY THE PROPER CITY OFFICIALS) AND ALL PERMITS ISSUED BY THE CITY SHALL BE AVAILABLE AT THE CONSTRUCTION SITE AT ALL TIMES OF ONGOING CONSTRUCTION.
5. LOCATION OF UTILITIES - THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION.
6. CONSTRUCTION ENTRANCE - THE CONTRACTOR SHALL INSTALL AN ADEQUATE CONSTRUCTION ENTRANCE FOR ALL CONSTRUCTION RELATED EGRESS FROM THE SITE. SIZE AND COMPOSITION OF CONSTRUCTION SHALL BE SHOWN ON THE PLANS.
7. STREETS TO REMAIN CLEAN - IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE THAT THE PUBLIC STREET ADJACENT TO THE CONSTRUCTION ENTRANCE REMAINS FREE OF MUD, DIRT, DUST, AND/OR ANY TYPE OF CONSTRUCTION MATERIALS OR LITTER AT ALL TIMES.
8. BARRICADES/DITCHES - THE CONTRACTOR SHALL MAINTAIN THE INTEGRITY OF ALL EXCAVATED DITCHES AND SHALL FURNISH AND ENSURE THAT ALL BARRICADES PROPER AND NECESSARY FOR THE SAFETY OF THE PUBLIC ARE IN PLACE.
9. SEWER AND PAVEMENT REPLACEMENT -- CONSTRUCTION OF SANITARY SEWERS AND THE REPLACEMENT OF PAVEMENT SHALL BE IN ACCORDANCE WITH APPROVED STANDARDS AND SPECIFICATIONS OF THE CITY OF ROANOKE AND THE WESTERN VIRGINIA WATER AUTHORITY.
10. APPROVED PLANS/CONSTRUCTION CHANGES -- ANY CHANGE OR VARIATION FROM CONSTRUCTION DESIGN AS SHOWN ON THE OFFICIALLY APPROVED PLANS SHALL BE APPROVED BY THE EROSION AND SEDIMENT CONTROL AGENT PRIOR TO SAID CHANGES OR VARIATION IN CONSTRUCTION BEING MADE.
11. FINAL ACCEPTANCE/CITY - THE OWNER OR DEVELOPER SHALL FURNISH THE CITY OF ROANOKE'S PLANNING BUILDING AND DEVELOPMENT DEPARTMENT WITH A FINAL CORRECT SET OF AS-BUILT PLANS PRIOR TO FINAL ACCEPTANCE BY THE CITY.

GENERAL SITE CONSTRUCTION NOTES

SITEWORK

The location of existing utilities across or along the line of proposed work are not necessarily shown on the plans and where shown, are approximate. The Contractor shall locate all underground lines and structures as necessary.
The Contractor shall be responsible for any damage to underground lines and structures.

Contractor shall call "Miss Utility" at 1-800-552-7001 prior to construction.

Power lines and poles, telephone lines and poles, and gas lines shall be protected from damage in accordance with the utility owners's instructions. The Contractor is responsible for contacting the utility owners, obtaining the proper protective measures for each individual construction location and for protecting utilities from damage. Any damage caused by the Contractor or the Contractor's construction operations shall be corrected by the Contractor at his expense.

The Contractor shall notify the Architect should discrepancies be discovered at the site or on the drawings.

The Contractor shall notify the City of Roanoke of any field revisions or corrections to the approved plans prior to such construction.
The Contractor is responsible for verifying the most recent revision date of the plans prior to commencing with construction.

All lines to be staked prior to construction.

The Contractor shall maintain the integrity of all excavated ditches and shall furnish and insure that all barricades proper and necessary for the public are in place.

EROSION CONTROL

All erosion and sediment control measures shall be accomplished in strict accordance with the Standards and Specifications of the Virginia Erosion and Sediment Control Handbook, latest edition.

The approving authority may add to, delete, relocate, or otherwise modify certain measures where field conditions warrant. Erosion Control Measures shown are not necessarily all that will be required.

Erosion control measures shall be installed in advance of work being performed, as far as practical.

The Contractor shall inspect all erosion control measures periodically and after every erodible rainfall. Any necessary repairs or cleanup shall be made immediately and at no extra cost to the owner. The contractor shall leave the site adequately protected against erosion, sedimentation, or any damage to any adjacent property at the end of each day's work.

In no case during construction shall water runoff be diverted or allowed to flow to locations where adequate protection has not been provided.

EARTHWORK

The Contractor shall comply with the latest revisions of the Virginia Occupational Safety and Health Standards for the Construction Industry as adopted by the Safety and Health Codes Commission of Virginia.

Earthwork shall be to the lines and grades shown. Proofrolling and compaction test shall be accomplished in the field to all graded areas.

The Contractor shall proof-roll the construction area with heavy-pneumatic equipment. All unsuitable material shall be undercut and recompacted with approved structural fill material.

Surplus excavated material shall be removed from the site and disposed of by the Contractor, at his own expense.

Fill material shall under buildings and pavement shall be compacted to 90% of maximum dry density as determined by ASTM D698 (Standard Proctor Method). All other fill shall be compacted to 95%.

All fill material shall be from a source approved by the testing company and shall be free of roots, organics and stones greater than 4" in diameter. Fill shall be placed in 8" layers and compacted as specified.

The Grading Contractor shall conform to elevations and dimensions shown to within a tolerance of plus or minus 0.10 feet.

PAVEMENT, CURBS, AND WALKS

Asphalt pavement for the new parking lot shall be constructed with 6" compacted aggregate base material, Type 1, Size No. 21A. 2" compacted asphalt concrete base course, VDOT Type BM-2 and 1.5" bituminous concrete surface course, Type SM-9.5AL.

Concrete curb and curb & gutter shall be VDOT standard CG-2 or CG-6 and constructed to VDOT specifications.

All work shall comply with VDOT specifications in accordance with with the latest revision of the VDOT Road and Bridge Specifications

All areas not covered with pavement, sidewalk, or building shall receive landscaping and or permanent seeding.

WATER NOTES

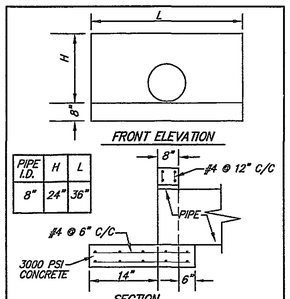
A minimum cover of three (3) feet is required over proposed water lines.

All water lines shall be installed as shown on the plans. All pipes, valves, and fittings shall be in accordance with the latest edition of the AWWA standards and all local codes and

Water lines shall be pressure tested, disinfected, and tested in accordance with AWWA standards (latest edition), and with local local codes and their standards.

The Contractor shall provide all materials, equipment, and necessary taps and shall perform all work required for sterilization, testing, and flushing.

All trenches shall be thoroughly compacted to prevent settlement and damage to future pavement and structures.
Contractor is responsible for locating and uncovering all valve vaults, meters, etc..., after paving and adjusting to final grade.



CONCRETE ENDWALL

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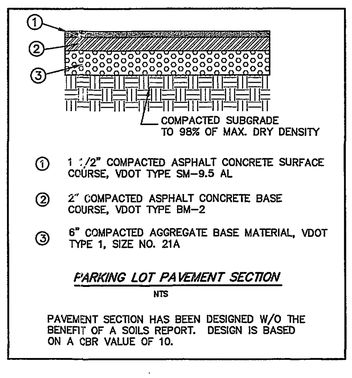


① 1 1/2" COMPACTED ASPHALT CONCRETE SURFACE COURSE, VDOT TYPE SM-9.5 AL

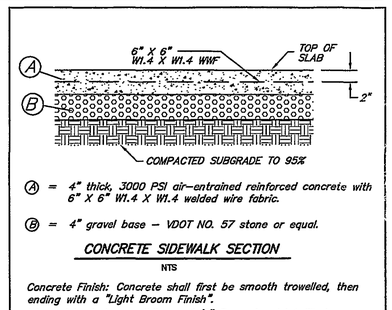
② 2" COMPACTED ASPHALT CONCRETE BASE COURSE, VDOT TYPE BM-2

③ 6" COMPACTED AGGREGATE BASE MATERIAL, VDOT TYPE 1, SIZE NO. 21A

PARKING LOT PAVEMENT SECTION

NTS

PAVEMENT SECTION HAS BEEN DESIGNED W/O THE BENEFIT OF A SOILS REPORT. DESIGN IS BASED ON A CBR VALUE OF 10.



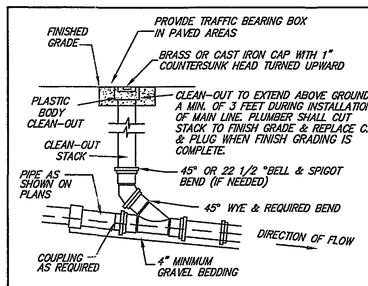
Ⓐ = 4" thick, 3000 PSI air-entrained reinforced concrete with 6" X 6" W1.4 X W1.4 welded wire fabric.

Ⓑ = 4" gravel base - VDOT NO. 57 stone or equal.

CONCRETE SIDEWALK SECTION

NTS

Concrete Finish: Concrete shall first be smooth trowelled, then ending with a "Light Broom Finish".
When slab abuts a building, a 1/2" Expansion joint filled with preformed joint filler extending from the bottom of the slab to approximately 1/4" below the top surface shall be used.
Tooled control joints shall extend into the concrete for at least 1" and be approximately 1/8" in width.



CLEANOUT DETAIL

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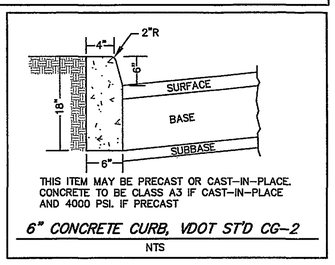
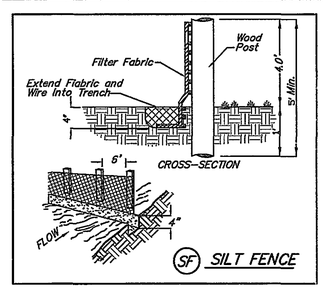


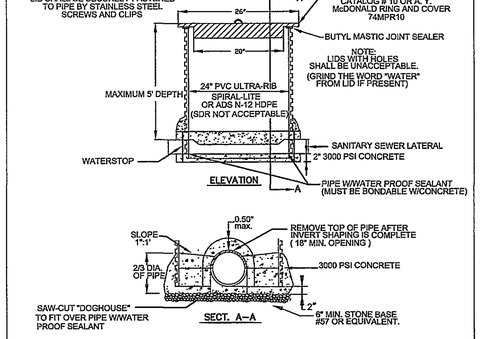
THIS ITEM MAY BE PRECAST OR CAST-IN-PLACE. CONCRETE TO BE CLASS A3 IF CAST-IN-PLACE AND 4000 PSI. IF PRECAST

6" CONCRETE CURB, VDOT ST'D CG-2

NTS



(SF) SILT FENCE



NOTES:
1. NOT ACCEPTABLE FOR USE IN TRAFFIC AREAS OR AREAS SUBJECT TO FLOODING.
2. VACUUM OR EXFILTRATION TESTING SHALL BE USED. VACUUM TESTING SHALL MEET THE SAME STANDARD FOR CONCRETE MANHOLES. EXFILTRATION TESTING SHALL HAVE NO LEAKAGE WITHIN 1 HOUR.
3. "AquaBlok" WASTEWATER ACCESS CHAMBERS MAY BE SUBSTITUTED. TRAFFIC BEARING BOXES WILL BE REQUIRED IF INSTALLED IN TRAFFIC AREAS. TESTING OF "AquaBlok" SHALL BE BY APPLICABLE PLUMBING CODE FOR SEWER LATERALS.
4. 2' DIA. CONCRETE WELL CASING 3000 PSI MAY BE SUBSTITUTED FOR ULTRA-RIB PIPE. ANY VERT. JOINTS IN THE CASING PIPE MUST BE BY BELL & SPIGOT CONNECTION WITH MASTIC.
5. INVERT SHAPING/CHANNEL SHALL BE 180 DEGREES THROUGH SAMPLE MANHOLE. NO ANGLES, RADIUS, ETC ARE ALLOWED IN SAMPLE MANHOLES.

WESTERN VIRGINIA WATER AUTHORITY - CONSTRUCTION STANDARDS

REVISION	DATE
	07/01/04
	03/01/06

SAMPLING STRUCTURE DETAIL — S-07

DATE: APRIL 17, 2006

REVISIONS
1 _____
2 _____
3 _____
4 _____
5 _____

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ADDITION AND RENOVATIONS FOR COVENANT PRESBYTERIAN CHURCH

1851 DEYERLE ROAD, ROANOKE, VA

SITE DETAILS, GENERAL NOTES & EROSION CONTROL NARRATIVE

COMMONWEALTH OF VIRGINIA
4.17.06
JEFFREY D. KRAJNIK
No. 12947
ARCHITECT

COMMISSION No. 03033

SHEET SP-5

No. 10 of 51

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