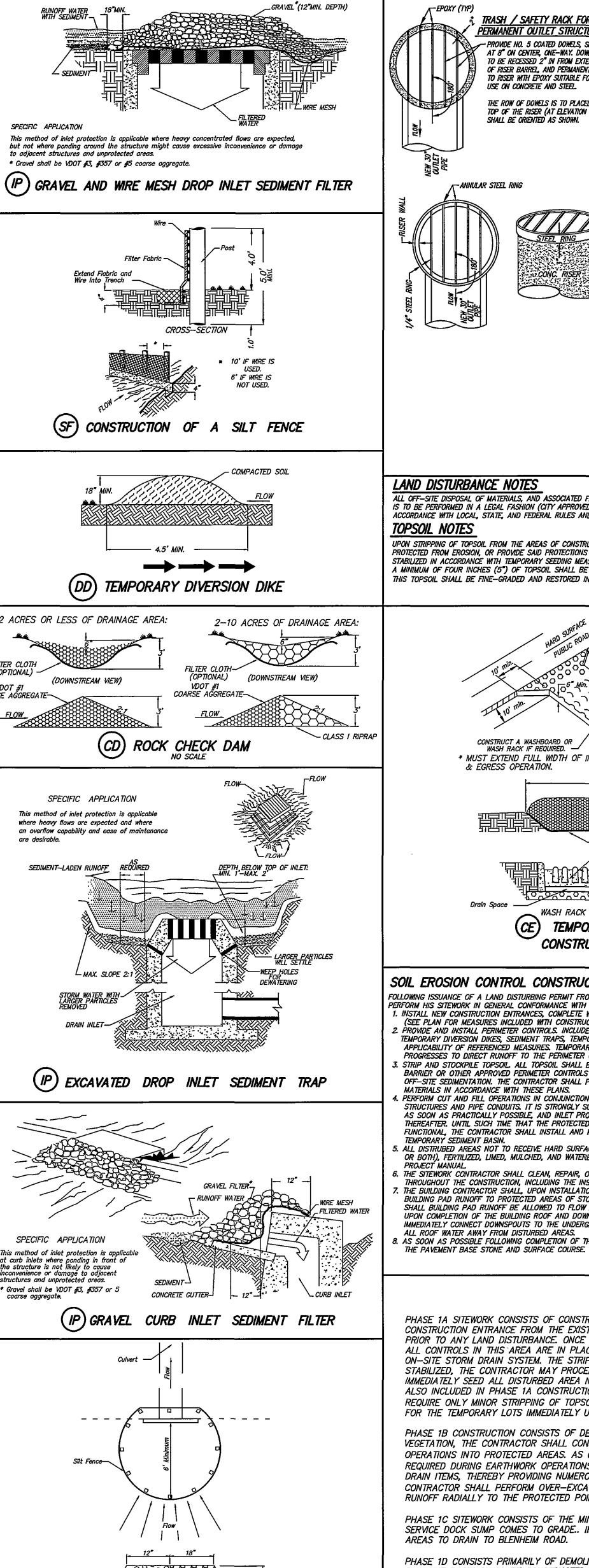
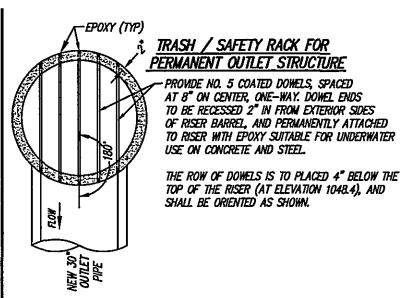
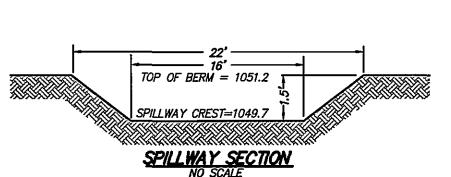


Aggregate to Replace Silt Fence in Horseshoe When High

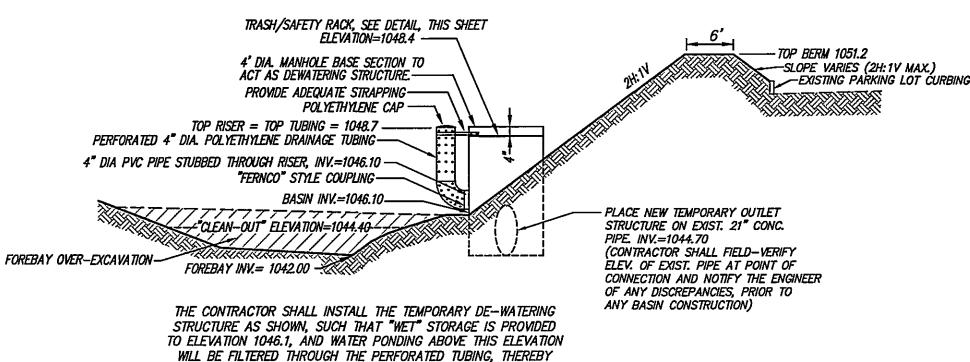




-Annular Steel Ring



BASIN INSTALLATION / REMOVAL PROCEDURE THE CONTRACTOR SHALL INSTALL THE DE-WATERING STRUCTURE ON THE EXISTING PIPE AS DETAILED HEREON, THEN SHALL CONSTRUCT THE SEDIMENT BASIN EMBANKMENTS AND TEMPORARY FOREBAY OVER-EXCAVATION, AS SHOWN ON THE SOIL EROSION CONTROL PLAN. AS CUT/FILL OPERATIONS PROGRESS, THE CONTRACTOR SHALL MAINTAIN DIVERSION DIKES AS REQUIRED TO DIRECT AS MUCH OF THE RUNOFF FROM DENUDED AREAS TO THE BASIN AS POSSIBLE. AS SOON AS SLOPES ARE AT THEIR FINAL GRADES, THE CONTRACTOR SHALL TEMPORARILY SEED AND MULCH THESE SLOPES. MULCHING OPERATIONS SHALL BE PERFORMED USING A "TACKIFIER" TO REDUCE MULCH DISPLACEMENT BY RUNOFF. THIS TEMPORARY SEDIMENT BASIN SHALL REMAIN IN PLACE THROUGH CLOSE-OUT OF PHASE 1 CONSTRUCTION THE CONTRACTOR SHALL CLEAN SEDIMENT ACCUMULATION FROM THE POND ONCE IT ACCUMULATES TO THE ELEVATION SHOWN HEREON. SEDIMENT REMOVED FROM THE BASIN MAY BE PLACED ON-SITE, PROVIDING PLACEMENT IS IN A PROTECTED AREA. PRIOR TO USING THIS MATERIAL AS COMPACTIBLE FILL, THE CONTRACTOR SHALL ALLOW FOR ADEQUATE DRYING.





RESTING ON CONCRETE.

TO CONCRETE RISER.

THE "WET" DEPTH HAS BEEN REDUCED BY SILTATION. <u> TEMPORARY SEDIMENT BASIN DEWATERING SYSTEM — PHASE 1C_TO 1E</u>

Land disturbance notes ALL OFF-SITE DISPOSAL OF MATERIALS, AND ASSOCIATED FEES, WILL BE THE SITEWORK CONTRACTOR'S RESPONSIBILITY, AND is to be performed in a legal fashion (city approved waste site). All hauling is to be performed in strict ACCORDANCE WITH LOCAL, STATE, AND FEDERAL RULES AND REGULATIONS PERTAINING THERETO.

I ACCEPTABLE ALTERNATE DESIGN FOR

NNULAR RING (MATCH RISER O.D.) WITH 5/8"x5/8" BAR`STEEL, SHOP—WELDED 🛭 8" O.C.

THE TRASH RACK IS A 1/4"x3" PLATE STEEL

NAX. TOP OF GRATE BARS SHALL BE FLUSH

WITH TOP OF ANNULAR RING. ASSEMBLY SHALL FIT

TWO HOLES SHALL BE SHOP-DRILLED FOR 1/2" DIA. REMOVABLE STAINLESS STEEL BOLTS, TO SECURE

all steel shall be shop primed and delivered

WITH AN ALL-WEATHER MARINE-GRADE GREY

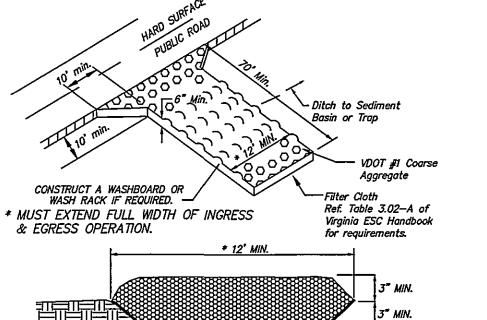
SNUGLY ON RISER, WITH BOTTOM OF GRATE BARS

UPON STRIPPING OF TOPSOIL FROM THE AREAS OF CONSTRUCTION, THE CONTRACTOR SHALL STOCKPILE TOPSOIL IN AREAS PROTECTED FROM EROSION, OR PROVIDE SAID PROTECTIONS AROUND THE PERIMETER OF THE STOCKPILES. STOCKPILES SHALL BE STABILIZED IN ACCORDANCE WITH TEMPORARY SEEDING MEASURES SPECIFIED HEREON. A MINIMUM OF FOUR INCHES (5") OF TOPSOIL SHALL BE PLACED ON ALL AREAS TO RECEIVE SEEDING OR LANDSCAPING THIS TOPSOIL SHALL BE FINE-GRADED AND RESTORED IN ACCORDANCE WITH "RESTORATION NOTES", THIS SHEET.

<u>Restoration notes</u> FOLLOWING THE PROGRESSION OF ROUGH GRADING, INSTALLATION OF NEW UTILITIES, STORM DRAIN, AND CURB AND GUTTER AND PRIOR TO PAVING OPERATIONS, THE SITEWORK CONTRACTOR SHALL FINE GRADE ALL AREAS FROM TEN FEET (10') OUTSIDE THE BUILDING LINES TO A TOLERANCE OF \pm 0.20' (SLOPES STEEPER THAN 3H:1V TO A TOLERANCE OF \pm 0.33'). NCLUDED IN THIS FINE GRADING IS THE REMOVAL OF ALL ROOT MASS, ROCKS IN EXCESS OF 2" IN THEIR GRATEST DIMENSION, AND OTHER MATERIALS DELETERIOUS TO THE GROWTH OF LAWN GRASSES, WITHIN THE UPPER 8" OF SOIL. THIS MAY BE ACCOMPLISHED BY NORMAL METHODS (MECHANICAL ROCK RAKE, HAND RAKE, ETC.), OR OTHER INNOVATIVE METHODS APPROVED BY THE ENGINEER. ALL DISTURBED AREAS SHALL BE PERMANENTLY SEEDED IN ACCORDANCE WITH MULCHES USED FOR STABILIZATION SHALL BE HIGH QUALITY OAT OR WHEAT STRAW. HAY MIXTURES, FESCUES, AND OTHER Weed-laden mulches are prohibited from use with permanent seeding mixtures.

ALLOWING THE SEDIMENT TIME TO SETTLE.

THE POND SHALL BE CLEANED OF EXCESS SEDIMENT ONCE HALF OF



FILTER CLOTH - Reinforced Concrete ᠼᠱᢇᠬᠬᡎᡎᢋ╣

TEMPORARY GRAVEL CONSTRUCTION ENTRANCE

WASH RACK DETAIL (IF REQUIRED)

SOIL EROSION CONTROL CONSTRUCTION SEQUENCING — GENERAL FOLLOWING ISSUANCE OF A LAND DISTURBING PERMIT FROM THE CITY OF ROANOKE, THE CONTRACTOR SHALL PERFORM HIS SITEWORK IN GENERAL CONFORMANCE WITH THE FOLLOWING: I. INSTALL NEW CONSTRUCTION ENTRANCES, COMPLETE WITH WASH RACKS OR OTHER PERTINENT MEASURES (SEE PLAN FOR MEASURES INCLUDED WITH CONSTRUCTION ENTRANCE) ?. Provide and install perimeter controls. Included is the installation of silt fence barriers, TEMPORARY DIVERSION DIKES, SEDIMENT TRAPS, TEMPORARY SEDIMENT BASINS, ETC. SEE PLAN FOR APPLICABILITY OF REFERENCED MEASURES. TEMPORARY DIVERSIONS SHALL, BE MAINTAINED AS EARTHWORK PROGRESSES TO DIRECT RUNOFF TO THE PERIMETER CONTROLS.

3. Strip and stockpile topsoil. All topsoil shall be stockpiled on—site. Perimeter silt fence BARRIER OR OTHER APPROVED PERIMETER CONTROLS SHALL PROTECT STOCKPILES FROM EROSION AND OFF-SITE SEDIMENTATION. THE CONTRACTOR SHALL PROVIDE TEMPORARY SEEDING OF STOCKPILED MATERIALS IN ACCORDANCE WITH THESE PLANS. PERFORM CUT AND FILL OPERATIONS IN CONJUNCTION WITH INSTALLATION OF THE NEW STORM DRAIN STRUCTURES AND PIPE CONDUITS, IT IS STRONGLY SUGGESTED THAT THE NEW STORM DRAIN BE INSTALLED AS SOON AS PRACTICALLY POSSIBLE, AND INLET PROTECTIVE MEASURES BE INSTALLED IMMEDIATELY THEREAFTER. UNTIL SUCH TIME THAT THE PROTECTED STORM DRAINAGE SYSTEM IS IN PLACE AND FUNCTIONAL, THE CONTRACTOR SHALL INSTALL AND MAINTAIN DIVERSIONS TO DIRECT RUNOFF TO THE 5. ALL DISTRUBED AREAS NOT TO RECEIVE HARD SURFACING SHALL BE SEEDED (TEMPORARY, PERMANENT

OR BOTH), FERTILIZED, LIMED, MULCHED, AND WATERED IN ACCORDANCE WITH THESE PLANS AND THE 5. THE SITEWORK CONTRACTOR SHALL CLEAN, REPAIR, OR OTHERWISE MAINTAIN CONTROL MEASURES THROUGHOUT THE CONSTRUCTION, INCLUDING THE INSTALLATION OF NEW UTILITIES. THE BUILDING CONTRACTOR SHALL, UPON INSTALLATION OF THE BUILDING FLOOR SLAB, DIRECT ALL BUILDING PAD RUNOFF TO PROTECTED AREAS OF STORM DRAIN COLLECTION. UNDER NO CIRCUMSTANCES SHALL BUILDING PAD RUNOFF BE ALLOWED TO FLOW DOWN SLOPES OR TO FLOW ONTO UNPROTECTED AREAS UPON COMPLETION OF THE BUILDING ROOF AND DOWNSPOUT SYSTEM, THE BUILDING CONTRACTOR SHALL IMMEDIATELY CONNECT DOWNSPOUTS TO THE UNDERGROUND COLLECTOR SYSTEM, WHICH WILL CONVEY ALL ROOF WATER AWAY FROM DISTURBED AREAS. AS SOON AS POSSIBLE FOLLOWING COMPLETION OF THE SITEWORK, THE SITE CONTRACTOR SHALL INSTALL

SOIL EROSION CONTROL NARRATIVE

PROJECT DESCRIPTION: THE PURPOSE OF THIS PROJECT IS THE CONSTRUCTION OF THE FIRST OF TWO PHASES OF A NEW REPLACEMENT "PATRICK HENRY HIGH SCHOOL" FOR THE CITY OF ROANOKE, VIRGINIA. ALSO INCLUDED IS THE CONSTRUCTION OF TEMPORARY PARKING AREAS TO REPLACE THOSE AREAS DISPLACED BY PHASE ONE CONSTRUCTION, THE SITE IS LOCATED ON GRANDIN ROAD IN THE CITY OF

EXISTING SITE CONDITIONS: THE SITE IS CURRENTLY PRIMARILY AN EXISTING "CAMPUS" STYLE HIGH SCHOOL, WITH MULTIPLE BUILDINGS, MODULAR CLASSROOMS, AND PARKING AREAS. A SMALL AMOUNT OF THE CONSTRUCTION SITE IS AN EVERGREEN COVERED SLOPE, LOCATED AT THE SOUTHERN LIMITS OF THE PROJECT. THIS PROPERTY DOES NOT CONTAIN FEMA DESIGNATED FLOOD PLAIN OR FLOODWAY. A SUBSURFACE REPORT HAS BEEN PREPARED FOR THE SUBJECT DEVELOPMENT BY GEOTECHNICS, INC. OF ROANOKE, VIRGINIA, DATED 29 JANUARY, 2004. EMENTS ARE HEREBY MADE A PART OF THE CONTRACT DOCUMENTS. EARTHWORK OPERATIONS FOR ALL PHASES OF THIS PROJECT SHALL BE PERFORMED

IN STRICT ACCORDANCE WITH THIS REPORT. THE REFERENCED SOILS REPORT STATES THAT THE SITE IS "UNDERLAIN BY THE ROME FORMATION OF THE CAMBRIAN AGE. THIS FORMATION IS EXTREMELY HETEROGENEOUS, CONSISTING OF SHALE, LIMESTONE, AND DOLOMITE. GENERALLY, THE 15 SAMPLED BORINGS PRODUCED DEPTHS OF TOPSOIL RANGING FROM 0' TO 0.8'. THE BORING DEPTHS TO 14' DID NOT ENCOUNTER COMPETENT BEDROCK. ADJACENT PROPERTY: THE SITE IS BOUNDED TO THE NORTH AND WEST BY RESIDENTIAL SUBDIVISIONS, SEPARATED FROM THE SITE BY AN ALLEY AND GRANDIN ROAD, RESPECTIVELY; TO THE SOUTH BY REMAINING PROPERTY OF THE CITY OF ROANOKE; AND TO THE EAST BY BLENHEIM ROAD, A PUBLIC STREET.

ANY SEDIMENT FROM THE PROPOSED DEVELOPMENT THAT ENCROACHES OUTSIDE THE LIMITS OF CONSTRUCTION OR ONTO ADJACENT PROPERTIES SHALL BE IMMEDIATELY REMOVED AND AFFECTED OFF-SITE AREAS: IT IS THE ENGINEER'S ESTIMATE THAT THERE WILL BE AN EXCESS OF EARTHWORK MATERIAL GENERATED BY THIS PHASE OF CONSTRUCTION. THE CONTRACTOR HOLDING THE LAND ***** DISTURBING PERMIT WILL BE REQUIRED TO VERIFY THAT AN APPROVED SOIL EROSION CONTROL PLAN AND PERMIT ARE IN PLACE FOR ANY OFF-SITE BORROW OR WASTE SITES USED

IN CONJUNCTION WITH THIS PROJECT. THE CITY OF ROANOKE OR ITS APPROVED AGENT RESERVES THE RIGHT TO PLACE A STOP WORK ORDER ON THE SUBJECT SITE AND ANY OFF—SITE WASTE OR BORROW SITES, SHOULD APPROVED PLANS AND PERMITS NOT EXIST FOR BOTH SITES. CRITICAL AREAS: THE SILT FENCE BARRIERS SHALL BE INSPECTED DAILY AND CLEANED OR REPLACED AS REQUIRED.

INLET PROTECTION MEASURES SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD, SUCH THAT SILTATION OF THE STORM DRAIN SYSTEM

EXISTING AND PROPOSED SLOPES SHALL BE PROTECTED FROM EROSION. UNDER NO CIRCUMSTANCES SHALL CONCENTRATED RUNOFF BE ALLOWED TO FLOW DOWN SLOPES, OR ONTO UNPROTECTED AREAS. SURFACE ROUGHENING OF ALL DISTURBED SLOPES SHALL BE MAINTAINED AT ALL TIMES.
PUBLIC STREETS SHALL REMAIN IN A DUST AND MUD-FREE CONDITION AT ALL TIMES THROUGHOUT THE CONSTRUCTION PERIOD. SHOULD OFF—SITE SEDIMENTATION OCCUR, IT IS THE CONTRACTOR'S RESPONSIBILITY TO RETURN ALL AFFECTED AREAS TO A CONDITION EQUAL TO OR BETTER THAN THE ORIGINAL CONDITION, DISTURBED AREAS THAT ARE NOT PERMANENTLY STABILIZED WITHIN THIRTY (30) DAYS SHALL BE TEMPORARILY SEEDED IN ACCORDANCE WITH STANDARD AND SPECIFICATION 3.31 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION. ALL PROTECTIVE MEASURES WHICH PERTAIN TO, OR INCLUDE CUT AND FILL SLOPES (SILT FENCE, DIVERSION DIKES, ETC.) SHALL BE INSTALLED AND MAINTAINED AS THE

SLOPES COME TO GRADE, ADDITIONAL DIVERSION DIKES WILL BE REQUIRED TO PROTECT DISTURBED AREAS, UNTIL SUCH TIME THAT THE STORM DRAIN SYSTEM IS IN PLACE, AND FUNCTIONALLY PROTECTED FROM SEDIMENT INFILTRATION. TEMPORARY SEEDING OF SLOPES IS TO BE PERFORMED ON A WEEKLY BASIS, UNLESS THE SLOPES MRE TO FINAL GRADE. SLOPES AT FINAL GRADE ARE TO BE PERMANENTLY SEEDED WITHIN SEVEN DAYS OF REACHING FINAL GRADE.

****** AS THIS CONSTRUCTION IS A PUBLICALLY FUNDED PROJECT, THE CONTRACTOR IS REQUIRED TO PROVIDE AND MAINTAIN ALL EROSION CONTROL MEASURES AT THEIR OPTIMUM PERFORMANCE, SUCH THAT ADJOINING AREAS AND DRAINAGEWAYS ARE PROVIDED THE BEST AVAILABLE PROTECTION AT EVERY PHASE OF CONSTRUCTION. IT IS IMPERATIVE THAT

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. PRIOR TO ANY WORK BEING PERFORMED ON THE PROPOSED PROJECT, A TEMPORARY CONSTRUCTION ENTRANCE SHALL BE PROVIDED OFF OF THE EXISTING PAVEMENT. THE ENTRANCE SHALL BE COMPOSED OF GRADED 3" STONE TO A MINIMUM DEPTH OF 6". THE ENTRANCE SHALL ALSO RUN FOR A MINIMUM DISTANCE OF NOT LESS THAN 70' BACK FROM THE EXISTING PAVEMENT EDGES. THE ENTRANCE SHALL BE CONTINUALLY MAINTAINED, INSPECTED, REPAIRED, OR OTHERWISE BE KEPT IN GOOD FUNCTIONAL ORDER THROUGHOUT THE EXTENT OF THE WORK ON THE SITE.

2. 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 FIRST 3. FOLLOWING INSTALLATION OF THE SEDIMENT TRAPS AND PERIMETER CONTROLS, THE SITEWORK CONTRACTOR SHALL OBTAIN WRITTEN AUTHORIZATION FROM THE CITY E&S INSPECTOR PRIOR TO STARTING MASS EARTHWORK OPERATIONS. AFTER AUTHORIZATION IS GRANTED, THE CONTRACTOR SHALL IMMEDIATELY PROCEED WITH CLEARING, GRUBBING, AND GRADING OPERATIONS. DENUDED AREAS INDICATED ON THESE PLANS TO RECEIVE PERMANENT SEEDING SHALL BE SEEDED WITHIN SEVEN (7) DAYS AFTER FINAL GRADING, AND SHALL BE IN STRICT ACCORDANCE WITH THE "VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK", THIRD EDITION.

4. IN GENERAL, ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSPECTED WEEKLY AND AFTER EACH SIGNIFICANT RAINFALL. IN PARTICULAR.
A. THE CONSTRUCTION ENTRANCE SHALL BE MAINTAINED IN A CONDITION 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. 5. THE SOIL EROSION CONTROL MEASURES INSTALLED FOR THIS CONTRACT SHALL REMAIN IN PLACE UNTIL REMOVAL IS APPROVED BY THE CITY OF ROANOKE INSPECTOR, AT WHICH TIME IT SHALL BE THE SITEWORK CONTRACTOR'S RESPONSIBILITY TO REMOVE ALL TEMPORARY MEASURES FROM THE SITE, UNLESS OTHERWISE REQUIRED HEREIN.

1. THE SITEWORK CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF ALL EROSION AND SEDIMENT CONTROL PRACTICES. 2. THE CITY OF ROANOKE OR THEIR AUTHORIZED AGENT 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, CALDWELL WHITE ASSOCIATES, ASSUMES NO RESPONSIBILITY FOR ANY WORK BEING PERFORMED.

SOIL EROSION CONTROL CONSTRUCTION SEQUENCING — SITE SPECIFIC

PHASE 1A SITEWORK CONSISTS OF CONSTRUCTION OF THE NEW PERMANENT ENTRANCE CONNECTION TO GRANDIN ROAD, S.W., AND THE ENLARGEMENT OF THE EXISTING FRONT PARKING AREA. CONSTRUCTION TRAFFIC SHALL ACCESS THIS AREA VIA THE NEW CONSTRUCTION ENTRANCE FROM THE EXISTING STUDENT PARKING LOT, AS SHOWN HEREIN. THE CONTRACTOR SHALL INSTALL THE CONSTRUCTION ENTRANCE, PERIMETER SILT FENCE BARRIER, AND INLET PROTECTIONS ON THE EXISTING DRAINAGE STRUCTURES PRIOR TO ANY LAND DISTURBANCE. ONCE THE PERIMETER CONTROLS ARE IN PLACE AND FUNCTIONAL, THE CONTRACTOR SHALL CONSTRUCT THE NEW SUMP INLET AND STORM DRAIN, PROVIDING AN ADDITIONAL PROTECTED POINT OF SILT COLLECTION. ONCE ALL CONTROLS IN THIS AREA ARE IN PLACE, THE CONTRACTOR SHALL DEMOLISH THE EXISTING CURB AROUND THE PERIMETER OF THE FRONT LOT, AND PERFORM THE MINOR GRADING OPERATIONS REQUIRED TO DIRECT THE ON—SITE RUNOFF TO THE ON-SITE STORM DRAIN SYSTEM. THE STRIPPING OF THE TOPSOIL AND STOCKPILING OF THE SAME IN A PROTECTED AREA MAY THEN BE PERFORMED, ALONG WITH THE IMMEDIATE INSTALLATION OF THE CHIP AND SEAL PAVING. ONCE ON-SITE AREAS ARE STABILIZED, THE CONTRACTOR MAY PROCEED WITH CONSTRUCTION OF THE NEW CONCRETE ENTRANCE APRON TO CONNECT WITH GRANDIN ROAD. IMMEDIATELY SEED ALL DISTURBED AREA NOT TO RECEIVE HARD SURFACING.

ALSO INCLUDED IN PHASE 1A CONSTRUCTION IS THE INSTALLATION OF THE NEW TEMPORARY CONTRACTOR PARKING LOT ON THE SOFTBALL FIELD AND THE NEW TEMPORARY FACULTY PARKING LOT ADJACENT TO THE FIELD HOUSE. THESE LOTS WILL REQUIRE ONLY MINOR STRIPPING OF TOPSOIL PRIOR TO PLACEMENT OF CHIP AND SEAL PAVEMENT. AS THERE IS LIMITED OPPORTUNITY FOR COLLECTION OF RUNOFF UNDER DENUDED CONDITIONS, THE CONTRACTOR SHALL PLACE THE 8" OF BASE STONE FOR THE TEMPORARY LOTS IMMEDIATELY UPON STRIPPING OF TOPSOIL. CONCURRENTLY WITH PLACEMENT OF THE CHIP AND SEAL SURFACING, THE CONTRACTOR SHALL SEED ISLAND AREAS THAT WILL NOT RECEIVE HARD SURFACING, AS APPLICABLE. PHASE 1B CONSTRUCTION CONSISTS OF DEMOLITION OF THE EXISTING ADMINISTRATION BUILDING AND PERSINGER HALL, AND THE COMMENCEMENT OF EXCAVATION OF THE CUT SLOPE INTO SHRINE HILL. IMMEDIATELY UPON CLEARING THE EVERGREEN VEGETATION, THE CONTRACTOR SHALL CONSTRUCT THE TWO NEW SEDIMENT TRAPS AT THE TOE OF THE CUT SLOPE, AND CONCURRENTLY CREATE THE SUMP AT THE SOUTH END OF CLARA BLACK AUDITORIUM, THEREBY COLLECTING ALL RUNOFF FROM CUT OPERATIONS INTO PROTECTED AREAS. AS CUT OPERATIONS PROGRESS, THE CONTRACTOR SHALL CLEAN/MAINTAIN/ AND RECONSTRUCT THE SEDIMENT TRAPS TO MAINTAIN PEAK COLLECTION EFFICIENCY. THE SILT FENCE BARRIERS SHALL BE RELOCATED AS REQUIRED DURING EARTHWORK OPERATIONS, TO FURTHER FILTER EFFLUENT FROM THE TRAPS. AS CUT OPERATIONS PROGRESS TO THE POINT OF FILL PLACEMENT ON THE NEW BUILDING PAD, THE CONTRACTOR SHALL INSTALL THE NEW "200 SERIES" STORM DRAIN ITEMS, THEREBY PROVIDING NUMEROUS INTERMEDIATE POINTS OF FILTRATION AND COLLECTION. OF PARTICULAR IMPORTANCE IS THE CONSTRUCTION OF THE NEW DEPRESSED SUMP INLET NUMBER 210 AT THE NORTH END OF THE NEW BUILDING. THE CONTRACTOR SHALL PERFORM OVER-EXCAVATION AT THIS INLET (WITH RESPECT TO UTILITIES OF UNKNOWN DEPTH). AS THE BUILDING PAD IS BROUGHT TO GRADE, THE CONTRACTOR SHALL MAINTAIN A "TURTLE-BACK" GRADE ON THE PAD, TO DIRECT RUNOFF RADIALLY TO THE PROTECTED POINTS OF COLLECTION.

PHASE 1C SITEWORK CONSISTS OF THE MINOR GRADING AT THE NEW SERVICE DRIVE (CURRENT BUS LOOP LOCATION). THE TWO NEW SUMP INLETS AND SEDIMENT TRAP NUMBER 2 SHALL BE PROTECTED AND MAINTAINED TO COLLECT RUNOFF AS THE SERVICE DOCK SUMP COMES TO GRADE. IMMEDIATELY UPON REACHING ROUGH GRADE OF PAVED AREAS IN THE SERVICE AREA, THE CONSTRUCTION ROAD STABILIZATION STONE SHALL BE INSTALLED, THEREBY LIMITING THE POTENTIAL FOR ANY DISTURBED AREAS TO DRAIN TO BLENHEIM ROAD.

PHASE 1D CONSISTS PRIMARILY OF DEMOLITION OF CLARA BLACK AUDITORIUM AND THE BEGINNING OF DEMOLITION OF THE EXISTING FACULTY/STAFF PARKING AREAS. AS SOON AS THE NORTHEN END OF THE AUDITORIUM IS REMOVED. THE NEW TEMPORARY SEDIMENT BASIN SHALL BE CONSTRUCTED AND STABILIZED. THEREBY COLLECTING RUNOFF FROM THE DEMOLITION AREAS. MAINTAIN AND CLEAN OUT THE BASIN AS DIRECTED HEREON. TO INSURE THAT SEDIMENTATION OF THE EXISTING STUDENT PARKING LOT IS AVOIDED. THE CONTRACTOR SHALL PLACE AND MAINTAIN THE SILT FENCE BARRIER THAT LIES NORTH OF THE TEMPORARY SEDIMENT BASIN.

PHASE 1E ESSENTIALLY CONSISTS OF THE REMAINDER OF DEMOLITION OF THE EXISTING FACULTY/STAFF PARKING AREAS AND THE INSTALLATION OF THE NEW BUS LOOP/FACULTY PARKING AREA, ALL RUNOFF FROM THIS PHASE OF CONSTRUCTION WILL BE ROUTED THROUGH THE BASIN CONSTRUCTED IN PHASE 1D, WITH THE ADDITIONAL PROTECTION OF THE TWO SEDIMENT TRAPS STILL IN SERVICE AT THE TOE OF THE SHRINE HILL SLOPE. ONCE ROUGH GRADE OF THE PARKING LOT IS REACHED, THE CONTRACTOR SHALL IMMEDIATELY PROCEED WITH THE PLACEMENT OF THE CONSTRUCTION ROAD STABILIZATION BASE STONE. THIS WILL MINIMIZE THE AMOUNT OF BASIN CLEANING THAT WILL BE REQUIRED, AS WELL AS MINIMIZING THE AMOUNT OF CLEANSING OF THE "300 SERIES" STORM DRAIN SYSTEM THAT WILL BE REQUIRED, UPON REACHING CLOSURE OF THE BULDING CONSTRUCTION. THE CONTRACTOR SHALL PROCEED WITH PAVING OPERATIONS OF THE SERVICE AREA AND THE NEW BUS LOOP/FACULTY PARKING AREAS.

THE TEMPORARY SEDIMENT BASIN AND THE TWO SEDIMENT TRAPS ARE TO REMAIN IN PLACE AT THE CLOSE—OUT OF PHASE ONE CONSTRUCTION (UNLESS OTHERWISE APPROVED IN WRITING BY THE CITY INSPECTOR). THE AREAS OF THE TWO SEDIMENT TRAPS WILL BE BROUGHT TO FINAL GRADE AND STABILIZED WITH TURF GRASSES UPON THE COMMENCEMENT OF PHASE 2 CONSTRUCTION. WHILE THE TEMPORARY SEDIMENT BASIN WILL BE RELOCATED FROM UNDERNEATH THE PHASE TWO BUILDING

GENERAL EROSION AND SEDIMENT CONTROL NOTES

1. ALL SOIL EROSION & SEDIMENT CONTROL MEASURES 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. 4. IN NO CASE DURING CONSTRUCTION SHALL WATER RUNOFF BE DIVERTED OR

ALLOWED TO FLOW TO LOCATIONS WHERE ADEQUATE PROTECTION HAS NOT BEEN 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

TEMPORARY SEEDING

DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE FOR A PERIOD OF MORE THAN 30 DAYS SHALL BE STABILIZED WITH TEMPORARY SEEDING MEASURES AS SHOWN HEREON, AND AS FURTHER DETAILED AS "STANDARD AND SPECIFICATION 3.31 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK", LATEST EDITION. IN ADDITION TO AREAS OF GENERAL GRADING THAT WILL NOT BE FINE—GRADED FOR GREATER THAN 30 DAYS, THE FOLLOWING SPECIFIC E&S MEASURES SHALL BE STABILIZED WITH TEMPORARY SEEDING IMMEDIATELY UPON COMPLETION OF CONSTRUCTION OF THE TEMPORARY MEASURE: - SOIL STOCKPILES

CONTAINED IN THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION.

DIKES, DAMS, AND SIDES OF SEDIMENT BASINS - TEMPORARY ROADWAY EMBANKMENTS

PRIOR TO SEEDING, INSTALL NECESSARY EROSION CONTROL PRACTICES SUCH AS DIKES, WATERWAYS, AND BASINS. PROVIDE PLANTS AS SPECIFIED HEREIN, OR ENGINEER—APPROVED EQUAL. SEEDBED PREPARATION: lime shall be applied if disturbed areas will remain dormant between 30 days and 120 days. If required,

LIME SHALL BE APPLIED AS SHOWN, BASED ON SOIL ACIDITY. APPLICATION OF AGRICULTURAL LIMESTONE

TON PER ACRE LIME NOT REQUIRED

FERTILIZER SHALL BE APPLIED AS 600 LBS/ACRE OF 10—20—10 OR EQUIVALENT NUTRIENTS. LIME (AS APPLICABLE) AND FERTILIZER SHALL BE INCORPORATED INTO THE TOP 2 TO 4 INCHES OF SOIL, IF POSSIBLE. SURFACE ROUGHENING SHALL BE REQUIRED WHERE AREAS TO BE SEEDED HAVE BEEN COMPACTED, CRUSTED, OR HARDENED BY CONSTRUCTION TRAFFIC. AS REQUIRED, SEEDBEDS SHALL BE ROUGHENED IN ACCORDANCE WITH STANDARD AND SPECIFICATION 3.29 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK. (TRACKING WITH BULLDOZER CLEATS SHALL BE USED IN SANDY SOILS)

SEED SHALL BE EVENLY APPLIED WITH THE SAME MEANS SPECIFIED HEREIN FOR PERMANENT SEEDING. SMALL GRAINS shall be planted no more than one inch deep. Grasses and legumes shall be planted with no less than 1/4" OF SOIL COVER.

SEEDINGS MADE IN FALL FOR WINTER COVER AND DURING HOT AND DRY SUMMER MONTHS SHALL BE MULCHED ACCORDING TO STANDARD AND SPECIFICATION 3.35 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, except that fiber mulch may not be used. Straw mulch shall be used during these periods. TEMPORARY SEEDINGS MADE UNDER FAVORABLE SOIL AND SITE CONDITIONS DURING OPTIMUM SPRING AND FALL SEEDING DATES MAY NOT REQUIRE MULCH.

<u>RE—SEEDING:</u>
AREAS WHICH FAIL TO ESTABLISH VEGETATIVE COVER ADEQUATE TO PREVENT RILL EROSION SHALL BE RE—SEEDED AS ACCEPTABLE TEMPORARY SEEDING PLANT MATERIALS BY RANGE OF PLANTING DATES: ANNUAL RYEGRASS @ 50 LB / ACRE 09/01 TO 02/15 WINTER RYE @ 50 LB / ACRÉ

ANNUAL RYEGRASS @ 100 LB / ACRE 05/01 TO 08/31 GERMAN MILLET @ 50 LB / ACRE

PERMANENT SEEDING MIXTURE

DISTURBED AREAS SHALL BE PERMANENTLY SEEDED WITHIN SEVEN (7) DAYS OF ACHIEVING FINAL GRADE, OR ON DISTURBED AREAS THAT WILL NOT BE BROUGHT TO FINAL GRADE WITHIN ONE YEAR. AREAS SHOWN WITHIN THESE SITE CONSTRUCTION PLANS AS RECEIVING PERMANENT SEEDING SHALL BE COORDINATED WITH THE LANDSCAPING PLANS. THE PERMANENT SEEDING MIXTURES, AND AREAS OF PERMANENT SEEDING SHOWN ON CIVIL SHEETS ARE FOR EROSION CONTROL PURPOSES ONLY. IF THE SEEDING AREAS OR MIXTURES SHOWN HEREON DIFFER FROM THOSE REQUIRED BY THE LANDSCAPING PLANS, THE LANDSCAPING PLANS

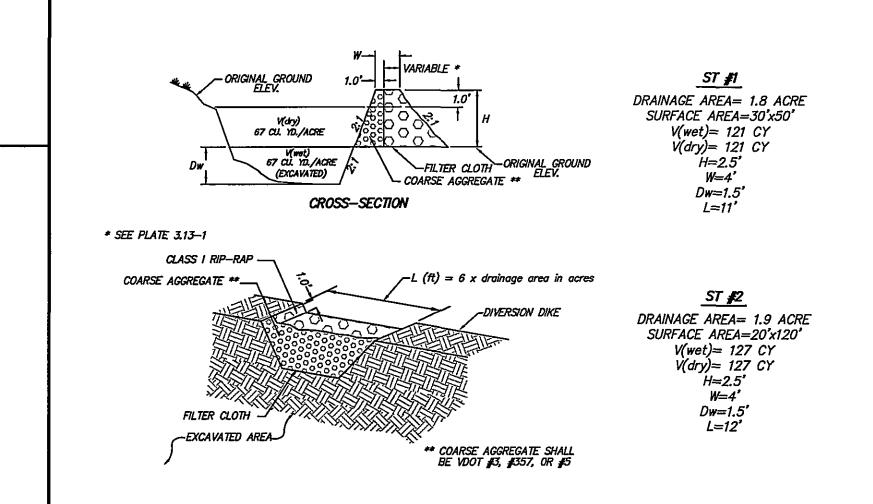
TYPE B (SLOPES 3:1 OR STEEPER) 03/15 TO 05/15 OR 08/16 TO 10/31: 03/15 TO 05/15 <u>OR</u> 08/16 TO 10/31: ANNUAL RYEGRASS @ 20 LB / ACRE CROWN VETCH @ 20 LB / ACRE ANNUAL RYEGRASS @ 20 LB / ACRE RED TOP @ 20 LB / ACRE RED TOP @ 2 LB / ACRE TALL FESCUE @ 150 LB / ACRE KY 31 FESCUE @ 108 LB / ACRE 05/16 TO 08/15: 05/16 TO 08/15: FOXTAIL MILLET @ 20 LB / ACRE RED TOP @ 20 LB / ACRE CROWN VETCH @ 20 LB / ACRE FOXTAIL MILLET @ 20 LB / ACRE RED TOP @ 20 LB / ACRE TALL FESCUE @ 150 LB / ACRE KY 31 FESCUE @ 108 LB / ACRE 11/01 TO 02/28: 11/01 TO 02/28: CROWN VETCH @ 20 LB / ACRE WINTER RYE @ 20 LB / ACRE WINTER RYE @ 20 LB / ACRE RED TOP @ 20 LB / ACRE RED TOP @ 20 LB / ACRE TALL FESCUE @ 150 LB / ACRE KY 31 FESCUE @ 108 LB / ACRE

4,000 LB / ACRE PULVERIZED AGRICULTURAL LIMESTONE FERTILIZER: 10-20-10 @ 1,000 LB / ACRE SHALL BE USED OVER ALL SEEDED AREAS AND SHALL BE APPLIED IN STRICT ACCORDANCE WITH STANDARD AND SPECIFICATION 3.35 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK, LATEST EDITION. INCORPORATION OF LIME AND FERTILIZER, SELECTION OF CERTIFIED

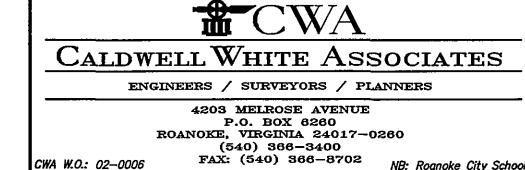
SEED, MULCHING, MAINTENANCE OF NEW SEEDLINGS, AND RESEEDING SHALL BE IN ACCORDANCE WITH SPECIFICATIONS CONTAINED WITHIN THE VIRGINIA SOIL EROSION AND SEDIMENT CONTROL HANDBOOK, ATEST EDITION. ADDITIONAL SEEDING TO BE PERFORMED AS REQUIRED BY THE CITY ENGINEER. SEED APPLICATION: APPLY SEED UNIFORMLY WITH A CYCLONE SEEDER, DRIL CULTIPACKER SEEDER, OR HYDROSEEDER ON A FIRM, FRIABLE, SEEDBED. Maximum seeding depth shall be 1/4 inch.

 $TOTAL\ PHASE\ 1A-1C\ DISTURBED\ AREA\ =\ 9.96\ AC.\ =\ 433,900\ SQ.\ FT.$

TOTAL PHASE 1D-1E DISTURBED AREA = 3.15 AC. = 137,100 SQ. FT.



TEMPORARY SEDIMENT TRAPS - PHASE 1A TO 1C NO SCALE



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Kinsey Shane & Associates - Architects and Structural Engineers 201 West Main Street

Salem, Virginia 24153 540-389-8655 (p) 540-389-9130 (f) Lawrence Perry & Associates, Inc.

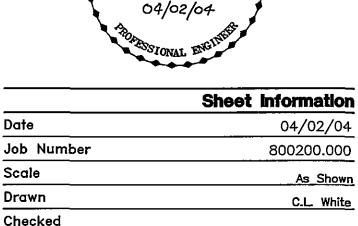
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Faassen & Associates - Food Service 8526 Sunflower Drive Charlotte, North Carolina 204-536-9234 (f)

nBiaricom & Frantz - Interior Designers 112 West Kirk Avenue Roanoke, Virginia 24015 540-344-4098 (p) 540-344-4295 (f)

PATRICK HENRY HIGH SCHOOL

Sc	PHASE I hool Site Project No. 124 Literary Loan No. 1118	
		
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	<u> </u>	
	ISSUED FOR CONSTRUCTION	04/02/04
NUMBER	ISSUE	DATE
		Revisions
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No. 23843

Checked DETAILS-SOIL

Scale

EROSION AND SEDIMENT CONTROL

C1-400

WVWA ID# 78HGUA