

COLLECTION OF STORM DRAIN RUNOFF. SINCE THE ORDWAY STORMWATER BASIN COLLECTS RUNOFF ONLY FROM THE

PHASE ONE AREA OF DISTURBANCE, THIS BASIN MAY BE CONVERTED TO "PERMANENT" STATUS UPON SUBSTANTIAL

IT IS ANTICIPATED THAT THIS CONVERSION WILL TAKE PLACE PRIOR TO THE COMMENCEMENT OF PHASE TWO LAND

DISTURBANCES.

STABILIZATION OF DISTURBED AREAS, AND WRITTEN APPROVAL OF CONVERSION FROM THE CITY OF ROANOKE INSPECTOR.

40,000,000,000,000,000

WASH RACK DETAIL (IF REQUIRED)

TEMPORARY GRAVEL

CONSTRUCTION ENTRANCE

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 STORM 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 HE TEMPORARY MEASURE: - SOIL STOCKPILES

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

- DIKES, DAMS, AND SIDES OF SEDIMENT BASINS

PRIOR TO SEEDING, INSTALL NECESSARY EROSION CONTROL PRACTICES SUCH AS DIKES. WATERWAYS. AND BASINS. PROVIDE PLANTS AS SPECIFIED HEREIN, OR ENGINEER—APPROVED EQUAL.

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 LIMESTONI

BELOW 4.2 2 TONS PER ACRE 1 TON PER ACRE 4.2 TO 5.2 LIME NOT REQUIRED

F<u>ERTILIZER</u> 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

EEDINGS MADE IN FALL FOR WINTER COVER AND DURING HOT AND DRY SUMMER MONTHS SHALL BE MULCHED CCORDING 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.

AREAS WHICH FAIL TO ESTABLISH VEGETATIVE COVER ADEQUATE TO PREVENT RILL EROSION SHALL BE RE—SEEDED AS SOON AS SUCH AREAS ARE IDENTIFIED.

ACCEPTABLE TEMPORARY SEEDING PLANT MATERIALS BY RANGE OF PLANTING DATES: 09/01 TO 02/15 ANNUAL RYEGRASS @ 50 LB / ACRE WINTER RYE @ 50 LB / ACRÉ

02/16 TO 04/30 ANNUAL RYEGRASS @ 100 LB / ACRE 05/01 TO 08/31 GERMAN MILLET @ 50 LB / ACRE

PS PERMANENT SEEDING MIXTURE

DISTURBED AREAS SHALL BE PERMANENTLY SEEDED WITHIN SEVEN (7) DAYS OF ACHIEVING FINAL GRADE, OR ON 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

03/15 TO 05/15 OR 08/16 TO 10/31: ANNUAL RYEGRASS @ 20 LB / ACRE RED TOP @ 2 LB / ACRE TALL FESCUE @ 150 LB / ACRE 05/16 TO 08/15: FOXTAIL MILLET @ 20 LB / ACRE

RED TOP @ 20 LB / ACKE

TALL FESCUE @ 150 LB / ACRE

ANNUAL RYEGRASS @ 20 LB / ACRE RED TOP @ 20 LB / ACRE KY 31 FESCUE @ 108 LB / ACRE 05/16 TO 08/15: CROWN VETCH @ 20 LB / ACRE FOXTAIL MILLET @ 20 LB / ACRE RED TOP @ 20 LB / ACRE KY 31 FESCUE @ 108 LB / ACRE 11/01 TO 02/28: CROWN VETCH @ 20 LB / ACRE WINTER RYE @ 20 LB / ACRE

TYPE B (SLOPES 3:1 OR STEEPER)

03/15 TO 05/15 OR 08/16 TO 10/31:

CROWN VETCH @ 20 LB / ACRE

11/01 TO 02/28: 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

N 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 HE VIRGINIA SOIL EROSION AND SEDIMENT CONTROL HANDBOOK,

LATEST EDITION. ADDITIONAL SEEDING TO BE PERFORMED AS REQUIRED 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.

TOTAL DISTURBED AREA = 45.74 AC. = 1,992,590 SQ. FT.

SITEWORK 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: . INSTALL NEW CONSTRUCTION ENTRANCES, COMPLETE WITH WASH RACKS OR OTHER PERTINENT MEASURES AS MAY BE APPLICABLE. (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. 4. 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 DISTURBED 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

6. THE SITEWORK CONTRACTOR SHALL CLEAN, REPAIR, OR OTHERWISE MAINTAIN CONTROL MEASURES THROUGHOUT THE CONSTRUCTION PERIOD, INCLUDING THE INSTALLATION OF NEW UTILITIES. 7. 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 COLLECTOR SYSTEM, THE BUILDING CONTRACTOR SHALL IMMEDIATELY CONNECT ROOF DRAINS TO THE UNDERGROUND COLLECTOR SYSTEM, WHICH WILL CONVEY ALL ROOF WATER AWAY FROM DISTURBED AREAS. 8. AS SOON AS POSSIBLE FOLLOWING COMPLETION OF THE SITEWORK, THE SITE CONTRACTOR SHALL INSTALL THE PAVEMENT BASE STONE AND SURFACE COURSE.

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.

TOPSOIL NOTES

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 SIX INCHES (6") 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,

RESTORATION NOTES

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 ± 0.20' (SLOPES STEEPER THAN 3H:1V TO A TOLERANCE OF ± 0.33'). INCLUDED IN THIS FINE GRADING IS THE REMOVAL OF ALL ROOT MASS, ROCKS IN EXCESS OF 2" IN THEIR GREATEST 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 TOPSOILED AND PERMANENTLY SEEDED IN ACCORDANCE WITH SEEDING MIXTURES AND RATES SPECIFIED HEREON. 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.

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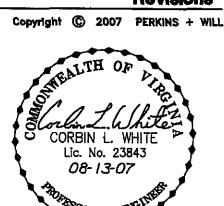
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DETAILS- SOIL EROSION AND SEDIMENT CONTROL

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