

EROSION & SEDIMENT CONTROL SHEET NOTES:

1. THIS DRAWING IS INTENDED TO SHOW THE PERIMETER EROSION & SEDIMENT CONTROL (E&SC) MEASURES REQUIRED DURING THE CONSTRUCTION OF THE NEW BUILDING, STORM DRAINAGE SYSTEM, UTILITIES, AND OTHER SITE IMPROVEMENTS. ADDITIONAL REQUIRED MEASURES AND SEQUENCE OF WORK ARE SHOWN ON SUBSEQUENT SHEETS AND ARE SPECIFIED IN THE NARRATIVES, SEQUENCE OF WORK, AND STATEMENT OF COMPLIANCE WITH THE MINIMUM STANDARDS.
2. REFER TO SHEET C7.3 FOR EROSION & SEDIMENT CONTROL (E&SC) NARRATIVE AND REFER TO SHEET C7.4 FOR LISTING AND STATEMENT OF COMPLIANCE WITH THE MINIMUM STANDARDS.
3. REFER TO SHEET C7.5 FOR STANDARD E&SC DETAILS AND DESIGN SUMMARY DATA.
4. WHERE APPLICABLE, THIS SHEET SHOWS THE DRAINAGE AREAS (DIVIDES) AND THE TOTAL AREA (IN ACRES) DRAINING TO CRITICAL E&SC CONTROL MEASURES. THE AREAS DENOTED REPRESENT THE MAXIMUM AREA DRAINING TO A GIVEN MEASURE.
5. WHERE APPLICABLE, THIS DRAWING SHOWS THE TYPES AND APPROXIMATE LIMITS OF SOILS ANTICIPATED TO BE ENCOUNTERED ON THE SITE. ALL SOIL DATA IS TAKEN FROM UNITED STATES DEPARTMENT OF AGRICULTURE - NATURAL RESOURCES CONSERVATION SERVICES - NATIONAL COOPERATIVE SOIL SURVEY PUBLICATIONS.
6. REFER TO E&SC NARRATIVE FOR INFORMATION REGARDING "CRITICAL EROSION AREAS."

7. A CERTIFIED RESPONSIBLE LAND DISTURBER (RLD) SHALL OVERSEE AND BE INVOLVED IN ALL ASPECTS OF THE LAND DISTURBANCE ACTIVITIES (FROM INITIAL LAND DISTURBANCE THROUGH FINAL STABILIZATION). THE NAME OF THE RLD SHALL BE PROVIDED TO PLAN REVIEWING AUTHORITY AT OR PRIOR TO THE PRECONSTRUCTION CONFERENCE. THIS PERSON SHALL ATTEND THE PRECONSTRUCTION CONFERENCE AND PROVIDE A COPY OF HIS RLD CERTIFICATE.

EROSION & SEDIMENT CONTROL GENERAL NOTES:

(ADOPTED FROM TABLE 6-1 OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK)

ES-1. UNLESS OTHERWISE INDICATED, ALL VEGETATIVE AND STRUCTURAL EROSION AND SEDIMENT CONTROL PRACTICES WILL BE CONSTRUCTED AND MAINTAINED ACCORDING TO MINIMUM STANDARDS AND SPECIFICATIONS OF THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK AND VIRGINIA REGULATIONS 4VAC50-30 EROSION AND SEDIMENT CONTROL REGULATIONS.

ES-2. UNLESS OTHERWISE NOTED HEREON OR STIPULATED BY THE LAND DISTURBING PERMIT, THE PLAN APPROVING AUTHORITY MUST BE NOTIFIED ONE WEEK PRIOR TO THE PRECONSTRUCTION CONFERENCE, ONE WEEK PRIOR TO THE COMMENCEMENT OF LAND DISTURBING ACTIVITY, AND ONE WEEK PRIOR TO THE FINAL INSPECTION.

ES-3. UNLESS OTHERWISE NOTED IN THE E&SC NARRATIVE, PERIMETER CONTROLS AND SEDIMENT TRAPS SHALL BE CONSTRUCTED AS A FIRST STEP IN ANY LAND DISTURBING ACTIVITY AND SHALL BE MADE FUNCTIONAL BEFORE UPOLOPE LAND DISTURBANCE TAKES PLACE.

ES-4. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.

ES-5. PRIOR TO COMMENCING LAND DISTURBING ACTIVITIES IN AREAS OTHER THAN INDICATED ON THESE PLANS (INCLUDING, BUT NOT LIMITED TO, OFF-SITE BORROW OR WASTE AREAS), THE CONTRACTOR SHALL SUBMIT A SUPPLEMENTARY EROSION CONTROL PLAN FOR REVIEW AND APPROVAL BY THE PLAN APPROVING AUTHORITY OR PROVIDE DOCUMENTATION OF APPROVAL / PERMITTING FOR SAID SITE.

ES-6. THE CONTRACTOR IS RESPONSIBLE FOR INSTALLATION OF ANY ADDITIONAL EROSION CONTROL MEASURES NECESSARY TO PREVENT EROSION AND SEDIMENTATION AS DETERMINED BY THE PLAN APPROVING AUTHORITY.

ES-7. ALL DISTURBED AREAS ARE TO DRAIN TO APPROVED SEDIMENT CONTROL MEASURES AT ALL TIMES DURING LAND DISTURBING ACTIVITIES AND DURING SITE DEVELOPMENT UNTIL FINAL STABILIZATION IS ACHIEVED.

ES-8. DURING DEWATERING OPERATIONS, WATER WILL BE PUMPED INTO AN APPROVED FILTERING DEVICE.

ES-9. THE CONTRACTOR SHALL INSPECT ALL EROSION CONTROL MEASURES PERIODICALLY AND AFTER EACH RUNOFF-PRODUCING RAINFALL EVENT; ANY NECESSARY REPAIRS OR CLEANUP TO MAINTAIN THE EFFECTIVENESS OF THE EROSION CONTROL DEVICES SHALL BE MADE IMMEDIATELY.

ES-10. THE EROSION AND SEDIMENT CONTROL (E&SC) MEASURES SHOWN ON THESE SHEETS ARE TO BE CONSTRUCTED DURING THE SITE GRADING AND CONSTRUCTION. REFER TO THE FOLLOWING SHEETS FOR EROSION AND SEDIMENT CONTROL NARRATIVE, SEQUENCE OF WORK, DETAILS, AND DESIGN DATA.

ES-11. STABILIZATION MEASURES SHALL BE APPLIED TO EARTHEN STRUCTURES SUCH AS DAMS, DIKES, AND DIVERSIONS IMMEDIATELY AFTER INSTALLATION.

ES-12. DURING CONSTRUCTION OF THE PROJECT, SOIL STOCKPILES AND BORROW AREAS SHALL BE STABILIZED OR PROTECTED WITH SEDIMENT TRAPPING MEASURES. THE CONTRACTOR IS RESPONSIBLE FOR THE TEMPORARY PROTECTION AND PERMANENT STABILIZATION OF ALL SOIL STOCKPILES ON SITE AS WELL AS BORROW AREAS AND SOIL INTENTIONALLY TRANSPORTED FROM THE PROJECT SITE.

ES-13. PERMANENT OR TEMPORARY SOIL STABILIZATION MEASURES SHALL BE APPLIED TO DENUDED AREAS WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE.

ES-14. TEMPORARY SOIL STABILIZATION MEASURES SHALL BE APPLIED WITHIN SEVEN (7) DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN FOURTEEN (14) DAYS. PERMANENT STABILIZATION MEASURES SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.

ES-15. PERMANENT SEEDING APPLIED TO ALL MECHANICALLY STABILIZED SLOPES AND SLOPES STEEPER THAN 3:1 AND SHALL MEET THE FOLLOWING SEED MIXTURE:

POUNDS PER ACRE	SEED TYPE
108	KENTUCKY 31
2	RED TOP
20	SEASONAL NURSE CROP (ANNUAL RYE, FOXTAIL MILLET, & WINTER RYE MIX)
20	CROWN VETCH

ES-16. ALL AREAS DISTURBED BY THE WORK OF THIS PROJECT SHALL BE STABILIZED BY EITHER THE CONSTRUCTION OF A PERMANENT SURFACE SUCH AS CURB, PAVEMENT, OR CONCRETE SIDEWALK, OR STABILIZED BY MEANS OF PERMANENT SEEDING OR ANOTHER APPROVED STABILIZATION METHOD.

ES-17. FOLLOWING THE COMPLETION OF SITE DEVELOPMENT CONSTRUCTION/GRADING, CONFIRMED STABILIZATION OF ALL DISTURBED AREAS, CONFIRMATION THAT EROSION OR SEDIMENTATION IS NO LONGER OCCURRING ON THE PROJECT SITE OR AT ITS BOUNDARIES, CONFIRMATION THAT DRAINAGE FLOWS ARE FUNCTIONING ACCORDING TO DESIGN, AND APPROVAL HAS BEEN GRANTED BY THE ROANOKE COUNTY EROSION AND SEDIMENT CONTROL INSPECTOR, THE CONTRACTOR MAY THEN BEGIN TO REMOVE THE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES. THIS WORK SHALL BE DONE IN A CAREFUL, NEAT, AND ORGANIZED MANNER. IF DEWATERING IS REQUIRED, WATER SHALL BE PUMPED TO AN APPROVED FILTERING DEVICE.

GENERAL SEQUENCE OF WORK:

1. GENERAL:
 - 1.1 DUE TO THE LOCATION OF THE SITE RELATIVE TO OUR STREET AND DENNISTON AVENUE AND THE REQUIREMENTS TO STAGE/SEQUENCE THE WORK, AND IN ORDER TO MINIMIZE THE POTENTIAL FOR SOIL EROSION AND SEDIMENTATION OF DOWNSTREAM WATERWAYS AND PROPERTIES, THE WORK OF THE PROJECT SHOULD BE STAGED AND EXECUTED GENERALLY CHRONOLOGICALLY IN ACCORDANCE WITH THE GENERAL SEQUENCE OF WORK OUTLINED BELOW.
 - 1.2 THIS SEQUENCE OF WORK IS NOT INTENDED TO PROVIDE THE CONTRACTOR AND THE RESPONSIBLE LAND DISTURBER (RLD) WITH SPECIFIC DIRECTION REGARDING MEANS AND METHODS OF CONSTRUCTION NOR IS IT INTENDED TO ADDRESS EACH AND EVERY REQUIRED STEP TO COMPLY WITH THE INTENT OF THE EROSION AND SEDIMENT CONTROL PLAN.
 - 1.3 THE CONTRACTOR SHOULD BE FAMILIAR WITH AND AWARE OF THE SEQUENCING PROVISIONS OF THE "VIRGINIA EROSION AND SEDIMENT CONTROL REGULATIONS" AND THOSE CONTAINED IN THE CITY OF ROANOKE "EROSION AND SEDIMENT CONTROL ORDINANCE." THE GENERAL SEQUENCE OF WORK MAY BE ALTERED UPON SUBMISSION AND APPROVAL OF WRITTEN AMENDMENTS OR APPROVED FIELD REVISIONS.

STAGE I - GENERALLY

2. GENERAL: STAGE I WORK IS DIVIDED INTO THREE (3) AREAS AS LISTED BELOW. WORK IN THESE THREE AREAS WILL LIKELY BE PERFORMED CONCURRENTLY.
 - 2.1 STAGE I-A: INCLUDES THE DEMOLITION AND REMOVAL OF THE EXISTING FIRE STATION BUILDING.
 - 2.2 STAGE I-B: INCLUDES THE CONSTRUCTION REQUIRED TO WIDEN OUR STREET AND INSTALL THE NEW SANITARY SEWER ALONG AND WITHIN OUR STREET. NOTE: OUR STREET SHALL BE CLOSED TO PUBLIC DURING THIS STAGE.
 - 2.3 STAGE I-C: INCLUDES LAND DISTURBANCE, GRADING, AND EROSION & SEDIMENT CONTROL REQUIRED TO CONSTRUCT THE RETAINING WALL. NOTE: DENNISTON AVENUE SHALL BE OPEN TO PUBLIC DURING THIS STAGE.
- 2.4 EACH OF THE AREAS DEFINED IS SHOWN ON PLAN SHEET C7.1. BELOW IS A GENERAL SUMMARY OF THE WORK SEQUENCE AND REQUIRED E&SC MEASURES ASSOCIATED WITH EACH AREA.
 3. STAGE I-A AREA:
 - 3.1 WORK IN THIS AREA INVOLVES DEMOLITION AND REMOVAL OF THE EXISTING FIRE STATION BUILDING. WORK SHALL GENERALLY BE PERFORMED FROM AROUND THE PERIMETER OF THE EXISTING BUILDING USING MECHANIZED EQUIPMENT AND LAND DISTURBANCES SHALL BE KEPT TO A MINIMUM.
 - 3.2 TRUCKS HAULING DEBRIS FROM THE SITE SHALL USE THE EXISTING CONCRETE APRON LOCATED IMMEDIATELY ADJACENT TO THE BUILDING ON THE WEST OR EAST SIDE OF THE STRUCTURE.
 - 3.3 INSTALL SILT FENCE ALONG THE NORTHERN PERIMETER OF THE SITE ALONG THE BACK OF CURB ON MEMORIAL AVENUE. SEE DRAWING SHEET C7.1.
 - 3.4 INSTALL RE-LOCATABLE FILTER SOCK (OR OTHER APPROVED METHOD) ACROSS THE EXISTING WESTERN ENTRANCE ADJACENT TO THE TRENCH DRAIN.
 4. STAGE I-B AREA:
 - 4.1 OUR STREET SHALL BE CLOSED DURING THIS STAGE OF WORK AND ALL TRAFFIC SHALL BE DIVERTED TO DENNISTON AVENUE.
 - 4.2 EXISTING CURB ALONG WESTERN SIDE OF OUR STREET SHALL REMAIN IN-PLACE AND WORK SHALL BE PERFORMED BEHIND THE EXISTING CURB AS LONG AS PRACTICABLE TO CONTROL AND DIRECT STORMWATER AWAY FROM THE CONSTRUCTION AREA.
 - 4.3 CONSTRUCTION ENTRANCE (CE): THE CONTRACTOR MAY USE THE EXISTING ASPHALT OF OUR STREET WHERE IT INTERSECTS MEMORIAL AVENUE AS INITIAL STAGING AND CONSTRUCTION ENTRANCE AREA FOR THE INITIAL WORK OF THIS STAGE. THE CONTRACTOR SHALL ENSURE VEHICLES LEAVING THE WORK AREA ARE FREE OF EXCESS MUD, DIRT, AND DUST. IF EXCESS MUD, DIRT, AND DUST CANNOT BE CONTROLLED (AS DETERMINED BY CITY E&SC INSPECTOR) A VEHICLE WASH-DOWN AREA SHALL BE REQUIRED.
 - 4.4 INSTALL NEW STORM DRAINAGE PIPING FROM SD-40 TO SD-41. INSTALL NEW CURB INLET OR LEAVE PIPE OPEN TO INTERCEPT RUN-OFF FROM UP-SLOPE AREA. INSTALL INLET PROTECTION (IP) AT END OF OPEN PIPES AND ON ALL INLETS AS THEY ARE INSTALLED. ENSURE DOWNSTREAM STORM DRAINAGE SYSTEM IS COMPLETE AND FUNCTIONING. REFER TO MS-10 FOR ADDITIONAL GUIDANCE / REQUIREMENTS REGARDING INSTALLATION OF INLET PROTECTION.
 - 4.5 INSTALL RIGHT-OF-WAY DIVERSION ACROSS EXISTING ENTRANCE TO DIVERT STORMWATER FROM STREET (CLEAN SIDE) TO DOWNSTREAM INLET, WHILE DIVERTING SEDIMENT LADEN RUN-OFF FROM THE DISTURBED AREA TO SD-41 (WITH INLET PROTECTION INSTALLED).
 - 4.6 INSTALL DIVERSION DIKE (DD) ALONG NORTH PERIMETER OF LAWN TO INTERCEPT SHEET FLOW AND DIVERT IT TO SD-41 (PROTECTED). REFER TO MS-4 AND MS-5 FOR ADDITIONAL GUIDANCE / REQUIREMENTS REGARDING INSTALLATION AND STABILIZATION OF THESE MEASURES.
 - 4.7 INSTALL SILT FENCE ALONG THE BACK OF CURB ALONG OUR STREET WHERE SLOPE INDICATES FLOW TOWARD THE STREET.
 - 4.8 PERFORM EXCAVATION BEHIND CURB, PLACE SUB-GRADE TO REQUIRED LEVEL, INSTALL CURB/CURB & GUTTER, INSTALL PAVEMENT SUB-BASE AND ASPHALT BASE. REMOVE EXISTING CURB AS WORK PROGRESSED TO ENSURE TIE-IN BETWEEN EXISTING AND NEW PAVEMENT.
 - 4.9 REFER TO MS-1 FOR GUIDANCE / REQUIREMENTS FOR STABILIZATION OF DISTURBED AREAS.
 5. STAGE I-C AREA:
 - 5.1 WORK PERFORMED DURING THIS STAGE INCLUDES LAND DISTURBANCE, GRADING, AND EROSION & SEDIMENT CONTROL REQUIRED TO CONSTRUCT THE RETAINING WALL. NOTE: DENNISTON AVENUE SHALL BE OPEN TO PUBLIC DURING THIS STAGE.
 - 5.2 STAKE / FLAG THE LIMITS OF LAND DISTURBANCES.
 - 5.3 INSTALL CONSTRUCTION ENTRANCE (CE) AT LOCATION SHOWN ON THE PLANS. THE CONTRACTOR SHALL ENSURE VEHICLES LEAVING THE WORK AREA ARE FREE OF EXCESS MUD, DIRT, AND DUST. IF EXCESS MUD, DIRT, AND DUST CANNOT BE CONTROLLED (AS DETERMINED BY CITY E&SC INSPECTOR) A VEHICLE WASH-DOWN AREA SHALL BE REQUIRED.
 - 5.4 PERIMETER CONTROLS:
 - 5.4.1 INSTALL SILT FENCE (SF) ALONG THE BACK OF CURB ALONG DENNISTON AVENUE FROM THE SOUTH/EASTERN LIMITS OF DISTURBANCES TO THE NEW CONSTRUCTION ENTRANCE.
 - 5.4.2 INSTALL SILT FENCE (SF) ALONG THE NORTHERN LIMITS OF DISTURBANCES ADJACENT TO THE NEW CONSTRUCTION ENTRANCE.
 - 5.4.3 INSTALL DIVERSION (DV) ALONG THE SOUTHWESTERN PERIMETER OF LAND DISTURBANCES WHERE WALL IS TO BE CONSTRUCTED. THIS DIVERSION WILL DIVERT UP-SLOPE RUN-OFF AWAY FROM THE PROJECT DISTURBANCE AREA AND THE NEW WALL. INSTALL RIP-RAP (RR) APRON WHERE DIVERSION TERMINATES AS SHOWN ON THE PLAN. REFER TO MS-4 AND MS-5 FOR ADDITIONAL GUIDANCE / REQUIREMENTS REGARDING INSTALLATION AND STABILIZATION OF THESE MEASURES.
 - 5.4.4 UPON COMPLETION OF ABOVE TASKS AND BEFORE BEGINNING MASS GRADING, CALL FOR INSPECTION OF THE INSTALLED MEASURES. MAKE ADJUSTMENTS AS NEEDED TO ENSURE COMPLIANCE WITH THE SPECIFICATIONS SHOWN ON THE PLANS AND MAKE ADJUSTMENTS AND/OR ADD ADDITIONAL MEASURES BASED ON INSPECTION BY E&SC INSPECTOR FINDINGS/RECOMMENDATIONS.
 - 5.5 INITIAL GRADING:
 - 5.5.1 IF ENCOUNTERED, STRIP AND STOCKPILE TOPSOIL ON-SITE (AT LOCATION SHOWN HEREON) AS NECESSARY TO ENSURE ADEQUATE TOPSOIL IS AVAILABLE TO DRESS CONSTRUCTED SLOPES AND LANDSCAPE ISLANDS. PROTECT STOCKPILE FROM EROSION WITH PERIMETER SILT FENCE (SF) AND TEMPORARY SEEDING (TS). REFER TO MS-2 FOR ADDITIONAL GUIDANCE / REQUIREMENTS REGARDING INSTALLATION AND STABILIZATION OF THESE MEASURES.
 - 5.5.2 SINCE THE AREA OF LAND DISTURBANCE FOR THIS PROJECT IS VOID OF MATURE TREES, IT IS NOT ANTICIPATED THAT EXTENSIVE LOGGING WITHIN THE LIMITS OF LAND DISTURBANCE WILL BE REQUIRED. PERFORM SELECTIVE TREE REMOVAL / CLEARING WITHIN THE LIMITS OF LAND DISTURBANCE. PROTECT TREES TO REMAIN AS SHOWN ON THE LANDSCAPE PLAN. MINIMIZE LAND DISTURBANCE DUE TO CLEARING ACTIVITIES. BURNING OF CLEARED VEGETATION WILL NOT BE PERMITTED. REMOVE CLEARED VEGETATION FROM WORK SITE AS THE WORK PROGRESSES.
 - 5.5.3 BEGIN GRADING (FILLING AND EXCAVATIONS) IN ACCORDANCE WITH THE CONTOURS AND LINES SHOWN ON THE PLANS. STOCKPILE EXCESS MATERIAL FOR HAIL-OFF OR FOR USE IN BACKFILLING BUILDING FOUNDATIONS. MAIN OBJECTIVE WILL BE TO PLACE THE AREA ALONG THE NEW RETAINING WALL TO GRADE/ELEVATION.
 - 5.5.4 AS ELEVATIONS AT THE RETAINING WALL REACHED THE REQUIRED GRADE, PERFORM EXCAVATION FOR FOOTING AND BEAR WALL CONSTRUCTION. MAINTAIN UP-SLOPE DIVERSION AT ALL TIME TO PREVENT UNNECESSARY RUNOFF FROM ENTERING THE WORK AREA.
 - 5.6 STABILIZATION MEASURES:
 - 5.6.1 APPLY PERMANENT (PS) OR TEMPORARY SOIL (TS) STABILIZATION MEASURES TO DENUDED AREAS WITHIN SEVEN (7) DAYS AFTER FINAL GRADE IS REACHED ON ANY PORTION OF THE SITE.
 - 5.6.2 APPLY TEMPORARY SOIL STABILIZATION (TS) MEASURES WITHIN SEVEN DAYS TO DENUDED AREAS THAT MAY NOT BE AT FINAL GRADE BUT WILL REMAIN DORMANT FOR LONGER THAN FOURTEEN (14) DAYS. PERMANENT STABILIZATION MEASURES (PS) SHALL BE APPLIED TO AREAS THAT ARE TO BE LEFT DORMANT FOR MORE THAN ONE YEAR.
 - 5.6.3 REFER TO MS-1 AND MS-3 FOR ADDITIONAL GUIDANCE / REQUIREMENTS REGARDING STABILIZATION MEASURES.

GENERAL SEQUENCE OF WORK FOR STAGE II IS CONTINUED ON SHEET C7.2

EROSION & SEDIMENT CONTROL SYMBOLS LEGEND

MS-XX REFER TO REQUIREMENTS FOR "MINIMUM STANDARDS" LISTED ON SHET C7.4.

