



### EROSION NOTES

1. CONSTRUCTION SHALL COMPLY WITH ALL APPLICABLE CODES AND BE CONSTRUCTED AS SUCH, WHERE A CONFLICT EXISTS BETWEEN LOCAL JURISDICTIONS STANDARD SPECIFICATIONS AND DESIGN STANDARD SPECIFICATIONS STANDARD SPECIFICATIONS, THE MORE STRINGENT SHALL APPLY.
2. THE CONTRACTOR IS CAUTIONED THAT THE LOCATIONS AND/OR ELEVATIONS OF EXISTING UTILITIES AS SHOWN ON THESE PLANS ARE BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES AND THE VA. THE SUBSURFACE UTILITY INFORMATION SHOWN IS LEVEL 1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES. THE LOCATIONS OF UTILITIES SHALL BE OBTAINED BY CALLING MINNESOTA Gopher STATE ONE CALL AND THE VA.
3. THE DESIGN SHOWN IS BASED UPON THE ENGINEERS UNDERSTANDING OF THE EXISTING CONDITIONS. IF CONTRACTOR DOES NOT ACCEPT EXISTING TOPOGRAPHY, IT WILL BE CONTRACTORS RESPONSIBILITY AND EXPENSE TO HAVE TOPOGRAPHIC SURVEY DONE BY A REGISTERED LAND SURVEYOR AND SUBMIT IT TO OWNER FOR REVIEW.
4. THE CONTRACTORS SHALL TAKE ALL NECESSARY PRECAUTIONS TO AVOID PROPERTY DAMAGE TO ADJACENT PROPERTIES. CONTRACTOR WILL BE HELD SOLELY RESPONSIBLE FOR ANY DAMAGES THAT MAY OCCUR.
5. THE SWPPP IS COMPRISED OF THE ESC PLAN, THE STANDARD DETAILS, THE SWPPP NARRATIVE, PLUS THE PERMIT AND ALL RELATED DOCUMENTS.
6. THE CONTRACTOR WILL BE RESPONSIBLE FOR COMPLETING AND SUBMITTING THE APPLICATION FOR THE MPCA GENERAL STORMWATER PERMIT FOR CONSTRUCTION ACTIVITY. ALL CONTRACTORS AND SUBCONTRACTORS INVOLVED WITH STORM WATER POLLUTION PREVENTION SHALL OBTAIN A COPY OF THE SWPPP AND NPDES PERMIT AND BECOME FAMILIAR WITH THEIR CONTENTS. THE SWPPP AND ALL OTHER RELATED DOCUMENTS MUST BE KEPT ON SITE DURING CONSTRUCTION. CONTRACTOR MUST PROVIDE CERTIFIED PERSONNEL FOR SWPPP RECORDS.
7. CONTRACTOR SHALL IMPLEMENT BMPs AS REQUIRED BY THE SWPPP AND PERMITS. THE CONTRACTOR SHALL OVERSEE THE INSPECTION AND MAINTENANCE OF THE BMPs AND EROSION AND SEDIMENT PREVENTION FROM BEGINNING OF CONSTRUCTION TO COMPLETION OF CONSTRUCTION, AND NOTICE OF COMPLETION HAS BEEN FILED WITH THE MPCA BY EITHER THE OWNER OR THE OPERATOR ON THE PERMIT. ADDITIONAL BMPs AND MAINTENANCE SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AT AN ADDITIONAL COST TO THE OWNER.
8. BMPs SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS AS APPLICABLE. CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY OR OWNER.
9. ESC PLAN MUST CLEARLY DELINEATE ALL STATE WATERS. PERMITS FOR ANY CONSTRUCTION ACTIVITY IMPACTING STATE WATERS OR REGULATED WETLANDS MUST BE MAINTAINED ON SITE AT ALL TIMES.
10. THE CONTRACTOR SHALL MINIMIZE CLEARING AS REQUIRED BY THE GENERAL PERMIT. THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE CLEARLY DELINEATED ON THE SITE BEFORE WORK BEGINS.
11. GENERAL CONTRACTOR SHALL DENOTE ON PLAN THE TEMPORARY PARKING AND STORAGE AREA WHICH SHALL ALSO BE USED AS THE EQUIPMENT MAINTENANCE AND CLEANING AREA, EMPLOYEE PARKING AREA, AND AREA FOR PORTABLE FACILITIES.
12. CONCRETE WASH AREA SHALL BE DEFINED.
13. SUFFICIENT OIL AND GREASE ABSORBING MATERIALS SHALL BE MAINTAINED ON SITE AND READILY AVAILABLE FOR USE.
14. DUST ON THE SITE SHALL BE CONTROLLED.
15. SOLID WASTE: CONSTRUCTION WASTE MUST BE DISPOSED OF PROPERLY, AND COMPLY WITH MPCA REQUIREMENTS.
16. HAZARDOUS MATERIALS MUST BE PROPERLY STORED.
17. ALL STORM WATER POLLUTION PREVENTIONS MEASURES ON THIS PLAN, AND IN THE SWPPP, INITIATED PRIOR TO ANY SITE WORK.
18. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS STOPPED SHALL BE TEMPORARILY SEED. SEEDING WILL BE IN ACCORDANCE WITH MNDOT SPEC. 2575.
19. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE PERMANENTLY ESTABLISHED.
20. CONTRACTORS WILL BE RESPONSIBLE FOR REMOVING SEDIMENT FROM CONVEYANCES AND FROM TEMPORARY SEDIMENT BASINS.
21. ON AND OFF SITE SOIL STOCK PILES AND BORROW AREAS SHALL BE PROTECTED WITH BMPs.
22. TEMPORARY STOCKPILES MUST HAVE SILT FENCE OR OTHER EFFECTIVE SEDIMENT AND EROSION CONTROLS.
23. SLOPES SHALL BE LEFT IN A ROUGH CONDITION TO HELP ELIMINATE RILLING.
24. DUE TO GRADE CHANGES DURING THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE ESC MEASURES TO PREVENT EROSION AND SEDIMENTATION.
25. ALL CONSTRUCTION SHALL BE STABILIZED AT THE END OF EACH DAY. THIS INCLUDES BACKFILLING OF TRENCHES AND PLACEMENT OF GRAVEL OR BITUMINUMS.
26. NO STOCKPILE OF MATERIALS NOT TO BE USED ON SITE.
27. ALL EXCESS MATERIALS TO BE REMOVED FROM SITE DAILY.
28. NO CONCRETE WASH-OUT ALLOWED ON VA PROPERTY-TRUCKS TO BE TAKEN OFF SITE.

## MAINTENANCE

ALL MEASURES STATED ON THIS ESC PLAN, AND IN THE SWPPP SHALL BE MAINTAINED UNTIL NO LONGER REQUIRED. ALL ESC MEASURES SHALL BE CLEANED AND REPAIRED IN ACCORDANCE WITH THE FOLLOWING:

1. ALL STORM DRAIN INLETS MADE OPERABLE DURING CONSTRUCTION MUST BE PROTECTED BY BMP'S UNTIL ALL SOURCES WITH POTENTIAL FOR DISCHARGING TO THE INLET HAVE BEEN STABILIZED.
2. ALL SODDED AREAS SHALL BE CHECKED TO SEE THAT A GOOD STAND IS MAINTAINED. AREAS SHOULD BE WATERED AND FERTILIZED AS NEEDED.
3. SILT FENCE SHALL BE REPAIRED OR REPLACED TO ORIGINAL CONDITION IF DAMAGED. SEDIMENT MUST BE REMOVED WHEN IT REACHES ONE THIRD THE HEIGHT OF THE SILT FENCE. THIS WORK MUST BE DONE WITHIN 24 HOURS OF DISCOVERY.
4. VEHICLE TRACKING OF SEDIMENT FROM THE CONSTRUCTION SITE MUST BE MINIMIZED BY BMP'S. STREET SWEEPING MUST BE USED IF BMP'S ARE NOT ADEQUATE TO PREVENT TRACKING. TRACKED SEDIMENT MUST BE REMOVED WITHIN 24 HOURS.
5. THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION.
6. OUTLET STRUCTURES IN THE TEMPORARY AND PERMANENT SEDIMENTATION BASINS SHALL BE MAINTAINED AND OPERATIONAL AT ALL TIMES. SEDIMENT SHALL BE REMOVED FROM SEDIMENT BASINS WHEN THE DESIGN CAPACITY REACHES ONE HALF THE STORAGE VOLUME. DRAINAGE AND REMOVAL MUST BE COMPLETED WITHIN 72 HOURS OF DISCOVERY, OR AS SOON AS PRACTICABLE.

### SITE STAGING

1. CONTRACTOR TO PROVIDE A FINALIZED PLAN FOR VA APPROVAL SHOWING PARKING, STAGING, CONSTRUCTION FENCES, AND STORAGE AREAS PRIOR TO ANY WORK TAKING PLACE.
2. CONTRACTOR PARKING, STORAGE, AND INITIAL STAGING CAN BE LOCATED EAST OF BUILDING 57.
3. MAINTAIN STAFF AND PATIENT ACCESS TO ALL BUILDINGS.
4. WORK TO BE DONE IN STREETS MUST BE APPROVED BY VA STAFF. WORK CONTROL DONE BETWEEN THE HOURS OF 5:00 P.M. AND 6:00 A.M. ROADS MUST BE OPENED TO TRAFFIC BY 6:00 A.M. THE FOLLOWING DAY. CONTRACTOR MUST PROVIDE A TRAFFIC CONTROL AND DETOUR PLAN TO VA. ALL EMERGENCY SERVICES MUST BE NOTIFIED.

### INFILTRATION BASIN EROSION CONTROL NOTES

### CONSTRUCTION SEQUENCING

1. INSTALL SILT FENCE AND/OR OTHER APPROPRIATE TEMPORARY EROSION CONTROL DEVICES TO PREVENT SEDIMENT FROM LEAVING OR ENTERING THE PRACTICE DURING CONSTRUCTION.
2. ALL DOWN-DRAINAGE PERIMETER SEDIMENT CONTROL BMP'S MUST BE IN PLACE BEFORE ANY UP GRADIENT LAND DISTURBING ACTIVITY BEGINS.
3. PERFORM CONTINUOUS INSPECTIONS OF EROSION CONTROL PRACTICES.
4. INSTALL UTILITIES (WATER, SANITARY SEWER, ELECTRIC, PHONE, FIBER OPTIC, ETC) PRIOR TO SETTING FINAL GRADE OF BIORETENTION DEVICE.
5. ROUGH GRADE THE SITE. IF BIORETENTION AREA IS BEING USED AS TEMPORARY SEDIMENT BASINS LEAVE A MINIMUM OF 3 FEET OF COVER OVER THE PRACTICE TO PROTECT THE UNDERLYING SOILS FROM CLOGGING.
6. PERFORM ALL OTHER SITE IMPROVEMENTS.
7. SEED AND MULCH ALL AREAS AFTER DISTURBANCE.
8. CONSTRUCT BIORETENTION DEVICE UPON STABILIZATION OF CONTRIBUTING DRAINAGE AREA.
9. IMPLEMENT TEMPORARY AND PERMANENT EROSION CONTROL PRACTICES.
10. REMOVE TEMPORARY EROSION CONTROL DEVICES AFTER THE CONTRIBUTING DRAINAGE AREA IS ADEQUATELY VEGETATED.

### GENERAL NOTES

1. IN THE EVENT THAT SEDIMENT IS INTRODUCED INTO THE BMP DURING OR IMMEDIATELY FOLLOWING EXCAVATION, THIS MATERIAL SHALL BE REMOVED FROM THE PRACTICE PRIOR TO CONTINUING CONSTRUCTION.
2. GRADING OF BIORETENTION DEVICES SHALL BE ACCOMPLISHED USING LOW-COMPACTION EARTH-MOVING EQUIPMENT TO PREVENT COMPACTION OF UNDERLYING SOILS.
3. ALL SUB MATERIALS BELOW THE SPECIFIED BIORETENTION DEPTH (ELEVATION) SHALL BE DEEP-RIPPED AND SCARIFIED, UNLESS OTHERWISE NOTED.



		CLASS III d50=9"	
DIA. OF ROUND PIPE (IN.)	L (FT.)	18" DEPTH RIPRAP (CU. YDS.)	9" DEPTH GRANULAR FILTER (CU. YDS.)
12	8	4.1	2.1
24	12	8.3	4.2



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Drawing Title	Erosion Control / SWPPP Details
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Approved: Project Director

Daniel Folsom

Project Title	Upgrade Stormwater Systems
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Location	St. Cloud VA Health Care System
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Date  
March 16, 2012

Checked	DJF
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System	Drawing Number
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Drawn  
RJK

