

GENERAL NOTES:

- 1. IT SHALL BE THE SOLE RESPONSIBILITY OF THE PROPERTY OWNER TO MAINTAIN THE POST CONSTRUCTION STORMWATER MANAGEMENT FACILITIES.
2. STORMWATER MANAGEMENT DESIGN: REFER TO "POST CONSTRUCTION STORMWATER MANAGEMENT REPORT FOR PROPOSED MUNICIPAL COMPLEX," PREPARED BY CHESTER VALLEY ENGINEERS.
3. EROSION AND SEDIMENTATION CONTROL: REFER TO "EROSION AND SEDIMENTATION CONTROL PLAN", PREPARED BY CHESTER VALLEY ENGINEERS.
4. MAINTENANCE NOTES:
A. THE BMP'S LISTED BELOW WILL BE OWNED AND MAINTAINED BY THE PROPERTY OWNER.
B. THE PARTY RESPONSIBLE FOR THE LONG TERM OPERATIONS AND MAINTENANCE OF STORMWATER MANAGEMENT FACILITIES SHALL MAKE RECORDS OF THE INSTALLATION AND ALL MAINTENANCE AND REPAIRS, AND SHALL RETAIN THE RECORDS FOR AT LEAST TEN (10) YEARS.
5. THE RECEIVING WATERCOURSE FOR THIS PROJECT IS SPROGLES RUN. THE CHAPTER 93 CLASSIFICATION FOR THE RECEIVING WATER DISCHARGING FROM THE PROJECT SITE IS WARM WATER FISHES & MIGRATORY FISHES (WWF-MF).
6. THE OPERATOR SHALL REMOVE FROM THE SITE, RECYCLE, OR DISPOSE OF ALL BUILDING MATERIALS AND WASTES IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA. CODE 260.1 ET SEQ., 271.1 ET SEQ., AND 287.1 ET SEQ.
7. THE PERMITTEE SHALL PROVIDE ENGINEERING CONSTRUCTION OVERSIGHT FOR THE PROPOSED STORMWATER BMP'S. A LICENSED PROFESSIONAL ENGINEER KNOWLEDGEABLE IN THE DESIGN AND CONSTRUCTION OF STORMWATER BMP'S, PREFERABLY THE DESIGN ENGINEER, SHALL CONDUCT THE OVERSIGHT.
8. AS-BUILT PLANS OF THE STORMWATER BMP'S SHALL BE PROVIDED WITHIN SIX MONTHS FOLLOWING THE COMPLETION OF EACH PHASE.
9. A NOTICE OF TERMINATION (NOT) WILL BE REQUIRED TO BE SUBMITTED FOLLOWING APPROVAL OF THE FINAL AS-BUILT PLANS.
10. PCSM REPORTING AND RECORDKEEPING: THE PCSM PLAN, INSPECTION REPORTS AND MONITORING RECORDS SHALL BE AVAILABLE FOR REVIEW AND INSPECTION BY THE DEPARTMENT OR THE CONSERVATION DISTRICT.
11. FINAL CERTIFICATION: THE PERMITTEE SHALL INCLUDE WITH THE NOTICE OF TERMINATION "RECORD DRAWINGS" WITH A FINAL CERTIFICATION STATEMENT FROM A LICENSED PROFESSIONAL, WHICH READS AS FOLLOWS:

I (NAME) DO HEREBY CERTIFY PURSUANT TO THE PENALTIES OF 18 PA.C.S.A. § 4904 TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF, THAT THE ACCOMPANYING RECORD DRAWINGS ACCURATELY REFLECT THE AS-BUILT CONDITIONS, ARE TRUE AND CORRECT, AND ARE IN CONFORMANCE WITH CHAPTER 102 OF THE RULES AND REGULATIONS OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION AND THAT THE PROJECT SITE WAS CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PCSM PLAN, ALL APPROVED PLAN CHANGES AND ACCEPTED CONSTRUCTION PRACTICES.

- (1) THE PERMITTEE SHALL RETAIN A COPY OF THE RECORD DRAWINGS AS A PART OF THE APPROVED PCSM PLAN.
(2) THE PERMITTEE SHALL PROVIDE A COPY OF THE RECORD DRAWINGS AS A PART OF THE APPROVED PCSM PLAN TO THE PERSON IDENTIFIED IN THIS SECTION AS BEING RESPONSIBLE FOR THE LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMP'S.

- 12. UPON PERMANENT STABILIZATION OF THE EARTH DISTURBANCE ACTIVITY UNDER § 102.22(A)(2) (RELATING TO PERMANENT STABILIZATION), AND INSTALLATION OF BMP'S IN ACCORDANCE WITH AN APPROVED PLAN PREPARED AND IMPLEMENTED IN ACCORDANCE WITH §§ 102.4 AND 102.8 (RELATING TO EROSION AND SEDIMENT CONTROL REQUIREMENTS; AND PCSM REQUIREMENTS), THE PERMITTEE OR CO-PERMITTEE SHALL SUBMIT A NOTICE OF TERMINATION TO THE DEPARTMENT OR CONSERVATION DISTRICT.

THE NOTICE OF TERMINATION MUST INCLUDE:

- (1) THE FACILITY NAME, ADDRESS AND LOCATION.
(2) THE OPERATOR NAME AND ADDRESS.
(3) THE PERMIT NUMBER.
(4) THE REASON FOR PERMIT TERMINATION.
(5) IDENTIFICATION OF THE PERSONS WHO HAVE AGREED TO AND WILL BE RESPONSIBLE FOR LONG-TERM OPERATION AND MAINTENANCE OF THE PCSM BMP'S IN ACCORDANCE WITH §102.8(M) AND PROOF OF COMPLIANCE WITH § 102.8(M)(2).

PRIOR TO ACCEPTING THE NOT, THE DEPARTMENT AND/OR CONSERVATION DISTRICT STAFF WILL PERFORM A FINAL INSPECTION AND APPROVE OR DENY THE NOTICE OF TERMINATION.

GENERAL CONSERVATION NOTES AND SPECIFICATIONS

INTENT OF CONSERVATION PROGRAM: THE INTENT OF THIS PROGRAM IS TO PREVENT ACCELERATED EROSION OF THE EXPOSED SITE SOILS DURING THE CONSTRUCTION AND PERMANENT LIFE PERIODS OF THE DEVELOPMENT. THE PROGRAM REQUIRES RETENTION OF ALL SEDIMENTS ON THE CONSTRUCTION SITE TO MINIMIZE THE IMPACT OF DEVELOPMENT ON EXISTING STREAMS AND ADJACENT PROPERTY OWNERS. THESE OBJECTIVES WILL BE ACHIEVED BY MINIMIZING THE EXPOSURE TIME OF POTENTIALLY ERODIBLE SOILS TO RUNOFF AND INSTALLATION OF THE TEMPORARY CONSTRUCTION. THE INTENT OF THIS PROGRAM SHOULD BE UNDERSTOOD AND IMPLEMENTED THROUGHOUT THE ENTIRE DEVELOPMENT. THE VARIOUS CONSTRUCTION TRADES SHOULD BE APPRAISED OF THIS PROGRAM AND DIRECTED TO PREVENT UNDUE DISTURBANCE OF PREPARED AND PROTECTED SURFACES.

SURFACE STABILIZATION CRITERIA: ALL DISTURBED SOIL SURFACES, INCLUDING SOIL STOCKPILES, ARE SUBJECT TO EROSION AND SHALL BE STABILIZED EITHER TEMPORARILY OR PERMANENTLY. IMMEDIATELY DURING NON-GERMINATION PERIODS, MULCH MUST BE APPLIED AT THE RECOMMENDED RATES. CRUSHED STONE ON PAVEMENT SUBGRADES IS CONSIDERED ADEQUATE PROTECTION. ALL DISTURBED ZONES AND VEGETATED REGIONS SHALL BE STABILIZED, PREFERABLY WITH A PERMANENT TREATMENT.

DISPOSAL AND RECYCLING

THE OWNER IS RESPONSIBLE FOR THE PROPER DISPOSAL OF ALL WASTES ONSITE. GARBAGE SHALL BE COLLECTED ON-SITE UNTIL RETRIEVED BY AN APPROVED DISPOSAL OR RECYCLING COMPANY, CONTRACTOR SHALL NOT INCINERATE EXCESS MATERIALS.

SILT REMOVED FROM POST CONSTRUCTION STORMWATER MANAGEMENT FACILITIES SHALL BE DISPOSED OF ON-SITE IN LANDSCAPED AREAS LOCATED OUTSIDE OF VEGETATED RAIN GARDEN AREAS. AREAS OF SEDIMENT DISPOSAL SHALL BE CONSIDERED CRITICAL VEGETATION AREAS (CVA).

- LIKELY WASTE TO BE GENERATED DURING MAINTENANCE OF THE POST-CONSTRUCTION BMP'S ARE:
• ACCUMULATED SEDIMENT IN THE BIORETENTION AREAS AND STORM SYSTEM.
• ACCUMULATED GARBAGE AND DEBRIS IN THE BIORETENTION AREAS AND STORM SEWER.

CRITICAL STAGES OF CONSTRUCTION

THE PROFESSIONAL DESIGN ENGINEER, GEOTECHNICAL ENGINEER, OR SOILS PROFESSIONAL MUST BE PRESENT ON-SITE FOR THE ENTIRE INSTALLATION AND INSPECTION OF THE STORMWATER BMP'S. THE SPECIFIC CRITICAL STAGES OF CONSTRUCTION FOR EACH BMP ARE:

- 1. FOR BIORETENTION AREAS: EXCAVATION OF BIORETENTION AREA, PREPARATION OF THE SUBGRADE, PLACEMENT OF THE GEOTEXTILE FABRIC, INSTALLATION OF THE UNDERDRAIN, INSTALLATION OF AMENDED SOILS, CONSTRUCTION OF THE BIORETENTION BERM, AND INSTALLATION OF THE OUTLET STRUCTURE.
2. FOR ALL WATER QUALITY INLETS: VERIFY INSTALLATION PER MANUFACTURER'S RECOMMENDATIONS.

CRITICAL VEGETATION AREAS (CVA)

CRITICAL VEGETATION AREAS ARE TO BE GRADED, HYDROSEEDDED, AND MULCHED WITHIN 10 DAYS OF THE BEGINNING OF EXCAVATION. IN GENERAL, CRITICAL VEGETATION AREAS ARE DEFINED AS CUT SLOPES STEEPER THAN 3:1, ALL FILL SLOPES STEEPER THAN 4:1, IN ALL DRAINAGE SWALES, BASIN AND RAIN GARDEN AREAS.

POST CONSTRUCTION STORMWATER MANAGEMENT REPORTING AND RECORD KEEPING

A WRITTEN REPORT DOCUMENTING EACH INSPECTION AND ALL BMP REPAIRS AND MAINTENANCE ACTIVITIES MUST BE PROVIDED AS PART OF THE LONG-TERM OPERATION AND MAINTENANCE PROGRAM.

THE POST CONSTRUCTION STORMWATER MANAGEMENT PLAN, INSPECTION REPORTS, AND MONITORING RECORDS SHALL BE AVAILABLE FOR REVIEW AND INSPECTION BY THE DEPARTMENT OR THE CONSERVATION DISTRICT.

UNIFORM PARCEL IDENTIFIER: 60-00-02089-01-1

BIORETENTION AREAS

- SWM #100 & SWM #101, AS INDICATED ON PCSM PLAN

PLANTING NOTES AND SPECIFICATIONS:

- 1. DEVELOP A PLANTING MEDIUM IN ACCORDANCE WITH THE APPROVED POST CONSTRUCTION STORMWATER MANAGEMENT DETAIL ON SHEET PCSM-3.

INSPECTION REQUIREMENTS

- 1. ALL STORMWATER MANAGEMENT SYSTEMS SHALL BE INSPECTED ANNUALLY FOR THE FIRST FIVE (5) YEARS AND ONCE EVERY THREE (3) YEARS THEREAFTER. FOR ACCUMULATION OF SEDIMENT, TRASH AND DEBRIS, DAMAGE TO OUTLET STRUCTURES, EROSION, SIGNS OF CONTAMINATION OR SPILLS AND BERM STABILITY.

MAINTENANCE/REPAIR INSTRUCTIONS

- 1. THE SUGGESTED ITEMS IN THIS SECTION INCLUDE, BUT ARE NOT LIMITED TO THE THOSE LISTED BELOW:
• ACCUMULATED SEDIMENT SHALL BE RESPREAD ON-SITE AS DESCRIBED IN THE DISPOSAL AND RECYCLING SECTION OF THIS PLAN SHEET;
• ANY DISCOVERED TRASH OR DEBRIS SHALL BE REMOVED IMMEDIATELY;
• REPAIR OR REPLACE OUTLET STRUCTURE AS NEEDED;
• STABILIZE ERODED AREAS IN ACCORDANCE WITH APPROVED E&S SEEDING AND MULCHING NOTES;
• IN THE EVENT OF CONTAMINATION OR SPILL, IMMEDIATELY CONTACT AN ENVIRONMENTAL PROFESSIONAL QUALIFIED TO IDENTIFY AND EXECUTE THE REQUIRED CLEANUP METHODS THAT ADHERE TO LOCAL, STATE AND FEDERAL REGULATIONS;
• IMMEDIATELY AFTER DISCOVERY OF BERM INSTABILITY, CONTACT A GEOTECHNICAL ENGINEER AND SITE CONTRACTOR TO DETERMINE AND EXECUTE METHODS TO REMEDY THE UNSTABLE BERM.

GENERAL MAINTENANCE NOTES:

- 1. INSPECT BMP FOR SEDIMENT BUILDUP, EROSION, VEGETATIVE CONDITIONS, ETC.
2. WHILE VEGETATION IS BEING ESTABLISHED, PRUNING AND WEEDING MY BE REQUIRED.
3. RE-SPREAD MULCH WHEN EROSION IS EVIDENT AND REPLENISH AS NEEDED. REPLENISH MULCH ONCE EVERY 2 TO 3 YEARS.
4. INSPECT AND CORRECT EROSION PROBLEMS, DAMAGE TO VEGETATION, AND SEDIMENT AND DEBRIS ACCUMULATION (ADDRESS WHEN > 3 INCHES AT ANY SPOT OR COVERING VEGETATION).
5. WATER AS NEEDED DURING PERIODS OF EXTENDED DROUGHT.
6. INSPECT VEGETATION ON SIDE SLOPES FOR EROSION AND FORMATION OF RILLS OR GULLIES, CORRECT AS NEEDED.
7. INSPECT FOR POOLS OF STANDING WATER; DEWATER AND DISCHARGE TO AN APPROVED LOCATION AND RESTORE TO DESIGN GRADE.
8. TRIM VEGETATION TO ENSURE SAFETY, AESTHETICS, PROPER SWALE OPERATION, OR TO SUPPRESS WEEDS AND INVASIVE VEGETATION; DISPOSE OF CUTTINGS IN A LOCAL COMPOSTING FACILITY, MOW ONLY WHEN SWALE IS DRY TO AVOID RUTTING.
9. INSPECT FOR LITTER; REMOVE PRIOR TO TRIMMING.
10. INSPECT FOR UNIFORMITY IN CROSS-SECTION, CORRECT AS NEEDED.
11. INSPECT INFLOW POINTS (CURB CUTS, INLETS, PIPES, ETC.) AND OUTLET FOR SIGNS OF EROSION OR BLOCKAGE, CORRECT AS NEEDED.
12. CONTACT DESIGN ENGINEER IMMEDIATELY AFTER DISCOVERY OF SINKHOLE OCCURRENCE. SINKHOLE SHOULD BE PROMPTLY AND PROPERLY REPAIRED.
13. THE VEGETATION (FOR THE MRC BMP CONTRIBUTING DRAINAGE AREA) SHOULD BE MAINTAINED IN GOOD CONDITION, AND ANY BARE SPOTS REVEGETATED.
14. CARE SHOULD BE TAKEN TO AVOID EXCESSIVE COMPACTION BY MOWERS. MOW ONLY AS APPROPRIATE FOR VEGETATIVE SPECIES.
15. INSPECT SWM #100 AT LEAST TWO TIMES PER YEAR AFTER RUNOFF EVENTS GREATER THAN 0.8 INCH AND MAKE SURE THAT RUNOFF DRAINS DOWN WITHIN THE DESIGN PARAMETERS (THE LICENSED PROFESSIONAL ENGINEER SHOULD CLEARLY IDENTIFY WHAT THESE PARAMETERS ARE).
16. ALL CATCH BASINS AND INLETS SHOULD BE INSPECTED AND CLEANED AT LEAST TWO (2) TIMES PER YEAR.
17. AS NEEDED, REMOVE ACCUMULATED SEDIMENT AS REQUIRED TO MAINTAIN INFILTRATION THROUGH THE MRC STONE MEDIA AND TO MAINTAIN WATER QUALITY FUNCTIONALITY; RESTORE ORIGINAL CROSS SECTION, PROPERLY DISPOSE OF SEDIMENT.
18. ALL MRC BMP COMPONENTS SHOULD BE MAINTAINED AS INDICATED IN THE STORMWATER BMP MANUAL.
19. AT LEAST TWO TIMES PER YEAR, OR MORE IF HISTORICAL MAINTENANCE INDICATE IT IS NECESSARY, INSPECT FOR ACCUMULATION OF SEDIMENT, DAMAGE TO OUTLET CONTROL STRUCTURES, EROSION, SIGNS OF WATER CONTAMINATION/SPILLS, AND INSTABILITY.

LEAF LITTER NEEDS TO BE REMOVED ANNUALLY.

WINTER MAINTENANCE NOTES:

- 21. BMP SHOULD BE INSPECTED IMMEDIATELY AFTER THE SPRING MELT, REMOVE RESIDUALS AND REPLACE DAMAGED VEGETATION
22. IF ROADSIDE OR PARKING LOT RUNOFF IS DIRECTED TO THE BMP, MULCHING AND/OR SOIL AERATION/MANIPULATION MAY BE REQUIRED IN THE SPRING TO RESTORE SOIL STRUCTURE AND MOISTURE CAPACITY AND TO REDUCE THE IMPACTS OF DEICING AGENTS.
23. USE NONTOXIC, ORGANIC DEICING AGENTS, APPLIED EITHER AS BLENDED, MAGNESIUM CHLORIDE-BASED LIQUID PRODUCTS OR AS PRETREATED SALT.
24. USE SALT-TOLERANT VEGETATION.
25. CLOSE MOW OR TRIM PERENNIAL MATERIAL TO ALLOW PROPER GERMINATION AND TO CONTROL INVASIVE SPECIES (TO BE DONE ONCE IN LATE FALL, WINTER OR EARLY SPRING).
26. REPLENISH MULCH IN AREAS WHERE EROSION IS EVIDENT. REPLENISH MULCH IN ENTIRE INFILTRATION AREA AT LEAST EVERY 2 TO 3 YEARS.

CONSTRUCTION SEQUENCING

- 1. INSTALL SEDIMENT BARRIER AND/OR OTHER APPROPRIATE TEMPORARY EROSION CONTROL DEVICES TO PREVENT SEDIMENT FROM LEAVING OR ENTERING THE PRACTICE DURING CONSTRUCTION.
2. PRIOR TO CONSTRUCTION, BIORETENTION AREA/BIO-FILTRATION AREAS SHALL BE MARKED OFF IN THE FIELD. THE AREAS SHALL BE DELINEATED WITH CONSTRUCTION FENCING OR TAPE IN SUCH A MANNER AS TO PREVENT THE PARKING OR REPEATED MOVEMENT OF CONSTRUCTION TRAFFIC.
3. ALL DOWN-GRADIENT PERIMETER SEDIMENT CONTROL BMP'S MUST BE IN PLACE BEFORE ANY UP GRADIENT LAND DISTURBING ACTIVITY BEGINS.
4. PERFORM CONTINUOUS INSPECTIONS OF EROSION CONTROL PRACTICES.
5. INSTALL UTILITIES (WATER, SANITARY SEWER, ELECTRIC, PHONE, FIBER OPTIC, ETC) PRIOR TO SETTING FINAL GRADE OF BIORETENTION DEVICE.
6. ROUGH GRADE THE SITE. IF BIORETENTION AREAS ARE BEING USED AS TEMPORARY SEDIMENT BASINS LEAVE A MINIMUM OF 1 FOOT OF COVER OVER THE PRACTICE TO PROTECT THE UNDERLYING SOILS FROM CLOGGING.
7. PERFORM ALL OTHER SITE IMPROVEMENTS.
8. TRIM AND MULCH ALL AREAS AFTER DISTURBANCE.
9. CONSTRUCT BIORETENTION DEVICE UPON STABILIZATION OF CONTRIBUTING DRAINAGE AREA.
10. CONSTRUCT CURB CUTS OR OTHER INFLOW BUT PROVIDE PROTECTION TO PROHIBIT SEDIMENT LADEN WATER FROM ENTERING THE BMP.
11. CRITICAL STAGE OF CONSTRUCTION: CONTACT ENGINEER TO VERIFY INSTALLATION OF BIORETENTION AREA.
12. IMPLEMENT TEMPORARY AND PERMANENT EROSION CONTROL PRACTICES.
13. PLANT AND MULCH BIORETENTION DEVICE.
14. REMOVE TEMPORARY EROSION CONTROL DEVICES AFTER THE CONTRIBUTING DRAINAGE AREA IS ADEQUATELY VEGETATED.

BMP FAILURE NOTES (PER PROTOCOL 2 OF THE BMP MANUAL)

- THE TERM 'FAILURE' FOR THE PROPOSED BIORETENTION AREAS SHALL BE DEFINED AS:
1) THE LOSS OF FUNCTIONALITY OF THE PROPOSED OUTLET STRUCTURE, DISCHARGE PIPE, UNDERDRAIN SYSTEM OR ANY OTHER DRAINAGE STRUCTURE/PIPE WITHIN THE BMP
2) THE LOSS OF STRUCTURAL INTEGRITY OF THE PROPOSED BERM
3) THE INABILITY OF THE BIORETENTION AREA TO SUPPORT SURFACE VEGETATION DUE TO TOO MUCH OR TOO LITTLE WATER
4) EXCESSIVE EROSION OR ACCUMULATION OF SEDIMENT OR DEBRIS
5) STANDING WATER IS OBSERVED IN THE BIORETENTION AREA AFTER 72-HOURS.

THE PERMITTEE SHALL MAKE THE NECESSARY REPAIRS TO THE OUTLET STRUCTURE, DISCHARGE PIPING, UNDERDRAIN SYSTEM, OTHER DRAINAGE STRUCTURES/PIPES WITHIN THE BMP, SURFACE VEGETATION, AND BERM AS NEEDED. REMOVE SEDIMENT OR DEBRIS THAT HAS ACCUMULATED IN THE BMP BOTTOM AND STABILIZE EROSION USING PERMANENT STABILIZATION TECHNIQUES INDICATED ON THE EROSION AND SEDIMENT POLLUTION CONTROL PLAN, DEWATER BIORETENTION AREAS.

THE TERM 'FAILURE' FOR THE PROPOSED WATER QUALITY INLETS (FILTER INSERTS) SHALL BE DEFINED AS:

- 1) DISCOVER EVIDENCE OF DAMAGED FILTER MEDIA
2) DISCOVER EVIDENCE OF THE FILTER MEDIA'S INABILITY TO SUPPORT ACCUMULATED SEDIMENT OR DEBRIS.

THE PERMITTEE SHALL REPAIR BMP FAILURE BY REPLACING THE FILTER MEDIA IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS.

THERMAL IMPACT

THERE ARE SEVERAL PROPOSED IN PLACE MEASURES INTENDED TO TREAT RUNOFF FOR THERMAL IMPACTS. FIRSTLY, THE PROPOSED LANDSCAPED TREES WITHIN AND BORDERING THE NEW BUILDING AND SIDEWALK AREAS WILL SHADE THE ADJACENT IMPERVIOUS SURFACES WHICH WILL KEEP THE AREAS COOL. SECONDLY, THE STORMWATER RUNOFF COLLECTED BY THE STORM SEWER SYSTEM WILL BE COOLED BY THE LOWER UNDERGROUND TEMPERATURE AS THE RUNOFF FLOWS THROUGH THE SYSTEM. THIRDLY, THE WATER DETAINED IN THE BIORETENTION AMENDED SOILS WILL BE COOLED AS IT IS SLOWLY RELEASED AS A RESULT OF THE LOWER UNDERGROUND TEMPERATURE. AS THE POST DEVELOPMENT FLOWS ARE LOWER THAN THE PRE-DEVELOPMENT FLOWS THE REDUCED RATE MEANS THE RUNOFF WILL HAVE MORE TIME TO COOL IN THE PROPOSED BMP'S. THE COOLING INFLUENCES OF THE ONCE BMP'S WILL NEUTRALIZE/REMOVE THE HEAT ENERGY ABSORBED BY THE PROJECT SITE RUNOFF PRIOR TO DISCHARGE INTO THE RECEIVING WATERCOURSE.

WATER QUALITY INLETS (FILTER INSERTS)

- PROPOSED INLETS NOTED ON THE PCSM PLAN

IT SHALL BE THE SOLE RESPONSIBILITY OF THE PROPERTY OWNER TO MAINTAIN ALL WATER QUALITY INLETS ON SITE.

INSPECTION REQUIREMENTS

- 1. WATER QUALITY INLET INSERTS SHOULD BE INSPECTED ANNUALLY FOR THE FIRST FIVE (5) YEARS AND ONCE EVERY THREE (3) YEARS THEREAFTER.
A. DURING THE THREE ROUTINE INSPECTIONS, THE FILTER MEDIA SHALL BE CLEANED.
B. ONE REGULAR CHANGE AND DISPOSAL OF THE FILTER MEDIA SHALL OCCUR DURING THE CALENDAR YEAR AS WELL.

BMP FAILURE

- 1. BMP FAILURE IS DEFINED AS DISCOVERING EVIDENCE OF TORN FILTER FABRIC OR FILTER MEDIA INABILITY TO SUPPORT ACCUMULATED SEDIMENT OR DEBRIS
2. REPAIR BMP FAILURE BY REPLACING THE FILTER MEDIA IN ACCORDANCE WITH THE MANUFACTURERS SPECIFICATIONS.

GENERAL MAINTENANCE NOTES

- 1. WATER QUALITY WATER QUALITY INLET INSERTS SHALL BE CHECKED TO ENSURE THEY ARE SECURELY FASTENED DURING EACH INSPECTION.
2. RECOMMENDED MAINTENANCE IS PERFORMED INCLUDING REMOVAL AND DISPOSAL OF THE FILTER MEDIA OR EXCESS MATERIAL BY PERSONNEL.

DISPOSAL

- 1. DISPOSAL OF REMOVED MATERIAL WILL DEPEND ON THE NATURE OF THE DRAINAGE AREA AND THE INTENT AND FUNCTION OF THE WATER QUALITY INSERT.
2. MATERIAL REMOVED FROM WATER QUALITY INSERTS THAT SERVE 'HOT SPOTS' SUCH AS FUELING STATIONS THAT RECEIVE A LARGE AMOUNT OF DEBRIS SHOULD BE HANDLING ACCORDING TO DEP REGULATIONS FOR THAT TYPE OF SOLID WASTE, SUCH AS A LANDFILL THAT IS APPROVED BY DEP TO ACCEPT SOLID WASTE. WATER QUALITY INSERTS THAT PRIMARILY CATCH SEDIMENT AND DETRITUS FROM AREAS SUCH AS LAWNS MAY REUSE THE WASTE ON SITE.

CONSTRUCTION SEQUENCE

- 1. REMOVE THE GRATE OF THE INSTALLED INLET AND SET IT TO THE SIDE.
2. REMOVE DEBRIS AND LITTER FROM THE INLET.
3. CLEAN OFF THE GRATE BEARING LEDGE.
4. LOWER THE FILTER ASSEMBLY INTO THE INLET UNTIL THE ASSEMBLY'S SUPPORT FLANGES REST ON THE GRATE BEARING LEDGE.
5. INSURE THAT THE FOUR FILTER MEDIUM CARTRIDGES ARE ATTACHED TO THE D-RINGS IN THE BOTTOM CORNERS OF THE FILTER ASSEMBLY.

CRITICAL STAGE OF CONSTRUCTION: CONTACT ENGINEER TO VERIFY INSTALLATION OF WATER QUALITY INSERTS.

6. REPLACE THE INLET GRATE.

STORM SEWER

INSPECTION REQUIREMENTS:

- 1. ALL DRAINAGE COLLECTION STRUCTURES SHALL BE INSPECTED ANNUALLY FOR THE FIRST FIVE (5) YEARS AND ONCE EVERY THREE (3) YEARS THEREAFTER. FOR TRASH, DEBRIS OR EVIDENCE OF PIPE LEAKAGE OR SAGGING; REMOVE TRASH OR DEBRIS IMMEDIATELY; IMMEDIATELY REPAIR OR REPLACE LEAKING/SAGGING DRAINAGE FEATURES.

GENERAL MAINTENANCE NOTES:

- 1. ACCESS CAN BE GAINED TO EACH COLLECTION STRUCTURE THROUGH THE REMOVABLE INLET GRATE OR MANHOLE LID. STEEL OR OTHER APPROVED RUNGS HAVE BEEN INSTALLED ON THE INSIDE OF EACH STRUCTURE OVER FOUR FEET DEEP FOR ANY NECESSARY ENTRY. GRATES AND LIDS SHALL BE REPLACED SECURELY IMMEDIATELY AFTER MAINTENANCE. CONTACT DESIGN ENGINEER IMMEDIATELY AFTER DISCOVERY OF SINKHOLE OCCURRENCE, SINKHOLE SHOULD BE PROMPTLY AND PROPERLY REPAIRED.
3. IF SEDIMENT/TRASH/DEBRIS IS FOUND IN THE CONVEYANCE SYSTEM, THE SYSTEM SHALL BE JETTED AND VACUUMED TO REMOVE ALL SEDIMENT/TRASH/DEBRIS AND DISPOSED OF APPROPRIATELY.
4. REFER TO WATER QUALITY INLET MAINTENANCE GUIDELINES FOR ADDITIONAL DETAIL IN CLEANING OF THOSE STRUCTURES WITH WATER QUALITY APPARATUS INSTALLED.

LEVEL SPREADER

IT SHALL BE THE SOLE RESPONSIBILITY OF THE PROPERTY OWNER TO MAINTAIN LEVEL SPREADERS ON SITE.

CONSTRUCTION SEQUENCE:

- 1. LEVEL SPREADERS ARE CONSIDERED A PERMANENT PART OF A SITE'S STORMWATER MANAGEMENT SYSTEM, THE UPHILL DEVELOPMENT SHOULD BE STABILIZED BEFORE DIVERTING RUNOFF TO ANY DISPERSING FLOW TECHNIQUES. IF THE LEVEL SPREADER IS USED AS AN EROSION AND SEDIMENTATION CONTROL MEASURE, IT MUST BE RECONFIGURED (CLEAN OUT ALL SEDIMENT, REPLACE AGGREGATE), TO ITS ORIGINAL STATE BEFORE USE AS A PERMANENT STORMWATER FEATURE.
2. PRIOR TO CONSTRUCTION, LEVEL SPREADER AREAS SHALL BE MARKED OFF IN THE FIELD. THE AREAS SHALL BE DELINEATED WITH CONSTRUCTION FENCING OR TAPE IN SUCH A MANNER AS TO PREVENT THE PARKING OR REPEATED MOVEMENT OF CONSTRUCTION TRAFFIC ACROSS THE BIORETENTION SWALE AREA.
3. ALL CONTRIBUTING STORMWATER ELEMENTS (DETENTION BEDS, INLETS, OUTLET CONTROL STRUCTURES, PIPES, ETC) SHOULD BE INSTALLED UPSTREAM.
4. PERFORATED PIPE SHOULD BE INSTALLED ALONG THE DESIGN CONTOUR, WITH CAREFUL EMPHASIS ON A LEVEL INSTALLATION TO PROMOTE EVEN FLOW DISTRIBUTION. IF POSSIBLE, PIPE SHOULD HAVE AN INVERT BELOW FROST LINE TO PROVIDE BETTER STABILITY.

GENERAL MAINTENANCE NOTES/INSPECTION SCHEDULE

- 1. THE AREA BELOW A LEVEL SPREADER SHOULD BE INSPECTED FOR CLOGGING, DENSITY OF VEGETATION, DAMAGE BY FOOT OR VEHICULAR TRAFFIC, EXCESSIVE ACCUMULATION, AND CHANNELIZATION. INSPECTIONS SHOULD BE MADE ON A QUARTERLY BASIS FOR THE FIRST TWO YEARS FOLLOWING INSTALLATION, AND THEN ON A SEMIANNUAL BASIS THEREAFTER. INSPECTIONS SHOULD ALSO BE MADE AFTER MAJOR STORM EVENTS.
2. PRIOR TO PLACING THE LEVEL SPREADER INTO SERVICE, INSPECTIONS SHALL BE MADE BY THE DESIGNER TO CERTIFY THE FACILITY WAS CONSTRUCTED AS REQUIRED. IF ANY REPAIRS ARE REQUIRED, THEY SHOULD BE MADE BEFORE THE CONTRACTOR LEAVES THE SITES. A RECORD OF ALL REPAIRS SHALL BE SUBMITTED TO THE CHESTER COUNTY CONSERVATION DISTRICT.
a. IF A LEVEL SPREADER IS DOWN STREAM OF A SEDIMENT TRAP/BASIN, BOTH BEDDING AND GEOTEXTILE MATERIAL SHALL BE REPLACED WHEN THE DRAINAGE AREA IS STABILIZED.
3. DURING CONSTRUCTION MAINTENANCE
a. LEVEL SPREADER SHOULD BE INSPECTED FOR CLOGGING, VEGETATION HEALTH, AND DAMAGE CAUSED BY ANY STORM EVENT.
b. IMMEDIATE REPAIRS SHALL BE MADE AND DOCUMENTED IN THE EVENT THAT DAMAGE IS DISCOVERED AT ANY TIME.
c. INSPECTIONS SHOULD BE MADE ON A WEEKLY BASIS FOR THE DURATION OF ALL CONSTRUCTION ACTIVITY UNTIL THE UPSTREAM DRAINAGE AREA HAS BEEN STABILIZED. INSPECTIONS SHOULD ALSO BE MADE AFTER EVERY STORM EVENT TO ENSURE THE CONTINUED FUNCTIONALITY OF THE LEVEL SPREADER.
4. SEDIMENT AND DEBRIS SHOULD BE ROUTINELY REMOVED (BUT NEVER LESS THAN SEMIANNUALLY), OR UPON OBSERVATION, WHEN BUILDUP OCCURS IN THE CLEAN OUTS. REGRADING AND RESEEDING MAY BE NECESSARY IN THE AREAS BELOW THE LEVEL SPREADER. REGRADING MAY ALSO BE REQUIRED WHEN POOLS OF STANDING WATER ARE OBSERVED ALONG THE SLOPE. (IN NO CASE SHOULD STANDING WATER BE ALLOWED FOR LONGER THAN 72 HOURS.)

POST-CONSTRUCTION STORMWATER MANAGEMENT NOTES

Table with 2 columns: NO, DATE. Row 1: REVISION

SITE IMPROVEMENT PLANS FOR UPPER POTTS GROVE MUNICIPAL BUILDING COMPLEX UPPER POTTS GROVE TOWNSHIP - MONTGOMERY COUNTY - PENNSYLVANIA



ChesterValley ENGINEERS, INC. 112 Moores Road, Suite 200, Havertown, PA 19355. Project No. 22096. Scale: As Noted. Date: 07/01/2024. Drawn by: HL. Checked by: MJ. Drawing: PCSM-4.