BIORETENTION FILTER CONSTRUCTION NOTES

A HARD COPY OF THE PLANS AND SPECIFICATIONS MUST BE KEPT ON-SITE AT ALL TIMES.

BIORETENTION CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE "CONSTRUCTION INSPECTION CHECKLIST FOR BIORETENTION" (SEE APPENDIX G OF THE ARLINGTON COUNTY STORMWATER MANUAL [CURRENT])" HTTPS://WWW.ARLINGTONVA.US/FILES/SHAREDASSETS/PUBLIC/V/2/BUILDING/DOCUMENTS/APPENDIX-G-LDA2.0.PDF

CONTRACTOR SHALL REPORT ANY CONDITIONS ENCOUNTERED DURING CONSTRUCTION THAT ARE CONSIDERED DETRIMENTAL TO BIORETENTION FUNCTION OR GROWTH OF PLANT MATERIAL (FOR EXAMPLE, HIGH GROUNDWATER, OFF-SITE SEDIMENT, SOIL OR DRAINAGE PROBLEMS).

FOR STREET RIGHT OF WAY CONSTRUCTION THE CONTRACTOR SHALL HAVE A TRANSPORTATION RIGHT-OF-WAY (TROW) PERMIT IN HAND PRIOR TO INITIATING CONSTRUCTION. THE CONTRACTOR MUST IMPLEMENT THE TRAFFIC CONTROL/MAINTENANCE OF TRAFFIC (MOT) PLAN AND PEDESTRIAN SAFETY PLAN TO INCLUDE TEMPORARY PEDESTRIAN ACCESS AND TRAFFIC CONTROL DEVICES TO INCLUDE FLAGS-PERSONS, SIGNAGE, KEEPING PATHWAYS CLEAR OF VEHICLES AND EQUIPMENT, ETC. ALL MUST BE IN ACCORDANCE WITH THE US DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION'S "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" OR THE VIRGINIA DEPARTMENT OF TRANSPORTATION'S "VIRGINIA WORK AREA PROTECTION MANUAL." SEE: https://www.arlingtonva.us/government/programs/building/permits/transportation-right-of-way

SECURE THE BIORETENTION CELL FROM ANY RUNOFF FROM THE CONSTRUCTION SITE OR DISTURBED AREAS. BLOCK CURBS OR INLETS TO DIVERT UPLAND DRAINAGE AREAS TO PREVENT RUNOFF FROM ENTERING THE EXCAVATED BIORETENTION CELL PRIOR TO COMPLETION (AS DETERMINED BY THE PROJECT OFFICER). ENSURE THAT NO SITE RUNOFF ENTERS THE FACILITY BEFORE THE DRAINAGE AREA HAS BEEN STABILIZED.

AT NO TIME SHALL SEDIMENT OR DEBRIS BE SWEPT OR BLOWN INTO STORMDRAINS OR BIORETENTION. SEDIMENT OR DEBRIS SHALL BE SWEPT UP, BAGGED AND DISPOSED OF OFFSITE

SUITABLE WEATHER - CONSTRUCTION AND PLANTING SHALL BE SUSPENDED DURING PERIODS OF RAINFALL OR SNOWMELT. CONSTRUCTION SHALL REMAIN SUSPENDED IF PONDED WATER IS PRESENT OR IF THERE IS RESIDUAL SOIL MOISTURE DUE TO INCREASED POTENTIAL FOR SOIL COMPACTION.

SECURE THE SITE FROM RISK OF PRECIPITATION DAMAGES IN THE EVENT OF RAIN (I.E., COVER ERODIBLE SURFACES SUCH AS SLOPES AND EDGES); TAKE ACTION TO DIVERT STORMWATER AWAY FROM THE WORK AREA AND TEMPORARILY COVER ALL EXPOSED SOILS WITH FILTER FABRIC OR IMPERMEABLE SHEETING; COVER ALL STAGED MATERIAL IN THE EVENT OF RAIN AND AT THE CLOSE OF EACH WORK DAY.

EQUIPMENT AND COMPACTION AVOIDANCE - HEAVY EQUIPMENT IS NOT PERMITTED INSIDE THE FOOTPRINT OF THE BIORETENTION AREA. EXCAVATORS OR BACK HOES SHALL USE SCOOPS WITH ADEQUATE REACH SO THEY CAN WORK FROM THE SIDES TO PREVENT COMPACTING OF SOILS. BMP LAYERS SHALL NOT BE COMPACTED EXCEPT AS SPECIFIED ON THIS SHEET. DURING THE FINAL PASS OF EXCAVATION "RIP" (OR RAKE) THE SOIL 6"-12" AT THE BOTTOM OF THE EXCAVATION WITH THE TEETH OF THE BUCKET TO BREAK UP THE SOIL AND LOOSEN ANY COMPACTION. USE THE EXCAVATOR BUCKET TO PLACE MATERIALS TO INCLUDE LEVELING AND FINAL GRADING OF THE STONE AND SOIL LAYERS. TRACKED VEHICLES AND DRIVABLE MATS CAN BE USED TO BACKFILL THE BIORETENTION IN ORDER TO MINIMIZE SITE COMPACTION. ACCEPTABLE EQUIPMENT INCLUDES EXCAVATION HOES, LIGHT EQUIPMENT WITH TURF-TYPE TIRES, MARSH EQUIPMENT OR WIDE-TRACK LOADERS. HAND DIGGING, AIR SPADES OR VACUUM EXCAVATION ARE ALSO ACCEPTABLE.

MATERIAL DELIVERY - IT IS RECOMMENDED THAT FILTER MEDIA NOT BE DELIVERED TO THE SITE UNTIL THE BIORETENTION CELL HAS BEEN EXCAVATED OR GRADED AND THE UNDERDRAIN SYSTEMS ARE IN PLACE. IN THE EVENT THAT FILTER MEDIA SHALL BE STAGED OVERNIGHT IT SHALL BE STABILIZED AND COVERED. PLANTING MATERIAL SHALL NOT BE INSTALLED UNTIL THE FILTER MEDIA HAS SETTLED TO THE PROPER GRADE ELEVATION. MATERIAL SHALL BE STAGED ON PLASTIC SHEETING OR IMPERVIOUS SURFACES.

RECEIPTS AND DELIVERABLES - CONTRACTOR MUST PHOTO-DOCUMENT CONSTRUCTION PHASES; CONTRACTOR MUST SUBMIT A CLEAR, SCANNED COPY OF ALL MATERIAL RECEIPTS AND CERTIFICATIONS; CONTRACTOR MUST SCHEDULE ALL REQUIRED INSPECTIONS.

SEQUENCE OF CONSTRUCTION - BIORETENTION FILTER

1. PRE-CONSTRUCTION MEETING
   FOR LARGE-SCALE, MULTI-COMPONENT PROJECTS, THE PROJECT OFFICER SHALL SCHEDULE A BIORETENTION-SPECIFIC PRE-CONSTRUCTION MEETING AT THE SITE.

2. BOTTOM OF BIORETENTION CELL
   CONTRACTOR SHALL DOCUMENT THE ELEVATION AND DIMENSIONS OF THE BOTTOM OF EACH BIORETENTION CELL CONTRACTOR SHALL PHOTO DOCUMENT THE "RIPPED" BOTTOM SURFACE OF EACH FACILITY EXCAVATE BIORETENTION CELL TO PROPOSED DEPTH TAKING CARE WITH THE SIDE SLOPES AS THEY VARY PER EACH APPROVED DESIGN. SCOOP OUT SOIL AND WHEN AT THE APPROPRIATE BASIN DEPTH SCARIFY (RIP) EXISTING SOIL SURFACE TAKING CARE NOT TO COMPACT SOILS BY USING THE "RAKE" METHOD INSTEAD OF FLATTENING THE BASIN WITH THE "SCOOP" METHOD. THE BOTTOM SHALL BE RIPPED 6-12 INCHES. THE EXCAVATION MUST BE FULLY DEWATERED PRIOR TO BACKFILLING.

3. GRADE CONTROL STRUCTURES
   CONTRACTOR SHALL DOCUMENT THE ELEVATION OF THE TOP, INVERT AND PENETRATIONS OF EACH GRADE CONTROL STRUCTURE CONTRACTOR SHALL PHOTO DOCUMENT EACH STRUCTURE AND PENETRATION.

4. GEOTEXTILE FABRIC AND/OR IMPERMEABLE LINER (IF SPECIFIED) (REFER TO SPECS)
   CONTRACTOR SHALL PHOTO DOCUMENT THE PLACEMENT OF THE GEOTEXTILE FABRIC/IMPERMEABLE LINER PLACE GEOTEXTILE FABRIC/IMPERMEABLE LINER ON THE SIDE SLOPES PER THE DESIGN SPECIFICATIONS WITH 6" OVERLAP WHERE ENDS MEET, IF NEEDED.
   DO NOT PUT GEOTEXTILE FABRIC ON THE BOTTOM OF THE CELL

5. STONE RESERVOIR LAYER (WASHED VDOT #57)
   CONTRACTOR SHALL DOCUMENT THE ELEVATION OF THE TOP OF EACH STONE RESERVOIR LAYER CONTRACTOR SHALL PHOTO DOCUMENT THE PLACEMENT AND DEPTH OF EACH STONE RESERVOIR LAYER
   INSTALL THE STONE TO THE CORRECT ELEVATION PER THE DESIGN SPECIFICATIONS. IF STONE HAS BEEN STOCKPILED FOR SEVERAL DAYS IT SHALL BE WASHED PRIOR TO INSTALLATION.

6. UNDERDRAIN SYSTEM
   CONTRACTOR SHALL DOCUMENT THE INVERT ELEVATIONS AND SLOPES OF EACH UNDERDRAIN. CONTRACTOR SHALL PHOTO DOCUMENT EACH UNDERDRAIN SHOWING ALL STRUCTURES AND CLEANOUTS. INSTALL BIORETENTION UNDERDRAIN, OVERFLOW/RISER, OBSERVATION WELLS/CLEAN-OUT PIPES PER THE DESIGN SPECIFICATIONS. NOTE USE OF PERFORATED & NON-PERFORATED PIPES.
   DO NOT CUT OFF VERTICAL STAND PIPES UNTIL PROJECT OFFICER APPROVAL

7. INFRASTRUCTURE CONNECTIONS (IF SPECIFIED)
   CONTRACTOR SHALL DOCUMENT THE INVERT ELEVATIONS OF ALL CONNECTIONS TO THE EXISTING STORM DRAIN. CONTRACTOR SHALL PHOTO DOCUMENT THE CONNECTION TO ALL EXISTING STORM DRAINS. INSTALL AND SECURE PIPE CONNECTIONS TO EXISTING STORM DRAIN/PIPES/MANHOLES (IF SPECIFIED).

8. CHOKER STONE LAYER (IF SPECIFIED; WASHED VDOT #8)
   CONTRACTOR SHALL DOCUMENT THE ELEVATION OF THE TOP OF EACH CHOKER STONE LAYER
   CONTRACTOR SHALL PHOTO DOCUMENT THE PLACEMENT AND DEPTH OF EACH CHOKER STONE LAYER
   INSTALL THE GRAVEL TO THE CORRECT ELEVATION PER THE DESIGN SPECIFICATIONS. THE GRAVEL SHALL COVER THE UNDERDRAIN BY A MINIMUM OF 2" ON ALL SIDES

9. GEOTEXTILE FABRIC OVER UNDERDRAIN (IF SPECIFIED)
   CONTRACTOR SHALL PHOTO DOCUMENT THE PLACEMENT OF EACH GEOTEXTILE FABRIC. PLACE GEOTEXTILE FABRIC WITH 2' EXTENSION ON EACH SIDE OF THE UNDERDRAIN ONLY.

10. BIORETENTION FILTER MEDIA (BIORETENTION SOIL) - ACCOUNT FOR 10-20% SETTLEMENT OR COMPACTION. CONTRACTOR SHALL DOCUMENT THE ELEVATION OF THE TOP OF EACH FILTER MEDIA LAYER AFTER SETTLEMENT. CONTRACTOR SHALL PHOTO DOCUMENT THE PLACEMENT OF EACH FILTER MEDIA LAYER. BACKFILL BIORETENTION AREA WITH FILTER MEDIA TO THE DESIGN DEPTH. FILL IN 12" LIFTS THEN WATER WITH A HOSE TO SETTLE THE SOIL (DO NOT OVER COMPACT); REPEAT TO MEET SPECIFIED DEPTH. SETTLEMENT SHALL BE DEFINED AS INUNDATION OF THE ENTIRE SURFACE OF THE FACILITY DURING A RAIN EVENT, OR A FLOOD TEST.

    IF SPECIFIED ON PLANS THE BIORETENTION FILTER MEDIA MAY BE A BIOCHAR ENHANCED MIX. ADDITIONAL SPECIFICATIONS WILL BE PROVIDED IF THAT IS THE CASE.

    FILTER MEDIA MUST COME FROM A PRE-APPROVED VENDOR WHO HAS CERTIFIED THE ARLINGTON COUNTY FILTER MEDIA MIX

11. CLEANOUT AND OVERFLOW ELEVATIONS
    CONTRACTOR SHALL DOCUMENT THE ELEVATION OF THE TOP OF CLEANOUTS AND OVERFLOWS. CONTRACTOR SHALL PHOTO DOCUMENT THE FINAL INSTALLATION OF CLEANOUTS AND OVERFLOWS. CLEANOUT AND OVERFLOW PIPES ARE NOT CUT UNTIL THE INSPECTOR HAS VERIFIED FINAL SOIL DEPTH AND PONDING ELEVATIONS. ONCE VERIFIED, CUT OFF STAND PIPES AND ATTACH CAPS / RISER DOMES. CLEANOUTS SHALL EXTEND 2" ABOVE THE PONDING ELEVATION. OVERFLOWS SHALL BE PER PLAN ELEVATION.

12. PLANTS (PER THE PLANTING DESIGN)
    CONTRACTOR SHALL PHOTO DOCUMENT THE INSTALLED PLANTS
    INSTALL SHRUBS, PERENNIALS AND DEEP PLUGS PER THE PLANTING DESIGN OR PER THE PROJECT OFFICER'S DIRECTION. TO AVOID SOIL COMPACTION, PLANTING SHALL NOT OCCUR WHEN THE SOIL IS WET.
    NO PLANT SUBSTITUTIONS SHALL BE MADE WITHOUT PRIOR WRITTEN APPROVAL FROM THE PROJECT OFFICER
    PLANTS SHALL BE INSPECTED PRIOR TO STAGING IN THE BIORETENTION AND PLANTING. PLANTS WHICH DO NOT MEET COUNTY SPECIFICATIONS WILL BE RETURNED AT THE EXPENSE OF THE CONTRACTOR

13. MULCH
    INSTALL 2"-3" MULCH LAYER. BE CAREFUL TO KEEP MULCH OFF OF PLANT STEMS, SHRUB AND TREE TRUNKS BY LEAVING AN APPROXIMATE 4" MARGIN.

14. SITE STABILIZATION
    STABILIZE ALL DISTURBED AREAS AS SPECIFIED ON APPROVED EROSION AND SEDIMENT CONTROL PLANS.

15. WATERING
    PLANTS SHALL BE WATERED IMMEDIATELY AFTER INSTALLATION AND AGAIN 48 HOURS AFTER INSTALLATION (UNLESS A STORM EVENT OCCURS). THE CONTRACTOR IS RESPONSIBLE FOR WATERING PLANTINGS WEEKLY UNTIL PROJECT ACCEPTANCE.

CONSTRUCTION INSPECTION

THE CONTRACTOR SHALL BE REQUIRED TO HAVE THE PROJECT OFFICER INSPECT THE PROJECT AT CRITICAL STAGES OF THE CONSTRUCTION OF THE BIORETENTION FACILITY. THE CONTRACTOR SHALL NOTIFY THE PROJECT OFFICER AT LEAST 48 HOURS IN ADVANCE OF THE NECESSARY INSPECTION. THE REQUIRED INSPECTIONS ARE:

1. FOLLOWING THE EXCAVATION OF THE FACILITY (PRIOR TO PLACEMENT OF THE STONE RESERVOIR LAYER)
2. FOLLOWING THE INSTALLATION OF THE UNDERDRAIN (PRIOR TO PLACEMENT OF CHOKER STONE LAYER)
3. FOLLOWING THE INSTALLATION OF THE CHOKER STONE LAYER (PRIOR TO PLACEMENT OF FILTER MEDIA LAYER)
4. FOLLOWING THE DELIVERY OF THE PLANTS (PRIOR TO INSTALLING THE PLANTS)

DOCUMENTATION REQUIREMENTS

THE CONTRACTOR SHALL SUBMIT THE FOLLOWING DOCUMENTATION ELECTRONICALLY TO THE PROJECT OFFICER WITH EACH PROGRESS PAYMENT REQUEST AND WITHIN 30 BUSINESS DAYS OF THE POST-CONSTRUCTION MEETING.

1. RECEIPTS AND DELIVERABLES - THE CONTRACTOR SHALL SUBMIT MATERIALS DELIVERY TICKETS FOR EACH MATERIAL USED IN THE BIORETENTION CONSTRUCTION. THE TICKETS MUST BE LEGIBLE AND IF SUBMITTED ELECTRONICALLY, SCANNED COPIES MUST BE OF AT LEAST 300 DPI RESOLUTION.

2. DOCUMENTATION - INSTALLATION OF EACH BELOW-GRADE BMP ELEMENT (BIORETENTION SOIL MEDIA, SAND LAYER, GRAVEL LAYER, ETC.) SHALL BE PHOTO-DOCUMENTED AND THE SURFACE ELEVATION OF EACH INSTALLED ELEMENT SHALL BE RECORDED IN THE "BMP SUMMARY TABLE" INCLUDED ON THIS SHEET BUT TYPICALLY ON OUR CROSS SECTIONS SHEET. IF A FACILITY CONTAINS MULTIPLE UNITS SEPARATED BY WEIRS, WALLS, OR EARTH, SURFACE ELEVATIONS AND PHOTO-DOCUMENTATION SHALL BE PROVIDED FOR EACH UNIT. PHOTO-DOCUMENTATION SHALL CONSIST OF A MINIMUM OF TWO PHOTOGRAPHS, AT LEAST ONE DEPICTING THE BELOW-GRADE BMP ELEMENT'S DEPTH AND INTENDED SURFACE ELEVATION. THIS PHOTO MUST INCLUDE A LEGIBLE SURVEY ROD MARKED WITH THE "INSTALL TO" ELEVATION FOR THE ELEMENT, A LABELED SPRAY PAINT ELEVATION INDICATOR ON THE SIDE OF THE EXCAVATION, OR SIMILAR. PHOTOGRAPHS SHALL BE OF SUFFICIENT RESOLUTION AND QUALITY TO CLEARLY DEPICT THE INTENDED SUBJECT. IN NO CASE SHALL PHOTOS BE LESS THAN 300 DPI AND 900 X 600 PIXELS IN SIZE. THE FILE NAME FOR EACH PHOTO SHALL BE INCLUDED IN THE "PHOTO ID" COLUMN OF THE BMP FACILITY SUMMARY TABLE AS APPLICABLE. THE FOLLOWING BELOW-GRADE BMP ELEMENTS SHALL BE DOCUMENTED AT A MINIMUM:

   - RIPPING OF THE BOTTOM EXCAVATION
   - INSTALLATION OF EACH GRADE CONTROL STRUCTURE (WEIR WALL)
   - INSTALLATION OF IMPERMEABLE LINER AND GEOTEXTILE FABRIC (AS APPLICABLE)
   - INSTALLATION OF #57 STONE LAYER PRIOR TO AND AFTER PLACEMENT OF UNDERDRAIN PIPE
   - INSTALLATION OF UNDERDRAIN PIPE
   - INSTALLATION OF CHOKER STONE LAYER
   - INSTALLATION OF SOIL MEDIA IN 12-INCH LIFTS
   - INSTALLATION OF MULCH AND PLANTS

3. FINAL TOPOGRAPHIC SURVEY - AT THE END OF CONSTRUCTION, THE CONTRACTOR SHALL SUBMIT A FIELD RUN TOPOGRAPHIC SURVEY PREPARED BY A LICENSED PROFESSIONAL SURVEYOR IN ELECTRONIC CAD FILE FORMAT. THE SURVEY SHALL INCLUDE THE FOLLOWING AT A MINIMUM:

   - INFLOW (INLETS, CURB CUTS, ETC.) ELEVATIONS AND LOCATIONS
   - UNDERDRAIN INVERTS AT EACH CLEANOUT
   - GRADE CONTROL STRUCTURE (SUCH AS WEIRS) ELEVATIONS
   - ASSOCIATED STORM STRUCTURES AND PIPE CONNECTIONS
   - SURFACE GRADING OF THE BMP WITH SUFFICIENT SPOT ELEVATIONS TO DOCUMENT THE ABOVE-GROUND SIZE AND SHAPE OF EACH LAYER. THE SPOT ELEVATIONS SHALL BE TAKEN AT EACH GRADE BREAK AND A MINIMUM OF 20-F00T SPACING IN AREAS OF CONTINUOUS GRADE.
   - OVERFLOW LOCATION(S) AND ELEVATION(S)
   - CLEANOUT LOCATION(S) AND ELEVATION(S)

MAINTENANCE

THE FACILITY WILL BE REGULARLY MAINTAINED (MONTHLY FROM MARCH TO NOVEMBER) UNDER THE COUNTY'S STORMWATER MAINTENANCE CONTRACT.

12-12-23 REV

GENERAL EROSION AND SEDIMENT CONTROL NOTE

1. ALL BIOFILTERS SHALL BE KEPT OFF-LINE UNTIL CONSTRUCTION IS COMPLETED AND ALL AREAS HAVE BEEN PROPERLY STABILIZED. THIS SHALL BE ACHIEVED BY USING INLET PROTECTION AT THE CURB CUTS AND STORMWATER CATCH BASINS LEADING DIRECTLY INTO THE BIOFILTERS.

BMP SUMMARY TABLE

BMP ID	ELEMENT	DESIGN ELEVATION	AS-BUILT ELEVATION	PHOTO ID
XX	TOP OF MULCH			
	TOP OF SOIL MEDIA			
	TOP OF CHOKER STONE			
	TOP OF #57 STONE			
	UNDERDRAIN INVERT AT OVERFLOW STRUCTURE			
	OUTFALL PIPE UPSTREAM INVERT			
	OUTFALL PIPE DOWNSTREAM INVERT			
	EXCAVATION			
XX	TOP OF MULCH			
	TOP OF SOIL MEDIA			
	TOP OF CHOKER STONE			
	TOP OF #57 STONE			
	UNDERDRAIN INVERT AT OVERFLOW STRUCTURE			
	OUTFALL PIPE UPSTREAM INVERT			
	OUTFALL PIPE DOWNSTREAM INVERT			
	EXCAVATION			

SWM MATERIAL SPECIFICATIONS

MATERIAL	SPECIFICATION	NOTES
PLANT MATERIAL	SEE LANDSCAPE PLAN AND PLANT SCHEDULE TREES -MINIMUM 1 INCH CALIPER SHRUBS - MINIMUM 30 INCHES HIGH PERENNIALS/HERBACEOUS - DEEP PLUGS OR CONTAINER-GROWN	· NO SUBSTITUTIONS TO PLANT LIST - MUST GET APPROVALS FROM PROJECT OFFICER; · BIORETENTION (LEVEL 1) PLANTING DESIGN SHALL ACHIEVE 75% SURFACE COVERAGE WITHIN 2 YEARS; · BIORETENTION (LEVEL 2) PLANTING DESIGN SHALL ACHIEVE 90% SURFACE COVERAGE WITHIN 2 YEARS
MULCH LAYER	SHREDDED HARDWOOD BARK MULCH; AGED 6 MONTHS MINIMUM; ORGANIC; FREE OF TRASH AND COARSE MATTER (DO NOT OBTAIN FROM RECYCLED WASTE YARDS)	· LAY A MAXIMUM 3 INCH LAYER ON THE SURFACE OF THE FILTER BED (PER DESIGN SPECIFICATIONS); · NO DYED OR COLOR-TREATED MULCH PERMITTED
BIORETENTION FILTER MEDIA (SOIL)	· 80%-90% SAND WITH >75% BEING COARSE TO VERY COARSE · 10%-20% SOIL FINES · 3%-5% ORGANIC MATTER IN THE FORM OF PLANT BASED COMPOST COMPOST: SOILMATE®, LEAFGRO® OR EQUIVALENT SHALL MEET US COMPOSTING COUNCIL'S SEAL OF TESTING ASSURANCE (STA) PLANT AVAILABLE P WITHIN LOW+ (L+) TO MEDIUM (M) AND CEC >5	· FILTER MEDIA MUST BE PROCURED FROM A PRE-APPROVED VENDOR WHO HAS CERTIFIED THE "ARLINGTON COUNTY FILTER MEDIA MIX" AND BE TESTED OR APPROVED PRIOR TO DELIVERY · DUE TO SETTLEMENT, THE CONTRACTOR SHALL ANTICIPATE 10-20% COMPACTION THUS ORDER 110-120% VOLUME OF FILTER MEDIA; · ALL STOCKPILED FILTER MEDIA MUST BE COVERED AT THE END OF EACH WORKDAY
BIORETENTION FILTER MEDIA TESTING		THE FILTER MEDIA SHALL BE ORDERED FROM AN APPROVED VENDOR WHICH HAS CERTIFIED THAT THE FILTER MEDIA IS IN COMPLIANCE WITH ARLINGTON COUNTY SPECIFICATIONS. FILTER MEDIA SHALL BE TESTED AND APPROVED PRIOR TO DELIVERY.
STONE STORAGE LAYER (WITH UNDERDRAIN)	12 INCHES WASHED GRAVEL (VDOT #57)	· INSTALL LAYER OF WASHED #57 STONE IN 6" LIFTS AND LEVEL OUT PER THE DESIGN DEPTH; · INSTALL THE PERFORATED UNDERDRAIN PIPE (SEE UNDERDRAIN SPECIFICATIONS); THE UNDERDRAINS SHALL BE INSTALLED ABOVE A MINIMUM OF 2" OF #57 STONE · INSTALL AND PACK THE #57 STONE TO 2 INCHES ABOVE THE UNDERDRAIN PIPE;
CHOKING LAYER	3 INCH LAYER OF WASHED VDOT #8	THE CHOKING LAYER IS REQUIRED BETWEEN THE STONE STORAGE LAYER (VDOT #57) AND THE FILTER MEDIA LAYER AND INCLUDES A MINIMUM OF 3 INCHES OF WASHED VDOT #8 OVER THE STONE STORAGE LAYER.
PERMEABLE GEOTEXTILE / LINER	NON-WOVEN GEOTEXTILE FABRIC WITH A FLOW RATE OF AT LEAST 110 GAL./MIN./SQ. FT. (E.G., GEOTEX 351 OR EQUIVALENT)	APPLY ONLY TO THE VERTICAL SIDES OF THE BIORETENTION; A 6 INCH MINIMUM OVERLAP IS REQUIRED IF NECESSARY. *DO NOT INSTALL FABRIC ON THE BOTTOM OF THE BIORETENTION OR BETWEEN LAYERS.
WOVEN GEOTEXTILE (IF SPECIFIED)	IN ACCORDANCE WITH VDOT 245.03.D.2	
IMPERMEABLE LINER (IF SPECIFIED)	30MIL HDPE	
UNDERDRAIN (PERFORATED)	6-INCH RIGID SCHEDULE 40 PVC, PERFORATED WITH 3/8-INCH HOLES AT 6 INCHES ON CENTER, MAXIMUM OF 3 ROWS OF PERFORATIONS	· LAY IN PERFORATED PIPE ON A 0.5% MINIMUM SLOPE (SLOPE NOT TO EXCEED 2%); · INSTALL T'S AND Y'S PER DESIGN SPECIFICATION; · INSTALL NON-PERFORATED PIPE AS NEEDED TO CONNECT WITH THE STORMDRAIN SYSTEM; · FIELD CONNECTIONS TO EXISTING STORMDRAIN STRUCTURES, MANHOLES AND/OR PIPES SHALL BE INSTALLED PER THE DESIGN SPECIFICATIONS
CLEANOUT AND OBSERVATION WELL	6-INCH RIGID SCHEDULE 40 PVC OR SDR35, NON-PERFORATED	· ATTACH NON-PERFORATED VERTICAL PIPE EXTENSIONS 2" ABOVE PONDING ELEVATION PER THE DESIGN SPECIFICATION; · CONNECT WATERTIGHT SCREW TOP LID (PER DESIGN SPECIFICATION)
OVERFLOW (RISER) / INLET DRAIN	DOMED OVERFLOW RISER PREFERRED OVER FLAT GRATE (E.G. NYLOPLAST 6" ROUND ATRIUM GRATE [HDPE])	· ATTACH NON-PERFORATED VERTICAL PIPE EXTENSIONS; · DOMED RISER/OVERFLOW SHALL BE SET AT THE PONDING ELEVATION (PER DESIGN SPECIFICATION)
STONE ENERGY DISSIPATER OR PLUNGE POOL	5-8 INCH WASHED RIVER ROCK WITH AT LEAST 50% GREATER THAN 6 INCHES IN DIAMETER. ROCKS SHALL BE ROUNDED AND MAY VARY IN COLOR	· APPLY TO A DEPTH OF 7-9 INCHES AS SPECIFIED AND UNDERLAY WITH GEOTEXTILE. · ENSURE A DROP OF 2-3" FROM INLETS AND CURB CUTS TO ALLOW WATER TO ENTER.
NOTES	** ALL MATERIAL RECEIPTS SHALL BE SUBMITTED TO PROJECT OFFICER* *** THE MATERIAL DEPTHS ON THE APPROVED CONSTRUCTION DOCUMENTS SHALL BE FOLLOWED IF THEY DIFFER FROM THE ABOVE-STATED SPECIFICATIONS.*	

BIORETENTION CONSTRUCTION NOTES

PROJECT NAME
XXXX

PROJECT LOCATION

DESIGNER
XXXX
XXXX

N/A

Attachment E

PROJECT NAME XXXX

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