

STORMWATER MANAGEMENT (SWM) NARRATIVE

OVERVIEW

KALORAMA PARK IS OWNED AND OPERATED BY THE DISTRICT OF COLUMBIA DEPARTMENT OF PARKS AND RECREATION (DPR), AND IS LOCATED IN THE DISTRICT OF COLUMBIA AT 19TH STREET, COLUMBIA ROAD, AND KALORAMA ROAD, N.W. THE PROJECT WAS INITIATED IN RESPONSE TO CONCERNS RAISED BY LOCAL CITIZENS OVER THE EROSION PROBLEMS THAT OCCUR DURING PERIODS OF HEAVY RAINFALL. THESE PROBLEMS OCCUR WHEN STORM RUNOFFS FROM THE HIGHER WESTERLY AREAS OF THE PARK FLOW TO AND DOWN THE EXISTING SLOPE THROUGH THE PARK AND ONTO AND BY THE PARK'S BASKETBALL COURT OR DIRECTLY ONTO 19TH STREET, N.W.

TO SOLVE THE EROSION PROBLEMS, THE PROJECT INCLUDES THE INSTALLATION OF THREE BIOSWALES. THESE BIOSWALES TOTAL 148 LINEAL FEET IN LENGTH, AND ARE ORIENTED GENERALLY IN NORTH/SOUTH ALIGNMENTS FOLLOWING THE CONTOURS OF THE PARK'S SLOPE. THE BIOSWALES HAVE THE CAPACITY TO TREAT AND STORE 771 CUBIC FEET OF STORM RUNOFFS; THE TREATMENT CALCULATIONS ARE SHOWN ON DRAWING D-3.

EACH OF THE THREE BIOSWALES INCLUDES AN OVERFLOW CATCH BASIN. A FOURTH CATCH BASIN IS PROPOSED IN THE SOUTHWEST CORNER OF THE PARK'S BASKETBALL COURT. ALL FOUR CATCH BASINS REPLACE EXISTING CATCH BASINS PRESENTLY SERVING THE PARK, EITHER AT THE EXACT SAME LOCATION (1-1, 1-3, AND 1-4) OR NEARBY (1-2).

ALL THE CATCH BASINS UTILIZE THE EXISTING STORM SEWER SYSTEM IN THE PARK (1-2 WILL BE CONSTRUCTED USING A "DOGHOUSE" INSTALLATION). THERE IS NO PROPOSED STORM SEWER INCLUDED IN THE PROJECT.

IN ADDITION TO SOLVING THE EROSION PROBLEMS, THE PROJECT INCLUDES A 70 X 40 FOOT MULTI-USE COURT WHICH WILL BE CONSTRUCTED WITH A NATURAL TURF SURFACE. THIS WILL GREATLY IMPROVE THE VISUAL APPEARANCE AND FUNCTIONALITY OF THE PARK OF THIS SECTION OF THE PARK, AND THUS ALLOW FOR ITS GREATER USE AS A PUBLIC PLACE AND FOR A BETTER INTEGRATION OF THE NEEDS OF THE DIFFERENT MEMBERS OF THE NEIGHBORING COMMUNITY, NOTABLY ITS CHILDREN.

EXISTING AND PROPOSED RUNOFF CONDITIONS

THE PROPOSED IMPROVEMENTS TO THE PARK DO NOT INCREASE STORM FLOWS AT THE OUTFALL MANHOLE STRUCTURE NO. M-6 LOCATED IN 19TH STREET, N.W. THE PROPOSED IMPROVEMENTS ACTUALLY WILL DECREASE THIS FLOW. THIS IS BECAUSE THE PROJECT INCLUDES THE DEMOLITION OF A 70 X 30 FOOT SECTION OF EXISTING ASPHALT PAVEMENT, WHICH IS BEING REPLACED BY A 70 X 40 FOOT SECTION OF PROPOSED NATURAL TURF SURFACE.

IN SUMMARY, OUR PROPOSED PARK IMPROVEMENTS DO NOT ALTER THE STORM DRAINAGE PATTERNS IN THE PARK OR THE SURROUNDING STREETS. THE PROPOSED STORM FLOW AT EXISTING MANHOLE M-6 IS NOT INCREASED, AND IS ACTUALLY DECREASED BY THE APPROXIMATE NET REDUCTION IN IMPERVIOUS SURFACE OF 2,100 SQUARE FEET.

SOILS NARRATIVE

THE SOILS DATA FOR KALORAMA PARK IS TAKEN FROM THE CUSTOM SOIL RESOURCES REPORT FOR DISTRICT OF COLUMBIA, KALORAMA PARK, WASHINGTON, D.C., PREPARED BY THE NATURAL RESOURCES CONSERVATION SERVICE, U.S. DEPARTMENT OF AGRICULTURE. THE FOLLOWING SOIL CLASSIFICATION DATA IS TAKEN FROM PAGE 10 OF THE REPORT:

MAP UNIT SYMBOL	MAP UNIT NAME	ACRES IN AOI	PERCENT OF AOI
SgC	Sassafras-Urban land complex, 8 to 15 percent slopes	2.2	17.2%
SgD	Sassafras-Urban land complex, 15 to 40 percent slopes	0.8	6.4%
UxB	Urban land-Sassafras complex, 0 to 8 percent slopes	5.7	45.2%
UxC	Urban land-Sassafras complex, 8 to 15 percent slopes	3.9	31.2%
Total for Area of Interest (AOI)		12.6	100.0%

AS SHOWN ON PAGES 12 THROUGH 16 OF THE REPORT, THE DRAINAGE CLASS, DEPTH TO WATER TABLE, AND AVAILABLE WATER CAPACITY IS IDENTICAL FOR THE FOUR SOIL CLASSIFICATIONS. THESE ARE: THE DRAINAGE CLASS IS WELL DRAINED, THE DEPTH TO WATER TABLE IS MORE THAN 80 INCHES, AND THE AVAILABLE WATER CAPACITY IS MODERATE (ABOUT 7.8 INCHES).

MAINTENANCE CONDITIONS AND SCHEDULE

- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE AND PLANT REPLACEMENT DURING THE MAINTENANCE AND GUARANTEE PERIODS AS STATED IN THE LANDSCAPE DRAWINGS AND SPECIFICATIONS.
- FOLLOWING PROVISIONAL ACCEPTANCE, THE OWNER, OR THE OWNER'S DESIGNATED REPRESENTATIVE, SHALL BE RESPONSIBLE FOR THE MAINTENANCE OF THE BIOSWALES AND CATCH BASINS.
- THE BIOSWALES AND CATCH BASINS SHALL BE INSPECTED MONTHLY. ALL TRASH AND DEBRIS SHALL BE REMOVED AND ANY EROSION OF THE BIOSWALES AND BERMS REPAIRED IMMEDIATELY.
- THE PLANTINGS IN AND THE LANDSCAPING OF THE BIOSWALES SHALL NOT BE SIGNIFICANTLY ALTERED, AND NO FILLS OR STRUCTURAL IMPROVEMENTS OF ANY KIND SHALL BE PERMITTED IN THEM.
- A MINIMUM OF ONCE EVERY SIX MONTHS, THE BIOSWALES SHALL BE WEEDED AND ORGANIC MULCH PLACED AS NECESSARY AND DEEMED APPROPRIATE.
- A MINIMUM OF ONCE EVERY SIX MONTHS, ALL UNDERDRAINS IN THE BIOSWALES SHALL BE FLUSHED.
- PONDING WATER SHOULD INFILTRATE THE BIOSWALE SYSTEMS WITHIN FOUR HOURS OR LESS. IF THIS TIME IS EXCEEDED, THEN THE BIOSWALE(S) UNDERDRAINS SHALL BE FLUSHED AND UNCLOGGED IMMEDIATELY.
- IF FLUSHING AND UNCLOGGING OF THE UNDERDRAINS DOES NOT RESULT IN PONDING WATER INFILTRATING IN FOUR HOURS OR LESS, THEN A PERCOLATION TEST(S) IN THE BIOSWALE(S) SHALL BE CONDUCTED. IF DEEMED NECESSARY, THEN THE BIO-SOIL SHALL BE REMOVED AND REPLACED, AND THE BIOSWALE(S) RE-LANDSCAPED.

REVISIONS:

- ADDED MAINTENANCE CONDITIONS AND SCHEDULE NOTES.
- REVISED NARRATIVE TO REPLACE MULTI-USE COURT POROUS PAVEMENT SURFACE FOR NATURAL TURF SURFACE. DELETED REFERENCE OF GEOBLOCK 2 SYSTEM AND DELETED CONSTRUCTION OF NEW CONCRETE SIDEWALK.

STATEMENT BY PERSON RESPONSIBLE FOR MAINTENANCE

THE UNDERSIGNED AGREES TO MAINTAIN AND OPERATE THE DISCHARGE FACILITIES IN SUCH A MANNER AS TO COMPLY WITH THE PROVISIONS OF SECTION 526 THROUGH 535 OF DCMR-21, CHAPTER 5. RESPONSIBILITY FOR MAINTENANCE AND OPERATION MAY BE TRANSFERRED TO ANOTHER ENTITY UPON WRITTEN NOTICE TO THE WATERSHED PROTECTION DIVISION OF THE DISTRICT DEPARTMENT OF THE ENVIRONMENT FROM THE UNDERSIGNED AND THE ENTITY ASSUMING RESPONSIBILITY, CERTIFYING THAT THE TRANSFER OF RESPONSIBILITY FOR MAINTENANCE AND OPERATION IN COMPLIANCE WITH SECTION 526 THROUGH 535 OF DCMR-21, CHAPTER 5 HAS BEEN ACCEPTED.

SIGNATURE OF PERSON RESPONSIBLE FOR MAINTENANCE (IT MAY BE THE APPLICANT)
 MS. SARAH MOULTON, ASLA; COMMUNITY PLANNER, D.C. PARKS AND RECREATION
 NAME AND TITLE (PLEASE TYPE)
 COLUMBIA HEIGHTS COMMUNITY CENTER; PLANNING AND CAPITAL PROJECTS
 ADDRESS
 1480 GIRARD STREET, N.W., SUITE 420; WASHINGTON, D.C. 20010

DATE: _____ PHONE NO.: 202-671-0417

STATEMENT BY PROFESSIONAL ENGINEER REGISTERED IN THE DISTRICT OF COLUMBIA

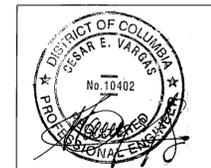
THIS IS TO CERTIFY THAT THE ENGINEERING FEATURES OF THIS STORMWATER DISCHARGE FACILITY HAVE BEEN DESIGNED/EXAMINED BY ME AND FOUND TO BE IN CONFORMITY WITH MODERN ENGINEERING PRINCIPLES APPLICABLE TO THE TREATMENT AND DISPOSAL OF STORMWATER POLLUTANTS. I FURTHER CERTIFY THAT THE FACILITY HAS BEEN DESIGNED IN ACCORDANCE WITH THE SPECIFICATION REQUIRED UNDER SECTION 526 THROUGH 535 OF DCMR-21, CHAPTER 5. IT IS ALSO STATED THAT THE UNDERSIGNED HAS FURNISHED THE APPLICANT WITH A SET OF INSTRUCTIONS FOR THE MAINTENANCE AND OPERATION OF THE STORMWATER DISCHARGE FACILITY.

DAVID VOLKERT & ASSOCIATES, ENGINEERING, P.C.; MR. CESAR E. VARGAS, P.E.

NAME AND TITLE (PLEASE TYPE)
 5028 WISCONSIN AVE., N.W.
 ADDRESS
 WASHINGTON, D.C. 20016

DATE: Nov. 17, 2009 PHONE NO.: (202) 237-6269

AFFIX SEAL



AS-BUILT CERTIFICATION BY PROFESSIONAL ENGINEER

WITHIN 21 DAYS AFTER COMPLETION OF CONSTRUCTION OF THE STORMWATER DISCHARGE FACILITY, PLEASE SEND THIS PAGE TO THE WATERSHED PROTECTION DIVISION OF THE DISTRICT DEPARTMENT OF THE ENVIRONMENT.

1. STORMWATER DISCHARGE FACILITY INFORMATION:

SOURCE NAME: _____

SOURCE LOCATION: STREET: _____

CITY: _____

DCRA PERMIT NO.: _____

DATE ISSUED: _____

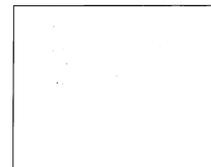
2. AS-BUILT CERTIFICATION

I HEREBY CERTIFY THAT STORMWATER DISCHARGE FACILITY HAS BEEN BUILT SUBSTANTIALLY IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS, AND THAT ANY SUBSTANTIAL DEVIATIONS (NOTED BELOW) WILL NOT PREVENT THE SYSTEM FROM FUNCTIONING IN COMPLIANCE WITH THE REQUIREMENTS OF SECTION 526 THROUGH 535 OF DCMR-21, CHAPTER 5 WHEN PROPERLY MAINTAINED AND OPERATED. THESE DETERMINATIONS HAVE BEEN BASED UPON ON-SITE OBSERVATION OF CONSTRUCTION, SCHEDULED AND CONDUCTED BY ME OR BY A PROJECT REPRESENTATIVE UNDER MY DIRECT SUPERVISION. I HAVE ENCLOSED ONE SET OF AS-BUILT ENGINEERING DRAWINGS.

SIGNATURE OF ENGINEER

NAME (PLEASE TYPE) D.C. REG. NO.

AFFIX SEAL



COMPANY NAME

COMPANY ADDRESS

DATE: _____ PHONE NO.: _____

SUBSTANTIAL DEVIATION FROM THE APPROVED PLANS AND SPECIFICATIONS (ATTACH ADDITIONAL SHEETS IF REQUIRED)



Date	Revisions
1/09	▲
11/09	▲
Drawn By:	C.N.
Designed By:	H.D.
Checked By:	F.M.
Date:	NOVEMBER 21, 2008
Scale:	NONE
Sheet No.:	12 of 17