

### Department of Water Services Flow Test Report

**Application Location:** 2455 ALABAMA AVE SE  
**Reason for Application:** Hydrant Flow Test for Developer  
**Pressure Zone/Reservoir Elev:** Ana 3rd HI/Tank 2368'-380'

**Job No:** \_\_\_\_\_  
**Application Received:** 4/9/25  
**SO #:** 25-414275

<p><b>Discharge Hydrant # 1</b>    Coefficient: 0.8</p> <p><b>Location:</b> KNOX TER INT KNOX ST NONE SE - NWC <b>Asset #:</b> H00083</p> <p><b># of Outlets Flowed:</b> 2</p> <p><b>Outlet Dia. (in.):</b> 2.5</p> <p><b>Velocity Pressure 1:</b> 7.5</p> <p><b>Velocity Pressure 2:</b> 7.5</p> <p><b>Rate (gpm):</b> 816</p> <hr/> <p><b>Discharge Hydrant # 2</b>    Coefficient: 0.8</p> <p><b>Location:</b> KNOX ST INT IRVING ST NONE SE - Westside <b>Asset #:</b> H00346</p> <p><b># of Outlets Flowed:</b> 2</p> <p><b>Outlet Dia. (in.):</b> 2.5</p> <p><b>Velocity Pressure 1:</b> 6.5</p> <p><b>Velocity Pressure 2:</b> 6.5</p> <p><b>Rate (gpm):</b> 760</p>	<p><b>Total Flow (gpm):</b> 1577</p> <p><b>Residual Hydrant</b></p> <p><b>Location:</b> KNOX ST INT JAMES M MCEGEE JR ST NONE SE - NE Corner <b>Asset #:</b> H00301</p> <p><b>FH Elevation (ft.):</b> 278</p> <p><b>Static Pressure (psi):</b> 38</p> <p><b>Residual Pressure (psi):</b> 24</p> <p><b>Pressure Loss (psi):</b> 14</p> <p><b>Observed Flow at Residual Hydrant</b></p> <p><b># of Outlets Flowed:</b> 2</p> <p><b>Outlet Dia. (in.):</b> 2.5</p> <p><b>Velocity Pressure 1:</b> 10.5</p> <p><b>Velocity Pressure 2:</b> 10.5</p> <p><b>Total Observed Flow:</b> 967</p> <hr/> <p><b>Calculations</b></p> <p><b>Reservoir Elevation (ft):</b> 382</p> <p><b>Minus FH Elevation (ft):</b> 278</p> <p><b>FH Water Level (ft.):</b> 104</p> <p><b>Divide By:</b> 2.31</p> <p><b>Theoretical FH Pressure (psi):</b> 45</p>
---	--

**THEORETICAL HYDRANT PRESSURE = 45 psi. FLOW AVAILABLE AT 20 psi RESIDUAL = 1,807 gpm**

Flow at 20psi is an APPROXIMATION only. Distribution system capacity in the future depends on: Demands / Pump Operation / Valve Positions / Water Main Deterioration / Water Main Breaks / Power Outages. WASA does not guarantee the availability of the above calculated flow at 20psi.

**Test Performed By:** Tyrone A. Baker    **Date of Test:** 4/18/25    **Time of Test:** 08:49  
**Test Approved By:** Roxana A. Roman, P.E.    **Test Approved Date:** 5/6/25

Digitally signed by Roxana Roman  
Date: 2025.05.06 15:48:22-0400'

May 06, 2025 01:49 PM    Report #: R044    1 / 1

### Backwater Evaluation Form [per 2006 International Plumbing Code (IPC) Section 715]

**Permit Operations**  
DISTRICT OF COLUMBIA WATER AND SEWER AUTHORITY | 1300 4th STREET, SW | SUITE 310 | WASHINGTON, DC 20024

**Next Upstream Manhole Rim Elevation (ft) = 268.40'**

Note: User must complete all cells shown blue highlighted.

Sewer Fixture Description	1 Flood Level Rim Elevation (ft)	2 Backwater Valve or Pump Required?
<b>Basement</b>		
Bathroom	0.00	n/a
Bedpan Washer	0.00	n/a
Bidet	0.00	n/a
Dental Unit	0.00	n/a
Drinking Fountain	0.00	n/a
Kitchen Sink	0.00	n/a
Utility Sink	0.00	n/a
Urinal	0.00	n/a
Toilet	0.00	n/a
Dishwasher	0.00	n/a
Clothes Washer	0.00	n/a
Floor Drain	252.00'	Yes
Other - describe here	0.00	n/a
<b>First Floor</b>		
Bathroom	0.00	n/a
Bedpan Washer	0.00	n/a
Bidet	0.00	n/a
Dental Unit	0.00	n/a
Drinking Fountain	268.89'	No
Kitchen Sink	268.83'	No
Utility Sink	268.58'	No
Urinal	267.42'	Yes
Toilet	267.25'	Yes
Dishwasher	0.00	n/a
Clothes Washer	0.00	n/a
Floor Drain	266.00'	Yes
Other - describe here	0.00	n/a

n/a: not applicable

Sewer Lateral Location / Project Address	Lateral Size (in)	Lateral Slope (ft/ft)	Lateral C/O Rim Elev (ft)	Lateral C/O Invert Elev (ft)	Public Sewer Size (in)	Next Upstream MH Rim Elev (ft)
Hatford Street SE	6	.02	265.14	256.60	10	268.40'

**Notes:**  
1. 2006 International Plumbing Code (IPC) defines Flood Level Rim as "The edge of the receptacle from which water overflows."  
2. If the elevation of the flood level rim is lower than the elevation of the next upstream manhole rim, a backwater valve for that fixture may need to be installed per IPC requirements, or the fixture may need to be pumped per IPC requirements.

DCWASA Approval: \_\_\_\_\_ PRINT    \_\_\_\_\_ SIGNATURE

### DCWASA Backflow Prevention Form

Information Requirement For Approval of Backflow Preventers for Water Services

**Project Location:** 2455 Alabama Ave. SE, Washington, DC 20020    Quadrant: \_\_\_\_\_

**A. Street Address:** \_\_\_\_\_    **Lot(s):** \_\_\_\_\_    **Square:** \_\_\_\_\_

**C. Number of water services:** (2)    **Size of water service(s):** 4" DCW = 120 GPM    **6" FIRE LINE = 750 GPM**

**D. Closest cross street to the project:** Hatford Street SE.

**E. Backflow Preventer Information:**

Backflow Preventer Type	REDUCED PRESSURE	REDUCED PRESSURE
Manufacturer	AMES	AMES
Size	4-INCHES	6-INCHES
Model	SERIES 4000-SS	SERIES 5000-SS
ASSE #	1013	1047

**Design Firm:** DLR GROUP LAX    **Address:** 700 S. Flower St 22nd Floor

**City:** LOS ANGELES    **State:** CALIFORNIA    **Zip Code:** 90017

**Tel:** (213) 800-8400    **Fax:** ( )    **Date Requested:** 06/27/2025

**Design Engineer (print):** JULIO ESCOBAR    **Signature:** JULIO ESCOBAR

**Tel:** ( )    **Fax:** ( )    **Date:** \_\_\_\_\_

**Notes:** \_\_\_\_\_

**WASA Approval: (Name)** \_\_\_\_\_    **Signature:** \_\_\_\_\_

DCWASA Approval: \_\_\_\_\_ PRINT    \_\_\_\_\_ SIGNATURE

### Pipe Losses Computation Worksheet (MSW3)

**Permit Operations**

**Project Address:** 2455 Alabama Ave. SE, Washington DC 20020  
**Square #:** 5728  
**Lot #:** 800  
**DC Water Tracking #:** \_\_\_\_\_  
**DCRA Tracking #:** \_\_\_\_\_

Table A - Total Pipe Losses (Main to the Bldg.)	
a. Pipe Length (Main to Bldg.), ft	60
b. Maximum Demand, gpm	175
c. Pipe Size, inch	4.0
d. C Value	130
e. Pipe Friction Losses, psi	0.6
f. Other Pipe Losses (if any), psi	5.0
g. Total Pipe Losses (Main to Bldg.), psi	5.6
h. V (fps)	4.5

Table B - Static Head Loss (Main to Highest Fixture)	
i. Supply Main Elevation, ft	-4.0
j. Highest Fixture Elevation, ft	60
k. Static Head Loss, psi	29.4

Table C - AWWA Water Meter Standards		
Meter Size	High-Normal Flow Rate, gpm	Maximum Flow Rate, gpm
2" (FD)	80	160
3" (Compound Class II)	175	350
4" (Compound Class II)	300	600
6" (Compound Class II)	675	1350
8" (Compound Class II)	900	1800
10" (FS)	250	350
12" (FS)	400	700
16" (FS)	900	1600
20" (FS)	1600	2800
24" (FS)	2200	4400

**Hydrant Flow Test Results**

Date of Test: \_\_\_\_\_  
Static Pressure, psi: 47.0  
Residual Pressure, psi: 46.0

**Available Pressure at the Highest Fixture**

l. Design Pressure at the Main, psi	82.0	96.7
m. Total Pipe Losses, psi (See Table A)	- 5.6	9.9
n. Meter Loss <sup>1</sup> , psi	- 3.1	5.1
o. Static Head Loss, psi (See Table B)	- 29.4	29.4
p. Backflow Prevention Assembly Loss, psi	- 10.4	12.0
q. Pipe Losses inside the Building <sup>2</sup> , psi	- 7.5	10.5
r. Special Fixture Loss- Other (if any), psi	- 32.0	36.0
s. Pressure Gain due to the pump, psi	+ 34.0	36.0
t. Maximum Pressure Available at the Highest Fixture, psi	28.0	29.7

**Notes:**  
1. The maximum recommended flow velocity is 15 fps for ductile iron pipe.  
2. Based on "AWWA Water Meter Standards" or meter manufacturer's specifications.  
3. Values should be provided by the design engineer registered in District of Columbia.

Source: AWWA, M22, 3rd Ed.  
PD - Positive Displacement  
FS - Fire Service, type II-Compound

Please refer for ductile reference see Fire Protection plan FP001 design concept deferral  
Please for reference see Plumbing plan P603

### Water Supply Fixture Units Worksheet (MSW3)

**Permit Operations**

**Project Address:** 2455 Alabama Ave. SE, Washington DC 20020  
**Square #:** 5728  
**Lot #:** 800  
**DC Water Tracking #:** \_\_\_\_\_  
**DCRA Tracking #:** \_\_\_\_\_

**Predominant Supply Systems:** Flushometer Valves    **Type of Occupancy:** Non-Residential Building

Fixture Type	Occupancy	Type of Supply Control	Number of Fixtures	Load Value	WSFU
Full-bath group**	Private	Flush Tank	0	3.6	=
	Private	Flushometer Valve	0	8.0	=
	Private	Faucet	0	1.4	=
Bathroom	Public	Faucet	0	4.0	=
	Private	Faucet	0	2.0	=
Bidet	Private	Faucet	0	3.0	=
	Private	Faucet	1	1.4	= 1.4
Dishwashing machine	Private	Automatic	1	0.25	= 0.25
	Office, etc.	3/8" Valve	12	0.25	= 3.00
Kitchen sink	Private	Faucet	8	1.4	= 11.2
	Commercial	Faucet	0	3.0	=
Laundry trays (1-3)	Private	Faucet	1	1.4	= 1.4
	Private	Faucet	13	0.7	= 9.1
Lavatory sink	Public	Faucet	25	2.0	= 50.0
	Public	Faucet	3	3.0	= 9.0
Shower head	Private	Mixing Valve	14	1.4	= 19.6
	Public	Mixing Valve	3	3.0	= 9.0
Urinal**	Public	1" Flushometer Valve	0	10.0	=
	Public	3/4" Flushometer Valve	6	5.0	= 30.0
	Public	Flush Tank	0	3.0	=
Washing machine (8 lb)	Private	Automatic	1	1.4	= 1.4
	Public	Automatic	0	3.0	=
Washing machine (15 lb)	Private	Automatic	0	4.0	=
	Private	Flush Tank	0	2.20	=
Water closet**	Private	Flushometer Valve	14	6.00	= 84.00
	Private	Flushometer Tank	0	2.00	=
Other	Public	Flushometer Valve	24	10.00	= 240.00
	Public	Flush Tank	0	5.00	=
Other	Public	Flushometer Tank	0	2.00	=
	Other		0	0.0	=
Other			0	0.0	=
			0	0.0	=

**Total WSFU:** 478    **Domestic Demand:** 139 GPM

**Notes:**  
\* Domestic demand is calculated as per International Plumbing Code 2012 edition.  
\*\* If the total WSFU is greater than 5000, this spreadsheet cannot be used in calculating domestic demand. Provide an alternative method for computing the proposed domestic demand.  
\*\*\* See the definition on page 6

Page 1    Rev. Date: August 2018    Version: L3.1

### Meter Sizing Worksheet (MSW3)

**Permit Operations**

**Project Address:** 2455 Alabama Ave. SE, Washington DC 20020  
**Square #:** 5728  
**Lot #:** 800  
**DC Water Tracking #:** \_\_\_\_\_  
**DCRA Tracking #:** \_\_\_\_\_

**Proposed Meter Type:** Separate Domestic and Fire Services

Domestic Meter Size		Fire Demand	
a. Total Water Supply Fixture Units (WSFU)	478	1. Total Fire Demand (Per NFPA requirements)	750 gpm
b. Domestic Demand <sup>1</sup>	139	c. Total Hose Bids and/ or Lawn Sprinkler Demand	20 gpm
c. Total Hose Bids and/ or Lawn Sprinkler Demand	20	d. Total Continuous Mechanical Demand	16
d. Total Continuous Mechanical Demand	16	e. Total Intermittent Mechanical Demand	0
e. Total Intermittent Mechanical Demand	0	f. Total Continuous Demand (Hose Bids and/ or Lawn Sprinkler + Continuous Mechanical)	36
f. Total Continuous Demand (Hose Bids and/ or Lawn Sprinkler + Continuous Mechanical)	36	g. Total DIM (Domestic + Irrigation + Mechanical (cont.) + Mechanical (inter.) Demand)	175
g. Total DIM (Domestic + Irrigation + Mechanical (cont.) + Mechanical (inter.) Demand)	175	h. Domestic Booster Pump Proposed?	YES
h. Domestic Booster Pump Proposed?	YES	i. Pump Maximum Demand	150
i. Pump Maximum Demand	150	k. Maximum DIM <sup>2</sup> Demand	175
k. Maximum DIM <sup>2</sup> Demand	175		

**Select System Availability Fee (SAF) Meter Size<sup>3</sup>**

Is Maximum DIM<sup>2</sup> Demand is less than or equal to Allowable Maximum Flow Rate through Meter? **YES**

Is Total Continuous Demand is less than or equal to Allowable High-Normal Flow Rate through Meter? **YES**

**Notes:**  
1. The domestic demand should be computed by using total Water Supply Fixture Units. The domestic demand value should be based on District of Columbia adopted current version of the International Plumbing Code (IPC) or International Residential Code (IRC) as applicable to the project. IPC or IRC has tables to determine demands based on type of supply systems (predominantly used for tanks or flushometers).  
2. The System Availability Fee (SAF) meter size shall be computed for the peak water demand excluding fire demand. The domestic meter size will be same as SAF meter size for the separate domestic service meter. Use DC Water Table C: AWWA meter standards to determine size of the meter.  
3. Combined meter size (domestic + fire) may be different than SAF meter size and will be determined based on combined flow demand. Use DC Water Table C: AWWA meter standards to determine size of the meter.

By signing this document, the designer is responsible for determining required domestic, irrigation, mechanical, and fire flows in addition to the proper sizing of meters. By submitting this application, I affirm that the information provided is correct.

**Designer's Name:** Howard Reigh    **Designer's Signature:** \_\_\_\_\_    **DC License #:** 40000688

Page 2    Rev. Date: August 2018    Version: L3.1

### Pipe Losses Computation Worksheet (MSW3)

**Permit Operations**

**Project Address:** 2455 Alabama Ave. SE, Washington DC 20020  
**Square #:** 5728  
**Lot #:** 800  
**DC Water Tracking #:** \_\_\_\_\_  
**DCRA Tracking #:** \_\_\_\_\_

**Table A - Total Pipe Losses (Main to the Bldg.)**

a. Pipe Length (Main to Bldg.), ft	60
b. Maximum Demand, gpm	175
c. Pipe Size, inch	4.0
d. C Value	130
e. Pipe Friction Losses, psi	0.6
f. Other Pipe Losses (if any), psi	5.0
g. Total Pipe Losses (Main to Bldg.), psi	5.6
h. V (fps)	4.5

**Table B - Static Head Loss (Main to Highest Fixture)**

i. Supply Main Elevation, ft	-4.0
j. Highest Fixture Elevation, ft	60
k. Static Head Loss, psi	29.4

**Table C - AWWA Water Meter Standards**

Meter Size	High-Normal Flow Rate, gpm	Maximum Flow Rate, gpm
2" (FD)	80	160
3" (Compound Class II)	175	350
4" (Compound Class II)	300	600
6" (Compound Class II)	675	1350
8" (Compound Class II)	900	1800
10" (FS)	250	350
12" (FS)	400	700
16" (FS)	900	1600
20" (FS)	1600	2800
24" (FS)	2200	4400

Source: AWWA, M22, 3rd Ed.  
PD - Positive Displacement  
FS - Fire Service, type II-Compound

Please refer for ductile reference see Fire Protection plan FP001 design concept deferral  
Please for reference see Plumbing plan P603

Page 3    Rev. Date: August 2018    Version: L3.1

08/01/2025

Ogechi Okpechi  
Director, Permits Operations, DC Water  
1385 Canal Street, SE  
Washington, DC 20003

Re: Request to locate the Double Check Detector Fire Protection Backflow Prevention Assembly inside the building

Ms. Ogechi Okpechi,

On behalf of DGS for the MPD 7th District HQ located at 2455 Alabama Ave, SE Washington, DC, I am hereby requesting permission from DC Water to locate the Double Check Detector Fire Protection Backflow Prevention Assembly (BPA) inside the building.

We are proposing a new 6-inch fire service for the building. A BPA will be installed inside the building and we will comply with the following conditions:

- Must be protected from freezing, flooding, vandalism and mechanical damage.
- Must be installed by a licensed plumber.
- Must be initially tested by a certified backflow prevention assembly tester. Reports must be submitted using a DC Water Backflow Prevention Assembly Test & Inspection Form and submitted to the DC Water Cross-Connection Control Program Office, 3900 Donaldson Pl, NW Washington, DC 20016.
- Annual inspection, testing and submittal of the form must continue during the life of the assembly. Annual inspection and form completion must be conducted by a certified backflow prevention assembly tester. The owner is responsible for contracting with a certified backflow prevention assembly tester to conduct the annual inspection.
- Mechanical backflow prevention assemblies must be located in an area that enables easy access and adequate, convenient space for maintenance, inspection and testing.
- Whenever possible, an approved backflow prevention assembly should be installed within a building. In certain cases as approved by DC Water Department of Engineering & Technical Services, backflow prevention assemblies may be installed at an alternative location such as in an underground vault. Installation of a reduced pressure backflow prevention assembly (RPBA) in below grade vaults is prohibited due to flooding concerns.
- Provide access to the BPA for maintenance, inspection and testing.
- Install a floor drain located no more than 5feet from the BPA for testing and leakage. The floor drain will be large enough to handle the flow rate from the annual inspections.
- The layout of the piping at the inlet and discharge will adhere to DC Water standard details including a strainer before the BPA.
- The BPA will meet ASSE standard 1048 for a low hazard fire suppression system and ASSE standard 1047 for a high hazard fire suppression system.
- The said BPA will be owned, operated and maintained by the building owner.

Sincerely,  
Craig Kubiec  
Project Manager  
Wiles Mensch

THIS AREA RESERVED FOR DGS STAMPS

## SHlnberg.LevlNAS

Shinberg Levinas 5101 Wisconsin Ave #310 T 202.244.5101  
Architectural Design Inc. Arlington, DC 20016 F 202.244.5363

Designs and drawings are prepared by copyright, and may not be copied, copied or reproduced without the written consent of the copyright owner.  
© Copyright 2018 Shinberg Levinas Architectural Design Inc.  
All rights reserved worldwide.

## MPD 7th DISTRICT HQ

2455 Alabama Ave SE,  
Washington, DC 20020

**OWNER**  
DGS/MPD  
2455 Alabama Ave. SE  
Washington, DC 20020  
Telephone: 202.360.3728

**ARCHITECT, INTERIORS, MEPFF, AV, IT, SECURITY**  
DLR GROUP  
701 8th St NW, Ste. 700  
Washington, DC 20001  
Telephone: 202-393-6445

**CIVIL ENGINEER**  
WILES MENSCH  
5101 Wisconsin Ave. SE  
Washington, DC 20003  
Telephone: 202-638-4040

**STRUCTURAL ENGINEER**  
TWIN  
1553 31st St NW,  
Washington, DC 20007  
Telephone: 202-449-6333

**LEED CONSULTANT**  
Dan Triman Consultant  
17 E 9th St,  
Frederick, MD 21701  
Telephone: 410.300.0360

**LIGHTING CONSULTANT**  
DLR GROUP  
3800 Howard Hughes Hwy, Suite 1250  
Las Vegas, NV 89169  
Telephone: 702.269.6615

**ENVIRONMENTAL & GEOTECH CONSULTANT**  
EGS LIMITED  
14026 Thunderbolt Place, Suite 100  
Chantilly, VA 20151  
Telephone: 703-471-8400

**LANDSCAPE ARCHITECT**  
Bradley Site Design  
1010 Wisconsin Ave, Suite 620  
Washington, DC 20007  
Telephone: 202.878.6017

**TRAFFIC CONSULTANT**  
GROVE SLADE  
1140 Connecticut Ave, NW, Suite 1010  
Washington, DC 20036  
Telephone: 703.721.3042

**ISSUES**

NO.	ISSUE	DATE
2	100% DESIGN DEVELOPMENT SUBMISSION	05.30.2025
4	GMP & PERMIT SET	12.17.2025

**SEAL**

**NOT FOR CONSTRUCTION**



Designed By: CK/KK    Drawn By: YK    Checked By: WL

Project No.: 24-018    Date: FEBRUARY 28, 2025

Sheet Title:  
**DC Water Forms**

Sheet No.:  
**CIV0601**

EXHIBIT NO. 14A



### Stormwater Management Plan Compliance Data

Site Address: 2455 Alabama Avenue SE, Plan number: 8338  
 Stormwater Management Plan? Yes, Green Area Ratio? Yes  
 Soil Erosion and Sediment Control? Yes, Floodplain Review? No  
 Type of Activity: Major Land Disturbing, AWD? Non-AWD  
 Is the entire site in the CSS? No

Total Area (sf)	Site Area	PROW	Curve Numbers
Natural	0	0	<input type="checkbox"/> Additional Detention Provided
Compacted	1,388	1,388	Pre-development 70 2-year storm adjusted CN 81
Impervious	25,148	25,148	Pre-project 96 15-year storm adjusted CN 84
BMP	14,478	14,478	100-year storm adjusted CN 85
Total	41,014	41,014	

Requirements Summary	(total is the sum of PROW and Parcel)	PROW (ft <sup>2</sup> )	Parcel (ft <sup>2</sup> )	Total (ft <sup>2</sup> )	Total (Gallons)
SWRv		3,799	3,799	28,418	
WQTV		0	0	0	
On-site retention achieved		3,395	3,395	25,394	
On-site treatment achieved		722	722	5,399	
% of SWRv met on-site		89%	89.36%	89.36%	
SRC eligibility				0	
Ofv				3,024	

Compliance data last updated: 10-13-2025 03:16 PM  
Plan 8338 Page 1 of 4

### Site Drainage Area Compliance Data

Site Drainage Area ID	Public Right of Way	Total area (square feet)	Natural (square feet)	Compacted (square feet)	Impervious (square feet)	BMP (square feet)	Vehicle access area	SWRv (cubic feet)	WQTV (cubic feet)	Volume retained (cubic feet)	Volume treated (cubic feet)	2-year storm adjusted Curve Number	15-year storm adjusted Curve Number	100-year storm adjusted Curve Number	SDA Minimum Compliance
8338-1	<input type="checkbox"/>	41,014	0	1,388	25,148	14,478	9,487	3,799	0	3,395	722	81	84	85	No

### Site BMP Compliance Data

BMP ID number	Type	Total CDA (square feet)	Natural (square feet)	Compacted (square feet)	Impervious (square feet)	BMP (square feet)	Total Post project vehicular access area	Volume received from upstream BMPs (cubic feet)	Max volume received by BMP (cubic feet)	Storage volume (cubic feet)	Retention calculation	Volume retained (cubic feet)	Volume treated (cubic feet)	Downstream BMP ID Numbers
8338-1-1	Extensive green roof	11,219					11,219	0	1,510	1,495	100% of storage volume	1,495	0	
8338-1-2	Extensive green roof	282					282	0	38	38	100% of storage volume	38	0	
8338-1-3	Extensive green roof	434					434	0	58	58	100% of storage volume	58	0	
8338-1-4	Extensive green roof	830					830	0	112	111	100% of storage volume	111	0	
8338-1-5	Traditional bioretention - Standard	393		14	272	107		0	52	150	60% of storage volume	52	0	
8338-1-6	Traditional bioretention - Standard	662			392	270		0	89	378	60% of storage volume	89	0	
8338-1-7	Traditional bioretention - Standard	3,653			3,275	378		0	492	529	60% of storage volume	318	174	
8338-1-8	Traditional bioretention - Standard	4,967			4,773	194		0	668	417	60% of storage volume	250	167	

Compliance data last updated: 10-13-2025 03:16 PM  
Plan 8338 Page 2 of 4

BMP ID number	Type	Total CDA (square feet)	Natural (square feet)	Compacted (square feet)	Impervious (square feet)	BMP (square feet)	Total Post project vehicular access area	Volume received from upstream BMPs (cubic feet)	Max volume received by BMP (cubic feet)	Storage volume (cubic feet)	Retention calculation	Volume retained (cubic feet)	Volume treated (cubic feet)	Downstream BMP ID Numbers
8338-1-1	Extensive green roof	11,219					11,219	0	1,510	1,495	100% of storage volume	1,495	0	
8338-1-2	Extensive green roof	282					282	0	38	38	100% of storage volume	38	0	
8338-1-3	Extensive green roof	434					434	0	58	58	100% of storage volume	58	0	
8338-1-4	Extensive green roof	830					830	0	112	111	100% of storage volume	111	0	
8338-1-5	Traditional bioretention - Standard	393		14	272	107		0	52	150	60% of storage volume	52	0	
8338-1-6	Traditional bioretention - Standard	662			392	270		0	89	378	60% of storage volume	89	0	
8338-1-7	Traditional bioretention - Standard	3,653			3,275	378		0	492	529	60% of storage volume	318	174	
8338-1-8	Traditional bioretention - Standard	4,967			4,773	194		0	668	417	60% of storage volume	250	167	

Compliance data last updated: 10-13-2025 03:16 PM  
Plan 8338 Page 3 of 4

BMP ID number	Type	Total CDA (square feet)	Natural (square feet)	Compacted (square feet)	Impervious (square feet)	BMP (square feet)	Total Post project vehicular access area	Volume received from upstream BMPs (cubic feet)	Max volume received by BMP (cubic feet)	Storage volume (cubic feet)	Retention calculation	Volume retained (cubic feet)	Volume treated (cubic feet)	Downstream BMP ID Numbers
8338-1-9	Traditional bioretention - Standard	7,204			611	6,205	388	0	909	834	60% of storage volume	501	334	
8338-1-10	Traditional bioretention - Standard	3,955				3,579	376	0	532	808	60% of storage volume	485	47	

### PROW Drainage Area Compliance Data

No records were retrieved.

### PROW BMP Compliance Data

No records were retrieved.

Compliance data last updated: 10-13-2025 03:16 PM  
Plan 8338 Page 4 of 4

### Storm Sewer Tabulation

Station	Len	Ingr Area	Roof	Area x C	Tc	Rain	Total	Cap	Val	Pipe	Invert Elev	HGL Elev	Grnd / Rim Elev	Line ID
Line To Line	(ft)	(ac)	(ac)	(ft)	(min)	(in/hr)	(cfs)	(in)	(ft)	(in)	(ft)	(ft)	(ft)	
1	End	6.174	0.11	0.30	0.95	0.10	0.46	5.0	6.2	7.9	3.67	3.82	7.39	10
2	1	148.422	0.11	0.39	0.95	0.10	0.36	5.0	5.7	8.0	2.89	4.46	5.47	10
3	2	14.606	0.00	0.27	0.00	0.00	0.25	5.0	5.7	8.0	1.98	3.40	5.47	10
4	3	106.636	0.00	0.18	0.00	0.00	0.16	5.0	5.2	8.2	1.32	3.35	3.36	10
5	4	2.841	0.00	0.17	0.00	0.00	0.15	5.0	5.0	8.2	1.25	1.87	4.97	8
6	5	11.707	0.17	0.17	0.89	0.16	0.15	5.0	5.0	8.2	1.25	1.83	4.29	8
7	4	6.098	0.00	0.01	0.39	0.01	0.31	5.0	5.0	8.2	0.68	0.98	3.00	4
8	3	2.876	0.00	0.08	0.00	0.00	0.09	5.0	5.1	8.2	0.10	0.88	4.07	6
9	8	19.800	0.08	0.08	0.08	0.08	0.08	5.0	5.0	8.2	0.71	0.88	3.08	6
10	2	16.308	0.01	0.01	0.65	0.01	0.01	5.0	5.0	8.2	0.08	0.39	0.90	4
11	End	76.087	0.02	0.10	0.65	0.02	0.09	5.0	5.5	8.1	4.39	5.45	6.96	12
12	11	70.659	0.00	0.08	0.00	0.07	0.50	5.0	5.2	8.2	4.24	5.45	5.40	12
13	12	89.447	0.00	0.01	0.00	0.01	0.50	5.0	5.0	8.2	3.75	6.10	6.93	10
14	13	4.038	0.00	0.01	0.00	0.01	0.50	5.0	5.0	8.2	3.75	5.43	6.44	12
15	14	3.886	0.01	0.01	0.95	0.01	0.01	5.0	5.0	8.2	3.75	5.68	5.45	12
16	15	9.683	0.01	0.01	0.95	0.01	0.01	5.0	5.0	8.2	0.08	0.29	0.90	4
17	12	12.530	0.00	0.06	0.00	0.00	0.05	5.0	5.0	8.2	0.42	0.99	2.14	6
18	17	2.958	0.06	0.06	0.85	0.05	0.05	5.0	5.0	8.2	0.42	0.61	2.14	6

Project File: 24-018 STM calcs.stm  
Number of Lines: 18  
Run Date: 9/19/2025

NOTES: Intensity = 102.61 / (Inlet time + 16.50) ^ 0.62; Return period = 25 Yrs; c = cr + wfp; b = box

### Inlet Report

Line No	Inlet ID	Q = CIA	Q carry	Q cap	Q Ryp	Junc Type	Curb Inlet	Grate Inlet	Gutter	Inlet	Ryp	
		(cfs)	(cfs)	(cfs)	(cfs)		ht (in)	Area (sqft)	L (ft)	W (ft)	So (ft/ft)	
1	TD2	0.88	0.00	0.88	0.00	DIGI	0.0	0.00	13.83	1.74	15.98	Seg
2	D4	0.88	0.00	0.88	0.00	MH	0.0	0.00	0.00	0.00	0.00	Seg
3	Y-COIN	0.00	0.00	0.00	0.00	None	0.0	0.00	0.00	0.00	0.00	Seg
4	Y-COIN	0.00	0.00	0.00	0.00	None	0.0	0.00	0.00	0.00	0.00	Seg
5	45%ND BENDS	0.00	0.00	0.00	0.00	None	0.0	0.00	0.00	0.00	0.00	Seg
6	OV1	1.25	0.00	1.25	0.00	DIGI	0.0	0.00	0.62	1.25	1.25	Seg
7	TD4	0.08	0.00	0.08	0.00	DIGI	0.0	0.00	1.74	29.86	0.050	Seg
8	45%ND BEND	0.00	0.00	0.00	0.00	None	0.0	0.00	0.00	0.00	0.00	Seg
9	OV3	0.71	0.00	0.71	0.00	DIGI	0.0	0.00	0.27	0.83	0.83	Seg
10	TD3	0.08	0.00	0.08	0.00	DIGI	0.0	0.00	1.32	23.54	0.040	Seg
11	D1	0.16	0.00	0.16	0.00	MH	0.0	0.00	0.00	0.00	0.00	Seg
12	D3	0.00	0.00	0.00	0.00	MH	0.0	0.00	0.00	0.00	0.00	Seg
13	Y-COIN	0.00	0.00	0.00	0.00	None	0.0	0.00	0.00	0.00	0.00	Seg
14	80%ND BEND	0.00	0.00	0.00	0.00	None	0.0	0.00	0.00	0.00	0.00	Seg
15	OV5	3.75*	0.00	3.75	0.00	DIGI	0.0	0.00	0.62	1.25	1.25	Seg
16	TD1	0.08	0.00	0.08	0.00	DIGI	0.0	0.00	1.74	11.88	0.060	Seg
17	BEND	0.00	0.00	0.00	0.00	None	0.0	0.00	0.00	0.00	0.00	Seg
18	OV4	0.42	0.00	0.42	0.00	DIGI	0.0	0.00	0.27	0.83	0.83	Seg

Project File: 24-018 STM calcs.stm  
Number of Lines: 18  
Run Date: 9/19/2025

NOTES: Inlet N-Value = 0.016; Intensity = 102.61 / (Inlet time + 16.50) ^ 0.62; Return period = 25 Yrs; \* Indicates Known C added. All curb inlets are throat.

## Shirberg, Levin & Nas

Shirberg Levin & Nas  
 5101 Wisconsin Ave #310  
 Washington, DC 20016  
 T 202.244.5101  
 F 202.244.5363

## MPD 7th DISTRICT HQ

2455 Alabama Ave SE,  
 Washington, DC 20020

**OWNER**  
 DLR GROUP  
 701 8th St NW, Ste. 700  
 Washington, DC 20001  
 Telephone: 202.360.3728

**ARCHITECT, INTERIORS, MEPFP, AV, IT, SECURITY**  
 DLR GROUP  
 701 8th St NW, Ste. 700  
 Washington, DC 20001  
 Telephone: 202.360.3728

**CIVIL ENGINEER**  
 WLES MENGSH  
 510 8th St SE  
 Washington, DC 20003  
 Telephone: 202.638-4040

**STRUCTURAL ENGINEER**  
 Tylin  
 1553 31st St NW  
 Washington, DC 20007  
 Telephone: 202.449.6333

**LEED CONSULTANT**  
 Dan Triman Consultant  
 17 E 9th St  
 Frederick, MD 21701  
 Telephone: 410.300.0360

**LIGHTING CONSULTANT**  
 DLR GROUP  
 3800 Howard Hughes Hwy, Suite 1250  
 Las Vegas, NV 89169  
 Telephone: 702.269.6615

**ENVIRONMENTAL & GEOTECH CONSULTANT**  
 EGS LIMITED  
 14028 Thunderbolt Place, Suite 100  
 Chantilly, VA 20151  
 Telephone: 703.471.8400

**LANDSCAPE ARCHITECT**  
 Bradley Site Design  
 1010 Wisconsin Ave, Suite 620  
 Washington, DC 20007  
 Telephone: 202.878.6017

**TRAFFIC CONSULTANT**  
 GORVIE SLADE  
 1140 Connecticut Ave, NW, Suite 1010  
 Washington, DC 20036  
 Telephone: 703.721.3042

### ISSUES

NO.	ISSUE	DATE
2	100% DESIGN DEVELOPMENT SUBMISSION	05.30.2025