



DEPT OF BLDGS 321600665

Job Number



ES569225275

Scan Code

BUREAU OF WATER & SEWER OPERATIONS



SITE CONNECTION PROPOSAL FORM
VALID FOR TWO (2) YEARS

[SCP - 19285 /]

A. PROJECT DATA:

Borough of Brooklyn Building Dept. No (s) 321600665
Tax Block 3511 Lot (s) 64 Zoning R6 Map No. 17B
Project Location 638 Howard Avenue
Applicant Dmitriy Morozov, P.E.
Address 1460 Broadway, New York, NY Zip 10036 Phone (212) 330-7634
Owner Norman Cox, Union Street Studio LLC
Address 78 Union Street, Brooklyn NY Zip 11231 Phone (718) 596-3040

B. PROJECT USE:

TYPE: ☐ 1, 2, 3, Family ☒ Multiple Dwelling ☐ Commercial
Number of Buildings 1 Total Number of Dwelling Units 4
Ownership: ☒ Fee Simple ☐ Condominium ☐ Home Owner Association ☐ Other.....

C. SITE CONNECTIONS REQUESTED:

Total Developed Site Storm Flow 0.1976 cfs
Allow. Storm Flow to the Sewers 0.1435 cfs
☐ Detention ☒ Retention (DRYWELL)

	<u>Sanitary</u>	<u>Storm</u>	<u>Comb.</u>	<u>Drywells</u>
No. Requested	<u>-</u>	<u>-</u>	<u>1</u>	<u>xxxxxxx</u>
Size	<u>-</u>	<u>-</u>	<u>6"</u>	<u>xxxxxxx</u>
Material (s)	<u>-</u>	<u>-</u>	<u>XHCI</u>	<u>xxxxxxx</u>
Total Q (s)	<u>0.0091 CFS</u>	<u>0.1294 CFS</u>	<u>0.1385 CFS</u>	<u>0.0682 CFS</u>

Note: The property owner is responsible for plugging all inactive pre-existing sewer connections

D. CONNECTION INFO:

- ☐ Connection to exist:
☐ Spur ☐ Riser ☐ Curb Connection
- ☐ Proposed New Riser
- ☐ Fold Spur in
- ☒ Drill in
- ☐ M.H. Conn. ☐ Exist. ☐ Prop.
- ☐ Reuse Plugged Connections

E. PRIVATE SEWER/DRAIN DATA:

- P.D. Plan No. N.A. Date Approved N.A. Expiration Date N.A.
- Date Construction Permit Was Issued N.A.
- Date Sewer Was Accepted By DEP N.A.
- Sanitary Discharge Tributary to:

		Location
Private Sewage Treatment Plant	☒ No ☐ Yes	<u></u>
Private Pumping Station	☒ No ☐ Yes	<u></u>
Private Sewer	☒ No ☐ Yes	<u></u>

F. LOCATION PLAN:

- ☐ As Shown Below ☒ See Attached Location Plan Attachment "F"
(8 1/2 x 14 Size)

Storm flow of 0.1976 CFS will be restricted to ~~0.1435~~ CFS or less by means of retention system.
0.1294 cfs

G. SUPPORT DOCUMENTS:

*1. Site Plan – 6 copies with hydraulic calculations	Attached	_____
*2. Survey – 3 copies with watercourse note	Attached	_____
*3. Tentative Lot Number Request Form – Attached	Not Applicable	✓
**4. Owner’s Consent for STP/PS Connection – Attached	Not Applicable	✓
5. Department of Health Approval – Attached	Not Applicable	✓
6. Department of Buildings Amendment – Attached	Not Applicable	✓
***7. Condo/HOA Prospectus or Affidavit – Attached	Not Applicable	✓
8. Industrial Waste Approval – Attached	Not Applicable	✓
9. Associated Mapping/Demapping Action – Attached	Not Applicable	✓
10. Builders Pavement Plan – Attached	Not Applicable	✓
11. Boring Logs – Attached	✓	Not Applicable
12. Other (Specify)	Attached	_____

* Requires PE/RA Stamp and Original Signature (L.S. for Survey)
** Must Be Notarized and have Corporate Seal
*** Must be Notarized

SEWER INFORMATION CERTIFIED BY DEP

			PUBLIC	PRIVATE
1. There (X) (is not) a sanitary sewer fronting the property available for connections.	SIZE	_____	_____	_____
2. There (X) (is not) a storm sewer fronting the property available for connections.	SIZE	_____	_____	_____
3. There (is) (XXX) a combined sewer fronting the property available for connections.	SIZE	12"	X	_____
4. Sanitary discharge tributary to:				
City Treatment Plant -	☐ NO	☒ YES	Location 26th Ward	
Private Sewage Treatment Plant -	☒ NO	☐ YES	_____	
Private Pumping Station -	☒ NO	☐ YES	_____	
5. Distance to, and location of nearest allowable drainage plan sewer:				
a) Sanitary Outlet	N/A			
b) Storm Outlet	N/A			
c) Combined Outlet	N/A			

CERTIFICATION, RESTRICTIONS, SPECIAL CONDITIONS:

No conn. permit issued until DOB certifies the retention facility has been satisfactorily installed.



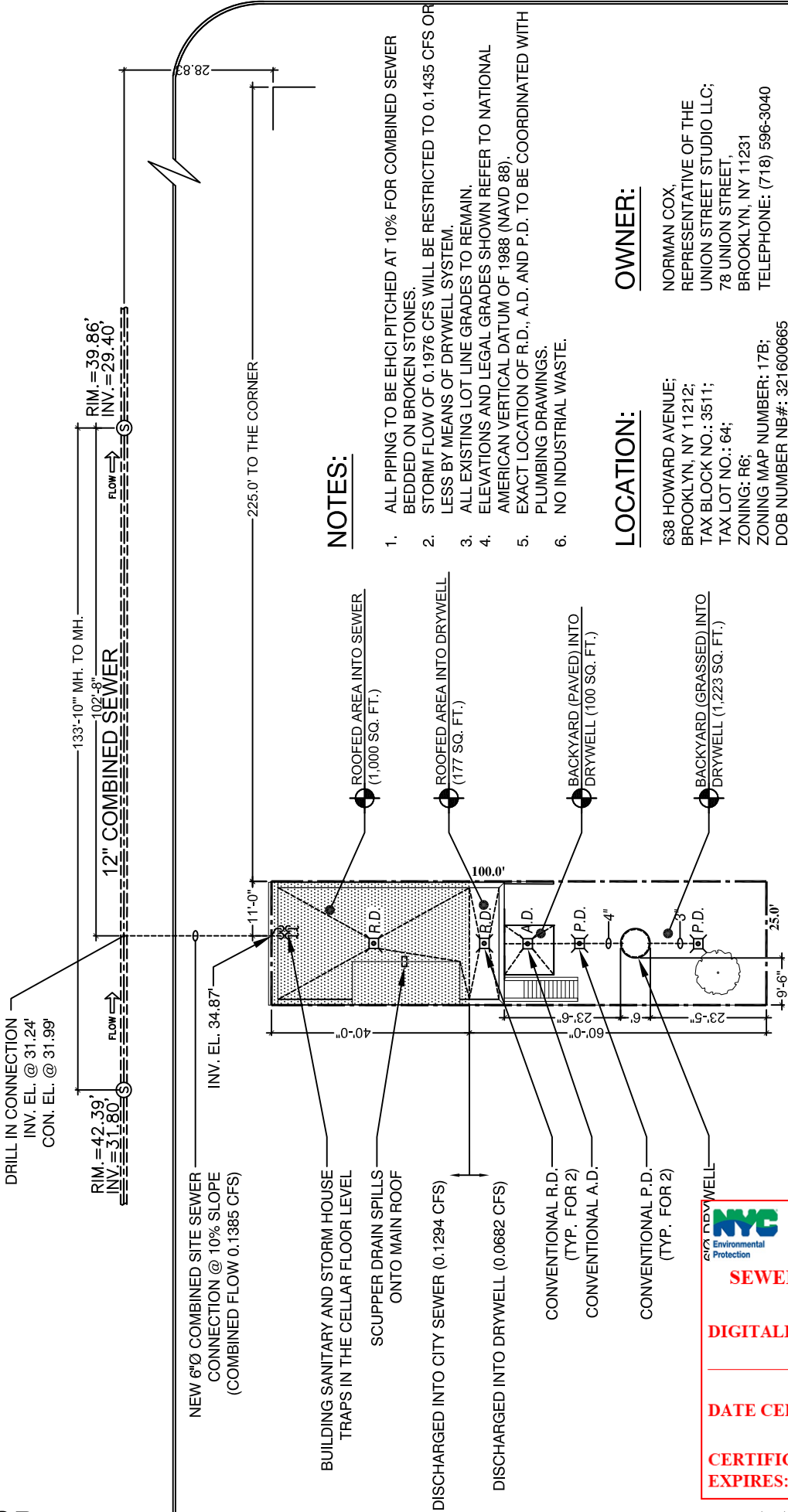
ADDITIONAL INFORMATION, COMMENTS BY DEP OFFICE:

1. Topo Map No.	Watercourse shown:	☐ YES	☐ NO
2. Comments:			



SUTTER AVENUE
(70' WIDE)

HOWARD AVENUE
(126.40' WIDE)



NOTES:

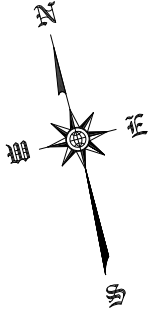
- 1. ALL PIPING TO BE EHCI PITCHED AT 10% FOR COMBINED SEWER BEDDED ON BROKEN STONES.
- 2. STORM FLOW OF 0.1976 CFS WILL BE RESTRICTED TO 0.1435 CFS OR LESS BY MEANS OF DRYWELL SYSTEM.
- 3. ALL EXISTING LOT LINE GRADES TO REMAIN.
- 4. ELEVATIONS AND LEGAL GRADES SHOWN REFER TO NATIONAL AMERICAN VERTICAL DATUM OF 1988 (NAVD 88).
- 5. EXACT LOCATION OF R.D., A.D. AND P.D. TO BE COORDINATED WITH PLUMBING DRAWINGS.
- 6. NO INDUSTRIAL WASTE.

LOCATION:

638 HOWARD AVENUE;
BROOKLYN, NY 11212;
TAX BLOCK NO.: 3511;
TAX LOT NO.: 64;
ZONING: R6;
ZONING MAP NUMBER: 17B;
DOB NUMBER NB#: 321600665

OWNER:

NORMAN COX,
REPRESENTATIVE OF THE
UNION STREET STUDIO LLC;
78 UNION STREET,
BROOKLYN, NY 11231
TELEPHONE: (718) 596-3040



CITY OF NEW YORK
DEPARTMENT OF ENVIRONMENTAL
PROTECTION

**SEWER INFORMATION CERTIFIED
REVIEW UNIT**

DIGITALLY SIGNED BY:

DATE CERTIFIED: 11/10/2021

**CERTIFICATION
EXPIRES:** 11/10/2023

10/22/2021 - RE-ISSUED FOR DEP APPROVAL
10/14/2021 - ISSUED FOR DEP APPROVAL

Dmitriy Morozov, PE
MOROZOV ENGINEERING DPC
1460 BROADWAY
NEW YORK, NY 10036
TEL: 212-330-7634
email: info@morozov.nyc
www.morozov.nyc

SITE UTILITY PLAN
SCALE: 1" = 30'

638 HOWARD AVENUE
BROOKLYN, NY 11212
BLOCK: 3511; LOT: 64

JOB NO: 2022-08

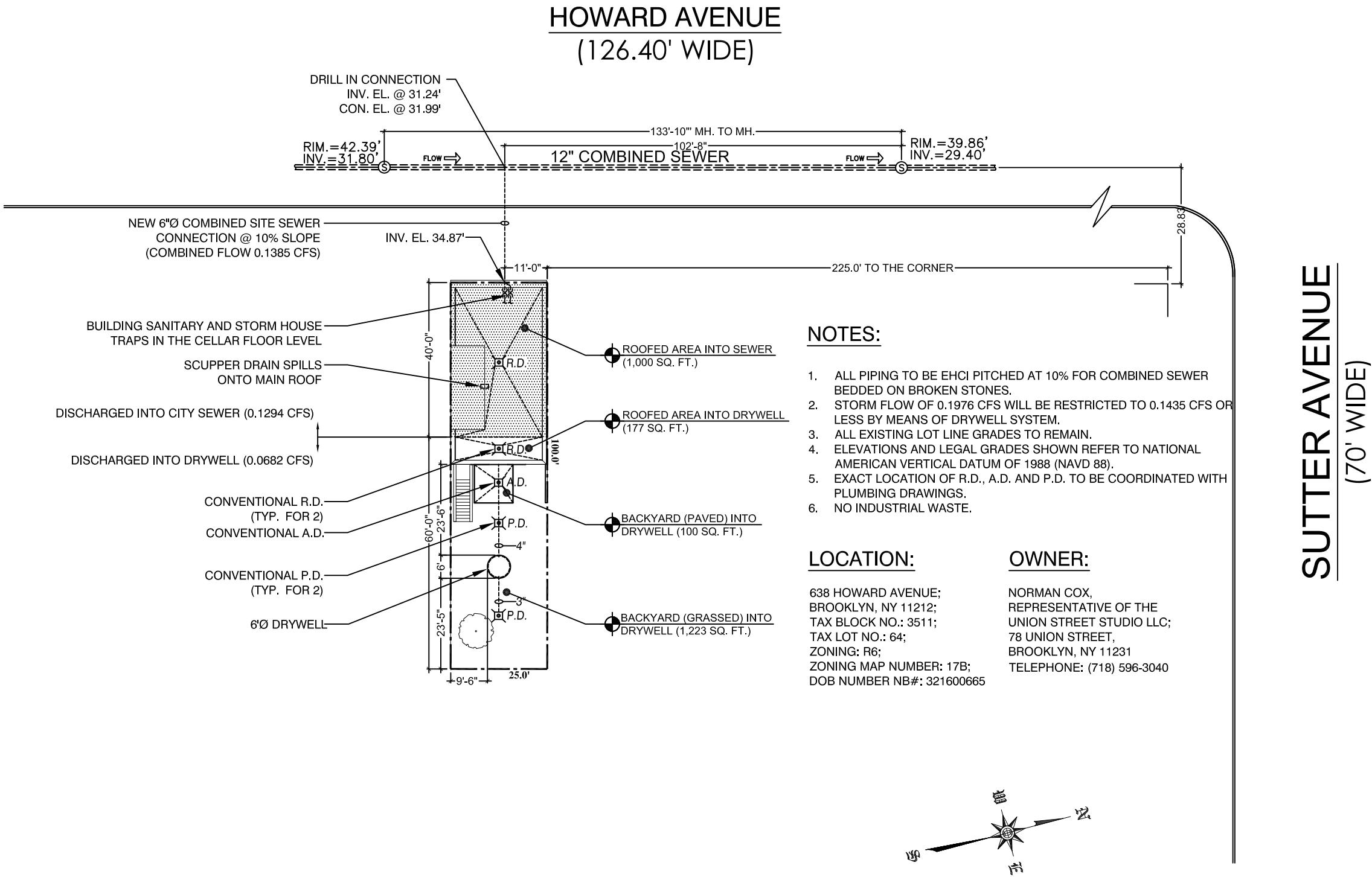
DATE: 10/01/21

SU-102

HYDRAULIC CALCULATIONS

1. **SITE INFORMATION:**
- 638 HOWARD AVENUE,
BROOKLYN 11212;
TAX BLOCK NO.; 3511;
TAX LOT NO.; 64;
ZONING: R6;
ZONING MAP NUMBER:17B;
DOB NUMBER: 321600665;
TOTAL AREA OF SITE: 2,500 SQ.FT. = 0.0574 ACRES;
TRIBUTARY SITE AREA TO HOWARD AVENUE COMB. SEWER: 2,500 SQ.FT. = 0.0574 ACRES;
2. **SANITARY DRAINAGE:**
- TOTAL AREA OF SITE: 2,500 SQ.FT. = 0.0574 ACRES;
ZONING: R6;
POPULATION DENSITY = 170 PEOPLE PER ACRE;
PICK SANITARY FLOW FROM THE SITE:
 $Q = \text{POPULATION DENSITY} \times \text{AREA} \times 150 \times 4$
 $Q = 170 \times 0.0574 \times 150 \times 4$
 $Q = 0.0091 \text{ CFS} - \text{PEAK SANITARY FLOW}$
3. **ALLOWABLE STORM FLOW INTO COMBINED SEWER UNDER HOWARD AVENUE:**
- TRIBUTARY AREA OF SITE: 2,500 SQ.FT. = 0.0574 ACRES;
 $Q(ALL) = C \times I \times A(TR)$
WHERE:
 $C = 0.5$
 $I = 5.0 \text{ INCHES PER HOUR}$
 $A(TR) - \text{TRIBUTARY AREA IN ACRES}$
 $Q(ALL) = (0.5 \times 5.0 \times 0.0574) = 0.1435 \text{ CFS} < 0.25 \text{ CFS}$
 $Q(ALL) = 0.1435 \text{ CFS}$
4. **DEVELOPED STORM FLOW GENERATED FROM THE SITE:**
- TOTAL AREA OF SITE: 2,500 SQ.FT. = 0.0574 ACRES;
FRONT PART OF ROOF: 1,000 SQ. FT. = 0.0229 ACRES;
BACK PART OF ROOF: 177 SQ. FT. = 0.0041 ACRES;
REAR PAVED AREA: 100 SQ. FT. = 0.0023 ACRES;
REAR GRASSED AREA: 1,223 SQ. FT. = 0.0281 ACRES;
- $Q(DEV) = Q(\text{FRONT RF.}) + Q(\text{BACK RF.}) + Q(\text{REAR PAVED}) + Q(\text{REAR GRASSED})$
 $Q(\text{FRONT ROOF}) = 0.95 \times 5.95 \times 0.0229 = 0.1294 \text{ CFS (DISCHARGED INTO SEWER)}$
 $Q(\text{BACK ROOF}) = 0.95 \times 5.95 \times 0.0041 = 0.0232 \text{ CFS (RETAINED BY DRYWELL SYSTEM)}$
 $Q(\text{REAR PAVED}) = 0.85 \times 5.95 \times 0.0023 = 0.0116 \text{ CFS (RETAINED BY DRYWELL SYSTEM)}$
 $Q(\text{REAR GRASSED}) = 0.2 \times 5.95 \times 0.0281 = 0.0334 \text{ CFS (RETAINED BY DRYWELL SYSTEM)}$
 $Q(DEV) = 0.1294 + 0.0232 + 0.0116 + 0.0334 = 0.1976 \text{ CFS}$
5. **RETENTION SYSTEM CALCULATIONS:**
- $A(\text{RETAINED BY DRYWELL}) = Q(\text{BACK MAIN RF.}) + Q(\text{REAR PAVED}) + Q(\text{REAR PAVED})$
 $A(\text{PROPOSED TO DRYWELLS}) = 1,500 \text{ SQ.FT.};$
 $R(A) = 2" - \text{ DRYWELL SYSTEMS ARE DESIGNED TO CATCH AND HOLD A 2" RAINFALL}$
 $\text{VOLUME REQUIRED} = V(RQ) = R(A) \times A(\text{PAVED}) = 2" / 12" \times 1,500 = 250 \text{ CU.FT.}$
 $\text{VOLUME PER FOOT OF HEIGHT @ 60" RING DIAMETER} = 28.27 \text{ CU.FT.}$
 $(1) 60" \times 2'-0" \text{ SOLID WALL RING} = 28.27 \text{ CU.FT. (1'-0" EFFECTIVE HT.)}$
 $(1) 60" \times 8'-0" \text{ STORM DRAIN RING} = 226.16 \text{ CU.FT.}$
 $\text{TOTAL} = 254.43 \text{ CU.FT.} > 250 \text{ CU.FT.}, \text{ THEREFORE IT'S OK}$
6. **PROPOSED STORM FLOW INTO THE SEWER:**
- $Q(\text{STORM}) = Q(\text{FRONT ROOF})$
 $Q(\text{STORM}) = 0.1294 \text{ CFS}$
 $Q(\text{STORM})(0.1294 \text{ CFS}) < Q(ALL)(0.1435 \text{ CFS}), \text{ THEREFORE IS OK.}$
7. **TOTAL STORM AND MAX. SANITARY FLOWS INTO HOWARD AVENUE COMBINED SEWER:**
- TOTAL STORM FLOW DRAINAGE FLOW = 0.1294 CFS
TOTAL SANITARY DRAINAGE FLOW = 0.0091 CFS
TOTAL COMBINED FLOW = 0.1294 CFS + 0.0091 CFS = 0.1385 CFS

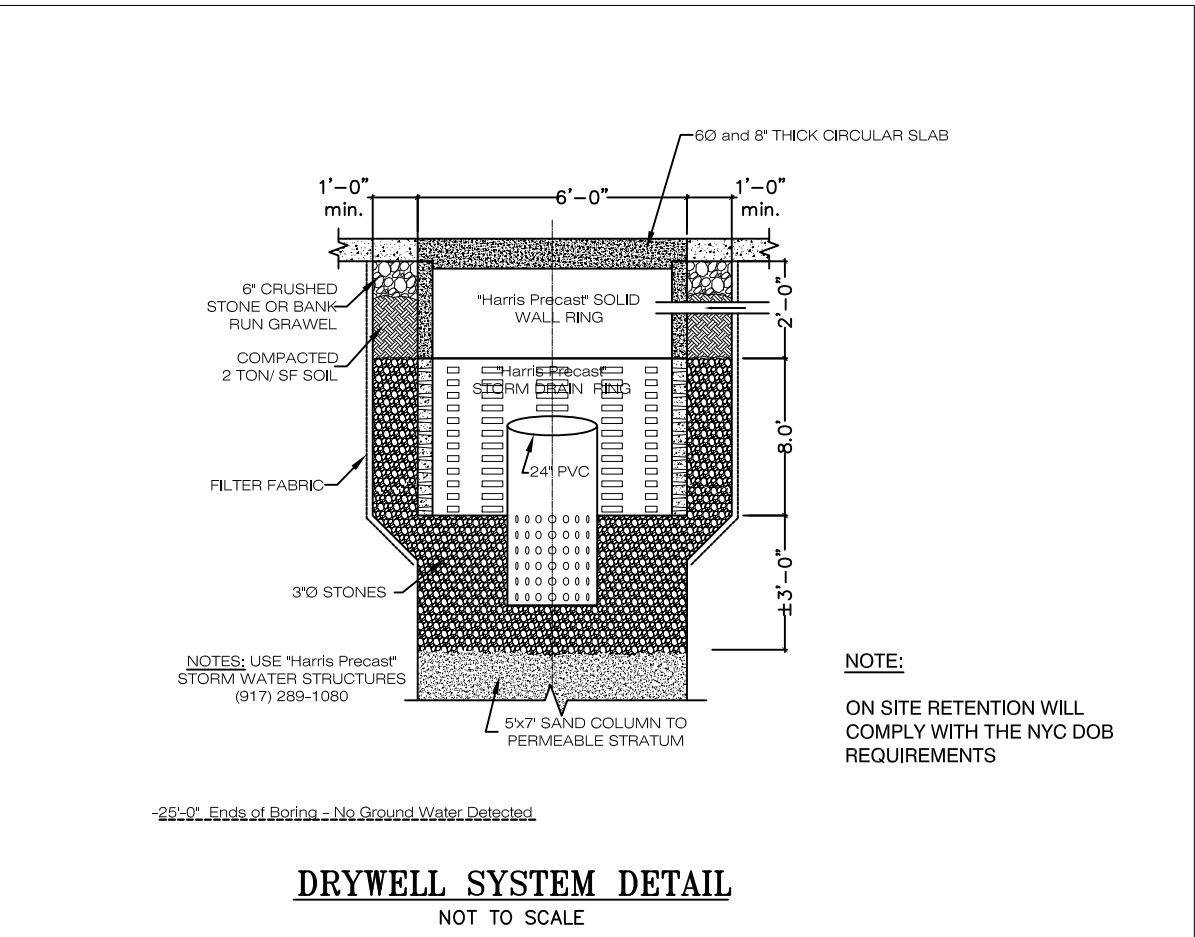
CONCLUSION:
DEVELOPED STORM FLOW FROM THE SITE TO HOWARD AVENUE COMBINED SEWER OF 0.1976 CFS WILL BE RESTRICTED TO THE DEP ALLOWABLE STORM FLOW OF 0.1435 CFS OF LESS, THE REST OF STORM FLOW WILL BE RETAINED BY DRYWELL. PROVIDE ONE(1) 6.0'x9.0' EFFECTIVE HEIGHT (VOLUME 254.43 CU.FT.)



SITE UTILITY
PLAN

ALL EXISTING INVERT
ELEVATIONS OF
MANHOLES AND SIZE OF
THE COMBINED SEWER
SHOWN AS PER
ARCHITECTURAL SURVEY

ALL EXISTING
CONNECTIONS SHALL BE
PLUGGED AS PER DEP
REQUIREMENTS.



SCP-19285

Dmitriy Morozov, PE
MOROZOV ENGINEERING, DPC

1460 BROADWAY
NEW YORK, NY 10036
TEL: (212) 330 – 7634

email: info@morozov.nyc
www.morozov.nyc

No.	Date	Revisions/Issues/Others
1	10/14/2021	ISSUED FOR DEP APPROVAL
2	10/22/2021	RE-ISSUED FOR DEP APPROVAL

Drawing Title
SITE UTILITY PLAN
HYDRAULIC CALCULATIONS

Project Name
638 HOWARD AVENUE
BROOKLYN, NY 11212
BLOCK: 3511; LOT: 64



Project #: 2022-08	Scale 1" = 30'
Date 10/01/2021	Checked By A. KHEYFETS
Drawn By A. MILMAN	

Drawing No.
SU-101