

Principals

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December 5, 2025      *via email: greta.kowalski @dec.ny.gov*

Ms. Greta Kowalski, P.G., Project Manager  
New York State Department of Environmental Conservation  
Division of Environmental Remediation  
625 Broadway  
Albany, NY 12233

**RE:    Supplemental Groundwater Remedial Investigation Work Plan  
Grand Union Hotel Bowling Alley Site  
146 Westchester Avenue  
Port Chester, New York 10573  
NYSDEC BCP Site #C360222  
SESI Project No. Project #11895A**

Dear Ms. Kowalski:

SESI has received the November 25, 2025 letter outlining the NYSDEC comments to the Supplemental Groundwater Remedial Investigation Work Plan (SGRIWP) for the Grand Union Hotel Bowling Alley Site. SESI has addressed the comments and documented our responses in red below.

1. Table 1: borehole diameter should be of sufficient size to allow the passage of the tremie pipe to be used for well grout placement, as well as free passage of filter sands or bentonite pellets dropped through the auger or casing. In general, 4-1/4" inside diameter augers should be the minimum size used for placement of 2" nominal diameter casing.

Per discussions with the drillers, a 4-inch air hammer is the most proper for the field conditions and they confirmed that with this diameter they can fit the tremie pipe required for placing grout, filter sand, and bentonite pellets outside the of the well casing.

2. Section 2, seventh bullet: indicate the given quantities of cement, bentonite and water are estimated and actual amounts will be based on field requirements.

The weights provided represent the mix ratio rather than anticipated quantities, which may have caused some confusion. The actual quantities will be based on field consumption in accordance with the specified ratio.

Where neat cement grouts are to be used, the bentonite pellets should be hydrated for eight (8) hours, or the manufacturer's recommended hydration time, whichever is greater.

For this reason, monitoring wells should be double-cased to avoid cross-contamination between aquifers during installation.

The SGRIWP is revised to specify double casing during monitoring well installation.

3. Section 2, 11<sup>th</sup> bullet: include MW-14 during the post-installation sampling event.

Added.

4. Note, if newly installed on-site monitoring wells are impacted above standards at the deepest depth intervals, then vertical on-site delineation will not have been satisfied by this effort.

We will evaluate vertical delineation if the deepest on-Site wells are still impacted. Additional field work will be proposed as necessary under separate cover.

Sincerely,

**SESI CONSULTING ENGINEERS**



Andrew Schweitzer, PE  
Senior Project Engineer

**Attachments:**

December 2025 Revised Supplemental Groundwater Remedial Investigation Work Plan

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Grand Union Hotel Bowling Alley Site  
146 Westchester Avenue  
Port Chester, New York 10573  
NYSDEC BCP Site #C360222  
SESI Project No. Project #11895A**

Dear Ms. Kowalski:

On behalf of Port Chester OZ Fund III QOZB, LLC (the Volunteer), SESI Consulting Engineers (SESI) has prepared this letter to request approval for proposed supplemental groundwater remedial investigation activities at the property located at 146 Westchester Avenue, Port Chester, Westchester County, New York (the "Site"). The Site is identified as New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) Site No. C360222. This work plan is prepared to complete the required groundwater investigation of the on-Site bedrock aquifer in response to comment 12 in the Remedial Investigation Report (RIR) – Comments issued by NYSDCE on June 12, 2025.

## **1. RATIONALE OF THE APPROACH**

As documented in the April 2025 revised RIR, on-site groundwater investigation was advanced to an approximate elevation of -30 ft amsl through the installation of bedrock wells MW-11DD, MW-12DD, and MW-13DD. CVOC impacts were observed at these intervals. **(Fig-1)**

In February 2025, monitoring well MW-14 was installed along the sidewalk of Westchester Avenue to a depth of 200 ft bgs (approximately EL. -170 ft amsl) and screened from 180 to 200 ft bgs (approximately EL. -150 to -170 ft amsl) to complete the vertical delineation. MW-14 was installed at the downgradient and down-dip location of the on Site contamination and sampled for VOCs, SVOCs, metals, and PFAS. Results indicate minimal impacts, confirming the vertical extent of impacts has been delineated. Accordingly, this work plan has been prepared to further evaluate on-site groundwater conditions between EL. -10 ft and EL. -120 ft amsl.

In July 2025, monitoring well MW-13R was installed at the approximate former location of MW-13 to a depth of 55 ft bgs (approximately EL. -26 ft amsl) with a 10 feet screen. A sample has not been collected from MW-13R.

SESI proposes to install three (3) bedrock well clusters (seven [7] wells total) at the Site (**Fig-2**) to complete the investigation of the VOCs, SVOCs, TAL metals, and PFAS in groundwater at the above-described interval. The well clusters will be placed to further the characterization of bedrock conditions in three locations and between elevation -10 and -120 amsl. The three well clusters have been based on communications with the NYSDEC. Well specifications are presented in **Table 1**.

The proposed scope of work is described in detail in the following section.

## 2. PROPOSED SCOPE OF WORK

Proposed well specifications are summarized in **Table 1** below:

**Table 1: Proposed Monitoring Well Specifications**

Name	Well Dia (in)	Borehole Dia (in)	Slab EL. (ft)	Bottom EL. (ft amsl)	Total Depth (ft. bgs)	Screen length (ft)
MW-15	2	4	33	-57	90	15
MW-16	2	4	33	-117	150	15
MW-17	2	4	29	-26	55	15
MW-18	2	4	29	-61	90	15
MW-19	2	4	29	-121	150	15
MW-20	2	4	29	-61	90	15
MW-21	2	4	29	-121	150	15

The proposed bedrock wells will be installed and sampled using the following methodology.

- Boreholes will both be drilled through the building slab that is poured directly over the bedrock surface.
- Double-cased air rotary drilling will be used to advance boreholes into the bedrock to the bottom depths specified in **Table 1** above while preventing cross-contamination during drilling.
- A 4-inch borehole diameter will be used to accommodate the tremie pipe required for placing grout, filter sand, and bentonite pellets. The 4-inch diameter also accounts for the limited overhead clearance (approximately 11 feet), which restricts the ability to drill larger-diameter boreholes.
- Monitoring wells will then be constructed with 15 feet of 2" PVC screen at the bottom of the borehole;
- Solid 2-inch schedule 40 PVC risers will be installed from the top of the screen to ground surface.
- #2 Sand will be placed in the annular space around the well screen from the bottom of screen to one (1) foot above the top of screen to protect the screen from intrusion of bentonite or grout;



- At least two (2) feet of bentonite seal will be placed in the annular space around the well from above the sand pack. Where neat cement grouts are to be used, the bentonite pellets will be hydrated for a minimum of eight (8) hours.
- As the outer casing is being pulled up, the annulus will be sealed with grout mixture at a ratio of 94 lbs Portland cement mixed with 7 lbs of bentonite and 7 gallons of water. Actual amounts will be based on field requirements.
- The wells will be subsequently completed with flush mount casing; Well construction is illustrated on **Fig-3**.
- Once the grout cures for at least 24 hours, the wells will be developed in accordance with ASTM D5521. Monitoring wells will be developed until the monitoring well has reached equilibrium and turbidity of the purge water is measured to 50 nephelometric turbidity units (NTUs) or less;
- Any waste, including development/purge water and drill cuttings, will be managed in accordance with the June 2022 Remedial Investigation Workplan (RIWP).
- After at least 72 hours after well development, all new wells plus MW-13R and MW-14 will be sampled for the analysis of VOCs, SVOCs, TAL Metals, and PFAS using the low flow technique as described in the June 2022 RIWP.
- Work proposed in this supplemental RIWP will be performed in accordance with the Quality Assurance Project Plan (QAPP) included in the NYSDEC approved June 2022 RIWP.
- Work proposed in this supplemental RIWP will be performed in accordance with the Health and Safety Plan (HASP) included in the NYSDEC approved June 2022 RIWP.
- Work proposed in this supplemental RIWP will be performed in accordance with the Community Air Monitoring Plan (CAMP) included in the NYSDEC approved June 2022 RIWP.

We respectfully request concurrence with the proposed investigative activities before initiating the additional groundwater RI work described herein.

Should you have any questions about the enclosed, please do not hesitate to contact me at 201.452.2735.

Sincerely,

**SESI CONSULTING ENGINEERS**



Andrew Schweitzer, PE  
Senior Project Engineer

**Attachments:**

Figures:

Fig-1 Groundwater Sample Results Plan

Fig-2 Proposed Monitoring Well Location Plan

Fig-3 Proposed Well Construction

# FIGURES



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Analyte	Units	NYSDEC AWQS
<b>VOCs</b>		
1,2,4,5-Tetramethylbenzene	ug/l	5
1,2-Dichloroethene	ug/l	0.6
Acetone	ug/l	50
cis-1,2-Dichloroethene	ug/l	5
Naphthalene	ug/l	10
sec-Butylbenzene	ug/l	5
Tetrachloroethene	ug/l	5
Trichloroethene	ug/l	5
Vinyl chloride	ug/l	2
<b>PFAS</b>		
PFOA	ng/L	6.7
PFOS	ng/l	2.7
<b>SVOCs</b>		
Benzo(a)anthracene	ug/l	0.002
Benzo(a)pyrene	ug/l	0
Benzo(b)fluoranthene	ug/l	0.002
Benzo(k)fluoranthene	ug/l	0.002
Chrysene	ug/l	0.002
Indeno(1,2,3-cd)pyrene	ug/l	0.002
<b>Metals</b>		
Iron, Total	ug/l	300
Lead, Total		25
Magnesium, Total	ug/l	35000
Manganese, Total	ug/l	300
Sodium, Total	ug/l	20000

NOTES:  
1. Screen interval is measured in ft bgs.  
Orange highlight indicates the compound concentration exceeds the NYSDEC AWQS.

ABBREVIATIONS:  
NYSDEC = New York State Department of Environmental Conservation.  
AWQS = Ambient Water Quality Standards.  
PFAS = Per- and Polyfluoroalkyl substances

PFOS = Perfluorooctanesulfonic acid  
PFOA = Perfluorooctanoic acid  
VOC = Volatile Organic Compound  
SVOC = Semi-Volatile Organic Compound  
ng/l = Nanograms per liter.  
ug/l = Micrograms per liter.  
ft bgs = Feet below ground surface.  
J = Estimated concentration.

REFERENCE  
SITE SURVEY PREPARED BY RICHARD J. DOMATO, DATED MARCH 5, 2021.

NOTE:  
THIS PLAN IS FOR LOCATING SOIL BORINGS ONLY.  
OTHER SITE WORK SHOWN HERE IS NOT INTENDED FOR CONSTRUCTION.

NYS Education Law  
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Well ID:	RI-MW-2
Sample ID:	RI-MW-2 (5-15)
Screen Interval:	5.0-15.0
Collection Date:	7/11/2022
<b>VOCs (ug/L)</b>	
cis-1,2-Dichloroethene	44 J
Tetrachloroethene	2800
Trichloroethene	470
Vinyl chloride	ND
<b>PFAS (ng/L)</b>	
PFOS	21.5
<b>SVOCs (ug/L)</b>	
Benzo(a)anthracene	ND
Benzo(a)pyrene	ND
Benzo(b)fluoranthene	0.02 J
Benzo(k)fluoranthene	0.01 J
Chrysene	0.02 J
Indeno(1,2,3-cd)pyrene	ND
<b>Metals (ug/L)</b>	
Iron, Total	98.8
Magnesium, Total	39200
Manganese, Total	2743
Sodium, Total	201000

Well ID:	RI-MW-3
Sample ID:	RI-MW-3 (3-13)
Screen Interval:	2.0-12.0
Collection Date:	7/11/2022
<b>VOCs (ug/L)</b>	
cis-1,2-Dichloroethene	2.4
Tetrachloroethene	97
Trichloroethene	11
Vinyl chloride	ND
<b>PFAS (ng/L)</b>	
PFOS	11.7
<b>SVOCs (ug/L)</b>	
Benzo(a)anthracene	ND
Benzo(a)pyrene	ND
Benzo(b)fluoranthene	ND
Benzo(k)fluoranthene	ND
Chrysene	ND
Indeno(1,2,3-cd)pyrene	ND
<b>Metals (ug/L)</b>	
Iron, Total	51
Magnesium, Total	21400
Manganese, Total	2.44
Sodium, Total	215000

Well ID:	MW-9D
Sample ID:	MW-9D
Screen Interval:	25-30
Collection Date:	4/3/2023
<b>VOCs (ug/L)</b>	
cis-1,2-Dichloroethene	53
Tetrachloroethene	4000
Trichloroethene	730
<b>PFAS (ng/L)</b>	
PFOA	25.9
PFOS	13.8
<b>Metals (ug/L)</b>	
Iron, Total	1230
Magnesium, Total	38300
Manganese, Total	3212
Sodium, Total	59100

Well ID:	MW-12D
Sample ID:	MW-12Di
Sample Interval:	12'
Collection Date:	11/8/2023
<b>VOCs (ug/L)</b>	
Tetrachloroethene	1300
Trichloroethene	550
cis-1,2-Dichloroethene	160
Acetone	280

Well ID:	MW-12DD
Sample ID:	MW-12DDi
Sample Interval:	35'
Collection Date:	11/8/2023
<b>VOCs (ug/L)</b>	
Tetrachloroethene	700
Trichloroethene	420
cis-1,2-Dichloroethene	1700
Acetone	110

Well ID:	MW-7D
Sample ID:	MW-7D
Screen Interval:	24-29
Collection Date:	4/4/2023
<b>VOCs (ug/L)</b>	
cis-1,2-Dichloroethene	54
Tetrachloroethene	3800
Trichloroethene	620
<b>PFAS (ng/L)</b>	
PFOA	37.1
PFOS	17.2
<b>Metals (ug/L)</b>	
Iron, Total	691
Magnesium, Total	38600
Manganese, Total	3586
Sodium, Total	71600

Well ID:	RI-MW-1
Sample ID:	RI-MW-1 (10-25)
Collection Date:	7/11/2022
<b>VOCs (ug/L)</b>	
cis-1,2-Dichloroethene	ND
Tetrachloroethene	0.29
Trichloroethene	ND
Vinyl chloride	ND
<b>PFAS (ng/L)</b>	
PFOS	26.2
<b>SVOCs (ug/L)</b>	
Benzo(a)anthracene	0.08 J
Benzo(a)pyrene	0.06 J
Benzo(b)fluoranthene	0.09 J
Benzo(k)fluoranthene	0.03 J
Chrysene	0.07 J
Indeno(1,2,3-cd)pyrene	0.05 J
<b>Metals (ug/L)</b>	
Iron, Total	3830
Magnesium, Total	49900
Manganese, Total	1295
Sodium, Total	319000

Well ID:	MW-13DD
Sample ID:	MW-13DDi
Sample Interval:	37'
Collection Date:	11/8/2023
<b>VOCs (ug/L)</b>	
Tetrachloroethene	1600
Trichloroethene	740
cis-1,2-Dichloroethene	41
Acetone	290

Well ID:	MW-11DD
Sample ID:	MW-11DDi
Sample Interval:	33'
Collection Date:	11/8/2023
<b>VOCs (ug/L)</b>	
Tetrachloroethene	35
1,2-Dichloroethene	ND
Vinyl chloride	0.24 J
Trichloroethene	18
cis-1,2-Dichloroethene	37
Acetone	130

Well ID:	MW-10D
Sample ID:	MW-10Di
Sample Interval:	18'
Collection Date:	11/8/2023
<b>VOCs (ug/L)</b>	
Tetrachloroethene	19
Vinyl chloride	2.3 J
Trichloroethene	16
cis-1,2-Dichloroethene	500
Acetone	150

Well ID:	MW-6
Sample ID:	MW-6
Screen Interval:	2.5-7.5
Collection Date:	4/3/2023
<b>VOCs (ug/L)</b>	
1,2,4,5-Tetramethylbenzene	16
cis-1,2-Dichloroethene	13
Naphthalene	12
sec-Butylbenzene	7.7
Tetrachloroethene	1.9
Trichloroethene	1.6
Vinyl chloride	5.4
<b>PFAS (ng/L)</b>	
PFOA	18.3
PFOS	16.9
<b>SVOCs (ug/L)</b>	
Benzo(a)anthracene	0.2
Benzo(a)pyrene	0.16
Benzo(b)fluoranthene	0.22
Benzo(k)fluoranthene	0.08
Chrysene	0.26
Indeno(1,2,3-cd)pyrene	0.13
<b>Metals (ug/L)</b>	
Iron, Total	8570
Lead, Total	38.85
Manganese, Total	3212
Sodium, Total	158000

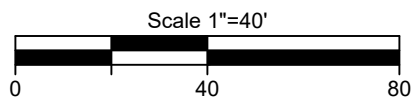
Well ID:	MW-5
Sample ID:	MW-5
Screen Interval:	10-15
Collection Date:	4/4/2023
<b>VOCs (ug/L)</b>	
cis-1,2-Dichloroethene	8.3
Tetrachloroethene	470
Trichloroethene	92
<b>PFAS (ng/L)</b>	
PFOA	12.6
PFOS	5.17
<b>SVOCs (ug/L)</b>	
Benzo(a)anthracene	0.03
Benzo(a)pyrene	0.03
Benzo(b)fluoranthene	0.04
Benzo(k)fluoranthene	0.02
Chrysene	0.03
Indeno(1,2,3-cd)pyrene	0.03
<b>Metals (ug/L)</b>	
Iron, Total	4380
Lead, Total	38.28
Manganese, Total	837.6
Sodium, Total	217000

Well ID:	MW-8D
Sample ID:	MW-8D
Screen Interval:	23.5-28.5
Collection Date:	4/4/2023
<b>VOCs (ug/L)</b>	
cis-1,2-Dichloroethene	25
Tetrachloroethene	1400
Trichloroethene	250
<b>PFAS (ng/L)</b>	
PFOA	21.5
PFOS	17.3
<b>SVOCs (ug/L)</b>	
Benzo(a)anthracene	0.04
Benzo(a)pyrene	0.03
Benzo(b)fluoranthene	0.04
Benzo(k)fluoranthene	0.02
Chrysene	0.03
Indeno(1,2,3-cd)pyrene	0.03
<b>Metals (ug/L)</b>	
Iron, Total	2520
Manganese, Total	690.9
Sodium, Total	179000

Well ID:	RI-MW-4
Sample ID:	RI-MW-4 (5-15)
Screen Interval:	5.0-15.0
Collection Date:	7/11/2022
<b>VOCs (ug/L)</b>	
cis-1,2-Dichloroethene	26
Tetrachloroethene	110
Trichloroethene	24
Vinyl chloride	2.7
<b>PFAS (ng/L)</b>	
PFOS	24.5
<b>SVOCs (ug/L)</b>	
Benzo(a)anthracene	ND
Benzo(a)pyrene	ND
Benzo(b)fluoranthene	ND
Benzo(k)fluoranthene	ND
Chrysene	ND
Indeno(1,2,3-cd)pyrene	ND
<b>Metals (ug/L)</b>	
Iron, Total	797
Magnesium, Total	39400
Manganese, Total	597.3
Sodium, Total	276000

Well ID:	MW-14
Sample ID:	MW-14
Screen Interval:	180-200 ft bgs
Collection Date:	2/24/2025
<b>VOLATILE ORGANICS BY GC/MS</b>	
Chloroform	38
Tetrachloroethene	8.4
Trichloroethene	7.1
<b>SEMIVOLATILE ORGANICS BY GC/MS-SIM</b>	
Benzo(a)anthracene	0.05
Benzo(a)pyrene	0.05
Benzo(b)fluoranthene	0.07
Chrysene	0.05
Indeno(1,2,3-cd)pyrene	0.05
<b>TOTAL METALS</b>	
Antimony, Total	3.15
Iron, Total	4230
Sodium, Total	48400

- LEGEND:
- PROPERTY/SITE BOUNDARY
  - RI-MW1 - MONITORING WELL NUMBER & APPROX. LOCATION (JULY 2022)
  - MW-5 - MW-5 SHALLOW MONITORING WELL NUMBER & APPROX. LOCATION (MARCH 2023)
  - MW-8D - MW-8D DEEP (28.5-30 ft bgs) MONITORING WELL NUMBER & APPROX. LOCATION (MARCH AND JULY 2023)
  - MW-11DD - MW-1DD DEEP (55-59' bgs) MONITORING WELL NUMBER & APPROX. LOCATION (JULY 2023)



dwg by: APG  
chk by: JS  
scale: AS NOTED  
date: 4/16/2025

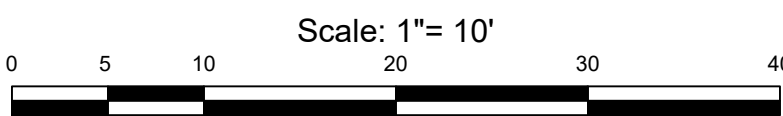
REMEDIAL INVESTIGATION REPORT  
146 WESTCHESTER AVENUE  
PORT CHESTER, NEW YORK 10573

GROUNDWATER SAMPLE  
RESULTS PLAN

project:  
job no: 11895A  
drawing no:

FIG-1





rev	date	description
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1 of 1

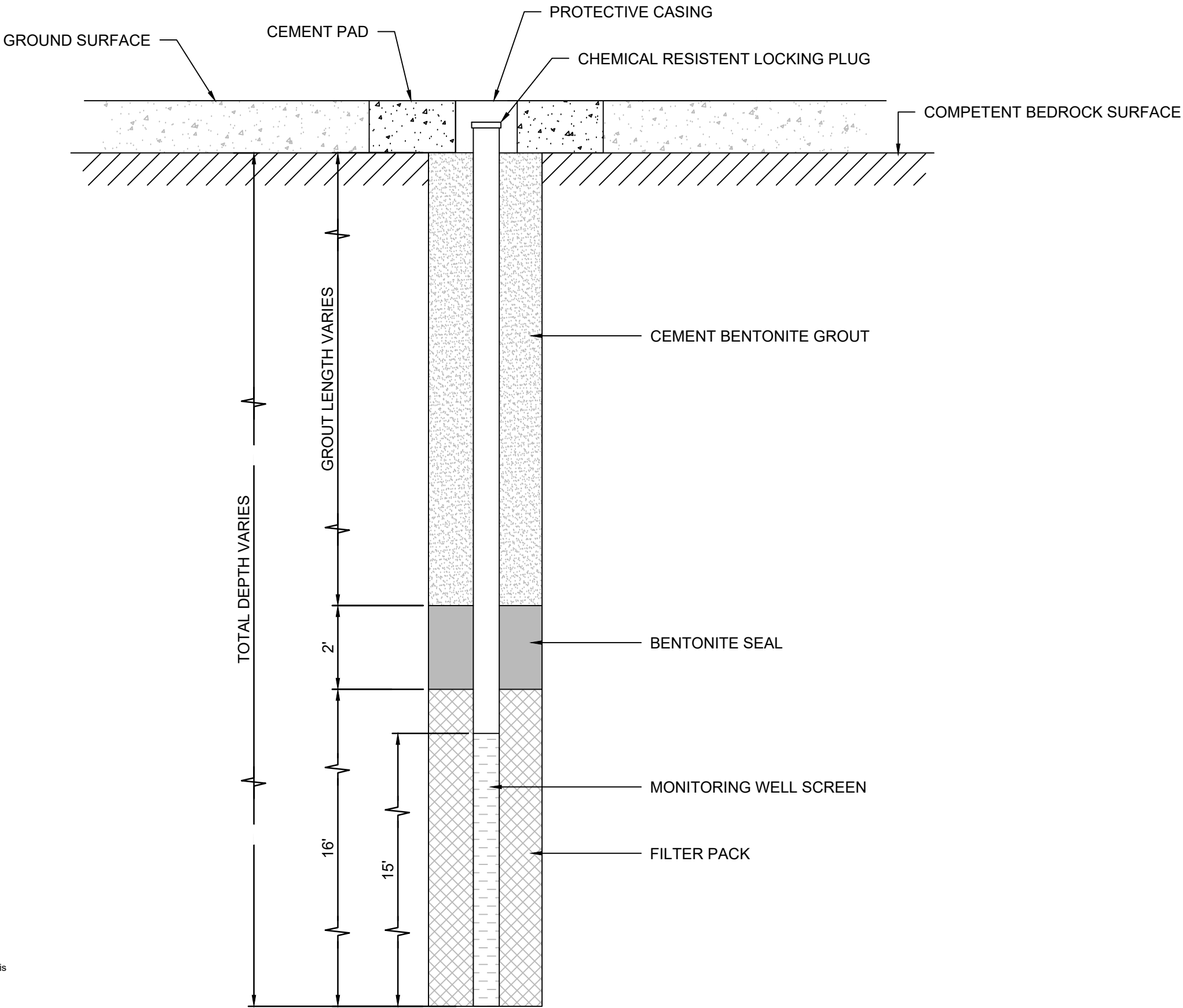
**REFERENCE:**  
EXIST CONDITIONS & BOUNDARY ARE TAKEN FROM FOUNDATION PLAN  
PREPARED BY LESSARD DESIGN INC. P.C., DATED NOVEMBER 8, 2024.



N:\ACAD\11895\11895A.DWG.WELL SCHEMATIC V2.DWG 10/28/25 02:43:20PM, pinnacle, LAYOUT:PROP BEDROCK WELL

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dwg by: AW  
chk by: SL  
scale: N.T.S.  
date: 07/15/2024

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GEOTECHNICAL | ENVIRONMENTAL | SITE CIVIL  
959 ROUTE 46E, 3RD FLOOR, PARSIPPANY, NJ 07054 PH: 973.808.9050

project: 140,148-150 WESTCHESTER AVENUE  
PARCEL #142.30-2-65  
PORT CHESTER, WESTCHESTER COUNTY,  
NEW YORK 10573  
BCP SITE No. C360222

title: MW-14 PROPOSED  
MONITORING WELL SCHEMATIC

job no: 11895A  
drawing no:

FIG 3