# MEMORANDUM

Date: October 29, 2024

To: Renata Ockerby, New York State Department of Health (NYSDOH)
Steven Scharf, New York State Department of Environmental Conservation (NYSDEC)

From: Charlie McGuckin, Roux Environmental Engineering and Geology, D.P.C.
Lauren Dolginko, Roux Environmental Engineering and Geology, D.P.C.

Subject: **Indoor Air Sampling Results**
**Former RUCO Polymers Site (Hooker Chemical OU-4 #130004)**
**125 New South Road, Hicksville, New York**

The installation of the vapor barrier and sub-slab depressurization system (SSDS) at the Former RUCO Polymers Site (Site) located at 125 New South Road, Hicksville, New York was completed in June 2024 and the SSDS has been operating since August 27, 2024. In preparation for occupancy, indoor air sampling to support a Soil Vapor Intrusion (SVI) assessment was completed by Roux upon construction completion. Roux conducted the indoor air sampling on October 2, 2024, in accordance with the scope of work outlined in the SSDS memorandum dated September 24, 2024, which was approved by the NYSDEC and NYSDOH via email on September 11, 2024 and the 2006 New York State Department of Health (NYSDOH) Guidance for Evaluating Soil Vapor Intrusion in the State of New York, revised February 2024 (NYSDOH SVI Guidance). Sub-slab pressure differential measurements were included in the memorandum dated September 24, 2024. Four indoor air samples and one outdoor ambient air sample were collected over an 8-hour time period using laboratory supplied batch-certified, vacuum canisters equipped with 8-hour calibrated flow regulators. Field parameters were recorded on air sampling data forms for each sample. All samples were submitted to a certified NYSDOH Environmental Laboratory Approval Program (ELAP) laboratory for volatile organic compounds (VOCs) analysis via USEPA Method TO-15.

Indoor air sampling locations can be found as Attachment 1. As requested by the NYSDOH, all indoor air analytical data is provided in Table 1. A full evaluation of the validated analytical data will be included in the SVI assessment section of the Construction Completion Report (CCR). The completed NYSDOH Indoor Air Quality Questionnaire and Building Inventory Center for Environmental Health is included as Attachment 2.

3171.0018Y121/MR

# TABLES

1. Indoor Air Analytical Data

**Table 1. Summary of Volatile Organic Compounds in Soil Vapor, 125 New South Road, Hicksville, New York**

| Sample Designation: | | IA-1 | IA-2 | IA-3 | IA-4 | OA-1 |
|---|---|---|---|---|---|---|
| Sample Date: | | 10/02/2024 | 10/02/2024 | 10/02/2024 | 10/02/2024 | 10/02/2024 |
| Normal Sample or Field Duplicate: | | N | N | N | N | N |
| Parameter | Units | | | | | |
| 1,1,1-Trichloroethane (TCA) | UG/M3 | 1.09 U | 1.09 U | 1.09 U | 1.09 U | 1.09 U |
| 1,1,2,2-Tetrachloroethane | UG/M3 | 1.37 U | 1.37 U | 1.37 U | 1.37 U | 1.37 U |
| 1,1,2-Trichloro-1,2,2-Trifluoroethane | UG/M3 | 1.53 U | 1.53 U | 1.53 U | 1.53 U | 1.53 U |
| 1,1,2-Trichloroethane | UG/M3 | 1.09 U | 1.09 U | 1.09 U | 1.09 U | 1.09 U |
| 1,1-Dichloroethane | UG/M3 | 0.81 U | 0.81 U | 0.81 U | 0.81 U | 0.81 U |
| 1,1-Dichloroethene | UG/M3 | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U |
| 1,2,4-Trichlorobenzene | UG/M3 | 3.71 U | 3.71 U | 3.71 U | 3.71 U | 3.71 U |
| 1,2,4-Trimethylbenzene | UG/M3 | 0.98 U | 0.98 U | 0.98 U | 0.98 U | 0.98 U |
| 1,2-Dibromoethane (Ethylene Dibromide) | UG/M3 | 1.54 U | 1.54 U | 1.54 U | 1.54 U | 1.54 U |
| 1,2-Dichlorobenzene | UG/M3 | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U |
| 1,2-Dichloroethane | UG/M3 | 0.81 U | 0.81 U | 0.81 U | 0.81 U | 0.81 U |
| 1,2-Dichloropropane | UG/M3 | 0.92 U | 0.92 U | 0.92 U | 0.92 U | 0.92 U |
| 1,2-Dichlorotetrafluoroethane | UG/M3 | 1.4 U | 1.4 U | 1.4 U | 1.4 U | 1.4 U |
| 1,3,5-Trimethylbenzene (Mesitylene) | UG/M3 | 0.98 U | 0.98 U | 0.98 U | 0.98 U | 0.98 U |
| 1,3-Butadiene | UG/M3 | 0.44 U | 0.44 U | 0.44 U | 0.44 U | 0.44 U |
| 1,3-Dichlorobenzene | UG/M3 | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U |
| 1,4-Dichlorobenzene | UG/M3 | 1.2 U | 1.2 U | 1.2 U | 1.2 U | 1.2 U |
| 1,4-Dioxane (P-Dioxane) | UG/M3 | 18 U | 18 U | 18 U | 18 U | 18 U |
| 2,2,4-Trimethylpentane | UG/M3 | 0.93 U | 0.93 U | **0.18 J** | 0.93 U | 0.93 U |
| 2-Chlorotoluene | UG/M3 | 1.04 U | 1.04 U | 1.04 U | 1.04 U | 1.04 U |
| 2-Hexanone | UG/M3 | 2.05 U | 2.05 U | 2.05 U | 2.05 U | 2.05 U |
| 4-Ethyltoluene | UG/M3 | 0.98 U | 0.98 U | 0.98 U | 0.98 U | 0.98 U |
| Acetone | UG/M3 | **7.1 J** | **7.38 J** | **7.17 J** | **7.98 J** | **3.99 J** |
| Allyl Chloride (3-Chloropropene) | UG/M3 | 1.57 U | 1.57 U | 1.57 U | 1.57 U | 1.57 U |
| Benzene | UG/M3 | **0.19 J** | 0.64 U | **0.27 J** | **0.16 J** | **0.14 J** |
| Benzyl Chloride | UG/M3 | 1.04 U | 1.04 U | 1.04 U | 1.04 U | 1.04 U |
| Bromodichloromethane | UG/M3 | 1.34 U | 1.34 U | 1.34 U | 1.34 U | 1.34 U |
| Bromoform | UG/M3 | 2.07 U | 2.07 U | 2.07 U | 2.07 U | 2.07 U |
| Bromomethane | UG/M3 | 0.78 U | 0.78 U | 0.78 U | 0.78 U | 0.78 U |
| Butane | UG/M3 | **2.63** | **0.94 J** | **1.41** | **0.99 J** | **0.61 J** |
| Carbon Disulfide | UG/M3 | 1.56 U | 1.56 U | **0.46 J** | 1.56 U | 1.56 U |
| Carbon Tetrachloride | UG/M3 | **0.24** | **0.25** | **0.25** | **0.2 J** | **0.25** |
| Chlorobenzene | UG/M3 | 0.92 U | 0.92 U | 0.92 U | 0.92 U | 0.92 U |
| Chlorodifluoromethane | UG/M3 | **0.73 J** | **0.68 J** | **0.71 J** | **0.68 J** | **0.7 J** |
| Chloroethane | UG/M3 | 1.32 U | 1.32 U | 1.32 U | 1.32 U | 1.32 U |
| Chloroform | UG/M3 | 0.98 U | 0.98 U | 0.98 U | 0.98 U | 0.98 U |
| Chloromethane | UG/M3 | **0.77 J** | **0.71 J** | **0.77 J** | **0.75 J** | **0.75 J** |
| Cis-1,2-Dichloroethylene | UG/M3 | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U |

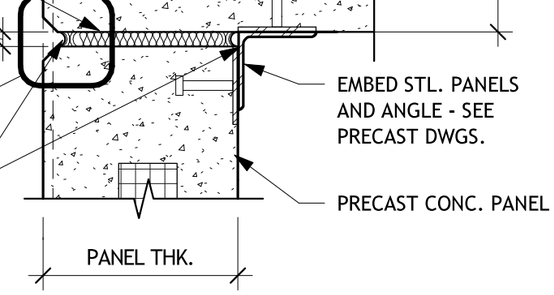
**Table 1. Summary of Volatile Organic Compounds in Soil Vapor, 125 New South Road, Hicksville, New York**

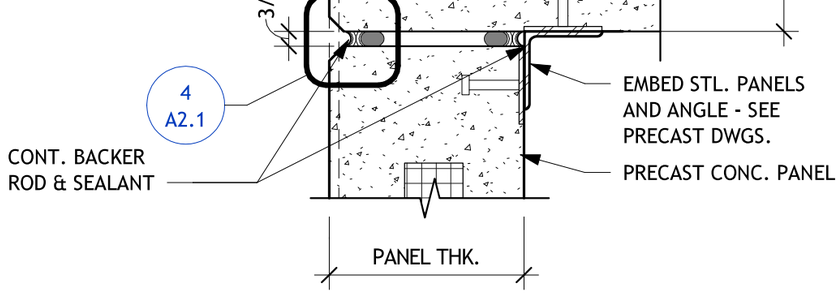
| Sample Designation: | | IA-1 | IA-2 | IA-3 | IA-4 | OA-1 |
|---|---|---|---|---|---|---|
| Sample Date: | | 10/02/2024 | 10/02/2024 | 10/02/2024 | 10/02/2024 | 10/02/2024 |
| Normal Sample or Field Duplicate: | | N | N | N | N | N |
| Parameter | Units | | | | | |
| Cis-1,3-Dichloropropene | UG/M3 | 0.91 U | 0.91 U | 0.91 U | 0.91 U | 0.91 U |
| Cyclohexane | UG/M3 | 0.69 U | 0.69 U | 0.69 U | **0.24 J** | 0.69 U |
| Cymene | UG/M3 | 1.1 U | 1.1 U | 1.1 U | 1.1 U | 1.1 U |
| Dibromochloromethane | UG/M3 | 1.7 U | 1.7 U | 1.7 U | 1.7 U | 1.7 U |
| Dichlorodifluoromethane | UG/M3 | **1.34 J** | **1.5 J** | **1.37 J** | **1.47 J** | **1.5 J** |
| Ethylbenzene | UG/M3 | **0.62 J** | **0.4 J** | 0.87 U | 0.87 U | 0.87 U |
| Hexachlorobutadiene | UG/M3 | 2.13 U | 2.13 U | 2.13 U | 2.13 U | 2.13 U |
| Isopropanol | UG/M3 | 12.3 U | 12.3 U | 12.3 U | 12.3 U | 12.3 U |
| Isopropylbenzene (Cumene) | UG/M3 | 0.98 U | 0.98 U | 0.98 U | 0.98 U | 0.98 U |
| m,p-Xylene | UG/M3 | **2.97** | **1.96 J** | **0.9 J** | 2.17 U | 2.17 U |
| Methyl Ethyl Ketone (2-Butanone) | UG/M3 | 1.47 U | 1.47 U | 1.47 U | 1.47 U | 1.47 U |
| Methyl Isobutyl Ketone (4-Methyl-2-Pentanone) | UG/M3 | 2.05 U | 2.05 U | 2.05 U | 2.05 U | 2.05 U |
| Methyl Methacrylate | UG/M3 | 2.05 U | 2.05 U | 2.05 U | 2.05 U | 2.05 U |
| Methylene Chloride | UG/M3 | 1.74 U | 1.74 U | 1.74 U | 1.74 U | 1.74 U |
| Naphthalene | UG/M3 | 2 U | 2 U | 2 U | 2 U | 2 U |
| N-Butylbenzene | UG/M3 | 1.1 U | 1.1 U | 1.1 U | 1.1 U | 1.1 U |
| N-Heptane | UG/M3 | 0.82 U | 0.82 U | **0.27 J** | 0.82 U | 0.82 U |
| N-Hexane | UG/M3 | **0.44 J** | 1.76 U | **0.45 J** | 1.76 U | 1.76 U |
| N-Propylbenzene | UG/M3 | 0.98 U | 0.98 U | 0.98 U | 0.98 U | 0.98 U |
| O-Xylene (1,2-Dimethylbenzene) | UG/M3 | **1.14** | **0.73 J** | **0.33 J** | 0.87 U | 0.87 U |
| Sec-Butylbenzene | UG/M3 | 1.1 U | 1.1 U | 1.1 U | 1.1 U | 1.1 U |
| Styrene | UG/M3 | 0.85 U | 0.85 U | 0.85 U | 0.85 U | 0.85 U |
| T-Butylbenzene | UG/M3 | 1.1 U | 1.1 U | 1.1 U | 1.1 U | 1.1 U |
| Tert-Butyl Alcohol | UG/M3 | 15.2 U | 15.2 U | 15.2 U | 15.2 U | 15.2 U |
| Tert-Butyl Methyl Ether | UG/M3 | 0.72 U | 0.72 U | 0.72 U | 0.72 U | 0.72 U |
| Tetrachloroethylene (PCE) | UG/M3 | 1.36 U | 1.36 U | **0.23 J** | 1.36 U | 1.36 U |
| Tetrahydrofuran | UG/M3 | 14.7 U | 14.7 U | 14.7 U | 14.7 U | 14.7 U |
| Toluene | UG/M3 | **0.57 J** | **0.43 J** | **1.06** | 0.75 U | **0.43 J** |
| Trans-1,2-Dichloroethene | UG/M3 | 0.79 U | 0.79 U | 0.79 U | 0.79 U | 0.79 U |
| Trans-1,3-Dichloropropene | UG/M3 | 0.91 U | 0.91 U | 0.91 U | 0.91 U | 0.91 U |
| Trichloroethylene (TCE) | UG/M3 | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U |
| Trichlorofluoromethane | UG/M3 | **0.78 J** | **0.8 J** | **0.85 J** | **0.77 J** | **0.8 J** |
| Vinyl Bromide | UG/M3 | 0.87 U | 0.87 U | 0.87 U | 0.87 U | 0.87 U |
| Vinyl Chloride | UG/M3 | 0.2 U | 0.2 U | 0.2 U | 0.2 U | 0.2 U |

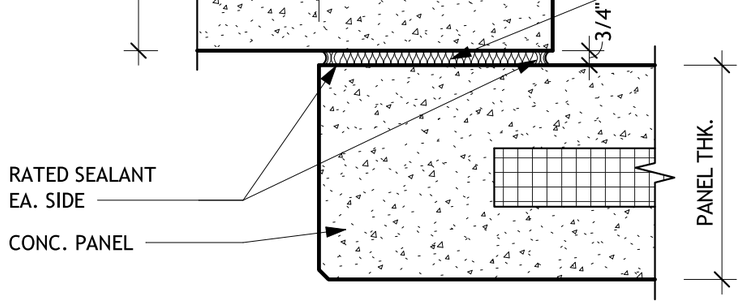
J - Estimated value
U - Indicates that the compound was analyzed for but not detected
ug/$m^3$ - Micrograms per cubic meter
Bold data indicates that parameter was detected

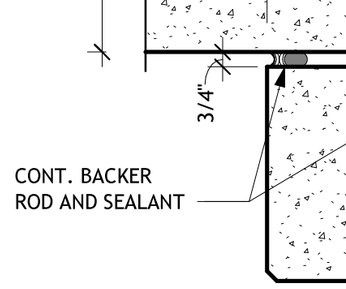
# ATTACHMENT 1

Indoor Air Sampling Locations




## ORNER 3-HR PANEL TAIL

## 8 LAPPED CORNER PANEL JOINT DETAIL

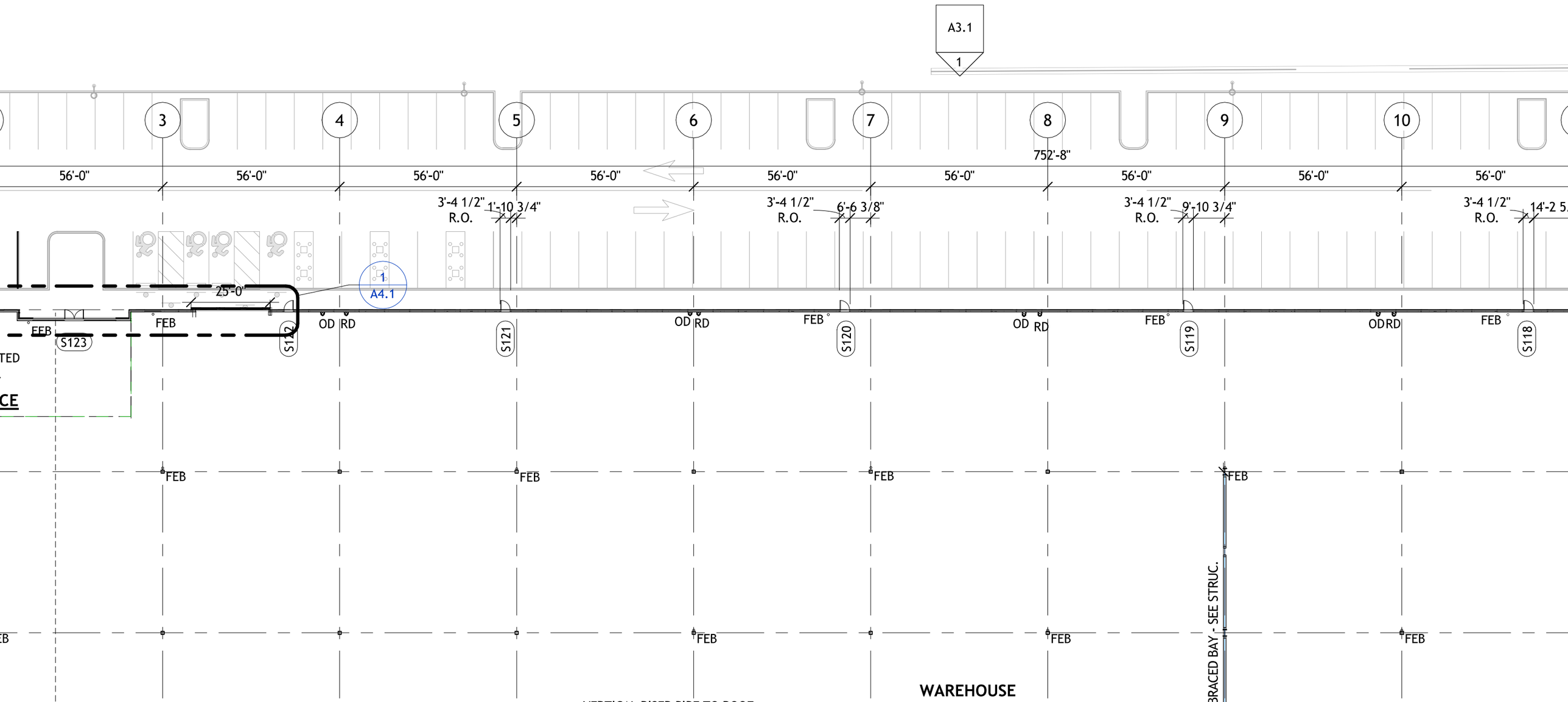
1 1/2" = 1'-0"

## 7 3-HR LAPPED PANEL DETAIL

1 1/2" = 1'-0"

## 6 LAPPED P

1 1/2" = 1'-0"



# ATTACHMENT 2

NYSDOH Indoor Air Quality Questionnaire and
Building Inventory Center for Environmental Health

**NEW YORK STATE DEPARTMENT OF HEALTH**
**INDOOR AIR QUALITY QUESTIONNAIRE AND BUILDING INVENTORY**
**CENTER FOR ENVIRONMENTAL HEALTH**

This form must be completed for each residence involved in indoor air testing.

Preparer's Name Ashley Iervolino Date/Time Prepared 10/2/2024, 15:00

Preparer's Affiliation Roux D.P.C., Env. Consultant Phone No. 631-455-9676

Purpose of Investigation Soil Vapor Intrusion Assessment

Property located at 125 New South Road, Hicksville, NY

**1. OCCUPANT:**

**Interviewed: Y / N**

Last Name: _____ First Name: _____

Address: Building is Unoccupied

County: _____

Home Phone: _____ Office Phone: _____

Number of Occupants/persons at this location _____ Age of Occupants _____

**2. OWNER OR LANDLORD:** (Check if same as occupant ___ )

**Interviewed: Y / N**

Last Name: Pictor Nassau Logistics Center LLC First Name: _____

Address: 250 Vesey Street, 15th Floor, New York, NY 10281

County: NYC

Home Phone: _____ Office Phone: 2124177000

**3. BUILDING CHARACTERISTICS**

**Type of Building:** (Circle appropriate response)

| | | |
|---|---|---|
| Residential | School | Commercial/Multi-use |
| Industrial | Church | Other: _____ |

**If the property is residential, type?** (Circle appropriate response)

| | | |
|---|---|---|
| Ranch | 2-Family | 3-Family |
| Raised Ranch | Split Level | Colonial |
| Cape Cod | Contemporary | Mobile Home |
| Duplex | Apartment House | Townhouses/Condos |
| Modular | Log Home | Other:_____ |

**If multiple units, how many?** _____

**If the property is commercial, type?**

Business Type(s) Warehouse

Does it include residences (i.e., multi-use)? Y / N If yes, how many? _____

**Other characteristics:**

Number of floors 1 and partial enclosed second floor mezzanine
Is the building insulated? Y / N

Building age <1 year

How air tight? Tight / Average / Not Tight

## 4. AIRFLOW

**Use air current tubes or tracer smoke to evaluate airflow patterns and qualitatively describe:**

Airflow between floors

Majority of building is a slab on grade open space warehouse with an average approx. 40' feet high ceilings

The second floor is a small partial enclosed second floor mezzanine

Airflow near source

throughout the first floor of the building, air flow is open. Airflow is limited in office spaces and the partial

mezzanine due to rooms and building walls.

Outdoor air infiltration

Outdoor air infiltrates the warehouse space through trucking loading doors, which may be open with or without

truck trailers loaded into bays.

Infiltration into air ducts

roof fans are equipped with back draft dampers and blocking

**5. BASEMENT AND CONSTRUCTION CHARACTERISTICS** (Circle all that apply)

| | | | | |
|---|---|---|---|---|
| **a. Above grade construction:** | wood frame | concrete | stone | brick |
| **b. Basement type:** | full | crawlspace | slab | other n/a |
| **c. Basement floor:** | concrete | dirt | stone | other n/a |
| **d. Basement floor:** | uncovered | covered | covered with n/a | |
| **e. Concrete floor:** | unsealed | sealed | sealed with _____ | |
| **f. Foundation walls:** | poured | block | stone | other _____ |
| **g. Foundation walls:** | unsealed | sealed | sealed with _____ | |
| **h. The basement is: n/a** | wet | damp | dry | moldy |
| **i. The basement is:** | finished | unfinished | partially finished | |
| **j. Sump present?** | Y / N | | | |
| **k. Water in sump?** | Y / N / not applicable | | | |

**Basement/Lowest level depth below grade:** 0 (feet)

**Identify potential soil vapor entry points and approximate size (e.g., cracks, utility ports, drains)** __nine nine soil vapor points were installed into the building slab during the installation of the buildings vapor barrier/SSD system. no visible cracks or entry points observed

**6. HEATING, VENTING and AIR CONDITIONING** (Circle all that apply)

**Type of heating system(s) used in this building: (circle all that apply – note primary)**

| | | | |
|---|---|---|---|
| Hot air circulation | Heat pump | Hot water baseboard | |
| Space Heaters | Stream radiation | Radiant floor | |
| Electric baseboard | Wood stove | Outdoor wood boiler | Other _____ |

**The primary type of fuel used is**:

| | | |
|---|---|---|
| Natural Gas | Fuel Oil | Kerosene |
| Electric | Propane | Solar |
| Wood | Coal | |

**Domestic hot water tank fueled by:** 2 electric tanks

| | | | | |
|---|---|---|---|---|
| **Boiler/furnace located in:** | Basement | Outdoors | Main Floor | Other n/a |
| **Air conditioning:** | Central Air | Window units | Open Windows | None |

**Are there air distribution ducts present?** Y / N

**Describe the supply and cold air return ductwork, and its condition where visible, including whether there is a cold air return and the tightness of duct joints. Indicate the locations on the floor plan diagram.**

Duct work is present on the roof of the warehouse/office spaces. Duct work is newly constructed and appears to be in good condition with tight duct joints and no punctures or penetrations observable.

## 7. OCCUPANCY

**Is basement/lowest level occupied?** Full-time Occasionally Seldom Almost Never

| **Level** | **General Use of Each Floor (e.g., familyroom, bedroom, laundry, workshop, storage)** |
|---|---|
| Basement | No Basement |
| 1st Floor | Warehouse space, office space |
| 2nd Floor | partial enclosed second floor mezzanine |
| 3rd Floor | |
| 4th Floor | |

## 8. FACTORS THAT MAY INFLUENCE INDOOR AIR QUALITY

**a. Is there an attached garage?** Y / N The warehouse space has 38 truck loading bays along the western wall

**b. Does the garage have a separate heating unit?** Y / N / NA

**c. Are petroleum-powered machines or vehicles stored in the garage** (e.g., lawnmower, atv, car) Y / N / NA Please specify_____

**d. Has the building ever had a fire?** Y / N When?_____

**e. Is a kerosene or unvented gas space heater present?** Y / N Where? _____

**f. Is there a workshop or hobby/craft area?** Y / N Where & Type? _____

**g. Is there smoking in the building?** Y / N How frequently? _____

**h. Have cleaning products been used recently?** Y / N When & Type? _____

**i. Have cosmetic products been used recently?** Y / N When & Type? _____

**j. Has painting/staining been done in the last 6 months?** Y / N Where & When? yes, feb - oct 2024

**k. Is there new carpet, drapes or other textiles?** Y / N Where & When? office spaces ~2 months ago

**l. Have air fresheners been used recently?** Y / N When & Type? _____

**m. Is there a kitchen exhaust fan?** Y / N If yes, where vented? _____

**n. Is there a bathroom exhaust fan?** Y / N If yes, where vented? roof

**o. Is there a clothes dryer?** Y / N If yes, is it vented outside? Y / N

**p. Has there been a pesticide application?** Y / N When & Type? _____

**Are there odors in the building?** Y / N

If yes, please describe: odors related to the new construction of the building

**Do any of the building occupants use solvents at work?** Y / N

(e.g., chemical manufacturing or laboratory, auto mechanic or auto body shop, painting, fuel oil delivery, boiler mechanic, pesticide application, cosmetologist

If yes, what types of solvents are used? _____

If yes, are their clothes washed at work? Y / N

**Do any of the building occupants regularly use or work at a dry-cleaning service?** (Circle appropriate response)

Yes, use dry-cleaning regularly (weekly) No
Yes, use dry-cleaning infrequently (monthly or less) Unknown
Yes, work at a dry-cleaning service

**Is there a radon mitigation system for the building/structure?** Y / N Date of Installation: _____
**Is the system active or passive?** Active/Passive

although there is no radon mitigation system an active sub-slab depressurization system was installed and has been operational since August 27, 2024.

**9. WATER AND SEWAGE**

**Water Supply:** Public Water Drilled Well Driven Well Dug Well Other: _____

**Sewage Disposal:** Public Sewer Septic Tank Leach Field Dry Well Other: _____

**10. RELOCATION INFORMATION (for oil spill residential emergency)**

**a. Provide reasons why relocation is recommended:** Not Residential

**b. Residents choose to:** remain in home relocate to friends/family relocate to hotel/motel

**c. Responsibility for costs associated with reimbursement explained?** Y / N

**d. Relocation package provided and explained to residents?** Y / N

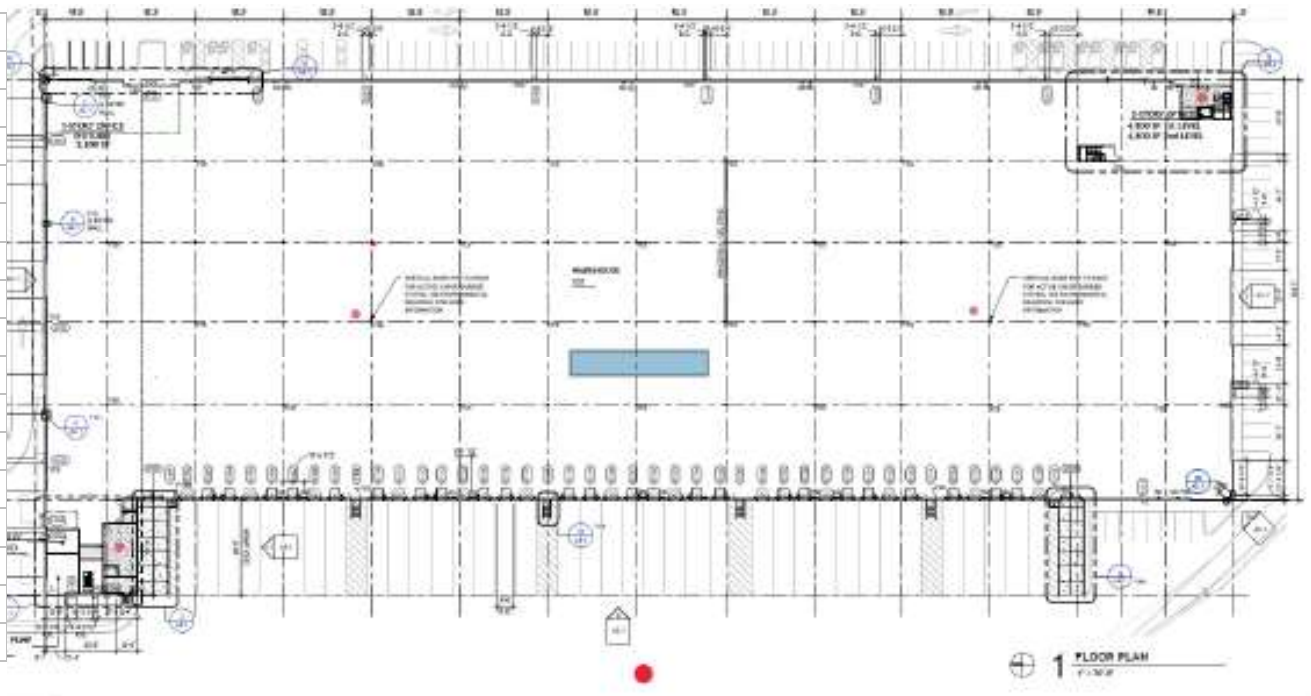
## 11. FLOOR PLANS

**Draw a plan view sketch of the basement and first floor of the building. Indicate air sampling locations, possible indoor air pollution sources and PID meter readings. If the building does not have a basement, please note.**

**Basement:**

NO BASEMENT

**First Floor:**




Sample locations in red

**12. OUTDOOR PLOT**

**Draw a sketch of the area surrounding the building being sampled. If applicable, provide information on spill locations, potential air contamination sources (industries, gas stations, repair shops, landfills, etc.), outdoor air sampling location(s) and PID meter readings.**

**Also indicate compass direction, wind direction and speed during sampling, the locations of the well and septic system, if applicable, and a qualifying statement to help locate the site on a topographic map.**

**13. PRODUCT INVENTORY FORM**

**Make & Model of field instrument used: _____NA_____**

**List specific products found in the residence that have the potential to affect indoor air quality.**

| Location | Product Description | Size (units) | Condition* | Chemical Ingredients | Field Instrument Reading (units) | Photo ** Y / N |
|---|---|---|---|---|---|---|
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |
| | | | | | | |

* Describe the condition of the product containers as **Unopened (UO), Used (U),** or **Deteriorated (D)**
** Photographs of the **front and back** of product containers can replace the handwritten list of chemical ingredients. However, the photographs must be of good quality and ingredient labels must be legible.