Supplemental Indoor Air and Sub-Slab Sampling Work Plan

Location:

Former Edgewood Warehouse Site
320 South Roberts Road,
Dunkirk, New York
NYSDEC BCP Site #C907032

Prepared for:

320 Roberts Road Freezer, LLC
4 Centre Drive
Orchard Park, New York 14127

LaBella Project No. 2203235

September 22, 2021

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TABLES, FIGURES AND APPENDICES

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1.0 INTRODUCTION

LaBella Associates, D.P.C. (LaBella) has developed this Supplemental Indoor Air and Sub-Slab Sampling Work Plan to conduct additional sampling at the Former Edgewood Warehouse Site located at 320 South Roberts Road, City of Dunkirk, Chautauqua County, New York, herein after referred to as the "Site." The Site is a New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP) Site (BCP Site #C907032). A Site Location Map is included as Figure 1. LaBella is submitting this Work Plan on behalf of 320 Roberts Road Freezer, LLC to further evaluate vapor intrusion and indoor air quality within the building at the Site.

The purpose of this supplemental sampling program is to further evaluate the indoor air quality previously evaluated during the Post-Construction Indoor Air Sampling dated June 2021, and sub-slab soil vapor as requested in the letter from the NYSDEC dated June 22, 2021.

2.0 PROJECT UNDERSTANDING

As part of the final remediation for the Site, a passive sub-slab depressurization system (SSDS) was installed beneath the Site Building at the time of construction to mitigate potential soil vapor intrusion concerns at the Site. Post-construction indoor air monitoring was conducted within the Site Building and the results were included in the 2021 Periodic Review Report for the Site dated April 19, 2021, revised June 10, 2021.

The NYSDEC issued a letter dated June 22, 2021 summarizing the review of Periodic Review Report for the Site for the period of December 27, 2019 to March 26, 2021. The NYSDEC and New York State Department of Health (NYSDOH) requested further sampling based on the indoor air concentrations detected during the post-construction indoor air sampling. This Supplemental Indoor Air and Sub-Slab Sampling Work Plan outlines the tasks that will be completed for this supplemental sampling.

3.0 SAMPLING & ANALYSIS

3.1 Indoor Air and Sub-Slab Soil Vapor Sampling

This task includes indoor air and sub-slab soil vapor sampling methods as outlined below:

- Indoor air and sub-slab soil vapor sampling will be conducted in general accordance with NYSDOH Guidance for Evaluation Soil Vapor Intrusion in the State of New York (October 2006). The indoor air and sub-slab soil vapor sampling will be conducted during the heating season.
- Completion of a NYSDOH Indoor Air Quality Questionnaire in accordance with NYSDOH Guidance for Evaluating Soil Vapor Intrusion in the State of New York, October 2006.
- Cap passive SSDS exterior risers a minimum of two weeks prior to sample collection.
- Utilize summa canisters equipped with laboratory calibrated regulators to collect four sub-slab soil vapor samples. Sampling locations will include one sample from within each SSDS area including the office area, east freezer unit, west freezer unit, and the shipping and receiving area. The sample locations were selected biased toward the locations of the previous samples with elevated concentrations within each area. Proposed sampling locations are depicted on Figure 2.
- The summa canisters will be connected to the barb fittings located on the exterior of the Site Building with poly tubing. The barb fittings are connected to stainless steel tubing that

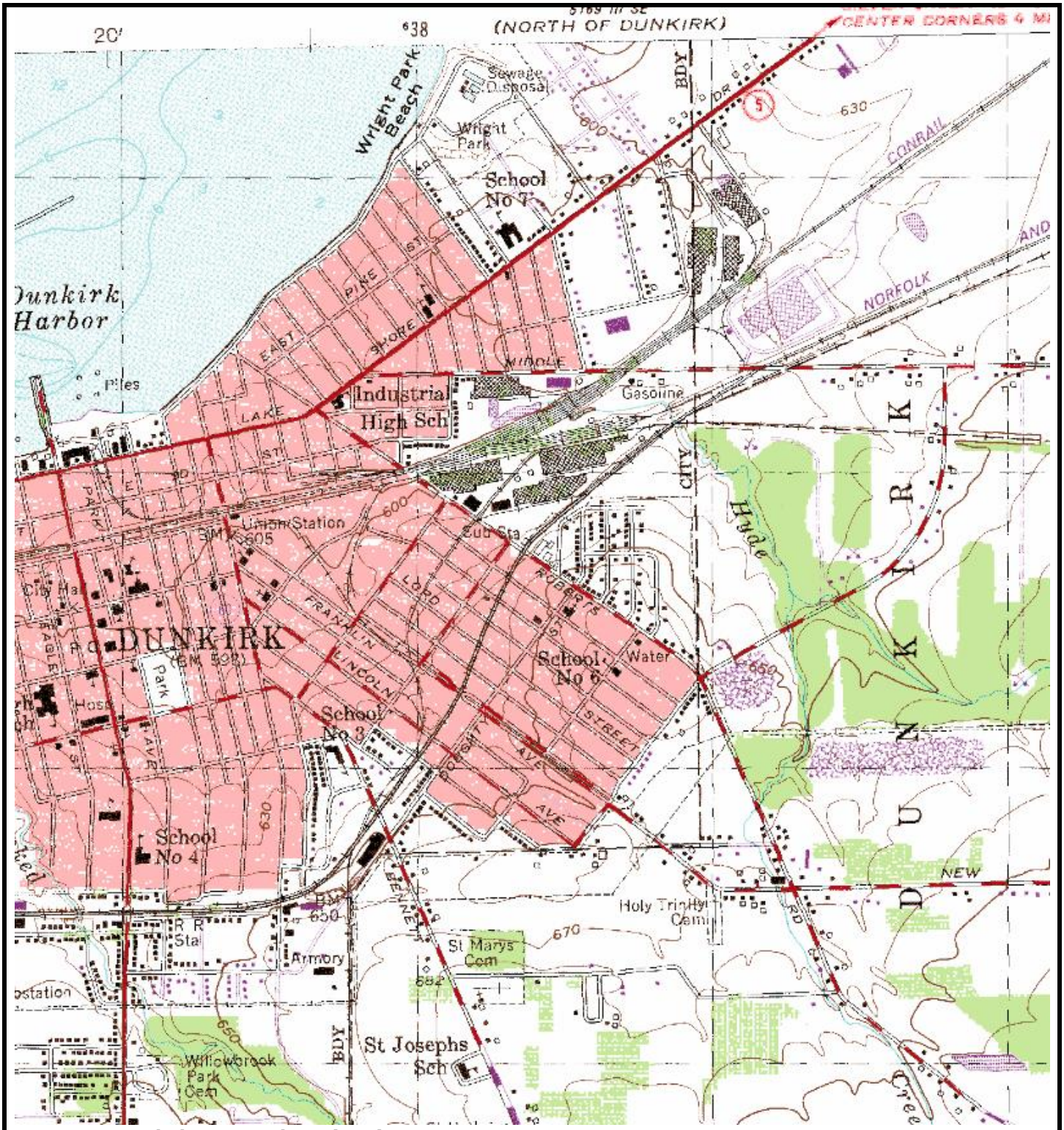
terminates beneath the Site Building.

- Prior to sample collection approximately three volumes will be purged from the stainless steel tubing in an attempt to collect representative samples.
- Utilize summa canisters equipped with laboratory calibrated regulators to collect four indoor air samples. Sampling locations will include one sample from within each SSDS area including the office area, east freezer unit, west freezer unit, and the shipping and receiving area. The indoor air samples will be collected proximate the terminus of the stainless steel sub-slab monitoring points. Proposed sampling locations are depicted on Figure 2.
- Summa canisters utilized to collect the indoor air samples from within the freezer units will be placed outside of the freezer units and connected to an appropriate length of poly tubing to reach the desired sample locations. Due to the low temperatures of the freezer units, the summa canisters will not function properly within the freezers. The tubing will be purged prior to sample collection.
- Collect one outdoor control sample using a summa canister equipped with a laboratory calibrated regulator. The location of the outdoor control sample will be selected in an upwind location relative to the Site Building based on real-time wind direction.
- A total number of nine air samples will be collected over an 8-hour sampling period.
- Submit air samples under proper chain of custody procedures to a New York State Department of Health Environmental Laboratory Approval Program certified laboratory with a standard turnaround time of seven to ten business days for analysis of volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) method TO-15.

4.0 REPORTING

The results of the indoor air and sub-slab vapor sampling will be included in a summary report. The laboratory analytical results will be reviewed by a third-party data validator and a Data Usability Summary Report will be included in the summary report. The summary report will detail the services completed including a comparison of all site-specific analytical data to the appropriate NYSDEC/NYSDOH guidance values. In addition, the report will make recommendations relative to additional evaluation or remedial measures at the Site, if necessary. The report will also contain mapping that depicts all investigative points, Site features, and other areas of interest.

FIGURES



7.5-minute, Dunkirk, New York quadrangle USGS Map

N

Not To Scale

FIGURE 1

SITE LOCATION MAP

Former Edgewood Warehouse Site
320 South Roberts Road
Dunkirk, New York

LaBella
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PROJECT NO.

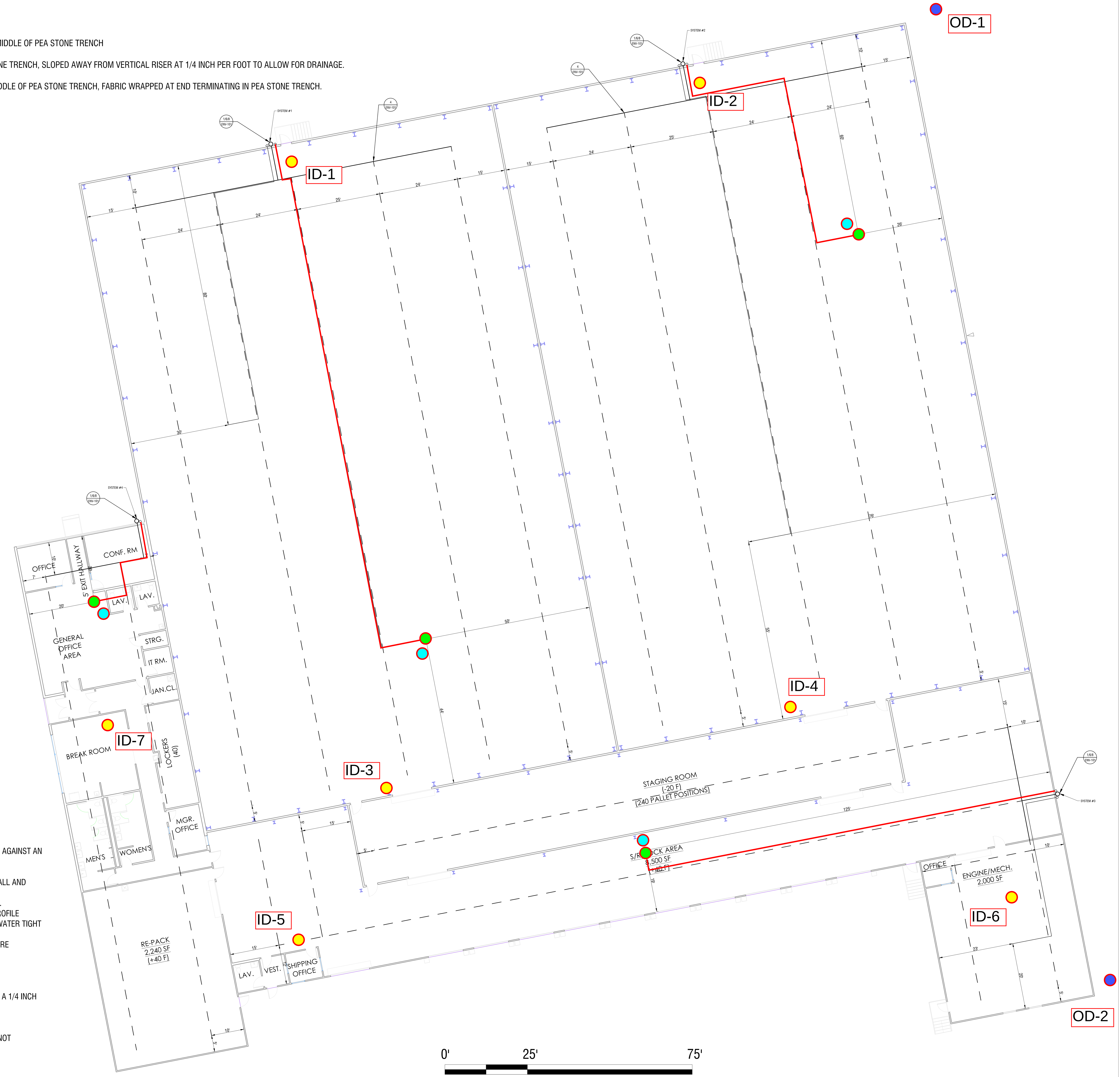
2203235

LEGEND

- — — — — FABRIC WRAPPED 4 INCH HDPE PERFORATED PIPE PLACED WITHIN MIDDLE OF PEA STONE TRENCH
- ——— 4 INCH SOLID SCH 40 PVC PIPE PLACED WITHIN MIDDLE OF PEA STONE TRENCH, SLOPED AWAY FROM VERTICAL RISER AT 1/4 INCH PER FOOT TO ALLOW FOR DRAINAGE.
- ——— 1/4 INCH STAINLESS STEEL MONITORING POINTS PLACED WITHIN MIDDLE OF PEA STONE TRENCH, FABRIC WRAPPED AT END TERMINATING IN PEA STONE TRENCH.

Air Sampling Legend

- Indoor Air Sample Location (Nov 2020)
- Outdoor Air Sample Location (Nov 2020)
- Proposed Indoor Air Sample Location
- Proposed Sub-Slab Vapor Sample Location
- Stainless Steel Monitoring Point Tubing



NOTES:

1. 1/4 INCH STAINLESS STEEL MONITORING POINTS MOUNTED APPROXIMATELY 3 FEET ABOVE FINAL GROUND SURFACE AGAINST AN EXTERIOR WALL. REFER TO DETAIL 1: PROFILE AT MONITORING POINT.
2. 1/4 STAINLESS STEEL TUBING TERMINATED IN MIDDLE OF SUBBASE STONE WITH FABRIC WRAPPED END.
3. 4 INCH SCHEDULE 40 PVC RISER LOCATED 6 INCHES FROM WALL AND VENTED UP ALONG THE EXTERIOR OF THE WALL AND TERMINATED AT LEAST 10 FEET ABOVE THE GROUND SURFACE. REFER TO DETAIL 8: RISER PROFILE.
4. 4 INCH SCHEDULE 40 PVC TO 4 INCH HDPE PERFORATED PIPE CONNECTION. REFER TO DETAIL 4: DETAIL AT HEADER.
5. 4 INCH HDPE PIPE WRAPPED IN FABRIC AND PLACED IN PEA STONE TRENCH. REFER TO DETAIL 7 & 10: MATERIAL PROFILE
6. 4 INCH SOLID PVC EXTENDING MINIMUM 2 FEET ON INTERIOR OF FOUNDATION WALL, GROUTED IN PLACE TO FORM WATER TIGHT CONNECTION. REFER TO DETAIL 6: TYPICAL HORIZONTAL PIPE PENETRATION.
7. PIPING MOVED AS NEEDED IN FIELD TO AVOID PLUMBING. CONTACT ENGINEER TO CONFIRM PIPING MODIFICATIONS ARE ACCEPTABLE.
8. INSTALLED 4" CAP AT EACH VAPOR COLLECTION PIPE TERMINATION.
9. ALL SUB-SLAB VAPOR COLLECTION PIPING IS GEOTEXTILE-WRAPPED 4 INCH PERFORATED CORRUGATED HDPE.
10. HEADER PIPING SHOWN IS 4 INCH SCHEDULE 40 PVC.
11. PEA STONE SHALL CONSIST OF WASHED MATERIAL THAT WILL PASS THROUGH A 2 INCH SIEVE AND BE RETAINED BY A 1/4 INCH SIEVE.
12. SEALED ALL PENETRATIONS AND GAPS WITH AN ELASTOMERIC JOINT SEALANT.
13. THIS DRAWING IS NOT TO INTENDED TO PROVIDE STRUCTURAL INFORMATION. REFER TO STRUCTURAL DRAWINGS.
14. SYSTEM INSTALLED AS PASSIVE. FANS WILL BE INSTALLED AND THE SYSTEM MADE ACTIVE IF PASSIVE SYSTEM IS NOT EFFECTIVE IN MITIGATING VAPOR INTRUSION INTO THE BUILDING.

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The Krog Group

Contractors Engineers Developers

PROJECT/CLIENT

FORMER EDGEWOOD WAREHOUSE SITE
NYSDEC BCP #C907032

320 SOUTH ROBERTS ROAD
CHAUTAUQUA COUNTY
DUNKIRK, NY

DRAWING TITLE

INDOOR AIR SAMPLING LOCATION MAP

DESIGNED BY: AB
DRAWN BY: AB
REVIEWED BY: DN

DATE: SEPTEMBER, 2019

PROJECT/DRAWING NUMBER

2203235

Figure 2