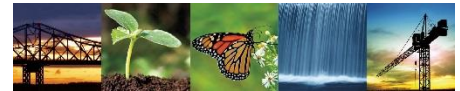




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November 19, 2019
File No. 12.0076252.10

Jessica LaClair
Division of Environmental Remediation
New York State Department of Environmental Conservation
625 Broadway
Albany, NY 12233-7013

**Re: Full Scale Sub-Slab Depressurization (SSD) System Design Report – Sloop Brewery
Addendum No. 1
Former IBM East Fishkill Facility, Hopewell Junction, NY
NYSDEC Site No. 314054, EPA ID NYD000707901**

Dear Ms. LaClair,

GZA GeoEnvironmental of New York (GZA) has prepared this addendum to the *Full-Scale Sub-Slab Depressurization (SSD) System Design Report* dated August 14, 2019 (2019 Design Report) on behalf of i.park84, LLC to detail the post-construction collection of indoor air samples within Sloop Brewery at the Former IBM East Fishkill Facility located at 2070 Route 52, Hopewell Junction, New York (Site). The objective of the sampling is to evaluate the indoor air within Sloop Brewery in order to assess the effectiveness of the proposed SSD system as requested in the New York State Department of Environmental Conservation's (NYSDEC's) September 20, 2019 comment letter.

On Figure 3 of the 2019 Design Report, small areas are identified as "area not captured" by the proposed SSD system. These areas are small gaps (on the order of two to six linear feet) in between the theoretical radius of influence (ROI) for a few of the extraction points. The locations available for installation of the extraction points was limited due to the current layout of utilities and other equipment inside the building. GZA optimized the extraction point layout in consideration of the ROI and available installation locations. The proposed extraction points are considered suitable to depressurize the entire footprint of the Sloop Brewery as the theoretical ROI is based on our conservative assumptions and includes a safety factor. As detailed in the 2019 Design Report, GZA will collect induced vacuum readings from the vapor assessment points (VPs) to confirm if sufficient vacuum is present underneath the building slab. In addition, GZA will collect indoor air samples following the construction of the SSD system as noted in our 2019 Design Report and as subsequently requested by NYSDCE in the September 20, 2019 comment letter to document that the slab underneath the Sloop Brewery area is depressurized and additional actions are not warranted.

INDOOR AIR SAMPLE LOCATIONS

The proposed frequency and location of post-construction indoor air samples is based on the location of areas identified as "not captured" in the 2019 Design Report and the number of heating, ventilating and air conditioning (HVAC) zones within the building. The areas identified as "not captured" are located in the northeast corner of the Packing Area, in the vicinity of the brewing vessels (**Figure 1**). Based on Sanborn Engineering's *Report of Interim Measures and Indoor Air Quality Testing*, dated February 12, 2016, two HVAC zones are located within the



Sloop Brewery: one within the Packaging Area (including four associated air handling units), and one encompassing the remainder of the Sloop Brewery. The updated HVAC configuration, designed for the Sloop Brewery by Burns Engineering Services, P.C., utilizes the existing HVAC zones and air handling units, and no additional zones or units were added to the system. Based on this information, GZA proposes to collect two indoor air samples: one sample within the Tasting Room and one sample in the Packing Area. **Figure 1** presents the HVAC zones and the approximate locations of the proposed indoor air sampling locations.

INDOOR AIR SAMPLING PROCEDURES

In accordance with the New York State Department of Health (NYSDOH) *Guidance for Evaluating Soil Vapor Intrusion in the State of New York* dated October 2006, post-construction indoor air sampling will be conducted during the heating season (November 15 to March 31) in order to evaluate the conditions when vapor intrusion has the greatest likelihood of occurring. Sampling procedure will be completed in general accordance with the GZA's NYSDEC-approved *Sub-Slab Vapor Investigation Work Plan (SSVIWP) – Building 338* dated May 16, 2019.

A pre-sampling inspection will be completed prior to sampling. Indoor air samples will be collected using a laboratory supplied SUMMA® canister. Indoor air samples will be collected over eight hours to reflect the exposure scenario for a commercial space. One eight-hour ambient air sample and a duplicate sample will also be collected.

REPORTING

The analytical results of the indoor air samples will be compared to the NYSDOH Air Guidance Values (AGV) and historic indoor air sampling results within the Sloop Brewery. The indoor air results will be evaluated and further actions (if needed) will be discussed with NYSDEC.

If you have any questions regarding the above, please contact Meredith Hayes at 973.774.3332 or meredith.hayes@gza.com.

Very truly yours,

GZA GEOENVIRONMENTAL OF NEW YORK, INC.

A handwritten signature in black ink, appearing to read 'M Hayes'.

Meredith Hayes
Senior Project Manager

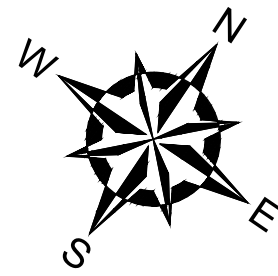
A handwritten signature in black ink, appearing to read 'Ernest Hanna'.

Ernest Hanna, P.E.
Consultant/Reviewer

A handwritten signature in blue ink, appearing to read 'David Winslow'.

David Winslow, P.G., Ph.D.
Senior Vice President

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▼ SP-1 PROPOSED LOCATION OF EXTRACTION POINTS (35' RADIUS OF INFLUENCE)

○ PROPOSED RADIUS OF INFLUENCE (35')

▼ SP-6 PROPOSED LOCATION OF EXTRACTION POINTS (30' RADIUS OF INFLUENCE)

○ PROPOSED RADIUS OF INFLUENCE (30')

AREA NOT CAPTURED

▼ VP-1 PROPOSED SOIL VAPOR ASSESSMENT POINT

▼ VP-1 EXISTING SOIL VAPOR ASSESSMENT POINT INSTALLED BY GZA

SS3025 EXISTING SOIL VAPOR ASSESSMENT POINT INSTALLED BY SANBORN

EP3004 EXISTING SOIL VAPOR EXTRACTION POINT INSTALLED BY SANBORN

SS-01 EXISTING SOIL VAPOR ASSESSMENT POINT INSTALLED BY WALDEN

★ GZA-IA-1 INDOOR AIR SAMPLE LOCATION

★ GZA-AA-1 AMBIENT AIR SAMPLE LOCATION

3" DIAMETER CAST IRON PIPE

4" DIAMETER CAST IRON PIPE

AC-102 AIR HANDLING UNIT ID

NOTES:

- 1) BASEMAP OBTAINED FROM "SOIL VAPOR INTRUSION INVESTIGATION SAMPLING LOCATIONS" BY WALDEN ENVIRONMENTAL ENGINEERING, DATED 11/29/2018.
- 2) ALL THREE- AND FOUR-INCH VERTICAL RISER AND HEADER PIPING SHALL BE ROUTED AT THE INTERIOR CEILING LEVEL AND SECURED APPROPRIATELY USING METAL BRACKETS OR EQUIVALENT.
- 3) HVAC ZONE AND AIR HANDLING UNIT LOCATIONS OBTAINED FROM "REPORT OF HVAC ADJUSTMENT AND INDOOR AIR QUALITY TESTING - BUILDINGS 330C AND 338" BY SANBORN, HEAD ENGINEERING, DATED FEBRUARY 2016. CONFIRMED BY "BREWERY & TASTING ROOM, BUILDING 330C DRAWING PACKAGE" BY BURNS ENGINEERING SERVICES, DATED MARCH 2018
- 4) AIR HANDLING UNITS AC-101 THROUGH AC-104 ASSOCIATED WITH HVAC ZONE #1. AIR HANDLING UNIT AC-4 ASSOCIATED WITH HVAC ZONE #2"

0 7.5' 15' 30' 45'
SCALE IN FEET 1" = 15'

NO.	ISSUE/DESCRIPTION	BY	DATE
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FULL SCALE SSD SYSTEM DESIGN REPORT - SLOOP BREWERY			
PROPOSED POST-CONSTRUCTION INDOOR AIR SAMPLING LOCATIONS			
PREPARED BY:  GZA GeoEnvironmental of NY Engineers and Scientists www.gza.com		PREPARED FOR: I.PARK84, LLC. GREENWICH, CT	
PROJ MGR: MH	REVIEWED BY: DW	CHECKED BY: EH	FIGURE
DESIGNED BY: BP	DRAWN BY: PB	SCALE: 1" = 15'	1
DATE: NOVEMBER, 2019	PROJECT NO: 12.0076252.10	REVISION NO:	
		SHEET NO.	