

# WEEKLY AIR MONITORING REPORT

## Building C Removal Action

**Site Name:** Vo-Toys Site, Harrison, New Jersey

**CERCLA Docket No.:** 02-2019-2028

**Report No.:** 4

**Report Date:** October 9, 2020

**Reporting Period:** October 5 to October 8, 2020

### 1 Introduction

This report summarizes the Building C Removal Action (RA) air monitoring program conducted between October 5 and October 8, 2020, at the Vo-Toys site located at 400 South 5<sup>th</sup> Street, Harrison, New Jersey (the site). Air monitoring for particulates less than 10 microns in diameter (PM<sub>10</sub>) and mercury vapor was conducted in accordance with the U.S. Environmental Protection Agency (USEPA)-approved Community Air Monitoring Plan (CAMP). PM<sub>10</sub> and mercury vapor results were compared with action levels presented in the CAMP.

Air monitoring during the week of October 5, 2020 included the following monitoring tasks:

- Meteorological monitoring
- Work area perimeter air monitoring
- Site perimeter air monitoring

A summary of the monitoring activities that were conducted is presented in Section 3.

### 2 Meteorological Monitoring

Meteorological monitoring was conducted to measure wind speed, wind direction, and air temperature. Meteorological readings were recorded on a data logging device and evaluated at least three times per day to determine the upwind and downwind boundaries of the site.

Table 2-1 presents a summary of the meteorological monitoring during the week of October 5, 2020. The attached site air monitoring figures show the locations of the meteorological sensors.

**Table 2-1**  
**Meteorological Monitoring Summary**

Date	Weather
October 5, 2020	Mostly Cloudy, high in the upper 60s°F; Winds: 0-5 mph W (5-10 mph N online). No precipitation.

October 6, 2020	Mostly Sunny, high in the low 70s°F; Winds: 5-15 mph W (5-15 mph SW online). No precipitation.
October 7, 2020	Partly Sunny, high in the upper 70s°F; Winds: 10-20 mph W, stronger gusts throughout the day (10-20 mph W online). No precipitation.
October 8, 2020	Partly Sunny, high in the mid-60s°F; Winds: 10-20 mph W, stronger gusts throughout the day (10-20 mph NW online). No precipitation.

### 3 PM<sub>10</sub> and Mercury Vapor Monitoring

#### 3.1 Work Area Perimeter Air Monitoring

Air monitoring was performed at the perimeter of the RA work areas and the RA activities were modified as necessary so that particulates and mercury vapors above action levels were not migrating to the site perimeter and off-site/community air monitoring locations. The work area perimeter monitoring locations were in or adjacent to Building C and were determined based on the location and extent of RA activities and, for exterior RA activities, the prevailing wind direction. Readings were recorded and maintained on site by the Engineer.

#### 3.2 Site Perimeter Air Monitoring Summary

Site perimeter monitoring was performed to document that particulates (PM<sub>10</sub>) or mercury vapor above action levels were not migrating beyond the site boundary. Four air monitoring stations were located outside the building around the site perimeter: one upwind and up to three downwind. Figures SP-1 through SP-4 show the locations of the site perimeter stations each day. Readings were recorded and maintained on site by the Engineer.

All PM<sub>10</sub> and mercury vapor site perimeter air monitoring data were below action levels defined in the CAMP.

A summary of site perimeter air monitoring data is presented in Table 3-1.

**Table 3-1  
Summary of PM<sub>10</sub> and Mercury Vapor Site Perimeter Air Monitoring**

Date	Air Monitoring Station/Location	Upwind/Downwind	PM <sub>10</sub> 15-Minute Average Range (ug/m <sup>3</sup> ) Action Level < 100 ug/m <sup>3</sup>	Mercury Vapor 15-Minute Average Range (ug/m <sup>3</sup> ) Action Level < 10 ug/m <sup>3</sup>
10/05/2020	Station 1 - West	Upwind	10.0 – 35.9	0.10 - 0.29
	Station 2 - North	Downwind	14.4 – 29.3	0.54 – 1.13
	Station 3 - Southeast	Downwind	0.5 – 22.4	0.12 - 0.37
	Station 4 - Northeast	Downwind	1.0 – 10.9	0.11 - 0.30
10/06/2020	Station 1 - West	Upwind	10.9 – 61.5	0.10 - 0.16
	Station 2 - North	Downwind	13.2 – 48.7	0.13 – 0.42
	Station 3 - Southeast	Downwind	6.3 – 66.9	0.12 – 0.38

	Station 4 - Northeast	Downwind	5.3 – 34.5	0.11 – 0.33
10/07/2020	Station 1 - West	Upwind	28.7 – 71.5	0.10 – 0.17
	Station 2 - North	Downwind	19.1 – 47.0	0.16 – 0.41
	Station 3 - Southeast	Downwind	16.5 – 62.0	0.11 - 0.36
	Station 4 - Northeast	Downwind	8.1 – 32.6	0.14 - 0.35
10/08/2020	Station 1 - West	Upwind	6.1 – 23.0	0.10 – 0.12
	Station 2 - North	Downwind	5.1 – 23.0	0.14 – 0.32
	Station 3 - Southeast	Downwind	2.3 – 15.8	0.13 - 0.23
	Station 4 - Northeast	Downwind	1.0 – 10.3	0.12 - 0.26

Notes:

1. PM<sub>10</sub> action level: Normal operations if PM<sub>10</sub> <100 ug/m<sup>3</sup>
2. Mercury vapor action level: Normal operations if 15-minute average of MVA readings is <10 ug/m<sup>3</sup>
3. See CAMP for further details on action levels

### 3.3 Off-Site/Community Air Monitoring

Off-site/community air monitoring for mercury vapors was not required during the week of October 5, 2020 based on Work Area Perimeter and Site Perimeter monitoring results and the tasks being performed on-site.

## 4 Monitoring Equipment

Table 4-1 presents the air monitoring devices used.

**Table 4-1  
Monitoring Equipment and Calibration**

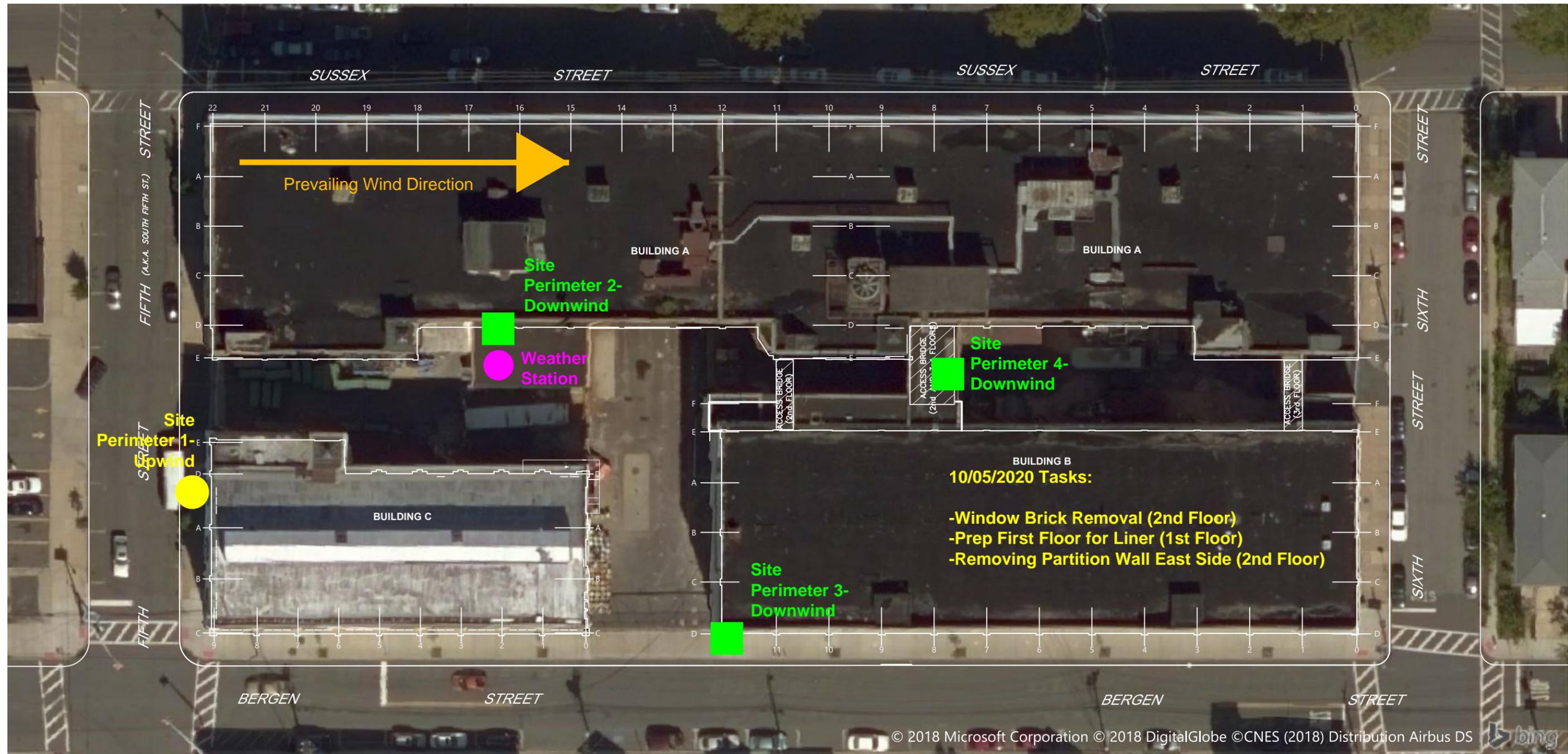
Parameter	Monitoring Equipment
Mercury Vapors – Real Time and Average Concentrations	<ul style="list-style-type: none"> <li>Jerome Mercury Vapor Analyzer J405 – Arizona Instruments, LLC (work area monitoring, regenerated prior to daily use)</li> <li>VM 3000 – Mercury Instruments (site perimeter stations, auto zeroed prior to daily use)</li> </ul>
Airborne Particulates	<ul style="list-style-type: none"> <li>MIE DataRAM™ Portable Particulate Monitor (work area perimeter, zeroed prior to daily use)</li> <li>TSI Dusttrak Particulate Monitor (site perimeter stations, zeroed prior to daily use)</li> </ul>
Meteorological Monitoring	<ul style="list-style-type: none"> <li>Vantage Pro 2 weather station</li> </ul>

## 5 Issues or Potential Modifications to the CAMP

None

# Figures

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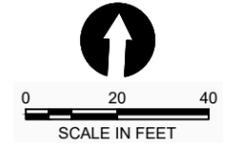


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**SOURCE:** Floor plans compiled from CAD file entitled: "FIG05-REV071615" provided by AMEC Foster Wheeler, Inc. on March 31, 2016. Subsurface utilities and features compiled from CAD file entitled: "NUMBERED\_SITEMAP\_20101" provided by General Electric Company on March 3, 2016.  
**HORIZONTAL DATUM:** New Jersey State Plane, North American Datum 1983, U.S. Feet (NJ83F).  
**VERTICAL DATUM:** (None).

**LEGEND**  
 A,1 --- BUILDING COLUMN LINE

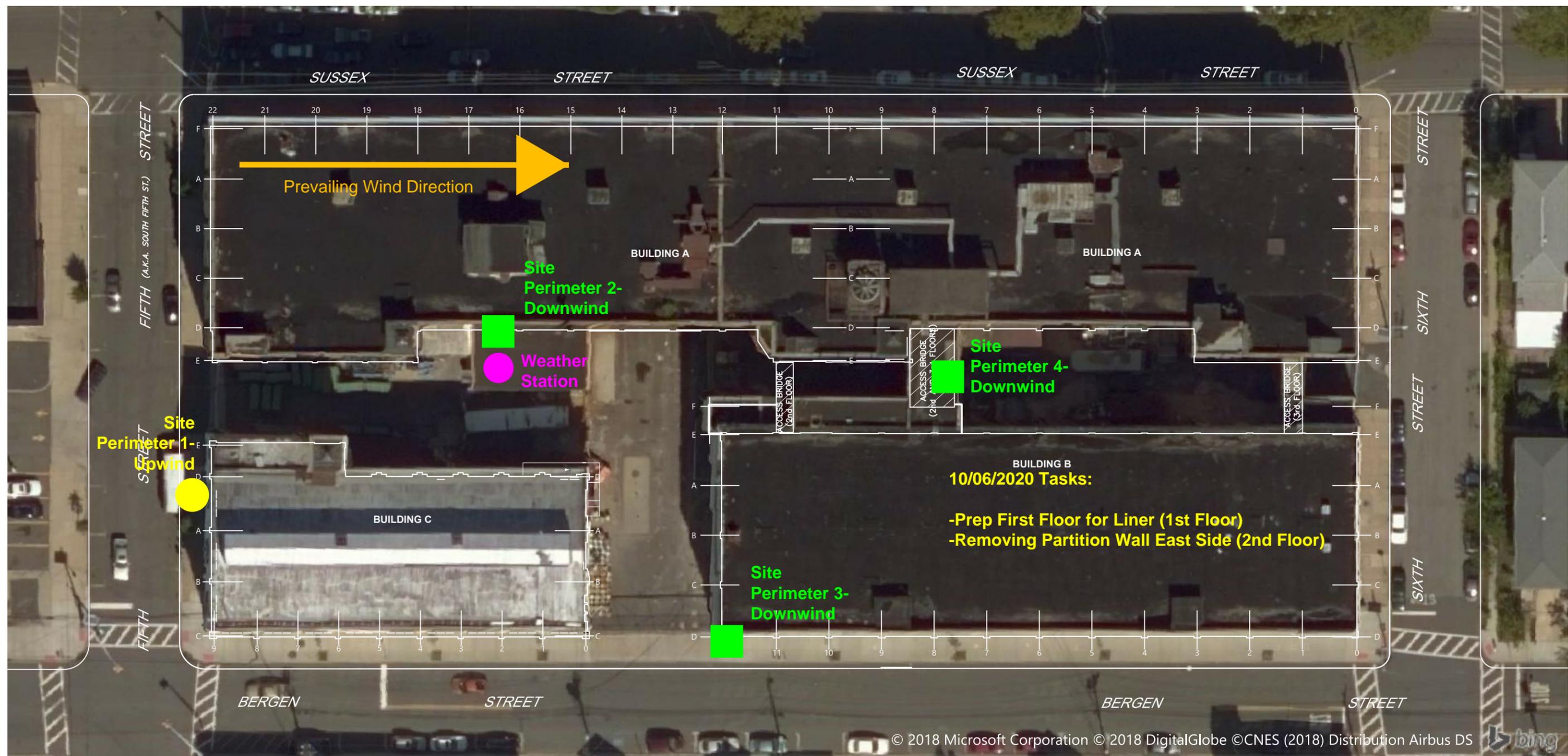
- Site Perimeter Air Monitoring Location
- Upwind Site Perimeter Monitoring Location



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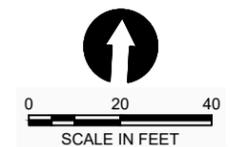
**Figure SP-1**  
**10/05/2020**  
**Air Monitoring Station Locations**  
 Vo Toys Site Building C Removal Action  
 General Electric Company



**SOURCE:** Floor plans compiled from CAD file entitled: "FIG05-REV071615" provided by AMEC Foster Wheeler, Inc. on March 31, 2016. Subsurface utilities and features compiled from CAD file entitled: "NUMBERED\_SITEMAP\_20101" provided by General Electric Company on March 3, 2016.  
**HORIZONTAL DATUM:** New Jersey State Plane, North American Datum 1983, U.S. Feet (NJ83F).  
**VERTICAL DATUM:** (None).

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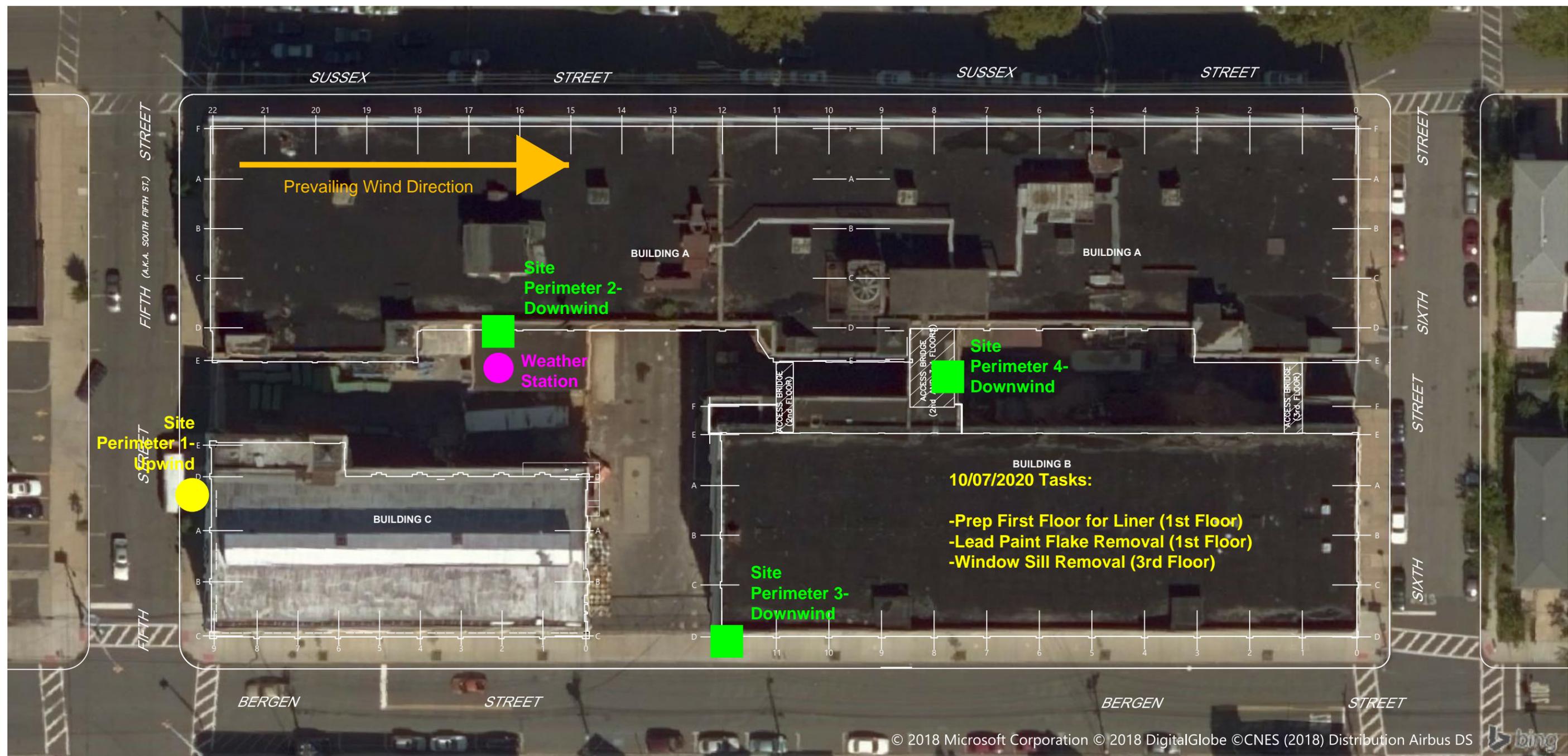
- Site Perimeter Air Monitoring Location
- Upwind Site Perimeter Monitoring Location



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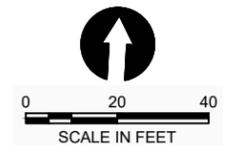
**Figure SP-2**  
**10/06/2020**  
**Air Monitoring Station Locations**  
 Vo Toys Site Building C Removal Action  
 General Electric Company



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**VERTICAL DATUM:** (None).

**LEGEND**  
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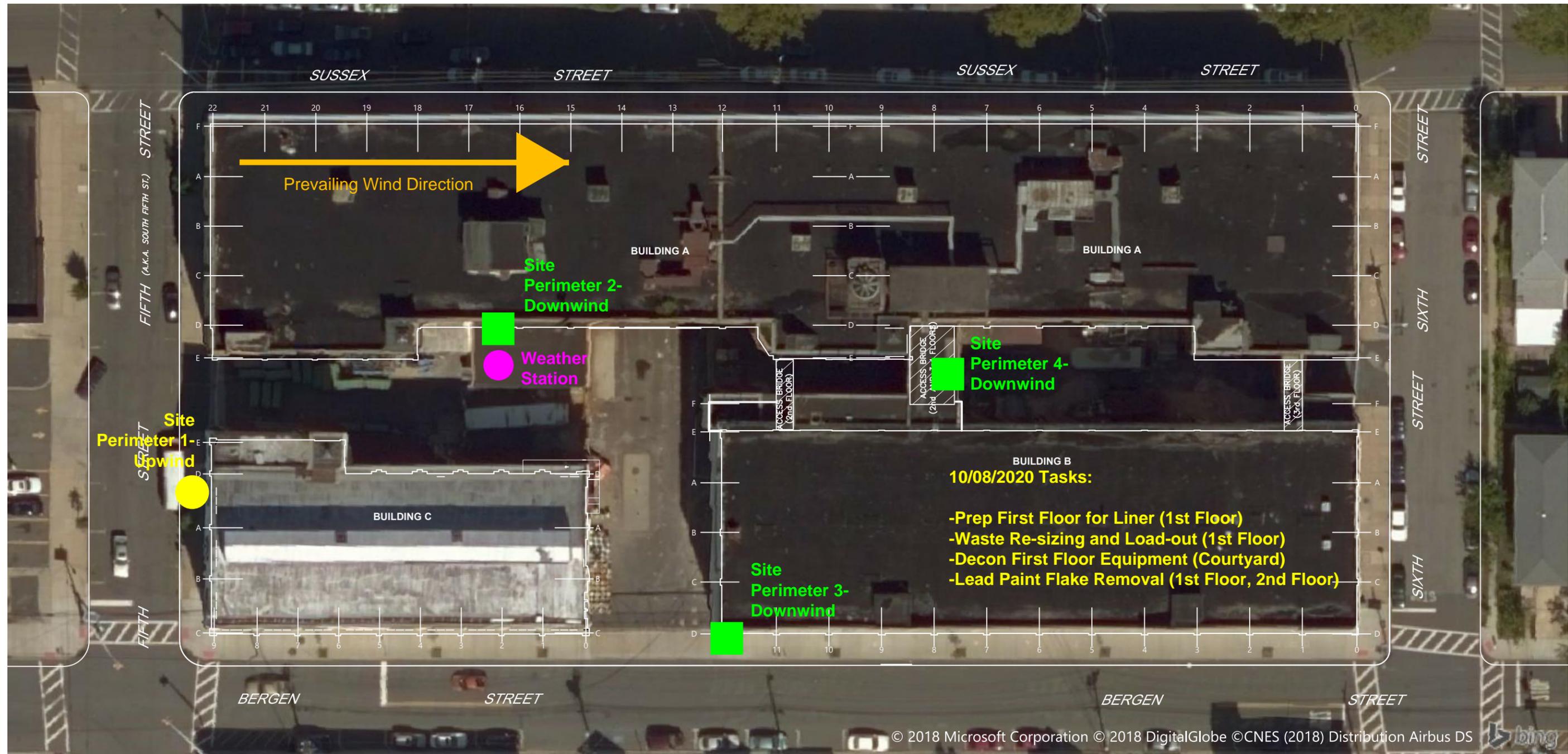
- Site Perimeter Air Monitoring Location
- Upwind Site Perimeter Monitoring Location



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**Figure SP-3**  
**10/07/2020**  
**Air Monitoring Station Locations**  
 Vo Toys Site Building C Removal Action  
 General Electric Company



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**HORIZONTAL DATUM:** New Jersey State Plane, North American Datum 1983, U.S. Feet (NJ83F).  
**VERTICAL DATUM:** (None).

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**Figure SP-4**  
**10/08/2020**  
**Air Monitoring Station Locations**  
 Vo Toys Site Building C Removal Action  
 General Electric Company