# SITE OBSERVATION REPORT

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| **PROJECT No.:** 170381202<br>**PROJECT:** 250 Water Street<br>**LOCATION:** New York, NY<br>**BCP SITE ID:** C231127 | **CLIENT:**<br>250 Seaport District, LLC<br>c/o The Howard Hughes Corporation | **DATE:** Wednesday, August 3, 2022<br>**WEATHER:** Sunny, 74.0 – 90.0 ˚F<br>Wind: N @ 0.0 – 8.5 mph<br>**TIME:** 5:45 AM – 6:45 PM<br>**MONITOR:** Elsah Boak, Maitland Robinson, Eddie Cai | |

**EQUIPMENT:**
MiniRAE 3000 PID
DustTrak II
Jerome J405®
Jerome J505®
Hand tools
CAT 374F
Komatsu 969
Komatsu 228
Takeuchi TB290

**PRESENT AT SITE:** **Day 57**
**Langan** (Environmental/Geotechnical) – Elsah Boak, Maitland Robinson, Eddie Cai, Kevin Leong
**LendLease** (Construction Manager) – Marty Cohen
**Civetta Cousins JV, LLC (CCJV)** (Foundation Contractor) – George Washburn
**New York State Department of Environmental Conservation (NYSDEC)** – Aaron Fisher
**AKRF Inc. (AKRF)** (Archaeologist) – Cherisa Imbriolo
**UBS** (Fence Contractor)

**OBSERVATIONS, DISCUSSIONS, TEST RESULTS, ETC.:**

Langan was present to document remediation activities in accordance with the NYSDEC-approved November 2021 Remedial Action Work Plan (RAWP) at the 250 Water Street site (NYSDEC Brownfield Cleanup Program [BCP] Site No. C231127).

**Site Activities**

- CCJV excavated a ~50-foot-long by ~35-foot-wide area to a maximum depth of about 12 feet below grade surface (bgs) for removal and off-site disposal of non-hazardous soil/fill in the central and eastern (Peck Slip) parts of site (waste characterization cells WC05, WC07, WC08). Excavated soil/fill was live-loaded into tri-axle dump trucks for off-site disposal at the Middlesex County Landfill in East Brunswick, NJ and the Clean Earth of North Jersey (CENJ) facility in Kearny, NJ. Trucks were covered with tight-fitting covers and inspected and washed before leaving the site.
    - Excavated soil/fill was screened for odors, staining, organic vapors, and mercury vapor using a handheld photoionization detector (PID) and handheld Jerome® J505 mercury vapor analyzer, respectively. No odors, staining, or instrumental evidence (PID or handheld Jerome® J505) of contamination was recorded.
- CCJV welded T-brackets along the edges of previously installed support-of-excavation (SOE) soldier piles in preparation for timber lagging installation along the eastern site boundary (Peck Slip).
- CCJV welded brackets and steel walers along the edges of previously installed SOE soldier piles in preparation for tie-back installation along the northern site boundary (Pearl Street).
- CCJV placed grout behind previously installed walers in preparation for tie-back installation along the northern boundary of the site (Pearl Street).
- CCJV used previously imported general fill to backfill the space between previously installed timber lagging and the Peck Slip sidewalk along the eastern site boundary. Import of general fill was approved by NYSDEC on July 14, 2022.

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- CCJV excavated nine test pits along the southern boundary of the site (Water Street) to identify potential subsurface utilities and/or obstructions prior to installation of SOE soldier piles. Each test pit was about 4-feet-long by 4-feet-wide and was excavated to a maximum depth of about 4 feet bgs.
    - Excavated soil/fill was temporarily placed on polyethylene sheeting adjacent to each respective test pit and was screened for odors, staining, organic vapors, and mercury vapor using a handheld PID and handheld Jerome® J505 mercury vapor analyzer, respectively. No odors, staining, or instrumental evidence (PID or Jerome® J505) of contamination was recorded. The excavated soil/fill was backfilled into each respective test pit of origin following installation of soldier piles.
- CCJV installed nine soldier piles (SP76 through SP84) for SOE system installation along the southern boundary of the site (Water Street).
- CCJV demolished previously stockpiled concrete using an excavator with a hydraulic hammer attachment in the southeastern part of the site (Water Street/Peck Slip) in preparation for off-site disposal.
- CCJV covered exposed soil/fill and construction and demolition (C&D) debris with polyethylene sheeting and/or Atmos® AC-645 dust/vapor suppressing foam to create a temporary overnight cover at the end of each work day.

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# SITE OBSERVATION REPORT

## Material Tracking

- CCJV exported 20 truckloads (about 400 cubic yards [CY]) of non-hazardous soil/fill from waste characterization cells WC05, WC07, and WC08 for off-site disposal at the Middlesex County Landfill, located in East Brunswick, NJ.
- CCJV exported 18 truckloads (about 360 CY) of non-hazardous soil/fill from waste characterization cells WC05, WC07, and WC08 for off-site disposal at the CENJ facility, located in Kearny, NJ.
- No material was imported to the site.

**Material Import Summary**

| Facility Name<br>Location<br>Type of Material | Stone Industries, Inc.<br>Haledon, NJ<br>1.5/2.5-inch Virgin Stone | | Stone Industries, Inc.<br>Haledon, NJ<br>0.75-inch Virgin Stone | | Impact Reuse & Recovery Center or<br>Impact Materials Jersey City, Lyndhurst/Jersey City, NJ<br>1.5 inch Clean Bluestone | | Impact Reuse & Recovery Center,<br>Lyndhurst, NJ<br>General Fill | |
|---|---|---|---|---|---|---|---|---|
| **Quantities** | No. of Loads | Approx. Volume (Tons) | No. of Loads | Approx. Volume (Tons) | No. of Loads | Approx. Volume (Tons) | No. of Loads | Approx. Volume (Tons) |
| Today | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Project Total | 7 | 161.51 | 0 | 0 | 2 | 90.02 | 8 | 197.04 |
| NYSDEC Approved: | 1,800 tons* | | | | 720 tons* | | 7,500 tons* | |

*0.75-inch, 1.5-inch, and 2.5-inch virgin stone from the Stone Industries, Inc. facility and 1.5-inch clean bluestone from the Impact Reuse & Recovery Center (IRRC) facility were approved for import of 1,000 cubic yards (CY) and 400 CY, respectively. Assuming a conversion factor of 1.8, each quantity was converted to tons in order to accurately compare with import weight tickets. General fill from the IRRC facility was approved for import of 5,000 CY and a conversion factor of 1.5 is applied.

**Material Export Summary**

| Facility Name<br>Location<br>Type of Material | Allocco Recycling<br>Brooklyn, NY<br>Construction & Demolition (C&D) Debris | | IRRC<br>Lyndhurst, NJ<br>Construction & Demolition (C&D) Debris | | Clean Earth of North Jersey<br>Kearny, NJ<br>Hazardous Lead-Impacted Soil/Fill | | Clean Earth of North Jersey<br>Kearny, NJ<br>Non-hazardous Soil/Fill | | Middlesex County Landfill<br>East Brunswick, NJ<br>Non-hazardous Soil/Fill | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Quantities** | No. of Loads | Approx. Volume (CY) | No. of Loads | Approx. Volume (CY) | No. of Loads | Approx. Volume (CY) | No. of Loads | Approx. Volume (CY) | No, of Loads | Approx. Volume (CY) |
| Today | 0 | 0 | 0 | 0 | 0 | 0 | 18 | 360 | 20 | 400 |
| Project Total | 5 | 85 | 18 | 400 | 14 | 280 | 135 | 2,700 | 153 | 3,060 |

*The volume of material exported is approximate and shown using an estimate of 20 cubic yards per truckload of soil/fill. The material is weighed upon arrival to the disposal facility and final tonnages will be included in the Final Engineering Report (FER).

## Sampling Activities

- No samples were collected from the site.

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# SITE OBSERVATION REPORT

**CAMP Activities**

Langan performed air monitoring at the perimeter of the site and at work zones at nine total locations for mercury vapor, volatile organic compounds (VOCs), and particulate matter less than 10 microns in diameter (PM10), during ground-intrusive activities. There were no fifteen-minute average concentrations for mercury vapor or VOCs that approached or exceeded the action level established by the CAMP (1.00 µg/m$^3$ and 5.0 ppm, respectively).

Background Concentrations

Prior to implementation of ground-intrusive work each day, instantaneous background concentrations of mercury vapor and VOCs were recorded using a handheld Jerome® J505 mercury vapor analyzer and a handheld PID, respectively.

- Background concentrations of mercury vapor at each CAMP station ranged from 0.00 to 0.03 µg/m$^3$.
- Background concentrations of VOCs at each CAMP station were recorded at 0.0 ppm.

Perimeter and Work Zone Concentrations

**Daily Average Concentrations**

| Station ID | Particulate (mg/m$^3$) | Organic Vapor (ppm) | Mercury Vapor (µg/m$^3$) |
|---|---|---|---|
| PM-1 | 0.026 | 0.0 | 0.01 |
| PM-2 | 0.041 | 0.0 | 0.01 |
| PM-3 | 0.034 | 0.0 | 0.00 |
| PM-4 | 0.031 | 0.1 | 0.02 |
| PM-5 | 0.036 | 0.5 | 0.01 |
| PM-6 | 0.025 | 0.0 | 0.01 |
| WZ-1 | 0.032 | 0.0 | 0.01 |
| WZ-2 | 0.013 | 0.0 | 0.01 |
| WZ-3 | 0.022 | 0.0 | 0.00 |

**Maximum 15-Minute-Average Concentrations**

| Station ID | Particulate (mg/m$^3$) | Organic Vapor (ppm) | Mercury Vapor (µg/m$^3$) |
|---|---|---|---|
| **Action Level** | **0.100 mg/m$^3$** | **5.0 ppm** | **1.00 µg/m$^3$** |
| PM-1 | 0.063 | 0.0 | 0.02 |
| PM-2 | ** 0.110 @ 4:21pm | 0.0 | 0.02 |
| PM-3 | 0.054 | 0.4 | 0.01 |
| PM-4 | * 0.188 @ 10:20am | 0.8 | 0.05 |
| PM-5 | 0.058 | 1.2 | 0.03 |
| PM-6 | 0.058 | 0.0 | 0.04 |
| WZ-1 | 0.060 | 0.0 | 0.02 |
| WZ-2 | 0.026 | 0.2 | 0.03 |
| WZ-3 | 0.035 | 0.0 | 0.02 |

mg/m$^3$ = milligrams per cubic meter ppm = parts per million µg/m$^3$ = micrograms per cubic meter

* PM10 concentrations at perimeter CAMP station PM-4 exceeded the action level established in the CAMP (0.100 mg/m$^3$) from 10:10am to 10:24am (15 minutes). The exceedance was caused by welding activities adjacent to perimeter CAMP station PM-4 along the eastern boundary of the site (Peck Slip) and

## SITE OBSERVATION REPORT

were not the result of ground-intrusive activities associated with soil/fill at the site. The CAMP station was not able to be moved due to limited space along the eastern site boundary. Fugitive dust was not observed migrating from the site during this time.

** PM10 concentrations at perimeter CAMP station PM-2 exceeded the action level established in the CAMP (0.100 mg/m$^3$) from 11:38am to 11:41am (4 minutes) and from 4:12pm to 4:23pm (12 minutes). The exceedances were caused by pinched tubing connected to the inlet of the DustTrak unit at perimeter CAMP station PM-2, which was located along the southern boundary of the site (Water Street). The exceedances were not the result of ground-intrusive activities associated with soil/fill at the site. Following adjustment of the tubing and recalibration of the DustTrak unit, PM10 concentrations returned to background conditions in both instances. Fugitive dust was not observed migrating from the site during these times.

Ambient Air (Handheld Jerome® J505 and Handheld PID)

- The dedicated mobile monitor (Langan) used a handheld Jerome® J505 mercury vapor analyzer to monitor ambient air conditions at various heights throughout the site. Instantaneous mercury vapor concentrations throughout the site ranged from 0.00 µg/m$^3$ to 0.13 µg/m$^3$.
- The dedicated mobile monitor (Langan) used a handheld PID to monitor VOC concentrations throughout the site. VOC concentrations were at or below background concentrations throughout the work day.

Off-Site CAMP Station Relocation

- CAMP station WZ-1 was relocated to the northern sidewalk of Pearl Street from 6:49am to 6:05pm due to exposed soil/fill within 20 feet of the northern fence line.
- CAMP station WZ-2 was relocated to the southern sidewalk of Water Street from 6:49am to 5:52pm during excavation of test pits along the southern boundary of the site.
- CAMP station WZ-3 was relocated to the eastern sidewalk of Peck Slip from 6:56am to 5:49pm during excavation activities in the eastern part of the site.

Prior to CAMP Shutdown

Prior to discontinuing CAMP, air quality at each CAMP station was verified using the handheld PID and handheld Jerome® J505 mercury vapor analyzer and no readings above background concentrations were recorded:

- Mercury vapor concentrations at each CAMP station ranged from 0.00 µg/m$^3$ to 0.04 µg/m$^3$.
- VOC concentrations at each CAMP station ranged from 0.0 ppm to 0.1 ppm.

Additionally, areas of exposed soil/fill were covered with polyethylene sheeting and/or Atmos® AC-645 dust/vapor suppressing foam. CAMP stations were discontinued between 5:27pm and 6:15pm at the conclusion of ground-intrusive activities.

**Anticipated Activities**

- CCJV will continue installation of SOE soldier piles along the eastern (Peck Slip) and southern (Water Steet) boundaries of the site.
- CCJV will continue excavation of test pits along the southern (Water Street) boundary of the site.
- CCJV will continue installation of T-brackets and timber lagging for the SOE system.
- CCJV will continue excavation and off-site disposal of soil/fill in the central part of the site.

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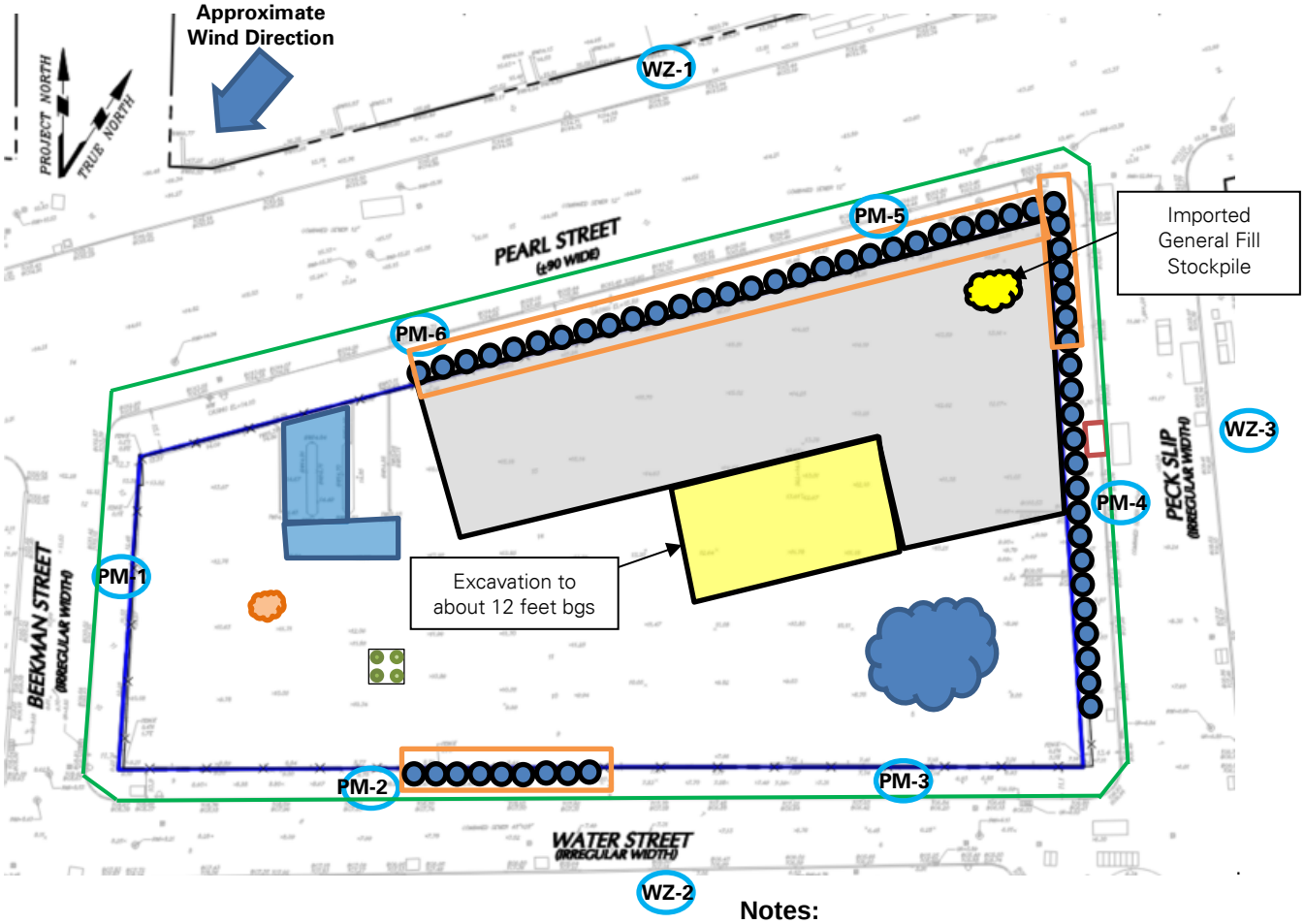
# SITE OBSERVATION REPORT

**Site Map**




**Notes:**
1) Locations of air monitoring stations are approximate.

**Legend:**

- PM-1 — Approximate Location of Air Monitoring Station
- Approximate Work Area
- Approximate Location of Installed Pile Cap
- Approximate Location of Foundation Piles Completed
- Approximate Location of Truck Tracking Pad
- Approximate Location of C&D Stockpile
- Approximate Location of Soil/Fill Stockpile
- Approximate location of UST
- Approximate Location of Imported Fill Stockpile
- Approximate Location of Soldier Pile
- Approximate Perimeter Construction Fence Location
- Previous Excavation Area
- Approximate Excavation Area

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**Select Site Photographs:**


**Photo 1:** View of a truck secured with a tight-fitting cover prior to exiting the site (facing northwest)

**Photo 2:** CCJV applying Atmos® AC-645 dust/vapor suppressing foam to exposed soil/fill in the eastern part of the site (facing west)

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