

Combined Sewer Overflow Facility Head End Site

Construction Update

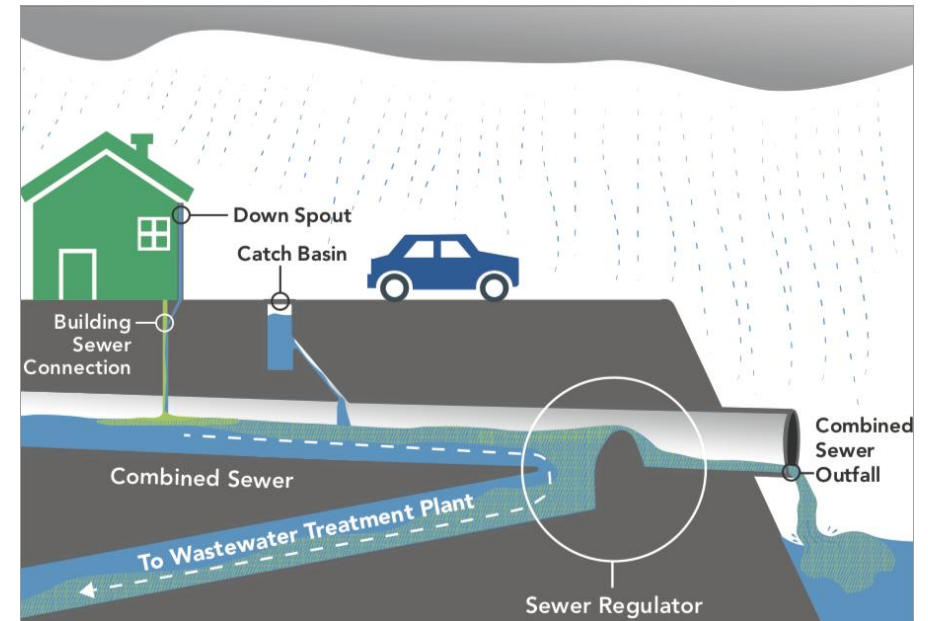
Deputy Commissioner Beth DeFalco
Ken Moriarty, P.E., Executive Director Wastewater
Kevin Clarke, P.E., Portfolio Manager
Alicia West, Chief of Staff, Public Affairs

December 10, 2024



Overview

- As a part of the U.S. EPA Superfund program, DEP is constructing giant underground tanks that will **capture and store up to 12 million gallons of combined sewage** that would otherwise overflow into the Gowanus Canal during a rainstorm.
- When the facility is completed, the canal will be cleaner and healthier, and the top of the tanks will provide **3.6-acres of public open space** for the community.



When the sewer system is overwhelmed during a rainstorm, it can result in overflows into local waterways or combined sewer overflows (CSOs)

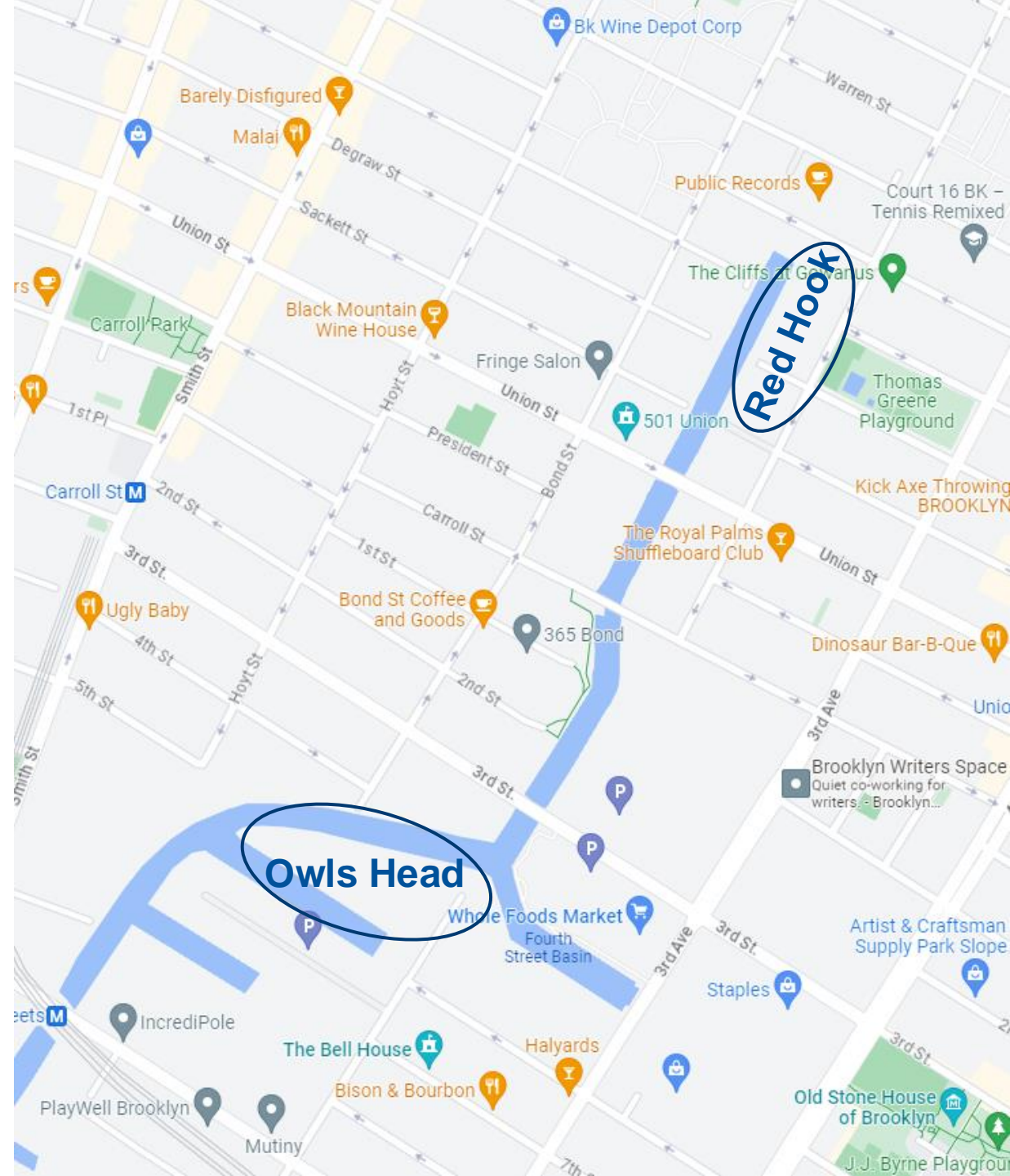
Gowanus Canal CSO Facilities

Red Hook (a.k.a. Head End) Site:

- 8-million-gallon underground tank
- DEP headhouse
- 1.6 acres of public open space

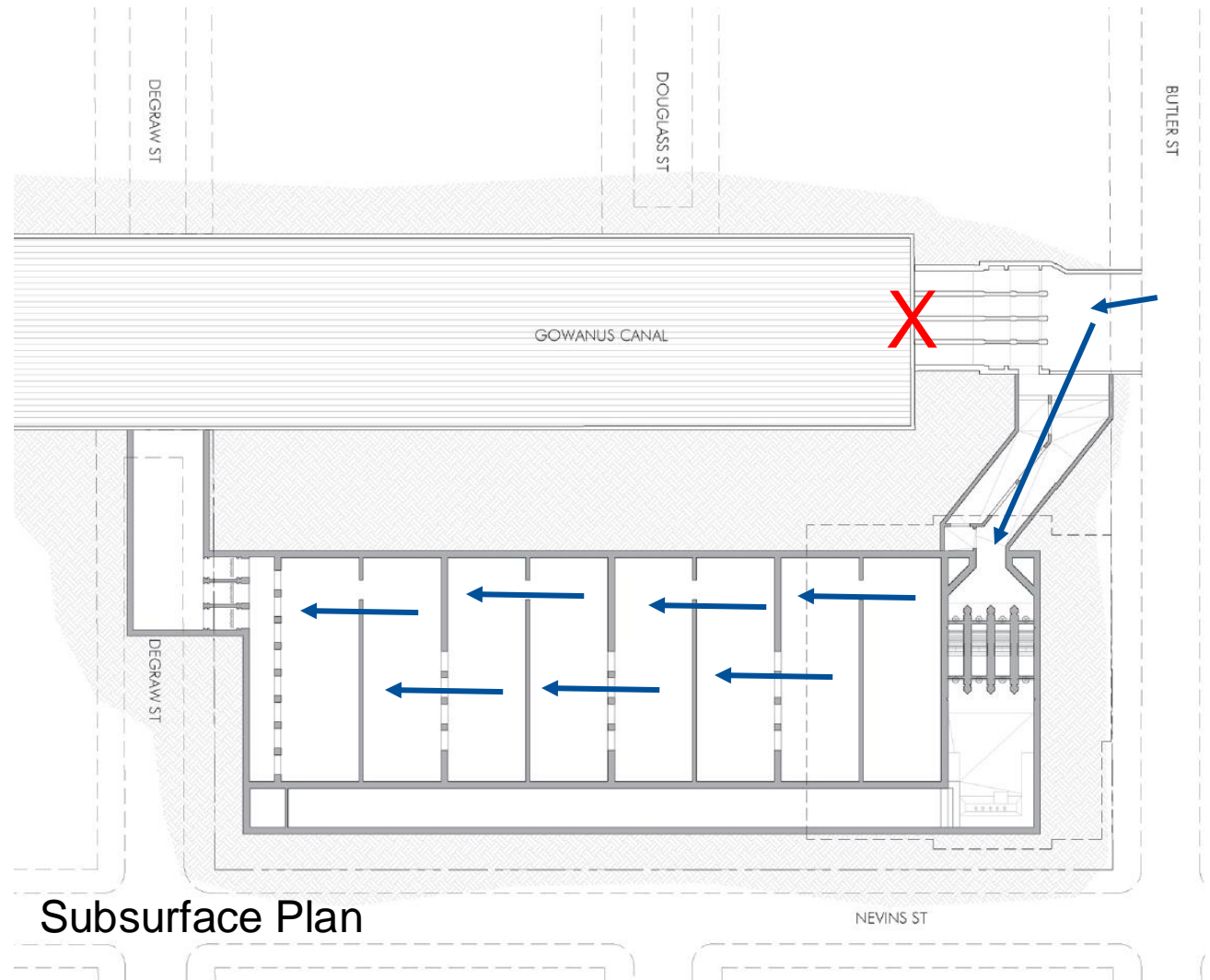
Owls Head Site:

- 4-million-gallon underground tank
- DEP headhouse
- DSNY & partners facilities
- 2 acres of public open space



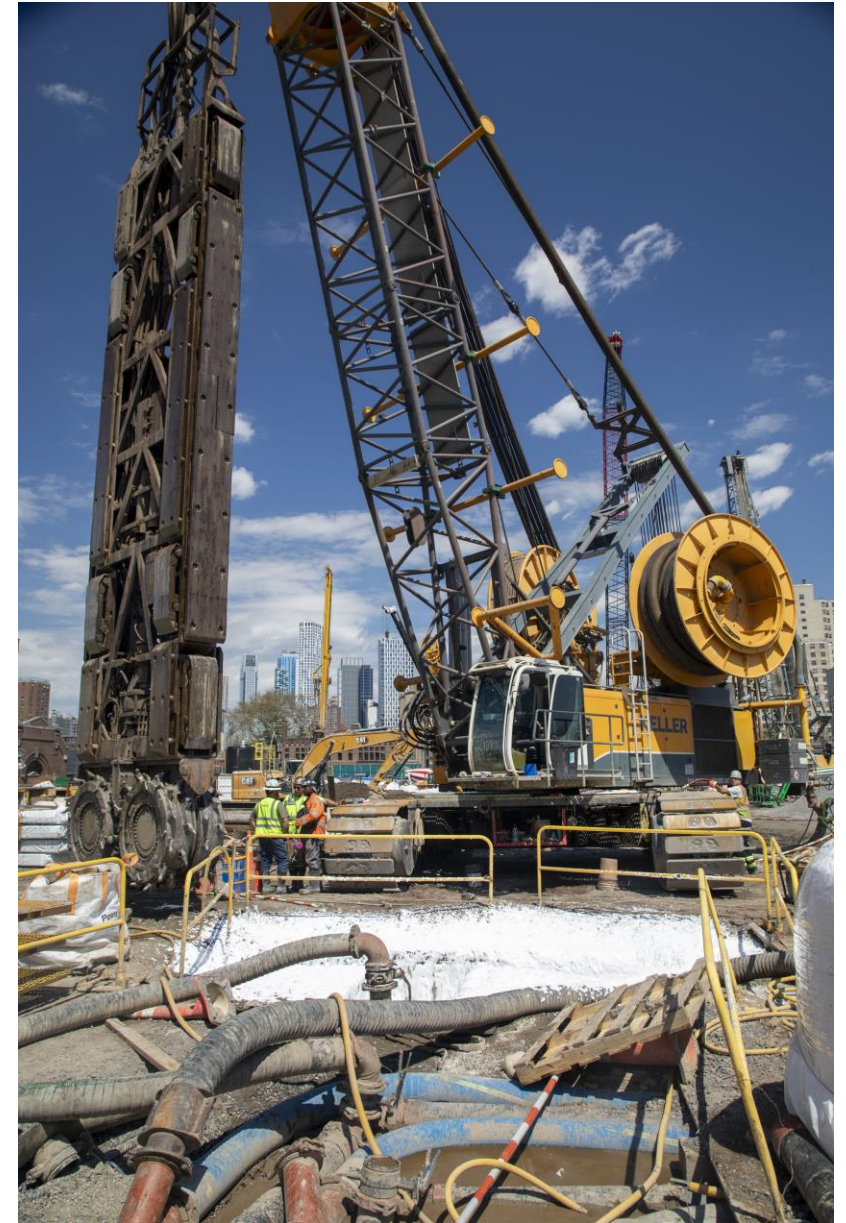
Red Hook Facility Operation

- Combined sewage and rainwater are rerouted into the giant underground tank (156 feet W x 425 feet L x 50 feet D).
- Combined sewage and rainwater are held in the tank until the storm passes then it is pumped back into the sewer system and sent to treatment.
- Tank holds up to 8 million gallons for any given storm.



Completed: Underground Perimeter Wall

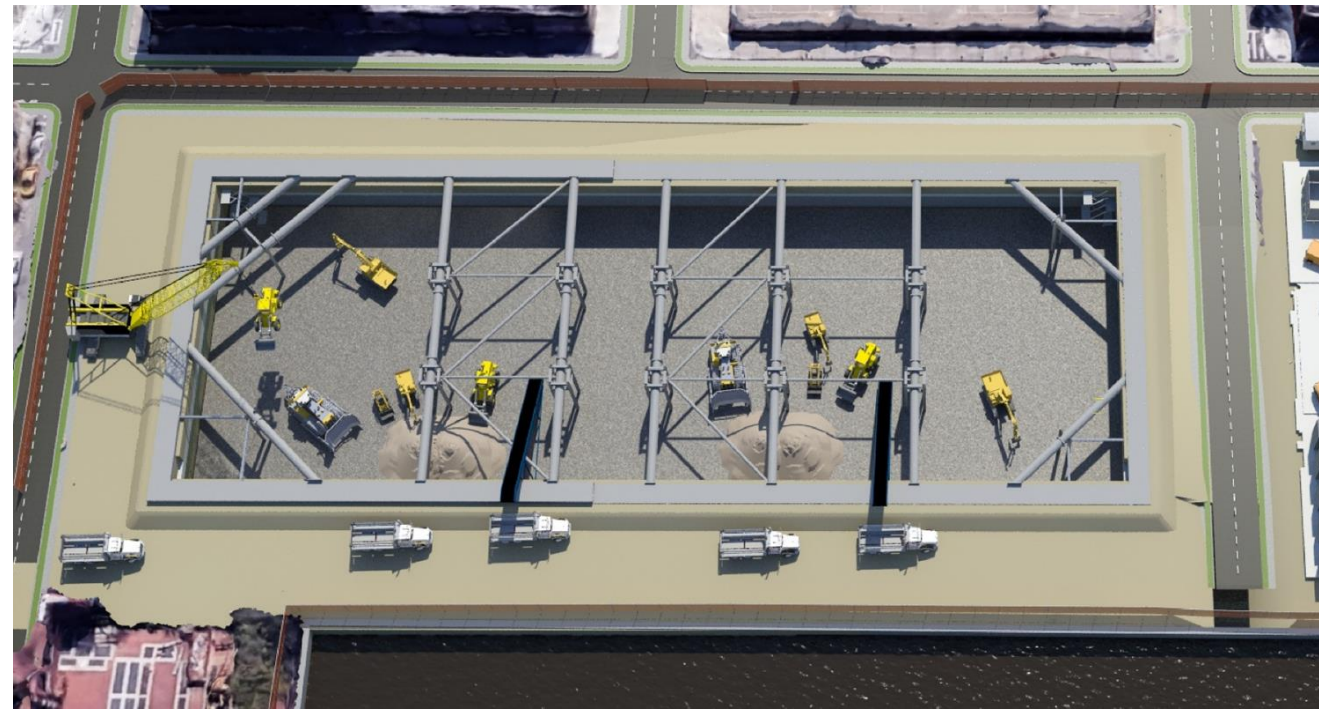
- From October 2023 to July 2024, DEP built the underground perimeter wall that will support the removal of soil necessary to build the tank.
- Like many areas in Gowanus, the tank site does have historic contamination from manufactured gas plants.
- This excavation was very deep – **200 feet down** – and encountered contaminated soil that sometimes resulted in odors.



Construction of underground
perimeter wall

Accelerated Plan for Next Phase of Work

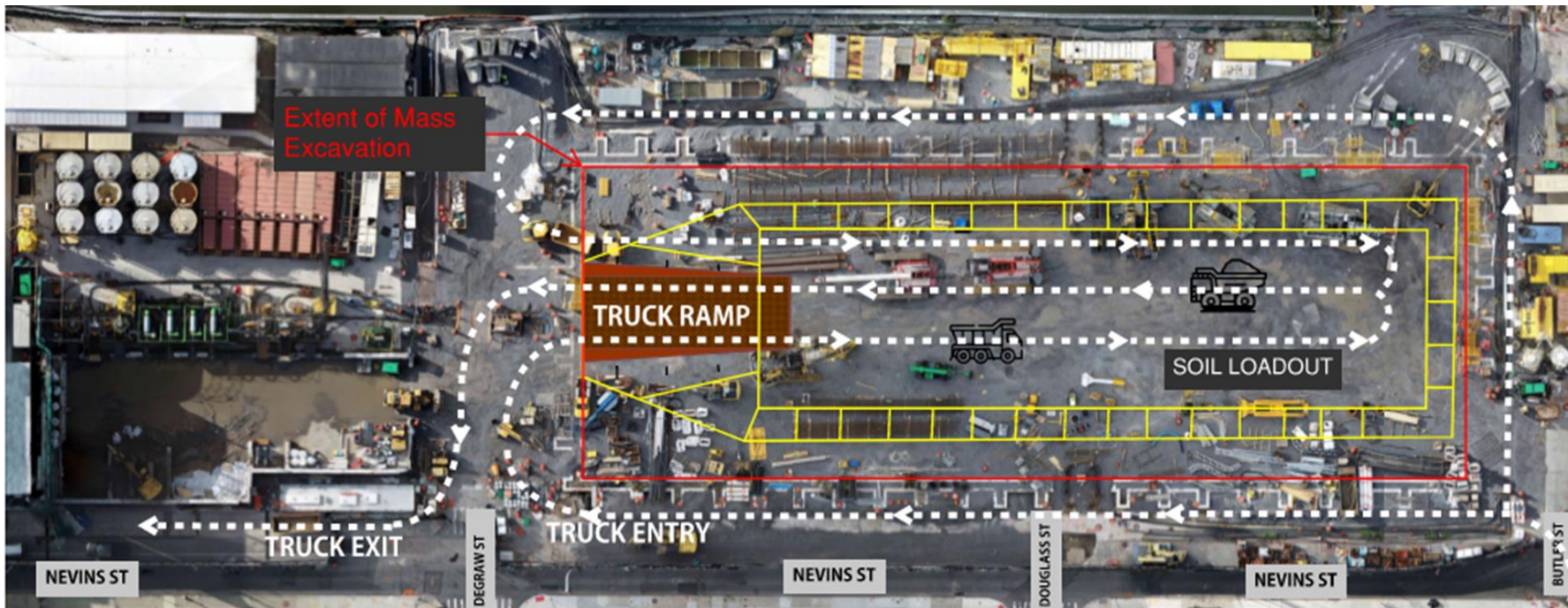
- DEP is expediting this phase of work to **reduce the timeline** from 10 months to **5 months to shorten community impacts.**
- Work will begin on the excavation within the perimeter wall.
- Excavation will be much **shallower** (40-60 feet) than for the perimeter wall.
- Based on extensive soil sampling, DEP expects to encounter **less contaminated soil.**
- Work during cooler fall/winter months means the potential for odors will be lower.



Schematic of tank excavation with bracing

Excavation & Trucking

- Excavating from the north side (Butler Street) to the south side (Degraw Street) of site
- Removing 1,500 tons of soil per day by truck
- Trucks will be covered before leaving the site
- Work hours on site are from 6 AM to 6 PM
- Weekend work typically limited to equipment maintenance and operation of dewatering/treatment system
- Advanced notice will be provided if evening/weekend work is required



Reducing Odors

- **ODOR BLOCK SHELL:** Spraying excavated soil with non-toxic mineral based membrane to contain any odors (instead of white foam)
- **TARPS:** Tarping overnight for morning soil loading
- **MISTERS:** A misting system, including an *unscented* water-based non-toxic odor neutralizing spray
- **VAPOR VACUUM:** Hood placed over work area during excavation of “hot spots” to capture and treat vapors
- **INSPECTIONS:** Frequent, routine odor inspections



Odor block shell



"OdorBoss" misting

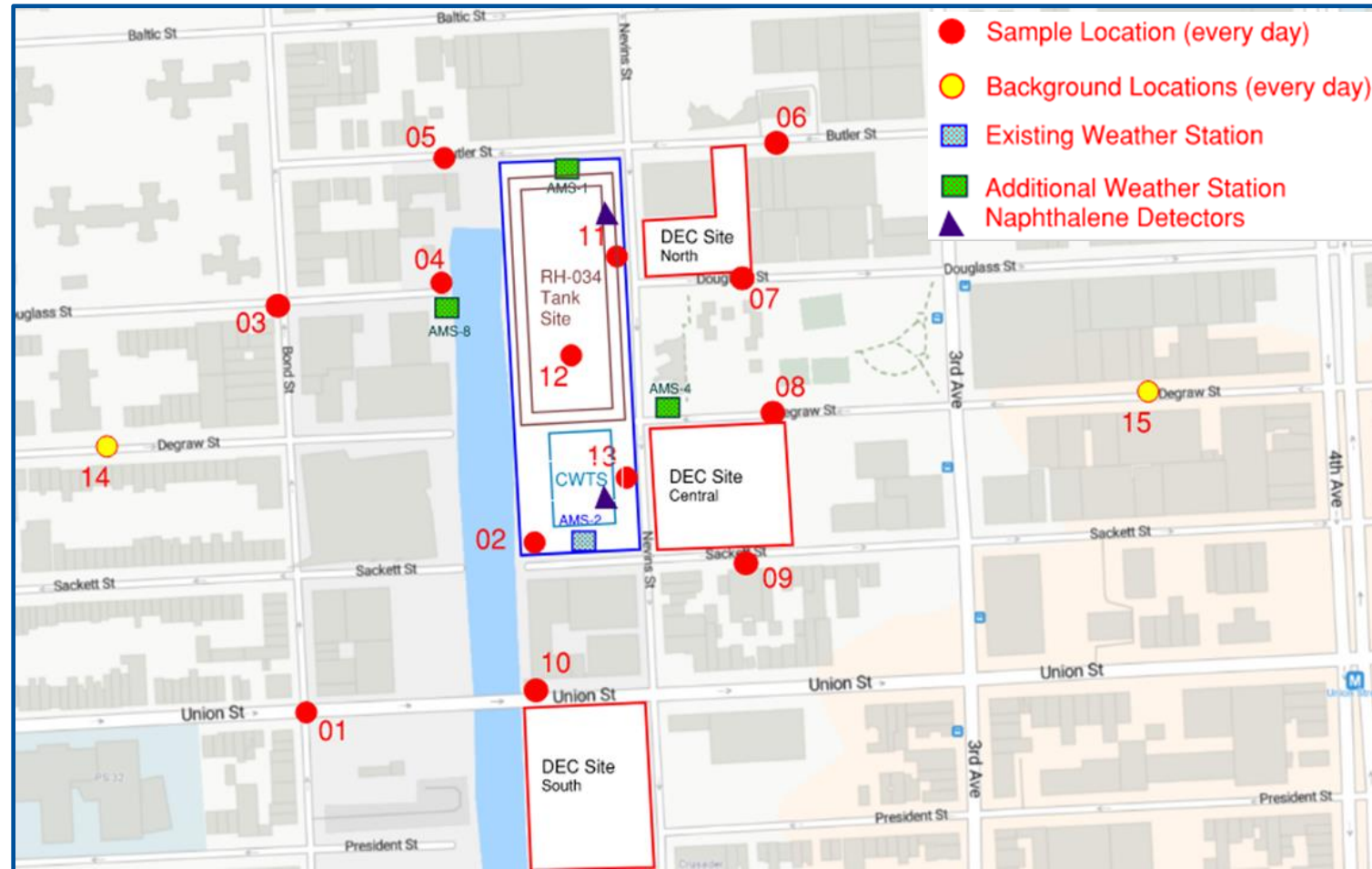
Community Air Monitoring

- The air monitors measures document and provide real time alerts.
- 8 air monitoring stations are located around the project footprint.
- Each station continuously monitors concentration of particulate matter (PM10) and Volatile Organic Compounds (VOC).
- As soon as alerts are received, we investigate and address the situation.



Air Monitoring & Sampling

- In addition to the community air monitoring program that has real-time alerts for air quality, DEP has conducted additional air sampling since February 2024.
- **EPA concluded naphthalene concentrations were below a health-based level of concern.**
- **24/7 air monitoring and air sampling programs are in place for the next phase of work.**



Air sampling locations

Odor Complaint Protocol

- Complaints may be submitted to 311 or the Construction Community Liaison **Valentina Mascaro** at GowanusCCL@johnson-asberry.com / 934-216-0209
- Odor complaints investigated as soon as possible and will include EPA oversight staff
 - If found to be site-related, work practices adjusted until odor dissipates
 - If found to be related to another site, state and local governing bodies notified
- Responses provided within 24 hours of completion of investigation
- At the end of each workday all exposed soils / stockpiles will be covered with spray-on membrane or tarped.

DEP Website & Resources

- DEP's website for the project is:
<https://www.nyc.gov/site/dep/water/gowanus-canal.page>
- This includes:
 - General information on the project
 - Air monitoring and air sampling data
 - Project updates and notifications
- DEP will add two-week lookaheads to provide notification of upcoming work and afterhours/weekend activities (if applicable)



Completed Project



Renderings of completed tank with headhouse and 1.6-acre public waterfront open space

