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DECISION DOCUMENT
NYC Voluntary Cleanup Program and E-Designation
Remedial Action Work Plan Approval

October 23, 2023

Re: 79 Quay Street: 69-83 Quay Street; 10-16 West Street
Brooklyn Block 2589, Lots 1
Hazardous Materials, Air Quality E Designation
E-622: 79 Quay Street Rezoning – CEQR 21DCP010K – 12/15/2021
OER Project Number 23EH-A035K / 23CVCP033K

The New York City Office of Environmental Remediation (OER) has completed its review of the Remedial Action Work Plan dated August 2023 with Stipulation Letter dated October 10, 2023 and the Remedial Action Plan for Air Quality dated September 2023 for the above-referenced project.

These Plans were submitted to OER under the NYC Voluntary Cleanup Program and E-Designation Program.

The RAWP was released for public comment for 30 days as required by program rule. That comment period ended on 10/05/2023. There were no public comments. NYSDEC and NYC DOHMH were briefed on the project on 11/18/2022. NYSDEC was briefed on results of the supplemental investigation on 01/06/2023.

Project Description
The proposed future use of the Site will consist of a new 11-story mixed-use building occupying the entire lot, approximately 16,500-square feet, with a partial cellar. The cellar will be utilized as commercial space, supers' workshop, and bike parking. The first floor will consist of a 54-space parking garage, a residential lobby totaling approximately 1,369-square feet, two staircases, a compactor room totaling approximately 285-square feet, storage, a mechanical space totaling approximately 780-square feet, and a residential lobby for the parking garage totaling approximately 162-square feet. A mezzanine level is located between the first and second floor containing a recreational room, parking, and commercial space. The second-floor roof over the mezzanine level will be used for common outdoor terrace. The second through ninth floors contain 14 residential units. The tenth and eleventh floors contain 9 residential units.
The partial cellar will require approximately 6 feet of excavation (bottom of cellar excavation elevation is 2.98 NAVD88) and the foundation elements (i.e.: pile caps) within the partial cellar footprint will require an additional 4 feet of excavation (bottom of pile cap elevation is -0.98 NAVD88). The general excavation for the slab on grade portions of the Site (approximately 5,500-square feet) is anticipated to be excavated approximately 2-feet bgs (bottom of el. 6.98 NAVD88). The excavation for pile caps outside the cellar footprint will also require an additional 3 feet of excavation (el. 3.98 NAVD88), bringing total depth below grade surface to approximately 5 feet. The excavation for elevator pit in the cellar and shear-wall mat slab require approximately 10 feet of excavation (el -0.98 NAVD88) and the excavation for elevator pit at grade level and mat slab require approximately 6 feet of excavation (el. 2.98 NAVD88). Excavation of two hot spots to remove elevated levels of copper will occur in the north central portion of the Site to at least 8 feet. As excavation is anticipated to occur within the groundwater table, localized dewatering will be performed during construction activities. The Site is anticipated to generate approximately 4,500 tons of material for off-site disposal.

Statement of Purpose and Basis
This document presents the remedial action for the NYC Voluntary Cleanup Program and E-Designation Program project known as "79 Quay Street" pursuant to Title 43 of the Rules of the City of New York Chapter 14,

Subchapter 1 and the Zoning Resolution and §43 - 1474 of the Rules of the City of New York.

Description of Selected Remedy for Hazardous Materials

The remedial action selected for the 79 Quay Street site is protective of public health and the environment. The elements of the selected remedy are as follows:

The proposed remedial action will consist of:

1. Preparation of a Community Protection Statement and performance of all required NYC VCP Citizen Participation activities according to an approved Citizen Participation Plan.
2. Performance of a Community Air Monitoring Program for particulates and volatile organic carbon compounds.
3. Establishment of Track 4 Site-specific Soil Cleanup Objectives (SCOs).
4. Site mobilization involving Site security setup, equipment mobilization, utility mark outs and marking & staking excavation areas.
5. Perform additional site characterization consisting of sampling of soil and groundwater within the former Rock-Climbing Gym space, located in the eastern quarter of the property, prior to construction. The additional investigation will include installation and sampling of three soil borings and two groundwater monitoring wells. The investigation will be completed in accordance with the November 2022 RIWP.
6. Completion of a Waste Characterization Study prior to excavation activities. Waste characterization soil samples will be collected at a frequency dictated by disposal facility(s).
7. Excavation and removal of soil/fill exceeding Track 4 Site Specific SCOs, including excavating the entirety of the Site to developmental depths ranging from 2 to 10 feet for foundation elements. Excavation will also include removal of two copper hotspots in the northern portion of the Site. Copper was detected above its respective Track 4 Site-Specific SCO of 450 parts per million (ppm) between 6-8' bgs (el. 3 to el. 1 NAVD88) at the boring location SB-2 and above its respective Track 2 Restricted Residential SCO of 270 ppm between 6-8' bgs (el. 3 to el. 1 NAVD88) at SB-6. Hotspot excavation will extend into the water table (el. 0 NAVD88). The general excavation for the slab on grade portions of the Site (approximately 5,500-square feet) is anticipated to be excavated approximately 2-feet bgs (bottom of el. 7.02 NAVD88). The excavation for pile caps outside the cellar footprint will also require an additional 3 feet of excavation (el. 4.02 NAVD88), bringing total depth below grade surface to 5 feet. The excavation for elevator pit in the cellar and shear-wall mat slab require approximately 10 feet of excavation (el -0.98 NAVD88) and the excavation for elevator pit at grade level and mat slab require approximately 6 feet of excavation (el. 3.02 NAVD88).
8. Screening of excavated soil/fill during intrusive work for indications of contamination by visual means, odor, and monitoring with a PID. Appropriate segregation of excavated media on-Site.
9. Management of excavated materials including temporarily stockpiling and segregating in accordance with defined material types and to prevent co-mingling of contaminated material and non-contaminated materials.
10. Removal of all UST's that are encountered during soil/fill removal actions. Registration of tanks and reporting of any petroleum spills associated with UST's and appropriate closure of these petroleum spills in compliance with applicable local, State and Federal laws and regulations.
11. Transportation and off-Site disposal of all soil/fill material at licensed or permitted facilities in accordance with applicable laws and regulations for handling, transport, and disposal, and this plan. Sampling and analysis of excavated media as required by disposal facilities. Appropriate segregation of excavated media on-Site.
12. Collection and analysis of end-point samples to determine the performance of the remedy with respect to attainment of SCOs.
13. Import of materials to be used for backfilling and cover in compliance with this plan and in accordance with applicable laws and regulations.
14. Construction of an engineered composite cover consisting of a 12 inch thick concrete building slab with at least 6 inches of gravel below the slab.
15. Installation of a vapor barrier system consisting of vapor barrier beneath the building slab and outside of sub-grade foundation sidewalls to mitigate soil vapor migration into the building. The vapor barrier will consist of GCP Applied Technologies (GCP) Preprufe® 300R 46-mil waterproofing/vapor

retardant system, or equivalent, for horizontal and vertical portions below the slab and GCP Preprufe® 160R 32-mil waterproofing/vapor retardant system along the sidewalls of the foundation walls. All welds, seams and penetrations will be properly sealed to prevent preferential pathways for vapor migration. The vapor barrier system is an Engineering Control for the remedial action. The remedial engineer will certify in the Remedial Action Report (RAR) that the vapor barrier system was designed and properly installed to mitigate soil vapor migration into the building.

16. Installation of an active sub-slab depressurization system (SSDS) consisting of a network of horizontal pipe set in the middle of a gas permeable layer immediately beneath the building slab of the commercial areas and vapor barrier system. No SSDS system will be installed below the ventilated parking garage and the partial basement slab, which will be completed below groundwater elevation. The SSDS will consist of two loops. The horizontal piping for each loop will consist of fabric-wrapped, perforated, schedule 40, 4-inch PVC pipe connected to a cast iron or galvanized steel riser pipe that penetrates the slab and travels along the first floor walls and ceiling to the 2nd floor roof. The gas permeable layer will consist of a 12-inch-thick layer of ¾"inch or ASTM #5 gravel. The riser will be installed at least 10 feet above the roof line and capped with a 6-inch goose neck pipe to prevent rain infiltration. An enclosure will be built around the riser stacks to prevent occupants utilizing the roof top recreational space from accessing the area around the exhaust. The active SSDS will be hardwired and will include a fan installed above and a pressure gauge and alarm located in an accessible area in the basement. The active SSDS is an Engineering Control for the remedial action. The remedial engineer will certify in the RAR that the active SSDS was designed and properly installed to establish a vacuum in the gas permeable layer and a negative (decreasing outward) pressure gradient across the building slab to prevent vapor migration into the building. The SSDS system is being filled with DOB for approval. The system will be inspected, and its performance certified at specified intervals as required by this RAWP and the Site Management Plan. Maintenance of this SSDS will be described in the Site Management Plan in the Remedial Action Report.
17. Construction and operation of a grade-level parking garage with high volume air exchange in conformance with 2022 NYC Building Code.
18. Performance of all activities required for the remedial action, including acquisition of required permits and attainment of dewatering pretreatment requirements, in compliance with applicable laws and regulations.
19. Dewatering in compliance with city, state, and federal laws and regulations. Extracted groundwater will either be containerized for off-site licensed or permitted disposal or will be treated under a permit from New York City Department of Environmental Protection (NYCDEP) to meet pretreatment requirements prior to discharge to the sewer system.
20. Implementation of storm-water pollution prevention measures in compliance with applicable laws and regulations.
21. Submission of a RAR that describes the remedial activities, certifies that the remedial requirements have been achieved, defines the Site boundaries, lists any changes from this RAWP, and describes all Engineering and Institutional Controls to be implemented at the Site.
22. Submission of an approved Site Management Plan (SMP) in the RAR for long-term management of residual contamination, including plans for operation, maintenance, monitoring, inspection and certification of Engineering and Institutional Controls and reporting at a specified frequency.
23. Recording of a Declaration of Covenants and Restrictions that includes a listing of Engineering Controls and Institutional Controls and a requirement that management of these controls must be in compliance with an approved SMP. Institutional Controls will include prohibition of the following: (1) vegetable gardening and farming; (2) use of groundwater without treatment rendering it safe for the intended use; (3) disturbance of residual contaminated material unless it is conducted in accordance with the SMP; and (4) higher level of land usage without OER-approval.
24. The property will continue to be registered with an E-Designation at the NYC Buildings Department. Establishment of Engineering Controls and Institutional Controls in this RAWP and a requirement that management of these controls must be in compliance with an approved SMP.

Description of Selected Remedy for Air Quality

The elements of the remedial action selected for Air Quality for the 79 Quay Street site are as follows:

In order to satisfy the requirements of the E-designation, natural gas will be utilized at the site for the hot water heaters, which will be locate in the mechanical room on the roof. Remaining systems, including space heating, and HVAC systems will be powered electrically. The specific models of hot water heaters and HVAC systems that will be utilized for each space are described below.

A copy of the stamped gas riser diagram is provided in Appendix E of the Air Quality RAP. A copy of the stamped Mechanical Equipment Schedule and Specifications are provided in Appendix F of the Air Quality RAP.

Commercial Space:

Cellar:
Commercial Spaces #1106 and #315
(4) Air Handlers: MFR MITSUBISHI MODEL PLFY-P36NEMU
(1) Condensing Unit: MFR MITSUBISHI PUHY-P72NTU-A

First Floor:
Commercial Spaces #1105 and #1106
(3) Air Handlers as follows:

- (1) MFR MITSUBISHI MODEL PLFY-P48NEMU
- (2) MFR MITSUBISHI MODEL MSZ-GL18NA-U1 Wall Mounted

(1) Condensing Unit: MFR MITSUBISHI PUHY-P96TNU-A

Commercial Space #1107
(2) Air Handlers: MFR MITSUBISHI MODEL PLFY-P36NEMU
(1) Condensing Unit: MFR MITSUBISHI PUHY-P72TNU-A

Residential Space:
Parking Attendant Booth:
(1) Air Handler: MFR MITSUBISHI MODEL PLFY-P5NFMU-E

Residential Lobby
(3) MFR MITSUBISHI MODEL PKFY-P18NLMU-E
(1) MFR MITSUBISHI MODEL PKFY-P5NFMU-E

Residential Recreation Space/Mezzanine
(4) MFR MITSUBISHI MODEL PKFY-P18NLMU-E
(3) MFR MITSUBISHI MODEL PKFY-P12NLMU-E
Condensing Unit
MFR MITSUBISHI MODEL PURY-P192TSLMU-A

Residential Units:
Studio Apartments shall be equipped with the following:
1.5 Ton Air Handler: MFR: MFR MITSUBISHI MODEL MSZ-GL18NA-U1
2.0 Tons Condensing Unit MFR MITSUBISHI MODEL MXZ- 3C24NA2-U1

1 Bedroom Apartments shall be equipped with the following:
Living Room Air Handler Unit MITSUBISHI MODEL MSZ-GL15NA-U1
Bedroom Air Handler Unit MITSUBISHI MODEL MSZ-GL06NA-U1
2.0 Tons Condensing Unit MFR MITSUBISHI MODEL MXZ- 3C24NA2-U1

2 Bedroom Apartments shall be equipped with the following:
Living Room Air Handler Unit MITSUBISHI MODEL MSZ-GL15NA-U1
Each bedroom (total 2) Air Handlers MFR: MITSUBISHI MODEL MSZ-GL06NA-U1
2.5 Condensing Unit MFR MITSUBISHI MODEL MXZ- 3C304NA2-U1

3 Bedroom Apartments: shall be equipped with the following:
Living Room Air Handler Unit MITSUBISHI MODEL MSZ-GL15NA-U1
Each bedroom (total 2) Air Handlers MFR: MITSUBISHI MODEL MSZ-GL06NA-U1
One bedroom (total 1) Air Handlers MFR: MITSUBISHI MODEL MSZ-GL06NA-U1

General Ventilation:
Cellar & First Floor Commercial Spaces:
OA Fans selected for Commercial Spaces: MFR GREENHECK-MODEL CSP390-VG

1st Floor & Mezzanine Spaces:
OA Fans selected for Residential Areas: MFR GREENHECK-MODEL SQ120HP-VG

In corridors and elevator lobby, ventilation will be provided by Make -Up Air Unit on Roof: MFR DAIKIN-MODEL-DPS005A

Laundry Room, Elevator Machine Room & Parking lot:
Laundry Room and Elevator Machine Room:
MFR GREENHECK-MODEL LFSYSTEMSAS25
MFR GREENHECK-MODEL BSQ240 HP-50
MITSUBISHI MODEL PKA-A24KA7 AIR HANDLER
MITSUBISHI MODEL PUY-A24NHA7 CONDENSING UNITS

Heating Systems:
Electric Baseboard heaters are used in zones with exterior exposure requiring heating to avoid exposing equipment to fail or pipes to freeze because low temperatures during winter season. Instances are utilities rooms, stairs, corridor entrances, and refuse rooms.
MFR QMARK-MODEL#CSH-07A Baseboard Heating 1.2 KW
MFR QMARK-MODEL#MUH0581 Electric Duct Heaters 5.0 KW
MFR QMARK-MODEL#AWH4404 Cabinet Unit Heaters 3.0 KW

Domestic Water Heating:
The building will host six instantaneous gas fired condensing hot water heaters, by Navien, model 240-A, each rated for 199 CFH. Those heaters will feed the two 450-gallon storage tanks by A.O. SMITH TJV-450A which will store and provide hot water for the entire building.

Appendix G of the Air Quality RAP provides the mechanical systems description by the Mechanical Engineer.

Stack Location
In order to satisfy the requirements of the E-Designation, one stack will be located over the bulkhead for the water heaters, which will be at least 125' above grade. A copy of the plan showing stack locations is provided in Appendix E of the Air RAP.

The remedies for Hazardous Materials and Air Quality E Designation described above conforms to the promulgated standards and criteria that are directly applicable, or that are relevant and appropriate and takes into consideration OER guidance, as appropriate.

10/23/2023 Miranda Fatolitis

Date

Miranda Fatolitis
Project Manager

10/23/2023

Date

Zach Schreiber, Ph.D.
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