



**OFFICE OF ENVIRONMENTAL REMEDIATION**

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**DECISION DOCUMENT**  
**E-Designation Remedial Action Plan Approval**

October 7, 2021

Re: 636 86<sup>th</sup> Street: 634-640 86th Street, 2-12 Battery Avenue  
Brooklyn Block 6055, Lot 21  
Hazardous Materials, Air Quality, and Noise “E” Designation  
E-180: Dyker Heights/ Fort Hamilton Rezoning - CEQR 07DCP054K - 7/25/2007  
OER Project Number 21EHAN097K

The New York City Office of Environmental Remediation (OER) has completed its review of the Remedial Action Plan (RAP) dated 10/04/21 and the Remedial Action Plan for Air Quality and Noise dated 10/06/21 for the above-referenced project.

These Plans were submitted to OER under the E-Designation Program.

**Project Description**

The proposed future use of the Site will consist of a new six-story hotel with a cellar level to be utilized for parking, mechanical rooms, laundry facilities, detention tank vault, supporting building facilities, an employee lounge, and a fitness center. The cellar will envelope the entire Site parcel up to the lot boundaries (approximately 8,972 square feet) and the cellar will extend approximately 11 feet below grade surface (bgs). The first-floor use will consist of the hotel lobby, hotel amenities, guestrooms, a small rear yard, a delivery loading dock, and the parking garage entrance ramp. The remaining upper floors will have approximately 78 guest rooms. The building footprint on the first-floor level will be approximately 5,400 square feet, and will be set back approximately 10-feet from 86th Street, and 15-feet from Battery Avenue, and will have an approximately 1,080 square-foot rear yard. The rear yard will be improved with a paved trash storage area, and a paved storage area for bicycles. Excavation is proposed to approximately 13 feet bgs across the entire site, for construction of the cellar slab, subbase, and building footings.

**Statement of Purpose and Basis**

This document presents the remedial action for the E-Designation Program project known as “636 86th Street” pursuant to the Zoning Resolution and §24 - 07 of the Rules of the City of New York.

**Description of Selected Remedy for Hazardous Materials**

The remedial action selected for the 636 86th Street site is protective of public health and the environment. The elements of the selected remedy are as follows:

1. Performance of a Community Air Monitoring Program for particulates and volatile organic carbon compounds.
2. Selection of NYSDEC Part 375 Restricted Residential Use Soil Cleanup Objectives (SCOs).
3. Site mobilization involving Site security setup, equipment mobilization, utility mark outs and marking & staking excavation areas.
4. Excavation and removal of soil/fill exceeding Restricted Residential Use SCOs. The entire footprint of the cellar area (100% of the property) will be excavated to a depth of approximately 13 feet below grade for development purposes. Approximately 7,200 tons of soil/fill will be removed from the Site and properly disposed at an appropriately licensed or permitted facility.
5. 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.

6. Management of excavated materials including temporary stockpiling and segregating in accordance with defined material types and to prevent co-mingling of contaminated material and non-contaminated materials.
7. 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.
8. 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.
9. Collection and analysis of post-excavation confirmation soil samples to determine the performance of the remedy with respect to attainment of SCOs.
10. Import of materials to be used for backfill and cover in compliance with this plan and in accordance with applicable laws and regulations.
11. Performance of all activities required for the remedial action, including acquisition of required permits and attainment of pretreatment requirements, in compliance with applicable laws and regulations.
12. Implementation of storm-water pollution prevention measures in compliance with applicable laws and regulations.
13. As part of development, construction of an engineered composite cover consisting of the 24-inch thick concrete cellar slab underlain by a 2-inch lean slab, and 4-inches of sub-base (such as  $\frac{3}{4}$ " quarry stone) material, beneath the entire Site. It should be noted that in the elevator pit, the concrete cellar slab will be a minimum of 24-inches thick and will be underlain by 3-inches of lean slab, and 6-inches of sub-base crushed stone material.
14. As part of development, installation of a vapor barrier system consisting of vapor barrier beneath the full building slab and outside of all sub-grade foundation sidewalls to grade to mitigate soil vapor migration into the building. The vapor barrier system will consist of a 60-mil Bituthene® 4000 Membrane manufactured by GCP Applied Technologies, or an equivalent system. All welds, seams and penetrations will be properly sealed to prevent preferential pathways for vapor migration. The remedial engineer will certify in the RCR that the vapor barrier system was designed and properly installed to mitigate soil vapor migration into the building.
15. As part of development, installation of a passive sub-slab depressurization system (SSDS) consisting of a network of horizontal pipe, in the form of two "loops" set in the middle of a gas permeable layer immediately beneath the building slab and vapor barrier system. The horizontal piping will consist of perforated schedule 40 2-inch PVC pipe connected to a 4-inch cast iron riser pipe that penetrates the slab and travels through the building to the roof. The gas permeable layer will consist of a 4-inch to 6-inch thick layer of  $\frac{3}{4}$ " clean gravel beneath the entire cellar slab, with the SSDS piping being laid in a 12" wide and 12" deep trench, also filled with  $\frac{3}{4}$ " clean gravel. The riser pipe will be finished with a wind turbine and an aluminum rain cap and will terminate a minimum of 3-feet above the roofline. The remedial engineer will certify in the RCR that the passive 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.
16. As part of new development, construction and operation of a ventilated cellar level parking garage with high volume air exchange in conformance with NYC Building Code.
17. Submission of a Remedial Closure Report (RCR) that describes the remedial activities, certifies that the remedial requirements have been achieved, defines the Site boundaries, and lists any changes from this RAP.

#### **Description of Selected Remedy for Air Quality**

The elements of the remedial action selected for Air Quality for the 636 86th Street site are as follows:

In order to satisfy the requirements of the E-designation, natural gas and electric equipment will be utilized at the site for space heating, hot water, and/or HVAC systems. Remaining systems, including space heating, hot water, and HVAC systems, will be powered electrically. A diesel fuel (No. 2) generator will be utilized for emergencies and will not operate during normal conditions.

#### **Description of Selected Remedy for Noise**

The elements of the remedial action selected for Noise for the 636 86th Street site are as follows:

In order to meet the requirements of the E Designation, the following window/wall attenuation requirement will be achieved at the locations described below:

1. 35 dBA for all facades.

The following window will be installed:

Façade Floor Range	OITC Rating (dBA)	OITC Certification	Manufacturer and Model	Glazing
All Façades Floors 1 Hotel Lobby storefront, Hotel Guestrooms (Commercial)	36 (required 35)	See ASTM E-90 acoustical report Data File #J8863.01C	Intus Windows - Supera Fixed CW/AW, fixed window	5/16" laminated SR, 13/16" argon 1/2" laminated SR
All Façades Floors 2-6 Hotel Guestrooms (Commercial)	36 (required 35)	See ASTM E-90 acoustical report Data File #J8863.01B	Intus Windows - Supera Casement CW, casement window	5/16" laminated SR, 13/16" argon 1/2" laminated SR

In order to satisfy the requirements of the E-Designation, Alternate Means of Ventilation (AMV) will be installed in order to maintain a closed window condition. AMV for this project will be achieved by:

1. **Central System:** Installing Air-cooled VRF air conditioning model split systems with eight (8) PURY-P96TLMU-A condenser units manufactured by Mitsubishi on the roof and air handling units in each guest room entry serving guest rooms on floors 1 to 6. Fresh air intakes are located on the main roof and elevator bulkhead roof and air handling units and associated ducting will provide fresh air to each hotel guestroom. In all cases, the rate of outside air (cfm) delivered will meet or exceed that specified in the 2014 New York City Mechanical Code table 403.3.
2. **Compliance with Mechanical Code:** Providing outside air to commercial spaces and common areas such as lobbies and corridors in accordance with the 2014 NYC Mechanical Code.

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

10/07/2021

Date



Noel Anderson  
Project Manager

10/07/2021

Date



Sarah Pong  
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