



**OFFICE OF ENVIRONMENTAL REMEDIATION**

100 Gold Street – 2<sup>nd</sup> Floor  
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**Daniel Walsh, Ph.D.**  
**Director**

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**DECISION DOCUMENT**

**NYC VCP and E-Designation Remedial Action Work Plan Approval**

February 12, 2016

Re: **215-219 West 28th Street: 215 West 28th Street  
Manhattan, Block 778, Lot 29, 30 and 31  
Hazardous Materials, Air Quality, Noise “E” Designation  
E-276: 9/21/2011 – West 28th Street Rezoning – CEQR: 10DCP004M  
OER Project Number: 13EHAN231M / VCP Number: 15CVCP116M**

The New York City Office of Environmental Remediation (OER) has completed its review of the Remedial Action Work Plan (RAWP) dated April 9, 2015 with Stipulation Letter dated January 29, 2016 and the Remedial Action Plan for Air Quality and/or Noise dated January 27, 2016 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 May 8, 2015. There were no public comments.

**Project Description**

The proposed development will consist of one new 21-story mixed residential and commercial use building with an area of approximately 150,000 square feet and will be constructed on the entire three lots. The building will contain 3 cellar levels for retail, residential amenities, storage, mechanical equipment room, and parking. The total depth of excavation to accommodate the three cellar levels will be approximate 45 feet below grade. Secant walls will be installed to support the soil excavation. First floor will contain lobby and retail space. Floors 2-21 will contain a total of 103 residential condominium apartments. Affordable requirement will be through inclusionary housing certificates.

The current zoning designation, as per Department of City Planning NYC zoning maps, is M1-5, which generally allows for light industrial, office, hotel and retail uses. The Site was rezoned as M1-6D, a designation that allows for infill residential development that reflects the existing build character. The proposed use is consistent with existing zoning for the property.

**Statement of Purpose and Basis**

This document presents the remedial action for the NYC Voluntary Cleanup Program and E-Designation Program project known as “215-219 West 28th Street” pursuant to Title 43 of the Rules of the City of New York Chapter 14, Subchapter 1 and 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 215-219 West 28th Street site is protective of public health and the environment. The elements of the selected remedy are as follows:

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. Perform a Community Air Monitoring Program (CAMP) for particulates and volatile organic carbon compounds (VOCs).
3. Completion of a Waste Characterization Study prior to excavation activities. Waste characterization soil samples will be collected at a frequency dictated by disposal facility. A Waste Characterization Report documenting sample procedures, location, analytical results shall be submitted to NYCOER prior to start of remedial action.
4. Selection of 6NYCRR Part 375 Table 6.8 (a) Unrestricted Use (Track 1) Soil Cleanup Objectives (SCOs).

5. Site mobilization involving Site security setup, equipment mobilization, utility mark outs and marking & staking excavation areas.
6. Installation of a dewatering system for construction purposes which will include groundwater cutoff elements at the perimeter of the Site including secant a pile wall. Dewatering discharge will include appropriate approvals obtained from New York City Department of Environmental Protection (NYCDEP) for discharges to the combined sewer system.
7. Excavation and removal of soil/fill exceeding Track 1 SCOs including excavation of the lead-contaminated soil. Excavation for development purposes would take place to a depth of approximately 27 feet below sidewalk grade and would be below the water table across the entirety of the Site. A small area for elevator pits will be excavated to greater depths. Approximately 10,000 tons of soil will be excavated and removed from this Site.
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 onsite.
9. Management of excavated materials including temporarily stockpiling and segregating to prevent co-mingling of contaminated material and non-contaminated materials.
10. Removal and closure of underground storage tanks (if encountered) in compliance with applicable local, State and Federal laws and regulations.
11. Transportation and off-Site disposal of all soil/fill material at 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.
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 backfill and cover in compliance with this plan and in accordance with applicable laws and regulations.
14. Implementation of storm-water pollution prevention measures in compliance with applicable laws and regulations.
15. Performance of all activities required for the remedial action, including permitting requirements and pretreatment requirements, in compliance with applicable laws and regulations.
16. Submission of a Remedial Action Report (RAR) that describes the remedial activities, certifies that the remedial requirements have been achieved, defines the Site boundaries, and describes all Engineering and Institutional Controls to be implemented at the Site, and lists any changes from this RAWP.

If Unrestricted Use SCOs are not achieved, the following construction elements implemented as part of new construction will constitute Engineering and Institutional controls:

17. As part of development, installation of a waterproofing/vapor barrier system beneath the building slab and outside foundation sidewalls below grade. The barrier will consist of Grace Preprufe® 300R Plus or Preprufe 300LT Plus Membrane (46 mils) and 160R or Preprufe 160LT Plus Membrane (32 mils), or an OER-approved equivalent. Grace Adcor™ ES hydrophilic non-bentonite (or an OER-approved equivalent) will be applied for non-moving concrete construction joints.
18. If Track 1 is not achieved, 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.
19. As part of new development, construction and maintenance of an engineered composite cover consisting of the new building concrete slab, which will cover approximately the entire Site. This cover system will be composed of the concrete foundation slab of the future building, will be waterproofed, reinforced and 15 inches thick.
20. If Track 1 is not achieved, 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. 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.

**Description of Selected Remedy for Air Quality**

The elements of the remedial action selected for Air Quality for the 215-219 West 28th Street site are as follows:

In order to satisfy the requirements of the E-designation E-276, natural gas will be utilized at the site by three (3) PVI Turbo power Hot Water Generators, each with an input capacity of 399 million British Thermal Units per hour (MBTUH) and a 225 gallon storage tank.

In order to satisfy the Air Quality “E” designation requirements, the heating ventilation and air conditioning (HVAC) system will consist of 103 electrical water cooled Variable Refrigerant Split Flow Systems (VRF). Each apartment on Floors 2 through 17 will be provided with one dedicated water cooled condensing unit located in a Mechanical closet located at both ends of the corridor. Each apartments on Floors 18 through 21 will be provided with two dedicated water cooled condensing units due to its larger size. Each condensing unit is designed as a water cooled heat pump and able to provide both heating and cooling to each room in the apartment so that each habitable space has dedicated thermostatic controls via multiple evaporators. Evaporators serving the different spaces within the apartment will consist of ceiling mounted ducted fan coil units with ducted discharge and open return using the ceiling cavity as means of return air path. System will be able to provide the each apartment with either cooling mode or heating mode for all spaces at any time of the year, but no both simultaneously, so that either all rooms are in heating mode or all rooms are in cooling mode.

The proposed VRF units are manufactured by LG and will be 103 Multi V™ Ducted (High Static), Model ARNU073BGA4 for indoor units and 103 Multi V™ Water IV Heat Recovery, Model ARWB072BAS4 for the water source units.

**Description of Selected Remedy for Noise**

The elements of the remedial action selected for Noise for the 215-219 West 28th Street site are as follows:

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

- 1. 33 dBA for all façades including all residential and commercial spaces;

In order to satisfy the requirements of E-276, a window/wall attenuation of 33 dBA will be achieved on the all façades including all residential and commercial spaces. In order to achieve such attenuation, windows manufactured by Viracon, with a glazing made of laminated insulating glass, 1/8” inboard lite; 1/2” air space; and 1/8” laminated outboard lite will be installed in the all façade of the new building. ASTM E-90 acoustical laboratory tests will be performed on the above-mentioned glazing and largest frame of windows to support the OITC rating. ASTM E-90 acoustical laboratory test results will be provided to OER prior to purchase and installation.

The following window(s) will be installed:

<b>Façade Floor Range</b>	<b>OITC Rating</b>	<b>OITC Certification</b>	<b>Manufacturer and Model</b>	<b>Glazing</b>
All Façade including all residential and commercial spaces  Floors (First through 21st Floor).	33 dBA	Rating based on glass only (see ASTM E-90 Lab Test Report in Appendix H). Window ASTM E-90 Lab Test Report to be provided to OER prior to purchase and installation.	Viracon, Model will be determined on a later date.	Laminated insulating glass, 1/8” inboard lite; 1/2” air space; and 1/8” laminated outboard lite.

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:

Combination of Dedicated Fresh Air/ HVAC System: AMV for this project will be achieved by installing a forced fresh air system. The outdoor fresh air will be tempered using an energy recovery makeup air unit. Outdoor fresh air will be supplied to each apartment’s living spaces, i.e. bedroom and living rooms, from a dedicated grill. The air will be drawn through the apartments by exhaust sources and other sources of negative pressure.

The heating ventilation and air conditioning (HVAC) system will consist of electrical water cooled Variable Refrigerant Flow Systems (VRF). The VRF units are consist of a floor by floor water cooled Variable Refrigerant Flow Condensing unit(s) serving the various split evaporators serving the floor residential spaces. The system will provide both cooling and heating to

all the residential spaces. A heat pump loop will serve all of the water cooled VRF condensing units located on each floor, and will be connected to the building roof mounted cooling towers and condensing boiler plant. The VRF condensing unit(s) located on each floor will reject /absorb heat from the heat pump loop as required to meet the indoor temperature requirement of the different residential units.

The proposed VRF units are manufactured by LG and will be 103 Multi V™ Ducted (High Static), Model ARNU073BGA4 for indoor units and 103 Multi V™ Water IV Heat Recovery, Model ARWB072BAS4 for the water source units.

The remedies for Hazardous Materials, Air Quality, and Noise 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.

February 12, 2016



Date

William Wong  
Project Manager

February 12, 2016



Date

Shaminder Chawla  
Deputy Director

February 12, 2016



Date

Maurizio Bertini, Ph.D.  
Assistant Director

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