



**OFFICE OF ENVIRONMENTAL REMEDIATION**

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

March 17, 2015

Re: Domino Sugar Site E – 317 Kent Avenue  
Brooklyn Block 2428, Lot 1  
Hazardous Materials, Air Quality, and Noise “E” Designation  
E Number E-337: Domino Sugar Project Action - CEQR 07DCP094K  
OER Project Number 14EHAN587K / VCP Number 15CVCP001K

The New York City Office of Environmental Remediation (OER) has completed its review of the Remedial Action Work Plan (RAWP) dated October 2014 with Stipulation Letter dated November 25, 2014 and the Remedial Action Plan (RAP) for Air Quality and Noise dated March 16, 2015 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 November 30, 2014. There were no public comments.

**Project Description**

The proposed future use of Site E will consist of a new 16-story mixed-use building with 5 cellar levels. The new building will have a total floor area of approximately 774,003 square feet, consisting of approximately 20,612 square feet of retail space, a 178,718 square feet parking facility, and 114,369 square feet of community facility uses. This building would rise to a maximum height of approximately 200 feet. The lowest cellar level (C5) will occupy the majority of the Site E footprint, with the exception of areas in the northwest and southwest corners. The remaining cellar levels (C1 through C4) will occupy the entire footprint of the Site. Cellar level C5 will consist of three separate community facility areas that will be used as a soccer field, gymnasium, and an aquatic center. Cellar level C5 will also have four elevator pits, and five stairwells. The next lowest cellar level (C4) will consist of a locker room for the community facilities on C5, and an additional recreation space for the community facility. Cellar level C3 will consist of a storage room and office space for the community facilities, and several large mechanical rooms. Cellar levels C2 and C1 will consist of an underground parking garage, but will also contain in C2 the electrical room, telecom room, plumbing room, gas meter room, water and sewer room, fire protection room, two compactor rooms, bike storage room, men's and women's lockers and lunch room, the building supers' office, workshop and storage room. Floors 1 through 3 will occupy the entire footprint of the Site. The building's first floor will consist of three retail spaces on the west end of the building, the building's residential lobby, and additional parking. The second floor will have apartments along the west end of the building, additional ground level retail spaces along the center and eastern end of the building, south of South 3rd Street and north of South 4th Street, and additional parking spaces within the middle of the building. The third floor will consist of residential apartments along Kent Avenue, South 3rd Street and South 4th Street, and parking within the center of the building. After the 3rd floor, the building will divide into two separate towers. The two residential towers will rise from the 4th floor to the 12th floor before joining again at the 13th floor. The 4th through 15th floors will consist solely of residential apartments. Assuming an excavation depth of approximately 52 feet across the entire lot for construction of the new building's five cellar levels, a total of approximately 111,000 cubic yards (166,400 tons) of soil will require excavation.

### **Statement of Purpose and Basis**

This document presents the remedial action for the NYC Voluntary Cleanup Program and E-Designation project known as “Domino Sugar Site E” 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 Hazmat**

The remedial action selected for the Domino Sugar Site E 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 NYCVCPC 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 1 Unrestricted Use Soil Cleanup Objectives (SCOs);
4. Site mobilization involving Site security setup, equipment mobilization, utility mark outs and marking & staking excavation areas;
5. Completion of a Waste Characterization Study prior to excavation activities;
6. Excavation and removal of soil/fill exceeding Track 1 Site-Specific SCOs. For development purposes, excavation for the building's cellar would take place to a depth of approximately 52 feet across the entire Site. If soil/fill containing analytes at concentrations above Track 1 Unrestricted Use SCOs is still present at the base of the excavation after removal of all soil required for construction of the buildings is complete, additional excavation will be performed to meet Track 1 Unrestricted Use SCOs. Approximately 166,400 tons of soils will be excavated and removed from this Site;
7. Screening of excavated soil/fill during intrusive work for indications of contamination by visual means, odor, and monitoring with a PID.
8. Management of excavated materials including temporarily stockpiling and segregating to prevent co-mingling of contaminated material and non-contaminated materials;
9. Removal of underground storage tanks (USTs) (if encountered) and closure of petroleum spills (if evidence of a spill/leak is encountered during Site excavation) in compliance with applicable local, State and Federal laws and regulations;
10. 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. Appropriate segregation of excavated media on-Site;
11. Collection and analysis of end-point samples to determine the performance of the remedy with respect to attainment of SCOs;
12. Import of materials to be used for backfill and cover in compliance with this plan and in accordance with applicable laws and regulations;
13. Installation of a waterproofing membrane system below the cellar slab, as well as behind subgrade portions of foundation walls of the proposed building. The waterproofing membrane system will consist of Preprufe 300R and Bituthene 4000 as manufacturing by Grace. Preprufe 300 is a 1.2 mm (0.046in) thick HDPE film with a pressure sensitive adhesive that bonds to the poured concrete. Preprufe 300 will be installed below the building's cellar slab. Bituthene 4000 is a flexible preformed waterproof membrane combining a high performance cross laminated, HDPE carrier film with a unique super sticky self-adhesive rubber bitumen compound. Bituthene 4000 will be installed behind the building's foundation walls to grade;
14. Construction and maintenance of an engineered composite cover consisting of the building's concrete slab (varies in thicknesses of 1ft, 2ft, and 3ft) to prevent human exposure to residual soil/fill remaining under the Site;
15. Performance of all activities required for the remedial action, including permitting requirements and pretreatment requirements, in compliance with applicable laws and regulations;
16. Implementation of storm-water pollution prevention measures in compliance with applicable laws and regulations;
17. Submission of a Remedial Action Report (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, if Track 1 SCOs are not achieved, describes all Engineering and Institutional Controls to be implemented at the Site;

18. If Track 1 is not achieved, submission of an approved Site Management Plan (SMP) in the RAR for long-term management of residual materials, including plans for operation, maintenance, inspection and certification of Engineering and Institutional Controls and reporting at a specified frequency; and
19. If Track 1 is not achieved, the property will continue to be registered with an E-Designation by 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 Domino Sugar Site E site are as follows:

In order to satisfy the requirements of E-337, natural gas will be utilized at the site by four AERCO BMK 3.0 3000MBH (or OER-approved equivalent) condensing boilers and two AERCO BMK 1.5 1500MBH (or OER-approved equivalent) condensing boilers located on the roof. Both models are fitted with low NOx burners whose emissions measure less than 30 ppm NOx emissions at all firing rates when fired with natural gas. The AERCO BMK 3.0 3000MBH (or equivalent) boilers will provide domestic hot water for all residential units and heat for building areas including lobbies, common areas, retail areas, and corridors. The AERCO BMK 1.5 1500MBH (or equivalent) boilers will provide heat and hot water for the community facility space. A natural gas-fired Tecogen InVerde Ultra 100 Ultra-Low Emissions Inverter-Based Cogeneration unit (or OER-approved equivalent) with waste heat recovery with a low-emission natural gas V-8 engine (NOx emissions of < 0.07 lb/MWh, which corresponds to approximately 17 parts per million [ppm]) will be located in a separate mechanical room on the roof. Emergency power will be provided by a Kohler Power Systems natural gas generator (Model Number 200REZXB), or equivalent, which will be located at the roof level. All equipment specified complies with the low NOx emission requirement of a concentration of less than 30 ppm NOx at all firing rates. In order to satisfy the requirements of E-337, one stack will be located on the roof. The stack for the boiler chimney will be stainless steel AL-29-4D (or equivalent) with a minimum height of three feet above the roof, for a termination elevation of 202.4' NGVD. The stack will be located 109'0" from Kent Avenue and 136'2" from South 4th Street. For analysis purposes and to account for the site's irregular grading, elevation 0.0 NGVD was considered "at grade" in both the air analysis and subsequent E Designation stack location requirement language as well as in the RAP.

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

The elements of the remedial action selected for Noise for the Domino Sugar Site E site are as follows:

In order to satisfy the required window/wall attenuation of 28 dBA, fixed and operable windows manufactured by Skyline Windows (or equivalent) will be utilized for all residential uses on floors 2 through 5 on the building's exterior southern façade, floors 4 and 5 of the building's interior southern façade, and for the 16th floor residential amenity space (all facades); custom doors will be used for all residential balcony entrances on floors 4 and 5 the building's interior southern facade. The glazing of the Skyline Windows (or equivalent) and custom doors will have an OITC rating of 28. Catalog cut sheets, model and manufacturer information for an example glazing with an OITC rating of 28 (manufactured by Saflex; 1" IG [1/4" laminated exterior, 1/2" air space, 1/4" laminated interior]) were provided to OER.

In order to satisfy the required window/wall attenuation of 31 dBA, fixed and operable windows manufactured by Skyline Windows (or equivalent) will be utilized for all residential uses without direct access to terraces on floors 7 through 15 of the north, south, and west exterior facades, floors 6 through 15 on the northern and southern interior facades, and floors 14 and 15 on the eastern interior facade. The glazing of the Skyline Windows (or equivalent) will have an OITC rating of 31. Catalog cut sheets, model and manufacturer information for an example glazing with an OITC rating of 31 (manufactured by Saflex; 1" IG [1/8" laminated exterior, 0.030" Saflex interlayer thickness, 1/8" laminated exterior, 1/2" air space, 1/4" laminated interior]) were provided to OER.

In order to satisfy the required window/wall attenuation of 33 dBA, fixed and operable windows manufactured by Skyline Windows (or equivalent) will be utilized for all residential uses on floors 2 through 5 on the building's exterior northern façade and floors 4 and 5 of the building's interior northern façade; custom doors will be used for all residential balcony entrances on floors 4 and 5 of the building's interior northern facade. The glazing of the

Skyline Windows (or equivalent) and custom doors will have OITC ratings of 33. Catalog cut sheets, model and manufacturer information for an example glazing with an OITC rating of 33 (manufactured by Saflex; 1 1/16" IG [1/8" laminated exterior, 0.030" Saflex interlayer thickness, 1/8" laminated exterior, 1/2" air space, 1/8" laminated interior, 0.030" Saflex interlayer thickness, 1/8" laminated interior]) were provided to OER.

In order to satisfy the required window/wall attenuation of 35 dBA, fixed and operable windows manufactured by Skyline Windows, model SG500 (or equivalent) will be utilized for all residential uses on floors 2 through 5 on the building's western facade. The glazing for this window will be 1.5" IG (3/8" laminated exterior, 5/8" air space, 1/2" laminated interior), which has an OITC rating of 36.

In order to demonstrate compliance with the aforementioned required window/wall attenuation requirements for the panel wall system to be utilized on floors 2 through 5 (north, east, and south facades) and 7 through 15 (north, south, and west exterior facades), 6 through 15 (north and south interior facades), and 14 and 15 (east interior facade), one laboratory test will be performed on a portion that is representative of an operable window and a fixed window to determine frame loss from one OITC-rated zone. Laboratory tests for the 28, 31, and 33 OITC-rated Skyline (or equivalent) glazings will be performed if a test was not conducted by the manufacturer in the past four years to verify the OITC rating. An acoustical analysis will be performed based on the identified frame loss using the Skyline Windows (or equivalent) proposed glazings for the building facades to demonstrate that the 28, 31, and 33 OITC ratings are met.

In order to satisfy the required window/wall attenuation, a proprietary unitized window wall system with integrated doors will be utilized for all residential terrace entrances (with access directly into residential units) (floor 6 [all facades] and floors 7 through 16 [east facade]). The glazing of the unified window wall system and integrated custom doors will be manufactured by Saflex (or equivalent) 1" IG (1/8" laminated exterior, 0.030" Saflex interlayer thickness, 1/8" laminated exterior, 1/2" air space, 1/4" laminated interior), which has an OITC rating of 31 based on the Riverbank Acoustical Laboratories ASTM E-90 test No. TL 85-235. The manufacturer of the unitized window wall system (with integrated doors) will provide attenuation results from tests conducted by the manufacturer in the past four years to verify the OITC rating of the proposed window/wall integrated system.

In order to satisfy the required window/wall attenuation at the ground floor retail spaces, fixed and operable windows manufactured by Skyline Windows (or equivalent) and custom doors will be used for all ground floor retail storefronts. The glazing of the Skyline Windows (or equivalent) for the retail storefronts will have an OITC rating of 28 on the northern and southern facades and an OITC rating of 31 on the western facade. Catalog cut sheets, model and manufacturer information for example glazings with OITC ratings of (manufactured by Saflex; 1" IG [1/4" laminated exterior, 1/2" air space, 1/4" laminated interior]) and 31 (manufactured by Saflex; 1" IG [1/8" laminated exterior, 0.030" Saflex interlayer thickness, 1/8" laminated exterior, 1/2" air space, 1/4" laminated interior]) were provided to OER. The glazing of the windows and custom doors to retail uses on the northern and southern facades will be manufactured by Saflex (or equivalent) 1" IG (1/4" laminated exterior, 1/2" air space, 1/4" laminated interior), which has an OITC rating of 28 based on the Riverbank Acoustical Laboratories ASTM E-90 test No. TL 85-294. The glazing of the windows and integrated custom doors to retail uses on the western facade will be manufactured by Saflex (or equivalent) 1" IG (1/8" laminated exterior, 0.030" Saflex interlayer thickness, 1/8" laminated exterior, 1/2" air space, 1/4" laminated interior), which has an OITC rating of 31 based on the Riverbank Acoustical Laboratories ASTM E-90 test No. TL 85-235. The test reports from the glazing manufacturer will be provided.

In order to satisfy the required window/wall attenuation of 31 dBA for the ground floor residential lobby on the western facade, a glazed storefront system will be used. The glazing of the lobby windows and doors on the western facade will be manufactured by Saflex (or equivalent) 1" IG (1/8" laminated exterior, 0.030" Saflex interlayer thickness, 1/8" laminated exterior, 1/2" air space, 1/4" laminated interior), which has an OITC rating of 31 based on the Riverbank Acoustical Laboratories ASTM E-90 test No. TL 85-235. These test reports from the glazing manufacturer will be provided.

Alternate Means of Ventilation for this project will be achieved by installing operable intake louvers in individual PTAC units (Islandaire EZ Series GS, or equivalent). The PTAC units will have motorized fresh air dampers that can be operated by users to provide outdoor air. AMV for the community facility and commercial spaces will be provided via louvers (Greenheck EDJ-430, or equivalent) in the building's fascia to dedicated air handling equipment feeding the commercial spaces. In accordance with the Mechanical Code of the City of New York,

living areas shall be provided with a minimum of 15 cubic feet per minute (cfm) of outdoor air per person. Studio and one bedroom apartments will be provided a minimum of 30 cfm of outdoor air total; two bedroom apartments will be provided 45 cfm of outdoor air total. All bathrooms will be ventilated at a minimum rate of 20 cfm/bathroom. Lobby, common areas, and public corridors will be provided with outside air in accordance with NYC Mechanical Code via louvers in the building's fascia or roof mounted intakes.

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

3-17-2015



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Date

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Shana Holberton  
Project Manager

3-17-2015



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Date

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Shaminder Chawla  
Deputy Director

3-17-2015



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Date

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Assistant Director

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