

Project Name: 853 Lexington Avenue, Brooklyn, NY

Project Number: 13EHAN562K

Site Management Reporting Period: 2022-2023

Inspection Date: June 14, 2023 & September 28, 2023

Inspector and Certifier: Thomas Gallo & Patrick Recio

Report Submittal Date: October 26, 2023

Report Preparer: Brussee Environmental Corp. on behalf of Big Dream Developers LLC

Site Inspection and Certification Letter Report

Big Dream Developers LLC hereby submits a Site Management Inspection and Certification Report for the property located at 853 Lexington Avenue in the Bedford-Stuyvesant section of Brooklyn, New York for the reporting period, 2022-2023, pursuant to the Site Management Plan (SMP) that is included in the OER approved Remedial Action Report (RAR), dated July 2022. The Site is identified as Block 1632 and Lot 70 on the New York City Tax Map.

1.0 ENGINEERING CONTROLS

Engineering Controls were employed in the Remedial Action to assure permanent protection of public health by eliminating human exposure to residual materials remaining at the site. The Site has three Engineering Control Systems. Engineering Controls for this property are:

- Composite Cover System;
- Active Sub-Slab Depressurization System; and
- Soil Vapor Barrier System.

Composite Cover System

Exposure to residual soil/fill is prevented by an engineered Composite Cover System that has been built on the Site. The Composite Cover System consists of the following:

- Elevator Pit and Grade Beams: a 3ft thick concrete slab underlain with Stego Wrap 20-Mil Vapor Barrier and residual soil/fill;
- Cellar Slab: A 6" thick concrete slab underlain with Steo Wrap 20-Mil Vapor Barrier and 6-inch thick layer of 1" gravel; and
- Parking Area: A 6" thick concrete slab underlain with imported clean soil and remaining on Site soil.

Vapor Barrier System

The vapor barrier installed below the entire building slab, below/around the footings, below/around the elevator pit, and behind the west and south double sided cellar walls to grade consists of Stego® Wrap 20-mil Vapor Barrier. Stego® Wrap 20-mil Vapor Barrier is a multi-layer plastic extrusion manufactured with prime, virgin and polyolefin resins. The vapor barrier installed behind the north and east blind side cellar walls to grade consists of 47-mil Sikaproof® A+12 waterproofing membrane. Sikaproof® A+12 waterproofing membrane is a polyolefin (FPO) based sheet membrane that includes a hybrid bonding layer that forms a permanent bond with fresh concrete. The waterproofing membrane/vapor barrier system extends throughout the entire area of the building and were sealed to create one continuous system. All vapor barrier seams, penetrations, and repairs were sealed utilizing the tape method, in accordance with to the manufacturer's installation instructions. In addition, the waterproofing contractor utilized WR Meadows Hydralastic for additional waterproofing purposes to seal the below slab vapor barrier to the tops/sides of the concrete footings. Seams joining the Stego Industries® Stego® Wrap 20-mil Vapor Barrier with the SikaProof® A+12 waterproofing membrane were sealed in accordance with the Sika design specifications. Since the two materials were sealed in accordance with Sika design specifications, the vapor barrier system will be effective as a vapor barrier.

Active/Passive Sub-Slab Depressurization System

Accumulation of soil vapor below and vapor intrusion into the cellar slab is mitigated with an active sub-slab depressurization system. The SSD system consists of a single loop installed in accordance with USEPA sub-slab depressurization design specifications which recommend a separate vent loop for every 4,000 sf of slab area. The depressurization zone is equipped with a blower, a magnehelic gauge to measure system vacuum, and an alarm (and additional remote alarm). The SSDS loop installed beneath the slab and 20-mil vapor barrier consists of a continuous loop of 4-inch diameter perforated HDPE pipe fitted with a filter sock and a 6-inch layer of 1" stone installed around the pipe and beneath the entire cellar footprint, creating a continuous permeable layer. 4" diameter cast iron pipes were utilized as sleeves to pass through grade beams to achieve a single continuous loop.

The riser pipe (6-inch cast iron) connects to the SSDS loop and extends from the cellar slab to the roof, north of the elevator bulkhead, where it is fitted with a Radonaway RP265 fan. The blower is hardwired to an electric source. The exhaust from the blower then runs through a 4 to 6 inch cast iron pipe against the elevator bulkhead to discharge 3 ft above the roof. The exhaust from the blower is located a minimum of 10 feet from windows, doors, air intakes and occupiable rooftop space. The alarm and pressure gauge are connected to the riser pipe and installed within a protective case within a storage room in the northern end of cellar. A 2nd remote alarm mounted to the ceiling of the cellar is installed in the north end of the recreational room in the cellar. The pressure gauge consists of a Dwyer Magnehelic Manometer (range of 0-2 inches of water) and the alarm is a Radonaway Checkpoint IIA Radon Systems Alarms. The exposed riser pipes are labeled as Subslab Vent – Do Not Tap.

2.0 INSTITUTIONAL CONTROLS

A series of Institutional Controls are required under the Remedial Action to assure permanent protection of public health by eliminating human exposure to residual materials remaining at the site. The Institutional Controls for the Remedial Action are:

- (1) The property will continue to be registered with an E-Designation with the NYC Department of Buildings. Property owner and property owner's successors and assigns are required to comply with the approved SMP;
- (2) Deed Restrictions will be placed on the property to document the installation of, and continued operation, of an active SSDS;
- (3) Compliance with an OER-approved Site Management Plan including procedures for appropriate operation, maintenance, inspection, and certification of performance of EC's and IC's. The property owner and property owner's successors and assigns will inspect EC's and IC's and submit to OER a written certification that evaluates their performance in a manner and at a frequency to be determined by OER;
- (4) Engineering Controls will not be discontinued without prior OER approval;
- (5) OER has the right to enter the Site upon notice for the purpose of evaluating the performance of EC's and IC's;
- (6) Vegetable gardens and farming in residual soil/fill on the Site are prohibited;
- (7) Use of groundwater underlying the Site without treatment rendering it safe for its intended use is prohibited;
- (8) All future activities on the Site that will disturb residual soil/fill must be conducted pursuant to the Soil/Materials Management provisions of the SMP, or otherwise approved by OER;
- (9) The Site is intended to be used for restricted residential use and will not be used for a higher level of use without prior approval by OER.

3.0 INSPECTION NARRATIVE

The initial site inspection was performed by Thomas Gallo of Brussee Environmental Corp on June 14, 2023. A secondary inspection was performed by Thomas Gallo on September 28, 2023.

Composite Cover System

Cellar Slab: The partial cellar consists of exposed concrete slab in some accessory rooms and ceramic tiles within the hallway and other recreational spaces. Other than the void in the cellar slab for the ejector pit, no other significant cracks that required patching/filling were observed. The repair of the vapor barrier in the location of the ejector pit is further explained in the following section.

Parking Area: The at-grade parking area consists of exposed concrete. No significant cracks that required patching/filling were observed. No evidence of recent repairs/replacement was observed.

Vapor Barrier System

The vapor barrier installed below the building slab does not appear to have been disturbed with the exception of the installation of an ejector pit within the cellar of the building. The vapor barrier was voided during the installation and required the installation of a new vapor barrier around the ejector pit. The previous vapor barrier was cut jaggedly and was not able to be connected to the new vapor barrier. A new flex board frame was installed around the ejector pit that was then sealed with Ames Blue Max liquid rubber waterproofing material. After the rubberized waterproofing cured the Stego Wrap 20-mil Vapor Barrier was over the board and extending over the ceramic tile, which is currently still underlain with the remaining Stego Wrap 20-Mil Vapor Barrier. The vapor barrier remains exposed.

Active/Passive Sub-Slab Depressurization System

The blower for the active SSD system was inspected on June 14, 2023 and found to be operating. The vacuum gauges installed within the building recorded vacuum readings of approximately 0.70" of water. The alarm was not sounding and the alarm light was green. Photos showing the vacuum gauge and alarm are attached.

4.0 STATUS of ENGINEERING AND INSTITUTIONAL CONTROLS

- Are the Engineering Controls and Institutional Controls employed at the Site continuing to perform as designed and continuing to be protective of human health and the environment?
Response: Yes
- Has anything occurred that impairs the ability of the Engineering Controls or Institutional Controls to protect public health and the environment?
Response: Yes, vapor barrier was voided during ejector pit installation, but was repaired by September 28, 2023.
- Are any changes needed to the remedial systems or controls?
Response: No
- Has compliance with this SMP been maintained during this reporting period?
Response: Yes, the SSD system appears to have operated continuously during the year.
- Are site records complete and up to date?
Response: No.
- Have monthly SSDS inspections by BEC been performed, certified on inspection checklists, and maintained on file on site?
Response: No.

5.0 DEVIATIONS in PERFORMANCE of ECs/ICs

Deviations noted during the 2022-2023 year were due to the vapor barrier being voided during the ejector pit installation. Additionally, the monthly inspection sheets were not completed. Thoams Gallo of BEC outlined the importance of the inspection checklists and went over how to properly fill them out for the next 2023-2024 SMP Inspection next June.

6.0 NEXT INSPECTION

The next Site Management Inspection will be performed in June 2024, and the Site Inspection and Certification Letter Report will be submitted by July 30, 2024.

7.0 CERTIFICATION

I, Patrick Recio, certify the following:

- I am a Qualified Environmental Professional;
- Thomas Gallo of BEC inspected the 853 Lexington Avenue site, site number 13EHAN562K on June 14, 2023 and September 28, 2023;
- I reviewed this Site Inspection and Certification Letter Report;
- Engineering Controls or Institutional Controls employed at the Site continue to be in place and perform as designed and continue to be protective of human health and the environment, with the exception of the vapor barrier around the ejector pit that has since been repaired;
- Site records not complete and up to date (with the exception of the inspection checklists);
- Nothing has occurred on the Site that impairs the ability of Engineering Controls or Institutional Controls to protect public health and the environment (with the exception as noted above);
- No changes are needed to the remedial systems or engineering controls;
- Compliance with the Site Management Plan has been maintained (except as noted);
- Vegetable gardening and farming in residual soils has been prevented;
- Groundwater underlying the Site is not being utilized without treatment rendering it safe for the intended purpose has been prevented;
- The Site has not been used for a higher level of use other than the restricted residential use addressed by the Remedial Action;
- The Site continues to be registered as an E-Designated property by the NYC Department of Buildings.

QEP Name – Patrick Recio

A handwritten signature in cursive script that reads "Patrick Recio".

Date – October 26, 2023

PHOTOS



Photo 1 – View of parking lot composite cover



Photo 2 – Additional view of parking lot composite cover.



Photo 3 – View of tile covering the cellar slab.

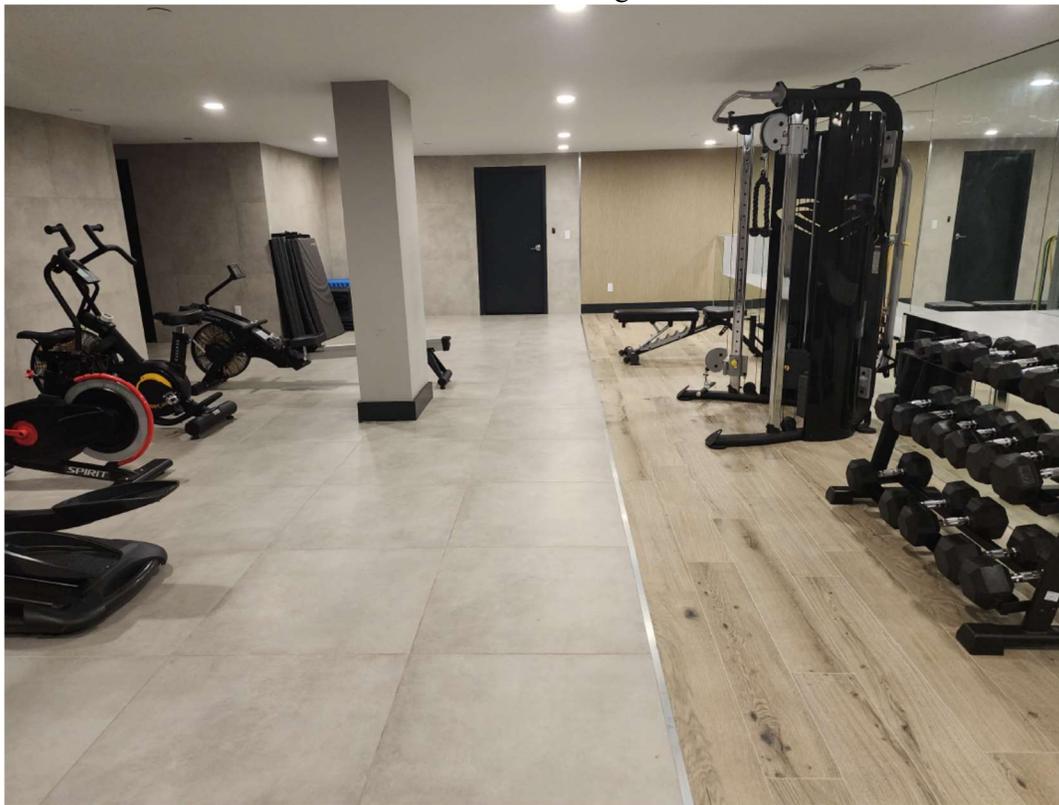


Photo 4 – View of floor covering in accessory spaces in the cellar area.



Photo 5 – View of SSDS meter and alarm.



Photo 6 – View of the SSDS riser and fan on the roof.



Photo 7 and 8 – View of manometer readings from the two monitoring points on Site for the SSDS.



Photo 9 – View of ejector pit installation with vapor barrier voided during initial inspection in June 2023.



Photo 10 – View of form board installed around the ejector pit area.



Photo 11 – View of Ames Rubberized Waterproofing applied around the form boards and over the floor in the area of the ejector pit.



Photo 12 – View of Stego Wrap 20-Mil Vapor Barrier above the rubberized waterproofing extending over the tile, where vapor barrier remains under the tile in place.



Photo 13 – Additional view of ejector pit.

INSPECTION FORMS

SITE INSPECTION CHECKLIST

SSDS - System Inspection Checklist
853 Lexington Avenue
Brooklyn, NY

Date: 6-14-23 Time: 10:30

Inspector Name/Organization: Thomas Gallo / BEC

Physical Inspection of Fan- Check seal w/vent line, unusual noises and general condition of unit.

Fan 1 :	yes	no	Fan Model No. Manufacturer:
Operational?	<u>✓</u>	<u> </u>	<u>Pedaway RP265C</u>
Observed Leaks at Seals?	<u> </u>	<u>✓</u>	
Air Flow at Exhaust Stack?	<u>✓</u>	<u> </u>	Other Comments / Observations
Vacuum Reading:	<u>-0.70</u>	<u>"H2O</u>	<u>Monitoring port readings:</u>
Alarm Test:			<u>OP1 = - 0.37</u>
Alarm sound when fan off?	<u>✓</u>	<u> </u>	<u>OP2 = - 0.12</u>
Indicator lights when fan off?	<u>✓</u>	<u> </u>	

Repairs Needed and / or Maintenance at this time?
None

CONTACT LIST IS SSDS IS NOT OPERATING PROPERLY

REMEDIAL ENGINEER	Ariel Czemerinski, PE	516-417-8588	ariel@amc-engineering.com
NYC OER PROJECT MANAGER	Sarah Pong	212-442-8342	Spong@dep.nyc.gov
PROPERTY OWNER	Yossi Beer	718-280-9310	yosefbeer@gmail.com

Signature:  Date: 6-14-23

SITE INSPECTION CHECKLIST

Inspection Checklist - Composite Cover
853 Lexington Avenue
Brooklyn, NY

Date: 6-14-23 Time: 10 AM

Inspector Name/Organization: Thomas Galk/BEC

Visual Inspection of Building's Concrete Cellar Slab

Building Interior

Inspect concrete slab for cracks, perforations or patching

Describe General Condition of slab

vapor barrier / concrete slab
in water room needs repair
around sump pit.

Describe and Cracks or New Penetrations

Describe any patching

Visual Inspection of Concrete Parking Lot

Building Exterior

Inspect concrete slab for cracks, perforations or patching

Describe General Condition of slab

Exterior slab in
good condition. No
cracks or penetrations

Describe and Cracks or New Penetrations

Describe any patching

CONTACT LIST IF COMPOSITE COVER NEEDS REPAIR

REMEDIAL ENGINEER	Ariel Czemerinski, PE	516-417-8588	ariel@amc-engineering.com
NYC OER PROJECT MANAGER	Sarah Pong	212-442-8342	Spong@dep.nyc.gov
PROPERTY OWNER	Yossi Beer	718-280-9310	yosefbeer@gmail.com

Signature:  Date: 6-14-23

Rubberized Waterproofing Specifications



Technical Data Sheet

Blue Max® Original Liquid Rubber Waterproofer

For Roofs & Foundations

Stock Code

BMXRG Series

Packaging Information

- 1 Gallon Pail
- 5 Gallon Pail
- 55 Gallon Drum
- 250 Gallon Tote

Characteristics

Blue Max® Original Liquid Rubber Waterproofer is ideal for above and below-grade waterproofing applications including insulated concrete forms, foundations, basements, and more. Blue Max has 1200% elongation to resist cracking and peeling and can be used on concrete, masonry, wood, metal and more. Blue Max can also be used as a primer in many roof coating systems and has been Air Barrier Association of America evaluated.

VOLUME SOLIDS	46%
WEIGHT PER GALLON	ASTM D1475 8.36 lbs.
ADHESION TO VARIOUS SUBSTRATES	CMU - ASTM D4541 Method B 80.2 psi exceeds minimum Hardie Board - ASTM D4541 Method B 198.8 psi exceeds minimum DensGlass - ASTM D4541 Method B 43.3 exceeds minimum
COLOR	Translucent Blue
COVERAGE	1 gallon per 25 sq. ft. for waterproofing applications (2 coat min. for sprayer, 4 coat min. for roller) 1 gallon per 100 sq. ft. when used as a primer in roofing & deck applications
DRY FILM THICKNESS (@ 1 GAL/ 25 SQ. FEET)	7.5 Mils per coat (30 Mils total DFT for waterproofing)
DRY TIME	5 Mils DFT - Recoat in 2 hours 10 Mils DFT - Recoat in 3.5 hours
CURE TIME	7-10 days
ELONGATION	ASTM D2370 up to 1200%
FLASH POINT	>200°F
HUMIDITY	Best applied below 50% humidity
AIR PERMEANCE	ASTM E2178 Air Permeance 0.00010 cfm/ft ² at 1.56lb/ft ²
SEAM STRENGTH	ANSI 118.10 Section 4.2 114 lb./in-Perpendicular to Seam 46.3 lb./in-Parallel to Seam
MOLD & MILDEW RESISTANCE	ANSI 118.10 Section 4.1 No Growth
PH AS SHIPPED	ASTM E70 9.0-9.5
BREAKING STRENGTH	ANSI 118.10 Section 4.3 1.540 psi Machine direction 512 psi Cross Direction
SHELF LIFE	24 Months Unopened
DIMENSIONAL STABILITY	ANSI 118.10 Section 4.4 -0.17% (70°C) -0.17% (-26°C)
V.O.C CONTENT	<1 g/l
VAPOR PERMEABILITY	ASTM E96 Desiccant Method 0.117 perms. Water Method 0.49 perms
VISCOSITY	ASTM D2196 4100-5100 cps spindle # 6@100 rpm ANSI 110.10 Section 5.0 138 psi (7-day) 89.4 psi (7- day water immersion) 125 psi (Four-Week) 140 psi (twelve-Week) 76.6 psi (100 - day water immersion)
SHEAR STRENGTH	

Compliance

SCAQMD	Yes
LEED®V4 & V4.1 EMISSIONS	Yes
LEED® V4 & V4.1 V.O.C	Yes
CARB & CARB SCM 2007	Yes
OTC & OTC PHASE II	Yes

Surface Preparation

All surfaces must be sound and free of frost, dirt, grease, oil, loose nails & screws, sharp protrusions, or other contaminants that will hinder the adhesion of the membrane installation. Clean loose dust and dirt from the surface by brushing or wiping with a clean, dry cloth brush or broom.

Concrete

Should be cured in place for a minimum of 28 days. All concrete surfaces should have the appearance of 80 grit sandpaper to promote adhesion. All sharp protrusions such as cold joints shall be ground flush. Honeycomb, holes, cracks, and joints up to 5/8" across shall be filled with Blue Max Trowel or Blue Max Caulk.

Concrete Masonry Unit (CMU)

Mortar joints shall be struck flush and free of voids exceeding 1/8" across. Mortar droppings shall be removed from brick ties and all other surfaces accepting Blue Max and accessories. Allow mortar joints to dry a minimum of 28 days prior to application of the Blue Max and accessories. The exposure duration or exposure conditions as required by the concrete manufacturer.

OSB, Plywood, Lumber, Pressure-Treated Wood

Wood and wood sheathing need to be flush at joints with gaps between boards according to building codes and manufacturers requirements. Moisture content, measured with a wood moisture meter in the core of the substrate, requirement is below 20%. Do not cover any wooden materials with Blue Max and/or accessories if moisture content is above 20%.

Application Methods

Apply between 50° - 90° F on a warm dry surface. Surface temperature must be 5°F higher than the dew point and rising.

- **Brush:** Nylon/polyester
- **Roller:** 3/8" - 1/2" nap nylon/polyester
- **Sprayer:** Always use airless equipment. Airless sprayer specs must meet or fall between the parameters displayed below.
- **Minimum Sprayer Requirements** - Tip Orifice Size: 0.015, Flow Rate (GPM): 0.34, Maximum Working Pressure (PSI): 3,000, Hose Size: 1/4 inch
- **Maximum Sprayer Requirements** - Tip Orifice Size: 0.065, Maximum Flow Rate (GPM): 4.0, Maximum Working Pressure (PSI): 4,000, Hose Size: 3/8 inch reduced to 1/4 inch

Application Instructions

Review product Application Guide before proceeding. Contact Ames Research Laboratories Technical Service Department for questions pertaining to the coating system application and required coating film thickness. Conduct a test patch to ensure proper adhesion.

- Blue Max must be top coated with a high-quality acrylic paint for all exterior vertical wall exposures. On interior wall surfaces, Blue Max must be top coated with a high-quality acrylic paint for washability
- Blue Max used as a base coat on roofs must be top coated with an appropriate Ames topcoat
- Do not apply if the temperature is expected to drop below 32° F within 24 hours of application or over wet substrates
- Do not apply in high heat areas of 180°F or more

Disclaimer

The information and specifications set forth in this Technical Data Sheet are based on tests conducted by or on behalf of Ames Research Laboratories, Inc. All information is subject to change and pertains to the product available at time of publication. Please contact Ames Research Laboratories to receive the most recent Technical Data Sheet.

Clean-up, Storage & Disposal

- Clean up application equipment, tools, spills, hands immediately after use with water
- Store unused product in the original container tightly sealed
- Dispose of this product in accordance with local, state, or federal requirements
- Protect from freezing

Cautions

- Do not take internally
- Keep out of reach of children
- Avoid contact with skin and eyes
- Use hand and eye protection when using this product
- Wash with soap and water after contact with skin
- If eye-contact occurs rinse with clean water and seek medical advice if symptoms continue

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