

## APPENDIX IV

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## Sean Harrison

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**From:** Chawla, Shaminder <ShaminderC@dep.nyc.gov>  
**Sent:** Tuesday, February 16, 2016 2:32 PM  
**To:** 'Sean Harrison'  
**Cc:** Bertini, Maurizio  
**Subject:** RE: 1939 West Farms Rd, Bronx, NY - Vapor Barrier (14EHAN171X/14CVCP226X)

Sean:  
Stego Wrap 20 mil product is acceptable.  
Thanks,

Shaminder

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**Shaminder Chawla** | **Deputy Director** | NYC Office of Environmental Remediation  
(O) (212) 442-3007 | (C) (917) 344-9835 | (F) (212) 788-2941 | [shaminderc@dep.nyc.gov](mailto:shaminderc@dep.nyc.gov)  
100 Gold Street, 2nd Floor, New York, NY 10038

**From:** Sean Harrison [mailto:sharrison@brinkenv.com]  
**Sent:** Tuesday, February 16, 2016 2:13 PM  
**To:** Chawla, Shaminder  
**Cc:** Bertini, Maurizio  
**Subject:** FW: 1939 West Farms Rd, Bronx, NY - Vapor Barrier (14EHAN171X/14CVCP226X)

Hi Shaminder,

Hope all is well. I understand Dr. Bertini is out of the office until next Monday but can someone else please review this in the meantime.

We submitted a Vapor Barrier Change Request Letter for the above site on Thursday, February 4, 2016 and want to know if new the new membrane is acceptable for installation. The letter is attached.

Please let me know if you have questions.

Thanks,

Sean

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Sean Harrison  
[sharrison@brinkenv.com](mailto:sharrison@brinkenv.com)

**BRINKERHOFF**

ENVIRONMENTAL SERVICES, INC.



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February 4, 2016

TRANSMITTED VIA EMAIL ONLY [mbertini@dep.nyc.gov](mailto:mbertini@dep.nyc.gov)

New York City Office of Environmental Remediation (NYCOER)  
100 Gold Street, 2<sup>nd</sup> Floor  
New York, NY 10038  
Attn: Maurizio Marezio Bertini, Ph.D.

**Re: Vapor Barrier Membrane Change Request Letter**  
**1939 West Farms Road, Bronx, New York**  
**NYCOER Project No: 14EHAN171X**  
**NYCOER VCP No: 14CVCP226X**  
**Brinkerhoff Project No: 15BR031A**

Dear Dr. Bertini:

Brinkerhoff Environmental Services, Inc. (Brinkerhoff) hereby submits a Vapor Barrier Membrane Change Request Letter for the property located at 1939 West Farms Road, Bronx, New York (hereinafter referred to as the "site") to the New York City Office of Environmental Remediation (NYCOER) on behalf of Joy Construction Corporation (Joy).

The site has been assigned NYCOER Project No: 14EHAN171X and is currently enrolled in NYCOER's Voluntary Cleanup Program (VCP). The NYCOER VCP Number for this site is 14CVCP226X.

A Remedial Action Work Plan (RAWP), dated March 2014, was prepared for this site by Hydro Tech Environmental Corp. and was approved by NYCOER on February 24, 2015. As part of the RAWP, three (3) engineering controls were proposed for this site and consist of the following:

- Site-wide composite cover consisting of asphalt covered roads, concrete covered sidewalks, and concrete building slabs;
- Soil Vapor Barrier; and
- Ventilated parking garage (as part of new development).

The vapor barrier membrane that was proposed to be implemented at the site was the 20-millimeter (mil) Vaporblock Plus, Model Number VBP 20, manufactured by Raven Industries. However, the contractor would like to substitute the 20-mil Vaporblock Plus barrier with the Stego® Wrap 20-Mil Vapor Barrier, manufactured by Stego Industries, LLC. The manufacturer specifications of the Stego® Wrap 20-Mil Vapor Barrier are provided as Attachment I.

Dr. Bertini – NYCOER

Re: Vapor Barrier Membrane Change Request Letter

1939 West Farms Road, Bronx, New York

NYCOER Project No: 14EHAN171X

NYCOER VCP No: 14CVCP226X

Brinkerhoff Project No: 15BR031A

February 4, 2016

Page 2 of 2

The new proposed vapor barrier membrane, Stego® Wrap 20-Mil Vapor Barrier, in combination with the other aforementioned engineering controls will provide the same mitigation of potential soil vapor intrusion into the building as the mitigation described in the NYCOER-approved RAWP.

Please kindly respond to this request and verify in writing your approval for the new proposed vapor barrier membrane to be implemented at the site in combination with the other engineering controls.

If you have questions and/or comments or require additional information, please contact the undersigned at 732-223-2225.

Respectfully submitted by:

**BRINKERHOFF ENVIRONMENTAL SERVICES, INC.**

*Sean Harrison*

*2/5/2016*

Sean Harrison  
Project Manager

Date

*Gene Santana*

Gene Santana, P.E.

N.Y.S. P.E. License Number: 094749-1

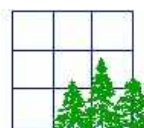


*2/5/2016*

Date

Attachments (1)

cc: Stephen Ploska, Marcel Mercado, and Marc Bass – Joy



## ATTACHMENT I

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# Stego® Wrap 20-Mil Vapor Barrier

STEGO INDUSTRIES, LLC



**Vapor Retarders**  
**07 26 00, 03 30 00**

## 1. Product Name

**Stego Wrap 20-Mil Vapor Barrier**

## 2. Manufacturer

Stego Industries, LLC  
216 Avenida Fabricante, Suite 101  
San Clemente, CA 92672  
Sales, Technical Assistance  
Ph: (877) 464-7834  
Fx: (949) 257-4113  
www.stegoindustries.com

## 3. Product Description

USES: Stego Wrap 20-Mil Vapor Barrier is used as a below-slab vapor barrier, and as a protection course for below grade waterproofing applications.

COMPOSITION: Stego Wrap 20-Mil Vapor Barrier is a multi-layer plastic extrusion manufactured with only the highest grade of prime, virgin, polyolefin resins.

### ENVIRONMENTAL FACTORS:

Stego Wrap 20-Mil Vapor Barrier can be used in systems for the control of soil gases (radon, methane), soil poisons (oil by-products) and sulfates.

## 5. Installation

UNDER SLAB: Unroll Stego Wrap 20-Mil Vapor Barrier over an aggregate, sand or tamped earth base. Overlap all seams a minimum of six inches and tape using Stego Tape or Crete Claw® Tape. All penetrations must be sealed using a combination of Stego Wrap and Stego accessories.

For additional information, please refer to Stego's complete installation instructions.

## 6. Availability & Cost

Stego Wrap 20-Mil Vapor Barrier is available nationally via building supply distributors. For current cost information, contact your local Stego Wrap distributor or Stego Industries' sales department.

## 7. Warranty

Stego Industries, LLC believes to the best of its knowledge, that specifications and recommendations herein are

accurate and reliable. However, since site conditions are not within its control, Stego Industries does not guarantee results from the use of the information provided and disclaims all liability from any loss or damage. NO WARRANTY, EXPRESS, IMPLIED OR STATUTORY, IS GIVEN AS TO THE MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OTHERWISE WITH RESPECT TO THE PRODUCTS REFERRED TO. Please see [www.stegoindustries.com/legal](http://www.stegoindustries.com/legal).

## 8. Maintenance

None required.

## 9. Technical Services

Technical advice, custom CAD drawings, and additional information can be obtained by contacting Stego Industries' technical assistance department or via the website.

## 10. Filing Systems

• [www.stegoindustries.com](http://www.stegoindustries.com)



## 4. Technical Data

**TABLE 1: PHYSICAL PROPERTIES OF STEGO WRAP 20-MIL VAPOR BARRIER**

PROPERTY	TEST	RESULTS
Under Slab Vapor Retarders	ASTM E1745 Class A, B & C – Standard Specification for Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs	Exceeds Class A, B & C
Water Vapor Permeance	ASTM F1249 – Test Method for Water Vapor Transmission Rate Through Plastic Film and Sheeting Using a Modulated Infrared Sensor	0.0071 perms
Puncture Resistance	ASTM D1709 – Test Methods for Impact Resistance of Plastic Film by Free-Falling Dart Method	3500+ grams*
Tensile Strength	ASTM D882 – Test Method for Tensile Properties of Thin Plastic Sheeting	97.7 lbf/in.
Permeance After Conditioning (ASTM E1745 Sections 7.1.2 - 7.1.5)	ASTM E154 Section 8, F1249 – Permeance after wetting, drying, and soaking ASTM E154 Section 11, F1249 – Permeance after heat conditioning ASTM E154 Section 12, F1249 – Permeance after low temperature conditioning ASTM E154 Section 13, F1249 – Permeance after soil organism exposure	0.0088 perms 0.0081 perms 0.0084 perms 0.0077 perms
Radon Diffusion Coefficient	K124/02/95	9.9 x 10 <sup>-12</sup> m <sup>2</sup> /second
Thickness		20 mils
Roll Dimensions		14 ft. wide x 105 ft. long or 1,470 ft <sup>2</sup>
Roll Weight		140 lbs.

Note: perm unit = grains/(ft<sup>2</sup> \*hr\* in.Hg)

\* The material maxed out the testing equipment and did not fail at 3746 grams.

