



Environmental, Planning, and Engineering Consultants

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April 13, 2018

Mr. Amen M. Omorogbe, P.E.
New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau C
625 Broadway, 11th Floor
Albany, New York 12233-7014

Re: Brownfield Cleanup Program Periodic Review Report
300-308 Columbus Avenue, Tuckahoe, New York
NYSDEC Site Number: C360136

Dear Mr. Omorogbe:

This Periodic Review Report (PRR) was prepared for the 300 and 308 Columbus Avenue (hereinafter referred to as the "Site") under the New York State (NYS) Brownfield Cleanup Program (BCP) administered by New York State Department of Environmental Conservation (NYSDEC). The Site location is shown on Figure 1. The Site was remediated in accordance with Brownfield Cleanup Agreement (BCA) Index# C360136-02-14, which was executed on March 13, 2014. The Site is identified as NYSDEC Site No. C360136.

Activities reported herein have been performed on behalf of the Crestwood Builders Group, LLC (the Volunteer) who holds ownership of the Site. The Site has been occupied throughout the entirety of this reporting period. Prior to the onset of investigation and remediation activities, the Site was used for commuter parking and as an auto repair facility. Historically, since the 1950s, 300 and 308 Columbus Avenue were developed as gasoline stations with underground storage tanks (USTs). Each lot contained a single-story building utilized for auto repair-related services. The Site was vacant prior to its use as gasoline filling stations.

Remedial investigations (RIs) performed from May 2012 to November 2013 identified separate phase petroleum product in soil samples collected from between 3 and 6 feet below grade at the southern service bay at 308 Columbus Avenue. This discovery constituted the report to the NYSDEC Spills Division on May 30, 2012, which was assigned Spill #1202031. The 2012 RI also revealed evidence of solvent-related VOCs in the soil between 1 and 6 feet below grade beneath the northern service bay at 300 Columbus Avenue. Regulatory records reviewed during the initial Site assessment identified a 250-gallon fuel oil UST, a sub-grade hydraulic lift at the southern service bay at 300 Columbus Avenue, and the potential for three 1,000-gallon USTs and one 550-gallon waste oil UST at 308 Columbus Avenue. The three 1,000-gallon USTs were not identified during remedial actions conducted between May and October 2014; however, two sub-grade hydraulic lift systems, an oil-water separator, and a 550-gallon waste oil UST were identified beneath the southern service bay at 300 Columbus Avenue, and an additional oil-water separator, two sub-grade hydraulic lift systems, and a 1,000-gallon UST were identified at 300 Columbus Avenue.

Remediation activities completed at the Site included removal of remaining USTs, hydraulic lifts, and contaminated soil and fill. A Final Engineering Report (FER) detailing Site remedial activities was submitted to, and approved by NYSDEC, which resulted in the issuance of a Certificate of Completion (COC) on December 14, 2015. Ongoing Site management activities are being performed in accordance with the NYSDEC-approved September 2015 Site Management Plan (SMP). The SMP provides detailed descriptions of all procedures required to manage known and potential residual contamination. Activities conducted at the Site under the SMP during this reporting period included:

- Site inspection and monitoring to determine the integrity of the Site cover system and the proper operation of the passive SSDS.

The purpose of this PRR is to document the site management activities associated with the Site's Engineering and Institutional Controls and to certify that the controls have been implemented in accordance with the SMP. The reporting period on the IC/EC Certification form is from April 14, 2017 through April 13, 2018.

Site Management Requirements

For additional details related to the nature and extent of contamination and the remedial cleanup, please refer to the appropriate sections of the FER and SMP. The Site management requirements for evaluating the performance and effectiveness of the remedy at the Site, the Site cover system, and all affected Site media are summarized in Table T1 (referenced from the September 2015 SMP) with an indication of the tasks completed during this reporting period.

Table T1
Monitoring/Inspection Requirement Summary

Monitoring Program	Frequency*	Matrix	Analysis	Completed this Period?
Site Cover System	Annually. First Inspection no more than 18 months after COC, then at least annually thereafter.	Cover System Integrity	Visual Inspection of Conditions	Yes
SSDS Routine Operations Inspections	Annually. First Inspection no more than 18 months after COC, then at least annually thereafter.	SSDS System Operations	Visual Inspection	Yes
Contingency Indoor Air Sampling	If necessary based on the Site inspection program, or a request to decommission or terminate components of the SSDS with the approval of NYSDEC.	Indoor Air at 3 Sampling Locations	EPA Method TO-15	No

Notes: *The frequency of events was conducted as specified in the SMP
COC – Certificate of Completion

Cover System and SSDS Monitoring Requirements

Exposure to residual contaminated soil remaining at the Site is being prevented by an engineered Site cover system that is made up of the constructed concrete floor slab, the asphalt-paved parking lot, concrete sidewalks, and the landscaped areas. The concrete floor slab for the enclosed portion of the Site also includes the underlying vapor barrier and passive SSDS. The location and details of the Site cover system and passive SSDS are shown on Figures 2 and 3, respectively. The as-built drawings for the cover system and SSDS are included in the SMP.

Monitoring of the Site cover system will occur on an annual basis as long as the Environmental Easement is in effect to ensure the system's integrity. Monitoring will consist of visual inspection, which shall evaluate the integrity of the concrete floor slab of the first floor, support columns into the floor and the wall joints. If any cracks or openings are identified, they shall be screened for organic vapors with a photoionization detector (PID) and any readings shall be noted. In addition, any cracks or openings in the floor shall be properly sealed.

Monitoring of the passive SSDS will occur on an annual basis and be conducted concurrently with the cover system monitoring. Monitoring will consist of visual inspection of the SSDS piping for integrity and/or damage that would prohibit proper functioning of the SSDS. Inspection will include the entire length of accessible piping from the manifold floor slab up through the roof exhaust. The wind-driven turbine will be inspected to confirm proper function.

Cover System and SSDS Monitoring

On April 11, 2018, AKRF completed a Site cover inspection to confirm building conditions, Site cover integrity, and operation of the passive SSDS. A photoionization detector (PID) was used to field-screen background conditions during the inspection, including foundation areas with pipe penetrations and the SSDS piping.

The Site cover system was found to be intact, with no signs of significant cracking, damage, or erosion that would affect the integrity of the Site cap. There were no PID readings above background levels during the inspection. The SSDS system was found to be intact with no visible signs of damage or broken seals, and the roof turbine venting unit for the passive SSDS was observed to be properly operating as described in the SMP.

Corrective Measures

No corrective measures were required as a result of the inspection.

Site Management Schedule

The Site management requirements planned for future evaluation of the performance and effectiveness of the remedy at the Site is outlined in Table T2. These monitoring and inspection events would be completed in accordance with the updated SMP, which will be submitted for review and approval by NYSDEC and NYSDOH under separate cover.

**Table T2
Future Monitoring/Inspection Plan**

Monitoring Program	Next Scheduled Event	Frequency*	Matrix	Analysis
Site Cover System	Early 2019	Annually thereafter	Cover System Integrity	Visual Inspection of Conditions
SSDS Routine Operations Inspections	Early 2019	SSDS System Operations	Visual Inspection	Yes
Contingency Indoor Air Sampling	TBD	If necessary per SMP	Indoor Air at 3 Sampling Locations	EPA Method TO-15

IC/EC Certification

A Site-wide inspection was conducted on April 11, 2018, as specified in the SMP, to ensure that all aspects of the remedy were in-place and effective. A copy of the Site-wide inspection form is included in Attachment A. Based on the Site-wide inspection and the data evaluation summarized in this report, the following certification is made for the Site, as documented in the IC-EC Certification form provided in Attachment B:

- The institutional control and engineering control employed at this Site is unchanged from the date the control was put in place, or last approved by the New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation (DER), with the exceptions cited in this Periodic Review Report;
- Nothing has occurred that would impair the ability of such controls to protect public health and the environment;
- Nothing has occurred that would constitute a violation or failure to comply with any Site Management Plan for these controls; and
- Access to the Site will continue to be provided to DER to evaluate the remedy, including access to evaluate the continued maintenance of this control.

If you have any questions or require additional information, please contact me at 914-922-2382.

Sincerely,
AKRF, Inc.

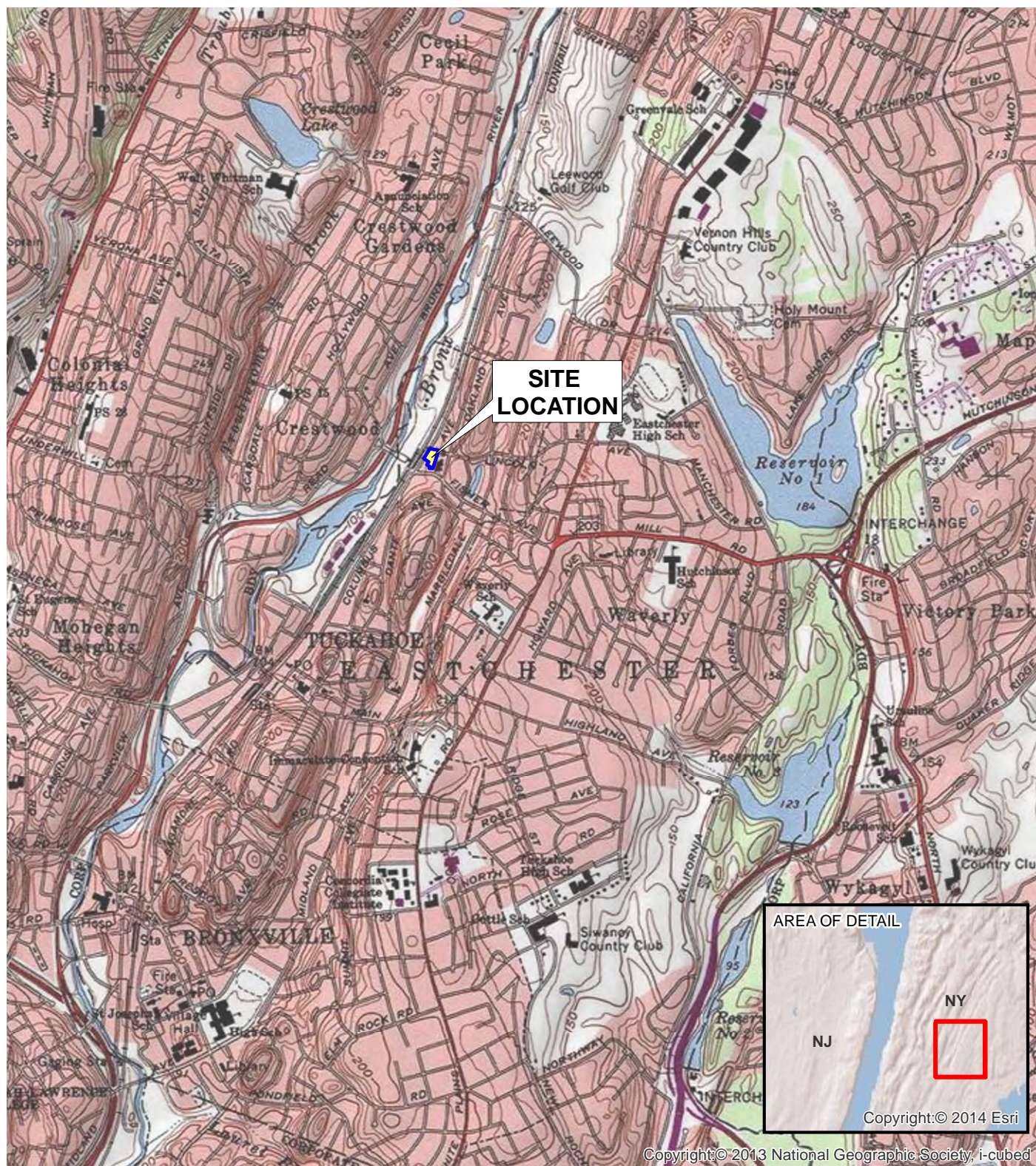


Bryan Zieroff, CPG, LEP
Senior Technical Director

cc: Jackie Monaco – Crestwood Builders Group
M. Godick, M. Lapin, E. Matamoros - AKRF, Inc.

Figure 1 – Site Location Map
Figure 2 – Site Cover System Plan
Figure 3 – SSDS Location Plan

Attachment A: Cover System and SSDS Inspection Form
Attachment B: PE IC-EC Certification



SOURCE

USGS 7.5 Minute Topographic Map
MOUNT VERNON Quad 1979

0 1,000 2,000
Feet



300 & 308 COLUMBUS AVE
TUCKAHOE, NEW YORK

SITE LOCATION MAP



Environmental Consultants
440 Park Avenue South, New York, N.Y. 10016

DATE
7.9.2015

PROJECT No.
40405

FIGURE
1



300-308 COLUMBUS AVE

TUCKAHOE, NEW YORK

SITE COVER SYSTEM PLAN

AKRF

Engineering, P.C.

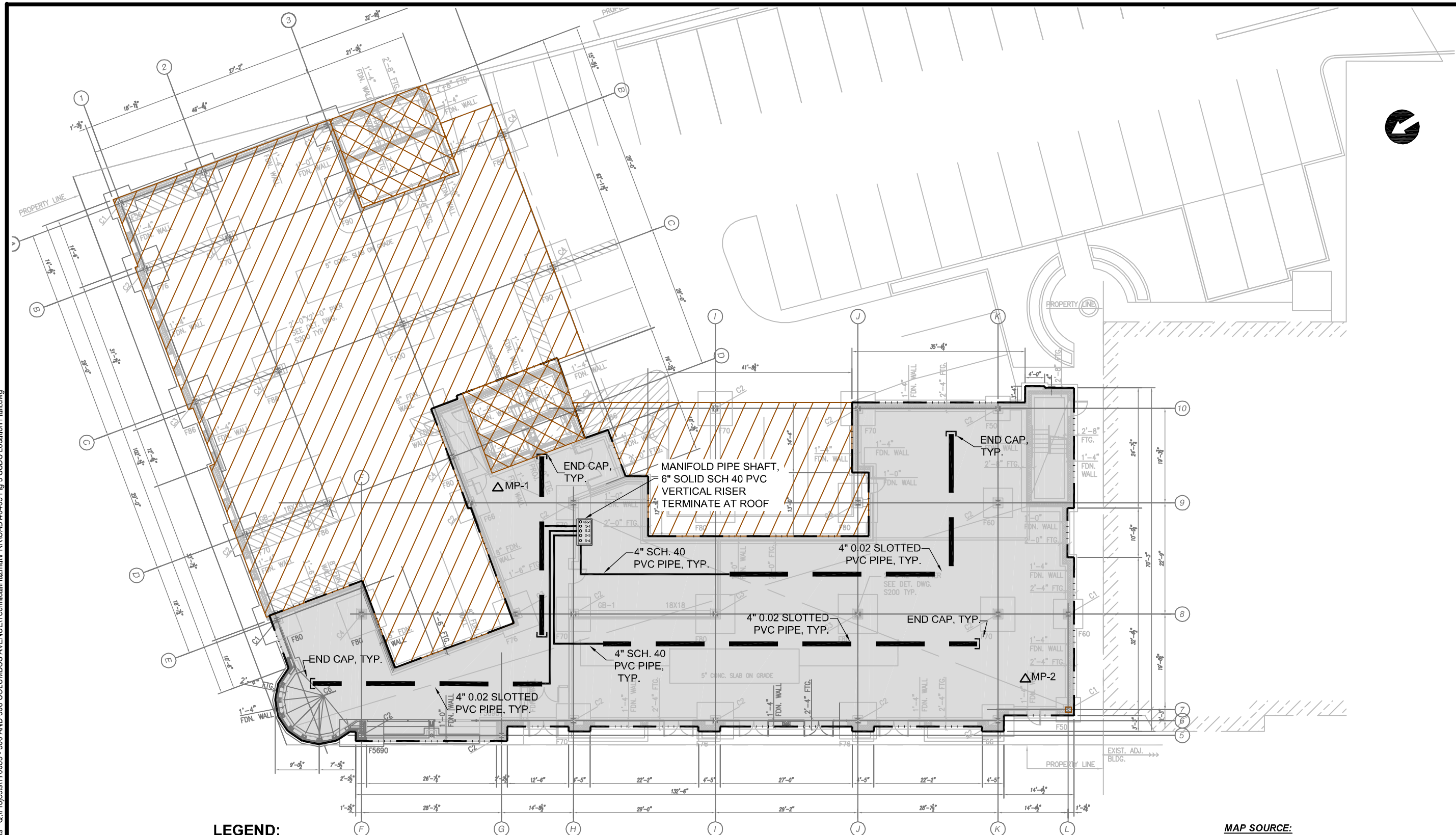
440 Park Avenue South, New York, NY 10016

DATE
10/21/2015

PROJECT NO.
40405

SCALE
as shown

FIGURE
2



LEGEND:


4-INCH 0.02 SLOTTED PVC PIPE

4-INCH SCHEDULE 40 PVC PIPE

EXTENT OF PASSIVE SUB-SLAB DEPRESSURIZATION SYSTEM AND STEGO WRAP VAPOR BARRIER

EXTENT OF VAPOR BARRIER ONLY
(STEGO WRAP)

EXTENT OF VAPOR BARRIER USING AQUAFIN

MP-1  VAPOR MONITORING POINT (REFER TO
DETAIL 8 ON H202.00)

QAKRF
Engineering, P.C.

300-308 COLUMBUS AVE
TUCKAHOE, NEW YORK

SSDS LOCATION PLAN

DATE
10/21/2015

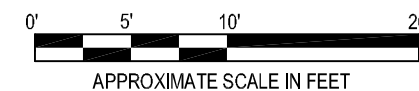
PROJECT NO.
40405

SCALE
as shown

FIGURE
3

MAP SOURCE:

Based on Drawing S101, *Foundation & 1st Floor Plan*
Prepared by Wayman C. Wing, Consulting Engineers
15 Penn Plaza New York, New York
September 19, 2013



ATTACHMENT A
COVER SYSTEM AND SSDS INSPECTION FORM

Cover System and SSDS Inspection Form**Overview of Cover System and SSDS Inspection requirements:**

- 1) General Site conditions at time of inspection;
- 2) Site Cover System Inspection;
- 3) Passive SSDS Inspection;
- 4) Last SMP-related Site Activity conducted, upcoming SMP-related tasks;
- 5) Institutional Control (IC) Checklist (SMP, EWP maintained on-Site, routine SMP tasks being conducted);
- 6) Evaluation of Engineering Controls (in office); and
- 7) Site Documentation.

1) General Site conditions at time of inspection:

NAME: Elizabeth Matamoros	DATE: 4/11/18
TIME: 8:15 AM	WEATHER: 40°F Sunny
Annual Inspection or Emergency Inspection (if emergency, specify nature)? Annual	

Notes: _____

2) Cover System Inspection (Building Foundation, Concrete Parking Areas, Asphalt Parking Lot, Concrete Sidewalks, and Landscaped Areas)

Is the cover system intact:

☒ YES ☐ NO

If no, describe:

Are all access manhole and vapor monitoring point caps in good condition:

☒ YES ☐ NO MP-2 is inaccessible, but maintained under laminate flooring.

If no, describe:

Is the wind driven turbine operating properly:

☒ YES ☐ NO

Notes/Details:

4) Last SMP-related Site Activity conducted; and next SMP-related task Scheduled?

Notes/Details:

Last inspection March 2017, next scheduled ^{Murphy} April 2019

5) IC Checklist (SMP, EWP maintained on-Site, routine SMP tasks being conducted)

Copy of SMP on-Site?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
Copy of EWP on-Site?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO
Building Use Still Consistent with SMP (Restricted Residential)?	<input checked="" type="checkbox"/> YES	<input type="checkbox"/> NO

Have the Required SMP tasks been conducted?

Annual cover system monitoring ☒ YES ☐ NO

Annual SSDS operations monitoring ☒ YES ☐ NO

Indoor air sampling (if required) ☐ YES ☐ NO *N/A*

Notes:

Are the first floor penetrations (utility piping, SSDS, support columns, and wall joints) properly sealed to the concrete floor slab:

☒ YES ☐ NO

If no, describe:

Have any disturbances to the Site cover system occurred over the last reporting period?

☐ YES ☒ NO

Notes/Details:

3) SSDS Inspection (Manifold, Riser Pipes, Roof Stack, Wind Turbine)

Is there any observable damage or evidence of tampering to the piping:

☐ YES ☒ NO

If yes, describe:

Are there any unusual odors or PID readings on the first floor and in the manifold room:

☐ YES ☒ NO

If yes, describe:

Are the valves open and in set in their proper position:

☒ YES ☐ NO

If no, describe:

Any Additional Observations/Notes:

Current tenants include Chocolate Box cafe and Market,
Lola New York, and Metro Dental.
Residential units are occupied.

7) Site documentation

Including updates regarding notification to NYSDEC regarding any changes to Site conditions/operations, plans for excavation, or need to conduct indoor air sampling).

Notes:

No changes to status, plans for renovation, or need to conduct indoor air sampling

ATTACHMENT B
P.E. CERTIFICATION

I, Michelle Lapin, am currently a registered professional engineer licensed by the State of New York. I had primary direct responsibility for implementation of the December 2015 Site Management Plan protocols, and I certify that the documentation of site management activities is accurately presented in this Periodic Review Report for the 300 and 308 Columbus Avenue Site located at 300 and 308 Columbus Avenue in Tuckahoe, New York (BCP Site No. C360136).

For each institutional or engineering control identified for the Site, I certify that all of the following statements are true:

- The inspection of the Site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under my direction;
- The institutional control and engineering controls employed at this Site are unchanged from the date the controls were put in place, or last approved by the NYSDEC;
- Nothing has occurred that would impair the ability of the control to protect the public health and environment;
- Nothing has occurred that would constitute a violation or failure to comply with any Site management plan for this control;
- Access to the Site will continue to be provided to the NYSDEC to evaluate the remedy, including access to evaluate the continued maintenance of the engineering controls;
- If a financial assurance mechanism is required under the oversight document for the Site, the mechanism remains valid and sufficient for the intended purpose under the document;
- Use of the Site is compliant with the environmental easement;
- The engineering control systems are performing as designed and are effective;
- No new information has come to my attention to indicate that the assumptions made in the qualitative exposure assessment of off-site contamination are no longer valid;
- To the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the Site remedial program and generally accepted engineering practices;
- The information presented in this report is accurate and complete; and
- I certify that all information and statements in this certification form are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law. I, Michelle Lapin, of AKRF, Inc., am the certifying Owner's Designated Site Representative and I have been authorized to sign this certification for the Site.



Professional Engineer

04/13/18

Date

A handwritten signature in black ink, appearing to read "Michelle Lapin", written over a horizontal line.

Signature



Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form



Site Details		Box 1	
Site No.	C360136		
Site Name 300 - 308 Columbus Avenue			
Site Address: 300-308 Columbus Avenue		Zip Code: 10707	
City/Town: Tuckahoe			
County: Westchester			
Site Acreage: 0.7			
Reporting Period: March ^{APRIL} 15, 2017 to March ^{APRIL} 15, 2018			
		YES	NO
1. Is the information above correct?		<input type="checkbox"/>	<input checked="" type="checkbox"/>
If NO, include handwritten above or on a separate sheet.			
2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?		<input type="checkbox"/>	<input checked="" type="checkbox"/>
3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?		<input type="checkbox"/>	<input checked="" type="checkbox"/>
4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?		<input type="checkbox"/>	<input checked="" type="checkbox"/>
If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.			
5. Is the site currently undergoing development?		<input type="checkbox"/>	<input checked="" type="checkbox"/>

		Box 2	
		YES	NO
6. Is the current site use consistent with the use(s) listed below? Restricted-Residential, Commercial, and Industrial		<input checked="" type="checkbox"/>	<input type="checkbox"/>
7. Are all ICs/ECs in place and functioning as designed?		<input checked="" type="checkbox"/>	<input type="checkbox"/>
IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.			
A Corrective Measures Work Plan must be submitted along with this form to address these issues.			
_____ Signature of Owner, Remedial Party or Designated Representative		_____ Date	

Box 2A

YES NO

8. Has any new information revealed that assumptions made in the Qualitative Exposure Assessment regarding offsite contamination are no longer valid?

☐ ☒

If you answered YES to question 8, include documentation or evidence that documentation has been previously submitted with this certification form.

9. Are the assumptions in the Qualitative Exposure Assessment still valid?
(The Qualitative Exposure Assessment must be certified every five years)

☒ ☐

If you answered NO to question 9, the Periodic Review Report must include an updated Qualitative Exposure Assessment based on the new assumptions.

SITE NO. C360136

Box 3

Description of Institutional Controls

Parcel

Owner

Institutional Control

42-8-10

Crestwood Station Plaza, LLC

Ground Water Use Restriction
Monitoring Plan
Site Management Plan
IC/EC Plan
Soil Management Plan
Landuse Restriction

Imposition of an institutional control in the form of an environmental easement for the controlled property that:

- requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
- allows the use and development of the controlled property for restricted residential, commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH; and
- requires compliance with the Department approved Site Management Plan.

42-8-5

Crestwood Station Plaza, LLC

Ground Water Use Restriction
Soil Management Plan
Landuse Restriction
Monitoring Plan
Site Management Plan
IC/EC Plan

Imposition of an institutional control in the form of an environmental easement for the controlled property that:

- requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
- allows the use and development of the controlled property for restricted residential, commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH; and
- requires compliance with the Department approved Site Management Plan.

Box 4

Description of Engineering Controls

Parcel**Engineering Control****42-8-10****Vapor Mitigation
Cover System**

A site cover will be required to allow for restricted residential use of the site. The cover will consist either of the structures such as buildings, pavement, sidewalks comprising the site development or a soil cover in areas where the upper two feet of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where the soil cover is required it will be a minimum of two feet of soil, meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for restricted residential use. The soil cover will be placed over a demarcation layer, with the upper six inches of the soil of sufficient quality to maintain a vegetation layer. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d).

42-8-5**Vapor Mitigation
Cover System**

A site cover will be required to allow for restricted residential use of the site. The cover will consist either of the structures such as buildings, pavement, sidewalks comprising the site development or a soil cover in areas where the upper two feet of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). Where the soil cover is required it will be a minimum of two feet of soil, meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for restricted residential use. The soil cover will be placed over a demarcation layer, with the upper six inches of the soil of sufficient quality to maintain a vegetation layer. Any fill material brought to the site will meet the requirements for the identified site use as set forth in 6 NYCRR Part 375-6.7(d).

Any future on-site buildings will be required to have a passive sub-slab depressurization system, or a similar engineered system, to prevent the migration of vapors into the building from soil and/or groundwater.

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

- a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;
- b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and complete.

YES NO

☒ ☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

- (a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;
- (b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;
- (c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;
- (d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and
- (e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES NO

☒ ☐

**IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and
DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.**

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

IC CERTIFICATIONS
SITE NO. C380136

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1, 2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Jackie Monaco at Crestwood Builders Group, LLC
c/o Verde Electric Corp
89 Edison Ave, Mont Vernon NY 10550
print name print business address

am certifying as Owner and Manager (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Jackie Monaco
Signature of Owner, Remedial Party, or Designated Representative
Rendering Certification Controller:

4/11/2018
Date

IC/EC CERTIFICATIONS

Box 7

Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Michelle Lapin at 440 Park Ave South, NY, NY, 10016
print name print business address

am certifying as a Professional Engineer for the Owner
(Owner or Remedial Party)

[Signature]
Signature of Professional Engineer, for the Owner or
Remedial Party, Rendering Certification



4/13/18
Date