



July 19, 2018

Site No. V00399

Site Name: Nassau Boulevard (LIRR Electric Substation)

Site Address: Edgemere Road, south side of LIRR Hempstead Branch ROW (Right-of-way)

City/Town: Garden City

County: Nassau

Site Acreage: 0.4

Reporting Period: July 8, 2015 to July, 08, 2018

I. Executive Summary

- A. The LIRR entered into a Voluntary Cleanup Agreement (VCA) with the NYSDEC in order to investigate and remediate potential mercury contamination associated with the operation and subsequent decommissioning and removal of the original Nassau Boulevard substation building, which housed mercury-containing rectifiers. Mercury was detected in surface and subsurface soil at the Site. Groundwater had not been impacted by the presence of mercury in on-site soil. Four areas of soil, containing elevated concentrations of mercury contaminated soil, were excavated. Please see the attached Excavation Limits/Endpoint and Side Wall Sample Location Map. Approximately, 365 tons of soil were excavated and transported off-site and replaced with clean fill and angular stone. The remedial activities removed the most significant soil contamination and, at the same time, effectively capped any remaining residual mercury. Future exposure to mercury is not expected. The Site will continue to be utilized as an active electric substation for the foreseeable future. Further soil excavation at the Site is not planned or expected following the construction of a new substation building in the footprint of the former substation building and associated equipment. The NYSDEC letter, dated February 17, 2011, stated that the Department was satisfied that the Work Plan, relative to the Site, was properly implemented under the terms of the Voluntary Agreement and the work was completed. However, a Site Management Plan (SMP) was developed for the Nassau Boulevard substation site in order to manage any potential future excavation activities that may be required to maintain site operations. In addition, to further protect the community and LIRR employees, the LIRR has elected to file a Declaration of Covenant and Restrictions for the site property.

II. Site Overview

- A. The Site is located in Garden City, Nassau County, on the west side of Edgemere Road, on the south side of LIRR Hempstead Branch Right-of-Way (ROW). Active LIRR tracks bound the Site to the north, Edgemere Road bounds the Site to the east and a community park bounds the Site to the west and south. The Site is fully fenced and locked on all sides and the community park property located to the west of the substation property is elevated approximately 10 feet and separated from the Site by a retaining wall and 8 feet tall fencing.

Mercury was detected in surface and subsurface soil at the Site. The most significant mercury contaminations were identified in surface soil collected to the south and west of the former substation building, 2 to 3 feet south of the concrete platform, with concentrations of mercury up to 21,000 mg/kg. Significant mercury concentrations were also detected in surface soil to the southeast of the substation building, adjacent to the south of the concrete platform and steps, with concentrations up to 1,480 mg/kg. Groundwater had not been impacted by the presence of mercury in on-site soil. Four areas of Site soil containing elevated concentrations of mercury were removed and replaced with clean fill and angular stone. Therefore, direct exposure to mercury by LIRR workers (on-site receptors) who are required to periodically enter the site for equipment maintenance and repair is not expected.

- B. Four areas were excavated: two areas to the southeast of the substation building to a depth of 1 foot below ground surface (bgs) for a total of 450 square feet of area and removal of 17 cubic yards of soil; one area to the north of the substation building to a depth of 1 foot bgs, for a total of 9 square feet in area and removal of 9 cubic feet of soil; and one area to the southeast of the substation building to a depth of 15 bgs for a total of 123 square feet in area and removal of 68 cubic yards of soil. In addition, 11 cubic yards of track ballast were excavated and removed. A wind screen was installed along the entire length of the south fence on the Site to limit and monitor the migration of contaminated dust and particulate matter for the duration of the remedial activities. The concrete foundation walls and platforms of the original substation building, located within 2 feet of the excavation area were demolished and removed. Soil removal was conducted prior to the construction of the new substation building. Generation of dust was monitored by utilizing a digital dust monitor and air monitoring was performed. Endpoint samples were collected from the excavations to determine characteristics of the remaining soil prior to Site restoration. Endpoint sample results were provided to NYSDEC and NYSDOH. The cleanup goals for the mercury-contaminated soil were 6 NYCRR Part 375 SCOs (Soil Cleanup Objectives) for Industrial Use as, the completed exposure assessment had determined that the surrounding community would not be exposed to these contaminants due to the restricted nature of the facility and direct exposure to mercury by LIRR workers (on-site receptors) who are required to periodically enter the site for equipment and repair is not expected. This met the RAO (Remedial Action Objectives) for the protection of human health and the environment.

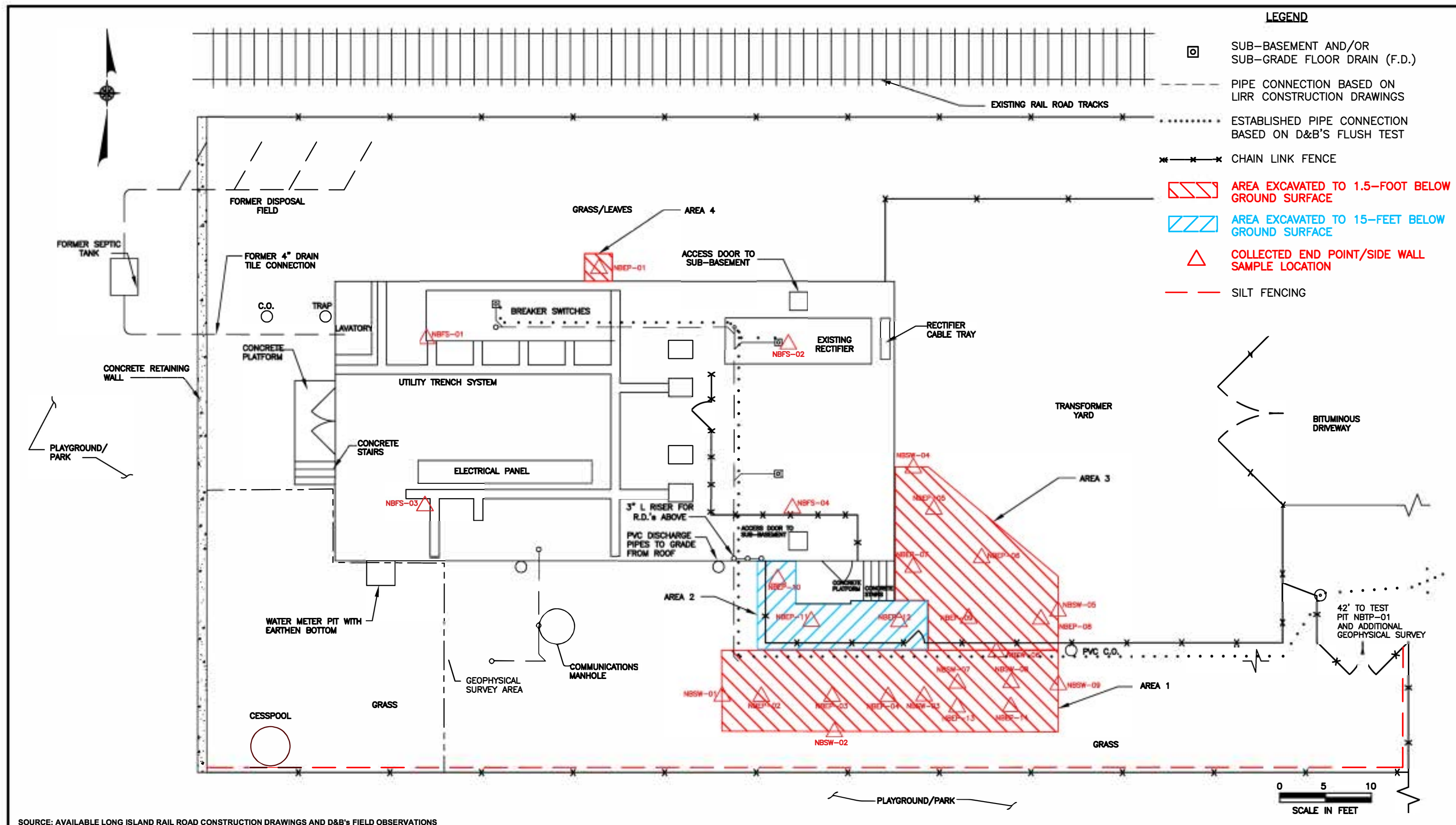
IV. IC/EC Plan Compliance Report

- A. IC/EC Requirements & Compliance

1. Institutional Controls consist of a Declaration of Covenant and Restrictions placed on the Nassau Boulevard Substation Site, a Site Management Plan and a Soil Management Plan, which formally document the remedial action and future use of the Site and identify the type and location of the engineering controls being used to isolate soil from human and non-human contact. Furthermore, it places restrictions on the performance of intrusive activities at the Site, to prevent the potential for unacceptable exposure of any residual soil contamination to human receptors and the environment. Excavation activities within the area subject to the Declaration of Covenant and Restrictions will not be permitted without proper notifications, safety precautions and planning. Handling of excavated soil during maintenance or redevelopment of the Site shall be in accordance with the Soil Management Plan section of the Site Management Plan.

Engineering Controls will be used to limit human and non-human contact with Site soil, and consist of 1) angular stone overlaying the entire Site to reduce to the extent practical direct contact (dermal adsorption, inhalation and accidental ingestion) with residual soil contamination and exposure of biota to contaminated soil and 2) signage posted at the site warning LIRR employees that the LIRR System Safety division must be contacted prior to initializing any excavation activities. In addition, the substation Site will continue to be utilized as an industrial property. Additionally, the Site is completely surrounded with high-security fencing, with gates that are locked at all times.

2. The performances of these controls are evaluated during inspections by System Safety personnel. Each control is fully in place and effective.
3. No corrective measures are noted at this time.
4. The IC/EC certifications are attached.



SOURCE: AVAILABLE LONG ISLAND RAIL ROAD CONSTRUCTION DRAWINGS AND D&B'S FIELD OBSERVATIONS

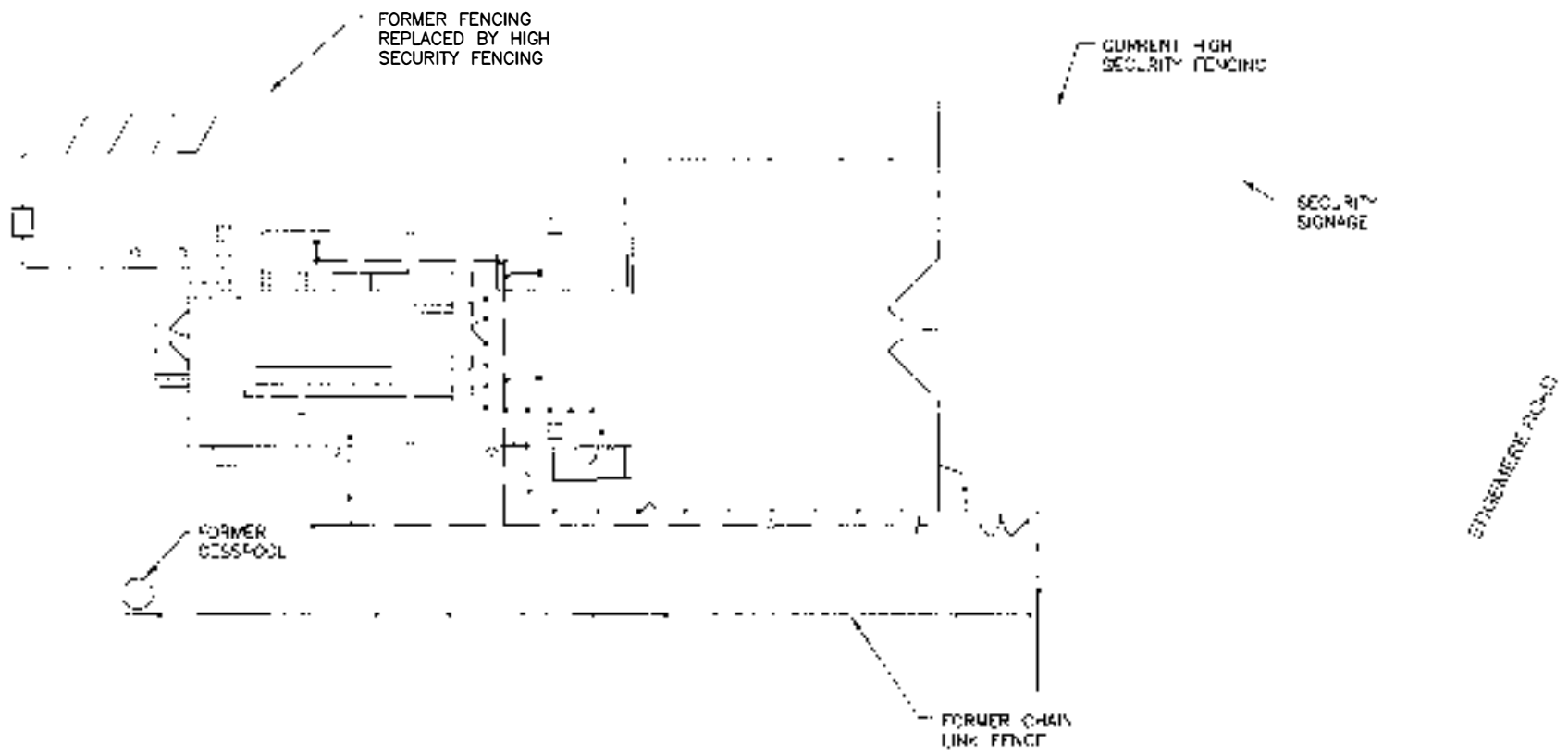
LONG ISLAND RAIL ROAD
FINAL ENGINEERING REPORT

EXCAVATION LIMITS/ENDPOINT AND SIDE WALL SAMPLE LOCATION MAP
NASSAU BLVD. SUBSTATION (V00399-1)



LEGEND:

- SUB-BASEMENT AND/OR SUB-GRADE FLOOR DRAIN (F.D.)
- PIPE CONNECTION BASED ON LIRR CONSTRUCTION DRAWINGS
- FORMER SUBSTATION BUILDING LOCATION AND SITE FEATURE
- ▨ AREA COVERED BY CRUSHED STONE



SOURCE: AVAILABLE LONG ISLAND RAIL ROAD CONSTRUCTION DRAWINGS AND D&B's FIELD OBSERVATIONS

SCALE: 1"=20'



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. **V00399**

Site Name **Nassau Boulevard H01 (LIRR)**

Site Address: Edgemere Road, south side of LIRR Right of Way **Zip Code:** 11530

City/Town: Garden City

County: Nassau

Site Acreage: 0.4

Reporting Period: July 08, 2015 to July 08, 2018

	YES	NO
1. Is the information above correct?	<input checked="" type="checkbox"/>	<input 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"/>
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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 type="checkbox"/>
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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"/>
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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"/>
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Box 2

	YES	NO
6. Is the current site use consistent with the use(s) listed below? 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"/>
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**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

SITE NO. V00399

Box 3

Description of Institutional Controls

Parcel

Owner

Institutional Control

33-114-17

MTA Long Island Railroad

Soil Management Plan
Landuse Restriction
Site Management Plan

The covenant contains a land use restriction. Engineering controls consist of site fencing and angular stone cover.

Box 4

Description of Engineering Controls

Parcel

Engineering Control

33-114-17

Cover System
Fencing/Access Control

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. V00399

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 Gloria Russo at 146-01 Archer Ave. MC 1428 Jamaica, NY 11435
print name print business address

am certifying as MTA LIRR Designated Representative (Owner or Remedial Party)

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

Gloria Russo
Signature of Owner, Remedial Party, or Designated Representative
Rendering Certification

7-19-18
Date

IC/EC CERTIFICATIONS

Box 7

Qualified Environmental Professional 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 William Keenan at 146-01 Archer Ave. MC1428 Jamaica, NY 11435
print name print business address

am certifying as a Qualified Environmental Professional for the MTA LIRR
(Owner or Remedial Party)



William P. Keenan

Signature of Qualified Environmental Professional, for
the Owner or Remedial Party, Rendering Certification

Stamp
(Required for PE)

7/18/2018
Date