Queen City Lofts

DUTCHESS COUNTY, NEW YORK

SITE MANAGEMENT PLAN

NYSDEC Site Number: C314125

Prepared for:

The Kearney Realty & Development Group Inc.

34 Clayton Boulevard, Suite A

Baldwin Place, New York 10505

Prepared by:

WCD Group

24 Davis Avenue

Poughkeepsie, New York 12603

(845) 452-1658

Revisions to Final Approved Site Management Plan:

Revision No.	Date Submitted	Summary of Revision	NYSDEC Approval Date

---

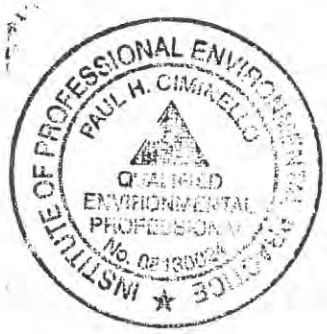
DECEMBER 2018

CERTIFICATION STATEMENT

I, PAUL CIMINELLO, certify that I am currently a Qualified Environmental Professional as defined in 6 NYCRR Part 375 and that this Site Management Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

Paul H Cim QEP

12/26/18 DATE



Queen City Lofts

Dutchess County, New York

SITE MANAGEMENT PLAN

Table of Contents

LIST OF FIGURES

Figures Provided in Appendix A

LIST OF TABLES

Tables in Report

Tables in Appendix B

LIST OF APPENDICES

LIST OF ACRONYMS

Acronym	Definition
ASP	Analytical Services Protocol
AST	Aboveground Storage Tank
BCA	Brownfield Cleanup Agreement
BCP	Brownfield Cleanup Program
CAMP	Community Air Monitoring Plan
COC	Certificate of Completion
CP	Commissioner Policy
DER	Division of Environmental Remediation
EC	Engineering Control
ECL	Environmental Conservation Law
ELAP	Environmental Laboratory Approval Program
EWP	Excavation Work Plan
HASP	Health and Safety Plan
IC	Institutional Control
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
NYCRR	New York Codes, Rules and Regulations
OSHA	Occupational Safety and Health Administration
PID	Photoionization Detector
PRR	Periodic Review Report
QA/QC	Quality Assurance/Quality Control
QAPP	Quality Assurance Project Plan
RAO	Remedial Action Objective
RAWP	Remedial Action Work Plan
SCG	Standards, Criteria and Guidelines
SCO	Soil Cleanup Objective
SMP	Site Management Plan
SOP	Standard Operating Procedures
SOW	Statement of Work
SPDES	State Pollutant Discharge Elimination System
SSD	Sub-slab Depressurization
SVE	Soil Vapor Extraction
SVI	Soil Vapor Intrusion
TAL	Target Analyte List
TCL	Target Compound List
TCLP	Toxicity Characteristic Leachate Procedure
USEPA	United States Environmental Protection Agency
UST	Underground Storage Tank

ES EXECUTIVE SUMMARY

The following provides a brief summary of the controls implemented for the Site, as well as the inspections, monitoring, maintenance and reporting activities required by this Site Management Plan:

Site Identification: C314125, Queen City Lofts, Poughkeepsie, New York

Institutional Controls:	1. The property may be used for restricted residential use;
	2. The following ICs are applicable: • The property may be used for: restricted residential use; • All ECs must be operated and maintained as specified in this SMP; • All ECs must be inspected at a frequency and in a manner defined in the SMP. • The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the Dutchess County Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department. • Groundwater and other environmental or public health monitoring must be performed as defined in this SMP with follow-up monitoring as required; • Data and information pertinent to site management must be reported at the frequency and in a manner as defined in this SMP; • All future activities that will disturb remaining contaminated material must be conducted in accordance with this SMP; • Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in this SMP; • Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical component of the remedy shall be performed as defined in this SMP; • Access to the site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by the Environmental Easement. • The potential for vapor intrusion must be evaluated for any buildings developed in the area within the IC boundaries noted on Figure 2, and any potential impacts that are identified must be monitored or mitigated; and, • Vegetable gardens and farming on the site are prohibited.

Site Identification: C314125, Queen City Lofts, Poughkeepsie, New York

	3. All Engineering Controls must be inspected at a frequency and in a manner defined in the SMP.	
Engineering Controls:	1. Cover system	
Inspections:		Frequency
1. Cover inspection		Annually
Monitoring:		
1. Not Required		N/A
Maintenance:		
1. Routine maintenance for EC cover: parking lot surface, courtyard play area, and landscaped areas		As needed
Reporting:		
1. Periodic Review Report		Annually

Further descriptions of the above requirements are provided in detail in the latter sections of this Site Management Plan.

1.0 INTRODUCTION

1.1 General

This Site Management Plan (SMP) is a required element of the remedial program for the Queen City Lofts site located in Poughkeepsie, New York (hereinafter referred to as the "Site"). See Site Location and Site Layout maps (Figures 1 and 2). The Site is currently in the New York State (NYS) Brownfield Cleanup Program (BCP) Site No. C314125 which is administered by New York State Department of Environmental Conservation (NYSDEC).

The Kearney Realty & Development Group Inc. entered into a Brownfield Cleanup Agreement (BCA) on November 2015 (amended December 2018)) with the NYSDEC to remediate the Site. Figures showing the site location and boundaries of this site are provided in Figures 1 and 2. The boundaries of the site are more fully described in the metes and bounds site description that is part of the Environmental Easement provided in Appendix E.

After completion of the remedial work, some contamination was left at this site, which is hereafter referred to as "remaining contamination". Institutional and Engineering Controls (ICs and ECs)] have been incorporated into the site remedy to control exposure to remaining contamination to ensure protection of public health and the environment. An Environmental Easement granted to the NYSDEC, and recorded with the Dutchess County Clerk, requires compliance with this SMP and all ECs and ICs placed on the site.

This SMP was prepared to manage remaining contamination at the site until the Environmental Easement is extinguished in accordance with ECL Article 71, Title 36. This plan has been approved by the NYSDEC, and compliance with this plan is required by the grantor of the Environmental Easement and the grantor's successors and assigns. This SMP may only be revised with the approval of the NYSDEC.

It is important to note that:

- This SMP details the site-specific implementation procedures that are required by the Environmental Easement. Failure to properly implement the SMP is a violation of the Environmental Easement, which is grounds for revocation of the Certificate of Completion (COC);

- Failure to comply with this SMP is also a violation of Environmental Conservation Law, 6NYCRR Part 375 and the BCA (Index #C314125-10-15; Site #C314125) for the site, and thereby subject to applicable penalties.

All reports associated with the site can be viewed by contacting the NYSDEC or its successor agency managing environmental issues in New York State. A list of contacts for persons involved with the site is provided in Appendix C of this SMP.

This SMP was prepared by WCD Group, on behalf of The Kearney Realty & Development Group Inc., in accordance with the requirements of the NYSDEC's DER-10 ("Technical Guidance for Site Investigation and Remediation"), dated May 2010, and the guidelines provided by the NYSDEC. This SMP addresses the means for implementing the ICs and/or ECs that are required by the Environmental Easement for the site.

1.2 Revisions

Revisions to this plan will be proposed in writing to the NYSDEC's project manager. Revisions will be necessary upon, but not limited to, the following occurring: a change in media monitoring requirements, upgrades to or shut-down of a remedial system, post-remedial removal of contaminated sediment or soil, or other significant change to the site conditions. In accordance with the Environmental Easement for the site, the NYSDEC will provide a notice of any approved changes to the SMP, and append these notices to the SMP that is retained in its files.

1.3 Notifications

Notifications will be submitted by the property owner to the NYSDEC, as needed, in accordance with NYSDEC's DER – 10 for the following reasons:

- 60-day advance notice of any proposed changes in site use that are required under the terms of the BCA, 6NYCRR Part 375 and/or Environmental Conservation Law.
- 7-day advance notice of any field activity associated with the remedial program.

- 15-day advance notice of any proposed ground-intrusive activity pursuant to the Excavation Work Plan.
- Notice within 48-hours of any damage or defect to the foundation, structures or EC that reduces or has the potential to reduce the effectiveness of an EC, and likewise, any action to be taken to mitigate the damage or defect.
- Verbal notice by noon of the following day of any emergency, such as a fire; flood; or earthquake that reduces or has the potential to reduce the effectiveness of ECs in place at the site, with written confirmation within 7 days that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.
- Follow-up status reports on actions taken to respond to any emergency event requiring ongoing responsive action submitted to the NYSDEC within 45 days describing and documenting actions taken to restore the effectiveness of the ECs.

Any change in the ownership of the site or the responsibility for implementing this SMP will include the following notifications:

- At least 60 days prior to the change, the NYSDEC will be notified in writing of the proposed change. This will include a certification that the prospective purchaser/Remedial Party has been provided with a copy of the Brownfield Cleanup Agreement (BCA), and all approved work plans and reports, including this SMP.
- Within 15 days after the transfer of all or part of the site, the new owner's name, contact representative, and contact information will be confirmed in writing to the NYSDEC.

Table 1, below, includes contact information for the above notification. The information on this table will be updated as necessary to provide accurate contact information. A full listing of site-related contact information is provided in Appendix C.

Table 1: Notifications

Name	Contact Information
Douglas MacNeal, NYSDEC	(518) 402-9662 douglas.macneal@dec.ny.gov
NYSDEC Region 3 Remediation Engineer	(845) 256-3000
Chief, Site Control Section, NYSDEC 625 Broadway Albany, NY 12233-7020	(518) 402-9569
Steven Berninger, NYSDOH	(518) 402-7860 beei@doh.ny.gov

Note: Notifications are subject to change and will be updated as necessary.

2.0 SUMMARY OF PREVIOUS INVESTIGATIONS AND REMEDIAL ACTIONS

2.1 Site Location and Description

The site is located in the City of Poughkeepsie, Dutchess County, New York and is identified as a 1.052-acre portion of Block 84 and Lot 944121 on the Poughkeepsie Tax Map. The site is situated on the northern, central, and eastern portions of an approximately 1.07-acre parcel bounded by Main Street to the north, residential properties to the south and east, and South Bridge Street to the west (see Figure 2 – Site Layout Map). The boundaries of the site are more fully described in Appendix E –Environmental Easement. The owner(s) of the site parcel(s) at the time of issuance of this SMP is:

The Kearney Realty & Development Group Inc.
34 Clayton Boulevard, Suite A
Baldwin Place, New York 10505

2.2 Physical Setting

2.2.1 Land Use

The Site consists of the following: a four-story mixed-use (residential and commercial) structure and parking lot. The Site is zoned C-2, Central Commercial, which permits the construction of new mixed-use buildings and is currently under construction (the building foundation and superstructure, and the asphalt paved parking lot, have been completed). The Site is not occupied.

The properties adjoining the Site and in the neighborhood surrounding the Site primarily include commercial and residential properties. The properties immediately south and east of the Site have residential uses; properties immediately north and west of the Site are mixed use (residential and commercial).

2.2.2 Geology

The pre-construction elevation of the property was approximately 140 to 120 feet above msl, with downward slopes from the northeast (highpoint at Main Street) to southwest (lowest elevations at Bridge Street); construction has resulted in a relatively level final grade, generally level with Bridge Street. Depth to bedrock is unknown (no bedrock was encountered in remedial investigation test pits or soil borings to maximum respective depths of 12 and 32 feet below surface grade [bsg], or during site construction).

Pre-construction subsurface soils generally consisted of unconsolidated fill (variable texture sand and gravel, with debris materials) to approximately 8 to 14 feet bsg at the northern and northwestern portions of the Site (along Main Street and South Bridge Street) and to approximately 3 to 6 feet at all other portions of the Site. Fill materials are underlain by native clays.

2.2.3 Hydrogeology

Depth to groundwater during the Remedial Investigation (RI) ranged from between approximately 5 to 10.5 feet bsg (groundwater elevations of approximately 118 to 127 feet above msl). Groundwater flow is generally from northeast to southwest beneath the Site.

2.3 Investigation and Remedial History

The following narrative (presented in the Remedial Action Work Plan and Final Engineering Report prepared for the Site) provides a remedial history timeline and a brief summary of the available project records to document key investigative and remedial milestones for the Site.

The Site was merged from four contiguous parcels previously identified as City of Poughkeepsie Section 6062, Block 76, Lots 942131 (Lot "131") & 945130 (Lot "130"), Block 84, Lot 941122 (Lot "122") and an approximately 0.15-acre portion of Lot 943116 (Lot "116"). Prior to re-development, the Site consisted of vacant land (Lots 131, 130, and 122) and vacant commercial buildings (eastern half of Lot 116).

Lots 131, 130 and 122 (178-182 Main Street and 11 South Bridge Street) historically contained residential and commercial buildings from at least the 1800s until the early to mid-1980s. Commercial uses included a greenhouse, laundry facility, and a manufacturing operation with a machine shop. Lot 116 at the southern portion of the Site (15 South Bridge Street) was historically developed with outbuildings associated with coal and lumber storage, and was most recently used as a taxi facility.

The following environmental conditions were identified during the RI and previous Environmental Site Assessments performed at the Site [Note: Site locations are described according to former Lot #s]:

1. Multiple test pits and soil borings were extended at the Site and fill (with buried debris, including metal, masonry and building materials) was identified at depths ranging from near the surface to approximately 9 feet bsg.

2. Contamination by metals, semi-volatile organic compounds (SVOCs) and/or pesticides was documented in soils throughout the Site with the greatest impacts at the western and northern-central portions of the Site.

3. No evidence of tanks, drums, or hazardous materials was noted during the extension of test pits; overt field evidence of petroleum contamination (including petroleum odors and staining), however, was observed at the northeastern portion of the Site and spill number 15-02657 was reported for Lot 131 (178 Main Street). A previously unknown underground storage tank (UST) and associated contaminated soil were removed from this area ("northern hot spot") during the remedial action.

4. Spill number 15-11940 was reported at Lot 116 based on field evidence of petroleum contamination observed in soil and groundwater in the vicinity of the former on-site garage (no free-phase petroleum was noted). Laboratory data documented a high peak concentration of total tentatively identified compounds (TICs) related to gasoline compounds in soil and elevated levels of several volatile petroleum compounds in groundwater. This petroleum contamination was likely associated with a release that had previously been subject to remediation activities. All impacted soil in this area ("southern hot spot") was removed during the remedial action.

5. Analysis of sub-slab soil vapor collected at the southeastern portion of the former garage identified tetrachloroethene (PCE), however, the compound was not detected in soil or groundwater samples. Based on the absence of an on-site source area, and the planned use of this portion of the Site as a parking lot, no specific remedial actions were required to address soil vapor.

The selected remedy included removal and off-site disposal of overtly contaminated soils at the two petroleum hot spot areas, any encountered storage tanks, and fill soils required for site development activities. Contamination remaining after soil removal was considered to be relatively immobile and not likely to represent a threat of off-site migration. The installation of the building foundation, paved parking lots and landscaped areas with a clean cover layer prevents access/exposure to low-grade residual contamination at the Site.

2.4 Remedial Action Objectives

The Remedial Action Objectives (RAOs) for the Site as listed in the Decision Document dated March 2017 are as follows:

Groundwater

RAOs for Public Health Protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.
- Prevent contact with, or inhalation of, volatiles from contaminated groundwater.

RAOs for Environmental Protection

- Restore ground water aquifer to pre-disposal/pre-release conditions, to the extent practicable.
- Remove the source of ground or surface water contamination.

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.
- Prevent inhalation of or exposure from contaminants volatilizing from contaminants in soil.

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater or surface water contamination.

Soil Vapor

RAOs for Public Health Protection

- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at a site.

2.5 Remaining Contamination

Areas of concern identified during the RI included:

- General impacts to soil, groundwater and soil vapor from historical residential and commercial use of the Site and/or poor-quality urban fill, including elevated concentrations of metals throughout on-site fill, limited areas of soil impacted by SVOCs and pesticides, and low-grade soil vapor contamination by PCE in the vicinity of the former taxi facility;
- Petroleum contamination associated with two active spill events, located at the north-central portion of the Site (potentially the result of releases at a former on-site structure) and at the southern portion in the vicinity of a former taxi facility (the location of previous remedial activities to address earlier spill events); and,
- Potential presence of unknown UST (one tank was encountered and removed from the northern hot spot area).

The RI identified metals, SVOCs and pesticides in fill soils throughout the Site, and the selected remedy was designed to anticipate the presence residual contamination in all subsurface soils present after the removal of materials at the petroleum hot spot areas and for site development.

Groundwater contamination at the Site is limited to metals, primarily as total concentrations rather than dissolved concentrations. The most significant metals found in soils (arsenic, barium, lead and mercury) are not found, or only occur at low levels, dissolved in groundwater, and several of the dissolved metals found at elevated levels are likely to be representative of naturally occurring conditions.

Significant soil vapor contamination was limited to low-level impacts by PCE, which appeared to be spatially restricted to the southeastern corner of the Site, beneath the former on-site garage. PCE was present at levels indicating a potential for soil vapor intrusion; soil and groundwater data, however, were not consistent with the presence of a significant source area. Trace to low-levels of other VOCs detected in soil vapor are consistent with levels typically encountered in urban settings and are likely due to the historical commercial use of this or other nearby sites, or the presence of fill materials.

Table 3, Appendix B, and Figures 4 to 6 summarize the results of all soil samples prior to completion of Remedial Action that exceed UU SCOs and the applicable Track 4 SCOs. For the purposes of the Site Management Plan and the Environmental Easement, all post-remediation remaining soils (i.e. soils present beneath the cover system and demarcation layer) are assumed to exceed the UU SCOs.

3.0 INSTITUTIONAL AND ENGINEERING CONTROL PLAN

3.1 General

Since remaining contamination exists at the site, Institutional Controls (ICs) and Engineering Controls (ECs) are required to protect human health and the environment. This IC/EC Plan describes the procedures for the implementation and management of all IC/ECs at the site. The IC/EC Plan is one component of the SMP and is subject to revision by the NYSDEC.

This plan provides:

- A description of all IC/ECs on the site;
- The basic implementation and intended role of each IC/EC;
- A description of the key components of the ICs set forth in the Environmental Easement;
- A description of the controls to be evaluated during each required inspection and periodic review;

- A description of plans and procedures to be followed for implementation of IC/ECs, such as the implementation of the Excavation Work Plan (EWP; provided in Appendix D) for the proper handling of remaining contamination that may be disturbed during maintenance or redevelopment work on the site; and,
- Any other provisions necessary to identify or establish methods for implementing the IC/ECs required by the site remedy, as determined by the NYSDEC.

3.2 Institutional Controls

A series of ICs is required by the Decision Document to: (1) implement, maintain and monitor Engineering Control systems; (2) prevent future exposure to remaining contamination; and, (3) limit the use and development of the site to Restricted Residential uses only. Adherence to these ICs on the site is required by the Environmental Easement and will be implemented under this SMP. ICs identified in the Environmental Easement may not be discontinued without an amendment to or extinguishment of the Environmental Easement. The IC boundaries correspond directly to the Site boundaries (see Figure 2). These ICs are:

- The property may be used for: restricted residential use;
- All ECs must be operated and maintained as specified in this SMP;
- All ECs must be inspected at a frequency and in a manner defined in the SMP.
- The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the Dutchess County Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department.
- Groundwater and other environmental or public health monitoring must be performed as defined in this SMP with follow-up monitoring as required;
- Data and information pertinent to site management must be reported at the frequency and in a manner as defined in this SMP;
- All future activities that will disturb remaining contaminated material must be conducted in accordance with this SMP;

- Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in this SMP;
- Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical component of the remedy shall be performed as defined in this SMP;
- Access to the site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by the Environmental Easement.
- The potential for vapor intrusion must be evaluated for any buildings developed in the area within the IC boundaries noted on Figure 2, and any potential impacts that are identified must be monitored or mitigated; and,
- Vegetable gardens and farming on the site are prohibited.

3.3 Engineering Controls

Exposure to remaining contamination at the site is prevented by a cover system placed over the site. This cover system is comprised of a minimum of 24 inches of clean stone and soil, asphalt pavement, and concrete building slabs. Figure 3 presents the location of the cover system and applicable demarcation layers. The EWP (Appendix D) outlines the procedures required to be implemented in the event the cover system is breached, penetrated or temporarily removed, and any underlying remaining contamination is disturbed. Procedures for the inspection of this cover are provided in the Monitoring and Sampling Plan included in Section 4.0 of this SMP. Any work conducted pursuant to the EWP must also be conducted in accordance with the procedures defined in a Health and Safety Plan (HASP) and associated Community Air Monitoring Plan (CAMP) prepared for the site and provided in Appendix G.

The composite cover system is a permanent control and the quality and integrity of this system will be inspected at defined, regular intervals in accordance with this SMP in perpetuity.

4.0 MONITORING PLAN

Site-wide inspections will be performed at a minimum of once per year. Modification to the frequency or duration of the inspections will require approval from the NYSDEC. Site-wide inspections will also be performed after all severe weather conditions that may affect ECs. During these inspections, an inspection form will be completed as provided in Appendix H – Site Management Forms. The form will compile sufficient information to assess the following:

- Compliance with all ICs, including site usage;
- An evaluation of the condition and continued effectiveness of ECs;
- General site conditions at the time of the inspection; and,
- Confirm that site records are up to date.

Inspections will also be performed in the event of an emergency. If an emergency, such as a natural disaster or an unforeseen failure of any of the ECs occurs that reduces or has the potential to reduce the effectiveness of ECs in place at the site, verbal notice to the NYSDEC must be given by noon of the following day. In addition, an inspection of the site will be conducted within 5 days of the event to verify the effectiveness of the IC/ECs implemented at the site by a qualified environmental professional, as determined by the NYSDEC. Written confirmation must be provided to the NYSDEC within 7 days of the event that includes a summary of actions taken, or to be taken, and the potential impact to the environment and the public.

Reporting requirements are provided in Section 7.0 of this SMP.

5.0 OPERATION AND MAINTENANCE PLAN

The site remedy does not rely on any mechanical systems, such as groundwater treatment systems, sub-slab depressurization systems or air sparge/soil vapor extraction systems to protect public health and the environment. Therefore, the operation and maintenance of such components is not included in this SMP.

6.0 PERIODIC ASSESSMENTS/EVALUATIONS

6.1 Climate Change Vulnerability Assessment

Increases in both the severity and frequency of storms/weather events, an increase in sea level elevations along with accompanying flooding impacts, shifting precipitation patterns and wide temperature fluctuation, resulting from global climactic change and instability, have the potential to significantly impact the performance, effectiveness and protectiveness of a given site and associated remedial systems. Vulnerability assessments provide information so that the site and associated remedial systems are prepared for the impacts of the increasing frequency and intensity of severe storms/weather events and associated flooding.

The Site is not located in an area with a high risk of flooding, is in an urban area with sufficient municipal storm water collection infrastructure, and the majority of the Site is covered by buildings and pavement; given these conditions, vulnerability assessments do not appear to be warranted.

6.2 Green Remediation Evaluation

NYSDEC's DER-31 Green Remediation requires that green remediation concepts and techniques be considered during all stages of the remedial program including site management, with the goal of improving the sustainability of the cleanup and summarizing the net environmental benefit of any implemented green technology. This section of the SMP provides a summary of any green remediation evaluations to be completed for the site during site management, and as reported in the Periodic Review Report (PRR), including:

- Energy usage by SSDS;
- Fossil fuel usage associated with travel to and from the Site for monitoring activities;
- Waste generation from groundwater sampling events (i.e., purge and decontamination water); and,
- Water usage for decontamination of sampling equipment.

6.3 Remedial System Optimization

A Remedial Site Optimization (RSO) study will be conducted any time that the NYSDEC or the remedial party requests in writing that an in-depth evaluation of the remedy is needed. An RSO may be appropriate if any of the following occur:

- The remedial actions have not met or are not expected to meet RAOs in the time frame estimated in the Decision Document;
- The remedial system is not performing as expected or as designed;
- Previously unidentified source material may be suspected;
- Site conditions change due to development, change of use, change in groundwater use, etc.;
- There is an anticipated transfer of the site management to another remedial party or agency; and,
- A new and applicable remedial technology becomes available.

An RSO will provide a critique of a site's conceptual model, give a summary of past performance, document current cleanup practices, summarize progress made toward the site's cleanup goals, gather additional performance or media specific data and information and provide recommendations for improvements to enhance the ability of the present system to reach RAOs or to provide a basis for changing the remedial strategy.

7.0. REPORTING REQUIREMENTS

7.1 Site Management Reports

All site management inspection, maintenance and monitoring events will be recorded on the appropriate site management forms provided in Appendix H. These forms are subject to NYSDEC revision.

All applicable inspection forms and other records, including media sampling data and system maintenance reports, generated for the site during the reporting period will be provided in

electronic format to the NYSDEC in accordance with the requirements of Table 2 and summarized in the Periodic Review Report.

Table 2: Schedule of Monitoring/Inspection Reports

Task/Report	Reporting Frequency*
Inspection Report	Annually
Periodic Review Report	Annually, or as otherwise determined by the Department

* The frequency of events will be conducted as specified until otherwise approved by the NYSDEC.

All interim monitoring/inspections reports will include, at a minimum:

- Date of event or reporting period;
- Name, company, and position of person(s) conducting monitoring/inspection activities;
- Description of the activities performed;
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents noted (included either on the checklist/form or on an attached sheet);
- Type of samples collected (e.g., sub-slab vapor, indoor air, outdoor air, etc.);
- Copies of all field forms completed (e.g., well sampling logs, chain-of-custody documentation, etc.);
- Sampling results in comparison to appropriate standards/criteria;
- A figure illustrating sample type and sampling locations;
- Copies of all laboratory data sheets and the required laboratory data deliverables required for all points sampled (to be submitted electronically in the NYSDEC-identified format);
- Any observations, conclusions, or recommendations; and,

- A determination as to whether contaminant conditions have changed since the last reporting event.

Routine maintenance event reporting forms will include, at a minimum:

- Date of event;
- Name, company, and position of person(s) conducting maintenance activities;
- Description of maintenance activities performed;
- Any modifications to the system;
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents noted (included either on the checklist/form or on an attached sheet); and,
- Other documentation such as copies of invoices for maintenance work, receipts for replacement equipment, etc., (attached to the checklist/form).

Non-routine maintenance event reporting forms will include, at a minimum:

- Date of event;
- Name, company, and position of person(s) conducting non-routine maintenance/repair activities;
- Description of non-routine activities performed;
- Where appropriate, color photographs or sketches showing the approximate location of any problems or incidents (included either on the form or on an attached sheet); and
- Other documentation such as copies of invoices for repair work, receipts for replacement equipment, etc. (attached to the checklist/form).

Data will be reported in digital format as determined by the NYSDEC. Currently, data is to be supplied electronically and submitted to the NYSDEC EQuIS™ database in accordance with the requirements found at this link http://www.dec.ny.gov/chemical/62440.html.

7.2 Periodic Review Report

A Periodic Review Report (PRR) will be submitted to the Department beginning sixteen (16) months after the Certificate of Completion is issued. After submittal of the initial Periodic Review Report, the next PRR shall be submitted annually to the Department or at another frequency as may be required by the Department. In the event that the site is subdivided into separate parcels with different ownership, a single Periodic Review Report will be prepared that addresses the site described in Appendix E - Environmental Easement. The report will be prepared in accordance with NYSDEC's DER-10 and submitted within 30 days of the end of each certification period. Media sampling results will also be incorporated into the Periodic Review Report.

The report will include (if applicable):

- Identification, assessment and certification of all ECs/ICs required by the remedy for the site.
- Results of the required annual site inspections and severe condition inspections, if applicable.
- All applicable site management forms and other records generated for the site during the reporting period in the NYSDEC-approved electronic format, if not previously submitted.
- A summary of any discharge monitoring data and/or information generated during the reporting period, with comments and conclusions.
- Data summary tables and graphical representations of contaminants of concern by media (groundwater, soil vapor, etc.), which include a listing of all compounds analyzed, along with the applicable standards, with all exceedances highlighted. These will include a presentation of past data as part of an evaluation of contaminant concentration trends.
- Results of all analyses, copies of all laboratory data sheets, and the required laboratory data deliverables for all samples collected during the reporting period will be submitted in digital format as determined by the NYSDEC. Currently, data is

supplied electronically and submitted to the NYSDEC EQuIS™ database in accordance with the requirements found at this link: http://www.dec.ny.gov/chemical/62440.html.

- A site evaluation, which includes the following:
  - The compliance of the remedy with the requirements of the site-specific Decision Document;
  - The operation and the effectiveness of all treatment units, etc., including identification of any needed repairs or modifications;
  - Any new conclusions or observations regarding site contamination based on inspections or data generated by the Monitoring Plan;
  - Recommendations regarding any necessary changes to the remedy and/or Monitoring Plan; and,
  - The overall performance and effectiveness of the remedy.

Certification of Institutional and Engineering Controls

Certification of Institutional and Engineering Controls will be included in the Periodic Review Report.

Following the last inspection of the reporting period, a qualified environmental professional will prepare, and include in the Periodic Review Report, the following certification as per the requirements of NYSDEC DER-10:

"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/or engineering control employed at this site is unchanged from the date the control was put in place, or last approved by the Department;
- 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 Department to evaluate the remedy, including access to evaluate the continued maintenance of this control;
- 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;
- 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;
- The information presented in this report is accurate and complete; and,
- No new information has come to my attention, including groundwater monitoring data from wells located at the site boundary, if any, to indicate that the assumptions made in the qualitative exposure assessment of off-site contamination are no longer valid.

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, [name], of [business address], am certifying as [Owner/Remedial Party or Owner's/Remedial Party's Designated Site Representative]."

For BCP projects, every five years the following certification will be added:

- The assumptions made in the qualitative exposure assessment remain valid.

The signed certification will be included in the Periodic Review Report.

The Periodic Review Report will be submitted, in electronic format, to the NYSDEC Central Office, Regional Office in which the site is located and the NYSDOH Bureau of Environmental Exposure Investigation. The Periodic Review Report may need to be submitted in hard-copy format, as requested by the NYSDEC project manager.

7.3 Corrective Measures Work Plan

If any component of the remedy is found to have failed, or if the periodic certification cannot be provided due to the failure of an institutional or engineering control, a Corrective Measures Work Plan will be submitted to the NYSDEC for approval. This plan will explain the failure and provide the details and schedule for performing work necessary to correct the failure. Unless an emergency condition exists, no work will be performed pursuant to the Corrective Measures Work Plan until it has been approved by the NYSDEC.

7.4 Remedial Site Optimization Report

In the event that an RSO is to be performed (see Section 6.3, upon completion of an RSO, an RSO report must be submitted to the Department for approval. A general outline for the RSO report is provided in Appendix I. The RSO report will document the research/ investigation and data gathering that was conducted, evaluate the results and facts obtained, present a revised conceptual site model and present recommendations. RSO recommendations are to be implemented upon approval from the NYSDEC. Additional work plans, design documents, HASPs etc., may still be required to implement the recommendations, based upon the actions that need to be taken. A final engineering report and update to the SMP may also be required.

The RSO report will be submitted, in electronic format, to the NYSDEC Central Office, Regional Office in which the site is located, Site Control and the NYSDOH Bureau of Environmental Exposure Investigation.

8.0 REFERENCES

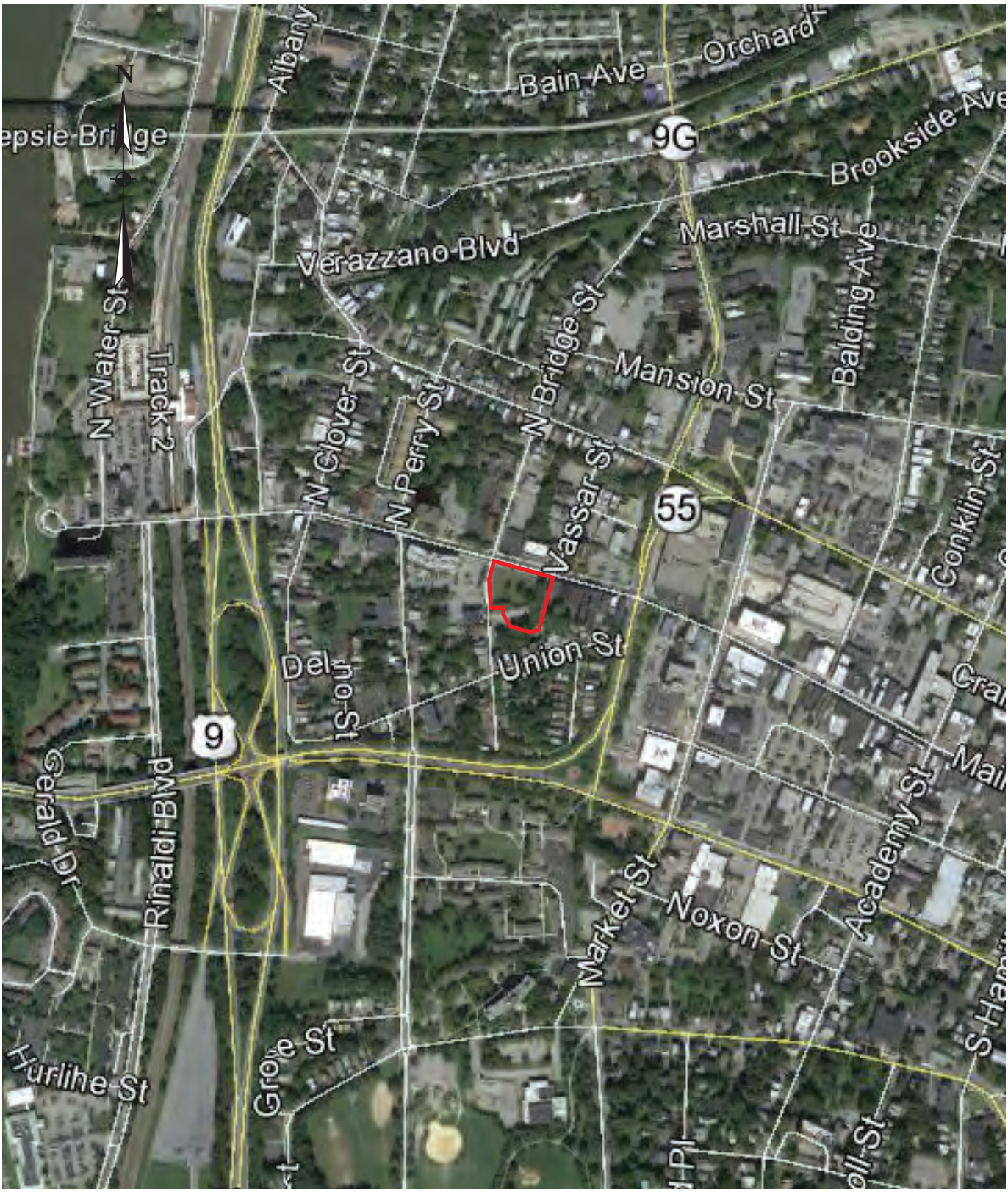
6NYCRR Part 375, Environmental Remediation Programs. December 14, 2006.

NYSDEC DER-10 – "Technical Guidance for Site Investigation and Remediation".

NYSDEC, 1998. Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations Division of Water Technical and Operational Guidance Series (TOGS) 1.1.1. June 1998 (April 2000 addendum).

APPENDIX A

Figures



All feature locations are approximate. This map is intended as a schematic to be used in conjunction with the associated report, and it should not be relied upon as a survey for planning or other activities.

Figure 1: Site Location Map
Queen City Lofts
178-188 Main Street
(portion of tax lot 944121)
Poughkeepsie, New York

Legend:
BCP Site border
0 250 500
SCALE IN FEET
(APPROXIMATELY)

WCD File: KP15045.50

December 2018

Appendix A

All feature locations are approximate. This map is intended as a schematic to be used in conjunction with the associated report, and it should not be relied upon as a survey for planning or other activities.

Figure 2: Site Layout Map

Queen City Lofts
178-188 Main Street
(portion of tax lot 944121)
Poughkeepsie, New York

Legend:

BCP Site border

WCD File: KP15045.50
December 2018
Scale as shown
Appendix A

All feature locations are approximate. This map is intended as a schematic to be used in conjunction with the associated report, and it should not be relied upon as a survey for planning or other activities.

Figure 3: Location of Engineering Controls
Queen City Lofts
178-188 Main Street
(portion of tax lot 944121)
Poughkeepsie, New York

Legend:
- BCP Site border
- concrete building slab and slab sub-base
- asphalt paved areas ane sub-base
- landscaped/unpaved areas with cover of clean stone (24" minimum)

WCD File: KP15045.50
December 2018
Scale as shown
Appendix A

MW-03 0-2	
TAL Metals	*Result*
Arsenic	4.62
Barium	110
Copper	40.5
Lead	363
Manganese	571
Mercury	**1.17**
Nickel	22.2
Zinc	117

MW-03 8-10	
TAL Metals	*Result*
Arsenic	4.05
Barium	59.6
Copper	18.2
Lead	32.6
Manganese	321
Mercury	0.319
Nickel	17.9
Zinc	53.2

HB-03	
TAL Metals	*Result*
Arsenic	5.45
Barium	140
Copper	53.1
Lead	**449**
Manganese	588
Mercury	ND
Nickel	39.2
Zinc	290

TP-10	
TAL Metals	*Result*
Arsenic	8.64
Barium	250
Copper	50
Lead	**3,200**
Manganese	326
Mercury	**0.88**
Nickel	18.8
Zinc	101

TP-08	
TAL Metals	*Result*
Arsenic	11
Barium	**915**
Copper	68.5
Lead	**5,450**
Manganese	464
Mercury	0.79
Nickel	23.1
Zinc	906

2SB-13 8-10	
TAL Metals	*Result*
Arsenic	12.1
Barium	106
Copper	31.3
Lead	13.9
Manganese	**3,070**
Mercury	ND
Nickel	31.6
Zinc	66.5

TP-04	
TAL Metals	*Result*
Arsenic	8.79
Barium	207
Copper	51.8
Lead	**635**
Manganese	558
Mercury	**2.03**
Nickel	16.9
Zinc	245

TP-13	
TAL Metals	*Result*
Arsenic	7.73
Barium	293
Copper	74.1
Lead	**817**
Manganese	511
Mercury	**3.08**
Nickel	20.2
Zinc	316

HB-04	
TAL Metals	*Result*
Arsenic	6.29
Barium	143
Copper	70.7
Lead	**452**
Manganese	673
Mercury	ND
Nickel	29.6
Zinc	279

HB-05	
TAL Metals	*Result*
Arsenic	3.88
Barium	167
Copper	40.1
Lead	**455**
Manganese	1,230
Mercury	ND
Nickel	25.9
Zinc	190

TP-12	
TAL Metals	*Result*
Arsenic	9.9
Barium	233
Copper	136
Lead	**802**
Manganese	476
Mercury	**1.48**
Nickel	28.3
Zinc	501

HB-06	
TAL Metals	*Result*
Arsenic	6.82
Barium	167
Copper	46.9
Lead	**411**
Manganese	770
Mercury	ND
Nickel	22.3
Zinc	224

HB-02	
TAL Metals	*Result*
Arsenic	9.05
Barium	49.3
Copper	44.4
Lead	115
Manganese	482
Mercury	ND
Nickel	15.2
Zinc	98.7

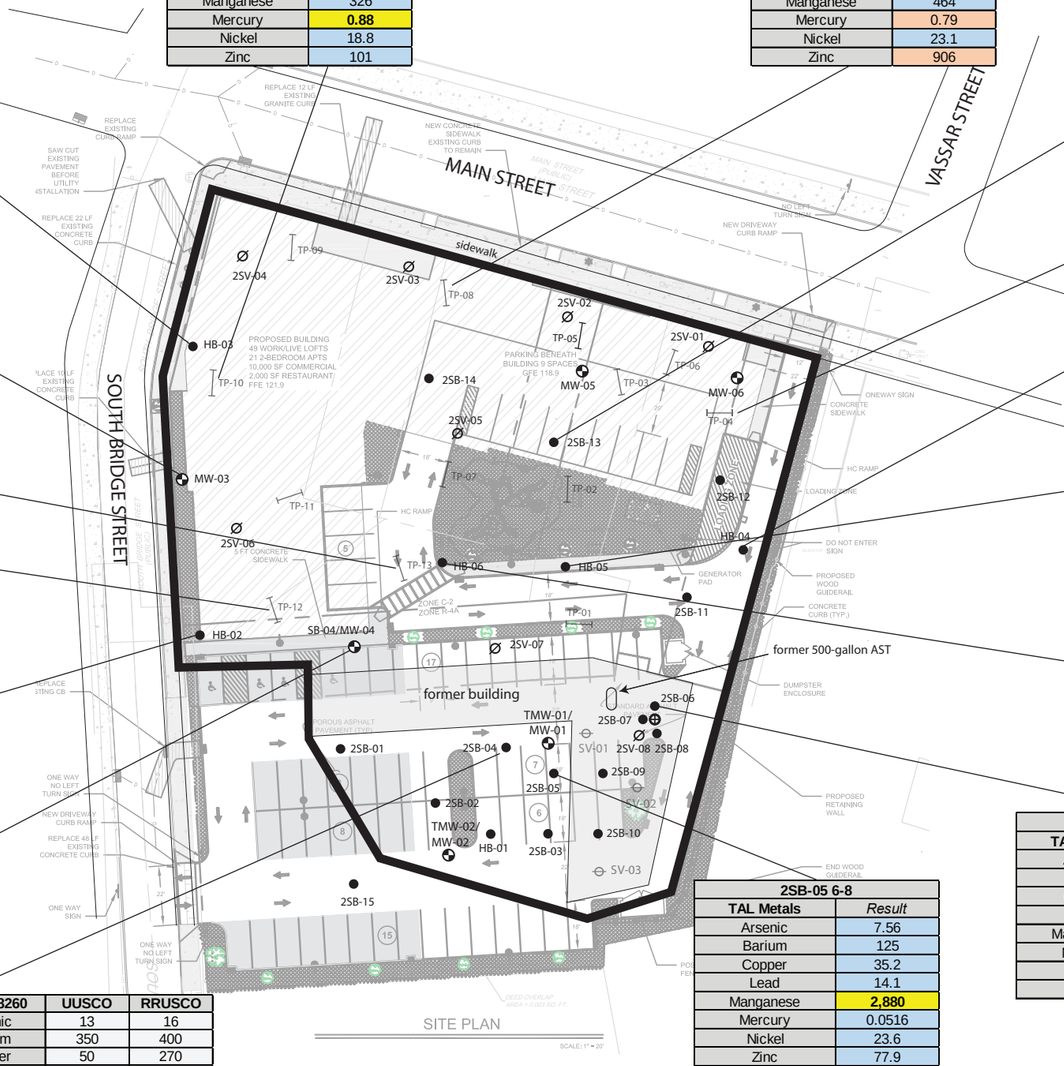
2SB-06 10-12	
TAL Metals	*Result*
Arsenic	**30.8**
Barium	108
Copper	25.2
Lead	9.76
Manganese	375
Mercury	ND
Nickel	17.6
Zinc	55.1

MW-04 8-10	
TAL Metals	*Result*
Arsenic	**97.9**
Barium	131
Copper	39.2
Lead	13.3
Manganese	1,080
Mercury	0.0545
Nickel	32.4
Zinc	118

2SB-04 8-10	
TAL Metals	*Result*
Arsenic	**28.2**
Barium	93.8
Copper	35.5
Lead	10.7
Manganese	482
Mercury	ND
Nickel	20.2
Zinc	77.3

2SB-05 6-8	
TAL Metals	*Result*
Arsenic	7.56
Barium	125
Copper	35.2
Lead	14.1
Manganese	**2,880**
Mercury	0.0516
Nickel	23.6
Zinc	77.9

VOCs, 8260	UUSCO	RRUSCO
Arsenic	13	16
Barium	350	400
Copper	50	270
Lead	63	400
Manganese	1,600	2,000
Mercury	0.18	1
Nickel	30	310
Zinc	109	2,200
Analyte Detected		
Analyte Above UUSCO		
Analyte Above RRUSCO		
All data in mg/Kg (parts per million)		
ND = non detect		



Legend:

- subject property border
- previous test pit location
- former floor drain location
- previous soil vapor location
- soil boring location
- monitoring well and soil boring location
- soil vapor location

0 25 50

SCALE IN FEET (APPROXIMATELY)

All feature locations are approximate. This map is intended as a schematic to be used in conjunction with the associated report, and it should not be relied upon as a survey for planning or other activities.

Figure 4: Pre-remediation Soil Contamination Above Unrestricted Use and Track 4 SCOs - Metals

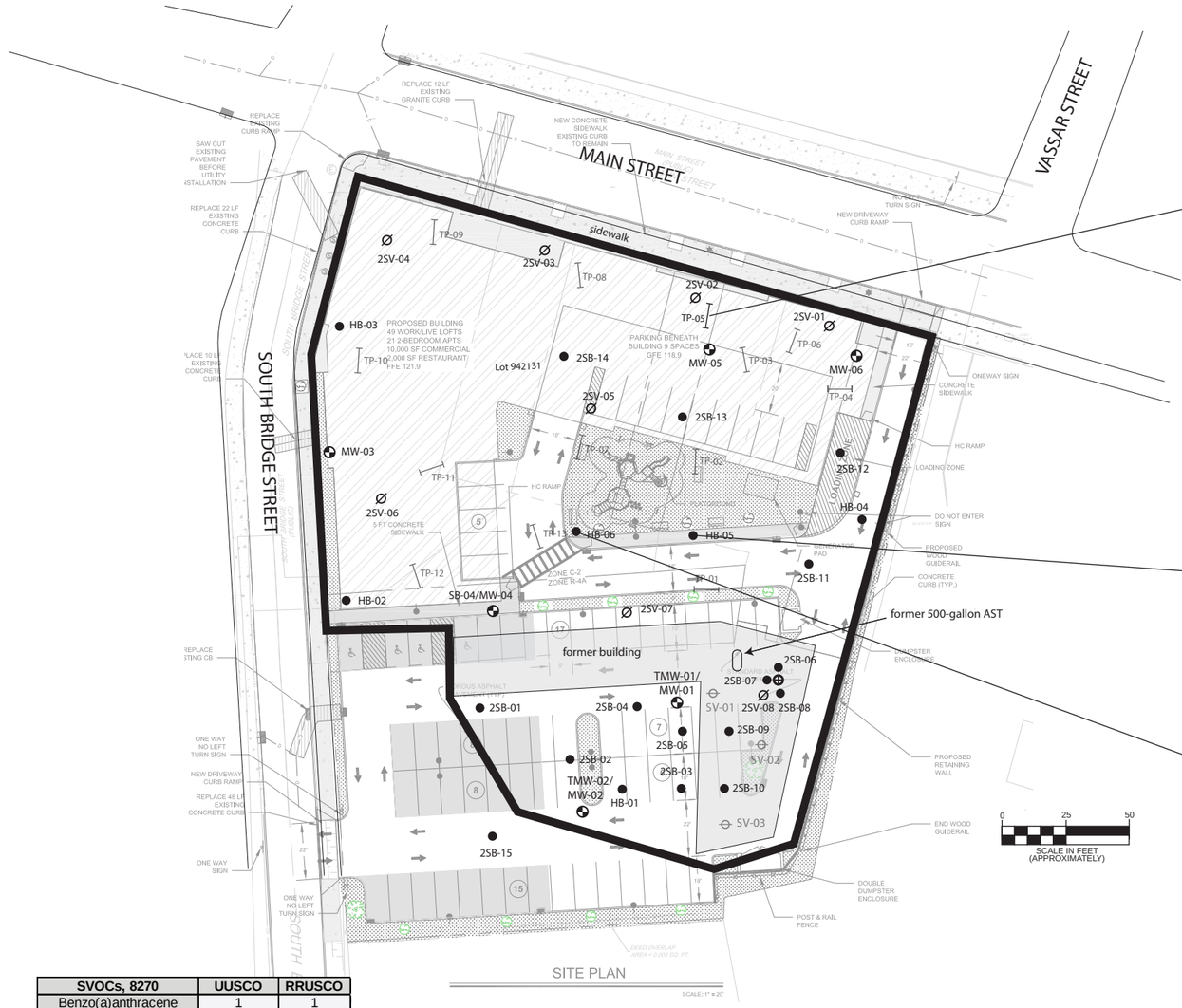
Queen City Lofts
178-188 Main Street
(portion of tax lot 944121)
Poughkeepsie, New York

File No: KP15045.50

Scale s shown

December 2018 | Appendix A

N



TP-05	
SVOCs, 8270	*Result*
Benzo(a)anthracene	**2.77**
Benzo(a)pyrene	**1.95**
Benzo(b)fluoranthene	**1.86**
Benzo(k)fluoranthene	1.41
Chrysene	2.19
Indeno(1,2,3-cd)pyrene	**0.643**

HB-05	
SVOCs, 8270	*Result*
Benzo(a)anthracene	**1.36**
Benzo(k)fluoranthene	0.832
Chrysene	1.31

HB-06	
SVOCs, 8270	*Result*
Benzo(a)anthracene	**15.5**
Benzo(a)pyrene	**10.1**
Benzo(b)fluoranthene	**11**
Benzo(k)fluoranthene	**10**
Chrysene	**15**
Dibenzo(a,h)anthracene	**0.611**
Indeno(1,2,3-cd)pyrene	**1.18**

SVOCs, 8270	UUSCO	RRUSCO
Benzo(a)anthracene	1	1
Benzo(a)pyrene	1	1
Benzo(b)fluoranthene	1	1
Benzo(k)fluoranthene	0.8	3.9
Chrysene	1	3.9
Indeno(1,2,3-cd)pyrene	0.5	1
Analyte Detected		
Analyte Above UUSCO		
Analyte Above RRUSCO		
All data in mg/Kg (parts per million)		
ND = non detect		

Legend:

- subject property border
- previous test pit location
- former floor drain location
- previous soil vapor location
- soil boring location
- monitoring well and soil boring location
- soil vapor location

All feature locations are approximate. This map is intended as a schematic to be used in conjunction with the associated report, and it should not be relied upon as a survey for planning or other activities.

Figure 5: Pre-remediation Soil Contamination Above Unrestricted Use and Track 4 SCOs - SVOCs

Queen City Lofts
178-188 Main Street
(portion of tax lot 944121)
Poughkeepsie, New York

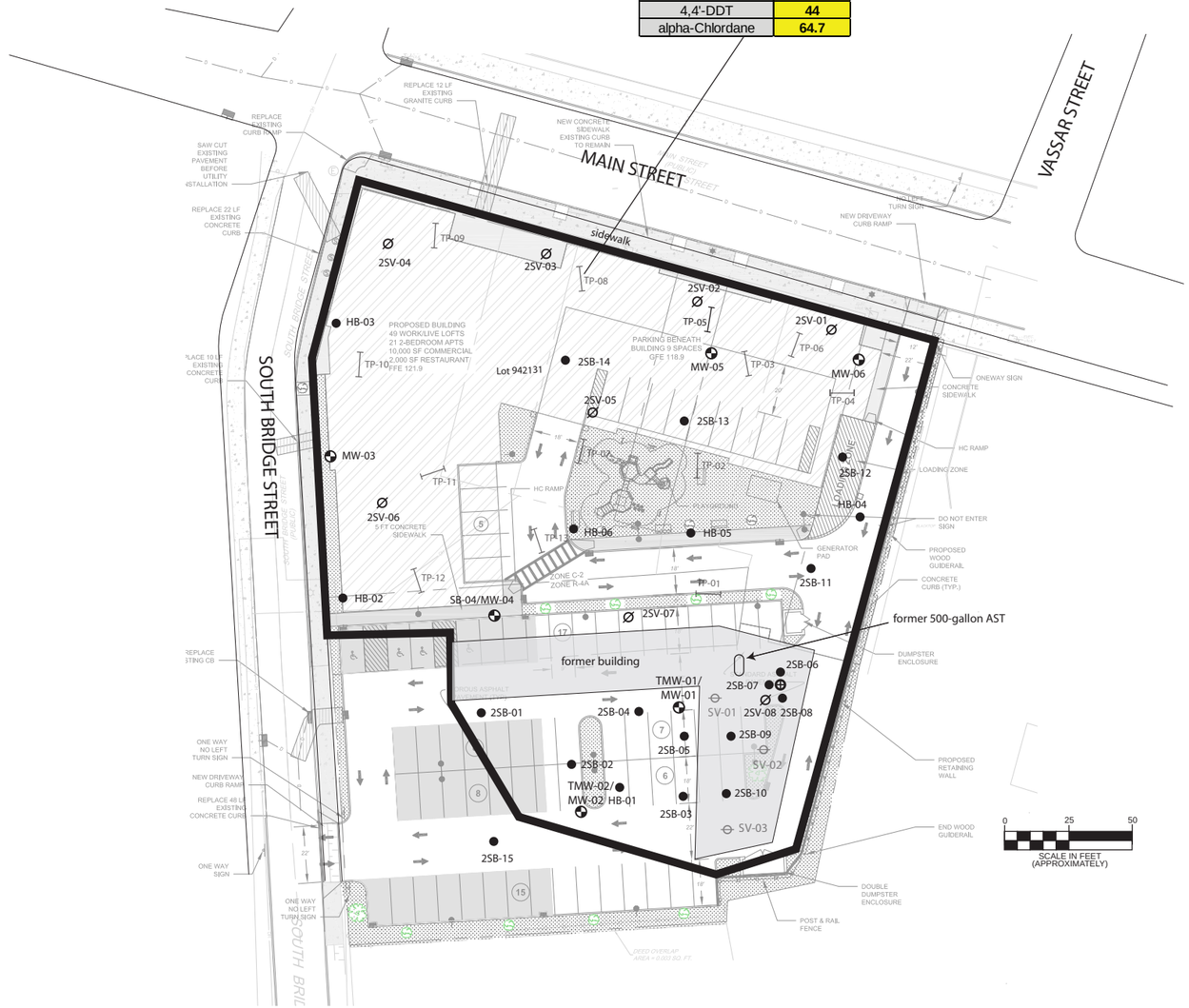
File No: KP15045.50

Scale s shown

December 2018 | Appendix A

N

TP-08	
Pesticides	*Result*
4,4'-DDE	**20.1**
4,4'-DDT	**44**
alpha-Chlordane	**64.7**



Pesticides	UUSCO	RRUSCO
4,4'-DDE	0.0033	8.9
4,4'-DDT	0.0033	7.9
alpha-Chlordane	0.094	4
Analyte Detected		
Analyte Above UUSCO		
Analyte Above RRUSCO		
All data in mg/Kg (parts per million)		
ND = non detect		

Legend:

- subject property border
- previous test pit location
- former floor drain location
- previous soil vapor location
- soil boring location
- monitoring well and soil boring location
- soil vapor location

All feature locations are approximate. This map is intended as a schematic to be used in conjunction with the associated report, and it should not be relied upon as a survey for planning or other activities.

Figure 6: Pre-remediation Soil Contamination Above Unrestricted Use and Track 4 SCOs - Pesticides

Queen City Lofts
178-188 Main Street
(portion of tax lot 944121)
Poughkeepsie, New York

File No: KP15045.50

Scale s shown

December 2018 | Appendix A

APPENDIX B

Tables

Table 3: Pre-remediation Soil Contamination Above Unrestricted Use and Track 4 SCOs

NYSDEC BCP Site: C314125

Data in mg/Kg (parts per million)		**Sample ID**	**TP-04**		**TP-08**		**TP-10**		**TP-12**		**TP-13**		**2SB-04 8-10**	
U= Not Detected (≥ value)		Sample Date	(2014-10-02)		(2014-10-02)		(2014-10-02)		(2014-10-02)		(2014-10-02)		(2016-10-24)	
Data above RR SCO in **Bold**		Dilution Factor	1		1		1		1		1		1	
Metals, 6010 and 7473	**UUSCO**	**RRUSCO**	Result	*Qualifier*	Result	*Qualifier*	Result	*Qualifier*	Result	*Qualifier*	Result	*Qualifier*	Result	*Qualifier*
Arsenic	13	16	8.79		11		8.64		9.9		7.73		**28.2**	
Barium	350	400	207		**915**		250		233		293		93.8	
Copper	50	270	51.8		68.5		50		136		74.1		35.5	
Lead	63	400	**635**		**5,450**		**3,200**		**802**		**817**		10.7	
Manganese	1,600	2,000	558		464		326		476		511		482	
Mercury	0.18	0.81	**2.03**		0.79		**0.88**		**1.48**		**3.08**		0.0362	*U*
Nickel	30	310	16.9		23.1		18.8		28.3		20.2		20.2	
Zinc	109	2,200	245		906		101		501		316		77.3	

		Sample ID	**2SB-05 6-8**		**2SB-06 10-12**		**2SB-13 8-10**		**MW-03 0-2**		**MW-03 8-10**		**MW-04 8-10**	
		Sample Date	(2016-10-24)		(2016-10-25)		(2016-10-25)		(2016-10-26)		(2016-10-26)		(2016-10-26)	
		Dilution Factor	10		1		10		1		1		1	
Metals, 6010 and 7473	**UUSCO**	**RRUSCO**	Result	*Qualifier*	Result	*Qualifier*	Result	*Qualifier*	Result	*Qualifier*	Result	*Qualifier*	Result	*Qualifier*
Arsenic	13	16	7.56		**30.8**		12.1		4.62		4.05		**97.9**	
Barium	350	400	125		108		106		110		59.6		131	
Copper	50	270	35.2		25.2		31.3		40.5		18.2		39.2	
Lead	63	400	14.1		9.76		13.9		363		32.6		13.3	
Manganese	1,600	2,000	**2,880**	*D*	375		**3,070**	*D*	571		321		1,080	
Mercury	0.18	0.81	0.0516		0.0387	*U*	0.102		**1.17**		0.319		0.0545	
Nickel	30	310	23.6		17.6		31.6		22.2		17.9		32.4	
Zinc	109	2,200	77.9		55.1		66.5		117		53.2		118	

		Sample ID	**HB-02**		**HB-03**		**HB-04**		**HB-05**		**HB-06**	
		Sample Date	(2016-12-20)		(2016-12-20)		(2016-12-20)		(2016-12-20)		(2016-12-20)	
		Dilution Factor	1		1		1		10		1	
Metals, 6010 and 7473	**UUSCO**	**RRUSCO**	Result	*Qualifier*	Result	*Qualifier*	Result	*Qualifier*	Result	*Qualifier*	Result	*Qualifier*
Arsenic	13	16	9.05		5.45		6.29		3.88		6.82	
Barium	350	400	49.3		140		143		167		167	
Copper	50	270	44.4		53.1		70.7		40.1		46.9	
Lead	63	400	115		**449**		**452**		**455**		**411**	
Manganese	1,600	2,000	482		588		673		1,230	*D*	770	
Mercury	0.18	0.81	0.036	*U*	0.0406	*U*	0.0401	*U*	0.0374	*U*	0.0417	*U*
Nickel	30	310	15.2		39.2		29.6		25.9		22.3	
Zinc	109	2,200	98.7		290		279		190		224	

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available

Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

Table 3: Pre-remediation Soil Contamination Above Unrestricted Use and Track 4 SCOs
NYSDEC BCP Site: C314125

		Sample ID	TP-08	
		Sample Date	(2014-10-02)	
		Dilution Factor	1	
Pesticides, 8081	**UUSCO**	**RRUSCO**	*Result*	*Qualifier*
4,4'-DDE	0.0033	8.9	**20.1**	*D*
4,4'-DDT	0.0033	7.9	**44**	*D*
alpha-Chlordane	0.094	4.20	**64.7**	*D*

		Sample ID	TP-05		HB-05		HB-06	
		Sample Date	(2015-05-26)		(2016-12-20)		(2016-12-20)	
		Dilution Factor	1		2		2	
SVOCs, 8270	**UUSCO**	**RRUSCO**	*Result*	*Qualifier*	*Result*	*Qualifier*	*Result*	*Qualifier*
Benzo(a)anthracene	1	1	**2.77**	*D*	**1.36**	*D*	**15.5**	*D*
Benzo(a)pyrene	1	1	**1.95**	*D*	0.77	*D*	**10.1**	*D*
Benzo(b)fluoranthene	1	1	**1.86**	*D*	0.999	*D*	**11**	*D*
Benzo(g,h,i)perylene	100	100	0.799	*D*	0.326	*D*	0.994	*D*
Benzo(k)fluoranthene	0.8	3.9	1.41	*D*	0.832	*D*	**10**	*D*
Chrysene	1	3.9	2.19	*D*	1.31	*D*	**15**	*D*
Dibenzo(a,h)anthracene	0.33	0.33	0.283	*D*	0.239	*D*	**0.611**	*D*
Indeno(1,2,3-cd)pyrene	0.5	1	**0.643**	*D*	0.391	*D*	**1.18**	*D*

Analyte Detected
Analyte Above UUSCO
Analyte Above RRUSCO

Notes: SCOs based on NYSDEC Part 375-6.8 and CP-51 NA = not available
Result Qualifiers: J = approximate E = estimated B = detected in blank D = diluted

APPENDIX C
LIST OF SITE CONTACTS

Emergency Contact Numbers	
Medical, Fire, and Police:	911
One Call Center:	(800) 272-4480 (3 day notice required for utility markout)
Poison Control Center:	(800) 222-1222
Pollution Toxic Chemical Oil Spills:	(800) 424-8802
NYSDEC Spills Hotline	(800) 457-7362
City of Poughkeepsie Police Department 62 Civic Center Plaza, Poughkeepsie, NY 12601	(845) 451-4000 or 911
City of Poughkeepsie Fire Department	911
City Hall	(845) 451-4200
Main Water and Sewer	(845) 451-4111
Central Hudson (electric and gas service)	(845) 452-2700
Site Contact Numbers	
NYSDEC Division of Environmental Remediation Douglas MacNeal (NYSDEC Project Manager)	(518) 402-9662
The Kearney Realty & Development Group Inc. (Remedial Party Representative)	(845) 306-7705
WCD Group Paul H. Ciminello, Senior Consultant (Qualified Environmental Professional)	(845) 452-1658
Bell Engineering, PLLC Philip Bell, P.E (Remedial Engineer)	(845) 565-3802
Steven Berninger, NYSDOH	(518) 402-7860 beei@doh.ny.gov

APPENDIX D – EXCAVATION WORK PLAN (EWP)

2-1 NOTIFICATION

At least 15 days prior to the start of any activity that is anticipated to encounter remaining contamination, the site owner or their representative will notify the NYSDEC. Table 2-1 includes contact information for the above notification. The information on this table will be updated as necessary to provide accurate contact information. A full listing of site-related contact information is provided in Appendix C.

Table 2-1: Notifications*

Douglas MacNeal Project Manager NYSDEC DER, Albany	(518) 402-9662 douglas.macneal@dec.ny.gov
Chief, Site Control Section NYSDEC 625 Broadway Albany, NY 12233-7020	(518) 402-9569

* Note: Notifications are subject to change and will be updated as necessary.

This notification will include:

- A detailed description of the work to be performed, including the location and areal extent of excavation, plans/drawings for site re-grading, intrusive elements or utilities to be installed below the soil cover, estimated volumes of contaminated soil to be excavated and any work that may impact an engineering control;
- A summary of environmental conditions anticipated to be encountered in the work areas, including the nature and concentration levels of contaminants of concern, potential presence of grossly contaminated media, and plans for any pre-construction sampling;
- A schedule for the work, detailing the start and completion of all intrusive work;
- A summary of the applicable components of this EWP;
- A statement that the work will be performed in compliance with this EWP and 29 CFR 1910.120;
- A copy of the contractor's health and safety plan (HASP), in electronic format, if it differs from the HASP provided in Appendix G of this SMP;

- Identification of disposal facilities for potential waste streams; and,
- Identification of sources of any anticipated backfill, along with all required chemical testing results.

2-2 SOIL SCREENING METHODS

Visual, olfactory and instrument-based (e.g. photoionization detector) soil screening will be performed by a qualified environmental professional during all excavations into known or potentially contaminated material (remaining contamination). Soil screening will be performed when invasive work is done and will include all excavation and invasive work performed during development, such as excavations for foundations and utility work, after issuance of the COC.

Grossly contaminated soil will be identified by the presence of: non-aqueous phase liquids (NAPL); visual indications of staining, discoloration or the presence of other obvious signs of contamination; noticeable odors associated with petroleum, solvents or other chemicals; and/or elevated PID readings compared to background levels.

Soils will be segregated based on current fieldwork observations and/or previous environmental data and screening results into material that requires off-site disposal and material that requires testing to determine if the material can be reused on-site as soil beneath a cover or if the material can be used as cover soil. Further discussion of off-site disposal of materials and on-site reuse is provided in Sections 2-5 through 2-7 of this Appendix.

2 -3 SOIL STAGING METHODS

All stockpile activities will be compliant with applicable laws and regulations. Soil stockpile areas will be appropriately graded to control run-off in accordance with applicable laws and regulations and will be located in areas not subject to flooding or excessive sheet flow during storm events. Material to be stockpiled will be placed within an area designed and constructed to contain the materials from all sides and prevent runoff and dispersion. Stockpiles of excavated soils and other materials shall be located at least of 50 feet from the property boundaries, where possible.

Excavated soil from suspected areas of contamination will be stockpiled separately and will be segregated from clean soil and construction materials. Stockpiles will be used only when necessary and will be removed as soon as practicable. Excavated soils will be stockpiled on, at minimum, double layers of 8-

mil minimum sheeting. Stockpiles will be kept covered at all times with appropriately anchored tarps. Stockpiles will be routinely inspected and damaged tarp covers will be promptly replaced.

Soil stockpiles will be continuously encircled with a berm and/or silt fence. Hay bales will be used as needed near catch basins, surface waters and other discharge points.

Stockpiles will be kept covered at all times with appropriately anchored tarps. Stockpiles will be routinely inspected and damaged tarp covers will be promptly replaced.

Stockpiles will be inspected at a minimum once each week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the site and available for inspection by the NYSDEC.

2-4 MATERIALS EXCAVATION AND LOAD-OUT

A qualified environmental professional or person under their supervision will oversee all invasive work and the excavation and load-out of all excavated material.

The owner of the property and remedial party (if applicable) and its contractors are responsible for safe execution of all invasive and other work performed under this Plan.

The presence of utilities and easements on the site will be investigated by the qualified environmental professional. It will be determined whether a risk or impediment to the planned work under this SMP is posed by utilities or easements on the site.

Loaded vehicles leaving the site will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate Federal, State, local, and NYSDOT requirements (and all other applicable transportation requirements).

A truck wash will be operated on-site, as appropriate. The qualified environmental professional will be responsible for ensuring that all outbound trucks will be washed at the truck wash before leaving the site until the activities performed under this section are complete Truck wash waters will be collected and disposed of off-site in an appropriate manner.

Locations where vehicles enter or exit the site shall be inspected daily for evidence of off-site soil tracking.

The qualified environmental professional will be responsible for ensuring that all egress points for truck and equipment transport from the site are clean of dirt and other materials derived from the site during

intrusive excavation activities. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to site-derived materials.

The qualified environmental professional will ensure that construction activities will not interfere with, or otherwise impair or compromise, the engineering controls installed at the Site.

2-5 MATERIALS TRANSPORT OFF-SITE

All transport of materials will be performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded.

Material transported by trucks exiting the site will be secured with tight-fitting covers. Loose-fitting canvas-type truck covers will be prohibited. If loads contain wet material capable of producing free liquid, truck liners will be used.

Truck transport routes are as follows: east on Main Street; south onto the East-West Arterial; west onto Church Street (U.S. 44). All trucks loaded with site materials will exit the vicinity of the site using only these approved truck routes. This is the most appropriate route and takes into account: (a) limiting transport through residential areas and past sensitive sites; (b) use of city mapped truck routes; (c) prohibiting off-site queuing of trucks entering the facility; (d) limiting total distance to major highways; (e) promoting safety in access to highways; and (f) overall safety in transport.

Trucks will be prohibited from stopping and idling in the neighborhood outside the project site.

Egress points for truck and equipment transport from the site will be kept clean of dirt and other materials during site remediation and development.

Queuing of trucks will be performed on-site in order to minimize off-site disturbance. Off-site queuing will be prohibited.

2-6 MATERIALS DISPOSAL OFF-SITE

All material excavated and removed from the site will be treated as contaminated and regulated material and will be transported and disposed in accordance with all local, State (including 6NYCRR Part 360) and Federal regulations. If disposal of material from this site is proposed for unregulated off-site disposal (i.e. clean soil removed for development purposes), a formal request with an associated plan will be made to

the NYSDEC. Unregulated off-site management of materials from this site will not occur without formal NYSDEC approval.

Off-site disposal locations for excavated soils will be identified in the pre-excavation notification. This will include estimated quantities and a breakdown by class of disposal facility if appropriate, i.e. hazardous waste disposal facility, solid waste landfill, petroleum treatment facility, C/D recycling facility, etc. Actual disposal quantities and associated documentation will be reported to the NYSDEC in the Periodic Review Report. This documentation will include: waste profiles, test results, facility acceptance letters, manifests, bills of lading and facility receipts.

Non-hazardous historic fill and contaminated soils taken off-site will be handled, at minimum, as a Municipal Solid Waste per 6NYCRR Part 360-1.2. Material that does not meet Unrestricted SCOs is prohibited from being taken to a New York State recycling facility (6NYCRR Part 360-16 Registration Facility).

Soils that are contaminated but non-hazardous and are being removed from the Site are considered by the Division of Materials Management (DMM) in NYSDEC to be Construction and Demolition (C/D) materials with contamination not typical of virgin soils. These soils may be sent to a permitted Part 360 landfill. They may be sent to a permitted C/D processing facility without permit modifications only upon prior notification of NYSDEC Region 3 DMM. In this case, as dictated by DMM, special procedures will include, at a minimum, a letter to the C/D facility that provides a detailed explanation that the material is derived from a DER remediation Site, that the soil material is contaminated and that it must not be redirected to on-Site or off-Site Soil Recycling Facilities. The letter will provide the project identity and the name and phone number of the Remedial Engineer. The letter will include as an attachment a summary of all chemical data for the material being transported.

Bill of Lading system or equivalent will be used for off-Site movement of non-hazardous wastes and contaminated soils.

Hazardous wastes derived from on-Site will be stored, transported, and disposed of in full compliance with applicable local, State, and Federal regulations.

Waste characterization will be performed for off-Site disposal in a manner suitable to the receiving facility and in conformance with applicable permits. All data available for soil/material to be disposed at a given facility must be submitted to the disposal facility with suitable explanation prior to shipment and receipt.

The Periodic Review Report will include an accounting of the destination of all material removed from the Site, including records and approvals for receipt of the material, and a discussion of sampling and analytical methods, sampling frequency, analytical results.

2-7 MATERIALS REUSE ON-SITE

Soil and fill that is derived from the property that meets the soil cleanup objectives established in this plan may be reused on-Site. "Reuse on-Site" means material that is excavated during the remedy or development, does not leave the property, and is relocated within the same property and on comparable soil/fill material, and addressed pursuant to Engineering Controls. The qualified environmental professional will ensure that procedures defined for materials reuse in this SMP are followed and that unacceptable material does not remain on-site. Contaminated on-site material, including historic fill and contaminated soil, that is acceptable for reuse on-site will be placed below the demarcation layer or impervious surface, and will not be reused within a cover soil layer, within landscaping berms, or as backfill for subsurface utility lines. On-site soils and urban fill determined by the NYSDEC to be acceptable for on-site re-use will not be place below the static water level.

Any demolition material proposed for reuse on-site will be sampled for asbestos and the results will be reported to the NYSDEC for acceptance. Concrete crushing or processing on-site will not be performed without prior NYSDEC approval. Organic matter (wood, roots, stumps, etc.) or other solid waste derived from clearing and grubbing of the site will not be reused on-site.

2-8 FLUIDS MANAGEMENT

All liquids to be removed from the site, including but not limited to, excavation dewatering, decontamination waters and groundwater monitoring well purge and development waters, will be handled, transported and disposed in accordance with applicable local, State, and Federal regulations. Dewatering, purge and development fluids will not be recharged back to the land surface or subsurface of the site, and will be managed off-site, unless prior approval is obtained from NYSDEC.

Discharge of water generated during large-scale construction activities to surface waters (i.e. a local pond, stream or river) will be performed under a SPDES permit (no such discharge is anticipated for this Site).

2-9 COVER SYSTEM RESTORATION

After the completion of soil removal and any other invasive activities, the cover system will be restored in a manner that complies with the RAWP and/or Record of Decision. The existing cover system is

comprised of concrete building slabs, asphalt pavement, and a minimum of two feet of clean stone in unpaved exterior areas. The demarcation layer, consisting of orange snow fencing material will be replaced to provide a visual reference to the top of the remaining contamination zone, the zone that requires adherence to special conditions for disturbance of remaining contaminated soils defined in this SMP. If the type of cover system changes from that which exists prior to the excavation (i.e., a soil cover is replaced by asphalt), this will constitute a modification of the cover element of the remedy and the upper surface of the remaining contamination. A figure showing the modified surface will be included in the subsequent Periodic Review Report and in an updated SMP.

2-10 BACKFILL FROM OFF-SITE SOURCES

All materials proposed for import onto the site will be approved by the qualified environmental professional and will be in compliance with provisions in this SMP prior to receipt at the site. A Request to Import/Reuse Fill or Soil form, which can be found at http://www.dec.ny.gov/regulations/67386.html, will be prepared and submitted to the NYSDEC project manager allowing a minimum of 5 business days for review.

The imported materials will be from an approved source/facility and will be evaluated by the qualified environmental professional to ensure that:

- A segregated stockpile is properly maintained at the source and will not be comingled with any other material prior to importing and grading the clean soil material at the Site;
- Material does not include any prohibited material (e.g., solid waste, including construction and demolition material);
- Screening for evidence of contamination by visual, olfactory and PID soil screening practices prior to testing at the source as well as upon importing to the Site for grading is completed; and,
- In the absence of preexisting, credible chemical analytical data, a grab sample (for VOCs) and a maximum five-part composite sample will be collected from the segregated stockpile at the source, with sampling frequency and laboratory analyses conforming to the requirements specified in DER-10 5.4(e), including soil analysis for the following parameters:

TCL VOCs by EPA Method 8260C	TCL PCBs by EPA Method 8082A
TCL SVOCs by EPA Method 8270D	TAL Metals by EPA Method 6010C/7471B
TCL Pesticides by EPA Method 8081B	

Material from industrial sites, spill sites, or other environmental remediation sites or potentially contaminated sites will not be imported to the site.

All imported soils will meet the backfill and cover soil quality standards established in 6NYCRR 375-6.7(d). Based on an evaluation of the land use, protection of groundwater and protection of ecological resources criteria, the resulting soil quality standards are listed as an attachment to the Quality Assurance Project Plan (QAPP), SMP Appendix F. Soils that meet 'exempt' fill requirements under 6 NYCRR Part 360, but do not meet backfill or cover soil objectives for this site, will not be imported onto the site without prior approval by NYSDEC. Solid waste will not be imported onto the site.

Trucks entering the site with imported soils will be securely covered with tight fitting covers. Imported soils will be stockpiled separately from excavated materials and covered to prevent dust releases.

The following documentation will be provided to the NYSDEC in the Periodic Review Report:

- Copies of purchase invoices;
- Truck transportation slips from the source to the Site;
- Confirmation of the weight and volume of NYSDEC approved clean soil imported;
- Site plan depicting all areas where the NYSDEC approved clean soil cover has been placed.

2-11 STORMWATER POLLUTION PREVENTION

Procedures for stormwater pollution prevention will be implemented during all excavation activities. An Erosion and Sediment Control Plan that conforms to the requirements of the NYSDEC Division of Water guidelines and NYS regulations will be developed by the Contractor and approved by the Remedial Engineer, as warranted (this plan will be provided to the NYSDEC prior to any construction activities).

Silt fencing or hay bales will be installed around the entire perimeter of the construction area. Barriers and hay bale checks will be inspected once a week and after every storm event. Results of inspections will be recorded in a logbook and maintained at the site and available for inspection by the NYSDEC. All necessary repairs shall be made immediately.

Accumulated sediments will be removed as required to keep the barrier and hay bale check functional. All undercutting or erosion of the silt fence toe anchor shall be repaired immediately with appropriate backfill materials. Manufacturer's recommendations will be followed for replacing silt fencing damaged due to weathering.

Erosion and sediment control measures identified in the SMP shall be observed to ensure that they are operating correctly. Where discharge locations or points are accessible, they shall be inspected to ascertain whether erosion control measures are effective in preventing significant impacts to receiving waters.

2-12 EXCAVATION CONTINGENCY PLAN

This contingency plan describes actions that must occur upon the discovery of previously unknown contaminated material(s), USTs, demolition debris or other unknown unidentifiable material that requires special handling. On-site personnel should be prepared to respond appropriately if the following previously unknown materials are encountered (if encountered, this material could result in a recommendation from the Remedial Engineer/QEP for an immediate, temporary shutdown of construction activities):

- Previously unknown tanks (including drums) containing a liquid product that is not likely to be water and is likely to present a threat to worker health or safety;
- Previously unknown demolition debris, which could contain significant quantities of asbestos, the disturbance of which is determined, based on field observations, to violate or likely to violate Federal, State, or local asbestos regulations; and,
- Material which cannot be readily identified.

If underground tanks or other previously unidentified contaminant sources are found during post-remedial subsurface excavations or development related construction, excavation activities will be suspended until sufficient equipment is mobilized to address the condition.

Sampling will be performed on product, sediment and surrounding soils, etc. as necessary to determine the nature of the material and proper disposal method. Chemical analysis will be performed for a full list of analytes (TAL metals; TCL volatiles and semi-volatiles, TCL pesticides and PCBs), unless the site history and previous sampling results provide a sufficient justification to limit the list of analytes. In this case, a reduced list of analytes will be proposed to the NYSDEC for approval prior to sampling.

Identification of unknown or unexpected contaminated media identified by screening during invasive site work will be promptly communicated by phone to NYSDEC's Project Manager. Reportable quantities of petroleum product will also be reported to the NYSDEC spills hotline. These findings will be also included in the Periodic Review Report.

Procedures for Encountered Underground Storage Tanks

Closure of any encountered USTs at the Site will be in accordance with the requirements of DER-10, Section 5.5. Any encountered, previously unknown USTs will be visually inspected to determine if liquids are present in the tank. Significant quantities of liquid remaining in the tanks will be drummed on the Site or removed by a properly licensed disposal company and the particular product (e.g., fuel oil, diesel, etc.) will be identified prior to off-site disposal at a permitted facility. All encountered USTs will be disposed of pursuant to applicable Petroleum Bulk Storage (PBS) and hazardous waste regulations.

Procedures for Encountered Demolition Debris

Any encountered regulated debris materials will be screened for contamination conditions, segregated from other excavated materials and stockpiled pending off-site disposal. Excavated regulated debris material may not be reinterred or otherwise reused on the Site. All debris materials will be properly characterized to determine an appropriate disposal facility, in accordance with applicable local, state and federal regulations. To the extent practical, all clearly identifiable material suspected of containing asbestos will be removed from the waste stream, handled separately and analyzed to determine the percent of asbestos present. The presence of significant quantities of asbestos will result in a temporary shutdown of the Site.

Procedures for Encountered Unknown Material

Material which cannot be readily identified but which is considered, based on field observations, to be material that needs further investigation before disposal will be properly stockpiled in an area separate from all other stockpiled material.

Unknown material will be screened with a PID and all recorded levels will be documented. Samples will be collected and analyzed to identify the compounds present and to assist in determining appropriate disposal practices. Until determined by laboratory analysis otherwise, this material will be considered a hazardous substance. Specific materials known to require sampling and analysis prior to final disposition include all building components and debris containing painted surfaces and/or caulk. A plan to describe the handling and disposal of such materials will be submitted to NYSDEC for review and approval.

2-13 COMMUNITY AIR MONITORING PLAN

The NYSDOH Generic CAMP (attached to the HASP provided in Appendix G) will be initiated during all ground intrusive activities, and during any other fieldwork that is reasonably likely to generate significant

dust or vapors from known or suspected contaminated soils. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pit excavation or trenching, and the installation of soil borings or monitoring wells. The implementation of the CAMP will document the presence or absence of VOCs and dust in the air surrounding the work zone, which may migrate off-site due to fieldwork activities. This plan provides guidance on the need for implementing more stringent dust and emission controls based on air quality data.

Mitigation measures may include reducing the surface area of contaminated soil being disturbed at one time, watering exposed soils to reduce fugitive dust and odors, or stopping excavation activities. Dust suppression activities will be conducted during construction activities that will disturb on-site soils and may include misting, reduction in soil movement, or cessation of excavation.

Real-time air monitoring for VOCs and particulate levels at the perimeter of the exclusion zone or work area will be performed. Periodic monitoring for VOCs will be performed during non-intrusive activities such as the collection of soil and sediment samples or the collection of groundwater samples from existing monitoring wells. Periodic monitoring during sample collection, for instance, will consist of taking a reading upon arrival at a sample location, monitoring while opening a well cap or overturning soil, monitoring during well baling/purging, and taking a reading prior to leaving a sample location. Depending upon the proximity of potentially exposed individuals, continuous monitoring may be performed during sampling activities. Examples of such situations include groundwater sampling at wells on the curb of a busy urban street, in the midst of a public park, or adjacent to a school or residence. Exceedances of action levels observed during performance of the CAMP will be reported to the NYSDEC Project Manager and included in the Daily Report.

VOC Monitoring, Response Levels, and Actions

VOCs will be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) on a continuous basis during invasive work. Upwind concentrations will be measured at the start of each workday and periodically thereafter to establish background conditions. The monitoring work will be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment will be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment will be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

If the ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone exceeds 5 parts per million (ppm) above background for the 15-minute average, work activities will be temporarily halted and monitoring continued. If the total organic vapor level readily decreases (per instantaneous readings) below 5 ppm over background, work activities will resume with continued monitoring.

If total organic vapor levels at the downwind perimeter of the work area or exclusion zone persist at levels in excess of 5 ppm over background but less than 25 ppm, work activities will be halted, the source of vapors identified, corrective actions taken to abate emissions, and monitoring continued. After these steps, work activities will resume provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.

If the organic vapor level is above 25 ppm at the perimeter of the work area, activities will be shut down.

All 15-minute readings must be recorded and be available for NYSDEC personnel to review. Instantaneous readings, if any, used for decision purposes will also be recorded.

Particulate Monitoring, Response Levels, and Actions

Particulate concentrations will be monitored continuously at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring will be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment will be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

If the downwind PM-10 particulate level is 100 micrograms per cubic meter (mcg/m^3) greater than background (upwind perimeter) for the 15-minute period or if airborne dust is observed leaving the work area, then dust suppression techniques will be employed. Work will continue with dust suppression techniques provided that downwind PM-10 particulate levels do not exceed 150 mcg/m^3 above the upwind level and provided that no visible dust is migrating from the work area.

If, after implementation of dust suppression techniques, downwind PM-10 particulate levels are greater than 150 mcg/m^3 above the upwind level, work will be stopped and a re-evaluation of activities initiated. Work will resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m^3 of the upwind level and in preventing visible dust migration.

All readings will be recorded and will be available for NYSDEC personnel to review.

Exceedances of action levels listed in the CAMP will be reported to NYSDEC and NYSDOH Project Managers.

2-14 ODOR CONTROL PLAN

Suppression of odors will be conducted during all invasive work performed during construction activities.

This odor control plan is capable of controlling emissions of nuisance odors on-site and off-site. Specific odor control methods to be used on a routine basis will include minimizing the generation of vapors and/or odors. If nuisance odors are identified at the site boundary, or if odor complaints are received, work will be halted and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. NYSDEC and NYSDOH will be notified of all odor events and of any other complaints about the project. Implementation of all odor controls, including the halt of work, is the responsibility of the remedial party's Remediation Engineer, and any measures that are implemented will be discussed in the Periodic Review Report.

All necessary means will be employed to prevent on- and off-site nuisances. At a minimum, these measures will include: (a) limiting the area of open excavations and size of soil stockpiles; (b) shrouding open excavations with tarps and other covers; and (c) using foams to cover exposed odorous soils. If odors develop and cannot be otherwise controlled, additional means to eliminate odor nuisances will include: (d) direct load-out of soils to trucks for off-site disposal; (e) use of chemical odorants in spray or misting systems; and, (f) use of staff to monitor odors in surrounding neighborhoods.

If nuisance odors develop during intrusive work that cannot be corrected, or where the control of nuisance odors cannot otherwise be achieved due to on-site conditions or close proximity to sensitive receptors, odor control will be achieved by sheltering the excavation and handling areas in a temporary containment structure equipped with appropriate air venting/filtering systems.

2-15 DUST CONTROL PLAN

Suppression of dust will be conducted during all invasive work performed during construction activities.

A dust suppression plan that addresses dust management during invasive on-site work will include, at a minimum, the items listed below:

- Dust suppression will be achieved through the use of a dedicated on-site water truck for road wetting. The truck will be equipped with a water cannon capable of spraying water directly onto off-road areas including excavations and stockpiles.
- Clearing and grubbing of larger sites will be done in stages to limit the area of exposed, unvegetated soils vulnerable to dust production.
- Gravel will be used on roadways to provide a clean and dust-free road surface.
- On-site roads will be limited in total area to minimize the area required for water spraying.
- Materials will be hauled in properly tarped containers or vehicles, which will travel at restricted speeds while on-site.

All reasonable attempts will be made to keep visible and/or fugitive dust to a minimum and adhere to particulate emissions limits identified in the CAMP.

2-16 OTHER NUISANCES

A plan for rodent control will be developed and utilized by the contractor prior to and during site clearing and site grubbing, and during all remedial work.

A plan will be developed and utilized by the contractor for all remedial work to ensure compliance with local noise control ordinances.

APPENDIX E
ENVIRONMENTAL EASEMENT

Recorded	Liber	Page	Comment	Tax District(s)
12/27/2018			EASE	City of Poughkeepsie

Party Type	Error / Correction	Name	Date Filed
Grantor		QUEEN CITY LOFTS HOUSING DEVELOPMENT FUND CO INC	12/27/2018
Grantor		QCL ON MAIN LTD PARTNERSHIP	12/27/2018
Grantee		NYS PEOPLE	12/27/2018
Grantee		ENVIRONMENTAL CONSERVATION DEPT COMMISSIONER	12/27/2018

ENVIRONMENTAL EASEMENT GRANTED PURSUANT TO ARTICLE 71, TITLE 36 OF THE NEW YORK STATE ENVIRONMENTAL CONSERVATION LAW

THIS INDENTURE made this 21st day of December, 2018, between Owner(s) The Queen City Lofts Housing Development Fund Company, Inc., (the "Grantor Fee Owner") having an office at c/o Hudson River Housing, Inc., 313 Main Street, Poughkeepsie, New York 12601, and The QCL on Main Limited Partnership, (the "Grantor Beneficial Owner), having an office at c/o The Kearney Realty & Development Group Inc., 34 Clayton Boulevard, Suite A, Baldwin Place, New York 10505 (collectively, the "Grantor"), and The People of the State of New York (the "Grantee."), acting through their Commissioner of the Department of Environmental Conservation (the "Commissioner", or "NYSDEC" or "Department" as the context requires) with its headquarters located at 625 Broadway, Albany, New York 12233,

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to encourage the remediation of abandoned and likely contaminated properties ("sites") that threaten the health and vitality of the communities they burden while at the same time ensuring the protection of public health and the environment; and

WHEREAS, the Legislature of the State of New York has declared that it is in the public interest to establish within the Department a statutory environmental remediation program that includes the use of Environmental Easements as an enforceable means of ensuring the performance of operation, maintenance, and/or monitoring requirements and the restriction of future uses of the land, when an environmental remediation project leaves residual contamination at levels that have been determined to be safe for a specific use, but not all uses, or which includes engineered structures that must be maintained or protected against damage to perform properly and be effective, or which requires groundwater use or soil management restrictions; and

WHEREAS, the Legislature of the State of New York has declared that Environmental Easement shall mean an interest in real property, created under and subject to the provisions of Article 71, Title 36 of the New York State Environmental Conservation Law ("ECL") which contains a use restriction and/or a prohibition on the use of land in a manner inconsistent with engineering controls which are intended to ensure the long term effectiveness of a site remedial program or eliminate potential exposure pathways to hazardous waste or petroleum; and

WHEREAS, Grantor, is the owner of real property located at the address of 178-188 Main Street in the City of Poughkeepsie, County of Dutchess and State of New York, known and designated on the tax map of the County Clerk of Dutchess as tax map parcel numbers: Section 6062 Block 84 Lot 944121, being a portion of the property conveyed to Grantor by two separate deeds dated March 31, 2017 and recorded in the Dutchess County Clerk's Office as Document Numbers 0220172748 and 0220172749. The property subject to this Environmental Easement (the "Controlled Property") comprises approximately 1.051 +/- acres, and is hereinafter more fully described in the Land Title Survey dated December 4, 2018 and last revised December 7, 2018 prepared by Jonathan J. Verderber, PLS, which will be attached to the Site Management Plan. The Controlled Property description is set forth in and attached hereto as Schedule A;

WHEREAS, Grantor Beneficial Owner, is the owner of the beneficial interest in the Controlled Property being the same as a portion of that beneficial interest conveyed to Grantor Beneficial Owner by means of a Declaration of Interest and Nominee Agreement dated March 31, 2017 and recorded in the Dutchess County Clerk's Office as Document Number 0220172750; and

WHEREAS, the Department accepts this Environmental Easement in order to ensure the protection of public health and the environment and to achieve the requirements for remediation established for the Controlled Property until such time as this Environmental Easement is extinguished pursuant to ECL Article 71, Title 36; and

NOW THEREFORE, in consideration of the mutual covenants contained herein and the terms and conditions of Brownfield Cleanup Agreement Index Number: C314125-10-15, as amended, Grantor conveys to Grantee a permanent Environmental Easement pursuant to ECL Article 71, Title 36 in, on, over, under, and upon the Controlled Property as more fully described herein ("Environmental Easement").

1. Purposes. Grantor and Grantee acknowledge that the Purposes of this Environmental Easement are: to convey to Grantee real property rights and interests that will run with the land in perpetuity in order to provide an effective and enforceable means of encouraging the reuse and redevelopment of this Controlled Property at a level that has been determined to be safe for a specific use while ensuring the performance of operation, maintenance, and/or monitoring requirements; and to ensure the restriction of future uses of the land that are inconsistent with the above-stated purpose.

2. Institutional and Engineering Controls. The controls and requirements listed in the Department approved Site Management Plan ("SMP") including any and all Department approved amendments to the SMP are incorporated into and made part of this Environmental Easement. These controls and requirements apply to the use of the Controlled Property, run with the land, are binding on the Grantor and the Grantor's successors and assigns, and are enforceable in law or equity against any owner of the Controlled Property, any lessees and any person using the Controlled Property.

A. (1) The Controlled Property may be used for:

Restricted Residential as described in 6 NYCRR Part 375-1.8(g)(2)(ii), Commercial as described in 6 NYCRR Part 375-1.8(g)(2)(iii) and Industrial as described in 6 NYCRR Part 375-1.8(g)(2)(iv)

(2) All Engineering Controls must be operated and maintained as specified in the Site Management Plan (SMP);

(3) All Engineering Controls must be inspected at a frequency and in a manner defined in the SMP;

(4) The use of groundwater underlying the property is prohibited without necessary water quality treatment as determined by the NYSDOH or the Dutchess County Department of Health to render it safe for use as drinking water or for industrial purposes, and the user must first notify and obtain written approval to do so from the Department;

(5) Groundwater and other environmental or public health monitoring must be performed as defined in the SMP;

(6) Data and information pertinent to Site Management of the Controlled Property must be reported at the frequency and in a manner defined in the SMP;

(7) All future activities on the property that will disturb remaining contaminated material must be conducted in accordance with the SMP;

(8) Monitoring to assess the performance and effectiveness of the remedy must be performed as defined in the SMP;

(9) Operation, maintenance, monitoring, inspection, and reporting of any mechanical or physical components of the remedy shall be performed as defined in the SMP;

(10) Access to the site must be provided to agents, employees or other representatives of the State of New York with reasonable prior notice to the property owner to assure compliance with the restrictions identified by this Environmental Easement.

B. The Controlled Property shall not be used for Residential purposes as defined in 6NYCRR 375-1.8(g)(2)(i), and the above-stated engineering controls may not be discontinued without an amendment or extinguishment of this Environmental Easement.

C. The SMP describes obligations that the Grantor assumes on behalf of Grantor, its successors and assigns. The Grantor's assumption of the obligations contained in the SMP which may include sampling, monitoring, and/or operating a treatment system, and providing certified reports to the NYSDEC, is and remains a fundamental element of the Department's determination that the Controlled Property is safe for a specific use, but not all uses. The SMP may be modified in accordance with the Department's statutory and regulatory authority. The Grantor and all successors and assigns, assume the burden of complying with the SMP and obtaining an up-to-date version of the SMP from:

Site Control Section
Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, New York 12233
Phone: (518) 402-9553

D. Grantor must provide all persons who acquire any interest in the Controlled Property a true and complete copy of the SMP that the Department approves for the Controlled Property and all Department-approved amendments to that SMP.

E. Grantor covenants and agrees that until such time as the Environmental Easement is extinguished in accordance with the requirements of ECL Article 71, Title 36 of the ECL, the property deed and all subsequent instruments of conveyance relating to the Controlled Property shall state in at least fifteen-point bold-faced type:

This property is subject to an Environmental Easement held by the New York State Department of Environmental Conservation pursuant to Title 36 of Article 71 of the Environmental Conservation Law.

F. Grantor covenants and agrees that this Environmental Easement shall be incorporated in full or by reference in any leases, licenses, or other instruments granting a right to use the Controlled Property.

G. Grantor covenants and agrees that it shall, at such time as NYSDEC may require, submit to NYSDEC a written statement by an expert the NYSDEC may find acceptable certifying under penalty of perjury, in such form and manner as the Department may require, that:

(1) the inspection of the site to confirm the effectiveness of the institutional and engineering controls required by the remedial program was performed under the direction of the individual set forth at 6 NYCRR Part 375-1.8(h)(3).

(2) the institutional controls and/or engineering controls employed at such site:

(i) are in-place;

(ii) are unchanged from the previous certification, or that any identified changes to the controls employed were approved by the NYSDEC and that all controls are in the Department-approved format; and

(iii) that nothing has occurred that would impair the ability of such control to protect the public health and environment;

(3) the owner will continue to allow access to such real property to evaluate the continued maintenance of such controls;

(4) nothing has occurred that would constitute a violation or failure to comply with any site management plan for such controls;

(5) the report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

(6) to the best of his/her 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

(7) the information presented is accurate and complete.

3. Right to Enter and Inspect. Grantee, its agents, employees, or other representatives of the State may enter and inspect the Controlled Property in a reasonable manner and at reasonable times to assure compliance with the above-stated restrictions.

4. Reserved Grantor's Rights. Grantor reserves for itself, its assigns, representatives, and successors in interest with respect to the Property, all rights as fee owner of the Property, including:

A. Use of the Controlled Property for all purposes not inconsistent with, or limited by the terms of this Environmental Easement;

B. The right to give, sell, assign, or otherwise transfer part or all of the underlying fee interest to the Controlled Property, subject and subordinate to this Environmental Easement;

5. Enforcement

A. This Environmental Easement is enforceable in law or equity in perpetuity by Grantor, Grantee, or any affected local government, as defined in ECL Section 71-3603, against the owner of the Property, any lessees, and any person using the land. Enforcement shall not be defeated because of any subsequent adverse possession, laches, estoppel, or waiver. It is not a defense in any action to enforce this Environmental Easement that: it is not appurtenant to an interest in real property; it is not of a character that has been recognized traditionally at common law; it imposes a negative burden; it imposes affirmative obligations upon the owner of any interest in the burdened property; the benefit does not touch or concern real property; there is no privity of estate or of contract; or it imposes an unreasonable restraint on alienation.

B. If any person violates this Environmental Easement, the Grantee may revoke the Certificate of Completion with respect to the Controlled Property.

C. Grantee shall notify Grantor of a breach or suspected breach of any of the terms of this Environmental Easement. Such notice shall set forth how Grantor can cure such breach or suspected breach and give Grantor a reasonable amount of time from the date of receipt of notice in which to cure. At the expiration of such period of time to cure, or any extensions granted by Grantee, the Grantee shall notify Grantor of any failure to adequately cure the breach or suspected breach, and Grantee may take any other appropriate action reasonably necessary to remedy any breach of this Environmental Easement, including the commencement of any proceedings in accordance with applicable law.

D. The failure of Grantee to enforce any of the terms contained herein shall not be deemed a waiver of any such term nor bar any enforcement rights.

6. Notice. Whenever notice to the Grantee (other than the annual certification) or approval from the Grantee is required, the Party providing such notice or seeking such approval shall identify the Controlled Property by referencing the following information:

County, NYSDEC Site Number, NYSDEC Brownfield Cleanup Agreement, State Assistance Contract or Order Number, and the County tax map number or the Liber and Page or computerized system identification number.

Parties shall address correspondence to:

Site Number: C314125
Office of General Counsel
NYSDEC
625 Broadway
Albany New York 12233-5500

With a copy to:

Site Control Section
Division of Environmental Remediation
NYSDEC
625 Broadway
Albany, NY 12233

IN WITNESS WHEREOF, Grantor Fee Owner has caused this instrument to be signed in its name.

The Queen City Lofts Housing Development Fund Company, Inc.:

By: Christa Hines

Print Name: Christa Hines

Title: Treasurer Date: 12/19/18

Grantor's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF)

On the 19th day of December, in the year 2018, before me, the undersigned, personally appeared Christa Hines, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

Sarah E Seifert
Notary Public - State of New York

SARAH E. SEIFERT
NOTARY PUBLIC-STATE OF NEW YORK
No. 01SE6183003
Qualified in Dutchess County
My Commission Expires March 10, 2020

IN WITNESS WHEREOF, Grantor Beneficial Owner has caused this instrument to be signed in its name.

The QCL on Main Limited Partnership,
By: The Queen City Lofts Associates, LLC,
its Managing General Partner

By: _____

Print Name: Kenneth Kearney

Title: Manager Date: 12-18-18

Grantor's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF Westchester)

On the 19th day of December, in the year 2018, before me, the undersigned, personally appeared Kenneth Kearney, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their capacity(ies), and that by his/her/their signature(s) on the instrument, the individual(s), or the person upon behalf of which the individual(s) acted, executed the instrument.

_____
Notary Public - State of New York

AZITA H MILLER
Notary Public - State of New York
NO. 01MI6087096
Qualified in Putnam County
My Commission Expires 2-10-2019

THIS ENVIRONMENTAL EASEMENT IS HEREBY ACCEPTED BY THE PEOPLE OF THE STATE OF NEW YORK, Acting By and Through the Department of Environmental Conservation as Designee of the Commissioner,

By: _____
Michael J. Ryan, Director
Division of Environmental Remediation

Grantee's Acknowledgment

STATE OF NEW YORK)
) ss:
COUNTY OF ALBANY)

On the 21st. day of December in the year 2018 before me, the undersigned, personally appeared Michael J. Ryan, personally known to me or proved to me on the basis of satisfactory evidence to be the individual(s) whose name is (are) subscribed to the within instrument and acknowledged to me that he/she/ executed the same in his/her/ capacity as Designee of the Commissioner of the State of New York Department of Environmental Conservation, and that by his/her/ signature on the instrument, the individual, or the person upon behalf of which the individual acted, executed the instrument.

Bonnie Pedone
Notary Public - State of New York

BONNIE PEDONE
NOTARY PUBLIC, STATE OF NEW YORK
QUALIFIED IN SCHENECTADY COUNTY
REG. NO. 01PE6295625
COMMISSION EXPIRES FEB. 18, 2022

SCHEDULE "A" PROPERTY DESCRIPTION

ENVIRONMENTAL EASEMENT DESCRIPTION
PARCEL # 131300-6062-84-944121
PARCEL ADDRESSES: 178-188 MAIN STREET, POUGHKEEPSIE, NY 12601

ALL THAT PARCEL OF LAND SITUATED IN CITY OF POUGHKEEPSIE, COUNTY OF DUTCHESS AND STATE OF NEW YORK BEING MORE PARTICULARLY BOUNDED AND DESCRIBED AS FOLLOWS:

BEGINNING AT A POINT AT THE NORTHWESTERLY CORNER OF HEREIN DESCRIBED PARCEL; SAID POINT BEING AT THE INTERSECTION OF EASTERLY LINE OF SOUTH BRIDGE STREET AND SOUTHERLY LINE OF MAIN STREET; THENCE RUNNING EASTERLY ALONG THE SOUTHERLY LINE OF MAIN STREET THE FOLLOWING FIVE (5) COURSES AND DISTANCES;

1. SOUTH 74° 55' 12" EAST, A DISTANCE OF 127.65 FEET TO A POINT;
2. SOUTH 75° 52' 16" EAST, A DISTANCE OF 19.82 FEET TO A POINT;
3. SOUTH 75° 37' 49" EAST, A DISTANCE OF 24.95 FEET TO A POINT;
4. SOUTH 75° 34' 44" EAST, A DISTANCE OF 31.01 FEET TO A POINT;
5. SOUTH 76° 07' 58" EAST, A DISTANCE OF 30.48 FEET TO A POINT AT THE NORTHEASTERLY CORNER OF HEREIN DESCRIBED PARCEL, SAID POINT BEING AT THE NORTHWESTERLY CORNER OF LANDS NOW OR FORMERLY MT BEACON PROPERTIES, LLC (DOC# 02 2014 14);

THENCE RUNNING SOUTHERLY ALONG THE WESTERLY LINE OF LANDS OF MT BEACON PROPERTIES, LLC THE FOLLOWING TWO (2) COURSES AND DISTANCES;

1. SOUTH 14° 33' 41" WEST, A DISTANCE OF 129.74 FEET TO A POINT;
2. SOUTH 11° 42' 20" WEST, A DISTANCE OF 86.08 FEET TO A POINT AT THE SOUTHEASTERLY CORNER OF HEREIN DESCRIBED PARCEL; SAID POINT BEING AT THE NORTHERLY LINE OF LANDS NOW OR FORMERLY CACCOMO (DOC# 02 2015 0598);

THENCE RUNNING WESTERLY ALONG THE NORTHERLY LINE OF CACCOMO, SOUTH 78° 12' 20" WEST, A DISTANCE OF 34.50 FEET TO A POINT; THENCE RUNNING NORTHWESTERLY THROUGH THE HEREIN DESCRIBED PARCEL THE FOLLOWING FOUR (4) COURSES AND DISTANCES;

1. NORTH 66° 30' 14" WEST, A DISTANCE OF 85.19 FEET TO A POINT;
2. NORTH 31° 46' 40" WEST, A DISTANCE OF 47.40 FEET TO A POINT;
3. NORTH 3° 26' 16" WEST, A DISTANCE OF 16.99 FEET TO A POINT;
4. SOUTH 85° 32' 48" WEST, A DISTANCE OF 48.74 FEET TO A POINT AT THE EASTERLY LINE OF SOUTH BRIDGE STREET; SAID POINT BEING THE FOLLOWING TWO (2) COURSES AND DISTANCES FROM THE SOUTHWESTERLY CORNER OF HEREIN DESCRIBE PARCEL, NORTH 3° 34' 15" WEST 104.83, THENCE NORTH 4° 41' 24" WEST 18.66 FEET TO A POINT; THENCE RUNNING NORTHERLY ALONG THE EASTERLY LINE OF SOUTH BRIDGE STREET THE FOLLOWING FOUR (4) COURSES AND DISTANCES;

1. NORTH 4° 41' 24" WEST, A DISTANCE OF 30.00 FEET TO A POINT;
3. NORTH 3° 50' 38" WEST, A DISTANCE OF 46.38 FEET TO A POINT;
4. NORTH 2° 33' 28" WEST, A DISTANCE OF 40.98 FEET TO A POINT;
5. NORTH 13° 51' 32" EAST, A DISTANCE OF 73.79 FEET TO A POINT OF PLACE OF BEGINNING.

CONTAINING 1.051 ACRES MORE OR LESS.

TP-584 (4/13)

New York State Department of Taxation and Finance

Combined Real Estate Transfer Tax Return, Credit Line Mortgage Certificate, and Certification of Exemption from the Payment of Estimated Personal Income Tax

Recording office time stamp

See Form TP-584-I, Instructions for Form TP-584, before completing this form. Print or type.

Schedule A — Information relating to conveyance

Grantor/Transferor

☐ Individual
☐ Corporation
☒ Partnership
☐ Estate/Trust
☐ Single member LLC
☐ Other

Name *(if individual, last, first, middle initial)* (☒ *check if more than one grantor)* The Queen City Lofts Housing Development Fund Company Inc., & The QCL on Main Limited Partnership

Social security number

Mailing address: c/o Hudson River Housing, Inc. - 313 Main Street

Social security number

City: Poughkeepsie | State: NY | ZIP code: 12601

Federal EIN 82-0731120 (HDFC) 81-4902762 (LP)

Single member's name if grantor is a single member LLC *(see instructions)*

Single member EIN or SSN

Grantee/Transferee

☐ Individual
☐ Corporation NFP
☐ Partnership
☐ Estate/Trust
☐ Single member LLC
☒ Other

Name *(if individual, last, first, middle initial)* (☐ *check if more than one grantee)*

Social security number

Mailing address: 625 Broadway

Social security number

City: Albany | State: NY | ZIP code: 12233

Federal EIN 14-6013202

Single member's name if grantee is a single member LLC *(see instructions)*

Single member EIN or SSN

Location and description of property conveyed

Tax map designation – Section, block & lot *(include dots and dashes)*	SWIS code (six digits)	Street address	City, town, or village	County
6062-84-944121	131300	178-188 Main Street	City of Poughkeepsie	Dutchess

Type of property conveyed *(check applicable box)*

1 ☐ One- to three-family house
2 ☐ Residential cooperative
3 ☐ Residential condominium
4 ☐ Vacant land
5 ☐ Commercial/industrial
6 ☐ Apartment building
7 ☐ Office building
8 ☐ Other _____

Date of conveyance: 12 (month) 21 (day) 2018 (year)

Percentage of real property conveyed which is residential real property 0.00 % *(see instructions)*

Condition of conveyance *(check all that apply)*

a. ☐ Conveyance of fee interest
b. ☐ Acquisition of a controlling interest (state percentage acquired _____ %)
c. ☐ Transfer of a controlling interest (state percentage transferred _____ %)
d. ☐ Conveyance to cooperative housing corporation
e. ☐ Conveyance pursuant to or in lieu of foreclosure or enforcement of security interest *(attach Form TP-584.1, Schedule E)*
f. ☐ Conveyance which consists of a mere change of identity or form of ownership or organization *(attach Form TP-584.1, Schedule F)*
g. ☐ Conveyance for which credit for tax previously paid will be claimed *(attach Form TP-584.1, Schedule G)*
h. ☐ Conveyance of cooperative apartment(s)
i. ☐ Syndication
j. ☐ Conveyance of air rights or development rights
k. ☐ Contract assignment
l. ☐ Option assignment or surrender
m. ☐ Leasehold assignment or surrender
n. ☐ Leasehold grant
o. ☐ Conveyance of an easement
p. ☐ Conveyance for which exemption from transfer tax claimed *(complete Schedule B, Part III)*
q. ☐ Conveyance of property partly within and partly outside the state
r. ☐ Conveyance pursuant to divorce or separation
s. ☒ Other *(describe)* Environmental Easement

For recording officer's use	Amount received	Date received	Transaction number
	Schedule B., Part I $ _____ Schedule B., Part II $		

Schedule B — Real estate transfer tax return (Tax Law, Article 31)

Part I – Computation of tax due

1	Enter amount of consideration for the conveyance *(if you are claiming a total exemption from tax, check the exemption claimed box, enter consideration and proceed to Part III)* ☐ **Exemption claimed**	1.	10 00
2	Continuing lien deduction *(see instructions if property is taken subject to mortgage or lien)*	2.	0 00
3	Taxable consideration *(subtract line 2 from line 1)*	3.	10 00
4	Tax: $2 for each $500, or fractional part thereof, of consideration on line 3	4.	0 00
5	Amount of credit claimed for tax previously paid *(see instructions and attach Form TP-584.1, Schedule G)*	5.	0 00
6	Total tax due* *(subtract line 5 from line 4)*	6.	0 00

Part II – Computation of additional tax due on the conveyance of residential real property for $1 million or more

1	Enter amount of consideration for conveyance *(from Part I, line 1)*	1.	
2	Taxable consideration *(multiply line 1 by the percentage of the premises which is residential real property, as shown in Schedule A)*	2.	
3	Total additional transfer tax due* *(multiply line 2 by 1% (.01))*	3.	

Part III – Explanation of exemption claimed on Part I, line 1 *(check any boxes that apply)*

The conveyance of real property is exempt from the real estate transfer tax for the following reason:

a. Conveyance is to the United Nations, the United States of America, the state of New York, or any of their instrumentalities, agencies, or political subdivisions (or any public corporation, including a public corporation created pursuant to agreement or compact with another state or Canada) ..... a ☐

b. Conveyance is to secure a debt or other obligation ..... b ☐

c. Conveyance is without additional consideration to confirm, correct, modify, or supplement a prior conveyance ..... c ☐

d. Conveyance of real property is without consideration and not in connection with a sale, including conveyances conveying realty as bona fide gifts ..... d ☐

e. Conveyance is given in connection with a tax sale ..... e ☐

f. Conveyance is a mere change of identity or form of ownership or organization where there is no change in beneficial ownership. (This exemption cannot be claimed for a conveyance to a cooperative housing corporation of real property comprising the cooperative dwelling or dwellings.) Attach Form TP-584.1, Schedule F ..... f ☐

g. Conveyance consists of deed of partition ..... g ☐

h. Conveyance is given pursuant to the federal Bankruptcy Act ..... h ☐

i. Conveyance consists of the execution of a contract to sell real property, without the use or occupancy of such property, or the granting of an option to purchase real property, without the use or occupancy of such property ..... i ☐

j. Conveyance of an option or contract to purchase real property with the use or occupancy of such property where the consideration is less than $200,000 and such property was used solely by the grantor as the grantor's personal residence and consists of a one-, two-, or three-family house, an individual residential condominium unit, or the sale of stock in a cooperative housing corporation in connection with the grant or transfer of a proprietary leasehold covering an individual residential cooperative apartment ..... j ☐

k. Conveyance is not a conveyance within the meaning of Tax Law, Article 31, section 1401(e) *(attach documents supporting such claim)* ..... k ☐

*The total tax (from Part I, line 6 and Part II, line 3 above) is due within 15 days from the date conveyance. Please make check(s) payable to the county clerk where the recording is to take place. If the recording is to take place in the New York City boroughs of Manhattan, Bronx, Brooklyn, or Queens, make check(s) payable to the ***NYC Department of Finance.*** If a recording is not required, send this return and your check(s) made payable to the ***NYS Department of Taxation and Finance,*** directly to the NYS Tax Department, RETT Return Processing, PO Box 5045, Albany NY 12205-5045.

Schedule C — Credit Line Mortgage Certificate (Tax Law, Article 11)

Complete the following only if the interest being transferred is a fee simple interest.
I (we) certify that: *(check the appropriate box)*

1. ☒ The real property being sold or transferred is not subject to an outstanding credit line mortgage.

2. ☐ The real property being sold or transferred is subject to an outstanding credit line mortgage. However, an exemption from the tax is claimed for the following reason:
   - ☐ The transfer of real property is a transfer of a fee simple interest to a person or persons who held a fee simple interest in the real property (whether as a joint tenant, a tenant in common or otherwise) immediately before the transfer.
   - ☐ The transfer of real property is (A) to a person or persons related by blood, marriage or adoption to the original obligor or to one or more of the original obligors or (B) to a person or entity where 50% or more of the beneficial interest in such real property after the transfer is held by the transferor or such related person or persons (as in the case of a transfer to a trustee for the benefit of a minor or the transfer to a trust for the benefit of the transferor).
   - ☐ The transfer of real property is a transfer to a trustee in bankruptcy, a receiver, assignee, or other officer of a court.
   - ☐ The maximum principal amount secured by the credit line mortgage is $3,000,000 or more, and the real property being sold or transferred is **not** principally improved nor will it be improved by a one- to six-family owner-occupied residence or dwelling.

     Please note: for purposes of determining whether the maximum principal amount secured is $3,000,000 or more as described above, the amounts secured by two or more credit line mortgages may be aggregated under certain circumstances. See TSB-M-96(6)-R for more information regarding these aggregation requirements.
   - ☐ Other *(attach detailed explanation)*.

3. ☐ The real property being transferred is presently subject to an outstanding credit line mortgage. However, no tax is due for the following reason:
   - ☐ A certificate of discharge of the credit line mortgage is being offered at the time of recording the deed.
   - ☐ A check has been drawn payable for transmission to the credit line mortgagee or his agent for the balance due, and a satisfaction of such mortgage will be recorded as soon as it is available.

4. ☐ The real property being transferred is subject to an outstanding credit line mortgage recorded in _____ (insert liber and page or reel or other identification of the mortgage). The maximum principal amount of debt or obligation secured by the mortgage is _____. No exemption from tax is claimed and the tax of _____ is being paid herewith. *(Make check payable to county clerk where deed will be recorded or, if the recording is to take place in New York City but not in Richmond County, make check payable to the **NYC Department of Finance.**)*

Signature (both the grantor(s) and grantee(s) must sign)

The undersigned certify that the above information contained in schedules A, B, and C, including any return, certification, schedule, or attachment, is to the best of his/her knowledge, true and complete, and authorize the person(s) submitting such form on their behalf to receive a copy for purposes of recording the deed or other instrument effecting the conveyance.

Grantor	Title	Grantee	Title
The Queen City Lofts Housing Development Fund Company, Inc.		The People of the State of New York, acting through their Commissioner of the Department of Environmental Conservation	
Christa Hines Grantor signature	Treasurer	Grantee signature	Title
By: Christa Hines The QCL on Main Limited Partnership By: The Queen Lofts Associates, LLC, its Managing General Partner		By: Jennifer Hadsell	
By: Kenneth Kearney Grantor signature	Manager	NY 10/30/13 Grantee signature	Title

Reminder: Did you complete all of the required information in Schedules A, B, and C? Are you required to complete Schedule D? If you checked *e*, *f*, or *g* in Schedule A, did you complete Form TP-584.1? Have you attached your check(s) made payable to the county clerk where recording will take place or, if the recording is in the New York City boroughs of Manhattan, Bronx, Brooklyn, or Queens, to the ***NYC Department of Finance***? If no recording is required, send your check(s), made payable to the ***Department of Taxation and Finance***, directly to the NYS Tax Department, RETT Return Processing, PO Box 5045, Albany NY 12205-5045.

Schedule D - Certification of exemption from the payment of estimated personal income tax (Tax Law, Article 22, section 663)

Complete the following only if a fee simple interest or a cooperative unit is being transferred by an individual or estate or trust.

If the property is being conveyed by a referee pursuant to a foreclosure proceeding, proceed to Part II, and check the second box under *Exemptions for nonresident transferor(s)/seller(s)* and sign at bottom.

Part I - New York State residents

If you are a New York State resident transferor(s)/seller(s) listed in Schedule A of Form TP-584 (or an attachment to Form TP-584), you must sign the certification below. If one or more transferors/sellers of the real property or cooperative unit is a resident of New York State, **each** resident transferor/seller must sign in the space provided. If more space is needed, please photocopy this Schedule D and submit as many schedules as necessary to accommodate all resident transferors/sellers.

Certification of resident transferor(s)/seller(s)

This is to certify that at the time of the sale or transfer of the real property or cooperative unit, the transferor(s)/seller(s) as signed below was a resident of New York State, and therefore is not required to pay estimated personal income tax under Tax Law, section 663(a) upon the sale or transfer of this real property or cooperative unit.

Signature	Print full name	Date
Signature	Print full name	Date
Signature	Print full name	Date
Signature	Print full name	Date

Note: A resident of New York State may still be required to pay estimated tax under Tax Law, section 685(c), but not as a condition of recording a deed.

Part II - Nonresidents of New York State

If you are a nonresident of New York State listed as a transferor/seller in Schedule A of Form TP-584 (or an attachment to Form TP-584) but are not required to pay estimated personal income tax because one of the exemptions below applies under Tax Law, section 663(c), check the box of the appropriate exemption below. If any one of the exemptions below applies to the transferor(s)/seller(s), that transferor(s)/seller(s) is not required to pay estimated personal income tax to New York State under Tax Law, section 663. **Each** nonresident transferor/seller who qualifies under one of the exemptions below must sign in the space provided. If more space is needed, please photocopy this Schedule D and submit as many schedules as necessary to accommodate all nonresident transferors/sellers.

If none of these exemption statements apply, you must complete Form IT-2663, *Nonresident Real Property Estimated Income Tax Payment Form*, or Form IT-2664, *Nonresident Cooperative Unit Estimated Income Tax Payment Form.* For more information, see *Payment of estimated personal income tax,* on page 1 of Form TP-584-I.

Exemption for nonresident transferor(s)/seller(s)

This is to certify that at the time of the sale or transfer of the real property or cooperative unit, the transferor(s)/seller(s) (grantor) of this real property or cooperative unit was a nonresident of New York State, but is not required to pay estimated personal income tax under Tax Law, section 663 due to one of the following exemptions:

☐ The real property or cooperative unit being sold or transferred qualifies in total as the transferor's/seller's principal residence (within the meaning of Internal Revenue Code, section 121) from _____ (Date) to _____ (Date) *(see instructions).*

☐ The transferor/seller is a mortgagor conveying the mortgaged property to a mortgagee in foreclosure, or in lieu of foreclosure with no additional consideration.

☐ The transferor or transferee is an agency or authority of the United States of America, an agency or authority of the state of New York, the Federal National Mortgage Association, the Federal Home Loan Mortgage Corporation, the Government National Mortgage Association, or a private mortgage insurance company.

Signature	Print full name	Date
Signature	Print full name	Date
Signature	Print full name	Date
Signature	Print full name	Date

APPENDIX F
QUALITY ASSURANCE PROJECT PLAN

QUALITY ASSURANCE PROJECT PLAN

FOR

SITE MANAGEMENT

Queen City Lofts

City of Poughkeepsie

Dutchess County, New York

NYSDEC BCP SITE: C314125

December 2018

Prepared By:

WCD GROUP
A GALLAGHER BASSETT COMPANY

Bell Engineering, PLLC
334 North Fostertown Drive, Newburgh NY, 12550 (845) 565-3802

TABLE OF CONTENTS

Attachment(s):

SCO Tables

1.0 PROJECT MANAGEMENT

1.1 Project/Task Organization

The following individuals are major participants in the project. Following each project participant is their specific responsibilities and authorities for the project.

Douglas MacNeal, New York State Department of Environmental Conservation (NYSDEC)

Douglas MacNeal is the Project Manager for the NYSDEC. Mr. MacNeal is responsible for review and approval of all project submittals.

Philip Bell, P.E., Bell Engineering, PLLC

Philip Bell will be the Remedial Engineer, responsible for preparing and implementing the Site Management Plan and all certifications, with general oversight for all project activities.

Paul Ciminello, WCD Group (WCD)

Paul Ciminello, acting as the Qualified Environmental Professional (QEP), will be responsible for overview of all project activities, including overall project management and allocation of staff and other resources required to complete the project within the specified schedule and budget.

Scott Spitzer, Technical Director-Environmental Services, WCD

Scott Spitzer will act as Project Manager on behalf of the Volunteer, and will be responsible for managing all project activities in consultation with the Remedial Engineer. Mr. Spitzer will review all project documents and ensure that project plans are followed, manage day-to-day operations and administrative aspects, and will function as the client and regulatory contact for the project. Mr. Spitzer has authority to direct the activities of the field team.

Richard Hooker, Quality Assurance Officer, WCD

Richard Hooker will be responsible for reviewing all sampling procedures and certifying that the data was collected and analyzed using the appropriate procedures and will act in conjunction with the Project Manager in the development of the sampling and analytical portion of a site-specific quality assurance project plan (QAPP).

To be Determined **On-Site Coordinator (OSC) WCD**

The OSC will be responsible for the completion of all on-site fieldwork, collection of all samples, completion of the field log, and chains of custody. The OSC will have authority over all on-site subcontractors.

Laboratory Subcontractor

The laboratory subcontractor will be responsible for the analysis of samples. The laboratory subcontractor will be New York State Department of Health Environmental Laboratory Approved Program (ELAP) certified in the appropriate categories.

Data Validator (TBD)

An independent, third-party data validator will be responsible for reviewing and evaluating all analytical data packages and preparing Data Usability Reports in accordance with DER-10. A current resume outlining education and experience of the data validator will be provided to DER for review and approval (once the data validator has been selected).

1.2 Principal Data Users

The principal users of the generated data in this project are listed below.

- Residents of the City of Poughkeepsie, New York, especially those residing in the vicinity of the Site
- The Kearney Realty & Development Group Inc. (Volunteer)
- NYSDEC and NYSDOH

1.3 Problem Definition/Background

The Site currently consists of a construction site undergoing development (the superstructure of a four-story residential and commercial structure, and a parking lot, have been completed). The site is located in the City of Poughkeepsie and is identified as a 0.76-acre portion of Block 84 and Lot 944121 (an approximately 1.07-acre parcel) on the Poughkeepsie Tax Map. The site has frontage on the southern side of Main Street and eastern side of South Bridge Street.

The Site has been remediated under the NYSDEC Brownfield Cleanup Program (BCP). The Remedial Investigation Report prepared for the Site documented the presence of poor-quality urban fill and contaminated soils containing elevated concentrations of SVOCs, pesticides and metals (above Restricted-Residential Use Soil Cleanup Objectives). Overt field evidence of petroleum contamination in soil (including odors and staining) was observed at the northeastern portion of the Site and spill number 15-02657 was reported. A previously unknown underground storage tank (UST) and associated contaminated soil were removed from this area ("northern hot spot") during the remedial action. Spill number 15-11940 was reported based on field evidence of petroleum contamination observed in soil and groundwater in the vicinity of a former on-site garage (no free-phase petroleum was noted) at the southeastern portion of the Site. Laboratory data documented a high peak concentration of total tentatively identified compounds (TICs) related to gasoline compounds in soil and elevated levels of several volatile petroleum compounds in groundwater. This petroleum contamination was likely associated with a release that had previously been subject to remediation activities. All impacted soil in this area ("southern hot spot") was removed during the remedial action

Remedial actions, documented in the Final Engineering Report (FER), consisted of the removal of upper fill soils (for development purposes) at most portions of the Site, additional excavation as needed at the two petroleum hot spots, and installation of a protective cover system to prevent exposure to any remaining soil contamination.

1.4 Project/Task Description

The project will meet its objective through the following actions:

- Compliance with NYSDEC DER-10 Technical Guidance for Site Investigation and Remediation, dated May 3, 2010; and,
- Compliance with the Site Management Plan (SMP).

1.5 Quality Objectives and Criteria

Sampling of environmental media is not anticipated during routine implementation of the SMP. Should sampling be required by the SMP during any future on-site construction (e.g., determining soil integrity) the following actions will be taken in order to meet the data quality objectives of precision, accuracy, representation, comparability and completeness:

- Duplicate samples will be collected and analyzed in order to determine the degree to which measurements obtained under the same protocols are consistent and reproducible.
- Matrix spike samples will be collected and analyzed in order to determine accuracy for the samples.
- A trip blank sample will also be analyzed in order to detect potential contamination during sample transport of VOC samples.
- A rinse blank will be prepared and analyzed for each non-dedicated piece of sampling equipment, as applicable.
- Data generated during the completion of the RAWP will be submitted for review by a third, independent party.

Prior to field activities, the Project Manager and the OSC will review the SMP to ensure that the data quality objectives (precision, accuracy, representation, comparability, completeness) will be met during the field activities. At the completion of field activities, the Project Manager will review field logs and chains of custody to ensure that field activities met the intent of the SMP. If a problem is identified, Mr. Paul Ciminello and the Project Manager, will meet to determine corrective measures necessary to meet data quality objectives.

1.6 Documents and Records

Electronic and paper copies of all measurements will be retained by WCD. Documentation of sufficient quality and quantity to represent environmental conditions at the Site will be provided to the NYSDEC in all required SMP submittals.

2.0 SAMPLING AND ANALYSIS PLAN

This section of the QAPP details sampling and analysis of all field parameters and media (soil, groundwater and soil vapor samples), and identifies methods for sample collection and handling.

2.1 Sampling Overview

Sampling will be conducted to document the integrity of any soil requiring characterization during disturbance or repairs at the composite cover system, including material imported to the Site. The number of soil samples will be determined in consultation with NYSDEC and will consider all encountered field conditions.

2.2 Sampling Methods

Material selected for sampling will be obtained in a manner consistent with NYSDEC sample collection protocols. All samples will be properly characterized and field screened, and findings will be recorded in logbooks. Field parameters will be measured at sampling locations (screening for volatile vapors with a PID) using properly calibrated precision instruments operated according to manufacturer's instructions.

Samples will be collected into appropriately-sized and preserved laboratory-supplied containers, using either disposable or properly decontaminated sampling equipment. The field technician will wear a new pair of disposable gloves during the collection of each sample, and will handle samples such that the potential for cross-contamination, and contamination of exterior surfaces of collection containers, is minimized (placement of media into containers will take place in a clean area remote from contaminant sources, as possible). PPE and sampling equipment will be decontaminated (as warranted) between sampling locations.

Site soil samples will be collected directly from exposed excavation areas or from material in the excavator bucket if access to an excavation area is considered impracticable or dangerous. Soil samples will be collected using disposable plastic trowels or properly

decontaminated stainless steel instruments, or may be manually collected directly from exposed soil or the sampling instrument using dedicated disposable latex gloves.

Soil will be collected from borings and/or directly from exposed areas during disturbance or repair of the composite cover system. Sample locations will be biased toward soil exhibiting peak field evidence of contamination (if encountered). Where possible, borings will be extended using equipment lined with disposable acetate sleeves, with samples collected directly from the freshly cut open sleeve.

Soil sampling for VOC analysis will be conducted following USEPA Method 5035 protocols, using disposable 5-gram Terra Core samplers (or similar equipment) to place material into laboratory-supplied glass vials with appropriate preservatives and stir bars.

Any non-soil solid materials requiring laboratory analysis will be placed into laboratory supplied glassware when possible, or will alternatively be placed into double locking plastic bags and then boxed in order to prevent a tear or other breach in the bags. Samples to be collected from liquids present in excavations, collection pits, or drums/tanks, etc., will be sampled using a dedicated disposal sampling device.

2.3 Sample Handling and Custody

2.3.1 Sample Containers

The following laboratory-supplied containers will be used for sample collection (as applicable):

Media Sample	Collection Container
Soil – VOCs	USEPA 5035 VOA kit (4, 40-ml glass vials)
Soil – all other analyses	1, 8-oz glass jar (with additional containers as required)
Soil – duplicate	1 or more additional 8-oz glass jars
Water – trip blank	3, 40-ml prepared glass vials (HCl)

2.3.2 Sampling Frequency and Laboratory Submission

The number of samples to be collected, and the required laboratory analyses, will be determined in consultation with NYSDEC, based on conditions encountered during the investigation. Sampling requirements for quality control samples are summarized below.

QC Parameter	Number of Samples	Analyte(s)
Trip Blank	One per sample cooler/day (when samples are collected)	VOCs (TCL, 8260)
Rinse Blank	One per 20 samples collected (non-dedicated equipment)	As per the analyte list(s) for sample type
Duplicates	One per 20 samples collected (minimum one/week)	As per the analyte list(s) for sample type

2.3.3 Sample Custody

Samples will be handled by the OSC. All soil samples will be placed in a sample cooler that is maintained at 4 (+/-2) °C. For each sampling day, sampling personnel will be required to complete a sampling custody worksheet indicating all pertinent information about the samples collected, handling methods, name of the collector, and chain of custody (which will require a Category B Data Deliverable). Upon the completion of each day of sample collection activities, all samples will be shipped via either courier or overnight delivery (per laboratory requirements) to a NYSDOH ELAP certified laboratory. Laboratory personnel will record the cooler temperature upon receipt and analyze the samples prior to the expiration of the hold times as specified in the NYSDEC Analytical Service Protocol.

2.4 Analytical Methods

Representative analytical methods for soil samples are summarized below:

Matrix	Sample Analysis (Holding Time)	Analytical Method	Recommended Number of Container(s) Per Sample	Preservation
Soil	TCL VOCs (14 days)	8260C	4, 40-ml vials (laboratory 5035 VOA kit)	Preserved per Method 5035
Soil	TCL SVOCs or PAHs (14 days)	8270B	1, 8 oz. glass jar**	4° C
Soil	TAL metals (28 days)	6010C/7471B	1, 8 oz. glass jar**	4° C
Water (trip blank)	TCL VOCs (14 days)	8260C	3, 40-ml VOA vials	4° C, HCl
** Soil for SVOC, metals and pesticides/PCBs may be combined into a single 8 oz. jar, or collected separately in 4 oz. jars.				

2.5 Quality Control

Accuracy and precision will be determined by repeated analysis of laboratory standards, and matrix effects and recovery will be determined through use of spiked samples. With each sample run, standards, blanks and spiked samples will be run.

One duplicate sample will be collected for every 20 matrix samples (or one per week). One in 20 samples will also be submitted for Matrix spike (MS) and Matrix Spike Duplicate (MSD) analysis. One rinse blank will be prepared for each non-dedicated piece of sampling equipment for every 20 analytical samples collected using that piece of equipment. For each day of sampling, a trip blank will be included with each sample cooler (analyzed for VOCs, only). Equipment blanks and duplicate samples will be analyzed for all parameters.

Samples will be identified using a unique ID number. This ID will be recorded on the sampling log and/or field record and the sampling container. Samples for each day of fieldwork will be assigned to a Sample Delivery Group (SDG) for that day and will be shipped via either courier or overnight delivery to the laboratory following proper chain of custody procedure, as described above.

3.0 QUALITY ASSURANCE

3.1 Instrument/Equipment, Testing, Inspection, and Maintenance

Field measurements will be conducted using monitoring equipment specialized for each task, including use of a PID during all fieldwork events to screen for volatile organic vapors. All instruments will be stored at WCD offices when not in use. All instruments will be calibrated (as warranted) in accordance with the manufacturer's instructions. Instrument malfunction is normally apparent during calibration. In the event of malfunction, equipment will be cleaned and tested. Equipment testing, inspection and maintenance will be the responsibility of the Project Manager and OSC for the project. Any other equipment selected for field measurements will be similarly managed.

3.2 Inspection/Acceptance of Supplies and Consumables

All supplies and consumables will be inspected and tested (if necessary) by either the Project Manager or the OSC upon receipt. The following supplies and consumables will be used:

- Soil samples: Four 40-ml vials (laboratory-supplied 5035 VOA kits) will be used for each sample collected for analysis of VOCs and one 8-oz clear glass jar will be used for each sample collected for analysis of SVOCs and/or metals. Duplicate samples will each require one additional sample volume.
- Water samples: Sample containers (per sample) will consist of three 40-ml glass vials (preserved with HCl) for VOCs.
- Disposable gloves (nitrile or equivalent).
- Distilled water (for decontamination and the preparation of blanks).

3.3 Data Management

For the purpose of data management, the data can be divided into field and laboratory data. Field data will be recorded at the time of measurement on written field logs. Laboratory data will be reviewed upon receipt and summarized in data summary tables.

4.0 DATA VALIDATION AND USABILITY

4.1 Data Review, Verification and Validation

Data generated by this project will be reviewed, verified and validated as follows:

4.1.1 Field Measurements

If field instruments are determined to be functioning correctly through calibration and measurements of standards, and if there are no inconsistencies between written records and data recorded in the meters, the data will be assumed to be valid and will be accepted as an indication of field conditions. If instruments malfunction prior to field measurement, they will be restored to proper function prior to re-use. If they malfunction immediately after field measurements are taken, the measurements will be retaken as soon as possible. Inconsistencies between written records and recorded meter data will be resolved by re-testing the material, if possible. If re-testing is not possible, (e.g., a sample has been shipped to the laboratory), the inconsistency will be described in the FER and the laboratory analysis will be utilized to classify the material. In addition, all field data will be reviewed by the Project Manager for consistency and plausibility.

4.1.2 Laboratory Analysis

A NYSDOH ELAP-certified laboratory will provide a NYSDEC ASP Category B data package for the determinative sample analyses, as described in Section 2 of DER-10 and the July 2005 NYSDEC ASP.

4.1.3 Standards, Criteria and Guidance

The Soil Cleanup Objectives (SCOs) for this BCP Site are provided in 6 NYCRR Subpart 375, Table 375-6.8(b) Restricted-Residential Use SCOs, and in Supplemental SCOs and Soil Cleanup Levels presented in NYSDEC CP-51 (Soil Cleanup Guidance, October 2010), Tables 1 through 3. Allowable Constituent Levels for Imported Fill or Soils are provided in a table presented as NYSDEC DER-10, Appendix 5. Copies of these tables are provided as an attachment to this QAPP.

4.2 Verification and Validation Methods

4.2.1 Verification Method

Once collected, all data will go to the Project Manager for review and verification. Review will involve determining that all data has been collected at the proper locations by the proper persons and that all field and laboratory logs are complete. In addition, a Data Usability Summary Report (DUSR) in accordance with DER-10, Appendix 2B, will be prepared by a third, independent party, which maintains NYSDOH ELAP CLP Certification (the DUSR will also include a current resume for the person who prepared it).

4.2.2 Authority for Verification

Authority for verification, validation and resolution of data issues will be distributed among the investigators. Authority to resolve issues regarding verification of field measurements will rest with the Remedial Engineer, Project Manager and Mr. Paul Ciminello.

4.2.3 Project Reports

Following review, validation and verification, all data will be conveyed to users via the applicable Periodic Review Report (PRR), which will document the findings and results of the implementation of the SMP. All PRRs will include the following:

- All laboratory analytical results obtained from the sampling event(s), summarized in tables and provided in NYSDEC EDD format (EQuIS).
- A detailed account of any deviations from field procedures specified in the RAWP.
- A complete set of field notes and/or Field Observation Tables.
- Results of the DUSR review of all laboratory results.

Attachment – SCO Tables

Department of Environmental Conservation

Division of Environmental Remediation

6 NYCRR PART 375

Environmental Remediation Programs

Subparts 375-1 to 375- 4 & 375-6

Effective December 14, 2006

New York State Department of Environmental Conservation

375-6.8 Soil cleanup objective tables.

(a) Unrestricted use soil cleanup objectives.

Table 375-6.8(a):Unrestricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Unrestricted Use
Metals		
Arsenic	7440-38-2	13 [c]
Barium	7440-39-3	350 [c]
Beryllium	7440-41-7	7.2
Cadmium	7440-43-9	2.5 [c]
Chromium, hexavalent [e]	18540-29-9	1[b]
Chromium, trivalent [e]	16065-83-1	30 [c]
Copper	7440-50-8	50
Total Cyanide [e, f]		27
Lead	7439-92-1	63 [c]
Manganese	7439-96-5	1600 [c]
Total Mercury		0.18 [c]
Nickel	7440-02-0	30
Selenium	7782-49-2	3.9[c]
Silver	7440-22-4	2
Zinc	7440-66-6	109 [c]
PCBs/Pesticides		
2,4,5-TP Acid (Silvex) [f]	93-72-1	3.8
4,4'-DDE	72-55-9	0.0033 [b]
4,4'-DDT	50-29-3	0.0033 [b]
4,4'-DDD	72-54-8	0.0033 [b]
Aldrin	309-00-2	0.005 [c]
alpha-BHC	319-84-6	0.02
beta-BHC	319-85-7	0.036
Chlordane (alpha)	5103-71-9	0.094

Table 375-6.8(a):Unrestricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Unrestricted Use
delta-BHC [g]	319-86-8	0.04
Dibenzofuran [f]	132-64-9	7
Dieldrin	60-57-1	0.005 [c]
Endosulfan I [d, f]	959-98-8	2.4
Endosulfan II [d, f]	33213-65-9	2.4
Endosulfan sulfate [d, f]	1031-07-8	2.4
Endrin	72-20-8	0.014
Heptachlor	76-44-8	0.042
Lindane	58-89-9	0.1
Polychlorinated biphenyls	1336-36-3	0.1
Semivolatile organic compounds		
Acenaphthene	83-32-9	20
Acenapthylene [f]	208-96-8	100 [a]
Anthracene [f]	120-12-7	100 [a]
Benz(a)anthracene [f]	56-55-3	1 [c]
Benzo(a)pyrene	50-32-8	1 [c]
Benzo(b)fluoranthene [f]	205-99-2	1 [c]
Benzo(g,h,i)perylene [f]	191-24-2	100
Benzo(k)fluoranthene [f]	207-08-9	0.8 [c]
Chrysene [f]	218-01-9	1 [c]
Dibenz(a,h)anthracene [f]	53-70-3	0.33 [b]
Fluoranthene [f]	206-44-0	100 [a]
Fluorene	86-73-7	30
Indeno(1,2,3-cd)pyrene [f]	193-39-5	0.5 [c]
m-Cresol [f]	108-39-4	0.33 [b]
Naphthalene [f]	91-20-3	12
o-Cresol [f]	95-48-7	0.33 [b]

Table 375-6.8(a):Unrestricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Unrestricted Use
p-Cresol [f]	106-44-5	0.33 [b]
Pentachlorophenol	87-86-5	0.8 [b]
Phenanthrene [f]	85-01-8	100
Phenol	108-95-2	0.33 [b]
Pyrene [f]	129-00-0	100
Volatile organic compounds		
1,1,1-Trichloroethane [f]	71-55-6	0.68
1,1-Dichloroethane [f]	75-34-3	0.27
1,1-Dichloroethene [f]	75-35-4	0.33
1,2-Dichlorobenzene [f]	95-50-1	1.1
1,2-Dichloroethane	107-06-2	0.02 [c]
cis -1,2-Dichloroethene [f]	156-59-2	0.25
trans-1,2-Dichloroethene [f]	156-60-5	0.19
1,3-Dichlorobenzene [f]	541-73-1	2.4
1,4-Dichlorobenzene	106-46-7	1.8
1,4-Dioxane	123-91-1	0.1 [b]
Acetone	67-64-1	0.05
Benzene	71-43-2	0.06
n-Butylbenzene [f]	104-51-8	12
Carbon tetrachloride [f]	56-23-5	0.76
Chlorobenzene	108-90-7	1.1
Chloroform	67-66-3	0.37
Ethylbenzene [f]	100-41-4	1
Hexachlorobenzene [f]	118-74-1	0.33[b]
Methyl ethyl ketone	78-93-3	0.12
Methyl tert-butyl ether [f]	1634-04-4	0.93
Methylene chloride	75-09-2	0.05

Table 375-6.8(a):Unrestricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Unrestricted Use
n - Propylbenzene [f]	103-65-1	3.9
sec-Butylbenzene [f]	135-98-8	11
tert-Butylbenzene [f]	98-06-6	5.9
Tetrachloroethene	127-18-4	1.3
Toluene	108-88-3	0.7
Trichloroethene	79-01-6	0.47
1,2,4-Trimethylbenzene [f]	95-63-6	3.6
1,3,5-Trimethylbenzene[f]	108-67-8	8.4
Vinyl chloride[f]	75-01-4	0.02
Xylene (mixed)	1330-20-7	0.26

All soil cleanup objectives (SCOs) are in parts per million (ppm).

Footnotes

[a] The SCOs for unrestricted use were capped at a maximum value of 100 ppm. See Technical Support Document (TSD), section 9.3.

[b] For constituents where the calculated SCO was lower than the contract required quantitation limit (CRQL), the CRQL is used as the Track 1 SCO value.

[c] For constituents where the calculated SCO was lower than the rural soil background concentration, as determined by the Department and Department of Health rural soil survey, the rural soil background concentration is used as the Track 1 SCO value for this use of the site.

[d] SCO is the sum of endosulfan I, endosulfan II and endosulfan sulfate.

[e] The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.

[f] Protection of ecological resources SCOs were not developed for contaminants identified in Table 375-6.8(b) with “NS”. Where such contaminants appear in Table 375-6.8(a), the applicant may be required by the Department to calculate a protection of ecological resources SCO according to the TSD.

(b) Restricted use soil cleanup objectives.

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
Metals							
Arsenic	7440-38-2	16[f]	16[f]	16[f]	16[f]	13[f]	16[f]
Barium	7440-39-3	350[f]	400	400	10,000 [d]	433	820
Beryllium	7440-41-7	14	72	590	2,700	10	47
Cadmium	7440-43-9	2.5[f]	4.3	9.3	60	4	7.5
Chromium, hexavalent [h]	18540-29-9	22	110	400	800	1[e]	19
Chromium, trivalent [h]	16065-83-1	36	180	1,500	6,800	41	NS
Copper	7440-50-8	270	270	270	10,000 [d]	50	1,720
Total Cyanide [h]		27	27	27	10,000 [d]	NS	40
Lead	7439-92-1	400	400	1,000	3,900	63[f]	450
Manganese	7439-96-5	2,000[f]	2,000[f]	10,000 [d]	10,000 [d]	1600[f]	2,000[f]
Total Mercury		0.81[j]	0.81[j]	2.8[j]	5.7[j]	0.18[f]	0.73
Nickel	7440-02-0	140	310	310	10,000 [d]	30	130
Selenium	7782-49-2	36	180	1,500	6,800	3.9[f]	4[f]
Silver	7440-22-4	36	180	1,500	6,800	2	8.3
Zinc	7440-66-6	2200	10,000 [d]	10,000 [d]	10,000 [d]	109[f]	2,480
PCBs/Pesticides							
2,4,5-TP Acid (Silvex)	93-72-1	58	100[a]	500[b]	1,000[c]	NS	3.8
4,4'-DDE	72-55-9	1.8	8.9	62	120	0.0033 [e]	17
4,4'-DDT	50-29-3	1.7	7.9	47	94	0.0033 [e]	136
4,4'- DDD	72-54-8	2.6	13	92	180	0.0033 [e]	14
Aldrin	309-00-2	0.019	0.097	0.68	1.4	0.14	0.19
alpha-BHC	319-84-6	0.097	0.48	3.4	6.8	0.04[g]	0.02
beta-BHC	319-85-7	0.072	0.36	3	14	0.6	0.09
Chlordane (alpha)	5103-71-9	0.91	4.2	24	47	1.3	2.9

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
delta-BHC	319-86-8	100[a]	100[a]	500[b]	1,000[c]	0.04[g]	0.25
Dibenzofuran	132-64-9	14	59	350	1,000[c]	NS	210
Dieldrin	60-57-1	0.039	0.2	1.4	2.8	0.006	0.1
Endosulfan I	959-98-8	4.8[i]	24[i]	200[i]	920[i]	NS	102
Endosulfan II	33213-65-9	4.8[i]	24[i]	200[i]	920[i]	NS	102
Endosulfan sulfate	1031-07-8	4.8[i]	24[i]	200[i]	920[i]	NS	1,000[c]
Endrin	72-20-8	2.2	11	89	410	0.014	0.06
Heptachlor	76-44-8	0.42	2.1	15	29	0.14	0.38
Lindane	58-89-9	0.28	1.3	9.2	23	6	0.1
Polychlorinated biphenyls	1336-36-3	1	1	1	25	1	3.2
Semivolatiles							
Acenaphthene	83-32-9	100[a]	100[a]	500[b]	1,000[c]	20	98
Acenapthylene	208-96-8	100[a]	100[a]	500[b]	1,000[c]	NS	107
Anthracene	120-12-7	100[a]	100[a]	500[b]	1,000[c]	NS	1,000[c]
Benz(a)anthracene	56-55-3	1[f]	1[f]	5.6	11	NS	1[f]
Benzo(a)pyrene	50-32-8	1[f]	1[f]	1[f]	1.1	2.6	22
Benzo(b)fluoranthene	205-99-2	1[f]	1[f]	5.6	11	NS	1.7
Benzo(g,h,i)perylene	191-24-2	100[a]	100[a]	500[b]	1,000[c]	NS	1,000[c]
Benzo(k)fluoranthene	207-08-9	1	3.9	56	110	NS	1.7
Chrysene	218-01-9	1[f]	3.9	56	110	NS	1[f]
Dibenz(a,h)anthracene	53-70-3	0.33[e]	0.33[e]	0.56	1.1	NS	1,000[c]
Fluoranthene	206-44-0	100[a]	100[a]	500[b]	1,000[c]	NS	1,000[c]
Fluorene	86-73-7	100[a]	100[a]	500[b]	1,000[c]	30	386
Indeno(1,2,3-cd)pyrene	193-39-5	0.5[f]	0.5[f]	5.6	11	NS	8.2
m-Cresol	108-39-4	100[a]	100[a]	500[b]	1,000[c]	NS	0.33[e]
Naphthalene	91-20-3	100[a]	100[a]	500[b]	1,000[c]	NS	12

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
o-Cresol	95-48-7	100[a]	100[a]	500[b]	1,000[c]	NS	0.33[e]
p-Cresol	106-44-5	34	100[a]	500[b]	1,000[c]	NS	0.33[e]
Pentachlorophenol	87-86-5	2.4	6.7	6.7	55	0.8[e]	0.8[e]
Phenanthrene	85-01-8	100[a]	100[a]	500[b]	1,000[c]	NS	1,000[c]
Phenol	108-95-2	100[a]	100[a]	500[b]	1,000[c]	30	0.33[e]
Pyrene	129-00-0	100[a]	100[a]	500[b]	1,000[c]	NS	1,000[c]
Volatiles							
1,1,1-Trichloroethane	71-55-6	100[a]	100[a]	500[b]	1,000[c]	NS	0.68
1,1-Dichloroethane	75-34-3	19	26	240	480	NS	0.27
1,1-Dichloroethene	75-35-4	100[a]	100[a]	500[b]	1,000[c]	NS	0.33
1,2-Dichlorobenzene	95-50-1	100[a]	100[a]	500[b]	1,000[c]	NS	1.1
1,2-Dichloroethane	107-06-2	2.3	3.1	30	60	10	0.02[f]
cis-1,2-Dichloroethene	156-59-2	59	100[a]	500[b]	1,000[c]	NS	0.25
trans-1,2-Dichloroethene	156-60-5	100[a]	100[a]	500[b]	1,000[c]	NS	0.19
1,3-Dichlorobenzene	541-73-1	17	49	280	560	NS	2.4
1,4-Dichlorobenzene	106-46-7	9.8	13	130	250	20	1.8
1,4-Dioxane	123-91-1	9.8	13	130	250	0.1[e]	0.1[e]
Acetone	67-64-1	100[a]	100[b]	500[b]	1,000[c]	2.2	0.05
Benzene	71-43-2	2.9	4.8	44	89	70	0.06
Butylbenzene	104-51-8	100[a]	100[a]	500[b]	1,000[c]	NS	12
Carbon tetrachloride	56-23-5	1.4	2.4	22	44	NS	0.76
Chlorobenzene	108-90-7	100[a]	100[a]	500[b]	1,000[c]	40	1.1
Chloroform	67-66-3	10	49	350	700	12	0.37
Ethylbenzene	100-41-4	30	41	390	780	NS	1
Hexachlorobenzene	118-74-1	0.33[e]	1.2	6	12	NS	3.2
Methyl ethyl ketone	78-93-3	100[a]	100[a]	500[b]	1,000[c]	100[a]	0.12

Table 375-6.8(b): Restricted Use Soil Cleanup Objectives

Contaminant	CAS Number	Protection of Public Health				Protection of Ecological Resources	Protection of Ground-water
		Residential	Restricted-Residential	Commercial	Industrial		
Methyl tert-butyl ether	1634-04-4	62	100[a]	500[b]	1,000[c]	NS	0.93
Methylene chloride	75-09-2	51	100[a]	500[b]	1,000[c]	12	0.05
n-Propylbenzene	103-65-1	100[a]	100[a]	500[b]	1,000[c]	NS	3.9
sec-Butylbenzene	135-98-8	100[a]	100[a]	500[b]	1,000[c]	NS	11
tert-Butylbenzene	98-06-6	100[a]	100[a]	500[b]	1,000[c]	NS	5.9
Tetrachloroethene	127-18-4	5.5	19	150	300	2	1.3
Toluene	108-88-3	100[a]	100[a]	500[b]	1,000[c]	36	0.7
Trichloroethene	79-01-6	10	21	200	400	2	0.47
1,2,4-Trimethylbenzene	95-63-6	47	52	190	380	NS	3.6
1,3,5- Trimethylbenzene	108-67-8	47	52	190	380	NS	8.4
Vinyl chloride	75-01-4	0.21	0.9	13	27	NS	0.02
Xylene (mixed)	1330-20-7	100[a]	100[a]	500[b]	1,000[c]	0.26	1.6

All soil cleanup objectives (SCOs) are in parts per million (ppm).
NS=Not specified. See Technical Support Document (TSD).

Footnotes

[a] The SCOs for residential, restricted-residential and ecological resources use were capped at a maximum value of 100 ppm. See TSD section 9.3.

[b] The SCOs for commercial use were capped at a maximum value of 500 ppm. See TSD section 9.3.

[c] The SCOs for industrial use and the protection of groundwater were capped at a maximum value of 1000 ppm. See TSD section 9.3.

[d] The SCOs for metals were capped at a maximum value of 10,000 ppm. See TSD section 9.3.

[e] For constituents where the calculated SCO was lower than the contract required quantitation limit (CRQL), the CRQL is used as the SCO value.

[f] For constituents where the calculated SCO was lower than the rural soil background concentration as determined by the Department and Department of Health rural soil survey, the rural soil background concentration is used as the Track 2 SCO value for this use of the site.

[g] This SCO is derived from data on mixed isomers of BHC.

[h] The SCO for this specific compound (or family of compounds) is considered to be met if the analysis for the total species of this contaminant is below the specific SCO.

[i] This SCO is for the sum of endosulfan I, endosulfan II, and endosulfan sulfate.

[j] This SCO is the lower of the values for mercury (elemental) or mercury (inorganic salts). See TSD Table 5.6-1.

CP-51 / Soil Cleanup Guidance

New York State Department of Environmental Conservation

DEC Policy

Issuing Authority: Alexander B. Grannis, Commissioner

Date Issued: October 21, 2010	**Latest Date Revised:**

I. Summary

This policy provides the framework and procedures for the selection of soil cleanup levels appropriate for each of the remedial programs in the New York State Department of Environmental Conservation (DEC) Division of Environmental Remediation (DER). This policy applies to the Inactive Hazardous Waste Disposal Site Remedial Program, known as the State Superfund Program (SSF); Brownfield Cleanup Program (BCP); Voluntary Cleanup Program (VCP); Environmental Restoration Program (ERP); Spill Response Program - Navigation Law (NL) section 176 (SRP); and the Resource Conservation and Recovery Act (RCRA) Corrective Action Program. It replaces *Technical and Administrative Guidance Memorandum (TAGM) 4046: Determination of Soil Cleanup Objectives and Cleanup Levels* (January 24, 1994); the *Petroleum Site Inactivation and Closure Memorandum* (February 23, 1998); and Sections III and IV of *Spill Technology and Remediation Series (STARS) #1* (August 1992).

This document is used in conjunction with the applicable statutes, regulations and guidance. Site-specific soil cleanup levels, determined in accordance with this guidance, are only applied after:

- the site, or area of concern, is fully investigated to determine the nature and extent of contamination;
- all sources of contamination are addressed consistent with the hierarchy provided in 6 NYCRR 375-1.8(c) or consistent with the RCRA Corrective Action Program (as appropriate);
- groundwater, if contaminated, has been evaluated for appropriate remedial actions consistent with 6 NYCRR 375-1.8(d) or consistent with the RCRA Corrective Action Program (as appropriate); and
- impacts on adjacent residential properties, surface water, aquatic ecological resources are evaluated, as well as indoor air, soil vapor, vapor intrusion and other appropriate media.

II. Policy

It is DEC's policy, consistent with applicable statutes and regulations, that all remedies will be protective of public health and the environment. DEC's preference is that remedial programs, including the selection of soil cleanup levels, be designed such that the performance standard results in the implementation of a permanent remedy resulting in no future land use restrictions. However, some of

Table 1

Supplemental Soil Cleanup Objectives
(ppm)

Contaminant	CAS Number	Residential	Restricted Residential	Commercial	Industrial	Protection of Ecological Resources	Protection of Ground-water
METALS							
Aluminum	7429-90-5					10,000 [a,b]	
Antimony	7440-36-0					12[c]	
Boron	7440-42-8					0.5	
Calcium	7440-70-2					10,000 [a,b]	
Cobalt	7440-48-4	30				20	
Iron	7439-89-6	2,000					
Lithium	7439-93-2					2	
Molybdenum	7439-98-7					2	
Technetium	7440-26-8					0.2	
Thallium	7440-28-0					5[c]	
Tin	7440-31-5					50	
Uranium	7440-61-1					5	
Vanadium	7440-62-2	100[a]				39[b]	
PESTICIDES							
Biphenyl	92-52-4					60	
Chlordecone (Kepone)	143-50-0					0.06	
Dibenzofuran	132-64-9						6.2
2,4-D (2,4-Dichloro-phenoxyacetic acid)	94-75-7	100[a]					0.5
Furan	110-00-9					600	
Gamma Chlordane	5103-74-2	0.54					14
Heptachlor Epoxide	1024-57-3	0.077					0.02
Methoxychlor	72-43-5	100[a]				1.2	900

Contaminant	CAS Number	Residential	Restricted Residential	Commercial	Industrial	Protection of Ecological Resources	Protection of Ground-water
Parathion	56-38-2	100 [a]					1.2
2,4,5-T	93-76-5	100 [a]					1.9
2,3,7,8-TCDD	1746-01-6					0.000001	
2,3,7,8-TCDF	51207-31-9					0.000001	
SEMIVOLATILE ORGANIC COMPOUNDS							
Aniline	62-53-3	48	100[a]	500[a]	1000[a]		0.33[b]
Bis(2-ethylhexyl) phthalate	117-81-7	50				239	435
Benzoic Acid	65-85-0	100[a]					2.7
Butylbenzyl-phthalate	85-68-7	100 [a]					122
4-Chloroaniline	106-47-8	100 [a]					0.22
Chloroethane	75-00-3						1.9
2-Chlorophenol	95-57-8	100 [a]				0.8	
3-Chloroaniline	108-42-9					20	
3-Chlorophenol	108-43-0					7	
Di-n-butyl-phthalate	84-74-2	100 [a]				0.014	8.1
2,4-Dichlorophenol	120-83-2	100 [a]				20	0.40
3,4-Dichlorophenol	95-77-2					20	
Diethylphthalate	84-66-2	100 [a]				100	7.1
Di-*n*-hexyl-phthalate	84-75-3					0.91	
2,4-Dinitrophenol	51-28-5	100 [a]				20	0.2
Dimethylphthlate	131-11-3	100 [a]				200	27
Di-n-octylphthlate	117-84-0	100 [a]					120
1,2,3,6,7,8-HCDF	57117-44-9					0.00021	
Hexachloro-benzene	118-74-1	0.41					1.4
2,6-Dinitrotoluene	606-20-2	1.03					1.0
Isophorone	78-59-1	100 [a]					4.4

Contaminant	CAS Number	Residential	Restricted Residential	Commercial	Industrial	Protection of Ecological Resources	Protection of Ground-water
4-methyl-2-pentanone	108-10-1						1.0
2-methyl-naphthalene	91-57-6	0.41					36.4
2-Nitroaniline	88-74-4						0.4
3-Nitroaniline	99-09-2						0.5
Nitrobenzene	98-95-3	3.7	15	69	140	40	0.17[b]
2-Nitrophenol	88-75-5					7	0.3
4-Nitrophenol	100-02-7					7	0.1
Pentachloroaniline	527-20-8					100	
2,3,5,6-Tetrachloroaniline	3481-20-7					20	
2,3,4,5-Tetrachlorophenol	4901-51-3					20	
2,4,5-Trichloroaniline	636-30-6					20	
2,4,5-Trichlorophenol	95-95-4	100[a]				4	0.1
2,4,6-Trichlorophenol	88-06-2					10	
VOLATILE ORGANIC COMPOUNDS							
2-Butanone	78-93-3	100[a]					0.3
Carbon Disulfide	75-15-0	100[a]					2.7
Chloroacetamide	79-07-2					2	
Dibromochloro-methane	124-48-1					10	
2,4-Dichloro aniline	554-00-7					100	
3,4-Dichloroaniline	95-76-1					20	
1,2-Dichloropropane	78-87-5					700	
1,3-Dichloropropane	142-28-9						0.3
2,6-Dinitrotoluene	606-20-2	1.03					0.17[b]
Ethylacetate	141-78-6					48	

Contaminant	CAS Number	Residential	Restricted Residential	Commercial	Industrial	Protection of Ecological Resources	Protection of Ground-water
4-methyl-2-pentanone	108-10-1						1.0
113 Freon (1,1,2- TFE)	76-13-1	100 [a]					6
isopropylbenzene	98-82-8	100 [a]					2.3
p-isopropyltoluene	99-87-6						10
Hexachlorocyclo-pentadiene	77-47-4					10	
Methanol	67-56-1					6.5	
N-nitrosodiphenyl-amine	86-30-6					20	
Pentachloro-benzene	608-93-5					20	
Pentachloronitro-benzene	82-68-8					10	
Styrene	100-42-5					300	
1,2,3,4-Tetrachlorobenzene	634-66-2					10	
1,1,2,2-Tetrachloroethane	79-34-5	35					0.6
1,1,2,2-Tetrachloroethylene	127-18-4					2	
1,2,3-Trichlorobenzene	87-61-6					20	
1,2,4-Trichlorobenzene	120-82-1					20	3.4
1,2,3-Trichloropropane	96-18-4	80					0.34

[a] SCOs for organic contaminants (volatile organic compounds, semivolatile organic compounds, and pesticides) are capped at 100 ppm for residential use, 500 ppm for commercial use, 1000 ppm for industrial use. SCOs for metals are capped at 10,000 ppm.

[b] Based on rural background study

[c] SCO limited by contract required quantitation limit.

Table 2

Soil Cleanup Levels for Gasoline Contaminated Soils

Contaminant	CAS Registry Number	Soil Cleanup Level (ppm)
Benzene	71-43-2	0.06
n-Butylbenzene	104-51-8	12.0
sec-Butylbenzene	135-98-8	11.0
Ethylbenzene	100-41-4	1.0
Isopropylbenzene	98-82-8	2.3
p-Isopropyltoluene	99-87-6	10.0
Methyl-Tert-Butyl-Ether	1634-04-4	0.93
Naphthalene	91-20-3	12.0
n-Propylbenzene	103-65-1	3.9
Tert-Butylbenzene	98-06-6	5.9
Toluene	108-88-3	0.7
1,2,4-Trimethylbenzene	95-63-6	3.6
1,3,5-Trimethylbenzene	108-67-8	8.4
Xylene (Mixed)	1330-20-7	0.26

Table 3

Soil Cleanup Levels for Fuel Oil Contaminated Soil

Contaminant	CAS Registry Number	Soil Cleanup Level (ppm)
Acenaphthene	83-32-9	20
Acenaphthylene	208-96-8	100
Anthracene	120-12-7	100
Benz(a)Anthracene	56-55-3	1.0
Dibenzo(a,h)Anthracene	53-70-3	0.33
Benzene	71-43-2	0.06
n-Butylbenzene	104-51-8	12.0
sec-Butylbenzene	135-98-8	11.0
Tert-Butylbenzene	98-06-6	5.9
Chrysene	218-01-9	1.0
Ethylbenzene	100-41-4	1.0
Fluoranthene	206-44-0	100
Benzo(b)Fluoranthene	205-99-2	1.0
Benzo(k)Fluoranthene	207-08-9	0.8
Fluorene	86-73-7	30
Isopropylbenzene	98-82-8	2.3
p-Isopropyltoluene	99-87-6	10.0
Naphthalene	91-20-3	12.0
n-Propylbenzene	103-65-1	3.9
Benzo(g,h,i)Perylene	191-24-2	100
Phenanthrene	85-01-8	100
Pyrene	129-00-0	100
Benzo(a)Pyrene	50-32-8	1.0
Indeno(1,2,3-cd)Pyrene	193-39-5	0.5
1,2,4-Trimethylbenzene	95-63-6	3.6
1,3,5-Trimethylbenzene	108-67-8	8.4
Toluene	108-88-3	0.7
Xylene (Mixed)	1330-20-7	0.26

Appendix 5
Allowable Constituent Levels for Imported Fill or Soil
Subdivision 5.4(e)

Source: This table is derived from soil cleanup objective (SCO) tables in 6 NYCRR 375. Table 375-6.8(a) is the source for unrestricted use and Table 375-6.8(b) is the source for restricted use.

Note: For constituents not included in this table, refer to the contaminant for supplemental soil cleanup objectives (SSCOs) in the Commissioner Policy on *Soil Cleanup Guidance*. If an SSCO is not provided for a constituent, contact the DER PM to determine a site-specific level.

Constituent	Unrestricted Use	Residential Use	Restricted Residential Use	Commercial or Industrial Use	If Ecological Resources are Present
Metals					
Arsenic	13	16	16	16	13
Barium	350	350	400	400	433
Beryllium	7.2	14	47	47	10
Cadmium	2.5	2.5	4.3	7.5	4
Chromium, Hexavalent[1]	1 [3]	19	19	19	1 [3]
Chromium, Trivalent[1]	30	36	180	1500	41
Copper	50	270	270	270	50
Cyanide	27	27	27	27	NS
Lead	63	400	400	450	63
Manganese	1600	2000	2000	2000	1600
Mercury (total)	0.18	0.73	0.73	0.73	0.18
Nickel	30	130	130	130	30
Selenium	3.9	4	4	4	3.9
Silver	2	8.3	8.3	8.3	2
Zinc	109	2200	2480	2480	109
PCBs/Pesticides					
2,4,5-TP Acid (Silvex)	3.8	3.8	3.8	3.8	NS
4,4'-DDE	0.0033 [3]	1.8	8.9	17	0.0033 [3]
4,4'-DDT	0.0033 [3]	1.7	7.9	47	0.0033 [3]
4,4'-DDD	0.0033 [3]	2.6	13	14	0.0033 [3]
Aldrin	0.005	0.019	0.097	0.19	0.14
Alpha-BHC	0.02	0.02	0.02	0.02	0.04 [4]
Beta-BHC	0.036	0.072	0.09	0.09	0.6
Chlordane (alpha)	0.094	0.91	2.9	2.9	1.3
Delta-BHC	0.04	0.25	0.25	0.25	0.04 [4]
Dibenzofuran	7	14	59	210	NS
Dieldrin	0.005	0.039	0.1	0.1	0.006
Endosulfan I	2.4[2]	4.8	24	102	NS
Endosulfan II	2.4[2]	4.8	24	102	NS
Endosulfan sulfate	2.4[2]	4.8	24	200	NS
Endrin	0.014	0.06	0.06	0.06	0.014
Heptachlor	0.042	0.38	0.38	0.38	0.14
Lindane	0.1	0.1	0.1	0.1	6
Polychlorinated biphenyls	0.1	1	1	1	1

Constituent	Unrestricted Use	Residential Use	Restricted Residential Use	Commercial or Industrial Use	If Ecological Resources are Present
Semi-volatile Organic Compounds					
Acenaphthene	20	98	98	98	20
Acenaphthylene	100	100	100	107	NS
Anthracene	100	100	100	500	NS
Benzo(a)anthracene	1	1	1	1	NS
Benzo(a)pyrene	1	1	1	1	2.6
Benzo(b)fluoranthene	1	1	1	1.7	NS
Benzo(g,h,i)perylene	100	100	100	500	NS
Benzo(k)fluoranthene	0.8	1	1.7	1.7	NS
Chrysene	1	1	1	1	NS
Dibenz(a,h)anthracene	0.33 [3]	0.33 [3]	0.33 [3]	0.56	NS
Fluoranthene	100	100	100	500	NS
Fluorene	30	100	100	386	30
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.5	5.6	NS
m-Cresol(s)	0.33 [3]	0.33 [3]	0.33 [3]	0.33 [3]	NS
Naphthalene	12	12	12	12	NS
o-Cresol(s)	0.33 [3]	0.33 [3]	0.33 [3]	0.33 [3]	NS
p-Cresol(s)	0.33	0.33	0.33	0.33	NS
Pentachlorophenol	0.8 [3]	0.8 [3]	0.8 [3]	0.8 [3]	0.8 [3]
Phenanthrene	100	100	100	500	NS
Phenol	0.33 [3]	0.33 [3]	0.33 [3]	0.33 [3]	30
Pyrene	100	100	100	500	NS
Volatile Organic Compounds					
1,1,1-Trichloroethane	0.68	0.68	0.68	0.68	NS
1,1-Dichloroethane	0.27	0.27	0.27	0.27	NS
1,1-Dichloroethene	0.33	0.33	0.33	0.33	NS
1,2-Dichlorobenzene	1.1	1.1	1.1	1.1	NS
1,2-Dichloroethane	0.02	0.02	0.02	0.02	10
1,2-Dichloroethene(cis)	0.25	0.25	0.25	0.25	NS
1,2-Dichloroethene(trans)	0.19	0.19	0.19	0.19	NS
1,3-Dichlorobenzene	2.4	2.4	2.4	2.4	NS
1,4-Dichlorobenzene	1.8	1.8	1.8	1.8	20
1,4-Dioxane	0.1 [3]	0.1 [3]	0.1 [3]	0.1 [3]	0.1
Acetone	0.05	0.05	0.05	0.05	2.2
Benzene	0.06	0.06	0.06	0.06	70
Butylbenzene	12	12	12	12	NS
Carbon tetrachloride	0.76	0.76	0.76	0.76	NS
Chlorobenzene	1.1	1.1	1.1	1.1	40
Chloroform	0.37	0.37	0.37	0.37	12
Ethylbenzene	1	1	1	1	NS
Hexachlorobenzene	0.33 [3]	0.33 [3]	1.2	3.2	NS
Methyl ethyl ketone	0.12	0.12	0.12	0.12	100
Methyl tert-butyl ether	0.93	0.93	0.93	0.93	NS
Methylene chloride	0.05	0.05	0.05	0.05	12

Volatile Organic Compounds (continued)					
Propylbenzene-n	3.9	3.9	3.9	3.9	NS
Sec-Butylbenzene	11	11	11	11	NS
Tert-Butylbenzene	5.9	5.9	5.9	5.9	NS
Tetrachloroethene	1.3	1.3	1.3	1.3	2
Toluene	0.7	0.7	0.7	0.7	36
Trichloroethene	0.47	0.47	0.47	0.47	2
Trimethylbenzene-1,2,4	3.6	3.6	3.6	3.6	NS
Trimethylbenzene-1,3,5	8.4	8.4	8.4	8.4	NS
Vinyl chloride	0.02	0.02	0.02	0.02	NS
Xylene (mixed)	0.26	1.6	1.6	1.6	0.26

All concentrations are in parts per million (ppm)
NS = Not Specified

Footnotes:
[1] The SCO for Hexavalent or Trivalent Chromium is considered to be met if the analysis for the total species of this contaminant is below the specific SCO for Hexavalent Chromium.
[2] The SCO is the sum of endosulfan I, endosulfan II and endosulfan sulfate.
[3] For constituents where the calculated SCO was lower than the contract required quantitation limit (CRQL), the CRQL is used as the Track 1 SCO value.
[4] This SCO is derived from data on mixed isomers of BHC.

APPENDIX G
HEALTH AND SAFETY PLAN

HEALTH AND SAFETY PLAN

FOR

SITE MANAGEMENT

QUEEN CITY LOFTS

Poughkeepsie, New York

NYSDEC SITE ID: C314125

December 2018

Prepared By:

WCD GROUP
A GALLAGHER BASSETT COMPANY

Bell Engineering, PLLC
334 North Fostertown Drive, Newburgh NY, 12550 (845) 565-3802

TABLE OF CONTENTS

1.0 INTRODUCTION

1.1 Purpose

This Health and Safety Plan for Site Management (HASP) has been developed to provide the requirements and general procedures to be followed by WCD Group (WCD), Bell Engineering, and/or on-site subcontractors while performing investigative services at the Queen City Lofts property (BCP Site: C314125) located in the City of Poughkeepsie, Dutchess County, New York.

This HASP incorporates policies, guidelines and procedures that have the objective of protecting the public health of the community during the performance of fieldwork activities, and therefore serves as a Community Health and Safety Plan. The objectives of the HASP are met by establishing guidelines to minimize community exposure to hazards during fieldwork, and by planning for and responding to emergencies affecting the public adjacent to the site.

This HASP describes the responsibilities, training requirements, protective equipment and standard operating procedures to be utilized by all personnel while on the Site. All on-site personnel and visitors shall follow the guidelines, rules, and procedures contained in this safety plan. The Project Manager or Site Health and Safety Officer (SHSO) may impose any other procedures or prohibitions believed to be necessary for safe operations. This HASP incorporates by reference the applicable Occupational Safety and Health Administration (OSHA) requirements in 29 CFR 1910 and 29 CFR 1926.

The requirements and guidelines in this HASP are based on a review of available information and evaluation of potential on-site hazards. This HASP will be discussed with Site personnel and will be available on-site for review while work is underway. On-site personnel will report to the Site Health and Safety Officer (SHSO) in matters of health and safety. The on-site project supervisor(s) are responsible for enforcement and implementation of this HASP, which is applicable to all field personnel, including contractors and subcontractors.

This HASP is specifically intended for the conduct of activities within the defined scope of work in specified areas of the Site. Changes in site conditions and future actions that may be conducted at the Site may necessitate the modification of the requirements of the HASP. Although this HASP can be made available to interested persons for informational purposes, WCD has no responsibility over the interpretations or activities of any other persons or entities other than employees of WCD or WCD's subcontractors.

1.2 Site Location and Description

The Site as defined in this HASP is the Queen City Lofts property located at Main Street and South Bridge Street, Poughkeepsie, New York. A map illustrating the configuration of the Site is included as an Attachment to this HASP.

1.3 Work Activities

Environmental remediation activities are detailed in the NYSDEC-approved Final Engineering Report (FER) and Site Management Plan, dated December 2018. The specific tasks detailed in the SMP are wholly incorporated by reference into this HASP. The SMP describes management tasks following completion of the remedial action, including maintenance of the Engineering Control (the site cover system), which prevents exposure to remaining Site contamination.

The Site has been remediated under the NYSDEC Brownfield Cleanup Program (BCP). The Remedial Investigation Report prepared for the Site documented the presence of poor-quality urban fill and contaminated soils containing elevated concentrations of SVOCs, pesticides and metals (above Restricted-Residential Use Soil Cleanup Objectives). Overt field evidence of petroleum contamination in soil (including odors and staining) was observed at the northeastern portion of the Site and spill number 15-02657 was reported. A previously unknown underground storage tank (UST) and associated contaminated soil were removed from this area ("northern hot spot") during the remedial action. Spill number 15-11940 was reported based on field evidence of petroleum contamination observed in soil and groundwater in the vicinity of a former on-site garage (no free-phase petroleum was noted) at the southeastern portion of the Site. Laboratory data documented a high peak concentration of total tentatively identified compounds (TICs) related to gasoline compounds in soil and elevated levels of several volatile petroleum compounds in groundwater. This petroleum contamination was likely associated with a release that had previously been subject to remediation activities. All impacted soil in this area ("southern hot spot") was removed during the remedial action

Remedial actions, documented in the Final Engineering Report (FER), consisted of the removal of upper fill soils (for development purposes) at most portions of the Site, additional excavation as needed at the two petroleum hot spots, and installation of a protective cover system to prevent exposure to any remaining soil contamination.

Potential work activities under the SMP include the management of residual contaminated soil present beneath the cover system, which may be exposed during Site construction activities.

2.0 HEALTH AND SAFETY HAZARDS

2.1 Hazard Overview for On-Site Personnel

The potential exists for the presence of elevated levels of organic compounds and metals in on-site soils, metals in groundwater, and organic compounds in soil gas. The possibility exists for on-site personnel to have contact with contaminated soils, groundwater and/or vapor during site remediation work. Contact with contaminated substances may present a skin contact, inhalation and/or ingestion hazard. These potential hazards are addressed in Sections 3.0 through 11.0, below.

2.2 Potential Hazards to the Public from Fieldwork Activities

The potential exists for the public to be exposed to contaminated soils, groundwater and/or vapor, which may present a skin contact, inhalation and/or ingestion hazard. Additional potential hazards to the public that are associated with fieldwork activities include mechanical/physical hazards, traffic hazards from fieldwork vehicles, and noise impacts associated with operation of mechanical equipment.

Impacts to public health and safety are expected to be limited to hazards that could directly affect on-site visitors and/or trespassers. These effects will be mitigated through site access and control measures (see Section 6.0, below). Specific actions taken to protect the public health (presented in Sections 3.0 through 11, below) are anticipated to minimize any potential off-site impacts from contaminant migration, noise and traffic hazards.

3.0 PERSONAL PROTECTIVE EQUIPMENT

The levels of protection identified for the services specified in the SMP represent a best estimate of exposure potential and protective equipment needed for that exposure. Determination of levels was based on data provided by previous studies of the Site and information reviewed on current and past Site usage. The SHSO may recommend revisions to these levels based on an assessment of actual exposures and may at any time require Site workers, supervisors and/or visitors to use specific safety equipment.

The level of protective clothing and equipment selected for this project is Level D. Level D PPE provides minimal skin protection and no respiratory protection, and is used when the atmosphere contains no known hazard, oxygen concentrations are not less than 19.5%, and work activities exclude splashes, immersion or the potential for unexpected inhalation or contact with hazardous levels of chemicals. Workers will wear Level D protective clothing including, but not limited to, a hard hat, steel-toed boots, nitrile gloves (when handling soils and/or groundwater), hearing protection (foam ear plugs or ear muffs, as required), and safety goggles (in areas of exposed

groundwater and when decontaminating equipment). Personal protective equipment (PPE) will be worn at all times, as designated by this HASP.

Disposable gloves will be changed immediately following the handling of contaminated soils, water, or equipment. Tyvek suits will be worn during activities likely to excessively expose work clothing to contaminated dust or soil (chemically-resistant over garments will be required in situations where exposures could lead to penetration of clothing and direct dermal contact by contaminants).

The requirement for the use of PPE by official on-site visitors shall be determined by the SHSO, based on the most restrictive PPE requirement for a particular Work Zones (see Section 6 for Work Zone definitions). All on-site visitors shall, at a minimum, be required to wear an approved hardhat and be provided with appropriate hearing protection as necessary.

The need for an upgrade in PPE will be determined based upon encountered Site conditions, including measurements taken in the breathing zone of the work area using a photo-ionization detector (PID). An upgrade to a higher level of protection (Level C) will begin when specific action levels are reached (see Section 5.0, below), or as otherwise required by the SHSO. Level C PPE includes a full-face or half-mask air-purifying respirator (NIOSH approved for the compound[s] of concern), hooded chemical-resistant clothing, outer and inner chemical-resistant gloves, and (as needed) coveralls, outer boots/boot covers, escape mask, and face shield. Level C PPE may be used only when: oxygen concentrations are not less than 19.5%; contaminant contact will not adversely affect any exposed skin; types of air contaminants have been identified, concentrations measured, and a cartridge or canister is available that can remove the contaminant; atmospheric contaminant concentrations do not exceed immediately dangerous to life or health (IDLH) levels; and job functions do not require self-contained breathing apparatus (SCBAs). The need for Level B or Level A PPE is not anticipated for the planned remedial activities at this Site.

If any equipment fails and/or any employee experiences a failure or other alteration of their protective equipment that may affect its protective ability, that person will immediately leave the work area. The Project Manager and the SHSO will be notified and, after reviewing the situation, determine the effect of the failure on the continuation of on-going operations. If the failure affects the safety of personnel, the work site, or the surrounding environment, personnel will be evacuated until appropriate corrective actions have been taken.

4.0 CONTAMINANT CONTROL

Precautions will be taken during dry weather (e.g., wetting or covering exposed soils) to avoid generating and breathing dust-generated from soils. A PID (or equivalent equipment) will be

used to monitor potential contaminant levels. Response to the monitoring will be in accordance with the action levels provided in Section 5.0.

5.0 MONITORING AND ACTION LEVELS

Concentrations of petroleum compounds in the air are expected to be below the OSHA Permissible Exposure Limits (PELs). Air monitoring will be conducted for VOCs and dust according to the NYSDOH Generic Community Air Monitoring Plan (CAMP). Monitoring will be conducted at all times that fieldwork activities which are likely to generate emissions are occurring. PID and dust readings consistently in excess of CAMP limits will be used as an indication of the need to initiate personnel monitoring, increase worker protective measures, and/or modify or cease on-site operations in order to mitigate off-site community exposure.

PID readings that consistently exceed background in the breathing zone (during any of the proposed tasks) will necessitate moving away from the source or implementing a higher PPE level.

6.0 SITE CONTROL/WORK ZONES

Site control procedures will be established to reduce the possibility of worker/visitor contact with compounds present in the soil, to protect the public in the area surrounding the Site and to limit access to the Site to only those persons required to be in the work zone. Notices will be placed near the Site warning the public not to enter fieldwork areas and directing visitors to report to the Project Manager or SHSO. Measures will be taken to limit the entry of unauthorized personnel into the specific areas of field activity and to safely direct and control all vehicular traffic in and near the Site (e.g., placement of traffic cones and warning tape).

The following Work Zone will be established:

Exclusion Zone ("Hot Zone") - The exclusion zone will be that area immediately surrounding the work being performed for remediation purposes (i.e. the area where contaminated media are being handled). It is anticipated that much of the work will be accomplished with heavy equipment in the exclusion zone. Only individuals with appropriate PPE and training are allowed into this zone. It is the responsibility of the Site Health and Safety Officer to prevent unauthorized personnel from entering the exclusion zone. When necessary, such as in high traffic areas, the exclusion zone will be delineated with barricade tape, cones and/or barricades.

Decontamination Area - A decontamination area for personnel and equipment is not anticipated being required during completion of the SMP; however, care will be taken to remove gloves, excess soil from boots, and soiled clothing (if necessary) before entering the Intermediate Zone.

Contamination Reduction Zone and Support Zone - Not anticipated being required during the completion of the SMP.

Intermediate Zone (Decontamination Zone) - The intermediate zone, also known as the decontamination zone, is where patient decontamination should take place, if necessary. A degree of contamination still is found in this zone; thus, some PPE is required, although it is usually of a lesser degree than that required for the hot zone.

Command Zone - The command zone is located outside the decontamination zone. All exposed individuals and equipment from the "hot zone" and decontamination zone should be decontaminated before entering the command zone. Access to all zones must be controlled. Keeping the media and onlookers well away from the Site is critical and will be the responsibility of both the SSHO and the Project Manager, and other Site personnel as appropriate.

7.0 NOISE CONTROL

All fieldwork activities will be conducted in a manner designed to reduce unnecessary noise generation, and to minimize the potential for both on-site and off-site harmful noise levels. The Project Manager and SHSO will establish noise reduction procedures (as appropriate to the Site and the work) to meet these requirements.

8.0 PERSONNEL TRAINING

Work zones that will accomplish the general objective stated above will be established by the Project Manager and the SHSO. Site access will be monitored by the SHSO, who will maintain a log-in sheet for personnel that will include, at the minimum, personnel on the Site, their arrival and departure times and their destination on the Site. All workers will be properly trained in accordance with OSHA requirements (29 CFR 1910). Personnel exiting the work zone(s) will be decontaminated prior to exiting the Site.

Site-specific training will be provided to each employee. Personnel will be briefed by the SHSO as to the potential hazards to be encountered. Topics will include:

- Availability of this HASP;
- General site hazards and specific hazards in the work areas, including those attributable to known of suspect on-site contaminants;
- Selection, use, testing, and care of the body, eye, hand, and foot protection being worn, with the limitations of each;
- Decontamination procedures for personnel, their personal protective equipment, and other equipment used on the Site;

- Emergency response procedures and requirements;
- Emergency alarm systems and other forms of notification, and evacuation routes to be followed; and,
- Methods to obtain emergency assistance and medical attention.

9.0 DECONTAMINATION

The SHSO will establish a decontamination system and decontamination procedures (appropriate to the Site and the work) that will prevent potentially hazardous materials from leaving the Site. Trucks will be brushed to remove materials adhering to their surfaces. Sampling equipment will be segregated and, after decontamination, stored separately from splash protection equipment. Decontaminated or clean sampling equipment not in use will be covered with plastic and stored in a designated storage area in the work zone.

10.0 EMERGENCY RESPONSE

10.1 Notification of Site Emergencies

In the event of an emergency, the SHSO will be immediately notified of the nature and extent of the emergency (the names and contact information for key site safety and management personnel, as well as other site safety contact telephone numbers, shall be posted at the Site).

Table 1 in this HASP contains Emergency Response Telephone Numbers, and immediately following is a map detailing the directions to the nearest hospital emergency room. This information will be maintained at the work Site by the SHSO. The location of the nearest telephone will be determined prior to the initiation of on-site activities. In addition to any permanent phone lines, a cellular phone will be in the possession of the SHSO, or an authorized designee, at all times.

10.2 Responsibilities

Prior to the initiation of on-site work activities, the SHSO will:

- Notify individuals, authorities and/or health care facilities of the potentially hazardous activities and potential wastes that may develop as a result of the remedial activities.
- Confirm that first aid supplies and a fire extinguisher are available on-site.
- Have a working knowledge of available safety equipment.
- Confirm that a map detailing the most direct route to the hospital is prominently posted with the emergency telephone numbers.

The SHSO will be responsible for directing notification, response and follow-up actions and for contacting outside response personnel (ambulance, fire department, or others). In the case of an evacuation, the SHSO will account for personnel. A log of individuals entering and leaving the Site will be kept so that everyone can be accounted for in an emergency.

Upon notification of an exposure incident, the SHSO will contact the appropriate emergency response personnel for recommended medical diagnosis and, if necessary, treatment. The SHSO will determine whether and at what levels exposure actually occurred, the cause of such exposure, and the means to prevent similar incidents from occurring.

10.3 Accidents and Injuries

In the event of an accident or injury, measures will be taken to assist those who have been injured or exposed and to protect others from hazards. If an individual is transported to a hospital or doctor, a copy of the HASP will accompany the individual.

The SHSO will be notified and will respond according to the severity of the incident. The SHSO will perform an investigation of the incident and prepare a signed and dated report documenting the investigation. An exposure-incident report will also be completed by the SHSO and the exposed individual. The form will be filed with the employee's medical and safety records to serve as documentation of the incident and the actions taken.

10.4 Communication

No special hand signals will be utilized within the work zone. Field personnel will utilize standard hand signals during the operation of heavy equipment.

10.5 Safe Refuge

Vehicles and on-site structures will serve as the immediate place of refuge in the event of an emergency. If evacuation from the area is necessary, project vehicles will be used to transport on-site personnel to safety.

10.6 Site Security and Control

Site security and control during emergencies, accidents and incidents will be monitored by the SHSO. The SHSO is responsible for limiting access to the Site to authorized personnel and for oversight of reaction activities.

10.7 Emergency Evacuation

In case of an emergency, personnel will evacuate to the safe refuge identified by the SHSO, both for their personal safety and to prevent the hampering of response/rescue efforts.

10.8 Resuming Work

A determination that it is safe to return to work will be made by the SHSO and/or any personnel assisting in the emergency, e.g., fire department, police department, utility company, etc. No personnel will be allowed to return to the work areas until a full determination has been made by the above-identified personnel that all field activities can continue unobstructed. Such a determination will depend upon the nature of the emergency (e.g., downed power lines -- removal of all lines from the property; fire -- extinguished fire; injury -- safe transport of the injured party to a medical facility with either assurance of acceptable medical care present or completion of medical care; etc.). Before on-site work is resumed following an emergency, necessary emergency equipment will be recharged, refilled or replaced. Government agencies will be notified as appropriate. An Incident Report Form will be filed.

10.9 Fire Fighting Procedures

A fire extinguisher will be available in the work zone during on-site activities. This extinguisher is intended for small fires. When a fire cannot be controlled with the extinguisher, the area will be evacuated immediately. The SHSO will be responsible for directing notification, response and follow-up actions and for contacting ambulance and fire department personnel.

10.10 Emergency Decontamination Procedure

The extent of emergency decontamination depends on the severity of the injury or illness and the nature of the contamination. Whenever possible, minimum decontamination will consist of washing, rinsing and/or removal of contaminated outer clothing and equipment. If time does not permit decontamination, the person will be given first aid treatment and then wrapped in plastic or a blanket prior to transport.

10.11 Emergency Equipment

The following on-site equipment for safety and emergency response will be maintained in the on-site vehicle of the SHSO:

- Fire extinguisher;
- First-aid kit; and,
- Extra copy of this Health and Safety Plan.

11.0 SPECIAL PRECAUTIONS AND PROCEDURES

The activities associated with this remediation may involve potential risks of exposure to both chemical and physical hazards. The potential for chemical exposure to hazardous or regulated substances will be significantly reduced through the use of monitoring, personal protective clothing, engineering controls, and implementation of safe work practices.

11.1 Heat/Cold Stress

Training in prevention of heat/cold stress will be provided as part of the site-specific training. The timing of this project is such that heat/cold stress may pose a threat to the health and safety of personnel. Work/rest regimens will be employed, as necessary, so that personnel do not suffer adverse effects from heat/cold stress. Special clothing and appropriate diet and fluid intake regimens will be recommended to personnel to further reduce this temperature-related hazard. Rest periods will be recommended in the event of high/low temperatures and/or humidity to counter the negative effects of heat/cold stress.

11.2 Heavy Equipment

Working in the vicinity of heavy equipment is the primary safety hazard at the Site. Physical hazards in working near heavy construction equipment include the following: overhead hazards, slips/trip/falls, hand and foot injuries, moving part hazards, improper lifting/back injuries and noise. All workers will be properly trained in accordance with OSHA requirements (29 CFR 1910). No workers will be permitted within any excavated areas without proper personal protective equipment (PPE), including, as warranted, any necessary Level C equipment (e.g., respirators and protective suits). Air monitoring in excavation areas will be conducted for VOCs in accordance with Section 5.0.

11.3 Additional Safety Practices

The following are important safety precautions which will be enforced during the remedial activities:

- Medicine and alcohol can aggravate the effect of exposure to certain compounds. Controlled substances and alcoholic beverages will not be consumed during remedial activities. Consumption of prescribed drugs will only be at the discretion of a physician familiar with the person's work.
- Eating, drinking, chewing gum or tobacco, smoking, or other practices that increase the probability of hand-to-mouth transfer and ingestion of material is prohibited except in areas designated by the SHSO.

- Contact with potentially contaminated surfaces will be avoided whenever possible. Workers will not unnecessarily walk through puddles, mud or other discolored surfaces; kneel on the ground; or lean, sit, or place equipment on drums, containers, vehicles, or the ground.
- Personnel and equipment in the work areas will be minimized, consistent with effective site operations.
- Unsafe equipment left unattended will be identified by a "DANGER, DO NOT OPERATE" tag.
- Work areas for various operational activities will be established.

11.4 Daily Log Contents

The SHSO will establish a system appropriate to the Site, the work and the work zones that will record, at a minimum, the following information:

- Personnel on the Site, their arrival and departure times and their destination on the Site.
- Incidents and unusual activities that occur on the Site such as, but not limited to, accidents, spills, breaches of security, injuries, equipment failures and weather-related problems.
- Changes to the HASP.
- Daily information generated such as: changes to work and health and safety plans; work accomplished and the current Site status; and monitoring results.

12.0 TABLE AND FIGURES

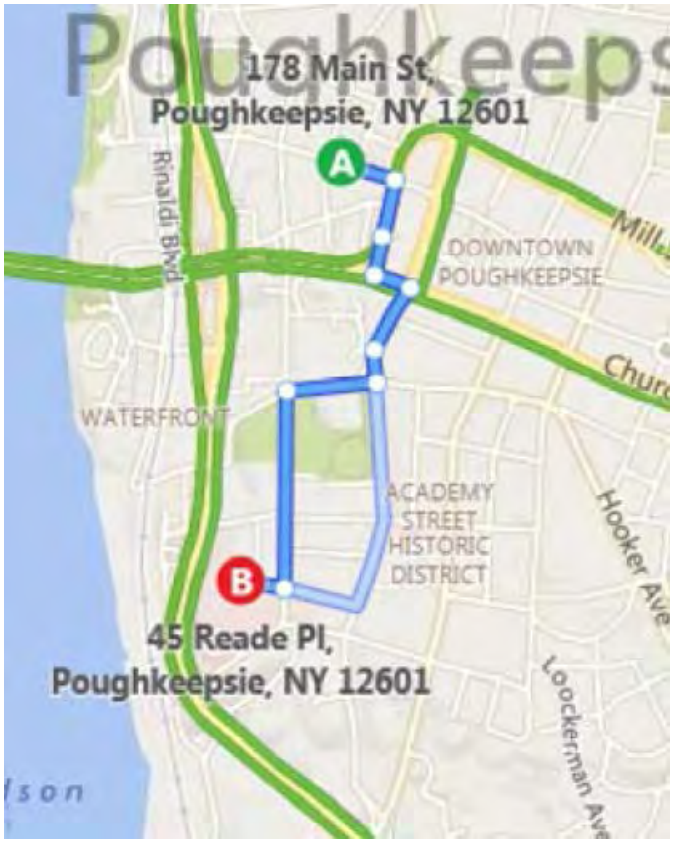
Table 1: Emergency Contact Information

Emergency Agencies	Phone Numbers
EMERGENCY	**911**
Vassar Brothers Hospital 45 Reade Place Poughkeepsie, NY 12601	(845) 454-8400 or 911
Poughkeepsie City Police Department 62 Civic Center Plaza	(845) 451-4000 or 911
Poughkeepsie Fire Department	(845) 451-4079 or 911
City Hall	(845) 421-4200
Main Water and Sewer	(845) 451-4111
Site Health and Safety Officer, Paul Ciminello, WCD	(845) 452-1658
Remedial Engineer, Philip Bell, PE	(845) 565-3802
Construction Manager	TBD

Figure 1: Directions to Hospital (approximately 4 minutes travel time – 1.1 miles)

↑	Depart Main St toward Vassar St	0.1 mi
↱	Turn right onto US-44 W / RT-55 W / Columbus Dr	518 ft
↑|	Keep left onto Columbus Dr	358 ft
↰	Turn left onto US-44 E / RT-55 E / Church St	344 ft
↱	Turn right onto Market St	0.1 mi
↑|	Keep left to stay on Market St	292 ft
↱	Turn right onto Montgomery St	0.2 mi
↰	Turn left onto Lincoln Ave	0.3 mi
↱	Turn right onto Reade Pl	404 ft

Figure 2: Map to Hospital (overview)



APPENDIX H
SITE MANAGEMENT FORMS

SITE-WIDE INSPECTION FORM

Queen City Lofts (NYSDEC Site ID: C314125)
Poughkeepsie, New York

Inspection Date: Weather:

Inspection Item	Yes	No	NA	Comments (include corrective actions)
General Checklist (use reverse side for additional comments or drawings)				
Change of ownership or use (Restricted Residential)? Transfer of COC?				
Erection of structures?				
Any activity likely to disrupt or expose contamination?				
Any activity that will/may interfere with remedial program elements, or continued ability to implement engineering or institutional controls?				
Cover System Monitoring Checklist				
Were there any ground-intrusive activities conducted (installation/relocation of utilities, etc.)? If so, specify.				
Is there evidence that ground-intrusive activities were conducted? If so, specify.				
Are there signs of soil erosion in the landscaped areas that could interfere with the cover system integrity? If so, specify.				
Are there any holes, cracks, vegetation, or physical deficiencies in paved areas? If so, sketch area on reverse side.				
Areas of significant ponding on-site?				
Are there any holes, cracks, vegetation, or physical deficiencies in the building floor slab? If so, identify the building and sketch area on reverse side.				
Groundwater Monitoring Well Network				
Monitoring wells (2MW-1 to 2MW-5) usable/in good condition?				
SSDS Checklist (review for all on-site buildings, report on problems in specific buildings as needed)				
Each riser pipe: holes, cracks or other problems?				
Each discharge vent pipe: functional and maintained?				
Each fan/turbine: operating?				
Each monitoring device (if present): Sufficient vacuum?				
Site Records				
Operator has updated SMP and FER available on-site?				

Inspector Name: Inspector Signature:

Previous Inspection Date: Next Inspection Date:

GROUNDWATER MONITORING WELL SAMPLING FIELD LOG

Queen City Lofts (NYSDEC Site ID: C314125)
Poughkeepsie, Queens, New York

Date: _____

Field Personnel _____

Monitoring Well No.: _____

PID Reading: _____ ppm

Depth to well water: _____ ft

Depth to well bottom: _____ ft.

Purging Device (pump type): Geopump/ _____

Purged Volume: _____ gallons

Purged Water: ***Odor*** *(circle): slight/moderate/strong;* ***Sheen*** *(circle): slight/moderate/strong;* ***LNAPL*** *(circle): No/Yes Inches:_____;* ***Other*** *:*

Clock Time (24 hr)	**Water Depth** (ToC - ft)	**Pump Dial** (no units)	**Purge Rate** (ml/min)	**Cum. Volume Purged** (lilters)	**Temp** (^{o}C)	**Spec. Cond.**[2] (µS/CM)	**pH** (no units)	**ORP**[3] (mv)	**DO** (mg/L)	**Turbidty** (NTU)	**Comments**
Stabilization Criteria					**3%**	**3%**	**+-0.1**	**+-10mv**	**10%**	**10%**	

Notes: 1. Pump dial setting (for example: hertz, cycles/min, etc). 2.µSiemens per cm (same as µmhos/cm) at 25oC 3. Oxidation reduction potential (ORP)

APPENDIX I
REMEDIAL SYSTEM OPTIMIZATION TABLE OF CONTENTS

REMEDIAL SYSTEM OPTIMIZATION FOR QUEEN CITY LOFTS

TABLE OF CONTENTS