DECISION DOCUMENT

Tioga Avenue Site
Brownfield Cleanup Program
Corning, Steuben County
Site No. C851031
February 2012

Prepared by
Division of Environmental Remediation
New York State Department of Environmental Conservation

DECLARATION STATEMENT - DECISION DOCUMENT

Tioga Avenue Site
Brownfield Cleanup Program
Corning, Steuben County
Site No. C851031
February 2012

Statement of Purpose and Basis

This document presents the remedy for the Tioga Avenue Site site, a brownfield cleanup site. The remedial program was chosen in accordance with the New York State Environmental Conservation Law and Title 6 of the Official Compilation of Codes, Rules and Regulations of the State of New York (6 NYCRR) Part 375.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for the Tioga Avenue Site site and the public's input to the proposed remedy presented by the Department.

Description of Selected Remedy

The elements of the selected remedy are as follows:

1. Green remediation principals and techniques will be implemented to the extent feasible in the site management of the remedy as per DER-31. The major green remediation components are as follows;
    - Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
    - Reducing direct and indirect greenhouse gas and other emissions;
    - Increasing energy efficiency and minimizing use of non-renewable energy;
    - Conserving and efficiently managing resources and materials;
    - Reducing waste, increasing recycling and increasing reuse of materials which would otherwise be considered a waste.

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

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

- requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);

- allows the use and development of the controlled property for commercial and industrial uses as defined by Part 375-1.8(g), although land use is subject to local zoning laws;

- restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH;

- prohibits agriculture or vegetable gardens on the controlled property; and

- requires compliance with the Department approved Site Management Plan.

4. A Site Management Plan is required, which includes but may not be limited to the following:

- an Institutional and Engineering Control Plan that identifies all use restrictions and engineering controls for the site and details the steps and media-specific requirements necessary to ensure the following institutional and/or engineering controls remain in place and effective:

    - Institutional Controls:
        - The Environmental Easement as discussed above.

    - Engineering Controls:
        - The soil cover as discussed above.

- an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;

- descriptions of the provisions of the environmental easement including any land and/or groundwater use restrictions;

- a provision for evaluation of the potential for soil vapor intrusion for any buildings developed on the site, including provision for implementing actions recommended to address exposures related to soil vapor intrusion;

- provisions for the management and inspection of the identified engineering controls;

- maintaining site access controls and Department notification, and
- the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

Declaration

The remedy conforms with promulgated standards and criteria that are directly applicable, or that are relevant and appropriate and takes into consideration Department guidance, as appropriate. The remedy is protective of public health and the environment.

02/07/2012

Date

Michael Cruden, Director
Remedial Bureau E

DECISION DOCUMENT

Tioga Avenue Site
Corning, Steuben County
Site No. C851031
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SECTION 1: SUMMARY AND PURPOSE

The New York State Department of Environmental Conservation (the Department), in consultation with the New York State Department of Health (NYSDOH), has selected a remedy for the above referenced site. The disposal of contaminants at the site has resulted in threats to public health and the environment that would be addressed by the remedy. The disposal or release of contaminants at this site, as more fully described in this document, has contaminated various environmental media. Contaminants include hazardous waste and/or petroleum.

The New York State Brownfield Cleanup Program (BCP) is a voluntary program. The goal of the BCP is to enhance private-sector cleanups of brownfields and to reduce development pressure on "greenfields." A brownfield site is real property, the redevelopment or reuse of which may be complicated by the presence or potential presence of a contaminant.

The Department has issued this document in accordance with the requirements of New York State Environmental Conservation Law and 6 NYCRR Part 375. This document is a summary of the information that can be found in the site-related reports and documents.

SECTION 2: CITIZEN PARTICIPATION

The Department seeks input from the community on all remedies. A public comment period was held, during which the public was encouraged to submit comment on the proposed remedy. All comments on the remedy received during the comment period were considered by the Department in selecting a remedy for the site. Site-related reports and documents were made available for review by the public at the following document repository:

South Steuben County Library
300 Nasser CivicCenter Plaza
Suite 101
Corning, NY 14830
Phone: 607-936-3713

Receive Site Citizen Participation Information By Email

Please note that the Department's Division of Environmental Remediation (DER) is "going paperless" relative to citizen participation information. The ultimate goal is to distribute citizen

participation information about contaminated sites electronically by way of county email listservs. Information will be distributed for all sites that are being investigated and cleaned up in a particular county under the State Superfund Program, Environmental Restoration Program, Brownfield Cleanup Program, Voluntary Cleanup Program, and Resource Conservation and Recovery Act Program. We encourage the public to sign up for one or more county listservs at http://www.dec.ny.gov/chemical/61092.html

SECTION 3: SITE DESCRIPTION AND HISTORY

Location: The Tioga Ave. Site is located at 213, 219, and 239 East Tioga Ave, three contiguous parcels in the City of Corning, Steuben County.

Site Features: The site covers 14.4 acres and most recently was the site of the former Corning Fallbrook Glass Mfg. plant

Current Use/Zoning: The Site is currently zoned commercial/industrial with future plans conforming to that usage.

Historic Uses: The Corning Fallbrook Glass Mfg. plant operated at the site from the late 1920's until 2002 with earlier usage as a railroad operations center dating back to the mid 1800s. In 2007 the Fallbrook facility was demolished and the buildings removed, leaving essentially a level site covered by impervious materials, concrete slabs and building foundations. Portions of the site and demolition materials were characterized hazardous for lead and disposed of at a regulated facility. The Site is bordered by the Chemung River and industrial property on the north with the remaining boundary parcels occupied by parking lots, commercial establishments and residential properties.

A number of Site Assessments were completed on the Site including preliminary RCRA inspections/ evaluations completed in the 1990's and an Environmental Site Assessment (ESA) and Phase II ESA completed in 2007. These investigations identified eight Area's of Concern associated with historical operations at various locations on the site and provided the basis for developing the scope of the Remedial Investigation Work Plan.

Site Geology and Hydrogeology: The site subsurface soils are best characterized as historic fill of variable depth (1-13') overlying native soils. Ground water is found at 18-20' below ground surface with a shallow flow in the NE direction. Ground water surface modeling implies that shallow flow direction may be influenced by a non potable industrial pumping well in the SE corner of the adjacent World Kitchen property.

A site location map is attached as Figure 1.

SECTION 4: LAND USE AND PHYSICAL SETTING

The Department may consider the current, intended, and reasonably anticipated future land use of the site and its surroundings when evaluating a remedy for soil remediation. For this site, alternatives (or an alternative) that restrict(s) the use of the site to commercial use (which allows

for industrial use) as described in Part 375-1.8(g) were/was evaluated in addition to an alternative which would allow for unrestricted use of the site.

A comparison of the results of the remedial investigation (RI) to the appropriate standards, criteria and guidance values (SCGs) for the identified land use and the unrestricted use SCGs for the site contaminants is available in the RI Report.

SECTION 5: ENFORCEMENT STATUS

One or more of the Applicants under the Brownfield Cleanup Agreement is a Participant. The Participant(s) has/have an obligation to address on-site and off-site contamination. Accordingly, no enforcement actions are necessary.

SECTION 6: SITE CONTAMINATION

6.1: Summary of the Remedial Investigation

A remedial investigation (RI) serves as the mechanism for collecting data to:

- characterize site conditions;
- determine the nature of the contamination; and
- assess risk to human health and the environment.

The RI is intended to identify the nature (or type) of contamination which may be present at a site and the extent of that contamination in the environment on the site, or leaving the site. The RI reports on data gathered to determine if the soil, groundwater, soil vapor, indoor air, surface water or sediments may have been contaminated. Monitoring wells are installed to assess groundwater and soil borings or test pits are installed to sample soil and/or waste(s) identified. If other natural resources are present, such as surface water bodies or wetlands, the water and sediment may be sampled as well. Based on the presence of contaminants in soil and groundwater, soil vapor will also be sampled for the presence of contamination. Data collected in the RI influence the development of remedial alternatives. The RI report is available for review in the site document repository and the results are summarized in section 6.4.

6.1.1: Standards, Criteria, and Guidance (SCGs)

The remedy must conform to promulgated standards and criteria that are directly applicable or that are relevant and appropriate. The selection of a remedy must also take into consideration guidance, as appropriate. Standards, Criteria and Guidance are hereafter called SCGs.

To determine whether the contaminants identified in various media are present at levels of concern, the data from the RI were compared to media-specific SCGs. The Department has developed SCGs for groundwater, surface water, sediments, and soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. For a full listing of all SCGs see: http://www.dec.ny.gov/regulations/61794.html

6.1.2: RI Information

The analytical data collected on this site includes data for:

- groundwater
- soil

The data have identified contaminants of concern. A "contaminant of concern" is a contaminant that is sufficiently present in frequency and concentration in the environment to require evaluation for remedial action. Not all contaminants identified on the property are contaminants of concern. The nature and extent of contamination and environmental media requiring action are summarized below. Additionally, the RI Report contains a full discussion of the data. The contaminant(s) of concern identified at this site is/are:

1,1,1 TCA	LEAD
ARSENIC	Petroleum Products

The contaminant(s) of concern exceed the applicable SCGs for:

- groundwater
- soil
- soil vapor

6.2: Interim Remedial Measures

An interim remedial measure (IRM) is conducted at a site when a source of contamination or exposure pathway can be effectively addressed before issuance of the Decision Document.

There were no IRMs performed at this site during the RI.

6.3: Summary of Human Exposure Pathways

This human exposure assessment identifies ways in which people may be exposed to site-related contaminants. Chemicals can enter the body through three major pathways (breathing, touching or swallowing). This is referred to as *exposure*.

People are not coming into contact with the contaminated groundwater because the area is served by a public water supply that is not affected by this contamination. Since the site is fenced and almost completely covered by asphalt or concrete, people will not come into contact with site-related soil and groundwater contamination unless they dig below the surface. Volatile organic compounds in the groundwater may move into the soil vapor (air between soil particles), which in turn may move into overlying buildings and affect the indoor air quality. This process, which is similar to the movement of radon gas from the subsurface into the indoor air of buildings, is referred to as soil vapor intrusion. The site is currently vacant. Additional investigations are necessary to evaluate whether actions are needed to address exposures related to soil vapor

intrusion if new on-site development occurs. Environmental sampling indicates soil vapor intrusion is not a concern for off-site locations.

6.4: Summary of Environmental Assessment

This section summarizes the assessment of existing and potential future environmental impacts presented by the site. Environmental impacts may include existing and potential future exposure pathways to fish and wildlife receptors, wetlands, groundwater resources, and surface water. The RI report presents a detailed discussion of any existing and potential impacts from the site to fish and wildlife receptors.

The site was characterized through soil boring installation, sampling and analysis at the eight Areas of Concern and across the site in a grid pattern. 212 soil samples were collected on the site. Chemicals of Concern were identified and designated based on the frequency of detection, concentration levels, linkage to site operations, comparison with ambient conditions, and the potential for human or environmental exposure. The listing of chemicals of concern includes the following;

SOIL:
(1) arsenic, exceeded commercial SCOs in 32 of 182 samples (32/182)
- max. concentration 250 ppm
- 25/32 0-1'bgs
- 7/32 below 1' bgs

(2) lead, exceeded commercial SCOs in 7 of 182 samples (7/182)
- max. concentration 3100 ppm
- 5/7 0-1'bgs
- 2/7 below 1' bgs

(3) lead failed TCLP in 2 of 3 soil samples (2/3)
- max. 361 mg/l
- 2/3 1-3'bgs
- both failure locations below commercial SCOs

(4) 1,1,1, TCA was positively detected in COMPOSITE soil samples (12/27)
- max. concentration 120 ppb (below protection of groundwater SCOs)
- 10/27 0-4' bgs

(5) 1,2,4- trimethylbenzene(1/4)
- max. concentration 210 ppb

(6) isopropylbenzene (2/19)
- max. concentration 5.3 ppb

GROUNDWATER:
(1) 1,1,1, TCA was positively detected in shallow groundwater samples (5/16)

- max. concentration 2.5 ppb (below drinking water standards)

Based on investigations and characterization of the site, analysis of soil samples indicated the presence of arsenic, lead and weathered petroleum in the historical fill material.

A non-significant threat determination has been made for this site for current and future conditions provided that a low permeable cover remedy is maintained over lead contaminated soil documented to fail TCLP.

6.5: Summary of the Remediation Objectives

The objectives for the remedial program have been established through the remedy selection process stated in 6 NYCRR Part 375. The goal for the remedial program is to restore the site to pre-disposal conditions to the extent feasible. At a minimum, the remedy shall eliminate or mitigate all significant threats to public health and the environment presented by the contamination identified at the site through the proper application of scientific and engineering principles.

The remedial action objectives for this site are:

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.

SECTION 7: ELEMENTS OF THE SELECTED REMEDY

The alternatives developed for the site and the evaluation of the remedial criteria are presented in the Alternative Analysis. The remedy is selected pursuant to the remedy selection criteria set forth in DER-10, Technical Guidance for Site Investigation and Remediation and 6 NYCRR Part 375.

The selected remedy is a Track 4: Restricted use with site-specific soil cleanup objectives remedy.

The elements of the selected remedy, as shown in Figure 2, are as follows:

1. Green remediation principals and techniques will be implemented to the extent feasible in the site management of the remedy as per DER-31. The major green remediation components are as follows;
   - Considering the environmental impacts of treatment technologies and remedy stewardship over the long term;
   - Reducing direct and indirect greenhouse gas and other emissions;
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   - restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the NYSDOH or County DOH;

   - prohibits agriculture or vegetable gardens on the controlled property; and

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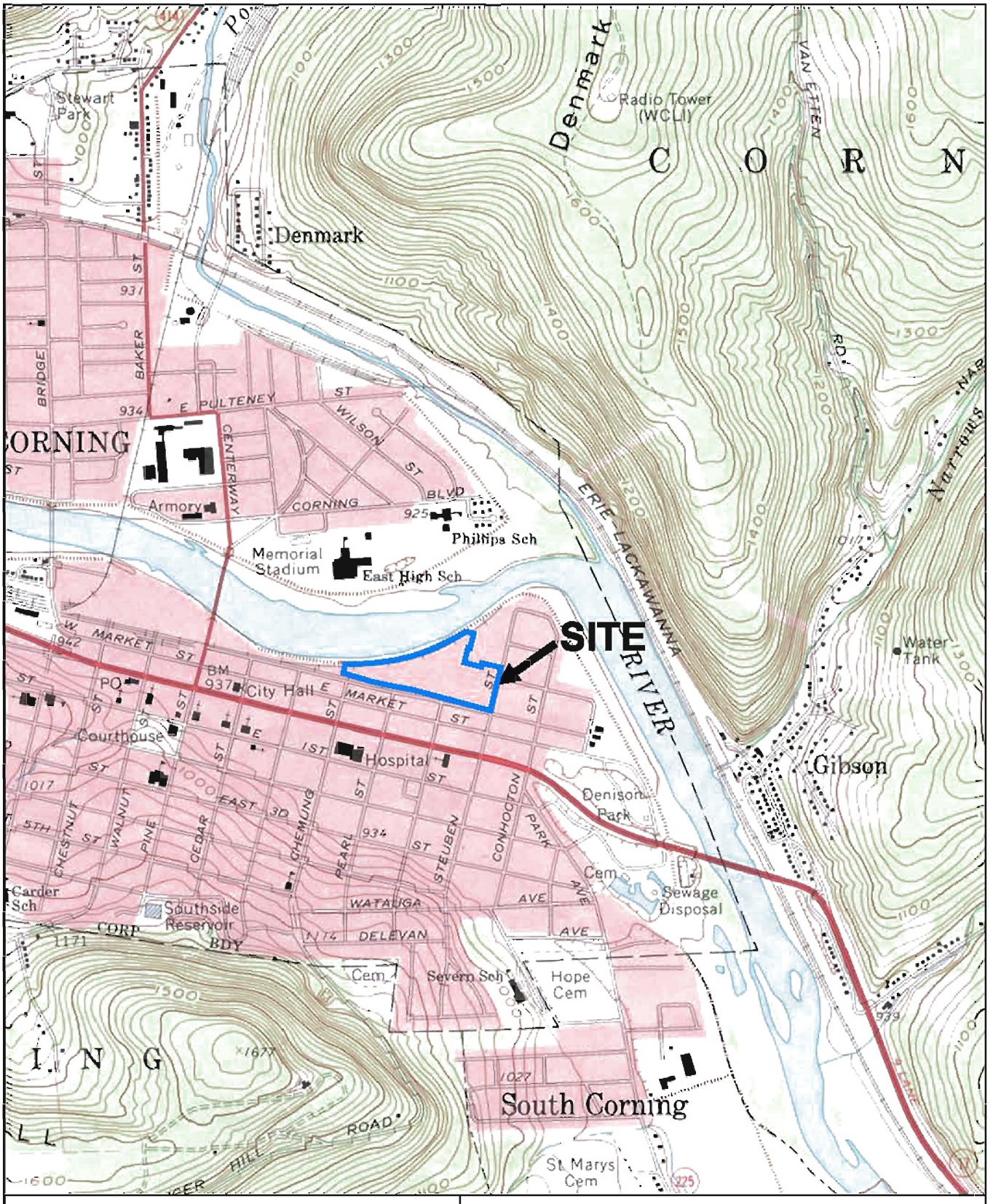
- provisions for the management and inspection of the identified engineering controls;

- maintaining site access controls and Department notification, and

- the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.



SITE COORDINATES: 42°08'35"N 77°02'39"W

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E
S

U.S.G.S. QUADRANGLE: CORNING, NEW YORK

HALEY & ALDRICH

CORNING INCORPORATED
CORNING PROPERTY MANAGEMENT CORPORATION
TIOGA AVENUE PROPERTY BCP SITE #C851031
ALTERNATIVES ANALYSIS REPORT
CORNING, NEW YORK

PROJECT LOCUS

SCALE: 1:24000
AUGUST 2011 REV 0

FIGURE 1

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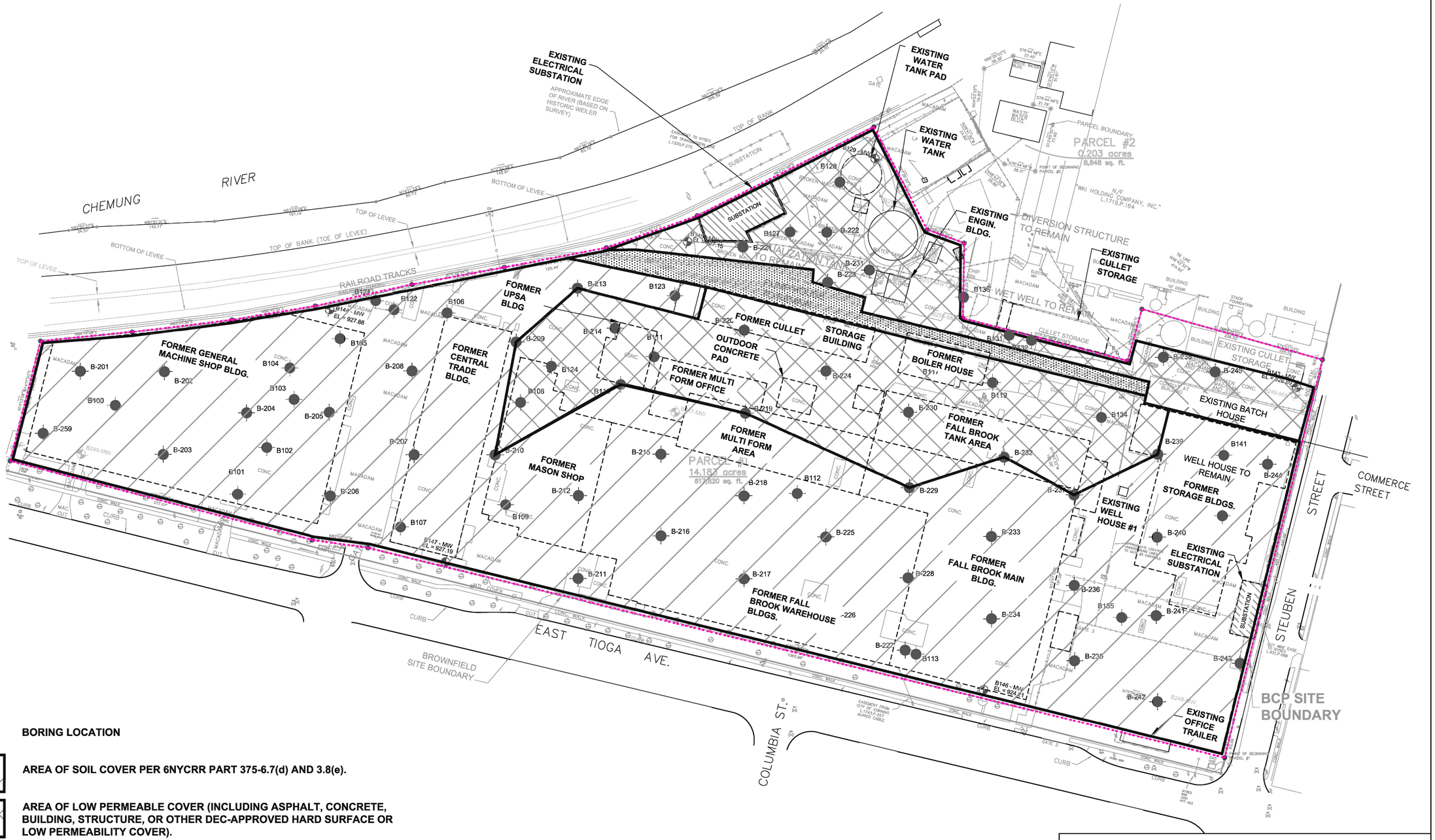

LEGEND

- B-220 — **BORING LOCATION**
- **AREA OF SOIL COVER PER 6NYCRR PART 375-6.7(d) AND 3.8(e).**
- **AREA OF LOW PERMEABLE COVER (INCLUDING ASPHALT, CONCRETE, BUILDING, STRUCTURE, OR OTHER DEC-APPROVED HARD SURFACE OR LOW PERMEABILITY COVER).**
- **ELECTRICAL SUBSTATION - EMPLOYEE ACCESS ONLY - NO ADDITIONAL ENGINEERING CONTROLS REQUIRED.**
- **AREA OF RAILROAD - NO ADDITIONAL ENGINEERING CONTROLS REQUIRED.**
- **OUTLINE OF FORMER BUILDING (EXISTING FLOOR SLAB)**
- **BCP SITE BOUNDARY**

NOTES:

1. THE BOUNDARIES IN THIS FIGURE SHOWING THE AREAS OF LOW PERMEABILITY COVER ARE BASED ON THE GROUNDWATER PROTECTION OBJECTIVES FOR LEAD GIVEN IN PART 375 TABLE 375-6.8(b).

N W E S

0 60 120 180 240

SCALE IN FEET

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TIOGA AVENUE PROPERTY BCP SITE #C851031
ALTERNATIVES ANALYSIS REPORT
CORNING, NEW YORK

PROPSED REMEDIAL COVER SYSTEM (TRACK 4)

SCALE: AS SHOWN
OCTOBER 2011 REV 2

FIGURE 2

FIGURE 2

G:\PROJECTS\33123017\FIGURES\33123-017_TRACK 4 REV 2.DWG