NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

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December 16, 2024

Michael Wopperer
Wood and Brooks Properties LLC
2101 Kenmore Avenue
Tonawanda, New York 14207

2101 Kenmore Avenue
Site No. C915391
Tonawanda, NY – Erie County
Remedial Work Plan & Decision Document

Dear Michael Wopperer:

The New York State Department of Environmental Conservation (NYSDEC) and the New York State Department of Health (NYSDOH) have reviewed the revised Remedial Investigation/ Alternatives Analysis Report (RI/AAR) for the 2101 Kenmore Avenue site dated November 6, 2024, and prepared by Roux, Inc. on behalf of the Wood and Brooks Properties, LLC. The RI/AAR is hereby approved. Please ensure that a copy of the approved RWP is placed in the document repository. The draft plan should be removed.

The NYSDEC has added language to this document in Section 7, item number 5, stating that the applicant must mitigate any soil vapor concerns in the connected off-site buildings if they are found during future sampling events.

In accordance with the terms of the Brownfield Cleanup Agreement, revise the RI/AAR to address the above comments and submit revised documents within 30 days from the receipt of this letter. Please include an itemized response indicating how each comment was addressed. Should you have any questions, feel free to contact me at (716) 851-7218 or by email at michael.keller@dec.ny.gov.

Sincerely,

Michael J Cruden

Michael Cruden, P.E.
Director
Remedial Bureau E
Division of Environmental Remediation

NEW YORK STATE | Department of Environmental Conservation

DECISION DOCUMENT

2101 Kenmore Avenue Site
Brownfield Cleanup Program
Tonawanda, Erie County
Site No. C915391
December 2024

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

DECLARATION STATEMENT - DECISION DOCUMENT

2101 Kenmore Avenue Site
Brownfield Cleanup Program
Tonawanda, Erie County
Site No. C915391
December 2024

Statement of Purpose and Basis

This document presents the remedy for the 2101 Kenmore 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 (NYSDEC) for the 2101 Kenmore Avenue Site site and the public's input to the proposed remedy presented by NYSDEC.

Description of Selected Remedy

The elements of the selected remedy are as follows:

1. Remedial Design

A remedial design program will be implemented to provide the details necessary for the construction, operation, optimization, maintenance, and monitoring of the remedial program. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and 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 gases 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;
- Maximizing habitat value and creating habitat when possible;
- Fostering green and healthy communities and working landscapes which balance ecological, economic, and social goals;
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development; and
- Additionally, to incorporate green remediation principles and techniques to the extent feasible in the future development at this site, any future on-site buildings shall be constructed, at a minimum, to meet the 2020 Energy Conservation Construction Code of New York (or most

recent edition) to improve energy efficiency as an element of construction.

2. Source Area Excavation

Excavation and off-site disposal of all soils in the upper two feet which exceed the restricted residential soil cleanup objectives (SCOs) will be excavated and transported off-site for disposal as required for the installation of a cover system as described in Remedial Element 4. All on-site soils below two feet which exceed the site-specific action levels (SSALs) described below will be excavated.

- Total PAHs > 500 ppm;
- Arsenic > 25 ppm;

Collection and analysis of confirmation samples at the remedial excavation depth will be used to verify that SCOs/SSALs for the site have been achieved. It is anticipated that there will be three excavation areas, SB-D, SB-8, and SS-1. SB-D will extend approximately 4 feet below ground surface (ft bgs), SB-8 will extend approximately 5 ft bgs, and SS-1 will remove the top 2 feet of soils. If confirmation sampling indicates that SCOs/SSALs were not achieved at the stated remedial depth, the Applicant must notify NYSDEC, submit the sample results and, and in consultation with NYSDEC, determine if further remedial excavation is necessary. Further remedial excavation will be necessary unless otherwise approved by the NYSDEC.

To ensure proper handling and disposal of excavated material, waste characterization sampling will be completed for all identified contaminated site material. Waste characterization sampling will be performed exclusively for the purposes of off-site disposal in a manner suitable to receiving facilities and in conformance with applicable federal, state, and local laws, rules, and regulations and facility-specific permits.

On-site soil which does not exceed the above excavation criteria may be used anywhere beneath the cover system, including below the water table, to backfill the excavation or re-grade the site. If sufficient on-site material is not available for reuse, clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) will be brought in to complete the backfilling of the excavation and establish the design grades at the site.

3. Surficial Soil Excavation

Soil from the western site boundary in the upper two feet which exceeds the restricted residential SCOs will be excavated to facilitate installation of the site cover in remedial element 4 and transported off-site for disposal.

Collection and analysis of documentation samples at the remedial excavation extents will be used to document the soil conditions remaining after excavation. Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) will be brought in to complete the backfilling of the excavation and establish the designed grades at the site.

4. Cover System

A site cover will be required site-wide in areas where the upper two feet of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs), to allow for future restricted residential, commercial, or industrial use of the site. Where a soil cover is to be used it will be a

minimum of two feet of soil placed over a demarcation layer, with the upper six inches of soil of sufficient quality to maintain a vegetative layer. Soil cover material, including any fill material brought to the site, will meet the SCOs for cover material for the use of the site as set forth in 6 NYCRR Part 375-6.7(d). Substitution of other materials and components may be allowed where such components already exist or are a component of the tangible property to be placed as part of site redevelopment. Such components may include, but are not necessarily limited to: pavement, concrete, paved surface parking areas, sidewalks, building foundations, and building slabs. See Decision Document Figure 3 for proposed cover system placement areas.

5. Vapor Intrusion Evaluation and Mitigation

All current on-site buildings will be required to have an active sub-slab depressurization (ASD) system, or other acceptable measures, to mitigate the migration of soil vapors into the buildings. Any future on-site buildings must be investigated for soil vapor intrusion (SVI) and mitigate, as needed.

A supplemental SVI investigation will be completed during the heating season in the connected off-site buildings, near sampling locations OS-SSV-2/OS-IA-1, OS-SSV-2/OS-IA-2 and OS-SSV-3/OS-IA-3 to confirm the most recent SVI investigation results. The connected offsite buildings will be required to have a sub-slab depressurization system (SSDS), or other acceptable measures, to mitigate the migration of soil vapors into the connected off-site buildings if it is shown to be necessary by the results of the supplemental SVI investigation. Additionally, indoor air sampling will be performed in all buildings with an installed SSDS during the next heating season following system start-up to confirm efficacy of the system.

6. Institutional Controls

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

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

7. Site Management Plan

A Site Management Plan is required, which includes the following:

a. 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 discussed in Remedial Element 6 above.

Engineering Controls: The cover system discussed in Remedial Element 4 above and active SSDS as discussed in Element 5.

This plan includes, but may not be limited to:

- 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 use, and groundwater use restrictions;
- A provision for evaluation of the potential for soil vapor intrusion for any new occupied buildings on the site, including provision for implementing actions recommended to address any exposures related to soil vapor intrusion;
- A provision that should a building foundation or building slab be removed in the future, a cover system consistent with that described in Remedial Element 4 above will be placed in any areas where the upper two feet of exposed surface soils exceed the applicable soil cleanup objectives (SCOs);
- Provisions for the management and inspection of the identified engineering controls;
- Maintaining site access controls and NYSDEC notification; and
- The steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

b. A Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:

- A schedule of monitoring and frequency of submittals to the NYSDEC;
- Monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

c. An Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, optimization, monitoring, inspection, and reporting of any mechanical or physical components of the remedy. The plan includes, but is not limited to:

- Procedures for operating and maintaining the remedy;
- Compliance monitoring of treatment systems to ensure proper O&M as well as providing the data for any necessary permit or permit equivalent reporting;
- Maintaining site access controls and NYSDEC notification; and
- Providing the NYSDEC access to the site and O&M records.

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.

12/16/2024

Date

Michael j Cruden

Michael Cruden, Director
Remedial Bureau E

DECISION DOCUMENT

2101 Kenmore Avenue Site
Tonawanda, Erie County
Site No. C915391
December 2024

SECTION 1: SUMMARY AND PURPOSE

The New York State Department of Environmental Conservation (NYSDEC), 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, where a contaminant is present at levels exceeding the soil cleanup objectives or other health-based or environmental standards, criteria or guidance, based on the reasonably anticipated use of the property.

NYSDEC 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

NYSDEC 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 NYSDEC 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:

DECInfo Locator - Web Application
https://gisservices.dec.ny.gov/gis/dil/index.html?rs=C915391

Buffalo & Erie County Public Library
Attn: April Thompkins
820 Tonawanda St
Buffalo, NY 14207
Phone: 716-875-0-562

Receive Site Citizen Participation Information By Email

Please note that NYSDEC'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 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 2101 Kenmore Avenue Site is an approximately 2.40-acre site, located in a highly developed urban area, at 2101 and 2075 Kenmore Avenue in the Town of Tonawanda, Erie County. The site is on the border between the Town of Tonawanda and the City of Buffalo and is bordered by Kenmore Avenue to the west and south, with residential properties beyond to the west, commercial and light industrial beyond to the south, commercial properties to the north, and railroad and utilities to the east.

Site Features:
The site has two interconnected commercial use buildings, with associated parking, driveways, and limited green space. The northern on-site building contains both a six-story and connected additional one-story footprint. The northern building is currently under renovations for use as commercial/office space on the first floor and apartments in the upper floors. The southern on-site building is four stories and currently used as an office for the construction contractors working on the six-story building.

According to Petroleum Bulk Storage (PBS) records, there were formerly four underground storage tanks (USTs) associated with the entire parcel (both on-site and off-site). This included one 20,000-gallon fuel oil tank (off-site), and three 6,000-gallon gasoline tanks (on-site). The 20,000-gallon tank was installed in 1970 and removed in 2011. One 6,000-gallon gasoline tank was removed in 1998 and replaced with another 6,000-gallon gasoline tank, which was removed in 2016. One 6,000-gallon gasoline tank was removed in 1988.

Zoning and Land Use:
The project will include the redevelopment of on-site building into mixed use residential housing (apartments). The Town of Tonawanda zoning for the site is Performance Standards Use District (PS). Town of Tonawanda has approved the land use for the planned development.

Past Use of the Site:
The site was historically used for piano key manufacturing from approximately 1900 to the 1970s and more recently has been used in a variety of commercial manufacturing and warehousing. Elevated arsenic exceeding the Industrial Use SCO, likely related to historic wood piano key manufacturing, has impacted the site.

Spill No. 051221 was identified in January 2006, related to a malfunction of an overflow switch on a secondary feed tank which pumped fuel oil from the 20,000-gallon fuel oil tank. Remedial action was initiated, which included removal of product and impacted soils. Spill occurred along the western property boundary with the utility and rail corridor. Remedial activities included collection of spilled fuel oil, and removal and disposal of impacted soils. Based on the remedial action the spill was closed in April 2006. All spill and remedial efforts were performed off-site.

Site Geology and Hydrogeology:
Overburden: According to the United States Department of Agriculture (USDA) Web soil survey Site soils are characterized as Urban Land (Ud) and Urban land-Odessa complex (Ut). Typical surface covering for urban land include asphalt, concrete, buildings, or other impervious structures, commonly found in an urban environment. The Urban Land-Odessa Complex consists of 60 percent urban land, 25 percent Odessa and similar soils, and 15 percent minor components. The presence of overburden fill material is widespread and common throughout the Site. The previous investigation identified soil/fill material consisting of cinders, ash, brick, and glass to depths ranging from approximately 0-2.5 feet below ground surface (fbgs), overlaying assumed native sandy clay. The geology at the Site was investigated during the RI and is generally described as fill material ranging from approximately 0 to 5 fbgs consisting of varying amounts of sand and gravel with granular material, cinders, brick, reworked clay, reworked sandy material and trace amounts of other man-made materials. The SB-3 sample is located within a former UST area and exhibited characteristics of fill material consisting mostly of fine sands and pea gravel down to 11 fbgs.

Bedrock: Based on the bedrock geologic map of Erie County, the Site is situated over the Camillus Shale Formation of the Upper Silurian Series. The Camillus Shale Formation is comprised of gray shale containing large amounts of gypsum. The unit has an approximate thickness of 400 to 700 feet. Bedrock was not encountered during the RI. No geotechnical information was provided.

Groundwater: The site is located within the Lake Erie-Niagara River major drainage basin, which is typified by little topographic relief that gently slopes westward towards Lake Erie and the Niagara River, except in the immediate vicinity of major drainage ways. Regional groundwater likely flows northwest toward Two Mile Creek and the Niagara River. Based on September 2023 and April 2024 water level readings, site groundwater generally flows southwest towards Kenmore Avenue. Using well installation and water level information from the September 2023 sampling event, the estimated hydraulic gradient was calculated to be an average of 0.0188 ft./ft. Local groundwater flow and hydraulic gradient calculations may be complicated or influenced by the presence of subsurface features, such as utilities, former development, and localized subsurface fill conditions.

A site location map is attached as Figure 1.

SECTION 4: LAND USE AND PHYSICAL SETTING

NYSDEC 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 restricted-residential use (which allows for commercial use and 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

The Applicant under the Brownfield Cleanup Agreement is a Participant. The Applicant has 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 6.3.

The analytical data collected on this site includes data for:

- air
- groundwater
- soil
- soil vapor
- indoor air
- sub-slab vapor

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. NYSDEC 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 Results

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:

benzo(a)anthracene
benzo(a)pyrene
benzo(b)fluoranthene
benzo(k)fluoranthene
chrysene
dibenz[a,h]anthracene
fluoranthene
indeno(1,2,3-cd)pyrene
phenanthrene
arsenic
manganese
iron
magnesium
sodium
dieldrin
carbon tetrachloride
trichloroethene (TCE)

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

- groundwater
- soil
- soil vapor intrusion

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.

The following IRM(s) has/have been completed at this site based on conditions observed during the RI.

IRM: Hotspot Excavation and UST Removal

Source Excavation of Impacted Soil Materials:

An IRM was implemented to remove impacted source materials in February 2024. The IRM objective was hot-spot excavation of elevated Arsenic at SB-H, DTP-H1, DTP-H3 and elevated PAHs at SS-2. Removal was required due to excavation needed for stormwater infrastructure upgrades. Approximate excavation depths for the SB-H, DTP-H1, and DTP-H3 areas were 7 ft bgs and the upper two feet for the SS-2 area. Details and exact depths of the IRM excavation will be included in the IRM Construction Completion Report.

Underground Storage Tank Removal:

An unknown underground storage tank (UST) was discovered during IRM soil excavation activities for the above noted IRM, adjacent to former gasoline USTs that were previously removed. The tank contained hardened and solidified fill material, and petroleum product. The UST was sampled, pumped, removed, cut open, and washed under NYSDEC supervision. Visually impacted soils were removed from the UST excavation, and confirmatory samples were taken. Sample results showed no restricted residential soil cleanup objective (RRSCO) exceedances. Details of the IRM UST removal will be documented in the Final Engineering Report.

6.3: 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.

Nature and Extent of Contamination:
During the Remedial Investigation (RI), soil and groundwater were analyzed for volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), metals, cyanide, polychlorinated biphenyls (PCBs), per- and polyfluoroalkyl substances (PFAS), 1,4-Dioxane, and pesticides. Soil vapor, sub-slab soil vapor, and indoor air samples were also collected and analyzed for VOCs and SVOCs. VOCs, cyanide, PCBs, PFAS, and 1,4-Dioxane did not exceed applicable SCOs in soil or groundwater.

Surface Soil:
Three total surface soil samples were collected from 3 locations throughout the exterior portion of the site. Samples were taken from the upper 2 inches of soil/fill present below the vegetative cover. The following contaminants of concern were only detected above restricted residential soil cleanup objectives (RRSCOs) in sample SS-1. The contaminants above RRSCOs are classified as SVOCs and are listed below:

- Benzo(a)anthracene (up to 4.0 ppm) exceeded the RRSCO of 1.0 ppm.
- Benzo(a)pyrene (up to 5.1 ppm) exceeded the RRSCO of 1.0 ppm.

- Benzo(b)fluoranthene (up to 7.9 ppm) exceeded the RRSCO of 1.0 ppm.
- Chrysene (up to 6.0 ppm) exceeded the RRSCO of 3.9 ppm.
- Dibenz(a,h)anthracene (up to 0.8 ppm) exceeded the RRSCO of 0.33 ppm.
- Indeno(1,2,3-cd)pyrene (up to 4.9 ppm) exceeded the RRSCO of 0.5 ppm.

Based on the investigations completed to date, limited areas of surface soils are impacted. Off-site migration of contaminants in shallow soil has not been observed.

Subsurface Soil:
Twenty-eight subsurface soil samples were collected from twenty-two locations ranging from 1 to 8 fbgs across the site. Contaminants were detected in limited locations across the site. The following SVOCs, Arsenic, and Manganese were detected exceeding RRSCOs:

- Benzo(a)anthracene (up to 49 ppm) exceeded the RRSCO of 1.0 ppm at 7 sample locations.
- Benzo(a)pyrene (up to 47 ppm) exceeded the RRSCO of 1.0 ppm at 5 sample locations.
- Benzo(b)fluoranthene (up to 56 ppm) exceeded the RRSCO of 1.0 ppm at 6 sample locations.
- Benzo(k)fluoranthene (up to 16 ppm) exceeded the RRSCO of 3.9 ppm at 1 sample location.
- Chrysene (up to 47 ppm) exceeded the RRSCO of 3.9 ppm at 7 sample locations.
- Dibenz(a,h)anthracene (up to 6.0 ppm) exceeded the RRSCO of 0.33 ppm at 4 sample locations.
- Fluoranthene (up to 120 ppm) exceeded the RRSCO of 100 ppm at 1 sample location.
- Indeno(1,2,3-cd)pyrene (up to 27 ppm) exceeded the RRSCO of 0.5 ppm at 5 sample locations.
- Phenanthrene (up to 120 ppm) exceeded the RRSCO of 100 ppm at 1 sample location.
- Arsenic (up to 27.6 ppm) exceeded the RRSCO of 16 ppm at 1 sample location.
- Manganese (up to 3,180 ppm) exceeded the RRSCO of 2,000 ppm at 2 sample location.

Looking at the above subsurface sample results, the below contaminants were detected in groundwater above Ambient Groundwater Quality Standards and exceeding Protection of Groundwater Soil Cleanup Objectives (PGWSCOs) near or below the observed groundwater table (greater than 2 fbgs):
- Benzo(a)anthracene (up to 4.8 ppm) exceeded the PGWSCO of 1.0 ppm at 4 sample locations (SB-J, SB-4, SB-8, MW-1).
- Benzo(b)fluoranthene (up to 5.3 ppm) exceeded the PGWSCO of 1.7 ppm at 3 sample locations (SB-J, SB-8, MW-1).
- Chrysene (up to 4.8 ppm) exceeded the PGWSCO of 1.0 ppm at 4 sample locations (SB-J, SB-4, SB-8, MW-1).
- Indeno(1,2,3-cd)pyrene (up to 27 ppm) exceeded the PGWSCO of 8.2 ppm at 1 sample location (SB-8).

Based on the investigations completed to date, subsurface soils are impacted in limited locations across the site. Off-site migration of contaminants in subsurface soil has not been observed.

Groundwater:
Groundwater samples were collected from 5 overburden monitoring wells installed from 20 to 25 feet below ground surface. MW-5 only generated enough volume to perform VOC sampling analysis. Groundwater was sampled over a five day period in September 2023. The following contaminants of concern were detected exceeding groundwater quality standards (GWQS):

- Benzo(a)anthracene (up to 0.26 micrograms per liter (mcg/L)) exceeded the GWQS of 0.002 mcg/L at 4 sample locations.
- Benzo(a)pyrene (up to 0.48 mcg/L) exceeded the GWQS of Non-Detect at 1 sample location.
- Benzo(b)fluoranthene (up to 1.0 mcg/L) exceeded the GWQS of 0.0002 mcg/L at 4 sample locations.
- Benzo(k)fluoranthene (up to 0.002 mcg/L) exceeded the GWQS of 0.3 mcg/L at 4 sample locations.
- Indeno(1,2,3-cd)pyrene (up to 0.48 mcg/L) exceeded the GWQS of 0.002 mcg/L at 3 sample locations.
- Iron (up to 3,340 mcg/L) exceeded the GWQS of 300 mcg/L at 3 sample locations.
- Magnesium (up to 233,000 mcg/L) exceeded the GWQS of 35,000 mcg/L at 4 sample locations.
- Sodium (up to 131,000 mcg/L) exceeded the GWQS of 20,000 mcg/L at 4 sample locations.
- Dieldrin (up to 0.008 mcg/L) exceeded the GWQS of 0.004 mcg/L at 4 sample locations.

Investigation results indicate that groundwater has minor impacts of SVOCs, metals, and pesticides across the site. Off-site migration of contaminants in groundwater has not been observed.

Soil Vapor Intrusion Investigations:
Two rounds of soil vapor investigations were performed. The first round of samples were collected in September 2023 and included three sub-slab soil vapor samples (SSV-1, SSV-2, SSV-3) and one outdoor air sample (OA-1). Sub-slab soil vapor samples were taken from the Northern connected one-story on-site building (SSV-1), Northern six-story on-site building (SSV-2), and in the Southern four-story on-site building (SSV-3). NYSDOH air guidance matrices require sub-slab soil vapor samples be paired with indoor air samples, and comparison between the values for each sample will determine if mitigation is required. Although this investigation only sampled for sub-slab soil vapor, the results showed trichloroethene at mitigation levels (>60 mcg/m^3) for SSV-1 (306 mcg/m^3) and SSV-3 (310 mcg/m^3), and carbon tetrachloride at mitigation levels (>60 mcg/m^3) for SSV-1 (246 mcg/m^3).

The second round of samples were collected in August 2024, and included six sub-slab soil vapor samples (SSV-4, SSV-5, SSV-6, OS-SSV-1, OS-SSV-2, OS-SSV-3), six indoor air samples (IA-4, IA-5, IA-6, OS-IA-1, OS-IA-2, OS-IA-3), two soil vapor samples (SV-1, SV-2), and one outdoor air sample (OA-2). All sub-slab soil vapor samples were paired with indoor air samples. SSV-4, IA-4, SSV-5, IA-5, SSV-6, IA-6 and SV-2 were performed on-site. OS-SSV-1, OS-IA-1, OS-SSV-2, OS-IA-2, OS-SSV-3, OS-IA-3, and SV-1 were performed off-site in the

building interconnected with the on-site buildings. When compared to NYSDOH air guidance matrices all samples were no further action, except for OS-SSV-3 and OS-IA-3. NYSDOH air guidance matrices states "Identify source(s) or resample or mitigate". Additional indoor air sampling at OS-IA-3/OS-SS-3 will be performed in the heating season to confirm the results of the investigation findings.

6.4: 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*.

Exposure Assessment:

People are not expected to come into contact with site related soil and groundwater contamination unless they dig below the surface. Contaminated groundwater at the site is not used for drinking or other purposes and the site is served by a public water supply that obtains water from a different source not affected by this contamination. Volatile organic compounds in the groundwater may move into the soil vapor (air spaces within the soil), which in turn may move into nearby 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. Sub-slab depressurization systems (systems that ventilate/remove the air beneath the building) have been or will be installed in all on-site buildings to prevent the indoor air quality from being affected by the contamination in soil vapor beneath the buildings. Off-site sampling indicates potential for off-site soil vapor intrusion.

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:

Groundwater

RAOs for Public Health Protection

- Prevent ingestion of groundwater with contaminant levels exceeding drinking water standards.

RAOs for Environmental Protection

- Remove the source of ground or surface water contamination.

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated 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 selected remedy is referred to as the Excavation, Sub-Slab Depressurization System and Cover System remedy.

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

1. Remedial Design

A remedial design program will be implemented to provide the details necessary for the construction, operation, optimization, maintenance, and monitoring of the remedial program. Green remediation principles and techniques will be implemented to the extent feasible in the design, implementation, and 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 gases 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;
- Maximizing habitat value and creating habitat when possible;
- Fostering green and healthy communities and working landscapes which balance ecological, economic, and social goals;
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development; and
- Additionally, to incorporate green remediation principles and techniques to the extent feasible in the future development at this site, any future on-site buildings shall be constructed, at

a minimum, to meet the 2020 Energy Conservation Construction Code of New York (or most recent edition) to improve energy efficiency as an element of construction.

2. Source Area Excavation

Excavation and off-site disposal of all soils in the upper two feet which exceed the restricted residential soil cleanup objectives (SCOs) will be excavated and transported off-site for disposal as required for the installation of a cover system as described in Remedial Element 4. All on-site soils below two feet which exceed the site-specific action levels (SSALs) described below will be excavated.

- Total PAHs > 500 ppm;
- Arsenic > 25 ppm;

Collection and analysis of confirmation samples at the remedial excavation depth will be used to verify that SCOs/SSALs for the site have been achieved. It is anticipated that there will be three excavation areas, SB-D, SB-8, and SS-1. SB-D will extend approximately 4 feet below ground surface (ft bgs), SB-8 will extend approximately 5 ft bgs, and SS-1 will remove the top 2 feet of soils. If confirmation sampling indicates that SCOs/SSALs were not achieved at the stated remedial depth, the Applicant must notify NYSDEC, submit the sample results and, and in consultation with NYSDEC, determine if further remedial excavation is necessary. Further remedial excavation will be necessary unless otherwise approved by the NYSDEC.

To ensure proper handling and disposal of excavated material, waste characterization sampling will be completed for all identified contaminated site material. Waste characterization sampling will be performed exclusively for the purposes of off-site disposal in a manner suitable to receiving facilities and in conformance with applicable federal, state, and local laws, rules, and regulations and facility-specific permits.

On-site soil which does not exceed the above excavation criteria may be used anywhere beneath the cover system, including below the water table, to backfill the excavation or re-grade the site. If sufficient on-site material is not available for reuse, clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) will be brought in to complete the backfilling of the excavation and establish the design grades at the site.

3. Surficial Soil Excavation

Soil from the western site boundary in the upper two feet which exceeds the restricted residential SCOs will be excavated to facilitate installation of the site cover in remedial element 4 and transported off-site for disposal.

Collection and analysis of documentation samples at the remedial excavation extents will be used to document the soil conditions remaining after excavation. Clean fill meeting the requirements of 6 NYCRR Part 375-6.7(d) will be brought in to complete the backfilling of the excavation and establish the designed grades at the site.

4. Cover System

A site cover will be required site-wide in areas where the upper two feet of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs), to allow for future restricted

residential, commercial, or industrial use of the site. Where a soil cover is to be used it will be a minimum of two feet of soil placed over a demarcation layer, with the upper six inches of soil of sufficient quality to maintain a vegetative layer. Soil cover material, including any fill material brought to the site, will meet the SCOs for cover material for the use of the site as set forth in 6 NYCRR Part 375-6.7(d). Substitution of other materials and components may be allowed where such components already exist or are a component of the tangible property to be placed as part of site redevelopment. Such components may include, but are not necessarily limited to: pavement, concrete, paved surface parking areas, sidewalks, building foundations, and building slabs. See Decision Document Figure 4 for proposed cover system placement areas.

5. Vapor Intrusion Evaluation and Mitigation

All current on-site buildings will be required to have an active sub-slab depressurization (ASD) system, or other acceptable measures, to mitigate the migration of soil vapors into the buildings. Any future on-site buildings must be investigated for soil vapor intrusion (SVI) and mitigate, as needed.

A supplemental SVI investigation will be completed during the heating season in the connected off-site buildings, near sampling locations OS-SSV-2/OS-IA-1, OS-SSV-2/OS-IA-2 and OS-SSV-3/OS-IA-3 to confirm the most recent SVI investigation results. The connected offsite buildings will be required to have a sub-slab depressurization system (SSDS), or other acceptable measures, to mitigate the migration of soil vapors into the connected off-site buildings if it is shown to be necessary by the results of the supplemental SVI investigation. Additionally, indoor air sampling will be performed in all buildings with an installed SSDS during the next heating season following system start-up to confirm efficacy of the system.

6. Institutional Controls

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

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

7. Site Management Plan

A Site Management Plan is required, which includes the following:

a. 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 discussed in Remedial Element 6 above.

Engineering Controls: The cover system discussed in Remedial Element 4 above and active SSDS as discussed in Element 5.

This plan includes, but may not be limited to:

- 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 use, and groundwater use restrictions;
- A provision for evaluation of the potential for soil vapor intrusion for any new occupied buildings on the site, including provision for implementing actions recommended to address any exposures related to soil vapor intrusion;
- A provision that should a building foundation or building slab be removed in the future, a cover system consistent with that described in Remedial Element 4 above will be placed in any areas where the upper two feet of exposed surface soils exceed the applicable soil cleanup objectives (SCOs);
- Provisions for the management and inspection of the identified engineering controls;
- Maintaining site access controls and NYSDEC notification; and
- The steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

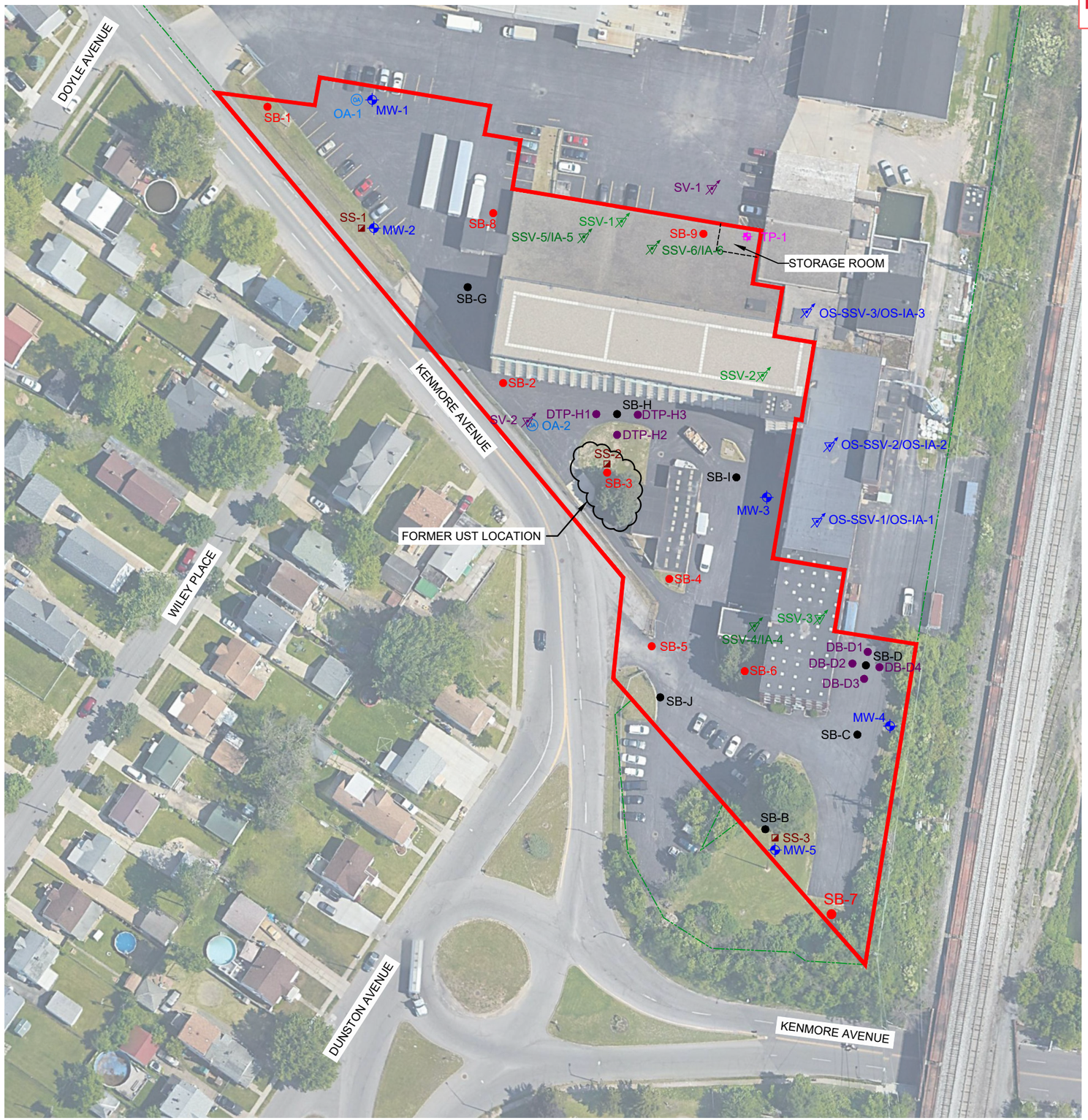
b. A Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:

- A schedule of monitoring and frequency of submittals to the NYSDEC;
- Monitoring for vapor intrusion for any buildings on the site, as may be required by the Institutional and Engineering Control Plan discussed above.

c. An Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, optimization, monitoring, inspection, and reporting of any mechanical or physical components of the remedy. The plan includes, but is not limited to:

- Procedures for operating and maintaining the remedy;
- Compliance monitoring of treatment systems to ensure proper O&M as well as providing the data for any necessary permit or permit equivalent reporting;
- Maintaining site access controls and NYSDEC notification; and
- Providing the NYSDEC access to the site and O&M records.

Decision Document Figure 1



LEGEND:

- BCP SITE BOUNDARY
- PARCEL BOUNDARY
- SB-B ● SOIL BORING (JULY 2021)
- MW-1 ✥ RI MONITORING WELL/SOIL BORING
- SB-1 ● RI SOIL BORING
- DB-D1 ● RI DELINEATION SOIL BORING/TEST PIT
- SS-1 ◪ RI SURFACE SOIL SAMPLE
- SSV-1 RI SUBSLAB VAPOR SAMPLE
- OA-1 (OA) RI OUTDOOR AIR SAMPLE
- TP-1 ✥ RI TEST PIT
- SSV-4/IA-4 SI SUBSLAB SOIL VAPOR/INDOOR AMBIENT AIR SAMPLE
- OS-SSV-1/OS-IA-1 SI OFFSITE SUBSLAB SOIL VAPOR /INDOOR AMBIENT AIR SAMPLE
- SV-1 SI SOIL VAPOR SAMPLE
- OA-2 (OA) SI OUTDOOR AIR SAMPLE

N

80' 0 80'

Title:

PREVIOUS AND REMEDIAL INVESTIGATION LOCATIONS
2101 KENMORE AVENUE SITE
BCP SITE NO. C915391
BUFFALO, NEW YORK

REMEDIAL INVESTIGATION/ALTERNATIVES ANALYSIS REPORT

Prepared for:

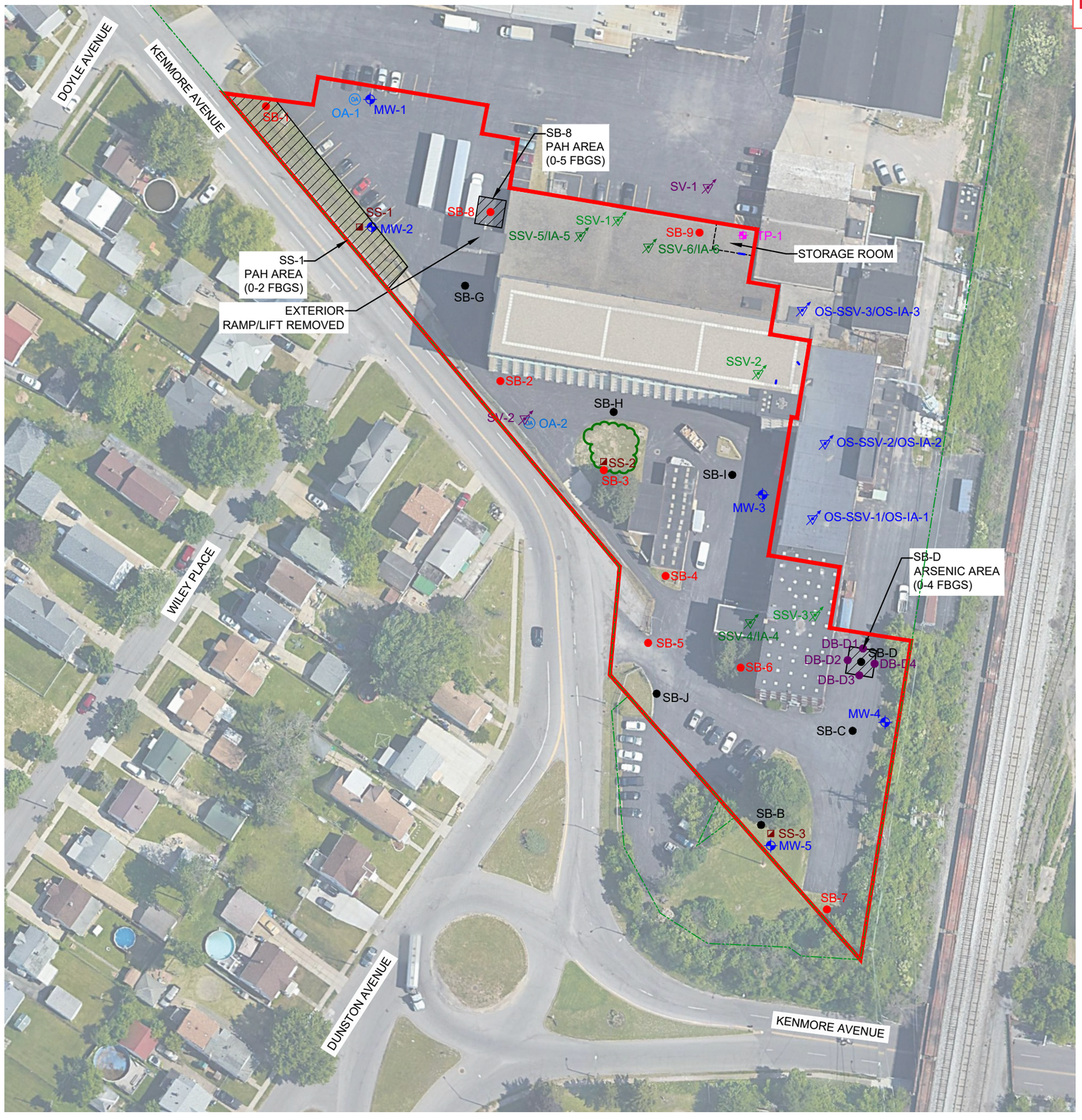
WOOD AND BROOKS PROPERTIES LLC

ROUX

Compiled by: CMS	Date: SEPTEMBER 2023	FIGURE
Prepared by: CMS	Scale: AS SHOWN	3
Project Mgr: NTM	Project: B0562-023-002	
File: FIGURE 3; PREVIOUS AND REMEDIAL INVESTIGATION LOCATIONS.DWG		

F:\CAD\BENCHMARK\FRONTIER INSULATION\RI\FIGURE 3; PREVIOUS AND REMEDIAL INVESTIGATION LOCATIONS.DWG

Decision Document Figure 2



LEGEND:

- BCP SITE BOUNDARY
- PARCEL BOUNDARY
- SB-B ● SOIL BORING (JULY 2021)
- MW-1 RI MONITORING WELL/SOIL BORING
- SB-1 ● RI SOIL BORING
- DB-D1 ● RI DELINEATION SOIL BORING/TEST PIT
- SS-1 RI SURFACE SOIL SAMPLE
- SSV-1 RI SUBSLAB VAPOR SAMPLE
- OA-1 RI OUTDOOR AIR SAMPLE
- TP-1 RI TEST PIT
- SSV-4/IA-4 SI SUBSLAB SOIL VAPOR/INDOOR AMBIENT AIR SAMPLE
- OS-SSV-1/OS-IA-1 SI OFFSITE SUBSLAB SOIL VAPOR /INDOOR AMBIENT AIR SAMPLE
- SV-1 SI SOIL VAPOR SAMPLE
- OA-2 SI OUTDOOR AIR SAMPLE
- FORMER STOCKPILE

NOTE: FINAL EXCAVATION EXTENTS WILL BE BASED ON CONFIRMATORY SAMPLE RESULTS

N

80' 0 80'

Title: **TRACK 4 RESTRICTED-RESIDENTIAL USE CLEANUP ALTERNATIVE**
2101 KENMORE AVENUE SITE
BCP SITE NO. C915391
BUFFALO, NEW YORK

REMEDIAL INVESTIGATION/ALTERNATIVES ANALYSIS REPORT

Prepared for:

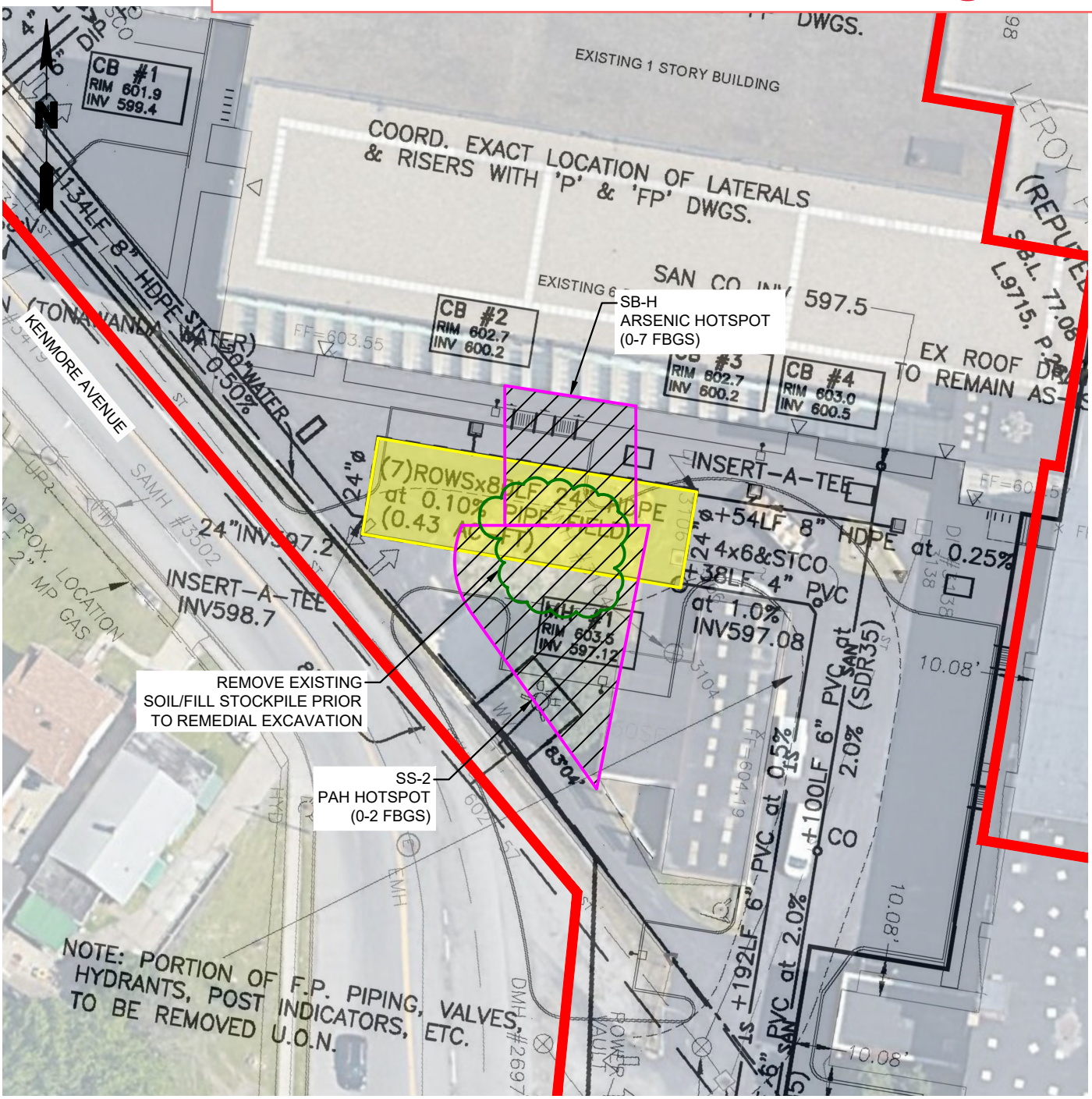
WOOD AND BROOKS PROPERTIES LLC

ROUX

Compiled by: CMS	Date: NOVEMBER 2023	FIGURE
Prepared by: CMS	Scale: AS SHOWN	7
Project Mgr: NTM	Project: B0562-023-002	
File: FIGURE 7; TRACK 4 RESTRICTED-RESIDENTIAL USE CLEANUP ALTERNATIVE_REV3.DWG		

F:\CAD\BENCHMARK\FRONTIER INSULATION\RI\FIGURE 7; TRACK 4 RESTRICTED-RESIDENTIAL USE CLEANUP ALTERNATIVE_REV3.DWG

Decision Document Figure 3



LEGEND:

- BCP SITE BOUNDARY
- PARCEL BOUNDARY
- HOTSPOT EXCAVATION AREA
- UNDERGROUND DETENTION SYSTEM AREA
- EXISTING STOCKPILE

NOTE: FINAL EXCAVATION EXTENTS WILL BE BASED ON CONFIRMATORY SAMPLE RESULTS

40' 0 40'

Title:
INTERIM REMEDIAL MEASURES AND UTILITIES
2101 KENMORE AVENUE SITE
BCP SITE NO. C915391
TONAWANDA, NEW YORK

INTERIM REMEDIAL MEASURES WORK PLAN

Prepared for:
WOOD AND BROOKS PROPERTIES LLC

ROUX

Compiled by: CMS	Date: DECEMBER 2023	FIGURE
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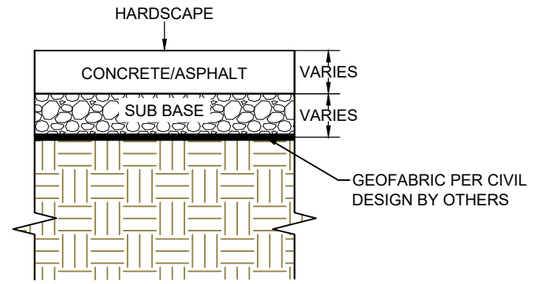
Project Mgr: NTM	Project: B0562-023-002	
File: FIGURE 3; INTERIM REMEDIAL MEASURES AND UTILITIES.DWG		

F:\CAD\BENCHMARK\FRONTIER INSULATION\RAWP\FIGURE 3; INTERIM REMEDIAL MEASURES AND UTILITIES.DWG

Decision Document Figure 4

LEGEND:

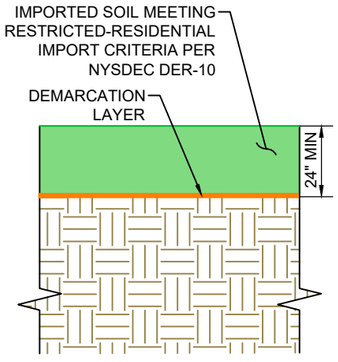
- BCP SITE BOUNDARY
- PARCEL BOUNDARY
- BUILDING COVER (HARDSCAPE)
- CONCRETE COVER
- ASPHALT COVER
- SOIL/FILL COVER
- AREA OF ASD SYSTEM



EXTERIOR CONCRETE/ASPHALT COVER SYSTEM DETAIL

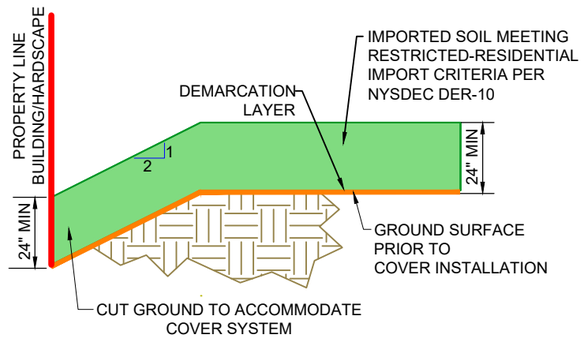
NTS

NOTE: THICKNESS VARIES BY COVER TYPE AND DESIGNATED USE PER CIVIL CONSTRUCTION DETAILS (BY OTHERS)



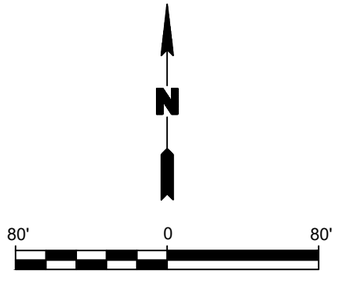
SOIL AREA COVER SYSTEM DETAIL

NTS



TIE-IN DETAIL

NTS



Title:

PLANNED TRACK 4 RRSCO REMEDIAL ACTVITIES
2101 KENMORE AVENUE SITE
BCP SITE NO. C915391
TONAWANDA, NEW YORK

REMEDIAL INVESTIGATION/ALTERNATIVES ANALYSIS REPORT

Prepared for:

WOOD AND BROOKS PROPERTIES LLC

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Prepared by: CMS	Scale: AS SHOWN	9
Project Mgr: NTM	Project: B0688-022-011	
File: FIGURE 9; PLANNED TRACK 4 RRSCO REMEDIAL ACTIVITIES_REV3.DWG		

F:\CAD\BENCHMARK\FRONTIER INSULATION\RI\FIGURE 9; PLANNED TRACK 4 RRSCO REMEDIAL ACTIVITIES_REV3.DWG