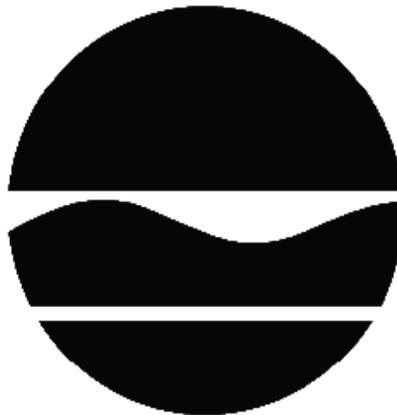


DECISION DOCUMENT

Former Sherwood Shoe Company
Brownfield Cleanup Program
Rochester, Monroe County
Site No. C828201
June 2020



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

DECLARATION STATEMENT - DECISION DOCUMENT

Former Sherwood Shoe Company
Brownfield Cleanup Program
Rochester, Monroe County
Site No. C828201
June 2020

Statement of Purpose and Basis

This document presents the remedy for the Former Sherwood Shoe Company 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 Former Sherwood Shoe Company 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. 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 will include, at

a minimum, a 20-mil vapor barrier/waterproofing membrane on the foundation to improve energy efficiency as an element of construction

2. **Cover System:** A site cover will be required to allow for restricted residential use of the site in areas where the upper two feet of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). 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.
3. **Vapor Mitigation:** Any on-site buildings will be required to have a sub-slab depressurization system, or other acceptable measures, to mitigate the migration of vapors into the building from soil and/or groundwater.
4. **Institutional Control**
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 Department 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 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 County DOH; and
 - Require compliance with the Department approved Site Management Plan.
5. **Engineering and Institutional Controls:** Imposition of an institutional control in the form of an environmental easement and a Site Management Plan, as described below, will be required. The remedy will achieve a Track 4 restricted residential cleanup at a minimum and will include an environmental easement, and site management plan as described below.

Site Management Plan

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 Paragraph 4 above.

Engineering Controls: The cover system discussed in Paragraph 2 and vapor mitigation discussed in Paragraph 3 above.

This plan includes, but may not be limited to:

- An Excavation Work Plan which details the provisions for management of future excavations in areas of remaining contamination;
 - A provision should redevelopment occur to ensure no soil exceeding protection of groundwater concentrations will remain below storm water retention basin or infiltration structures;
 - Descriptions of the provisions of the environmental easement including any land use and groundwater restrictions;
 - A provision that should a building foundation or building slab be removed in the future, a cover system consistent with that described in Paragraph 2 above will be placed in any areas where the upper two feet of exposed surface soil exceed the applicable soil cleanup objectives (SCOs);
 - Provisions for the management and inspection of the identified engineering controls;
 - Maintaining site access controls and Department notifications; 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:
- Monitoring of groundwater to assess the performance and effectiveness of the remedy; and
 - A schedule of monitoring and frequency of submittals to the Department.
- c. An Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, inspection, and reporting of any mechanical or physical components of the active vapor mitigation system(s). The plan includes, but is not limited to:
- Procedures for operating and maintaining the system(s); and
 - Compliance inspections of the system(s) to ensure proper O&M as well as providing the data for any necessary reporting.

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.

6/3/2020

Date

Michael Cruden

Michael Cruden, Director
Remedial Bureau E

DECISION DOCUMENT

Former Sherwood Shoe Company
Rochester, Monroe County
Site No. C828201
June 2020

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:

Central Library of Rochester and Monroe County
115 South Avenue
Rochester, NY 14604
Phone: 585-428-7300

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 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 site is located at 625 South Goodman Street, in the City of Rochester, Monroe County, New York. The site is in an urban area and bounded by Karges Place and Uhlen Place to the south along with various residential properties, Interstate 490 to the north, South Goodman Street to the east, and various residential properties and commercial businesses to the east.

Site Features:

The site has been vacant for several years. The property included a gravel parking area in the center of the site and the remainder of the property is grass covered, with brush along the site perimeter. The site is being redeveloped into an apartment complex in conjunction with the BCP remedial program.

Current Zoning and Land Use:

The site is currently zoned C-2 Community Center District. Surrounding properties are also zoned C-2 with the exception of properties adjacent to the east across South Goodman Street which is zoned Low Density Residential.

Past Uses of the Site:

The site appears to have been utilized for shoe manufacturing from approximately 1905 to the late 1930s, and various industrial and commercial uses from the late 1930s to the late 1960s. The site has been vacant since the late 1960s. Site buildings appear to have been demolished in the 1970s. Prior to acquisition of the property by Highland Grove LLC in September 2016, the site was most recently owned by the NYSDOT and occasionally utilized for staging and/or storage of vehicles, equipment and materials (e.g., crushed stone).

Site Geology and Hydrogeology:

Soils encountered consisted mainly of brown or gray-brown coarse to fine sands, or silty sands with varying amounts of coarse to fine sub-angular to sub-rounded gravel and silt. A layer of yellow brown sand was observed between approximately 5-ft to 9-ft below ground surface (bgs.) in the central and western portions of site. Silt or clay lenses were noted throughout the site but were generally located closer to the central portion of the site. Urban fill and construction and demolition debris including ash, coke, cinders, brick, glass, concrete, asphalt, asphalt millings, slag, and/or wood pieces, were encountered at the site from the ground surface to approximately 10-ft bgs beneath a layer of brown silty sand and gravel.

The top of bedrock was encountered at the depths ranging from 17 to 20-ft bgs at the site. Rock cores collected at the site indicate that the first five feet of bedrock appears to be weathered to moderately weathered rock whereas the five to ten-foot range into bedrock appears to be generally hard rock.

The Genesee River is located approximately 0.6 miles west of the site. I-490 expressway is located north of the site at a lower elevation (approx. 20-ft) than the site's surface. The presence of the expressway as well as the associated dewatering infrastructure are hydraulic influences on the site. The depth of overburden groundwater at the site was measured between 19.46-ft and 22.5-ft bgs. The gradient of overburden groundwater across the site from south to north appears to be approximately two feet. The overburden groundwater flow direction at the site is towards the northeast. The depth of bedrock groundwater at the site was measured between 23.23 to 24.54-ft. bgs. Bedrock groundwater flow direction at the site is towards the northeast, with a one-foot gradient across the site.

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 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 Volunteer. The Volunteer does not have an obligation to address off-site contamination. The Department has determined that this site poses a significant threat to human health and the environment and there are off-site impacts that require remedial activities; accordingly, enforcement actions are necessary.

The Department will seek to identify any parties (other than the Volunteer(s)) known or suspected to be responsible for contamination at or emanating from the site, referred to as Potentially Responsible Parties (PRPs). The Department will bring an enforcement action against the PRPs. If an enforcement action cannot be brought or does not result in the initiation of a remedial program by any PRPs, the Department will evaluate the off-site contamination for action under the State Superfund. The PRPs are subject to legal actions by the State for recovery of all response costs the State incurs or has incurred.

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:

- groundwater
- soil
- soil 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. 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 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 are:

- | | |
|-------------------------|-------------------------------|
| tetrachloroethene (PCE) | 1,1,1-trichloroethane (TCA) |
| trichloroethene (TCE) | perfluorooctane sulfonic acid |
| mercury | perfluorooctanoic acid |
| cis-1,2-dichloroethene | benzene |

ethylbenzene
toluene

xylene (mixed)
naphthalene

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

- groundwater
- soil

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.

Interim Remedial Measures Soil Excavation Interim Site Management

Additional interim remedial activities were conducted under an approved Interim Site Management Plan (ISMP) during the development of the site. As part of the site's development activities a total of 14,750 cubic yards (cy) of potentially impacted soil/fill material was excavated at depths ranging from 2 inches to 6 feet to achieve the necessary construction grade at the site and for building construction. Approximately 1,450 cy of total soil/fill material was used as Department approved backfill material with placement at 2 feet below the site's final elevation. The remaining excavated soil/fill material was disposed off-site at a permitted landfill facility. The excavation and off-site disposal of VOC, SVOC, and PFAS impacted soil/fill material will reduce groundwater contamination at the site.

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:

The primary contaminants of concern are volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and per-and polyfluoroalkyl substances (PFAS).

The remedial investigation included soil borings, groundwater monitoring well installations, and a soil gas investigation. Surface and subsurface soil, groundwater, and soil gas samples were collected for laboratory analysis. The soil and groundwater samples were analyzed for Target Compound List (TCL) VOCs plus tentatively identified compounds (TICs), TCL SVOCs plus TICs, Target Analyte List metals, cyanide, pesticides, PCBs, 1,4-dioxane, and the 21 PFAS analyte list. The soil gas samples were analyzed using Method TO-15 for VOCs.

Surface Soil:

Surface soil samples were collected for analysis during the remedial investigation. Benzo(a)pyrene concentrations range from non-detect (ND) to 1.2 parts per million (ppm) (restricted residential SCO-1 ppm). Benzo(a)anthracene concentrations range from ND to 1.1 ppm (restricted residential SCO-1 ppm). Benzo(b)fluoranthene concentrations range from ND to 1.7 ppm (restricted residential SCO-1 ppm). Surface soil data does not indicate a potential for off-site impacts.

Subsurface Soil:

Subsurface soil samples were collected for analysis during the remedial investigation, which occurred prior to and during participation in the BCP. Subsurface soil samples exceeded the restricted residential and protection of groundwater SCOs for VOCs and SVOCs. Trichloroethene concentrations ranged from ND to 13 ppm (protection of groundwater SCO-0.47 ppm). Benzo(a)anthracene concentrations range from ND to 7.6 ppm (restricted residential SCO-1 ppm). Benzo(a)pyrene concentrations range from ND to 7.8 ppm (restricted residential SCO-1 ppm). Benzo(b)fluoranthene concentrations range from ND to 9.4 ppm (restricted residential SCO-1 ppm). Chrysene concentrations range from ND to 7.3 ppm (restricted residential SCO-3.9 ppm). Dibenzo(a,h)anthracene concentrations range from ND to 1.3 ppm (restricted residential SCO-0.33 ppm). Indeno(1,2,3-cd)pyrene concentrations range from ND to 5.1 ppm (restricted residential SCO-0.5 ppm). Subsurface soil data does not indicate potential for off-site impacts.

Subsurface soil samples were collected for laboratory analysis for 21 PFAS compounds. Perfluorooctanoic acid (PFOA) concentrations ranged from ND to 3.4 parts per billion (ppb). Perfluorooctanesulfonic acid (PFOS) concentrations ranged from ND to 1.8 ppb. Total PFAS concentrations ranged from ND to 109.92 ppb. Subsurface soil data does not indicate potential for off-site impacts.

Groundwater:

Groundwater samples exceed the groundwater standards for VOCs, SVOCs, and metals. Groundwater samples were collected for analysis during the remedial investigation that was performed prior to and during participation in the BCP.

Cis-1,2-dichloroethene concentrations range from ND to 19 ppb (groundwater standard-5 ppb). trans-1,2-dichloroethene concentrations range from ND to 8.8 ppb (groundwater standard-5 ppb). Tetrachloroethene concentrations range from ND to 17 ppb (groundwater standard-5 ppb). Trichloroethene concentrations range from ND to 85 ppb (groundwater standard-5 ppb). Vinyl chloride concentrations range from ND to 4.9 ppb (groundwater standard-2 ppb). 1,2,4-trimethylbenzene concentrations range from ND to 57 ppb (groundwater standard-5 ppb). 1,3,5-trimethylbenzene concentrations range from ND to 20 ppb (groundwater standard-5 ppb). Benzene concentrations range from ND to 11 ppb (groundwater standard-1 ppb). Ethylbenzene concentrations range from ND to 27 ppb (groundwater standard-5 ppb). Isopropyl benzene concentrations range from ND to 12 ppb (groundwater standard-5 ppb). Xylenes concentrations range from ND to 46 ppb (groundwater standard-5 ppb). Toluene concentrations range from ND to 10 ppb (groundwater standard-5 ppb). Acenaphthene concentrations range from ND to 320 ppb (groundwater standard-20 ppb). Naphthalene concentrations range from ND to 340 ppb (groundwater standard-10 ppb). Cobalt concentrations range from ND to 6.04 ppb (groundwater

standard-5 ppb). Lead concentrations range from ND to 91.69 ppb (groundwater standard-25 ppb). Groundwater data does indicate potential for off-site impacts.

Groundwater samples were collected for laboratory analysis for 21 PFAS compounds. Perfluorooctanoic acid (PFOA) concentrations ranged from ND to 9.2 parts per trillion (ppt). Perfluorooctanesulfonic acid (PFOS) concentrations ranged from ND to 83 ppt. Total PFAS concentrations ranged from 0.23 to 1,752 ppt. Groundwater data does indicate the potential for off-site impacts.

Soil Vapor:

The perimeter on-site soil gas samples were collected and analyzed using Method TO-15 for VOCs. The soil gas sampling indicated chlorinated VOCs (1,1,1-trichloroethane, trichloroethene, tetrachloroethene, and methylene chloride) and BTEX compounds (benzene, toluene, ethyl benzene, and xylenes) compounds at the property boundary. Tetrachloroethene concentrations range from ND to 4.7 micrograms per cubic meter (ug/m³). 1,1,1-trichloroethane concentrations range from ND to 22 ug/m³. Trichloroethene concentrations range from 1.7 to 140 ug/m³. Methylene chloride concentrations range from ND to 7.0 ug/m³. BTEX concentrations ranged from 0.82 to 60 ug/m³. Soil vapor data does indicate potential for off-site impacts.

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.

Access is restricted by a fence during construction activities. However, due to the construction activities, people who enter may come into contact with contaminants in the soil by walking on the site, digging, or otherwise disturbing the soil. People are not drinking the contaminated groundwater because the area is served by a public water supply that is not affected by this contamination. Volatile organic compounds in the groundwater and soil may move into the soil vapor (air spaces within the soil), 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. Actions have been taken to address soil vapor intrusion on-site. Additional investigation is needed to determine whether actions may be needed to address the potential for exposure associated with soil vapor intrusion off-site.

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.
- 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.
- Prevent the discharge of contaminants to surface water.
- 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.
- Prevent impacts to biota from ingestion/direct contact with soil causing toxicity or impacts from bioaccumulation through the terrestrial food chain.

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 Cover System and Site Management remedy.

The elements of the selected remedy, as shown in Figure 3 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 will include, at a minimum, a 20-mil vapor barrier/waterproofing membrane on the foundation to improve energy efficiency as an element of construction
2. Cover System: A site cover will be required to allow for restricted residential use of the site in areas where the upper two feet of exposed surface soil will exceed the applicable soil cleanup objectives (SCOs). 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.
3. Vapor Mitigation: Any on-site buildings will be required to have a sub-slab depressurization system, or other acceptable measures, to mitigate the migration of vapors into the building from soil and/or groundwater.
4. Institutional Control
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 Department 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 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 County DOH; and
 - Require compliance with the Department approved Site Management Plan.

5. Engineering and Institutional Controls: Imposition of an institutional control in the form of an environmental easement and a Site Management Plan, as described below, will be required. The remedy will achieve a Track 4 restricted residential cleanup at a minimum and will include an environmental easement, and site management plan as described below.

Site Management Plan

Site Management Plan is required, which includes the following:

- d. 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:

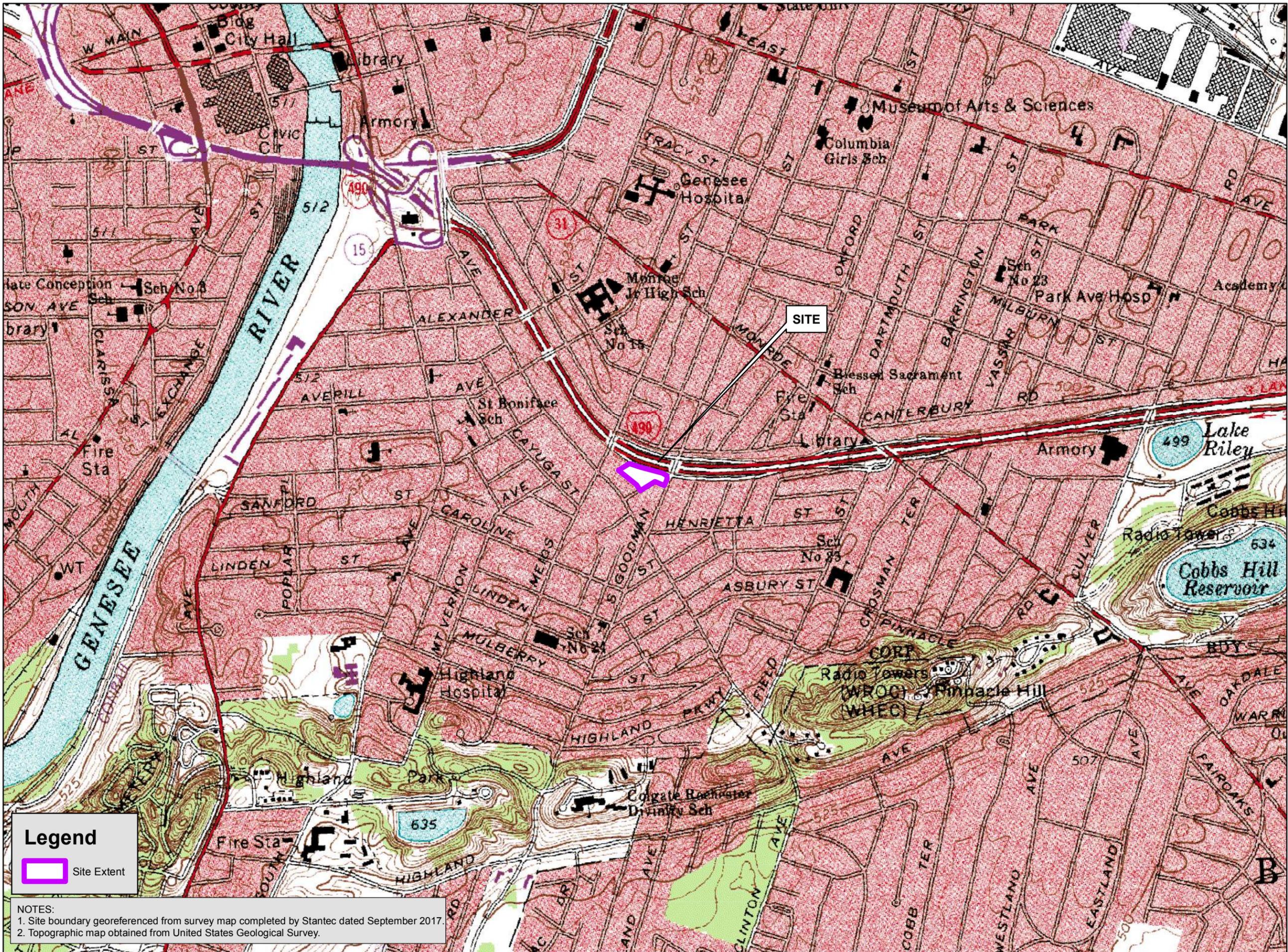
Institutional Controls: The Environmental Easement discussed in Paragraph 4 above.

Engineering Controls: The cover system discussed in Paragraph 2 and vapor mitigation discussed in Paragraph 3 above.

This plan includes, but may not be limited to:

- An Excavation Work Plan which details the provisions for management of future excavations in areas of remaining contamination;
 - A provision should redevelopment occur to ensure no soil exceeding protection of groundwater concentrations will remain below storm water retention basin or infiltration structures;
 - Descriptions of the provisions of the environmental easement including any land use and groundwater restrictions;
 - A provision that should a building foundation or building slab be removed in the future, a cover system consistent with that described in Paragraph 2 above will be placed in any areas where the upper two feet of exposed surface soil exceed the applicable soil cleanup objectives (SCOs);
 - Provisions for the management and inspection of the identified engineering controls;
 - Maintaining site access controls and Department notifications; and
 - The steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.
- e. A Monitoring Plan to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to:
- Monitoring of groundwater to assess the performance and effectiveness of the remedy; and
 - A schedule of monitoring and frequency of submittals to the Department.

- f. An Operation and Maintenance (O&M) Plan to ensure continued operation, maintenance, inspection, and reporting of any mechanical or physical components of the active vapor mitigation system(s). The plan includes, but is not limited to:
- Procedures for operating and maintaining the system(s); and
 - Compliance inspections of the system(s) to ensure proper O&M as well as providing the data for any necessary reporting.



0 500 1,000
Feet
1 inch = 1,000 feet
INTENDED TO PRINT AS: 11" X 17"

PROJECT:
Former Sherwood Shoe Company
625 South Goodman Street
Rochester, New York

Remedial Alternatives Analysis

DRAWING NAME:
Topographic Map

PROJECT/DRAWING NUMBER:
2172056
FIGURE 1

Legend
Site Extent

NOTES:
1. Site boundary georeferenced from survey map completed by Stantec dated September 2017.
2. Topographic map obtained from United States Geological Survey.



0 25 50 100
Feet
1 inch = 100 feet

INTENDED TO PRINT AS: 11" X 17"

PROJECT:
Former Sherwood Shoe Company
625 South Goodman Street
Rochester, New York
C828201

Remedial Investigation
Report

DRAWING NAME:

Site Location Map

PROJECT/DRAWING NUMBER:

2172056

FIGURE 2

Legend

- Site Boundary
- Rochester Parcels 2016

NOTES:
1. Site boundary georeferenced from survey map completed by Stantec dated September 2017.
2. Historical Information obtained from Stantec's 2012 Phase I ESA Report.



0 25 50
Feet
1 inch = 50 feet

INTENDED TO PRINT AS: 11" X 17"

PROJECT:
Former Sherwood Shoe Company
625 South Goodman Street
Rochester, New York
C828201

Remedial Alternatives Analysis

DRAWING NAME:
RAOC #1:
Alternative 2 - Track 4 Cleanup

PROJECT/DRAWING NUMBER:

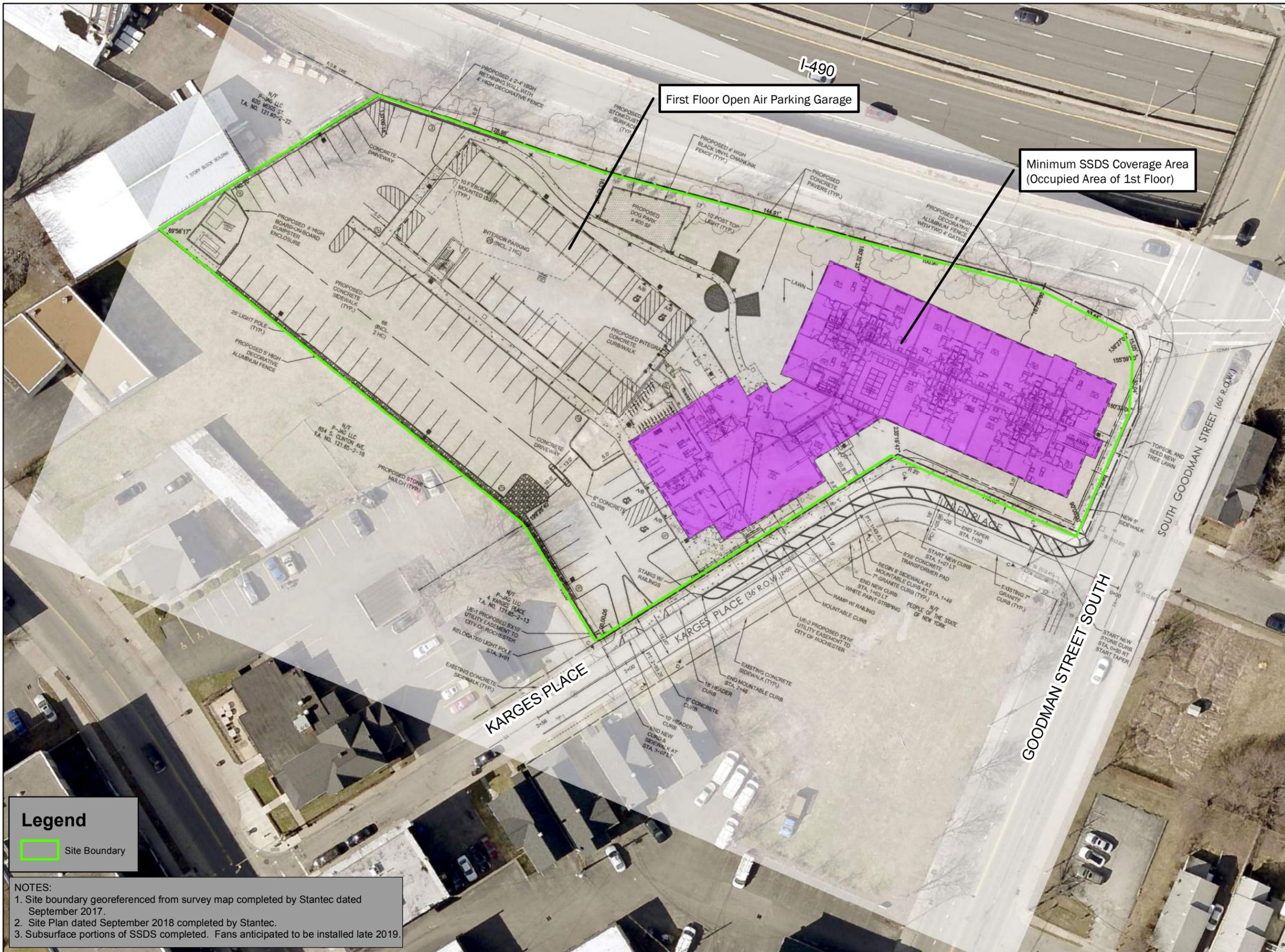
2172056

FIGURE 3

Legend

-  Site Boundary
- Site Cover System**
-  Impervious Surface
-  2-ft Approved Cover Material

NOTES:
1. Site boundary georeferenced from survey map completed by Stantec dated September 2017.
2. Site Plan dated September 2017 completed by Stantec.



0 25 50
Feet
1 inch = 50 feet

INTENDED TO PRINT AS: 11" X 17"

PROJECT:
Former Sherwood Shoe Company
625 South Goodman Street
Rochester, New York
C828201

Remedial Alternatives Analysis

DRAWING NAME:
REDEVELOPMENT PLAN

PROJECT/DRAWING NUMBER:

2172056

FIGURE 4

Legend

Site Boundary

- NOTES:
1. Site boundary georeferenced from survey map completed by Stantec dated September 2017.
 2. Site Plan dated September 2018 completed by Stantec.
 3. Subsurface portions of SSDS completed. Fans anticipated to be installed late 2019.