

RECORD OF DECISION

Staubs Textile Services, Inc.
Operable Unit Number 02
Groundwater and Off-Site Soil Vapor Intrusion
State Superfund Project
Rochester, Monroe County
Site No. 828160
March 2018



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

DECLARATION STATEMENT - RECORD OF DECISION

Staubs Textile Services, Inc.
Operable Unit Number 02
State Superfund Project
Rochester, Monroe County
Site No. 828160
March 2018

Statement of Purpose and Basis

This document presents the remedy for Operable Unit Number: 02: Groundwater and Off-Site Vapor Intrusion of the Staubs Textile Services, Inc. site, a Class 2 inactive hazardous waste disposal 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, and is not inconsistent with the National Oil and Hazardous Substances Pollution Contingency Plan of March 8, 1990 (40CFR300), as amended.

This decision is based on the Administrative Record of the New York State Department of Environmental Conservation (the Department) for Operable Unit Number: 02 of the Staubs Textile Services, Inc. site and the public's input to the proposed remedy presented by the Department. A listing of the documents included as a part of the Administrative Record is included in Appendix B of the ROD.

Description of Selected Remedy

The elements of the selected remedy are as follows:

The proposed remedy is referred to as the No Further Action with Site Management and Additional Soil Vapor Intrusion Sampling.

The estimated present worth cost to implement the remedy is \$260,000. The cost to construct the remedy is estimated to be \$16,000 and the estimated average annual cost is \$22,000.

The elements of the proposed remedy are as follows:

1. A remedial design program will be implemented to provide the details necessary for the construction, operation, maintenance, and monitoring of the remedial program. Green remediation principals 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 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;
- Maximizing habitat value and creating habitat when possible;
- Fostering green and healthy communities and working landscapes which balance ecological, economic goals; and
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.

2. Long-term monitoring of on-site and off-site groundwater will be implemented to ensure conditions improve over time. Additionally, this alternative includes on-site institutional controls, as discussed below.

3. Imposition of an institutional control in the form of an environmental easement for the on-site 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 commercial use as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
- restrict the use of on-site 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.

4. A Site Management Plan is required, which will include 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 assure the following institutional and/or engineering controls remain in place and effective:

Institutional Controls: The Environmental Easements discussed above.

This plan includes, but may not be limited to:

- description of the provisions of the environmental easement including any on-site groundwater use restrictions;
- a provision for evaluation of the potential for soil vapor intrusion for off-site buildings, in areas of contamination, including provisions for implementing actions recommended to address exposures related to soil vapor intrusion;
- a provision that should the owners of properties where sampling was previously declined requests to have their properties sampled in the future, the NYSDEC, in consultation with the NYSDOH, shall assess the need for soil vapor intrusion sampling and take appropriate action;
- maintaining on-site access controls and Department notification; and
- the steps necessary for the periodic reviews and certification of the institutional 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 and soil vapor to assess the performance and effectiveness of the remedy;
- Schedule of monitoring and frequency of submittals to the Department;
- Continued soil vapor intrusion monitoring of one building in OU2 and monitoring for any additional buildings, as may be required by the Institutional and Engineering Control Plan discussed above.


New York State Department of Health Acceptance

The New York State Department of Health (NYSDOH) concurs that the remedy for this site is protective of human health.

Declaration

The selected remedy is protective of human health and the environment, complies with State and Federal requirements that are legally applicable or relevant and appropriate to the remedial action to the extent practicable, and is cost effective. This remedy utilizes permanent solutions and alternative treatment or resource recovery technologies, to the maximum extent practicable, and satisfies the preference for remedies that reduce toxicity, mobility, or volume as a principal element.

Date March 31, 2018



Michael J. Ryan, P.E., Director
Division of Environmental Remediation

RECORD OF DECISION

Staubs Textile Services, Inc.
Rochester, Monroe County
Site No. 828160
March 2018

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 hazardous wastes 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 hazardous wastes at this site, as more fully described in this document, has contaminated various environmental media. The remedy is intended to attain the remedial action objectives identified for this site for the protection of public health and the environment. This Record of Decision (ROD) identifies the selected remedy, summarizes the other alternatives considered, and discusses the reasons for selecting the remedy.

The New York State Inactive Hazardous Waste Disposal Site Remedial Program (also known as the State Superfund Program) is an enforcement program, the mission of which is to identify and characterize suspected inactive hazardous waste disposal sites and to investigate and remediate those sites found to pose a significant threat to public health and environment.

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:

Monroe County Library System
Monroe Branch Library
809 Monroe Avenue
Rochester, NY 14607
Phone: (585) 428-8202

A public meeting was also conducted. At the meeting, the findings of the remedial investigation (RI) and the feasibility study (FS) were presented along with a summary of the proposed remedy. After the presentation, a question-and-answer period was held, during which verbal or written comments were accepted on the proposed remedy.

Comments on the remedy received during the comment period are summarized and addressed in the responsiveness summary section of the ROD.

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: This site is located at 951, 935 East Main Street in the City of Rochester, Monroe County. The 1.2acre site is located in a mixed commercial/residential area on the northeast side of the city.

Site Features: The majority of the site is covered by the concrete slab of the former on-site building with a paved parking area on the west side and a small paved driveway on the east side of the property. The site is bound by East Main Street to the north, commercial properties to the west and east and a residential neighborhood to the south.

Current Zoning/Use(s): The site is currently inactive and is zoned for commercial use.

Historic Use(s): This site has a 70-year history of use as an industrial laundry and dry cleaning service. Operations at the facility ceased in 2005.

Site Geology and Hydrogeology: The site is underlain by approximately 20 to 25 feet of overburden materials overlying bedrock. The overburden consists of gray and brown silty sand to sandy silt with little clay and gravel. Bedrock is encountered at 23 to 29 feet and consists of limestone/dolomite, which is part of the Irondequoit Limestone Formation. Groundwater in the overburden beneath the site is 12-15 feet below ground surface with flow to the north. Groundwater flow in the bedrock generally flows towards the north-northeast.

Operable Unit(s): The site was divided into two operable units. An operable unit represents a portion of a remedial program for a site that for technical or administrative reasons can be addressed separately to investigate, eliminate or mitigate a release, threat of release or exposure

pathway resulting from the site contamination. Operable Unit (OU) No. 2, which is the subject of this document, consists of groundwater and off-site soil vapor intrusion.

A Record of Decision for OU1, which covers the on-site source area and on-site SVI, was issued in December, 2016 and revised with an Explanation of Significant Difference (ESD) in February, 2018.

Operable Unit (OU) Number 02 is the subject of this document. References to “site” in the remainder of the document apply to this OU.

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 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 included in the Tables for the media being evaluated in Exhibit A.

SECTION 5: ENFORCEMENT STATUS

Potentially Responsible Parties (PRPs) are those who may be legally liable for contamination at a site. This may include past or present owners and operators, waste generators, and haulers.

The PRPs for the site, documented to date, include:

951 East Main Street, LLC

Ben Barnet Cleaners

Staub Textile Services, Inc

Staub & Son, Inc.

Staub Cleaners, Inc.

The PRPs for the site declined to implement a remedial program when requested by the Department. After the remedy is selected, the PRPs will again be contacted to assume responsibility for the remedial program. If an agreement cannot be reached with the PRPs, the Department will evaluate the site for further action under the State Superfund. The PRPs are

subject to legal actions by the state for recovery of all response costs the state has incurred.

SECTION 6: SITE CONTAMINATION

6.1: Summary of the Remedial Investigation

A Remedial Investigation (RI) has been conducted. The purpose of the RI was to define the nature and extent of any contamination resulting from previous activities at the site. The field activities and findings of the investigation are described in the RI Report.

The following general activities are conducted during an RI:

- Research of historical information,
- Geophysical survey to determine the lateral extent of wastes,
- Test pits, soil borings, and monitoring well installations,
- Sampling of waste, surface and subsurface soils, groundwater, and soil vapor,
- Sampling of surface water and sediment,
- Ecological and Human Health Exposure Assessments.

The analytical data collected on this site includes data for:

- groundwater
- 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. The Department has developed SCGs for groundwater, surface water, sediments, and soil. The NYSDOH has developed SCGs for drinking water and soil vapor intrusion. The tables found in Exhibit A list the applicable SCGs in the footnotes. 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 hazardous waste 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 in Exhibit A. Additionally, the RI Report contains a full discussion of the data. The contaminant(s) of concern identified for this Operable Unit at this site is/are:

tetrachloroethene (PCE)

trichloroethene (TCE)

As illustrated in Exhibit A, the contaminant(s) of concern exceed the applicable SCGs for:

- groundwater
- 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 Record of Decision.

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

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.

Based upon the resources and pathways identified and the toxicity of the contaminants of ecological concern at this site, a Fish and Wildlife Resources Impact Analysis (FWRIA) was deemed not necessary for OU 02.

For OU 2: Groundwater

Groundwater, Soil Vapor and Indoor Air were analyzed for volatile organic compounds (VOCs). Based upon investigations conducted to date, the primary contaminants of concern for OU 2 include tetrachloroethene (PCE) and its associated degradation products.

Soil – Investigations during OU1 indicated that off-site soil sampling was not needed because the soil contamination is contained within OU1.

Groundwater - PCE and its associated degradation products are found in overburden groundwater on-site, exceeding groundwater standards (typically 5 ppb), with a maximum concentration of 252,800 ppb (PCE). PCE was detected in on-site bedrock groundwater as high as 83,000 ppb, exceeding groundwater standards (5 ppb). PCE was detected in off-site bedrock

groundwater as high as 3.3 ppb, below groundwater standards (5 ppb).

Sub-slab Vapor, Indoor Air, and Outdoor Air – Given the concentrations of VOCs found in soil vapor samples collected in OU1, including PCE detected as high as 1,800,000 ug/m³, an off-site (OU2) soil vapor intrusion evaluation was initiated. To determine whether actions are needed to address exposure related to soil vapor intrusion, sub-slab vapor, indoor air, and outdoor air samples were collected at four buildings in OU2 from 2011-2013. The maximum concentrations of PCE and TCE in sub-slab vapor samples were as follows: 11 ug/m³ and 0.74 ug/m³, respectively. Similarly, in indoor air samples: 5.2 ug/m³ and 4.8 ug/m³, respectively. The concentrations of these VOCs in outdoor air samples were found to be consistent with background ranges. Overall, based on the results of this sampling and of environmental sampling in the area, the following actions were identified as being warranted to address exposures related to soil vapor intrusion: monitoring in one building and no further action in the remaining three buildings. The monitoring program for one building was initiated in 2013 and was discontinued at the request of the property owner. Additional sampling is needed off-site in other buildings.

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*.

Direct contact with contaminants in the soil is unlikely because the majority of the site is covered with buildings and pavement. 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 and/or 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 the buildings, is referred to as soil vapor intrusion. Because the on-site building is vacant, inhalation of site contaminants in indoor air due to soil vapor intrusion does not represent a concern for the site in its current condition. However, the potential exists for the inhalation of site contaminants due to soil vapor intrusion for any future on-site development. Soil vapor intrusion sampling indicates actions, including continued monitoring, are recommended to prevent potential exposure at one off-site residence. Additional evaluation is needed to determine whether actions are needed to address 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 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.

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: SUMMARY OF THE SELECTED REMEDY

To be selected the remedy must be protective of human health and the environment, be cost-effective, comply with other statutory requirements, and utilize permanent solutions, alternative technologies or resource recovery technologies to the maximum extent practicable. The remedy must also attain the remedial action objectives identified for the site, which are presented in Section 6.5. Potential remedial alternatives for the Site were identified, screened and evaluated in the feasibility study (FS) report.

A summary of the remedial alternatives that were considered for this site is presented in Exhibit B. Cost information is presented in the form of present worth, which represents the amount of money invested in the current year that would be sufficient to cover all present and future costs associated with the alternative. This enables the costs of remedial alternatives to be compared on a common basis. As a convention, a time frame of 30 years is used to evaluate present worth costs for alternatives with an indefinite duration. This does not imply that operation, maintenance, or monitoring would cease after 30 years if remediation goals are not achieved. A summary of the Remedial Alternatives Costs is included as Exhibit C.

The basis for the Department's remedy is set forth at Exhibit D.

The selected remedy is referred to as the No Further Action with Site Management and Additional Soil Vapor Intrusion Sampling remedy.

The estimated present worth cost to implement the remedy is \$260,000. The cost to construct the remedy is estimated to be \$16,000 and the estimated average annual cost is \$22,000.

The elements of the selected remedy are as follows:

1. A remedial design program will be implemented to provide the details necessary for the construction, operation, maintenance, and monitoring of the remedial program. Green remediation principals 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 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;
 - Maximizing habitat value and creating habitat when possible;
 - Fostering green and healthy communities and working landscapes which balance ecological, economic goals; and
 - Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.
2. Long-term monitoring of on-site and off-site groundwater will be implemented to ensure conditions improve over time. Additionally, this alternative includes on-site institutional controls, as discussed below.
3. Imposition of an institutional control in the form of an environmental easement for the on-site 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 commercial use as defined by Part 375-1.8(g), although land use is subject to local zoning laws;
 - restrict the use of on-site 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.
4. A Site Management Plan is required, which will include 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 assure the following institutional and/or engineering controls remain in place and effective:

Institutional Controls: The Environmental Easements discussed above.

This plan includes, but may not be limited to:

- description of the provisions of the environmental easement including any on-site groundwater use restrictions;
- a provision for evaluation of the potential for soil vapor intrusion for off-site buildings, in areas of contamination, including provisions for implementing actions recommended to address exposures related to soil vapor intrusion;
- a provision that should the owners of properties where sampling was previously declined requests to have their properties sampled in the future, the NYSDEC, in consultation with the NYSDOH, shall assess the need for soil vapor intrusion sampling and take appropriate action;
- maintaining on-site access controls and Department notification; and
- the steps necessary for the periodic reviews and certification of the institutional 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 and soil vapor to assess the performance and effectiveness of the remedy;
- Schedule of monitoring and frequency of submittals to the Department;
- Continued soil vapor intrusion monitoring of one building in OU2 and monitoring for any additional buildings, as may be required by the Institutional and Engineering Control Plan discussed above.

Exhibit A

Nature and Extent of Contamination

This section describes the findings of the Remedial Investigation for all environmental media that were evaluated. As described in Section 6.1, samples were collected from various environmental media to characterize the nature and extent of contamination.

For each medium for which contamination was identified, a table summarizes the findings of the investigation. The tables present the range of contamination found at the site in the media and compares the data with the applicable SCGs for the site. The contaminants are arranged into volatile organic compounds (VOCs). For comparison purposes, the SCGs are provided for each medium that allows for unrestricted use. For soil, if applicable, the Restricted Use SCGs identified in Section 4 and Section 6.1.1 are also presented.

Groundwater

Groundwater samples were collected from overburden and bedrock monitoring wells. The samples were collected to assess groundwater conditions on and off-site. The results indicate that contamination in shallow groundwater at the site exceeds the SCGs for volatile organic compounds. Contaminant levels in on-site bedrock groundwater exceeded the guidance values for volatile organic compounds. Contaminant levels in off-site bedrock groundwater does not exceed the guidance values for volatile organic compounds.

Table #1 - Groundwater

Detected Constituents	Concentration Range Detected (ppb) ^a	SCG ^b (ppb)	Frequency Exceeding SCG
VOCs			
Tetrachloroethene (PCE)	0 – 252,800	5	24/43
Trichloroethene (TCE)	0 – 9300	5	18/43
cis-1,2-Dichloroethene	0 – 21,800	5	27/43
Vinyl Chloride	0 – 3120	2	19/43

a - ppb: parts per billion, which is equivalent to micrograms per liter, ug/L, in water.

b- SCG: Standard Criteria or Guidance - Ambient Water Quality Standards and Guidance Values (TOGs 1.1.1), 6 NYCRR Part 703, Surface water and Groundwater Quality Standards, and Part 5 of the New York State Sanitary Code (10 NYCRR Part 5).

Based on the findings of the RI, the past disposal of hazardous waste has resulted in the contamination of groundwater. The site contaminants identified in groundwater which are considered to be the primary contaminants of concern, to be addressed by the remedy selection process are, tetrachloroethene (PCE) and its associated degradation products.

Sub-slab Vapor, Indoor Air, and Outdoor Air

Given the concentrations of VOCs found in soil vapor samples collected in OU1, including PCE detected as high as 1,800,000 ug/m³, an off-site (OU2) soil vapor intrusion evaluation was initiated. To determine whether actions are needed to address exposure related to soil vapor intrusion, sub-slab vapor, indoor air, and outdoor air samples were collected at four buildings in OU2 from 2011-2013. The maximum concentrations of PCE and TCE in sub-slab vapor samples were as follows: 11 ug/m³ and 0.74 ug/m³, respectively. Similarly, indoor air samples: 5.2 ug/m³ and 4.8 ug/m³, respectively. The concentrations of these VOCs in outdoor air samples were found to be consistent with background ranges. Overall, based on the results of this sampling and of environmental sampling in the area, the following actions were identified as being warranted to address exposures related to soil vapor intrusion: monitoring in one building and no further action in the remaining three buildings. The monitoring program for one building was initiated in 2013 and was discontinued at the request of the property owner. Additional sampling is needed off-site in other buildings.

Based on the findings of the Remedial Investigation, the disposal of hazardous waste has resulted in the contamination of soil vapor. The site contaminants identified in sub-slab vapor and indoor air which are considered to be the primary contaminants of concern, to be addressed by the remedy selection process are tetrachloroethene (PCE) and its associated degradation products.

Exhibit B

Description of Remedial Alternatives

The following alternatives were considered based on the remedial action objectives (see Section 6.5) to address the contaminated media identified at the site as described in Exhibit A.

Alternative 1: No Action

The No Action Alternative is evaluated as a procedural requirement and as a basis for comparison. This alternative leaves the site in its present condition and does not provide any additional protection to public health and the environment.

Alternative 2: No Further Action with Site Management and Additional Soil Vapor Intrusion Sampling

The No Further Action with Site Management Alternative and Additional Soil Vapor Intrusion Sampling recognizes the remedial program for OU1 as presented in December 2016 ROD and the February 2018 ESD. This alternative relies upon engineering controls which are part of OU1 and includes institutional controls, in the form of local use restrictions and site management plan, necessary to protect public health and the environment from contamination remaining in OU2.

Continued evaluation of the potential soil vapor intrusion for off-site buildings in areas of contamination, including provisions for the implementing actions recommended to address exposures related to soil vapor intrusion.

<i>Present Worth:</i>	\$260,000
<i>Capital Cost:</i>	\$16,000
<i>Annual Costs:</i>	\$22,000

Alternative 3: In-Situ Chemical Oxidation with Site Management and Additional Soil Vapor Intrusion Sampling

In-situ chemical oxidation (ISCO) will be implemented to treat contaminants in groundwater both in OU1 and OU2. A chemical oxidant will be injected into the subsurface to destroy the contaminants via injection wells. The method and depth of injections will be determined during the remedial design.

Prior to the full implementation of this technology, laboratory and on-site pilot scale studies will be conducted to more clearly define design parameters. It is estimated that the chemical oxidant will be injected during several separate events over several months.

Continued evaluation of the potential soil vapor intrusion for off-site buildings in areas of contamination, including provisions for the implementing actions recommended to address exposures related to soil vapor intrusion.

Present Worth:\$550,000
Capital Cost:\$310,000
Annual Costs:\$22,200

Exhibit C

Remedial Alternative Costs

Remedial Alternative	Capital Cost (\$)	Annual Costs (\$)	Total Present Worth (\$)
#1 No Action	\$0	\$0	\$0
#2 Site Management	\$16,000	\$22,000	\$260,000
#3 In-Situ Chemical Oxidation	\$310,000	\$22,000	\$550,000

Exhibit D

SUMMARY OF THE PROPOSED REMEDY

The Department is selecting Alternative 2, as the remedy for this site. Alternative 2 will achieve the remediation goals for the site by Site Management. Additionally, this alternative includes additional soil vapor intrusion sampling, long-term monitoring and institutional controls. The elements of this remedy are described in Section 7.

Basis for Selection

The selected remedy is based on the results of the RI and the evaluation of alternatives. The criteria to which potential remedial alternatives are compared are defined in 6 NYCRR Part 375. A detailed discussion of the evaluation criteria and comparative analysis is included in the FS report.

The first two evaluation criteria are termed "threshold criteria" and must be satisfied in order for an alternative to be considered for selection.

1. Protection of Human Health and the Environment. This criterion is an overall evaluation of each alternative's ability to protect public health and the environment.

The selected remedy Alternative 2 will satisfy this criterion by creating the conditions needed to attain ambient groundwater standards. Alternative 3 addresses the source of the contamination, which is the most significant threat to public health and the environment and continues to evaluate the potential for exposures associated with soil vapor intrusion. Alternative 1 (No Action) does not provide any additional protection to public health and the environment and will not be evaluated further. Alternative 2 does not address the source but will include monitoring to ensure conditions improve over time.

2. Compliance with New York State Standards, Criteria, and Guidance (SCGs). Compliance with SCGs addresses whether a remedy will meet environmental laws, regulations, and other standards and criteria. In addition, this criterion includes the consideration of guidance which the Department has determined to be applicable on a case-specific basis.

Alternatives 2 and 3 comply with SCGs to the extent practicable. They address source areas of contamination and comply with the protection of groundwater soil cleanup objectives. It also creates the conditions necessary to restore groundwater quality to the extent practicable. Because Alternatives 2 and 3 satisfy the threshold criteria, the remaining criteria are particularly important in selecting a final remedy for the site.

The next six "primary balancing criteria" are used to compare the positive and negative aspects of each of the remedial strategies.

3. Long-term Effectiveness and Permanence. This criterion evaluates the long-term effectiveness of the remedial alternatives after implementation. If wastes or treated residuals remain on-site after the selected remedy has been implemented, the following items are evaluated: 1) the magnitude of the remaining risks, 2) the adequacy of the engineering and/or institutional controls intended to limit the risk, and 3) the

reliability of these controls.

Long-term effectiveness is best accomplished by treating the contaminated groundwater at the source area. Alternative 3 would introduce chemical oxidants by injecting into the subsurface via injection wells and further evaluate the potential for exposures associated with soil vapor intrusion. Alternative 2 will take the most time to implement, and will rely upon long-term operation, maintenance and monitoring to achieve contaminant reduction.

4. Reduction of Toxicity, Mobility or Volume. Preference is given to alternatives that permanently and significantly reduce the toxicity, mobility or volume of the wastes at the site.

Alternative 3 includes treatment to reduce the toxicity, mobility, and volume of groundwater contamination. Chemical oxidation destroys contaminants upon contact. Alternative 2 will not reduce the toxicity, mobility or volume of contaminants.

5. Short-term Impacts and Effectiveness. The potential short-term adverse impacts of the remedial action upon the community, the workers, and the environment during the construction and/or implementation are evaluated. The length of time needed to achieve the remedial objectives is also estimated and compared against the other alternatives.

Alternatives 2 and 3 all have short-term impacts which could easily be controlled, however, Alternative 2 will have the smallest impact. While the short term impacts are greatest in terms of disruption due to construction with Alternative 3 the time needed to achieve the remediation goals is the shortest with this alternative. Alternative 2 takes the longest to achieve the remediation goals.

6. Implementability. The technical and administrative feasibility of implementing each alternative are evaluated. Technical feasibility includes the difficulties associated with the construction of the remedy and the ability to monitor its effectiveness. For administrative feasibility, the availability of the necessary personnel and materials is evaluated along with potential difficulties in obtaining specific operating approvals, access for construction, institutional controls, and so forth.

Alternative 2 is favorable in that it relies upon methods that are well developed and accepted and are relatively easy to implement. The technologies used for implementation of Alternatives 3 is becoming more widely used and accepted, and would not be difficult to implement after on-site pilot studies are conducted to more clearly define design parameters.

7. Cost-Effectiveness. Capital costs and annual operation, maintenance, and monitoring costs are estimated for each alternative and compared on a present worth basis. Although cost-effectiveness is the last balancing criterion evaluated, where two or more alternatives have met the requirements of the other criteria, it can be used as the basis for the final decision.

Among Alternatives 2 and 3, Alternative 2 is the least expensive, but this alternative would result in a longer time frame to achieve remedial action objectives. Alternative 3 is cost restrictive due to the amount of chemical oxidants required to treat the entire remediation area and costs associated with evaluating soil vapor intrusion, including any actions to address exposure.

The final criterion, Community Acceptance, is considered a "modifying criterion" and is taken into account after evaluating those above. It is evaluated after public comments on the Proposed Remedial Action Plan have been received.

8. Community Acceptance. Concerns of the community regarding the investigation, the evaluation of alternatives, and the PRAP are evaluated. A responsiveness summary will be prepared that describes public comments received and the manner in which the Department will address the concerns raised. If the selected remedy differs significantly from the proposed remedy, notices to the public will be issued describing the differences and reasons for the changes.

Alternative 2 is being selected because, as described above, it satisfies the threshold criteria and provides the best balance of the balancing criterion.

APPENDIX A

Responsiveness Summary

RESPONSIVENESS SUMMARY

**Staubs Textile Services, Inc.
Operable Unit No. 02
Groundwater and Off-Site Soil Vapor Intrusion
State Superfund Project
Rochester, Monroe County, New York
Site No. 828160**

The Proposed Remedial Action Plan (PRAP) for the Staubs Textile Services, Inc. site was prepared by the New York State Department of Environmental Conservation (the Department) in consultation with the New York State Department of Health (NYSDOH) and was issued to the document repositories on February 28, 2018. The PRAP outlined the remedial measure proposed for the contaminated groundwater and soil vapor at the Staubs Textile Services, Inc. site.

The release of the PRAP was announced by sending a notice to the public contact list, informing the public of the opportunity to comment on the proposed remedy.

A public meeting was held on March 22, 2018, which included a presentation of the remedial investigation/feasibility study (RI/FS) for the Staubs Textile Services, Inc. as well as a discussion of the proposed remedy. The meeting provided an opportunity for citizens to discuss their concerns, ask questions and comment on the proposed remedy. These comments have become part of the Administrative Record for this site. The public comment period for the PRAP ended on March 30, 2018.

This responsiveness summary responds to all questions and comments raised during the public comment period. The following are the comments received, with the Department's responses:

COMMENT 1: During the public meeting for OU-1 you said you would install additional bedrock wells?

RESPONSE 1: Three new bedrock wells were installed.

COMMENT 2: How much does a SSDS system cost?

RESPONSE 2: A typical SSDS system installation costs between \$2,000 - \$4,000.

COMMENT 3: How are you dealing with the on-site contamination?

RESPONSE 3: Soil vapor extraction (SVE) and a targeted soil removal has been selected as the remedy for the on-site area. Additional information can be found in the Explanation of Significant Differences, Operable Unit 01, issued February 2018.

COMMENT 4: How many volunteers did you get in response to outreach efforts for the off-site soil vapor intrusion investigation?

RESPONSE 4: During this most recent round of soil vapor intrusion sampling conducted in March 2018, we had two volunteers who granted access to have their properties sampled.

COMMENT 5: Can I be sampled at a later date?

RESPONSE 5: Yes. As part of the remedy within the proposed remedial action plan, a site management plan is required and will include a provision for the evaluation of the potential for soil vapor intrusion for off-site buildings in areas of contamination, including provision for implementing actions recommended to address exposures related to soil vapor intrusion.

COMMENT 6: Will there be addition meetings/mailings? If so, can I be informed?

RESPONSE 6: Yes, there will additional fact sheets as remedial work progresses. Interested parties can sign up for listserv at the following website: www.dec.ny.gov/chemical/61092.html.

COMMENT 7: If I had a mitigation system installed, would I have to disclose that to a potential buyer?

RESPONSE 7: Yes, disclosure of a mitigation system is typical of a real estate transaction. The new owners would need to be aware of the system and how to verify that it is operating effectively. Typically, monitoring that would be expected of the property owner is a visual check of the manometer to ensure the sub-slab remains under negative pressure. Also, there will be a need for periodic inspection of the system, which will be conducted by Department staff or a Department contractor.

APPENDIX B

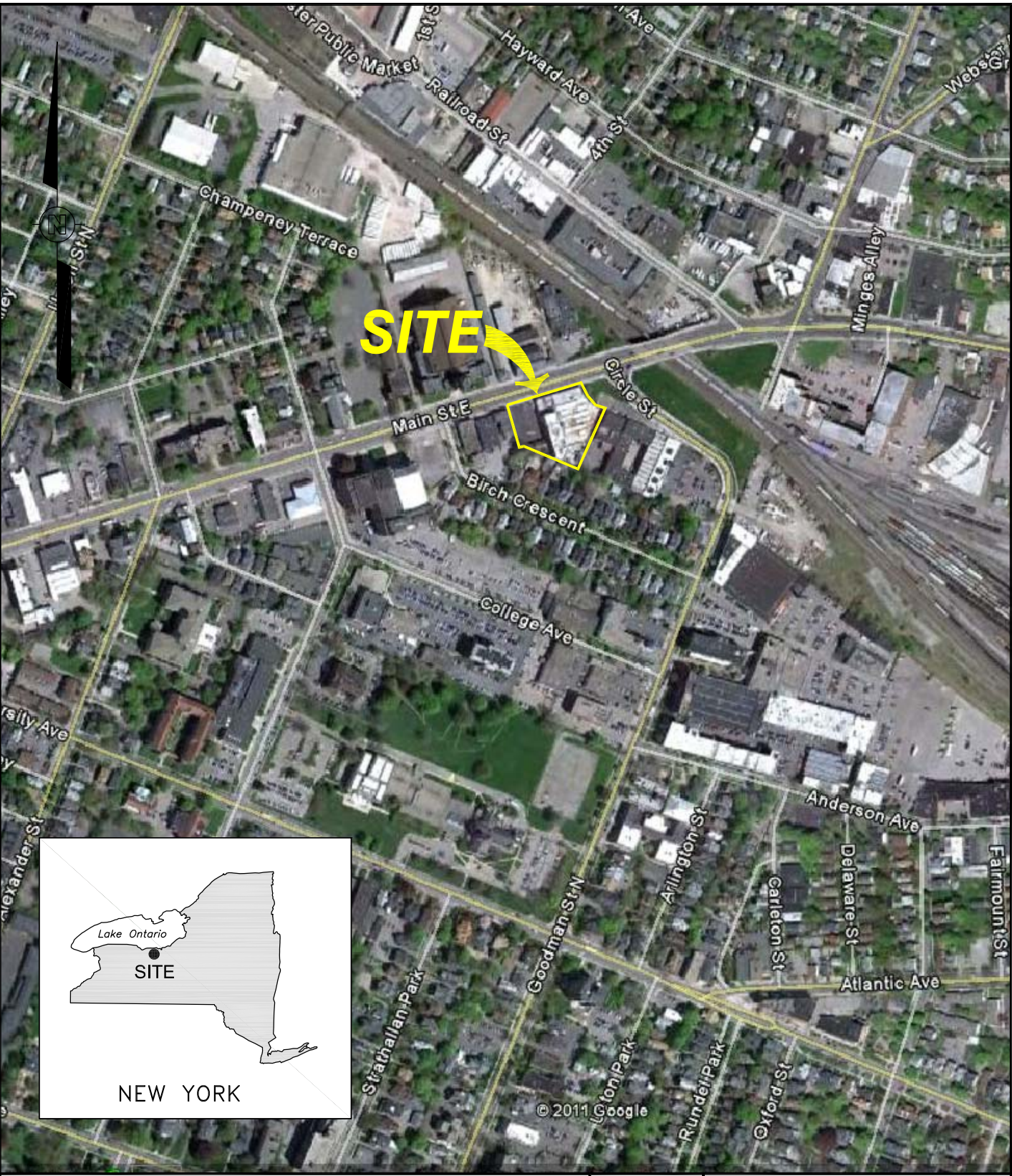
Administrative Record

Administrative Record

**Staubs Textile Services, Inc.
Operable Unit No. 02
Groundwater and Off-Site Soil Vapor Intrusion
State Superfund Project
Rochester, Monroe County, New York
Site No. 828160**

1. Proposed Remedial Action Plan for the Staubs Textile Services, Inc. site, Operable Unit No. 02, dated February 2018, prepared by the Department.
2. Remedial Investigation Report, dated March 2018, prepared by Ecology and Environment Engineering, P.C.
3. Final Feasibility Study Report, dated March 2018, prepared by Ecology and Environmental Engineering, P.C.

OFFICE	DATE	DESIGNED BY	DRAWN BY	CHECKED BY	APPROVED BY	DRAWING NUMBER
Pittsburgh, PA	02/19/13	N. Robertson	A. Smith	H. Fariello	C. Byers	134685-24A1



File: U:\Project\134685\24\134685-24A1.dwg
 Plot Date/Time: Apr 02, 2013 - 10:55am
 Plotted By: steven.walsh

REFERENCE:
 MAP FROM www.google.com

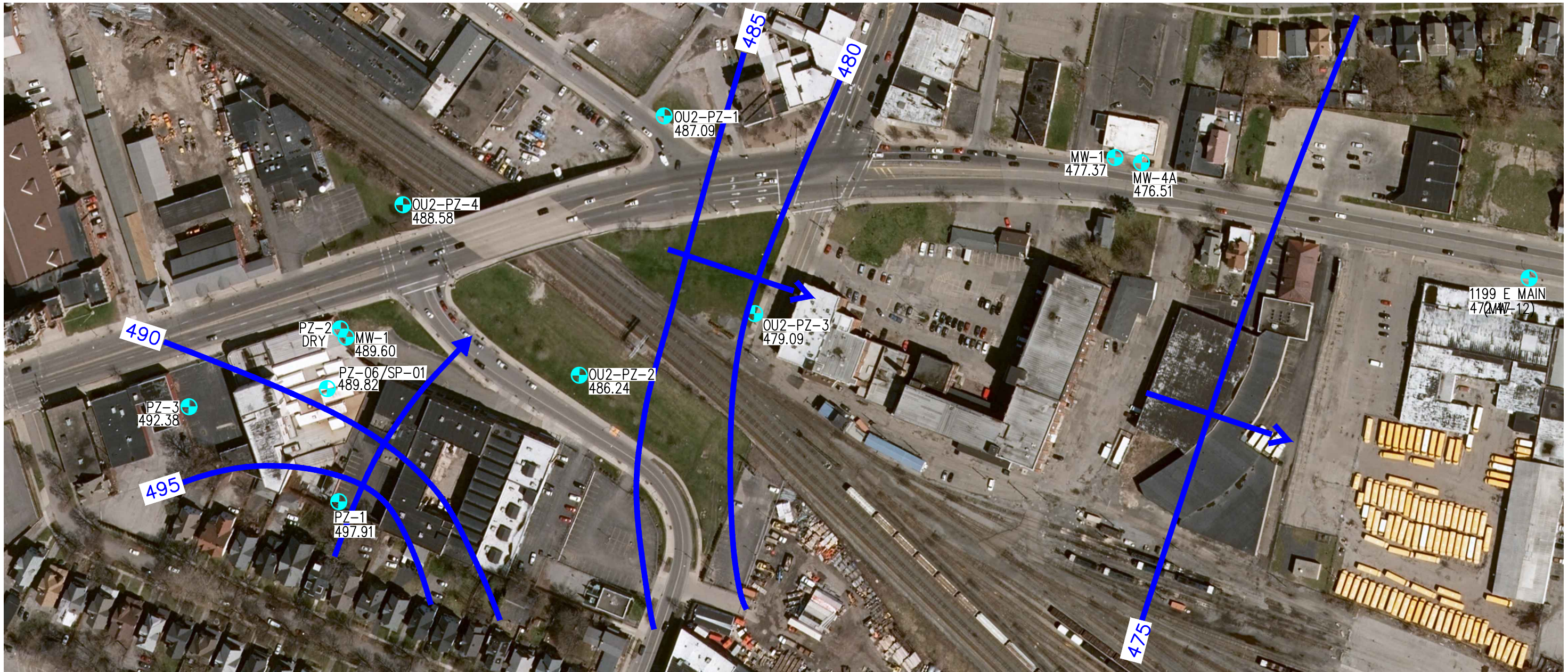
"DRAWING NOT TO SCALE"



Shaw Environmental, Inc.
 (A CB&I Company)
 13 British American Boulevard
 Latham, New York 12110-1405

NEW YORK STATE DEPARTMENT OF
 ENVIORNENTAL CONSERVATION

FIGURE 1
SITE LOCATION MAP
 STAUBS TEXTILE SERVICE
 935-951 EAST MAIN STREET
 ROCHESTER, MONROE COUNTY, NEW YORK



LEGEND

- MW-2 MONITORING WELL/PIEZOMETER LOCATION
- 495 GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
- GROUNDWATER FLOW DIRECTION
- 492.38 GROUNDWATER ELEVATION

STAUB'S SITE PLAN

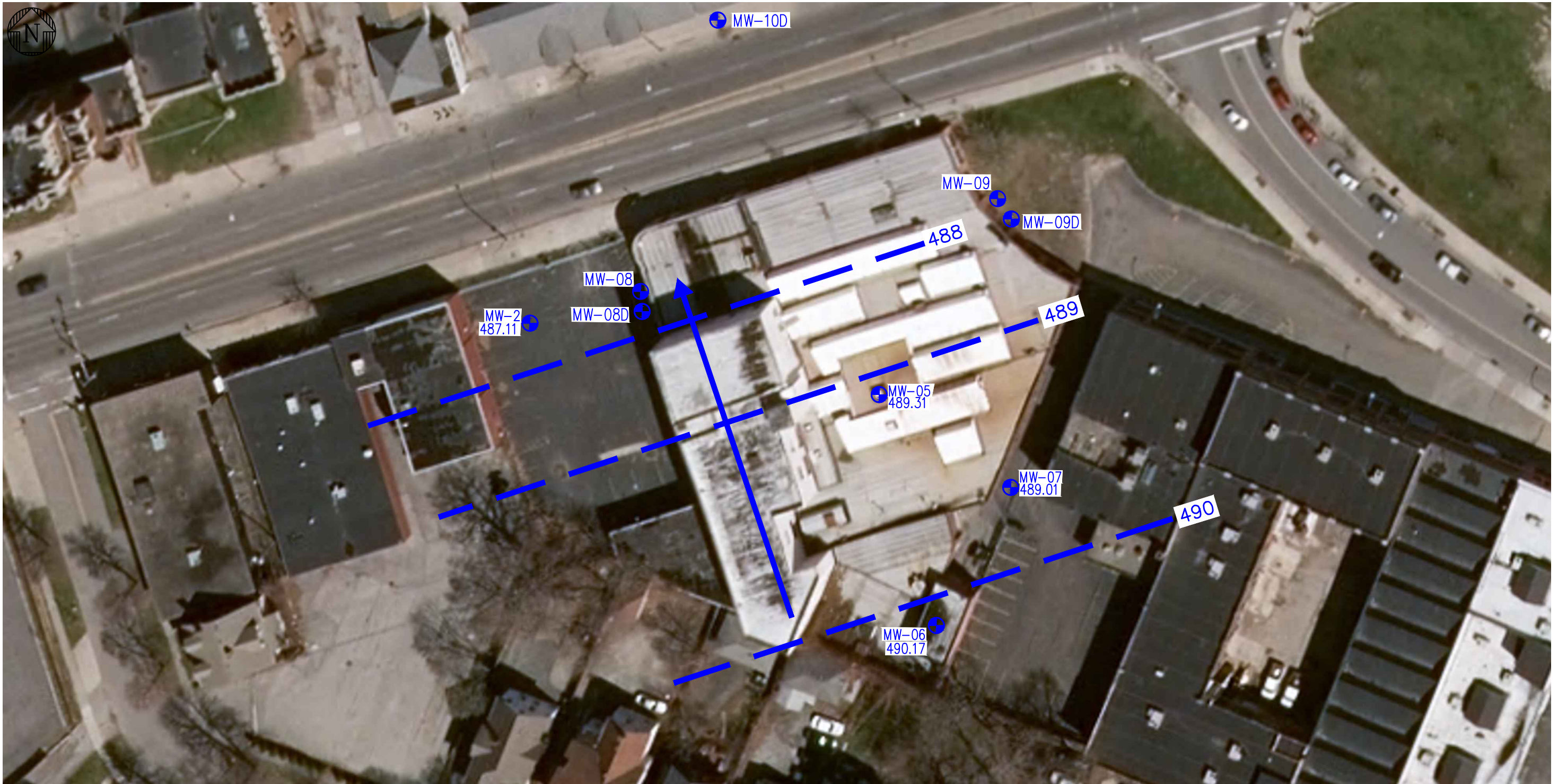
SCALE: 1" = 150'-0"

NOTES





1. AERIAL PHOTOGRAPHY FROM NEW YORK STATE GIS CLEARINGHOUSE - 2015.
2. GROUNDWATER ELEVATION MEASUREMENTS WERE COLLECTED ON JUNE 22, 2016.

SCALE IN FEET





LEGEND

- MW-2  MONITORING WELL LOCATION
- 488  GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
-  GROUNDWATER FLOW DIRECTION
- 487.11  GROUNDWATER ELEVATION

STAUB'S SITE PLAN

SCALE: 1" = 50'-0"

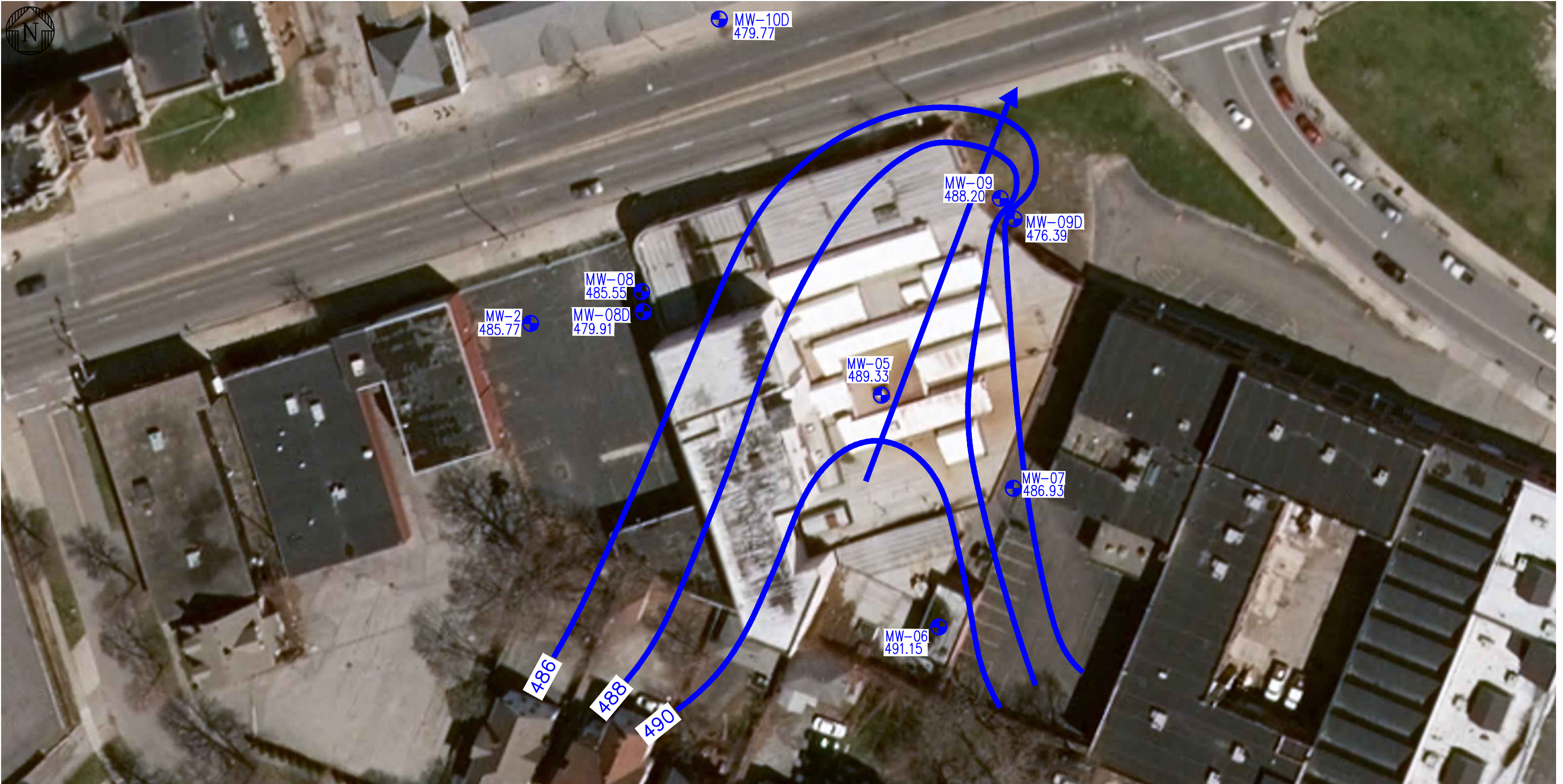
NOTES

1. AERIAL PHOTOGRAPHY FROM NEW YORK STATE GIS CLEARINGHOUSE - 2015.
2. GROUNDWATER ELEVATION MEASUREMENTS WERE COLLECTED ON JUNE 22, 2016.
3. MW-8/8D, MW-9/9D, AND MW-10D WERE NOT INSTALLED AT THE TIME THIS DATA WAS CONTOURED.





SCALE IN FEET



FIGURE 3 BEDROCK GROUNDWATER CONTOUR MAP (JUNE 2016)
STAUBS TEXTILE SERVICES, INC. SITE
ROCHESTER, NEW YORK



LEGEND

- MW-2  MONITORING WELL LOCATION
- 488  GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)
-  GROUNDWATER FLOW DIRECTION
- 491.15  GROUNDWATER ELEVATION

STAUB'S SITE PLAN

SCALE: 1" = 50'-0"

NOTES

1. AERIAL PHOTOGRAPHY FROM NEW YORK STATE GIS CLEARINGHOUSE - 2015.
2. GROUNDWATER ELEVATION MEASUREMENTS WERE COLLECTED ON JANUARY 11, 2018.

SCALE IN FEET



FIGURE 4

BEDROCK GROUNDWATER CONTOUR MAP (JANUARY 2018)
STAUBS TEXTILE SERVICES, INC. SITE
ROCHESTER, NEW YORK



LEGEND

	PZ-01 2.90	EXISTING MONITORING WELL/PIEZOMETER WELL LOCATION AND CONCENTRATION IN MICROGRAMS PER LITER (µg/L)
	ND	NON-DETECT
	1	(µg/L)
	5	(µg/L)
	10	(µg/L)
	50	(µg/L)
	100	(µg/L)
	1000	(µg/L)
	10,000	(µg/L)

NOTES

1. AERIAL PHOTOGRAPHY FROM NEW YORK STATE GIS CLEARINGHOUSE – 2015.

SCALE: 1" = 150'

SCALE IN FEET





LEGEND

	PZ-01 2.90	EXISTING MONITORING WELL/PIEZOMETER WELL LOCATION AND CONCENTRATION IN MICROGRAMS PER LITER ($\mu\text{g/L}$)
ND	NON-DETECT	
	1	($\mu\text{g/L}$)
	5	($\mu\text{g/L}$)
	10	($\mu\text{g/L}$)
	50	($\mu\text{g/L}$)
	100	($\mu\text{g/L}$)
	1000	($\mu\text{g/L}$)
	10,000	($\mu\text{g/L}$)

NOTES

1. AERIAL PHOTOGRAPHY FROM NEW YORK STATE GIS CLEARINGHOUSE – 2015.

SCALE: 1" = 150'

SCALE IN FEET





LEGEND

	PZ-01 2.90	EXISTING MONITORING WELL/PIEZOMETER WELL LOCATION AND CONCENTRATION IN MICROGRAMS PER LITER ($\mu\text{g/L}$)
ND	NON-DETECT	
	1	($\mu\text{g/L}$)
	5	($\mu\text{g/L}$)
	10	($\mu\text{g/L}$)
	50	($\mu\text{g/L}$)
	100	($\mu\text{g/L}$)
	1000	($\mu\text{g/L}$)
	10,000	($\mu\text{g/L}$)

NOTES

1. AERIAL PHOTOGRAPHY FROM NEW YORK STATE GIS CLEARINGHOUSE – 2015.

SCALE: 1" = 150'

SCALE IN FEET

