NEW YORK STATE OF OPPORTUNITY | Department of Environmental Conservation

EXPLANATION OF SIGNIFICANT DIFFERENCE

FORMER AUTOLINE AUTOMOTIVE CORP. (SITE NO. 130043I)
89 FROST STREET (SITE NO. 130043L)
FORMER APPLIED FLUIDICS (SITE NO. 130043M)
OPERABLE UNIT 2 – COMBINED GROUNDWATER CONTAMINATION

New Cassel Industrial Area / Town of North Hempstead / Nassau County / May 2017

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

1.0 INTRODUCTION

The purpose of this notice is to describe the progress of the cleanup at the Former Autoline Automotive Corp., 89 Frost Street, and Former Applied Fluidics Sites (collectively known as "The Frost Street Sites") and to inform you about a change in the selected remedy. The attached map shows the location of the sites. In March 2000, the New York State Department of Environmental Conservation ("Department") issued a Record of Decision (ROD) which selected a remedy to clean up the combined groundwater contamination at the Sites. Since the remedy was selected, the Department has received new information indicating that the selected technology for treating the deep groundwater contamination, in-well vapor stripping ("IWS"), would entail higher costs than originally anticipated and would take longer to remediate the groundwater than an alternative remedy. Therefore, the Department is changing the remedial technology for cleanup of the deep groundwater contamination from IWS to groundwater extraction and discharge into the sanitary sewer ("GWE"). This alternative approach will be as protective of public health and the environment, since the same extent of groundwater will be contained and treated.

This Explanation of Significant Difference (ESD) will become part of the Administrative Record for this Site. The information here is a summary of what can be found in greater detail in documents that have been placed in the following repositories:

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Contact: Jeffrey Dyber, Project Manager
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Hours: By Appointment

NYS Dept. of Environmental Conservation
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Hours: By Appointment

Westbury Memorial Public Library
445 Jefferson Street
Westbury, New York 11590
Contact: Carmina Raphael, Reference Librarian
Phone: (516) 333-0176
Hours: Monday 10:00 am to 9:00 pm
Tuesday through Friday 9:00 am to 9:00 pm
Saturday 1:00 pm to 5:00 pm

Although this is not a request for comments, interested persons are invited to contact the Department's Project Manager for this site to obtain more information or have questions answered.

2.0 SITE DESCRIPTION AND ORIGINAL REMEDY

2.1 Site History, Contamination, and Selected Remedy

The three Frost Street Sites are situated adjacent to each other and are located at the eastern end of the New Cassel Industrial Area, which is in the Town of North Hempstead. The attached maps show the locations of the three sites and the New Cassel Industrial Area.

The contamination at each site is being addressed as two operable units. An operable unit represents a portion of the site remedy which, for technical or administrative reasons, can be addressed separately to eliminate a release, threat of release or exposure pathway resulting from the site contamination. Operable Unit 1 (OU1) for each site is the soil contamination and Operable Unit 2 (OU2) is the combined groundwater contamination associated with all three sites. The soil contamination at each individual site and the combined groundwater contamination are described below.

Former Autoline Automotive Corp. Site – Soil Contamination (OU1)

The Former Autoline Automotive Corp. Site is located at 101 Frost Street and is 1.7 acres in size. The site consists of a 35,000-square foot warehouse building and paved parking. Several companies have occupied the site, including National Bassen Textiles, which had documented use of degreasers and other unknown chemicals.

The Department conducted a remedial investigation at the site to determine the nature and extent of contamination. The investigation revealed that the deep soil beneath the on-site drywells was contaminated with volatile organic compounds (VOCs), including tetrachloroethylene (PCE) and trichloroethylene (TCE). Shallower soils were contaminated with a volatile organic compound (xylene), semi-volatile organic compounds (SVOCs), and metals.

The Department conducted a feasibility study to evaluate alternatives for cleaning up the soil contamination at the site. Based on the results of the feasibility study, after considering public comments, the remedy was finalized and the Department issued a ROD in March 2000. The ROD remedy included excavation of contaminated surface soil, removal of contaminated soil from storm water drywells, and installation and operation of a soil vapor extraction (SVE) system to clean up the deep soil contamination.

89 Frost Street Site – Soil Contamination (OU1)

The 89 Frost Street Site is located at 89 Frost Street and is 2 acres in size. The site is covered by a paved parking lot, which is used by the neighboring department store. An industrial building, built in 1968, was previously located on the site. Occupants of the building included an adhesive tape manufacturer, a manufacturer of music amplifiers, a processing and finishing company and an electronics company. Previous operations on this property led to the disposal of VOCs, which contaminated the soil and groundwater.

The Department conducted a remedial investigation at the site to determine the nature and extent of contamination. PCE and TCE were found in the deep soil at levels exceeding soil cleanup objectives. SVOCs and metals were detected in the shallower soils at levels exceeding soil cleanup objectives.

The Department conducted a feasibility study to evaluate alternatives for cleaning up the soil contamination at the site and, after considering public comments, the remedy was finalized in the ROD issued in March 2000. The remedy included installation and operation of an SVE system to clean up the deep soil contamination.

Former Applied Fluidics Site – Soil Contamination (OU1)

The Former Applied Fluidics Site is located at 770 Main Street and is 0.63 acres in size. The site is currently used as a department store. Applied Fluidics, a defense contractor that manufactured research instruments and leak detectors, occupied the site from 1974 to 1982. The company used TCE, paint thinners and petroleum distillates. Since the building was not connected to the municipal sewers until 1983, subsurface disposal was the method of waste disposal.

Before the Department began the remedial investigation, the property owner conducted excavation on the property without authorization or oversight from the Department. The property owner excavated soil and drainage structures, and removed them from the site. PCE and TCE were detected in samples from soil stockpiles, indicating previous disposal of these compounds.

The Department selected no action as the remedy for soil contamination at the site in a March 2000 ROD, as no contaminated soil exceeding soil cleanup objectives was found after the excavation.

Frost Street Sites – Combined Groundwater Contamination (OU2)

The Department conducted a remedial investigation to determine the nature and extent of groundwater contamination beneath the three sites. Groundwater at the sites is found 50-60 feet below the ground surface and flows in a south-southwest direction toward Old Country Road.

The remedial investigation revealed that PCE, TCE and their breakdown products were found in the on-site groundwater at levels exceeding New York State groundwater standards beneath all three sites, associated with the identified disposal areas. The contaminant plume extended from the sites to the furthest downgradient sampling locations at Old Country Road. Contamination was also found at the deepest sampling depths, approximately 150 feet below ground surface.

The Department conducted a feasibility study to evaluate alternatives for cleaning up the combined groundwater contamination at the three sites and, after considering public comments,

a remedy for the combined groundwater was finalized in a ROD issued in March 2000. The ROD remedy included an air sparge and soil vapor extraction (AS/SVE) system to clean up the shallow groundwater contamination near the sources, and in-well vapor stripping to clean up the deep groundwater contamination. The in-well vapor stripping system was to be located downgradient of the three sites, near Old Country Road.

The selected remedy allowed for implementation of an alternate groundwater remedy, such as extraction/air stripping/reinjection, to remediate the deep groundwater. The alternate remedy could be implemented if the results of the in-well stripping pilot test is deemed insufficient or the remedy is not cost effective.

3.0 CURRENT STATUS

In 2003, the remedial party, who is the owner of the three sites, signed Orders on Consent to implement the remedies for the soil contamination (OU1) and combined groundwater contamination (OU2) RODs. The remedial party has implemented all of the elements of the soil contamination remedies. The contaminated surface soil and the contaminated soil from the storm water drywells at the Former Autoline Automotive Corp. site have been removed. The SVE systems for the Former Autoline Automotive Corp. and 89 Frost Street sites have been installed and are operating. Regarding the OU2 combined groundwater contamination remedy, the AS/SVE system has been installed and is currently running. The property owner has produced a design for the in-well vapor stripping system, but has not implemented the design to date. This ESD identifies changes only to the OU2 combined groundwater contamination remedy. The remedies in the three OU1 RODs which address soil contamination are not the subject of this ESD.

4.0 DESCRIPTION OF SIGNIFICANT DIFFERENCE

4.1 New Information

Since the RODs were signed in 2000, the Department has received new information that indicates that an element of the selected groundwater remedy should be changed. The new information is summarized in a *Significant New Information and Response Alternatives Analysis* (SNIRAA), prepared by Ensafe, an environmental consultant to the remedial party. The SNIRAA is available for review at the document repositories. Because of this new information, the in-well vapor stripping (IWS) element of the groundwater cleanup remedy will be replaced with a conventional groundwater extraction system with discharge to the sanitary sewer for the permitted treatment at the wastewater treatment plant. This approach will be identified as GWE. The new information includes the following:

- detailed cost estimates indicate that in-well vapor stripping will cost significantly more than originally estimated; and
- the active nature of GWE decreases remediation time compared to the more passive IWS.

After the ROD was issued, the remedial party's consultant conducted groundwater sampling at multiple locations at and near the sites, from the water table to a depth of 250 feet below ground surface (bgs). The Remedial Investigation conducted prior to ROD issuance investigated the groundwater contamination to a depth of 150 feet bgs. Results of the post-ROD sampling

indicate that the groundwater beneath and downgradient (south) of the site is contaminated to a maximum sampling depth (250 feet bgs) and requires remediation.

As a result of the new groundwater sampling information, two in-well vapor stripping (IWS) systems were planned for the site. The remedial party designed a shallow IWS system to treat groundwater contamination from the water table to 150 feet bgs. Concurrently, the Department was in the process of designing a deep IWS system to treat the groundwater contamination from 150 feet bgs to 250 feet bgs.

The more recent engineering design work indicates in-well vapor stripping would cost significantly more than originally estimated. The ROD estimated capital and total present worth costs of the entire groundwater cleanup remedy to be $1,666,000 and $2,717,000, respectively. Total present worth costs include capital costs and the present value of operation, maintenance and monitoring of the remedy. However, based on the recent design work, updated costs for in-well vapor stripping include capital and present worth costs of $5.2 million and $25 million, respectively.

4.2 Comparison of Changes with Original Remedy

This ESD changes the cleanup technology for deep groundwater contamination from in-well vapor stripping (IWS) to groundwater extraction and discharge to the sanitary sewer (GWE). The GWE will extract the groundwater from the water table to 250 feet bgs and discharge the groundwater into the sanitary sewer. From the discharge point, the contaminated groundwater will mix with other sanitary sewage and be treated through volatilization and biological degradation by the aeration basins and/or digesters in the wastewater treatment plant.

The SNIRAA calculates that four wells pumping at a total of 156 gallons-per-minute (gpm) will be needed to capture the contaminant plume. Nassau County, the owner of the sanitary sewer, has issued the remedial party a permit to discharge contaminated groundwater at a maximum total VOC concentration of one part-per-million (ppm) and a maximum flow rate of 200 gallons per minute (gpm). If VOC concentrations exceed 1 ppm, pretreatment of the groundwater will be required before discharge. Nassau County is required to ensure that all discharges to their wastewater treatment plants meet the VOC discharge limits in their permits.

GWE is superior to IWS in cost, implementability, and remediation time. Capital costs for GWE will be $990,000, which is less than the capital cost for IWS of $5.2 million. At $5.08 million, GWE has a lower total present worth cost than the $25 million total present worth cost for IWS. GWE is easier to implement because it is simpler to build and operate. IWS requires below-grade and above-grade treatment equipment, which is not needed for GWE. Because GWE increases groundwater flow velocity, GWE is expected to remediate the groundwater contamination in 15 years, compared to 22 years or more for IWS.

With the change in technology from IWS to GWE, the remedy will achieve the same protection of public health and the environment since the same groundwater will be contained and treated under both approaches. GWE will remove the contaminated groundwater from the ground, which eliminates the public health and environmental threat. Nassau County will ensure the water meets discharge limitations after treatment in the wastewater treatment plan, which will be protective of the environment.

5.0 SCHEDULE AND MORE INFORMATION

The remedial party will begin implementing the amended remedy upon issuance of this ESD. Following eight weeks of pre-construction activities, physical construction of the groundwater extraction system is expected to take approximately 16 weeks. The system is expected to complete groundwater cleanup in approximately 15 years.

If you have questions or need additional information you may contact any of the following:

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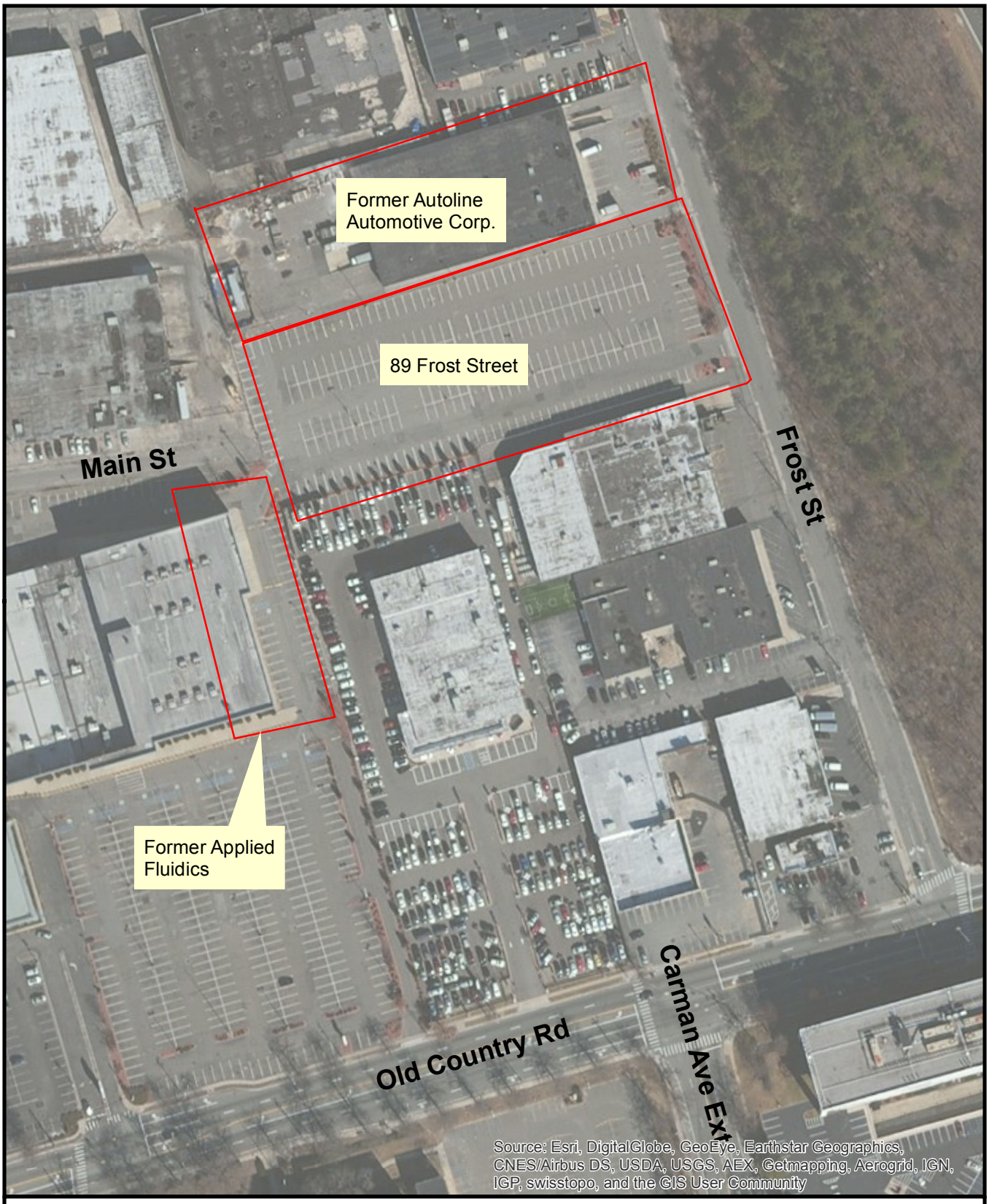
We encourage you to share this fact sheet with neighbors and tenants, and/or post this fact sheet in a prominent area of your building for others to see.

Receive Site Fact Sheets by Email
Have site information such as this fact sheet sent right to your email inbox. NYSDEC invites you to sign up with one or more contaminated sites county email listservs available at the following web page: http://www.dec.ny.gov/chemical/61092.html

It's quick, it's free, and it will help keep you better informed.

As a listserv member, you will periodically receive site-related information/ announcements for all contaminated sites in the county(ies) you select.

Note: Please disregard if you already have signed up and received this fact sheet electronically.



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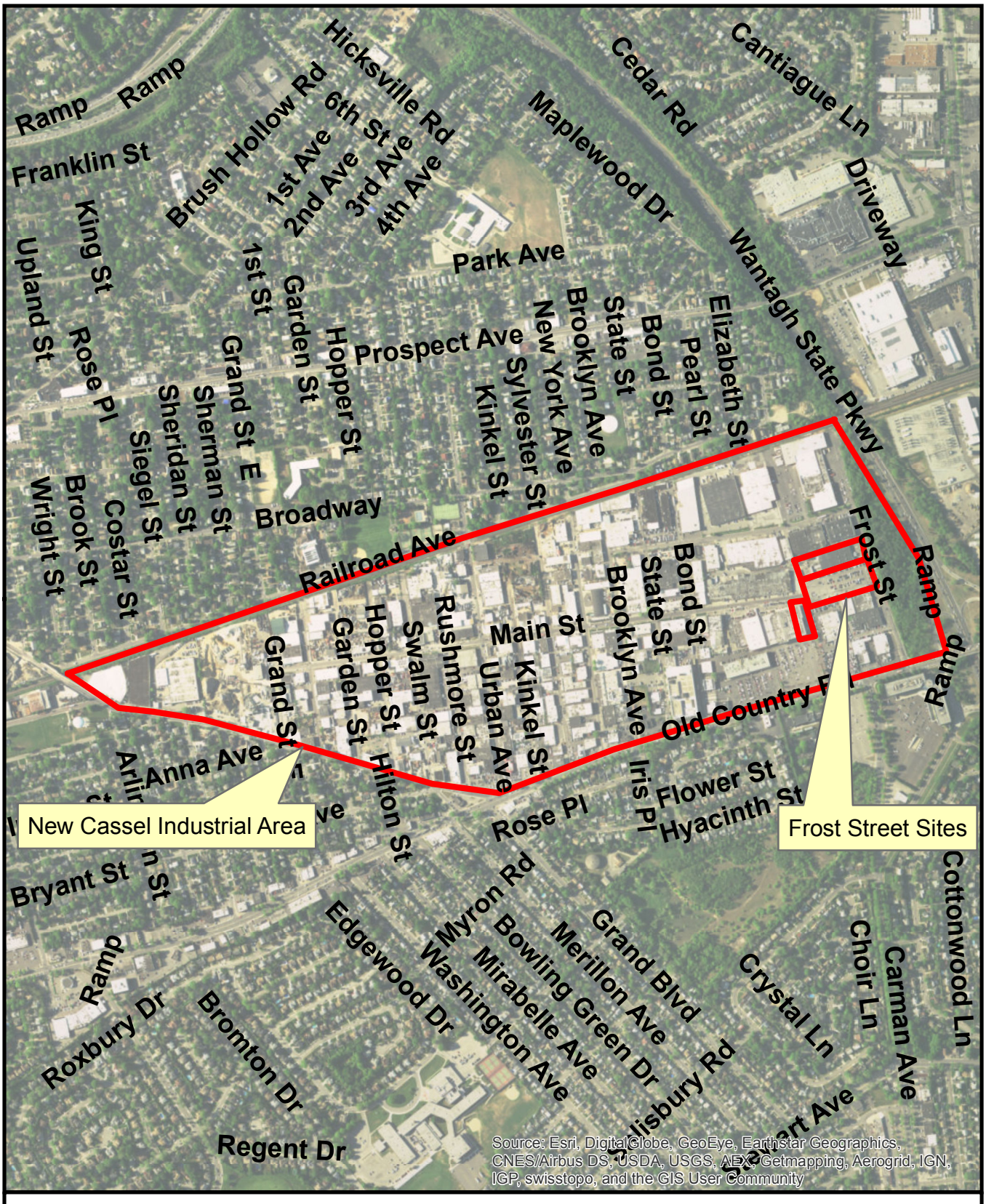
Site Map

Frost Street Sites
Town of North Hempstead, Nassau County
Site Nos. 130043I, 130043L & 130043M



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New Cassel Industrial Area and
Frost Street Sites
Town of North Hempstead, Nassau County