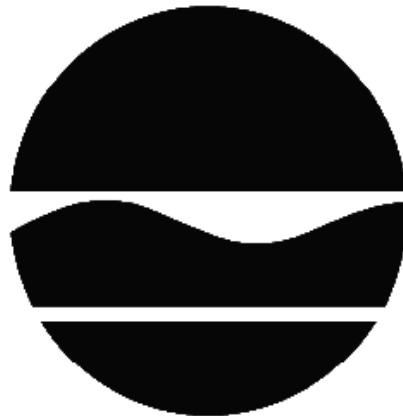


DECISION DOCUMENT

Former Avis Headquarters Property
Brownfield Cleanup Program
Garden City, Nassau County
Site No. C130206
November 2011



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

DECLARATION STATEMENT - DECISION DOCUMENT

Former Avis Headquarters Property
Brownfield Cleanup Program
Garden City, Nassau County
Site No. C130206
November 2011

Statement of Purpose and Basis

This document presents the remedy for the Former Avis Headquarters Property 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 Avis Headquarters Property 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. 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 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 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 and social goals; and
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.

2. All on-site soils located above bedrock which exceed unrestricted soil cleanup objectives will be excavated and transported off-site for disposal unless otherwise provided under Paragraph 5

below. Approximately 33,000 cubic yards of soil is estimated to be removed. Clean fill meeting the requirements of 6NYCRR375-6.7(d) for unrestricted use will then be brought in to replace the excavated soil and establish the designed grades at the site.

3. Groundwater contamination will be treated using in-situ chemical treatment. A peroxide-based compound and a metal-reductive compound will treat the organic and metals contaminants, respectively. Groundwater monitoring will be conducted to determine the effectiveness of the injections.

4. The potential for soil vapor intrusion will be evaluated for any buildings developed on the site and, if necessary, actions recommended to address exposures related to soil vapor intrusion would be implemented. If one or more active mitigation systems are installed in one or more on-site buildings for a period of greater than 5 years, the cleanup track will be Track 4.

5. If removal of all contaminated soil exceeding unrestricted use cleanup objectives proves to be infeasible, contaminated soil exceeding commercial use cleanup objectives will be excavated to meet the requirements of a Track 4 cleanup. Areas of residual contamination will be covered to prevent future exposure. The cover will consist of the new commercial buildings and asphalt parking lot associated with the shopping center. Any exposed surface soil exceeding the commercial use SCOs will have a minimum one foot soil cover, meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for commercial use. The soil cover will be placed over a demarcation layer, with the upper six inches of the soil of sufficient quality to maintain a vegetation layer.

6. If unrestricted soil cleanup levels and groundwater standards are not achieved an institutional control in the form of an environmental easement will be placed on the property that:

- a. requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
- b. allows the use and development of the controlled property for commercial and industrial uses as defined by Part 375-1.8(g), though land use is subject to local zoning laws;
- c. restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the Department, New York State Department of Health (NYSDOH) or County DOH;
- d. prohibits agriculture or vegetable gardens on the controlled property; and
- e. requires compliance with the Department approved Site Management Plan.

7. If unrestricted use levels are not achieved, a Site Management Plan will be required for the contingent cleanup, 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 6 above.
Engineering Controls: The cap discussed in Paragraph 5 and, as applicable, the mitigation

systems discussed in Paragraph 4 above.

This plan includes, but may not be limited to:

- i. an Excavation Plan which details the provisions for management of future excavations in areas of remaining contamination;
- ii. descriptions of the provisions of the environmental easement including any land use, and groundwater use restrictions;
- iii. provisions for the management and inspection of the identified engineering controls;
- iv. maintaining site access controls and Department notification; and
- v. the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

b. a Monitoring Plan will be included to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to, monitoring for vapor intrusion for any buildings occupied or developed on the site, as may be required pursuant to item 4 above.

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.

November 3, 2011



Date

James Harrington, Director
Remedial Bureau A

DECISION DOCUMENT

Former Avis Headquarters Property
Garden City, Nassau County
Site No. C130206
November 2011

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:

Westbury Memorial Public Library
445 Jefferson Street
Westbury, NY 11590
Phone: (516) 333-0176

Receive Site Citizen Participation Information By Email

Please note that the Department's Division of Environmental Remediation (DER) is "going paperless" relative to citizen participation information. The ultimate goal is to distribute citizen participation information about contaminated sites electronically by way of county email

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

SECTION 3: SITE DESCRIPTION AND HISTORY

Location: The Former Avis Headquarters Property site is located at 900 Old Country Road in the Town of Hempstead. The property is situated on the south side of Old Country Road in a suburban area.

Site Features: The site contains one retail commercial building with an adjacent paved parking lot. The remainder of the property is being redeveloped.

Current Zoning/Uses: An existing on-site building is used as a furniture showroom and the remainder of the property is being redeveloped as a commercial shopping center. However, the site is zoned for industrial use. Commercial and industrial properties border the site and residential properties are located less than 200 feet north of the northern site border.

Historic Use: The site was part of the Roosevelt Airfield from 1918 to 1941. From the late 1940's to 1960, a defense contractor manufactured and tested sonar and defense systems guidance instrumentation on the site. American Machine and Foundry operated at the site from 1970 to 1980. From 1980 until 2001, Avis Rent-A-Car used the property as its world headquarters. When the Volunteer entered the Brownfield program in 2010, the site contained five buildings and paved parking lots. Four of the buildings and most of the pavement were demolished during summer 2011 as part of the redevelopment of the site.

Previous investigations performed at the Site over the past decade have documented the existence of several Areas of Concern (AOCs). In 1993 and 1994, a floor drain system in an on-site building was investigated, cleaned and permanently closed. In 2005 and 2006, three underground storage tanks (USTs) at the site were investigated and removed. A 2009 investigation sampled monitoring wells, soil borings, dry wells, leach pools, and soil vapor at the site. Contamination was found in several drainage structures.

Site Geology and Hydrogeology: Sand and gravel underlie the site, with occasional silt lenses. Groundwater flows southwest at the site and was found at a depth of 20 feet below ground surface.

A site location map is attached as Figure 1.

SECTION 4: LAND USE AND PHYSICAL SETTING

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

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

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

SECTION 5: ENFORCEMENT STATUS

The Applicant(s) under the Brownfield Cleanup Agreement is a/are Volunteer(s). The Applicant(s) does/do not have an obligation to address off-site contamination. However, the Department has determined that this site does not pose a significant threat to public health or the environment; accordingly, no enforcement actions are necessary.

SECTION 6: SITE CONTAMINATION

6.1: Summary of the Remedial Investigation

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

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

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

6.1.1: Standards, Criteria, and Guidance (SCGs)

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

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

6.1.2: RI Information

The analytical data collected on this site includes data for:

- groundwater
- soil
- soil vapor

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

lead	dibenz[a,h]anthracene
1,1,1-trichloroethane	indeno(1,2,3-cd)pyrene
chromium	pyrene
copper	tde
mercury	dde
zinc	ddt
benz(a)anthracene	tetrachloroethylene (pce)
benzo(a)pyrene	trichloroethene (tce)
benzo(b)fluoranthene	dieldrin
benzo[k]fluoranthene	chlordane
chrysene	

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.

Soil Excavation IRM

The initial results of the RI revealed the presence of contaminated soil beneath on-site buildings, in on-site drywells and leaching pools, and beneath other areas of the site. An IRM was

conducted during the summer of 2011 which included excavation and off-site disposal of contaminated soil from these areas of concern.

6.3: Summary of Human Exposure Pathways

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

People are not coming into contact with the contaminated groundwater because the area is served by a public water supply that is not affected by this contamination. Volatile organic compounds in the groundwater 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. Soil vapor and groundwater samples collected near the only building currently on site indicate that 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.

6.4: Summary of Environmental Assessment

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

Nature and Extent of Contamination:

The Remedial Investigation of the Site identified polychlorinated biphenyls (PCBs), metals, pesticides, and semi-volatile organic compounds (SVOCs), consisting mostly of polycyclic aromatic hydrocarbons (PAHs), in on-site soils. Volatile organic compounds (VOCs), principally chlorinated solvents, have been detected in groundwater and soil vapor samples at the site.

Surficial soil samples obtained beneath on-site pavement and buildings generally contained SVOCs, metals, PCBs and/or pesticides at levels exceeding unrestricted use soil cleanup objectives. SVOCs were the most common type of contaminant found in the surficial soils and included PAHs such as: benzo(a)anthracene [maximum 15 parts-per-million (ppm)], benzo(a)pyrene (maximum 16 ppm) and indeno[1,2,3-cd]pyrene (maximum 19 ppm). These and other SVOCs exceeded commercial use soil cleanup objectives at several locations.

Subsurface soil samples were obtained throughout the site, including storm water drywells and leaching pools. Pesticides, metals, PCBs and SVOCs have been detected throughout the site up to the maximum sampling depth of 20 feet. Similar to surface soils, PAHs were detected

throughout the site at levels exceeding commercial use soil cleanup objectives. For example, benzo(a)anthracene, benzo(a)pyrene and indeno[1,2,3-cd]pyrene, were detected at maximum levels of 109 ppm, 136 ppm, and 102 ppm, respectively. Metals were also detected at levels exceeding both unrestricted and commercial use soil cleanup objectives. For example, chromium was detected at a maximum concentration of 16,232 ppm, exceeding the commercial use cleanup objective of 1,500 ppm. Pesticides were detected at levels exceeding unrestricted use cleanup objectives but below commercial use cleanup objectives. Total PCBs were found at a maximum level of 7 ppm, exceeding the commercial use cleanup objectives of 1 ppm.

Eight of 21 on-site monitoring wells contained VOCs, chromium, and/or pesticides at levels exceeding New York State groundwater standards. Tetrachloroethylene (PCE) and trichloroethylene (TCE) were detected in the groundwater at maximum concentrations of 32 parts per billion (ppb) and 25 ppb, respectively. The groundwater standard for both of these VOCs is 5 ppb. In addition, pesticides were detected in four wells at levels exceeding New York State groundwater standards. Dieldrin and gamma-chlordane were detected at maximum levels of 0.032 ppb and 0.017 ppb, respectively. The New York State groundwater standards for dieldrin and gamma-chlordane are 0.004 ppb and 0 ppb, respectively. Chromium was detected in one well at 73.6 ppb, exceeding the groundwater standard of 50 ppb.

Site-related VOCs were detected in soil vapor samples collected throughout the site. PCE and TCE were detected in the soil vapor at maximum concentrations of 420 µg/m³ and 93 µg/m³, respectively. The contaminant levels detected in the on-site soil vapor and groundwater indicate that soil vapor intrusion may be a concern in the buildings being constructed on the 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

- Remove the source of ground or surface water contamination.

Soil

RAOs for Public Health Protection

- Prevent ingestion/direct contact with contaminated soil.

RAOs for Environmental Protection

- Prevent migration of contaminants that would result in groundwater or surface water contamination.

Soil Vapor

RAOs for Public Health Protection

- Mitigate impacts to public health resulting from existing, or the potential for, soil vapor intrusion into buildings at a site.

SECTION 7: ELEMENTS OF THE SELECTED REMEDY

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

The selected remedy is a Track 1: Unrestricted use remedy.

The elements of the selected remedy, as shown in Figure 2, 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 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 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 and social goals; and
- Integrating the remedy with the end use where possible and encouraging green and sustainable re-development.

2. All on-site soils located above bedrock which exceed unrestricted soil cleanup objectives will be excavated and transported off-site for disposal unless otherwise provided under Paragraph 5 below. Approximately 33,000 cubic yards of soil is estimated to be removed. Clean fill meeting the requirements of 6NYCRR375-6.7(d) for unrestricted use will then be brought in to replace the excavated soil and establish the designed grades at the site.

3. Groundwater contamination will be treated using in-situ chemical treatment. A peroxide-based compound and a metal-reductive compound will treat the organic and metals contaminants, respectively. Groundwater monitoring will be conducted to determine the effectiveness of the injections.

4. The potential for soil vapor intrusion will be evaluated for any buildings developed on the site and, if necessary, actions recommended to address exposures related to soil vapor intrusion would be implemented. If one or more active mitigation systems are installed in one or more on-site buildings for a period of greater than 5 years, the cleanup track will be Track 4.

5. If removal of all contaminated soil exceeding unrestricted use cleanup objectives proves to be infeasible, contaminated soil exceeding commercial use cleanup objectives will be excavated to meet the requirements of a Track 4 cleanup. Areas of residual contamination will be covered to prevent future exposure. The cover will consist of the new commercial buildings and asphalt parking lot associated with the shopping center. Any exposed surface soil exceeding the commercial use SCOs will have a minimum one foot soil cover, meeting the SCOs for cover material as set forth in 6 NYCRR Part 375-6.7(d) for commercial use. The soil cover will be placed over a demarcation layer, with the upper six inches of the soil of sufficient quality to maintain a vegetation layer.

6. If unrestricted soil cleanup levels and groundwater standards are not achieved an institutional control in the form of an environmental easement will be placed on the property that:

- a. requires the remedial party or site owner to complete and submit to the Department a periodic certification of institutional and engineering controls in accordance with Part 375-1.8 (h)(3);
- b. allows the use and development of the controlled property for commercial and industrial uses as defined by Part 375-1.8(g), though land use is subject to local zoning laws;
- c. restricts the use of groundwater as a source of potable or process water, without necessary water quality treatment as determined by the Department, New York State Department of Health (NYSDOH) or County DOH;
- d. prohibits agriculture or vegetable gardens on the controlled property; and
- e. requires compliance with the Department approved Site Management Plan.

7. If unrestricted use levels are not achieved, a Site Management Plan will be required for the contingent cleanup, 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 6 above.

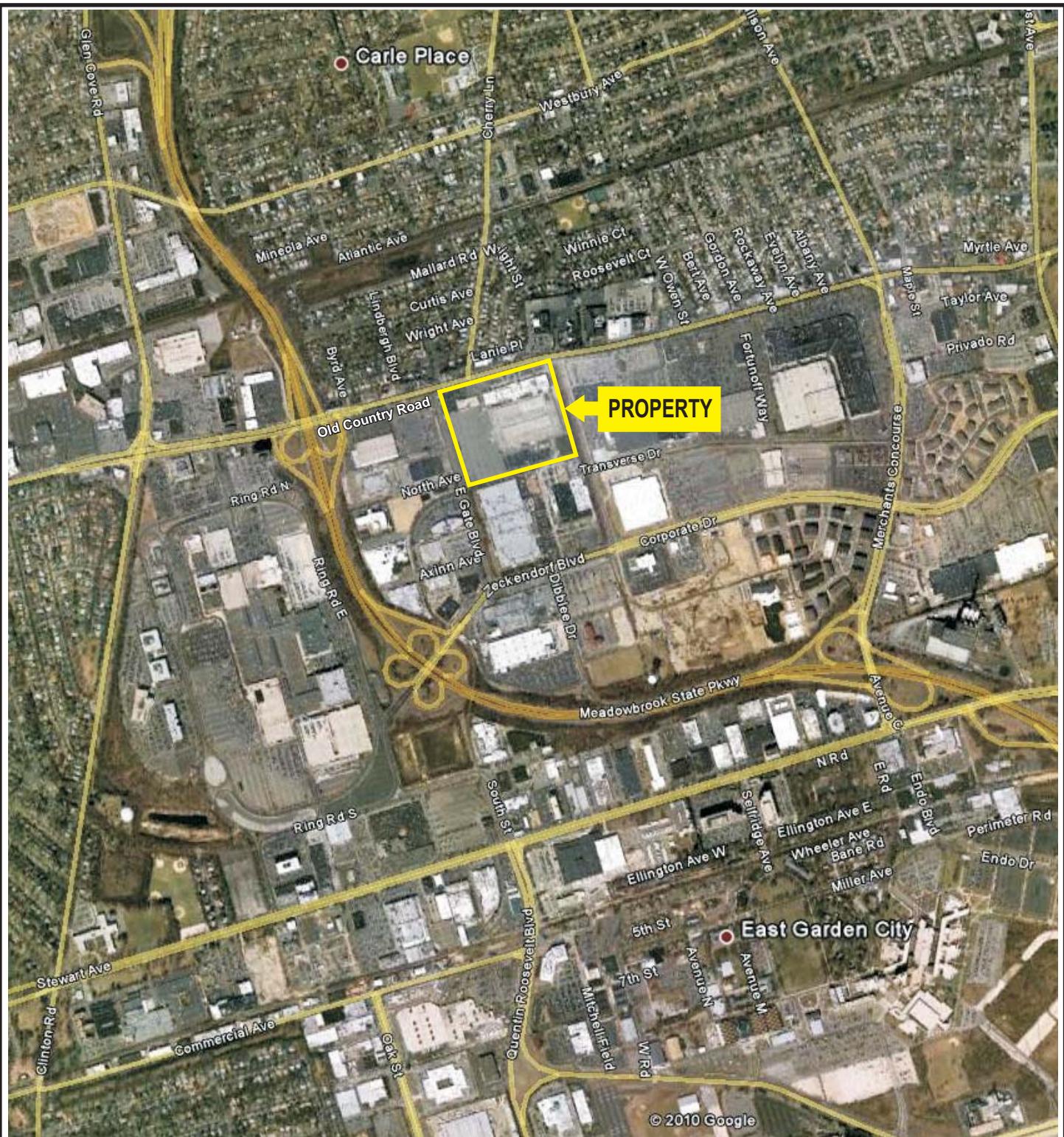
Engineering Controls: The cap discussed in Paragraph 5 and, as applicable, the mitigation systems discussed in Paragraph 4 above.

This plan includes, but may not be limited to:

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

- ii. descriptions of the provisions of the environmental easement including any land use, and groundwater use restrictions;
- iii. provisions for the management and inspection of the identified engineering controls;
- iv. maintaining site access controls and Department notification; and
- v. the steps necessary for the periodic reviews and certification of the institutional and/or engineering controls.

b. a Monitoring Plan will be included to assess the performance and effectiveness of the remedy. The plan includes, but may not be limited to, monitoring for vapor intrusion for any buildings occupied or developed on the site, as may be required pursuant to item 4 above.



Title:

SITE LOCATION MAP

FORMER AVIS HEADQUARTERS PROPERTY
900 OLD COUNTRY ROAD
GARDEN CITY, NY 11530

Prepared for:

EQUITY ONE, INC.

ROUX
ROUX ASSOCIATES, INC.
Environmental Consulting
& Management

Compiled by: B.H.	Date: 08APR11	FIGURE 1
Prepared by: B.H.C.	Scale: AS SHOWN	
Project Mgr.: C.W.	Project No.: 1924.0001Y000	
File: 1924.0001Y126.05.CDR		



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