September 9, 2016

INTERIM REMEDIAL MEASURE WORK PLAN

Parkchester Crossing
1590 White Plains Road
Bronx, New York 10462

BCP Site No. C203079

Prepared for

ZP REALTY, LLC
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New York, New York 10019

Remedial Engineering, P.C.
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CERTIFICATION

I, Noelle M. Clarke, certify that I am currently a NYS registered professional engineer and that this Interim Remedial Measure (IRM) Work Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10) and the BCP Agreement for the Site.

Noelle M. Clarke, P.E.	September 9, 2016	9/9/16
NYS Professional Engineer #072491	Date	Signature

1.0 INTRODUCTION

Roux Associates, Inc. (Roux Associates) and Remedial Engineering, P.C. (Remedial Engineering) have prepared this Interim Remedial Measure (IRM) Work Plan on behalf of ZP Realty, LLC (Volunteer) to detail the scope of work for the removal of existing underground storage tanks (USTs), product piping and a pump island with four dispensers at the former Wave Gasoline Station, and cleaning of other fuel oil USTs and aboveground storage tanks located at 1590 White Plains Road, Bronx, New York. The Site is comprised of Block 3952 Lots 1, 7, 8, 17, and 23 of the New York City Tax map, as shown on Figure 1. The IRM will be the first phase of the overall remediation and redevelopment of the Site.

The Volunteer entered into a Brownfield Cleanup Agreement (BCA) with the New York State Department of Environmental Conservation (NYSDEC) in May 2015, to investigate, to remediate and to redevelop the 1.6-acre Site. ZP Realty LLC is a Volunteer in the Brownfield Cleanup Program (BCA Index No C203079-03-15; BCP Site No. C203079). In the course of redevelopment, the existing structures at the Site will be demolished and the impacts to soils and groundwater will be delineated in order to select appropriate remedies to support redevelopment. At this time, the Volunteer anticipates that the redevelopment for the Site will include a multi-story building for mixed-use residential, retail, offices, community facilities and parking. Development plans are not finalized and will be contingent on entitlements.

This IRM Work Plan has been prepared in accordance with NYSDEC procedures set forth in the document titled DER-10 Technical Guidance for Site Investigation and Remediation, dated May 2010, and complies with all applicable Federal, State and local laws, regulations and requirements.

1.1 Objectives and Scope of the IRM Work Plan

The Wave Gasoline Station ceased operations at Lot 8 (1596 White Plains Road) on June 30, 2016. The Wave Gasoline Station operated at the site pursuant to an existing lease at the time the Volunteer purchased the Site in 2015. The proposed IRM includes the removal of the following structures, USTs, equipment and piping that were associated with the former Wave Gasoline Station:

- The former service station building and canopies.

- The former service station pump islands with four dispensers;
- Four 4,000-gallon gasoline USTs;
- One 4,000-gallon diesel UST;
- One 550-gallon wastewater UST; and
- Associated product piping between the tank field and the pump islands.

In addition, one 2,000-gallon fuel oil AST within the basement of Lot 7 (1623 Unionport Road), one 1,500-gallon fuel oil AST within the basement of Lot 17 (1603 Unionport Road), and one fuel oil UST of unknown size within the basement of Lot 23 (1578 White Plains Road) will be emptied and cleaned as part of the IRM. These additional tanks will be removed from the Site after demolition of the retail buildings is complete.

If and to the extent that grossly contaminated soil is encountered during the IRM activities, excavation will continue to remove the grossly contaminated soil where it is technically and practically feasible. If further soil removal is determined to be infeasible (e.g., sidewall instability, equipment limitations due to depth of excavation, if the contamination anticipated in vadose zone extends to the water table and dewatering is not practical), excavation efforts will be concluded and conditions remaining following completion of the IRM will be documented in the Construction Completion Report (CCR). Remaining contamination will be documented and addressed as part of the Remedial Action Work Plan (RAWP), which will describe the overall remedy for the Site.

Plans depicting the proposed IRM scope of work for the entire Site and Lot 8 are presented as Figures 2 and 3. The IRM is a component of, but does not constitute, the overall remedy for the Site. The objective of the IRM is to identify and to remove potential ongoing sources of petroleum contamination. This will advance the BCP goals, but will not complete the investigation or remediation of the Site. The proposed remedy for the Site will be a Track 4 cleanup. A detailed explanation of the applicable SCOs for the Site and the proposed Track 4 remedy will be provided in the RAWP.

The remainder of this IRM Work Plan is organized as follows:

Section 2: Site Background

Section 3: Scope of Work

Section 4: Soils/Materials Management Plan

Section 5: Reporting

Section 6: IRM Work Plan Implementation Schedule

2.0 SITE BACKGROUND

Relevant Site background information is presented in this section.

2.1 Site Description and Setting

Site Location	
Site Name:	Parkchester Crossing
Site Address:	1590 White Plains Road
Site Town, County, State:	Neighborhood of Parkchester, Bronx, Bronx County, New York
Site Tax Identification:	Block 3952, Lots 1, 7, 8, 17, and 23
Site Topographic Quadrangle:	Flushing, New York
Nearest Intersection:	White Plains Road and East Tremont Avenue
Area Description:	Retail and Commercial, with Residential to the north, south, east and west

A Site location map is included as Figure 1.

Site Information	
Site Acreage:	1.62 (total)
Site Shape:	Pentagonal
Site Use:	Vacant former retail, former gasoline and service station
Number and Size of Buildings (Year Built):	Lot 1 – One 7,000 square foot (sf) one-story building (1949) Lot 7 – One 13,300 sf two-story building (1949) Lot 8 – One 1,300 sf one-story building (1953) Lot 17 – One 25,600 sf two-story buildings (1942) Lot 23 – Two one-story buildings totaling 25,600 sf (1941)
Basement/ Slab-on-Grade:	Basements (except Lot 8)

2.1.1 Site Operations

As of July 1st, 2016, the Site is vacant.

2.1.2 Topography/Hydrogeology

Review of the United States Geological Survey (USGS) 7.5-minute series topographic quadrangle map of Flushing, New York reveals that the elevation of the Site is approximately 58 feet above mean sea level. The Site topography slopes in a southerly direction with a change in elevation from East Tremont Avenue to Guerlain Street of approximately 10 feet.

According to boring logs contained within the D&B Engineers and Architects, P.C. (D&B) Phase II Environmental Site Investigation (ESI) performed in August 2014, the Site was noted to be underlain by historic fill material consisting of fine to coarse sands, gravels, brick, concrete, asphalt, slag, and cinders. A silt and fine sand layer with decomposed weathered rock fragments was observed beneath the historic fill layer during the D&B Phase II ESI. Competent bedrock was not encountered during the D&B Phase II ESI. The Focused Phase II Environmental Site Assessment (ESA) completed by Roux Associates in May 2015 confirmed this lithology, with a historic fill layer thickness of 3 to 10 feet across Lot 8.

The D&B Phase II ESI boring logs indicated groundwater was encountered approximately 9 to 22 feet below grade and most likely flows in a south-southwesterly direction toward the Bronx and East Rivers. However, actual groundwater flow direction at the Site can be affected by many factors including seasonal variation, past filling activities during Site construction, underground utilities and other subsurface openings or obstructions such as basements.

2.1.3 Bulk Storage Tanks

Multiple bulk storage tanks have been identified at the Site, both currently operating and closed/removed. Detailed information on these tanks is provided in the following sections.

2.1.3.1 Aboveground Storage Tanks

NYSDEC Petroleum Bulk Storage (PBS) records identified two aboveground storage tanks (ASTs) present at the Site: one 2,000-gallon fuel oil AST within in the basement of Lot 7 (1623 Unionport Road) and one 1,500-gallon fuel oil AST within the basement of Lot 17 (1603 Unionport Road). Roux Associates' Site inspection confirmed the presence of the ASTs, and also observed staining on and around the AST in Lot 7. The approximate locations of the ASTs are shown on Figure 2.

2.1.3.2 Underground Storage Tanks

According to NYSDEC PBS records, and confirmed by a Roux Associates' Site inspection on May 15, 2015, the following USTs are present on the gasoline filling station on Lot 8:

- Four 4,000-gallon gasoline USTs;
- One 4,000-gallon diesel UST; and
- One 550-gallon wastewater UST.

In addition, during a Site inspection on February 3, 2015, Roux Associates observed evidence of a fuel oil UST, including fill and vent pipes, in the basement of Lot 23 that appeared to be associated with the boiler in the bowling alley. There are no PBS records available for this UST and its size is unknown. The approximate locations of the USTs are shown on Figures 2 and 3.

2.1.3.3 Previous Underground Storage Tank Closure

As reported in a June 21, 1994 Site Investigation Report by Groundwater & Environmental Services, Inc. (GES), the following tanks and appurtenances were removed in September 1993:

- Four 4,000-gallon gasoline USTs;
- Two 2,000-gallon gasoline USTs;
- One 550-gallon wastewater UST;
- One 2,000-gallon wastewater UST; and
- Dispenser islands and associated product piping.

Due to the presence of separate-phase petroleum product during the gasoline UST removal in 1993, a release was reported to the NYSDEC and Spill number 9307951 was assigned. Approximately 1,229 tons of petroleum contaminated soils were excavated and removed from the Site for disposal. The USTs were replaced with four 4,000-gallon gasoline USTs, one 4,000-gallon diesel UST, and one 550-gallon wastewater UST, all constructed of double-walled fiberglass (the current USTs at lot 8).

Semi-annual groundwater sampling was performed by GES and Alliance from 1994 through 2002. Concentrations of benzene, toluene, ethylbenzene, total xylenes (BTEX) and methyl tert-butyl ether (MTBE) were detected above NYSDEC Ambient Water Quality Standards and Guidance Values

(AWQSGVs); however, the concentrations decreased over the course of the monitoring events. Although the concentrations were still detected above AWQSGVs, Spill number 9307951 was closed by the NYSDEC on March 19, 2003 based on the absence of separate-phase petroleum product and continuing decrease of dissolved BTEX and MTBE. The approximate locations of the former USTs are shown on Plate 1 of the RIWP. The GES Site Assessment Report, Semi-Annual Groundwater Sampling Reports, and Spill Closure Report, and D&B Phase II ESI are available in Appendix E of the RIWP. The D&B Phase II ESI and Roux Associates Focused Phase II ESA data are presented in the Tables included in the RIWP.

2.2 Summary of Environmental Conditions

The following is a summary of environmental conditions at the Site.

2.2.1 NYSDEC Spills

There is one open Spill Number and two closed Spill Numbers relative to Lot 8 of the Site.

Spill Number 1501895 (open) was reported to the NYSDEC Spill Incident Hotline on May 20, 2015 in response to discovery of impacted soil during Roux Associates' Focused Phase II ESA.

A search of the NYSDEC Spill Incidents Database identified two other Spill Numbers: 8907138 (closed) and 9307951 (closed). All three Spills were reported to be gasoline. The NYSDEC database listings are included in Appendix G of the BCP Application. Information regarding the closed Spill number 9307951 is also discussed in Section 2.1.3.3 above.

2.2.2 Previous Environmental Sampling

The following is a brief summary of environmental sampling conducted at the Site. A complete description of previous environmental sampling conducted at the Site is included in the approved Remedial Investigation Work Plan (RIWP) prepared by Roux Associates dated December 4, 2015 and will not be repeated herein.

As documented in the following reports, soil, groundwater, and soil vapor sampling has been carried out at the Site between in 2014 and 2015:

- D&B Phase II ESI, August 2014

- Roux Associates, Focused Phase II ESA, May 2015

Data collected during previous investigations are presented in the RIWP.

Analytical results from the D&B Phase II ESI indicated that subsurface soil and/or groundwater at all lots at the Site have been impacted by contaminants above applicable regulatory guidance values. In addition, petroleum-related and chlorinated volatile organic compounds (CVOCs) were identified in soil vapor throughout the Site. The Roux Associates Focused Phase II ESA confirms the presence of petroleum related-VOC contamination and separate-phase petroleum in the soil on Lot 8. The petroleum-related contaminants encountered at the Site are attributable to releases from the onsite active gasoline filling station or fuel oil storage tanks at the Site. The presence of chlorinated VOCs at the Site is attributable to multiple former dry cleaning operations and bowling alley that historically occupied portions of the Site. The metals and semivolatile organic compounds (SVOCs), particularly polycyclic aromatic hydrocarbons (PAHs) were identified at all sample locations at concentrations above Unrestricted Use SCOs are related to the presence of historic fill, which was identified throughout the upper 10 feet of soil across the Site. Proposed additional investigation activities are described in the RIWP.

3.0 SCOPE OF WORK

The scope of work for the IRM consists of the following tasks:

- Lot 8:
  - A geophysical survey (already completed);
  - Site mobilization and Site preparation, including perimeter construction fence;
  - Temporarily render USTs out of service (including extraction of fluids, rendering interior of USTs inert by degassing, capping of fill pipes, and removing dispensers) to allow for safe demolition of buildings, former gasoline station canopy, and pylon sign;
  - Tank removal (confirm rendering the interior of the USTs inert by degassing; and excavating, removing, cleaning and cutting the USTs into pieces for offsite transportation and disposal) and removal of grossly contaminated soil to the extent technically practical and feasible, if encountered;
  - Remedial Performance Evaluation (Post Excavation End-Point Sampling)
  - Waste disposal; and
  - Documentation.
- Lots 7, 17, and 23:
  - Temporarily render ASTs and UST out of service (including extraction of fluids, rendering interior of tanks inert by degassing, cleaning the tanks, and capping of fill pipes) to allow for safe demolition of buildings by others;
  - Waste disposal; and
  - Documentation.

Implementation of the IRM will be in accordance with the Soils/Materials Management Plan (SoMP) included in Section 4 of this IRM Work Plan.

3.1 Geophysical Survey

A geophysical survey was conducted prior to the IRM, and relevant findings are provided as Appendix A. The results of this survey were used to verify the location of current tanks and piping.

3.2 Mobilization and Site Preparation

As requested by NYSDEC, a project kick-off meeting will be conducted with the Volunteer, Roux Associates/Remedial Engineering, the selected Contractor and NYSDEC, prior to the commencement of any intrusive activities. The NYSDEC will be provided with at least five days advance notice prior to the kick-off meeting. The Contractor will supply labor (Hazardous Waste Operations and Emergency Response [HAZWOPER] Certified in accordance with OSHA 1910.120) and materials required for the implementation of the IRM scope of work. In addition, necessary permits, insurance, bonds, and licenses required to complete the work will be obtained and fees necessary to obtain these permits will be paid. Mobilization and Site preparation activities include:

1. Mobilization of equipment to the work area.

2. Installation of construction fencing (in accordance with New York City Department of Buildings [NYCDOB] requirements) and traffic barricades surrounding Lot 8 to delineate the work zone, act as a work Site security measure, and mark the truck loading and decontamination areas.

3. Implementation of erosion and sediment control measures in accordance with the New York Guidelines for Urban Erosion and Sediment Control. Hay bales will be placed surrounding the excavation areas to control stormwater runoff and surface water from entering or exiting the excavation. Catch basin inlets will be protected to prevent disturbed soil from entering.

4. Set-up of staging areas for the excavation area.

5. Set-up of temporary facilities and decontamination facilities including decontamination pad in order to decontaminate trucks and other vehicles/equipment.

3.3 Lots 7, 17, 23 Tank Cleaning and Closure

The ASTs and USTs located on Lots 7, 17, and 23 will be accessed and cleaned in place to allow for safe demolition of buildings. A tank removal contractor licensed by New York City Fire Department (FDNY) will mobilize the necessary labor and equipment to clean tanks in accordance in general accordance with NYSDEC's DER-10 Section 5.5, NYSDEC's *Permanent Closure of Petroleum Storage Tanks* dated January 20, 1987, as revised December 3, 2003, and the Rules of the FDNY – RCNY Title 3.

The scope of work will include:

- Extraction of any fluids currently in the USTs and ASTs;

- Rendering the interior of the USTs and ASTs inert by degassing;
- Access tank interiors, scrape and wipe interior of UST/AST to remove remaining contents/sludge;
- Sealing all remote fill ports; and
- Filing all tanks as closed in place with FDNY.

After the UST and ASTs will been cleaned, it will be recycled and/or disposed by the demolition contractor of at a scrap metal facility (to be determined), in accordance with 6 NYCRR Part 611.

3.4 Lot 8 Tank Closure and Removal Procedures

The following procedures will be followed to allow for safe demolition and tank removal at Lot 8.

3.4.1 Temporary Tank Closure

Prior to demolition of the canopy and building at Lot 8, temporary closure of the USTs at Lot 8 will be completed in general accordance with NYSDEC's DER-10 Section 5.5, NYSDEC's *Permanent Closure of Petroleum Storage Tanks* dated January 20, 1987, as revised December 3, 2003, and the Rules of the FDNY – RCNY Title 3. The scope of work will include:

- Removal of dispensers from pump islands;
- Removal of pumps from within USTs;
- Extraction of any fluids currently in the USTs;
- Rendering the interior of the USTs and ASTs inert by degassing;
- Sealing all fill ports; and
- Filing all tanks as temporarily out of service with FDNY.

3.4.2 Tank Removal

Following completion of Lot 8 building and canopy demolition, the FDNY-licensed tank removal contractor will mobilize the necessary labor and equipment to remove the USTs. Removal of the USTs will be completed in general accordance with NYSDEC's DER-10 Section 5.5. The scope of work will include:

- Removal of pavement and concrete to access the tanks and piping to be removed.

- Rendering the interior of the USTs inert by degassing, if necessary.
- Excavating, removing, cleaning and cutting the USTs into pieces for offsite transportation and disposal.
- Endpoint soil sampling (described in Section 3.5).
- If grossly contaminated soil is encountered during the IRM activities, excavation will continue to remove the grossly contaminated soil where it is technically and practically feasible. If further soil removal is determined to be infeasible, excavation efforts will be concluded and conditions remaining following completion of the IRM will be documented in the CCR. Remaining contamination will be addressed as part of the RI and the RAWP.

Roux Associates/Remedial Engineering will provide oversight of the UST removal. Upon their removal, Roux Associates/Remedial Engineering will inspect each of the USTs for damage, corrosion, pitting, holes or other signs of a release. Notes of the inspection will be recorded in a field notebook and photographs of the USTs will be taken. Post excavation samples will be completed in general accordance with DER-10.

Excavated soil will be segregated (unsaturated versus saturated) and stockpiled on and covered with polyethylene sheeting until the excavation is completed. It has been assumed that impacted soil will be largely contained in the smear zone and will be segregated along with the saturated soils. The UST excavation sidewalls will be lined with polyethylene sheeting so as to not create a preferential pathway for LNAPL and will be backfilled with recycled concrete aggregate (RCA) obtained from a NYSDEC registered construction and demolition debris processing facility to one foot above the water table. Imported RCA that contains less than 10% by weight material which would pass through a size 80 sieve will not require testing. RCA not meeting this criterion will be tested in accordance with DER-10. Documentation of the source of the imported RCA will be provided to NYSDEC in advance of importation. The remainder of the tank grave(s) will be backfilled with the unsaturated soil removed during the UST excavation, as appropriate (refer to Section 4.7 for additional details regarding reuse of soil). RCA will be used to finish the excavation to grade, as necessary.

3.5 Remedial Performance Evaluation (Post Excavation End-Point Sampling)

End-point sampling and reporting will be conducted in accordance with DER-10 and the QAPP (included as Appendix G of the RIWP) and is discussed in the sections below.

3.5.1 End-Point Sampling Frequency and Suite of Analysis

The frequency of endpoint sampling for the IRM will be in accordance with DER-10, Section 5.5. Chemical analytical work will be for NYSDEC CP-51 Soil Cleanup Guidance Tables 2 and 3, Soil Cleanup Levels for Gas and Fuel Oil Contaminated Soil (CP-51) parameters. In areas where samples will be collected in close proximity to the location of a soil sample proposed in the RIWP, the full suite of parameters (TCL VOCs, TCL SVOCs, TAL metals, TCL polychlorinated biphenyls [PCBs], pesticides and herbicides) will be analyzed. Analyses will not be otherwise limited without NYSDEC approval.

3.5.2 Methodology

Each sample will be inspected for visual evidence of contamination (i.e., staining, presence of petroleum or odors) and field screened for VOCs using a PID. Soil samples to be submitted for analysis will be placed in a laboratory sample jar, and transported to the laboratory in an iced container.

3.5.3 Reporting of Results

The laboratory will report analytical results for end point samples in ASP Category B deliverable packages. An EDD in the required NYSDEC format will also be provided by the laboratory.

All end point sample data generated for the IRM will be logged in a database and organized to facilitate data review and evaluation. The electronic dataset will include the data flags provided in accordance with USEPA Laboratory Data Validation Functional Guidelines for Evaluating Organic Analysis and Inorganic Analyses, as well as additional comments of the data review for ASP/CLP analyses. The data flags include such items as: 1) concentration below required detection limit, 2) estimated concentration due to poor recovery below required detection limit, 3) estimated concentration due to poor spike recovery, and 4) concentration of chemical also found in laboratory blank.

3.5.4 QA/QC

Quality control (QC) samples serve as checks on both the sampling and measurements systems and assist in determining the overall data quality with regard to representation, accuracy, and

precision. The QAPP, included as Appendix G to the RIWP, describes QA/QC procedures and sampling for the project.

3.5.5 DUSR

A DUSR will be prepared to evaluate the end-point samples by a party independent from the laboratory performing the analysis in accordance with Appendix 2B of DER-10. The QAPP, included as Appendix G to the RIWP, describes the DUSR to be prepared for the project.

3.5.6 Reporting of End-Point Data

Chemical labs used for all end-point sample results and contingency sampling will be New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified.

The CCR will provide a tabular and map summary of all end-point sample results and exceedances of SCOs.

3.6 Waste Disposal

All wastes generated during the UST removal including gasoline removed from the tanks and any LNAPL impacted soil from the smear zone will be handled, transported and disposed of in a manner consistent with federal, state and local laws and regulations.

3.7 Documentation

Prior to closure of the tanks, a Pre-Work Notification for Bulk Storage Tank Installation, Closing, Repair, or Reconditioning will be submitted to the NYSDEC Petroleum Bulk Storage (PBS) Division. An FDNY Affidavit will be filed by the FDNY licensed tank removal contractor for temporary in-place closure of the USTs.

Following removal of the USTs, a PBS Application for closure of the tanks, associated documentation and payment will be filed with the NYSDEC PBS Unit. Also, an FDNY Affidavit will be filed by the FDNY licensed tank removal contractor for removal of the USTs.

Detailed information regarding the IRM (e.g., waste disposal documentation, backfill documentation, photos, etc.) will be included in the CCR described in Section 5.

4.0 SOIL/MATERIALS MANAGEMENT PLAN

The following sections provide the SoMP to be implemented during the IRM.

4.1 Soil Screening Methods

Visual, olfactory and photoionization detector (PID) soil screening and assessment will be performed during UST removal activities under the supervision of Roux Associates/Remedial Engineering personnel.

4.2 Stockpile Methods

Soil excavated in order to remove the USTs will be segregated (unsaturated versus saturated) and stockpiled on and covered with polyethylene sheeting or placed in rolloff containers until the excavation is completed. It has been assumed that impacted soil will be largely contained in the smear zone and will be segregated along with the saturated soils; however, unsaturated soils will also be screened with a PID and segregated appropriately. Stockpiles will be used only when necessary, and will be removed as soon as practicable. While stockpiles are in place, they will be inspected at a minimum each week, and before and after every storm event. Results of inspections will be recorded in a logbook and maintained at the Site and available for inspection by NYSDEC. Excavated soils will be stockpiled on, at minimum, double layers of 6-mil minimum poly-sheeting, will be kept covered at all times (except when material is being added or removed) with appropriately anchored polyethylene sheeting, and will be routinely inspected. Broken or ripped sheeting will be promptly replaced. If used, rolloff containers for saturated materials will be lined.

Stockpile activities will be compliant with applicable laws and regulations. Stockpiles of excavated soils and other materials will be located a minimum of 20 feet from the property boundaries, where possible. Hay bales or equivalent will surround soil stockpiles as needed, except for areas where access by equipment is required. Hay bales will be used as needed near catch basins, surface waters and other discharge points.

Stockpiles of petroleum-contaminated soils are not anticipated to remain onsite for longer than 60 days. In the event that stockpiles will need to remain onsite longer than 60 days, Roux Associates will coordinate with NYSDEC.

4.3 Characterization of Excavated Materials

Soil/fill or other excavated media that will be transported off-Site for disposal will be sampled in a manner required by the receiving facility, and in compliance with applicable laws and regulations. Soils proposed for reuse on-Site will be managed as defined in this plan.

4.4 Materials Excavation and Load Out

Roux Associates/Remedial Engineering will oversee all invasive work and the excavation and load-out of all excavated material.

The Volunteer and its contractors are solely responsible for safe execution of all invasive and other work performed under this Plan. The selected contractor will be required to place a one-call dig safe notification prior to mobilization. In addition, existing private markout information, where available, will be consulted prior to excavation. Support of excavation will be provided, if necessary, based upon Site conditions and local regulations.

The presence of easements on the Site has been investigated. It has been determined that no risk or impediment to the planned work under this IRM Work Plan is posed by easements on the Site. The presence of utilities within/adjacent to the proposed work area will be investigated prior to the work in order to determine if there are any impediments to the proposed scope of work. NYSDEC will be notified of any changes required to the scope of work based on the geophysical survey.

Loaded vehicles leaving the Site will be appropriately lined, tarped, securely covered, manifested, and placarded in accordance with appropriate Federal, State, local, and NYSDOT requirements (and all other applicable transportation requirements).

Loaded outbound trucks will be inspected by Roux Associates/Remedial Engineering and cleaned if necessary before leaving the Site.

Locations where vehicles enter or exit the Site shall be inspected daily for evidence of off-Site sediment tracking. It is not anticipated that surface concrete/asphalt will be removed during the IRM. Therefore, vehicles/trucks will primarily be staged on asphalt/concrete. In the event that the asphalt/concrete is removed, we will install and maintain a stabilized construction entrance at any

vehicle egress points. Regardless, all egress points for truck and equipment transport from the Site will be clean of dirt and other materials derived from the Site during the implementation of the IRM. Cleaning of the adjacent streets will be performed as needed to maintain a clean condition with respect to Site-derived materials.

USTs, associated piping, and the pump island will be removed and end-point remedial performance sampling completed, as described in Section 3.4, before excavations related to Site development commence proximal to these structures.

Mechanical processing of historical fill and contaminated soil on-Site is prohibited.

4.5 Materials Transport Off-Site

All transport of materials will be performed by licensed haulers in accordance with appropriate local, State, and Federal regulations, including 6 NYCRR Part 364. Haulers will be appropriately licensed and trucks properly placarded.

The proposed inbound truck route to the Site is:

- Take the Cross Bronx Expressway (I-95) to the White Plains Road north exit. Entrance to the Site will be on the right.

The proposed outbound truck route from the Site is:

- Turn left out of the Site and go south on White Plains Road. Follow signs to the Cross Bronx Expressway northbound or southbound.

These are the most appropriate route and takes into account: (a) limiting transport through residential areas and past sensitive sites; (b) use of city mapped truck routes; (c) prohibiting off-Site queuing of trucks entering the facility; (d) limiting total distance to major highways; (e) promoting safety in access to highways; and (f) overall safety in transport. To the extent possible, trucks loaded with Site materials will travel to/from the Site using these approved truck routes. White Plains Road and East Tremont Avenue are both New York City Department of Transportation approved Local Truck Routes.

Trucks will avoid stopping and idling in the neighborhood outside the project Site, to the extent practicable. Queuing of trucks will be performed on-Site, when possible, in order to minimize off Site disturbance. Off-Site queuing will be minimized.

Egress points for truck and equipment transport from the Site will be kept clean of dirt and other materials during the IRM implementation.

Material transported by trucks exiting the Site will be secured with tight-fitting covers. Loose-fitting canvas-type truck covers will be prohibited. If loads contain wet material capable of producing free liquid, truck liners will be used.

4.6 Materials Disposal Off-Site

All soil/fill/solid waste excavated and removed from the site will be disposed of in accordance with regulatory requirements based on the levels of contamination found to be present in waste characterization samples collected.

The following documentation will be obtained and reported for each disposal location used in this project to demonstrate and document that the disposal of material derived from the Site conforms with all applicable laws: (1) a letter or facility-specific waste profile/application from Roux Associates/Remedial Engineering or the Volunteer to the receiving facility describing the material to be disposed and requesting formal written acceptance of the material. This letter/profile/application will state that material to be disposed is contaminated material generated at an environmental remediation Site in New York State. The letter will provide the project identity and the name and phone number of the Roux Associates/Remedial Engineering or the Volunteer. The letter will include as an attachment a summary of all chemical data for the material being transported (including Site Characterization data); and (2) a letter from all receiving facilities stating it is in receipt of the correspondence (above) and is approved to accept the material. These documents will be included in the CCR.

The CCR will include an accounting of the destination of all material removed from the Site during this IRM. This information will also be presented in a tabular form in the CCR.

A Bill of Lading system or equivalent will be used for off-Site movement of non-hazardous wastes and contaminated soils. This information will be reported in the CCR.

Hazardous wastes derived from on-Site will be stored, transported, and disposed of in compliance with applicable local, State, and Federal regulations.

Appropriately licensed haulers will be used for material removed from this Site and will be in compliance with all applicable local, State and Federal regulations.

Waste characterization will be performed for off-Site disposal in a manner suitable to the receiving facility and in conformance with applicable permits. All data available for soil/material to be disposed at a given facility must be submitted to the disposal facility with suitable explanation prior to shipment and receipt.

4.7 Materials Reuse On-Site

It has been assumed that impacted soil will be largely contained in the smear zone and will be segregated along with the saturated soils. Unsaturated soil excavated during the UST removal will be reused on-Site, as appropriate, provided no petroleum impacts are observed (staining, odors, PID response). The quality of the unsaturated soil will be confirmed through sampling of the excavated material proposed for reuse before backfilling. "Reuse on-Site" means material that is excavated during the UST removal does not leave the property, and is put back in the excavation from which it came at a level at least one foot above the water table. Roux Associates/Remedial Engineering will confirm that materials proposed for reuse are segregated from other materials to be exported from the Site and that procedures defined for material reuse in this SoMP are followed. In order to confirm that the soil can be reused, sampling of the excavated material will be conducted (on a quick turnaround) for a full suite of parameters (Target Compound List [TCL] VOCs, TCL SVOCs, Target Analyte List [TAL] metals, TCL PCBs, pesticides and herbicides) during the IRM. If concentrations of the soil proposed for reuse exceed the appropriate SCOs, the soil will be disposed of offsite and offsite backfill will be used (Section 4.9).

Soil or fill excavated from the Site during the IRM will not be reused within a final cover soil layer or within landscaping berms.

Organic matter (wood, roots, stumps, etc.) or other solid waste derived from clearing and grubbing of the Site is prohibited for reuse on-Site.

4.8 Fluids Management

All liquids to be removed from the Site will be handled, transported and disposed in accordance with applicable laws and regulations. Any and all liquids observed in the USTs will be removed prior to removal of the USTs. All liquids removed from the USTs will be sampled in a manner required by the receiving facility, and in compliance with applicable laws and regulations. Liquid waste manifests will be reported to NYSDEC in the CCR.

Although dewatering is not expected to be necessary, in the event that dewatering is needed, dewatering fluids will be discharged into the NYC sewer system or transported and disposed off-Site. Discharges into the NYC sewer system will receive prior approval by the NYC Department of Environmental Protection (NYCDEP). The NYCDEP regulates discharges to the New York City sewers under Title 15, Rules of the City of New York Chapter 19. Discharge to the NYC sewer system will require an authorization and sampling data demonstrating that the groundwater meets the City's discharge criteria. The dewatering liquid will be pretreated as necessary to meet the NYCDEP discharge criteria. If discharge to the City sewer system is not appropriate or desired, the dewatering liquid will be managed by transportation and disposal at an off-Site treatment facility. Characterization of fluids for offsite disposal will be performed in a manner suitable to the receiving facility and in conformance with applicable permits.

4.9 Backfill from Off-Site Sources

All materials proposed for import onto the Site will be approved by Roux Associates/Remedial Engineering and will be in compliance with provisions in this IRM prior to receipt at the Site.

Material from industrial sites, spill sites, other environmental remediation sites or other potentially contaminated sites will not be imported to the Site. Solid waste will not be imported onto the Site.

All imported soils will meet NYSDEC approved backfill or cover soil quality objectives for this Site. These NYSDEC approved backfill or cover soil quality objectives are the lower of the protection of groundwater or the protection of public health soil cleanup objectives for Restricted-

Residential or higher use as set forth in Table 375-6.8(b) of 6 NYCRR Part 375. Non-compliant soils will not be imported onto the Site without prior approval by NYSDEC. Nothing in the approved IRM or its approval by NYSDEC should be construed as an approval for this purpose.

Soils that meet 'exempt' fill requirements under 6 NYCRR Part 360, but do not meet backfill or cover soil objectives for this Site, will not be imported onto the Site without prior approval by NYSDEC. Nothing in this IRM should be construed as an approval for this purpose.

In accordance with DER-10, the following material may be imported, without chemical testing, to be used as backfill beneath pavement, buildings or as part of the final site cover, provided that it contains less than 10% by weight material which would pass through a size 80 sieve and consists of:

- gravel, rock or stone, consisting of virgin material from a NYSDEC permitted mine or quarry; or
- recycled concrete or brick from a NYSDEC registered construction and demolition debris processing facility if the material conforms to the requirements of Section 304 of the New York State Department of Transportation *Standard Specifications Construction and Materials Volume 1* (2002).

Trucks entering the Site with imported soils will be securely covered with tight fitting covers.

4.10 Stormwater Pollution Prevention

Applicable laws and regulations pertaining to stormwater pollution prevention will be addressed during the UST removal. Erosion and sediment control measures (silt fences and/or barriers, and/or hay bale checks) will be installed, as appropriate, around the entire perimeter of the remedial construction area and inspected once a week and after every storm event to ensure that they are operating appropriately. Discharge locations will be inspected to determine whether erosion control measures are effective in preventing significant impacts to receptors. Results of inspections will be recorded in a logbook and maintained at the Site and available for inspection by NYSDEC. All necessary repairs to erosion and sediment controls shall be made immediately. Accumulated sediments will be removed as required to keep the barrier and hay bale check functional. Undercutting or erosion of the silt fence anchor will be repaired immediately with

appropriate backfill materials. Manufacturer's recommendations will be followed for replacing silt fencing damaged due to weathering.

4.11 Contingency Plan

This contingency plan is developed for the remedial construction to address the discovery of unknown structures or contaminated media during implementation of the IRM.

If underground tanks or other previously unidentified contaminant sources are found during on-Site remedial excavation, sampling will be performed on potentially contaminated source material and surrounding soils and reported to NYSDEC. Chemical analytical work will be for NYSDEC CP-51 Soil Cleanup Guidance Tables 2 and 3, Soil Cleanup Levels for Gas and Fuel Oil Contaminated Soil (CP-51) parameters. In areas where samples will be collected in close proximity to the location of a soil sample proposed in the RIWP, the full suite of parameters (TCL VOCs, TCL SVOCs, TAL metals, TCL PCBs, pesticides and herbicides) will be analyzed. Analyses will not be otherwise limited without NYSDEC approval.

Identification of unknown or unexpected contaminated media identified by screening during invasive Site work will be promptly communicated by phone to NYSDEC's Project Manager. These findings will be also included in daily and periodic electronic media reports.

4.12 Community Air Monitoring Plan

In accordance with the Site Health and Safety Plan (HASP), included as Appendix H to the RIWP, CAMP will be implemented during all ground intrusive activities which includes UST removal. The CAMP will be performed in accordance with Appendix H of the RIWP and will include the real-time monitoring of volatile organic compounds (VOCs) and particulates at the upwind and downwind perimeter of the designated work area. Should monitoring results exceed action levels as noted in the CAMP, efforts will be made to mitigate/eliminate the exceedance.

4.13 Odor, Dust, and Nuisance Control Plan

4.13.1 Odor Control Plan

In addition to the CAMP monitoring, Roux Associates/Remedial Engineering will closely monitor the presence of odors emanating from either the excavation or the stockpile. The UST removal will be conducted in a controlled fashion with one UST removed at a time.

Odor controls will be employed to prevent on- and off-Site odor nuisances. At a minimum, procedures will include: (a) limiting the area of open excavations; (b) shrouding open excavations with tarps and other covers; and (c) use of odor suppressants to cover exposed odorous soils. If nuisance odors develop and cannot otherwise be controlled, additional means to eliminate them will include: (d) direct load-out of soils to trucks for off-Site disposal; and (e) use of chemical odorants in spray or misting systems.

This odor control plan is capable of controlling emissions of nuisance odors. If nuisance odors are identified, the source of odors will be identified and corrected. If necessary, to identify or correct a nuisance odor source, work will be temporarily halted and will not resume until such nuisance odors have been identified and abated. NYSDEC will be notified of all odor complaint events.

4.13.2 Dust Control Plan

Dust management during invasive on-Site work will include, at a minimum:

- Use of properly anchored tarps to cover stockpiles.
- Exercising extra care during dry and high-wind periods.
- Dust suppression will be achieved through the use of water for wetting excavation areas. Water will be available on-Site at suitable supply and pressure for use in dust control.

This dust control plan is capable of controlling emissions of dust. If nuisance dust emissions are identified, work will be halted and the source of dusts will be identified and corrected. Work will not resume until all nuisance dust emissions have been abated. NYSDEC will be notified of all dust complaint events.

4.13.3 Other Nuisances

Noise control will be exercised during the remedial program. All remedial work will conform, at a minimum, to NYC noise control standards.

5.0 REPORTING

5.1 Weekly Reporting during Site Activities

Weekly reports to NYSDEC and NYSDOH containing photo-documentation will be submitted during the weeks when IRM activities take place. Weekly reports will include an update of progress made during the reporting period; locations of work and quantities of material imported and exported from the Site; a summary of any and all complaints with relevant details (names, phone numbers); a summary of CAMP readings and an explanation of notable Site conditions etc. If any issues arise (i.e., issues with the CAMP) then daily notification will be provided to NYSDOH and NYSDEC.

5.2 Construction Completion Report (CCR)

Detailed information regarding the IRM (e.g., general description of the construction activities, waste disposal documentation, backfill documentation, photos, etc.) will be included in the CCR to be prepared following receipt of all data, the DUSR and all final disposal documentation. The CCR will provide a tabular and map summary of all end-point sample results and exceedances of SCOs. The CCR will be submitted within 60 days after the DUSR is complete.

6.0 IRM IMPLEMENTATION SCHEDULE

This IRM Work Plan is anticipated to begin in August 2016 and will require approximately five to six weeks to complete, including obtaining permits. It is anticipated that the actual onsite duration of major remedial construction tasks will be completed as follows (timeframes are not necessarily consecutive):

- Geophysical Survey ---------- complete
- Site Mobilization and Preparation ---------- two days
- Lot 8 Perimeter Fence Installation ---------- one day
- Lot 8 Dispenser Removal ---------- one day
- Render USTs and ASTs Temporarily Out of Service ---------- two days
- UST Removal, Transportation and Offsite Disposal of Soils -------- four days
- Backfill Placement and Compaction ---------- two days
- Site Restoration and Demobilization ---------- one day
- Submittal of CCR ---------- 60 days after DUSR

FIGURES

1. Site Location Map
2. Site Plan
3. Site Plan – Lot 8 Detail

QUADRANGLE LOCATION

SOURCE:
USGS; Flushing, NY (2013) and
Central Park, NY-NJ (2013)
7.5 Minute Topographic Quadrangles

N

0 2000'

Title:

SITE LOCATION

INTERIM REMEDIAL MEASURE WORK PLAN
PARK CHESTER CROSSING
1590 WHITE PLAINS ROAD, BRONX, NEW YORK

Prepared for:

ZP REALTY, LLC

Remedial REMEDIAL ENGINEERING, P.C. *ENVIRONMENTAL ENGINEERS*	Compiled by: F.C.	Date: 27JUL16	FIGURE 1
	Prepared by: J.A.D.	Scale: AS SHOWN	
	Project Mgr.: F.C.	Project No.: 2530.0001Y000	
	File: 2530.0001Y1113.01.CDR		

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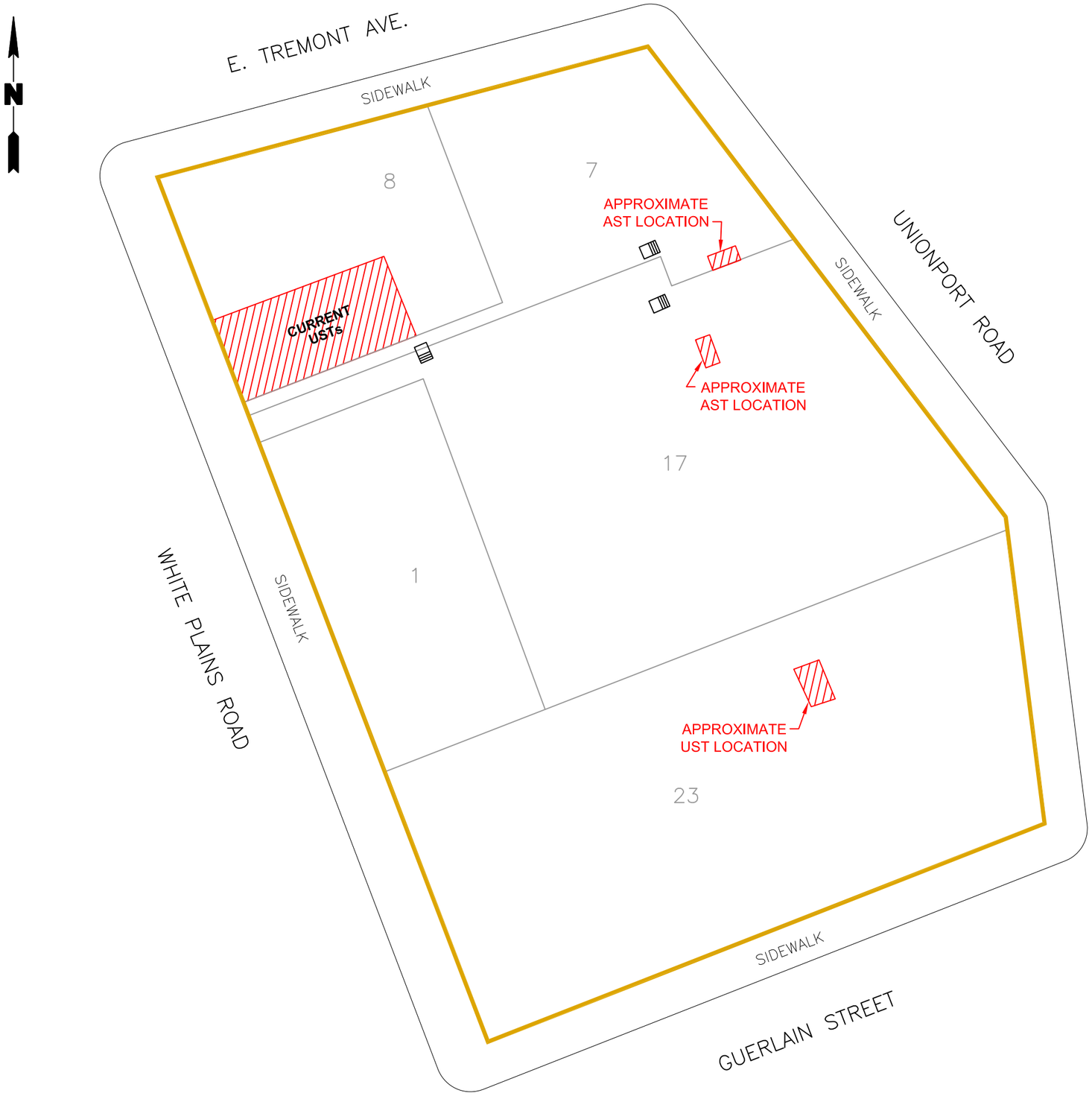

LEGEND

	SITE BOUNDARY
	TAX LOT BOUNDARY
17	TAX LOT NUMBER
	CATCH BASIN
AST	ABOVEGROUND STORAGE TANK
UST	UNDERGROUND STORAGE TANK

NOTE

FORMER BOWLING ALLEY BASEMENT OF 1580 WHITE PLAINS ROAD EXTENDS UNDER FORMER DRY CLEANER AT 1597 WHITE PLAINS ROAD.

40' 0 40'

Title:

SITE PLAN

INTERIM REMEDIAL MEASURE WORK PLAN
PARKCHESTER CROSSING
1590 WHITE PLAINS ROAD, BRONX, NY 10462

Prepared For:
ZP REALTY, LLC

Remedial
REMEDIAL ENGINEERING, P.C.
ENVIRONMENTAL ENGINEERS

Compiled by: J.T.	Date: 27JUL16	FIGURE
Prepared by: J.A.D.	Scale: AS SHOWN	
Project Mgr: J.T.	Project: 2530.0001Y000	2
File: 2530.0001Y113.02.DWG		

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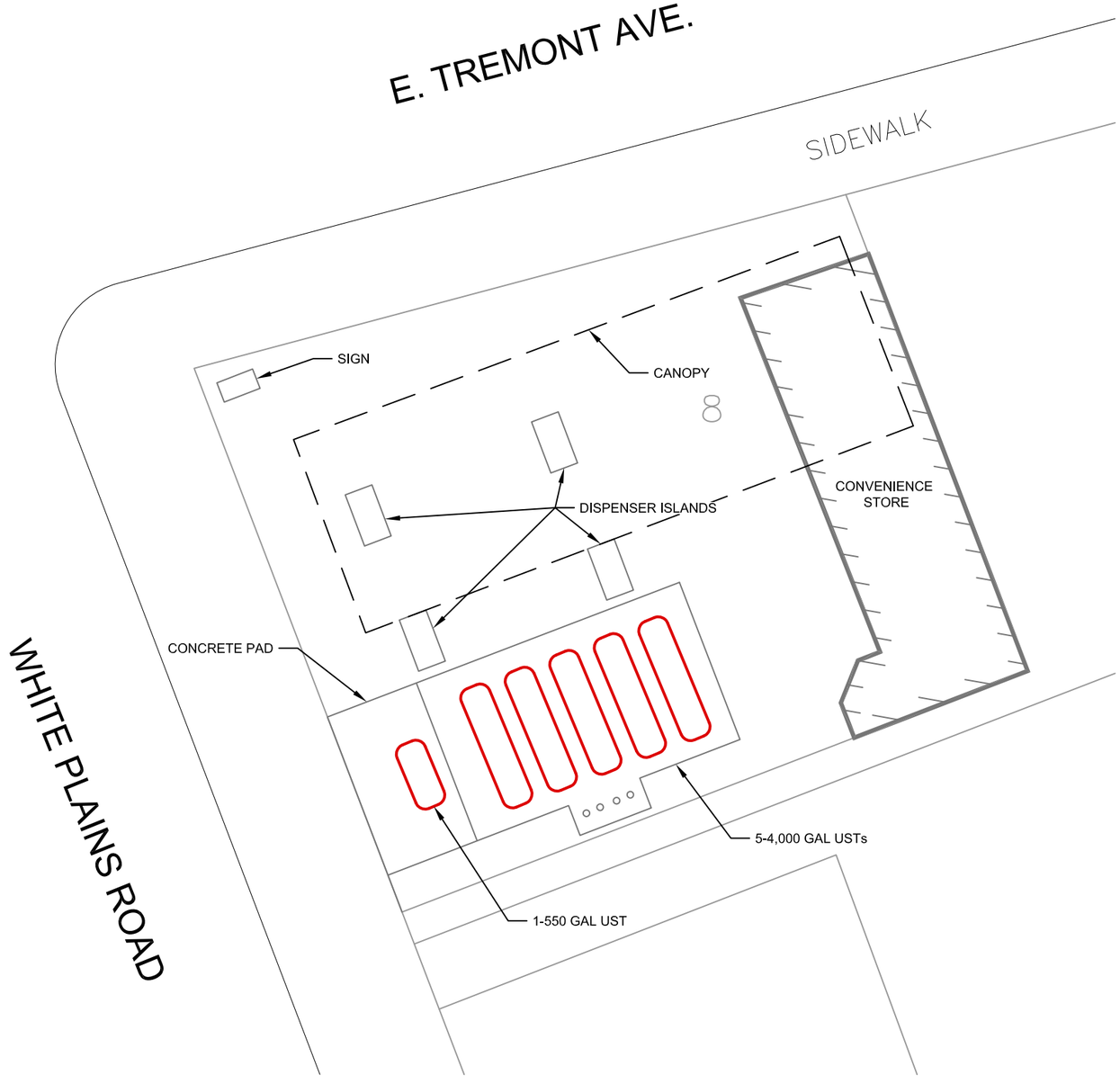

LEGEND

- TAX LOT BOUNDARY
- 17 TAX LOT NUMBER
- BUILDING FOOTPRINT

20' 0 20'

Title:

SITE PLAN - LOT 8 DETAIL

INTERIM REMEDIAL MEASURE WORK PLAN
PARK CHESTER CROSSING
1590 WHITE PLAINS RD, BRONX, NEW YORK

Prepared For:

ZP REALTY, LLC

Remedial REMEDIAL ENGINEERING, P.C. *ENVIRONMENTAL ENGINEERS*	Compiled by: J.T.	Date: 27JUL16	FIGURE
	Prepared by: J.A.D.	Scale: AS SHOWN	3
	Project Mgr: J.T.	Project: 2530.0001Y000	
	File: 2530.0001Y113.03.DWG		

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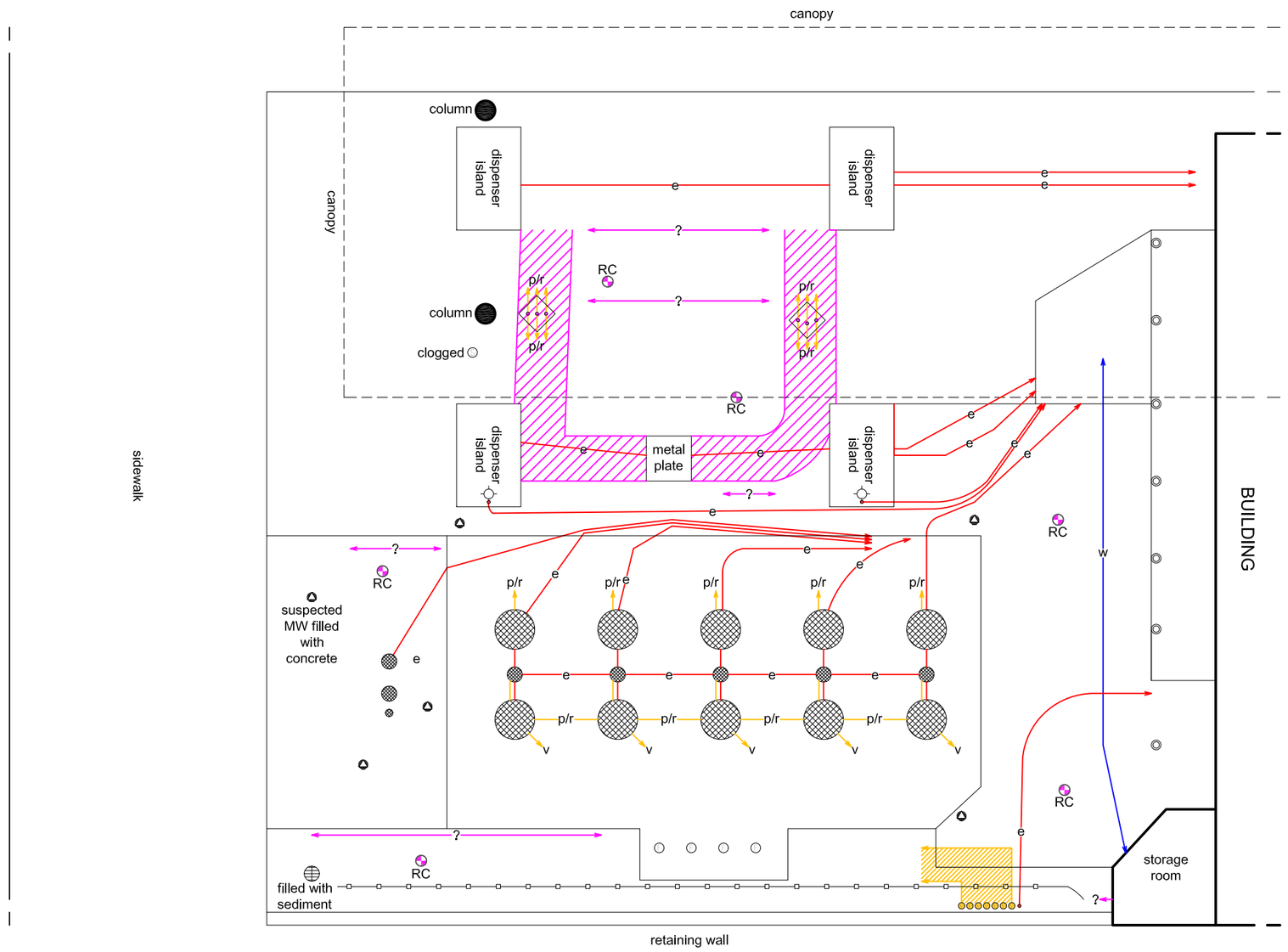
APPENDIX A

2015 Geophysical Survey



LEGEND

- e — electric line
- w — water line
- p/r — product/return line
- v — vent line
- ? — unknown line
- metal guard rail
- fill port
- electrical conduit
- UST vent
- bollard
- manhole cover
- monitoring well
- parking lot lamp
- catch basin
- sewer cleanout
- proposed exploratory boring site
- p/r line access under metal plate
- UST vent trench
- suspected p/r trench as seen by GPR

10 5 0 5 10 ft

Scale: One inch equals approximately ten feet

NAEVA GEOPHYSICS, INC.
THE LEADER IN SUBSURFACE DETECTION
Subsurface Geophysical Surveys

225 N. Route 303, Suite 102
Congers, NY. 10920
(845)268-1800
(845)268-1802 FAX

Figure 1. Results of a Geophysical Investigation
Wave Gas Station
1880 East Tremont Avenue
Bronx, New York

Client	ROUX Associates, Inc.	Date of Work	May 15, 2015
Project No.	C1505151A	Map By	Hiromi Hamajima

ALL UNDERGROUND FACILITIES MAY NOT BE DEPICTED ON THIS MAP