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GEOTECHNICAL  
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WATER  
CONSTRUCTION  
MANAGEMENT

GZA GeoEnvironmental of NY  
104 West 29th Street  
10th Floor  
New York, NY 10001  
T: 212.594.8140  
F: 212.279.8180  
www.gza.com



October 28, 2016  
File No. 12.0076485.00

Bryan Wong  
New York State Department of Environmental Conservation  
Division of Environmental Remediation, Region 2  
47-40 21<sup>st</sup> Street  
Long Island City, New York 11101

Re: Site Soil Management Plan  
Former NuHart Plastic Manufacturing Site # 224136  
280 Franklin Street  
Brooklyn, New York

Dear Mr. Wong:

At the request of NYSDEC, Goldberg Ziono and Associates of New York, PC d/b/a GZA GeoEnvironmental of New York (GZA) is transmitting this draft Site Soil Management Plan (SSMP) on behalf of Dupont Street Developers, LLC for the above referenced Site for your review. This SSMP will be used by Dupont Street Developers, LLC for all of its contractors for on-site and off-site activities.

Should you have any questions or require any additional information, please do not hesitate to call the undersigned at (973) 774-3300.

Very truly yours,  
GZA GEOENVIRONMENTAL of NEW YORK

James M. Bellew  
Senior Project Manager

David Winslow, P.G., Ph.D.  
Principal

Ernest R. Hanna, P.E.  
Consultant Reviewer

Attachments:  
Site Soil Management Plan



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**SITE SOIL MANAGEMENT PLAN  
FORMER NUHART MANUFACTURING CO.  
NYSDEC SITE NUMBER 224136  
280 FRANKLIN STREET  
BROOKLYN, NY 11222**

October 28, 2016  
File No. 12.0076485.00

**PREPARED FOR:**  
Dupont Street Developers, LLC  
87-10 Queens Boulevard  
Elmhurst, NY 11373

**GZA GeoEnvironmental of New York**  
104 West 29<sup>th</sup> Street, 10<sup>th</sup> Fl. | New York, NY 10001  
973-774-3300

26 Offices Nationwide  
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### FIGURES

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FIGURE 6	FRANKLIN STREET CROSS SECTION

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## A. INTRODUCTION

Pursuant to a request by the New York State Department of Environmental Conservation (NYSDEC), GZA GeoEnvironmental of New York (GZA), has prepared this Site Soil Management Plan (SSMP) on behalf of Dupont Street Developers, LLC. (Dupont) to provide guidance for contractors regarding management for soils and groundwater potentially impacted by historic operations at the former NuHart Plastic Manufacturing Co. located at 280 Franklin Street, Brooklyn, New York (the Site). This SSMP applies only to soils and groundwater impacted by former operations associated with NuHart Plastics at the locations and depths identified in this plan. Soils and groundwater outside of these locations or depths or found to not be impacted from former Site operations and are not subject to this SSMP; these materials should be handled by the contractor in accordance with applicable local state and federal regulations. A Site location plan is provided on **Figure 1**. This SSMP is based on the findings of the Remedial Investigation Report (Ecosystems Strategies Inc., July 2015) and the Feasibility Study (GZA, August 2016). This SSMP was also prepared in general accordance with the NYSDEC Technical Guidance for Site Investigation and Remediation (DER-10) – issued May 2010, NYSDEC Commissioner’s Policy 51/Soil Cleanup Guidance Policy dated October 21, 2010 (CP-51), the New York Code of Rules and Regulations (NYCRR) 6 NYCRR Part 364 Waste Transporter Permits, and 6 NYCRR Part 375, Environmental Remediation Programs dated December 14, 2006 (Part 375). This SSMP is applicable to contractors engaged in disturbance of soil and groundwater in the vicinity of and on the Site, generally where contaminated soil, soil vapor, and/or groundwater have been identified to be impacted by the former Nuhart manufacturing operation.

Please refer to **Figure 1** for a Site Location Plan. The property owner is Dupont and the NYSDEC has requested that Dupont prepare this plan as a general guide to management of potentially impacted soil and groundwater which may be encountered during excavation work. Based on the documented depth to groundwater and associated contamination it is anticipated that there is a potential that some excavation projects may encounter Site related contamination at certain locations discussed in this plan.

### Regulatory Framework

Excavation work conducted in the vicinity and on-Site may fall under the following regulatory agencies including, but not limited to the United States Environmental Protection Agency (USEPA), Occupational Safety and Health Administration (OSHA), New York City Department of Transportation (NYCDOT), NYSDEC, and/or NYC Department of Buildings (NYCDOB). Management of contaminated materials and hazardous substances should be conducted in accordance with municipal, State and Federal laws and regulations to minimize the risks of employee exposure, to protect the public, to prevent further environmental degradation due to the contaminants, and to the extent possible, to reduce liability for contamination.

Further, the legal framework that regulates the Site construction projects includes, but may not be limited to, the Resource Conservation and Recovery Act (RCRA), the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), the Toxic Substance Control Act (TSCA), the National Environmental Policy Act (NEPA), the Clean Air Act (42 United States Code [U.S.C.] 7401 et seq.), the Water Pollution Control Act (33 U.S.C. 1251 et seq.), Solid Waste Disposal Act (42 U.S.C.

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6901–6992k), the NYCRR, the New York State Navigation Law, and the New York State Environmental Quality Review Act (SEQRA).

### **Site Background**

The Site is identified as the Former NuHart Plastic Manufacturing Site, located at 280 Franklin Street in the Greenpoint area of Brooklyn, New York 11222, and is owned by Dupont. The approximately one-acre Site (240 feet by 200 feet) is identified on the Brooklyn Borough tax map as Block 2487, and Lots 1, 10, 12, 72 and 78, as shown on the Site Area Map (Figure 1.1.1). The Site is comprised of the western portion of a vacant industrial building complex (the former NuHart Plastic manufacturing facility).

The Site is bordered to the north by Clay Street, to the west by Franklin Street, to the south by Dupont Street, and to the east by other portions of the former NuHart Plastic manufacturing facility (Lots 17, 18, 20, 21, and 57), as shown on Figure 1.1.1.

### **Objectives**

This SSMP is written to satisfy NYSDEC's request for providing anticipated subsurface conditions and suggested measures for any contractors performing work in areas that may be exposed to contamination from the former operations at the Site. GZA further understands that this document will assist NYSDEC in evaluating if special conditions are required on NYCDOT permit approvals. If the NYSDEC believes that work could potentially come in contact with the Site contamination (phthalates in soil and groundwater) the scope of work will be provided to the Owner for review. Based on the scope of work, GZA will then coordinate with the NYSDEC and/or the Contractor performing the work to gather additional information to assist with formulating a decision. If work may potentially extend into the contaminated areas, GZA will provide the NYSDEC with recommended measures to implement during the work so the NYSDEC may establish an acceptable work protocol.

This document identifies the estimated vertical and horizontal limits of the phthalate and trichloroethylene (TCE) contamination in soil and groundwater. This document does not identify methods or means of identifying subsurface utilities (pre-clearance), excavation, support of excavation, protection of adjacent structures, utility work and any other work specific tasks to be performed by the Contractor. As such, Dupont will not be responsible for directing any Contractors (unaffiliated with work directly pertaining to the NuHart Site), enforcing codes, laws or restrictions to the Contractors, or inspecting any of the Contractors work. If requested by the NYSDEC, a representative from Dupont's environmental consulting firm may be provided for support solely for the purposes of potential environmental exposure as a direct result from the former NuHart operations. Environmental considerations/suggestions may be made in the field to the Contractor but Dupont will not be responsible for enforcement of environmental, construction or safety regulations.



### **NuHart Points of Contact**

GZA will be performing consulting services for the project on behalf of Dupont and will be the NYSDEC point of contact for questions or requests regarding any planned activities on-site and off-site in the vicinity. The GZA main point of contact will be David Winslow (david.winslow@gza.com or 347-242-7107). In the event that Mr. Winslow cannot be reached, the secondary point of contact will be James Bellew (james.bellew@gza.com or 347-640-2759).

### **B. SITE CONDITIONS**

Contaminated soils associated with former operations at the Site may be encountered beneath westernmost lot, the sidewalks and the streets in the vicinity of the Site. See Figure 2 and Figure 3 for the locations where contamination may be encountered. These contaminants will generally be encountered at depths greater than 9 feet. As such, some construction activities may produce or encounter contaminated materials which will require special handling and off-Site disposal. The following text presents an anticipated list of activities which could produce or encounter contaminated material.

**Drilling** – Potentially contaminated drilling spoils or tailings could be produced during environmental and geotechnical investigations, as well as, larger diameter drilling operations for the installation of piles or drilled piers. Utility installation utilizing horizontal drilling could also produce waste materials.

**Utility Relocation/Installation** - Utility relocation or installation may consist of vacuum excavation, machine excavation and hand excavation of soils at locations potentially impacted by former site operations. These soils should be characterized prior to excavation. The majority of soils excavated during these operations are expected to not be impacted by former site operations and should be managed in accordance with local state and federal regulations. In addition, if “impacted” soils are encountered, it should be segregated from “clean” soils.

**Dewatering/Storm Water Management** - It is anticipated that dewatering associated with utility work will not be required or will be of limited scale. However, if groundwater is encountered and dewatering is required at locations potentially impacted by former site operations, then special handling and management will be required.

### **Soil Classification**

Excavation is considered unclassified and consists of the removal of material encountered to construct, level, stockpile and or for laboratory analysis, loading, handling, transporting, and the subsequent legal disposal of such. The excavated material at the Site will likely fall into one of the following categories.

Improvements – Man-produced items such as concrete, brick, asphalt, piping, etc., or those items not naturally occurring.

Non-Hazardous Excavated Material (NHEM) – Material that may include or contain mixtures of the following: soil (including, but not limited to, natural undisturbed material), debris,

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concrete, and concrete products (including steel and fiberglass reinforcing rods that are embedded in the concrete), asphalt pavement, brick, glass, rock, municipal solid waste, refuse, and incidental ash. Includes material defined in *Title 6 New York Code of Rules and Regulations 360-7.1(b) (i)* that will exceed *6 NYCRR Part 375-6.8(a) Unrestricted Use (“Track 1”) Soil Cleanup Objectives and Restricted Use Soil Cleanup Objectives* and *NYSDEC CP-51: Soil Cleanup Guidance Supplemental Soil Cleanup Objectives*. This material is often classified as “urban fill” in the greater New York City region.

Petroleum (LNAPL) Contaminated Material (PCM) – Material (soil, concrete, sediment, UST contents, fill, debris, etc.) that meets the NYSDEC STARS Memo #1 definition of petroleum-contaminated material from known source areas. Petroleum-contaminated material shall be evidenced by the following observations and be from a known source area: producing greater than background responses on a portable vapor meter such as photo ionization detector (PID) or flame ionization detector, petroleum-like odor, visual impacts (e.g., staining or discoloration), proximity to known releases from existing or historic petroleum storage tanks or systems, and exceed the soil cleanup levels for gasoline and/or fuel oil contaminated soil provided in the *NYSDEC CP-51: Soil Cleanup Guidance*. The evaluation as to whether the excavated material is petroleum-contaminated or is non-petroleum contaminated material will be made by analytical testing of representative material samples.

Hazardous Waste – Material meeting the definition of a Resource Conservation and Recovery Act (RCRA) hazardous waste as defined in *40 CFR Part 261, New York State ECL Section 27-09* or *6 NYCRR Part 371*.

Environmentally Clean Fill or Soil – This is defined as soils that have been tested utilizing methods that yield laboratory reporting limits that are below the regulatory comparison criteria and found to contain:

- a. No detectible concentrations of volatile organic compounds (VOCs);
- b. No other organic compounds or inorganic constituents at concentrations above *6 NYCRR 375-6 Unrestricted Use Soil Cleanup Objectives*;
- c. No other organic compounds or inorganic constituents at concentrations above the lower of the *NYSDEC CP-51: Soil Cleanup Guidance Residential Use, Protection of Ecological Resources*, and *Protection of Groundwater Supplemental Soil Cleanup Objectives*; and
- d. For sites with no ecological resources (as described in *CP-51, Section C.*) the *Supplemental Soil Cleanup Objectives for Ecological Resources* shall not apply. The determination regarding whether ecological resources are present shall be made by the IEH Division of the Authority.

### Anticipated Soil and Groundwater Conditions

Estimated extents of the TCE and related chlorinated solvent and LNAPL plume are shown as **Figure 2** and **Figure 3**, respectively. Cross sections of each area are shown on an estimated vertical profile of Clay Street (Figure 4), Dupont Street and Franklin Street as **Figure 5**, **Figure 6** and **Figure 7**, respectively.

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### On Site LNAPL Plume

Phthalates and lubricating oil (Hecla oil), most likely released from the Site's tank and piping/trench systems, are present as an LNAPL plume floating on the groundwater surface. The LNAPL plume is present beneath much of the Site, particularly in the western half of the Site where most of the phthalate and lubricating oil-related infrastructure was present, as shown on Figure 3. The top of the LNAPL-impacted zone is generally found at about 13 to 15 feet below the top of the slab (except in immediate proximity to tanks), which when integrated with the varying slab elevations. The bottom of the LNAPL-impacted zone was generally identified at about 14 to 17 feet below the top of the slab.

### On Site Trichloroethylene (TCE) Plume

The TCE and related chlorinated solvent plume were detected at limited solvent "hot spot" area in the northeastern portion of the Site, as shown on Figure 2. This "hot spot" extends slightly offsite beneath the sidewalk on the south side of Clay Street, but does not extend to the north side of Clay Street, to the east of the Site, or to the west of soil boring 3SB-5. The impacted soil has been identified only at depth (generally 10 to 25 feet bgs). Soil above 10 feet bgs did not exhibit detections of chlorinated solvent VOCs in excess of the Unrestricted Use Site Cleanup Objectives, with the only exception being soil in the 0 to 5-foot interval of onsite soil boring 2SB-2.

*Dupont & Franklin Street:* The LNAPL plume for phthalates and petroleum is present within the southwestern portion of the Site and extends across a majority of Franklin Street. The LNAPL plume does not extend underneath the sidewalk at the southwestern corner of Dupont and Franklin Street; but, - does extend to at least the sidewalk at the northwestern corner of Dupont and Franklin. The thickness of the LNAPL within the plume has been reported to range between 0.15 feet to 3.33 feet. The approximate depth of encountering the LNAPL plume is 10 to 14 ft bgs. Excavation work that occurs above this zone is considered to be within the vertical limits of non-hazardous excavated material or urban fill and will not be subject to this management plan.

*Clay Street:* The TCE and related chlorinated solvent plume is present within the northeastern portion of the Site and extends to the northwest across Clay Street towards its intersection with Commercial Street. The average depth of TCE and related chlorinated solvent plume is 18 to 23 ft bgs in groundwater and 10 to 20 ft bgs in soil. Excavation work that occurs above this zone is considered to be within the vertical limits of non-hazardous excavated material or urban fill.

Below please see a discussion of analytical results:

### Volatile Organic Compounds (VOCs)

TCE and related chlorinated solvents were detected at levels below the Restricted Residential Site Cleanup Objectives (RR-SCOs), but above the Unrestricted Use Site Cleanup Objectives (UU-SCOs) in a limited area in the northeastern portion of the Site. This area" extends offsite beneath the sidewalk on the south side of Clay Street, but does not extend to the north side of Clay Street. The impacted soil has been identified only at depth (generally 10 to 25 feet bgs). Soil above 10 feet bgs did not exhibit detections of chlorinated solvent VOCs in excess of the UU-SCOs, with the only exception being soil in the 0 to 5-foot interval of on-site soil boring 2SB-2. A limited number of other VOCs, (acetone, xylenes, and 1,2,4-trimethylbenzene) were found above the UU-SCOs, but below the RR-SCOs, in soil at other locations on the Site. Two acetone detections above the UU-  
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SCOs and below the RR-SCOs were also noted beneath the former NuHart facility to the east of the Site and acetone was detected above the UU-SCO at one location beneath the sidewalk to the north of the Site.

TCE and related chlorinated VOCs associated with the Site are present in groundwater beneath the northeastern portion of the Site and extend a short distance offsite to the north-northwest, as shown on Figure 2. The highest concentrations of chlorinated VOCs are detected at onsite well MW-34 and offsite wells MW-8 and MW-40, located immediately north and east, respectively, of the apparent source area on the northeastern portion of the Site (see Figure 2).

#### Phthalates

Soils impacted with semi-volatile organic compounds (SVOCs), associated with former Site operations (analyte levels above the RR-SCOs), and are limited to bis (2-ethylhexyl) phthalate (DEHP) and di-n-octyl phthalate (DOP). Impacted soil is located at and near the groundwater interface in the area where LNAPL is present. As the GW-SCOs for these two phthalates are higher than the RR-SCOs (due to the low solubility of these compounds), the area where soil contamination levels for DEHP and/or DOP exceed the GW-SCOs is somewhat more limited, but generally includes a similar area. Soil contamination associated with DEHP and/or DOP is found in offsite soil located at and near the groundwater interface in the area where LNAPL is present, generally to the west and southwest of the Site. The interval of impacted soil is found only at depth (approximately 8 to 10 feet bgs). From the lab data, phthalate concentrations were noted to exceed the RR-SCOs (and in some cases the GW-SCOs) at limited locations where LNAPL is present or in close proximity to the affected soil. None of the other phthalate detections were noted to exceed the SCOs.

The LNAPL plume is present beneath much of the Site, particularly in the western half of the Site where most of the phthalate and lubricating oil-related infrastructure was present as shown in Figure 3. The LNAPL plume extends offsite to the west and southwest, including beneath the east side of Franklin Street, the north side of Dupont Street, and across these streets somewhat to the northwest and southeast corners of the Franklin/Dupont intersection. LNAPL has also been found in one offsite well (MW-7) on the south side of Clay Street.

#### Metals

Several metals were detected in excess of the UU-SCOs in onsite soil, including chromium, copper, iron, lead, nickel, and/or selenium, as noted on Table 7 in the RI Report. These detections are very similar to those detected in offsite soil (chromium, iron, nickel, selenium, and/or zinc). None of the detections in onsite or offsite soil exceeded the RR-SCOs with the exception of iron. These detections are most likely related to materials in the historic fill and are characteristic of historic fill commonly found in the New York City metropolitan area. Neither the distribution of these detections, nor the levels of the detections, is indicative of a release of metals contaminants at the Site. Therefore, all metals encountered in the soils are associated with fill material and not subject to this management plan.



### **C. CONTRACTOR HEALTH AND SAFETY**

It is assumed that all personnel involved in excavation activities for any Contractor will comply with applicable Occupational Safety and Health Administration (OSHA) rules and regulations, New York City Department of Buildings (NYCDOB) requirements, and their company issued Site-specific Health and Safety Plan (HASP). It is suggested for work that is occurring in potentially environmentally impacted areas at depths shown to be impacted by former site operations that employees have OSHA 40-Hour HAZWOPER training. The Site Contractor(s) will be responsible for providing all necessary training and requirements to perform the work and overall execution of their Site Specific Health and Safety.

GZA suggests that if work is to be conducted in areas and at depths characterized by potential impacts from former Site operations that worker protection air monitoring be conducted in accordance with OSHA regulations. Proper personal protective equipment (PPE) should be worn based on the information provided in this report and based on worker protection air monitoring. While the environmental consultant from Dupont may be on-Site providing oversight and suggest guidance for proceeding in contaminated areas, the decisions pertaining to PPE and other worker safety monitoring is solely the responsibility of the Contractor performing the work.

### **D. MANAGEMENT OF EXCAVATED SOIL**

Due to the nature of the contamination, it is suggested that minimal stockpiling be conducted if excavation is to extend into the areas and depth characterized by impacts from former Site operations and that excess soils be containerized in drums, roll-offs or directly loaded out to a disposal facility. However, should it be necessary for material to be stockpiled, it should be placed on 6-mil thick polyethylene sheeting, a berm be constructed around the stockpile and it be covered when not in use. This excavated material should not be placed directly on the surface of the ground. Each stockpile should be labeled and the position recorded on field maps as to the location from which the material was derived. In the event that excavated material is stockpiled, it will be divided into separate and clearly distinct components based on the material classification described above. To prevent the loss of excessive air borne dust and erosion by storm water contact, the soil stockpiles should be covered at the end of each work shift by 6-mil thick polyethylene sheeting secured in place with 30-lb sandbags (or other items with equivalent weights). Other erosion control measures such as silt fence or stacked hay-bales will be installed around the perimeter of the stockpiles, if necessary, to prevent erosion. Examples of dust and odor suppression are: application of water, mist or foams, and covering the material with polyethylene sheeting.

Dry drilling cuttings from the zone impacted by former site operations should be properly containerized in NYSDOT approved 55-gallon drums, or roll-off waste collection bins, for subsequent off-Site disposal at an approved facility. All drums and roll-offs should be clearly labeled with the contents and the origin; all roll-off bins will also be clearly marked "Drilling (or Excavated, as appropriate) Soils Only". The drums or sealed roll-offs must be stored only at that location until the waste is sent (with an appropriate hazardous/non-hazardous waste manifest) to a permitted transfer, storage and off-Site disposal (TSD) facility.

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Generators may accumulate/store hazardous wastes for only allotted maximum time periods. The contractors must comply with the generator requirements of 6NYCRR Part 372.2 and the provisions included by reference for personnel training, preparedness and prevention, contingency plans and emergency procedures, and the management of container requirements.

#### **E. Community Air Monitoring Plan (CAMP)**

Community Air monitoring for VOCs and particulates will be performed during intrusive activities when excavations extend into potentially impacted areas as detailed in Section B, *Anticipated Soil and Groundwater Conditions*. The CAMP will be performed generally in accordance with the *New York State Department of Health – Generic Community Air Monitoring Plan* and implementation will be recommended by the NYSDEC based on the proposed scope of work and the potential for sensitive receptors to be impacted by the construction activities. The amount and placement of station(s) will be evaluated based on the location of the work but will generally be fixed at an upwind and/or downwind location. To the best extent possible, station(s) will be located in spaces less likely to be impacted by activities unrelated to the site work including but not limited to vehicle emissions, pedestrian smoking, painting and other anthropogenic operations. In the event that the work is located in an area such that there are numerous receptors, a periodic rover may be used to monitor the receptors with a PID and record their readings. The use of a rover and the frequency of monitoring readings will be determined based on the nature of the proposed scope of work and the location of receptors to the work activities. Station locations and the need for a roving monitor will be discussed by the Owner's Consultant and the NYSDEC prior to implementation. Exceedances of action levels derived from construction activities will require mitigation measures to be implemented and will be reported to the NYSDEC Project Manager and included in the Daily Report. During the initial review of the scope of work, the Owner's consultant may recommend the Contractor to have mitigation equipment available for the duration of the work.

#### **F. DISPOSAL**

GZA assumes that the Contractor(s) will perform their own waste characterization sampling for disposal facility purposes. Based on the above, excavated material from ground surface to an estimated distance above the soil/groundwater interface will most likely be classified as "urban fill" or nonhazardous excavated material and is not subject to this management plan. For excavated material an estimated distance above, at and below the soil/groundwater interface; phthalates, hecla oil and/or chlorinated solvent impacts may be present and are subject to this management plan. In the event of excavation extending into these impacted areas, it is suggested that coordination with the Contractor, NYSDEC and the Dupont Project team occur before work commences as the potential for this material to be classified as hazardous waste exists and proper manifesting and disposal of this material will be required.

GZA assumes that the Contractor(s) will ensure that all requirements, permits and manifests are obtained prior to performing any work in the area and will be provided for project documentation. GZA and Dupont will need to approve any proposed disposal facility for materials subject to this management plan.

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All hazardous and non-hazardous materials subject to this management plan should be transported from the point of generation to an appropriately permitted TSD facility. In addition, all non-hazardous contaminated material should be removed in a similar fashion. When hazardous materials, non-hazardous contaminated materials and non-contaminated materials subject to this plan are removed, Dupont will authorize GZA to sign as the “Generator” on behalf of Dupont. The trucker and the receiving facility will also sign the waste manifest forms, as required. After delivery of the waste to the TSD facility, the signed and completed waste manifests will be provided to Dupont. All transporter Waste Hauler’s Permits should be provided to GZA and Dupont prior to shipment.

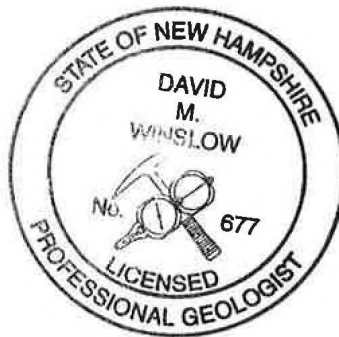
**G. SIGNATURE OF CERTIFIED PREPARER**

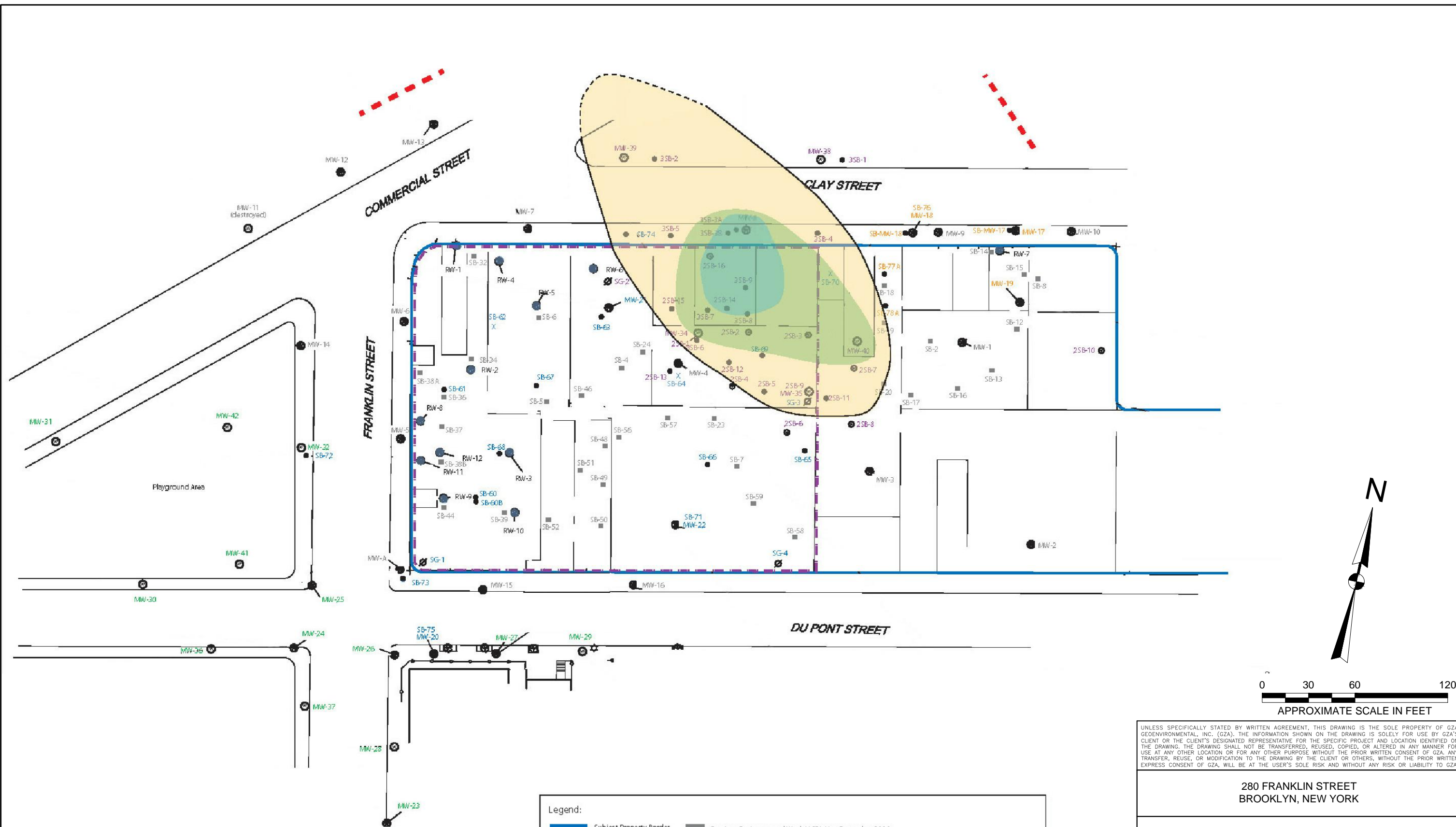
David Winslow, PG has prepared this Site Soil Management Plan for the Former Nuhart Plastic Manufacturing Site, NSYDEC Site Number 224136 located at 280 Franklin Street, Brooklyn, New York, for providing information and suggesting guidelines on current environmental conditions for potential activities on-site and off-site. Additionally, David Winslow hereby certifies that he is a currently licensed/certified Professional Geologist (New Hampshire PG # 677).

**PREPARED BY:**



Name: David Winslow





**NOTES:**

1. THE BASE MAP WAS DEVELOPED FROM AN ELECTRONIC FILE PROVIDED BY DUPONT STREET DEVELOPERS, LLC, ENTITLED "TCE ISOCONCENTRATIONS IN GROUNDWATER," DATED JULY 2015, ORIGINAL SCALE 1" = 50'.

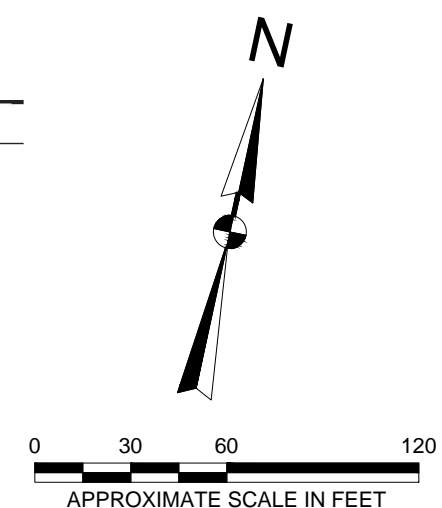
**Legend:**

Subject Property Border	Previous Environmental Work (ASR), May-December 2006
Registry Site Boundary	RIWP/HWD Site (ESI), February - April 2012
Previous ASR Sample Locations	RIWP Spill Site (ESI), February-April 2012
ESI Soil Gas Sample Location	Off-site LNAPL Investigation (ESI) July 2012-December 2014
ESI Boring Location with Soil Gas	TCE Investigation (ESI), July 2013-September 2014
Recovery Well Location	100 ≤ TCE < 1,000
Monitoring Well Location	1,000 ≤ TCE < 10,000
ESI Sample Locations	10,000 ≤ TCE
ESI Refusal Locations	

UNLESS SPECIFICALLY STATED BY WRITTEN AGREEMENT, THIS DRAWING IS THE SOLE PROPERTY OF GZA GEOTECHNICAL, INC. (GZA). THE INFORMATION SHOWN ON THE DRAWING IS SOLELY FOR USE BY GZA'S CLIENT OR THE CLIENT'S DESIGNATED REPRESENTATIVE FOR THE SPECIFIC PROJECT AND LOCATION IDENTIFIED ON THE DRAWING. THE DRAWING SHALL NOT BE TRANSFERRED, REUSED, COPIED, OR ALTERED IN ANY MANNER FOR USE AT ANY OTHER LOCATION OR FOR ANY OTHER PURPOSE WITHOUT THE PRIOR WRITTEN CONSENT OF GZA. ANY TRANSFER, REUSE, OR MODIFICATION TO THE DRAWING BY THE CLIENT OR OTHERS, WITHOUT THE PRIOR WRITTEN EXPRESS CONSENT OF GZA, WILL BE AT THE USER'S SOLE RISK AND WITHOUT ANY RISK OR LIABILITY TO GZA.

<b>280 FRANKLIN STREET BROOKLYN, NEW YORK</b>			
<b>TCE ISOCONCENTRATIONS IN GROUNDWATER</b>			
PREPARED BY: GZA GeoEnvironmental, Inc. Engineers and Scientists www.gza.com		PREPARED FOR: DUPONT STREET DEVELOPERS, LLC	
PROJ MGR: JB	REVIEWED BY: ZS	CHECKED BY: JB	<b>FIGURE 2 SHEET NO.</b>
DESIGNED BY: ZS	DRAWN BY: MT	SCALE: 1" = 60'	
DATE: AUGUST 2016	PROJECT NO: 12.0076485.00	REVISION NO.	





**Legend:**

- - - Chain Link Fence
- ⊙ Monitoring Well Location
- ⊕ Recovery Well Location
- Area of LNAPL contamination

Well #	No product detected
Thickness of Product	< 1 ft of product
	> 1 ft of product

\* Well equipped with automated product recovery  
 ## LNAPL observed, depth not recorded  
 - Data not recorded

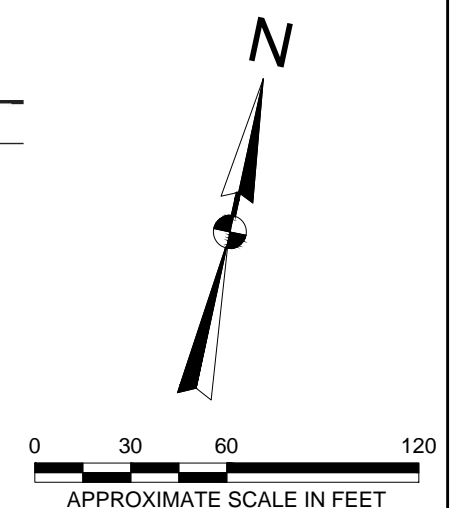
All data recorded May 2015 with exception of RW-5, data recorded April 2015

**NOTES:**

1. THE BASE MAP WAS DEVELOPED FROM AN ELECTRONIC FILE PROVIDED BY DUPONT STREET DEVELOPERS, LLC, ENTITLED "AREAL EXTENT OF LNAPL IN GROUNDWATER," DATED JULY 2015, ORIGINAL SCALE 1" = 50'.

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<b>280 FRANKLIN STREET BROOKLYN, NEW YORK</b>			
<b>AREAL EXTENT OF LNAPL IN GROUNDWATER</b>			
PREPARED BY: <b>GZA GeoEnvironmental, Inc.</b> Engineers and Scientists www.gza.com		PREPARED FOR: DUPONT STREET DEVELOPERS, LLC	
PROJ MGR: JB	DESIGNED BY: ZS	REVIEWED BY: ZS	CHECKED BY: JB
DATE: AUGUST 2016	PROJECT NO. 12.0076485.00	SCALE: 1" = 60'	REVISION NO.
			<b>FIGURE 3 SHEET NO.</b>



**Legend:**

- Chain Link Fence
- ⊙ Monitoring Well Location
- ⊕ Recovery Well Location
- Soil Boring Location
- Area of LNAPL contamination

Well #	Green box	No product detected
Thickness of Product	Blue box	< 1 ft of product
	Yellow box	> 1 ft of product

\* Well equipped with automated product recovery  
 ## LNAPL observed, depth not recorded  
 - Data not recorded

All data recorded May 2015 with exception of RW-5, data recorded April 2015

**NOTES:**

1. THE BASE MAP WAS DEVELOPED FROM AN ELECTRONIC FILE PROVIDED BY DUPONT STREET DEVELOPERS, LLC, ENTITLED "AREAL EXTENT OF LNAPL IN GROUNDWATER," DATED JULY 2015, ORIGINAL SCALE 1" = 50'.

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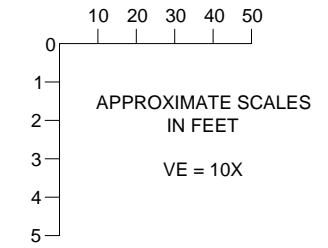
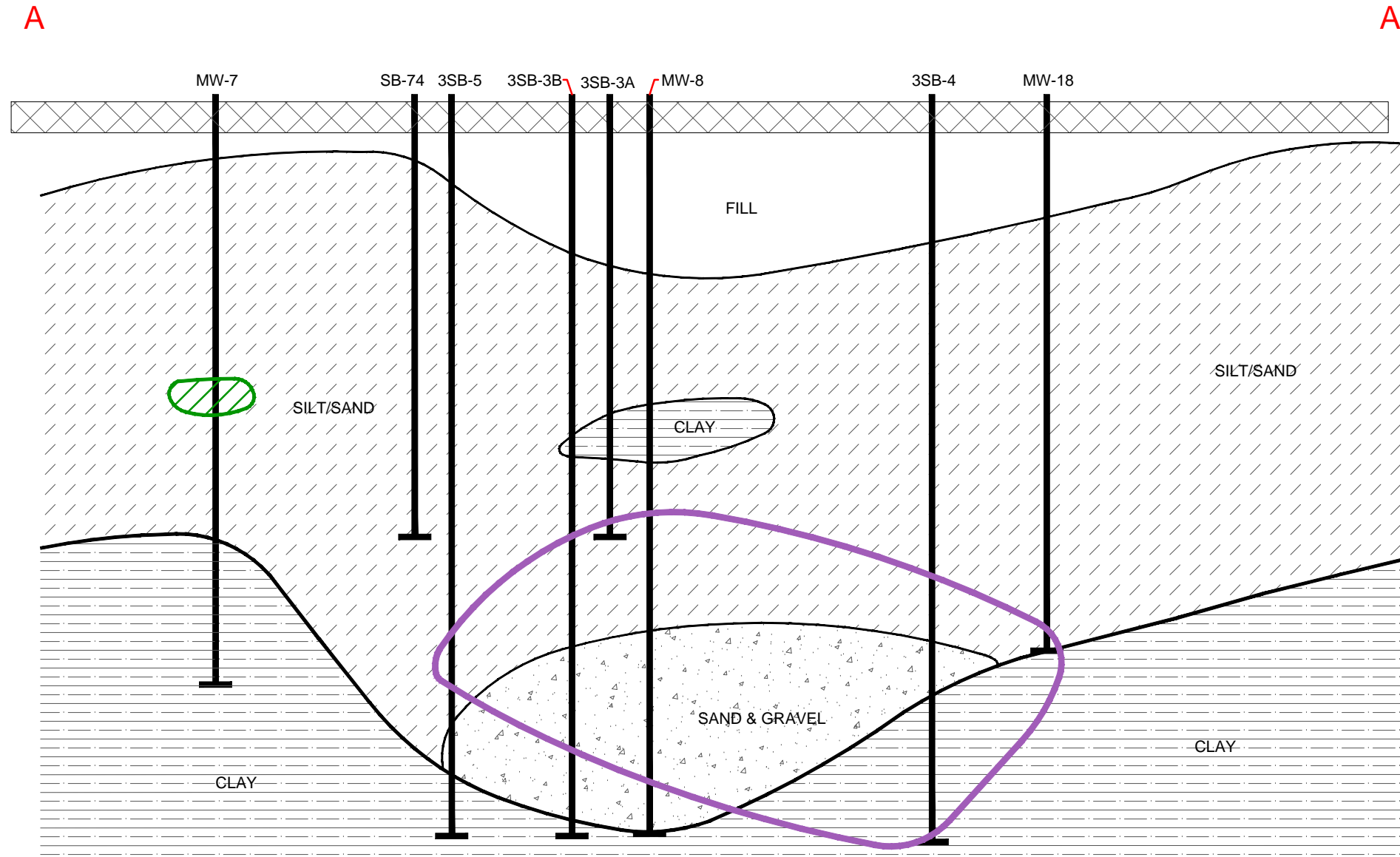
**280 FRANKLIN STREET  
BROOKLYN, NEW YORK**

**AREAL EXTENT OF LNAPL IN GROUNDWATER**

PREPARED BY: GZA GeoEnvironmental of New York Engineers and Scientists 104 WEST 29TH STREET, 10TH FLOOR NEW YORK, NEW YORK 10001	PREPARED FOR: DUPONT STREET DEVELOPERS, LLC		
PROJ MGR: JB DESIGNED BY: ZS DATE: SEPT. 2016	REVIEWED BY: ZS DRAWN BY: MT PROJECT NO. 12.0076485.00	CHECKED BY: JB SCALE: 1" = 60' REVISION NO.	FIGURE <b>4</b> SHEET NO.



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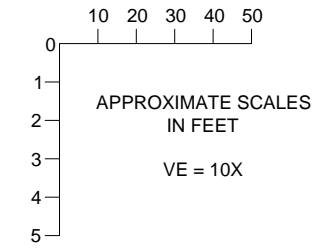
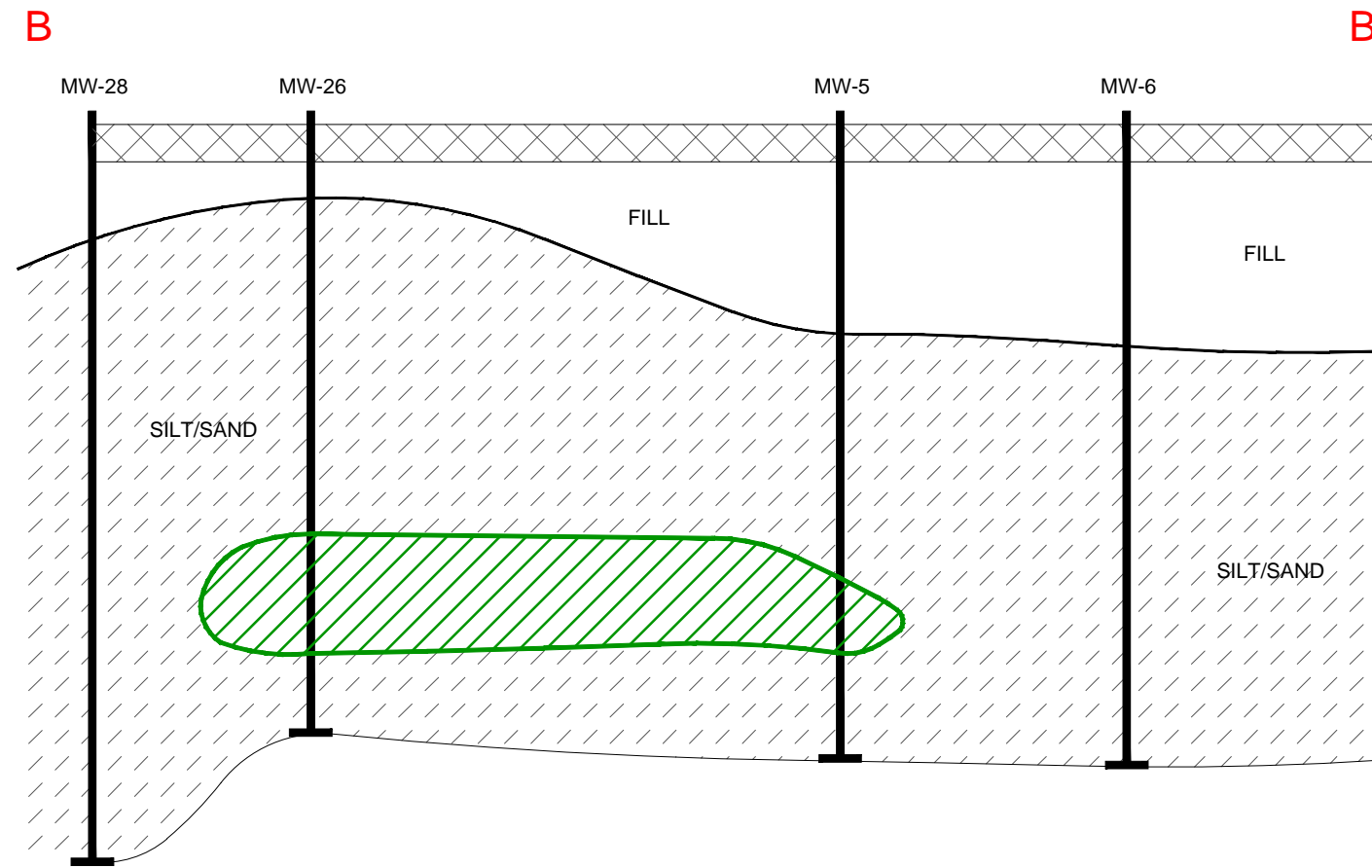







- LEGEND:**
- CONCRETE/ASPHALT
  - FILL
  - SILT/SAND
  - CLAY
  - SAND & GRAVEL
  - LNAPL (APPROXIMATE)
  - TCE PLUME (APPROXIMATE)
  - MW MONITORING WELL
  - SB SOIL BORING

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280 FRANKLIN STREET BROOKLYN, NEW YORK			
CROSS SECTION A-A'			
PREPARED BY: GZA GeoEnvironmental of New York Engineers and Scientists 104 WEST 29TH STREET, 10TH FLOOR NEW YORK, NEW YORK 10001		PREPARED FOR: DUPONT STREET DEVELOPERS, LLC	
PROJ MGR: JB	REVIEWED BY: ZS	CHECKED BY: JB	FIGURE <b>5</b>
DESIGNED BY: ZS	DRAWN BY: MT	SCALE: AS NOTED	
DATE: SEPT. 2016	PROJECT NO. 12.0076485.00	REVISION NO.	SHEET NO.

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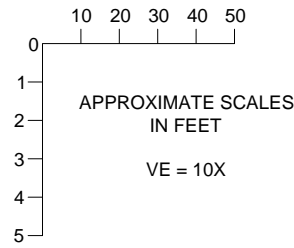
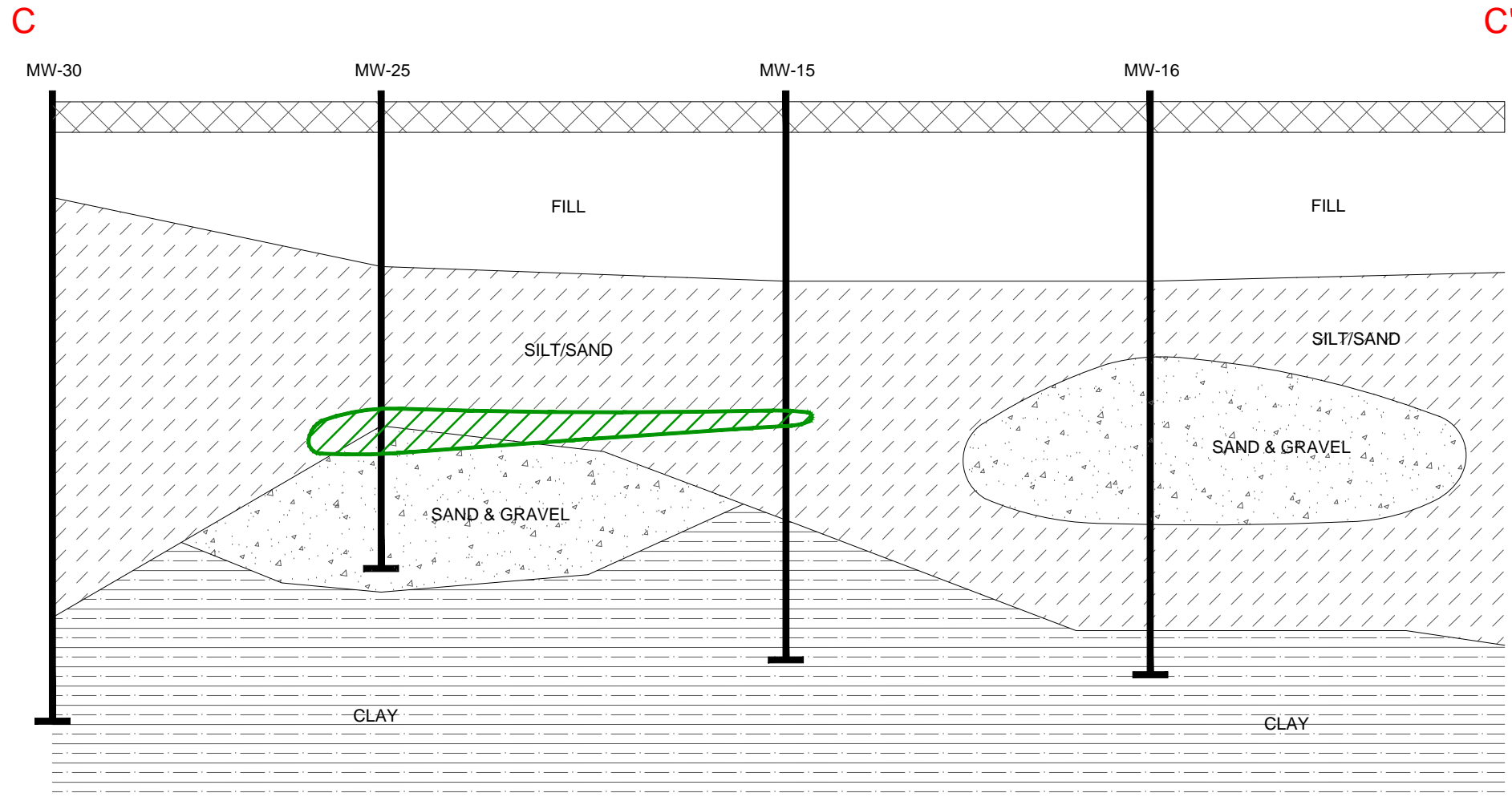









- LEGEND:**
-  CONCRETE/ASPALT
  -  FILL
  -  SILT/SAND
  -  LNAPL (APPROXIMATE)
  -  MW MONITORING WELL

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280 FRANKLIN STREET BROOKLYN, NEW YORK			
CROSS SECTION B-B'			
PREPARED BY:  GZA GeoEnvironmental of New York Engineers and Scientists 104 WEST 29TH STREET, 10TH FLOOR NEW YORK, NEW YORK 10001		PREPARED FOR: DUPONT STREET DEVELOPERS, LLC	
PROJ MGR: JB	REVIEWED BY: ZS	CHECKED BY: JB	<b>FIGURE</b>  <b>6</b> SHEET NO.
DESIGNED BY: ZS	DRAWN BY: MT	SCALE: AS NOTED	
DATE: SEPT. 2016	PROJECT NO. 12.0076485.00	REVISION NO.	

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- LEGEND:**
-  CONCRETE/ASPHALT
  -  FILL
  -  SILT/SAND
  -  CLAY
  -  SAND & GRAVEL
  -  LNAPL (APPROXIMATE)
  -  MW MONITORING WELL

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CROSS SECTION C-C'			
PREPARED BY:  GZA GeoEnvironmental of New York Engineers and Scientists 104 WEST 29TH STREET, 10TH FLOOR NEW YORK, NEW YORK 10001		PREPARED FOR: DUPONT STREET DEVELOPERS, LLC	
PROJ MGR: JB	DESIGNED BY: ZS	REVIEWED BY: ZS	CHECKED BY: JB
DATE: SEPT. 2016	PROJECT NO. 12.0076485.00	SCALE: AS NOTED	REVISION NO.
			<b>FIGURE</b> <b>7</b> SHEET NO.