Residential Backyards 57-40, 57-42, and 57-48 57th Drive

QUEENS, NEW YORK

Off-site Final Engineering Report

Prepared for:

Consolidated Edison Company of New York, Inc.

Long Island City, New York

Prepared by:

Jacques Whitford Engineering Group, P.C.

and

Jacques Whitford Company, Inc.

Portsmouth, New Hampshire

MAY 2009

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CERTIFICATIONS

I, Craig R. Gendron, am currently a registered professional engineer licensed by the State of New York. I had primary direct responsibility for implementation of the remedial program in the residential backyards located at 57-40, 57-42, and 57-48 57th Drive, Maspeth, Queens County, New York.

I certify that the Site description presented in this Off-site FER is identical to the Site descriptions presented in the Backyard Remedial Excavation Work Plan.

I certify that the Backyard Remedial Excavation Work Plan dated July 30, 2007 and Backyard Remedial Excavation Work Plan – Addendum dated June 6, 2008 and approved by the NYSDEC were implemented and that all requirements in those documents have been substantively complied with.

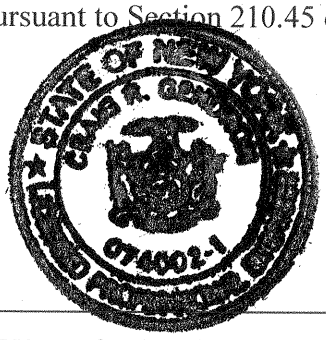
I certify that the remedial activities were observed by qualified environmental professionals under my responsible charge and that the remediation requirements set forth in the Remedial Excavation Work Plans and any other relevant provisions of ECL 27-1419 have been achieved.

I certify that all export of contaminated soil, fill, water or other material from the property was performed in accordance with the Backyard Remedial Excavation Work Plan, and were taken to facilities licensed to accept this material in full compliance with all Federal, State and local laws.

I certify that all import of soils from off-site, including source approval and sampling, has been performed in a manner that is consistent with the methodology defined in the Backyard Remedial Excavation Work Plan.

I certify that all invasive work during the remediation and all invasive development work were conducted in accordance with the dust and odor suppression methodology and the soil screening methodology defined in the Backyard Remedial Excavation Work Plan.

I certify that all information and statements in this certification are true. I understand that a false statement made herein is punishable as Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.



5/15/09

NYS Professional Engineer # 074002-1 Date Signature

Note: include PE stamp

It is a violation of Article 130 of New York State Education Law for any person to alter this document in any way without the express written verification of adoption by any New York State licensed engineer in accordance with Section 7209(2), Article 130, New York State Education Law.

DISCLOSURE STATEMENT

The Laws of New York State require that corporations that render engineering services in New York be owned by individuals licensed to practice engineering in the State. Jacques Whitford Company, Inc. (Jacques Whitford) cannot meet that requirement. Therefore, all engineering services rendered to Consolidated Edison Company of New York, Inc. in New York are being performed by Jacques Whitford Engineering Group, Inc., P.C.; a New York Professional Corporation qualified to render professional engineering services in New York. There is no surcharge or extra expense associated with the rendering of professional services by Jacques Whitford Engineering Group, Inc., P.C.

Jacques Whitford is performing all those services that do not constitute professional engineering and is providing administrative and personnel support to Jacques Whitford Engineering Group, Inc., P.C. All communications should be referred to the designated Project Manager at Jacques Whitford.

OFF-SITE FINAL ENGINEERING REPORT

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LIST OF ACRONYMS

Acronym	Definition
AOC	Area of Concern
bgs	Below ground surface
CAMP	Community Air Monitoring Plan
CFR	Code of Federal Regulations
CLSM	Controlled Low Strength Material
CY	Cubic yards
DER-10	Division of Environmental Remediation
DUSR	Data Usability Summary Report
ECL	Environmental Conservation Law
EHASP	Environmental Health & Safety Plan
EPA	Environmental Protection Agency
feet bgs	Feet below ground surface
FER	Final Engineering Report
GP	Geoprobe®
MDL	Method Detection Limit

LIST OF ACRONYMS (CONT'D)

Acronym	Definition
MSL	Mean Sea Level
NYCRR	New York Administrative Code
NYS	New York State
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
PCBs	Polychlorinated biphenyls
PDR	Personal DataRAM
PID	Photoionization Detector
ppm	Parts per million
QHHEA	Qualitative Human Health Exposure Assessment
RA	Remedial Action
RAO	Remedial Action Objective
RAWP	Remedial Action Work Plan
RI	Remedial Investigation
RSCO	TAGM Recommended Soil Cleanup Objectives
SCG	Standards, Criteria and Guidance
SCO	Soil Cleanup Objective

LIST OF ACRONYMS (CONT'D)

Acronym	Definition
sf	Square Foot
SMP	Site Management Plan
STEL	Short Term Exposure Limit
SVOCs	Semi Volatile Organic Compounds
SW	Sidewall
TAGM	NYSDEC Technical and Administrative Guidance Memorandum #4046
TOGS	Technical & Operational Guidance Series
TPH	Total Petroleum Hydrocarbons
VCA	Voluntary Cleanup Agreement
VCPG	Voluntary Cleanup Program Guide
VOCs	Volatile Organic Compounds

OFF-SITE FINAL ENGINEERING REPORT

1.0 BACKGROUND

Consolidated Edison Company of New York (Con Edison) entered into a Voluntary Cleanup Agreement (VCA) with the New York State Department of Environmental Conservation (NYSDEC) in February 2000, to investigate and remediate the property located at 57-77 Rust Street in the Maspeth section of Queens County, New York (Figure 1). This property, the former Con Edison Maspeth Substation, is approximately 0.5 acres in size and includes a one-story industrial building located in the southern portion of the property and a vacant former transformer yard (former transformer yard) in the northern portion. To the north of the vacant yard are attached row houses with small backyards and 57th Drive (Figure 2). The backyards of the row houses are identified hereinafter as the "site properties".

Based on remedial investigation results of the vacant yard, it was determined that contamination beneath this area was primarily associated with residual polychlorinated biphenyls (PCB). The data indicated that PCB contamination existed in both soils and groundwater. Free-phase product containing PCBs was observed on the water table, which generally fluctuated approximately 15 to 18 feet below ground surface (ft bgs). From the field observations and the laboratory data, the free-phase product appeared to be limited in extent within the confines of the yard as well as detected in at least one nearby off-site monitoring well. To address this issue, a Remedial Action Work Plan (RAWP), dated November 10, 2004 (the November 2004 RAWP) was subsequently submitted to, and approved by, the NYSDEC on January 31, 2005.

During the course of the remedial excavation activities within the former transformer yard, elevated levels of PCB contamination were discovered in sidewall soils at the northern boundary of the excavation, underneath the concrete fence footer, and adjacent to the backyard property boundary located at 57-42 57th Drive in November 2005. The elevated levels of PCBs in soils exceeded the NYSDEC Technical and Administrative Guidance Memorandum (TAGM) No. 4046 Recommended Soil Cleanup Objective (RSCO) for PCBs of 1.0 parts per million (ppm) (see Table 1-1).

As a result of this finding, Con Edison conducted subsurface soil sampling in November and December 2005. The soil samples collected in 2005 were located along the length of the fence line that is adjacent to the row houses to the north (Figure 3). The analytical laboratory results indicated exceedances of NYSDEC TAGM 4046 RSCOs for PCBs at three locations: MA-GP-57-30 (10 ft bgs); MA-GP-62, 64 (6 ft bgs); and MA-GP-67,64 (5 ft bgs). The impacted soils at MA-GP-57-30 (10 ft bgs) were excavated during the remedial activities conducted in the former transformer yard of the former Maspeth Substation. The impacted soils at MA-GP-62, 64 (6 ft bgs); and MA-GP-67,64 (5 ft bgs) were located at the property line between the former transformer yard and 57-42 57th Drive and are part of the remediation discussed in this Off-site FER.

Based upon those analytical results, Con Edison conducted additional soil sampling in May and June 2007 on the north side of the fence, within the backyards of the adjacent residential row houses (Figure 4). The analytical results from this sampling event reported Total PCBs at concentrations below the laboratories Method Detection Limit (MDL) in the majority of the soil samples. Three samples had detected concentrations of total PCBs above the Residential Cleanup Standard of 1 ppm. These three samples (MA-GP-23, 66; MA-GP-71,68; and MA-GP-82,67 (Figure 5)) were located in the surface soils (from 2-inches to 2-feet) in the back yards of #57-40, #57-42, and #57-48, respectively. Figure 5 also shows the locations of two samples (MA-GP-62,64 and MA-GP-67-64) collected in November 2005 underneath the fence footer that had detected concentrations of total PCBs above the Residential Cleanup Standard of 1 ppm.

Based on the 2005 and 2007 soil analytical results, Con Edison prepared a Remedial Excavation Work Plan For Residential Yards and Fence Line Soil Contamination (Work Plan), dated July 30, 2007 for NYSDEC review. That Work Plan presented remedial excavation activities for removing PCB impacted soils from the three residential backyards with exceedances of the RSCO for PCBs.

Remedial excavation activities, outlined in the July 30, 2007 Work Plan, were subsequently conducted from October through December 2007. However, due to proximate location of the contaminated soils to the residence located at 57-44 57th Drive it was determined that the soil could not be removed (via methods outlined in the Work Plan) from this area without causing structural damage to the house. Therefore, Con Edison prepared an addendum to the Work Plan, dated June 6, 2008, which described the methodologies to remove these remaining “hot-spots”. Both the Work Plan and Work Plan – Addendum are presented in Appendix B. Details of the remedial activities in the

backyards of the 57th Drive residences (57-40, 57-42, and 57-48 57th Drive) are described in following Sections.

1.1 OFF-SITE LOCATION AND DESCRIPTION

The properties are located in the Maspeth section of Queens County, New York and are identified as follows:

- 57-40 57th Drive: Block & Lot 02676-019 on the Maspeth Tax Map 41403;
- 57-42 57th Drive: Block & Lot 02676-020 on the Maspeth Tax Map 41403; and
- 57-48 57th Drive: Block & Lot 02676-023 on the Maspeth Tax Map 41403.

A map (Figure 2) shows the properties location. Each property contains a two story residential structure with a small back yard (approximately 8 ft x 10 ft) on a 600 square foot lot. These Site properties are bounded by 57th Drive to the north, the vacant transformer yard of the former Maspeth Substation to the south, other residences and 58th Street to the east, and other residences and Rust Street to the west (see Figure 2). A Metes and Bounds survey of the Site is not required under the Work Plan or Work Plan - Addendum.

1.1.1. Sensitive Receptors

A Qualitative Human Health Exposure Assessment (QHHEA) was not conducted on these Site properties. However, a QHHEA, dated February 2003, was conducted in accordance with Voluntary Cleanup Program Guide (VCPG Appendix C; May 2002) for the vacant transformer yard of the former Maspeth Substation. For that QHHEA evaluation, the potential human receptors (people who may come in contact with contaminated media) were determined to include construction and utility personnel working in subsurface soils, and on- and off-site residents who may be exposed to dust from subsurface soils during excavation related activities.

Based on that QHHEA, potential receptors at the residential Site properties would likely be similar, i.e., construction and utility personnel working in subsurface soils. Residents could also be potentially exposed to soil dust arising from excavation related activities within the backyards, as well as conducting routine landscaping/planting.

2.0 DESCRIPTION OF REMEDIAL INVESTIGATION FINDINGS

The Site properties were investigated by Jacques Whitford in accordance with the scopes of work presented in the following documents:

- *Proposed Phased Soil Sampling Program Former Maspeth Substation, Maspeth, New York* (Jacques Whitford, November 23, 2005); and
- *Proposed Residential Sampling Plan, Former Maspeth Substation, 57-77 Rust Street, Queens, NY,* (Con Edison, January 25, 2007).

The investigations were conducted between November and December 2005 and May and June 2007. The following Report documenting the investigation activities was submitted to the NYSDEC:

- *Results of Residential Soil Sampling, Former Maspeth Substation, Maspeth, New York,* (Jacques Whitford, July 18, 2007).

Digital copies of these documents are included in Appendix B.

A Significant Threat Determination Notice is not applicable for this Site.

Below is a summary of Remedial Investigation findings.

2.1 SUMMARY OF REMEDIAL INVESTIGATIONS PERFORMED

2.1.1. Geoprobe® Borings

In May and June, 2007, Jacques Whitford oversaw the advancement of eleven Geoprobe® borings in the backyards of the residential row houses. The locations of the borings (identified as MA-GP-155,66 to MA-GP-23,66) are shown on Figure 4.

As noted above, this investigation was conducted as a result of the detection of PCBs in soils adjacent to the northern fence line in 2005 during the primary remedial excavation work conducted in the former Maspeth Substation's vacant transformer yard. During that remedial excavation work, an alpha-numeric system for identifying the locations of collected soils was established. This same system was also used to identify the locations of soil samples collected in the backyards of the row houses. The following is an example of this identification system: the letters MA- for Site identification (i.e., Maspeth), followed by sample type (i.e., SW for Side Wall, GP for Geoprobe®), location using an X-Y grid format, and depth, if appropriate. The X-Y coordinate system (see

Figure 3) was established with the 0,0 coordinate location at the southeast corner of the excavation support structure for the parking lot excavation . The X direction distance increases from east to west, and the Y direction distance increases from south to north.

At each backyard sample location, grab samples were collected at the surface (from 0 to 2-inches bgs). A Geoprobe® rig was then used to collect subsurface samples at depth intervals of 2 – 6 ft, 6 – 10 ft, 10 - 14 ft, 14 – 18 ft, 18 – 22 ft, 22 – 26 ft, and 26 – 30 ft bgs. At two locations (MA-GP-147,66 and MA-GP-23,66), sampling was terminated at 18 feet bgs and six feet bgs, respectively, due to refusal.

2.1.2. Samples Collected

2.1.2.1 Soil Samples

Analytical soil data generated during the remedial investigation noted above are presented in Tables 1-1 to 1-3. The soil data indicated that elevated concentrations of polychlorinated biphenyls (PCBs), specifically PCB Aroclor-1260, were present in the shallow subsurface soils (from ground surface to two-feet below ground surface) in the backyards of three residential properties located at 57-40, 57-42, and 57-48 57th Drive and underneath the concrete fence footer behind 57-42 57th Drive as shown on Figure 5.

Table 1-1 presents the analytical results for PCBs detected in the subsurface soils. The only soil samples exceeding the NYSDEC TAGMRSCO of 1 ppm for PCBs in surface soils were three isolated areas:

- Backyard of 57-40 57th Drive at MA-GP-82,67 (0 – 2 inches);
- Backyard of 57-42 57th Drive at MA-GP-71,68 (0 – 2 feet); and
- Backyard of 57-48 57th Drive at MA-GP-23,66 (0 – 2 inches).

Two additional isolated areas, which had PCBs detected above the RSCO of 1 ppm, were located underneath the concrete fence footer at the property boundary of 57-42 57th Drive (Table 1-1). These two locations were:

- MA-GP-62,64 (6 ft bgs); and
- MA-GP-67,64 (5 ft bgs).

Table 1-2 presents the analytical results for VOCs detected in soils. There were no VOC compounds detected at concentrations above their respective TAGM RSCO.

Table 1-3 presents the analytical results for SVOCs detected in soils. A total of two SVOCs (benzo(a) anthracene and benzo(a) pyrene) were detected at concentrations

that exceeded their respective TAGM RSCO. Benzo(a) anthracene was detected at 0.225 ppm at five feet in MA-SW-51,64 exceeding its TAGM RSCO of 0.224 ppm. Benzo(a) pyrene was also detected at five feet in MA-SW-51,64 at 0.199 ppm, which exceeded its TAGM RSCO of 0.061 ppm. No other SVOC contaminant of concern was detected above their respective TAGM RSCO.

2.1.3 Chemical Testing Performed

During the investigation, soil samples were analyzed for PCBs via Method 8081/8082. No groundwater samples were collected for chemical analysis. The soil samples were collected using accepted protocols and analyzed by a New York State Department of Health certified laboratory.

2.1.4 Summary of Geoprobe® Investigation Findings

Subsurface soil samples were collected during the investigation conducted between May and June 2007 and analyzed for PCBs. The remedial investigation results indicated that limited exceedances of regulatory standards (TAGM RSCOs) existed within the soils. The analytical data further indicated that the main contaminant of concern at the Site properties was PCBs at various concentrations in the shallow soils in the backyards of 57-40, 57-42, and 57-48 57th Drive and underneath the concrete fence footer behind 57-42 57th Drive. The source of the PCBs was likely a result of activities conducted at the former Maspeth Substation located adjacent to these properties.

From the data generated, PCB RSCO exceedances appeared to be limited in the shallow soils in the backyards of 57-40, 57-42, and 57-48 57th Drive row houses and underneath the concrete fence footer behind 57-42 57th Drive. The PCB concentrations detected above the TAGM RSCO are depicted on Figure 5.

2.2 SIGNIFICANT THREAT (NOT USED)

~~The NYSDEC and NYSDOH have determined that these Site properties do not pose a significant threat to human health and the environment. A notice of that determination is not applicable for these Site properties.~~

2.3 SITE HISTORY

2.3.1 Site Description

Figure 1 shows the general location of the properties. The properties in question consist of a two-story residential dwelling with small backyards on 600-square foot (sf) lots. An eight-foot tall metal chain link fence supported by posts imbedded into a concrete footer extends behind (or the south side of) each of the row houses. This fence and fence footer are located at the property boundary between the row houses and the vacant transformer yard of the former Maspeth Substation. According to available information, these row houses were constructed in circa 1900 and have been used as residential properties since their construction.

2.4 GEOLOGICAL CONDITIONS

2.4.1 Regional Topography

Regional topography slopes slightly downward from the Site properties to Maspeth Creek located approximately 0.6 miles to the west. The Site properties have an elevation of approximately 28 feet above mean sea level (MSL). The Creek surface is at approximately sea level (0 MSL).

2.4.2 Site-Specific Geology

Data generated during the Geoprobe® investigation indicated that the subsurface lithology at the Site properties consists of a thin layer of topsoil over silty sand. The overburden materials encountered on the Site properties consisted primarily of poorly graded brownish silty fine sand. The silty sand was described as silty fine to medium sand, trace gravel, medium dense dark brown, gray-brown, orange-brown or reddish brown based on soils collected via the Geoprobe®. The soils encountered below the Site properties appeared to have no stratification or homogeneity.

2.5 CONTAMINATION CONDITIONS

This section describes Areas of Concern (AOCs) at the Site properties based on observed distributions of contamination.

2.5.1 Conceptual Model of Sites Contamination

During operation of the former Substation to the south of the Site properties, minor leaks and spills of dielectric oil, containing PCBs, apparently occurred from unknown sources. The presence of free-phase product containing various concentrations of PCBs on the water table underlying the former Substation was confirmed and delineated during remedial activities conducted on the former Substation property.

As mentioned above, during remedial excavation activities in the former transformer yard, soil samples were routinely collected along the sidewalls and from bottom of excavation for PCB analyses. In November 2005, sidewall soil samples collected from the northern excavation wall adjacent to the backyard property boundary located at 57-42 57th Drive contained levels of PCBs greater than the RSCO of 1.0 ppm. Con Edison therefore advanced a series of Geoprobe® borings along the south side of the fence line in November and December 2005 to delineate the horizontal and vertical extent of PCB impacted soils beneath the concrete fence footer. These data were used to identify, and subsequently remove, soils with PCB concentrations greater than 1.0 ppm up to the property boundary.

As previously noted, it has been concluded that the PCB soil contamination identified in the backyards of the row houses was a result of spills at the former Maspeth Substation along the fence line.

2.5.2 Description of Areas of Concern

The results of the investigation in the backyards indicated that shallow soils (from ground surface to two feet bgs in the backyards of 57-40, 57-42 and 57-48 57th Drive as well as underneath the concrete fence footer behind 57-42 57th Drive), containing PCBs, was the primary Area of Concern (AOC) at these Site properties.

2.5.3 Identification of Standards, Criteria and Guidance (SGCs)

The November 2004 RAWP approved for the former Maspeth Substation presented a remedial approach to achieve specific Remedial Action Objectives (RAOs). Those RAOs were subsequently carried forward for the remedial activities proposed for the residential backyards and included:

- To remediate the Site properties to a contaminant level that is protective of public health and the environment; and

- To remove PCB contaminated soils to the required limit (1.0 ppm PCBs in surface and subsurface soils) in order to achieve an unrestricted use with no environmental easement on soil.

To achieve these RAOs, the media of concern (i.e., soil) was evaluated against the appropriate NYSDEC cleanup standard or guidance in place at the time the November 2004 RAWP was developed and accepted.

- Soil. Soil analytical data generated from the backyard site investigations generally indicated either no detects or minimal exceedances of regulatory standards Based on the results and on discussions with the NYSDEC, the Environmental Protection Agency (EPA) PCB Spill Cleanup residential/unrestricted access area cleanup policy for PCBs in subsurface soil (40 CFR Part 761) and the current TAGM RSCOs for PCBs, volatile organic compounds (VOCs) and semi volatile organic compounds (SVOCs) in soils were used to evaluate remediation end-points for soils beneath the Site properties. In addition, total petroleum hydrocarbons (TPH) concentrations (analyzed by EPA Method 8100 – Modified) were used as a screening tool during the remedial actions.

- Groundwater. Groundwater contamination was not an issue at these Site properties and was, therefore, not evaluated.

These three residential properties (57-40, 57-42, and 57-48 57th Drive) are not owned by Con Edison. It is understood that the current Owners intend to maintain these properties as residential units. It is Con Edison's goal to remediate the soils at the Site properties to the applicable PCB, TAGM RSCOs for Unrestricted Use.

2.5.4 Soil/Fill Contamination

As described in Section 2.1.2.1 above, the soil analytical data derived from the various remedial investigations indicated that limited exceedances of regulatory standards existed in soils within the three backyards.

2.5.4.1 Description of Soil/Fill Contamination

As illustrated on Figure 4, eleven Geoprobe® borings were advanced in the backyards of the row house properties. Soil samples were collected at the ground surface and from depth during drilling activities and submitted for laboratory analyses for PCBs. Results for PCBs are presented in Table 1-1. Samples exceeding the TAGMRSCO for PCBs (1.0 ppm) were reported at three backyard locations. Shallow soils (from 0 to 2 feet bgs) contained PCBs detected above the TAGM RSCO of 1.0 ppm at:

- Backyard of 57-40 at MA-GP-82,67 (0 – 2 inches) total PCBs = 1.170 ppm;
- Backyard of 57-42 at MA-GP-71,68 (0 – 2 feet) total PCBs = 1.040 ppm; and
- Backyard of 57-48 at MA-GP-23,66 (0 – 2 inches) total PCBs = 1.020 ppm.

Soil samples collected during the remedial activities within the vacant transformer yard of the former Maspeth Substation also contained PCBs detected above the TAGM RSCO of 1.0 ppm. These two areas, underneath the concrete fence footer behind 57-42 57 th Drive were located at:

- MA-GP-62,67 (6 ft bgs) total PCBs = 334 ppm; and
- MA-GP-67, 62 (5 ft bgs) total PCBs = 762 ppm.

2.5.4.2 Comparison of Soil/Fill with SCGs

As described in Section 2.5.3, the EPA PCB Spill Cleanup residential/unrestricted access area cleanup policy for PCBs in subsurface soil (40 CFR Part 761) was used as the Standard/Criteria/Guidance (SCG) for comparing the analytical soil data. The current TAGM RSCO for PCBs in soils was used as the SCGs for comparing that parameter to the detected soil analytical data. Based on discussions with the NYSDEC, Con Edison presented an RSCO of less than 1.0 ppm of total PCBs in soils as the remedial objective for these backyards.

Tables 1-1 shows the exceedances of PCB from the described SCGs and RSCOs for the soil samples collected at these Site properties. Figure 5 is a spider map that illustrates the sampling locations and summarizes the exceedances of PCBs relative to their respective TAGM RSCOs.

2.6 REMEDIAL ACTION OBJECTIVES (RAOS)

Based on the results of the Remedial Investigations, the following Remedial Action Objectives (RAOs) have been identified for this Site.

2.6.1 Soil RAOs

Soil RAOs presented in the November 2004 RAWP for the former Maspeth Substation and carried forward for the backyard remedial activities were:

- Remediate the Site properties to a contaminant level that is protective of public health and the environment; and
- Remove PCB contaminated soils to the required limit (1.0 ppm total PCBs) in order to achieve unrestricted use without environmental easement on soils.

3.0 DESCRIPTION OF APPROVED REMEDIAL ACTION PLAN

The Site properties were remediated in general accordance with the scope of work presented in the NYSDEC-approved Remedial Excavation Work Plan (Work Plan) dated July 30, 2007 and Remedial Excavation Work Plan – Addendum (Work Plan - Addendum) dated June 6, 2008.

Due to the relatively small size of the backyard excavation areas and the proximity of the fence and concrete fence footer (south) and row houses (north, east, and west), excavating the backyard soils was determined to be practical and could be implemented efficiently. Although the contamination was found at depths up to approximately 10 – 12 feet bgs, the vertical limit of excavation was only necessary to three feet bgs, thereby precluding the use of shoring system. The contaminated soil below this depth was removed using the over-drilling method.

The factors considered during the analysis of the remedial action presented in the Work Plan and Work Plan - Addendum included:

- Protection of human health and the environment; The proposed remedial excavations would provide protection of the public health and safety by

removing the impacted soils located in the shallow soils of the Site properties. Clean backfill and topsoil/loam would be placed in the excavated areas up to ground surface to remove the potential for direct contact.

- Compliance with standards, criteria, and guidelines (SCGs); The proposed remedial excavations meet the requirements of NYSDEC Technical Guidance for Site Investigation and Remediation (DER-10) in that impacted soils would be excavated and properly disposed of off-site. Excavation would also remove soils impacted by PCBs to the applicable standards. This alternative would also meet the stated RAO and guidance (to complete the remedial activities in as short a time period as possible).
- Short-term effectiveness and impacts; The potential short-term adverse impacts and risks of the proposed remedy upon the community, the construction workers, and the environment were evaluated and determined to occur only during the actual excavation activities. These short-term effects would likely be associated with migration of dust containing Site contaminants. A Community Air Monitoring Program (CAMP), included in the November 2004 RAWP and implemented in the Work Plan and Work Plan – Addendum, consisted of upwind and downwind monitoring locations, action levels, and abatement measures to be implemented during the Remedial Action (RA).
- Long-term effectiveness and permanence; The excavation alternative was determined to achieve long-term effectiveness by removing impacted soils and properly disposing the soil off-site. The excavations would be backfilled with clean structural fill, which will result in no long-term on-site exposures.
- Reduction of toxicity, mobility, or volume of contaminated material; This alternative had the ability to reduce potentially contaminated soils through excavation and off-site disposal.
- Implementability; Due to the nature of excavating shallow soils to depths of 3 to 4 feet bgs, the installation of a sheeting/shoring system was not required. The soil excavation was completed using standard construction equipment. The excavated soils were characterized as non-hazardous for disposal purposes. Therefore a “load and go” scenario was implemented at these Site properties. The trucks were lined and covered with plastic sheeting to prevent the contaminated soil from falling/spilling from the vehicles.

- Cost effectiveness; Con Edison determined that the proposed remedial action would achieve the stated RAOs in a cost efficient manner.
- Community Acceptance; The activities outlined in the Work Plan and Work Plan – Addendum were presented directly to the Owners of the three properties for their approval.
- Land use; These residential properties are not currently owned by Con Edison. It is understood that these properties will remain as residential therefore Con Edison will remediate each backyard to the Unrestricted Use Standard.

The following SCGs were in place at the time the November 2004 RAWP was approved and were subsequently used to conduct the remedial actions at the backyard Site properties:

- 6 NYCRR Part 375-6 Soil Cleanup Objectives. The Soil Cleanup Objective (SCO) for PCBs from Part 376 is 0.1 ppm. This SCO does not apply. The applicable SCO as per discussions with the NYSDEC and NYSDOH is 1.0 ppm.
- NYSDEC Ambient Water Quality Standards and Guidance Values – Technical & Operational Guidance Series (TOGS) 1.1.1; Groundwater impacts are not an issue at these Site properties based on the investigation results that show impacts of PCBs in shallow soils above the wter table. Therefore, the groundwater standards do not apply.
- NYSDEC Draft DER-10 Technical Guidance for Site Investigation and Remediation - December 2002 (or later version if available); The proposed remedial excavations were developed and implemented to meet the requirements of NYSDEC Technical Guidance for Site Investigation and Remediation (DER-10) through excavation and off-site disposal of impacted soils. To document the effectiveness of the soil removal/excavation, post-excavation soil samples were collected from the bottom of the excavations.
- New York State Department of Health (NYSDOH) Generic Community Air Monitoring Program. A Community Air Monitoring Program (CAMP) was

prepared in accordance with Appendix D of the VCPG and implemented at these Site properties during remedial excavation activities.

- New York State (NYS) Waste Transporter Permits – 6 NYCRR Part 364; All waste materials removed from these Site properties were transported and disposed under appropriate manifest documentation.

3.1 SUMMARY OF PROPOSED REMEDIAL ACTION

Below is a description of the proposed Remedial Actions required by the Remedial Excavation Work Plan and Remedial Excavation Work Plan - Addendum.

1. The Work Plan and Work Plan - Addendum proposed removing backyard soils to below the PCB RSCO of 1.0 ppm in order to prevent an environmental easement. Data depicting locations of soils exceeding this RSCO are presented herein in Tables 1-1 and Figure 5.

2. Con Edison's proposed remedial action was developed to remove all soils from the backyards with total PCBs above 1.0 ppm. Therefore, there were no plans for installation of a composite cover.

3. Con Edison's proposed remedial action was developed to remove all soils from the backyards with total PCBs above 1.0 ppm. Therefore, there were no plans for an Environmental Easement and/or Institutional Controls.

4. Con Edison's proposed Remedial Action was developed to remove all soils from the backyards with total PCBs above 1.0 ppm. Therefore, there were no plans for a Site Management Plan (SMP).

5. Screening for indications of contamination (by visual means, odor, and monitoring with photoionization detector (PID)) of excavated soil during any intrusive work on the Site properties; During the remedial activities, visual observations and analytical testing, were conducted to determine the limits of contamination and extent of excavation. The sampling protocol included collecting sidewall and bottom (floor) soil samples for laboratory analysis of PCBs.

6. Collection and chemical analysis of end-point samples to evaluate the performance of the remedy with respect to attainment of the stated RSCO for PCBs (< 1 ppm); Throughout the remedial excavation activities, soil samples were collected from the sidewalls and the bottom (floor) of the excavation and submitted for laboratory analysis in accordance with the November 2004 RAWP, Work Plan, and Work Plan - Addendum. The analytical data generated were compared to the SCGs and RSCOs. End-Point sidewall soil samples were collected as discreet grab samples along the excavation face. End-Point bottom samples were also collected and tested. The soil samples were analyzed for PCBs.

7. Appropriate off-site disposal of all material removed from the Site properties in accordance with all Federal, State and local rules and regulations for handling, transport, and disposal; All waste materials (hazardous and non-hazardous soils) removed from the Site properties were transported and disposed off-site under appropriate manifest documentation at approved facilities.

8. Import of materials to be used for backfill and cover in compliance with: (1) chemical limits and other specifications included in all Federal, State and local rules and regulations for handling and transport of material; All final backfill material (Item 4 and Controlled Low Strength Material or CSLM) was tested for both chemical and physical properties prior to being delivered to the Site properties. The Item 4 backfill material was from a Tilcon facility located in Nyack, New York.

9. All responsibilities associated with the Remedial Action, including permitting requirements and pretreatment requirements, addressed in accordance with all applicable Federal, State and local rules and regulations; All permits (local, State and Federal) were obtained by Con Edison and/or Con Edison's remediation contractor(s) prior to initiating any on-site work.

4.0 DESCRIPTION OF REMEDIAL ACTIONS PERFORMED

Remedial activities completed at the Site properties were conducted in accordance with the NYSDEC-approved Work Plan and Work Plan - Addendum. These two documents are included in Appendix B. Necessary deviations from the Work Plan and Work Plan - Addendum are noted below.

4.1 REMEDIAL PROGRAM ELEMENTS

4.1.1 Involved Parties

The remedial program was implemented at the Site properties by a remediation contractor selected and managed by Con Edison. From October to December 2007 and from June to July 2008, Sevenson Environmental Services (Sevenson) performed as the prime contractor at the Site properties. Sevenson provided laborers and equipment. Sevenson subcontracted Moretrench who provided labor and equipment for trench box and caisson advancement to remove hot spots in June to July 2008 that were encountered during the 2007 remedial work. Another contractor that conducted work at the Site properties was Aquifer Drilling and Testing, Inc. (ADT) who performed drilling services as a subcontractor to Jacques Whitford.

The Remedial Engineer for this work included Mr. Craig R. Gendron of Jacques Whitford Engineering Group, Inc. Mr. Gendron is a registered professional engineer licensed by the State of New York (NY PE 074002-1) and had primary responsibility for implementation of the remedial program for the Site.

4.1.2 Site Preparation

Prior to initiating any work, a pre-construction meeting was held with Con Edison, NYSDEC, and the remedial contractor. Prior to mobilization, Con Edison met with Sevenson representatives to discuss the remedial scope of work and schedule associated with implementation of Sevenson's remedial activities.

Prior to commencing the remedial activities, Sevenson and its subcontractors mobilized their equipment (Komatsu PC 200-6 Excavator, and Vactron) to the Site properties on November 6, 2007 and June 17, 2008. Portions of the fence and concrete fence footer located between the row houses and the former transformer yard of the former Maspeth Substation were temporarily removed. With permission from the current owner of the former Maspeth Substation (M&A Linens), equipment was staged in the

former transformer yard and access to the backyards was granted. Within the former transformer yard boundary, a decontamination pad was constructed near the Rust Street access gate and temporary bathroom facilities were delivered and positioned in the southwest portion of the parking lot area. A 10,000-gallon Frac tank was also placed near the southwest corner of the parking lot area in case dewatering was necessary. Erosion control/silt fencing was not necessary since erosion was not an issue within the backyards of the row houses. A NYSDEC project sign was erected at the project entrance and in place during all phases of the Remedial Action.

4.1.3 General Site Controls

During the October to December 2007 remedial work, surficial soils in the three residential backyards were excavated using hand tools and vacuumed and contained into a Vactron unit to avoid any stockpiling of soils.

The remedial work conducted in June to July 2008 entailed spinning 24-inch diameter steel casings to depths of 12 to 13 feet bgs. The soils within the casings were then augered out and placed into lined roll-off containers, also to avoid any stockpiling of soils. Once filled, a tarp was placed over the exposed soil in the roll-offs and tied down. The trucks and roll-offs were washed down in the decontamination area prior to leaving the former transformer yard to prevent/minimize the amount of soil and/or mud on the tires from being tracked onto Rust Street. Both Rust Street and the sidewalk were continuously inspected and any mud or dirt observed was swept up.

As mentioned previously, erosion was not an issue at this Site and, therefore, erosion control/silt fencing was not necessary.

The former transformer yard was secured by locking the access gates along 58th Street and Rust Street at the end of each day.

CAMP and soil sampling activities conducted by Jacques Whitford personnel were documented in bound field log books.

As described in the text and presented on various tables and figures throughout this Off-site FER, soil samples were collected and identified using an alphanumeric system. The 0,0 coordinate is located in the southeast corner of the H-pile and lagging system installed for the excavation beneath the former transformer yard, with the X direction distance increasing from east to west, and the Y direction distance increasing from south to north. Although the H-pile and lagging system had been removed (to

several feet below existing grade) prior to the remedial activities in the backyards, the initial 0,0 coordinate point was maintained to ensure continuity.

4.1.4 Nuisance Controls

Throughout the remedial work, nuisance controls were employed by the remedial contractors. Work hours were generally limited to 7:00 AM to 3:00 PM Monday through Friday to minimize noise exposure to residents. Trucks that were lined up along Rust Street prior to entering the former transformer yard were not allowed to idle thereby eliminating exhaust fumes and noise. Trucks exiting the former transformer yard were washed at the decontamination pad to limit the tracking of dirt and mud onto Rust Street. Rust Street was inspected daily and any dirt or debris observed was removed. Refuse/trash were properly stored in containers on-site and properly disposed as solid waste. Personal protective equipment (e.g., tyvec suits, gloves, etc.) that was used was properly stored on-site until transported off-site for disposal.

4.1.5 CAMP Results

The purpose of the CAMP was to monitor air quality for both safety and nuisance levels of dust and volatile compounds that may have been generated during the remedial activities. The compounds of concern at the Site properties were PCBs in impacted soils.

The CAMP, appended to the NYSDEC-approved November 2004 RAWP, described air monitoring techniques, off-site neighborhood monitoring, action levels, and mitigative measurers to be implemented if action levels were triggered at the perimeter of the Site. The community air monitoring equipment consisted of two MiniRAE 2000 photoionization detectors (PIDs) and three Thermo Scientific Personal DataRAMs (PDRs). Prior to use each day, the PIDs were calibrated with standard 100-ppm isobutylene gas contained in a calibration bag. The PDRs were zeroed with filtered air in standard plastic calibration bags.

One PID meter and one PDR were positioned on the northern side of the backyards (attached to row house where possible). A second PID meter was used to record the background or upwind VOC levels prior to beginning each day's work and then placed at the downwind perimeter of the work areas for real-time recording throughout the day. Two additional dust monitors were placed along the western portion of the work area or Rust Street fence area and along the eastern portion of the work area or 58th Street fence area to perform continuous monitoring. The upwind or background CAMP station was determined each day based on the prevailing wind direction.

The Jacques Whitford on-site environmental technician read the displays of the PIDs and PDRs at 15-minute intervals and recorded readings in the field logbook. Both instantaneous readings and time-weighted averages of dust data were recorded. The action level for Short Term Exposure Limit (STEL) exceedances was 100 µg/m^3 (0.100 mg/m^3) above background at the downwind location for a 15-minute period.

Exceedances of the STEL action level required implementation of dust suppression mitigative measures such as wetting down the soil.

The CAMP data were also recorded in real time and stored electronically in the PIDs' and PDRs' memory. The downloaded data were evaluated, tabulated, and submitted to Con Edison on a weekly basis. Any STEL exceedances were identified and correlated to Site activities and subsequent mitigation, if required.

Throughout the remedial action activities, exceedances of the STEL action level were documented. However, the majority of the action level exceedances were non-remediation related activities. Typical identified causes were:

- Climatic conditions (high humidity, rain, cold temperatures, etc.);
- Dust raised on Rust Street by rush hour traffic;
- Dust raised by street sweeping;
- Dust raised by concrete saw cutting; and
- Exhaust fumes from various diesel engines.

Once these non-remedial activity causes were identified, the CAMP meters were allowed to be re-zeroed and, if necessary, were re-calibrated. The equipment or vehicles with diesel engines were either moved or shut down. Dust raised from concrete saw cutting was mitigated by using water spray to suppress the dust and by limiting the cutting to 10 to 15 minute intervals.

4.1.6 Reporting

Reports summarizing the CAMP results (and basis for any STEL exceedances) and soil sample collected and/or analytical data generated were submitted to Con Edison on a weekly basis. Copies of these weekly reports are included in Appendix C.

Photographs were also taken throughout the remedial activities to document the various phases. A digital photograph log depicting the various phases of the remediation, as required by the Work Plan and Work Plan - Addendum, is included in Appendix D.

4.2 CONTAMINATED MATERIALS REMOVED

The following remediation chronology summarizes the various phases of the remedial activities conducted within these backyard Site properties and significant observations made during remediation:

Date	Remedial Activity and/or Observations Made
11/6/07 to 12/6/07:	Excavation of soils to depths of 1.5 to 3 feet bgs conducted from backyards of 57-40, 57-42, and 57-48 57th Drive.
1/2/08 to 1/4/08:	Geoprobe® soil sampling conducted to determine extent of hot spots remaining in backyard of 57-42 57th Drive and under the foundation of 57-40 and 57-44 57th Drive.
6/18/08 to7/3/08:	Excavation of final soil hot spots to a depth of 13 feet bgs conducted from the backyard of 57-42 57th Drive.

Figure 6 is a map depicting the excavation areas associated with on-site soil removal at the Site through July 2008.

4.2.1 Concrete Removed

In order to expose and excavate impacted soils in the backyard of 57-42 57th Drive, a minor length of the concrete fence line footer was temporarily removed using a concrete saw. Approximately ten feet of the concrete fence footer to a depth of six feet bgs was removed by Sevenson from June 19 to 20, 2008. The concrete was then broken up using a jack hammer into smaller (approximately two cubic foot sections) and placed in a roll-off container for proper off-site disposal. Following successful removal of the soils in the backyard of 57-42 57th Drive, this portion of the concrete fence footer was replaced on July 2 and 3, 2008. The concrete fence footer was approximately ten feet long by six feet deep. The width of the footer varied from one foot at the top (or ground surface) to three feet at the base (six feet bgs.).

Since the concrete footer was technically within the boundaries of the former transformer yard, the disposal details, including manifests, are described in the On-site Final Engineering Report, submitted under separate cover.

4.2.1.1 On-site Reuse

There was no concrete reused on-site.

4.2.2 Soils Removed From Backyard Areas

As described above, Con Edison conducted Geoprobe® sampling in the backyards of residential properties abutting the former transformer yard in May and June 2007. This was in addition to side wall (SW) sampling conducted in November 2005 during the excavation in the former transformer yard that detected soil contamination beneath the concrete fence footer behind 57-42 57th Drive. Also, additional Geoprobe® sampling was conducted in January 2008 in an effort to fully delineate the extent of PCBs in soils in the backyards of 57-42 and 57-44 57th Drive. The analytical data indicated areas of soils with detected PCBs concentrations > 1.0 ppm in three backyards (57-40, 57-42, and 57-48 57th Drive) and underneath the concrete fence footer behind 57-42 57th Drive. A map showing the locations of these impacted areas is included as Figure 5.

The remedial excavation activities in these backyards were undertaken periodically from November 2007 through July 2008 due to logistical difficulties as well as planning preparation and approvals. During November and December 2007, surficial soils in the three residential backyards were excavated using hand tools and vacuumed into a Vactron® unit for proper off-site disposal. The backyard of 57-40 57th Drive was excavated to a depth of three feet bgs. The backyard of 57-48 57th Drive was excavated to a depth of 1.5 feet bgs. Post-excavation confirmatory soil samples indicated clean closure of surficial soils in these two backyards. The backyard of 57-42 57th Drive was also excavated to a depth of three feet bgs during this time period with post-excavation confirmatory soil samples indicating clean closure at this depth.

However, the remedial excavation work in these backyards was conducted concurrently with remedial excavation work directly under the concrete fence footer that was based on the side wall (SW) soil samples collected during the remedial excavation activities conducted on the former transformer yard. While excavating under the fence footer, a post excavation soil sample contained PCBs at concentrations greater than the RSCO of 1.0 ppm. This post excavation- sample was located on the north side of the

concrete footer – within the backyard property of 57-42 57th Drive at a depth of 7.5 feet bgs.

Con Edison decided not to continue with excavation activities beneath the concrete fence footer without fully understanding the vertical and lateral extent of PCB contaminated soils remaining in this area. In addition, an engineering design was not in place to support the various adjacent structures while subsequent remedial excavation work was to be performed. Therefore, from January 2 to 4, 2008, additional soil samples were collected from the backyard of 57-42 and from underneath the foundations of 57-40 and 57-44 57th Drive with a Geoprobe® rig drilling at various angles and with a hand driven Geoprobe® sampling unit. The analytical results, presented in Table 4-1, were then compared to the TAGM RSCO for PCBs (1.0 ppm to achieve unrestricted use) to delineate the final extent of PCB impacts in soils in the backyard of 57-42 57th Drive. Jacques Whitford and Con Edison then developed and submitted to the NYSDEC a Remedial Excavation Work Plan – Addendum for Residential Yards and Fence Line Soil Contamination, dated June 6, 2008 to remove these soils via cased over-drilling technique.

The remedial work, conducted in the backyard of 57-42 57th Drive from June 26 to 27, 2008, entailed spinning 24-inch diameter steel casings to depths of 13 feet bgs. The soils within the casings were then augered out and placed into lined trucks for transport and off-site disposal. A total of five casings in an overlapping pattern were used to remove the impacted soils from the backyard of 57-42 57th Drive (Figure 6).The removal of shallow soils from the backyards of 57-40, 57-42, and 57-48 57th Drive was conducted from October to December 2007. The removal of the "hot-spot" soils from the backyard of 57-42 57th Drive was conducted from June to July 2008.

Manifests and bills of lading are included in Appendix E.

Table 4-2 shows the total quantities of hazardous soils removed from the Site properties and the disposal location (Model City, NY). A total of 116 tons, manifested as hazardous soils, were removed from the Site during this time frame.

4.2.2.1 On-Site Reuse

No soils were reused on-site.

4.2.3 Fluids Removed From Backyards

During the remedial activities in the backyards, there were no fluids encountered or generated. Therefore, there were no fluids removed from the backyards.

4.3 REMEDIAL PERFORMANCE (END-POINT SAMPLE RESULTS)

As described above, soil samples were collected throughout the remedial activities and analyzed for PCBs to aid in the progression of the overall excavation and serve as End-Point samples. Tables containing the remedial performance sampling conducted under this remedy are shown in Tables 4-3 and 4-4.

Post-excavation End-Point soil samples were collected during the November to December 2007 shallow soils remediation work as grab samples from the bottoms of the shallow excavations in the three backyards. Additional End-Point soil samples were collected via Geoprobe® rig. A total of 12 End-Point samples from the three backyards were analyzed for PCBs and compared to the TAGM RSCO of 1.0 ppm to determine clean closure of the shallow soils (one from the backyard of 57-40 57th Drive, nine from the backyard of 57-42 57th Drive, and two from the backyard of 57-48 57th Drive).

As mentioned above, post-excavation soil samples collected during remedial excavation work under the concrete fence footer (conducted concurrently with the backyard work in November to December 2007) had reported PCBs at concentrations greater than the TAGM RSCO of 1.0 ppm. Since this post-excavation sample was located on the property of 57-42 57th Drive, Con Edison decided not to continue with excavation activities without fully understanding the vertical and lateral extent of PCB contaminated soils remaining in this area. Therefore, from January 2 to 4, 2008, additional soil samples were collected from the backyard of 57-42 57th Drive and from underneath the foundations of 57-40 and 57-44 57th Drive with a Geoprobe® rig drilling at various angles and with a hand driven Geoprobe® sampling unit. Although 12 samples were collected form the three affected properties listed above, a total of 30 End-Point samples from the vicinity of 57-40, 57-42, and 57-44 57th Drive were analyzed for PCBs and compared to the TAGM RSCO of 1.0 ppm to determine clean closure.

All laboratory reports were subsequently submitted for third-party data validation, in accordance with the November 2004 RAWP. Data Usability Summary Reports (DUSRs) were prepared by Alpha Geoscience of Clifton Park, NY for the analytical data packages generated during the remedial activities. Copies of the DUSRs are included in Appendix G. The analytical data were consistently described as "usable" by the data validator.

End-Point soil sample results for PCBs collected from the shallow soils in the three backyards are presented in Table 4-3 and on Figure 7. As shown, there were no exceedances of the TAGM RSCO for PCBs (1.0 ppm). There were no End-Point samples collected from the residential backyard areas for VOC and SVOC analyses.

End-Point soil sample results for PCBs collected in and around the yards of 57-42 and 57-44 57th Drive are presented in Table 4-4 and Figure 8. As shown, there were no exceedances of the TAGM RSCO for PCBs (1.0 ppm). There were no End-Point samples collected from the vicinity of 57-42 and 57-44 57th Drive for VOC and SVOC analyses.

4.4 BACKFILL

Following the completion of the remedial excavation activities at these Site properties, clean backfill was placed and compacted in accordance with the November 2004 RAWP. In the shallow excavations in the three backyards, the backfill material, referred to as "Item 4", was transported to the Site properties from a Tilcon facility in Nyack, NY and placed in the excavations to a depth of 0.5 feet bgs. Item 4 can best be described as a manufactured fine grained residue of crushed stone and stone dust. A total of approximately 35 tons of Item 4 were used as backfill at the Site properties. Approximately 6-inches of topsoil/loam were placed on top of the Item 4 in each of the backyards. Data summarizing chemical analytical results for the Item 4 backfill are included in Appendix G. The areas backfilled with Item 4 and topsoil are within the shallow soil areas of the three backyards as depicted on Figure 6. Backfill material used in conjunction with the over-drill casing excavations conducted in June 2008 included concrete (in the form of replaced concrete fence footer) and Controlled Low Strength Material (CLSM) that was placed, using tremie pipe methods, from the bottoms of each

casing to six feet below original grade. The top six feet was backfilled with Item 4 (6 feet to 0.5 feet bgs) and topsoil (0.5 feet bgs to ground surface). A total of approximately 2 cubic yards (CY) of CLSM was used as backfill material in the backyard o 57-42. Also, new fiberglass back steps were installed in the backyard of 57-42.

4.5 RESIDUAL CONTAMINATION REMAINING IN BACKYARDS

As described above, End-Point samples collected from the backyards and underneath the concrete fence footer indicate clean closure for PCBs. Based on these results, we have interpreted that there is no residual contamination exceeding applicable regulatory standards remaining in the soils within these residential backyards.

TABLE 1-1
RI Soil Sample Results: PCBs & TPH
Backyards 57th Drive Residences, Maspeth, NY

Sample Location	Sample Date	Depth (feet bls)	Head Space (ppm)	Analytes	Chain of Custody	TOTAL PCBs (ppm)	TOTAL TPH (ppm)
Samples collected from the south side of fence line (parking lot area of former Maspeth substation).							
GP-57-26 (2)	11/18/2005	2	na	PCBs	0511411	0.62	na
GP-57-26 (6)	11/18/2005	6	na	PCBs	0511411	0.073	na
GP-57-26 (10)	11/18/2005	10	na	PCBs	0511411	0.96	na
GP-57-26 (14)	11/18/2005	14	na	PCBs	0511411	0.08	na
GP-57-26 (18)	11/18/2005	18	na	PCBs	0511411	0.033	na
GP-57-28 (2)	11/18/2005	2	na	PCBs	0511411	0.02	na
GP-57-28 (6)	11/18/2005	6	na	PCBs	0511411	0.043	na
GP-57-28 (10)	11/18/2005	10	na	PCBs	0511411	0.63	na
GP-57-28 (14)	11/18/2005	14	na	PCBs	0511411	0.038	na
GP-57-28 (18)	11/18/2005	18	na	PCBs	0511411	0.12	na
GP-57-30 (2)	11/18/2005	2	na	PCBs	0511411	0.11	na
GP-57-30 (6)	11/18/2005	6	na	PCBs	0511411	0.45	na
GP-57-30 (10)	11/18/2005	10	na	PCBs	0511411	1.83	na
GP-57-30 (14)	11/18/2005	14	na	PCBs	0511411	0.5	na
GP-57-30 (18)	11/18/2005	18	na	PCBs	0511411	0.09	na
GP-57-32 (2)	11/18/2005	2	na	PCBs	0511411	0.039	na
GP-57-32 (6)	11/18/2005	6	na	PCBs	0511411	0.02	na
GP-57-32 (10)	11/18/2005	10	na	PCBs	0511411	< 0.0070	na
GP-57-32 (14)	11/18/2005	14	na	PCBs	0511437	< 0.0072	na
GP-57-32 (18)	11/18/2005	18	na	PCBs	0511437	< 0.0070	na
GP-57-34 (2)	11/18/2005	2	na	PCBs	0511437	0.18	na
GP-57-34 (6)	11/18/2005	6	na	PCBs	0511437	0.015	na
GP-57-34 (10)	11/18/2005	10	na	PCBs	0511437	< 0.0072	na
GP-57-34 (14)	11/18/2005	14	na	PCBs	0511437	0.02	na
GP-57-34 (18)	11/18/2005	18	na	PCBs	0511437	0.015	na
MA-SW-109,63.5 (2)	11/30/2005	2	na	PCBs	0511568	2.83	na
MA-SW-109,63 (6)	11/30/2005	6	na	PCBs	0512032	< 0.0078	na
MA-SW-109,62 (10)	12/1/2005	10	na	PCBs	0512032	< 0.0076	na
MA-SW-109,62 (14)	12/1/2005	14	na	PCBs	0512096	0.14	na
MA-SW-109,62 (18)	12/1/2005	18	na	PCBs	0512096	< 0.0070	na
MA-SW-96,63.5 (2)	11/30/2005	2	na	PCBs	0512032	0.099	na
MA-SW-96,62 (6)	11/30/2005	6	na	PCBs	0512032	< 0.0075	na
MA-SW-96,62 (10)	12/1/2005	10	na	PCBs	0512032	< 0.0072	na
MA-SW-96,62 (14)	12/1/2005	14	na	PCBs	0512032	< 0.0069	na
MA-SW-96,62 (18)	12/1/2005	18	na	PCBs	0512096	< 0.0070	na

TABLE 1-1
RI Soil Sample Results: PCBs & TPH
Backyards 57th Drive Residences, Maspeth, NY

Sample Location	Sample Date	Depth (feet bls)	Head Space (ppm)	Analytes	Chain of Custody	TOTAL PCBs (ppm)	TOTAL TPH (ppm)
Samples collected from the south side of fence line (parking lot area of former Maspeth substation).							
MA-SW-81,63 (2)	11/30/2005	2	na	PCBs	0512032	0.067	na
MA-SW-81,63 (6)	12/1/2005	6	na	PCBs	0512096	0.4	na
MA-SW-81,63 (10)	12/2/2005	10	na	PCBs	0512096	0.069	na
MA-SW-81,63 (14)	12/2/2005	14	na	PCBs	0512096	< 0.0070	na
MA-SW-81,63 (18)	12/2/2005	18	na	PCBs	0512118	0.073	na
MA-SW-81,63 (21)	12/2/2005	21	na	PCBs	0512118	< 0.0071	na
MA-SW-67,64 (5)	11/11/2005	5	na	PCBs, TPH	0511278	762	9090
MA-SW-67,64 (9)	11/11/2005	9	na	PCBs, TPH	0511278	0.4	21.7
MA-SW-62,64 (6)	11/11/2005	6	na	PCBs, TPH	0511278	334	447
MA-SW-62,64 (9)	11/11/2005	9	na	PCBs, TPH, VOCs, SVOCs	0511278	0.26	10.1
MA-SW-62,65 (14)	12/2/2005	14	na	PCBs	0512118	0.074	na
MA-SW-62,64 (18)	12/2/2005	18	na	PCBs	0512096	0.28	na
Trip Blank	11/11/2005	na	na	VOCs	0512118	na	na
MA-SW-51,64 (5)	11/11/2005	5	na	PCBs, TPH, VOCs, SVOCs	0511278	0.2	31.3
MA-SW-51,64 (9)	11/11/2005	9	na	PCBs, TPH	0511278	0.3	0
MA-SW-51,65 (14)	12/2/2005	14	na	PCBs	0512118	< 0.0073	na
MA-SW-51,64 (18)	12/2/2005	18	na	PCBs	0512096	< 0.0069	na
MA-SW-33,64 (2)	11/29/2005	2	na	PCBs	0511532	18	na
MA-SW-33,63.5 (6)	11/29/2005	6	na	PCBs	0511532	< 0.0069	na
MA-SW-33,62 (10)	12/2/2005	10	na	PCBs	0512096	< 0.0075	na
MA-SW-33,62 (14)	12/2/2005	14	na	PCBs	0512118	< 0.0074	na
MA-SW-33,64 (18)	11/29/2005	18	na	PCBs	0511568	< 0.0072	na
Field Equip. Blank	11/29/2005	na	na	PCBs	0511568	<0.000080	na
MA-SW-15,63.5(10)	11/23/2005	10	na	PCBs	0511510	< 0.0072	na
MA-SW-15,63.5 (14)	11/28/2005	14	na	PCBs	0511532	< 0.0071	na
MA-SW-15,64 (18)	11/29/2005	18	na	PCBs	0511532	0.04	na

TABLE 1-1
RI Soil Sample Results: PCBs & TPH
Backyards 57th Drive Residences, Maspeth, NY

Sample Location	Sample Date	Depth (feet bls)	Head Space (ppm)	Analytes	Chain of Custody	TOTAL PCBs (ppm)	TOTAL TPH (ppm)
Samples collected from the north side of fence line (in backyards of 57th Drive residences).							
MA-GP-155,66 (0-2")	5/7/2007	0-2 inches	na	PCBS	SA 61721	0.0558	na
MA-GP-155,66 (2-6)	5/9/2007	2-6	na	PCBS	SA 61870	< 0.0344	na
MA-GP-155,66 (6-10)	5/9/2007	6-10	na	PCBS	SA 61870	< 0.0305	na
MA-GP-155,66 (10-14)	6/1/2007	10-14	na	PCBS	SA 63034	< 0.0313	na
MA-GP-155,66 (14-18)	6/1/2007	14-18	na	PCBS	SA 63034	< 0.0293	na
MA-GP-155,66 (18-22)	6/1/2007	18-22	na	PCBS	SA 63034	< 0.0291	na
MA-GP-155,66 (22-26)	6/1/2007	22-26	na	PCBS	SA 63034	< 0.0306	na
MA-GP-155,66 (26-30)	6/1/2007	26-30	na	PCBS	SA 63034	< 0.0306	na
MA-GP-147,66 (0-2")	5/7/2007	0-2 inches	na	PCBS	SA 61721	0.210	na
MA-GP-147,66 (2-6)	6/1/2007	2-6	na	PCBS	SA 63034	< 0.0309	na
MA-GP-147,66 (6-10)	6/1/2007	6-10	na	PCBS	SA 63034	< 0.0299	na
MA-GP-147,66 (10-14)	6/1/2007	10-14	na	PCBS	SA 63034	< 0.0282	na
MA-GP-147,66 (14-18)	6/1/2007	14-18	na	PCBS	SA 63034	0.0338	na
MA-GP-131,66 (0-2")	5/8/2007	0-2 inches	na	PCBS	SA 61792	0.0571	na
MA-GP-131,66 (2-6)	5/8/2007	2-6	na	PCBS	SA 61792	< 0.0326	na
MA-GP-131,66 (6-10)	5/8/2007	6-10	na	PCBS	SA 61792	< 0.0321	na
MA-GP-131,66 (10-14)	5/8/2007	10-14	na	PCBS	SA 61792	< 0.0297	na
MA-GP-131,66 (14-18)	5/8/2007	14-18	na	PCBS	SA 61792	< 0.0310	na
MA-GP-131,66 (18-22)	6/1/2007	18-22	na	PCBS	SA 63034	< 0.0308	na
MA-GP-131,66 (18-22) Dupe	6/1/2007	18-22	na	PCBS	SA 63034	< 0.0290	na
MA-GP-131,66 (22-26)	6/1/2007	22-26	na	PCBS	SA 63034	< 0.0303	na
MA-GP-131,66 (26-30)	6/1/2007	26-30	na	PCBS	SA 63034	< 0.0292	na
MA-GP-116,66 (0-2 ")	5/8/2007	0-2 inches	na	PCBS	SA 61792	0.253	na
MA-GP-116,66 (2-6)	5/8/2007	2-6	na	PCBS	SA 61792	0.0336	na
MA-GP-116,66 (6-10)	5/8/2007	6-10	na	PCBS	SA 61792	< 0.0336	na
MA-GP-116,66 (10-14)	5/8/2007	10-14	na	PCBS	SA 61792	< 0.0352	na
MA-GP-116,66 (14-18)	5/8/2007	14-18	na	PCBS	SA 61792	< 0.0296	na
MA-GP-116,66 (18-22)	5/11/2007	18-22	na	PCBS	SA 62202	< 0.0316	na
MA-GP-116,66 (18-22) Dupe	5/11/2007	18-22	na	PCBS	SA 62202	< 0.0313	na
MA-GP-116,66 (22-26)	5/11/2007	22-26	na	PCBS	SA 62202	< 0.0323	na
MA-GP-116,66 (26-30)	5/11/2007	26-30	na	PCBS	SA 62202	< 0.0319	na
MA-GP-116,66 (26-30) MS	5/11/2007	26-30	na	PCBS	SA 62202	217	na
MA-GP-116,66 (26-30) MSD	5/11/2007	26-30	na	PCBS	SA 62202	210	na
MA-GP-93,66 (0-2")	5/7/2007	0-2	na	PCBS	SA 61721	0.122	na
MA-GP-97,66 (2-6)	5/9/2007	2-6	na	PCBS	SA 61870	< 0.0362	na
MA-GP-97,66 (6-10)	5/9/2007	6-10	na	PCBS	SA 61870	< 0.0314	na
MA-GP-97,66 (10-14)	5/11/2007	10-14	na	PCBS	SA 62202	< 0.0318	na
MA-GP-97,66 (14-18)	5/11/2007	14-18	na	PCBS	SA 62202	< 0.0322	na
MA-GP-97,66 (18-22)	5/11/2007	18-22	na	PCBS	SA 62202	< 0.0303	na
MA-GP-97,66 (22-26)	5/11/2007	22-26	na	PCBS	SA 62202	< 0.0314	na
MA-GP-97,66 (26-30)	5/11/2007	26-30	na	PCBS	SA 62202	< 0.0300	na

TABLE 1-1
RI Soil Sample Results: PCBs & TPH
Backyards 57th Drive Residences, Maspeth, NY

Sample Location	Sample Date	Depth (feet bls)	Head Space (ppm)	Analytes	Chain of Custody	TOTAL PCBs (ppm)	TOTAL TPH (ppm)
Samples collected from the north side of fence line (in backyards of 57th Drive residences).							
MA-GP-82,67 (0-2")	6/1/2007	1-2"	na	PCBS	SA 63034	**1.170**	na
MA-GP-82,67 (0-2)	5/7/2007	0-2	na	PCBS	SA 61721	0.478	na
MA-GP-82,67 (2-6)	5/9/2007	2-6	na	PCBS	SA 61870	< 0.0332	na
MA-GP-82,67 (6-10)	5/9/2007	6-10	na	PCBS	SA 61870	< 0.0331	na
MA-GP-82,67 (10-14)	5/9/2007	10-14	na	PCBS	SA 61870	< 0.0321	na
MA-GP-82,66 (14-18)	5/11/2007	14-18	na	PCBS	SA 62202	< 0.0316	na
MA-GP-82,66 (18-22)	5/11/2007	18-22	na	PCBS	SA 62202	< 0.0319	na
MA-GP-82,66 (22-26)	5/11/2007	22-26	na	PCBS	SA 62202	< 0.0308	na
MA-GP-82,66 (26-30)	5/11/2007	26-30	na	PCBS	SA 62202	< 0.0331	na
MA-GP-71,68 (0-2")	6/1/2007	1-2"	na	PCBS	SA 63034	0.682	na
MA-GP-71,68 (0-2)	5/7/2007	0-2	na	PCBS	SA 61721	**1.040**	na
MA-GP-71,68 (2-6)	5/9/2007	2-6	na	PCBS	SA 61870	< 0.0372	na
MA-GP-71,68 (10-14)	5/10/2007	10-14	na	PCBS	SA 61922	< 0.0324	na
MA-GP-71,68 (14-18)	5/10/2007	14-18	na	PCBS	SA 61922	< 0.0314	na
MA-GP-71,68 (18-22)	5/10/2007	18-22	na	PCBS	SA 61922	0.138	na
MA-GP-71,68 (22-26)	5/10/2007	22-26	na	PCBS	SA 61922	< 0.0306	na
MA-GP-71,68 (26-30)	5/10/2007	26-30	na	PCBS	SA 61922	< 0.0316	na
MA-GP-62,67.5 (0-2 ")	5/7/2007	0-2 inches	na	PCBS	SA 61721	0.482	na
MA-GP-62,67.5 (2-6)	5/7/2007	2-6	na	PCBS	SA 61721	0.0188	na
MA-GP-62,67.5 (6-10)	5/8/2007	6-10	na	PCBS	SA 61792	< 0.0318	na
MA-GP-62,67.5 (10-14)	5/8/2007	10-14	na	PCBS	SA 61792	< 0.0304	na
MA-GP-62,67.5 (14-18)	5/8/2007	14-18	na	PCBS	SA 61792	< 0.0318	na
MA-GP-62,67.5 (18-22)	5/8/2007	18-22	na	PCBS	SA 61792	0.950	na
MA-GP-62,67.5 (22-26)	5/10/2007	22-26	na	PCBS	SA 61922	< 0.0302	na
MA-GP-62,67.5 (26-30)	5/10/2007	26-30	na	PCBS	SA 61922	< 0.0304	na
MA-GP-32,66 (0-2")	5/9/2007	0-2	na	PCBS	SA 61870	0.683	na
MA-GP-32,66 (2-6)	5/9/2007	2-6	na	PCBS	SA 61870	< 0.0389	na
MA-GP-32,66 (6-10)	5/9/2007	6-10	na	PCBS	SA 61870	< 0.0378	na
MA-GP-32,66 (10-14)	5/9/2007	10-14	na	PCBS	SA 61870	< 0.0326	na
MA-GP-32,66 (14-18)	5/9/2007	14-18	na	PCBS	SA 61870	< 0.0335	na
MA-GP-32,66 (18-22)	5/10/2007	18-22	na	PCBS	SA 61922	< 0.0307	na
MA-GP-32,66 (22-26)	5/10/2007	22-26	na	PCBS	SA 61922	< 0.0311	na
MA-GP-32,66 (26-30)	5/10/2007	26-30	na	PCBS	SA 61922	0.0154	na
MA-GP-23,66 (0-2")	5/9/2007	0-2 inches	na	PCBS	SA 61870	**1.020**	na
MA-GP-23,66 (2-6)	5/9/2007	2-6	na	PCBS	SA 61870	< 0.0358	na

Notes
ppm = parts per million
na = not analyzed
PCBs = polychinated biphenyls
TPH = total petroleum hydrocarbons
VOCs = volatile organic compounds
SVOCs = semi-volatile organic compounds

COC = chain of custody
bls = below land surface
MS = Matrix Spike
MSD = Matrix Spike Duplicate

< = less than the method detection limit (MDL).
Y = Estimated Value
E = Estimated Value

Bold: Indicates compound reported above Recommended Soil Cleanup Objective (1.0 ppm for PCBs)

TABLE 1-2
RI Soil Sample Results: VOCs
Backyards 57th Drive Residences, Maspeth, NY

	Sample Location	MA-SW-51,64 (5)	MA-SW-62,64 (9)
	Sample Date	11/11/2005	11/11/2005
	Lab COC	0511278	0511278
VOCs (Method 8260) Analyte	Regulatory Limit (ppm)		
Acetone	0.2 [1]		
Benzene	0.06 [1]		
2-Butanone (MEK)	0.3 [1]		
n-Butylbenzene	NR		
tert Butylbenzene	NR		
sec Butylbenzene	NR		
Carbon disulfide	2.7 [1]		
Chlorobenzene	1.7 [1]		
2-Chloroethylvinylether	NR	< 0.00516 R	< 0.00518 R
1,2 Dichlorobenzene	7.9 [1]		
1,3 Dichlorobenzene	1.6 [1]		
1,4 Dichlorobenzene	8.5 [1]		
1,2 Dichloroethane	0.1 [1]		
1,1 Dichloroethene	0.4 [1]		
p-Diethylbenzene	NR		
p-Ethyltoluene	NR		
4-Isopropyltolune	NR		
4-Methyl-2-pentanone (MIBK)	1.0 [1]		
Methylene chloride	0.1 [1]	0.00385 Y	0.00404 Y
Napthalene	NR		
n-Propylybenzene	NR		
1,2,4,5 Tetramethylbenzene	NR		
Toluene	1.5 [1]		
1,2,4 Trichlorobenzene	3.4 [1]		
Trichloroethene (TCE)	0.7 [1]		
1,2,4 Trimethylbenzene	NR		
1,3,5 Trimethylbenzene	NR		
m, p-Xylene	1.2 [2]		
o-Xylene	1.2 [2]		
Tetrahydrofuran	NR		
Ethyl ether	NR		
tert-Amyl methyl ether (TAME)	NR		
Tertiary butyl alcohol (TBA)	NR	< 0.0275 R	< 0.0276 R
1,4-Dioxane	NR		

Notes:

Results presented in milgrams per kilogram (mg/Kg) or parts per million (ppm).

[1] Based upon TAGM HWR-94-4046, Appendix A, Table 1; *Recommended Soil Cleanup Objectives.*

[2] Based upon TAGM HWR-94-4046, Appendix A, Table 1; *Recommended Soil Cleanup Objectives* for total xylenes.

NR: No Regulatory Limit

MS: Matrix Spike

MSD: Matrix Spike Duplicate

Blank Space: Indicates not present at its respective MDL.

< : Less than laboratory reporting limit

Bold: Indicates compound reported above Recommended Soil Cleanup Objective.

B: Detected in method blank

J: Estimated value below calibrated Method Detection Limit (MDL).

Y: Reported concentration was detected below the lowest calibration standard concentration.

R: Unusable data as determined by Data Validation conducted by Alpha Geoscience of Clifton Park, NJ (refer to Appendix F)

TABLE 1-3

RI Soil Sample Results: SVOCs

Backyards 57th Drive Residences, Maspeth, NY

	Sample Location	MA-SW-51,64 (5)		MA-SW-62,64 (9)	
	Sample Date	11/11/2005		11/11/2005	
	Lab COC	0511278		0511278	
Analyte	Regulatory Limit (ppm)				
Acenapthene	50 [1]				
Acenaphthylene	41 [1]				
Anthracene	50 [1]	0.0546	J		
Benzo (a) anthracene	0.224 [1]	**0.225**	Y		
Benzo(a) pyrene	0.061 [1]	**0.199**	Y		
Benzo(b) fluoranthene	1.1 [1]	0.159	Y		
Benzo(g,h,i) perylene	50 [1]	0.0905	J		
Benzo(k) fluoranthene	1.1 [1]	0.179	Y		
Bis(2-Ethylhexyl)phthalate	50 [1]	0.0602	J	0.0294	J
4-Chloro 3 methylphenol	0.240 [1]				
2-Chlorophenol	0.8 [1]				
Chrysene	0.4 [1]	0.263	Y		
Dibenz(a,h)anthracene	0.014 [1]				
Dibenzofuran	6.2 [1]				
1,4-Dichlorobenzene	NR	0.0343	J	0.0313	J
Di-n-butylphthalate	8.1 [1]	0.0308	J	0.0303	J
2,4-Dinitrotoluene	NR				
Fluoranthene	50 [1]	0.475	Y		
Flourene	50 [1]	0.0247	J		
Indeno(1,2,3-cd) pyrene	3.2 [1]	0.0934	J		
2-Methyl naphthalene	36.4 [1]				
3,4-Methylphenol	NR				
Naphthalene	13.0 [1]				
4-Nitrophenol	0.100 [1]				
N nitroso-di-n-propylamine	NR				
Pentachlorophenol	1.0 [1]				
Phenanthrene	50 [1]	0.322	Y		
Phenol	0.03 [1]				
Pyrene	50 [1]	0.354	Y		
1,2,4-Trichlorobenzene	NR	0.142	Y		

Notes:

[1] Based upon TAGM HWR-94-4046, Appendix A, Table 2; *Recommended Soil Cleanup Objectives;* no individual compound above 50 ppm, total SVOCs <500 ppm

NR: No Regulatory Limit

MS: Matrix Spike

MSD: Matrix Spike Duplicate

Blank Space: Indicates not present at its respective MDL

< : Less than laboratory reporting limit

Bold : Indicates compound reported above Recommended Soil Cleanup Objective

B: Detected in method blank

J: Estimated value below MDL

Y: Reported concentration was detected below the lowest calibration standard concentration

R: Unusable. No Data deemed unusable as determined by Data Validation conducted by Alpha Geoscience of Clifton Park, NJ (refer to Appendix F)

TABLE 4-1
Soil Sample Summary: PCBs & TPH
Vicinity of 57-40, 57-42, and 57-44 57th Street

Sample Location	Sample Date	Sample Type	Purpose	Depth (feet bls)	Head Space (ppm)	Analytes	Lab COC	TOTAL PCBs (ppm)	TOTAL TPH (ppm)
MA-SSB-23,70 (0.5)	11/7/2007	Grab	Backyard Confirmatory	0.5	NA	PCBS	SA 70711	< 0.0347	NA
MA-SSB-23,68 (1.5)	11/8/2007	Grab	Backyard Confirmatory	1.5	NA	PCBS	SA 70787	< 0.0410	NA
MA-SW-51,62 (5)	11/11/2005	Grab	End-Pt: N. Hot Spot, E. SW	5	0.9	PCBs, TPH	0511278	0.13	63.3
MA-SW-51,64 (5)	11/11/2005	Grab	End-Pt: N. Hot Spot, N. SW	5	0.8	PCBs, TPH, VOCs, SVOCs	0511278	0.2	31.3
MA-SW-51,64 (9)	11/11/2005	Grab	End-Pt: N. Hot Spot, N. SW	9	1.3	PCBs, TPH	0511278	0.3	< 43.7
MA-SW-51,65 (14)	12/2/2005	Vibratory GP	N Wall Exploration - Delineation	14	na	PCBs	0512118	< 0.0073	NA
MA-SW-51,64 (18)	12/2/2005	Geoprobe	Exploration - Delineation	18	na	PCBs	0512096	< 0.0069	NA
MA-SW-53.5,64 (10.5)	1/2/2008	Geoprobe	Backyard Sidewall Confirmatory	10.5	na	PCBS	SA 72884	< 0.0340	NA
MA-SW-54,64 (7.5)	12/6/2007	Grab	Backyard Sidewall Confirmatory	7.5	na	PCBs	SA 71943	0.142	NA
MA-SW-55.5,64 (7.5)	11/27/2007	Grab	Backyard Characterization	7.5	NA	PCBs	SA 71514	2.56	NA
MA-SSB-55.5,64 (9.0)	12/6/2007	Grab	Backyard Characterization	9.0	NA	PCBs	SA 71943	9.64 E	NA
MA-SSB-55.5,64 (9.0)	12/6/2007	Grab	Backyard Bottom Confirmatory	9.0	na	PCBs	SA 71943	9.64/12.6	NA
MA-SSB-55.5,64 (12)	1/2/2008	Geoprobe	Backyard Bottom Confirmatory	12	na	PCBS	SA 72884	< 0.0310	NA
MA-SW-55.5,65 (7.5)	12/6/2007	Grab	Backyard Sidewall Confirmatory	7.5	na	PCBs	SA 71943	0.0811	NA
MA-SW-55.5,65 (10.5)	1/2/2008	Geoprobe	Backyard Sidewall Confirmatory	10.5	na	PCBS	SA 72884	< 0.0327	NA
MA-SW-55.5,66 (11)	1/2/2008	Geoprobe	Backyard Sidewall Confirmatory	11	na	PCBS	SA 73370	< 0.0321	NA
MA-SW-55.5,66 (14)	1/2/2008	Geoprobe	Backyard Sidewall Confirmatory	14	na	PCBS	SA 73370	< 0.0334	NA
MA-SW-55.5,67 (11.5)	1/2/2008	Geoprobe	Backyard Sidewall Confirmatory	11.5	na	PCBS	SA 73370	< 0.0332	NA
MA-SW-58,65 (7.5)	12/5/2007	Grab	Backyard Characterization	7.5	NA	PCBs	SA 71906	23.7 E	NA
MA-SSB-58,65 (12)	1/3/2008	Geoprobe	Backyard Bottom Confirmatory	12	na	PCBS	SA 72884	< 0.0310	NA
MA-SSB-58,65.5 (10.5)	1/4/2008	Geoprobe	Backyard Sidewall Confirmatory	10.5	na	PCBS	SA 72957	< 0.0309	NA
MA-SSB-58,66 (6)	1/4/2008	Hand Geoprobe	Backyard Bottom Confirmatory	6	na	PCBS	SA 72957	2.032	NA
MA-SSB-58,66 (7.5)	4/7/2008	Hand Geoprobe	Backyard Characterization	7.5	NA	PCBS	SA 76891	2.210	NA
MA-SSB-58,66 (13)	1/3/2008	Geoprobe	Backyard Bottom Confirmatory	13	na	PCBS	SA 73370	< 0.0290	NA
MA-SSB-58,67 (7.5)	4/7/2008	Hand Geoprobe	Backyard Bottom Confirmatory	7.5	NA	PCBS	SA 76891	0.0455	NA
MA-SW-59,65.5 (7.5)	12/5/2007	Grab	Backyard Sidewall Confirmatory	7.5	na	PCBs	SA 71906	0.340	NA
MA-GP-59,67 (6.0-6.5)	8/27/2007	Geoprobe	Backyard Characterization	6.0-6.5	na	PCBS	SA 67320	0.592	NA
MA-SW-59.5,64.5 (7.5)	11/27/2007	Grab	Backyard Characterization	7.5	NA	PCBs	SA 71514	283/372	NA
MA-SSB-59.5,64.5 (9.2)	12/5/2007	Grab	Backyard Bottom Confirmatory	9.2	na	PCBs	SA 71906	0.484	NA
MA-SW-61,64 (7.5)	11/14/2007	Grab	Backyard Characterization	7.5	NA	PCBS	SA 71058	5.520	NA
MA-SSB-61,64 (8.5)	11/27/2007	Grab	Backyard Bottom Confirmatory	8.5	na	PCBs	SA 71514	0.293	NA
MA-GP-62,67.5 (2-6)	5/7/2007	Vibratory GP	Backyard Characterization	2-6	na	PCBS	SA 61721	0.0188	NA
MA-GP-62,67.5 (6-10)	5/8/2007	Geoprobe	Backyard Characterization	6-10	na	PCBS	SA 61792	< 0.0318	NA
MA-GP-62,67.5 (10-14)	5/8/2007	Geoprobe	Backyard Characterization	10-14	na	PCBS	SA 61792	< 0.0304	NA
MA-GP-62,67.5 (14-18)	5/8/2007	Geoprobe	Backyard Characterization	14-18	na	PCBS	SA 61792	< 0.0318	NA
MA-GP-62,67.5 (18-22)	5/8/2007	Geoprobe	Backyard Characterization	18-22	na	PCBS	SA 61792	0.950	NA
MA-GP-62,67.5 (22-26)	5/10/2007	Geoprobe	Backyard Characterization	22-26	na	PCBS	SA 61922	< 0.0302	NA
MA-GP-62,67.5 (26-30)	5/10/2007	Geoprobe	Backyard Characterization	26-30	na	PCBS	SA 61922	< 0.0304	NA

TABLE 4-1
Soil Sample Summary: PCBs & TPH
Vicinity of 57-40, 57-42, and 57-44 57th Street

Sample Location	Sample Date	Sample Type	Purpose	Depth (feet bls)	Head Space (ppm)	Analytes	Lab COC	TOTAL PCBs (ppm)	TOTAL TPH (ppm)
MA-SW-65,67 (7.5)	11/14/2007	Grab	Backyard Sidewall Confirmatory	7.5	na	PCBS	SA 71058	< 0.0331	NA
MA-SSB-66,64 (7.5)	11/9/2007	Grab	Backyard Confirmatory	7.5	na	PCBS	SA 70810	< 0.0309	NA
MA-SSB-67,64 (7.5)	11/14/2007	Grab	Backyard Bottom Confirmatory	7.5	na	PCBS	SA 71058	0.737	NA
MA-SSB-67,64 (7.5) Dupe	11/14/2007	Grab	Field Dup	7.5	NA	PCBS	SA 71058	0.465	NA
MA-SSB-67,64 (7.5) MS	11/14/2007	Grab	Matrix Spike	7.5	NA	PCBS	SA 71058	0.249	NA
MA-SSB-67,64 (7.5) MSD	11/14/2007	Grab	Matrix Spike Dup	7.5	NA	PCBS	SA 71058	0.437	NA
MA-SW-67,64 (9)	11/11/2005	Grab	End-Pt: N. Hot Spot, N. SW	9	1.1	PCBs, TPH	0511278	0.4	21.7
MA-SW-68,64 (7.5)	11/14/2007	Grab	Backyard Characterization	7.5	NA	PCBS	SA 71058	263/125	NA
MA-SSB-68,67 (7.5)	11/20/2007	Grab	Backyard Bottom Confirmatory	7.5	na	PCBS	SA 71357	< 0.0333	NA
MA-SSB-69,71 (3)	11/7/2007	Grab	Backyard Confirmatory	0.5	na	PCBS	SA 70711	0.0255	NA
MA-SSB-70,64 (8.5)	11/26/2007	Grab	Backyard Bottom Confirmatory	8.5	na	PCBS	SA 71454	< 0.0325	NA
MA-GP-71,68 (2-6)	5/9/2007	Geoprobe	Backyard Characterization	2-6	na	PCBS	SA 61870	< 0.0372	NA
MA-GP-71,68 (10-14)	5/10/2007	Geoprobe	Backyard Characterization	10-14	na	PCBS	SA 61922	< 0.0324	NA
MA-GP-71,68 (14-18)	5/10/2007	Geoprobe	Backyard Characterization	14-18	na	PCBS	SA 61922	< 0.0314	NA
MA-GP-71,68 (18-22)	5/10/2007	Geoprobe	Backyard Characterization	18-22	na	PCBS	SA 61922	0.138	NA
MA-GP-71,68 (22-26)	5/10/2007	Geoprobe	Backyard Characterization	22-26	na	PCBS	SA 61922	< 0.0306	NA
MA-GP-71,68 (26-30)	5/10/2007	Geoprobe	Backyard Characterization	26-30	na	PCBS	SA 61922	< 0.0316	NA
MA-GP-72,64 (6.0-6.5)	8/27/2007	Geoprobe	Backyard Characterization	6.0-6.5	NA	PCBS	SA 67320	< 0.0343	NA
MA-SW-73,65.5 (7.5)	11/26/2007	Grab	Backyard Sidewall Confirmatory	7.5	na	PCBS	SA 71454	< 0.0307	NA
MA-SW-73,70.5 (8.5)	11/26/2007	Grab	Backyard Sidewall Confirmatory	8.5	na	PCBS	SA 71454	< 0.0309	NA
MA-SW-74,64 (7.5)	11/26/2007	Grab	Backyard Sidewall Confirmatory	7.5	na	PCBS	SA 71454	< 0.0346	NA
MA-SW-81,63 (2)	11/30/2005	Grab	Exploration-Delineation behind 57-40	2	na	PCBs	0512032	0.067	NA
MA-SW-81,63 (6)	12/1/2005	Vibratory GP	Exploration-Delineation behind 57-40	6	na	PCBs	0512096	0.4	NA
MA-SW-81,63 (10)	12/2/2005	Vibratory GP	Exploration-Delineation behind 57-40	10	na	PCBs	0512096	0.069	NA
MA-SW-81,63 (14)	12/2/2005	Vibratory GP	Exploration-Delineation behind 57-40	14	na	PCBs	0512096	< 0.0070	NA
MA-SW-81,63 (18)	12/2/2005	Geoprobe	Exploration-Delineation behind 57-40	18	na	PCBs	0512118	0.073	NA
MA-SW-81,63 (21)	12/2/2005	Geoprobe	Exploration-Delineation behind 57-40	21	na	PCBs	0512118	< 0.0071	NA
MA-SSB-84,69 (1)	11/7/2007	Grab	Backyard Characterization	0.5	NA	PCBS	SA 70711	1.290	NA
MA-SSB-84,69 (3)	11/14/2007	Grab	Backyard Bottom Confirmatory	3	NA	PCBS	SA 71058	< 0.0341	NA

Notes
ppm = parts per million
NA = not analyzed
PCBs = polychinated biphenyls
COC = chain of custody
bls = below land surface
MS = Matrix Spike
MSD = Matrix Spike Duplicate

< = less than the method detection limit (MDL).
Y = Estimated Value
E = Estimated Value
Bold: Indicates compound reported above Recommended Soil Cleanup Objective (1.0 ppm for PCBs)

Table 4-2
Quantities of Hazardous Soils Removed
57th Drive Residential Backyards

Date	Manifest #	Kilograms	Pounds	Converted to Tons
11/14/2007	002551249JJK	16121	35466	17.73
11/14/2007	002551250JJK	13989	30776	15.39
11/15/2007	002551251JJK	14470	31834	15.92
11/15/2007	002551252JJK	15404	33889	16.94
11/16/2007	002815276JJK	7974	17543	8.77
11/19/2007	002551475JJK	13309	29280	14.64
11/20/2007	002551476JJK	15785	34727	17.36
7/2/2008	001169977JJK	8664	19061	9.53

Notes:

Totals

All hazardous soils diposed at Model City facility

Table 4-3
End-Point Soil Sample Summary: Residential Backyards PCBs

Sample Location	Sample Date	Depth (feet bls)	Head Space (ppm)	Analytes	Lab COC	TOTAL PCBs (ppm)
MA-SSB-23,70 (0.5)	11/7/2007	0.5	NA	PCBs	SA 70711	< 0.0347
MA-SSB-23,68 (1.5)	11/8/2007	1.5	NA	PCBs	SA 70787	< 0.0410
MA-GP-62,67.5 (0-2 inches)	5/7/2007	2-inches	NA	PCBs	SA 61721	0.482
MA-GP-62,67.5 (2-6)	5/7/2007	2-6	NA	PCBs	SA 61721	0.0188
MA-GP-62,67.5 (6-10)	5/8/2007	6-10	NA	PCBs	SA 61792	< 0.0318
MA-GP-62,67.5 (10-14)	5/8/2007	10-14	NA	PCBs	SA 61792	< 0.0304
MA-GP-62,67.5 (14-18)	5/8/2007	14-18	NA	PCBs	SA 61792	< 0.0318
MA-GP-62,67.5 (18-22)	5/8/2007	18-22	NA	PCBs	SA 61792	0.950
MA-GP-62,67.5 (22-26)	5/10/2007	22-26	NA	PCBs	SA 61922	< 0.0302
MA-GP-62,67.5 (26-30)	5/10/2007	26-30	NA	PCBs	SA 61922	< 0.0304
MA-SSB-69,71 (3)	11/7/2007	0.5	NA	PCBs	SA 70711	0.0255
MA-SSB-84,69 (3)	11/14/2007	3	NA	PCBs	SA 71058	< 0.0341

bls = below land surface
COC = Chain Of Custody
PCBs = Polychlorinated bibhenyls
ppm = parts per million
NA = Not Analyzed
< = Less than laboratoy method detection limits

J = detected above MDL, but below reporting limt (result is an esitma
Y = Estimated value
E = Estimated value
Bold: Indicates compound reported above Recommended Cleanup Objective (1.0 ppm for PCBs)

TABLE 4-4
End-Point Soil Sample Summary: Vicinity of 57-40, 57-42, and 57-44 57th Drive PCBs

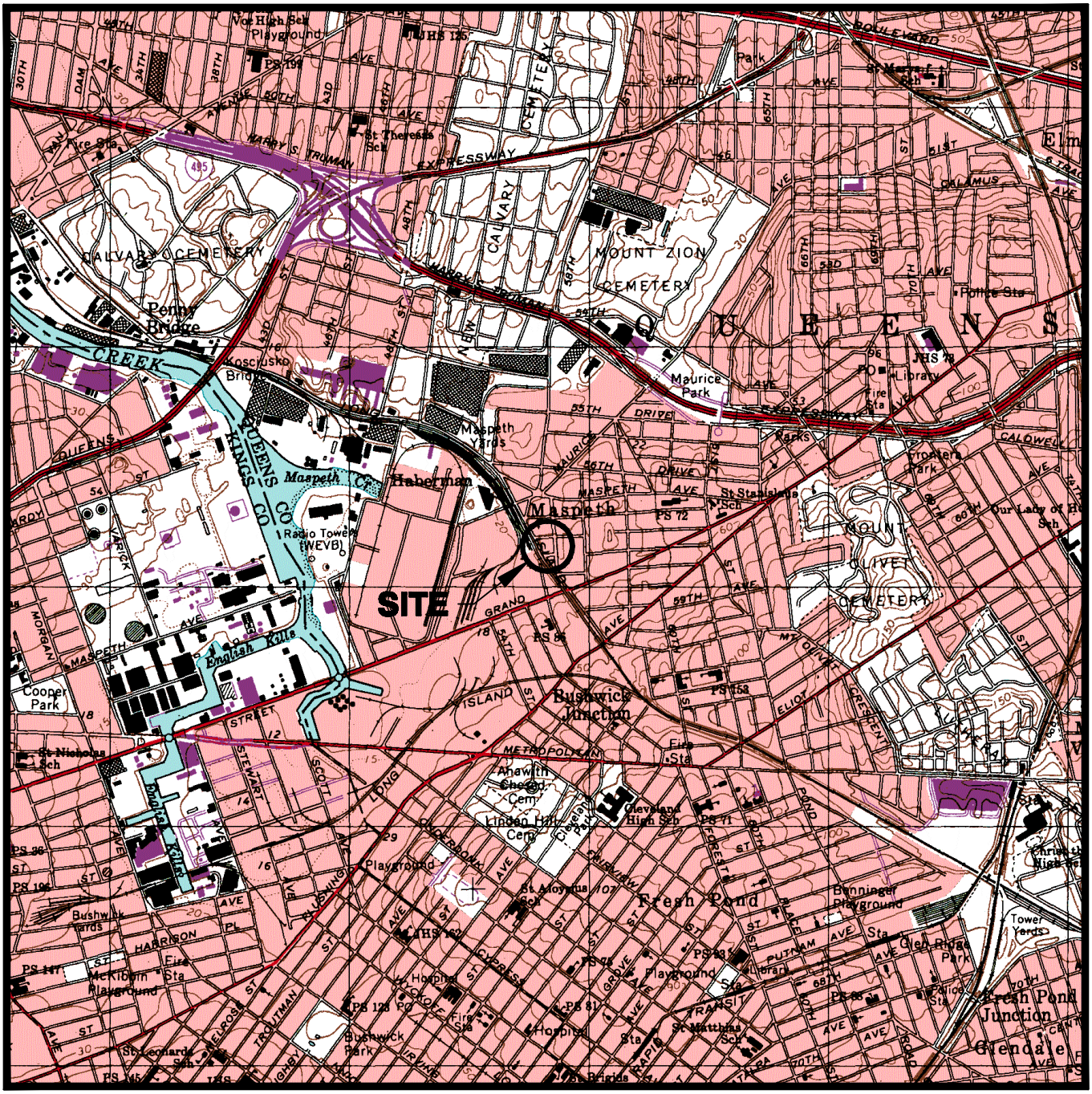
Sample Location	Sample Date	Depth (feet bls)	Head Space (ppm)	Analytes	Chain of Custody	TOTAL PCBs (ppm)
MA-SW-55.5,65 (7.5)	12/6/2007	7.5	na	PCBs	SA 71943	0.0811
MA-SW-55.5,65 (10.5)	1/2/2008	10.5	na	PCBs	SA 72884	< 0.0327
MA-SW-55.5,66 (11)	1/2/2008	11	na	PCBs	SA 73370	< 0.0321
MA-SW-55.5,66 (14)	1/2/2008	14	na	PCBs	SA 73370	< 0.0334
MA-SW-55.5,67 (11.5)	1/2/2008	11.5	na	PCBs	SA 73370	< 0.0332
MA-SSB-58,65 (12)	1/3/2008	12	na	PCBs	SA 72884	< 0.0310
MA-SSB-58,65.5 (10.5)	1/4/2008	10.5	na	PCBs	SA 72957	< 0.0309
MA-SSB-58,66 (13)	1/3/2008	13	na	PCBs	SA 73370	< 0.0290
MA-SSB-58,67 (7.5)	4/7/2008	7.5	na	PCBs	SA 76891	0.0455
MA-SW-59,65.5 (7.5)	12/5/2007	7.5	na	PCBs	SA 71906	0.340
MA-GP-59,67 (6.0-6.5)	8/27/2007	6.0-6.5	na	PCBs	SA 67320	0.592
MA-SSB-59.5,64.5 (9.2)	12/5/2007	9.2	na	PCBs	SA 71906	0.484
MA-GP-62,67.5 (2-6)	5/7/2007	2-6	na	PCBs	SA 61721	0.0188
MA-GP-62,67.5 (6-10)	5/8/2007	6-10	na	PCBs	SA 61792	< 0.0318
MA-GP-62,67.5 (10-14)	5/8/2007	10-14	na	PCBs	SA 61792	< 0.0304
MA-GP-62,67.5 (14-18)	5/8/2007	14-18	na	PCBs	SA 61792	< 0.0318
MA-GP-62,67.5 (18-22)	5/8/2007	18-22	na	PCBs	SA 61792	0.950
MA-GP-62,67.5 (22-26)	5/10/2007	22-26	na	PCBs	SA 61922	< 0.0302
MA-GP-62,67.5 (26-30)	5/10/2007	26-30	na	PCBs	SA 61922	< 0.0304
MA-SW-65,67 (7.5)	11/14/2007	7.5	na	PCBs	SA 71058	< 0.0331
MA-SSB-68,67 (7.5)	11/20/2007	7.5	na	PCBs	SA 71357	< 0.0333
MA-SSB-69,71 (3)	11/7/2007	0.5	na	PCBs	SA 70711	0.0255

TABLE 4-4
End-Point Soil Sample Summary: Vicinity of 57-40, 57-42, and 57-44 57th Drive PCBs

Sample Location	Sample Date	Depth (feet bls)	Head Space (ppm)	Analytes	Chain of Custody	TOTAL PCBs (ppm)
MA-GP-71,68 (2-6)	5/9/2007	2-6	na	PCBs	SA 61870	< 0.0372
MA-GP-71,68 (10-14)	5/10/2007	10-14	na	PCBs	SA 61922	< 0.0324
MA-GP-71,68 (14-18)	5/10/2007	14-18	na	PCBs	SA 61922	< 0.0314
MA-GP-71,68 (18-22)	5/10/2007	18-22	na	PCBs	SA 61922	0.138
MA-GP-71,68 (22-26)	5/10/2007	22-26	na	PCBs	SA 61922	< 0.0306
MA-GP-71,68 (26-30)	5/10/2007	26-30	na	PCBs	SA 61922	< 0.0316
MA-SW-73,65.5 (7.5)	11/26/2007	7.5	na	PCBs	SA 71454	< 0.0307
MA-SW-73,70.5 (8.5)	11/26/2007	8.5	na	PCBs	SA 71454	< 0.0309

Notes

bls = Below land surface. Depth below the established grade of the M&A Linens property, referenced to as elevation "0.0".
COC = Chain Of Custody
PCBs = Polychlorinated bibhenyls
ppm = parts per million
NA = Not Analyzed
< = Less than laboratoy method detection limits
J = detected above MDL, but below reporting limt (result is an esitmated valu
Y = Estimated value
E = Estimated value
Bold: Indicates compound reported above Recommended Cleanup Objective (1.0 ppm for PCBs)



MAP SOURCE:

TOPOZONE.COM

USGS BROOKLYN [NY] QUAD
1995

Jacques Whitford Company, Inc.

JACQUES WHITFORD LOCATION: PORTSMOUTH, NEW HAMPSHIRE					DRAWING TITLE: **OFF-SITE LOCATION PLAN**
DATE PREPARED: 3-25-09	DESIGNED BY: DFM	DRAWN BY: JJW	CHECKED BY: DFM	REVIEWED BY: DBH	57TH DRIVE. BACKYARD OF RESIDENCES MASPETH, QUEENS, NEW YORK
REVISION DATE:	REVISION NO:	DRAWN BY:	CHECKED BY:	REVIEWED BY:	
PROJECT NAME/FILE NAME: MASPETH/SITE		PROJECT NUMBER/PHASE: 1012163.	SCALE: 1:24000	PREPARED FOR: –	FIGURE NO. 1

57th DRIVE

SIDEWALK

EXISTING BUILDINGS
2 TO 3-STORY RESIDENTIAL ROW HOUSES
#52-28 TO #57-50

#57-40 **#57-42** **#57-48**

CHAIN-LINK FENCE

GATE

SITE ACCESS

GATE

MW-301

FORMER MASPETH SUBSTATION

CRUSHED STONE

MW-302

58th STREET
ONE WAY

DOOR DOOR DOOR

RUST STREET
(TWO-WAY)

SIDEWALK

MW-303

SIDEWALK

MW-306

FACILITY
57-77 RUST STREET
1-STORY BRICK INDUSTRIAL BUILDING
FORMER MASPETH SUBSTATION
CURRENTLY M&A LINENS

MW-304

MW-305

SIDEWALK

58th AVENUE

DRAWING NOTES:

1. BUILDING AND SITE DIMENSIONS ARE OBTAINED FROM FIELD MEASUREMENTS AND FACILITY PLANS PROVIDED BY CON EDISON AND GIVEN FOR ILLUSTRATIVE PURPOSES ONLY. ACTUAL DIMENSIONS AND SITE FEATURES TO BE VERIFIED BY THE CONTRACTOR AND MAY DIFFER.
2. CONCRETE PADS AND SITE FEATURES SHOWN DO NOT REFLECT ALL SITE FEATURES.

NORTH

10 0 10

SCALE IN FEET

Legend

- CHAIN LINK FENCE
- EXISTING BUILDING
- TREE
- PROPERTY LINE
- EXISTING MONITORING WELL LOCATION

Jacques Whitford Engineering Group, Inc., P.C.

JACQUES WHITFORD LOCATION: PORTSMOUTH, NEW HAMPSHIRE				DRAWING TITLE: **EXISTING CONDITIONS PLAN**
DATE PREPARED: 3-25-09	DESIGNED BY: DFM	DRAWN BY: JJW	CHECKED BY: DFM	REVIEWED BY: DBH
REVISION DATE:	REVISION NO:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
PROJECT NAME/FILE NAME: MASPETH/SITE	PROJECT NUMBER/PHASE: 1012163.	SCALE: AS SHOWN	PREPARED FOR: -	FIGURE NO. **2**

57TH DRIVE, BACKYARD OF RESIDENCES
MASPETH, QUEENS, NEW YORK

57th DRIVE

SIDEWALK

#57-40

#57-42

#57-48

EXISTING BUILDINGS

2 TO 3-STORY RESIDENTIAL ROW HOUSES
#52-28 TO #57-50

MA-GP-57-26

MA-GP-57-28

MA-GP-57-30

MA-GP-57-32

MA-GP-57-34

MA-GP-109,63

MA-GP-96,63.5

MA-GP-67,64

MA-GP-81,63

MA-GP-62,64

MA-GP-51,64

MA-GP-33,64

MA-GP-15,63.5

GATE

SITE ACCESS

GATE

MW-301

MW-302

FORMER MASPETH SUBSTATION

CRUSHED STONE

(0,0) COORDINATE LOCATION

Legend

- CHAIN LINK FENCE
- EXISTING BUILDING
- TREE
- PROPERTY LINE
- EXISTING MONITORING WELL LOCATION
- GEOPROBE BORING LOCATION

MA-GP – INDICATES MASPETH GEOPROBE SAMPLE

97,66 – INDICATES X AND Y COORDINATES OF SOIL SAMPLE

NORTH

6 0 6

SCALE IN FEET

DRAWING NOTES:

1. BUILDING AND SITE DIMENSIONS ARE OBTAINED FROM FIELD MEASUREMENTS AND FACILITY PLANS PROVIDED BY CON EDISON AND GIVEN FOR ILLUSTRATIVE PURPOSES ONLY. ACTUAL DIMENSIONS AND SITE FEATURES TO BE VERIFIED BY THE CONTRACTOR AND MAY DIFFER.

Jacques Whitford Engineering Group, Inc., P.C.

JACQUES WHITFORD LOCATION: PORTSMOUTH, NEW HAMPSHIRE				
DATE PREPARED: 3-25-09	DESIGNED BY: DFM	DRAWN BY: JJW	CHECKED BY: DFM	REVIEWED BY: DBH
REVISION DATE:	REVISION NO:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
PROJECT NAME/FILE NAME: MASPETH/SITE		PROJECT NUMBER/PHASE: 1012163.	SCALE: AS SHOWN	PREPARED FOR: –

DRAWING TITLE:

FENCE LINE EXPLORATION PLAN

57TH DRIVE, BACKYARD OF RESIDENCES
MASPETH, QUEENS, NEW YORK

FIGURE NO. 3

57th DRIVE

SIDEWALK

MA-GP-155,66
MA-GP-147,66
MA-GP-131,66
MA-GP-116,66
MA-GP-93,66
MA-GP-97,66
MA-GP-82,67
MA-GP-82,66
MA-GP-71,68
MA-GP-62,67.5
MA-GP-32,66
MA-GP-23,66

#57-40 **#57-42** **#57-48**

GATE

SITE ACCESS

GATE

MW-301

MW-302

FORMER MASPETH SUBSTATION

CRUSHED STONE

(0,0) COORDINATE LOCATION

Legend

- CHAIN LINK FENCE
- EXISTING BUILDING
- TREE
- PROPERTY LINE
- EXISTING MONITORING WELL LOCATION
- GEOPROBE BORING LOCATION
- MA-GP – INDICATES MASPETH GEOPROBE SAMPLE
- **97,66** – INDICATES X AND Y COORDINATES OF SOIL SAMPLE

NORTH

6 0 6

SCALE IN FEET

DRAWING NOTES:

1. BUILDING AND SITE DIMENSIONS ARE OBTAINED FROM FIELD MEASUREMENTS AND FACILITY PLANS PROVIDED BY CON EDISON AND GIVEN FOR ILLUSTRATIVE PURPOSES ONLY. ACTUAL DIMENSIONS AND SITE FEATURES TO BE VERIFIED BY THE CONTRACTOR AND MAY DIFFER.

Jacques Whitford Engineering Group, Inc., P.C.

JACQUES WHITFORD LOCATION: PORTSMOUTH, NEW HAMPSHIRE				DRAWING TITLE: **RESIDENTIAL BACKYARDS EXPLORATION PLAN** 57TH DRIVE, BACKYARD OF RESIDENCES MASPETH, QUEENS, NEW YORK
DATE PREPARED: 3-25-09	DESIGNED BY: DFM	DRAWN BY: JJW	CHECKED BY: DFM	REVIEWED BY: DBH
REVISION DATE:	REVISION NO:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
PROJECT NAME/FILE NAME: MASPETH/SITE		PROJECT NUMBER/PHASE: 1012163.	SCALE: AS SHOWN	PREPARED FOR: –

FIGURE NO. 4

57th DRIVE

SIDEWALK

MA-GP-155,66
MA-GP-147,66
MA-GP-131,66
MA-GP-116,66
MA-GP-93,66
MA-GP-97,66
MA-GP-82,67
MA-GP-82,66
MA-GP-71,68
MA-GP-62,67.5
MA-GP-32,66
MA-GP-23,66

#57-40 **#57-42** **#57-48**

GATE

SITE ACCESS

GATE

MW-301

MW-302

(0,0) COORDINATE LOCATION

MA-GP-82,67		
SAMPLE DEPTH (ft bgs)	CONCENTRATION (ppm)	NYSDEC RSCO (ppm)
0-2	1.170	1.0

MA-GP-71,68		
SAMPLE DEPTH (ft bgs)	CONCENTRATION (ppm)	NYSDEC RSCO (ppm)
0-2	1.040	1.0

MA-GP-23,66		
SAMPLE DEPTH (ft bgs)	CONCENTRATION (ppm)	NYSDEC RSCO (ppm)
0-2	1.020	1.0

MA-GP-62,64		
SAMPLE DEPTH (ft bgs)	CONCENTRATION (ppm)	NYSDEC RSCO (ppm)
6	334	1.0

MA-GP-67,64		
SAMPLE DEPTH (ft bgs)	CONCENTRATION (ppm)	NYSDEC RSCO (ppm)
5	762	1.0

FORMER MASPETH SUBSTATION

CRUSHED STONE

Legend

- CHAIN LINK FENCE
- EXISTING BUILDING
- TREE
- PROPERTY LINE
- EXISTING MONITORING WELL LOCATION
- GEOPROBE BORING LOCATION
- MA-GP – INDICATES MASPETH GEOPROBE SAMPLE
- **97,66** – INDICATES X AND Y COORDINATES OF SOIL SAMPLE
- 1.0 PPM – NYSDEC RSCO FOR PCBS

NORTH

6 0 6

SCALE IN FEET

DRAWING NOTES:

1. BUILDING AND SITE DIMENSIONS ARE OBTAINED FROM FIELD MEASUREMENTS AND FACILITY PLANS PROVIDED BY CON EDISON AND GIVEN FOR ILLUSTRATIVE PURPOSES ONLY. ACTUAL DIMENSIONS AND SITE FEATURES TO BE VERIFIED BY THE CONTRACTOR AND MAY DIFFER.

Jacques Whitford Engineering Group, Inc., P.C.

JACQUES WHITFORD LOCATION:				
PORTSMOUTH, NEW HAMPSHIRE				
DATE PREPARED:	DESIGNED BY:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
3-25-09	DFM	JJW	DFM	DBH
REVISION DATE:	REVISION NO:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
PROJECT NAME/FILE NAME:		PROJECT NUMBER/PHASE:	SCALE:	
MASPETH/SITE		1012163.	AS SHOWN	

DRAWING TITLE:
SPIDER MAP OF TOTAL PCBs IN SOIL EXCEEDING SCGs (BEFORE REM. ACTION)
57TH DRIVE, BACKYARD OF RESIDENCES
MASPETH, QUEENS, NEW YORK

PREPARED FOR: –

FIGURE NO. **5**

57th DRIVE

SIDEWALK

EXISTING BUILDINGS
2 TO 3–STORY RESIDENTIAL ROW HOUSES
#52–28 TO #57–50

#57-40

#57-42

#57-48

GATE

SITE ACCESS

GATE

MW–301

MW–302

FORMER MASPETH SUBSTATION

CRUSHED STONE

(0,0) COORDINATE LOCATION

Legend

- SOIL REMOVED OFF–SITE TO A DEPTH OF 1.5 FEET to 3 FEET BELOW GRADE AT RESIDENCES #57–40 AND #57–48 57TH DRIVE.
- SOIL REMOVED OFF–SITE TO A DEPTH OF 3 FEET BELOW GRADE AT RESIDENCE #57–42 57TH DRIVE.
- SOIL REMOVED OFF–SITE TO A DEPTH OF 7.5 FEET TO 8.5 FEET BELOW GRADE
- SOIL REMOVED OFF–SITE TO A DEPTH OF 13 FEET BELOW GRADE AT RESIDENCE #57–42 57TH DRIVE.
- CHAIN LINK FENCE
- EXISTING BUILDING
- TREE
- PROPERTY LINE
- EXISTING MONITORING WELL LOCATION

DRAWING NOTES:

1. BUILDING AND SITE DIMENSIONS ARE OBTAINED FROM FIELD MEASUREMENTS AND FACILITY PLANS PROVIDED BY CON EDISON AND GIVEN FOR ILLUSTRATIVE PURPOSES ONLY. ACTUAL DIMENSIONS AND SITE FEATURES TO BE VERIFIED BY THE CONTRACTOR AND MAY DIFFER.

NORTH

6 0 6
SCALE IN FEET

Jacques Whitford Engineering Group, Inc., P.C.

JACQUES WHITFORD LOCATION: PORTSMOUTH, NEW HAMPSHIRE				DRAWING TITLE: **REMEDIAL EXCAVATION AREAS PLAN** 57TH DRIVE, BACKYARD OF RESIDENCES MASPETH, QUEENS, NEW YORK
DATE PREPARED: 3–25–09	DESIGNED BY: DFM	DRAWN BY: JJW	CHECKED BY: DFM	REVIEWED BY: DBH
REVISION DATE:	REVISION NO:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
PROJECT NAME/FILE NAME: MASPETH/SITE		PROJECT NUMBER/PHASE: 1012163.	SCALE: AS SHOWN	PREPARED FOR: –

FIGURE NO. 6

57th DRIVE

SIDEWALK

#57-40

#57-42

MA-SSB-69,71
(3) 0.0255

MA-GP-62,67.5
(0-2") 0.482
(2-6) 0.0188
(6-10) <0.0318
(10-14) <0.0304
(14-18) <0.0318
(18-22) 0.950
(22-26) <0.0302
(26-30) <0.0304

#57-48

MA-SSB-23,70
(0.5) <0.0347

MA-SSB-23,68
(1.5) <0.041

EXISTING BUILDINGS
2 TO 3-STORY RESIDENTIAL ROW HOUSES
#52-28 TO #57-50

MA-SSB-84,69
(3) <0.0341

SEE FIGURE 8 FOR DETAIL

GATE

SITE ACCESS

GATE

MW-301

MW-302

FORMER MASPETH SUBSTATION

CRUSHED STONE

(0,0) COORDINATE LOCATION

Legend

- ○ – AREAL LOCATION OF END-POINT SAMPLE (LESS THAN 1.0 ppm PCB)
- MA-SSB – INDICATES MASPETH BOTTOM END-POINT SAMPLE
- MA-GP – INDICATES MASPETH GEOPROBE BOTTOM END-POINT SAMPLE
- 110,0 – INDICATES X AND Y COORDINATES OF END-POINT SAMPLE
- (6-10) – DEPTH BELOW INITIAL GRADE OF END-POINT SAMPLE
- 0.0070 – CONCENTRATION OF PCBs (ppm) OF END-POINT SAMPLE
- – CHAIN LINK FENCE
- – EXISTING BUILDING
- – TREE
- – PROPERTY LINE
- – EXISTING MONITORING WELL LOCATION

NORTH

6 0 6
SCALE IN FEET

DRAWING NOTES:

1. BUILDING AND SITE DIMENSIONS ARE OBTAINED FROM FIELD MEASUREMENTS AND FACILITY PLANS PROVIDED BY CON EDISON AND GIVEN FOR ILLUSTRATIVE PURPOSES ONLY. ACTUAL DIMENSIONS AND SITE FEATURES TO BE VERIFIED BY THE CONTRACTOR AND MAY DIFFER.

Jacques Whitford Engineering Group, Inc., P.C.

JACQUES WHITFORD LOCATION: PORTSMOUTH, NEW HAMPSHIRE				
DATE PREPARED: 3-25-09	DESIGNED BY: DFM	DRAWN BY: JJW	CHECKED BY: DFM	REVIEWED BY: DBH
REVISION DATE:	REVISION NO:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
PROJECT NAME/FILE NAME: MASPETH/SITE		PROJECT NUMBER/PHASE: 1012163.	SCALE: AS SHOWN	PREPARED FOR: –

DRAWING TITLE:
RESIDENTIAL BACKYARDS END-POINTS SAMPLE LOCATIONS
57TH DRIVE, BACKYARD OF RESIDENCES
MASPETH, QUEENS, NEW YORK

FIGURE NO. 7

57–42

57–40

57–44

BACKYARD OF
57–42

NORTH

MA–SSB–69,71
(3) 0.0255

MA–SW–73,70.5
(8.5) <0.0309

MA–GP–71,68
(2–6) <0.0372
(10–14) <0.0324
(14–18) <0.0314
(18–22) 0.138
(22–26) <0.0306
(26–30) <0.0316

MA–SSB–68,67
(7.5) <0.0333

MA–SW–65,67
(7.5) <0.0331

MA–GP–62,67.5
(2–6) 0.0188
(6–10) <0.0318
(10–14) <0.0304
(14–18) <0.0318
(18–22) 0.950
(22–26) <0.0302
(26–30) <0.0304

MA–SSB–58,67
(7.5) <0.0455

MA–SW–58,66
(13) <0.0290

MA–SW–58,65.5
(10.5) <0.0309

MA–SW–55.5,67
(11.5) <0.0332

MA–SW–55.5,66
(11) <0.0321
(14) <0.0334

MA–SW–55.5,65
(7.5) 0.0811
(10.5) <0.0327

MA–GP–59,67
(6.0–6.5) 0.592

MA–SW–58,65
(12) <0.0321

MA–SW–59,65.5
(7.5) 0.340

MA–SSB–59.5,64.5
(9.2) 0.484

MA–SW–73,65.5
(7.5) <0.0307

13"

FOOTING OF CHAINLINK FENCE
14" AT TOP, 30" AT BOTTOM

FOOTING OF CHAINLINK FENCE
14" AT TOP, 30" AT BOTTOM

APPROXIMATE
LOCATION OF
LAGGING

APPROXIMATE
LOCATION OF
H–BEAMS

DRAWING NOTES:

1. BUILDING AND SITE DIMENSIONS ARE OBTAINED FROM FIELD MEASUREMENTS AND FACILITY PLANS PROVIDED BY CON EDISON AND GIVEN FOR ILLUSTRATIVE PURPOSES ONLY. ACTUAL DIMENSIONS AND SITE FEATURES TO BE VERIFIED BY THE CONTRACTOR AND MAY DIFFER.

1 0 1
SCALE IN FEET

Legend

O – AREAL LOCATION OF END–POINT SAMPLE (LESS THAN 1.0 ppm PCB)

MA–SW – INDICATES MASPETH SIDEWALL SAMPLE

MA–SSB – INDICATES MASPETH BOTTOM END–POINT SAMPLE

MA–GP – INDICATES MASPETH GEOPROBE BOTTOM END–POINT SAMPLE

110,0 – INDICATES X AND Y COORDINATES OF END–POINT SAMPLE

(6–10) – DEPTH BELOW INITIAL GRADE OF END–POINT SAMPLE

0.0070 – CONCENTRATION OF PCBs (ppm) OF END–POINT SAMPLE

– CHAIN LINK FENCE

– EXISTING BUILDING

– PROPERTY LINE

– CONCRETE FOOTER

Jacques Whitford Engineering Group, Inc., P.C.

JACQUES WHITFORD LOCATION: PORTSMOUTH, NEW HAMPSHIRE				DRAWING TITLE: **RESIDENTIAL BACKYARDS (57-42 & 57-44, 57th DRIVE) END-POINT SAMPLE LOCATIONS** 57TH DRIVE, BACKYARD OF RESIDENCES MASPETH, QUEENS, NEW YORK
DATE PREPARED: 3–25–09	DESIGNED BY: DFM	DRAWN BY: JJW	CHECKED BY: DFM	REVIEWED BY: DBH
REVISION DATE:	REVISION NO:	DRAWN BY:	CHECKED BY:	REVIEWED BY:
PROJECT NAME/FILE NAME: MASPETH/SITE	PROJECT NUMBER/PHASE: 1012163.	SCALE: AS SHOWN	PREPARED FOR: –	FIGURE NO. 8