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LETTER OF TRANSMITTAL

Submittal No.:027A

TO: **Marlene Gaeta,** Senior Engineer Construction Management
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MT JOB NO. 13007 **Date:** 09/27/13

RE: Former Kent Avenue Generating Station
Interim Remedial Measure
500 Kent Avenue
Brooklyn, New York

Purchase Order No. 4167052

WE ARE SENDING YOU ☒ **Attached** ☒ **Other: As Below**

COPIES		DESCRIPTION *REVISED*
	Spec:	02224 WASTE, EXCAVATION, HAULING AND DISPOSAL
1	**Item:**	1.04 A Excavation and Materials Management Plan – *Revised*
	Author:	Maxymillian Technologies, Inc.

THESE ARE TRANSMITTED as checked below:

☒ For approval ☒ For your use ☐ As requested ☐ Return **comments** for distribution

REMARKS:

TRANSMITTED ELECTRONICALLY

cc: *D.Rubin, M.Lombardi, T.O'Connell, F.Perez, C.Kraemer, S.Shatz, G.Houle, V.Palen, S.Kelley, C.Riccardi*

If enclosures are not as noted, please notify us at once.

SIGNED S Kelley
Sara Kelley, Project Engineer

Excavation and Materials Management Plan

Kent Avenue Remediation Project
Former Kent Ave Generating Station
500 Kent Ave
Brooklyn, New York

Purchase Order No. 4167052

Prepared For:

conEdison
a conEdison, inc. company

Consolidated Edison Company of New York, Inc.
4 Irving Place
New York, New York 10003

Prepared By

MAXYMILLIAN Technologies

1801 East Street
Pittsfield, MA 01201
MT Project No: 13007

September 2013

MAXYMILLIAN TECHNOLOGIES, INC.
Reviewed For Submission

Spec Sect # 02224 Trans # 027A
Date: 09/27/13 By: SJK

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LIST OF ACRONYMS

ACM	Asbestos Containing Material
AAS	Asbestos Abatement Supervisor
ASTM	American Society of Testing and Materials
CM	Construction Manager
CY	Cubic Yard
Con Edison	Consolidated Edison Company of New York, Inc.
CQCE	Contractor Quality Control Engineer
CQCP	Contractor Quality Control Plan
CRZ	Contamination Reduction Zone
CTW	Coal Tar Wrap
DELTA	Delta Environmental, Inc.
EZ	Exclusion Zone / Abatement Zone
GROWS/Tully	Waste Management GROWS North Landfill in Morrisville, PA and Tullytown Landfill in Tullytown, PA
HASP	Site Health and Safety Plan by Maxymillian
MT	Maxymillian Technologies, Inc.
NYCDEP	New York City Department of Environmental Protection
NYS	New York State
NYSDOL	New York State Department of Labor
PE	Professional Engineer
PCB	Polychlorinated Biphenyls
PJE	Project Engineer
PPE	Personal Protective Equipment
PPM	Parts per Million
QA/QC	Quality Assurance/Quality Control
SS	Site Supervisor
SSHO	Site Safety and Health Officer
SZ	Support Zone
TCLP	Toxicity Characteristic Leaching Procedure
UST	Underground Storage Tank

1.0 INTRODUCTION

Consolidated Edison Company of New York, Inc. has contracted Maxymillian Technologies, Inc. (MT) to perform remedial construction activities at the Former Kent Ave Generating Station site located at 500 Kent Ave, Brooklyn, New York. MT has prepared this site-specific Excavation and Materials Management Plan in accordance with Purchase Order No. 4167052, and specification entitled Bid Specification for Interim Remedial Measure Former Kent Avenue Generating Station, dated December 14, 2012.

This Plan includes, as identified as part of Sections 02224 and 02315, are as follows:

1) MT shall address a waste matrix for all waste streams to be managed;
2) MT shall address approach and procedures for excavation, hauling, and disposal, site grading, and coordination with on-site activities as per Section 02315, Excavation and Backfill;
3) Incorporate all handling and disposal requirements set forth in NYCDEP Asbestos Control Program (ACP) Variance;
4) Testing procedures for determining which excavated materials are non-hazardous industrial waste; petroleum contaminated waste; or hazardous waste;
5) Approved transporter and disposal facilities;
6) Proposed material suppliers for and sources for backfill and demarcation barrier;

MT has prepared the following site specific plan for remedial construction at the Kent Avenue Generating Station site based on the following work principles:

- Work designated as performed by "MT" includes activities under MT's control & scope including activities performed by our subcontractors, as opposed to activities performed by Con Edison or Con Edison's Consultant. Only asbestos handlers and supervisors certified by NYCDEP/NYSDOL will be allowed to handle, excavate or remove ACM, load ACM, wet ACM, or wrap/seal asbestos containing loads, under the direction of the AAS .

- Safety: Perform all work with a "Safety First" attitude;

- Construction Quality Control: Perform the excavation and materials management work activities per the remedial design plans, to the requirements of the work specification, to the standards of MT's site specific quality assurance, quality control guidelines, and to the satisfaction of the Owner and Engineer;

- Schedule: Complete the required work in a timely and professional manner, and per project schedule milestones;
- Project Management/Supervision: Provide a highly experienced project team, including off-site Construction Manager, on-site Site Supervisor, and on-site Quality Control Engineer, who have successfully completed similar projects requiring excavation, on-site water treatment, and materials handling and management such that impacted soils and debris meet off-site disposal facility acceptance criteria.

1.1 Site Specific Approach

MT approach for excavation, handling, and management of materials at the Kent Avenue Generating Station site based on the following work objectives:

- Provide the necessary personnel and equipment to complete all work by project required schedule milestones;
- Subcontract with Delta Environmental, Inc. (DELTA) to provide a NYCDEP/NYSDOL certified Asbestos Abatement Supervisor (AAS) to provide supervisory oversight of the asbestos abatement activities and to provide NYCDEP/NYSDOL certified Asbestos Handlers;
- Only asbestos handlers and supervisors certified by NYCDEP/NYSDOL will be allowed to handle, excavate or remove ACM materials;
- Prior to beginning excavation, review location / mark out of utilities;
- Perform excavation and materials management in such a manner to ensure that no contamination or pollution migrates between work areas or from the site;
- Plan work activities to promote pollution prevention including the construction of decontamination and anti-tracking pads, placement of impacted soils and debris within a bermed and lined soil storage area, placement of frac tanks within spill containment systems;
- Utilize methods for delineating the site into multiple work zones based on the level of contamination and the type of work activities;
- Employ best management procedures and operations that will minimize dust and odors;
- Provide and maintain water quality protection by installing and maintaining erosion controls per design plans and permit requirements;

- Transport and dispose of off-site all impacted soil and debris at approved facilities;
- Perform all work within acceptable local, state, and federal requirements and approved variances and permits for items such as noise, dust, nuisance odors, storm water management, and asbestos abatement.

1.2 Coordination

MT's Excavation and Material Management Plan represents careful consideration of the anticipated logistical issues associated with this unique site. MT will comply with all requirements of Con Edison. MT will perform work mindful of the community and support the needs of the project.

2.0 ANTICIPATED SEQUENCE OF WORK

2.1 Means & Methods

MT, as the prime contractor, is responsible for the execution and performance of all work. MT has subcontracted Delta Environmental, Inc. (DELTA) to provide the NYCDEP/NYSDOL Asbestos Abatement Supervisor (AAS) to supervise the asbestos abatement portion, provide NYCDEP/NYSDOL certified asbestos laborers, and to assure all abatement activities conform to the regulations and approved variances for this project. Excavation and loading will be directed by the AAS, using MT equipment and local union operators that are NYCDEP/NYSDOL certified asbestos handlers. MT's Site Supervisor (SS) will oversee the AAS, as well as all other subcontractors and other site activities including site preparation, installation of temporary utilities, backfill operations, and coordination of the transport and disposal of waste materials. MT will dispose of construction & decant water at an approved off-site facility or filter and use to wet the asbestos containing soils prior to disposal, or treat/ filter construction water to SPDES requirements and discharge to Wallabout Channel, in accordance with the Construction Water Management Plan, submitted under separate cover, for this project.

OSHA regulations for safe excavation will be followed throughout all excavation and backfill procedures performed during this project.

2.2 Pre-Construction

As part of pre-construction site activities, MT will perform the following:

- In-Situ Waste Characterization (see Waste Characterization Plan submitted under separate cover);
- Mobilize temporary office trailers and equipment storage trailers;

- Erect signage;
- Contact the One-Call Center for a utility mark-out, within the determined time window, as required by New York State "Code 753". Interpret the mark-outs and review them with Con Edison prior to excavation. Note: the work area has been pre-cleared by Con Edison;
- Establish temporary utilities: such as power, water, and sanitary facilities;
- Conduct pre-construction existing conditions survey;
- Implement health & safety measures, such as demarcation of work zones, mark out of all subsurface and overhead utilities;
- Install erosion control measures, such as silt fence or wattle, as identified within the Erosion and Sediment Control Plan;
- Construct equipment laydown areas, stabilized construction entrance (anti-tracking pad), and equipment decontamination station;
- Implement environmental protection measures, such as setup of dust and odor control measures;
- Mobilization and assembly of water storage tank(s), water storage spill containment pad;
- Install gate along Division Avenue and move Kent Avenue gate to be in line with Kent Avenue fence.

2.3 Anticipated Sequence of Activities Requiring Material Handling

MT will subcontract Delta Environmental, Inc. to provide the NYCDEP/NYSDOL AAS and union NYCDEP/NYSDOL certified asbestos handler laborers. MT intends to utilize MT equipment, operated by local union craft operators that are NYCDEP/NYSDOL certified asbestos handlers to excavate & load any asbestos containing materials (ACM). The AAS will supervise all abatement activities, as required by NYCDEP. Only asbestos handlers and supervisors certified by NYCDEP/NYSDOL will be allowed to handle, excavate or remove ACM, load ACM waste, wet ACM, wrap asbestos loads, or apply poly barriers.

Step 1 – Create the Soil Storage Area for Use During North Area Remediation –MT will construct a temporary Soil Storage Area within the exclusion zone of the North Remediation Area. The Soil Storage Area will be underlain by 10-ml poly. MT will place dunnage or waddle or grade clean crushed stone and sand to create a berm along the perimeter of the liner. The anticipated source of the aggregate materials for the construction of the soil storage area is shown in Table 1. Construction of the perimeter

berm will prevent storm water from migrating into the soil storage area, and also to prevent any decant water from migrating from the soil storage area.

Step 2 – Install Silt Curtain along the sheet pile wall in vicinity of North Remediation Area – MT will install approximately 80 feet of silt curtain in the Wallabout Channel along the existing sheet pile wall to prevent contamination of the Wallabout Channel during North Area remediation activities.

Step 3 – Install Critical Barriers & Delineate Work Zones for the North Remediation Area – MT will install the required critical barriers and delineate the work zones for the North Remediation Area. MT will demarcate work zones by erecting orange barricades, temporary orange construction fencing, signage, caution tape, as necessary. MT will mobilize or construct remote worker decon and remote waste decon in accordance with NYCDEP asbestos regulations and site specific variances, including using certified asbestos handlers to apply the poly barriers. MT will demarcate and identify traffic flow of both equipment and personnel between zones. The zones to be established for this site are:

- Exclusion Zone / Restricted Abatement Area (EZ) – Isolated work areas containing impacted materials & asbestos;
- Contamination Reduction Zone (CRZ) – Access point to Exclusion Zones that will contain the appropriate PPE required for the work zone;
- Support Zone (SZ) - Clean areas, such as office trailers and equipment/material storage areas.

Step 4 – Excavation and T&D North Remediation Area Soil /Debris– MT will subcontract Delta Environmental, Inc. to provide the NYCDEP/NYSDOL AAS and union NYCDEP/NYSDOL certified asbestos handler laborers. MT intends to utilize MT equipment, operated by local union craft operators that are NYCDEP/NYSDOL certified asbestos handlers. Only asbestos handlers and supervisors certified by NYCDEP/NYSDOL will be allowed to handle, excavate or remove ACM materials. MT anticipates using a 25 ton size excavator and a 15 ton size excavator with buckets, hiram, and muncher attachments. MT will establish a berm completely around the interior perimeter of the work area to contain and facilitate collection and proper disposal of any runoff water. Certified asbestos handlers will excavate soils and debris and direct load into lined waste transporter trucks by excavator for transport to the approved disposal facilities. As an alternate to direct loading, certified asbestos handlers may stockpile soil and debris and cover with 6-mil poly sheeting within the bermed and lined soil storage area. Certified asbestos handlers will load stockpiled soils and debris into transporter trucks by excavator or 3 - 4 cubic yard size loader. Certified asbestos handlers may segregate soils and debris that visually display characteristics not consistent with pre-

characterization, for additional sampling and characterization prior to disposal. Certified asbestos handlers may temporarily stockpile material adjacent to the excavation in such a manner that liquids decant and drain back to the excavation area. Decant and impacted construction water will be pumped to the wastewater storage tanks for appropriate treatment and disposal. If MT intends to discharge effluent to the Wallabout Channel, MT will collect and analyze an effluent sample from the filter/treatment system. No water will be discharged to Wallabout Channel until the sample results are received and permit compliance is confirmed. Based on bid documents, excavations are expected to be dry, therefore decant water should be minimal. The North excavation will be terminated when the basement slab is reached, or the water table, whichever is encountered first. MT expects excavation depths of 6 feet to 8 feet.

The AAS will direct certified asbestos handlers to appropriately wrap the load in accordance with asbestos regulations. Disposal trucks will exit the exclusion zone via the decontamination wash pad. During excavation, loading, and stockpile handling of the soils and debris, certified asbestos handlers will apply sufficient water to control fugitive dust. The AAS will supervise the excavation, removal, loading of the soils and debris, and decontamination to assure all abatement activities conform to the regulations and approved variance for this project.

The AAS may "clear" areas independently with "durings" air monitoring results and documented visual inspections with the third party Asbestos Project Monitor, and adjust the regulated area accordingly.

Step 5 - Excavation and Removal of Underground Storage Tank (UST) – This includes excavation within the North Remediation Area to locate and expose existing UST and related piping. MT will excavate, stockpile and cover excavated soil and debris with 6 mil poly within the Soil Storage Area. MT will segregate soil which appears visually to be petroleum contaminated for additional sampling and subsequent disposal at an approved facility. MT will sample residual product within the UST and subsequently transport and dispose of the residual product at an approved off-site facility. Once the residual product is removed from the UST, the tank will be purged, cleaned and disposed of at an approved off-site facility, under the direction of an FDNY certified UST contractor.

Step 6 – Removal of Buried Remnant Structures and Equipment - MT intends to remove buried remnant structures and equipment in the North and South Remediation Areas as each excavation progresses along with the soil & debris, using excavators with bucket, hiram, and muncher attachments. Any solid concrete/masonry foundation greater than 1 cubic yard may remain in place provided it is whole, stable, and free of

contamination. The bottom 3 feet of any interior concrete/masonry wall that is fixed to the basement slab may also remain in place provided it is whole, stable, and free of contamination.

Step 7 – Placement of Demarcation Barrier and Backfill North Area – Once the vertical limits of the excavation have been reached, the Engineer will direct MT where to collect end point samples using a stainless steel hand auger or other approved sampling device. Chemical analysis of the post-excavation endpoint samples will be performed by a certified laboratory procured by the Engineer. After the area has been cleared such that it is no longer an asbestos regulated area, MT will place the demarcation barrier along the bottom and sidewalls of the excavation prior to placing backfill. MT will also place rip rap & geotextile, in the areas required on the design plans. MT will place the structural fill in 12 inch lifts and compact to achieve 92% relative density. MT will backfill the top 4" of disturbed areas with ¾" clean crushed stone. The placement of the final 4" of ¾" clean crushed stone may be performed toward the end of the project.

Step 8 – Create the Soil Storage Area for Use during South Area Remediation –MT will construct a temporary Soil Storage Area within the exclusion zone of the South Remediation Area. The Soil Storage Area will be constructed in the same manner as the temporary Soil Storage Area for the North Remediation Area.

Step 9 – Install Critical Barriers & Delineate Work Zones for the South Remediation Area – MT and Delta will install the required critical barriers and delineate the work zones for the South Remediation Area in the same manner as for the North Remediation Area. Certified asbestos laborers will line the South wall with two layers of 6 mil fire retardant poly to create the critical barrier along the south site perimeter.

Step 10 – Excavation and T&D South Remediation Area Soil /Debris – MT will establish a berm completely around the interior perimeter of the work area to contain and facilitate collection and proper disposal of any runoff water. MT will excavate and T&D soils and debris from the South Remediation Area in the same manner as the North Remediation Area. Only asbestos handlers and supervisors certified by NYCDEP/NYSDOL will be allowed to handle, excavate or remove ACM materials, under the direction of the AAS. The South excavation will terminate when the basement slab is reached, or the water table, whichever is encountered first. MT expects excavation depths of 4 feet to 12 feet.

Step 11 – Placement of Demarcation Barrier and Backfill South Area – Once the vertical limits of the excavation have been reached, the Engineer will direct MT where to collect end point samples using a stainless steel hand auger or other approved sampling

device. Chemical analysis of the post-excavation endpoint samples will be performed by a certified laboratory procured by the Engineer. After the area has been cleared such that it is no longer an asbestos regulated area, MT will place the demarcation barrier along the bottom and sidewalls of the excavation prior to placing backfill. MT will place the structural fill in 12 inch lifts and compact to achieve 92% relative density. In areas where the structural fill cannot be placed due to obstructions, flowable fill may be used. MT will backfill the top 4" of disturbed areas with ¾" clean crushed stone. The placement of the final 4" of ¾" clean crushed stone may be performed toward the end of the project.

Step 12 – Sidewalk Vault Closure (if necessary) – If a breach is observed in the Kent Avenue sidewalk vault during the South Area excavation, MT will notify Con Edison and prepare to seal the vault in accordance with the specifications and the details in the project plans, including the appropriate submittals to Con Edison. Sealing of the vault will not occur until after the vault closure work area has been appropriately "cleared" by the AAS to allow access by non-asbestos personnel.

Step 13 – Concrete Repairs (if necessary) – During the excavations, MT will observe the exterior basement walls and the South retaining wall to determine if patching of cracks is required to prevent contaminate migration from adjacent properties. At the direction of the ENGINEER, MT will clean and patch the cracks as directed.

Step 14 – Disposal or Treatment of Wastewater – It is estimated that 60,000 gal of wastewater will be generated from dewatering, decanting, and decontamination activities during the project. MT will dispose of wastewater at an approved off-site facility or filter and use to wet the asbestos containing soils prior to disposal, or treat/filter wastewater to SPDES requirements and discharge to Wallabout Channel, in accordance with the Construction Water Management Plan submitted under separate cover.

Step 15– Disposal of PPE and Poly – Workers will place used PPE into 6-mil. poly bags and place in lined trucks for disposal with impacted soils and debris. Workers will disassemble and dispose of poly and other impacted construction materials and place into lined trucks for disposal with impacted soils and debris.

Table 1: Anticipated Source of Aggregate Material Required for Construction of the Soil Storage Area, Decontamination Pads, and Anti-Tracking Pads

MATERIAL	SOURCE
Clean Crushed Stone	Tilcon or New York Sand & Stone or other approved vendor
Sand	Tilcon or New York Sand & Stone or other approved vendor

2.4 Decontamination Overview

MT will employ decontamination procedures to ensure that no contamination or pollution migrates from the site. The procedures will include:

- Delineating the site into multiple work zones based on the level of contamination and the type of work activities. MT will pre-plan the project layout to maximize traffic flow between areas;
- Construction of a lined and bermed truck/equipment decon pads at the exit of the exclusion zones which contains a sump for collection of decontamination liquids;
- Mobilization or construction of a Remote Worker Decon facility in accordance with NYCDEP asbestos regulations and site specific variances;
- Mobilization or construction of a Remote Waste Decon facility in accordance with NYCDEP asbestos regulations and site specific variances;
- Construction of anti-tracking pads at the site entrances;
- Daily decontamination of mechanical equipment used to assist in the abatement activities, at the bermed and lined heavy equipment decon pad;
- Decontamination of mechanical equipment prior to use for backfill operations or prior to demobilization;
- Decontamination of mechanical equipment, as needed, to prevent cross-contamination within work areas;
- Only certified asbestos handlers will decontaminate objects potentially contaminated with asbestos.

2.5 Excavation and Backfill Survey Equipment

MT will employ a NYS registered land surveyor to establish site survey control and perform a pre-construction survey of the remediation areas prior to initial site disturbance. MT will oversee the performance of the pre-construction topographic map survey and of the project area. MT will self-perform survey work when possible and will employ a qualified subcontractor to handle the remainder of this work. MT has the capability to utilize both conventional survey techniques and in-house GPS technology.

All data collected by MT will be audited for quality control purposes by the NYS registered land surveyor and certified. Although survey data obtained during excavation and backfill may be obtained by MT, all pre-construction, post-excavation, post-backfill, and post-construction surveys will be prepared and certified by the independent registered land surveyor, certified and submitted to Con Edison.

3.0 WASTE MANAGEMENT

In general, MT's proposed waste management procedures will include the following:

- Handle all excavated soils and debris from within the "footprint" of the excavations as Asbestos Containing Material (ACM);
- Excavate and direct load, when feasible, soils, debris, remnant structures and equipment into lined waste disposal dump trailers for offsite disposal;
- Excavate and stockpile, as necessary, soils, debris, remnant structures and equipment from the North and South Remediation Areas, until the material can be loaded for disposal;
- Contain stockpiled soil and debris within lined and bermed soil containment/storage areas. Maintain the impacted soil and debris covered with 6-mil poly, and secured, until loading and off-site disposal;
- Place used PPE, poly, or spent filters in 6-mil poly bags. Dispose material off-site with impacted soil or debris in lined trailers. Alternatively, MT may place used PPE, poly, or spent filters in 6-mil poly bags (double bagged) into a sealed roll-off container for off-site disposal at an approved facility;
- Collect decant water, decon wastewater, and impacted construction water;
- Off-site disposal of decant water, decon wastewater, and impacted construction water at approved facility, or filter and use to wet asbestos containing soils prior to disposal, or treat/filter construction water to SPDES requirements and discharge to Wallabout Channel in accordance with the Construction Water Management Plan, submitted under separate cover;

- Provide a pre-assembled spill containment system for frac tanks containing untreated water.

4.0 WASTE STREAMS

As part of the Kent Ave Project, MT will perform material management and handling of the anticipated waste streams as indicated in Table 2. MT performed pre-characterization sampling and analysis for the Waste Management *Table A Parameters* (Attachment A) as described in the Waste Characterization Sampling Plan (previously submitted under separate cover) to pre-approve excavated soil and debris for disposal at Waste Management GROWS North and Tullytown Landfills. The results of the pre-characterization analysis show only non-hazardous industrial waste. Con Edison has requested that all soil & debris be considered ACM containing for handling and disposal. As excavations progress, the AAS will observe the excavations and segregate soils & debris that do not appear to be consistent with non-hazardous industrial waste for additional testing as described in Table 2. Based on the age of the buried debris, coal tar wrapped (CTW) pipe has been added as a possible waste stream, in the unlikely event it is encountered.

Table 2: Proposed Disposal of Wastes Generated During Site Work

WASTE STREAM	STORAGE CONTAINER	DISPOSITION
ACM containing non-hazardous soil, concrete, and debris	Stockpile in bermed soil storage area lined with 10 mil poly sheeting underlayment and 6 mil tarped and covered	Horwith Trucks, Inc. to Waste Management GROWS North Landfill in Morrisville, PA and Tullytown Landfill in Tullytown, PA (GROWS/Tully)
Remnant Structures	Stockpile in bermed soil storage area lined with 10 mil poly sheeting underlayment and covered with 6 mil poly. May be mixed with soil & debris for disposal.	Horwith Trucks, Inc. to GROWS /Tully
Remnant Equipment	Stockpile in bermed soil storage area lined with 10 mil poly sheeting underlayment and covered with 6 mil poly	Horwith Trucks, Inc. to GROWS /Tully
ACM containing hazardous soil, concrete, and debris including PCB $\geq$50 ppm (if encountered)	Stockpile in bermed soil storage area lined with 10 mil poly sheeting underlayment, separated from other waste streams, and covered with 6 mil poly	Horwith Trucks, Inc. to Waste Management, Model City

WASTE STREAM	STORAGE CONTAINER	DISPOSITION
ACM containing petroleum impacted soils and debris	Stockpile in bermed soil storage area lined with 10 mil poly sheeting underlayment separated from other waste streams, and covered with 6 mil poly	Horwith Trucks, Inc. to GROWS/Tully
Remediation waste (PPE, poly, spent filters)	Double, labeled 6-mil poly asbestos waste bags, add to impacted soil/debris, or placed in sealed roll-off container.	Horwith Trucks, Inc. to GROWS/Tully
Underground Storage Tank	Render inoperable, clean and direct loaded for off-site disposal after decontaminating	Gershow Recycling Corporation Medford, NY
Residual Product from within the Underground Storage Tank	Direct loaded for off-site disposal at approved facility, after sampling results confirm product meets disposal facility requirements.	Clean Water of NY
Decant water / Decon water / Impacted Construction Water	Temporarily store in frac tanks	Clean Water of NY to Off-site disposal at approved facility, or filter and use to wet ACM containing soils prior to off-site disposal, or on-site filter/treatment to SPDES discharge requirements and direct discharge to Wallabout Channel
Coal Tar Wrap (CTW) Pipe	Stockpile with hazardous soil & debris	Horwith Trucks, Inc. to Waste Management, Model City with other hazardous soil & debris

5.0 ANALYTICAL TESTING

MT will perform sampling and analysis of collected soils and debris in accordance with the requirements of the intended disposal facility. Laboratory testing will be performed by a NYSDOH certified laboratory. Sampling frequency and requirements are identified in Section 6.0.

6.0 SAMPLE COLLECTION & ANALYTICAL TESTING

MT performed pre-characterization sampling and analysis for the *Table A Parameters* as described in the Waste Characterization Sampling Plan (previously submitted under separate

cover) to pre-approve excavated soil and debris for disposal at Waste Management GROWS North and Tullytown Landfills. Sampling frequency and requirements are identified in Table 3.

If excavation activities uncover materials visually not consistent with the pre-characterization results, additional samples and analysis may be performed during the excavation operations per the disposal facility requirements shown in Table 3, prior to disposal.

Table 3: Disposal Facility Testing Requirements

Facility	Waste	Test	Frequency
Waste Management GROWS/ Tullytown	Non-Hazardous Soil & Debris <50ppm PCB	Table A Parameters (see Attachment A)	1 per 500 CY Soil or Debris
Waste Management Model City	Hazardous Soil & Debris ≥ 50ppm PCB	N/A	N/A
Clean Water of New York	Contents of UST	PCB,Flash point, pH, VOC, Metals	Once
Clean Water of New York	Decant water / Decon water / Impacted Construction Water	PCB,Flash point, pH, VOC, Metals, Asbestos	Once every 60 days
Discharge to Wallabout Channel*	Decant water / Decon water / Impacted Construction Water	Total Suspended Solids, Oil & Grease, Boron, Iron, Lead, Nickel, Zinc, PCB, pH per the SPDES Permit equivalent	Initial and Monthly

**Discharge to the Wallabout Channel will not be made until such time as an engineering submission showing method of treatment is approved by the NYSDEC, and test results show compliance with discharge requirements.*

Samples will be collected by a representative of the testing laboratory or MT. Samples will-be collected, handled, stored, and shipped in accordance with all applicable standard procedures to the laboratory facility. Sample collection procedures will be performed per the requirements for each specific analytical testing method and laboratory facility requirements. Laboratory QC requirements will be per the required test method requirements. Laboratory testing will be performed by a NYSDOH and State of Pennsylvania (for disposal at the G.R.O.W.S./Tullytown facilities) certified laboratory.

6.1 Coal Tar Wrap Pipe

Based on the age of the buried debris, coal tar wrapped (CTW) pipe has been added as a possible waste stream, in case CTW pipe is encountered. During the excavation and loading of soils & debris, the AAS will be on the lookout for the presence of CTW pipe. If CTW pipe is observed, either as a continuous pipe or as loose sections of CTW pipe, the observed CTW pipe will be segregated and will be disposed of as indicated in Table 2. All handling of CTW (if encountered) will be performed by certified asbestos handlers.

7.0 TRANSPORTATION OF WASTES

MT will load all waste streams for disposal. MT anticipates loading materials with either a 25 ton size excavator or 3 - 4 cubic yard size loader. Only asbestos handlers and supervisors certified by NYCDEP/NYSDOL will be allowed to handle, excavate or remove ACM, load asbestos containing waste materials, wet asbestos containing materials, or wrap asbestos loads, under the direction of the AAS.

MT will perform the following transportation procedures:

1) MT will coordinate scheduling with transporters for off-site transportation of materials generated during the execution of work. MT will require that all waste transporters must hold a valid Part 364 permit for each vehicle used. All transporters will be Con Edison approved;

2) MT will coordinate the schedule for delivery and pick-up of supplied waste containers, dump trailers, and dump trucks. MT will coordinate movement of the containers, trucks, etc. into position required for loading of material to allow the progress of work;

3) Delta Environmental, Inc. will inspect the transportation vehicles before and after loading to ensure compliance with all local, state, and federal regulations for the safe transport of wastes from the site to the receiving facility;

4) As required, MT and Delta Environmental, Inc. will provide all necessary labor and materials to ensure all trucks, containers, etc. are properly lined with poly or bladder bags per ACM regulations and approved variances for this project;

5) All disposal trucks will pass through the decontamination station (truck wash) before exiting the site;

6) MT will ensure that the transporters arriving at the site for loading do not cause undue congestion to local streets, and shall stage trucks either within the perimeter of the site or at an off-site staging area. Trucks will not be allowed to idle for more than three-minutes in accordance with the NYC three minute idling time requirement;

7) MT will provide previously prepared waste manifests for signature by Con Edison;

8) Trained traffic control personnel (flaggers) will be used to assist the truckers when entering and exiting the site in accordance with the Transportation and Traffic Safety Plan, submitted under separate cover;

9) MT will require Transporters to adhere to the Transportation and Traffic Safety Plan, submitted under separate cover.

8.0 TRANSPORTER CONTINGENCY PLAN

MT will submit a Transporter Contingency Plan (under separate cover) for preventing spillage and controlling dust and litter during transport of waste material, including emergency contact information and procedures in the event of a spill.

9.0 WASTE DISPOSAL RECORDS

MT will submit the following Waste Disposal Records:

1. Final Manifests (showing weight [volume for liquid wastes] of disposed material)
2. Bills of Lading
3. Other documents requiring Con Edison's signature as "generator"

10.0 BACKFILL MATERIALS

MT anticipates the following methods and sequence for backfill:

1. Document achievement of required subgrade;
2. Request formal acceptance from Oversight Engineer and allow confirmatory sampling as required;
3. Place demarcation barrier along bottom and sidewalls of final excavation, prior to placing backfill;
4. Backfill the excavations with the appropriate fabrics, and backfill materials as identified on the Contract Drawings;
5. Meet the compaction requirements of the project;
6. Perform post-construction survey of restored areas.

Table 4: Anticipated Source of Backfill Materials Required for the Project:

MATERIAL	SOURCE
Clean Structural Fill	Tilcon or other approved source
¾” Clean Crushed Stone	Tilcon or other approved source
2” Clean Crushed Stone	Tilcon or other approved source
Rip Rap	Tilcon or other approved source
Demarcation Barrier	Everett J. Prescott, Inc.

ATTACHMENT A

Waste Management Table A Parameters

WASTE MANAGEMENT

TABLE A PARAMETERS

	Parameter Name	Type	Category	Limits	Units	85% of Limit
❑	Ignitibility	As Received		>140	F	
❑	Oil & Grease	As Received			mg/kg	
❑	Paint Filter Test	As Received		No free liquids		
❑	PCB's	As Received		50		
❑	pH	As Received		2 - 12.5	S.U.	
❑	Reactive Cyanide	As Received		100		
❑	Reactive Sulfide	As Received		500		
❑	Total Solids	As Received				
❑	Total Volatile Solids	As Received				
❑	Ammonia-Nitrogen	ASTM		111111	mg/l	
❑	Chemical Oxygen Demand	ASTM				
❑	Oil & Grease	ASTM		88550	mg/l	
❑	Total Solids	ASTM				
❑	pH	TCLP				
❑	Arsenic	TCLP	Metals	5	mg/l	4.25
❑	Barium	TCLP	Metals	100	mg/l	85
❑	Cadmium	TCLP	Metals	1	mg/l	0.85
❑	Chromium	TCLP	Metals	5	mg/l	4.25
❑	Copper	TCLP	Metals	167	mg/l	142
❑	Lead	TCLP	Metals	5	mg/l	4.25
❑	Mercury	TCLP	Metals	0.2	mg/l	0.17
❑	Nickel	TCLP	Metals	242	mg/l	206
❑	Selenium	TCLP	Metals	1	mg/l	0.85
❑	Silver	TCLP	Metals	5	mg/l	4.25
❑	Zinc	TCLP	Metals	1875	mg/l	1594
❑	2,4-D	TCLP	Herb	10	mg/l	8.5
❑	2,4,5-TP	TCLP	Herb	1	mg/l	0.85
❑	Chlordane	TCLP	Pest	0.03	mg/l	0.0255
❑	Endrin	TCLP	Pest	0.02	mg/l	0.017
❑	Heptachlor	TCLP	Pest	0.008	mg/l	0.0068
❑	Heptachlor Epoxide	TCLP	Pest	0.008	mg/l	0.0068
❑	Lindane	TCLP	Pest	0.4	mg/l	0.34
❑	Methoxychlor	TCLP	Pest	10mg/l	8.5	
❑	Toxaphene	TCLP	Pest	0.5	mg/l	0.425
❑	2,4,5-trichlorophenol	TCLP	Acids	400	mg/l	340
❑	2,4,6-trichlorophenol	TCLP	Acids	2	mg/l	1.7
❑	m-cresol	TCLP	Acids	200	mg/l	170
❑	o-cresol	TCLP	Acids	200	mg/l	170
❑	p-cresol	TCLP	Acids	200	mg/l	170
❑	Pentachlorophenol	TCLP	Acids	100	mg/l	85
❑	2,4-dinitrotoluene	TCLP	Base/Neutral	0.13	mg/l	0.1105
❑	Hexachlorobenzene	TCLP	Base/Neutral	0.13	mg/l	0.1105
❑	Hexachlorobutadiene	TCLP	Base/Neutral	0.5	mg/l	0.425
❑	Hexachloroethane	TCLP	Base/Neutral	3	mg/l	2.55

TABLE A PARAMETERS

*Volatile Organic Compounds must be taken from discrete samples

	Parameter Name	Type	Category	Limits	Units	85% of Limit
❑	Nitrobenzene	TCLP	Base/Neutral	2	mg/l	1.7
❑	Pyridine	TCLP	Base/Neutral	5	mg/l	4.25
❑	*1,1-dichloroethyiene	TCLP	Volatiles	0.7	mg/l	0.595
❑	*1,2-dichloroethane	TCLP	Volatiles	0.5	mg/l	0.425
❑	*1,4-dichlorobenzene	TCLP	Volatiles	7.5	mg/l	6.375
❑	*Benzene	TCLP	Volatiles	0.5	mg/l	0.425
❑	*Carbon Tetrachloride	TCLP	Volatiles	0.5	mg/l	0.425
❑	*Chlorobenzene	TCLP	Volatiles	100	mg/l	85
❑	*Chloroform	TCLP	Volatiles	8	mg/l	6.8
❑	*Methyl ethyl ketone	TCLP	Volatiles	200	mg/l	170
❑	*Tetrachloroethylene	TCLP	Volatiles	0.7	mg/l	0.595
❑	*Trichloroethylene	TCLP	Volatiles	0.5	mg/l	0.425
❑	*Vinyl Chloride	TCLP	Volatiles	0.2	mg/l	0.17