

Superfund Records Center

SITE: Raymark

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**FOURTH FIVE-YEAR REVIEW REPORT FOR
RAYMARK INDUSTRIES, INC. SUPERFUND SITE
FAIRFIELD COUNTY, CONNECTICUT**



Prepared by

**U.S. Environmental Protection Agency
Region 1, New England
Boston, Massachusetts**

**Nancy Barmakian, Acting Director
Office of Site Remediation and Restoration
United States Environmental Protection Agency
Region 1 – New England**

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Date



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AC ACRONYMS

1,1,1-TCA	1,1,1-trichloroethane
1,1-DCA	1,1-dichloroethane
1,1-DCE	1,1-dichloroethene
ARAR	Applicable or Relevant and Appropriate Requirement
bgs	below ground surface
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
COCs	Contaminants of Concern
CSFs	Cancer Slope Factors
CTDEEP	Connecticut Department of Energy and Environmental Protection (formerly CTDEP)
CTDEP	Connecticut Department of Environmental Protection (currently CTDEEP)
DCE	Dichloroethene
DNAPL	Dense Non-Aqueous Phase Liquid
ELUR	Environmental Land Use Restrictions
EPA	United States Environmental Protection Agency
FS	Feasibility Study
FYR	Five-Year Review
HHRA	Human Health Risk Assessment
ICs	Institutional Controls
IRIS	Integrated Risk Information System
MNA	Monitored Natural Attenuation
µg/L	Micrograms per liter
NAPL	Non-Aqueous Phase Liquid
NCP	National Contingency Plan
NPL	National Priorities List
NTCRA	Non-Time Critical Removal Action
O&M	Operation and Maintenance
OU	Operable Unit
PAHs	Polycyclic aromatic hydrocarbons
PCBs	Polychlorinated biphenyls
PCP	Pentachlorophenol

PRGs	Preliminary Remediation Goals
RAO	Remedial Action Objectives
RBA	relative bioavailability
RCRA	Resource Conservation and Recovery Act
RfDs	Reference Doses
RI	Remedial Investigation
ROD	Record of Decision
RSLS	Regional Screening Levels
RSRs	CT Remediation Standards Regulations
SGC	Soil Gas Collection
SSC	State Superfund Contract
SVOCs	Semivolatile Organic Compounds
TBC	To Be Considered
TCDD	Tetrachlorodibenzo-p-dioxin
TCE	Trichloroethene
TSCA	Toxic Substances Control Act
TtNUS	Tetra Tech NUS
VC	Vinyl Chloride
VISLs	Vapor Intrusion Screening Levels
VOCs	Volatile Organic Compounds

ES EXECUTIVE SUMMARY

This is the fourth Five-Year Review (FYR) for the Raymark Industries, Inc. Superfund Site (Site) located in Stratford, Fairfield County, Connecticut (Figure 1). The purpose of this FYR is to review information to determine if the remedy for Operable Unit 1 (described below) is and will continue to be protective of human health and the environment. The triggering action for this statutory FYR was the signing of the previous FYR on 9/29/2010.

The Raymark Facility (Facility), formerly named Raybestos – Manhattan Company, operated from 1919 until 1989, when the plant was shut down and permanently closed; however, the property clean-up actions were not completed until 1997. Following completion of a Remedial Investigation/Feasibility Study (RI/FS), EPA designated the Facility as Operable Unit 1 (OU1).

The protectiveness determination in this FYR relates just to OU1. Other OUs that are affiliated with the Raymark Site are OU2 through OU9. In addition, EPA carried out an extensive assessment and removal action at properties throughout Stratford from 1992 to 1995. OUs 2 through 5 and 7 through 9 are not directly evaluated in this FYR because none has a Record of Decision (ROD) designating final cleanup. A ROD is in place for a portion of OU6, however, a design of the remedy is still underway and, therefore, OU6 is not directly evaluated in this FYR. The removal properties were not designated as an OU, but were conducted as time-critical removal actions.

Summaries of the status of all OUs and the removal action are described below with details provided in Appendix C. Figure 3 shows the locations of all OUs.

Former Raymark Facility – OU1

OU1 encompasses source control activities at the Raymark Facility. The OU1 property is a 33.4-acre parcel that has been transformed from a single use industrial property that manufactured friction materials containing asbestos and non-asbestos components, metals, phenol-formaldehyde resins, and various adhesives to a shopping center with multiple businesses. The primary anchors were initially Walmart, Shaw's Supermarket, and Home Depot. Webster Bank was built on the western portion of the Site in 2005, and ShopRite now occupies the former Shaw's Supermarket building.

In the past, there were low-lying gravel and grass areas on the property, in addition to four lagoons that received manufacturing waste. In 1997, as part of the OU1 clean-up, these areas received contaminated fill consisting of Raymark wastes excavated from residential and municipal properties in Stratford during time critical removal actions. The property elevation also rose substantially with the deposition of clean fill and the placement of a cap, designed as a modified low-permeability Resource Conservation and Recovery Act (RCRA) compliant cap, over the property. On top of this cap, buildings and an asphalt parking lot have been constructed. In addition to the operating businesses, there are two treatment buildings on-site located in the eastern and western ends of the property. There are two entrances/exits on the property that lead onto busy roads and have traffic signals to control the traffic flow (Figure 2).

The Record of Decision (ROD) for Raymark OU1 was signed by EPA on July 3, 1995. The date of initiation of the Raymark OU1 source control remedial action is September 1995. A review is required every five years as hazardous contamination remains on OU1 above levels that allow for unlimited use and unrestricted exposure. The first FYR was completed in September 2000. The second review was completed in September 2005. The third FYR was completed in September 2010, the triggering date for this five-year review. This document presents the fourth FYR.

In the ROD, EPA selected a source control (for soils only) remedy for OU1 at the Raymark Site. As stated in the ROD, the selected remedy was designed to provide containment of contaminated soils, control leaching of contaminants to the groundwater, and protect against surface erosion. The remedy included building demolition, non-aqueous phase liquid (NAPL) removal, capping, and institutional controls. In 1996 and 1997, as part of the property clean-up activities, the OU1 buildings were demolished and a permanent RCRA modified cap was placed over the entire OU1 property. The groundwater under the Raymark Facility was not included in the OU1 source control remedy, but has been included in the overall groundwater operable unit (OU2) for the entire Raymark Site (see Appendix C for OU2 information).

In 1997, EPA completed the source control remedy construction activities and held a formal dedication on the OU1 property. In 1998, the Connecticut Department of Environmental Protection (CTDEP, now named Connecticut Department of Energy and Environmental Protection [CTDEEP]) assumed responsibility for the operation and maintenance (O&M) of OU1. A formal State Superfund Contract (SSC) was signed between EPA and the State of Connecticut in 1995

for approval of the remedial action and a financial commitment of the required 10 percent cost share. No administrative or technical modifications/changes to the OU1 remedy have ever been formally documented. Appendix D of the SSC refers to the future O&M tasks for the state and directs the state to comply with a to-be-developed O&M plan (subsequently developed in May 1998). The details on the O&M requirements for OU1 were broadly described in the 1995 ROD and the May 1998 OU1 O&M Manual. The general guidelines for the state were to ensure long-term integrity of the remedy, complete all routine monitoring, and perform system maintenance. No financial requirements or monitoring frequencies were identified to meet these goals.

Institutional controls and a regular inspection program performed by CTDEEP, the property owner, and their consultants, are in place at OU1. A fence and extensive landscaping have directed access primarily through two busy traffic entrances/exits from OU1. A monitoring program is in place to maintain the requirements of the Environmental Land Use Restrictions (ELURs) that are recorded on the OU1 land records. CTDEEP oversees this monitoring program.

Monitoring of on-site air emissions from extracted soil gas and of groundwater are performed routinely by the CTDEEP and its consultant. Air emissions from extracted soil gas are below state air requirements and, overall, groundwater contamination has not significantly changed. Monitoring of negative pressures in the Soil Gas Collection (SGC) system indicates that the system is effectively preventing potential vapor intrusion into buildings constructed over the cap.

Pumping of a single recovery well for dense non-aqueous phase liquid (DNAPL) is performed routinely. To date, minimal DNAPL has been recovered. Recent work under OU2 investigated the current condition of the on-site DNAPL wells, but not the need or effectiveness of the DNAPL extraction system. Additional evaluation of the DNAPL recovery system will be performed as part of the OU2 FS, and decisions on operation of the DNAPL recovery system will be made as part of the Proposed Plan and ROD for OU2.

No issues affecting the protectiveness of the remedy at OU1 were identified in this FYR. Other recommendations that do not relate to the remedy protectiveness of OU1 but are identified in this FYR are described in Section V.

Five-Year Review Summary Form

SITE IDENTIFICATION		
Site Name: Raymark Industries, Inc.		
EPA ID: CTD001186618		
Region: 1	State: CT	City/County: Stratford/Fairfield
SITE STATUS		
NPL Status: Final		
Multiple OUs? Yes	Has the site achieved construction completion? No	
REVIEW STATUS		
Lead agency: EPA		
<i>[If "Other Federal Agency", enter Agency name]:</i> Click here to enter text.		
Author name (Federal or State Project Manager): Ronald Jennings		
Author affiliation: U.S. EPA Region 1		
Review period: 2/2/2015 - 9/30/2015		
Date of site inspection: 3/30/2015		
Type of review: Statutory		
Review number: 4		
Triggering action date: 9/29/2010		
Due date (five years after triggering action date): 9/29/2015		
Issues/Recommendations		

OU(s) without Issues/Recommendations Identified in the Five-Year Review:			
<i>OU1. (Only OU1 was evaluated as part of the FYR. Other OUs are presented for information only.)</i>			
Protectiveness Statement(s)			
<i>Operable Unit:</i> OU1	<i>Protectiveness Determination:</i> Protective	<i>Addendum (if applicable):</i> Not applicable	<i>Due Date</i>
<i>Protectiveness Statement:</i> <i>The remedy at OU1 is protective of human health and the environment. Exposure pathways that could result in unacceptable risks are being controlled.</i>			

I INTRODUCTION

The purpose of a Five-Year Review (FYR) is to evaluate the implementation and performance of a remedy in order to determine if the remedy will continue to be protective of human health and the environment. The methods, findings, and conclusions of reviews are documented in FYR reports. In addition, FYR reports identify issues found during the review, if any, and document recommendations to address them.

The U.S. Environmental Protection Agency (EPA) prepares FYRs pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Section 121 and the National Contingency Plan (NCP). CERCLA 121 states:

“If the President selects a remedial action that results in any hazardous substances, pollutants, or contaminants remaining at the site, the President shall review such remedial action no less often than each five years after the initiation of such remedial action to assure that human health and the environment are being protected by the remedial action being implemented. In addition, if upon such review it is the judgment of the President that action is appropriate at such site in accordance with section [104] or [106], the President shall take or require such action. The President shall report to the Congress a list of facilities for which such review is required, the results of all such reviews, and any actions taken as a result of such reviews.”

EPA interpreted this requirement further in the NCP; 40 Code of Federal Regulations (CFR) Section 300.430(f)(4)(ii), which states:

“If a remedial action is selected that results in hazardous substances, pollutants, or contaminants remaining at the site above levels that allow for unlimited use and unrestricted exposure, the lead agency shall review such actions no less often than every five years after the initiation of the selected remedial action.”

EPA conducted a FYR on the remedy implemented at OU1 of the Raymark Industries, Inc. Superfund Site (Site) in Stratford, Fairfield, Connecticut. EPA and CTDEEP are the lead agencies

for developing and implementing the remedy for the Site. CTDEEP has reviewed all supporting documentation and provided input to EPA during the FYR process.

This is the fourth FYR for the Site. The triggering action for this statutory review is the completion date of the previous FYR. The FYR is required due to the fact that hazardous substances, pollutants, or contaminants remain at the Site above levels that allow for unlimited use and unrestricted exposure. The Site consists of nine Operable Units and additional residential properties where Raymark waste was left in place after removal actions were completed. OU1, which encompasses source control activities at the Raymark Facility, is addressed in this FYR. A summary of each OU and the removal properties is provided below with additional details provided in Appendix C, but these OUs are not evaluated in this FYR.

OU2

OU2 encompasses the groundwater beneath approximately 500 acres in Stratford, including OU1. The focus of investigation in the OU2 area is groundwater that has become contaminated with VOCs and metals that appear to be attributable to the Facility. Since the last FYR, additional sampling rounds have taken place and inspections of the subslab depressurization systems installed in residential properties have been performed. An update to the Remedial Investigation (RI) (Nobis, 2014) and subsequent addendum to that update (Nobis, 2015a) have been prepared. The Feasibility Study (FS) is currently being prepared. EPA expects to issue a proposed plan and ROD for OU2 within a year.

OU3

OU3 currently encompasses the wetland areas of upper Ferry Creek that abut some of the OU6 commercial properties. OU3 formerly was subdivided into Areas I, II, and III and included commercial properties. For administrative convenience, EPA modified these Areas. Area I is now OU3; Area II is now OU7; and Area III is now OU8. Further, the commercial properties were removed from OU3, and they are now part of OU6. OU5 was a subpart of Area II that was also removed from OU3 and is now a stand-alone OU. The RI for OU3 (Area I) described contamination and potential health risks in this area (TtNUS, 1999). No additional investigations have been performed since the last FYR. An FS for OU3 is currently being prepared with an anticipated completion during 2015. EPA expects to issue a proposed plan and ROD for OU3 within a year.

OU4

OU4 is located north of the former Raymark Facility. It encompasses a total area of 13.5 acres and includes the 3-acre Raybestos Memorial Ballfield, an 8.5-acre vacant field, and a 2-acre densely wooded area. An RI for OU4 only addresses the contaminated soils on the property (TtNUS 1999). Groundwater beneath the area is included in OU2. No additional investigations have been performed since the last FYR. A FS for OU4 is currently being prepared. EPA expects to issue a proposed plan and ROD for OU4 within a year.

OU5

OU5 is approximately 4 acres and includes a 1,340-foot section of Shore Road, the Housatonic Boat Club, and a small portion of the eastern slope of the Shakespeare Theater property. The area in this OU was originally part of OU3, Area II, (Area C). A Non-Time Critical Removal Action (NTCRA) was completed in 2002. Since the last FYR, no additional investigations have been performed.

OU6

OU6 originally included 157.1 acres comprised of 24 individual properties with contaminated soils impacted by waste from the former Raymark Facility. A FS was issued in 2011. A ROD was issued in 2011 for the permanent cleanup of four of those properties and for interim remedies at other areas where exposures to Raymark waste could occur. A fifth property, the Airport Property North of Marine Basin, was remediated with excavation and offsite disposal in 2014/2015, and no Raymark waste remains on the property. An addendum to the FS is currently being prepared for the remaining 19 properties. EPA expects to issue a proposed plan and ROD for the remaining OU6 properties within a year.

OU7

The area defined as OU7 was originally part of OU3. It includes Lower Ferry Creek and adjacent wetland properties (Area B), the wetlands surrounding the Housatonic Boat Club property (Area C wetlands), and Selby Pond and the surrounding wetlands (Area F). An RI for this OU was

released (TtNUS 2000). No additional investigations have been performed since the last FYR. The FS for OU7 is currently being prepared.

OU8

The area defined as OU8 was originally part of OU3. OU8 includes a public boat launch area, a dry dock area, and the surrounding wetlands impacted by Raymark waste (north and south of the boat launch) near Beacon Point Road (Area D); and a wetland area along Elm Street adjacent to and south of 1260 Elm Street (Area E). An RI for this OU was released (TtNUS 2000). No additional investigations have been performed since the last FYR. The FS for OU8 is currently being prepared.

OU9

OU9 includes Short Beach Park and the Stratford Landfill. Short Beach Park is a public recreation area which was constructed over a town landfill in the 1980s. Stratford Landfill is a former landfill used by both the Town of Stratford and the City of Bridgeport; today the landfill accepts material for disposal, recycling and composting. An RI report was issued and the report found that the study area does contain waste from the former Raymark Facility (TtNUS, 2005). No additional investigations have been performed since the last FYR. A full FS for OU9 is currently being prepared.

Residential Removal Properties with Raymark Waste Left in Place

In 1992, based on investigations by CTDEEP and the Town of Stratford, EPA began investigations of properties throughout Stratford known to have received Raymark waste materials as fill. This continued through 2004. Two hundred and six residential properties were investigated, and 46 properties had removal actions performed. Fourteen of those properties had Raymark waste left in place. The Region will be evaluating the potential for future exposures at these locations and whether institutional controls are needed. Letters were delivered to property owners to alert them to the presence of the Raymark waste and provided instructions not to dig in those areas where waste remained. EPA has recently coordinated with the Town and expects to begin sending annual letters to these homeowners reminding them of digging restrictions.

II PROGRESS SINCE THE LAST REVIEW

The third FYR report was signed in September 2010. The 2010 review found that the OU1 remedy was protective because exposure pathways that could result in unacceptable risks were being controlled. Tables 1 and 2 indicate that the existing remedy was protective in 2010 and recommended one issue for follow-up.

Table 1: Protectiveness Determinations/Statements from the 2010 FYR

OU #	Protectiveness Determination	Protectiveness Statement
OU1	Protective	The remedy at OU1 is protective of human health and the environment. Exposure pathways that could result in unacceptable risks are being controlled.

Table 2: Status of Recommendations from the 2010 FYR

OU #	Issue	Recommendations/ Follow-up Actions	Party Responsible	Oversight Party	Original Milestone Date	Current Status	Completion Date (if applicable)
OU1	The DNAPL extraction system is removing DNAPL, however, only one recovery well (RW-3) is functioning and that well is extracting minimal quantities.	Optimize the DNAPL recovery system by redeveloping recovery well 3 (RW-3), and perform reevaluation of entire DNAPL recovery system during the OU2-Groundwater Feasibility Study to determine whether the system should be modified to increase its effectiveness.	EPA/State	EPA/State	9/1/2012	Under Discussion	NA

Recommendation 1

The DNAPL extraction system is operational, but DNAPL recovery is low, at only approximately 30 gallons of a DNAPL/water mix per year. A recovery well evaluation was performed in February 2012 to assess the condition of the well casings and screened intervals to evaluate the potential

for future use of the wells. Downhole video, acoustic televiewer, and caliper logging were performed. The conclusion of the evaluation, presented in the RI Update Addendum (Nobis, 2015), was that the recovery wells are adequate for potential future use in remedial actions, as needed. Additional evaluation of the DNAPL recovery system will be performed as part of the OU2 FS, and decisions on operation of the DNAPL recovery system will be made as part of the Proposed Plan and ROD for OU2. EPA expects to issue a proposed plan and ROD for OU2 within a year.

Remedy Implementation Activities and Institutional Controls

Remedial implementation activities are those actions that were identified during the remedial design and remedial action (construction) phases as critical to the success of the site cleanup. The OU1 property is in the operation and maintenance (O&M) phase of its remedial action. Construction of the OU1 source control remedy components is complete; the property has been successfully re-developed; institutional controls are in place and are effective in controlling exposures; responsibility for O&M has been transferred to the state and its contractors; and soil gas collection, DNAPL collection, and groundwater monitoring are occurring.

There have been no remedy implementation activities performed at the Site since the previous FYR was completed in 2010. A summary of historical Site investigations and remedy implementation activities are included in Appendix A.

Institutional controls (ICs), in the form of Environmental Land Use Restrictions (ELURs), were put in place in February 2000, and are discussed below. No additional ICs have been implemented. Monitoring of ICs is described in the system operation/operation and maintenance section below.

Table 3: Summary of Planned and/or Implemented ICs

Media, engineered controls, and areas that do not support UU/UE based on current conditions	ICs Needed	ICs Called for in the Decision Documents	Impacted Parcel(s)	IC Objective	Title of IC Instrument Implemented and Date (or planned)
OU1 Cap	Yes	Yes	Entire Former Facility: parcel #s 0481420, 004, and 0090110	Ensure continued maintenance and prevent disturbance of cap	ELUR recorded on Stratford land records 2/17/00

As part of the remedial implementation activities for OU1, there is an ELUR on the property to protect the integrity of the cap and maintain the protectiveness of the remedy. This ELUR, which was put in place in 2000, prohibits excavation greater than 18 inches in depth or within 18 inches of any surface expression of the remedy without written approval from the Commissioner of CTDEEP and EPA. Formal approval must be requested and design drawings must show the location of all subsurface features. The ELUR is recorded on the land records for the entire OU1 property. It carries a fine of up to \$25,000 per day per violation. The ELUR is protective of the cap because, with the final site grading, all subsurface components of the cap are greater than 2 feet below ground surface (bgs). Further, there is a warning layer (an “orange layer”) approximately 8 inches above the cap that will remind persons to stop digging in that area if the orange layer is exposed. Since the last FYR, some minor digging occurred in 2014 to repair the cap after pedestrian traffic compromised the slope on the eastern side. Additionally, shallow digging was permitted to install concrete sidewalks on top of the cap to redirect the pedestrian traffic around the cap.

The ELUR on the OU1 property also prohibits activities such as: residential use, erecting a building or structure outside the building pods, planting trees that could compromise the integrity of the cap, exceeding load limits on-site, erection of any structure that could restrict access to the treatment buildings, installation of wells or borings, open burning, auto repair or service establishment, gasoline station, car wash, dry cleaners, TSD facility, collection, storage, use or handling of hazardous substances including household hazardous waste and repackaging of cleaning materials, and/or any activity which could compromise the integrity of the cap. None of these prohibited activities have occurred at OU1 since the last FYR.

System Operation/Operation and Maintenance Activities

System operations and maintenance activities, including cap inspections; storm water monitoring; soil gas collection (SGC) systems inspection and maintenance for two on-site SGC systems, including one enhanced SGC system; DNAPL removal and equipment inspection; long-term groundwater monitoring and well maintenance; and treatment building maintenance have continued during the period covered by this review (2010 through 2015). CTDEEP is primarily responsible for system operation and O&M activities. The property owners are responsible for stormwater monitoring, maintenance of the surface layer of the cap (pavement, landscaped areas, building pods), and filing reports with CTDEEP. Duties of both entities were included in the FYR evaluation and discussed below.

Cap Maintenance

Routine cap monitoring and maintenance were performed as detailed in the O&M Manual. CTDEEP performed cap inspections as part of the monthly O&M activities, and also performed comprehensive annual cap inspections. Monthly and quarterly inspections of the cap were performed by the property owner and detailed in reports provided to CTDEEP. No significant improvements were made to the paved or unpaved areas. Minor issues such as cracked pavement and curbs and worn turf areas have been observed and typically are repaired in a timely manner. Paving of the expansive parking lot is performed in stages by the property owner; approximately one fifth of the lot is repaved in September each year. In addition, the property owner provides training to employees of on-site retail establishments to ensure the cap is being used and maintained properly.

Monitoring of the cap is performed to ensure the Institutional Controls put in place continue to be protective.

Stormwater Monitoring

Storm drain inspections and stormwater collection structure cleanouts were performed as part of the monitoring of the on-site storm drainage system. The consultant for the property management firm conducted monthly inspections of the property, primarily to inspect the external portions of the buildings and to inspect the storm water drainage system basins. The latter inspection must be conducted at least semi-annually as required under the storm water permit. If the storm water basins

are filled with grit (a subjective evaluation), then the basins are cleaned out by a pumping company and the grit removed. The storm water and grit separator (Stormceptor) units were inspected and cleaned in April and October as required by the storm water permit. This was documented in the Stormwater Quality Units Inspection and Pumpout reports and reviewed for this FYR.

Soil Gas and Enhanced Soil Gas Collection Systems

Since the last FYR, modifications have been made to the soil gas collection (SGC) systems equipment and the enhanced soil gas collection system equipment. Digital, paperless flow recorders, surge protection line reactors, and blower flow meters were installed in 2011. Blower motor bearings were replaced in both SGC systems in May 2011. The SGC system ran uninterrupted in the Western and Eastern treatment buildings from 2010 through 2014. The enhanced SGC system continued to be cycled twice annually prior to the May and November air sampling events. No significant concentrations of methane were detected during the quarterly effluent air monitoring events. Drip legs were pumped out quarterly, and sampling revealed no discharge criteria were exceeded. This was documented in the Annual Operations and Maintenance Activities Memoranda and reviewed for this FYR.

DNAPL Removal and Equipment Inspection

Since the last FYR, no changes have been made to the DNAPL recovery system to remove DNAPL. Therefore, DNAPL recovery continues to be low, and only one well, RW-3, has produced any measureable DNAPL. Based on the site visit, review of on-site documentation, and a conversation with the oversight contractor, O&M of the DNAPL extraction system was performed as outlined in the O&M Manual since the last FYR. A recovery well evaluation was performed by EPA in February 2012 to assess the integrity of the stainless steel well casings and screened intervals of the five overburden recovery wells. Downhole video, acoustic televiewer, and caliper logging were performed. The DNAPL extraction system is operational, but DNAPL recovery continues to be low at only approximately 30 gallons of a DNAPL/water mix per year. The conclusion of the evaluation, presented in the OU2 RI Update Addendum (Nobis, 2015), was that the recovery wells are adequate for potential future use in remedial actions as needed. Additional evaluation of the DNAPL recovery system will be performed as part of the OU2 FS, and decisions on operation of the DNAPL recovery system will be made as part of the Proposed Plan and ROD for OU2. EPA expects to issue a proposed plan and ROD for OU2 within a year.

Monitoring Well Maintenance

Monitoring well redevelopment was assessed and initiated since the last FYR, however, only wells in the PC-11 cluster and PC-03S have been redeveloped. Pumps reportedly stuck in wells since 2008 have not been removed. It is believed that the pumps in wells PC-3S, 5M, 5B, 10D and possibly 16M, 16D, and 16B are stuck below the sampling intake and therefore do not prevent sample collection. The pump stuck in PC-2M is located above the sampling intake and therefore the well can no longer be sampled. Concrete pads (and new road boxes, if needed) are being installed around wells in areas where asphalt is being replaced. Monitoring well maintenance is documented in annual O&M summary reports.

Treatment Building Operations and Maintenance

Inspections of the treatment buildings continue to be performed. Equipment replacement detailed above as part of the SGC and Enhanced SGC systems continues to be performed. No significant improvements were required since the last FYR. Snow plow damage to the East Building was repaired. Inspection results by property owner and CTDEEP's consultants are reported in annual O&M summary reports submitted to CTDEEP.

Groundwater Monitoring

Groundwater monitoring of 12 wells continues to be performed by a CT DEEP contractor every nine months in accordance with Amendment #5 to the O&M Manual. Samples are analyzed for VOCs only. An additional groundwater sampling event, which involved sampling 52 wells for VOC analysis and monitored natural attenuation (MNA) parameters, was performed by EPA from December 2014 through January 2015 in an effort to ensure a complete round of sampling was performed in conjunction with the FYR. The results of this sampling event are included in the OU2 Data Evaluation Report (Nobis, 2015b).

III FIVE-YEAR REVIEW PROCESS

Administrative Components

The Raymark Industries, Inc. Superfund Site Five-Year Review was led by Ronald Jennings, the EPA Remedial Project Manager for the Site, and Emily Bender, the EPA Community Involvement Coordinator. Ronald Curran assisted in the review as the CTDEEP representative.

The review, which began on 2/2/2015, consisted of the following components:

- Community Involvement;
- Document Review;
- Data Review;
- Site Inspection; and
- Five-Year Review Report Development and Review.

Community Notification and Involvement

Per Region 1 policy, a region-wide press release announcing all upcoming FYRs in New England was released on January 5, 2015 and is attached in Appendix B. The results of the review and the report will be made available at the Site information repository located at:

Stratford Library
2203 Main Street
Stratford, Connecticut, 06615

and at:

U.S. Environmental Protection Agency
5 Post Office Square, Suite 100
Boston, MA 02109

Document Review

This FYR consists of a review of relevant documents including O&M records and monitoring data. Applicable groundwater and soil cleanup standards, as listed in the OU1 ROD, were also reviewed. Appendix B lists the documents reviewed for this current FYR as well as other references cited throughout this report.

Data Review

Groundwater Monitoring

As stated in the OU1 ROD, the groundwater beneath the former Raymark Facility was to be sampled and analyzed to monitor the effectiveness of the cap, the quality of the groundwater leaving the Facility, and potential impacts to the down-gradient groundwater. For this FYR, the groundwater monitoring data for wells at the former Raymark facility were evaluated. Downgradient impacts from groundwater contamination emanating from the site are investigated under OU2, and thus groundwater data collected from other wells related to OU2 are not summarized here.

Focused groundwater sampling as required by and in accordance with the O&M Plan and amendments has continued since the 2010 FYR with modifications to sampling frequency. As shown on the table below, there have been 7 groundwater sampling events over the past 5 years. Water level measurements of the 52 on-site monitoring wells are conducted during all sampling events.

Table 4: Groundwater Sampling Events since 2010 FYR

Sample Date	# of Wells	Analyses	Sampler
November 2010	12	VOCs	CTDEEP
August 2011	12	VOCs	CTDEEP
May 2012	12	VOCs	CTDEEP
February 2013	12	VOCs	CTDEEP
November 2013	12	VOCs	CTDEEP
August 2014	12	VOCs	CTDEEP
December 2014/January 2015	52	VOCs and MNA parameters at 52 wells	EPA

Groundwater flow data and analytical results presented in the OU2 RI Update Report (Nobis, 2014) and the OU2 RI Update Addendum (Nobis, 2015a) were evaluated as part of this FYR. In addition, groundwater flow data and analytical results collected during the December 2014/January 2015 sampling event were compiled in the Groundwater Monitoring Data Evaluation Report (Nobis, 2015b), and were evaluated as part of this FYR. Groundwater flow around OU1 based on 2014/2015 groundwater elevations appears consistent with previous years.

Since no specific clean up goals or compliance criteria were designated in the ROD, cap protectiveness is based, in part, on general trends of concentrations over time. Groundwater monitoring results from the most recent December 2014/January 2015 event are compared to three previous events in the tables below. Only data from wells sampled during all four events are included. The dataset of wells includes 43 wells on the OU1 property as well as 22 off-site wells, and includes overburden and bedrock wells. 1997 is the year the monitoring wells at OU1 were available for sampling after cap construction was complete and is used as the baseline for sampling comparison. Only sampling events performed by EPA are included in this evaluation, and only the four contaminants of concern designated in the OU2 RI Update Addendum (Nobis, 2015a) are discussed. 1,1,1-Trichloroethane is not a contaminant of concern, however, it is presented in the tables below to show the potential connection to the presence of 1,1-dichloroethane.

Table 5: Detection Frequency of Contaminants of Concern

VOC (µg/L)	Detection Frequency (%)			
	Nov 1997 - Dec 1997	Dec 2002 - Feb 2003	Oct 2009 - Nov 2009	Dec 2014 - Jan 2015
1,1,1-Trichloroethane	66%	61%	53%	75%
1,1-Dichloroethane	55%	66%	63%	78%
1,1-Dichloroethene	62%	59%	55%	54%
Trichloroethene	67%	59%	61%	72%
Vinyl chloride	41%	53%	37%	49%

Table 6: Maximum Concentrations of Contaminants of Concern

VOC (µg/L)	Maximum Concentration Detected			
	Nov 1997 - Dec 1997	Dec 2002 - Feb 2003	Oct 2009- Nov 2009	Dec 2014 - Jan 2015
1,1,1-Trichloroethane	185000	160000	140000	72000
1,1-Dichloroethane	1700	1900	4600	20000
1,1-Dichloroethene	42000	40000	22000	30000
Trichloroethene	7700	11000	7800	6300
Vinyl chloride	680	530	320	870

Table 7: Average Concentrations of Contaminants of Concern

VOC (µg/L)	Average Concentration			
	Nov 1997 - Dec 1997	Dec 2002 - Feb 2003	Oct 2009 - Nov 2009	Dec 2014 - Jan 2015
1,1,1-Trichloroethane	4300	4120	2420	1760
1,1-Dichloroethane	91.3	84.4	135	373
1,1-Dichloroethene	1030	1170	562	637
Trichloroethene	513	578	418	358
Vinyl chloride	27.1	29.8	22.9	29.9

Based on the information provided above, concentrations of three of the four primary contaminants of concern appear somewhat stable over time based on maximum and average concentrations. The maximum concentration of vinyl chloride detected in 2014-15 is higher than that detected in 1997, but that follows declines in 2002-03 and 2009, and the maximum concentration has always been in the hundreds of ug/L and the average concentration between 22 and 30 ug/L; thus measured concentrations of vinyl chloride have been relatively stable. Maximum and average concentrations of 1,1-dichloroethane have increased since 1997. In 2014/2015, the highest concentration of 1,1-dichloroethane was found in the bedrock well at PC-02 on the southern property boundary near the former Lagoon 4 source area.

In 1987, approximately 6,000 gallons of 1,1,1-trichloroethane were released and reportedly entered the drainage system of the former OU1 Facility which emptied into Lagoon 4. High average and maximum concentrations of 1,1,1-trichloroethane have been found in bedrock and deep overburden wells at PC-02, however, concentrations have been decreasing over time. Concentrations of 1,1-dichloroethane have been increasing during the same time period providing

some evidence for biodegradation of 1,1,1-trichloroethane to 1,1-dichloroethane, resulting in higher concentrations of 1,1-dichloroethane at the Site. Previous detections of 1,1-dichloroethane in the bedrock well at PC-02 were 330 µg/L in 2003 and 4,600 µg/L in 2009.

A more detailed review of shallow groundwater data collected by CT DEEP from on-site wells since the last FYR shows that concentrations of these VOCs have generally remained stable or have decreased somewhat since 1997. Stable or decreasing concentrations in shallow wells at OU1 can be an indicator that the cap is preventing infiltration of precipitation into wastes below the cap.

Downgradient impacts from groundwater contamination originating at OU1 continue to be investigated under and will be addressed by OU2. Among the steps already taken include the installation of 106 sub-slab depressurization systems at nearby residences to mitigate the migration of vapors from groundwater into overlying structures.

Site Inspection

The inspection of the Site was conducted on 3/30/2015 and 3/31/2015. In attendance for a portion of the inspection were Ronald Curran, CT DEEP, John Bondos and Scott Gish, AECOM (contractor to CT DEEP), and Deb Chisholm and Erik Johnson, Nobis (contractor to EPA). The purpose of the inspection was to assess the protectiveness of the remedy currently in place at OU1. In addition, the current status of each OU where a remedy has not yet been implemented was evaluated as part of the Site visit. Summaries of each OU and each residential property where Raymark Waste was left in place are included in Appendix C.

Overall Site operations and maintenance continue as stated in the O&M Manual and subsequent amendments. Equipment and parts maintenance, repair, and replacement of parts of the two on-site treatment systems and DNAPL extraction system, have become more frequent as the systems age. Since the last FYR, Amendment #5 to the O&M plan has been issued. Changes to the O&M Plan under this amendment include equipment repair and replacement for the Soil Gas Collection and Enhanced Soil Gas Collection processes; removal and disposal of the carbon units from the Eastern Treatment Building; reduction of the frequency of groundwater sampling; and installation of autodialers in both treatment buildings allowing remote alarm acknowledgement using a four digit numeric code.

Issues since the last FYR in 2010 include erosion of the eastern section of the cap near the bus stop on East Main Street during the summer of 2014. The erosion was the result of pedestrian traffic walking up the sloped side of the cap toward the retail area. During the site visit, repair to the cap erosion including regrading and reseeding, was evident. The perimeter fence was extended along the top of the cap to prevent future pedestrian traffic, and sidewalks were installed to facilitate pedestrian traffic from the bus stop to the retail area.

Pavement was observed to be in good condition with minimal cracking. Some areas of pavement had been improved recently, and according to CT DEEP and AECOM, the property owner maintains a rotating schedule for pavement improvements in an effort to spread out the costs of repaving. Concrete pads are being installed around monitoring wells in an effort to minimize pavement cracking around the wells.

The OU1 Site Inspection Checklist is included in Appendix B. The site inspection included inspection of the cap, soil gas collection system, DNAPL extraction system, monitoring well network, and treatment buildings.

Interviews

During the FYR process, interviews were conducted with parties impacted by the Site, including some current landowners, the Town of Stratford, and regulatory agencies involved in Site activities or aware of the Site. The purpose of the interviews was to document any perceived problems or successes with the remedy that has been implemented to date. Interviews were conducted during the months of March and April 2015. Completed interview records are included in Appendix B. Additional community stakeholder interaction performed as part of OU4 are included in Appendix E.

Interview forms were completed by the following people:

Andrea Boissevain – Health Director, Town of Stratford, CT

James Donegan – Housatonic Boat Club Commodore, Stratford, CT

Mark Quiriconi – Rotary Ski Shop owner, Stratford, CT

Ronald Curran – Project Manager, CT DEEP, March 31, 2015 responded to questions in person during the site visit, and responses were subsequently documented on an interview form.

IV TECHNICAL ASSESSMENT

Question A: Is the remedy functioning as intended by the decision documents?

Yes. An evaluation of Site background documents, historical O&M reports, long-term groundwater monitoring data, and interviews of personnel associated with the Site was performed to determine whether the remedy is functioning as intended. The evaluation concluded that the OU1 remedy continues to function as intended in the ROD.

Remedial Action Performance

The OU1 property is in the O&M phase of its remedial action, with ongoing activities including the SGC systems, DNAPL extraction system, and groundwater sampling, performed as part of the O&M of the remedy or as institutional controls to protect the integrity of the cap.

Cap. The cap continues to prevent exposure to wastes buried beneath as evidenced by a site inspection in 2015 and review of cap inspection reports from the last five years. An ELUR was put in place in 2000 and continues to be enforced. The cap also continues to reduce precipitation infiltration which would result in organics and metals leaching into groundwater.

Soil Gas Collection. Both the soil gas and enhanced soil gas collection systems continue to function as intended. On-site gases released from the waste below the impermeable liner layer are collected and conveyed to the treatment buildings rather than accumulating and permeating upward through or otherwise disturbing the cap. The collection systems appear to function effectively with monitoring of negative pressures indicating that the system is effectively preventing vapor intrusion into buildings constructed over the cap.

DNAPL. The DNAPL extraction system is operational and functioning, but is only collecting minimal amounts of DNAPL. Four of the five wells have not produced DNAPL since their installation in 1997. The amount of DNAPL recovered from the remaining well has only been approximately 30 gallons per year of a DNAPL/water mix. Better record keeping would enable the

documentation of the amount of DNAPL extracted and its chemical make-up over time, however, this is not required by the current O&M plan.

Groundwater sampling. The groundwater monitoring system appears to be operating effectively. Samples have been collected and analyzed according to a schedule approved by CTDEEP and EPA. Most of the trends in contaminant levels are fluctuating, flat, or levels are low, but some VOCs of concern remain high at some well locations. To date, the CTDEEP has generated 18 years of groundwater data in the process of evaluating the effectiveness of the cap and has optimized the monitoring frequency without compromising the cap's effectiveness. In accordance with Amendment #5 to the O&M Plan, 12 wells are sampled for VOCs every 9 months. A comprehensive sampling event of all monitoring wells is performed every five years when all samples are analyzed for VOCs, semivolatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), and metals. Based on a request by CTDEEP, this changed approach in groundwater sampling commenced in November 2010. As a note, the remedy for OU1 is not intended to address contaminated groundwater emanating from the site; however groundwater is monitored to evaluate the effectiveness of the OU1 remedy. Site groundwater is addressed by OU2.

System Operations/O&M

Overall Site operations and maintenance continue as stated in the O&M Manual and subsequent amendments. Equipment and parts maintenance, repair, and replacement have become more frequent as the systems age. Since the last FYR, Amendment #5 to the O&M plan has been issued reflecting changes to the SGC system, the Enhanced SGC system, and monitoring well sampling. The table below presents the O&M costs incurred by CTDEEP over the last five years. Costs do not include CTDEEP labor or electric or phone costs. The costs reflect activities performed on both OU1 and the subslab depressurization systems installed in nearby homes as part of OU2.

Year	O&M Costs
2010 – 2011	\$158,183.00
2011 – 2012	\$163,237.00
2012 – 2013	\$163,035.00
2013 – 2014	\$217,412.00
2014 – 2015	\$252,688.00

CTDEEP believes the increased costs over the last two years are due to inspections of the sub-slab depressurization systems as part of OU2 and the 5-year groundwater sampling event, and do not indicate potential remedy problems.

Opportunities for Optimization

The DNAPL extraction system is operational and functioning, however, the system is recovering minimal amounts of DNAPL. Four of the five wells have not produced DNAPL. The amount recovered from the remaining well has only been approximately 30 gallons per year of a DNAPL/water mix.

In response to an issue raised during the 2010 FYR process, a recovery well evaluation was performed in February 2012 to assess the integrity of the stainless steel well casings and screened intervals of the five overburden recovery wells. Downhole video, acoustic televiewer, and caliper logging were performed. The conclusion of the evaluation, presented in the OU2 RI Update Addendum (Nobis, 2015), was that the recovery wells are adequate for potential future use in remedial actions, as needed. Additional evaluation of the DNAPL recovery system will be performed as part of the OU2 FS, and decisions on operation of the DNAPL recovery system will be made as part of the Proposed Plan and ROD for OU2. EPA expects to issue a proposed plan and ROD for OU2 within a year.

Early Indicators of Potential Issues

Equipment and parts maintenance, repair, and replacement have become more frequent as the systems age; however, maintenance performance is timely, and the protectiveness of the remedy is not currently affected.

Implementation of Institutional Controls and Other Measures

Institutional controls, including cap maintenance and deed restrictions, are in place to limit future activities that could result in accidental intrusion into the cap, accidental exposures to the wastes, and damage of the cap system. Since the last FYR in 2010 erosion of the eastern section of the cap near the bus stop on East Main Street during the summer of 2014 was controlled by extending

the perimeter fence. The erosion was the result of pedestrian traffic walking up the sloped side of the cap toward the retail area. During the site visit, repair to the cap erosion including regrading and reseeding was evident. The perimeter fence was extended along the top of the cap to prevent future pedestrian traffic, and sidewalks were installed to facilitate pedestrian traffic from the bus stop on East Main Street to the retail area.

Question B: Are the exposure assumptions, toxicity data, cleanup levels, and remedial action objectives (RAOs) used at the time of the remedy selection still valid?

No. Some of the exposure assumptions, toxicity data, and clean-up levels used at the time of the remedy selection in 1995 have changed and are not still valid; however, because the source control remedy relied on preventing direct contact with Raymark waste with the placement of an impermeable cap over the source area that prevents direct contact with contamination, infiltration of rainwater, and vapor intrusion into on-site buildings, the remedy remains protective of human health and the environment. The RAOs used at the time of the remedy selection are still valid.

Changes in ARAR Standards and To Be Considered (TBCs)

As part of this fourth FYR, the Applicable, Relevant, and Appropriate Regulations (ARARs) and To Be Considered (TBCs) for OU1 were reviewed for changes that might affect the protectiveness of the remedy.

Appendix D of this FYR presents the two tables summarizing the ARARs and TBCs that were initially presented in the Raymark Facility Final Source Control Feasibility Study Report (Tetra Tech, 1995) and cited in the June 1995 ROD. Table 4-2A in the ROD contained the chemical-specific TBCs (no chemical-specific ARARs were identified for this source-control remedy). Table 4-2B in the ROD contained the action-specific ARARs and TBCs for the selected remedy. In addition, the ROD identified one location-specific ARAR, the Connecticut Coastal Management Act (Title 22a, Chapter 440, Sections 90-122).

Because the construction of the components of the source control remedy has been completed, the location and action-specific ARARs pertaining to construction activities that were cited in the ROD have been met and remain unchanged. Other location and action-specific ARARs apply to the on-going operation and maintenance of the OU1 remedy, including the cap, the SGC systems,

and DNAPL extraction systems. There have been no changes to those action-specific ARARs and TBCs listed on Table 4-2B and no new standards that affect the protectiveness of the remedy. There have been no changes to the location-specific ARAR, that is the Connecticut Coastal Management Act, and no new standards that affect the protectiveness of the remedy. The selected remedy met the requirements of the action and location-specific ARARs and action-specific TBCs.

The following discussions address the chemical-specific TBCs contained on Table 4-2A, and any changes that have occurred since the June 1995 ROD.

Connecticut Remediation Standards Regulations (RSRs)

One of the TBCs in 1995 was the proposed Regulations of Connecticut State Agencies, Remediation Standard, Sections 22a-133k-1 through 22a-133k-3. These proposed Connecticut Remediation Standards Regulations (RSRs) contained numeric and narrative standards for soil and groundwater remediation; took into consideration factors that included land use, groundwater classification, and proximity to sensitive receptors; and were considered in the selection of the remedy. Although the RSRs were not yet promulgated at the time of the remedy selection, the remedy met the proposed RSR requirements by preventing direct exposure to soils and groundwater through the installation of the cap. The Connecticut RSRs were promulgated in 1996 and amended in June 2013. The changes in the 2013 amendment do not affect the protectiveness of the source control remedy because the cap continues to prevent direct exposure to soils and groundwater and the SGC system prevents vapor intrusion at on-site buildings. For this FYR, there are no regulatory changes to the RSRs that affect the protectiveness of the cap and SGC system; therefore, the source control remedy continues to be protective of human health and the environment.

Environmental Protection Agency Reference Doses and Carcinogenic Potency Factors

Toxicity values are used in risk calculations and the development of site-specific and more generic risk-based screening values or clean-up goals. EPA toxicity values, including non-cancer reference doses (RfDs) and cancer slope factors (CSFs), are routinely re-evaluated and updated. Currently, the primary source of toxicity values is EPA's IRIS

database. Changes have occurred to toxicity values used for the OU1 human health risk assessment (e.g. TCE, PCE, dioxin, etc.). See below for more detail regarding changes in toxicity values. Because the source control remedy relies on a cap and SGC systems to prevent exposures by contaminants through direct contact with soils, groundwater, or inhalation of indoor air, these changes to toxicity values do not impact the protectiveness of the remedy.

TSCA PCB Spill Cleanup Policy

The Toxic Substances Control Act (TSCA) PCB Spill Cleanup Policy (40 CFR 761. 120-135) remains in effect, and does not impact the protectiveness of the remedy.

Guidance on Remedial Actions at Superfund Sites with PCB Contamination

This document (EPA/540/G-90/007, August 1990) remains in effect, and does not impact the protectiveness of the remedy.

EPA Regional Screening Levels (RSLs)

RSLs are risk-based concentrations derived from standardized equations combining exposure information assumptions with EPA toxicity data. The RSLs are used for site screening and as initial cleanup goals, and are updated twice/year. The most up-to-date tables are available at http://www.epa.gov/reg3hwmd/risk/human/rb-concentration_table/. The RSLs were not listed previously as ARARs or TBCs. Because the remedy relies on a cap and SGC systems to prevent exposures by contaminants by direct contact with soils, groundwater, or inhalation of indoor air, this added TBC does not impact the protectiveness of the remedy.

EPA Vapor Intrusion Screening Levels (VISLs)

VISLs are recommended, media-specific, risk-based screening-level concentrations of chemicals considered to be volatile and sufficiently toxic through the inhalation pathway. The VISLs are used in determining whether chemicals found in groundwater or soil gas can pose a significant risk through vapor intrusion. The VISLs are updated periodically. The most up-to-date tables are available at:

<http://www.epa.gov/oswer/vaporintrusion/guidance.html#Item6>. The VISLs were not listed previously as ARARs or TBCs. Because the remedy relies on a cap and SGC systems to prevent exposures by contaminants by inhalation of indoor air, the VISLs do not impact the protectiveness of the remedy.

Changes in Exposure Assumptions

New guidance has been issued regarding human health exposure assumptions used in the evaluations of human health risk.

2014 OSWER Directive on the Update of Standard Default Exposure Factors

In 2014, EPA finalized a Directive to update standard default exposure factors and frequently asked questions associated with these updates. http://www.epa.gov/oswer/riskassessment/superfund_hh_exposure.htm (items # 22 and #23 of this web link). Many of these exposure factors differ from those used in the risk assessment(s) supporting the ROD(s). These changes in general would result in a slight decrease of the risk estimates for most chemicals. (Reference: USEPA. 2014. Human Health Evaluation Manual, Supplemental Guidance: Update of Standard Default Exposure Factors. OSWER Directive 9200.1-120. February 6, 2014.)

The exposure pathways considered in the OU1 human health risk assessment are no longer complete at the site because the source control remedy prevents direct contact with soil and vapor intrusion into on-site buildings. Therefore, this change does not impact the protectiveness of the remedy.

Changes in Toxicity and Other Contaminant Characteristics

Changes have occurred to toxicity values used for the OU1 human health risk assessment.

New IRIS toxicity values since 2010:

- **2010 1,4-dioxane** non-cancer toxicity value and 2013 cancer toxicity values
In 2010 and 2013, EPA finalized the toxicity assessment for 1,4-dioxane. The new values indicate that 1,4-dioxane is more toxic from both cancer and non-cancer health

effects. These toxicity changes would result in increased non-cancer hazard and cancer risk from exposure to 1,4-dioxane.

- **2010 cis-1,2-DCE** non-cancer toxicity values

In January 2010, EPA revised the oral non-cancer toxicity value for cis-1,2-DCE and determined that there are currently no available cancer values and no inhalation non-cancer toxicity values. The new oral non-cancer toxicity value indicates that cis-1,2-DCE is more toxic for non-cancer health effects. These toxicity changes would result in increased non-cancer hazard from exposure to cis-1,2-DCE. It is now not possible to quantify cancer risk and inhalation non-cancer health effects from exposure to cis-1,2-DCE.

- **2010 Pentachlorophenol** cancer and non-cancer toxicity values

On September 30, 2010, EPA finalized the toxicity assessment for pentachlorophenol (PCP). The new values indicate that PCP is more toxic from both cancer and non-cancer health effects. These toxicity changes would result in increased non-cancer hazard and cancer risk from exposure to PCP.

- **2011 TCE** cancer and non-cancer toxicity values

On September 28, 2011, EPA finalized the December 2009 revised toxicity values for TCE. The new values indicate that TCE is more toxic from both cancer and non-cancer health effects. These toxicity changes would result in increased non-cancer hazard and cancer risk from exposure to TCE.

- **2011 Methylene Chloride** cancer and non-cancer toxicity values

On November 18, 2011, EPA finalized the toxicity assessment for methylene chloride. The new values indicate that methylene chloride is more toxic from non-cancer health effects but less toxic from cancer health effects. These toxicity changes would result in an increased non-cancer hazard and a decreased cancer risk from exposure to methylene chloride.

- **2012 PCE** cancer and non-cancer toxicity values

On February 10, 2012, EPA finalized the cancer and non-cancer toxicity values for PCE. These new values indicate that PCE is now more toxic from cancer health effects

but less toxic from non-cancer hazard effects. Cancer risks and non-cancer hazards from these contaminants may change due to the changes in toxicity values. These toxicity changes would result in an increased cancer risk and a decreased non-cancer hazard from exposure to PCE.

- **2012 Dioxin non-cancer toxicity value**

On February 17, 2012, EPA finalized the non-cancer toxicity assessment for 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD). EPA's dioxin reassessment has been developed and undergone review for many years, with the participation of scientific experts in EPA and other federal agencies, as well as scientific experts in the private sector and academia. The Agency followed current guidelines and incorporated the latest data and physiological/biochemical research into the reassessment. With the release of the final human health non-cancer dioxin reassessment, EPA also published an oral non-cancer toxicity value, or reference dose (RfD), of 7×10^{-10} mg/kg-day TCDD in EPA's Integrated Risk Information System (IRIS). The dioxin cancer reassessment is currently underway. The dioxin RfD was approved for immediate use at Superfund sites to ensure protection of human health.

However, because the source control remedy relies on a cap and SGC systems to prevent exposures by contaminants by direct contact with soils, groundwater, or inhalation of indoor air, these toxicity value changes do not impact the protectiveness of the remedy.

Changes in Risk Assessment Methods

Changes have occurred to methods used to evaluate vapor intrusion exposures, methods used to evaluate exposures to asbestos, methods used to evaluate arsenic, and methods used to evaluate mutagenic carcinogens, including polycyclic aromatic hydrocarbons (PAHs), for the OU1 human health risk assessment.

Since 2010, EPA has introduced the following new risk assessment method applicable to OU1:

- 2012 OSWER Directive on Recommendations for Default Value for Relative Bioavailability of Arsenic in Soil

Based on a compilation and review of data on relative bioavailability of arsenic in soil in 2012, arsenic was found to be less bioavailable via soil ingestion relative to other analytes. A default value of relative bioavailability (RBA) of 60% is now applied during soil/sediment ingestion calculations of risk/cleanup levels. This default RBA value reduces arsenic contribution to risk and/or increases arsenic cleanup levels. (Reference: USEPA. 2012. Compilation and Review of Data on Relative Bioavailability of Arsenic in Soil and Recommendations for Default Value for Relative Bioavailability of Arsenic in Soil Documents. OSWER Directive 9200.1-113. December 31, 2012.)

However, because the source control remedy relies on a cap and SGC systems to prevent exposures from contaminants by direct contact with soils, groundwater, or inhalation of indoor air, these changes do not impact the protectiveness of the remedy.

No ecological targets were identified during the baseline risk assessment and none were identified during this FYR; therefore, monitoring of ecological targets is not necessary. There is no other risk information that calls into question the protectiveness of the remedy for OU1.

Expected Progress towards Meeting RAOs

The remedy is effectively preventing direct human exposures to contaminated soil-waste materials and minimizing leaching of contaminants to groundwater from on-site source areas. The cap minimizes leaching of contaminants to groundwater from on-site source areas. The SGC systems prevent vapor intrusion at on-site buildings. The DNAPL extraction system is functioning as intended, but is removing only minimal amounts of DNAPL. Concentrations of contaminants in the groundwater plume from the OU1 property continue to be of potential concern for down-gradient properties. Groundwater is being addressed as part of OU2.

Question C: Has any other information come to light that could call into question the protectiveness of the remedy?

No. No other information has come to light which could affect the protectiveness of the remedy.

Technical Assessment Summary

Based on the data reviewed, observations from the site inspection, and the interviews conducted, the remedy continues to function as intended by the ROD. Construction of the source control remedy components (cap, SGC system, and DNAPL extraction system) is complete, and it has been confirmed that the remedy is functioning as designed. The DNAPL extraction system is operational and functioning, however, the system is recovering minimal amounts of DNAPL and its overall effectiveness as a factor in groundwater clean-up is in question. Discontinuing DNAPL removal would result in an O&M cost savings. Despite the low rate of DNAPL recovery, the remedy remains protective of human health and the environment. Some of the exposure assumptions, toxicity data, risk assessment methods, and clean-up levels used at the time of the remedy selection in 1995 have changed; however, because the source control remedy relied on preventing direct contact with contamination and vapor intrusion into on-site buildings, the remedy remains protective of human health and the environment. The frequent site inspections by CTDEEP, its consultants, the property managers, and its consultants, continually evaluate the effectiveness of the cap, and its attendant systems (on-site soil gas collection and removal, DNAPL removal, and groundwater sampling). The effective implementation of institutional controls has continued to ensure the integrity of the cap by restricting on-site digging. Land use has changed at the OU1 property since the ROD was signed in 1995, but the changes were anticipated in the design of the remedy and have not changed or added any exposure routes. No land use changes have occurred at the OU1 property since the last FYR.

V ISSUES/RECOMMENDATIONS AND FOLLOW-UP ACTIONS

Table 8: Issues and Recommendations/Follow-up Actions

OU #	Issue	Recommendations/ Follow-up Actions	Party Responsible	Oversight Agency	Milestone Date	Affects Protectiveness? (Y/N)	
						Current	Future
OU1	None	NA	NA	NA	NA	NA	NA

In the 2010 FYR Report, the inefficiency of the DNAPL extraction system was reported as an issue requiring follow-up action, but not affecting protectiveness of the remedy. In this FYR, this

is still an issue. However, since it does not affect the current or future protectiveness of the remedy, it is not listed in the table above.

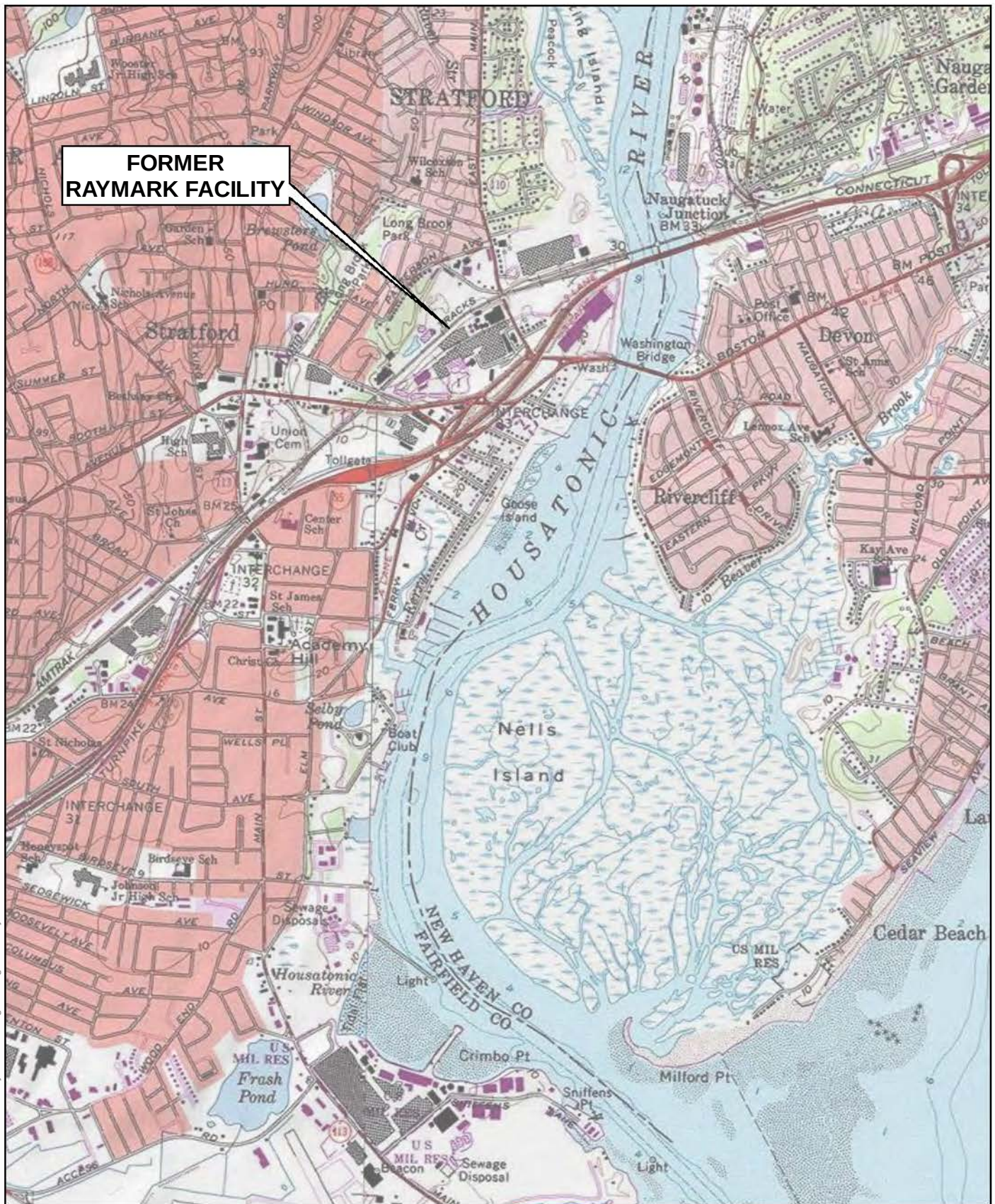
The DNAPL extraction system is removing DNAPL, however, only one recovery well (RW-3) is functioning and that well is extracting minimal quantities (see Remedy Implementation Activities). An evaluation of the DNAPL recovery system was performed in 2012. In general, the wells were in good condition; there was evidence of biological activity, with well screens completely obscured in some of the wells; and there was evidence of apparent DNAPL infiltration in two of the five recovery wells, indicating that the recovery wells are adequate for potential future use in a remedial action. Additional evaluation of the DNAPL recovery system will be performed as part of the OU2 FS, and decisions on operation of the DNAPL recovery system will be made as part of the Proposed Plan and ROD for OU2. EPA expects to issue a proposed plan and ROD for OU2 within a year.

VI PROTECTIVENESS STATEMENT

Protectiveness Statement(s)		
<i>Operable Unit:</i> OU1	<i>Protectiveness Determination:</i> Protective	<i>Addendum Due Date</i> <i>(if applicable):</i> Click here to enter a date.
<i>Protectiveness Statement:</i> <i>The remedy at OU1 is protective of human health and the environment. Exposure pathways that could result in unacceptable risks are being controlled.</i>		

VII NEXT REVIEW

The next FYR report for the Raymark Industries, Inc. Superfund Site is required five years from the completion date of this review (September 2020).



USGS Topographic Map
Bridgeport, Connecticut
Milford, Connecticut
Revised 1984

0 500 1,000 2,000
Feet
1 inch = 2,000 feet



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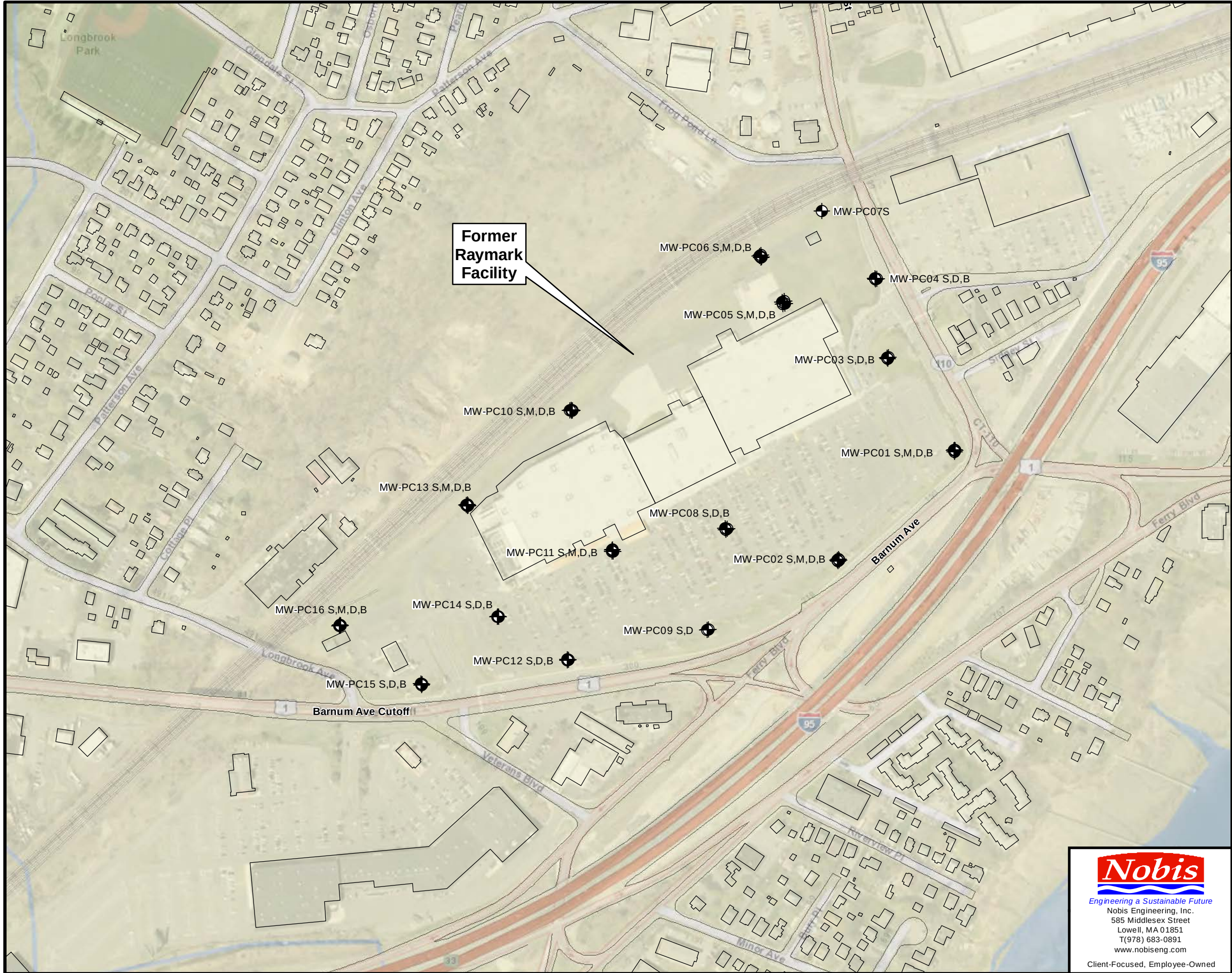
FIGURE 1

SITE LOCUS PLAN
RAYMARK FIVE YEAR REVIEW
STRATFORD, CONNECTICUT

PREPARED BY: JH
PROJECT NO. 80097.04

CHECKED BY: DC
DATE: JUNE 2015

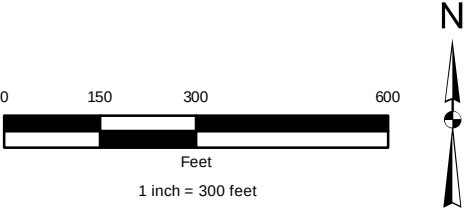
Path: R:\80000 Task Orders\80097 Five Year Review\Raymark\GIS\Figures\Figure 2 Raymark Site Layout and Monitoring Locations.mxd Date Printed: 6/11/2015



- Notes:**
1. Aerial photography provided by ESRI.
 2. Locations of site features depicted hereon are approximate and given for illustrative purposes only.

Legend

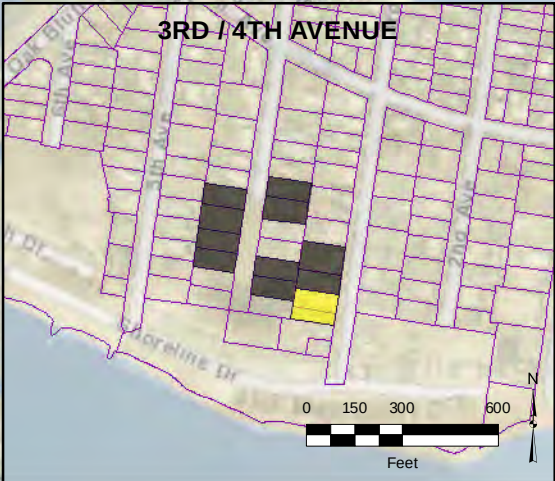
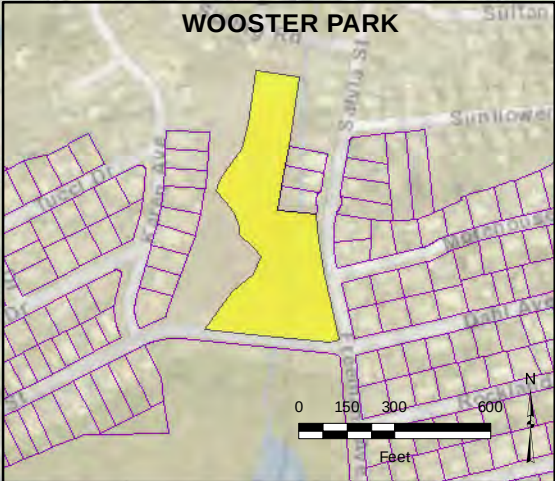
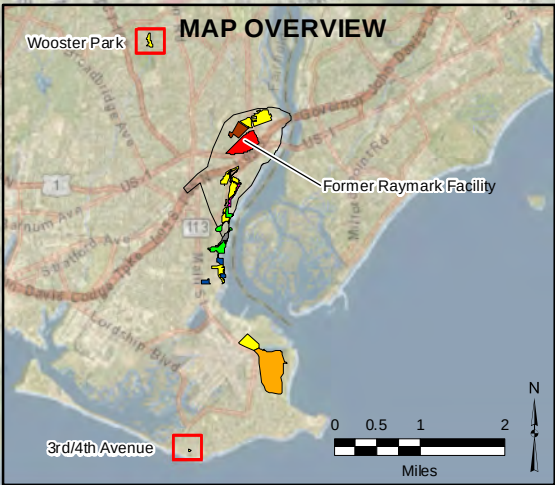
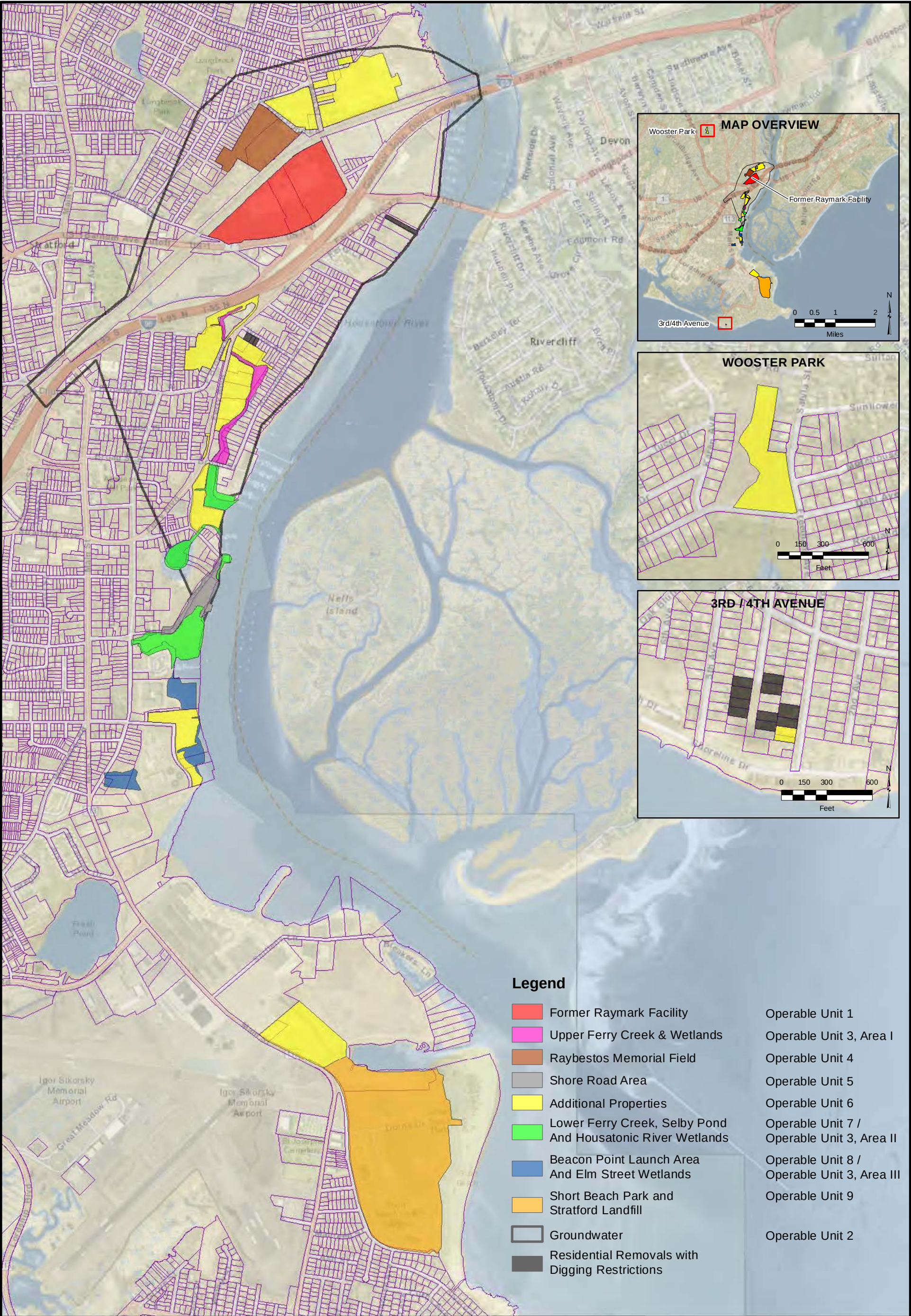
Monitoring Well



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FIGURE 2	
SITE LAYOUT AND MONITORING WELL LOCATIONS RAYMARK FIVE YEAR REVIEW STRATFORD, CONNECTICUT	
PREPARED BY: JH	CHECKED BY: DC
PROJECT NO. 80097.04	DATE: JUNE 2015

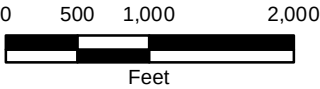
Path: R:\800000 Task Orders\80097 Five Year Review\Raymark\GIS\Figures\Figure 3 Raymark All OUs.mxd Date Printed: 8/12/2015



Legend

- | | |
|---|---|
| <div></div> Former Raymark Facility | Operable Unit 1 |
| <div></div> Upper Ferry Creek & Wetlands | Operable Unit 3, Area I |
| <div></div> Raybestos Memorial Field | Operable Unit 4 |
| <div></div> Shore Road Area | Operable Unit 5 |
| <div></div> Additional Properties | Operable Unit 6 |
| <div></div> Lower Ferry Creek, Selby Pond And Housatonic River Wetlands | Operable Unit 7 / Operable Unit 3, Area II |
| <div></div> Beacon Point Launch Area And Elm Street Wetlands | Operable Unit 8 / Operable Unit 3, Area III |
| <div></div> Short Beach Park and Stratford Landfill | Operable Unit 9 |
| <div></div> Groundwater | Operable Unit 2 |
| <div></div> Residential Removals with Digging Restrictions | |

- Notes:**
1. This base plan compiled from the following: Diversified Tech. Corp., North Haven, CT; Geod-Photogrammetric Sciences Survey Tech., Newfoundland, NJ; Deluca-Hoffman Assoc., Inc. S. Portland, ME; and CT-GIS.
 2. Operable Units from TetraTech NUS, 2005.
 4. Aerial photography provided by ESRI.
 5. Locations of site features depicted hereon are approximate and given for illustrative purposes only.



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FIGURE 3

**OPERABLE UNITS
RAYMARK FIVE YEAR REVIEW
STRATFORD, CONNECTICUT**

PREPARED BY: JH	CHECKED BY: DC
PROJECT NO. 80097.04	DATE: JUNE 2015

A P P E N D I X A

APPENDIX A – EXISTING SITE INFORMATION

A. SITE CHRONOLOGY

EVENT	DATE
Raymark Industries, Inc., manufactured automotive and heavy vehicle friction parts. Production processes generated waste by-products.	1919-1989
Waste by-products were disposed of in lagoons on the Raymark property. As lagoons became full, waste was excavated and used as fill on the Raymark property and throughout Stratford.	1919-1984
The Town and CTDEP (now CTDEEP) installed a cover for a number of municipal properties, temporarily protecting area residents from direct exposure to contaminated wastes.	1978 and 1993 – 1995
With EPA oversight, Raymark covered four lagoons, removed bags and containers filled with hazardous material, secured the property with fencing, boarded up buildings, and re-routed the on-site drainage system to minimize movement of contamination off the Raymark Facility.	Fall, 1992 – 1995
Dioxins were discovered on the Raymark Facility. Sampling of residential, municipal, and commercial properties revealed the widespread presence of lead, PCBs, and asbestos, in addition to the dioxins, in areas where Raymark fill was used in Stratford. The levels of these contaminants were reviewed by the Agency for Toxic Substances and Disease Registry and were considered a health risk.	Spring, 1993
EPA began collecting and testing soil samples from properties located throughout Stratford where Raymark fill was suspected to have been used. As of 1995, about 40 residential areas showed contamination high enough to need clean-up.	
EPA conducted residential clean-ups by excavating contaminated soils. The excavated material was trucked to and placed at the Raymark Facility.	1993 – 1995
EPA proposed to add the Raymark Facility and properties that contained Raymark waste to the National Priorities List (NPL). Listing on the NPL authorizes the expenditure of CERCLA remedial action funds.	January 18, 1994
OU5 - EPA and CTDEEP perform preliminary soils evaluation	1993-1994
OU5 – CTDEP (now CTDEEP) completes temporary capping with geotextile and wood chips	1994
The NPL listing was finalized.	April 25, 1995.
Stockpiling of contaminated soils from residential removals and Wooster School removal completed.	July 1995

EVENT	DATE
OU1 Record of Decision signed.	July 3, 1995
EPA/State Superfund Contract signed.	July 1995
Start of OU1 Remedial Action construction and building demolition began.	September 1995
-Building demolition completed.	April 1996
-RCRA low-permeability cap system installation began.	October 1996
-Treatment systems construction began.	November 1996
-Cap system construction completed.	August 1997
-Final site grading work completed.	October 1997
-Site dedication.	November 1997
-Site systems began operations.	December 1997
-Operations & Maintenance Plan completed.	May 1998
-Operation and maintenance of Site turned over to CTDEP (now CTDEEP).	August 1998
OU1 – CTDEP (now CTDEEP) conducted oversight activities.	1998 to present
OU5 – EPA issues Action Memorandum for interim removal action	September 1999
OU1 - Site property sold to Walmart Real Estate Business Trust, STFD, LLC, and Home Depot U.S.A.	January 19, 2000
OU1 - Filing of Environmental Land Use Restrictions (ELURs) on land records.	February 17, 2000
OU5 – Excavation, asphalt cover, and construction of clean zone along wetlands & the Housatonic River in the vicinity of Shore Road is completed	September 2000
OU2 - EPA begins collecting soil gas and indoor air samples from residences	April 2000
First Five-Year Review Report.	September 2000
OU2 - Sub-slab ventilation systems are installed in 4 homes.	December 2001
OU1 - Charter, LLC assumes ownership of STFD, LLC properties.	April 3, 2002
OU1 - Construction of Walmart, Shaw's, and Home Depot (completed).	2002
OU2 - Sub-slab ventilation systems are installed in 5 additional homes	October/November 2002
OU2 – Following CT DPH Health Consult, CTDEEP begins supervision of installation of sub-slab ventilation systems in 97 additional homes.	Fall 2003–Spring 2004
OU2 – Sub-slab ventilation system installs complete.	Fall 2004
OU1 - Construction of Webster Bank (completed).	June 2005
OU2 - Remedial Investigation Report finalized	
Second Five-Year Review Report.	September 2005
Third Five-Year Review Report.	September 2010
OU6 – Record of Decision issued	July 2011
Fourth Five-Year Review Report	September 2015

B. BACKGROUND

Physical Characteristics

OU1 is a 33.4-acre parcel that has been transformed from a single use industrial property that manufactured automotive friction materials, to a shopping center with multiple businesses. The primary anchors, Walmart, Shaws Supermarket, and Home Depot, were completed in 2002. Webster Bank was constructed in 2005 after the second FYR was conducted. Shaws Supermarket closed in 2010 and the building was recently renovated and re-opened as ShopRite.

The parcel has always had a large parking area and building footprint. In the past, most of the property (approximately 60 to 70 percent) was covered by buildings and parking lots. The parking lots were a mix of gravel and asphalt that had deteriorated over the years. In the parking areas were four lagoons that received manufacturing waste from the buildings/manufacturing process. Between 1993 and 1995, excavated contaminated soils from the residential clean-ups were placed at the Site. In 1997, as part of the OU1 clean-up, the lagoon areas were filled in and the property elevation rose substantially with the deposition of clean fill and the placement of a modified RCRA cap over the property. On top of this cap, shopping center buildings and an asphalt parking lot have been built. In addition to the shopping center buildings, there are two treatment buildings on-site located in the eastern and western ends of the property. There are two entrances/exits on the property that lead onto busy roads and have traffic signals to control the traffic flow. In March 2009, a bus shelter was installed on the western portion of the OU1 property.

Hydrology

The entire OU1 property is presently used as a large, active shopping center. It is surrounded by roads on the northern, eastern, and southern ends of the property. There is an operating railroad track along the perimeter of the western side of the property. The property is almost completely covered by an asphalt parking lot and buildings. There are trees around the perimeter of the property and small plantings throughout the parking lot area. The shopping center has an active loading/unloading area for vehicles in the rear of the building along the railroad tracks. There are garden centers located at both ends of the shopping center building, at Home Depot and Walmart.

Although overnight parking is not prohibited by an ELUR and does not impact maintenance, there is no overnight parking, as posted in the parking lot by the stores. Also, there currently is no bus traffic that exceeds the weight limits of 3,000 lbs. per square foot allowed on the property.

An ELUR was placed on the property in February 2000 to protect the integrity of the cap through the property land records. In the past, CTDEP (now CTDEEP) has issued enforcement actions against Walmart for violating the ELUR, although no damage to the cap has occurred. Over the past 5 years, there have been no ELUR violations and CTDEEP has issued no enforcement actions. Renovations to the former Shaws Supermarket building, including utility work in preparation for the arrival of ShopRite, were overseen by CTDEEP and performed in compliance with the ELUR.

History of Contamination

The Facility, formerly named Raybestos – Manhattan Company, operated on the OU1 property from 1919 until 1989, when the plant was shut down and permanently closed. Raymark manufactured friction materials containing asbestos and non-asbestos components, metals, phenol-formaldehyde resins, and various adhesives. Primary products were gasket material, sheet packing, and friction materials including clutch facings, transmission plates, and brake linings. As a result of these manufacturing activities, soil at OU1 became contaminated with metals, asbestos, dioxins, and polychlorinated biphenyls (PCBs). Groundwater at OU1 became contaminated with volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and metals.

During the Facility's 70 years of operation, it was common practice to dispose of its manufacturing waste as "fill" material both at the Raymark Facility, and at various locations in Stratford. The manufacturing wastes from different plant operations were used to fill low-lying areas on-site to create additional space for Facility expansion. Based on aerial photographs and reported knowledge of Site activities, most of the on-site disposal occurred between 1919 and 1984, and progressed essentially from north to south, across the OU1 property. As a result of the disposal of these manufacturing wastes on the property, soils at the Facility became contaminated primarily with asbestos, dioxins, lead, copper, and PCBs. New buildings and parking areas were constructed over these filled areas as the manufacturing facility expanded. During this same time

frame, Raymark also offered manufacturing wastes as “free fill” to employees, residents, commercial properties, and the Town. Former Facility features are shown on Figure A-1.

During peak operations at the Facility, approximately two million gallons of water were used for plant processes each day. Municipal water was used for both contact and non-contact cooling water. During the 1970s, to supplement this source, Raymark installed an additional on-site supply well. The well, located in the northeastern corner of the Facility, was used for non-contact cooling water. Facility water was re-circulated, with some percentage re-injected into the on-site well; the remaining water and municipal water were discharged through the Facility’s drainage system.

While operational, the Facility was underlain by an extensive manmade drainage system network used to collect water and wastes from the manufacturing operations and divert them into the Facility storm drainage system, which also collected storm water runoff.

Wastewater was discharged to a series of four settling lagoons located in the southwestern corner of the Facility, and along the southern property boundary near Longbrook Avenue and the Barnum Avenue Cutoff. The wastewater consisted of wastewater from the acid treatment plant, wet dust collection, paper-making processes, non-contact cooling water, and the solvent recovery plant operations.

Solids were allowed to settle in Lagoon Nos. 1, 2, and 3 prior to the discharge of clarified wastewater and unsettled solids to Lagoon No. 4. Lagoon No. 4 discharged into Ferry Creek. Discharge of wastewater to Lagoon Nos. 1, 2, and 3 ceased in 1984. These lagoons were closed in December 1992 and January 1993. During the fall of 1994, storm water drainage that exited the Raymark Facility through Lagoon No. 4 was diverted around this lagoon and connected directly to the storm sewer. The storm sewer ultimately discharged to Ferry Creek. Lagoon No. 4 was closed in early 1995, prior to the placement of the permanent cap over the property.

During the operation of the lagoons, the settled material in the lagoons was periodically removed by dredging. During the Facility’s 70 years of operation, it was common practice to dispose of both this dredged lagoon waste and other manufacturing waste as fill material both at the Raymark Facility and at various locations throughout Stratford.

Numerous non-Facility (non-OU1) locations where Raymark waste was disposed of as “free fill” were determined to be contaminated with asbestos, lead, copper, and/or PCBs at levels that posed a potential threat to public health. To abate the potential health threat of waste at residential properties, residential locations were cleaned up under CERCLA time-critical removal actions from 1993 through 1995. The excavated material from these residential locations was placed under the permanent cap at the Raymark Facility during the OU1 Remedial Action. Raymark waste identified at one municipal property, Wooster Middle School, was also excavated, stored, and placed under the permanent cap at OU1.

Basis for Taking Action

EPA selected a source control remedy for OU1 to address contaminated soils beneath the 33.4-acre Facility. The entire 33.4 acres was contaminated with wastes from the manufacturing processes that took place at OU1 over the 70 years of operation. Additional waste from properties that received waste from the Facility over the years was also brought back onto the parcel. The selected remedy only addressed the contaminated soils. The groundwater under the former Raymark Facility was included in OU2. The overall Site chronology is presented in Section 2.0 and presents the history of the decisions made that led to the selection of the clean-up remedy for OU1. The field investigation work was undertaken at OU1 primarily during the early 1990s, from 1991 to 1995; however, because it was an operating RCRA facility, samples of the groundwater, lagoons, and other waste streams were sampled in the 1980s as well. The following provides an overview of the sampling that occurred at OU1 (HNUS 1995):

- Geologic Investigations – 1981 to 1993;
- Groundwater samples – 1981 to 1994 (subsequent sampling rounds have occurred up to 2005, but they were performed after the ROD was signed);
- Sediment samples – 1992;
- Soil samples – 1992 (chemical analysis);
- Building samples – 1992;
- Surface Water samples – 1993; and
- Tidal Study – 1994.

Based on these investigations and soil sampling results, a human health risk assessment (HHRA) for OU1 evaluated risks to workers and trespassers from incidental ingestion and direct contact

with soil and risks to on-site workers and nearby residents from inhalation of airborne dust and VOCs. The HHRA quantitative evaluation of soil exposures identified unacceptable cancer risks for industrial workers and trespassers ranging from 1.4×10^{-4} to 1.3×10^{-2} . PCBs, dioxins/furans, carcinogenic polycyclic aromatic hydrocarbons (PAHs), and trichloroethylene (TCE) were the principal contributors to cancer risk. Non-cancer hazard indices and hazard quotients for copper exceeded the target of 1 for industrial workers in the sewer easement area of OU1. The HHRA evaluated asbestos in soils qualitatively and concluded that asbestos contaminated soils at OU1 present a potential human health risk to on-property and off-property receptors. The HHRA evaluated lead in soils qualitatively and concluded that lead contaminated soils at OU1 present a potential human health risk. The HHRA also evaluated potential exposures to vapors and dust migrating off-property via the wind by individuals residing or working downwind of OU1 qualitatively and concluded that the potential exposure was limited by current conditions, but if site conditions were altered, there was a potential risk. The HHRA semi-quantitative evaluation of potential exposures to vapors (VOCs) within on-site existing or future buildings suggested a potential problem via this pathway.

The selected source control remedy addressed the unacceptable risks to human health posed by contaminants at OU1 by preventing direct contact exposures to soil and preventing inhalation exposures to airborne asbestos and VOCs.

This FYR is the fourth FYR for OU1 at the Raymark Site, based on the remedial action start date of September 1995.

C. REMEDIAL ACTIONS

This section describes the remedial actions selected for and implemented at OU1 as described in the ROD dated July 3, 1995 (EPA, 1995). An update on the remedy maintenance was provided verbally by Ronald Curran of the CTDEEP.

Remedy Selection

Remedial action objectives were developed for OU1 as part of the Final Source Control Feasibility Study (FS) for OU1. The objectives were developed to mitigate existing and future potential threats to human health and the environment identified in the HHRA. As summarized in the ROD, the remedial action objectives (RAOs) for OU1 were the following:

- To prevent human exposure (incidental ingestion and dermal contact) to the contaminated soil-waste materials;
- To minimize leaching of contaminants to groundwater from on-site source areas; and
- To prevent human exposure to contaminants in the buildings, process equipment, and subsurface drains.

Five source control alternatives were evaluated for OU1-Raymark Facility. Details of each are presented in the ROD. The selected remedy was designed to provide containment of contaminated soils, control leaching of contaminants to the groundwater, and protect against surface erosion. The remedy included decontamination, demolition, DNAPL removal, capping, and institutional controls. The remedy included the following components:

- Decontamination and demolition of all Raymark Facility buildings and structures;
- Backfilling low-lying areas within the Raymark Facility with demolition materials and/or with those materials placed on the Raymark Facility from the residential and Wooster Middle School excavations;
- Compaction and grading of the Site to provide the appropriate slope for the base of the cap;
- Capping of the Site with a RCRA Subtitle C multi-layered impermeable cap, including soil gas collection;
- Removal of highly concentrated pockets of liquid (solvent) contamination (DNAPL) from contact with groundwater from known areas;
- Ensuring the long-term integrity of the cap through an adequate O&M program and institutional controls (deed restrictions);

- Conducting routine monitoring of groundwater and surface water, and air monitoring at the Site; and
- Five-year reviews.

In addition, the ROD contained provisions for undertaking additional studies to further evaluate the extent of groundwater contamination beneath and migrating from the Raymark Facility. These studies were to determine whether this groundwater contamination is impacting, or may in the future impact, human and/or environmental receptors. The selected groundwater clean-up remedy will be addressed in a separate ROD as part of the groundwater cleanup (OU2). The status of this effort is described in Appendix C.

Details on completion of the OU1 remedy components are provided below. Additional details can be found in the *Remedial Action Report for the Raymark Industries, Inc. Superfund Site, Raymark Industries Manufacturing Plant, Operable Unit 1* (Foster Wheeler, 1999) or the *Basis of Design/Design Analysis Report* (Foster Wheeler, 1996).

Remedy Implementation

According to the Remedial Action Report (Foster Wheeler, 1999), the design of the remedial action began in May 1995 with the development of planning documents and design specifications for the demolition of the Raymark buildings. Design of the cap, the DNAPL and gas collection treatment facilities, and the groundwater monitoring wells began at approximately the same time. The EPA contracted with the U.S. Army Corps of Engineers (USACE) to complete the clean-up and stabilization of OU1, and the USACE chose Foster Wheeler Environmental Corporation (now Tetra Tech EC, Inc.) as the contractor to carry out the work, including the demolition and cap construction activities, and the operation of the cap and associated treatment and monitoring systems, for a specified period after the cap was completed (Foster Wheeler 1998).

Demolition of the on-site buildings began in September 1995 and was completed in April 1996. The ground improvement programs began in February 1996. The installation of the cap liner system began in October 1996, and the treatment system(s) construction began in November 1996. The cap liner system construction was completed in August 1997, and the final site grading work was completed in October 1997. All site work was complete in November 1997 for OU1. The

site systems began operating in December, 1997. The OU1 O&M began in 1998. In August 1998, the O&M of OU1 was turned over to the CTDEP (now CTDEEP). The implementation of each component of the remedy is described below.

System Operation/Operation and Maintenance

Because contaminants remain on-site, long-term groundwater and storm water monitoring are included in the remedy as described in the ROD. Monitoring of the cap cover, DNAPL collection system, and soil gas collection systems are also performed as part of the O&M of the remedy.

Groundwater sampling and monitoring began in 1995 by EPA prior to the construction of the shopping center. EPA transferred oversight authority for the groundwater sampling at OU1 and the other O&M activities to CTDEP (now CTDEEP) in late 1998.

To meet its O&M responsibilities, CTDEEP hired a consulting firm to perform the routine sampling, inspection, and monitoring tasks.

CTDEEP also developed agreements with the property owner and tenants for them to maintain and inspect certain aspects of the property. These agreements and the Site O&M activities are described in the O&M Manual.

As part of capping OU1, 53 post-closure groundwater monitoring wells were installed in 16 well clusters throughout OU1 (see Figure 3-5). However, one well (PC-2M) is no longer functional because a bladder pump is lodged into the well; therefore, there are only 52 functional wells. The purpose of the monitoring, according to the ROD, was to check the cap effectiveness, the quality of groundwater leaving the Facility, and potential impacts to down-gradient groundwater. As stated in the O&M Manual (Foster Wheeler, 1998), each well cluster consists of up to four wells of different depths—a shallow well, deep well, bedrock well, and in some cases an intermediate-depth well. Any wells that existed before OU1 were capped, decommissioned, and/or removed as part of the demolition activities prior to capping.

According to the O&M Manual, the new well locations were selected based on numerous factors, including historical groundwater contamination data, elevated levels of SVOCs and metals, the presence of DNAPLs, and migration pathways. In addition, wells were located at the perimeter of

OU1 in order to monitor groundwater flowing off of, and on to, OU1. The O&M Manual and subsequent amendments contain the recommended groundwater sampling schedules for OU1 over time. However, based on sampling data and monetary factors, CTDEEP has made a few modifications to the sampling schedule. The following is a summary of the monitoring well sampling schedule as indicated in Amendment #5 of the O&M Manual:

Current Practice:

Every nine months

Sampling of 12 wells (10 clusters: 9 shallow wells, one intermediate, two deep) for VOCs

Every Five Years

Sampling of the 52 functional wells for VOCs, SVOCs, PCBs, and metals

This schedule for long-term groundwater monitoring is consistent with the EPA guidance for the Optimization Groundwater Monitoring (40 CFR 265 RCRA Subpart F).

EPA conducted groundwater sampling in December 1997 in all 53 wells (note that one well is no longer in the program) and in November 1998 in selected wells. Subsequent sampling has been the responsibility of CTDEP (now CTDEEP). According to the Draft Initial Post-Remediation Groundwater Monitoring Report (M&E 1999), sampling was conducted in accordance with the Post Remediation Groundwater Monitoring Work Plan that was approved by CTDEP (now CTDEEP). The sampling round in August 1999 was considered the annual sampling event. Sampling for VOCs, SVOCs, and PCBs was performed at the wells recommended in the O&M Manual.

The next sampling event was a quarterly sampling event in April, 2000, for VOCs at 12 wells designated by CTDEEP (2 fewer than the 14 recommended in the O&M Manual, and documented in Amendment #1 in November 2005). Half of these wells sampled were those recommended in the O&M Manual, and half were not. Nine were shallow wells, one was intermediate, and two were deep. These 12 designated wells were sampled quarterly for VOCs through January 2003 and then semi-annually in October 2003 and 2004. In addition to the annual sampling conducted in August 1999, annual sampling events took place in April 2001; July 2002; April 2003; and April 2004. There was no annual sampling event in 2000. Sampling for VOCs, SVOCs, and PCBs was

performed at the wells recommended in the O&M Manual. Following the second FYR, VOCs sampling occurred annually in 2005, 2006, 2007, 2008, and 2009. Following the third FYR in 2010, VOCs sampling at 12 wells occurred every nine months. VOCs and monitored natural attenuation parameters were sampled in all 52 wells by EPA in 2014/2015. CTDEEP anticipates this frequency of sampling will continue in the future and that a full suite of analyses will be performed at 52 wells every five years. Any changes that CTDEEP makes to the sampling program are appended to Section 12.0 of the O&M Manual.

A P P E N D I X B

News Releases from Region 1

EPA Will Review 24 Hazardous Site Cleanups during 2015

Release Date: 01/05/2015

Contact Information: Emily Bender, 617-918-1037 

EPA will review site clean ups and remedies at 20 Superfund Sites and oversee reviews at 4 Federal Facilities across New England this year by doing scheduled Five-Year Reviews at each site.

EPA conducts evaluations every five years on previously-completed clean up and remediation work performed at Superfund sites and Federal Facilities listed on the "National Priorities List" (aka Superfund sites) to determine whether the implemented remedies at the sites continue to be protective of human health and the environment. Further, five year review evaluations identify any deficiencies to the previous work and, if called for, recommend action(s) necessary to address them.

The Superfund Sites where EPA will begin Five Year Reviews in FY' 2015 (October 1, 2014 through September 30, 2015) are below. Please note, the Web link provided after each site provides detailed information on the site status and past assessment and cleanup activity. The web link also provides contact information for the EPA Project Manager and Community Involvement Coordinator at each site. Community members and local officials are invited to contact EPA with any comments or current concerns about a Superfund Site or about the conclusions of the previous Five Year Review.

The Superfund Sites at which EPA is performing Five Year Reviews over the following several months include the following sites.

Connecticut

Durham Meadows, Durham

<http://www.epa.gov/region1/superfund/sites/durham>

Old Southington Landfill, Southington

<http://www.epa.gov/region1/superfund/sites/oldsouthington>

Raymark Industries, Stratford

<http://www.epa.gov/region1/superfund/sites/raymark>

Solvents Recovery Services of New England, **Southington**

<http://www.epa.gov/region1/superfund/sites/srs>

Maine

Brunswick Naval Air Station (Federal Facility), Brunswick

<http://www.epa.gov/region1/superfund/sites/brunswick>

Callahan Mining Corp., Brooksville

<http://www.epa.gov/region1/superfund/sites/callahan>

Eastland Woolen Mill, Corinna

<http://www.epa.gov/region1/superfund/sites/eastland>

Loring Air Force Base (Federal Facility), Limestone

<http://www.epa.gov/region1/superfund/sites/loring>

Pinette's Salvage Yard, Washburn

<http://www.epa.gov/region1/superfund/sites/pinette>

Saco Municipal **Landfill**, Saco

<http://www.epa.gov/region1/superfund/sites/sacolandfill>

Massachusetts

Atlas Tack Corp., Fairhaven

<http://www.epa.gov/region1/superfund/sites/atlas>

Cannon Engineering Corp., Bridgewater

<http://www.epa.gov/region1/superfund/sites/cannon>

Charles-George Reclamation Trust **Landfill**, Tyngsborough

<http://www.epa.gov/region1/superfund/sites/charlesgeorge>

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Recent additions

- 05/29/2015 [On 20th Anniversary of Effort, EPA Gives Charles River a B+ and Publishes Live Water Quality Data](#)
- 05/28/2015 [EPA Awards \\$10.3 Million to Clean Up New England Brownfield Sites, Protect Health in Communities](#)
- 05/27/2015 [With Summer's Arrival, Reminder About Woonasquatucket River "Do's and Don'ts" and Update on EPA Efforts](#)
- 05/26/2015 [Company Provides Emergency Response Equipment for Fall River, Mass. following EPA Enforcement](#)
- 05/20/2015 [Claremont, N.H. Auto Dealer Settles with EPA for Oil Spill](#)

Fort Devens (Federal Facility), Ayer, Harvard, Lancaster & Shirley
<http://www.epa.gov/region1/superfund/sites/devens>

Groveland Wells No. 1 & 2 Site, Groveland
<http://www.epa.gov/region1/superfund/sites/groveland>

Materials Technology Laboratory (US ARMY, Federal Facility), Watertown
<http://www.epa.gov/region1/superfund/sites/amtl>

New Bedford Harbor, New Bedford
www.epa.gov/nbh

PSC Resources, Palmer
<http://www.epa.gov/region1/superfund/sites/psc>

New Hampshire

Somersworth Sanitary **Landfill**, Somersworth
<http://www.epa.gov/region1/superfund/sites/somersworth>

South Municipal Water Supply Well (Five Year Review Addendum), Peterborough
<http://www.epa.gov/region1/superfund/sites/southmuni>

Troy Mills **Landfill**, Troy
<http://www.epa.gov/region1/superfund/sites/troymills>

Rhode Island

Stamina Mills Inc., North Smithfield
<http://www.epa.gov/region1/superfund/sites/stamina>

West Kingston Town Dump/URI Disposal Area, South Kingstown
<http://www.epa.gov/region1/superfund/sites/wkingston>

Vermont

Burgess Brothers **Landfill**, Woodford and Bennington
<http://www.epa.gov/region1/superfund/sites/burgess>

Last updated on 6/2/2015

INTERVIEW RECORD		
Site Name: Raymark Industries, Inc. Superfund Site		EPA ID No.: CTD001186618
Subject: Fourth Five-Year Review (2015)		Time: Date: 3/31/15
Type: ☐ Telephone ☐ Visit ☐ Other Location of Visit: OU1		☐ Incoming ☐ Outgoing
Contact Made By:		
Name: Deb Chisholm	Title: Project Scientist	Organization: Nobis Engineering, Inc.
Individual Contacted:		
Name: Ronald Curran	Title: Project Manager	Organization: Connecticut Department of Energy and Environmental Protection
Telephone No: 860-424-3764		Street Address: 79 Elm Street
E-Mail Address: Ronald.Curran@ct.gov		City, State, Zip: Hartford, CT 06106-5127
Summary Of Conversation		
Q1: What is your overall impression of the project and site? A1: The Raymark OU1 site is performing as designed. It continues to be protective of public health and the environment. Q2: Are you aware of any issues the five-year review should focus on? A2: No. Not as related to OU1. Q3: Are there changes to State laws/regulations that could impact the remedies' protectiveness? A3: No. Q4: Please describe any complaints or violations or other event requiring CTDEEP response. A4: Shoprite was disposing of milk products into the Dumpster (yogurt, cheese, ice cream, etc.) then compacting the garbage. Milk itself was poured down the sink to the sanitary sewer resulting in subsequent discharge to stormwater drain, and the smell of sour milk. Q5: Are the remedies functioning as intended? A5: Yes. Q6: Have there been any problems encountered with the remedies or deviations from established plans? A6: Enhanced SGC system no longer requires treatment, but not a problem. NAPL extraction continues to be low. Blowers and motors need maintenance more often. Sump pump floats are not working great; A NAPL recovery well has a kink. OU5 continues to be an interim remedy. Q7: Please describe any significant changes in O&M activities or sampling processes in the previous five years. A7: An amendment to the O&M manual was issued, detailing the changes. Q8: Has CTDEEP been informed of any issues or problems associated with the Site? A8: Not with OU1. The river edge armoring needs to be improved at OU5 and there is also a broken water line. The broken water line is not in the clean corridor, the leak was detected within the secondary containment piping so the break must be in the RW waste area as that is the only portion of the waterline that has secondary containment. HBC has contacted CTDEEP to discuss design and implementation of corrective actions. Repairs are anticipated this summer (2015). A residential soil removal property on Third Ave was subdivided and needs catch basin work performed by the Town.		

INTERVIEW RECORD

Site Name: Raymark Industries, Inc. Superfund Site		EPA ID No.: CTD001186618	
Subject: Fourth Five-Year Review (2015)		Time:	Date:
Type: ☐ Telephone ☐ Visit ☐ Other		☐ Incoming ☐ Outgoing	
Location of Visit:			
Contact Made By:			
Name: Deb Chisholm		Title: Project Scientist	
Organization: Nobis Engineering, Inc.			
Individual Contacted:			
Name: Mark Quiriconi		Title: property/business owner	
Organization: Town of Stratford, CT			
Telephone No: 203-375-5261 Fax No: E-Mail Address: rotski15@hotmail.com		Street Address: 300 Ferry Boulevard City, State, Zip: Stratford, CT, 06615	
Summary Of Conversation			
Q1: What is your overall impression of the project and Site? A1: <i>wasting alot of time.</i> Q2: Are you aware of any issues the five-year review should focus on? A2: <i>other then possible clean up</i> Q3: What effects have Site operations had on the surrounding community? A3: <i>NOT BEING ABLE TO DEVELOP & IMPROVE.</i> Q4: Are you aware of any community concerns regarding the Site or its operations and administration? A4: <i>NOT BEING ABLE TO FINISH PROJECT</i> Q5: Are you aware of any events, incidents, or activities at the Site such as vandalism or emergency responses from local authorities? If so, please give details. A5: <i>on my property I couldn't even improve parking lot fill pot holes or cracks without a permission</i> Q6: Are you aware of any changes in the Site or surrounding property in the last 5 years, or whether any changes are planned? A6: <i>I HAVE seen No changes / with no developments</i> Q7: Do you have any comments, suggestions, or recommendations regarding the project? A7: <i>I would suggest getting the BUSINESS INVOLVED and that are affected by the project & get the mayors on one side to go up against the opping sides</i>			

INTERVIEW RECORD		
Site Name: Raymark Industries, Inc. Superfund Site		EPA ID No.: CTD001186618
Subject: Fourth Five-Year Review (2015)		Time: Date:
Type: ☐ Telephone ☐ Visit ☐ Other Location of Visit:		☐ Incoming ☐ Outgoing
Contact Made By:		
Name: Deb Chisholm	Title: Project Scientist	Organization: Nobis Engineering, Inc.
Individual Contacted:		
Name: James Donegan	Title: Commodore	Organization: Housatonic Boat Club
Telephone No: 203-877-3463 Fax No: E-Mail Address: JRDonegan@aol.com		Street Address: Shore Road City, State, Zip: Stratford, CT 06615
Summary Of Conversation		
Q1: What is your overall impression of the project and Site? A1: Excellent - The answers to all of the questions on this survey pertain only to the Housatonic Boat Club property. Q2: Do you feel well informed about the Site's activities and progress? A2: Yes Q3: What effects have Site operations had on the surrounding community? A3: Unknown Q4: Are you aware of any community concerns regarding the Site or its operations and administration? A4: Not aware of any Q5: Are you aware of any events, incidents, or activities at the Site such as vandalism or emergency responses from local authorities? If so, please give details. A5: Not to our knowledge Q6: Are you aware of any changes in the Site or surrounding property in the last 5 years, or whether any changes are planned? A6: No changes in last 5 years and none planned Q7: Do you have any comments, suggestions, or recommendations regarding the project? A7: None		

INTERVIEW RECORD		
Site Name: Raymark Industries, Inc. Superfund Site		EPA ID No.: CTD001186618
Subject: Fourth Five-Year Review (2015)		Time:
Date:		
Type: ☐ Telephone ☐ Visit ☐ Other		☐ Incoming ☐ Outgoing
Location of Visit:		
Contact Made By:		
Name: Deb Chisholm	Title: Project Scientist	Organization: Nobis Engineering, Inc.
Individual Contacted:		
Name: Andrea Boissevain	Title: Health Director	Organization: Town of Stratford, CT
Telephone No: 203-385-4090 Fax No: 203-381-2048 E-Mail Address: aboissevain@townofstratford.com		Street Address: 468 Birdseye St. City, State, Zip: Stratford, CT 06615
Summary Of Conversation		
Q1: What is your overall impression of the project and Site? A1: With 9 Operational Units, this is a huge site. And the project has gone on for far too long. With each resurgence of activity comes another cohort of residents who need to be brought up to speed on the project history. It's our role to be involved in outreach and education, but it would be great to have the comprehensive plan in place and in motion. On a positive note, the most recent component, the Airport Improvement project, has gone very smoothly. It demonstrated that multiple agencies can work together and communicate with the community. And the air monitoring component provided evidence for the community that the excavation work could be done in a safe manner. Ferry Creek still has areas where brakes parts are visible at the surface on its banks. Q2: Are you aware of any issues the five-year review should focus on? A2: Checking on the residential properties with residual waste in place was brought up Nobis. This has not been done in the past, but maybe it should. It allows for the agencies to "check in" on those properties, maybe confirm that if the house had been sold in the interim that the current owners are aware of digging restrictions. Any changes to properties or additional documentation should be communicated/shared with the Health Department so that the electronic database it maintains can be updated. For instance, if those residential properties that are "checked", and a document is provided, we should have it on file here as well. We are working with EPA to establish some institutional controls for those homes with and without sub-slab ventilation systems, making the information more public. The Town has agreed to send letters to both sets of homeowners in the interim years between EPA's 5-year Review. Q3: What effects have Site operations had on the surrounding community? A3: While not a specific OU, under the original Superfund project, the Airport Improvement project impacted the Lordship community due to the road closure. But because various agencies, faith-based organizations, citizen groups, contractors, etc. worked together to get the information out to the public, it went smoothly, despite the fact that the road was closed for nearly 7 months. At this point, there are no other site operations, per se, to comment on. If EPA returns to conduct feasibility study on OU7 & 8, then we'll have to get a communication team in place again. Q4: Are you aware of any community concerns regarding the Site or its operations and administration?		

A4: It appears that OU1 has been maintained well by the site owners. Bus and heavy truck traffic has been kept at a minimum over the years so as to minimally impact the cap. The property that is potentially most exposed is the vacant Lockwood Avenue property, part of OU6. The bridge at the corner of Broad Street and Ferry Boulevard does have a sign with a Health Advisory warning on it, but that refers to warning about the creek itself and the sediment.

Q5: Are you aware of any events, incidents, or activities at the Site such as vandalism or emergency responses from local authorities? If so, please give details.

A5: The Ballfield (OU4) has had numerous incidents of bulk waste (washers/dryers/vehicles) that have abandoned and piled up on the asphalted area. Also, the vegetative growth on the site is so massive, the integrity of the cap may be compromised. A fire occurred in a vehicle several years back, but was quickly addressed. Because the site had the intact temporary cap, there was no real opportunity for exposure (to Raymark waste)

Q6: Are you aware of any changes in the Site or surrounding property in the last 5 years, or whether any changes are planned?

A6: The landfill had received asphalt pilings and was used as a storage area with some truck traffic.

Q7: Do you have any comments, suggestions, or recommendations regarding the project?

A7: The EPA needs to move quickly to complete their current feasibility plan and move towards a final remedy for the Raymark NPL. It would be detrimental to the community if this process were to stall again since it appears that the Town and EPA are finally willing to move forward on the project.

Site Inspection Checklist

I. SITE INFORMATION	
Site name: Raymark Industries, Inc. Site	Date of inspection: March 30 and 31, 2015
Location and Region: Stratford, CT – Region 1	EPA ID: CTD001186618
Agency, office, or company leading the five-year review: EPA	Weather/temperature: 42°, windy, sunny
Remedy Includes: (Check all that apply) ☒ Landfill cover/containment ☒ Access controls ☒ Institutional controls ☐ Groundwater pump and treatment ☐ Surface water collection and treatment ☐ Other: ☐ Monitored natural attenuation ☐ Groundwater containment ☐ Vertical barrier walls	
Attachments: ☐ Inspection team roster attached ☐ Site map attached ☐ Site photographs	
II. INTERVIEWS (Check all that apply)	
1. O&M site manager <u>Ron Curran, CTDEEP</u>	
Name	Title
Date	
Interviewed ☐ at site ☐ at office ☐ by phone Phone no. _____ Problems, suggestions; ☐ Report attached <u>Separate interview form in Appendix B of the Five Year Review</u>	
2. O&M Staff _____	
Name	Title
Date	
Interviewed ☐ at site ☐ at office ☐ by phone Phone no. _____ Problems, suggestions; ☐ Report attached _____	
3. Local regulatory authorities and response agencies (i.e., State and Tribal offices, emergency response office, police department, office of public health or environmental health, zoning office, recorder of deeds, or other city and county offices, etc.) Fill in all that apply. No interviews of local authorities were performed during the site inspection. Agency: _____ Contact: _____ Name Title Date Phone no. Problems; suggestions; ☐ Report attached _____	
4. Other interviews (optional) ☐ Report attached. No other interviews were performed during the site inspection. Other interviews were documented on Interview Forms contained in Appendix B of the Five Year Review.	

III. ON-SITE DOCUMENTS & RECORDS VERIFIED (Check all that apply)

1. **O&M Documents**
☒ O&M manual ☒ Readily available ☒ Up to date ☐ N/A
☒ As-built drawings ☒ Readily available ☐ Up to date ☐ N/A
☒ Maintenance logs ☒ Readily available ☒ Up to date ☐ N/A
Remarks: _____
2. **Site-Specific Health and Safety Plan** ☐ Readily available ☐ Up to date ☐ N/A
☐ Contingency plan/emergency response plan ☐ Readily available ☐ Up to date ☐ N/A
Remarks: Not reviewed _____
3. **O&M and OSHA Training Records** ☒ Readily available ☐ Up to date ☐ N/A
Remarks: Not reviewed _____
4. **Permits and Service Agreements**
☒ Air discharge permit ☐ Readily available ☐ Up to date ☐ N/A
☐ Effluent discharge ☐ Readily available ☐ Up to date ☐ N/A
☐ Waste disposal, POTW ☐ Readily available ☐ Up to date ☒ N/A
☐ Other permits _____ ☐ Readily available ☐ Up to date ☒ N/A
Remarks: Air monitoring reports reviewed – no exceedances _____
5. **Gas Generation Records** ☒ Readily available ☐ Up to date ☐ N/A
Remarks: _____
6. **Settlement Monument Records** ☐ Readily available ☐ Up to date ☐ N/A
Remarks: 4 settlement monuments on the property aren't surveyed _____
7. **Groundwater Monitoring Records** ☒ Readily available ☒ Up to date ☐ N/A
Remarks: _____
8. **Leachate Extraction Records** ☐ Readily available ☐ Up to date ☒ N/A
Remarks: _____
9. **Discharge Compliance Records**
☒ Air ☐ Readily available ☒ Up to date ☐ N/A
☒ Water (effluent) ☐ Readily available ☐ Up to date ☐ N/A
Remarks: Stormwater discharge compliance records not reviewed. Current stormwater quality unit inspection report reviewed. _____
10. **Daily Access/Security Logs** ☐ Readily available ☐ Up to date ☒ N/A
Remarks: _____

IV. O&M COSTS

1. **O&M Organization**

- ☐ State in-house ☒ Contractor for State
☐ PRP in-house ☐ Contractor for PRP
☐ Federal Facility in-house ☐ Contractor for Federal Facility
☐ Other _____

2. **O&M Cost Records**

- ☒ Readily available ☒ Up to date
☐ Funding mechanism/agreement in place
Original O&M cost estimate _____ ☐ Breakdown attached

Total annual cost by year for review period if available

Year	O&M Costs
2010 – 2011	\$158,183.00
2011 – 2012	\$163,237.00
2012 – 2013	\$163,035.00
2013 – 2014	\$217,412.00
2014 – 2015	\$262,000.00 (estimate)

3. **Unanticipated or Unusually High O&M Costs During Review Period**

Describe costs and reasons: ____ O&M costs include OU1 and OU2. Recent costs include both comprehensive GW sampling event and SSD system inspections leading to higher costs.

V. ACCESS AND INSTITUTIONAL CONTROLS ☐ Applicable ☐ N/A

A. Fencing

1. **Fencing damaged** ☐ Location shown on Site map ☐ Gates secured ☐ N/A

Remarks: no damage evident. Site is a retail center open to the public.

B. Other Access Restrictions

1. **Signs and other security measures** ☐ Location shown on site map ☒ N/A

Remarks: _____

C. Institutional Controls (ICs)**1. Implementation and enforcement**

Site conditions imply ICs not properly implemented

☐ Yes ☒ No ☐ N/A

Site conditions imply ICs not being fully enforced

☐ Yes ☒ No ☐ N/A

Type of monitoring (e.g., self-reporting, drive by) _annual cap inspections, annual pavement improvements

Frequency _____

Responsible party/agency __CTDEEP and property owners_____

Contact __Ron Curran_____

CTDEEP PM _____

860-424-3764

Name

Title

Date

Phone no.

Reporting is up-to-date

☒ Yes ☐ No ☐ N/A

Reports are verified by the lead agency

☒ Yes ☐ No ☐ N/A

Specific requirements in deed or decision documents have been met

☒ Yes ☐ No ☐ N/A

Violations have been reported

☐ Yes ☒ No ☐ N/AOther problems or suggestions: ☐ Report attached**2. Adequacy**☒ ICs are adequate☐ ICs are inadequate☐ N/A

Remarks _____

D. General**1. Vandalism/trespassing**☐ Location shown on site map☐ No vandalism evident

Remarks: Some graffiti has been seen on the treatment buildings and removed. Graffiti-resistant paint applied to treatment buildings.

2. Land use changes on site☒ N/A

Remarks _____

3. Land use changes off site☒ N/A

Remarks _____

VI. GENERAL SITE CONDITIONS**A. Roads**☒ Applicable☐ N/A**1. Roads damaged**☐ Location shown on site map☒ Roads adequate☐ N/A

Remarks_ _____

B. Other Site Conditions

Remarks: Site is a retail shopping area open to the public. CTDEEP is diligent about ensuring the integrity of the cap.

VII. LANDFILL COVERS ☒ Applicable ☐ N/A**A. Landfill Surface – A RCRA cap is in place at OU1 and is evaluated using the criteria below.**

1. **Settlement** (Low spots) ☐ Location shown on site map ☒ Settlement not evident
Areal extent _____ Depth _____
Remarks _____

2. **Cracks** ☐ Location shown on site map ☐ Cracking not evident
Lengths _____ Widths _____ Depths _____
Remarks: Pavement is repaired annually by repaving approximately 1/5 of the paved area each year. Some minor cracking is evident, although not expected to reduce the effectiveness of the cap.

3. **Erosion** ☐ Location shown on site map ☒ Erosion not evident
Areal extent _____ Depth _____
Remarks: Previous area of erosion on east side of cap had been repaired.

4. **Holes** ☐ Location shown on site map ☒ Holes not evident
Areal extent _____ Depth _____
Remarks _____

5. **Vegetative Cover** ☒ Grass ☐ Cover properly established ☒ No signs of stress
☐ Trees/Shrubs (indicate size and locations on a diagram)
Remarks: Grass is in good condition

6. **Alternative Cover (armored rock, concrete, etc.)** ☒ N/A
Remarks _____

7. **Bulges** ☐ Location shown on site map ☒ Bulges not evident
Areal extent _____ Height _____
Remarks _____

8. **Wet Areas/Water Damage** ☒ Wet areas/water damage not evident
☐ Wet areas ☐ Location shown on site map Areal extent _____
☐ Ponding ☐ Location shown on site map Areal extent _____
☐ Seeps ☐ Location shown on site map Areal extent _____
☐ Soft subgrade ☐ Location shown on site map Areal extent _____
Remarks _____

9. **Slope Instability** ☐ Slides ☐ Location shown on site map ☒ No evidence of slope instability
Areal extent _____
Remarks _____

B. Benches☐ Applicable ☒ N/A

(Horizontally constructed mounds of earth placed across a steep landfill side slope to interrupt the slope in order to slow down the velocity of surface runoff and intercept and convey the runoff to a lined channel.)

- | | | | |
|----|--|---|--------------------------------------|
| 1. | Flows Bypass Bench
Remarks _____ | ☐ Location shown on site map | ☐ N/A or okay |
| 2. | Bench Breached
Remarks _____ | ☐ Location shown on site map | ☐ N/A or okay |
| 3. | Bench Overtopped
Remarks _____ | ☐ Location shown on site map | ☐ N/A or okay |

C. Letdown Channels☐ Applicable ☒ N/A

(Channel lined with erosion control mats, riprap, grout bags, or gabions that descend down the steep side slope of the cover and will allow the runoff water collected by the benches to move off of the landfill cover without creating erosion gullies.)

- | | | | |
|----|--|---|--|
| 1. | Settlement
Areal extent _____ Depth _____
Remarks _____ | ☐ Location shown on site map | ☐ No evidence of settlement |
| 2. | Material Degradation
Material type _____ Areal extent _____
Remarks _____ | ☐ Location shown on site map | ☐ No evidence of degradation |
| 3. | Erosion
Areal extent _____ Depth _____
Remarks _____ | ☐ Location shown on site map | ☐ No evidence of erosion |
| 4. | Undercutting
Areal extent _____ Depth _____
Remarks _____ | ☐ Location shown on site map | ☐ No evidence of undercutting |
| 5. | Obstructions Type _____
☐ No obstructions
☐ Location shown on site map Areal extent _____
Size _____
Remarks _____ | | |
| 6. | Excessive Vegetative Growth Type _____
☐ No evidence of excessive growth
☐ Vegetation in channels does not obstruct flow
☐ Location shown on site map Areal extent _____
Remarks _____ | | |

D. Cover Penetrations ☐ Applicable ☐ N/A

1. **Gas Vents** ☐ Active ☐ Passive
☐ Properly secured/locked ☐ Functioning ☒ Routinely sampled ☒ Good condition
☐ Evidence of leakage at penetration ☐ Needs Maintenance
☐ N/A
Remarks _____

2. **Gas Monitoring Probes**
☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition
☐ Evidence of leakage at penetration ☐ Needs Maintenance ☒ N/A
Remarks _____

3. **Monitoring Wells** (within surface area of landfill)
☒ Properly secured/locked ☐ Functioning ☒ Routinely sampled ☒ Good condition
☐ Evidence of leakage at penetration ☐ Needs Maintenance ☐ N/A
Remarks: 1 of 53 wells does not function because of a pump stuck in the well. The remaining wells function properly.

4. **Leachate Extraction Wells**
☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition
☐ Evidence of leakage at penetration ☐ Needs Maintenance ☒ N/A
Remarks _____

5. **Settlement Monuments** ☐ Located ☐ Routinely surveyed ☐ N/A
Remarks: The 4 settlement monuments are not routinely surveyed.

E. Gas Collection and Treatment ☒ Applicable ☐ N/A

1. **Gas Treatment Facilities**
☐ Flaring ☐ Thermal destruction ☐ Collection for reuse
☐ Good condition ☐ Needs Maintenance
Remarks: thermal and carbon treatment no longer performed. Monitoring of gas is performed and results are below criteria.

2. **Gas Collection Wells, Manifolds and Piping**
☒ Good condition ☐ Needs Maintenance
Remarks: Not inspected. CTDEEP contractor did not indicate any problems with the soil gas collection systems.

3. **Gas Monitoring Facilities** (e.g., gas monitoring of adjacent homes or buildings)
☐ Good condition ☐ Needs Maintenance ☒ N/A
Remarks _____

F. Cover Drainage Layer		☐ Applicable	☒ N/A
1.	Outlet Pipes Inspected	☐ Functioning	☒ N/A
Remarks _____			
2.	Outlet Rock Inspected	☐ Functioning	☒ N/A
Remarks _____			
G. Detention/Sedimentation Ponds		☐ Applicable	☒ N/A
1.	Siltation	Areal extent _____ Depth _____	☐ N/A
☐ Siltation not evident			
Remarks _____			
2.	Erosion	Areal extent _____ Depth _____	
☐ Erosion not evident			
Remarks _____			
3.	Outlet Works	☐ Functioning	☐ N/A
Remarks _____			
4.	Dam	☐ Functioning	☐ N/A
Remarks _____			
H. Retaining Walls		☐ Applicable	☒ N/A
1.	Deformations	☐ Location shown on site map	☐ Deformation not evident
Horizontal displacement _____		Vertical displacement _____	
Rotational displacement _____			
Remarks _____			
2.	Degradation	☐ Location shown on site map	☐ Degradation not evident
Remarks _____			

I. Perimeter Ditches/Off-Site Discharge		☐ Applicable ☒ N/A
1.	Siltation Areal extent _____ Depth _____ Remarks _____	☐ Location shown on site map ☒ Siltation not evident
2.	Vegetative Growth ☐ Vegetation does not impede flow Areal extent _____ Type _____ Remarks _____	☐ Location shown on site map ☐ N/A
3.	Erosion Areal extent _____ Depth _____ Remarks _____	☐ Location shown on site map ☐ Erosion not evident
4.	Discharge Structure ☐ Functioning ☐ N/A Remarks _____	
VIII. VERTICAL BARRIER WALLS		
		☐ Applicable ☒ N/A
1.	Settlement Areal extent _____ Depth _____ Remarks _____	☐ Location shown on site map ☐ Settlement not evident
2.	Performance Monitoring Type of monitoring _____ ☐ Performance not monitored Frequency _____ ☐ Evidence of breaching Head differential _____ Remarks _____	
IX. GROUNDWATER/SURFACE WATER REMEDIES		
		☐ Applicable ☒ N/A
A. Groundwater Extraction Wells, Pumps, and Pipelines		
		☐ Applicable ☐ N/A
1.	Pumps, Wellhead Plumbing, and Electrical ☐ Good Condition ☐ All required wells properly operating ☐ Needs Maintenance ☐ N/A Remarks _____	
2.	Extraction System Pipelines, Valves, Valve Boxes and Other Appurtenances ☐ Good Condition ☐ All required wells properly operating ☐ Needs Maintenance ☐ N/A Remarks _____	
3.	Spare parts and Equipment ☐ Readily Available ☐ Good Condition ☐ Requires Upgrade ☐ Needs to be provided Remarks _____	

B. Surface Water Collection Structures, Pumps, and Pipelines		☐ Applicable ☐ N/A
1.	Collection Structures, Pumps, and Electrical ☐ Good Condition ☐ Needs Maintenance Remarks _____ _____	
2.	Surface Water Collection System Pipelines, Valves, Valve Boxes and Other Appurtenances ☐ Good Condition ☐ Needs Maintenance Remarks _____ _____	
3.	Spare parts and Equipment ☐ Readily Available ☐ Good Condition ☐ Requires Upgrade ☐ Needs to be provided Remarks _____ _____	
C. Treatment System		☐ Applicable ☐ N/A
1.	Treatment Train (Check components that apply) ☐ Metals removal ☐ Air stripping ☐ Filters ☐ Additive (e.g., chelation agent, flocculent) ☐ Others ☐ Oil/water separation ☐ Carbon adsorbers ☐ Bioremediation ☐ Good condition ☐ Needs Maintenance ☐ Sampling ports properly marked and functional ☐ Sampling/maintenance log displayed and up to date ☐ Equipment properly identified ☐ Quantity of groundwater treated annually _____ ☐ Quantity of surface water treated annually _____ Remarks: Thermal and carbon treatment have been discontinued _____ _____	
2.	Electrical Enclosures and Panels (properly rated and functional) ☐ N/A ☐ Good condition ☐ Needs Maintenance Remarks _____ _____	
3.	Tanks, Vaults, Storage Vessels ☐ N/A ☐ Good condition ☐ Proper secondary containment ☐ Needs Maintenance Remarks _____ _____	
4.	Discharge Structure and Appurtenances ☐ N/A ☐ Good condition ☐ Needs Maintenance Remarks _____ _____	
5.	Treatment Building(s) ☐ N/A ☒ Good condition (esp. roof and doorways) ☐ Needs repair ☐ Chemicals and equipment properly stored Remarks _____ _____	

6. **Monitoring Wells** (pump and treatment remedy)
☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition
☐ All required wells located ☐ Needs Maintenance ☐ N/A
Remarks: _____

D. Monitoring Data

1. Monitoring Data
☐ Is routinely submitted on time ☐ Is of acceptable quality
2. Monitoring data suggests:
☐ Groundwater plume is effectively contained ☐ Contaminant concentrations are declining

D. Monitored Natural Attenuation

1. **Monitoring Wells** (natural attenuation remedy)
☐ Properly secured/locked ☐ Functioning ☐ Routinely sampled ☐ Good condition
☐ All required wells located ☐ Needs Maintenance ☒ N/A
Remarks: _____

X. OTHER REMEDIES

If there are remedies applied at the site which are not covered above, attach an inspection sheet describing the physical nature and condition of any facility associated with the remedy. An example would be soil vapor extraction.

XI. OVERALL OBSERVATIONS

A. Implementation of the Remedy

Describe issues and observations relating to whether the remedy is effective and functioning as designed. Begin with a brief statement of what the remedy is to accomplish (i.e., to contain contaminant plume, minimize infiltration and gas emission, etc.).
The source control (cap) remedy is effective in preventing direct contact with waste materials and reducing infiltration of precipitation to prevent leaching of contaminants into groundwater.

B. Adequacy of O&M

O&M continues to be effective and consistent.

C. Early Indicators of Potential Remedy Problems

Describe issues and observations such as unexpected changes in the cost or scope of O&M or a high frequency of unscheduled repairs, which suggest that the protectiveness of the remedy may be compromised in the future.

There were no indications of potential remedy problems

D. Opportunities for Optimization

Documents Reviewed/References

Groundwater Monitoring Reports

- AECOM, 2011. Former Raymark Industries Site, Stratford, Connecticut, Post-Remediation Groundwater Monitoring Report – November 2010. February.
- AECOM, 2011. Former Raymark Industries Site, Stratford, Connecticut, Post-Remediation Groundwater Monitoring Report – August 2011. December.
- AECOM, 2012. Former Raymark Industries Site, Stratford, Connecticut, Post-Remediation Groundwater Monitoring Report – May 2012. August 14.
- AECOM, 2013. Former Raymark Industries Site, Stratford, Connecticut, Post-Remediation Groundwater Monitoring Report – February 2013. September.
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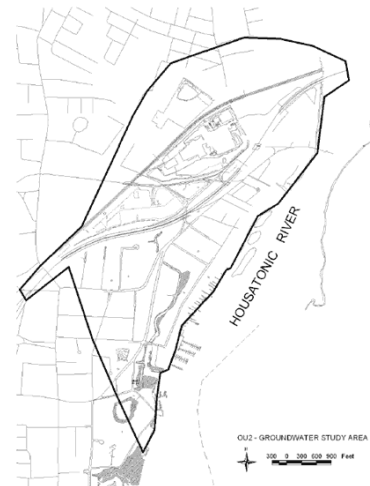
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A P P E N D I X C

OPERABLE UNIT 2

OU2 encompasses the groundwater beneath approximately 500 acres in Stratford, including the Raymark OU1 Site. The OU1 source control remedy only addressed the contaminated soils, and the groundwater beneath OU1 was included in the OU2 investigation. Approximately half of the 500 acres are zoned as commercial, containing highways and business activities; the remaining area includes residences and water bodies. The focus of OU2 investigation is groundwater contaminated with VOCs and metals that appear to be attributable to the former Raymark Facility. No soils or sediments are included in this OU.



The OU2 study area is bounded by the Housatonic River to the east; just north of Selby Pond to the south; Interstate-95 (I-95)/Blakeman Place to the southwest; Patterson Avenue to the northwest; and the East Main Street/Dock Shopping Center to the north. Most of the 500-acre OU2 study area is down-gradient of the former Raymark Facility and includes areas that may have been affected by wastewater discharge, surface water runoff, direct deposition of manufacturing waste, and groundwater contaminant migration from the former Raymark Facility. A portion of the OU2 study area includes an area where VOCs were found to be impacting indoor air.

A Draft Final Remedial Investigation (RI) Study was completed in November, 2000 (TtNUS, 2000). Additional information was collected in 2002 and 2003 in order to fill data gaps identified in the Draft Final RI. EPA issued a Final RI report in January 2005 describing contamination and potential health risks for OU2 (TtNUS, 2005).

The RI report identified six source areas for groundwater contamination, including four from the former Raymark Facility, one that is up-gradient from the Facility, and one from Raymark waste located on a different property. The ultimate fate of the contaminant plumes from these sources is Ferry Creek or the Housatonic River. Since groundwater is not used as a drinking water source, the primary pathways of potential human risks are inhalation of volatiles present in indoor air due to volatilization of groundwater contaminants through building foundations, direct contact with surface water contamination from migration of groundwater to Ferry Creek, and

OPERABLE UNIT 2

ingestion of shellfish from Ferry Creek that may be contaminated from the migration of groundwater.

In the fall of 2009, EPA conducted a comprehensive groundwater sampling program for OU2 including 552 wells/borings and covering over 500 acres including the OU1 property. The results of the 2009/2010 investigation were compared to the 2002/2003 soil gas and groundwater data in the RI Update Report (Nobis, 2014). The comparison and updated toxicity factors were used to document the changes in potential human health and environmental risks associated with contaminants from the former Raymark facility.

Supplemental field investigations were performed in 2012 and 2013 including soil boring and monitoring well installation and soil and groundwater sampling for evaluation of nature and extent of shallow contamination southeast of the former Raymark facility; groundwater sampling at existing and new wells for vapor intrusion pathway evaluation; sub-slab soil gas and indoor air sampling at commercial and residential properties for vapor intrusion pathway evaluation and indoor air risk calculations; and downhole geophysical survey of the former Raymark facility DNAPL recovery wells to evaluate their condition and potential for potential future use in a cleanup remedy. This information was documented in an addendum to the RI Update report, issued in May 2015. Additional groundwater sampling was performed in 2014/2015. Results of that sampling events will be compiled in a standalone document to be issued in 2015. A draft OU2 Feasibility Study (FS) was issued in May 2015.

Sub Slab Depressurization Systems

Results of the 2002/2003 investigations, documented in the 2005 RI Report, showed that residential homes near the Raymark Facility are located above a groundwater plume, and volatile organic compound concentrations in both shallow and deep groundwater are above the State of Connecticut volatilization criteria. Sampling results confirmed the presence of site-related VOCs inside residential homes. As a result of these studies, 121 homes located within the study area were offered sub slab depressurization systems (SSD); in 2003 and 2004 sub slab depressurization systems were installed in 106 homes (15 refused systems). CTDEEP (formerly CTDEP) is responsible for the installation and maintenance of the systems.

OPERABLE UNIT 2

A neighborhood-wide SSD system exterior inspection was completed between October 2014 and March 2015 by CTDEEP and its contractor. The inspections involved checking the operation and conditions of the fans, switches, and vent piping associated with the systems. Of the 106 homes that received these systems, 16 homes had systems that were not operating and required repair; 16 homes had systems that were operating and repair was recommended; and 7 homes had systems operating but periodic inspections were recommended.

From this recent inspection, problems with the electrical system and the fans were recognized. Follow-up activities included replacement of non-functional blowers, corroded electrical switch boxes, replacement of broken or cracked blower covers, replacement of missing vent caps and screws, and re-caulking of deteriorated seals. It was also noted that some residences removed their SSD systems from their household and have not replaced them. Additionally, new homeowners in existing households or recently built homes in the affected area do not have SSD systems because new owners do not know about the SSD systems and/or they are no longer provided by CTDEEP. See Attachment 1 for the compilation of the SSD System Inspections.

The 2005 RI report concluded that, because the SSD systems prevent volatiles in groundwater from entering homes, the risk from volatilization of contaminants present in groundwater has decreased with the installation of these systems.

Discussions with Ron Curran, CTDEEP, indicate that CTDEEP is working with the Town of Stratford to keep residents with SSD systems informed about the importance of operating the system and who to contact with questions about or problems with their SSD system. Stickers with information about the systems and contact information in case of malfunction are being placed on the SSD systems. The Town of Stratford and EPA have also sent letters to homeowners with SSD systems. Based on the CTDEEP inspections, and data review, the following recommendations should continue to be addressed:

1. Continue to provide routine maintenance and equipment repairs for the installed systems.
2. Maintain a list of properties in the area with and without the SSD systems.
3. Inform new homeowners of the need for the SSD systems.

OPERABLE UNIT 2

4. Offer systems to new homeowners in homes without SSD systems (home built after 2003).
5. Inform homeowners who originally refused SSD systems of the need for the SSD systems.
6. Offer systems to new homeowners in homes where previous owners refused systems.
7. Offer systems again to homeowners who originally refused SSD systems.
8. Evaluate new groundwater, soil gas, and/or indoor air data to confirm that the area of potential indoor air impacts has not expanded.

Former Raymark Industries
Summary of Sub-Slab Depressurization System Inspections - Fall 2014/Winter 2015
Stratford, Connecticut
March 18, 2015

	Address	Resolution Type	Operating Status	Inspection Date	Notes	Follow-Up Status
63	Homestead Ave	AECOM	1	Dec-14/Jan-15	Rubber reducer damaged by rodents. (Requires replacement).	Repair in progress by AECOM as agent for CTDEEP.
348	Housatonic Ave	CTDEEP/Resident	1	Dec-14/Jan-15	The original residence was demolished and a new residence was built on the parcel. SSD mitigation status unknown.	Notify CTDEEP of SSD status.
508	Housatonic Ave	CTDEEP/Resident	1	Dec-14/Jan-15	Owner removed the system in 2009.	Notify CTDEEP of SSD status.
95	Riverview Place	CTDEEP/Resident	1	10/8/2014	Rental Property - Electrical box not attached to the house. Corrosion observed within electrical box; repair recommended.	Repair coordination in progress with AECOM as agent for CTDEEP and electrician.
44	Willow Ave	CTDEEP/Resident	1	10/13/2014	Owner is not running the system.	Notify CTDEEP of SSD status.
30	Burr Place	Electrical	1	10/9/2014	Electrical wiring for the SSD system on the left unit damaged by rodents.	Repair coordination in progress with AECOM as agent for CTDEEP and electrician.
540	Ferry Blvd	Electrical	1	10/8/2014	New alarm needed. Electrician required to perform repair. Corrosion observed within electrical box; repair recommended.	Repair coordination in progress with AECOM as agent for CTDEEP and electrician.
93	Homestead Ave	Electrical	1	10/13/2014	Corrosion observed; repair recommended within electrical box.	Repair coordination in progress with AECOM as agent for CTDEEP and electrician.
520	Housatonic Ave	Electrical	1	Dec-14/Jan-15	One electrical switch and box requires replacement.	Repair coordination in progress with AECOM as agent for CTDEEP and electrician.
86	Minor Ave	Electrical	1	10/9/2014	Corrosion observed; repair recommended within electrical box.	Repair coordination in progress with AECOM as agent for CTDEEP and electrician.
144	Riverview Place	Electrical	1	10/8/2014	Needs a vibration dampener; electrical wiring damaged by rodents.	Repair coordination in progress with AECOM as agent for CTDEEP and electrician.
107	Willow Ave	Electrical	1	10/13/2014	Corrosion observed; repair recommended within electrical box.	Repair coordination in progress with AECOM as agent for CTDEEP and electrician.
115	Willow Ave	Electrical	1	10/13/2014	Corrosion observed; repair recommended within electrical box.	Repair coordination in progress with AECOM as agent for CTDEEP and electrician.
49	Burr Place	Electrical + Mechanical	1	Dec-14/Jan-15	Vent pipe needs to be extended above eave of roofline. Corrosion observed within electrical box; periodic inspections recommended.	Repair coordination in progress with AECOM as agent for CTDEEP and mechanical contractor.
492	Housatonic Ave	Electrical + Mechanical	1	Dec-14/Jan-15	Venting issues on both sides of the house. Corrosion observed within electrical box on the right side of house; repair recommended.	Repair coordination in progress with AECOM as agent for CTDEEP and mechanical contractor and electrician.
498	Housatonic Ave	Electrical + Mechanical	1	Dec-14/Jan-15	Vent pipe needs to be extended above eave of roofline. Corrosion observed within electrical box; periodic inspections recommended.	Repair coordination in progress with AECOM as agent for CTDEEP and mechanical contractor.
231	Housatonic Ave	CTDEEP/Resident	2	Mar-15	Owner is not running the system.	AECOM as agent for CTDEEP notified CTDEEP of status.
48/50	Riverview Place	CTDEEP/Resident	2	10/9/2014	Rental Property - Electrical box not attached to the house, owner had the system off. Corrosion observed within electrical box; repair recommended.	AECOM as agent for CTDEEP to contact property owner and notify CTDEEP of SSD status/Repair coordination in progress with electrician.
40	Burr Place	CTDEEP/Resident/Mech.	2	10/9/2014	Owner complained of vibrations so both units were turned off. Both alarms were unplugged as well - one in work room, one in basement.	Notify CTDEEP of SSD status.
550	Housatonic Ave	Electrical	2	Dec-14/Jan-15	Electrician required to change the location of switch box. Switch box is currently located behind SSD system flow pipe.	Repair in progress by AECOM as agent for CTDEEP and repair coordination in progress with electrician.
304	Housatonic Ave	Electrical	2	Dec-14/Jan-15	Corrosion observed within electrical box; periodic inspections recommended.	AECOM as agent for CTDEEP to perform inspection on an annual basis.
355	Housatonic Ave	Electrical	2	Dec-14/Jan-15	Corrosion observed within electrical box; periodic inspections recommended.	AECOM as agent for CTDEEP to perform inspection on an annual basis.
49	Minor Ave	Electrical	2	10/9/2014	Corrosion observed within electrical box; periodic inspections recommended.	AECOM as agent for CTDEEP to perform inspection on an annual basis.
40	Riverview Place	Electrical	2	10/9/2014	No electrical box outside; electrical switch condition unknown.	AECOM as agent for CTDEEP will follow up with owner. Electrician needed to perform repair.
24	Willow Ave	Electrical	2	10/13/2014	Corrosion observed within electrical box; periodic inspections recommended.	AECOM as agent for CTDEEP to perform inspection on an annual basis.
116	Willow Ave	Electrical	2	10/13/2014	Corrosion observed within electrical box; periodic inspections recommended.	AECOM as agent for CTDEEP to perform inspection on an annual basis.
128	Willow Ave	Electrical	2	10/13/2014	Corrosion observed within electrical box; periodic inspections recommended.	AECOM as agent for CTDEEP to perform inspection on an annual basis.
36	Homestead Ave	Electrical + Mechanical	2	Dec-14/Jan-15	Missing end cap for vent and some corrosion in the electrical box. The owner has turned off the system.	Notify CTDEEP of SSD status.
309	Housatonic Ave	Mechanical	2	Dec-14/Jan-15	Vent cap needed at the top of exhaust pipe. Corrosion observed within electrical box; periodic inspections recommended.	Repair coordination in progress with AECOM as agent for CTDEEP and mechanical contractor.
53	Minor Ave	Mechanical	2	Dec-14/Jan-15	New contact information needed for owner. Vent cap needed at top of exhaust pipe.	AECOM as agent for CTDEEP to follow up with owner.
96	Minor Ave	Mechanical	2	10/9/2014	Vent cap needed at top of exhaust pipe.	Repair coordination in progress with AECOM as agent for CTDEEP and mechanical contractor.
135	Riverview Place	Mechanical	2	10/8/2014	Vent cap needed at top of exhaust pipe.	Repair coordination in progress with AECOM as agent for CTDEEP and mechanical contractor.
415	Housatonic Ave	AECOM	3	Dec-14/Jan-15	Screws for the fan covers were painted over. Could not remove fan cover.	AECOM as agent for CTDEEP in process of performing screw replacement.
99	Riverview Place	AECOM	3	10/8/2014	Screw missing on electrical box.	AECOM as agent for CTDEEP in process of performing screw replacement.
338	Housatonic Ave	CTDEEP/Resident	3	Mar-15	The 145 fan is operable but is turned off. Owner will run both SSD systems. Owner concerned with adhesive on concrete slab.	Notify CTDEEP of SSD status.
328	Housatonic Ave	CTDEEP/Resident	3	Mar-15	Owner requested the SSD system be moved to another location on their residence.	Notify CTDEEP of SSD status.
509	Housatonic Ave	CTDEEP/Resident	3	Dec-14/Jan-15	Newly installed vinyl siding obstructs fan cover box.	Notify CTDEEP of SSD status.
120	Willow Ave	CTDEEP/Resident	3	Mar-15	Owner is concerned with operating the SSD system in the winter due to it seizing up/freezing. Owner operates during the summer.	AECOM as agent for CTDEEP notified CTDEEP of status.
68	Willow Ave	CTDEEP/Resident	3	10/13/2014	Fence obstructs the fan cover. Fan number not known.	Notify CTDEEP of SSD status.

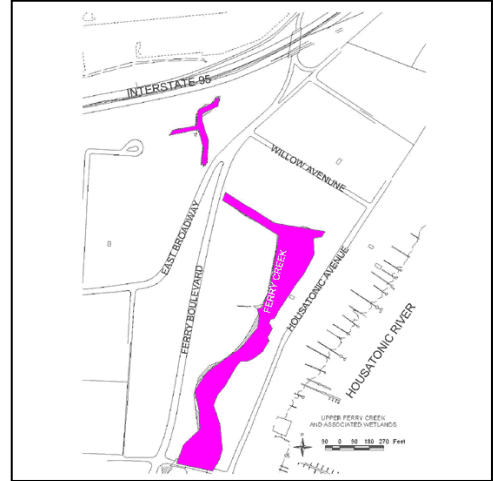
* Operating Status = (16) Category 1, (16) Category 2, (7) Category 3

1 - System is not operating; requires repair.
2 - System operating; repair recommended
3 - System operating; periodic inspections recommended

NOTE: All remaining SSD systems of the 107 properties inspected are operational. No mechanical or electrical repairs were noted for the remaining properties.

OPERABLE UNIT 3

Currently, OU3, also known as OU3 Area I, encompasses the wetland areas of upper Ferry Creek and the surrounding areas from approximately Interstate 95 (across from Homestead Avenue) southward to Broad Street. It encompasses approximately 33 acres which includes approximately 5 acres of wetlands. Originally, OU3 was defined as the commercial properties (Morgan Francis, Spada, Housatonic Boat Club), and Ferry Creek and included the surrounding wetlands where Raymark-type waste was known to have been deposited. During the investigation stage, this area was further divided into additional OUs (OU3, Area I; OU3, Area II (OU7); OU3, Area III (OU8); and OU6).



The RI for OU3, Area I, released by EPA in October 1999, described contamination and potential health risks in this area (TtNUS, 1999). The report concludes that fill and natural soils throughout OU3 are contaminated with asbestos, lead, copper, semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs), and dioxins. In some areas the level of contamination is high. Potential risks to human health, sediment dwelling organisms, and those that are higher up the food chain (that feed on sediment dwelling organisms) are a concern throughout the area. No additional investigations have been performed since the last FYR. A focused FS for a part of OU3 was prepared as an appendix in the OU6 FS (Nobis, 2011), and a full FS for OU3 is currently being prepared with an anticipated submittal date during 2015. See Appendix C OU7 and Appendix C OU8 for discussions on OU3, Areas II and III, respectively.

An inspection of this area was conducted on March 31, 2015. No changes to Ferry Creek and surrounding wetlands were evident compared to previous site visits. Access to the area is challenging since Ferry Creek and the wetlands are surrounded by private properties. Looking from Broad Street at the southern end of upper Ferry Creek, it was evident that the creek continues to receive surface runoff from the paved parking areas to the west, and wetland areas to the east are dominated by phragmites. Creek embankments on the west are heavily vegetated with expanses of poison ivy throughout. Erosion of embankments continues, particularly in the along the northern side of the creek just east of Ferry Boulevard where break products and asbestos containing materials have been sighted. Signage on Broad Street indicating the health advisory in place for Ferry Creek sediments was in good condition.

OPERABLE UNIT 3



Signage on Broad Street at Ferry Creek



OU3 Ferry Creek – Looking East from 190 Ferry Boulevard.



OU3 Ferry Creek – Looking North from Broad Street.

OPERABLE UNIT 3



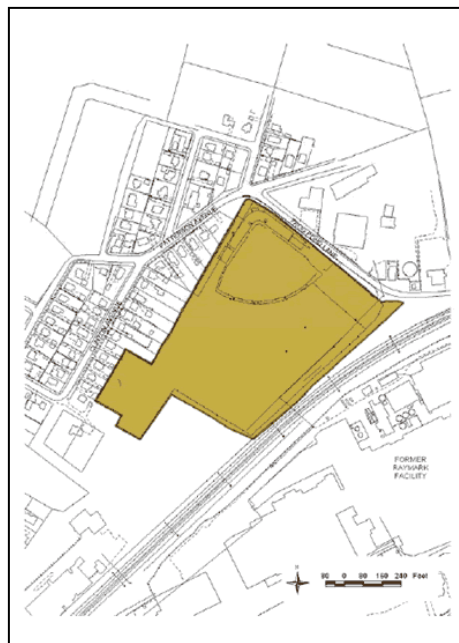
Raybestos waste in the embankment of Ferry Creek



Ferry Creek embankment erosion

OPERABLE UNIT 4

OU4 is located north of the former Raymark Facility just over the Metro-North railroad tracks leading to New York City. It encompasses a total area of 13.5 acres and includes the 3-acre Raybestos Memorial Ballfield, an 8.5-acre vacant field, and a 2-acre densely wooded area. Residential properties border the OU4 study area to the north/northwest. Town, commercial, and industrial properties are located to the northeast. A former industrial facility (OU1) abuts the area to the south/southwest that has been rebuilt into a vibrant shopping area for the community. This OU only addresses the contaminated soils on the property. Groundwater beneath the area is included in OU2. An RI for OU4 was released in August 1999 (TtNUS 1999). A focused FS for OU4 was prepared as an appendix in the OU6 FS (Nobis, 2011), and a full FS for OU4 is currently being prepared.



The ballfield was built using waste fill from the Raymark Facility and was used as a softball field from the 1940s until the 1980s. Prior to development as a ballfield, the OU4 Site was used as a gravel pit operation for an unknown period of time and was then used to dispose of brake linings and associated industrial waste. The former Raymark Industries Inc. company (OU1) disposed of wastes containing asbestos and non-asbestos material, metals, pheno-formaldehyde resins, and various adhesives on this OU. The southern and western portions of OU4 were used by the Town of Stratford as a dumping and temporary storage area for asphalt, road salt, brush and leaves, dirt, and trash. The public also used this area as a dump. EPA investigations estimate that over 200,000 CY of Raymark waste at depths up to 16 feet are present at this OU. The report concludes that fill and natural soils throughout the OU4 study area are contaminated with asbestos, lead, barium, zinc, arsenic, polychlorinated biphenyls (PCBs) and semi-volatile organic compounds (SVOCs). In the 1970s, EPA performed clean-up activities to place a 2-foot soil cover over identified areas of surficial asbestos contamination.

An inspection of the OU was conducted on March 31, 2015. Based on this site visit, the following was identified and needs future attention:

OPERABLE UNIT 4

1. The fence erected by EPA during removal actions has been deliberately cut to provide access between the ballfield and the abutting Contract Plating property. This fence should be repaired to prevent trespassing on the ballfield.
2. A worn path was visible on the property, indicating trespassing on the property.
3. Evidence of someone trespassing at the site, including a tent and numerous cans, was seen in the vicinity of home plate.
4. The property access should be limited with better security to prevent trespassers and dumping. Signage originally placed surrounding the property is no longer visible or present and should be replaced.
5. Property owner(s) should be informed that on-site dumping of construction or other materials should cease.



Entrance to Ballfield from Frog Pond Lane.

OPERABLE UNIT 4



Evidence of trespassing



Damaged fence between the Ballfield and Contract Plating

OPERABLE UNIT 4



Centerfield looking north toward home plate

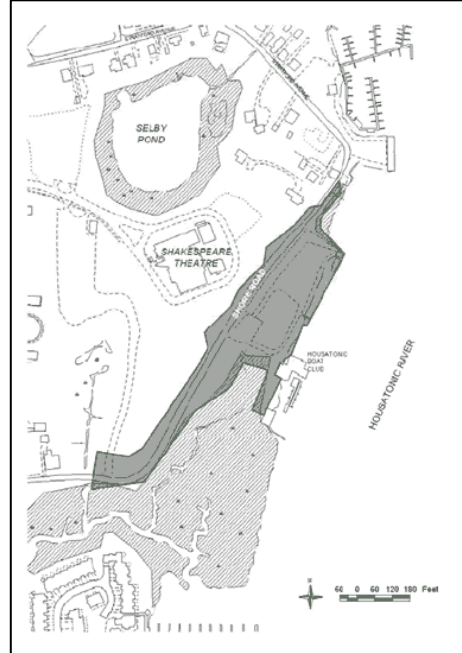


Construction material storage

OPERABLE UNIT 5

OU5 is approximately 4 acres and includes a 1,340-foot section of Shore Road, the Housatonic Boat Club (HBC), and a small portion of the eastern slope of the Shakespeare Theater property.

In 1993, contamination was covered with a plastic fabric barrier and wood chips by the CTDEEP (formerly CTDEP) as a temporary measure. The area was sampled extensively in 1998/1999 and high levels of contamination were found in the surface soils. As the area was contaminated, and because the plastic barrier was beginning to wear and the wood chips were beginning to erode, EPA accelerated the clean-up. A Draft Final Engineering Evaluation/Cost Analysis (EE/CA), issued in June, 1999, presented the clean-up alternatives (TtNUS, 1999). In September 1999, following the public comment period, EPA released an Action Memorandum documenting its clean-up strategy.



The Action Memorandum stated that EPA would test waste stabilization techniques that could minimize the release of waste dust during the excavation of Shore Road wastes. It also stated that wastes from the Shore Road Study Area would be deposited in a temporary storage facility within Stratford. During the public comment period on the EE/CA, EPA discussed the Raybestos Memorial Ballfield and/or the Contract Plating Company property as potential temporary storage facilities for the approximately 35,000 cubic yards of soil.

Based on the negative public support for waste storage at either location, EPA decided to perform a non-time-critical removal action (NTCRA). This action included capping of contaminated hot spots, relocation of utilities, repair of existing stone riprap revetment, restoration of the western shoulder and embankment cover along Shore Road, and placement of sheet piling to prevent erosion of materials. EPA began these excavation and clean-up activities in 1999 and completed them in 2000. An Interim Removal Action Report for the NTCRA was issued in September, 2002 (Stone & Webster 2002). Since the last FYR, no additional investigations have been performed. No additional reports are currently scheduled for release.

OPERABLE UNIT 5

An inspection of the OU was performed on March 31, 2015. The site visit included walking around the Housatonic Boat Club; a portion of Shore Road; the eastern slope of the Shakespeare Theater property along Shore Road; and land between the eastern edge of Shore Road and the toe of the slope of the wetlands bordering the Housatonic River. Based on this site visit, most of the area was in good condition with the following identified for future attention:

1. The portion of Shore Road addressed under OU5 is cracked throughout and needs repair as it is part of the remedy covering site soils/waste.
2. The Housatonic Boat Club was inspected with members of the Club. Pavement, curbing, sheet piling, and the revetment appear in good condition. HCB members indicated cracks in the pavement are sealed regularly and are scheduled for sealing this year. In 2014, a leak in the water line was discovered and needs repair. The HBC continues to work with CTDEEP to develop the best and least intrusive approach for repair. As part of the 2000 removal action to prevent future exposure to contamination, a new 2-inch HDPE water line was installed in a rigid PVC containment conduit. While the exact location of the break has not been identified, it is assumed the break is within the section of secondary containment within the area of Raymark waste. The HBC was hopeful to have the repairs complete in time for the 2015 boating season.



Sealed pavement cracks at the Housatonic Boat Club

OPERABLE UNIT 5



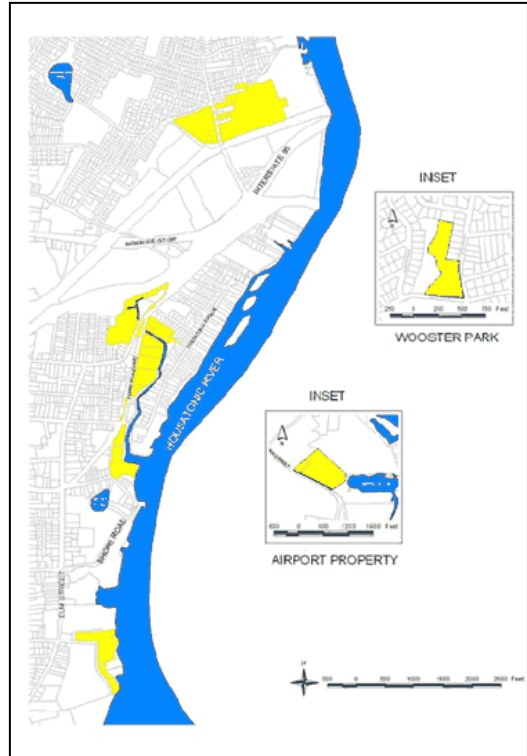
Cracked pavement along Shore Road



Housatonic River Wetland/Shore Road interface (temporary water line running across the top of rip rap)

OPERABLE UNIT 6

OU6 includes 157.1 acres comprised of 24 properties with contaminated soils impacted by waste from the former Raymark Facility. These properties are not all contiguous to each other and are scattered, mainly along the eastern edge of Stratford, running north to south. These properties, with commercial, recreational, or residential use, were constructed on top of locations where Raymark manufacturing wastes was used to fill low lying areas in town. Each of these properties have been evaluated individually to ensure that unacceptable risks to human health or the environment are not present. This OU does not include groundwater (OU2) or sediments (OU3).



Fourteen of the 24 properties were previously evaluated in OU3 as part of a larger investigation of soil and sediments. The OU3 evaluations did not evaluate properties individually, rather the 14 properties were included as part of the larger areas. EPA subsequently decided to divide its efforts into soil-only properties and sediment-only areas. The 14 properties within OU3 became part of OU6 in order to be re-evaluated individually as part of the soil-only evaluation. The remaining 10 properties in OU6 are located throughout the Town.

The 24 properties have been put into 18 property groups:

- Lockwood Avenue
- 200 Ferry Boulevard
- Ferry Boulevard
- Lot Behind 326 Ferry Boulevard and Vacant Lot at Housatonic Avenue
- 326 Ferry Boulevard
- 576 and 600 East Broadway
- Vacant DOT Lot Abutting I-95
- Connecticut Right-of-Way
- 250, 304, and 340 East Main Street
- 380 East Main Street

OPERABLE UNIT 6

- DPW Lot – Area of Concern (AOC) 1
- DPW Lot – Area of Concern (AOC) 2 and 251 East Main Street Properties
- Beacon Point Area of Concern (AOC) 1
- Beacon Point Area of Concern (AOC) 2
- Beacon Point Area of Concern (AOC) 3
- Airport Property North of Marine Basin
- Wooster Park
- Third Avenue

An RI report for the OU6 properties was issued in June 2005 (TtNUS 2005) and a Feasibility Study (FS) in 2011 (Nobis, 2011). The particular clean-up approaches for these properties vary by property depending on the extent of contamination and the risks to human health and the environment at each property. EPA has issued a ROD for final actions on four of these OU6 properties with interim actions designed for the remaining properties to mitigate exposure, such as through signs and fences, until final actions can occur.

In 2009, 340 East Main Street required emergency response due to the unauthorized excavation of Raymark waste. The property owner excavated Raymark waste that was buried on the property and spread the Raymark waste on the surface of the property. CTDEEP (formerly CTDEP) responded to the property on May 18, 2009 to evaluate the conditions. On May 19, the excavated material was covered with a membrane and clean fill. On May 20, EPA Emergency Response arrived on-site to secure additional areas where Raymark waste was placed and to decontaminate mechanical equipment used during the unauthorized excavation. The State of Connecticut filed suit for cost recovery of CTDEEP's expenditure and a final injunction prohibits any future activity that could release Raymark waste.

Since the last FYR, the Airport Property North of Marine Basin, was remediated in 2014/15, and no Raymark waste remains. The property owner will be responsible for future groundwater monitoring. An addendum to the FS is currently being prepared for the remaining properties.

A site visit was conducted on March 31, 2015. Most OU6 properties were viewed from the street, so extensive inspections were not performed. At Wooster Park, in the northern, wooded portion off Quail Street, there was evidence of bicycle trails and jumps. No Raymark waste was evident at the surface in this area during the Site visit. Most properties looked similar to how

OPERABLE UNIT 6

they looked during previous site visits. Most properties along Ferry Boulevard and East Main Street had deteriorated pavement. 576/600 East Broadway is owned by the Town of Stratford and has limited accessibility because of the locked gate at the entrance. Fencing was compromised in some sections of the property, and trespassing was evident. Beacon Point Area which is comprised of three Areas of Concern, is also owned by the Town of Stratford and is completely accessible to the public. Pavement in AOC 2 is somewhat compromised by cracking and settling. The Third Avenue property was viewed from the street. The property was well maintained, and it did not appear likely that extensive digging had occurred.

OPERABLE UNIT 6



Damaged fence at 576/600 East Broadway



Rear of Ferry Boulevard Properties

OPERABLE UNIT 6



View of Lockwood Ave property from Broad Street.



2015 Remediation at Airport Property

OPERABLE UNIT 6



Beacon Point Area of Concern #2



Wooster Park – Bike jumps

OPERABLE UNIT 7

The area defined as OU7 was originally part of OU3. It encompasses 44 acres of which approximately 35 plus acres are wetlands and/or open water. The OU includes Lower Ferry Creek and adjacent wetland properties (Area B), the wetlands surrounding the Housatonic Boat Club property (Area C wetlands – located south and east of Shore Road), and Selby Pond and the surrounding wetlands (Area F). This OU does not include soils (OU6) or groundwater (OU2). An RI for this OU was released in 2000 (TtNUS, 2000). The FS is currently being prepared.



Area B includes wetlands, Ferry Creek, a small portion of the Housatonic River, small areas of grass and vegetation, and a man-made ridge or dike composed of fill debris that runs along the edge of wetlands along Lockwood Avenue and Ferry Creek. Area C includes wetlands south and adjacent to Area B. Area F (Selby Pond Site) includes wetlands, open water, and grass and vegetation surrounding the wetlands. Portions of the Area F wetlands are located on residential properties.

Site visits were conducted on March 31, 2015, and May 7, 2015. No changes to lower Ferry Creek and surrounding wetlands, Housatonic River wetlands, or Selby Pond were evident compared to previous site visits. Access to the Lower Ferry Creek area is challenging since Ferry Creek and the wetlands are surrounded by private properties. Looking from Broad Street at the northern end of Lower Ferry Creek, it was evident that the creek continues to receive surface runoff from surrounding properties, and the creek and wetlands along the Housatonic River are greatly impacted by the tides. Similarly, the Housatonic River wetlands surrounding the Housatonic Boat Club see a large variation in water levels between low and high tides; the wetland vegetation is nearly completely submerged during high tide. Numerous birds were seen feeding. The interface between the wetlands and Shore Road and the Housatonic Boat Club where interim action was performed to cap contaminated soils in place seems in good condition. Selby Pond, visible from the Shakespeare Theater property remains surrounded by wetland vegetation, with an outlet at the north side of the pond. Birds were noted to be swimming in the pond.

OPERABLE UNIT 7



Lower Ferry Creek facing south



Housatonic River Wetlands facing east, south of Housatonic Boat Club

OPERABLE UNIT 7



Housatonic River Wetlands facing south, north of Housatonic Boat Club



Selby Pond facing north

OPERABLE UNIT 7



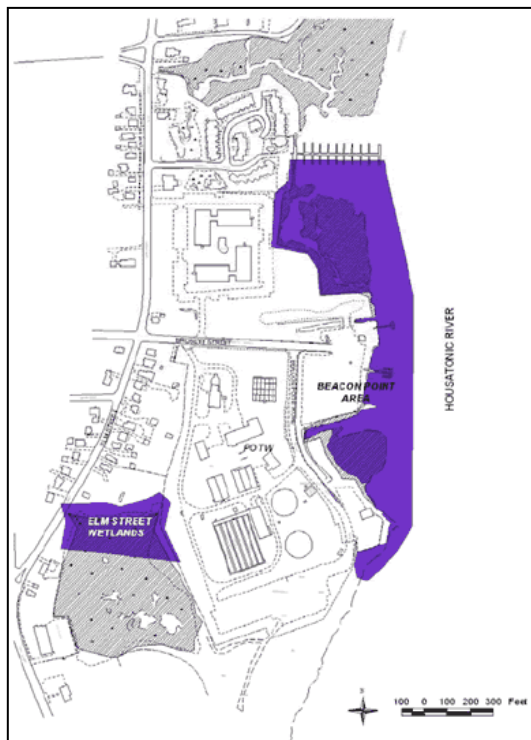
Selby Pond outfall, facing southwest toward the pond



Health Advisory signage at Lower Ferry Creek

OPERABLE UNIT 8

The area defined as OU8 was originally part of OU3. It encompasses 14 acres of wetlands and/or open water to the north and south of the Beacon Point boat launch area and wetlands off of Elm Street. OU8 includes a public boat launch area, a dry dock area, and the surrounding wetlands impacted by Raymark waste (north and south of the boat launch) near Beacon Point Road (Area D); and a wetland area along Elm Street adjacent to and south of 1260 Elm Street (Area E). An RI for this OU was released in 2000 (TtNUS, 2000). The FS is currently being prepared.



Area D covers approximately 14 acres, including undeveloped wetlands, open water, and man-made features (the public boat launch, the dry dock area, and an erosion barrier along the shoreline). Area E is a 30-foot-wide strip located approximately 600 feet west of the southern portion of Area D, commonly referred to as the Elm Street Wetlands. It covers about 1 acre, which is entirely wetland. This OU does not include soils (OU6) or groundwater (OU2).

Site visits were conducted on March 31, 2015 and on May 7, 2015. The following were identified and needs future attention:

1. According to EPA and CTDEEP, it is believed that modifications to the outfall leading from the Water Pollution Control Plant to the Housatonic River were made in an area where contaminants have been detected at concentrations that could pose a risk to human health and/or the environment. No modifications were observed and this is continuing to be investigated.
2. During the 2015 site visit, construction of sheet piling was noted along the northern edge of the wetland area along Elm Street in an area where contaminants have been detected at concentrations that could pose a risk to human health and/or the environment. This installation needs to be investigated further for impacts to the OU waste.

OPERABLE UNIT 8



Beacon Point Boat Launch Area



Housatonic River wetlands north of the boat launch area

OPERABLE UNIT 8



Water Pollution Control Plant outfall



Water Pollution Control Plant outfall west embankment along Birdseye Street

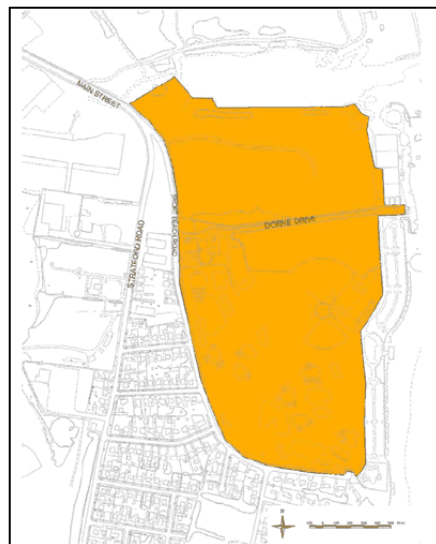
OPERABLE UNIT 8



Sheet piling recently installed at the Elm Street Wetlands

OPERABLE UNIT 9

OU9 includes Short Beach Park and the Stratford Landfill. The two areas together were historically used as a single landfill. Short Beach Park is a public recreation area, which was constructed over a town landfill in the 1980s. The Short Beach Park Area is currently a heavily used recreation area for baseball, softball, soccer, and golf. Stratford Landfill is a former landfill used by both the Town of Stratford and the City of Bridgeport; today the landfill accepts material for disposal, recycling and composting. The Stratford Landfill is no longer active. Between 1993 and 1994, the CT DEEP installed a temporary cap on a portion of Short Beach Park where Raymark wastes were found to be present. Additional investigations were conducted by EPA in December 2003 through February 2004.



The OU9 study area encompasses a total of 80.4 acres abutting Long Island Sound near the mouth of the Housatonic River. The historic review performed for these areas indicated that past dumping of Raymark waste had occurred at these locations. Field investigations were undertaken to identify whether soils contained Raymark waste. This OU does not include sediments or groundwater.

An RI report was issued in July, 2005 (TtNUS, 2005). The report found that the OU does contain waste from the former Raymark Facility. A focused FS for OU9 was prepared as an appendix in the OU6 FS (Nobis, 2011), and an FS for OU9 is currently being prepared.

The Human Health Risk Assessment identified actionable risks from receptor exposures to surface contamination at OU9. Surface contamination at OU9 remains exposed to potential receptors. The Town's park and playing fields receive heavy use by town residents and visitors.

A site visit was conducted on March 31, 2015. Areas of Short Beach Park were viewed, however, it was assumed that no changes were made at the landfill, and the area was not accessed. Short Beach Park continues to be completely open to the public with no restrictions, and it was assumed that no capping of known Raymark waste has been performed since the last five-year review. Maintenance of vegetated cover and restricted digging should be

OPERABLE UNIT 9

continued, and maintenance crews at Short Beach Park should be made aware, at least annually, of the presence of and risks associated with Raymark waste contaminants.



Short Beach Park looking across soccer field to Dorne Drive/landfill



Short Beach Park looking across the golf chipping area toward baseball fields (area of Raymark Waste)

OPERABLE UNIT 9



Landfill along Dorne Drive

RESIDENTIAL REMOVAL ACTIONS WITH RAYMARK WASTE LEFT IN PLACE

In April 1993, an intensive surficial sampling program was undertaken by EPA and CTDEEP (formerly CTDEP) at locations where waste from Raymark is known or suspected to have been received and used as fill. Based on the detection of elevated concentrations of lead, asbestos, and polychlorinated biphenyls (PCBs) in surficial soils, the Agency for Toxic Substances and Disease Registry (ATSDR) issued a Public Health Advisory on May 25, 1993 for "Raymark Industries/Stratford Asbestos Sites." The presence of dioxins and other contaminants in Raymark waste has subsequently been confirmed. The advisory was based on the concern that people could be exposed to site-related contaminants through inhalation, direct dermal contact, ingestion of waste present in the soil, and consumption of potentially contaminated area seafood.

By April 1995, forty one residential properties had been identified as contaminated with waste from Raymark. Waste from approximately 29 of these properties was excavated and consolidated at OU1. Additional sampling took place in the mid 2000's and some locations were included in the OU6 RI. A review of the sampled properties has indicated that 14 residential properties still contain Raymark waste based on the existing definition.

As part of this FYR, these properties were inspected on March 31, 2015. Preparation for the site visit involved understanding the locations of remaining Raymark waste at each property. Photographs of each property were taken from the street and no properties were accessed. These photographs were used with aerial photographs to evaluate possible changes/excavations at the properties. Results of these evaluations generally conclude that no digging was evident, however, verification through discussions with property owners would be necessary for a definitive determination.

104 Fourth Ave

The parcel located at 104 Fourth Ave, is improved with a single residential dwelling. Based on a Public Health Implications Statement (PHIS) for the property dated July 26, 1996, Raymark waste contamination was left in place at a depth of approximately 3 feet bgs along a 40' area adjacent to the southern property boundary. Based on field observations performed on March 30, 2015, the area along the southern property is improved with a small wood shed and small ornamental garden. The parcel is also separated from the property to the south by a wooden fence. Currently, field observations do not suggest digging has been performed deeper than three feet below grade pursuant to the PHIS.

RESIDENTIAL REMOVAL ACTIONS WITH RAYMARK WASTE LEFT IN PLACE

95 Fourth Ave

The parcel located at 95 Fourth Ave, is improved with a single residential dwelling. Based on a Public Health Implications Statement (PHIS) for the property dated October 12, 1995, Raymark waste contamination was left in place at a depth of approximately 4 feet bgs in the western (or rear) of the property, and in the vicinity of the surface adjacent to the southern dwelling foundation wall, and adjacent to the front stairs and walkway on the eastern side of the dwelling. Based on field observations performed on March 30, 2015, the area along the southern foundation wall is occupied by several medium-sized shrubs. The eastern (front) side of the building is improved with a small ornamental garden adjacent to the building and a concrete walkway. It is unclear when the shrubs were planted. Currently, field observations do not suggest digging is actively occurring below the surface in the specified areas per the PHIS.

Fourth Ave Extension (parcel 9871)

The Fourth Ave Extension parcel 9871 is currently unimproved, other than landscaped lawn. Based on a PHIS for the property dated July 26, 1996, Raymark waste contamination was left in place at a depth of approximately 2 feet bgs adjacent to the surface ponding area west of the parcel, and in multiple excavation cells 4 to 7 feet bgs on the western and northern regions of the parcel. Raymark waste contamination was left in place in the vicinity of the surface in the northeastern corner of the parcel near the end of Fourth Ave. Based on field observations performed on March 30, 2015, no evidence of digging or excavation was observed or is believed to have been performed on this parcel.

Fourth Ave Extension (parcel 6233)

The Fourth Ave Extension parcel 6233 is currently unimproved, other than landscaped lawn. Based on a PHIS for the property dated July 26, 1996, Raymark waste contamination was left in place at a depth of approximately 3-5 feet bgs in various excavation cells on the southern and western regions of parcel, and in the vicinity of the surface in two excavation cells on the southern property boundary. Based on field observations performed on March 30, 2015, no evidence of digging or excavation was observed or is believed to have been performed on this parcel.

RESIDENTIAL REMOVAL ACTIONS WITH RAYMARK WASTE LEFT IN PLACE

Fourth Ave Extension (parcel 6232)

The Fourth Ave Extension parcel 6232 is currently unimproved, other than landscaped lawn. Based on a PHIS for the property dated July 26, 1996, Raymark waste contamination was left in place at a depth of approximately 2-3 feet bgs in various excavation cells on the southern and eastern edges of the parcel, and in the vicinity of the surface in two excavation cells on the eastern property boundary along the bank of the ponding area. Based on field observations performed on March 30, 2015, no evidence of digging or excavation was observed or is believed to have been performed on this parcel.

Fourth Ave Extension (parcel 6235)

The Fourth Ave Extension parcel 6235 is currently unimproved, other than landscaped lawn. Based on a PHIS for the property dated July 24, 1996, Raymark waste contamination was left in the vicinity of the surface in two excavation cells on the western region of the property, along the bank of the ponding area. Based on field observations performed on March 30, 2015, no evidence of digging or excavation was observed or is believed to have been performed on this parcel.

Fourth Ave Extension (parcel 6236)

The Fourth Ave Extension parcel 6236 is currently unimproved, other than landscaped lawn. Based on a PHIS for the property dated July 24, 1996, Raymark waste contamination was left in the vicinity of the surface in one excavation cell on the southern property boundary along the bank of the ponding area. Based on field observations performed on March 30, 2015, no evidence of digging or excavation was observed or is believed to have been performed on this parcel.

Fourth Ave Extension (parcels 6228, 6229 and 6231)

The Fourth Ave Extension parcels 6228, 6229 and 6231 are currently improved with a multistory residential dwelling and separate two car garage. Based on a PHIS for the property dated August 28, 1996, Raymark waste contamination was left in place at a depth of approximately 3-8 feet bgs in various excavation cells located sporadically across the parcel, and in the vicinity of the surface in two excavation cells on the western and eastern property boundaries. Based on field observations performed on March 30, 2015, it is unclear how deep the dwelling's footings were excavated. Only one cell (38A) is close to the building footprint, with a maximum excavation depth

RESIDENTIAL REMOVAL ACTIONS WITH RAYMARK WASTE LEFT IN PLACE

of three feet. The remaining excavation restriction in the vicinity of the dwelling footprint is eight feet, which is presumed not to have been reached. The garage building appears to have been constructed slab on grade, with footings that are presumed to not reach deeper than four feet bgs.

876 Housatonic Avenue

The parcel located at 876 Housatonic Avenue is improved with a residential dwelling. According to a PHIS for the property dated July 29, 1996, Raymark waste contamination was left in place in the vicinity of the surface along both the southern and northern property boundaries, just west of the residential dwelling, and at a depth of two feet in five excavated cells also located near the southern and northern property boundaries. Based on field observations performed on March 30, 2015, the southern and northern property boundaries were improved with dividing fences separating the parcel from the adjoining parcels. No evidence of digging or excavation was observed indicating digging has occurred pursuant to the PHIS document.

45 Third Ave

The parcel located at 45 Third Ave is improved with a single residential dwelling. Based on a PHIS for the property dated March 28, 1995, Raymark waste contamination was left in place at a depth exceeding 1 foot bgs along the foundation of the dwelling, the southern property boundary, western boundary, and the central portion of the northern property boundary. Digging and excavation restrictions of 4 feet bgs were established for the remaining portions of the property. Digging or excavation in these areas should not exceed one foot bgs. Based on field observations performed on March 30, 2015, the areas are generally improved with landscaped lawn, and an ornamental garden centrally located along the southern property boundary. The parcel is separated from the southern property by a stone retaining wall, and the parcel is separated from the western adjoining property by a white fence. Currently, field observations do not suggest digging has been performed deeper than one foot below grade pursuant to the PHIS, however, based on the location of restricted digging along the dwelling foundation where plantings are likely, it is possible digging below 1 foot bgs has occurred.

RESIDENTIAL REMOVAL ACTIONS WITH RAYMARK WASTE LEFT IN PLACE

65 Third Ave

The parcel located at 65 Third Ave is improved with a single residential dwelling. Based on a Public Health Implications Statement (PHIS) for the property dated March 28, 1995, Raymark waste contamination was left in place at depths exceeding 1.5 feet bgs along the dwelling foundation, the southeastern property corner and southwestern property corner. Digging and excavation restrictions of 4 feet bgs were established for the remaining portions of the property. Based on field observations performed on March 30, 2015, areas along the front of the dwelling adjacent to the foundation are improved with ornamental garden beds. The southwest and southeast property corners are improved with landscaped lawn. The rear of the dwelling foundation was not inspected from Third Avenue. Currently, field observations do not suggest digging has been performed deeper than 1.5 feet below grade pursuant to the PHIS.

24 Willow Ave

The parcel located at 24 Willow Ave is improved with a single residential dwelling. Based on a Public Health Implications Statement (PHIS) for the property dated August 8, 1995, Raymark waste contamination was left in place at a depths just below the surface along portions of the south/southwest property boundary, exceeding 2 feet bgs adjacent to portions of the foundation of the garage and residential dwelling, and 3 feet bgs in areas west of the dwelling's wooden deck. Based on field observations performed on March 30, 2015, the southern property boundary is improved with a dividing fence separating the parcel from the adjoining parcel to the south. Ornamental garden beds surround the dwelling's foundation. Currently, field observations do not suggest digging has been performed deeper than advised pursuant to the PHIS.

44 Willow Ave

The parcel located at 44 Willow Ave is improved with a single residential dwelling. Based on a Public Health Implications Statement (PHIS) for the property dated August 8, 1995, Raymark waste contamination was left in place at depths just below the surface along the southern property boundary and adjacent to the southwestern region of the foundation. Additionally, contamination was left in place exceeding 2 feet bgs adjacent to the northern corner of the dwelling foundation and southern foundation walls of the dwelling and garage. Based on field observations performed on March 30, 2015, the area along the southern property boundary cannot be observed from Willow Street due to vegetation and the garage. Small to fairly large shrubs were observed in the

RESIDENTIAL REMOVAL ACTIONS WITH RAYMARK WASTE LEFT IN PLACE

vicinity of two cells in which digging and excavation is prohibited (northeastern and southwestern corner of the foundation). Ornamental garden beds surround the dwelling's foundation. Currently, field observations do not suggest digging has been performed deeper than advised pursuant to the PHIS.

56 Willow Ave

The parcel located at 56 Willow Ave is improved with a single residential dwelling. Based on a Public Health Implications Statement (PHIS) for the property dated January 25, 1996, Raymark waste contamination was left in place at a depths just below the surface in the southwestern corner of the property. Based on field observations performed on March 30, 2015, the southwestern property corner is improved with a dividing wooden fence separating the parcel from the adjoining parcel to the south, and landscaped lawn. Currently, field observations do not suggest digging has been performed deeper than advised pursuant to the PHIS.

24 WILLOW AVE

**24 Willow Avenue
Pre-Excavation Soil Boring Results**

Sample ID	Sample Depth (feet)	PCBs (ppm)	Lead (ppm)	Asbestos (%)
		Cleanup Criteria		
		1.0	500	1
¹ E06, S52	8.5 - 9.5	0.25 U	320	10
	9.7 - 10.0	1.25 U	400	45
	12.0 - 13.4	1.25 U	350	25
	13.4 - 13.9	0.25 U	410	<1
¹ E81, S129	5.0 - 5.9	0.50	190	9
	5.9 - 7.2	0.75	310	10
	8.0 - 11.0	0.25	400	7
	11.0 - 12.1	0.50	790	12
	14.0 - 15.7	0.50	470	6
	15.7 - 15.9	0.25 U	450	0
	18.7 - 19.0	0.25 U	150 J	0
¹ E89, S54	4.9 - 5.4	0.25 U	260	1
	8.0 - 9.7	1.25 U	330	25
² A+00	0 - 1	0.25 U	310	1
	1 - 2	0.25 U	160 J	0
	2 - 3	0.25 U	130 J	0
	3 - 4	0.50	210	12
² B+00	0 - 1	NA	250	1
	1 - 2	NA	210	0
	2 - 3	NA	160 J	<1
	3 - 4	NA	170 J	2

Results presented in this table summarize the site investigation (pre-excavation) results for soil left in place after excavation activities were completed.

NOTES:

- ¹ Sample collected by Weston ARCS on 10/18/93.
- ² Samples collected by Weston TAT on 10/4/93 - 10/6/93.
- J indicates lead result is greater than primary detection limit of 50 ppm; less than or equal to primary quantitation limit of 180 ppm.
- U indicates contaminant has been analyzed for but not detected.
Associated numerical value is field screening method quantitation limit.
- NA indicates the sample was not analyzed for the subject contaminant.

**24 Willow Avenue
Pre-Excavation Soil Boring Results**

Sample ID	Sample Depth (feet)	PCBs (ppm)	Lead (ppm)	Asbestos (%)
		Cleanup Criteria		
		1.0	500	1
² C+00	0 - 1	NA	360	2
	1 - 2	NA	160 J	0
	2 - 3	NA	190	2
² D+00	0 - 1	NA	470	<1
	1 - 2	NA	160 J	1
	2 - 3	NA	170 J	<1
	3 - 4	NA	210	2
² E+00	0 - 1	0.25	160 J	1
	1 - 2	1.0 U	490	1
	2 - 3	0.25 U	150 J	1
	3 - 4	1.0	260	1

Results presented in this table summarize the site investigation (pre-excavation) results for soil left in place after excavation activities were completed.

NOTES:

- ¹ Sample collected by Weston ARCS on 10/18/93.
- ² Samples collected by Weston TAT on 10/4/93 - 10/6/93.
- J indicates lead result is greater than primary detection limit of 50 ppm; less than or equal to primary quantitation limit of 180 ppm.
- U indicates contaminant has been analyzed for but not detected.
Associated numerical value is field screening method quantitation limit.
- NA indicates the sample was not analyzed for the subject contaminant.

24 Willow Avenue
Pre-Excavation Surface Soil Results

Sample ID	Sample Depth (feet)	PCBs (ppm)	Lead (ppm)	Asbestos (%)
		Cleanup Criteria		
		1.0	500	1
A+00	0.25	0.25	530	0
B+00	0.25	0.25	390	0
C+00	0.25	0.25	380	0
D+00	0.25	0.25	400	0

Results presented in this table summarize the site investigation (pre-excavation) results for soil left in place after excavation activities were completed.

NOTES:

- Samples collected by Weston TAT on 6/17/93.

24 Willow Avenue
Post-Excavation Field Screening Results

Grid Number	Sample Location	Sample Depth (feet)	Field Laboratory Results			Sample ID
			PCBs (ppm)	Lead (ppm)	Asbestos (%)	
			Cleanup Criteria			
			1.0	500	1	
1	Floor	8	0.18	130	40	FSWA24-1CC(8)
	North Wall	0 - 3	0.11 U	100 U	Trace	WSWA24-1NC(0-3)
	North Wall	3 - 5	0.11 U	100 U	1	WSWA24-1NC(3-5)
	North Wall	5 - 8	0.12 U	100 U	2	WSWA24-1NC(5-8)
	West Wall	0 - 3	0.18	130	<1	WSWA24-1WC(0-3)
	West Wall	3 - 5	1.2	250	2	WSWA24-1WC(3-5)
	West Wall	5 - 8	0.34	270	<1	WSWA24-1WC(5-8)
2	Floor	5	1.8	350	<1	FSWA24-2CC(5)
	West Wall	0 - 3	2.1	580	3	WSWA24-2WC(0-3)
	West Wall	3 - 5	2.4	610	4	WSWA24-2WC(3-5)
3	Floor	5	0.16 U	100 U	<1	FSWA24-3CC(5)
	West Wall	0 - 3	0.12 U	100 U	<1	WSWA24-3WC(0-3)
	West Wall	3 - 5	3.5	700	3	WSWA24-3WC(3-5)
4	Floor	8	1.5	370	<1	FSWA24-4CC(8)
	West Wall	0 - 3	0.11 U	100 U	<1	WSWA24-4WC(0-3)
	West Wall	3 - 5	1.8	530	2	WSWA24-4WC(3-5)
	West Wall	5 - 8	1.5	750	<1	WSWA24-4WC(5-8)
5	Floor	8	2.1	640	<1	FSWA24-5CC(8)
	South Wall	0 - 3	4.4	890	3	WSWA24-5SC(0-3)
	South Wall	3 - 5	3.5	760	30	WSWA24-5SC(3-5)
	South Wall	5 - 8	2.0	520	<1	WSWA24-5SC(5-8)
	West Wall	0 - 3	0.11 U	100 U	<1	WSWA24-5WC(0-3)
	West Wall	3 - 5	1.5	600	2	WSWA24-5WC(3-5)
	West Wall	5 - 8	1.2	460	<1	WSWA24-5WC(5-8)
8	Floor	2	3.8	1100	<1	WSWA24-8CC(2)
	North Wall	0 - 1	1.3 J	460	<1	WSWA24-8NC(0-1)
	South Wall	0 - 1	1.5 J	730	<1	WSWA24-8SC(0-1)
	West Wall	0 - 1	1.3 J	1700	<1	WSWA24-8WC(0-1)
	South Perimeter	0.25	0.13 U	100 U	ND	PSWA24-8SG(0.25)

Results presented in this table summarize the field screening results for soil left in place after excavation activities were completed.

NOTES:

- Floor (composite) samples obtained from the base of the excavation.
- Wall (composite) samples obtained from the vertical face of the excavation.
- Perimeter (grab) samples obtained approximately 2.5 feet from the edge of the excavation.
- ND indicates the contaminant was not detected in the sample.
- E indicates the actual result exceeds the value listed.
- U indicates the contaminant was not detected in the sample; the reported value is the detection limit.
- Highlighted cells indicate samples which failed to meet 2 out of 3 EPA cleanup criteria.

24 Willow Avenue
Post-Excavation Field Screening Results

Grid Number	Sample Location	Sample Depth (feet)	Field Laboratory Results			Sample ID
			PCBs (ppm)	Lead (ppm)	Asbestos (%)	
			Cleanup Criteria			
			1.0	500	1	
9	Floor	5	0.57	160	<1	FSWA24-9CC(5)
	North Wall	0 - 3	0.12 U	100 U	<1	WSWA24-9NC(0-3)
	North Wall	3 - 5	0.34	150	<1	WSWA24-9NC(3-5)
10	Floor	5	1.1	220	<1	FSWA24-10CC(5)
	South Wall	0 - 3	3.4	710	1	WSWA24-10SC(0-3)
	South Wall	3 - 5	1.5	850	1	WSWA24-10SC(3-5)
11	Floor	5	1.5	330	<1	FSWA24-11CC(5)
12	Floor	8	1.0	360	<1	FSWA24-12CC(8)
13	Floor	8	0.72	130	<1	FSWA24-13CC(8)
	South Wall	0 - 3	0.13 U	100 U	2	WSWA24-13SC(0-3)
	South Wall	3 - 5	3.7 J	940	35	WSWA24-13SC(3-5)
	South Wall	5 - 8	0.93	560	<1	WSWA24-13SC(5-8)
14	Floor	8	0.45	130	<1	FSWA24-14CC(8)
	West Wall	0 - 3	4.7 J	730	3	WSWA24-14WC(0-3)
	West Wall	3 - 5	3.3 J	960	5	WSWA24-14CC(5)
	West Wall	5 - 8	4.5	870	5	WSWA24-14WC(5-8)
15	West Wall	0 - 3	0.11 U	100 U	<1	WSWA24-15WC(0-3)
	West Wall	3 - 6	1.4	960	12	FSWA24-15CC(6)
16	East Floor	5	0.14 UJ	170	3	FSWA24-16CC(5)
	West Floor	2	0.90	170	<1	FSWA24-16CC(2)
	North Wall	0 - 1	4.1	530	<1	WSWA24-16NC(0-1)
	South Wall	0 - 3	0.12 UJ	120	ND	WSWA24-16SC(0-3)
	South Wall	3 - 5	0.13 U	300	<1	WSWA24-16SC(3-5)
	South Perimeter	0.25	0.15	170	ND	WSWA24-16SG(0.25)
17	Floor	5	0.78	340	<1	FSWA24-17CC(5)
	North Wall	0 - 3	0.11 U	100 U	Trace	WSWA24-17NC(0-3)
	North Wall	3 - 5	0.40	100 U	<1	WSWA24-17NC(3-5)
18	Floor	6	0.70	100 U	<1	FSWA24-18CC(6)
	South Wall	3 - 5	1.2	260	1	FSWA24-18CC(5)

Results presented in this table summarize the field screening results for soil left in place after excavation activities were completed.

NOTES:

- Floor (composite) samples obtained from the base of the excavation.
- Wall (composite) samples obtained from the vertical face of the excavation.
- Perimeter (grab) samples obtained approximately 2.5 feet from the edge of the excavation.
- ND indicates the contaminant was not detected in the sample.
- E indicates the actual result exceeds the value listed.
- U indicates the contaminant was not detected in the sample; the reported value is the detection limit.
- Highlighted cells indicate samples which failed to meet 2 out of 3 EPA cleanup criteria.

24 Willow Avenue
Post-Excavation Field Screening Results

Grid Number	Sample Location	Sample Depth (feet)	Field Laboratory Results			Sample ID
			PCBs (ppm)	Lead (ppm)	Asbestos (%)	
			Cleanup Criteria			
			1.0	500	1	
19	Floor	8	7.1	400	2	FSWA24-19CC(8)
	North Wall	2 - 3	6.9	610	1	WSWA24-19NC(0-3)
	North Wall	3 - 5	2.9	930	2	WSWA24-19NC(3-5)
	North Wall	5 - 8	1.1	420	5	WSWA24-19NC(5-8)
	East Wall	0 - 3	3.5	830	3	WSWA24-19EC(0-3)
	East Wall	3 - 5	7.0	670	3	WSWA24-19EC(3-5)
	East Wall	5 - 8	1.7	460	<1	WSWA24-19EC(5-8)
20	Floor	8	3.4	730	2	FSWA24-20CC(8)
	East Wall	2 - 3	2.6	660	1	WSWA24-20EC(0-3)
	East Wall	3 - 5	3.9	530	2	WSWA24-20EC(3-5)
	East Wall	5 - 8	4.1	300	<1	WSWA24-20EC(5-8)
21	Floor	8	0.20 U	230	Trace	FSWA24-21CC(8)
	North Wall	2 - 3	4.6	510	2	WSWA24-21NC(0-3)
	North Wall	3 - 5	110 E	590	4	WSWA24-21NC(3-5)
	North Wall	5 - 8	3.6	1000	2	WSWA24-21NC(5-8)
22	Floor	8	0.14 U	100 U	<1	FSWA24-22CC(8)
23	Floor	8	0.14 U	300	<1	FSWA24-23CC(8)
24	Floor	5	0.14 U	230	20	FSWA24-24CC(5)
	South Wall	0 - 3	5.6 J	550	10	WSWA24-24SC(0-3)
	South Wall	3 - 5	0.14 U	260	15	WSWA24-24SC(3-5)
	South Perimeter	0.25	0.22 U	240	ND	WSWA24-24SG(0.25)
25	Floor	5	0.82	210	<1	FSWA24-25CC(5)
	North Wall	0 - 3	0.11 U	100 U	Trace	WSWA24-25NC(0-3)
	North Wall	3 - 5	0.14 U	170	2	WSWA24-25NC(3-5)
	East Wall	0 - 3	1.6	830	5	WSWA24-25EC(0-3)
	East Wall	3 - 5	3.2	660	<1	WSWA24-25EC(3-5)
	South Wall	0 - 3	0.75	270	<1	WSWA24-25SC(0-3)
	South Wall	3 - 5	1.0	290	<1	WSWA24-25SC(3-5)

Results presented in this table summarize the field screening results for soil left in place after excavation activities were completed.

NOTES:

- Floor (composite) samples obtained from the base of the excavation.
- Wall (composite) samples obtained from the vertical face of the excavation.
- Perimeter (grab) samples obtained approximately 2.5 feet from the edge of the excavation.
- ND indicates the contaminant was not detected in the sample.
- E indicates the actual result exceeds the value listed.
- U indicates the contaminant was not detected in the sample; the reported value is the detection limit.
- Highlighted cells indicate samples which failed to meet 2 out of 3 EPA cleanup criteria.

24 Willow Avenue
Post-Excavation Field Screening Results

Grid Number	Sample Location	Sample Depth (feet)	Field Laboratory Results			Sample ID
			PCBs (ppm)	Lead (ppm)	Asbestos (%)	
			Cleanup Criteria			
			1.0	500	1	
26	Floor	6	1.2	350	1	FSWA24-26CC(6)
	South Wall	0 - 3	1.0	320	<1	WSWA24-26SC(0-3)
	South Wall	3 - 5	1.4	430	2	FSWA24-26CC(5)
29	Floor	8	0.13 U	100 U	<1	FSWA24-29CC(8)
	North Wall	2 - 3	3.1	2100	5	WSWA24-29NC(0-3)
	North Wall	3 - 5	2.0	630	2	WSWA24-29NC(3-5)
	North Wall	5 - 8	0.32 U	220	<1	WSWA24-29NC(5-8)
30	Floor	8	0.14 UJ	240	2	FSWA24-30CC(8)
31	Floor	8	0.13 U	100 U	Trace	FSWA24-31CC(8)
32	Floor	5	0.16 U	270	10	FSWA24-32CC(5)
	South Wall	0 - 3	0.67	380	10	WSWA24-32SC(0-3)
	South Wall	3 - 5	1.7	670	25	WSWA24-32SC(3-5)
	South Perimeter	0.25	0.23 U	330	ND	WSWA24-32SG(0.25)
33	Floor	5	0.11 U	110	<1	FSWA24-33CC(5)
	North Wall	0 - 3	0.11 U	100 U	<1	WSWA24-33NC(0-3)
	North Wall	3 - 5	0.11 U	100 U	2	WSWA24-33NC(3-5)
34	Floor	5	0.12 U	270	<1	FSWA24-34CC(5)
	West Wall	3 - 5	0.65	230	3	WSWA24-34WC(3-5)
35	Floor	2	0.11 U	250 U	2	FSWA24-35CC(2)
	West Wall	3 - 5	0.12 U	450	2	WSWA24-35WC(3-5)
	West Wall	5 - 8	1.4	360	2	WSWA24-35WC(5-8)
36	Floor	2	3.2	940	5	FSWA24-36CC(2)
	South Wall	3 - 5	2.5	530	10	WSWA24-36SC(3-5)
	West Wall	3 - 5	1.4	1200	<1	WSWA24-36WC(3-5)
37	Floor	5	0.93	550	<1	FSWA24-37CC(5)

Results presented in this table summarize the field screening results for soil left in place after excavation activities were completed.

NOTES:

- Floor (composite) samples obtained from the base of the excavation.
- Wall (composite) samples obtained from the vertical face of the excavation.
- Perimeter (grab) samples obtained approximately 2.5 feet from the edge of the excavation.
- ND indicates the contaminant was not detected in the sample.
- E indicates the actual result exceeds the value listed.
- U indicates the contaminant was not detected in the sample; the reported value is the detection limit.
- Highlighted cells indicate samples which failed to meet 2 out of 3 EPA cleanup criteria.

**24 Willow Avenue
Post-Excavation Field Screening Results**

Grid Number	Sample Location	Sample Depth (feet)	Field Laboratory Results			Sample ID
			PCBs (ppm)	Lead (ppm)	Asbestos (%)	
			Cleanup Criteria			
			1.0	500	1	
38	Floor	5	0.59	320	1	FSWA24-38CC(5)
39	Floor	5	0.16	110	7	FSWA24-39CC(5)
40	Floor	5	0.13 U	300	1	FSWA24-40CC(5)
	South Wall	0 - 3	1.3	500	5	WSWA24-40SC(0-3)
	South Wall	3 - 5	1.0	370	20	WSWA24-40SC(3-5)
	South Perimeter	0.25	0.15 U	110	ND	WSWA24-40SG(0.25)

Results presented in this table summarize the field screening results for soil left in place after excavation activities were completed.

NOTES:

- Floor (composite) samples obtained from the base of the excavation.
- Wall (composite) samples obtained from the vertical face of the excavation.
- Perimeter (grab) samples obtained approximately 2.5 feet from the edge of the excavation.
- ND indicates the contaminant was not detected in the sample.
- E indicates the actual result exceeds the value listed.
- U indicates the contaminant was not detected in the sample; the reported value is the detection limit.
- Highlighted cells indicate samples which failed to meet 2 out of 3 EPA cleanup criteria.

Public Health Implications Statement
for
24 Willow Avenue
Stratford, CT

The federal Agency for Toxic Substances and Disease Registry (ATSDR) and the Connecticut Department of Public Health and Addiction Services (CTDPHAS) have evaluated environmental sampling results provided to us by EPA Region I in their investigation of the Raymark waste contamination. These sampling results were collected following EPA's cleanup of your property. Based on our evaluation, the health agencies believe that there is no current health threat indicated by the soil sampling results for asbestos, lead, and polychlorinated biphenyls (PCBs) from your property. Because waste had to be left below the surface on your property, the health agencies have made the following recommendations:

1. Do not dig *below 2 feet* next to the foundation of the house indicated by grid numbers: 19, 29, and 36;
2. Do not dig *below 2 feet* next to the foundation of the garage indicated by grid numbers: 5, 13, 14, 15, and 16;
3. Do not dig *below the surface* in areas along the south/southwest boundary of the property indicated by grid numbers: 24 and 32;
4. Do not dig *below 3 feet* in areas located in the backyard to the west of the wood deck indicated by grid number: 21 (appears to be currently under new driveway).
5. This property should be placed on a notification system so that future owners will be aware that waste had to be left below the surface. Waste was left in place because groundwater was reached or further excavation would compromise the foundation of the house or garage.

If you have questions or comments, please call the CTDPHAS hotline at 203-240-9022 or the Stratford Health Department at 203-385-4090.

Type of Samples: Post Excavation Soil Screening
Date of Samples: October & November 1994

Signature 

Date: August 8, 1995

ATSDR Reviewers: David Mellard, Ph.D., Tammie McRae
CTDPHAS Reviewers: Jennifer Kortanis

8 7 6 5 4 3 2 1

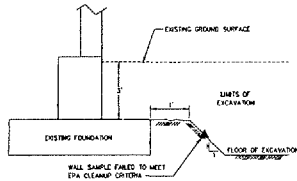
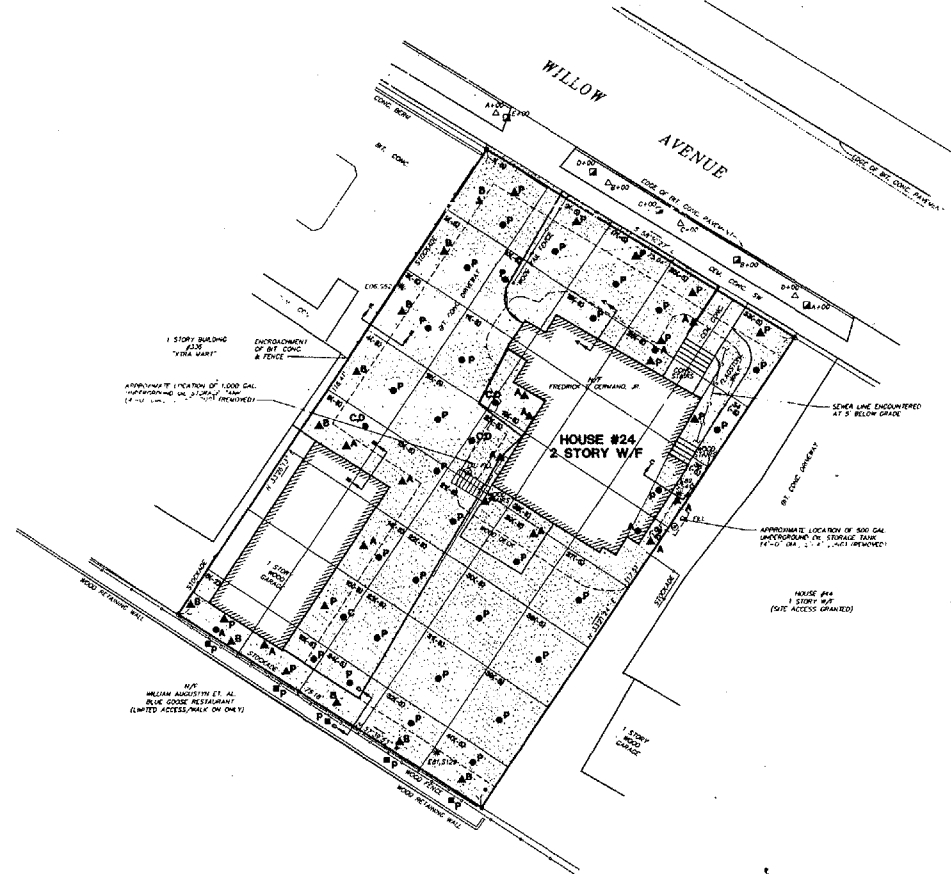
F
E
D
C
B
A

- LEGEND**
- CONC SW CEMENT CONCRETE SIDEWALK
 - BT BRICK
 - W/F WOOD FRAME
 - N/F NOW OR FORMERLY
 - STOCKADE STOCKADE FENCE
 - SEWER LINE SEWER LINE
 - PROPERTY LINE PROPERTY LINE
 - TAT PRE-EXCAVATION SURFICIAL SAMPLE
 - TAT PRE-EXCAVATION DEPTH SAMPLE LOCATION
 - ARCS PRE-EXCAVATION BORING LOCATION
 - DEPTH WHERE EXCAVATED SIDEWALL MET TO FLOOR OF EXCAVATION AT 1:1 SLOPE
 - EXCAVATED AREA
 - GRID NUMBER AND DEPTH OF EXCAVATION

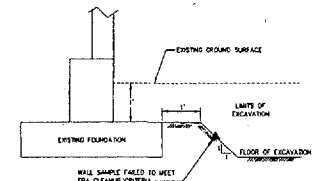
SOURCE
REFERENCE IS MADE TO:
DRAWING 2558-24G, UNFILED
PROPERTY BOUNDARY &
TOPOGRAPHIC SURVEY PLAN
8/25/94.

BOUNDARY SURVEY PREPARED BY:
MERIDIAN ENGINEERING COLLABORATIVE, INC.
120 CORPORATE PLACE
FABOBY, MA 01909
(508) 535-7328. DRAWING ENTITLED
PROPERTY BOUNDARY & TOPOGRAPHIC SURVEY PLAN
AUGUST 29, 1994, BY DAVID J. ROSE, PLS.

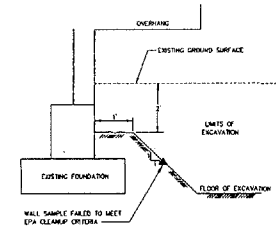
- POST-EXCAVATION SAMPLES KEY:**
- FLOOR SAMPLE
 - PERIMETER SAMPLE
 - ▲ WALL SAMPLE
- REASON FOR TERMINATION:**
- P - PASSED EPA CLEANUP CRITERIA (PCBs ≤ 1 PPM, LEAD ≤ 500 PPM, ASBESTOS ≤ 1%)
 - A - FOUNDATION OR OTHER AREAS NOT TO BE DISTURBED (SEE CROSS-SECTION A-A, B-B & C-C THIS SHEET)
 - B - ADJACENT PROPERTY ACCESS DENIED (SEE CROSS-SECTION D-D & E-E THIS SHEET)
 - C - GROUNDWATER ENCOUNTERED
 - D - EXCAVATION 8' DEEP
 - E - (NOT USED)



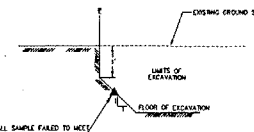
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EXCAVATION DETAIL**
NOT TO SCALE



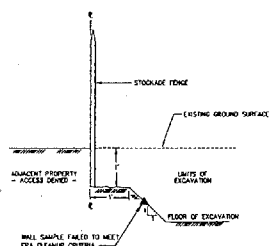
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EXCAVATION DETAIL**
NOT TO SCALE



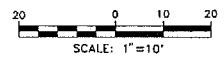
**- CROSS-SECTION C-C -
EXCAVATION DETAIL**
NOT TO SCALE



**- CROSS-SECTION D-D -
EXCAVATION DETAIL**
NOT TO SCALE



**- CROSS-SECTION E-E -
EXCAVATION DETAIL**
NOT TO SCALE



REVISION		DATE	DESCRIPTION	BY
U. S. ARMY CORPS OF ENGINEERS NEW ENGLAND DISTRICT WALTHAM, MASS. POST-EXCAVATION RECORD PLAN FOR #24 WILLOW AVENUE STRAITFORD, CT.				
DES BY GSC	DWG BY JPM	CHK BY JPM	DATE	
APPROVAL		APPROVAL		
DESIGNER'S SIGNATURE		DIRECTOR OF EXCAVATION (If required by drawing title)		
DESIGNER'S NAME ERASER SERVICES INCORPORATED 410 KILBURN AVENUE BOSTON, MA 02130 (617) 457-5200		SCALE: AS SHOWN SPEC. NO. DRAWING NUMBER SHEET 1 OF 1		

DATE: 8/25/94
BY: DAVID J. ROSE
CHECKED: J. ROSE

44 WILLOW AVE

**44 Willow Avenue
Pre-Excavation Soil Boring Results**

Sample ID	Sample Depth (feet)	PCBs (ppm)	Lead (ppm)	Asbestos (%)
Cleanup Criteria		1.0	500	1
¹ A+00	0 - 1	0.50	190	<1
	1 - 2	0.25 U	140 J	<1
	2 - 3	0.25 U	150 J	0
	3 - 3.5	0.25 U	120 J	0
¹ B+00	0 - 1	0.25 U	210	<1
	1 - 2	0.25 U	240	1
	2 - 3	0.25	190	0
	3 - 3.5	0.25 U	160 J	0
² WA44-FR-E	5 - 6	0.10 U	100	ND
	6 - 7	0.10 U	100	ND
	7 - 8	0.11 U	100	ND
² WA44-FR-W	3 - 4	0.10 U	100	<1
	4 - 5	0.10 U	100	<1
	5 - 6	0.10 U	100	ND

Results presented in this table summarize the site investigation (pre-excavation) results for soil left in place after excavation activities were completed.

NOTES:

- ¹ Sample collected by Weston TAT on 10/7/93.
- ² Samples collected by Ebasco on 9/15/94.
- ND indicates the contaminant was not detected in the sample.
- J indicates lead result is greater than primary detection limit of 50 ppm; less than or equal to primary quantitation limit of 180 ppm.
- U indicates contaminant has been analyzed for but not detected.

**44 Willow Avenue
Pre-Excavation Surface Soil Results**

Sample ID	Sample Depth (feet)	PCBs (ppm)	Lead (ppm)	Asbestos (%)
Cleanup Criteria		1.0	500	1
F+00	0.25	0.25 U	240	3
G+00	0.25	0.25	290	<1

Results presented in this table summarize the site investigation (pre-excavation) results for soil left in place after excavation activities were completed.

NOTES:

- Samples collected by Weston TAT on 6/17/93.
- U indicates contaminant has been analyzed for but not detected.
Associated numerical value is field screening method quantitation limit.

44 Willow Avenue
Post-Excavation Field Screening Results

Grid Number	Sample Location	Sample Depth (feet)	Field Laboratory Results			Sample ID
			PCBs (ppm)	Lead (ppm)	Asbestos (%)	
			1.0	500	1	Cleanup Criteria
E+00	Floor	1	0.11U	100 U	<1	FSWA44-E+00CC(1)
	East Perimeter	0.25	0.12U	340	<1	PSWA44-E+00EG(0.25)
1	Floor	5	0.16 U	190	3	FSWA44-1CC(5)
	North Wall	0 - 3	0.12 U	130	<1	WSWA44-1NC(0-3)
	North Wall	3 - 5	0.11 U	100 U	20	WSWA44-1NC(3-5)
2	Floor	5	0.13 U	250 U	2	FSWA44-2CC(5)
3	Floor	8	0.15 U	310	<1	FSWA44-3CC(8)
	East Wall	5 - 8	0.28	600	3	WSWA44-3EC(5-8)
4	Floor	8	0.18 U	250 U	<1	FSWA44-4CC(8)
5	Floor	8	1.2	250 U	<1	FSWA44-5CC(8)
6	Floor	7	2.4	530	2	FSWA44-6CC(7)
	East Wall	0 - 3	2.0	250 U	1	WSWA44-6EC(0-3)
	East Wall	3 - 7	1.6	410	2	WSWA44-6EC(3-7)
7	Floor	7	2.0	440	2	FSWA44-7CC(7)
	East Wall	0 - 3	0.70	270	2	WSWA44-7EC(0-3)
	East Wall	3 - 5	2.6	720	20	WSWA44-7EC(3-5)
8	Floor	7	0.17	250 U	2	FSWA44-8CC(7)
	South Wall	0 - 3	5.5	360	<1	WSWA44-8SC(0-3)
	South Wall	3 - 7	8.7	250 U	2	WSWA44-8SC(3-7)
	South Perimeter	0.25	0.15 U	250	<1	PSWA44-8SG(0.25)
9	Floor	5	0.11 U	250 U	2	FSWA44-9CC(5)
	North Wall	0 - 3	0.11 U	100 U	<1	WSWA44-9NC(0-3)
	North Wall	3 - 5	0.14 U	190	20	WSWA44-9NC(3-5)
	East Wall	3 - 5	0.32	420	3	WSWA44-9EC(3-5)
10	Floor	5	0.69	320	2	FSWA44-10CC(5)
	East Wall	3 - 5	1.6	250 U	4	WSWA44-10EC(3-5)
11	Floor	5	0.11 UJ	250 U	2	FSWA44-11CC(5)
	East Wall	3 - 5	0.12 U	100 U	ND	WSWA44-11EC(3-5)

Results presented in this table summarize the field screening results for soil left in place after excavation activities were completed.

NOTES:

- Floor (composite) samples obtained from the base of the excavation.
- Wall (composite) samples obtained from the vertical face of the excavation.
- Perimeter (grab) samples obtained approximately 2.5 feet from the edge of the excavation.
- ND indicates the contaminant was not detected in the sample.
- E indicates the actual result exceeds the value listed.
- J indicates estimated value.
- U indicates the contaminant was not detected in the sample; the reported value is the detection limit.
- Highlighted cells indicate samples which failed to meet 2 out of 3 EPA cleanup criteria.

44 Willow Avenue
Post-Excavation Field Screening Results

Grid Number	Sample Location	Sample Depth (feet)	Field Laboratory Results			Sample ID
			PCBs (ppm)	Lead (ppm)	Asbestos (%)	
			1.0	500	1	Cleanup Criteria
12	Floor	5	0.11 U	260	<1	FSWA44-12CC(5)
	East Wall	0 - 3	1.1	600	20	WSWA44-12EC(0-3)
	East Wall	3 - 5	0.14 U	130	3	WSWA44-12EC(3-5)
	Southeast Wall	0 - 3	1.4	690	2	WSWA44-12SC(0-3)
	Southeast Wall	3 - 5	0.13 U	140	ND	WSWA44-12SC(3-5)
13	Floor	8	0.96	340	2	FSWA44-13CC(8)
	South Wall	0 - 3	2.8 J	790	20	WSWA44-13SC(0-3)
	South Wall	3 - 5	0.19	250 U	5	WSWA44-13SC(3-5)
	South Wall	5 - 8	0.14 UJ	250 U	<1	WSWA44-13SC(5-8)
14	West Wall	3 - 5	0.15 U	250 U	5	FSWA44-14CC(3)
15	North Wall	0 - 3	0.52	250 U	2	WSWA44-15NC(0-3)
	North Wall	3 - 5	13 E	520	3	WSWA44-15NC(3-5)
16	Floor	5	1.1	270	3	FSWA44-16CC(5)
	South Wall	0 - 3	7.1 E	490	<1	WSWA44-16SC(0-3)
	South Wall	3 - 5	1.1	340	2	WSWA44-16SC(3-5)
	South Perimeter	0.25	3.5	970	<1	PSWA44-16SG(0.25)
17	Floor	3	0.10 U	360	50	FSWA44-17CC(3)
	North Wall	0 - 3	0.10 U	250 U	<1	WSWA44-17NC(0-3)
	East Wall	0 - 3	0.11 U	250 U	Trace	WSWA44-17EC(0-3)
	South Wall	0 - 3	0.11 U	250 U	<1	WSWA44-17SC(0-3)
	West Wall	0 - 3	0.12 U	150	<1	WSWA44-17WC(0-3)
21	Floor	8	1.2	550	2	FSWA44-21CC(8)
	North Wall	3 - 5	0.12 U	23000	<1	WSWA44-21NC(3-5)
	North Wall	5 - 8	0.62	820	1	WSWA44-21NC(5-8)
22	Floor	8	0.17 U	250 U	3	FSWA44-22CC(8)
	West Wall	5 - 8	0.99	270	3	WSWA44-22WC(5-8)
23	Floor	8	0.17 U	250 U	3	FSWA44-23CC(8)
	West Wall	3 - 8	0.16 U	ND	3	WSWA44-15EC(3-8)

Results presented in this table summarize the field screening results for soil left in place after excavation activities were completed.

NOTES:

- Floor (composite) samples obtained from the base of the excavation.
- Wall (composite) samples obtained from the vertical face of the excavation.
- Perimeter (grab) samples obtained approximately 2.5 feet from the edge of the excavation.
- ND indicates the contaminant was not detected in the sample.
- E indicates the actual result exceeds the value listed.
- J indicates estimated value.
- U indicates the contaminant was not detected in the sample; the reported value is the detection limit.
- Highlighted cells indicate samples which failed to meet 2 out of 3 EPA cleanup criteria.

44 Willow Avenue
Post-Excavation Field Screening Results

Grid Number	Sample Location	Sample Depth (feet)	Field Laboratory Results			Sample ID Cleanup Criteria
			PCBs (ppm)	Lead (ppm)	Asbestos (%)	
			1.0	500	1	
24	Floor	5	1.0	250 U	2	FSWA44-24CC(5)
	South Wall	0 - 3	1.9	250 U	<1	WSWA44-24SC(0-3)
	South Wall	3 - 5	2.4	600	2	WSWA44-24SC(3-5)
	South Perimeter	0.25	520	940	<1	PSWA44-24SG(0.25)
25	Floor	5	0.11 U	ND	ND	FSWA44-25CC(5)
	North Wall	0 - 3	0.10 U	ND	ND	WSWA44-25NC(0-3)
	North Wall	3 - 5	0.12 U	250 U	<1	WSWA44-25NC(3-5)
26	North Wall	3 - 5	1.5	320	<1	WSWA44-26NC(3-5)
	West Wall	3 - 5	10 E	2110	<1	FSWA44-26CC(3)
27	West Wall	3 - 5	4.2	500	<1	FSWA44-27CC(3)
28	West Wall	3 - 5	3.5	380	5	FSWA44-28CC(3)
29	Floor	8	1.1	530	5	FSWA44-29CC(8)
	North Wall	3 - 5	4.6	9100	8	WSWA44-29NC(3-5)
	North Wall	5 - 8	0.15 U	260	1	WSWA44-29NC(5-8)
30	Floor	8	0.68	250 U	5	FSWA44-30CC(8)
31	Floor	8	0.18 U	250 U	3	FSWA44-31CC(8)
32	Floor	5	0.14 U	250 U	2	FSWA44-32CC(5)
	South Wall	0 - 3	0.16 U	770	<1	WSWA44-32SC(0-3)
	South Wall	3 - 5	1.1	500	3	WSWA44-32SC(3-5)
	South Perimeter	0.25	0.17 U	2000	<1	PSWA44-32SG(0.25)
33	Floor	5	0.11 U	250 U	<1	FSWA44-33CC(5)
	North Wall	0 - 3	0.11 U	250 U	<1	WSWA44-33NC(0-3)
	North Wall	3 - 5	0.11 U	ND	<1	WSWA44-33NC(3-5)
	East Wall	0 - 3	0.11 U	250 U	<1	WSWA44-33EC(0-3)
	East Wall	3 - 5	0.11 U	250 U	2	WSWA44-33EC(3-5)
34	Floor	5	0.17	250 U	<1	FSWA44-34CC(5)
	East Wall	0 - 3	0.11 U	250 U	ND	WSWA44-34E(0-3)
	East Wall	3 - 5	0.11 U	250 U	<1	WSWA44-34E(3-5)

Results presented in this table summarize the field screening results for soil left in place after excavation activities were completed.

NOTES:

- Floor (composite) samples obtained from the base of the excavation.
- Wall (composite) samples obtained from the vertical face of the excavation.
- Perimeter (grab) samples obtained approximately 2.5 feet from the edge of the excavation.
- ND indicates the contaminant was not detected in the sample.
- E indicates the actual result exceeds the value listed.
- J indicates estimated value.
- U indicates the contaminant was not detected in the sample; the reported value is the detection limit.
- Highlighted cells indicate samples which failed to meet 2 out of 3 EPA cleanup criteria.

44 Willow Avenue
Post-Excavation Field Screening Results

Grid Number	Sample Location	Sample Depth (feet)	Field Laboratory Results			Sample ID Cleanup Criteria
			PCBs (ppm)	Lead (ppm)	Asbestos (%)	
			1.0	500	1	
35	Floor	5	0.11 U	ND	ND	FSWA44-35CC(5)
	East Wall	0 - 3	0.13 U	250 U	<1	WSWA44-35EC(0-3)
	East Wall	3 - 5	0.50	250 U	2	WSWA44-35EC(3-5)
36	Floor	8	2.8	340	3	FSWA44-36CC(8)
	East Wall	0 - 3	0.13 U	250 U	4	WSWA44-36EC(0-3)
	East Wall	3 - 5	0.24	260	<1	WSWA44-36EC(3-5)
37	Floor	5	2.0	310	<1	FSWA44-37CC(5)
	East Wall	0 - 3	0.45	250 U	2	WSWA44-37EC(0-3)
	East Wall	3 - 5	0.13	250 U	2	WSWA44-37EC(3-5)
38	Floor	5	0.25	250 U	2	FSWA44-38CC(5)
	East Wall	0 - 3	1.3	250 U	2	WSWA44-38EC(0-3)
	East Wall	3 - 5	0.91	250	3	WSWA44-38EC(3-5)
39	Floor	5	0.71	310	2	FSWA44-39CC(5)
	East Wall	0 - 3	0.13 U	250 U	30	WSWA44-39EC(0-3)
	East Wall	3 - 5	2.2	400	4	WSWA44-39EC(3-5)
40	Floor	5	0.18	250 U	2	FSWA44-40CC(5)
	East Wall	0 - 3	0.21	250 U	5	WSWA44-40EC(0-3)
	East Wall	3 - 5	0.83	540	50	WSWA44-40EC(3-5)
	South Wall	0 - 3	1.7	1200	ND	WSWA44-40SC(0-3)
	South Wall	3 - 5	0.60	350	10	WSWA44-40SC(3-5)
	South Perimeter	0.25	7.7 E	6900	Trace	PSWA44-40SG(0.25)

Results presented in this table summarize the field screening results for soil left in place after excavation activities were completed.

NOTES:

- Floor (composite) samples obtained from the base of the excavation.
- Wall (composite) samples obtained from the vertical face of the excavation.
- Perimeter (grab) samples obtained approximately 2.5 feet from the edge of the excavation.
- ND indicates the contaminant was not detected in the sample.
- E indicates the actual result exceeds the value listed.
- J indicates estimated value.
- U indicates the contaminant was not detected in the sample; the reported value is the detection limit.
- Highlighted cells indicate samples which failed to meet 2 out of 3 EPA cleanup criteria.

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Interoffice Memorandum

DATE: May 30, 1995

REF. #: WA44rsp

TO: Marty Sklaver

FROM: Helen Douglas *HD*

SUBJECT: USACE CONTRACT NO. DACW33-94-D-0002 NE TERC
Delivery Order No. 0004 Stratford Superfund Sites
Post-Excavation Data - 44 Willow Avenue
Amendment to Transmittal No. ~~01410-WA44~~ *GRID 168*
608

Final results for post excavation samples representing soil "left in place" at 44 Willow Avenue are included on the attached table. These results were reviewed in accordance with the procedures described in the project CDAP and outlined below. Based on this review, the data are acceptable for project use.

The individual laboratories (ABB-ES - on-site and Aquatec - off-site) provide a quality assurance check of all data prior to final reporting. Quality control on-site/off-site split sample data are summarized and reported in weekly data comparison memos (WCS). Some discrepancies between the split sample comparison results were noted and discussed in transmittals 121, 122, and WCS-001. The majority were determined to be the result of matrix interference and are discussed in transmittals 122B and WCS-008B. On-going correlation studies are reported periodically and are intended to identify trends that could have significant impacts to the data reported by the on-site laboratory. The associated on-going correlation study for 44 Willow Avenue is provided in transmittal OCS-001.

Approximately 20 percent of the off-site split sample results were reviewed with respect to the data quality objectives given in the CDAP and are reported in transmittal no. DV-001; no significant quality control exceedences were noted in the off-site data review.

Following the ABB-ES quality control review, the results summarized below were reported differently from the above mentioned grid book.

Sample I.D.	Lab I. D.	Date Collected	Correct Result (ppm)	Comments
WS-1NC(0-3)	5205	10/26/94	< 1%(Asbestos)	incorrectly transcribed to gridbook
FS-7CC(7)	5149	09/30/94	440 (lead)	average of analytical duplicates
WS-7EC(0-3)	5085	09/29/94	270 (lead)	average of analytical duplicates

Sample I.D.	Lab I. D.	Date Collected	Correct Result (ppm)	Comments
WS-9EC(3-5)	6391	10/25/94	0.32 (PCB)	incorrectly reported by the lab
FS-10CC(5)	4882	10/24/94	0.69 (PCB)	revised result not recorded in gridbook
WS-13SC(0-3)	5800	10/17/94	790 (lead)	incorrectly transcribed to gridbook
WS-13SC(5-8)	5805	10/17/94	250 U (lead)	incorrectly reported by the lab
FS-24CC(5)	4892	09/29/94	1.0 (PCB)	revised result not recorded in gridbook
PS-8SG(0.25)	5187	10/03/94	0.15 U (PCB)	incorrectly reported by the lab
WS-24SC(0-3)	5082	09/29/94	1.9 (PCB)	incorrectly transcribed to gridbook
WS-24SC(3-5)	5083	09/29/94	600 (lead)	average of analytical duplicates
WS-26NC(3-5)	5234	10/18/94	320 (lead)	incorrectly transcribed in the gridbook
WS-29NC(3-5)	5218	10/13/94	8% (asbestos)	incorrectly reported by the lab
WS-35EC(3-5)	5141	10/05/94	0.5 (PCB)	incorrectly reported by the lab
WS-39EC(0-3)	5239	10/06/94	0.13 U (PCB)	incorrectly transcribed in the gridbook
WS-39EC(0-3)	5239	10/06/94	250 U (lead)	incorrectly transcribed in the gridbook
WS-39EC(0-3)	5239	10/06/94	30% (asbestos)	incorrectly transcribed in the gridbook
WS-39EC(3-5)	5240	10/06/94	2.2 (PCB)	incorrectly transcribed in the gridbook
WS-39EC(3-5)	5240	10/06/94	400 (lead)	incorrectly transcribed in the gridbook
WS-39EC(3-5)	5240	10/06/94	4% (asbestos)	incorrectly transcribed in the gridbook
PS-40SG(0.25)	5191	10/03/94	6900 (lead)	rounding

Some final concentrations are flagged as estimated "J" following the on-site QC review. In addition, some values reported for PCBs were adjusted slightly due to percent solids correction and/or rounding. The noted data adjustments do not change the field decisions with respect to the 2 out of 3 cleanup criteria.

Please call me at (617)457-8263, if you have any questions.

cc: G. Eckart
Chemistry Distribution

Public Health Implications Statement
for
44 Willow Avenue
Stratford, CT

The federal Agency for Toxic Substances and Disease Registry (ATSDR) and the Connecticut Department of Public Health and Addiction Services (CTDPHAS) have evaluated environmental sampling results provided to us by EPA Region I in their investigation of the Raymark waste contamination. These sampling results were collected following EPA's cleanup of your property. Based on our evaluation, the health agencies believe that there is no current health threat indicated by the soil sampling results for asbestos, lead, and polychlorinated biphenyls (PCBs) from your property. Because waste had to be left below the surface on your property, the health agencies have made the following recommendations:

1. Do not dig next to the foundation of the house in the following areas:
 - *below the surface* in the southwest corner of the house indicated by grid numbers: 12 and 13;
 - *below 2 feet* indicated by grid numbers: 21, 26 and 29;
2. Do not dig *below 2 feet* next to the foundation of the southern perimeter of the garage indicated by grid numbers: 7 and 15;
3. Do not dig *below the surface* in areas along the south/southwest/southeast border of the property indicated by grid numbers: 8, 16, 24, 32, 39, and 40;
4. This property should be placed on a notification system so that future owners will be aware that waste had to be left below the surface. Waste was left in place because groundwater was reached or further excavation would compromise the foundation of the house or garage.

If you have questions or comments, please call the CTDPHAS hotline at 203-240-9022 or the Stratford Health Department at 203-385-4090.

Type of Samples: Post Excavation Soil Screening
Date of Samples: September & October 1994

Signature

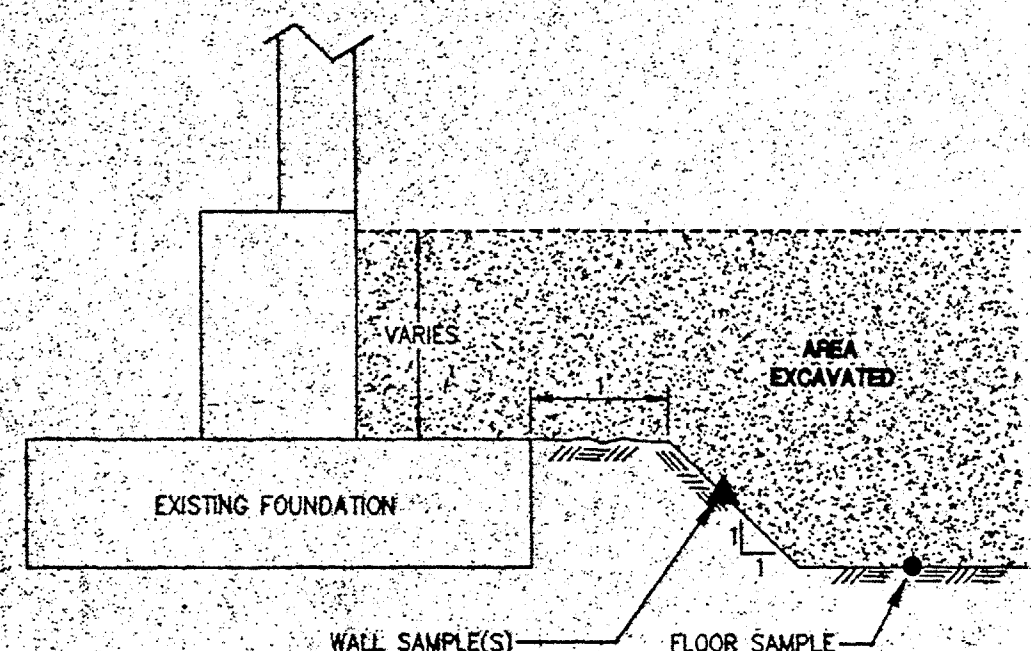


Date: August 8, 1995

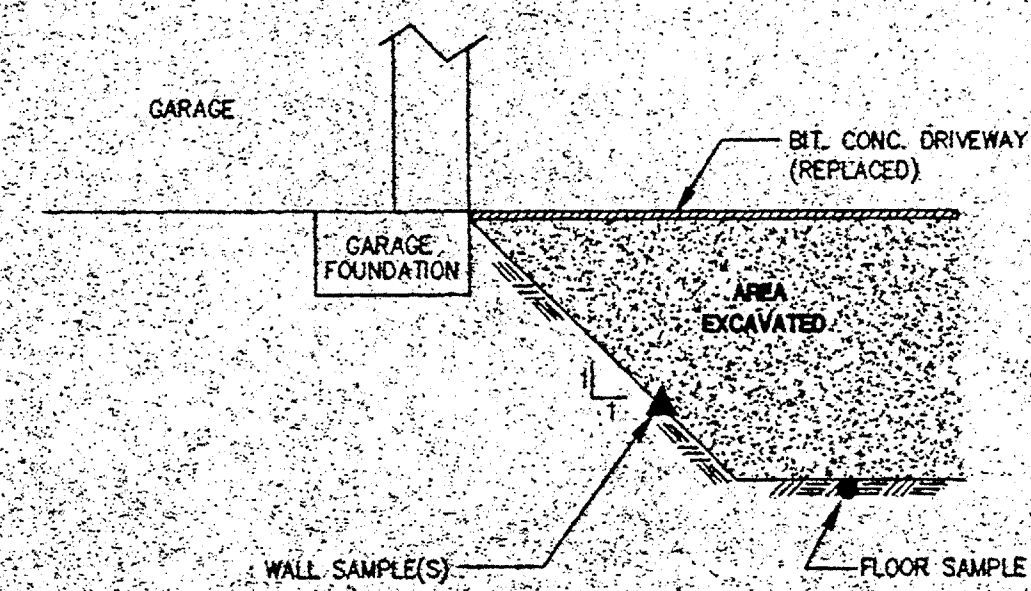
ATSDR Reviewers: David Mellard, Ph.D., Tammie McRae
CTDPHAS Reviewers: Jennifer Kertanis

EXCAVATION FLOOR ELEVATION		
GRID NUMBER	DEPTH OF EXCAVATION (FT.)	FLOOR ELEVATION (FT.)
1	-5	11.0
2	-5	10.9
3	-8	7.0
4	-8	6.9
5	-8	6.6
6	-7	7.2
7	-7	6.6
8	-7	6.0
9	-5	11.0
10	-5	10.5
11	-5	10.0
12	-5	9.9
13	-8	6.5
14	-5	8.8
15	-5	8.2
16	-5	8.0
17	-3	13.0
21	-8	6.2
22	-8	5.8
23	-8	5.4
24	-5	8.0
25	-5	11.0
26	-5	11.0
27	-5	10.5
28	-5	10.0
29	-8	6.2
30	-8	5.9
31	-8	5.4
32	-5	8.0
33	-5	11.0
34	-5	10.8
35	-5	10.4
36	-8	7.0
37	-5	9.7
38	-5	9.0
39	-5	8.8
40	-5	8.0

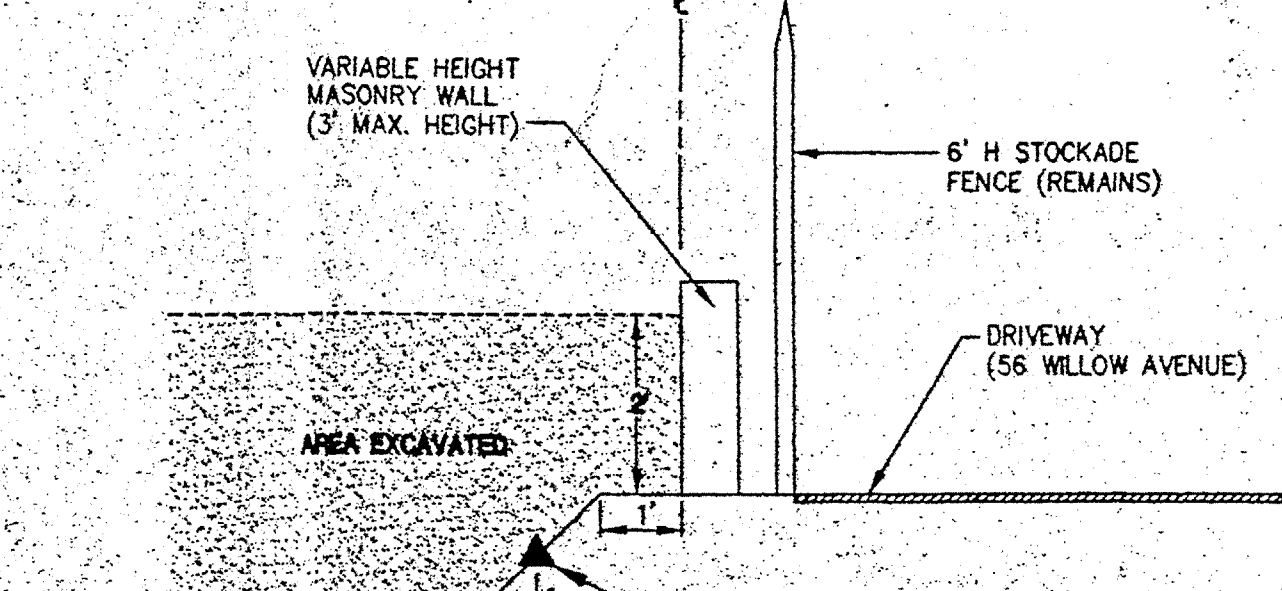
NOTE: ALL ELEVATIONS ARE MEASURED AT THE APPROXIMATE CENTER OF THE EXCAVATED PORTION OF THE SUBJECT GRID NUMBER. (SEE SURVEY NOTE, THIS SHEET)



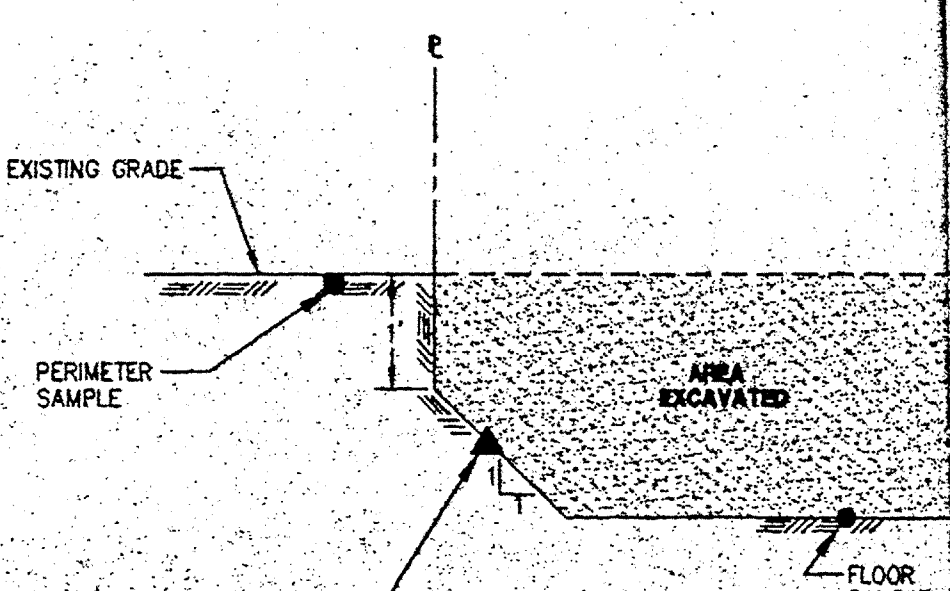
CROSS-SECTION A-A - EXCAVATION DETAIL
NOT TO SCALE
(APPLIES TO GRIDS 10, 11, 12, 13, 21, 26, 27, 28 AND 29)



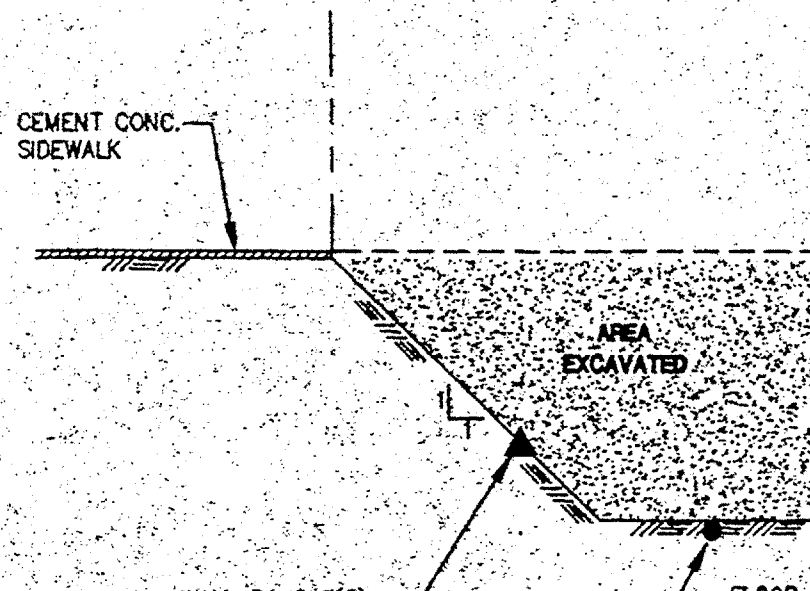
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NOT TO SCALE
(APPLIES TO GRIDS 5, 6, 9, 43, 14 AND 15)



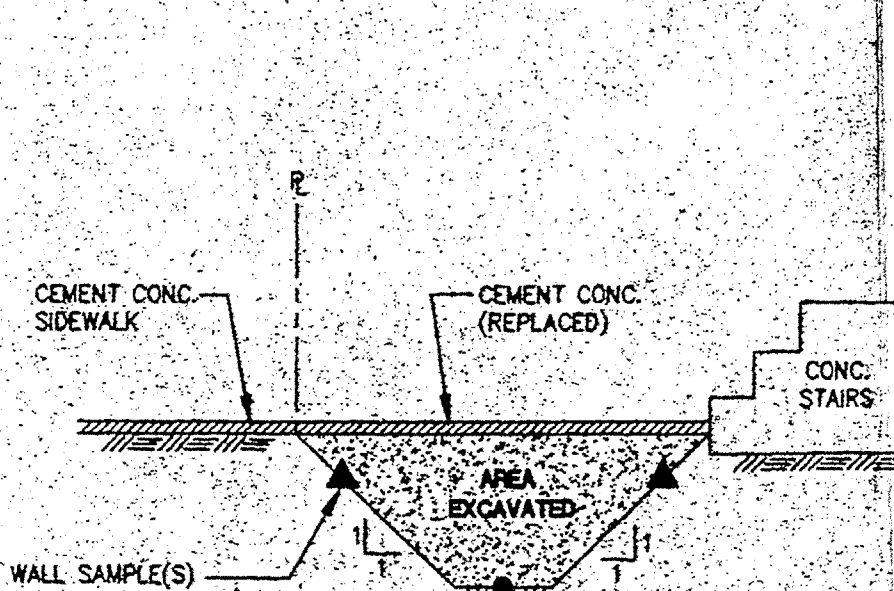
CROSS-SECTION C-C - EXCAVATION AT MASONRY RETAINING WALL
NOT TO SCALE



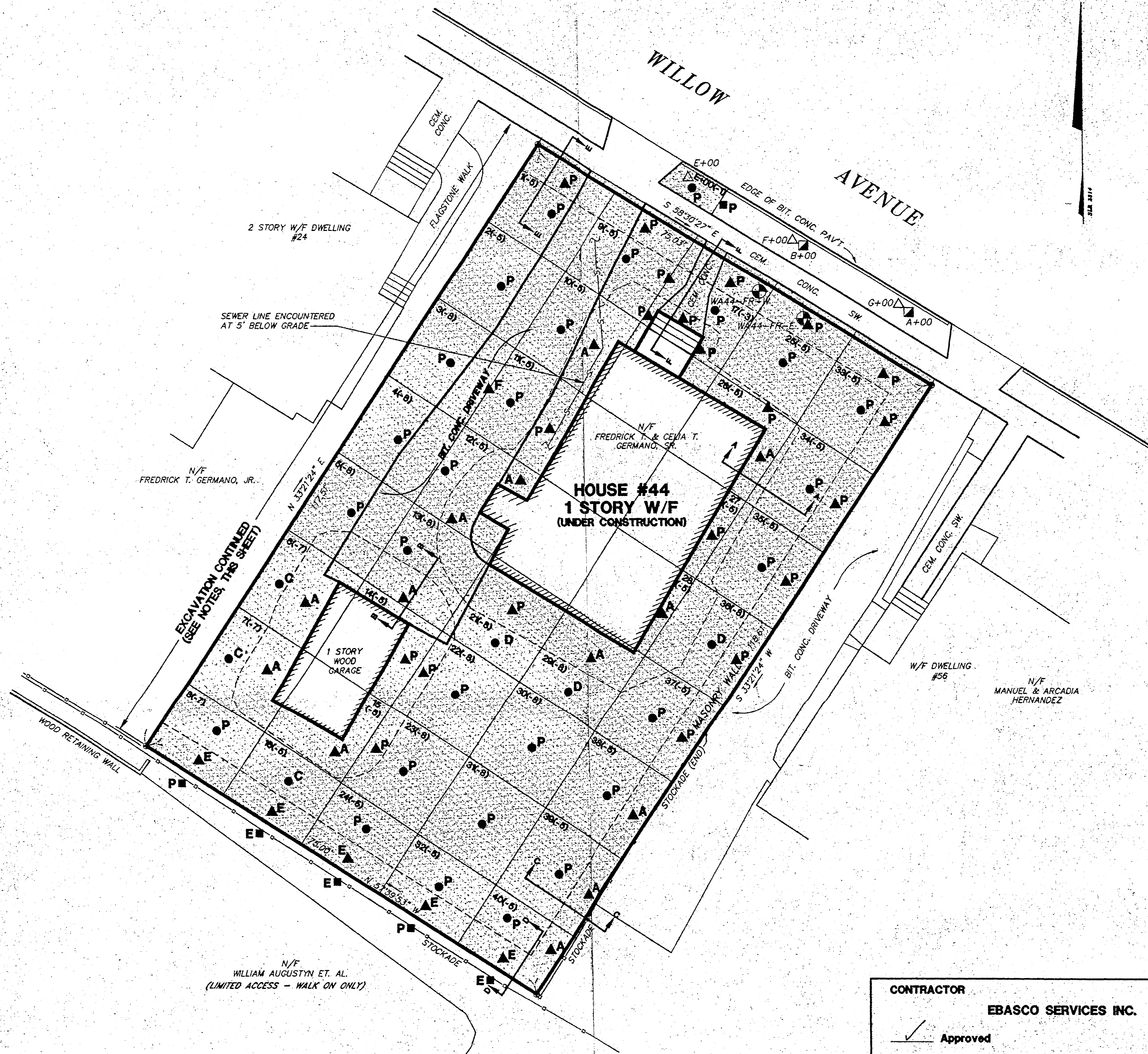
CROSS-SECTION D-D - EXCAVATION DETAIL
NOT TO SCALE
(APPLIES TO GRIDS 8, 16, 24, 32 AND 40)



CROSS-SECTION E-E - EXCAVATION DETAIL
NOT TO SCALE
(APPLIES TO GRIDS 1, 9, 17, 25 AND 33)



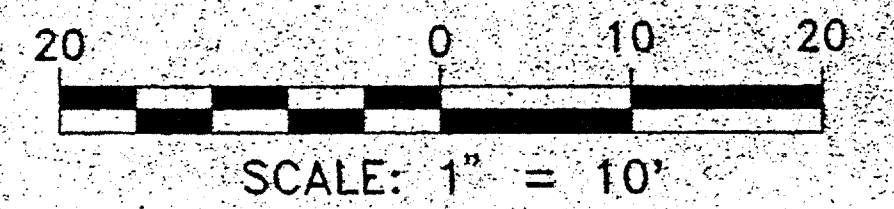
CROSS-SECTION F-F - EXCAVATION DETAIL
NOT TO SCALE
(APPLIES TO GRID 17)



CONTRACTOR
EBASCO SERVICES INC.

Approved _____
Approved with corrections as noted on submittal and/or attached sheet(s)

SIGNATURE: *Paul C. McNeil*
TITLE: *Project Engineer*
DATE: *July 14, 1995*



LEGEND

BIT. CONC.	BITUMINOUS CONCRETE	WESTON TAT PRE-EXCAVATION SURFICIAL SAMPLE
CEM. CONC. SW	CEMENT CONCRETE SIDEWALK	WESTON TAT PRE-EXCAVATION DEPTH SAMPLE
W/F	WOOD FRAME	EBASCO PRE-EXCAVATION BORING
N/F	NOW OF FORMERLY	INTERSECTION OF SIDEWALK AND FLOOR OF EXCAVATION
P	PROPERTY LINE	EXCAVATED AREA
—	STOCKADE FENCE	GRID NUMBER (DEPTH OF EXCAVATION)
S	SEWER LINE	

BOUNDARY SURVEY PREPARED BY:
MERIDIAN ENGINEERING COLLABORATIVE, INC.
100 CORPORATE PLACE, PEABODY, MA 01960
(508) 535-7328. DRAWING ENTITLED:
PROPERTY BOUNDARY & TOPOGRAPHIC SURVEY PLAN,
AUGUST 29, 1994, BY DAVID J. RODE, PLS.

SURVEY NOTE:
VERTICAL SURVEY CONTROL IS REFERENCED TO STATE OF CONNECTICUT
GEODETTIC SURVEY BENCHMARK INFORMATION (OBTAINED FROM THE CONNECTICUT
DEPARTMENT OF TRANSPORTATION), WHICH IS BASED UPON THE NORTH AMERICAN
VERTICAL DATUM OF 1929 (NAVD 1929) [REFERENCED TO MEAN SEA LEVEL AND
IN NEW ENGLAND, EQUIVALENT TO NAVD 1929]

- POST-EXCAVATION SAMPLES KEY:
- FLOOR SAMPLE
 - PERIMETER SAMPLE
 - ▲ WALL SAMPLE
- REASON FOR TERMINATION OF EXCAVATION:
- P - PASSED 2 OUT OF 3 EPA CLEAN-UP CRITERIA (AS STATED IN 8/9/94 LETTER AND REVISED LEAD CRITERIA IN 11/17/94 LETTER FROM D. TAGLIAFERRO, USEPA, TO R. GOFF, USACOE.) (PCBs ≤ 1 PPM, LEAD ≤ 500 PPM, ASBESTOS ≤ 1%)
 - A - FOUNDATION OR OTHER AREAS NOT TO BE DISTURBED (SEE CROSS-SECTION A-A, B-B, C-C & F-F THIS SHEET)
 - B - (NOT USED)
 - C - GROUNDWATER ENCOUNTERED
 - D - EXCAVATION IS 8' DEEP
 - E - ADJACENT NON-RESIDENTIAL PROPERTY OUTSIDE SCOPE OF WORK (SEE CROSS-SECTION D-D)
 - F - CONTAMINATION EXCEEDING CLEAN-UP CRITERIA AT DEPTH UNINTENTIONALLY LEFT IN PLACE.

- NOTES:
- EXCAVATION CONTINUED ON THE ADJACENT PROPERTY AT APPROXIMATELY THE SAME DEPTH IN THE FOLLOWING AREAS:
- 24 WILLOW AVENUE - WEST OF GRIDS 1, 2, 3, 4, 5, 6, 7, AND 8.

U.S. ARMY CORPS OF ENGINEERS NEW ENGLAND DIVISION WALTHAM, MASS.	
DESIGN FILE: 64ML-46-001	
DESIGNER: EBASCO SERVICES INCORPORATED 470 ATLANTIC AVENUE ROSTON, MA 02070 (617) 457-8200	
DESIGNED BY: GDE	CHECKED BY: PCM
SUBMITTED:	APPROVED:
CHIEF GENERAL ENGINEERING BRANCH	CHIEF DESIGN DIVISION
APPROVAL RECOMMENDED:	APPROVED:
CHIEF ENGINEERING MANAGEMENT DIVISION	DIRECTOR OF ENGINEERING
SCALE: AS SHOWN	
DRAWING NUMBER:	
SHEET 1 OF 1	

45 THIRD AVE

Public Health Implications Statement
for
45 Third Avenue
Stratford, CT

The federal Agency for Toxic Substances and Disease Registry (ATSDR) and the Connecticut Department of Public Health and Addiction Services (CTDPHAS) have evaluated the enclosed information. Based on that evaluation, the health agencies believe that an imminent health threat exists at this location at this time.

The health agencies have made the following recommendations:

1. People's contact with the contaminated areas should be stopped or reduced;
2. Since contamination may be below the surface at this location, samples should be collected from areas underground;
3. Digging and gardening should be avoided until the subsurface investigation has been completed;
4. More samples are necessary so that the health agencies can better determine the health risk; and
5. Clean up should be considered.

If you have questions or comments, please call the CTDPHAS hotline at 240-9024 or the Stratford Health Department at 385-4090.

Signature



Date: August 2, 1993

Type of Samples: Surface Soil Screening
Date of Samples: 6/23/93

ATSDR Reviewers: David Mellard, Ph.D., Lynn Wilder, Rich Nickle
Tammie McRae
CTDPHAS Reviewers: Diane Aye

Public Health Implications Statement
for
45 Third Avenue
Stratford, CT

The federal Agency for Toxic Substances and Disease Registry (ATSDR) and the Connecticut Department of Public Health and Addiction Services (CTDPHAS) have evaluated environmental sampling results provided to us by EPA Region I in their investigation of the Raymark waste contamination. These sampling results were collected following EPA's cleanup of your property. Based on our evaluation, the health agencies believe that there is no current health threat indicated by the soil sampling results for asbestos, lead, and polychlorinated biphenyls (PCBs) from your property at this time. Because waste had to be left in areas below the surface on your property, the health agencies have made the following recommendations:

1. Do not dig below the following depths in areas of your property indicated by grid numbers:
 - 12 inches next to the foundation of the house: Grid Numbers 1, 3, 5, 9, 10, 11, 14, 18, 19, 23;
 - 12 inches on the southern boundary of the property: Grid Numbers 1, 2, 14, 18, 19, 20, 21, 22;
 - 12 inches on the western boundary of the property: Grid Number 17;
 - 12 inches on the northwestern boundary of the property next to the garage: Grid Number 25;
 - 1.5 feet on the eastern boundary of the property next to the road: Grid Number 6; and
 - 4 feet on the rest of your property.
2. This property should be placed on a notification system so that future owners will be aware that waste had to be left below the surface. Waste was left in place because groundwater was reached and further excavation would compromise the foundation of your house.

If you have questions or comments, please call the CTDPHAS hotline at 203-240-9022 or the Stratford Health Department at 203-385-4090.

Type of Samples: Excavation Boundary, Depth

Date of Samples: June - July 1994

Signature: 

Date: March 28, 1995

ATSDR Reviewers: David Mellard, Ph.D., Tammie McRae

CTDPHAS Reviewers: Diane Aye, Jennifer Kertanis

**Public Health Implications Statement
for
45 Third Avenue
Stratford, CT**

The federal Agency for Toxic Substances and Disease Registry (ATSDR) and the Connecticut Department of Public Health and Addiction Services (CTDPHAS) have evaluated environmental sampling results provided to us by EPA Region I in their investigation of the Raymark waste contamination. These sampling results were collected following EPA's cleanup of your property. Based on our evaluation, the health agencies believe that there is no current health threat indicated by the soil sampling results for asbestos, lead, and polychlorinated biphenyls (PCBs) from your property at this time. Because waste had to be left in areas below the surface on your property, the health agencies have made the following recommendations:

1. Do not dig below the following depths in areas of your property indicated by grid numbers:
 - 12 inches next to the foundation of your house: Grid Numbers 1, 3, 5, 9, 10, 11, 14, and 18;
 - 12 inches on the southern boundary of your property: Grid Numbers 1, 2, 14, and 18; and
 - 4 feet on the rest of your property.
2. This property should be placed on a notification system so that future owners will be aware that waste had to be left below the surface. Waste was left in place because groundwater was reached or because further excavation would compromise the foundation of your house.

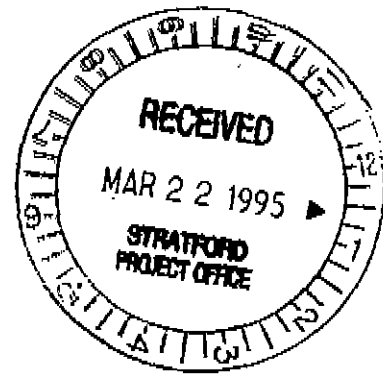
If you have questions or comments, please call the CTDPHAS hotline at 203-240-9022 or the Stratford Health Department at 203-385-4090.

Type of Samples: Excavation Boundary, Depth
Date of Samples: June - July 1994

Signature

Date: February 23, 1995

ATSDR Reviewers: David Mellard, Ph.D., Tammie McRae
CTDPHAS Reviewers: Diane Aye, Jennifer Kertanis



FEDERAL ON-SCENE COORDINATOR'S REPORT
45 THIRD AVENUE
STRATFORD, CONNECTICUT

June 6 through August 12, 1994

Prepared By:

AmyJean Lussier
U.S. Environmental Protection Agency
Region I
60 Westview Street
Lexington, Massachusetts

and

ROY F. WESTON, INC.
Technical Assistance Team
Region I

February 1995

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Appendix A - Excavation Grid Sample Location Maps
(Figures 4A - 4M)

Appendix B - Property Restoration Plan

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Table 1 - Analytical Screening Results Summary

Table 2 - Excavated Soil Shipment Summary

1.0 Executive Summary

The following report, entitled *Federal On-Scene Coordinator's Report for the 45 Third Avenue Property, Stratford, Connecticut, June 6 through August 12, 1994*, is a chronological summary of the United States Environmental Protection Agency (EPA), Region I, Emergency Planning and Response Branch's response operations. The report details the situation as it developed, the actions taken, the resources committed, the effectiveness of the Removal Action, the problems encountered and the On-Scene Coordinator's (OSC) recommendations.

This OSC Report was prepared according to the Code of Federal Regulations, Title 40, Protection of the Environment, Part 300, Subpart B - Responsibility and Organization for Response, Section 300.165.

The 45 Third Avenue property is one of many properties located in Stratford, Connecticut that are suspected of receiving manufacturing wastes generated at the Raymark Industries, Inc. (Raymark) facility as fill materials. Manufacturing waste consisted of sludges containing asbestos, lead, polychlorinated biphenyls (PCBs), and other contaminants.

The 45 Third Avenue property was the sixth and final developed residential property in the Third and Fourth Avenue area where removal actions by the EPA were deemed appropriate. Support facilities and equipment were utilized in succession as each property in the area underwent removal activities.

Initial preparations for removal activities in the Third and Fourth Avenue area began in the fall of 1993. With property owner approval, contaminated undeveloped lots located at the end of Fourth Avenue were chosen as the staging area for all removal activities in the vicinity. The area was excavated where necessary to achieve an acceptable grade, and was temporarily capped with a semi-permeable geotextile fabric and 6 inches of gravel to facilitate movement of trucks and other heavy equipment.

From June 6 through August 12, 1994, EPA conducted the following activities at 45 Third Avenue: documented initial conditions, excavated contaminated soil, transported contaminated soil to the Raymark facility for temporary storage, backfilled excavated areas with clean gravel and select-fill and restored the property to its original condition. Restoration activities at three other properties also occurred during this time.

Soil removal action levels of 400 parts per million (ppm) lead, 1 ppm PCBs and 1 percent asbestos were established through consultation with the Agency for Toxic Substances and Disease Registry (ATSDR). Typically, if any two of these parameters were exceeded in wall or perimeter samples, additional excavation would ensue. Excavation depths typically were advanced to clean soil or the water table (whichever came first).

To document post-excavation soil conditions and help determine if further excavation was needed, soil grab samples were collected from the walls and soil composite samples were collected from the perimeters and base of the excavated areas. The samples were screened for lead, copper¹, PCBs and asbestos.

The sample screening methodology is outlined in the report entitled, *Raymark Satellite Sites Sampling Quality Control Plan, Stratford, Connecticut (QA/QC Plan)*, prepared by the Roy F. Weston Technical Assistance Team (TAT) and submitted to the EPA in February 1994. The QA/QC Plan was amended by EPA in April 1994.

Approximately 3,080 U.S. tons of contaminated soil were excavated from 45 Third Avenue and transported to the Raymark facility in Stratford, CT for temporary storage. The excavated areas were backfilled with clean gravel and random fill prior to shrub and tree restoration.

¹ Copper was analyzed for at this site, but is not part of the Raymark waste definition.

2.0 Summary of Events

2.1 Organization of the Response

ORGANIZATION OF RESPONSE		
U.S. EPA - Region I 60 Westview Street Lexington, MA 02173 (617) 860-4300	AmyJean Lussier David McIntyre	Federal OSC responsible for ERCS oversight and success. Raymark Team Leader - responsible for the Stratford Sites.
U.S. EPA - Region I Superfund Community Relations Section JFK Federal Building Boston, MA 02203	Liza Judge	Community involvement coordinator. Served as a sounding board for area residents' complaints. Communicated with the OSC on a regular basis.
ATSDR	Tammy McRae	Provided health consultations.
U.S. Army Corps of Engineers	Robert Hunt	Provided the OSC with restoration specifications.
Roy F. Weston, Inc. Technical Assistance Team 99 South Bedford Street Burlington, MA 01803 (617) 229-6430	David Strzempko John Donohue Sean O'Hare Daniel Keefe	Provided the OSC with technical assistance, administrative support, sampling/analysis, photo and property documentation, project safety, and draft report preparation.
OHM Remediation Services Corporation 88 C Elm Street Hopkinton, MA 01748 (508) 435-9561	Joseph Overend	Provided personnel and equipment necessary for removal and conducted the cleanup and subsequent restoration. Coordinated shipment of waste to the Raymark facility.
Lockheed		Reviewed analytical data.
Roy F. Weston, Inc. ARCS		Collected samples for CSIR.
Town of Stratford Town Manager - Health Dept. - Building Dept. - Wastewater Treatment Plant - Conservation Dept.	Mark Barnhart Elaine O'Keefe John Carroll Ronald Brenton David Carfo William McCann	Assisted the Raymark Team Leader with community relations and aided the OSC with obtaining permits.
Connecticut Department of Public Health and Addiction Services	Diane Aye Janet Kapish Susan Isch	Screened soil samples for asbestos and provided health concerns consultations.

SUBCONTRACTORS

Atlantic Design
J.J. Brennan
Burns Security
Ceimic Corporation
Certified Engineering

D & P Construction
Fairfield Resources
Iceberg Spring Water
Kuhar Electrical
Mansfield Construction
Nutmeg Scaffold
Parsons Broomfield - Redniss
and Mead
Ramada Hotel
Rental Network
Residence Inn
Royal Flush
Stratford Landscaping

Systems, Inc.
Taylor Oil
W.I. Clark Company

SERVICE PROVIDED

Post-excavation survey
Back-fill material
Security
Confirmatory soil analysis
Community air monitoring,
soil asbestos screening
Asphalt driveway
Topsoil
Drinking water
Electrician
Hazardous waste hauler
Scaffolding
Pre-excavation surveying

Lodging
Computer, printer
Lodging
Portable toilets
Fence installation, restoration
services
Photocopier, facsimile machine
500-gallon fuel cell
Soil compactor

2.1 Property Location and Description

45 Third Avenue is a residential property located in Stratford, Connecticut (see Figure 1 - Property Location Map). It is bordered on the north by 65 Third Avenue, to the south by 35 Third Avenue, to the west by undeveloped residential property and the Fourth Avenue pond, and to the east by Third Avenue (see Figure 2 - Property Vicinity Map). The property encompasses approximately 0.19 acres with generally flat topography which includes one residential building and a garage (see Figure 3 - Property Overview Map).

2.2 Property Background

Many properties in Stratford are suspected of receiving manufacturing wastes generated at the Raymark facility as fill materials. Raymark and its predecessors, Raybestos Friction Materials and Raybestos-Manhattan Company, manufactured brake linings, clutch parts and other asbestos-based products at their Stratford facility.

Members of the Stratford Zoning Board and Conservation Division of the Department of Public Works have stated that Raymark waste was disposed of in the vicinity of the 45 Third Avenue property by the Raymark facility. Raymark acknowledged disposing of an unknown quantity of such waste between 1940 and 1977. In the past, some property owners had asked Raymark for waste material (which was used as fill for low-lying areas).

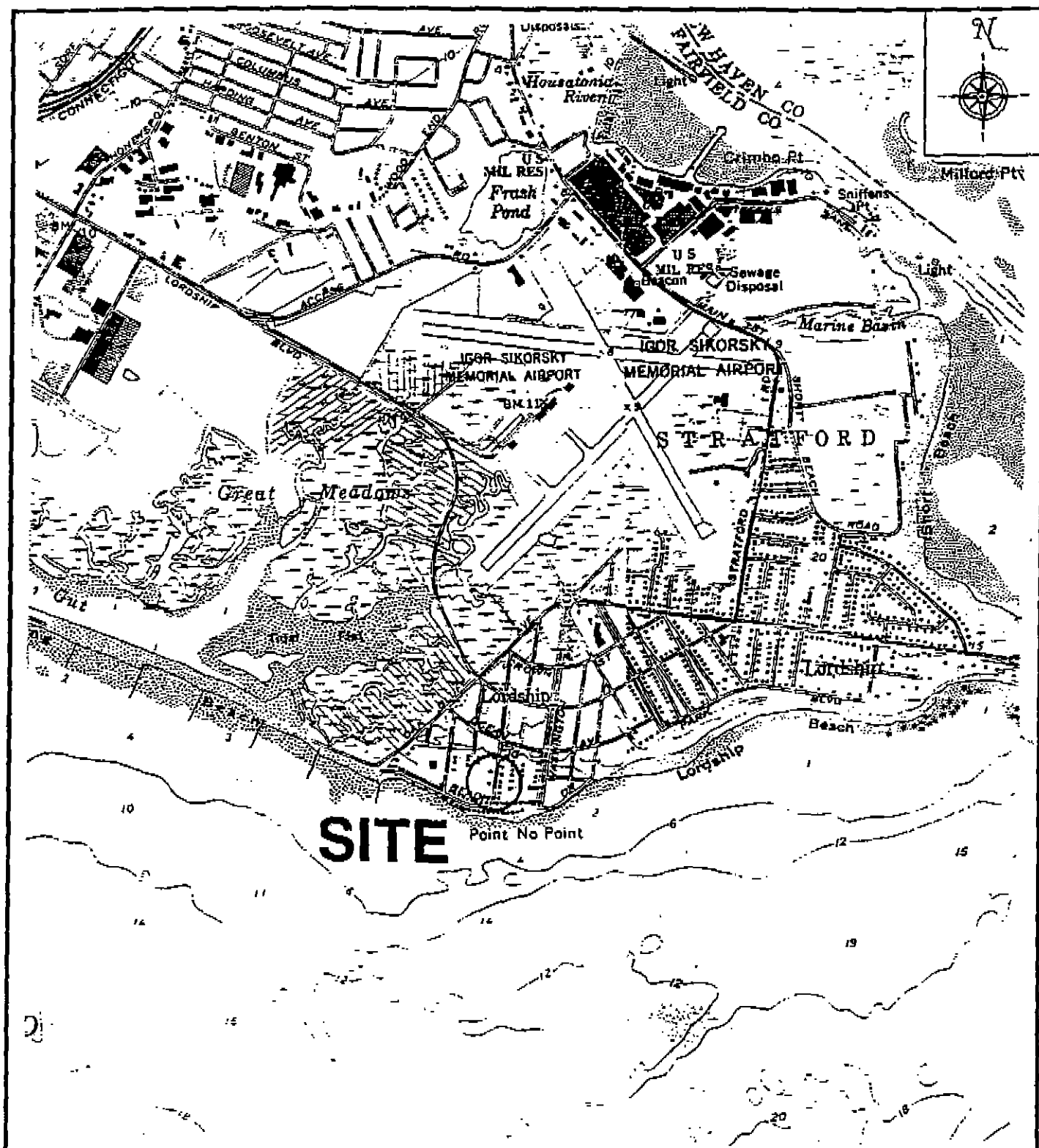


FIGURE 1

PROPERTY LOCATION MAP
45 THIRD AVENUE
STRATFORD, CONNECTICUT

NOT TO SCALE

WESTON[®]
MANAGERS DESIGNERS/CONSULTANTS
REGION I TECHNICAL ASSISTANCE TEAM

DRAWN BY S. CHARE	DATE 09/94	PCS # 1007
APPROVED BY 	DATE 10/94	TDD # 01-9410-07

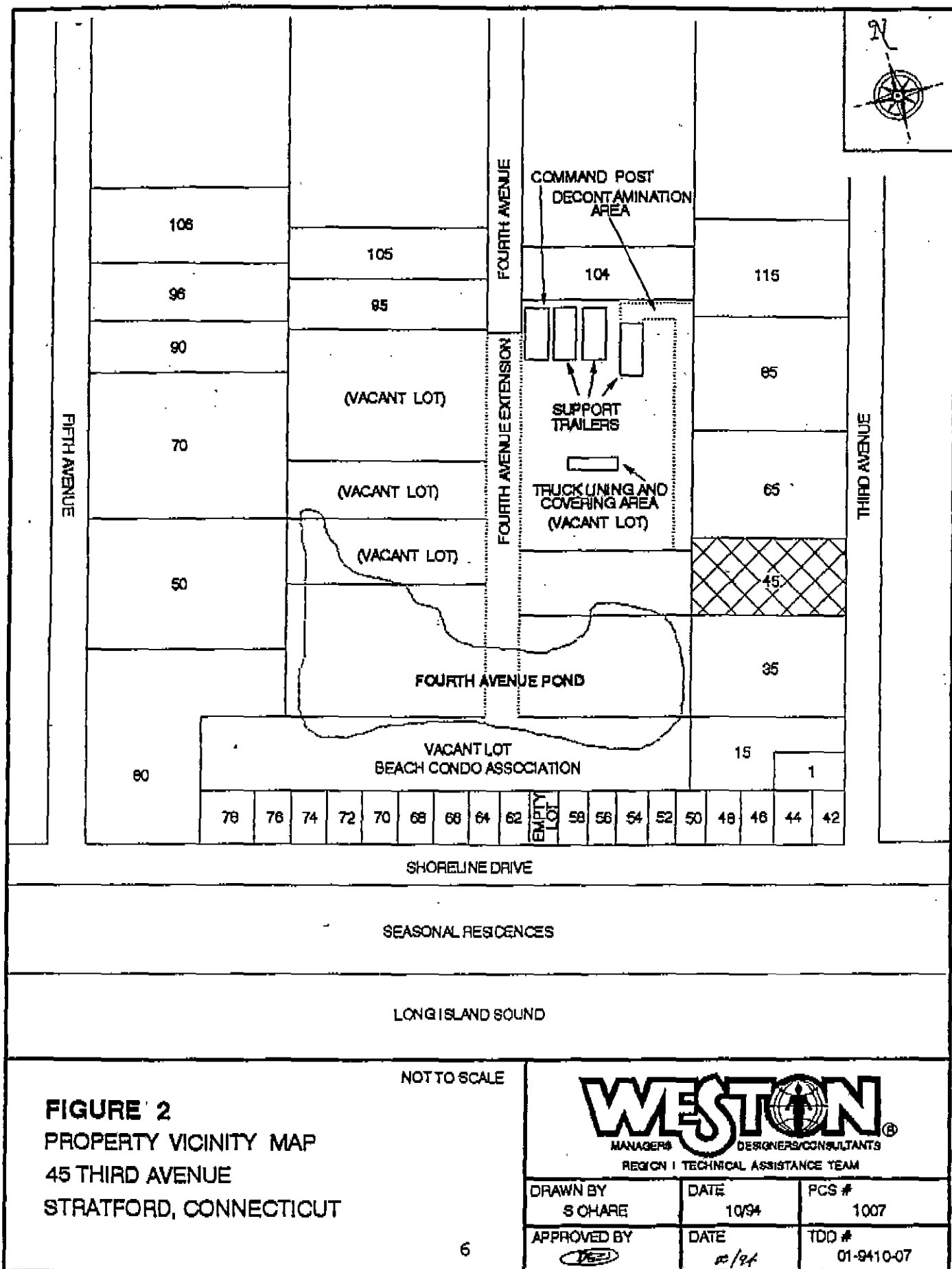


FIGURE 2
PROPERTY VICINITY MAP
45 THIRD AVENUE
STRATFORD, CONNECTICUT

NOT TO SCALE



DRAWN BY
 S OHARE

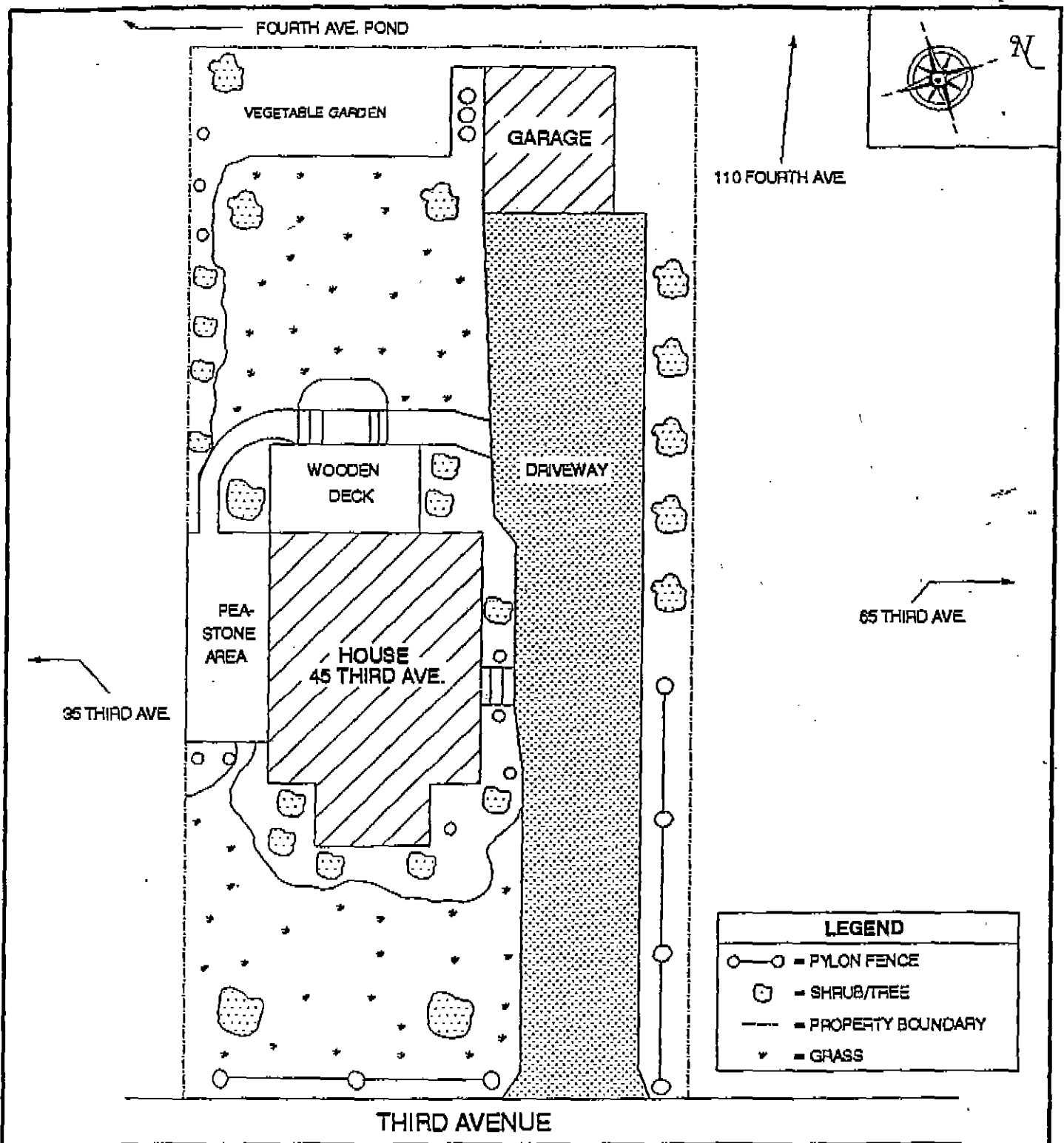
DATE
 10/94

PCS #
 1007

APPROVED BY

DATE
 12/94

TDD #
 01-9410-07



NOT TO SCALE

FIGURE 3
PROPERTY OVERVIEW MAP
45 THIRD AVENUE
STRATFORD, CONNECTICUT

WESTON®
 MANAGERS DESIGNERS/CONSULTANTS
 REGION I TECHNICAL ASSISTANCE TEAM

DRAWN BY S CHARE	DATE 10/94	PCS # 1007
APPROVED BY <i>[Signature]</i>	DATE 10/94	TDD # 01-9410-07

2.3 The Initial Situation

In June 1993, the EPA began a comprehensive surface sampling program at suspected Raymark disposal sites. A total of nine surface samples were taken from 45 Third Avenue by TAT. Six of the samples contained asbestos (chrysotile) in amounts ranging from 3 to 75 percent. Based on this analytical data, ATSDR concluded that the levels of asbestos posed an imminent health threat. Additional subsurface sampling was suggested by ATSDR to further characterize the depth and extent of contamination at the property.

Between August 10 and 13, 1993, 68 subsurface samples were collected by TAT at 21 grid points spaced equally across the property. Roy F. Weston, Inc., Alternative Remedial Contracts Strategy (ARCS) collected 20 subsurface samples from 4 grid points on August 16 and 19, 1993. TAT collected samples at 1 foot depth intervals between 0 and 5 feet. ARCS samples were collected using a Geoprobe at 1 foot intervals to a maximum depth of 12 feet. In addition, nine samples were collected and analyzed for total metals and PCBs/pesticides through the EPA Contract Laboratory Program (CLP).

The field samples were screened for lead, asbestos, and PCBs. A portable XMET 880 XRF analyzer was used to screen for lead, a single column Thermo Electron Instruments Model 621A gas chromatograph/electron capture device (GC/ECD) was used to screen for PCBs, and polarized light microscopy (PLM) was used to screen for asbestos.

The intent of the extensive sampling was to delineate the approximate vertical and horizontal extent of contamination. The maximum concentrations identified during the field screening analysis included: lead in excess of 10,000 ppm, 21 ppm of PCBs and 75% asbestos (chrysotile). Using the results of the field screening analysis, the extent of vertical and horizontal contamination was delineated. The results of sampling were presented in the report entitled *Comprehensive Site Investigation Report (CSIR) for 45 Third Avenue, Stratford, Connecticut, September 1993*, prepared by TAT. A copy of the report may be found in the site file.

In October 1993, OHM tasked Parsons Broomfield-Redniss and Mead, Professional Surveyors, to prepare a topographic map of 45 Third Avenue including the locations from which samples were collected by TAT. The U.S. Army Corps of Engineers (USACE) used this topographic map along with the results of the field screening analysis to prepare engineering maps delineating the vertical and horizontal extent of soil contamination.

2.4 Efforts to Obtain Response by Responsible Parties

EPA established that no responsible parties would undertake this cleanup.

2.6 Chronological Summary of Removal Action

The following is a daily chronological summary of field activities conducted by EPA and their subcontractors from June 6 through August 12, 1994.

Tuesday, May 31, 1994

Weather: 60 - 70°F. Sunny.

The property owner's sailboat was moved by an OHM subcontracted mover to Brown's Marina for storage during the removal action.

Monday, June 6, 1994

Weather: 60 - 70°F. Sunny.

OSC Lussier met with the property owner to explain to him that relocation of his family would not be occur until June 12. Previously, a tentative date of June 8 had been set, but the removal action at an adjacent property had taken longer than anticipated.

The OSC explained that ERCS had submitted bids to local landscapers for the transplant or restoration of five red peach trees. The bids had all been rejected because the landscapers could not guarantee that the trees would live during transplantation, or could be replaced (since they were a rare dwarf species from Europe). The OSC assured the property owner that an equitable solution would be reached.

OSC Lussier discussed with the owner the storage of valuables from his garage. OHM personnel would assist the property owner with transferring personal belongings from in and around the property garage to a secure storage trailer at the staging area. The belongings would be inventoried, and the property owner would be provided with a set of keys to the trailer. Additionally, the property owner asked when he could access his house (during the excavation activities). The OSC informed him that after work hours would be acceptable as long as she or OHM were notified in advance.

Raymark Team Leader David McIntyre recommended that the garage at the property not be disturbed due to the condition of the foundation. Excavation would be conducted around the garage.

Security was maintained both at the staging area and the subject property during all non-working hours, as well as during the weekends throughout the duration of removal activities.

Thursday, June 9, 1994

Weather: 55°F. Sunny.

After a safety meeting (which was held on a daily basis), the OHM crew moved personal property from 45 Third Avenue to the storage trailer.

Saturday, June 11, 1994

Weather: 62°F. Cloudy.

The OHM crew cleared debris from the Fourth Avenue staging area and transported it to the Stratford transfer facility. The debris consisted of steel, decking wood, telephone poles, shrubbery, one battery and tires.

Tuesday, June 14, 1994

Weather: 68°F. Cloudy, occasional rain.

OSC Lussier and RM Overend met with the owner of an adjacent property to discuss the removal activities. The owner said that they would move out of their house when school was out for the summer. OHM agreed to wait until they had moved to excavate along their property.

Also discussed was the expensive decorative stone wall located on the adjacent property next to the 45 Third Avenue property line. RM Overend assured the homeowners that the wall would be adequately braced and that they would only excavate to depths of 6 inches to 1 foot adjacent to the wall. Additionally, OHM agreed to photodocument the pre-excavation condition of the wall.

Wednesday, June 15, 1994

Weather: 80°F. Sunny.

OHM moved the owner's remaining personal property from the garage into the storage box. Kuhar Electrical contractor disconnected power from the property house to the garage. OHM began the preparations for excavation at the property.

Thursday, June 16, 1994

Weather: 80°F. Sunny.

OHM began removal of the deck which was in the way of the excavation activities. Wood was taken to the Stratford transfer facility after removing all extraneous nails. Trees and shrubs were removed from the backyard.

Kest Industries streetswept two blocks in the Third and Fourth Avenue area. Kest was subcontracted by OHM to perform streetsweeping weekly for the duration of the project.

Friday, June 17, 1994

Weather: 80°F. Sunny.

OHM personnel continued to prepare for soil excavation activities. The location of underground utilities was discussed. Only the electrical lines were located. Searches for utility conduits below the ground surface were not performed because Certified Engineering and Testing (CET) was not on site to conduct air monitoring.

OHM removed decorative posts and rope from eastern portions of property, braced the stone wall between 35 and 45 Third Avenue, removed fences between 45 and 65 Third Avenue and at the rear of 45 Third, and emplaced a dust barrier between the 45 and 35 Third Avenue properties.

Sunday, June 19, 1994

Weather: 80°F. Sunny.

The residents moved to a local hotel for the duration of the project.

OSC Lussier and the USACE coordinated the move.

Monday, June 20, 1994

Weather: 80 - 85°F. Sunny.

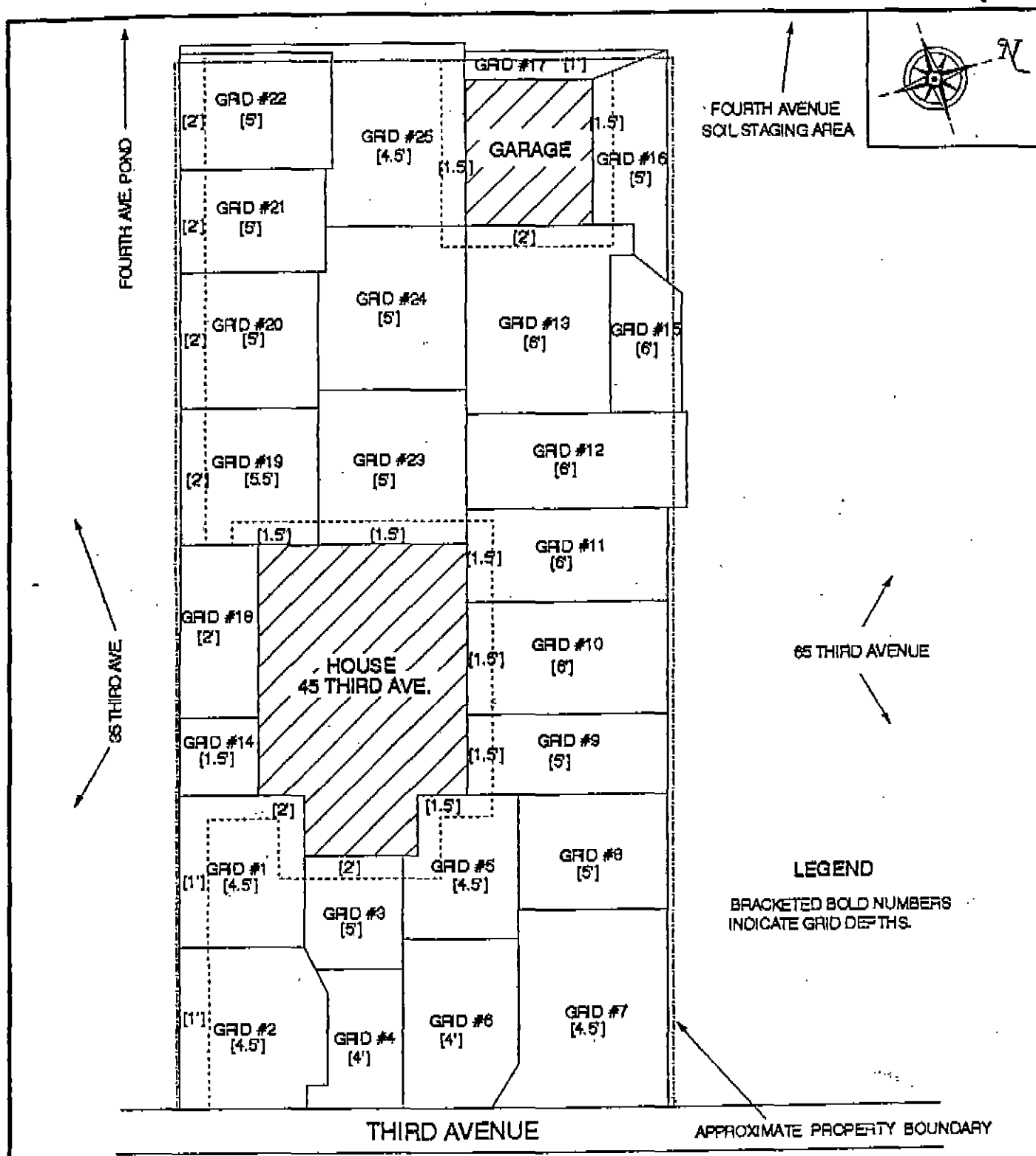
OHM personnel continued to prepare for soil excavation activities.

OHM began to excavate the front of 45 Third Avenue. Grid Nos. 1 and 2 were excavated and nine loads of soil were transported by Mansfield Construction (OHM subcontracted waste hauler) to the Raymark facility for temporary storage. See Figure 4 - Excavation Grid Reference and Depth Map for grid locations and depths. Also, Appendix A - Excavation Grid Sample Location Maps (Figures 3A -3M) provides grid-specific dimensions and sample locations.

Eighteen soil samples were collected for field screening. All samples from the excavations were screened at the support area for PCBs, lead and copper by TAT, and for asbestos by CET.

Ceimic Corporation was subcontracted by OHM to provide weekly confirmatory quantitative analyses of lead and PCBs on 10 percent of the soil samples collected. Also, the Connecticut Department of Public Health and Addictive Services (CT DPHAS) performed comparison asbestos PLM analyses on a weekly basis for 10 percent of the soil samples collected.

The property's gas line and the weight of a granite wall required the southern quarter of Grid Nos. 1 and 2 to be excavated to a shallower depth than originally planned. The GC became inoperative at the end of the day due to contaminants associated with samples run during the day. GC column contaminants were allowed to bake off overnight.



Tuesday, June 21, 1994

Weather: 65 - 70°F. Scattered showers.

OHM began excavating Grid No. 3 in the morning. Work progressed slowly due to the presence of a sewer line running down the center of the excavation.

OHM completed excavating Grid No. 3. Ten samples were collected and excavation of Grid No. 4 began. During the excavation of Grid No. 4, a section of pipe similar to the sewer line found in Grid No. 3 was encountered and work was halted for investigation. The response technician (RT) and Foreman concluded that the pipe was a remnant from a past repair.

Four samples were collected and Grid No. 4 was backfilled. Heavy rain was expected for the afternoon, so the RM had the crew break for the day at 1530 hrs.

Scott Clifford (EPA Chemist) arrived in the afternoon to review TAT field screening methods.

Five loads of gravel (contains > 50% stone) and five loads of backfill (sand) were delivered by J.J. Brennan (OHM subcontracted material supplier).

Wednesday, June 22, 1994

Weather: 70 - 85°F. Sunny.

OSC Lussier discussed excavating two grids simultaneously to minimize delays. OSC Lussier stated that wall samples from the connecting walls of the grids could be omitted in order to expedite the work.

Work began on Grid Nos. 5 and 6. Progress was slow because there was a bare copper water line running through the excavation.

The area along the house was excavated to a depth of approximately 2 feet. Heavy fibrous material appearing to be asbestos was encountered along the edge of house. OHM personnel removed this material with a hand shovel (since the excavator bucket could not reach these areas).

Upon completion of the excavation, eight samples were taken and submitted for field screening.

Grid No. 7 was excavated in the afternoon. Four samples were collected and submitted for field screening and then the grid was backfilled.

Five loads of gravel and four loads of backfill were delivered.

Thursday, June 23, 1994
Weather: 74 - 90°F. Sunny.

Ten random fill and five gravel loads were delivered. Grid No. 8 was excavated. Five samples were collected and submitted for screening and the grid was backfilled.

Random samples from the backfill deliveries were taken and screened for lead, copper, PCB and asbestos. Results indicated asbestos amounts of 1 to 2 percent. Additional samples were taken and submitted for screening from the bulk fill piles and the new deliveries. All results indicated asbestos amounts of less than 1 percent. The fill material was deemed acceptable by the OSC for backfilling the excavations.

Excavation of grid No. 9 was completed and four samples were collected prior to backfilling.

Friday, June 24, 1994
Weather: 75 - 85°F. Hazy. Showers AM.

OHM prepared for excavation of grid No. 10. Fifteen gravel and three random fill loads were delivered to the property. Heavy rain caused pooling in the lower lying areas of the property.

Grid Nos. 10 and 11 were excavated. Twelve samples were collected and submitted for field screening prior to backfilling.

Residual contamination on the GC column continued to slow PCB screening. TAT member Gleichauf recommended to OSC Lussier that dilutions be performed on all soil extracts from the property in order to minimize instrument down time. The OSC agreed to this, therefore, the new minimum detection limit for PCB was temporarily changed to 1 ppm.

Monday, June 27, 1994
Weather: 70°F. Cloudy.

Five random fill and five gravel loads were delivered by J.J. Brennan.

Grid No. 12 was excavated, sampled and backfilled in the morning. Grid Nos. 13 and 14 were excavated simultaneously in the early afternoon. Grid 14 was excavated using a backhoe because access was limited. Depths were advanced an average of 1.5 feet because of the proximity of the house foundation and the adjacent granite wall at 35 Third Ave. Six samples were collected and the grids were backfilled.

RM Overend informed OSC Lussier that french drains from 35 Third Avenue appeared to drain into the south side of the 45 Third Avenue property under the fence. At the request of the OSC, soil was removed from around the drains and backfilled with random fill.

Tuesday, June 28, 1994

Weather: 70 - 85°F. Partly cloudy AM. Sunny PM.

Five random fill and five gravel loads were delivered to the property.

Grid Nos. 15 and 16 were excavated, sampled and backfilled in the morning. Grid Nos. 17 and 18 were excavated, sampled and backfilled in the afternoon. Five samples were collected and analyzed from the four grids. The former septic line from the property (which was no longer being used), was cut and plugged to prevent water or contaminants migrating through it into the house.

Wednesday, June 29, 1994

Weather: 75°F. Scattered showers AM. Thunder storms PM.

OHM personnel cleared debris from the lot on Fourth Avenue that had been capped by the Connecticut Department of Environmental Protection (CTDEP). This location was to be used by the USACE for storage during future removal actions.

Ten gravel and five random fill loads were delivered to the property.

Grid Nos. 19 and 20 were excavated. Thirteen samples were collected and submitted for field screening. During excavation, cinder blocks from the former septic system were encountered along the north wall of the excavation. The geotextile wall was removed to facilitate excavations along the southern boundary of the property.

In the afternoon, OSC Daniel Burke called from the Raymark facility and stated that severe thunderstorms and lightning necessitated cancellation of the Mansfield waste hauling trucks. OSC Lussier had OHM backfill all excavations. Heavy rain and thunderstorms followed, ending work for the day.

Thursday, June 30, 1994

Weather: 70 - 80°F. Scattered showers AM. Partly cloudy PM.

Seven random fill and seven gravel loads were delivered to the property.

Grid No. 21 was excavated, six samples were collected and the excavation was backfilled.

Grid No. 22 was excavated in the afternoon. Mansfield trucks were gradually removed from service for decontamination procedures at the Raymark facility (prior to the holiday weekend).

Excavation of grid No. 22 was completed at 1600 hours. TAT entered the zone and collected six samples. After completion of sampling activities, the grid was backfilled.

Friday, July 1, 1994
Weather: 70 - 80°F.

OHM demobilized for the Fourth of July weekend.

Tuesday, July 5, 1994
Weather: 85°F. Humid.

OHM remobilized to the site. OSC Dean Tagliaferro substituted for OSC Lussier for the remainder of the week. Random fill and gravel were spread and compacted on the eastern portions of the property.

Wednesday, July 6, 1994
Weather: 80 - 90°F. Drizzle AM. Sunny, high humidity PM.

Surveyors placed grade stakes on eastern and northern portions of the property.

Fairfield Resources (subcontracted by OHM to provide topsoil), delivered ten loads of topsoil. J.J. Brennan delivered six loads of random fill. OSC Tagliaferro and RM Overend determined that six loads of topsoil and two loads of mixed gravel would complete soil needs for backfilling and grading.

Grid Nos. 23 and 24 were excavated. Eight samples were collected and submitted for field screening. The grids were then backfilled.

Thursday, July 7, 1994
Weather: 75°F. High humidity.

Remaining fill materials were delivered, and the fill was sampled and submitted for field screening.

Grid No. 25 was excavated, sampled (four samples) and backfilled. When screening was completed, TAT began preparing the mobile laboratory for demobilization.

Upon completion of the asbestos screening, CET was informed by RM Overend that community air monitoring and PLM activities were completed and they should demobilize tomorrow.

The OHM crew continued spreading and compacting of fill on the property, and moved lumber and a sheet metal shed to the vacant portion of the staging area in the afternoon.

Friday, July 8, 1994
Weather: 80 - 85°F. Sun, high humidity AM. Rain showers PM.

OHM crew worked on decontaminating and demobilizing equipment. Potentially contaminated materials were shipped to the Raymark facility for storage. These materials included PPE, wastes from decontamination and miscellaneous debris removed from successive properties where excavations had occurred.

Six confirmatory samples were relinquished to the Ceimic Corporation courier for analysis.

OHM personnel continued decontamination and demobilization activities in the afternoon. The fence between 45 and 35 Third Avenue was removed by OHM as requested by OSC Tagliaferro.

Monday, July 11, 1994

Weather: 70 - 85°F. Sunny.

OHM personnel continued to demobilize equipment. Topsoil was spread and graded. OHM personnel also checked the location of the driveway on the USACE map as compared with the location in the field and altered the map accordingly.

The storage tent was dismantled and the contents were moved into the storage trailer for interim storage.

Tuesday, July 12, 1994

Weather: 70 - 90°F. Sunny.

Soil grading was completed. Grading of the driveway area was finished. TAT continued demobilization of the mobile lab trailer. The final grade stakes were emplaced by OHM in the driveway area in preparation for the asphalt contractor.

Wednesday, July 13, 1994

Weather: 70 - 90°F. Sunny.

Additional topsoil was emplaced along the southwestern edge of the property. Topsoil on the rest of the property was raked and the decontamination trailer and the excavator were demobilized.

The OHM crew power washed the concrete blocks that had been staged at the Fourth Avenue staging area. The bulldozer and the loader were decontaminated using the power washer.

The TAT mobile laboratory equipment was demobilized.

Thursday, July 14, 1994

Weather: 70 - 85°F. Sunny AM. Cloudy PM.

RM Overend and OSC Lussier discussed the final demobilization plans.

The loader was moved to the Raymark facility to aid the OHM crew working there. A Caterpillar 330 excavator was brought to the property by J.J. Brennan to remove concrete from the Fourth Avenue extension bulk pile.

OSC Lussier met with the homeowners to discuss the deck. The original deck had been built too close to the southern property line and would have to be reconstructed further north to meet building codes. Additionally, the stairs on the southern end would have to be removed. The OSC and the owner decided that the stairs could be rebuilt in the center of the deck on the western side.

D & P Construction arrived to lay, level and compact gravel for the driveway.

OHM demobilized two Rts and an equipment operator.

Friday, July 15, 1994

Weather: 75 - 80°F. Scattered showers AM. Clearing PM.

The remaining two RTs demobilized in the morning.

The driveway paving was postponed due to rain.

Sunday, July 17, 1994

Weather: 75 - 80°F.

The residents moved back into the house.

Week of July 18, 1994

Weather: 80°F. Scattered showers late AM. Rain PM.

The replacement driveway was laid down by D & P Construction.

The deck construction was completed. The new deck was built at the level of the kitchen at the owners request. OSC Lussier informed the property owner that ice and snow could possibly cause water to migrate into the kitchen during the winter. The property owner understood this, but still requested the higher deck.

Bids were received for the landscape restoration of the property.

Week of July 25-29, 1994

Weather: 70 - 90°F.

The subcontract for the property restoration was awarded to Stratford Landscaping on July 27, 1994.

Monday, August 1, 1994

Weather: 80°F. Sunny.

Stratford Landscaping began preparing areas for two brick paths leading from the deck stairs to the driveway and the sideyard. Additionally, installation of a french drain north of the garage was planned to prevent water from pooling on the driveway.

Tuesday, August 2, 1994

Weather: 88°F. Humid, overcast.

Stratford Landscaping began installing the brick paths and also began purchasing the trees and other flora. They had difficulty procuring the red peach trees. The complete flora list is included in Appendix B - Property Restoration Plan.

Wednesday, August 3, 1994

Weather: 75 - 90°F. Showers AM. Humid, hazy PM.

Stratford Landscaping continued installing the brick walkways. The first load of flora was emplaced.

Thursday, August 4, 1994

Weather: 80 - 90°F. Humid, hazy.

Brick borders were emplaced. Most of the remaining plants were staged for emplacement. Posts along the driveway were installed.

Mulch was placed around the newly planted flora.

Friday, August 5, 1994

Weather: 80 - 90°F. Humid, showers.

Work on the brick walkway from the deck to the driveway continued.

An additional load of topsoil was brought in by Stratford Landscaping and placed between the two driveways. Topsoil had not been emplaced here during previous restoration activities.

Monday, August 8, 1994

Weather: 80 - 90°F. Sunny.

Stratford Landscaping continued restoration activities.

Tuesday, August 9, 1994

Weather: 80 - 90°F. Sunny.

OSC Lussier, Stratford Landscaping and the homeowners discussed the progress of the restoration. The homeowners wanted to be kept abreast of restoration activities.

The property owners informed OSC Lussier of several property restoration alterations, and upon authorization from the OSC, they were addressed by Stratford Landscaping. These included: placing more peastone between their garage and 65 Third Avenue, raising the grade of the front yard with more topsoil, and widening walkways.

Wednesday, August 10, 1994

Weather: 75°F. Overcast.

Restoration of the property continued with the emplacement of sod. Most of the final plants were planted.

Railroad ties were installed along the back of the property in the afternoon. The stockade fence was reinstalled between the 45 and 65 Third Avenue properties.

OSC Lussier gave the property owner a bulb catalog to choose replacement flowers.

Thursday, August 11, 1994

Weather: 70°F. Overcast.

The backyard fence was replaced in the morning and additional plants were emplaced. OSC Lussier had noticed that some of the stockade fencing slats had been broken. Stratford Landscaping agreed to replace them.

The trench for the French drain was excavated.

OSC Lussier spoke with the property owner about the final flora replacement which included the planting of a blackberry bush. It was agreed between the homeowner, the OSC and Stratford Landscaping that the bush would be ordered in the fall and most likely planted in October.

Friday, August 12, 1994

Weather: 70°F. Overcast.

Stratford Landscaping replaced the broken fence slats.

The owners informed the OSC that they would emplace the remaining gravel themselves. Also, a section between the two driveways was not covered with mulch because the property owner intended to install some additional fence sections.

The property restoration was completed with the exception of the blackberry bush. It was agreed that OSC Lussier would be notified by Stratford Landscaping when the plant arrived and a suitable schedule for installation would be determined at that time.

2.7 Treatment, Disposal and Alternative Technology Options and Selections

Excavated soil from 45 Third Avenue was transported to the Raymark facility. The excavated soil was stored in a bulk pile inside of a building located on the grounds of the facility. Currently, the Remedial Section of EPA is evaluating final disposal options.

2.8 Community Relations

During the duration of the work, pollution reports (POLREPs) were prepared by TAT and the OSC explaining work progress. These were made available to local officials to inform them of project activities. A total of three POLREPs were issued through the project activity period (POLREPs 17-19).

The 45 Third Avenue property was part of a larger EPA project in Stratford involving additional residential properties, as well as the Raymark Industries facility. David McIntyre served as the Raymark Team Leader, and along with Liza Judge, conducted the majority of community relations. Activities included conducting town-wide meetings, addressing local activist concerns and coordinating with local officials.

OSC Lussier addressed community concerns primarily in the immediate vicinity of the property. Some issues which were addressed included safety concerns due to traffic patterns and visibility, ensuring acceptable noise levels during removal activities, dust control and local street cleaning.

OSC Lussier was the primary contact with the owners of 45 Third Avenue. The owner of the property was selling his property to his son and daughter-in-law who wanted to have different shrubs and plants installed during the restoration. OSC Lussier agreed to change the plants as long as the overall price remained the same. OSC Lussier and the daughter-in-law designed the restoration over a two week period. After OHM submitted the design to local landscapers, the owners revised their plant choices. OSC Lussier stressed to the owners that the only changes that would be made would be with the positioning of the plants. During the restoration, the homeowners moved all the plants and changed the walkway design. This led to numerous delays during the restoration.

2.9 Resources Committed

As of July 27, 1994 the ERCS costs were \$5,537,808. All ERCS costs incurred after this time were in support of the USACE cleanup effort. The total ERCS costs included the costs associated with operating Raymark and the subsequent removal and restoration activities at eight sites. A total of 16,267.00 cubic yards of contaminated soil was removed from the eight properties and shipped to Raymark. The ERCS costs for the removal at 45 Third Avenue, is estimated at approximately \$706,051.82 ($\$5,537,808 \div 16,267 \text{ yards} \times 2,074 \text{ yards}/45 \text{ Third Avenue}$). All other site costs with the exception of TAT can not be divided into the individual sites.

TAT costs for the Third Avenue site, through 12 August 1994, are summarized by the following Technical Direction Documents (TDDs):

TDD No. 01-9308-13	\$ 0
TDD No. 01-9308-13A	5,302
TDD No. 01-9308-13B	538
TDD No. 01-9308-13C	28,549
TDD No. 01-9308-13D	<u>1,783</u>
TOTAL	\$ 36,172

3.0 Effectiveness of Removal

3.1 Actions Taken By Potentially Responsible Parties

The responsible party is Raymark Industries. Although they have not incurred any costs for this removal action they have allowed the contaminated soil to be transported back to their facility.

3.2 Actions Taken By State and Local Forces

45 Third Avenue was part of the Stratford Sites project, therefore, the majority of local and state agencies contacted the Raymark Team Leader with their concerns. OSC Lussier and OHM contacted the following town Departments that were specific to this site: Building, Zoning, Water and Sewer and Conservation.

The state Agency that was specific to this site was the CT DPHAS. CT DPHAS analyzed 10 % of the asbestos samples per the QA/QC plan and provided the results within 48 hours to EPA.

3.3 Actions Taken by Federal Agencies and Special Teams

EPA coordinated the federally-funded cleanup of this site. This cleanup involved directing the TAT and ERCS contractors in implementing the work and safety plans and monitoring expenses.

In order to complete the removal action in a safe manner, EPA and its contractors prepared site specific work and safety plans to ensure that all parties working on the site would be adequately protected. The objectives of the site safety plan were to assign responsibilities to individuals involved with the site safety and to establish mandatory safety operating procedures relative to the work proposed to be conducted at the site. Exclusion zones and decontamination areas were instituted and a contingency plan was established to address any unforeseen emergencies that may have arisen during the removal action.

The provisions of the safety plan were made mandatory for all personnel entering the site during the removal action. All appropriate safety equipment was available and utilized by site personnel. To further ensure that site safety parameters were adhered to, a daily air monitoring program was conducted by a subcontractor. No reportable injuries occurred during the removal action.

USACE provided EPA with excavation plans and specifications for restoration subcontracts. The U.S. Coast Guard aided the OSC in reviewing the daily cost documents and the invoices.

ATSDR provided the health consultation and the cleanup levels for the project.

3.4 Contractor and Private Groups

OHM Remediation Services (OHM) of Findlay, Ohio was the ERCS prime contractor for the site. OHM provided the personnel, materials, and equipment that were necessary for the successful completion of the project. OHM completed the required work task in a safe and professional manner.

Roy F. Weston, Inc. provided the TAT support for this removal action. TAT was responsible for ERCS contractor monitoring, maintaining the site file, preparing work plans and site health and safety plans, conducting air monitoring as needed, providing documentation of site activities for future enforcement proceedings, cost tracking, preparing draft POLREPS, and maintaining computer files. TAT support also included collection of soil samples, screening of soil samples for lead and copper on the Spectrace 9000 XRF instrument, and analysis for PCBs by GC/ECD.

4.0 Difficulties Encountered

One of the difficulties encountered was the presence of new homeowners who wanted a different restoration plan. The OSC and homeowner worked together to ensure that an acceptable plan was generated prior to submitting it for bids. The homeowner changed her mind numerous times during the restoration.

5.0 Recommendations

5.1 Means to Prevent a Recurrence of the Discharge or Release

A similar release would not legally occur under the present regulatory structure.

5.2 Means to Improve Response Actions

No improvements are recommended.

5.3 Proposals for Changes in Regulations and Response Plans

No changes are recommended to the National or Regional Contingency Plans.

6.0 PROJECT SUPPORT FILE

2.01 Correspondences

- USACE
- ATSDR
- EPA
- Local Agencies
- OHM
- Residents/Property Owners
- State Agencies
- USCG

2.02 Comprehensive Site Investigation Report

- Site Health and Safety Plan
- Waste Disposal Information
- Sampling and Analysis Data
- Surface Sampling Results
- Sampling and Analysis Data - Confirmatory Sampling Plan

2.03 Sampling and Analysis

- Data - Depth Sampling Data
- Sampling and Analysis Data - Sampling Plan
- Air Monitoring (Personal and Community)

2.04 POLREPs (Pollution Reports)

2.07 Action Memoranda

2.11 Applicable or Relevant and Appropriate Requirements (ARARs)

2.12 Hot Zone Entry/Exit Logs

- Waste Transport Manifests

2.13 Daily Work Orders

2.14 Daily Financial Reports

- 1900-55s
- Daily Cost Summaries
- Incident Obligation Logs

2.15 Bid Documents

- TAT Technical Direction Documents (TDDs)

11.14 Title Search Deeds

13.01 Community Releases

13.03 News Articles/Press Releases

17.02 Access Agreements

17.04 Photographs

- Property Maps
- Landscaping Maps

Appendix A

Excavation Grid Sample Location Maps (Figures 4A - 4M)

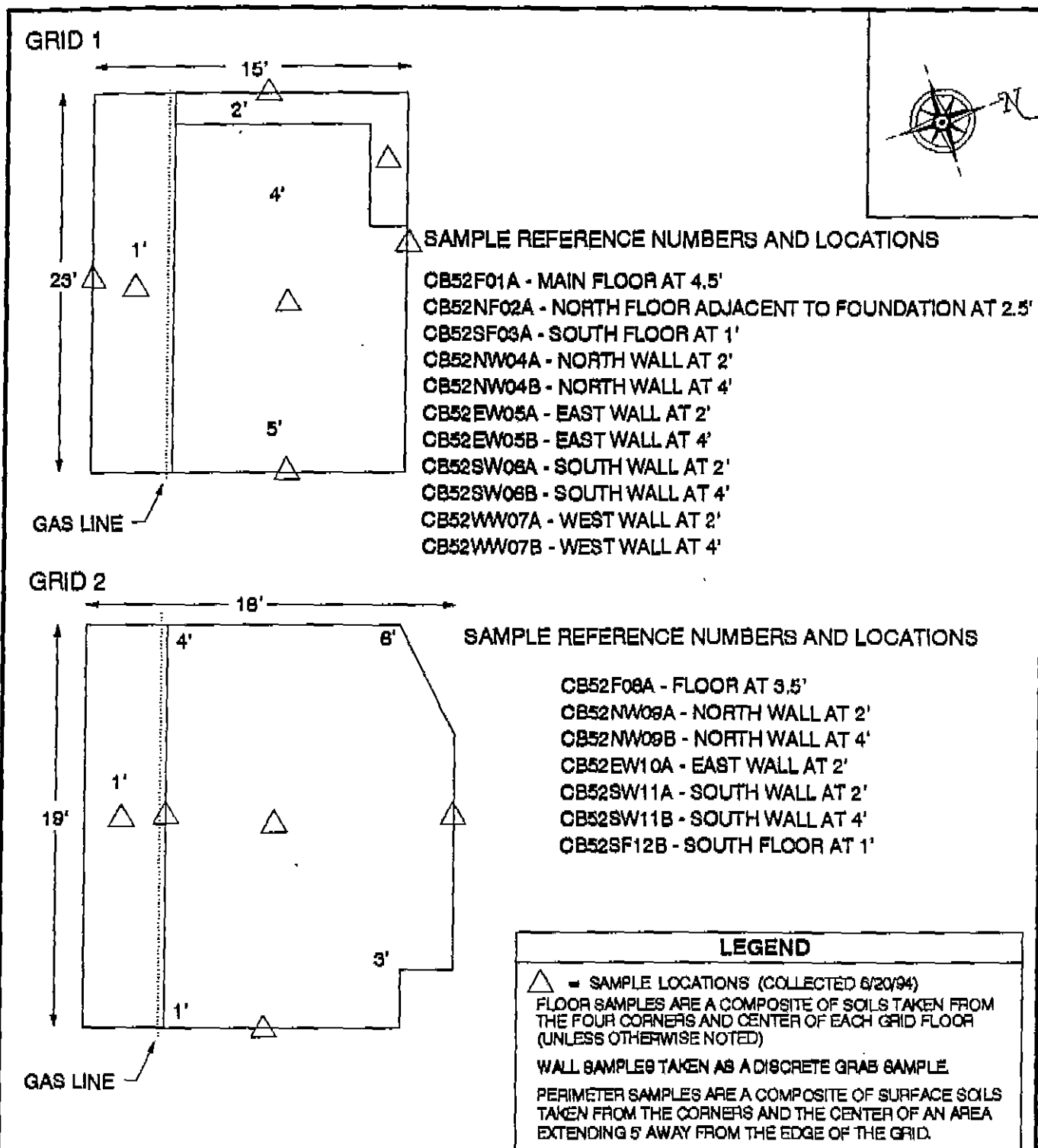


FIGURE 4A

SAMPLE LOCATION DIAGRAM - GRIDS 1 & 2

45 THIRD AVENUE

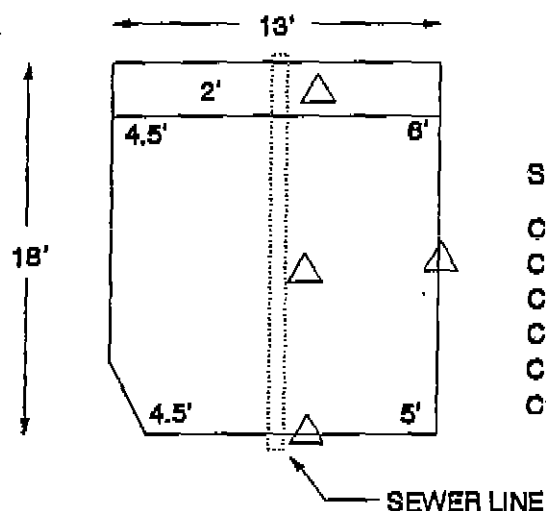
STRATFORD, CONNECTICUT

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WESTON[®]
MANAGERS DESIGNERS/CONSULTANTS
REGION 1 TECHNICAL ASSISTANCE TEAM

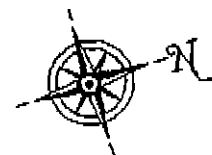
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APPROVED BY 	DATE 10/94	TDD # 01-0410-07

GRID 3

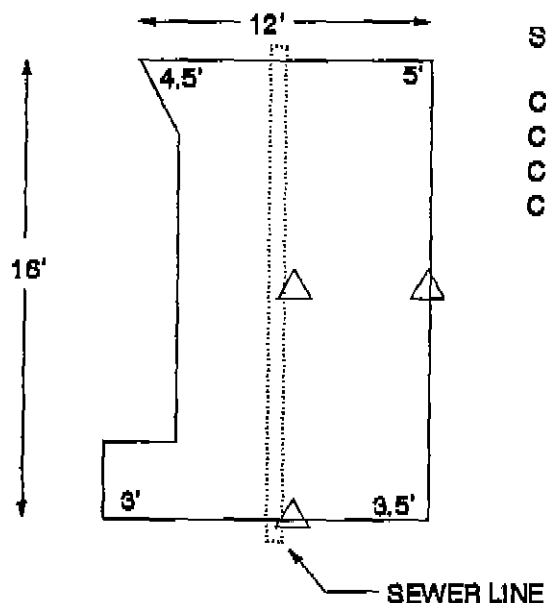


SAMPLE REFERENCE NUMBERS AND LOCATIONS

- CB53F14A - FLOOR AT 5'
- CB53WF15A - WEST FLOOR AT 2'
- CB53NW16A - NORTH WALL AT 2'
- CB53NW16B - NORTH WALL AT 4'
- CB53EW17A - EAST WALL AT 2'
- CB53EW17B - EAST WALL AT 4'



GRID 4



SAMPLE REFERENCE NUMBERS AND LOCATIONS

- CB53F18A - FLOOR COMPOSITE AT 4'
- CB53NW19A - NORTH WALL AT 2'
- CBNW19B - NORTH WALL AT 4'
- CB53EW20A - EAST WALL AT 2'

LEGEND

- △ = SAMPLE LOCATIONS (COLLECTED 6/21/94)
- FLOOR SAMPLES ARE A COMPOSITE OF SOILS TAKEN FROM THE FOUR CORNERS AND CENTER OF EACH GRID FLOOR (UNLESS OTHERWISE NOTED)
- WALL SAMPLES TAKEN AS A DISCRETE GRAB SAMPLE
- PERIMETER SAMPLES ARE A COMPOSITE OF SURFACE SOILS TAKEN FROM THE CORNERS AND THE CENTER OF AN AREA EXTENDING 5' AWAY FROM THE EDGE OF THE GRID.

FIGURE 4B

SAMPLE LOCATION DIAGRAM - GRIDS 3 & 4

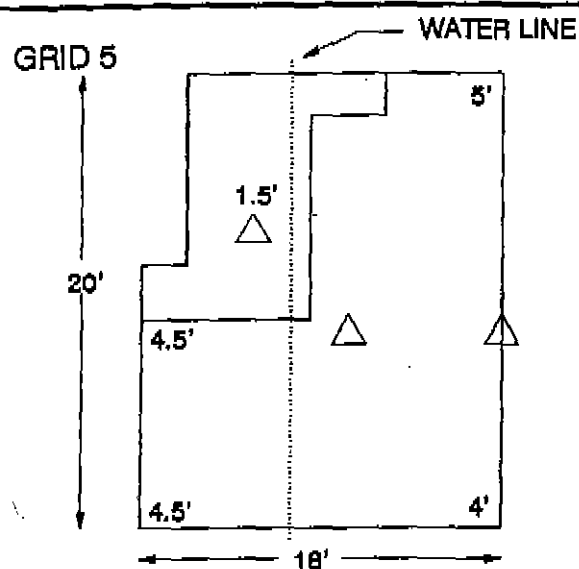
45 THIRD AVENUE

STRATFORD, CONNECTICUT

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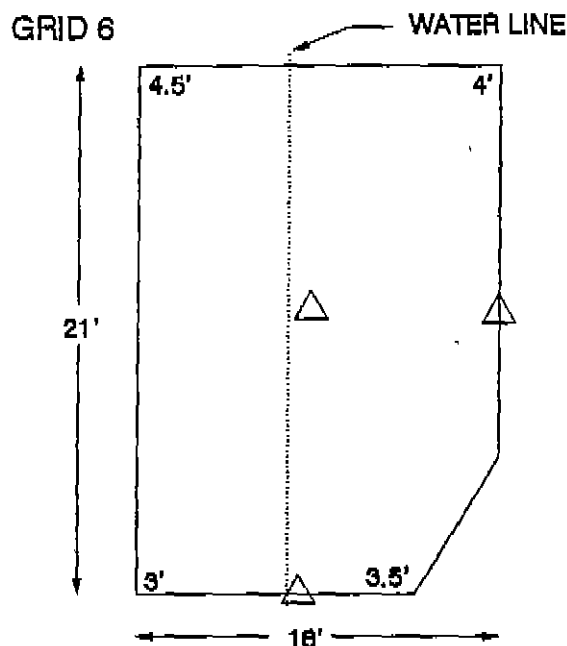
SAMPLE REFERENCE NUMBERS AND LOCATIONS

CB54F22A - FLOOR AT 4.5'

CB54WF23A - FLOOR ADJACENT TO FOUNDATION AT 1.5'

CB54NW24A - NORTH WALL AT 2'

CB54NW24B - NORTH WALL AT 4'



SAMPLE REFERENCE NUMBERS AND LOCATIONS

CB54F25A - FLOOR AT 4'

CB54NW26A - NORTH WALL AT 2'

CB54NW26B - NORTH WALL AT 4'

CB54EW27A - EAST WALL AT 2'

LEGEND



= SAMPLE LOCATIONS (COLLECTED 6/22/94)

FLOOR SAMPLES ARE A COMPOSITE OF SOILS TAKEN FROM THE FOUR CORNERS AND CENTER OF EACH GRID FLOOR (UNLESS OTHERWISE NOTED)

WALL SAMPLES TAKEN AS A DISCRETE GRAB SAMPLE

PERIMETER SAMPLES ARE A COMPOSITE OF SURFACE SOILS TAKEN FROM THE CORNERS AND THE CENTER OF AN AREA EXTENDING 5' AWAY FROM THE EDGE OF THE GRID.

FIGURE 4C

SAMPLE LOCATION DIAGRAM - GRIDS 5 & 6

45 THIRD AVENUE

STRATFORD, CONNECTICUT

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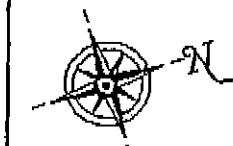
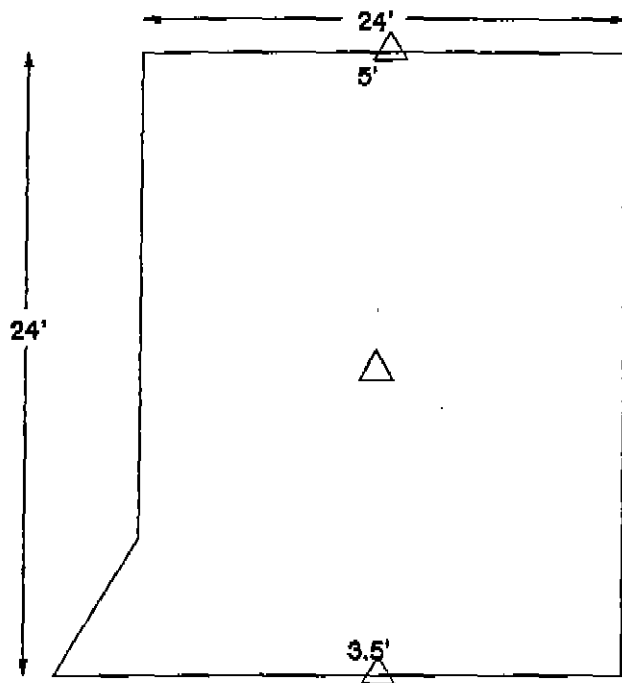
PCS #
1007

APPROVED BY

DATE
10/94

TDD #
01-9410-07

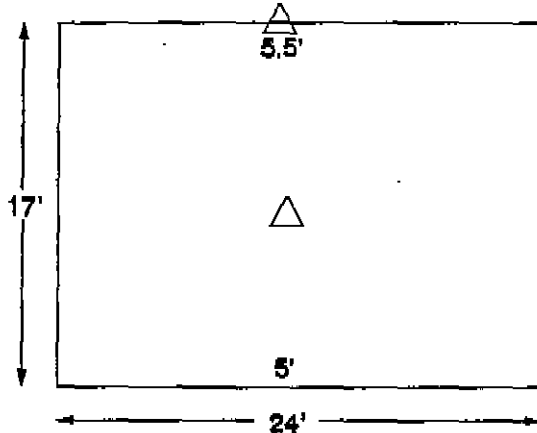
GRID 7



SAMPLE REFERENCE NUMBERS AND LOCATIONS

- CB54F28A - FLOOR AT 4.5'
- CB54EW29A - EAST WALL AT 2'
- CB54WW30A - WEST WALL AT 2'
- CB54WW30B - WEST WALL AT 4'

GRID 8



SAMPLE REFERENCE NUMBERS AND LOCATIONS

- CB55F35A - FLOOR AT 5'
- CB55WW36A - WEST WALL AT 2'
- CB55WW36B - WEST WALL AT 4'

LEGEND

- △ = SAMPLE LOCATIONS (COLLECTED 6/22 - 6/23/94)
- FLOOR SAMPLES ARE A COMPOSITE OF SOILS TAKEN FROM THE FOUR CORNERS AND CENTER OF EACH GRID FLOOR (UNLESS OTHERWISE NOTED)
- WALL SAMPLES TAKEN AS A DISCRETE GRAB SAMPLE
- PERIMETER SAMPLES ARE A COMPOSITE OF SURFACE SOILS TAKEN FROM THE CORNERS AND THE CENTER OF AN AREA EXTENDING 5' AWAY FROM THE EDGE OF THE GRID.

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FIGURE 4D

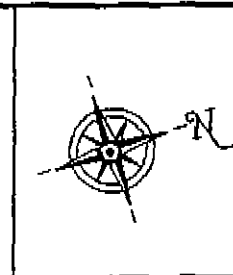
SAMPLE LOCATION DIAGRAM - GRIDS 7 & 8

45 THIRD AVENUE

STRATFORD, CONNECTICUT

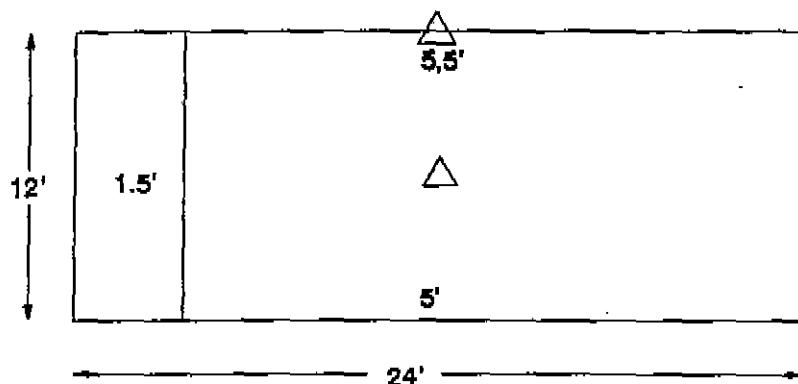


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GRID 9

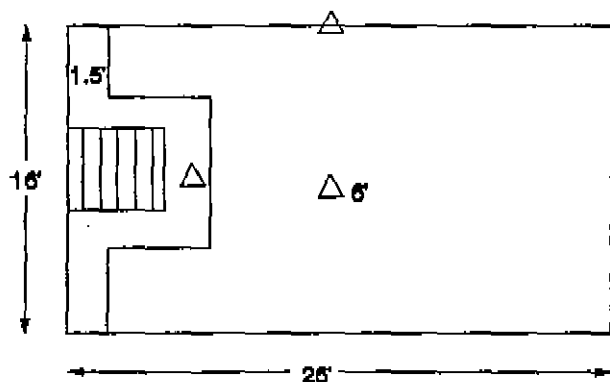
SAMPLE REFERENCE NUMBERS AND LOCATIONS



CB55F39A - FLOOR AT 5'
 CB55SF40A - SOUTH FLOOR AT 1.5'
 CB55WW41A - WEST WALL AT 2'
 CB55WW41B - WEST WALL AT 4'

GRID 10

SAMPLE REFERENCE NUMBERS AND LOCATIONS



CB56F43A - FLOOR COMPOSITE AT 6'
 CB56SF44A - FLOOR COMPOSITE AT 1.5'
 CB56WW45A - WEST WALL AT 2'
 CB56WW45B - WEST WALL AT 4'
 CB56WW45C - WEST WALL AT 6'

LEGEND

△ = SAMPLE LOCATIONS (COLLECTED 6/23 - 6/24/94)
 FLOOR SAMPLES ARE A COMPOSITE OF SOILS TAKEN FROM THE FOUR CORNERS AND CENTER OF EACH GRID FLOOR (UNLESS OTHERWISE NOTED)
 WALL SAMPLES TAKEN AS A DISCRETE GRAB SAMPLE
 PERIMETER SAMPLES ARE A COMPOSITE OF SURFACE SOILS TAKEN FROM THE CORNERS AND THE CENTER OF AN AREA EXTENDING 5' AWAY FROM THE EDGE OF THE GRID.

FIGURE 4E

SAMPLE LOCATION DIAGRAM - GRIDS 9 - 10

45 THIRD AVENUE

STRATFORD, CONNECTICUT

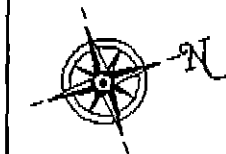
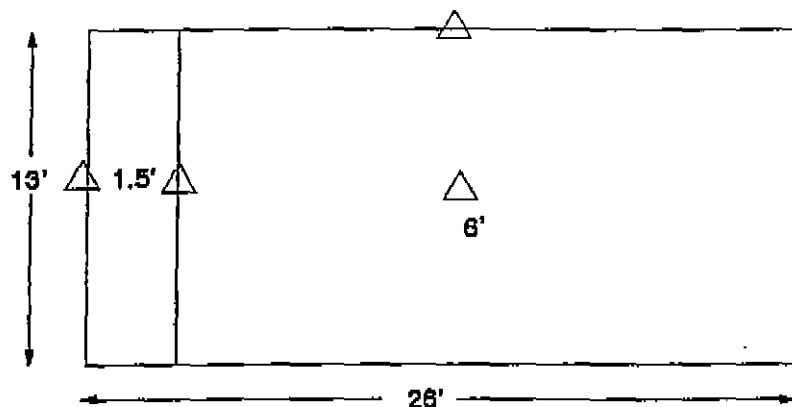
NOT TO SCALE



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GRID 11

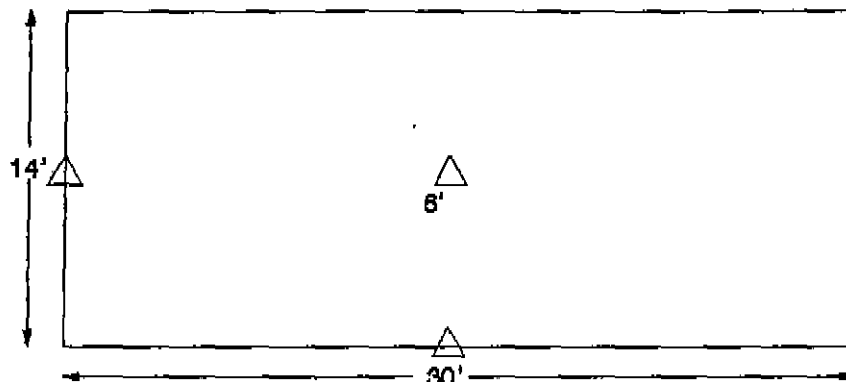


SAMPLE REFERENCE NUMBERS AND LOCATIONS

- CB56F46A - FLOOR AT 6'
- CB56SF47A - SOUTH FLOOR AT 1.5'
- CB56WW48A - WEST WALL AT 2'
- CB56WW48B - WEST WALL AT 4'
- CB56WW48C - WEST WALL AT 6'
- CB56SW48B - SOUTH WALL AT 4'
- CB56SW48C - SOUTH WALL AT 6'

GRID 12

SAMPLE REFERENCE NUMBERS AND LOCATIONS



- CB57F49A - FLOOR AT 6'
- CB57WW50A - WEST WALL AT 2'
- CB57WW50B - WEST WALL AT 4'
- CB57WW50C - WEST WALL AT 6'
- CB57SW51A - SOUTH WALL AT 2'
- CB57SW51B - SOUTH WALL AT 4'
- CB57SW51C - SOUTH WALL AT 6'

LEGEND

- △ = SAMPLE LOCATIONS (COLLECTED 6/24/94)
- FLOOR SAMPLES ARE A COMPOSITE OF SOILS TAKEN FROM THE FOUR CORNERS AND CENTER OF EACH GRID FLOOR (UNLESS OTHERWISE NOTED)
- WALL SAMPLES TAKEN AS A DISCRETE GRAB SAMPLE
- PERIMETER SAMPLES ARE A COMPOSITE OF SURFACE SOILS TAKEN FROM THE CORNERS AND THE CENTER OF AN AREA EXTENDING 5' AWAY FROM THE EDGE OF THE GRID.

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FIGURE 4F

SAMPLE LOCATION DIAGRAM - GRIDS 11 - 12

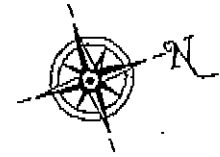
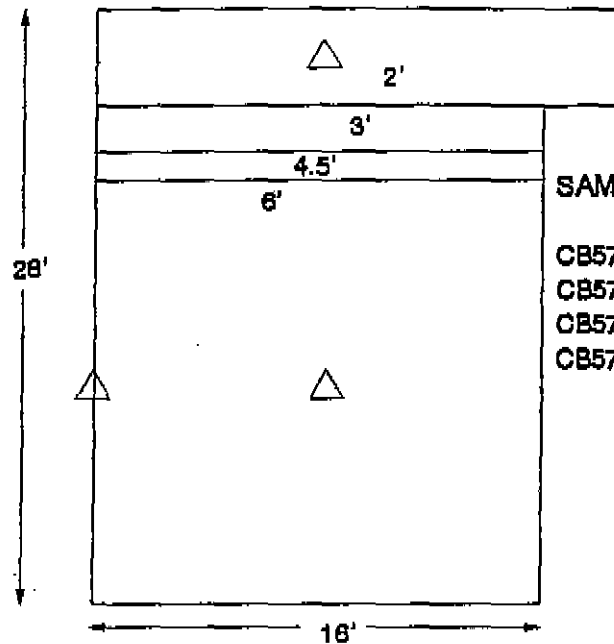
45 THIRD AVENUE

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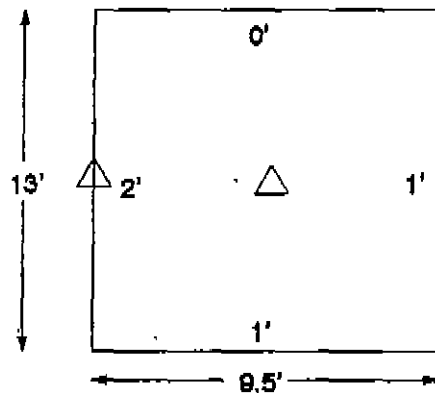
GRID 13



SAMPLE REFERENCE NUMBERS AND LOCATIONS

CB57F52A - FLOOR COMPOSITE AT 6'
 CB57WF53A - WEST FLOOR AT 2'
 CB57SW54B - SOUTH WALL AT 4'
 CB57SW54C - SOUTH WALL AT 6'

GRID 14



SAMPLE REFERENCE NUMBERS AND LOCATIONS

CB57CB57F55A - FLOOR AT 1'
 CB57SW56A - SOUTH WALL AT 2'

LEGEND

△ = SAMPLE LOCATIONS (COLLECTED 6/27/94)
 FLOOR SAMPLES ARE A COMPOSITE OF SOILS TAKEN FROM THE FOUR CORNERS AND CENTER OF EACH GRID FLOOR (UNLESS OTHERWISE NOTED)
 WALL SAMPLES TAKEN AS A DISCRETE GRAB SAMPLE
 PERIMETER SAMPLES ARE A COMPOSITE OF SURFACE SOILS TAKEN FROM THE CORNERS AND THE CENTER OF AN AREA EXTENDING 5' AWAY FROM THE EDGE OF THE GRID.

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FIGURE 4G

SAMPLE LOCATION DIAGRAM - GRIDS 13 & 14

45 THIRD AVENUE

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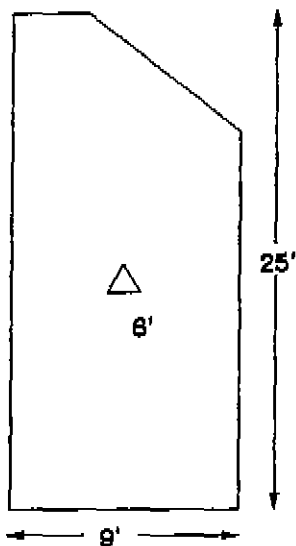
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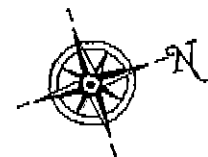
TDD #
01-9410-07

GRID 15

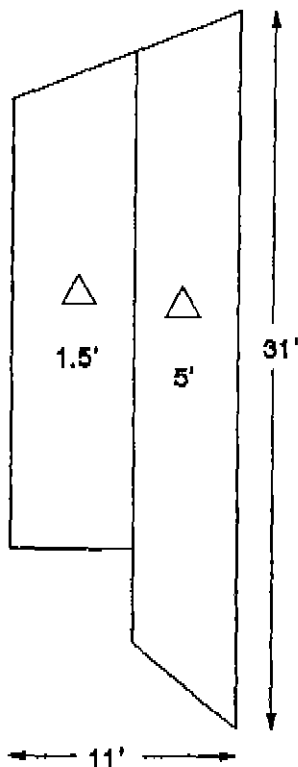


SAMPLE REFERENCE NUMBERS AND LOCATIONS

CB58F59A - FLOOR AT 6'



GRID 16



SAMPLE REFERENCE NUMBERS AND LOCATIONS

CB58SF60A - FLOOR AT 1.5'

CB58F81A - FLOOR AT 5'

LEGEND

△ = SAMPLE LOCATIONS (COLLECTED 6/28/94)
 FLOOR SAMPLES ARE A COMPOSITE OF SOILS TAKEN FROM THE FOUR CORNERS AND CENTER OF EACH GRID FLOOR (UNLESS OTHERWISE NOTED)
 WALL SAMPLES TAKEN AS A DISCRETE GRAB SAMPLE
 PERIMETER SAMPLES ARE A COMPOSITE OF SURFACE SOILS TAKEN FROM THE CORNERS AND THE CENTER OF AN AREA EXTENDING 5' AWAY FROM THE EDGE OF THE GRID.

NOT TO SCALE

FIGURE 4H

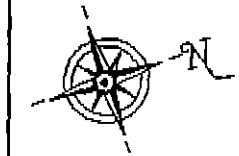
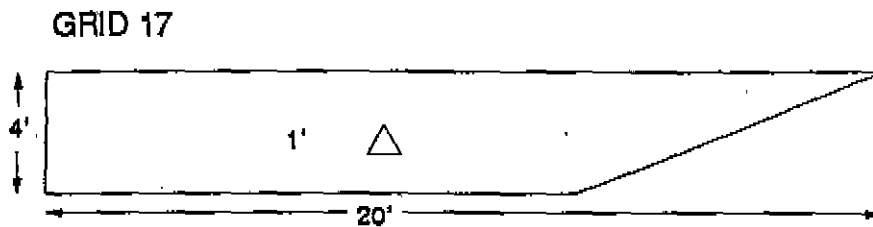
SAMPLE LOCATION DIAGRAM - GRIDS 15 & 16

45 THIRD AVENUE

STRATFORD, CONNECTICUT



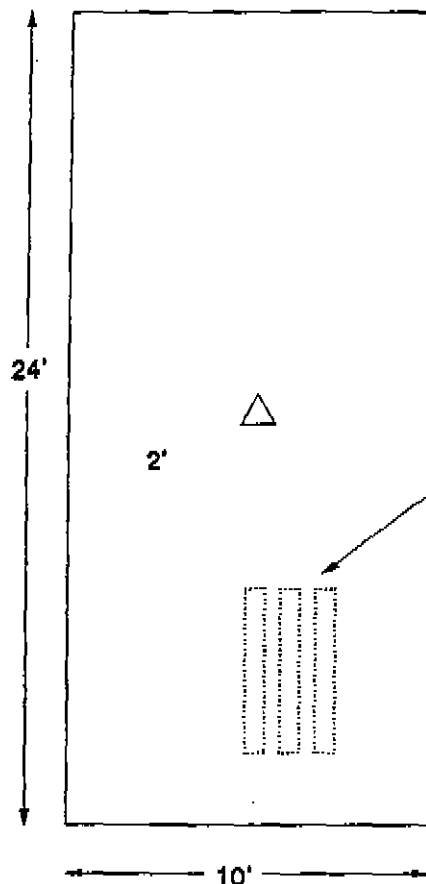
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SAMPLE REFERENCE NUMBERS AND LOCATIONS

CB58F62A - FLOOR AT 1'

GRID 18



SAMPLE REFERENCE NUMBERS AND LOCATIONS

CB58F63A - FLOOR AT 2'

LEGEND

- △ = SAMPLE LOCATIONS (COLLECTED 8/28/94)
 FLOOR SAMPLES ARE A COMPOSITE OF SOILS TAKEN FROM THE FOUR CORNERS AND CENTER OF EACH GRID FLOOR (UNLESS OTHERWISE NOTED)
 WALL SAMPLES TAKEN AS A DISCRETE GRAB SAMPLE
 PERIMETER SAMPLES ARE A COMPOSITE OF SURFACE SOILS TAKEN FROM THE CORNERS AND THE CENTER OF AN AREA EXTENDING 5' AWAY FROM THE EDGE OF THE GRID.

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FIGURE 4I

SAMPLE LOCATION DIAGRAM - GRIDS 17 & 18

45 THIRD AVENUE

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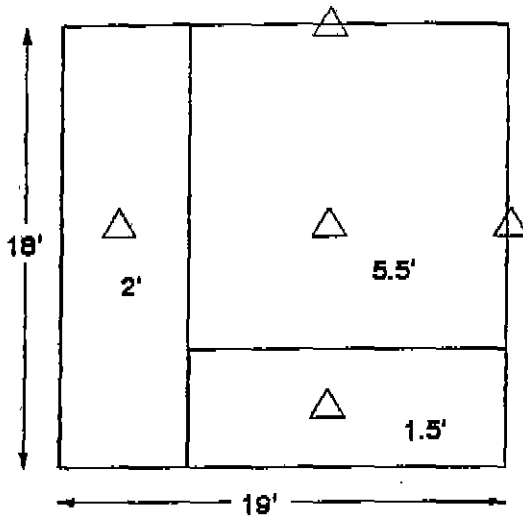
PCS #
1007

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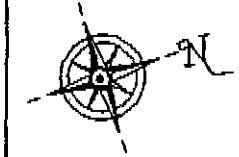
TDD #
01-9410-07

GRID 19

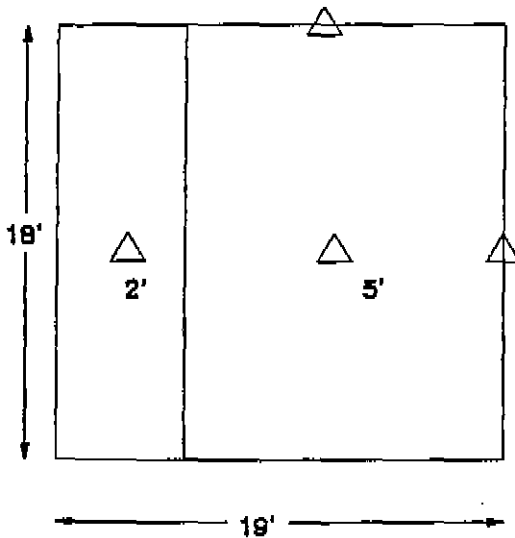


SAMPLE REFERENCE NUMBERS AND LOCATIONS

- CB59F66A - FLOOR AT 5.5'
- CB59F67A - SOUTH FLOOR AT 2'
- CB59EF68A - EAST FLOOR AT 1.5'
- CB59NW69A - NORTH WALL AT 2'
- CB59NW69B - NORTH WALL AT 4'
- CB59WW70A - WEST WALL AT 2'
- CB59WW70B - WEST WALL AT 4'



GRID 20



SAMPLE REFERENCE NUMBERS AND LOCATIONS

- CB59F71A - FLOOR AT 5'
- CB59SF72A - SOUTH FLOOR AT 2'
- CB59NW73A - NORTH WALL AT 2'
- CB59NW73B - NORTH WALL AT 4'
- CB59WW74A - WEST WALL AT 2'
- CB59WW74B - WEST WALL AT 4'

LEGEND

- △ = SAMPLE LOCATIONS (COLLECTED 6/29/94)
- FLOOR SAMPLES ARE A COMPOSITE OF SOILS TAKEN FROM THE FOUR CORNERS AND CENTER OF EACH GRID FLOOR (UNLESS OTHERWISE NOTED)
- WALL SAMPLES TAKEN AS A DISCRETE GRAB SAMPLE
- PERIMETER SAMPLES ARE A COMPOSITE OF SURFACE SOILS TAKEN FROM THE CORNERS AND THE CENTER OF AN AREA EXTENDING 5' AWAY FROM THE EDGE OF THE GRID.

NOT TO SCALE

FIGURE 4J

SAMPLE LOCATION DIAGRAM - GRIDS 19 & 20

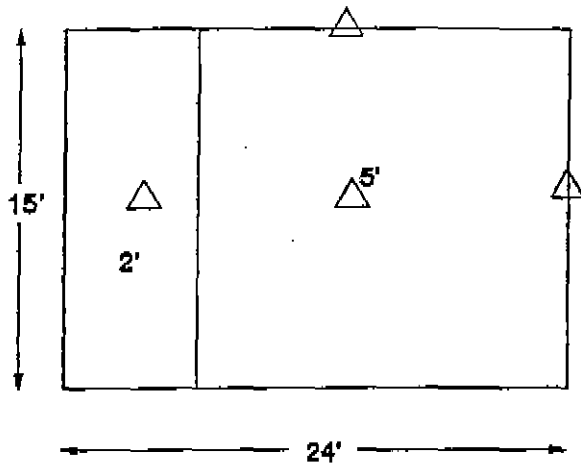
45 THIRD AVENUE

STRATFORD, CONNECTICUT



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APPROVED BY 	DATE 10/94	TDD # 01-9410-07

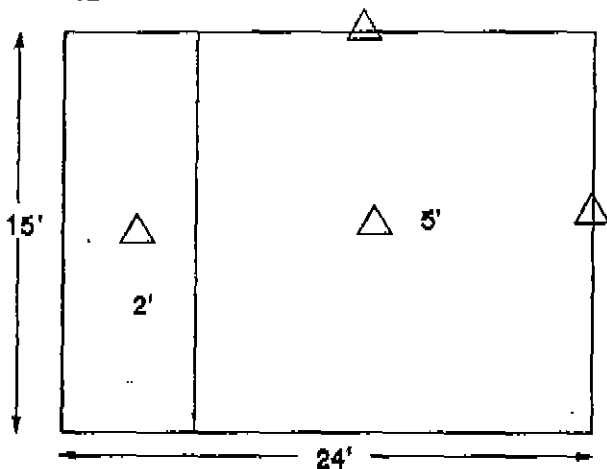
GRID 21



SAMPLE REFERENCE NUMBERS AND LOCATIONS

CB60F77A - FLOOR AT 5'
 CB60SF78A - SOUTH FLOOR AT 2'
 CB60NW79A - NORTH WALL AT 2'
 CB60NW79B - NORTH WALL AT 4'
 CB60WW80A - WEST WALL AT 2'
 CB60WW80B - WEST WALL AT 4'

GRID 22



SAMPLE REFERENCE NUMBERS AND LOCATIONS

CB60SF81A - SOUTH FLOOR AT 2'
 CB60F82A - FLOOR AT 5'
 CB60NW83A - NORTH WALL AT 2'
 CB60NW83B - NORTH WALL AT 4'
 CB60WW84A - WEST WALL AT 2'
 CB60WW84B - WEST WALL AT 4'

LEGEND

△ = SAMPLE LOCATIONS (COLLECTED 6/30/94)
 FLOOR SAMPLES ARE A COMPOSITE OF SOILS TAKEN FROM THE FOUR CORNERS AND CENTER OF EACH GRID FLOOR (UNLESS OTHERWISE NOTED)
 WALL SAMPLES TAKEN AS A DISCRETE GRAB SAMPLE
 PERIMETER SAMPLES ARE A COMPOSITE OF SURFACE SOILS TAKEN FROM THE CORNERS AND THE CENTER OF AN AREA EXTENDING 5' AWAY FROM THE EDGE OF THE GRID

FIGURE 4K

SAMPLE LOCATION DIAGRAM - GRIDS 21 & 22

45 THIRD AVENUE

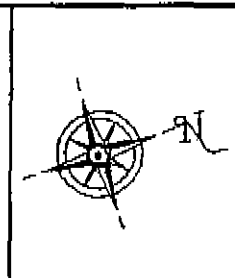
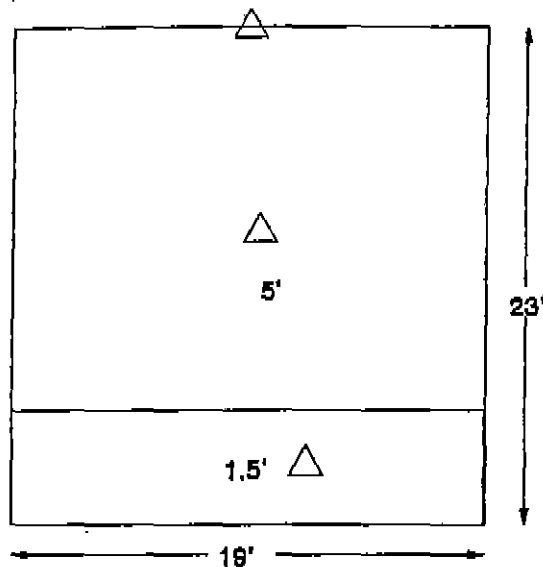
STRATFORD, CONNECTICUT

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 MANAGERS DESIGNERS/CONSULTANTS
 REGION 1 TECHNICAL ASSISTANCE TEAM

DRAWN BY S OHARE	DATE 10/94	PCS # 1007
APPROVED BY 	DATE 11/94	TDO # 01-9410-07

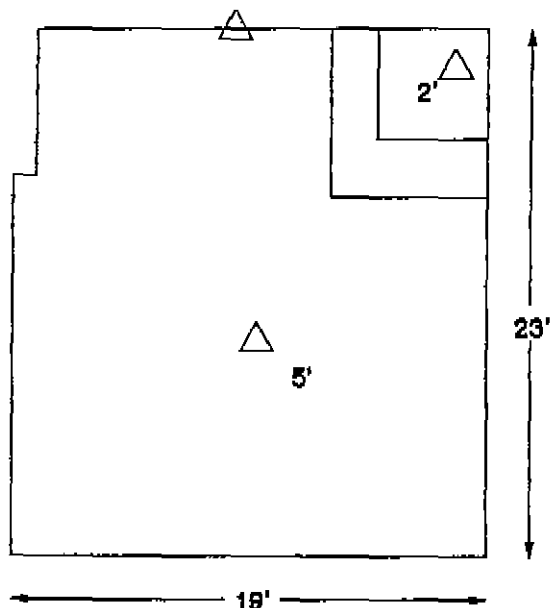
GRID 23



SAMPLE REFERENCE NUMBERS AND LOCATIONS

CB61 EF87A - EAST FLOOR AT 1.5'
 CB61 F88A - FLOOR AT 5'
 CB61 WW89A - WEST WALL AT 2'
 CB61 WW89B - WEST WALL AT 4'

GRID 24



SAMPLE REFERENCE NUMBERS AND LOCATIONS

CB61 NWF80A - NORTHWEST FLOOR AT 2'
 CB61 F81A - FLOOR COMPOSITE AT 5'
 CB61 WW92A - WEST WALL AT 2'
 CB61 WW92B - WEST WALL AT 4'

LEGEND

△ = SAMPLE LOCATIONS (COLLECTED 7/6/94)
 FLOOR SAMPLES ARE A COMPOSITE OF SOILS TAKEN FROM THE FOUR CORNERS AND CENTER OF EACH GRID FLOOR (UNLESS OTHERWISE NOTED)
 WALL SAMPLES TAKEN AS A DISCRETE GRAB SAMPLE
 PERIMETER SAMPLES ARE A COMPOSITE OF SURFACE SOILS TAKEN FROM THE CORNERS AND THE CENTER OF AN AREA EXTENDING 5' AWAY FROM THE EDGE OF THE GRID.

NOT TO SCALE

FIGURE 4L
 SAMPLE LOCATION DIAGRAM - 23 & 24
 45 THIRD AVENUE
 STRATFORD, CONNECTICUT

WESTON
 MANAGERS DESIGNERS/CONSULTANTS
 REGION 1 TECHNICAL ASSISTANCE TEAM

DRAWN BY
 S OHARE

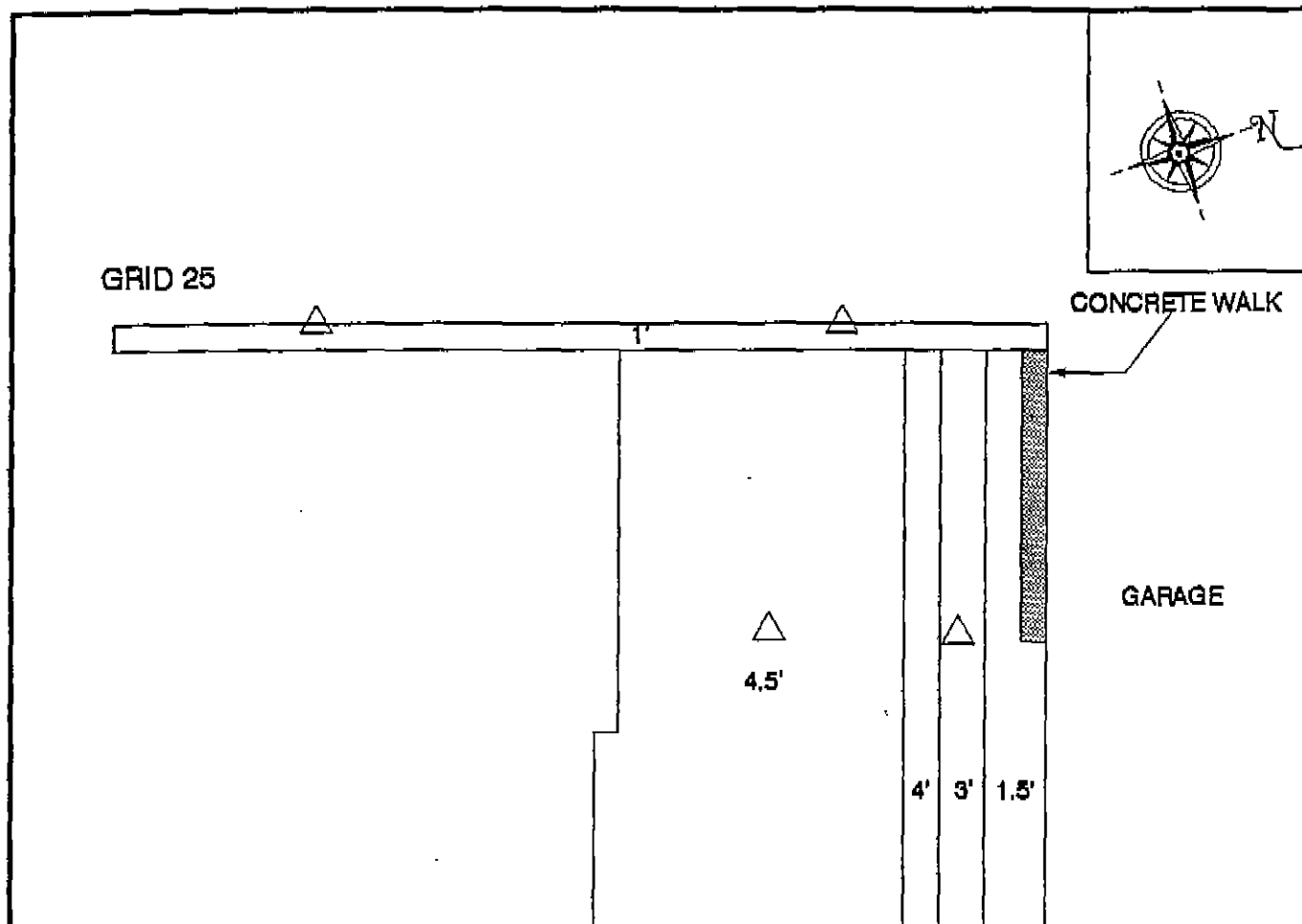
DATE
 10/94

PCS #
 1007

APPROVED BY

DATE
 10/94

TDD #
 01-9410-07



SAMPLE REFERENCE NUMBERS AND LOCATIONS

CB62NF99A - NORTH FLOOR COMPOSITED AT 4', 3' AND 1.5' SHELVES

CB62F100A - FLOOR AT 4.5'

CB62WW101A - WEST WALL (SOUTH END) AT 1'

CB62WW103A - WEST WALL (NORTH END) AT 1'

LEGEND

△ - SAMPLE LOCATIONS (COLLECTED 7/7/94)
 FLOOR SAMPLES ARE A COMPOSITE OF SOILS TAKEN FROM THE FOUR CORNERS AND CENTER OF EACH GRID FLOOR (UNLESS OTHERWISE NOTED)
 WALL SAMPLES TAKEN AS A DISCRETE GRAB SAMPLE.
 PERIMETER SAMPLES ARE A COMPOSITE OF SURFACE SOILS TAKEN FROM THE CORNERS AND THE CENTER OF AN AREA EXTENDING 5' AWAY FROM THE EDGE OF THE GRID.

NOT TO SCALE

FIGURE 4M

SAMPLE LOCATION DIAGRAM - GRID 25

45 THIRD AVENUE

STRATFORD, CONNECTICUT

WESTON[®]
 MANAGERS DESIGNERS/CONSULTANTS
 REGION 1 TECHNICAL ASSISTANCE TEAM

DRAWN BY
S OHARE

DATE
10/94

PCS #
1007

APPROVED BY
[Signature]

DATE
10/94

TDD #
01-9410-07

Appendix B
Property Restoration Plan

The following elements were included in the property restoration plan as prepared by OSC Lussier:

1. Plant trees, shrubs, and perennials as indicated in the attached list.
2. Install red brick edging (row edging) in backyard along plant bedding by the deck (approximately 140 feet), along the fence on the southern boundary of the property and around planting bed in the front yard (approximately 70 feet).
3. Install basket weave red brick pathways in stone dust with border rows:
 - A. Path at the southeastern side/front yard 1 foot wide by 8 feet long.
 - B. Walkways from deck to driveway. The same width as the stairs and tapering to 4 feet by 11 feet long.
 - C. Walkway from deck to south yard (gravel area). The same width as the stairs and tapering to 2 feet by 21 feet long.
4. Install new sod (60 percent Kentucky blue, 20 percent Fescue and 20 percent Rye).
5. Install 3 inches of hardwood shredded mulch around all plants, trees and flowers.
6. Deliver 20 extra bricks to replace those that were destroyed during excavation activities.
7. Reinstall the fence as it stood before the excavations. The fencing materials consisted of 14 pylons with rope. All materials were stored at the residence.
8. Spread 3 inches of peastone gravel over a 24.5 foot by 10 foot 8 inch area on the south side of the property between the residence and the 35 Third Avenue property boundary.
9. Add railroad ties along backyard.
10. Add a French drain along the northern side of the garage.

Plant List:

Northern Property Boundary

<u>Qty</u>	<u>Item</u>	<u>Size</u>
4	Chrysanthemum morifolium (white)	1 gallon
8	Hosta (8 green and 8 green/white)	1 gallon
8	Columbine (various colors)	1 gallon
1	Cedar - Wichita blue juniper	4 foot
4	Day Lily (orange)	

Backyard

<u>Qty</u>	<u>Item</u>	<u>Size</u>
1	Yellow Peach	4 foot
1	Cherry Tree	4 foot
1	Yellow Apple Tree	7 foot
1	Red Apple Tree	3 - 3.5 inch
3	Blueberry - vaccinium, highbush	18 - 24 inch
1	Blackberry (to be found)	
3	Ivy	
1	Maiden Grass	
	- Miscanthus sinensis gracillimus	2 foot
14	Asiatic Hybrid Lily (white)	1 gallon
3	Siberian Iris	5 gallon
24	Strawberry Plant	
10	Bearded Iris Mixture, Iris germanica	

Backyard - Around Deck

<u>Qty</u>	<u>Item</u>	<u>Size</u>
2	Grandifloras Rose Bush (red/orange)	
1	White Rose	
1	Rhododendron PJM Hybrid	2.5 - 3 foot
8	Dianthus (white, pink, red)	1 gallon

Frontyard/Sideyard East of Stockade Fence

<u>QTY</u>	<u>Item</u>	<u>Size</u>
2	Gumpo Azalea, pink	3 gallon
2	Arborvitae	3 foot
3	Peony (1 pink, 1 magenta, 1 white)	
2	Dwarf Alberta Spruce	2 foot
1	Holly (Blue Prince Holly)	2 - 2.5 foot
1	Holly (Blue Princess Holly)	2 - 2.5 foot
1	Kousa Dogwood (white flowers)	4 foot
1	Japanese Maple Bloodgood	3 foot
2	Juniperus Horz. Blue Wiltoni	12 - 15 inch
2	Boxwood - Boxus	24 - 30 inch
20	Lily of the Valley	

TABLE 1
ANALYTICAL SCREENING RESULTS SUMMARY

TABLE 1
Analytical Screening Results Summary
45 Third Avenue
Stratford, Connecticut

Date	Sample Number	Grid Number	Sample Depth	Sample Location*	Lead** (ppm)	Copper** (ppm)	Asbestos*** (%)	PCBs**** (ppm)	PCBs Comment
06/20/94	CB52EW05B	1	4'	Eastern wall of section	158	144	5-10	0.25U	ND
06/20/94	CB52EW05A	1	2'	Eastern wall of section	138	265	5-10	1.0U	ND
06/20/94	CB52F01A	1	4.5'	Floor of section	1427	145	5-10	1.0U	ND
06/20/94	CB52NF02A	1	2'	Northern floor of section	112	168	5-10	1.0U	ND
06/20/94	CB52NW04A	1	2'	Northern wall of section	294	497	10-15	0.25U	ND
06/20/94	CB52NW04B	1	4'	Northern wall of section	5329	8260	10-20	69	---
06/20/94	CB52SF03A	1	1'	Southern floor of section	102	128	3-5	0.25U	ND
06/20/94	CB52SW06B	1	4'	Southern wall of section	9090	20280	40-50	0.75	---
06/20/94	CB52SW06A	1	2'	Southern wall of section	172	218	5-10	0.25U	ND
06/20/94	CB52WW07B	1	4'	Western wall of section	814	135	5-10	2.5U	ND
06/20/94	CB52WW07A	1	2'	Western wall of section	65 J	73 J	5-10	0.25U	ND
06/20/94	CB52EW10A	2	2'	Eastern wall of section	277	539	5-10	1.0U	ND
06/20/94	CB52F08A	2	4.5'	Floor of section	1102	1553	10-20	1.0U	ND
06/20/94	CB52NW09A	2	2'	Northern wall of section	167	321	5-10	1.0U	ND
06/20/94	CB52NW09B	2	4'	Northern wall of section	993	1108	10-15	1.0U	ND
06/20/94	CB52SF12B	2	1'	Southern floor of section	176	290	5-10	1.0U	ND
06/20/94	CB52SW11B	2	4'	Southern wall of section	6369	12440	30-40	1.25	---
06/20/94	CB52SW11A	2	2'	Southern wall of section	95	117	3-5	1.0U	ND
06/21/94	CB53EW17A	3	2'	Eastern wall of section	4239	10410	10-20	0.75	---
06/21/94	CB53EW17B	3	4'	Eastern wall of section	5701	14830	10-20	1.5	---
06/21/94	CB53F14A	3	5'	Floor of section	871	516	10-20	0.25U	ND

* = Refer to Figures 4A - 4M for sample locations.

** = The reported lead and copper concentrations are the higher of the two successive determinations from soil screening results on a Spectrace 9000 analyzer.

*** = Asbestos type is chrysotile; Less than 1% indicates trace quantities.

**** = Denotes total PCBs and is the sum of Aroclors-1254, 1260/62 and 1268.

ND = None Detected.

U = Data Qualifier; denotes that the sample concentration is below the detection limit. Associated numerical value is the field screening detection limit.

J = Data Qualifier; denotes that the sample concentration is below the field screening quantitation limit.

NS = Not Screened.

Note: Floor samples were taken as composites from the center and four corners of each grid unless otherwise noted.

Note: Wall samples were taken as grabs from the center of each wall at the depth noted.

TABLE 1
Analytical Screening Results Summary
45 Thrd Avenue
Stratford, Connecticut

Date	Sample Number	Grid Number	Sample Depth	Sample Location*	Lead** (ppm)	Copper** (ppm)	Asbestos*** (%)	PCBs**** (ppm)	PCBs Comment
06/21/94	CB53NW16A	3	2'	Northern wall of section	2204	5110	10-20	1.75	---
06/21/94	CB53NW16B	3	4'	Northern wall of section	10696	17830	30-40	1.5	---
06/21/94	CB53WF15A	3	2'	Western floor of section	498	697	10-20	0.25U	ND
06/21/94	CB53EW20A	4	2'	Eastern wall of section	62 J	72 J	1-2	1.0U	ND
06/21/94	CB53F18A	4	4'	Floor of section	951	1430	10-20	1.0U	ND
06/21/94	CB53NW19B	4	4'	Northern wall of section	577	118	1-5	1.0U	ND
06/21/94	CB53NW19A	4	2'	Northern wall of section	1323	2231	20-30	1.5	---
06/22/94	CB54F22A	5	4.5'	Floor of section	1333	1455	25-35	0.25U	ND
06/22/94	CB54NW24B	5	4'	Northern wall of section	1291	2388	10-20	0.75	---
06/22/94	CB54NW24A	5	2'	Northern wall of section	227	254	10-15	0.25U	ND
06/22/94	CB54WF23A	5	1.5'	Western floor of section	1527	2765	20-30	0.25U	ND
06/22/94	CB54EW27A	6	2'	Eastern wall of section	137	324	10-15	0.25U	ND
06/22/94	CB54F25A	6	4'	Floor of section	532	576	25-35	0.25U	ND
06/22/94	CB54NW26A	6	2'	Northern wall of section	25170	14890	30-40	0.25	---
06/22/94	CB54NW26B	6	4'	Northern wall of section	3482	2069	20-30	0.25U	ND
06/22/94	CB54EW29A	7	2'	East wall of section	0 U	12 U	<1	0.25U	ND
06/22/94	CB54F26A	7	4.5'	Floor of section	265	201	1-2	1.0U	ND
06/22/94	CB54WW30A	7	2'	Western wall of section	901	2073	5-10	1.25	---
06/22/94	CB54WW30B	7	4'	Western wall of section	2098	3242	20-30	1.25	---
06/23/94	CB55F35A	8	5'	Floor of section	1231	2152	10-20	1.0U	ND
06/23/94	CB55WW36A	8	2'	Western wall of section	7606	13900	20-30	4	---

* = Refer to Figures 4A - 4M for sample locations.

** = The reported lead and copper concentrations are the higher of the two successive determinations from soil screening results on a Spectrace 9000 analyzer.

*** = Asbestos type is chrysotile; Less than 1% indicates trace quantities.

**** = Denotes total PCBs and is the sum of Aroclors - 1254, 1260/62 and 1268.

ND = None Detected.

U = Data Qualifier; denotes that the sample concentration is below the detection limit.
Associated numerical value is the field screening detection limit.

J = Data Qualifier; denotes that the sample concentration is below the field screening quantitation limit.

NS = Not Screened.

Note: Floor samples were taken as composites from the center and four corners of each grid unless otherwise noted.

Note: Wall samples were taken as grabs from the center of each wall at the depth noted.

TABLE 1
Analytical Screening Results Summary
45 Third Avenue
Stratford, Connecticut

Date	Sample Number	Grid Number	Sample Depth	Sample Location*	Lead** (ppm)	Copper** (ppm)	Asbestos*** (%)	PCBs**** (ppm)	PCBs Comment
06/23/94	CB55WW36B	8	4'	Western wall of section	8702	18950	15-25	1.25	---
06/23/94	CB55F39A	9	5'	Floor of section	2749	5230	10-20	0.75	---
06/23/94	CB55SF40A	9	1.5'	Southern floor of section	4712	6930	40-50	0.5	---
06/23/94	CB55WW41A	9	2'	Western wall of section	7454	14580	20-30	1.25	---
06/23/94	CB55WW41B	9	4'	Western wall of section	2632	6460	20-30	0.75	---
06/24/94	CB56F43A	10	6'	Floor of section	758	779	5-10	1.0U	ND
06/24/94	CB56SF44A	10	1.5'	Southern floor of section	3359	7830	20-30	1.75	---
06/24/94	CB56WW45C	10	6'	Western wall of section	1894	1303	15-25	1.0U	ND
06/24/94	CB56WW45B	10	4'	Western wall of section	857	1099	10-15	1.0U	ND
06/24/94	CB56WW45A	10	2'	Western wall of section	5257	13110	20-30	1.75	---
06/24/94	CB56F46A	11	6'	Floor of section	2324	3666	20-25	0.25U	ND
06/24/94	CB56SF47A	11	1.5'	Southern floor of section	1983	4291	25-30	3.75	---
06/24/94	CB56SW48B	11	4'	Southern wall of section	3864	10430	20-25	0.25U	ND
06/24/94	CB56SW48C	11	6'	Southern wall of section	575	550	1-5	0.25U	ND
06/24/94	CB56WW48B	11	4'	Western wall of section	1181	3043	25-30	1	---
06/24/94	CB56WW48A	11	2'	Western wall of section	549	751	1-5	1	---
06/24/94	CB56WW48C	11	6'	Western wall of section	530	900	5-10	1.0U	ND
06/27/94	CB57F49A	12	6'	Floor of section	875	432	10-15	0.25U	ND
06/27/94	CB57SW51A	12	2'	Southern wall of section	110	173 J	5-10	0.25U	ND
06/27/94	CB57SW51B	12	4'	Southern wall of section	118	103 J	1-3	0.25U	ND
06/27/94	CB57SW51C	12	6'	Southern wall of section	159	59 U	10-15	0.25U	ND

* = Refer to Figures 4A - 4M for sample locations.

** = The reported lead and copper concentrations are the higher of the two successive determinations from soil screening results on a Spectrace 9000 analyzer.

*** = Asbestos type is chrysotile; Less than 1% indicates trace quantities.

**** = Denotes total PCBs and is the sum of Aroclors - 1254, 1260/62 and 1268.

ND = None Detected.

U = Data Qualifier; denotes that the sample concentration is below the detection limit. Associated numerical value is the field screening detection limit.

J = Data Qualifier; denotes that the sample concentration is below the field screening quantitation limit.

NS = Not Screened.

Note: Floor samples were taken as composites from the center and four corners of each grid unless otherwise noted.

Note: Wall samples were taken as grabs from the center of each wall at the depth noted.

TABLE 1
Analytical Screening Results Summary
45 Thrd Avenue
Stratford, Connecticut

Date	Sample Number	Grid Number	Sample Depth	Sample Location*	Lead** (ppm)	Copper** (ppm)	Asbestos*** (%)	PCBs**** (ppm)	PCBs Comment
06/27/94	CB57WW50B	12	4'	Western wall of section	164	59 U	3-5	0.25U	ND
06/27/94	CB57WW50A	12	2'	Western wall of section	172	259	3-5	0.25	ND
06/27/94	CB57WW50C	12	6'	Western wall of section	425	872	15-20	0.25U	ND
06/27/94	CB57F52A	13	6'	Floor of section	559	797	20-25	0.25U	ND
06/27/94	CB57SW54B	13	4'	Southern wall of section	25 J	59 U	<1	1.0U	ND
06/27/94	CB57SW54C	13	6'	Southern wall of section	176	311	1-3	0.25U	ND
06/27/94	CB57WF53A	13	2'	Western floor of section	54	59 U	1-3	0.25U	ND
06/27/94	CB57F55A	14	1'	Floor of section	190	336	10-15	0.25U	ND
06/27/94	CB57SW56A	14	2'	Southern wall of section	300	476	5-10	0.25U	ND
06/28/94	CB58F69A	15	6'	Floor of section	1287	388	10-15	0.25U	ND
06/28/94	CA58F61A	16	5'	Floor of section	1729	4779	25-30	0.25U	ND
06/28/94	CA58SF60A	16	1.5'	Southern floor of section	285	276	<1	0.25U	ND
06/28/94	CB58F62A	17	1'	Floor of section	133	135 J	<1	0.25U	ND
06/28/94	CB58F63A	18	2'	Floor of section	952	1900	15-20	0.25U	ND
06/29/94	C59EF68A	19	1.5'	Eastern wall of section	367	340	5-10	0.25U	ND
06/29/94	CB59F66A	19	5.5'	Floor of section	970	631	25-30	0.25U	ND
06/29/94	CB59NW69B	19	4'	Northern wall of section	127 J	183 J	1-3	1.0U	ND
06/29/94	CB59NW69A	19	2'	Northern wall of section	51 J	159 J	1-3	0.25U	ND
06/29/94	CB59SF67A	19	2'	Southern floor of section	959	1326	10-15	0.25	---
06/29/94	CB59WW70A	19	2'	Western wall of section	1032	1792	20-25	0.25U	ND
06/29/94	CB59WW70B	19	4'	Western wall of section	779	1302	30-35	0.25U	ND

* = Refer to Figures 4A - 4M for sample locations.

** = The reported lead and copper concentrations are the higher of the two successive determinations from soil screening results on a Spectrace 9000 analyzer.

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ND = None Detected.

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NS = Not Screened.

Note: Floor samples were taken as composites from the center and four corners of each grid unless otherwise noted.

Note: Wall samples were taken as grabs from the center of each wall at the depth noted.

TABLE 1
Analytical Screening Results Summary
45 Third Avenue
Stratford, Connecticut

Date	Sample Number	Grid Number	Sample Depth	Sample Location*	Lead** (ppm)	Copper** (ppm)	Asbestos*** (%)	PCBs**** (ppm)	PCBs Comment
06/29/94	CB59NW73B	20	4'	Northern wall of section	224	731	1-3	1.0U	ND
06/29/94	CB59F71A	20	5'	Floor of section	1464	4694	20-25	1.0U	ND
06/29/94	CB59NW73A	20	2'	Northern wall of section	49 U	71 J	<1	0.25U	ND
06/29/94	CB59SF72A	20	2'	Southern floor of section	988	946	5-10	0.25U	ND
06/29/94	CB59WW74B	20	4'	Western wall of section	1041	2777	20-25	1.0U	ND
06/29/94	CB59WW74A	20	2'	Western wall of section	76 J	146 J	<1	1.0U	ND
06/30/94	CB60F77A	21	5'	Floor of section	3363	7990	25-30	0.25U	ND
06/30/94	CB60NW79B	21	4'	Northern wall of section	197	259	3-5	1.0U	ND
06/30/94	CB60NW79A	21	2'	Northern wall of section	69 J	83 J	1-3	0.25U	ND
06/30/94	CB60SF78A	21	2'	Southern floor of section	186	209	1-3	0.25U	ND
06/30/94	CB60WW80A	21	2'	Western wall of section	42 J	49 U	<1	0.25U	ND
06/30/94	CB60WW80B	21	4'	Western wall of section	5863	18730	30-35	0.25U	ND
06/30/94	CB60F82A	22	5'	Floor of section	6648	11390	30-35	0.5U	ND
06/30/94	CB60NW83A	22	2'	Northern wall of section	8706	18500	30-35	1.25	---
06/30/94	CB60NW83B	22	4'	Northern wall of section	9612	23710	30-35	0.50U	ND
06/30/94	CB60SF81A	22	2'	Southern floor of section	211	170	3-5	0.25U	ND
06/30/94	CB60WW84A	22	2'	Western wall of section	947	1551	15-20	0.5U	ND
06/30/94	CB60WW84B	22	4'	Western wall of section	8533	17890	30-35	0.25U	ND
07/06/94	CB61EF87A	23	1.5'	Eastern floor of section	1406	2925	15-20	0.25U	ND
07/06/94	CB61F88A	23	5'	Floor of section	584	163	5-10	0.25U	ND
07/06/94	CB61WW89B	23	4'	Western wall of section	462	304	1-3	0.25U	ND

* = Refer to Figures 4A - 4M for sample locations.

** = The reported lead and copper concentrations are the higher of the two successive determinations from soil screening results on a Spectrace 9000 analyzer.

*** = Asbestos type is chrysotile; Less than 1% Indicates trace quantities.

**** = Denotes total PCBs and is the sum of Aroclors - 1254, 1260/62 and 1268.

ND = None Detected.

U = Data Qualifier; denotes that the sample concentration is below the detection limit. Associated numerical value is the field screening detection limit.

J = Data Qualifier; denotes that the sample concentration is below the field screening quantitation limit.

NS = Not Screened.

Note: Floor samples were taken as composites from the center and four corners of each grid unless otherwise noted.

Note: Wall samples were taken as grabs from the center of each wall at the depth noted.

TABLE 1
Analytical Screening Results Summary
45 Third Avenue
Stratford, Connecticut

Date	Sample Number	Grid Number	Sample Depth	Sample Location*	Lead** (ppm)	Copper** (ppm)	Asbestos*** (%)	PCBs**** (ppm)	PCBs Comment
07/06/94	CB61WW89A	23	2'	Western wall of section	29 J	79 J	ND	0.25U	ND
07/06/94	CB61F91A	24	5'	Floor of section	423	106 J	1-3	1.0U	ND
07/06/94	CB61NWF90A	24	2'	Northwestern floor of section	45 J	54 U	ND	0.25U	ND
07/06/94	CB61WW92B	24	4'	Western wall of section	211	60 U	1-3	1.0U	ND
07/06/94	CB61WW92A	24	2'	Western wall of section	162	121 J	1-3	0.25U	ND
07/07/94	CB62F100A	25	4.5'	Floor of section	345	519	15-20	1.0U	ND
07/07/94	CB62NF99A	25	1.5'	Northern floor of section	162	287	1-3	0.25U	ND
07/07/94	CB62WW103A	25	1'	Western wall of section	2508	5946	20-25	0.5	---
07/07/94	CB62WW101A	25	1'	Western wall of section	30 U	30 U	ND	0.25U	ND

* = Refer to Figures 4A – 4M for sample locations.

** = The reported lead and copper concentrations are the higher of the two successive determinations from soil screening results on a Spectrace 9000 analyzer.

*** = Asbestos type is chrysotile; Less than 1% indicates trace quantities.

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ND = None Detected.

U = Data Qualifier; denotes that the sample concentration is below the detection limit.
Associated numerical value is the field screening detection limit.

J = Data Qualifier; denotes that the sample concentration is below the field screening quantitation limit.

NS = Not Screened.

Note: Floor samples were taken as composites from the center and four corners of each grid unless otherwise noted.

Note: Wall samples were taken as grabs from the center of each wall at the depth noted.

TABLE 2
SOIL SHIPMENT SUMMARY

Table 2
Excavated Soil Shipment Summary
45 Third Avenue
Stratford, Connecticut

Date	Number of Shipments (Truckloads)	Quantity Shipped (Kilograms) *
06/20/94	9	126,000
06/21/94	10	140,000
06/22/94	24	336,000
06/23/94	21	294,000
06/24/94	22	308,000
06/27/94	28	392,000
06/28/94	23	322,000
06/29/94	14	196,000
06/30/94	18	252,000
07/06/94	25	350,000
07/07/94	5	70,000
TOTALS:	199	2,786,000 Kg (3,065 U.S. tons)

* = estimated at 14,000 kilograms/load.

56 WILLOW AVE

**56 Willow Avenue
Ebasco CSIR
Pre-Excavation Soil Boring Results**

Sample ID	Sample Depth (ft)	PCBs (ppm)	Lead (ppm)	Asbestos (%)
		Cleanup Criteria		
		Depth Averaging¹		
A +00	0 - 0.25	0.12 U	380	ND
	0.25 - 1	0.11 U	100 U	ND
	1 - 2	0.11 U	100 U	ND
	2 - 3	0.12 U	100 U	ND
	3 - 4	0.11 U	100 U	ND
	4 - 5	0.11 U	100 U	ND
A +25	0 - 0.25	0.15	190	ND
	0.25 - 1	0.11 U	100 U	ND
	1 - 2	0.11 U	100 U	ND
	2 - 3	0.11 U	100 U	ND
	3 - 4	0.11 U	100 U	ND
	4 - 5	0.11 U	100 U	ND
A +50	0 - 0.25	2.0 U	450	ND
	0.25 - 1	0.12 U	100 U	ND
	1 - 2	0.12 U	100 U	ND
	2 - 3	0.11 U	100 U	ND
	3 - 4	0.11 U	100 U	ND
	4 - 5	0.11 U	100 U	ND
A +75	0 - 0.25	2.0 U	140	ND
	0.25 - 1	0.50 U	100 U	Trace
	1 - 2	0.10 UJ	100 U	ND
	2 - 3	0.11 U	100 U	ND
	3 - 4	0.11 U	100 U	ND
	4 - 5	0.11 UJ	100 U	ND
	5 - 6	0.10 U	100 U	ND
	6 - 7	0.10 UJ	100 U	ND
A +100	0 - 0.25	0.12 UJ	100 U	ND
	0.25 - 1	0.11 UJ	100 U	ND
	1 - 2	0.12 UJ	100 U	ND
	2 - 3	0.11 U	100 U	ND
	3 - 4	0.12 U	100 U	ND
	4 - 5	0.10 U	100 U	ND
	5 - 6	0.11 U	100 U	ND
	6 - 7	0.10 U	100 U	ND

Results presented in this table summarize the site investigation (pre-excavation) results for soil left in place after excavation activities were completed.

NOTES:

- ¹ See attached 4/27/95 memorandum from A. Wing, USEPA to R. Goff, USACE
- U: non detect, or detected below detection limit.
- J: estimated value
- ND: non detect for asbestos
- UJ: non detect, detection limit is estimated

**56 Willow Avenue
Ebasco CSIR
Pre-Excavation Soil Boring Results**

Sample ID	Sample Depth (ft)	PCBs (ppm)	Lead (ppm)	Asbestos (%)
		Cleanup Criteria		
		Depth Averaging¹		
A +125	0 - 0.25	2.0 U	430	Trace
	0.25 - 1	1.0 UJ	390	Trace
	1 - 2	5.0 U	360	ND
	2 - 3	0.11 U	100 U	ND
	3 - 4	0.11 U	100 U	ND
	4 - 5	0.11 UJ	100 U	ND
	5 - 6	0.11 U	100 U	ND
B +00	0 - 0.25	0.12 U	340	ND
	0.25 - 1	0.11 U	100 U	ND
	1 - 2	0.11 U	100 U	ND
	2 - 3	0.13 U	100 U	ND
	3 - 4	0.11 U	100 U	ND
	4 - 5	0.11 U	100 U	ND
B +25	0 - 0.25	2.0 U	250	Trace
	0.25 - 1	0.11 U	100 U	ND
	1 - 2	0.11 UJ	100 U	ND
	2 - 3	0.11 U	100 U	< 1
	3 - 4	0.11 UJ	100 U	ND
	4 - 5	0.11 U	100 U	ND
B +100	0.25 - 1	0.11 U	100 U	ND
	1 - 2	0.11 U	100 U	ND
	2 - 3	0.12 U	100 U	ND
	3 - 4	0.11 U	100 U	ND
	4 - 5	0.11 U	100 U	ND
	5 - 6	0.11 UJ	100 U	ND
	6 - 7	0.11 U	100 U	ND
B +125	6 - 7	0.12 U	100 U	< 1
C +00	0 - 0.25	0.36	270	ND
	0.25 - 1	0.11 U	100 U	ND
	1 - 2	0.12 U	100 U	ND
	2 - 3	0.13 U	100 U	ND
	3 - 4	0.12 U	100 U	ND
	4 - 5	0.11 U	100 U	ND

Results presented in this table summarize the site investigation (pre-excavation) results for soil left in place after excavation activities were completed.

NOTES:

- ¹ See attached 4/27/95 memorandum from A. Wing, USEPA to R. Goff, USACE
- U: non detect, or detected below detection limit.
 - J: estimated value
 - ND: non detect for asbestos
 - UJ: non detect, detection limit is estimated

**56 Willow Avenue
Ebasco CSIR
Pre-Excavation Soil Boring Results**

Sample ID	Sample Depth (ft)	PCBs (ppm)	Lead (ppm)	Asbestos (%)
		Cleanup Criteria		
		Depth Averaging¹		
C +23	0 - 0.25	5.0 U	560	< 1
	0.25 - 1	2.0 U	120	ND
	1 - 2	0.11 U	100 U	ND
	2 - 3	0.11 U	100 U	ND
	3 - 4	0.11 U	100 U	ND
	4 - 5	0.11 U	100 U	ND
C + 49	0 - 0.25	0.12 U	340	< 1
	0.25 - 1	5.0 U	230	ND
	1 - 2	0.11 U	100 U	ND
	2 - 3	0.11 U	100 U	ND
	3 - 4	0.11 U	100 U	ND
	4 - 5	0.11 UJ	100 U	ND
C +75	0.25 - 1	0.11 U	100 U	ND
	1 - 2	0.11 U	100 U	ND
	2 - 3	0.12 U	100 U	ND
	3 - 4	0.11 U	100 U	ND
	4 - 5	0.11 U	100 U	ND
	5 - 6	0.11 U	100 U	ND
	6 - 7	0.12 U	100 U	ND
C +100	0.25 - 1	0.11 U	100 U	Trace
	1 - 2	0.11 UJ	100 U	Trace
	2 - 3	0.11 UJ	100 U	< 1
	3 - 4	0.11 UJ	100 U	Trace
	4 - 5	0.11 U	100	Trace
	5 - 6	0.11 UJ	100 U	Trace
	6 - 7	0.14 U	100	Trace
C +125	6 - 7	0.18 U	100 U	ND

Results presented in this table summarize the site investigation (pre-excavation) results for soil left in place after excavation activities were completed.

NOTES:

- ¹ See attached 4/27/95 memorandum from A. Wing, USEPA to R. Goff, USACE
- U: non detect, or detected below detection limit.
- J: estimated value
- ND: non detect for asbestos
- UJ: non detect, detection limit is estimated

**56 Willow Avenue
Weston REAC
Pre-Excavation Surface Soil Sampling Results**

Sample ID	Sample Depth (ft)	PCBs (ppm)	Lead (ppm)	Asbestos (%)
		Cleanup Criteria		
		Depth Averaging¹		
G1	Surface	0.25 U	110 J	ND
G4	Surface	0.25 U	130 J	ND
G5	Surface	0.25	250	ND

Results presented in this table summarize the site investigation (pre-excavation) results for soil left in place after excavation activities were completed.

NOTES:

- ¹ See attached 4/27/95 memorandum from A. Wing, USEPA to R. Goff, USACE
- Samples collected by Weston REAC on 8/18/93
- U: Contaminant has been analyzed for but not detected. Associated numerical value is field screening method quantitation limit.
- J: Result is greater than primary detection limit of 50 ppm; less than or equal to primary quantitation limit of 180 ppm.
- ND: Indicates non detect for asbestos

**56 Willow Avenue
Weston TAT
Pre-Excavation Surface/Depth Soil Sampling Results**

Sample ID	Sample Depth (ft)	PCBs (ppm)	Lead (ppm)	Asbestos (%)
		Cleanup Criteria		
		Depth Averaging¹		
A +000	Surface	0.3	349	0
A +032	Surface	0.25 U	177	0
A +064	Surface	0.25 U	242	0
A +098	Surface	0.25 U	130 J	0
A +132	Surface	0.25 U	119 J	0
	0 - 1	1.0 U	217	0
	1 - 2	0.25 U	263	1 - 2
B +000	Surface	0.25 U	223	0
B +020	Surface	0.25 U	178	0
C +000	Surface	0.25 U	74 J	0
C +020	Surface	0.25 U	193	0
	0 - 1	0.25 U	ND	0
	1 - 2	0.25 U	ND	0
D + 000	Surface	1.0 U	262	0
001	Surface	1.25 U	167	< 1
	0 - 1	1.0 U	495	2 - 3
	1 - 2	0.25 U	277	< 1

Results presented in this table summarize the site investigation (pre-excavation) results for soil left in place after excavation activities were completed.

NOTES:

- ¹: See attached 4/27/95 memorandum from A. Wing, USEPA to R. Goff, USACE
- Samples collected by Weston TAT on June 8, 1994

PCB Qualifiers

- U: Contaminant has been analyzed for but not detected. Associated numerical value is field screening method quantitation limit.

Lead Qualifiers

- J: Result is greater than primary detection limit of 60 ppm; less than or equal to primary quantitation limit of 165 ppm.
- ND: Non-detect for asbestos. Result is less than or equal to the primary detection limit of 60 ppm.

Asbestos Qualifiers

- ND: Non-detect for asbestos

56 Willow Avenue
Post-Excavation Field Screening Results

Grid Number	Sample Location	Sample Depth (feet)	Field Laboratory Results			Sample ID
			PCBs (ppm)	Lead (ppm)	Asbestos (%)	
			Cleanup Criteria			
			Depth Averaging ¹			
7	Floor	6	0.14 U	100 U	< 1	FSWA56-7CC(6)X
	North ² Wall	0 - 3	0.11 U	100 U	ND	WSWA56-7NC(0-3)X
	North Wall	3 - 6	0.12 U	100 U	< 1	WSWA56-7NC(3-6)X
	East Wall	1 - 3	0.11 U	100 U	ND	WSWA56-7EC(1-3)X
	East Wall	3 - 6	0.12 U	100 U	ND	WSWA56-7EC(3-6)X
	West Wall	0 - 3	5.8	880	30	WSWA56-7WC(0-3)X
	West Wall	3 - 6	0.12 U	100 U	10	WSWA56-7WC(3-6)X
8	Floor	6	0.12 U	100 U	< 1	FSWA56-8CC(6)X
	West Wall	0 - 3	3.0	690	30	WSWA56-8WC(0-3)X
	West Wall	3 - 6	0.18	100 U	25	WSWA56-8WC(3-6)X
	South Wall	0 - 3	5.4	370	40	WSWA56-8SC(0-3)X
	South Wall	3 - 6	0.18 U	100 U	ND	WSWA56-8SC(3-6)X
	South Perimeter ³	0 - 0.25	5.0 U	670	< 1	PSWA56-8SG(0-0.25)X
15	Floor	1	0.11 U	100 U	< 1	FSWA56-15CC(1)X
	North Wall	0 - 1	0.11 U	100 U	ND	WSWA56-15NC(0-1)X
16	Floor	6	0.12 U	100 U	ND	FSWA56-16CC(6)X
	North Wall	1 - 3	0.11 U	100 U	ND	WSWA56-16NC(1-3)X
	North Wall	3 - 6	0.13 U	100 U	Trace	WSWA56-16NC(3-6)X
	East Wall	1 - 3	0.10 U	100 U	ND	WSWA56-16EC(0-3)X
	East Wall	3 - 6	0.12 U	100 U	ND	WSWA56-16EC(3-6)X
	South Wall	0 - 3	0.58	160	ND	WSWA56-16SC(0-3)X
	South Wall	3 - 6	0.13 U	100 U	ND	WSWA56-16SC(3-6)X
	South Perimeter ³	0 - 0.25	5.0 U	440	< 1	PSWA56-16SG(0-0.25)X
23	Floor	1	0.47	100 U	ND	FSWA56-23CC(1)X
	North Wall	0 - 1	1.0	320	ND	WSWA56-23NC(0-1)X
24	Floor	1	0.78	110	< 1	FSWA56-24CC(1)X
	South Wall ³	0 - 1	5.0 U	150	ND	WSWA56-24SC(0-1)X

Results presented in this table summarize the field screening results for soil left in place after excavation activities were completed.

NOTES:

¹ See attached 4/27/95 memorandum from A. Wing, USEPA to R. Goff, USACE

² Cardinal directions correspond to Plan North as indicated on Post Excavation Record Plan.

³ PCB value masked due to the presence of a fertilizer.

- Floor (composite) samples obtained from the base of the excavation.
- Wall (composite) samples obtained from the vertical face of the excavation.
- Perimeter (grab) samples obtained approximately 2.5 feet from the edge of the excavation.
- ND indicates the contaminant was not detected in the sample.
- U indicates the contaminant was not detected in the sample; the reported value is the detection limit.
- Highlighted cells indicate samples which failed to meet EPA depth averaging cleanup criteria.

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Interoffice Memorandum

DATE: November 27, 1995

REF. #: WA56rsp

TO: Marty Sklaver

FROM: Helen Douglas *Bmc for HD*

SUBJECT: USACE CONTRACT NO. DACW33-94-D-0002 NE TERC
Delivery Order No. 0004 Stratford Superfund Sites
Post-Excavation Data - 56 Willow Avenue
Amendment to Transmittal No. 0140-WA56-GRID

Final results for post excavation samples representing soil "left in place" at 56 Willow Avenue are included on the attached table. These results were reviewed in accordance with the procedures described in the project CDAP and outlined below. Based on this review, the data are acceptable for project use.

The individual laboratories (ABB-ES - on-site and Aquatec - off-site) provide a quality assurance check of all data prior to final reporting. Quality control on-site/off-site split sample data are summarized and reported in weekly data comparison memos (WCS). Split sample comparison results were discussed in transmittals WCS-040. The noted asbestos discrepancies were determined to be a result of an incorrectly reported off-site result (WCS-042). On-going correlation studies are reported periodically and are intended to identify trends that could have significant impacts to the data reported by the on-site laboratory. The associated on-going correlation study for 56 Willow Avenue is provided in transmittal OCS-010.

Approximately 20 percent of the off-site split sample results were reviewed with respect to the data quality objectives given in the CDAP and are reported in transmittal no. DV-008; no significant quality control exceedences were noted in the off-site data review.

An ABB-ES quality control review was performed and the following results were reported differently from the initial field result:

Sample I.D.	Lab I. D.	Date Collected	Correct Result (ppm)	Comments
FS-23CC(0.00-1.00)	11856	080995	100 U (lead)	incorrect on gridbook
FS-8CC(6.00-6.00)	11798	080795	0.12 U (PCB)	incorrect on gridbook

Some changed results were due mostly to data validation actions (flagged "J" estimated). In addition, some values reported for PCBs were adjusted slightly due to percent solids correction and/or rounding. The noted data adjustments do not change the field decisions with respect to the depth averaging cleanup criteria.

Please call me at (617)457-8263, if you have any questions.

cc: G. Eckart
J. Francis
Chemistry Distribution

SENT BY:

1-25-96 10:42AM ;

ATSDR/DHAC/OD-

017 573 9002;# 2/ 3

**Public Health Implications Statement
for
56 Willow Avenue
Stratford, CT**

The federal Agency for Toxic Substances and Disease Registry (ATSDR) and the Connecticut Department of Public Health (CTDPH) have evaluated environmental sampling results provided to us by EPA Region I in their investigation of the Raymark waste contamination. These sampling results were collected following EPA's cleanup of your property. Based on our evaluation, the health agencies believe that there is no current health threat indicated by the soil sampling results for asbestos, lead, and polychlorinated biphenyls (PCBs) from your property at this time. However, waste had to be left in place below the surface on your property. The waste is covered by a geotextile liner which separates the contamination from clean soil. The health agencies have made the following recommendations:

1. Do not dig below the geotextile liner at the following depths in areas of your property as indicated:
 - below the surface on the western boundary of the property: Grid Numbers 7 and 8; and
 - below the surface on the southern boundary of the property: Grid Number 8.
2. This property should be placed on a notification system so that future owners will be aware that waste had to be left below the surface.

If you have questions or comments, please call the CTDPH hotline at 203-240-9022 or the Stratford Health Department at 203-385-4090.

Signature



Date: January 25, 1996

ATSDR Reviewer: Tammie McRae

CTDPH Reviewer: Jennifer Kortanls

Type of Samples: Post Excavation Soil

Date of Samples: August 1995

65 THIRD AVE

Public Health Implications Statement
for
65 Third Avenue
Stratford, CT

The federal Agency for Toxic Substances and Disease Registry (ATSDR) and the Connecticut Department of Public Health and Addiction Services (CTDPHAS) have evaluated the enclosed information. Based on that evaluation, the health agencies believe that an imminent health threat exists at this location at this time.

The health agencies have made the following recommendations:

1. People's contact with the contaminated areas should be stopped or reduced;
2. Since contamination may be below the surface at this location, samples should be collected from areas underground;
3. Digging and gardening should be avoided until the subsurface investigation has been completed;
4. More samples are necessary so that the health agencies can better determine the health risk; and
5. Clean up should be considered.

If you have questions or comments, please call the CTDPHAS hotline at 240-9024 or the Stratford Health Department at 385-4090.

Signature



Date: August 2, 1993

Type of Samples: Surface Soil Screening
Date of Samples: 6/29/93

ATSDR Reviewers: David Mellard, Ph.D., Lynn Wilder, Rich Nickle
Tammie McRae
CTDPHAS Reviewers: Diane Aye

Public Health Implications Statement
for
65 Third Avenue
Stratford, CT

The federal Agency for Toxic Substances and Disease Registry (ATSDR) and the Connecticut Department of Public Health and Addiction Services (CTDPHAS) have evaluated the enclosed information. Based on that evaluation, the health agencies believe that an imminent health threat exists at this location at this time.

The health agencies have made the following recommendations:

1. People's contact with the contaminated areas should be stopped or reduced;
2. Since contamination may be below the surface at this location, samples should be collected from areas underground;
3. Digging and gardening should be avoided until the subsurface investigation has been completed;
4. More samples are necessary so that the health agencies can better determine the health risk; and
5. Clean up should be considered.

If you have questions or comments, please call the CTDPHAS hotline at 240-9024 or the Stratford Health Department at 385-4090.

Signature



Date: July 28, 1993

Type of Samples: Surface Soil Screening

Date of Samples: 6/29/93

ATSDR Reviewers: David Mellard, Ph.D., Lynn Wilder, Rich Nickle
Tammie McRae

CTDPHAS Reviewers: Diane Aye

**Public Health Implications Statement
for
65 Third Avenue
Stratford, CT**

The federal Agency for Toxic Substances and Disease Registry (ATSDR) and the Connecticut Department of Public Health and Addiction Services (CTDPHAS) have evaluated environmental sampling results provided to us by EPA Region I in their investigation of the Raymark waste contamination. These sampling results were collected following EPA's cleanup of your property. Based on our evaluation, the health agencies believe that there is no current health threat indicated by the soil sampling results for asbestos, lead, and polychlorinated biphenyls (PCBs) from your property. Because waste had to be left below the surface on your property, the health agencies have made the following recommendations:

1. Do not dig below the following depths in areas of your property indicated by grid numbers:
 - 1.5 feet next to the foundation of the house: Grid Numbers 19, 20, 23, 28, 29, 30, 32, 34, 35;
 - 1.5 feet on the southeast corner of the property next to the road: Grid Number 37;
 - 1.5 feet on the southwest corner of the property: Grid Number 15; and
 - 4 feet on the rest of your property.
2. This property should be placed on a notification system so that future owners will be aware that waste had to be left below the surface. Waste was left in place because groundwater was reached and further excavation would compromise the foundation of the house.

If you have questions or comments, please call the CTDPHAS hotline at 203-240-9022 or the Stratford Health Department at 203-385-4090.

Type of Samples: Excavation Boundary, Depth
Date of Samples: May - June 1994

Signature



Date: March 28, 1995

ATSDR Reviewers: David Mellard, Ph.D., Tammie McRae
CTDPHAS Reviewers: Diane Aye, Jennifer Kertanis

**Public Health Implications Statement
for
65 Third Avenue
Stratford, CT**

The federal Agency for Toxic Substances and Disease Registry (ATSDR) and the Connecticut Department of Public Health and Addiction Services (CTDPHAS) have evaluated environmental sampling results provided to us by EPA Region I in their investigation of the Raymark waste contamination. These sampling results were collected following EPA's cleanup of your property. Based on our evaluation, the health agencies believe that there is no current health threat indicated by the soil sampling results for asbestos, lead, and polychlorinated biphenyls (PCBs) from your property. Because waste had to be left below the surface on your property, the health agencies have made the following recommendations:

1. Do not dig at the following depths in areas of your property indicated by grid number

Do not dig below depth (feet)	Description of Area	Grid Numbers
1.5	Next to foundation of house	19, 20, 22, 23, 28, 29, 30, 32, 34, 35
1.5	Southeast corner of property next to road	37
1.5	West property boundary	15
3.5		4
4		25, 31
5		1, 2, 5, 13, 36
5.5		6, 12, 14, 21, 24, 26, 33
6		18
6.5		10, 16, 17, 27
7		3, 7, 8, 9, 11

2. This property should be placed on a notification system so that future owners will be aware that waste had to be left below the surface. Waste was left in place because groundwater was reached or because further excavation would compromise the foundation of the house.

If you have questions or comments, please call the CTDPHAS hotline at 203-240-9022 or the Stratford Health Department at 203-385-4090.

Type of Samples: Excavation Boundary, Depth
Date of Samples: May - June 1994

Signature

Date: February 23, 1995

ATSDR Reviewers: David Mellard, Ph.D., Tammie McRae
CTDPHAS Reviewers: Diane Aye, Jennifer Kertanis

FEDERAL ON-SCENE COORDINATOR'S REPORT
65 THIRD AVENUE
STRATFORD, CONNECTICUT

May 5 through August 12, 1994

Prepared By:

U.S. Environmental Protection Agency
Region I
60 Westview Street
Lexington, Massachusetts
and

ROY F. WESTON, INC.
Technical Assistance Team
Region I

January 1995

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Appendix A - Excavation Grid Sample Location Maps (Figures 3A - 3T)

Appendix B - Property Restoration Item List

LIST OF TABLES (Found at the end of the report)

Table 1 - Analytical Screening Results Summary

Table 2 - Excavated Soil Shipment Summary

1.0 Executive Summary

The following report, entitled *Federal On-Scene Coordinator's Report, 65 Third Avenue, Stratford, Connecticut, May 5 through August 12, 1994*, is a chronological summary of the U.S. Environmental Protection Agency (EPA), Region I, Emergency Planning and Response Branch's (EPRB) response operations. The report details the situation as it developed, the actions taken, the resources committed, the effectiveness of the removal action, the problems encountered and the On-Scene Coordinator's (OSC) recommendations.

This OSC report was prepared according to the Code of Federal Regulations, Title 40, Protection of the Environment, Part 300, Subpart B - Responsibility and Organization for Response, Section 300.165.

The 65 Third Avenue property is one of many properties located in Stratford, Connecticut that are suspected of receiving manufacturing wastes generated at the Raymark Industries, Inc., Stratford, CT facility (Raymark) as fill materials. Manufacturing waste consisted of sludges containing asbestos, lead, polychlorinated biphenyls (PCBs) and other contaminants.

The 65 Third Avenue property was the fifth of six developed residential properties in the Third and Fourth Avenue area where removal actions by the EPA were deemed appropriate. Support facilities and equipment were utilized in succession as each property in the area underwent removal activities.

Initial preparations for removal activities in the Third and Fourth Avenue area began in the fall of 1993. With property owner approval, contaminated undeveloped lots located at the end of Fourth Avenue were chosen as the staging area for all removal activities in the vicinity. The area was excavated where necessary to achieve an acceptable grade, and was temporarily capped with a semi-permeable geotextile fabric and 6 inches of gravel to facilitate movement of trucks and other heavy equipment.

From May 5 through August 12, 1994, EPA conducted the following activities at 65 Third Avenue: documented initial conditions, excavated contaminated soil, transported contaminated soil to the Raymark facility for temporary storage, backfilled excavated areas with gravel and select-fill and restored the property to its original condition. Restoration activities at three other excavated properties also occurred during this time.

Soil cleanup levels of 400 parts per million (ppm) lead, 1 ppm PCBs and 1 percent asbestos were established through consultation with the Agency for Toxic Substances and Disease Registry (ATSDR). Typically, if two of these parameters were exceeded in wall or perimeter samples, additional excavation would ensue. Excavation depths typically were advanced to clean soil or the water table (whichever came first).

2.0 Summary of Events

2.1 Organization of Response

ORGANIZATION OF RESPONSE		
Agencies of Parties Involved	Contact	Description of Participation
U.S. EPA - Region I 60 Westview Street Lexington, MA 02173 (617) 860-4300	AmyJean Lussier	Federal OSC responsible for ERCS oversight and success.
	David McIntyre	Raymark Team Leader - responsible for the Stratford Sites Project.
U.S. EPA - Region I Superfund Community Relations Section JFK Federal Bldg. Boston, MA 02203	Liza Judge	Community involvement coordinator. Served as a sounding board for area residents' complaints.
ATSDR	Tammy McRae	Provided health consultations.
U.S. Army Corps of Engineers	Robert Hunt Anthony Firicano	Provided the OSC with restoration specifications and excavation plans.
Roy F. Weston, Inc. Technical Assistance Team 99 South Bedford Street Burlington, MA 01803 (617) 229-6430	David Strzempko John Donohue Sean O'Hare Daniel Keefe	Provided the OSC with technical assistance, administrative support, sampling/analysis, photo and site documentation, site safety, and draft report preparation.
OHM Remediation Services Corporation 88 C Elm Street Hopkinton, MA 01748	Joseph Overend	Provided personnel and equipment necessary for removal, conducted the cleanup, restored property. Coordinated shipment of waste to the Raymark facility.
Lockheed		Reviewed analytical data.
Halliburton NUS Corporation Roy F. Weston, Inc. ARCS		Collected samples for CSIR.
Connecticut Department of Public Health and Addiction Services	Diane Aye Janet Kapish Susan Isch	Screened soil samples for asbestos and provided health concerns consultation.

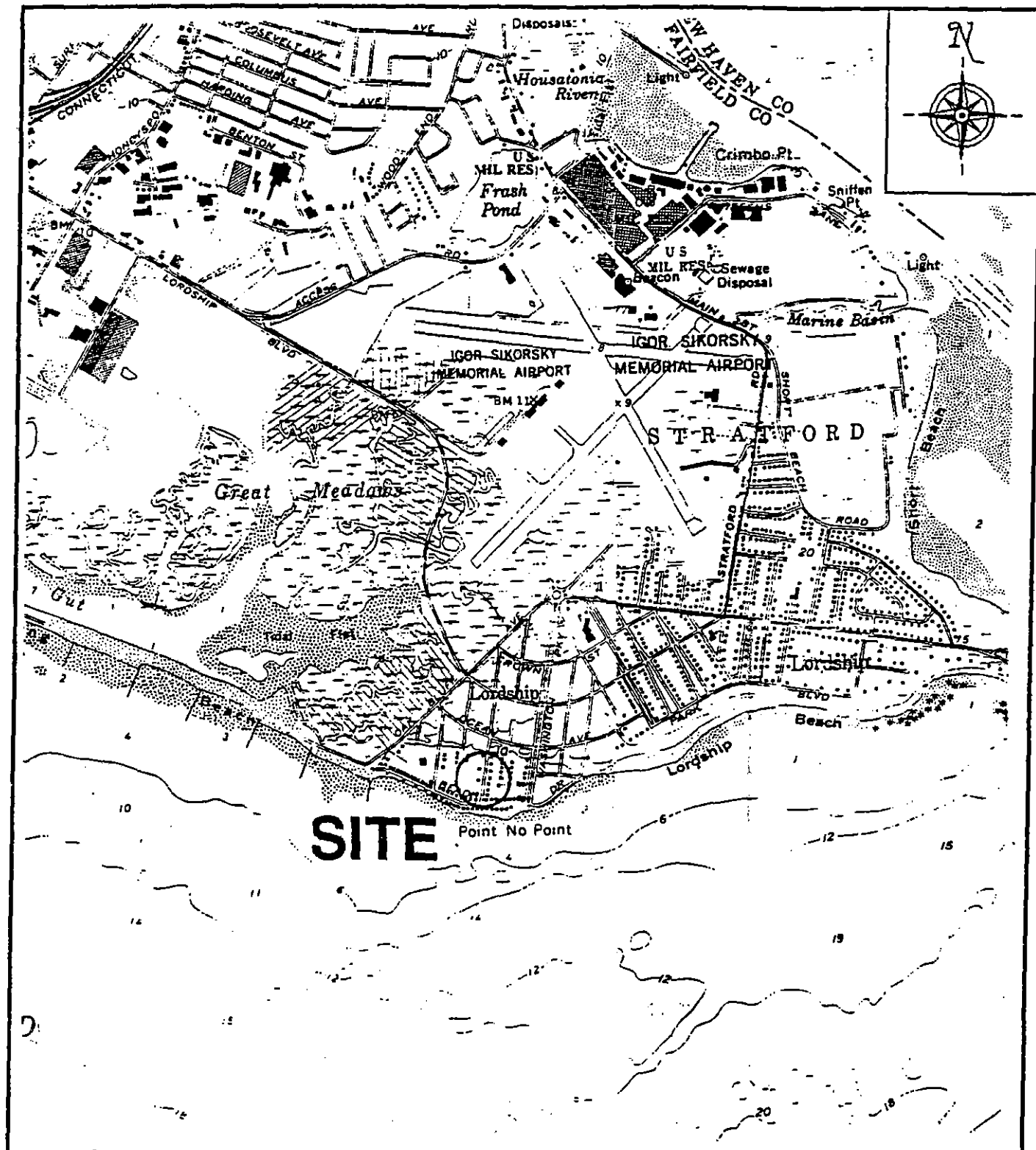


FIGURE 1
PROPERTY LOCATION MAP
65 THIRD AVENUE
STRATFORD, CONNECTICUT

SCALE 1:24,000

SOURCE: USGS 7.5 MINUTE SERIES, BRIDGEPORT AND MILFORD, CT., QUADRANGLES, 1964.

WESTON®
 MANAGERS DESIGNERS/CONSULTANTS
 REGION I TECHNICAL ASSISTANCE TEAM

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APPROVED BY 	DATE 10/94	TDD # 01-9410-09

2.3 Property Background

Several sites in Stratford are suspected of receiving manufacturing wastes generated at the Raymark facility site as fill materials. Raymark and its predecessors Raybestos Friction Materials and Raybestos-Manhattan Company, manufactured brake linings, clutch parts and other asbestos-based products at their Stratford facility.

Members of the Stratford Zoning Board and Conservation Division of the Department of Public Works have stated that Raymark waste was disposed of in the vicinity of this property by the Raymark facility. Raymark acknowledged disposing of an unknown quantity of such waste between 1940 and 1977. In the past, some property owners had asked Raymark for waste material (which was used as fill for low-lying areas).

2.4 The Initial Situation

In June 1993, EPA began a comprehensive surface sampling program at suspected Raymark disposal sites. A total of nine surface samples were taken from the 65 Third Avenue property. Four of the samples contained asbestos (chrysotile) in amounts ranging from one to three percent. Based on the analytical data from the samples collected in June 1993, ATSDR concluded that the levels of asbestos at the 65 Third Avenue site posed an imminent health threat. Additional subsurface sampling was suggested by ATSDR to further characterize the depth and extent of contamination at the site.

Between August 26 and August 31, 1993, 112 subsurface samples were collected by TAT at 29 grids points spaced equally across the property. The samples were collected at 1-foot depth intervals between 0 and 5-feet and were screened for lead, PCBs and asbestos. Nine samples were collected by TAT and analyzed for total metals and PCBs/pesticides through the EPA Contract Laboratory Program (CLP). In addition to the TAT sampling, Weston was contracted under the Alternative Remedial Contractor Strategy (ARCS), to collect 19 samples from two grids points at depths ranging from 0 to 10.2 feet.

The field samples were screened for lead, asbestos, and PCBs. A portable XMET 880 X-ray fluorescence (XRF) analyzer was used to screen for lead, a single column Thermo Electron Instruments model 621A gas chromatograph/electron capture device (GC/ECD) was used to screen for PCBs, and polarized light microscopy (PLM) was used to screen for asbestos.

The intent of the extensive sampling was to delineate the approximate vertical and horizontal extent of contamination. The maximum concentrations identified during the field screening analysis included: 9,180 ppm of lead, 10 ppm of PCBs and 55% asbestos (chrysotile). Using the results of the field screening analysis, the extent of vertical and horizontal contamination was delineated. The results of sampling were presented in the report

The analytical results showed that the fill delivered to the site contained lead and copper below the action levels, but contained 10 percent asbestos. OSC Lussier was informed of these results and the fill material was rejected; a new vendor was sought.

The OSC decided that due to problems involving vehicle access to the property, it would better to begin excavating at the southwest corner of the property. Temporary fencing was constructed along the eastern and southern sides of the proposed excavation area.

At 1345 hrs severe thunder storms and high winds caused work activities to stop for the day.

Monday, May 9, 1994

Weather: 50°F. Overcast.

The OHM crew began excavating Grid No. 1. Only two trucks from Mansfield Construction (the OHM subcontracted waste hauler), were used to haul excavated materials to the Raymark facility today. Table 2 - Excavated Soil Shipment Summary, details the daily number of trucks and estimated weights for soil delivered to the Raymark facility.

A high density polyethylene liner was placed where the trucks would be loaded to prevent tracking contaminated soils into clean areas.

OHM subcontracted Ceimic Corporation for confirmatory quantitative lead, copper and PCB soil analysis as indicated in the project QA/QC plan. The OSC requested that TAT retain the chain-of-custody (COC) records for the samples to be submitted, and TAT member Donohue began preparing the first set of samples for delivery.

Grid No. 1 was completed, sampled and backfilled with clean random fill provided by J.J. Brennan (the OHM subcontracted fill provider). All subsequent excavations were backfilled with similar materials and compaction was completed by OHM using the bulldozer while backfilling. See Figure 3 - Grid Reference Diagram and Actual Excavation Depth Map, for an overview of the grids excavated at the property. Additionally, Appendix A - Excavation Grid Sample Location Maps (Figures 3A-3T), contains detailed depictions of all grids excavated.

RM Overend informed the OSC that Grid No. 2, would not be finished today. The excavation was surrounded with caution tape, and remained open until completion the next day.

Community air monitoring for lead and asbestos was conducted by CET, who provided weekly reports to OHM and the OSC. All air monitoring results are located in the EPA site files for this project. The OHM Health and Safety Officer (HSO) provided task-specific personal monitoring for workers. Results were posted in the OHM decontamination trailer as they became available.

Tuesday, May 10, 1994

Weather: 55 - 70°F. Overcast AM. Sunny and warmer PM.

OHM personnel continued to excavate Grid No. 2; groundwater was encountered at 3 feet. Based on CSIR data, it was probable that asbestos was present at depths greater than 3 feet. Therefore, the OSC requested that the excavation proceed to 5 feet.

The excavation was completed and the grid was sampled and back-filled. The first 2 feet of Grid No. 3 were removed in preparation for tomorrow.

Wednesday, May 11, 1994

Weather: 50 - 55°F. Sunny AM. Partly cloudy PM.

OHM personnel continued to excavate Grid No. 3. Fragments from an automobile battery casing were noticed in the grid's south wall. Previous screening data did not indicate that battery remnants were a significant contributor of the lead found in soils. TAT sampled the excavation at an average depth of 5 feet.

Based on the sampling results, OSC Lussier directed OHM to extend the grid south and east by 1 foot, and proceed 3 feet deeper in the area of these extensions. Based on the size of the excavator bucket, the lateral extensions were approximately 3 feet.

Screening results indicated asbestos in the samples from the floor and walls of the eastern and southern extensions. David McIntyre (Raymark Team Leader) was contacted and informed of the situation. Because the grid extensions were already 8 feet deep (and well into groundwater), he advised that excavation not be continued further into groundwater. The OSC requested that TAT collect samples from the southern and eastern walls at depths of 4 to 5 feet and 6 to 7 feet. The first 2 feet of Grid No. 4 were removed by the OHM crew.

Grid No. 3 remained open overnight pending the full results of field screening of the wall samples.

Thursday, May 12, 1994

Weather: 50 - 60°F. Cloudy AM. Sunny PM.

The OHM crew continued to excavate Grid No. 4. TAT sampled Grid No. 4 when the excavation was completed.

TAT prepared asbestos PLM confirmation samples for delivery to the Connecticut Department of Health and Addiction Services (CTDPHAS) in Hartford, CT. Subsequently, 10 percent of the total number of field samples were sent at the end of each week to CTDPHAS for asbestos analyses.

Monday, May 16, 1994

Weather: 50 - 65°F. Heavy rain AM. Sunny PM.

Excavation work was cancelled due to the weather.

Tuesday, May 17, 1994

Weather: 50 - 60°F. Drizzle AM. Scattered showers PM.

Portable fuel tanks were brought to the site.

The OHM crew advanced Grid No. 6 to an average depth of 6 feet. TAT sampled the grid when it was completed, and OHM backfilled the excavation. OHM crew began excavating Grid No. 7.

Grid No. 7 was advanced to an average depth of 6.5 feet and sampled. The OSC directed OHM to advance an additional 1 foot deeper based on screening results. Additional floor and wall sampling at Grid No. 7 was performed by TAT, prior to backfilling Grid Nos. 6 and 7.

The Spectrace 9000 XRF instrument software was in need of servicing and the instrument was shipped to the manufacturer. A replacement unit was due to arrive on May 19, 1994.

Wednesday, May 18, 1994

Weather: 50°F. Sun AM.. Rain PM.

The OHM crew began excavating Grid No. 8. to an average depth of 7.5 feet.

TAT sampled Grid No. 8 and submitted the samples for field screening, after which OHM backfilled the grid.

Thursday, May 19, 1994

Weather: 48 - 50°F. Drizzle

The OHM crew excavated Grid No. 9 and TAT collected samples and submitted them for field screening.

Screening results indicated that contamination was still present at the bottom of the excavation. Because there was approximately 1 foot of standing groundwater in the excavation, OSC Lussier directed OHM to backfill.

The top 2 feet of Grid No. 10 was excavated.

Wednesday, May 25, 1994

Weather: 65°F. Rain AM. Thunder storms PM.

The OHM crew completed excavating Grid No. 14 and the grid was sampled by TAT. Due to the proximity of the garage to the excavation and the intrusion of ground water, the OSC had the grid backfilled immediately

Grid No. 15 was excavated to 6 feet, sampled and backfilled because of similar ground support concerns with the adjacent garage.

Thursday, May 26, 1994

Weather: 65°F. Overcast.

Excavations at the west side of the property were completed, and OHM removed the geotextile and snow fence from around these areas.

TAT and CET analysts screened samples of fill materials for lead, PCBs and asbestos.

The OHM crew prepared to demobilize for the Memorial Day weekend.

Friday, May 27, 1994

Weather: 65°F. Overcast.

The OHM crew demobilized for the Memorial Day weekend.

Tuesday, May 31, 1994

Weather: 80°F. Sunny.

OHM and TAT personnel remobilized to the property in the morning, and began preparing for excavation activities.

RM Overend, TAT and OSC Lussier discussed plans for deck removal and excavation of remaining property areas including the driveway.

Wednesday, June 1, 1994

Weather: 75°F. P. Sunny.

The OHM crew began excavating Grid Nos. 16 and 17 near the west side of the house to an average depth of 7 feet. TAT sampled the excavation and the area was backfilled.

The residents were relocated to a local hotel.

Thursday, June 2, 1994

Weather: 70°F. Sunny.

The OHM crew began disassembling the deck to allow access to soils located beneath it. The lumber was staged at the Fourth Avenue extension area previously capped by the state of Connecticut.

Grid No. 28, which was located between the house and Third Avenue was advanced to an average depth of 6 feet, sampled by TAT, and then backfilled. Excavation in this grid proceeded slowly due to the presence of gas and water lines servicing the residence.

Based on the results of surface soil samples, shrubbery along the eastern side of the house was removed, and Grid No. 29 was advanced to an average depth of 2 feet (to maintain the integrity of the foundation). TAT sampled the excavation and the area was then backfilled.

OHM crew members cut back shrubbery along Fourth Avenue to provide less obstructed views, and greater safety for local residents from waste hauling trucks.

Thursday, June 9, 1994

Weather: 80°F. Sunny.

OHM excavated additional soil from Grid No. 25 and the sewer line bellcap housing was uncovered. The soil around the line was saturated with sewage.

Grid Nos. 30 and 31 were excavated to average depths of 7 feet and 5 feet, respectively. TAT sampled the excavations and the areas were backfilled.

Prospective landscapers were present at the site to review OHM's request for proposals to restore the property.

Friday, June 10, 1994

Weather: 85°F. Sunny.

Excavation at Grid No. 25 was completed to an average depth of 4.5 feet, and OHM completed final repairs to the sewer bell housing. TAT sampled the grid prior to backfilling.

Monday, June 13, 1994

Weather: 75°F. Sunny.

Grid No. 32 was excavated to an average depth of 7 feet within the western half of the excavation and 2 feet adjacent to the house (to preserve the integrity of the foundation). Grid No. 33 was excavated to an average depth of 6 feet. TAT sampled both excavations which were then backfilled.

Tuesday, June 14, 1994

Weather: 70°F. Showers A.M./90°F. Sunny P.M.

Grid No. 34 was excavated to average depth of 5 feet within the western half of the excavation and 2 feet, adjacent to the house (to preserve the integrity of the foundation).

Week of July 11 to July 15, 1994

Personnel from Stratford Landscaping (subcontracted by OHM to restore the deck and landscaping) completed replacement of the deck.

Personnel from D & P Construction (subcontracted by OHM to provide driveway/walkway replacement) were at the property and completed subgrade preparation for the driveway and walkway.

Week of July 18 to July 22, 1994

Stratford Landscaping raked out all topsoil and completed sod restoration across the property. They also completed restoration of all plants and trees. OHM began watering the sod and plants. Please refer to Appendix B - Property Restoration Item List for details of all items which were replaced at the property as part of the removal activities.

July 28, 1994

The OSC contacted the property owner and informed him that the plants and sod at the property were established, and the EPA was relinquishing watering responsibilities.

August 11, 1994

Stratford Landscaping completed sealing of the deck replaced at the property. All restorations were complete at the site.

2.7 Treatment, Disposal and Alternative Technology Options and Selections

Excavated waste from the 65 Third Avenue property was transported to the Raymark facility. The excavated soil was stored in bulk piles inside of a building located on the grounds of the facility. Currently, the Remedial Section of EPA is evaluating final disposal options.

2.8 Community Relations

During the duration of the work, pollution reports (POLREPs) were prepared by TAT and the OSC explaining work progress. These were made available to local officials to inform them of site activities. A total of three POLREPs were issued through the site activity period (POLREPs 17-19).

65 Third Avenue property was part of a larger EPA project in Stratford involving additional residential properties, as well as the Raymark Industries facility. David McIntyre served as the EPA Team Leader, and, along with Liza Judge (EPA Community Involvement Coordinator), conducted the majority of community relations. Activities included conducting town-wide meetings, addressing local activist concerns and coordinating with local officials.

The state Agency that was specific to this site was the CT DPHAS. CT DPHAS analyzed 10 % of the asbestos samples per the QA/QC plan and provided the results within 48 hours to EPA.

3.3 Actions Taken by Federal Agencies and Special Teams

EPA coordinated the federally-funded cleanup of this site. This cleanup involved directing the TAT and ERCS contractors in implementing the work and safety plans and monitoring expenses.

In order to complete the removal action in a safe manner, EPA and its contractors prepared site specific work and safety plans to ensure that all parties working on the site would be adequately protected. The objectives of the site safety plan were to assign responsibilities to individuals involved with the site safety and to establish mandatory safety operating procedures relative to the work proposed to be conducted at the site. Exclusion zones and decontamination areas were instituted and a contingency plan was established to address any unforeseen emergencies that may have arisen during the removal action.

3.4 Contractor and Private Groups

OHM of Findlay, Ohio was the ERCS prime contractor for the site. OHM provided the personnel, materials, and equipment that were necessary for the successful completion of the project. OHM completed the required work task in a safe and professional manner.

Roy F. Weston, Inc. provided the Technical Assistance Team (TAT) support for this removal action. TAT was responsible for ERCS contractor monitoring, maintaining the site file, preparing work plans and site health and safety plans, conducting air monitoring as needed, providing documentation of site activities for future enforcement proceedings, cost tracking, preparing draft POLREPS, and maintaining computer files. TAT support also included collection of soil samples, screening of soil samples for lead and copper on the Spectrace 9000 XRF instrument, and analysis for PCBs by GC/ECD.

4.0 Difficulties Encountered

Restoring the property proved to be difficult because the sod was laid in the summer. OHM had to maintain the property by watering it for two weeks to ensure that the sod would grow.

5.0 Recommendations

5.1 Means to Prevent a Recurrence of the Discharge or Release

A similar release would not legally occur under the present regulatory structure.

5.2 Means to Improve Response Actions

No improvements are recommended.

6.0 Project Support File

2.01 Correspondences

- ACOE
- ATSDR
- EPA
- Local Agencies
- OHM
- Residents/Property Owners
- State Agencies
- USCG

2.02 Comprehensive Site Investigation Report

- Site Health and Safety Plan
- Waste Disposal Information
- Sampling and Analysis Data
- Surface Sampling Results
- Sampling and Analysis Data - Confirmatory Sampling Plan

2.03 Sampling and Analysis

- Data - Depth Sampling Data
- Sampling and Analysis Data - Sampling Plan
- Air Monitoring (Personal and Community)

2.04 POLREPs (Pollution Reports)

2.07 Action Memoranda

2.11 Applicable or Relevant and Appropriate Requirements (ARARs)

2.12 Hot Zone Entry/Exit Logs Waste Transport Manifests

2.13 Daily Work Orders

2.14 Daily Financial Reports

- 1900-55s
- Daily Cost Summaries
- Incident Obligation Logs

2.15 Bid Documents

- TAT Technical Direction Documents (TDDs)

11.14 Title Search Deeds

13.01 Community Releases

13.03 News Articles/Press Releases

17.02 Access Agreements

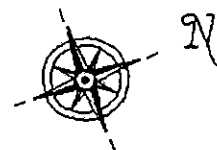
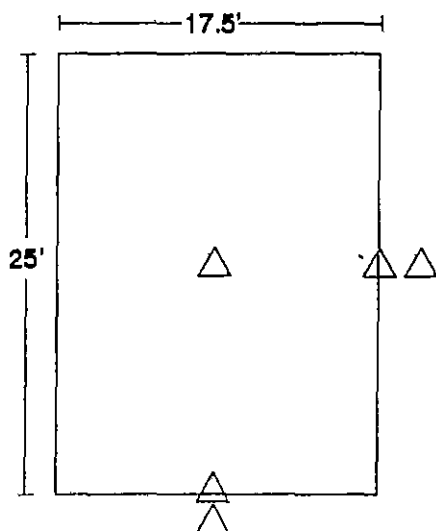
17.04 Photographs

- Site Maps
- Landscaping Maps

APPENDIX A

EXCAVATION GRID SAMPLE LOCATION MAPS (FIGURES 3A - 3T)

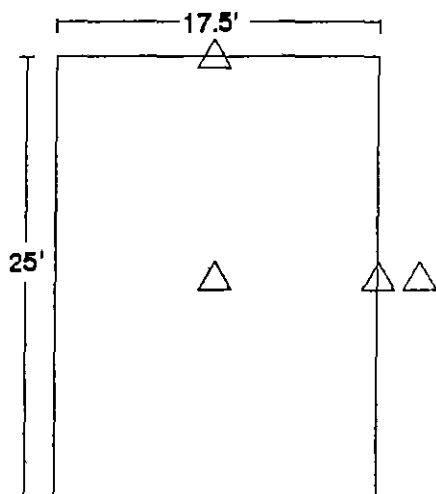
GRID #1



SAMPLE REFERENCE NUMBERS AND LOCATIONS

CA28F01A - FLOOR AT 5'*
 CA28NW02A - NORTH WALL AT 2.5'
 CA28EW03A - EAST WALL AT 2.5'
 CA28NP04A - NORTHERN PERIMETER AT SURFACE
 CA28EP05A - EAST PERIMETER AT SURFACE

GRID #2



SAMPLE REFERENCE NUMBERS AND LOCATIONS

CA29F08A - FLOOR AT 5'*
 CA29NW07A - NORTH WALL AT 2.5'
 CA29NP08A - NORTH PERIMETER AT SURFACE
 CA29WW09A - WEST WALL AT 2.5'

LEGEND

△ = SAMPLE LOCATIONS (COLLECTED 5/9 - 5/10/94)

FLOOR SAMPLES ARE A COMPOSITE OF SOILS TAKEN FROM THE FOUR CORNERS AND CENTER OF EACH GRID FLOOR (UNLESS OTHERWISE NOTED).

WALL SAMPLES TAKEN AS A DISCRETE GRAB SAMPLE

PERIMETER SAMPLES ARE A COMPOSITE OF SURFACE SOILS TAKEN FROM THE CORNERS AND THE CENTER OF AN AREA EXTENDING 5' AWAY FROM THE EDGE OF THE GRID.

* = FLOOR SAMPLE COLLECTED AS A DISCRETE GRAB FROM THE CENTER OF THE EXCAVATION FLOOR.

FIGURE 3A

SAMPLE LOCATIONS
 GRID #1 AND GRID #2
 65 THIRD AVENUE
 STRATFORD, CONNECTICUT

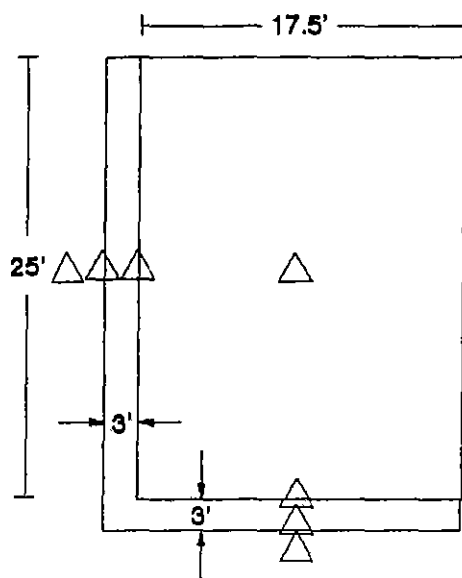
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GRID #3

SAMPLE REFERENCE NUMBERS AND LOCATIONS

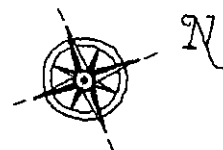


ORIGINAL GRID

- CA30F10A - FLOOR AT 5'*
- CA30EW11A - EAST WALL AT 2.5'
- CA30SW12A - SOUTH WALL AT 2.5'
- CA30EP13A - EAST PERIMETER AT SURFACE
- CA30SP14A - SOUTH PERIMETER AT SURFACE

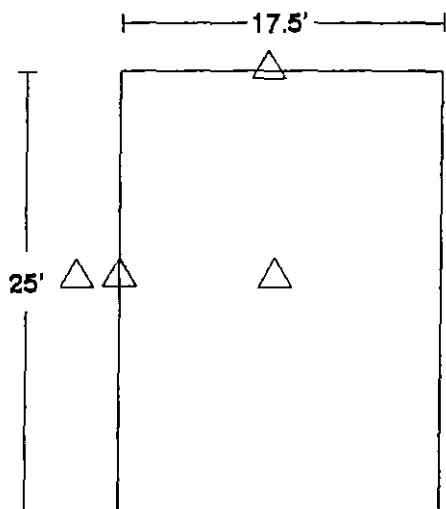
3-FOOT EXTENSION WALLS/1-FOOT EXTENSION FLOORS

- CA30EW11B - EAST WALL AT 2.5'
- CA30SW12B - SOUTH WALL AT 2.5'
- CA30EP13B - EAST PERIMETER AT SURFACE
- CA30SP14B - SOUTH PERIMETER AT SURFACE
- CA30EF15A - EAST FLOOR AT 8'*
- CA30SF16A - SOUTH FLOOR AT 7'*
- CA30EW11D - EAST WALL AT 6-7'
- CA30SW12D - SOUTH WALL AT 6-7'
- CA30EW11C - EAST WALL AT 4-5'
- CA30SW12C - SOUTH WALL AT 4-5'



GRID #4

SAMPLE REFERENCE NUMBERS AND LOCATIONS



- CA31F17A - FLOOR AT 5.5'*
- CA31SW18A - SOUTH WALL AT 2'
- CA31SW18B - SOUTH WALL AT 4'
- CA31WW19A - WEST WALL AT 2'
- CA31WW19B - WEST WALL AT 4'
- CA31SP20A - SOUTH PERIMETER AT SURFACE

0.5-FOOT & 1-FOOT EXTENSION FLOORS

- CA32F21B - FLOOR AT 6'*
- CA32F21C - FLOOR AT 7'*

LEGEND

△ = SAMPLE LOCATIONS (COLLECTED 5/11 - 5/13/94)

FLOOR SAMPLES ARE A COMPOSITE OF SOILS TAKEN FROM THE FOUR CORNERS AND CENTER OF EACH GRID FLOOR (UNLESS OTHERWISE NOTED).

WALL SAMPLES TAKEN AS A DISCRETE GRAB SAMPLE

PERIMETER SAMPLES ARE A COMPOSITE OF SURFACE SOILS TAKEN FROM THE CORNERS AND THE CENTER OF AN AREA EXTENDING 5' AWAY FROM THE EDGE OF THE GRID.

* = FLOOR SAMPLE COLLECTED AS A DISCRETE GRAB FROM THE CENTER OF THE EXCAVATION FLOOR

FIGURE 3B

SAMPLE LOCATIONS
GRID #3 AND GRID #4
65 THIRD AVENUE
STRATFORD, CONNECTICUT

NOT TO SCALE



DRAWN BY
DONOHUE

DATE
10/94

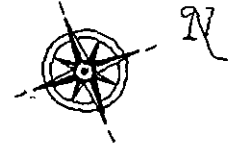
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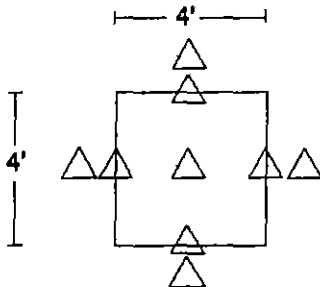
DATE
10/94

TDD #
01-9410-09

TEST PIT #1



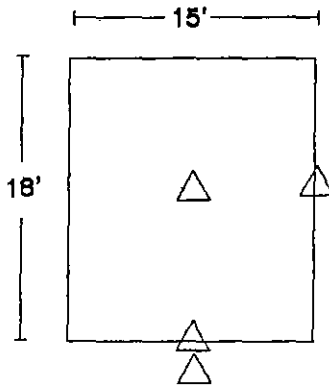
SAMPLE REFERENCE NUMBERS AND LOCATIONS



CA31F21A - FLOOR AT 5.5'*
 CA31NW22A - NORTH WALL AT 2'
 CA31NW22B - NORTH WALL AT 4'
 CA31EW23A - EAST WALL AT 2'
 CA31EW23B - EAST WALL AT 4'
 CA31SW24A - SOUTH WALL AT 2'
 CA31SW24B - SOUTH WALL AT 4'
 CA31WW25A - WEST WALL AT 2'
 CA31WW25B - WEST WALL AT 4'
 CA31NP26A - NORTH PERIMETER AT SURFACE
 CA31EP27A - EAST PERIMETER AT SURFACE
 CA31SP28A - SOUTH PERIMETER AT SURFACE
 CA31WP29A - WEST PERIMETER AT SURFACE

GRID #5

SAMPLE REFERENCE NUMBERS AND LOCATIONS



CA32F22A - FLOOR AT 5'*
 CA32NW23A - NORTH WALL AT 2.5'
 CA32EW24A - EAST WALL AT 2.0'
 CA32EW24B - EAST WALL AT 4'
 CA32EP24A - EAST PERIMETER AT SURFACE

LEGEND

△ = SAMPLE LOCATIONS (COLLECTED 5/12 - 5/13/94)

FLOOR SAMPLES ARE A COMPOSITE OF SOILS TAKEN FROM THE FOUR CORNERS AND CENTER OF EACH GRID FLOOR (UNLESS OTHERWISE NOTED).

WALL SAMPLES TAKEN AS A DISCRETE GRAB SAMPLE

PERIMETER SAMPLES ARE A COMPOSITE OF SURFACE SOILS TAKEN FROM THE CORNERS AND THE CENTER OF AN AREA EXTENDING 5' AWAY FROM THE EDGE OF THE GRID.

* = FLOOR SAMPLE COLLECTED AS A DISCRETE GRAB FROM THE CENTER OF THE EXCAVATION FLOOR

FIGURE 3C

SAMPLE LOCATIONS
 TEST PIT #1 AND GRID #5
 65 THIRD AVENUE
 STRATFORD, CONNECTICUT

NOT TO SCALE



DRAWN BY
DONOHUE

DATE
10/94

PCS #
1009

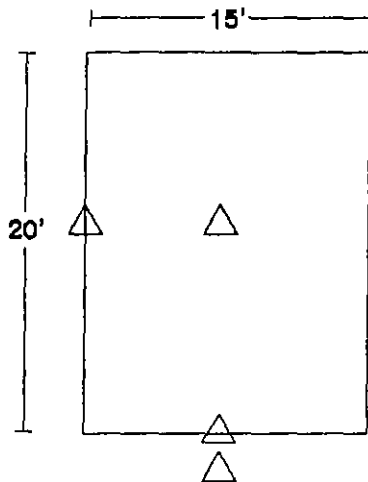
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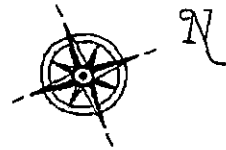
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GRID #6

SAMPLE REFERENCE NUMBERS AND LOCATIONS

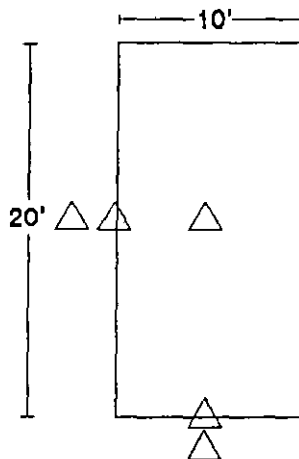


- CA33F26A - FLOOR AT 6'
- CA33SW27A - SOUTH WALL OF SECTION AT 2'
- CA33SW27B - SOUTH WALL AT 4'
- CA33SW27C - SOUTH WALL AT 6'
- CA33EW28A - EAST WALL AT 2'
- CA33EW28B - EAST WALL AT 4'
- CA33EW28C - EAST WALL AT 6'
- CA33EP29A - EAST PERIMETER AT SURFACE



GRID #7

SAMPLE REFERENCE NUMBERS AND LOCATIONS



- CA33F30A - FLOOR AT 7.5'
- CA33EW31A - EAST WALL AT 2'
- CA33EW31B - EAST WALL AT 4'
- CA33EW31C - EAST WALL AT 6'
- CA33SW32A - SOUTH WALL AT 2'
- CA33SW32B - SOUTH WALL AT 4'
- CA33SW32C - SOUTH WALL AT 6'
- CA33EP33A - EAST PERIMETER AT SURFACE
- CA33SP34A - SOUTH PERIMETER AT SURFACE
- CA33SW32D - SOUTH WALL AT 8'

LEGEND

△ = SAMPLE LOCATIONS (COLLECTED 5/17/94)

FLOOR SAMPLES ARE A COMPOSITE OF SOILS TAKEN FROM THE FOUR CORNERS AND CENTER OF EACH GRID FLOOR (UNLESS OTHERWISE NOTED).

WALL SAMPLES TAKEN AS A DISCRETE GRAB SAMPLE.

PERIMETER SAMPLES ARE A COMPOSITE OF SURFACE SOILS TAKEN FROM THE CORNERS AND THE CENTER OF AN AREA EXTENDING 5' AWAY FROM THE EDGE OF THE GRID.

* = FLOOR SAMPLE COLLECTED AS A DISCRETE GRAB FROM THE CENTER OF THE EXCAVATION FLOOR.

FIGURE 3D

SAMPLE LOCATIONS
GRID #6 AND GRID #7

65 THIRD AVENUE
STRATFORD, CONNECTICUT

NOT TO SCALE



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DONOHUE

DATE
10/94

PCS #
1009

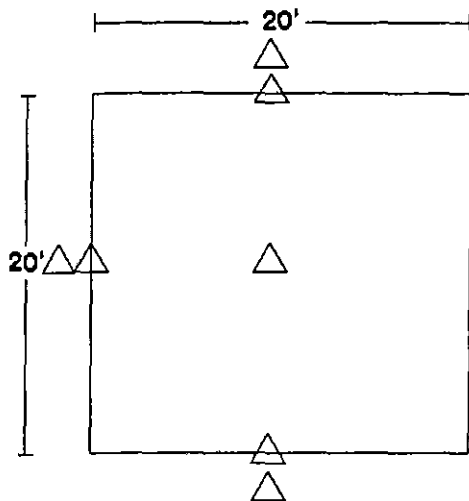
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DATE
10/94

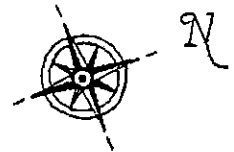
TDD #
01-9410-09

GRID #8

SAMPLE REFERENCE NUMBERS AND LOCATIONS

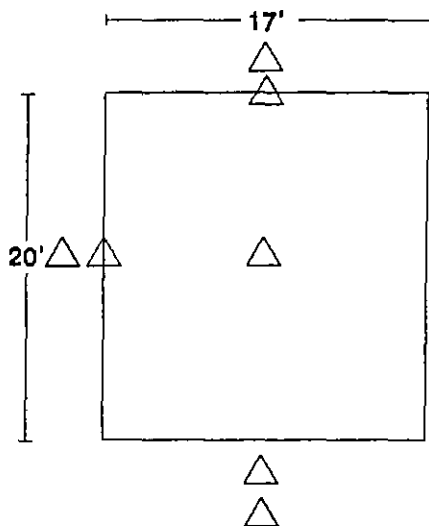


CA34F35A - FLOOR AT 7.5'*
 CA34EW37A - EAST WALL AT 2'
 CA34EW37A - EAST WALL AT 4'
 CA34EW37C - EAST WALL AT 8'
 CA34EP36A - EAST PERIMETER AT SURFACE
 CA34SW39A - SOUTH WALL AT 2'
 CA34SW39B - SOUTH WALL AT 4'
 CA34SW39C - SOUTH WALL AT 8'
 CA34SP38A - SOUTH PERIMETER AT SURFACE
 CA34WW41A - WEST WALL AT 2'
 CA34WW41B - WEST WALL AT 4'
 CA34WW41C - WEST WALL AT 6'
 CA34WP40A - WEST PERIMETER AT SURFACE



GRID #9

SAMPLE REFERENCE NUMBERS AND LOCATIONS



CA35F42A - FLOOR AT 7.5'*
 CA35EP43A - EAST PERIMETER AT SURFACE
 CA35EW44A - EAST WALL AT 2'
 CA35EW44B - EAST WALL AT 4'
 CA35EW44C - EAST WALL AT 6'
 CA35EW44D - EAST WALL AT 8'
 CA35SP45A - SOUTH PERIMETER AT SURFACE
 CA35SW46A - SOUTH WALL AT 2'
 CA35SW46B - SOUTH WALL AT 4'
 CA35SW46C - SOUTH WALL AT 6'
 CA35WP47A - WEST PERIMETER AT SURFACE
 CA35WW48A - WEST WALL AT 2'
 CA35WW48B - WEST WALL AT 4'
 CA35WW48C - WEST WALL AT 6'

LEGEND

△ = SAMPLE LOCATIONS (COLLECTED 5/18 - 5/19/94)
 FLOOR SAMPLES ARE A COMPOSITE OF SOILS TAKEN FROM THE FOUR CORNERS AND CENTER OF EACH GRID FLOOR (UNLESS OTHERWISE NOTED).
 WALL SAMPLES TAKEN AS A DISCRETE GRAB SAMPLE.
 PERIMETER SAMPLES ARE A COMPOSITE OF SURFACE SOILS TAKEN FROM THE CORNERS AND THE CENTER OF AN AREA EXTENDING 5' AWAY FROM THE EDGE OF THE GRID.
 * = FLOOR SAMPLE COLLECTED AS A DISCRETE GRAB FROM THE CENTER OF THE EXCAVATION FLOOR.

FIGURE 3E

SAMPLE LOCATIONS
 GRID #8 AND GRID #9
 65 THIRD AVENUE
 STRATFORD, CONNECTICUT

NOT TO SCALE



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DATE
 10/94

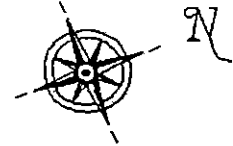
PCS #
 1009

APPROVED BY

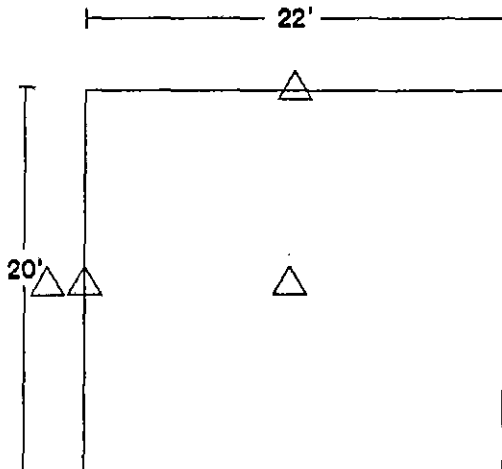
DATE
 10/94

TDD #
 01-9410-09

GRID #10



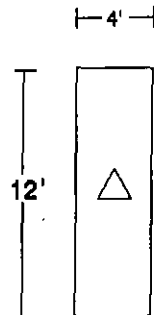
SAMPLE REFERENCE NUMBERS AND LOCATIONS



- CA36WW49A - WEST WALL AT 2'
- CA36WW49B - WEST WALL AT 4'
- CA36WW49C - WEST WALL AT 6'
- CA36SW50A - SOUTH WALL AT 2'
- CA36SW50B - SOUTH WALL AT 4'
- CA36SW50C - SOUTH WALL AT 6'
- CA36F51A - FLOOR OF SECTION AT 7'
- CA36SP53A - SOUTH PERIMETER AT SURFACE

TEST PIT #2

SAMPLE REFERENCE NUMBERS AND LOCATIONS



- CA36F54A - FLOOR AT 2'
- CA36F54B - FLOOR AT 4'
- CA36F54C - FLOOR AT 5'
- CA36F54D - FLOOR AT 6'

LEGEND

△ = SAMPLE LOCATIONS (COLLECTED 5/20/94)
 FLOOR SAMPLES ARE A COMPOSITE OF SOILS TAKEN FROM THE FOUR CORNERS AND CENTER OF EACH GRID FLOOR (UNLESS OTHERWISE NOTED).
 WALL SAMPLES TAKEN AS A DISCRETE GRAB SAMPLE
 PERIMETER SAMPLES ARE A COMPOSITE OF SURFACE SOILS TAKEN FROM THE CORNERS AND THE CENTER OF AN AREA EXTENDING 5' AWAY FROM THE EDGE OF THE GRID.
 * = FLOOR SAMPLE COLLECTED AS A DISCRETE GRAB FROM THE CENTER OF THE EXCAVATION FLOOR

FIGURE 3F

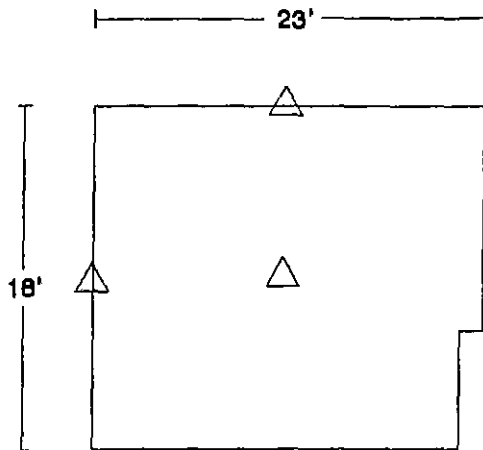
SAMPLE LOCATIONS
 GRID #10 AND TEST PIT #2
 65 THIRD AVENUE
 STRATFORD, CONNECTICUT

NOT TO SCALE



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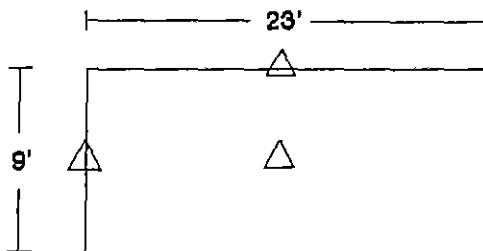
GRID #11



SAMPLE REFERENCE NUMBERS AND LOCATIONS

CA37F54A - FLOOR AT 6'
 CA37SW55A - SOUTH WALL AT 2'
 CA37SW55B - SOUTH WALL AT 4'
 CA37SW55C - SOUTH WALL AT 6'
 CA37WW56A - WEST WALL AT 2'
 CA37WW56B - WEST WALL AT 4'
 CA37WW56C - WEST WALL AT 6'

GRID #12



SAMPLE REFERENCE NUMBERS AND LOCATIONS

CA37F57A - FLOOR AT 6'
 CA37SW58A - SOUTH WALL AT 2'
 CA37SW58B - SOUTH WALL AT 4'
 CA37SW58C - SOUTH WALL AT 6'
 CA37WW59A - WEST WALL AT 2'
 CA37WW59B - WEST WALL AT 4'

LEGEND

△ = SAMPLE LOCATIONS (COLLECTED 5/23/94)
 FLOOR SAMPLES ARE A COMPOSITE OF SOILS TAKEN FROM THE FOUR CORNERS AND CENTER OF EACH GRID FLOOR (UNLESS OTHERWISE NOTED).
 WALL SAMPLES TAKEN AS A DISCRETE GRAB SAMPLE.
 PERIMETER SAMPLES ARE A COMPOSITE OF SURFACE SOILS TAKEN FROM THE CORNERS AND THE CENTER OF AN AREA EXTENDING 5' AWAY FROM THE EDGE OF THE GRID.

FIGURE 3G

SAMPLE LOCATIONS

GRID #11 AND GRID #12

65 THIRD AVENUE

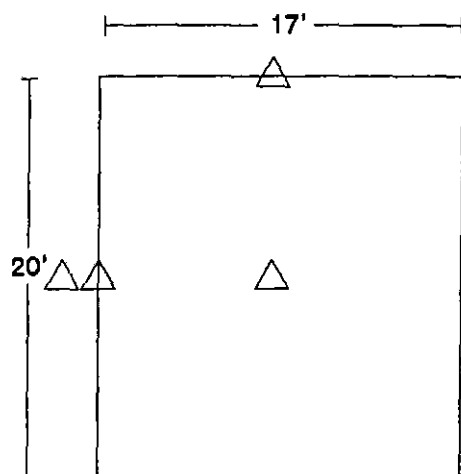
STRATFORD, CONNECTICUT

NOT TO SCALE



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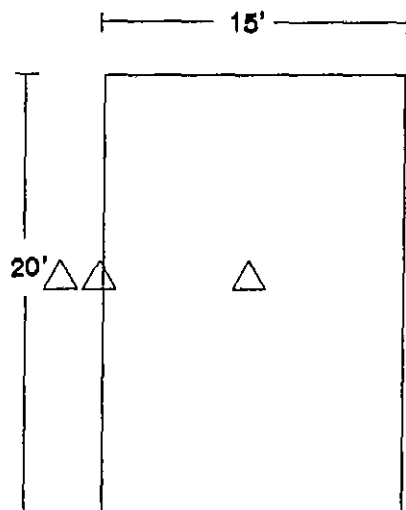
GRID #13



SAMPLE REFERENCE NUMBERS AND LOCATIONS

CA38F60A - FLOOR AT 5.5'
 CA38SW61A - SOUTH WALL AT 2'
 CA38SW61B - SOUTH WALL AT 4'
 CA38SW61C - SOUTH WALL AT 6'
 CA38WW62A - WEST WALL AT 2'
 CA38WW62B - WEST WALL AT 4'
 CA38WW62C - WEST WALL AT 6'
 CA38SP63A - SOUTH PERIMETER AT SURFACE

GRID #14



SAMPLE REFERENCE NUMBERS AND LOCATIONS

CA39F64A - FLOOR AT 6'
 CA39SW65A - SOUTH WALL AT 2'
 CA39SW65B - SOUTH WALL AT 4'
 CA39SW65C - SOUTH WALL AT 6'
 CA39SP66A - SOUTH PERIMETER AT SURFACE

LEGEND

△ = SAMPLE LOCATIONS (COLLECTED 5/24 - 5/25/94)
 FLOOR SAMPLES ARE A COMPOSITE OF SOILS TAKEN FROM THE FOUR CORNERS AND CENTER OF EACH GRID FLOOR (UNLESS OTHERWISE NOTED).
 WALL SAMPLES TAKEN AS A DISCRETE GRAB SAMPLE
 PERIMETER SAMPLES ARE A COMPOSITE OF SURFACE SOILS COLLECTED FROM THREE EQUALLY SPACED POINTS EXTENDING 2.5' AWAY FROM THE EDGE OF THE GRID.

FIGURE 3H

SAMPLE LOCATIONS
 GRID #13 AND GRID #14
 65 THIRD AVENUE
 STRATFORD, CONNECTICUT

NOT TO SCALE



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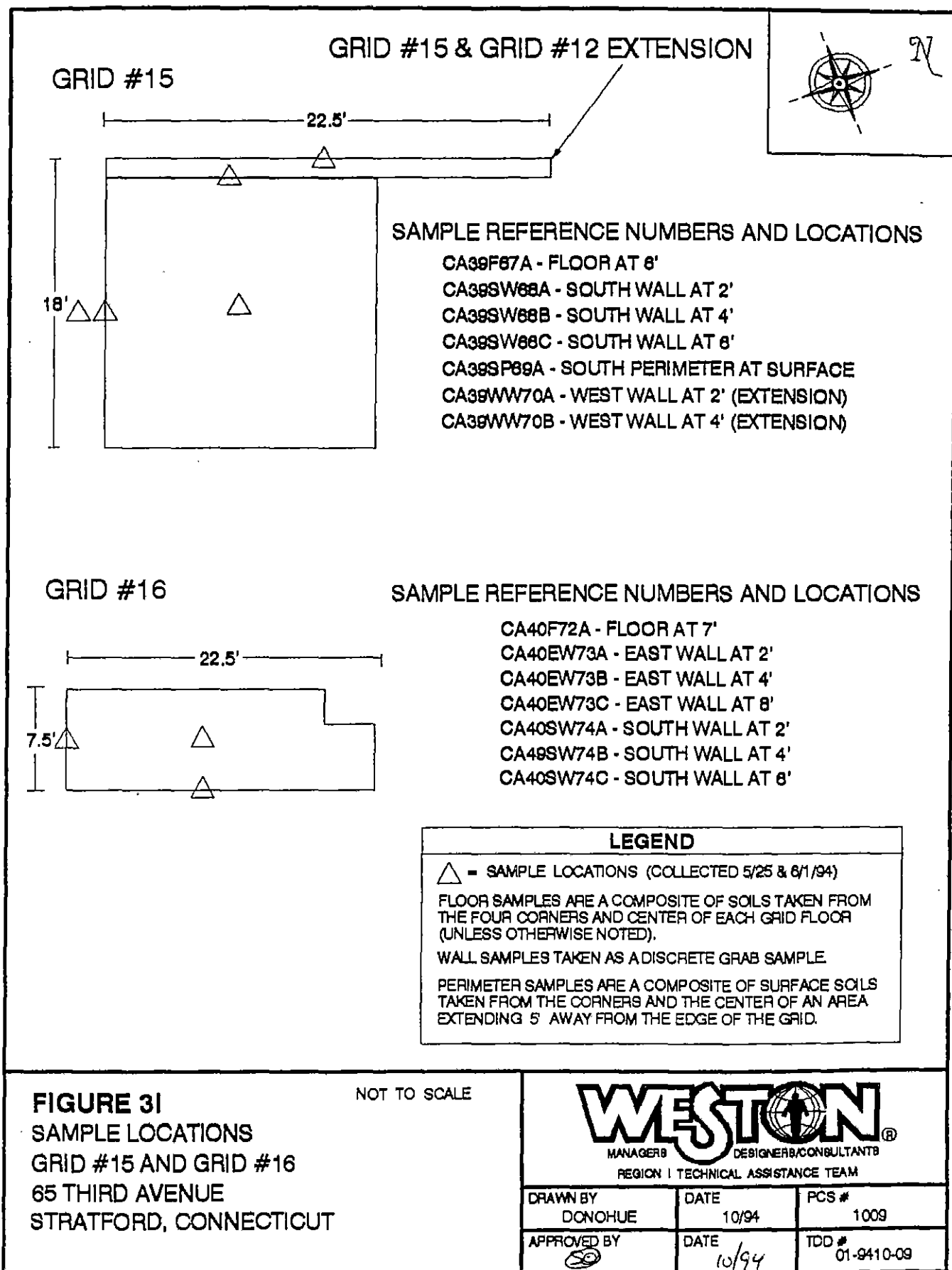


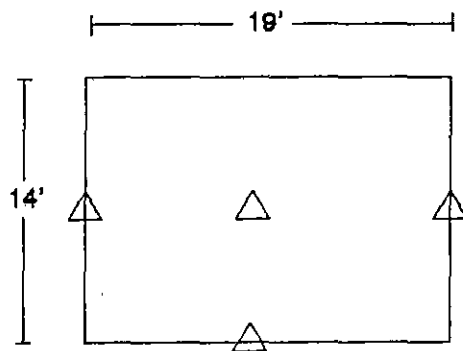
FIGURE 3I
SAMPLE LOCATIONS
GRID #15 AND GRID #16
65 THIRD AVENUE
STRATFORD, CONNECTICUT

NOT TO SCALE



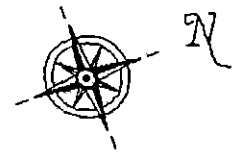
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GRID #17

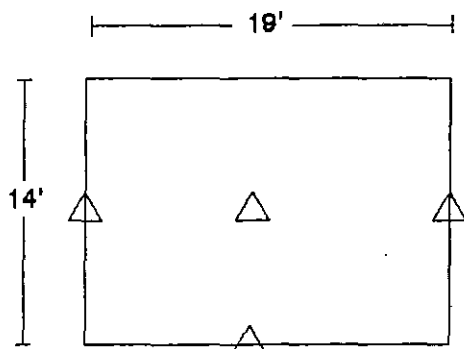


SAMPLE REFERENCE NUMBERS AND LOCATIONS

CA40F77A - FLOOR AT 7'
 CA40SW78A - SOUTH WALL AT 2'
 CA40SW78B - SOUTH WALL AT 4'
 CA40SW78C - SOUTH WALL AT 8'
 CA40EW78A - EAST WALL AT 2'
 CA40EW78B - EAST WALL AT 4'
 CA40EW78C - EAST WALL AT 8'
 CA40NW79A - NORTH WALL AT 2'
 CA40NW79B - NORTH WALL AT 4'
 CA40NW79C - NORTH WALL AT 8'



GRID #18



SAMPLE REFERENCE NUMBERS AND LOCATIONS

CA41F82A - FLOOR AT 8'
 CA41EW80A - EAST WALL AT 2'
 CA41EW80B - EAST WALL AT 4.5'
 CA41EW80C - EAST WALL AT 8'
 CA41NW81A - NORTH WALL AT 2'
 CA41NW81B - NORTH WALL AT 4'
 CA41NP83A - NORTH PERIMETER AT SURFACE
 CA41EP84A - EAST PERIMETER AT SURFACE

LEGEND

△ = SAMPLE LOCATIONS (COLLECTED 6/1 - 6/2/94)
 FLOOR SAMPLES ARE A COMPOSITE OF SOILS TAKEN FROM THE FOUR CORNERS AND CENTER OF EACH GRID FLOOR (UNLESS OTHERWISE NOTED).
 WALL SAMPLES TAKEN AS A DISCRETE GRAB SAMPLE.
 PERIMETER SAMPLES ARE A COMPOSITE OF SURFACE SOILS TAKEN FROM THE CORNERS AND THE CENTER OF AN AREA EXTENDING 5' AWAY FROM THE EDGE OF THE GRID.

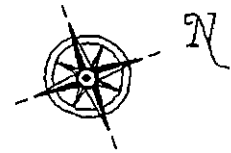
FIGURE 3J

SAMPLE LOCATIONS
 GRID #17 AND GRID #18
 65 THIRD AVENUE
 STRATFORD, CONNECTICUT

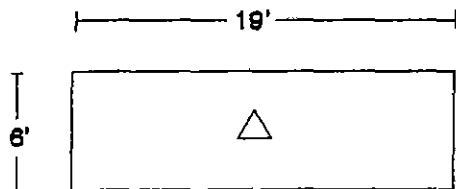
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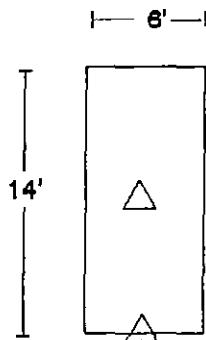
GRID #19



SAMPLE REFERENCE NUMBERS AND LOCATIONS

CA41F85A - FLOOR AT 2'

GRID #20



SAMPLE REFERENCE NUMBERS AND LOCATIONS

CA42F87A - FLOOR AT 2'

CA42EW88A - EAST WALL AT 1-2'

LEGEND

△ = SAMPLE LOCATIONS (COLLECTED 6/2 - 6/3/94)

FLOOR SAMPLES ARE A COMPOSITE OF SOILS TAKEN FROM THE FOUR CORNERS AND CENTER OF EACH GRID FLOOR (UNLESS OTHERWISE NOTED).

WALL SAMPLES TAKEN AS A DISCRETE GRAB SAMPLE

PERIMETER SAMPLES ARE A COMPOSITE OF SURFACE SOILS TAKEN FROM THE CORNERS AND THE CENTER OF AN AREA EXTENDING 5' AWAY FROM THE EDGE OF THE GRID.

FIGURE 3K

SAMPLE LOCATIONS

GRID #19 AND GRID #20

65 THIRD AVENUE

STRATFORD, CONNECTICUT

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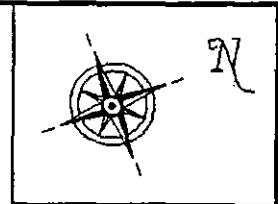
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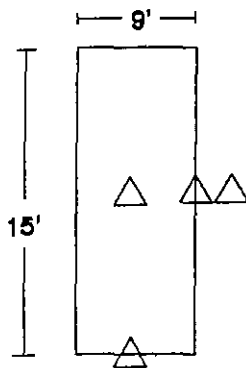
DATE
10/94

TDD #
01-9410-09

SAMPLE REFERENCE NUMBERS AND LOCATIONS

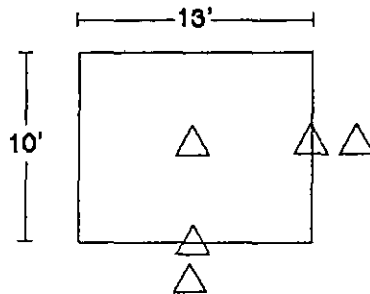


GRID #21



CA42F90A - FLOOR AT 6'
 CA42EW89A - EAST WALL AT 2'
 CA42EW89B - EAST WALL AT 4'
 CA42NW91A - NORTH WALL AT 2'
 CA42NW91B - NORTH WALL AT 4'
 CA42NP92A - NORTH PERIMETER AT SURFACE

GRID #22



SAMPLE REFERENCE NUMBERS AND LOCATIONS

CA42F95A - FLOOR AT 6'
 CA42NW96A - NORTH WALL AT 2'
 CA42NW96B - NORTH WALL AT 4'
 CA42EW97A - EAST WALL AT 2'
 CA42EW97B - EAST WALL AT 4'
 CA42NP98A - NORTH PERIMETER AT SURFACE
 CA42EP99A - EAST PERIMETER AT SURFACE

LEGEND

△ = SAMPLE LOCATIONS (COLLECTED 6/3/94)

FLOOR SAMPLES ARE A COMPOSITE OF SOILS TAKEN FROM THE FOUR CORNERS AND CENTER OF EACH GRID FLOOR (UNLESS OTHERWISE NOTED).

WALL SAMPLES TAKEN AS A DISCRETE GRAB SAMPLE.

PERIMETER SAMPLES ARE A COMPOSITE OF SURFACE SOILS TAKEN FROM THE CORNERS AND THE CENTER OF AN AREA EXTENDING 5' AWAY FROM THE EDGE OF THE GRID.

FIGURE 3L

NOT TO SCALE

SAMPLE LOCATIONS
 GRID #21 AND GRID #22
 65 THIRD AVENUE
 STRATFORD, CONNECTICUT



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 10/94

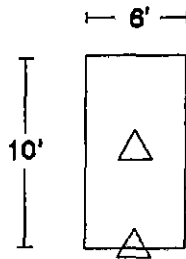
PCS #
 1009

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DATE
 10/94

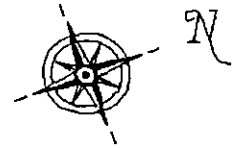
TDD #
 01-9410-09

GRID #23

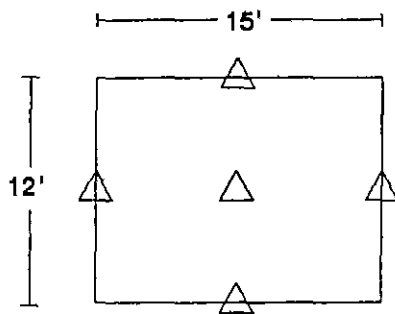


SAMPLE REFERENCE NUMBERS AND LOCATIONS

CA42F93A - FLOOR AT 2'
CA42EW94A - EAST WALL AT 1-2'



GRID #24



SAMPLE REFERENCE NUMBERS AND LOCATIONS

CA43F105A - FLOOR AT 6'
CA43SW101A - SOUTH WALL AT 2'
CA43SW101B - SOUTH WALL AT 4'
CA43EW102A - EAST WALL AT 2'
CA43EW102B - EAST WALL AT 4'
CA43NW103A - NORTH WALL AT 2'
CA43NW103B - NORTH WALL AT 4'
CA43WW104A - WEST WALL AT 2'
CA43WW104B - WEST WALL AT 4'

LEGEND

△ = SAMPLE LOCATIONS (COLLECTED 6/3 & 6/6/94)
FLOOR SAMPLES ARE A COMPOSITE OF SOILS TAKEN FROM THE FOUR CORNERS AND CENTER OF EACH GRID FLOOR (UNLESS OTHERWISE NOTED).
WALL SAMPLES TAKEN AS A DISCRETE GRAB SAMPLE.
PERIMETER SAMPLES ARE A COMPOSITE OF SURFACE SOILS TAKEN FROM THE CORNERS AND THE CENTER OF AN AREA EXTENDING 5' AWAY FROM THE EDGE OF THE GRID.

FIGURE 3M

SAMPLE LOCATIONS
GRID #23 AND GRID #24
65 THIRD AVENUE
STRATFORD, CONNECTICUT

NOT TO SCALE



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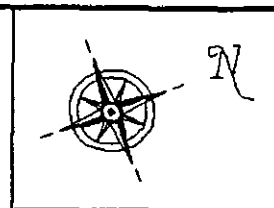
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PCS #
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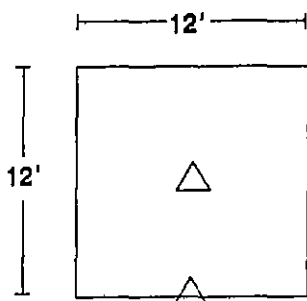
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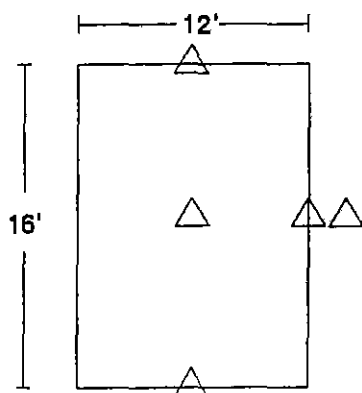
GRID #25



SAMPLE REFERENCE NUMBERS AND LOCATIONS

- CA47F142A - FLOOR AT 4.5'
- CA47EW143A - EAST WALL AT 2'
- CA47EW143B - EAST WALL AT 4'

GRID #26



SAMPLE REFERENCE NUMBERS AND LOCATIONS

- CA44F109A - FLOOR AT 6'
- CA44NW108A - NORTH WALL AT 2'
- CA44NW108B - NORTH WALL AT 4'
- CA44NW108C - NORTH WALL AT 6'
- CA44EW107A - EAST WALL AT 2'
- CA44EW107B - EAST WALL AT 4'
- CA44WW108A - WEST WALL AT 2'
- CA44WW108B - WEST WALL AT 4'

LEGEND

- △ = SAMPLE LOCATIONS (COLLECTED 6/7 & 6/10/94)
- FLOOR SAMPLES ARE A COMPOSITE OF SOILS TAKEN FROM THE FOUR CORNERS AND CENTER OF EACH GRID FLOOR (UNLESS OTHERWISE NOTED).
- WALL SAMPLES TAKEN AS A DISCRETE GRAB SAMPLE
- PERIMETER SAMPLES ARE A COMPOSITE OF SURFACE SOILS TAKEN FROM THE CORNERS AND THE CENTER OF AN AREA EXTENDING 5' AWAY FROM THE EDGE OF THE GRID.

FIGURE 3N

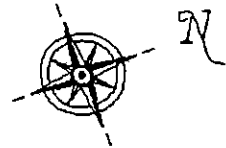
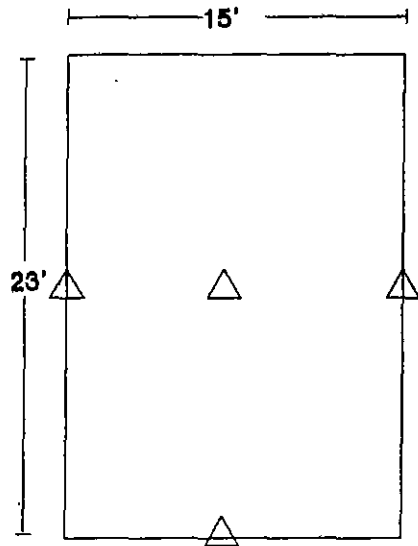
SAMPLE LOCATIONS
GRID #25 AND GRID #26
65 THIRD AVENUE
STRATFORD, CONNECTICUT

NOT TO SCALE



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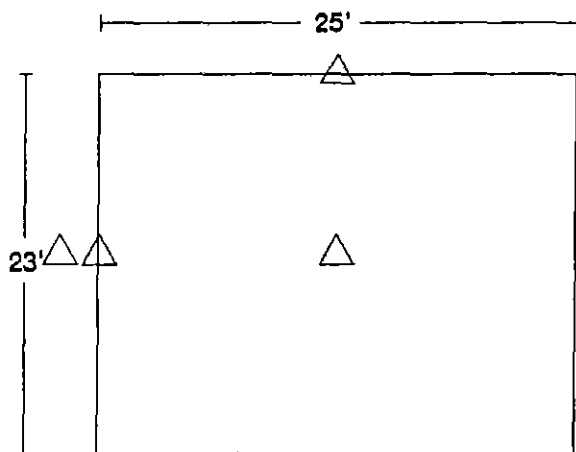
GRID #27



SAMPLE REFERENCE NUMBERS AND LOCATIONS

CA4F115A - FLOOR AT 6.5'
 CA44NW112A - NORTH WALL AT 2'
 CA44NW112B - NORTH WALL AT 4'
 CA44NW112C - NORTH WALL AT 6'
 CA44SW114A - SOUTH WALL AT 2'
 CA44SW114B - SOUTH WALL AT 4'
 CA44SW114C - SOUTH WALL AT 6'
 CA44NP116A - NORTH PERIMETER AT SURFACE

GRID #28



SAMPLE REFERENCE NUMBERS AND LOCATIONS

CA45F133A - FLOOR AT 6'
 CA45WW130B - WEST WALL AT 4'
 CA45WW130C - WEST WALL AT 6'
 CA45SW131A - SOUTH WALL AT 2'
 CA45SW131B - SOUTH WALL AT 4'
 CA45SW131C - SOUTH WALL AT 6'
 CA45SP132A - SOUTH PERIMETER AT SURFACE

LEGEND

△ = SAMPLE LOCATIONS (COLLECTED 6/7 & 6/8/94)
 FLOOR SAMPLES ARE A COMPOSITE OF SOILS TAKEN FROM THE FOUR CORNERS AND CENTER OF EACH GRID FLOOR (UNLESS OTHERWISE NOTED).
 WALL SAMPLES TAKEN AS A DISCRETE GRAB SAMPLE
 PERIMETER SAMPLES ARE A COMPOSITE OF SURFACE SOILS TAKEN FROM THE CORNERS AND THE CENTER OF AN AREA EXTENDING 5' AWAY FROM THE EDGE OF THE GRID.

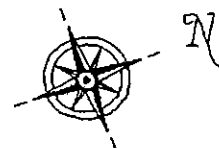
FIGURE 30
 SAMPLE LOCATIONS
 GRID #27 AND GRID #28
 65 THIRD AVENUE
 STRATFORD, CONNECTICUT

NOT TO SCALE

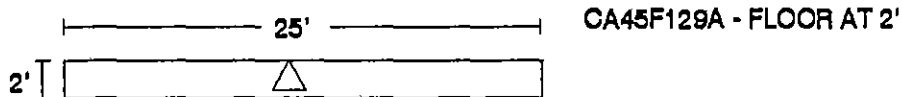


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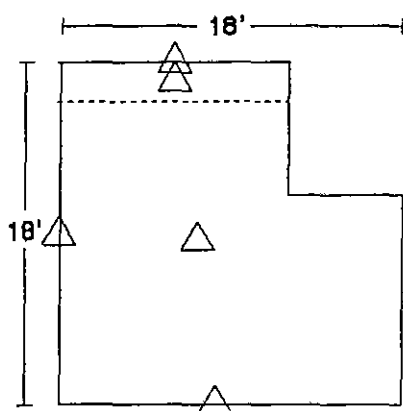
GRID #29



SAMPLE REFERENCE NUMBERS AND LOCATIONS



GRID #30



SAMPLE REFERENCE NUMBERS AND LOCATIONS

- CA46F134A - WEST FLOOR AT 2'
- CA46WW135B - WEST WALL AT 4'
- CA46WW135C - WEST WALL AT 6'
- CA46SW136A - SOUTH WALL AT 2'
- CA46SW136B - SOUTH WALL AT 4'
- CA46SW136C - SOUTH WALL AT 6'
- CA46EW137A - EAST WALL AT 2'
- CA46EW137B - EAST WALL AT 4'
- CA46EW137C - EAST WALL AT 6'
- CA46F138A - FLOOR AT 7'

LEGEND

△ = SAMPLE LOCATIONS (COLLECTED 6/8 & 6/9/94)

FLOOR SAMPLES ARE A COMPOSITE OF SOILS TAKEN FROM THE FOUR CORNERS AND CENTER OF EACH GRID FLOOR (UNLESS OTHERWISE NOTED).

WALL SAMPLES TAKEN AS A DISCRETE GRAB SAMPLE

PERIMETER SAMPLES ARE A COMPOSITE OF SURFACE SOILS TAKEN FROM THE CORNERS AND THE CENTER OF AN AREA EXTENDING 5' AWAY FROM THE EDGE OF THE GRID.

FIGURE 3P

SAMPLE LOCATIONS
GRID #29 AND GRID #30

65 THIRD AVENUE
STRATFORD, CONNECTICUT

NOT TO SCALE



DRAWN BY
DONOHUE

DATE
10/94

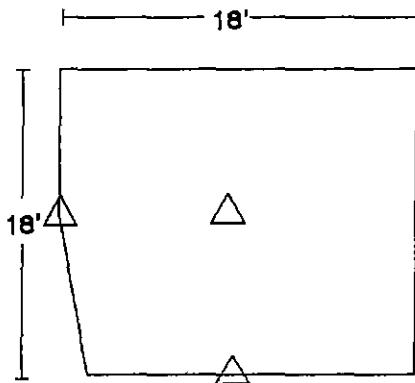
PCS #
1009

APPROVED BY

DATE
10/94

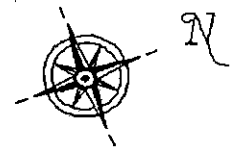
TDD #
01-9410-09

GRID #31

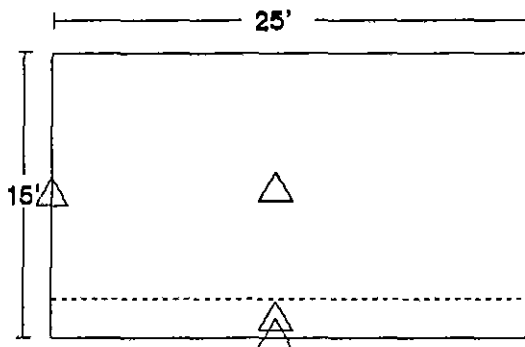


SAMPLE REFERENCE NUMBERS AND LOCATIONS

CA48F141A - FLOOR AT 5'
 CA48SW139A - SOUTH WALL AT 2'
 CA48SW139B - SOUTH WALL AT 4'
 CA48SW139C - SOUTH WALL AT 6'
 CA48EW140A - EAST WALL AT 2'
 CA48EW140B - EAST WALL AT 4'



GRID #32



SAMPLE REFERENCE NUMBERS AND LOCATIONS

CA48F144A - EAST FLOOR AT 2'
 CA48EW145B - EAST WALL AT 4'
 CA48EW145C - EAST WALL AT 6'
 CA48SW146A - SOUTH WALL AT 2'
 CA48SW146B - SOUTH WALL AT 4'
 CA48SW146C - SOUTH WALL AT 6'
 CA48F147A - FLOOR AT 7'

LEGEND

△ = SAMPLE LOCATIONS (COLLECTED 6/9 & 6/13/94)
 FLOOR SAMPLES ARE A COMPOSITE OF SOILS TAKEN FROM THE FOUR CORNERS AND CENTER OF EACH GRID FLOOR (UNLESS OTHERWISE NOTED).
 WALL SAMPLES TAKEN AS A DISCRETE GRAB SAMPLE
 PERIMETER SAMPLES ARE A COMPOSITE OF SURFACE SOILS TAKEN FROM THE CORNERS AND THE CENTER OF AN AREA EXTENDING 5' AWAY FROM THE EDGE OF THE GRID.

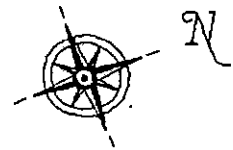
FIGURE 3Q

SAMPLE LOCATIONS
 GRID #31 AND GRID #32
 65 THIRD AVENUE
 STRATFORD, CONNECTICUT

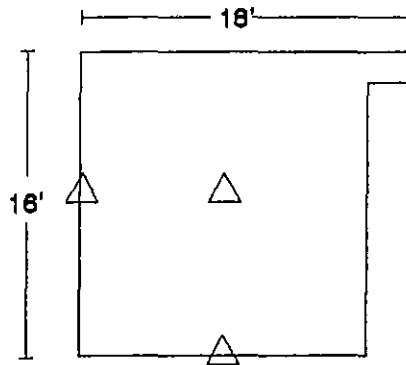
NOT TO SCALE



DRAWN BY DONOHUE	DATE 10/94	PCS # 1009
APPROVED BY (Signature)	DATE 10/94	TDD # 01-9410-09



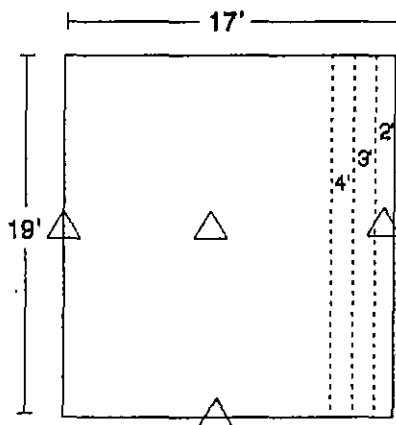
GRID #33



SAMPLE REFERENCE NUMBERS AND LOCATIONS

CA48F148A - FLOOR AT 6'
 CA48SW150A - SOUTH WALL AT 2'
 CA48SW150B - SOUTH WALL AT 4'
 CA48SW150C - SOUTH WALL AT 6'
 CA48EW151A - EAST WALL AT 2'
 CA48EW151B - EAST WALL AT 4'
 CA48EW151C - EAST WALL AT 6'

GRID #34



SAMPLE REFERENCE NUMBERS AND LOCATIONS

CA49F153A - NORTH FLOOR AT 2'
 CA49F156A - FLOOR AT 5'
 CA49EW154A - EAST WALL AT 2'
 CA49EW154B - EAST WALL AT 4'
 CA49SW155A - SOUTH WALL AT 2'
 CA49SW155B - SOUTH WALL AT 4'

LEGEND

△ = SAMPLE LOCATIONS (COLLECTED 6/13 - 6/14/94)
 FLOOR SAMPLES ARE A COMPOSITE OF SOILS TAKEN FROM THE FOUR CORNERS AND CENTER OF EACH GRID FLOOR (UNLESS OTHERWISE NOTED).
 WALL SAMPLES TAKEN AS A DISCRETE GRAB SAMPLE.
 PERIMETER SAMPLES ARE A COMPOSITE OF SURFACE SOILS TAKEN FROM THE CORNERS AND THE CENTER OF AN AREA EXTENDING 5' AWAY FROM THE EDGE OF THE GRID.

FIGURE 3R

SAMPLE LOCATIONS
 GRID #33 AND GRID #34
 65 THIRD AVENUE
 STRATFORD, CONNECTICUT

NOT TO SCALE



DRAWN BY
DONOHUE

DATE
10/94

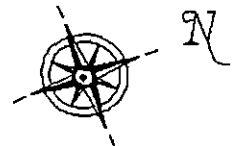
PCS #
1009

APPROVED BY

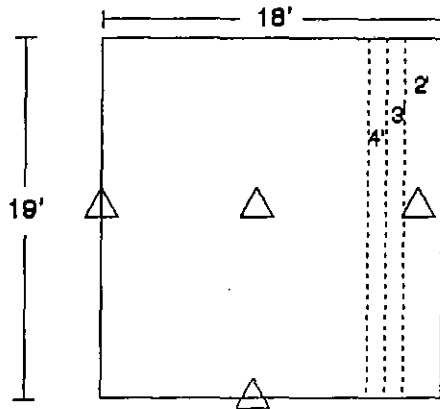
DATE
10/94

TDD #
01-9410-09

GRID #35



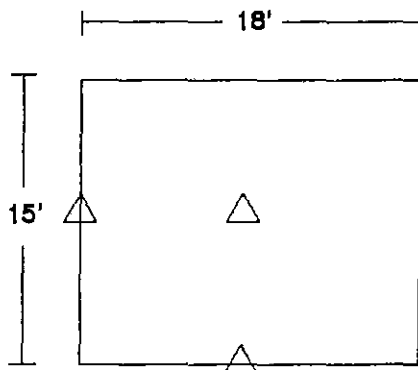
SAMPLE REFERENCE NUMBERS AND LOCATIONS



CA49F157A - NORTH FLOOR AT 2'
 CA49F160A - FLOOR AT 4.5'
 CA49EW158A - EAST WALL AT 2'
 CA49EW158B - EAST WALL AT 4'
 CA49SW159A - SOUTH WALL AT 2'
 CA49SW159B - SOUTH WALL AT 4'

GRID #36

SAMPLE REFERENCE NUMBERS AND LOCATIONS



CA50F183A - FLOOR AT 4.5'
 CA50EW164A - EAST WALL AT 2'
 CA50EW164B - EAST WALL AT 4'
 CA50SW185A - SOUTH WALL AT 2'
 CA50SW185B - SOUTH WALL AT 4'

LEGEND

△ = SAMPLE LOCATIONS (COLLECTED 6/14 - 6/15/94)
 FLOOR SAMPLES ARE A COMPOSITE OF SOILS TAKEN FROM THE FOUR CORNERS AND CENTER OF EACH GRID FLOOR (UNLESS OTHERWISE NOTED).
 WALL SAMPLES TAKEN AS A DISCRETE GRAB SAMPLE.
 PERIMETER SAMPLES ARE A COMPOSITE OF SURFACE SOILS TAKEN FROM THE CORNERS AND THE CENTER OF AN AREA EXTENDING 5' AWAY FROM THE EDGE OF THE GRID.

FIGURE 3S

SAMPLE LOCATIONS
 GRID #35 AND GRID #36
 65 THIRD AVENUE
 STRATFORD, CONNECTICUT

NOT TO SCALE



DRAWN BY
 DONOHUE

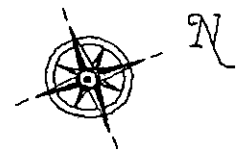
DATE
 10/94

PCS #
 1009

APPROVED BY

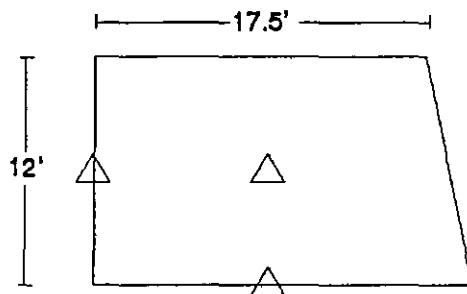
10/94

TDD #
 01-9410-09



GRID #37

SAMPLE REFERENCE NUMBERS AND LOCATIONS



CA50F166A - FLOOR AT 4.5'
CA50EW167A - EAST WALL AT 2'
CA50EW167B - EAST WALL AT 4'
CA50SW168A - SOUTH WALL AT 2'
CA50SW168B - SOUTH WALL AT 4'

LEGEND

△ = SAMPLE LOCATIONS (COLLECTED 6/14)

FLOOR SAMPLES ARE A COMPOSITE OF SOILS TAKEN FROM THE FOUR CORNERS AND CENTER OF EACH GRID FLOOR (UNLESS OTHERWISE NOTED).

WALL SAMPLES TAKEN AS A DISCRETE GRAB SAMPLE

PERIMETER SAMPLES ARE A COMPOSITE OF SURFACE SOILS TAKEN FROM THE CORNERS AND THE CENTER OF AN AREA EXTENDING 5' AWAY FROM THE EDGE OF THE GRID.

FIGURE 3T

SAMPLE LOCATIONS

GRID #37

65 THIRD AVENUE

STRATFORD, CONNECTICUT

NOT TO SCALE



DRAWN BY
DONOHUE

DATE
10/94

PCS #
1009

APPROVED BY

DATE
10/94

TDD #
01-9410-09

APPENDIX B
PROPERTY RESTORATION ITEM LIST

Property Restoration Item List

The following non-plant items were replaced at the 65 Third Avenue property:

- Driveway & front walkway
- Back (western side) porch

The following landscaping items were replaced at the 65 Third Avenue property:

- Sod across the property
- Planting bed and woodchips on the eastern side of the house.

The following plant items were replaced at the 65 Third Avenue property:

Eastern planting bed

- 2 Barberry bushes
- 4 Ilex Hetzi bushes*

* substituted for 2 PJM hybrid Rhododendrons

Front (eastern side) yard centrally located

- 1 Magnolia tree

Back (western side) yard centrally located

- 1 Magnolia tree

TABLE 1

ANALYTICAL SCREENING RESULTS SUMMARY

TABLE 1
Analytical Screening Results Summary
65 Third Avenue
Stratford, Connecticut

Date	Sample Number	Grid Number	Sample Depth	Sample Location*	Lead** (ppm)	Copper** (ppm)	Asbestos*** (%)	PCBs**** (ppm)	PCBs Comment
05/09/94	CA28F01A	1	5.0'	Floor of section	293	375 J	2	0.25U	ND
05/09/94	CA28NW02A	1	2.5'	Northern wall of section	223	38 U	1	0.25U	ND
05/09/94	CA28EW03A	1	2.5'	Eastern wall of section	291	241	1	0.25U	ND
05/09/94	CA28NP04A	1	0.0'	Northern perimeter	49 J	47 J	<1	0.25U	ND
05/09/94	CA28EP05A	1	0.0'	Eastern perimeter	148	38 U	ND	0.25U	ND
05/10/94	CA29F06A	2	5.0'	Floor of section	573	76 U	<1	0.25U	ND
05/10/94	CA29NW07A	2	2.5'	Northern wall of section	74	76 U	<1	0.25U	ND
05/10/94	CA29NP08A	2	0.0'	Northern perimeter	56	76 U	<1	0.25U	ND
05/10/94	CA29WW09A	2	2.5'	Western wall of section	77	113 J	<1	0.25U	ND
05/11/94	CA30F10A	3	5.0'	Floor of section	331	301	2	0.25U	ND
05/11/94	CA30EW11A	3	2.5'	Eastern wall of section	169	305	4	0.25U	ND
05/11/94	CA30SW12A	3	2.5'	Southern wall of section	261	377	1	0.25U	ND
05/11/94	CA30EP13A	3	0.0'	Eastern perimeter	230	62 U	ND	0.25U	ND
05/11/94	CA30SP14A	3	0.0'	Southern perimeter	273	62 U	2	0.25U	ND
05/11/94	CA30EW11B	3	2.5'	Eastern wall of section	145	207	2	0.25U	ND
05/11/94	CA30SW12B	3	2.5'	Southern wall of section	109	213	2	0.25U	ND
05/11/94	CA30EP13B	3	0.0'	Eastern perimeter	273	62 U	ND	0.25U	ND

* = Refer to Figures 3A – 3T for sample locations.

** = The reported lead and copper concentrations are the higher of the two successive determinations from soil screening results on a Spectrace 9000 analyzer.

*** = Asbestos type is chrysotile; Less than 1% indicates trace quantities.

**** = Denotes total PCBs and is the sum of Aroclors – 1254, 1260/62 and 1268.

ND = None Detected.

U = Data Qualifier; denotes that the sample concentration is below the detection limit.
Associated numerical value is the field screening detection limit.

J = Data Qualifier; denotes that the sample concentration is below the field screening quantitation limit.

NS = Not Screened.

--- = Information not pertinent to sample.

TP = Test pit.

Note: Floor samples were taken as composites from the center and four corners of each grid unless otherwise noted.

Note: Wall samples were taken as grabs from the center of each wall at the depth noted.

TABLE 1
Analytical Screening Results Summary
65 Third Avenue
Stratford, Connecticut

Date	Sample Number	Grid Number	Sample Depth	Sample Location*	Lead** (ppm)	Copper** (ppm)	Asbestos*** (%)	PCBs**** (ppm)	PCBs Comment
05/11/94	CA30SP14B	3	0.0'	Southern perimeter	245	62 U	<1	0.25U	ND
05/11/94	CA30EF15A	3	8.0'	Eastern floor of section	1887	3750	8	0.25U	ND
05/11/94	CA30SF16A	3	8.0'	Southern floor of section	661	335	8	0.25U	ND
05/11/94	CA30EW11D	3	6-7'	Eastern wall of section	10670	17460	15	0.25U	ND
05/11/94	CA30SW12D	3	6-7'	Southern wall of section	209	156 J	8	0.25U	ND
05/11/94	CA30EW11C	3	4-5'	Eastern wall of section	339	443	10	0.25U	ND
05/11/94	CA30SW12C	3	4-5'	Southern wall of section	7985	18755	20	0.25	---
05/12/94	CA31F17A	4	4.0'	Floor of section	524	88 J	15	0.25U	ND
05/13/94	CA32F21B	4	6.0'	Floor of section	2984	6550	20	0.25U	ND
05/13/94	CA32F21C	4	7.0'	Floor of section	64	84 J	<1	0.25U	ND
05/12/94	CA31SW18A	4	2.0'	Southern wall of section	109	54 U	2	0.25U	ND
05/12/94	CA31SW18B	4	4.0'	Southern wall of section	873	1060	4	0.25U	ND
05/12/94	CA31WW19A	4	2.0'	Western wall of section	128	54 U	1	0.25U	ND
05/12/94	CA31WW19B	4	4.0'	Western wall of section	1129	3352	15	0.25U	ND
05/12/94	CA31SP20A	4	0.0	Southern perimeter	138	54 U	ND	0.25U	ND
05/12/94	CA31F21A	TP#1	5.5'	Floor of section	431	410	10	0.25U	ND
05/12/94	CA31NW22A	TP#1	2.0'	Northern wall of section	175	306	1	0.25U	ND

* = Refer to Figures 3A - 3T for sample locations.

** = The reported lead and copper concentrations are the higher of the two successive determinations from soil screening results on a Spectrace 9000 analyzer.

*** = Asbestos type is chrysotile; Less than 1% indicates trace quantities.

**** = Denotes total PCBs and is the sum of Arochlors - 1254, 1260/62 and 1268.

ND = None Detected.

U = Data Qualifier; denotes that the sample concentration is below the detection limit.
Associated numerical value is the field screening detection limit.

J = Data Qualifier; denotes that the sample concentration is below the field screening quantitation limit.

NS = Not Screened.

--- = Information not pertinent to sample.

TP = Test pit.

Note: Floor samples were taken as composites from the center and four corners of each grid unless otherwise noted.

Note: Wall samples were taken as grabs from the center of each wall at the depth noted.

TABLE 1
Analytical Screening Results Summary
65 Third Avenue
Stratford, Connecticut

Date	Sample Number	Grid Number	Sample Depth	Sample Location*	Lead** (ppm)	Copper** (ppm)	Asbestos*** (%)	PCBs**** (ppm)	PCBs Comment
05/12/94	CA31NW22B	TP#1	4.0'	Northern wall of section	8525	18605	25	0.25	---
05/12/94	CA31EW23A	TP#1	2.0'	Eastern wall of section	93	58 J	2	0.25U	ND
05/12/94	CA31EW23B	TP#1	4.0'	Eastern wall of section	9000	29210	20	0.25U	ND
05/12/94	CA31SW24A	TP#1	2.0'	Southern wall of section	65 J	54 U	2	0.25U	ND
05/12/94	CA31SW24B	TP#1	4.0'	Southern wall of section	1396	3915	20	0.25U	ND
05/12/94	CA31WW25A	TP#1	2.0'	Western wall of section	310	575	10	0.25U	ND
05/12/94	CA31WW25B	TP#1	4.0'	Western wall of section	9270	27930	20	0.25U	ND
05/12/94	CA31NP26A	TP#1	0.0'	Northern perimeter	139	54 U	1	0.25U	ND
05/12/94	CA31EP27A	TP#1	0.0'	Eastern perimeter	179	88 J	<1	0.25U	ND
05/12/94	CA31SP28A	TP#1	0.0'	Southern perimeter	84	56 J	1	0.25U	ND
05/12/94	CA31WP29A	TP#1	0.0'	Western perimeter	93	58 J	1	0.25U	ND
05/13/94	CA32F22A	5	5.0'	Floor of section	338	61 U	1	0.25U	ND
05/13/94	CA32NW23A	5	2.5'	Northern wall of section	175	61 J	1	0.25U	ND
05/13/94	CA32EW24A	5	2.0'	Eastern wall of section	196	353	<1	0.25U	ND
05/13/94	CA32EW24B	5	4.0'	Eastern wall of section	153	420	1	0.25U	ND
05/13/94	CA32EP25A	5	0.0'	Eastern perimeter	184	61 U	1	0.25U	ND
05/17/94	CA33F26A	6	6'	Floor of section	1122	1548	40	0.25U	ND

* = Refer to Figures 3A – 3T for sample locations.

** = The reported lead and copper concentrations are the higher of the two successive determinations from soil screening results on a Spectrace 9000 analyzer.

*** = Asbestos type is chrysotile; Less than 1% indicates trace quantities.

**** = Denotes total PCBs and is the sum of Arochlors – 1254, 1260/62 and 1268.

ND = None Detected.

U = Data Qualifier; denotes that the sample concentration is below the detection limit.
Associated numerical value is the field screening detection limit.

J = Data Qualifier; denotes that the sample concentration is below the field screening quantitation limit.

NS = Not Screened.

--- = Information not pertinent to sample.

TP = Test pit.

Note: Floor samples were taken as composites from the center and four corners of each grid unless otherwise noted.

Note: Wall samples were taken as grabs from the center of each wall at the depth noted.

TABLE 1
Analytical Screening Results Summary
65 Third Avenue
Stratford, Connecticut

Date	Sample Number	Grid Number	Sample Depth	Sample Location*	Lead** (ppm)	Copper** (ppm)	Asbestos*** (%)	PCBs**** (ppm)	PCBs Comment
05/17/94	CA33SW27A	6	2.0'	Southern wall of section	396	453	<1	0.25U	ND
05/17/94	CA33SW27B	6	4.0'	Southern wall of section	36 U	30 U	ND	0.25U	ND
05/17/94	CA33SW27C	6	6.0'	Southern wall of section	977	237	5-10	0.25U	ND
05/17/94	CA33EW28A	6	2.0'	Eastern wall of section	87 J	148	10-15	0.25U	ND
05/17/94	CA33EW28B	6	4.0'	Eastern wall of section	316	251	3-5	0.25U	ND
05/17/94	CA33EW28C	6	6.0'	Eastern wall of section	337	659	20-25	0.25U	ND
05/17/94	CA33EP29A	6	0.0'	Eastern perimeter	191	488	3-5	0.25U	ND
05/17/94	CA33F30A	7	7.5'	Floor of section	1556	2136	25-30	0.25U	ND
05/17/94	CA33EW31A	7	2.0'	Eastern wall of section	307	464	20	1.0	---
05/17/94	CA33EW31B	7	4.0'	Eastern wall of section	17 U	46 U	ND	0.25U	ND
05/17/94	CA33EW31C	7	6.0'	Eastern wall of section	6814	17400	25-30	0.25U	ND
05/17/94	CA33SW32A	7	2.0'	Southern wall of section	17 U	46 U	<1	0.25U	ND
05/17/94	CA33SW32B	7	4.0'	Southern wall of section	3634	6245	25-30	0.25U	ND
05/17/94	CA33SW32C	7	6.0'	Southern wall of section	652	736	25	0.25U	ND
05/17/94	CA33EP33A	7	0.0'	Eastern perimeter	210	391	3-5	0.25U	ND
05/17/94	CA33SP34A	7	0.0'	Southern perimeter	183	295	15-20	0.25U	ND
05/17/94	CA33SW32D	7	8.0'	Southern wall of section	344	292	ND	0.25U	ND

* = Refer to Figures 3A - 3T for sample locations.

** = The reported lead and copper concentrations are the higher of the two successive determinations from soil screening results on a Spectrace 9000 analyzer.

*** = Asbestos type is chrysotile; Less than 1% indicates trace quantities.

**** = Denotes total PCBs and is the sum of Arochlors - 1254, 1260/62 and 1268.

ND = None Detected.

U = Data Qualifier; denotes that the sample concentration is below the detection limit.
Associated numerical value is the field screening detection limit.

J = Data Qualifier; denotes that the sample concentration is below the field screening quantitation limit.

NS = Not Screened.

--- = Information not pertinent to sample.

TP = Test pit.

Note: Floor samples were taken as composites from the center and four corners of each grid unless otherwise noted.

Note: Wall samples were taken as grabs from the center of each wall at the depth noted.

TABLE 1
Analytical Screening Results Summary
65 Third Avenue
Stratford, Connecticut

Date	Sample Number	Grid Number	Sample Depth	Sample Location*	Lead** (ppm)	Copper** (ppm)	Asbestos*** (%)	PCBs**** (ppm)	PCBs Comment
05/18/94	CA34F35A	8	7.5'	Floor of section	3282	5405	35-40	0.25U	ND
05/18/94	CA34EP36A	8	0.0'	Eastern perimeter	151	255	3-5	0.25U	ND
05/18/94	CA34EW37A	8	2.0'	Eastern wall of section	17 U	46 U	ND	0.25U	ND
05/18/94	CA34EW37B	8	4.0'	Eastern wall of section	888	2162	10-15	0.25U	ND
05/18/94	CA34EW37C	8	6.0'	Eastern wall of section	10500	25915	45-50	0.25U	ND
05/18/94	CA34SP38A	8	0.0'	Southern perimeter	156	296	1-3	0.25U	ND
05/18/94	CA34SW39A	8	2.0'	Southern wall of section	17 U	46 U	ND	0.25U	ND
05/18/94	CA34SW39B	8	4.0'	Southern wall of section	174	316	1-3	0.25U	ND
05/18/94	CA34SW39C	8	6.0'	Southern wall of section	2311	5285	25-30	2.0	---
05/18/94	CA34WP40A	8	0.0'	Western perimeter	98	46 U	<1	0.25U	ND
05/18/94	CA34WW41A	8	2.0'	Western wall of section	17 U	46 U	ND	0.25U	ND
05/18/94	CA34WW41B	8	4.0'	Western wall of section	3606	9270	45-50	0.75	---
05/18/94	CA34WW41C	8	6.0'	Western wall of section	9265	20300	45-50	0.50	---
05/19/94	CA35F42A	9	7.5'	Floor of section	344	106 J	20-25	0.25U	ND
05/19/94	CA35EP43A	9	0.0'	Eastern perimeter	135	68 J	1-3	0.25U	ND
05/19/94	CA35EW44A	9	2.0'	Eastern wall of section	328	393	ND	0.25U	ND
05/19/94	CA35EW44B	9	4.0'	Eastern wall of section	244	342	15-20	0.25U	ND

* = Refer to Figures 3A - 3T for sample locations.

** = The reported lead and copper concentrations are the higher of the two successive determinations from soil screening results on a Spectrace 9000 analyzer.

*** = Asbestos type is chrysotile; Less than 1% indicates trace quantities.

**** = Denotes total PCBs and is the sum of Arochlors - 1254, 1260/62 and 1268.

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--- = Information not pertinent to sample.

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Note: Floor samples were taken as composites from the center and four corners of each grid unless otherwise noted.

Note: Wall samples were taken as grabs from the center of each wall at the depth noted.

TABLE 1
Analytical Screening Results Summary
65 Third Avenue
Stratford, Connecticut

Date	Sample Number	Grid Number	Sample Depth	Sample Location*	Lead** (ppm)	Copper** (ppm)	Asbestos*** (%)	PCBs**** (ppm)	PCBs Comment
05/19/94	CA35EW44C	9	6.0'	Eastern wall of section	8027	31665	45-50	0.25	----
05/19/94	CA35EW44D	9	8.0'	Eastern wall of section	939	1656	25-30	0.50	----
05/19/94	CA35SP45A	9	0.0'	Southern perimeter	113	103 J	ND	0.25U	ND
05/19/94	CA35SW46A	9	2.0'	Southern wall of section	653	620	3-5	0.25U	ND
05/19/94	CA35SW46B	9	4.0'	Southern wall of section	1061	1973	25-30	3.0	----
05/19/94	CA35SW46C	9	6.0'	Southern wall of section	4421	7595	45-50	0.25U	ND
05/19/94	CA35WP47A	9	0.0'	Western perimeter	116	224	10-15	0.25U	ND
05/19/94	CA35WW48A	9	2.0'	Western wall of section	177	202	3-5	0.25U	ND
05/19/94	CA35WW48B	9	4.0'	Western wall of section	478	1684	10-15	0.25U	ND
05/19/94	CA35WW48C	9	6.0'	Western wall of section	10650	21895	55-60	1.25	----
05/20/94	CA36F51A	10	7.0'	Floor of section	2180	5490	20-25	0.25U	ND
05/20/94	CA36WW49A	10	2.0'	Western wall of section	165	347	10-15	0.25	----
05/20/94	CA36WW49B	10	4.0'	Western wall of section	1593	3584	55-60	0.75	----
05/20/94	CA36WW49C	10	6.0'	Western wall of section	1028	1914	25-30	0.25U	ND
05/20/94	CA36SW50A	10	2.0'	Southern wall of section	25 U	65 J	<1	0.25U	ND
05/20/94	CA36SW50B	10	4.0'	Southern wall of section	3588	8875	45-50	0.25U	ND
05/20/94	CA36SW50C	10	6.0'	Southern wall of section	300	197	15-20	0.50	----

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Analytical Screening Results Summary
65 Third Avenue
Stratford, Connecticut

Date	Sample Number	Grid Number	Sample Depth	Sample Location*	Lead** (ppm)	Copper** (ppm)	Asbestos*** (%)	PCBs**** (ppm)	PCBs Comment
05/20/94	CA36SP53A	10	0.0'	Southern perimeter	130	240	3-5	0.25	---
05/20/94	CA36F54A	TP#2	2.0'	Floor of section	383	670	<1	0.25U	ND
05/20/94	CA36F54B	TP#2	4.0'	Floor of section	568	270	5-10	0.25U	ND
05/20/94	CA36F54C	TP#2	5.0'	Floor of section	287	204	15-20	0.25U	ND
05/20/94	CA36F54D	TP#2	6.0'	Floor of section	300	197	5-10	0.25U	ND
05/23/94	CA37F54A	11	6'	Floor of section	992	226 J	3-5	0.25	---
05/23/94	CA37SW55A	11	2.0'	Southern wall of section	24 U	87 U	ND	0.25U	ND
05/23/94	CA37SW55B	11	4.0'	Southern wall of section	2750	6110	25-30	0.50	---
05/23/94	CA37SW55C	11	6.0'	Southern wall of section	1829	4163	15-20	0.25U	ND
05/23/94	CA37WW56A	11	2.0'	Western wall of section	171	87 U	1	0.25U	ND
05/23/94	CA37WW56B	11	4.0'	Western wall of section	82	87 U	5-10	0.25U	ND
05/23/94	CA37WW56C	11	6.0'	Western wall of section	1168	1708	20-25	0.25U	ND
05/23/94	CA37F57A	12	6.0'	Floor of section	1157	1848	15-20	0.25U	ND
05/23/94	CA37SW58A	12	2.0'	Southern wall of section	1018	2257	15-20	0.25U	ND
05/23/94	CA37SW58B	12	4.0'	Southern wall of section	524	361	5-10	0.25U	ND
05/23/94	CA37SW58C	12	6.0'	Southern wall of section	824	300	10-15	3.0	---
05/23/94	CA37WW59A	12	2.0'	Western wall of section	70 J	26 U	1-3	0.25U	ND

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Stratford, Connecticut

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05/23/94	CA37WW59B	12	4.0'	Western wall of section	862	625	3-5	0.25U	ND
05/24/94	CA38F60A	13	5.5'	Floor of section	1646	2888	20-25	0.25U	ND
05/24/94	CA38SW61A	13	2.0'	Southern wall of section	149	314	<1	0.25U	ND
05/24/94	CA38SW61B	13	4.0'	Southern wall of section	7418	20865	35-40	0.25U	ND
05/24/94	CA38SW61C	13	6.0'	Southern wall of section	221	91 J	1-3	0.75	---
05/24/94	CA38WW62A	13	2.0'	Western wall of section	202	318	<1	0.25U	ND
05/24/94	CA38WW62B	13	4.0'	Western wall of section	78	112 J	3-5	2.0	---
05/24/94	CA38WW62C	13	6.0'	Western wall of section	1078	2019	25-30	0.25U	ND
05/24/94	CA38SP63A	13	0.0'	Southern perimeter	173	193	<1	0.25U	ND
05/25/94	CA39F64A	14	6.0'	Floor of section	1880	3394	15-20	0.25U	ND
05/25/94	CA39SW65A	14	2.0'	Southern wall of section	5436	12595	20-25	0.50	---
05/25/94	CA39SW65B	14	4.0'	Southern wall of section	486	2597	5-10	0.50	---
05/25/94	CA39SW65C	14	6.0'	Southern wall of section	446	190	3-5	0.25U	ND
05/25/94	CA39SP66A	14	0.0'	Southern perimeter	218	91 J	1-3	0.25U	ND
05/25/94	CA39F67A	15	6.0'	Floor of Section	645	210	20-25	0.25U	ND
05/25/94	CA39SW68A	15	2.0'	Southern wall of section	256	206	<1	0.25U	ND
05/25/94	CA39SW68B	15	4.0'	Southern wall of section	1843	1961	20-25	0.25U	ND

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65 Third Avenue
Stratford, Connecticut

Date	Sample Number	Grid Number	Sample Depth	Sample Location*	Lead** (ppm)	Copper** (ppm)	Asbestos*** (%)	PCBs**** (ppm)	PCBs Comment
05/25/94	CA39SW68C	15	6.0'	Southern wall of section	4735	11220	35-40	0.25U	ND
05/25/94	CA39SP69A	15	0.0'	Southern perimeter	256	290	ND	0.25U	ND
05/25/94	CA39WW70A	15	2.0'	Western wall of section	306	858	15-20	0.25U	ND
05/25/94	CA39WW70B	15	4.0'	Western wall of section	1335	2989	10-15	0.50	---
06/01/94	CA40F72A	16	7.0'	Floor of section	1120	1860	15-20	0.25U	ND
06/01/94	CA40EW73A	16	2.0'	Eastern wall of section	22 J	73 J	1-3	0.25U	ND
06/01/94	CA40EW73B	16	4.0'	Eastern wall of section	1029	1261	3-5	0.25U	ND
06/01/94	CA40EW73C	16	6.0'	Eastern wall of section	11125	26755	25-30	1.50	---
06/01/94	CA40SW74A	16	2.0'	Southern wall of section	18 U	39 J	<1	0.25U	ND
06/01/94	CA40SW74B	16	4.0'	Southern wall of section	553	715	ND	0.25U	ND
06/01/94	CA40SW74C	16	6.0'	Southern wall of section	9590	20390	25-30	0.25U	ND
06/01/94	CA40F77A	17	7.0'	Floor of section	2037	4176	20-25	0.25U	ND
06/01/94	CA40SW76A	17	2.0'	Southern wall of section	108	173	1-3	0.25U	ND
06/01/94	CA40SW76B	17	4.0'	Southern wall of section	433	541	3-5	0.25U	ND
06/01/94	CA40SW76C	17	6.0'	Southern wall of section	4324	8700	25-30	0.25U	ND
06/01/94	CA40EW78A	17	2.0'	Eastern wall of section	91	91 J	5-10	0.25U	ND
06/01/94	CA40EW78B	17	4.0'	Eastern wall of section	189	233	1-3	0.25U	ND

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Stratford, Connecticut

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06/01/94	CA40EW78C	17	6.0'	Eastern wall of section	931	750	15-20	0.25U	ND
06/01/94	CA40NW79A	17	2.0'	Northern wall of section	28 J	57 U	ND	0.25U	ND
06/01/94	CA40NW79B	17	4.0'	Northern wall of section	262	262	5-10	0.25U	ND
06/01/94	CA40NW79C	17	6.0'	Northern wall of section	3994	9835	25-30	0.25U	ND
06/02/94	CA41F82A	18	6.0'	Floor of section	1313	2109	3-5	0.25U	ND
06/02/94	CA41EW80A	18	2.0'	Eastern wall of section	67	98 J	1-3	0.25U	ND
06/02/94	CA41EW80B	18	4.5'	Eastern wall of section	131	254	1-3	0.25U	ND
06/02/94	CA41EW80C	18	6.0'	Eastern wall of section	343	662	1-3	0.25U	ND
06/02/94	CA41NW81A	18	2.0'	Northern wall of section	216	370	ND	0.25U	ND
06/02/94	CA41NW81B	18	4.0'	Northern wall of section	144	101 J	<1	0.25U	ND
06/02/94	CA41NP83A	18	0.0'	Northern perimeter	217	40 U	ND	0.25U	ND
06/02/94	CA41EP84A	18	0.0'	Eastern perimeter	174	152	ND	0.25U	ND
06/02/94	CA41F85A	19	2.0'	Floor of section	294	412	3-5	0.25U	ND
06/03/94	CA42F87A	20	2.0'	Floor of section	96 J	210	<1	0.25U	ND
06/03/94	CA42EW88A	20	1-2'	Eastern wall of section	195	357	1-3	0.25U	ND
06/03/94	CA42F90A	21	6.0'	Floor of section	287	170	ND	0.25U	ND
06/03/94	CA42EW89A	21	2.0'	Eastern wall of section	59 J	84 J	<1	0.25U	ND

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Stratford, Connecticut

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06/03/94	CA42EW89B	21	4.0'	Eastern wall of section	751	1146	15-20	0.25U	ND
06/03/94	CA42NW91A	21	2.0'	Northern wall of section	119	193	<1	0.25U	ND
06/03/94	CA42NW91B	21	4.0'	Northern wall of section	207	182	5-10	0.25U	ND
06/03/94	CA42NP92A	21	0.0'	Northern perimeter	188	45 J	ND	0.25U	ND
06/03/94	CA42F95A	22	6.0'	Floor of section	287	329	3-5	0.25U	ND
06/03/94	CA42NW96A	22	2.0'	Northern wall of section	356	433	ND	0.25U	ND
06/03/94	CA42NW96B	22	4.0'	Northern wall of section	406	26 U	1-3	0.25U	ND
06/03/94	CA42EW97A	22	2.0'	Eastern wall of section	238	388	<1	0.25U	ND
06/03/94	CA42EW97B	22	4.0'	Eastern wall of section	313	600	1-3	0.25U	ND
06/03/94	CA42NP98A	22	0.0'	Northern perimeter	134	26 U	ND	0.25U	ND
06/03/94	CA42EP99A	22	0.0'	Eastern perimeter	163	78 J	ND	0.25U	ND
06/03/94	CA42F93A	23	2.0'	Floor of section	170	286	1-3	0.25U	ND
06/03/94	CA42EW94A	23	1-2'	Eastern wall of section	142	185	<1	0.25U	ND
06/06/94	CA43F105A	24	6.0'	Floor of section	870	1909	15-20	0.25U	ND
06/06/94	CA43SW101A	24	2.0'	Southern wall of section	116	203	1-3	0.25U	ND
06/06/94	CA43SW101B	24	4.0'	Southern wall of section	40 J	92 J	1-3	0.25U	ND
06/06/94	CA43EW102A	24	2.0'	Eastern wall of section	35 J	46 J	ND	0.25U	ND

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Stratford, Connecticut

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06/06/94	CA43EW102B	24	4.0'	Eastern wall of section	1339	2547	15-20	0.25U	ND
06/06/94	CA43NW103A	24	2.0'	Northern wall of section	219	394	5-10	0.25U	ND
06/06/94	CA43NW103B	24	4.0'	Northern wall of section	7320	14950	25-30	0.25U	ND
06/06/94	CA43WW104A	24	2.0'	Western wall of section	28 U	40 U	1-3	0.25U	ND
06/06/94	CA43WW104B	24	4.0'	Western wall of section	4125	5907	15-20	0.25U	ND
06/10/94	CA47F142A	25	4.5'	Floor of section	395	683	10-15	0.25U	ND
06/10/94	CA47EW143A	25	2.0'	Eastern wall of section	71 J	107 J	<1	0.25U	ND
06/10/94	CA47EW143B	25	4.0'	Eastern wall of section	23 U	55 U	<1	0.25U	ND
06/07/94	CA44F109A	26	6.0'	Floor of section	116	179	5-10	0.25U	ND
06/07/94	CA44NW106A	26	2.0'	Northern wall of section	30 J	35 U	<1	0.25U	ND
06/07/94	CA44NW106B	26	4.0'	Northern wall of section	120	35 U	3-5	0.25U	ND
06/07/94	CA44NW106C	26	6.0'	Northern wall of section	29 U	35 U	<1	0.25U	ND
06/07/94	CA44EW107A	26	2.0'	Eastern wall of section	67 J	35 U	1-3	0.25U	ND
06/07/94	CA44EW107B	26	4.0'	Eastern wall of section	29 U	35 U	ND	0.25U	ND
06/07/94	CA44WW108A	26	2.0'	Western wall of section	137	186	ND	0.25U	ND
06/07/94	CA44WW108B	26	4.0'	Western wall of section	182	75 J	<1	0.5	---
06/07/94	CA44NP110A	26	0.0'	Northern perimeter	89 J	35 U	ND	0.25U	ND

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06/07/94	CA44F115A	27	6.5'	Floor of section	54 J	85 J	<1	0.25U	ND
06/07/94	CA44NW112A	27	2.0'	Northern wall of section	87 J	35 U	ND	0.25U	ND
06/07/94	CA44NW112B	27	4.0'	Northern wall of section	69 J	55 J	3-5	0.25U	ND
06/07/94	CA44NW112C	27	6.0'	Northern wall of section	246	35 J	1-3	0.25U	ND
06/07/94	CA44SW114A	27	2.0'	Southern wall of section	88 J	143	1-3	0.25U	ND
06/07/94	CA44SW114B	27	4.0'	Southern wall of section	3559	6860	25-30	0.5	---
06/07/94	CA44SW114C	27	6.0'	Southern wall of section	491	901	15-20	0.25U	ND
06/07/94	CA44NP116A	27	0.0'	Northern perimeter	69 J	35 U	ND	0.25U	ND
06/08/94	CA45F133A	28	6.0'	Floor of section	1602	3181	25-30	0.25U	ND
06/08/94	CA45WW130B	28	4.0'	Western wall of section	347	379	3-5	0.25U	ND
06/08/94	CA45WW130C	28	6.0'	Western wall of section	602	938	5-10	0.25U	ND
06/08/94	CA45SW131A	28	2.0'	Southern wall of section	269	542	3-5	0.25U	ND
06/08/94	CA45SW131B	28	4.0'	Southern wall of section	160	181 J	<1	0.25U	ND
06/08/94	CA45SW131C	28	6.0'	Southern wall of section	2646	5209	15-20	0.25U	ND
06/08/94	CA45SP132A	28	0.0'	Southern perimeter	171	67 U	<1	0.25U	ND
06/08/94	CA45F129A	29	2.0'	Floor of section	645	1209	10-15	0.25U	ND
06/09/94	CA46F134A	30	2.0'	Floor of section	370	614	15-20	0.25U	ND

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06/09/94	CA46F138A	30	7.0'	Floor of section	2730	5920	25-30	0.25U	ND
06/09/94	CA46WW135B	30	4.0'	Western wall of section	248	446	15-20	0.25U	ND
06/09/94	CA46WW135C	30	6.0'	Western wall of section	8277	23630	30-35	0.25	---
06/09/94	CA46SW136A	30	2.0'	Southern wall of section	896	1751	15-20	0.25U	ND
06/09/94	CA46SW136B	30	4.0'	Southern wall of section	214	299	10-15	0.25U	ND
06/09/94	CA46SW136C	30	6.0'	Southern wall of section	1762	3947	20-25	0.25U	ND
06/09/94	CA46EW137A	30	2.0'	Eastern wall of section	355	1650	15-20	0.25U	ND
06/09/94	CA46EW137B	30	4.0'	Eastern wall of section	7404	12020	35-40	0.25	---
06/09/94	CA46EW137C	30	6.0'	Eastern wall of section	8806	11110	35-40	1.50	---
06/09/94	CA46F141A	31	5.0'	Floor of section	2730	4615	35-40	0.75	---
06/09/94	CA46SW139A	31	2.0'	Southern wall of section	287	476	3-5	0.25U	ND
06/09/94	CA46SW139B	31	4.0'	Southern wall of section	13330	22680	40-45	0.25	---
06/09/94	CA46SW139C	31	6.0'	Southern wall of section	332	158	15-20	0.25U	ND
06/09/94	CA46EW140A	31	2.0'	Eastern wall of section	142	293	1-3	0.25U	ND
06/09/94	CA46EW140B	31	4.0'	Eastern wall of section	137	255	5-10	0.25U	ND
06/13/94	CA48F144A	32	2.0'	Floor of section	96	158 J	1-3	0.25U	ND
06/13/94	CA48F147A	32	7.0'	Floor of section	2515	2922	35-40	0.25U	ND

* = Refer to Figures 3A - 3T for sample locations.

** = The reported lead and copper concentrations are the higher of the two successive determinations from soil screening results on a Spectrace 9000 analyzer.

*** = Asbestos type is chrysotile; Less than 1% indicates trace quantities.

**** = Denotes total PCBs and is the sum of Arochlors- 1254, 1260/62 and 1268.

ND = None Detected.

U = Data Qualifier; denotes that the sample concentration is below the detection limit.
Associated numerical value is the field screening detection limit.

J = Data Qualifier; denotes that the sample concentration is below the field screening quantitation limit.

NS = Not Screened.

--- = Information not pertinent to sample.

TP = Test pit.

Note: Floor samples were taken as composites from the center and four corners of each grid unless otherwise noted.

Note: Wall samples were taken as grabs from the center of each wall at the depth noted.

TABLE 1
Analytical Screening Results Summary
65 Third Avenue
Stratford, Connecticut

Date	Sample Number	Grid Number	Sample Depth	Sample Location*	Lead** (ppm)	Copper** (ppm)	Asbestos*** (%)	PCBs**** (ppm)	PCBs Comment
06/13/94	CA48EW145B	32	4.0'	Eastern wall of section	7403	1570	50-55	0.25U	ND
06/13/94	CA48EW145C	32	6.0'	Eastern wall of section	460	240	10-15	0.25U	ND
06/13/94	CA48SW146A	32	2.0'	Southern wall of section	534	1040	15-20	0.25U	ND
06/13/94	CA48SW146B	32	4.0'	Southern wall of section	10524	18710	45-50	1.75	---
06/13/94	CA48SW146C	32	6.0'	Southern wall of section	548	165 J	10-15	0.25U	ND
06/13/94	CA48F149A	33	6.0'	Floor of section	3042	1691	20-25	1.0	---
06/13/94	CA48SW150A	33	2.0'	Southern wall of section	1691	2323	35-40	0.25	---
06/13/94	CA48SW150B	33	4.0'	Southern wall of section	2468	5810	10-15	1.50	---
06/13/94	CA48SW150C	33	6.0'	Southern wall of section	293	159 J	1-3	0.75	---
06/13/94	CA48EW151A	33	2.0'	Eastern wall of section	201	235	1-3	0.25U	ND
06/13/94	CA48EW151B	33	4.0'	Eastern wall of section	5060	12650	35-40	0.25U	ND
06/13/94	CA48EW151C	33	6.0'	Eastern wall of section	3933	10150	40-45	2.75	---
06/14/94	CA49F153A	34	2.0'	Floor of section	290	608	10-15	0.25U	ND
06/14/94	CA49F156A	34	5.0'	Floor of section	1662	2492	15-20	0.5	---
06/14/94	CA49EW154A	34	2.0'	Eastern wall of section	428	564	1-3	0.25U	ND
06/14/94	CA49EW154B	34	4.0'	Eastern wall of section	4351	6000	30-35	1.0	---
06/14/94	CA49SW155A	34	2.0'	Southern wall of section	4275	8840	40-45	0.75	---

* = Refer to Figures 3A - 3T for sample locations.

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**** = Denotes total PCBs and is the sum of Aroclors - 1254, 1260/62 and 1268.

ND = None Detected.

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Associated numerical value is the field screening detection limit.

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Note: Floor samples were taken as composites from the center and four corners of each grid unless otherwise noted.

Note: Wall samples were taken as grabs from the center of each wall at the depth noted.

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65 Third Avenue
Stratford, Connecticut

Date	Sample Number	Grid Number	Sample Depth	Sample Location*	Lead** (ppm)	Copper** (ppm)	Asbestos*** (%)	PCBs**** (ppm)	PCBs Comment
06/14/94	CA49F157A	35	2.0'	Floor of section	483	909	10-15	0.25U	ND
06/14/94	CA49F160A	35	4.5'	Floor of section	1190	807	25-30	0.25U	ND
06/14/94	CA49EW158A	35	2.0'	Eastern wall of section	270	365	<1	0.25U	ND
06/14/94	CA49EW158B	35	4.0'	Eastern wall of section	975	1673	45-50	0.5	---
06/14/94	CA49SW159A	35	2.0'	Southern wall of section	253	482	10-15	0.25U	ND
06/14/94	CA49SW159B	35	4.0'	Southern wall of section	2878	5010	45-50	0.25	---
06/15/94	CA50F163A	36	4.5'	Floor of section	1326	2136	30-35	0.5	---
06/15/94	CA50EW164A	36	2.0'	Eastern wall of section	3207	4835	40-45	0.25U	ND
06/15/94	CA50EW164B	36	4.0'	Eastern wall of section	4506	4979	30-35	0.25U	ND
06/15/94	CA50SW165A	36	2.0'	Southern wall of section	504	886	10-15	0.25U	ND
06/15/94	CA50SW165B	36	4.0'	Southern wall of section	1733	2021	40-45	0.25	---
06/15/94	CA50F166A	37	4.5'	Floor of section	481	754	15-20	0.25U	ND
06/15/94	CA50EW167A	37	2.0'	Eastern wall of section	304	606	45-50	0.25U	ND
06/15/94	CA50EW167B	37	4.0'	Eastern wall of section	68 J	128	3-5	0.25U	ND
06/15/94	CA50SW168A	37	2.0'	Southern wall of section	11440	23930	35-40	1.0	---
06/15/94	CA50SW168B	37	4.0'	Southern wall of section	217	160	ND	0.25U	ND

* = Refer to Figures 3A - 3T for sample locations.

** = The reported lead and copper concentrations are the higher of the two successive determinations from soil screening results on a Spectrace 9000 analyzer.

*** = Asbestos type is chrysotile; Less than 1% indicates trace quantities.

**** = Denotes total PCBs and is the sum of Aroclors- 1254, 1260/62 and 1268.

ND = None Detected.

U = Data Qualifier; denotes that the sample concentration is below the detection limit. Associated numerical value is the field screening detection limit.

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Note: Floor samples were taken as composites from the center and four corners of each grid unless otherwise noted.

Note: Wall samples were taken as grabs from the center of each wall at the depth noted.

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65 Third Avenue
Stratford, Connecticut

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06/14/94	CA49EW158A	35	2.0'	Eastern wall of section	270	365	<1	0.25U	ND
06/14/94	CA49EW158B	35	4.0'	Eastern wall of section	975	1673	45-50	0.5	---
06/14/94	CA49SW159A	35	2.0'	Southern wall of section	253	482	10-15	0.25U	ND
06/14/94	CA49SW159B	35	4.0'	Southern wall of section	2878	5010	45-50	0.25	---
06/15/94	CA50F163A	36	4.5'	Floor of section	1326	2136	30-35	0.5	---
06/15/94	CA50EW164A	36	2.0'	Eastern wall of section	3207	4835	40-45	0.25U	ND
06/15/94	CA50EW164B	36	4.0'	Eastern wall of section	4506	4979	30-35	0.25U	ND
06/15/94	CA50SW165A	36	2.0'	Southern wall of section	504	886	10-15	0.25U	ND
06/15/94	CA50SW165B	36	4.0'	Southern wall of section	1733	2021	40-45	0.25	---
06/15/94	CA50F166A	37	4.5'	Floor of section	481	754	15-20	0.25U	ND
06/15/94	CA50EW167A	37	2.0'	Eastern wall of section	304	606	45-50	0.25U	ND
06/15/94	CA50EW167B	37	4.0'	Eastern wall of section	68 J	128	3-5	0.25U	ND
06/15/94	CA50SW168A	37	2.0'	Southern wall of section	11440	23930	35-40	1.0	---
06/15/94	CA50SW168B	37	4.0'	Southern wall of section	217	160	ND	0.25U	ND

* = Refer to Figures 3A - 3T for sample locations.

** = The reported lead and copper concentrations are the higher of the two successive determinations from soil screening results on a Spectrace 9000 analyzer.

*** = Asbestos type is chrysotile; Less than 1% indicates trace quantities.

**** = Denotes total PCBs and is the sum of Aroclors-1254, 1260/62 and 1268.

ND = None Detected.

U = Data Qualifier; denotes that the sample concentration is below the detection limit. Associated numerical value is the field screening detection limit.

J = Data Qualifier; denotes that the sample concentration is below the field screening quantitation limit.

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--- = Information not pertinent to sample.

TP = Test pit.

Note: Floor samples were taken as composites from the center and four corners of each grid unless otherwise noted.

Note: Wall samples were taken as grabs from the center of each wall at the depth noted.

TABLE 2

EXCAVATED SOIL SHIPMENT SUMMARY

Table 2
Excavated Soil Shipment Summary
65 Third Avenue
Stratford, Connecticut

Date	Number of Shipments (Truckloads)	Quantity Shipped (Kilograms) *Est.
05/09/94	13	182,000
05/10/94	23	322,000
05/11/94	23	322,000
05/12/94	12	168,000
05/13/94	15	210,000
05/17/94	20	260,000
05/18/94	16	224,000
05/19/94	19	266,000
05/20/94	18	252,000
05/23/94	27	378,000
05/24/94	19	266,000
05/25/94	16	224,000
06/01/94	12	168,000
06/02/94	9	126,000
06/03/94	12	168,000
06/06/94	5	70,000
06/07/94	14	196,000
06/08/94	16	224,000
06/09/94	12	168,000
06/10/94	6	84,000
06/13/94	24	336,000
06/14/94	17	238,000
06/15/94	15	210,000
TOTALS:	363	5,082,000 Kg (5,602 U.S. tons)

95 FOURTH AVE

Public Health Implications Statement
for
95 Fourth Avenue
Stratford, CT

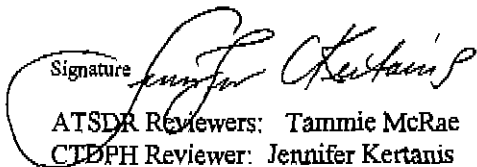
The federal Agency for Toxic Substances and Disease Registry (ATSDR) and the Connecticut Department of Public Health (CTDPH) have evaluated environmental sampling results provided to us by EPA Region I in their investigation of the Raymark waste contamination. These sampling results were collected following EPA's cleanup of your property. Based on our evaluation, the health agencies believe that there is no current health threat indicated by the soil sampling results for asbestos, lead and polychlorinated biphenyls (PCBs) from your property. Because waste had to be left below the surface on your property, the health agencies have made the following recommendations:

1. Do not dig *below 4 feet* in the backyard indicated by grid numbers: 1,2,3,5,9,10,11, and 12.
2. Do not dig *below the surface* next to the foundation along the of southern edge your home indicated by grid numbers: 27 and 28.
3. Do not dig *below the surface* next to the stairs and walkway along the front of your home indicated by grid numbers: 34 and 35.

If you have questions or comments, please call the CTDPH hotline at 203-240-9022 or the Stratford Health Department at 203-385-4090.

Type of Samples: Soil, Post-Excavation Screening Results

Signature



Date: 10/12/95

ATSDR Reviewers: Tammie McRae

CTDPH Reviewer: Jennifer Kertanis

Public Health Implications Statement
for
95 Fourth Avenue
Stratford, CT

The federal Agency for Toxic Substances and Disease Registry (ATSDR) and the Connecticut Department of Public Health and Addiction Services (CTDPHAS) have evaluated environmental sampling results provided to us by EPA Region I in their investigation of the Raymark-waste contamination. These sampling results were collected following EPA's cleanup of your property. Based on our evaluation, the health agencies believe that there is no current health threat indicated by the soil sampling results for asbestos, lead, and polychlorinated biphenyls (PCBs) from your property. Because waste had to be left below the surface on your property, the health agencies have made the following recommendations:

1. Do not dig *below 6 inches* next to the foundation of the house indicated by grid numbers: 25, 27, 30, and 31;
2. Do not dig *below the surface* in areas along the southern boundary of the property indicated by grid numbers: 12, 16, 20, 24, 28, 32, and 36;
3. Do not dig *below the surface* in areas located in the front yard to the north of the stairs indicated by grid number: 34.
4. This property should be placed on a notification system so that future owners will be aware that waste had to be left below the surface. Waste was left in place because groundwater was reached or further excavation would compromise the foundation of the house.

If you have questions or comments, please call the CTDPHAS hotline at 203-240-9022 or the Stratford Health Department at 203-385-4090.

Type of Samples: Post Excavation Soil Screening
Date of Samples: August 1994

Signature 

Date: August 8, 1995

ATSDR Reviewers: David Mellard, Ph.D., Tammie McRae
CTDPHAS Reviewers: Jennifer Kertanis

Public Health Implications Statement
for
95 Fourth Avenue
Stratford, CT

The federal Agency for Toxic Substances and Disease Registry (ATSDR) and the Connecticut Department of Public Health and Addiction Services (CTDPHAS) have evaluated the enclosed information. Based on that evaluation, the health agencies believe that an imminent health threat exists at this location at this time.

The health agencies have made the following recommendations:

1. People's contact with the contaminated areas should be stopped or reduced;
2. Since contamination may be below the surface at this location, samples should be collected from areas underground;
3. Digging and gardening should be avoided until the subsurface investigation has been completed;
4. More samples are necessary so that the health agencies can better determine the health risk; and
5. Clean up should be considered.

If you have questions or comments, please call the CTDPHAS hotline at 240-9024 or the Stratford Health Department at 385-4090.

Signature



Date: August 2, 1993

Type of Samples: Surface Soil Screening

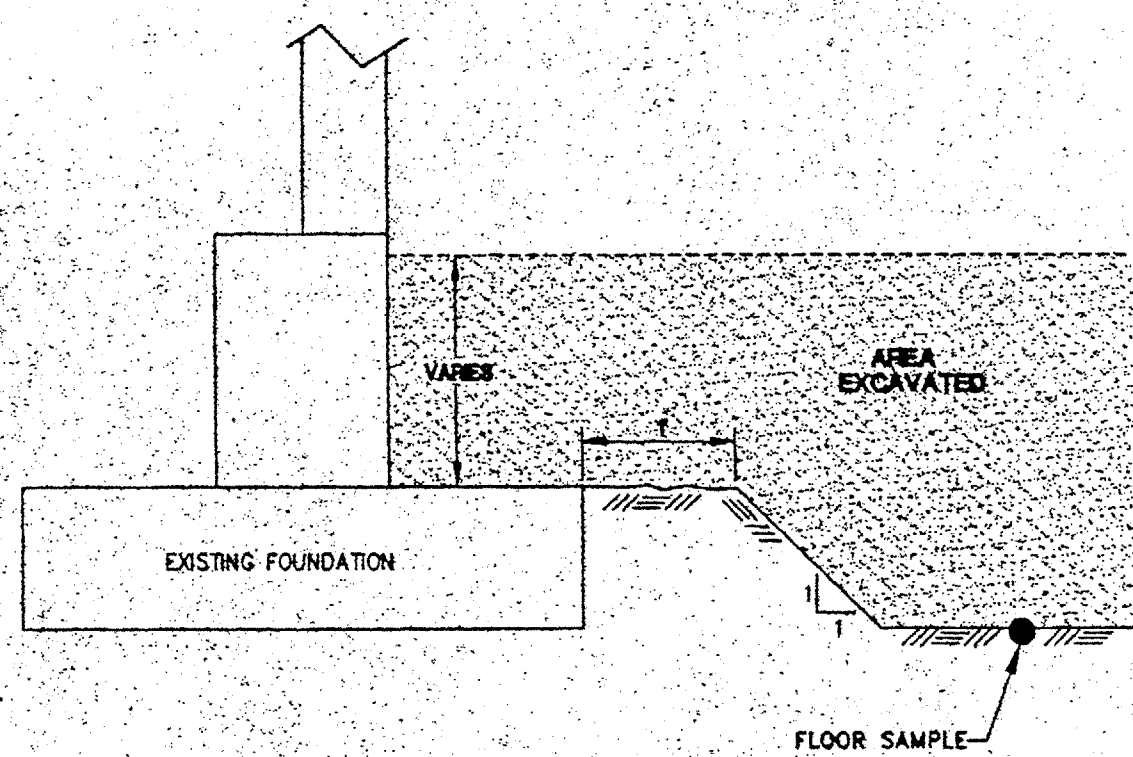
Date of Samples: 6/23/93

ATSDR Reviewers: David Mellard, Ph.D., Lynn Wilder, Rich Nickle
Tammie McRae

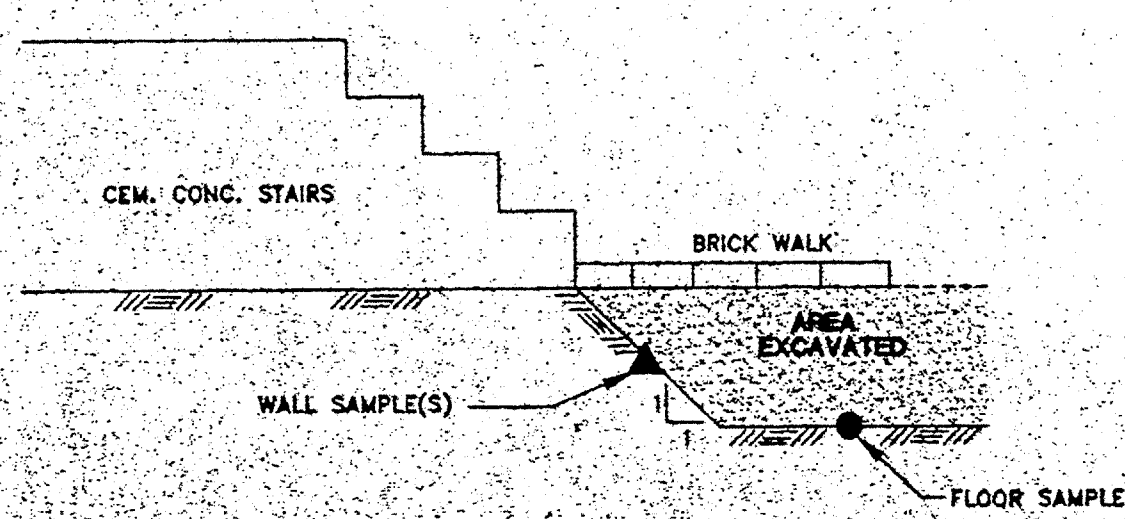
CTDPHAS Reviewers: Diane Aye

GRID NUMBER	DEPTH OF EXCAVATION (FT.)	FLOOR ELEVATION (FT.)
1	-4	4.0
2	-4	4.0
3	-4	3.0
4	-3	3.8
5	-4	5.0
6	-4	4.6
7	-4	4.0
8	-3	5.3
9	-4	6.0
10	-4	5.7
11	-4	5.5
12	-3	6.6
13	-6	4.2
14	-6	4.2
15	-8	1.8
16	-8	1.8
17	-6	4.7
19	-8	2.7
20	-8	3.0
21	-6	4.9
23	-6	4.9
24	-8	3.0
25	-2	8.9
27	-8	3.1
27	-1	10.1
28	-8	3.3
29	-4	7.5
30	-1	10.6
31	-1	10.6
32	-8	2.5
33	-3	8.2
34	-6	5.3
35	-3	7.6
36	-6	4.3
37	-2	8.9
38	-3	7.7
39	-3	7.3
40	-4	6.3

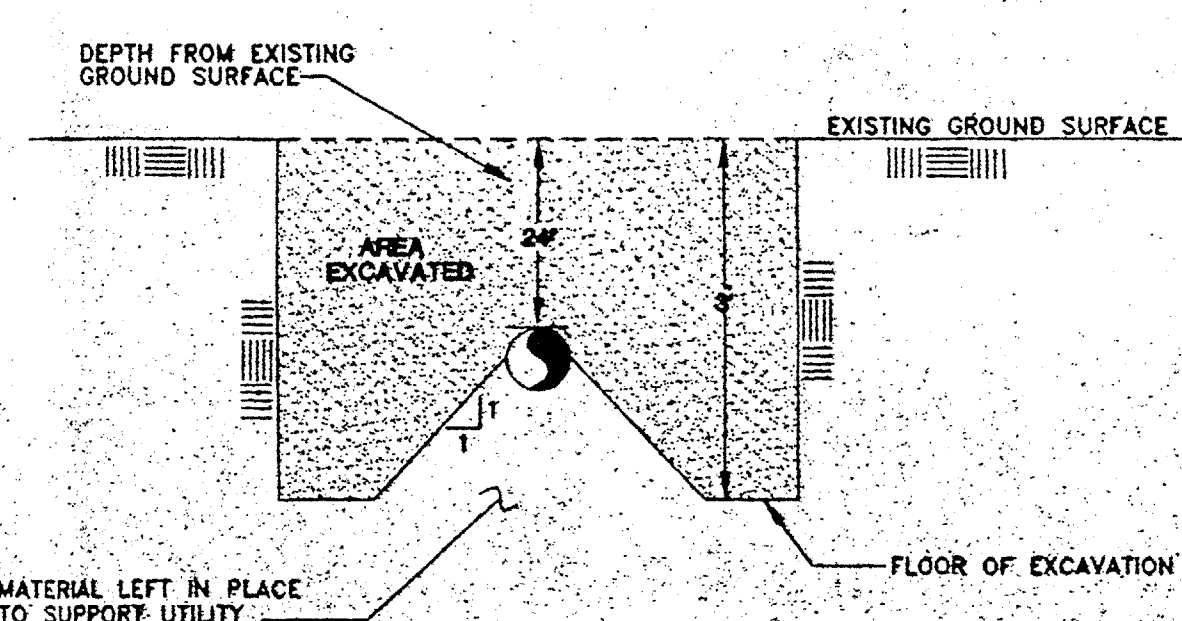
NOTE: ALL ELEVATIONS ARE MEASURED AT THE APPROXIMATE CENTER OF THE EXCAVATED PORTION OF THE SUBJECT GRID NUMBER. (SEE SURVEY NOTE, THIS SHEET)



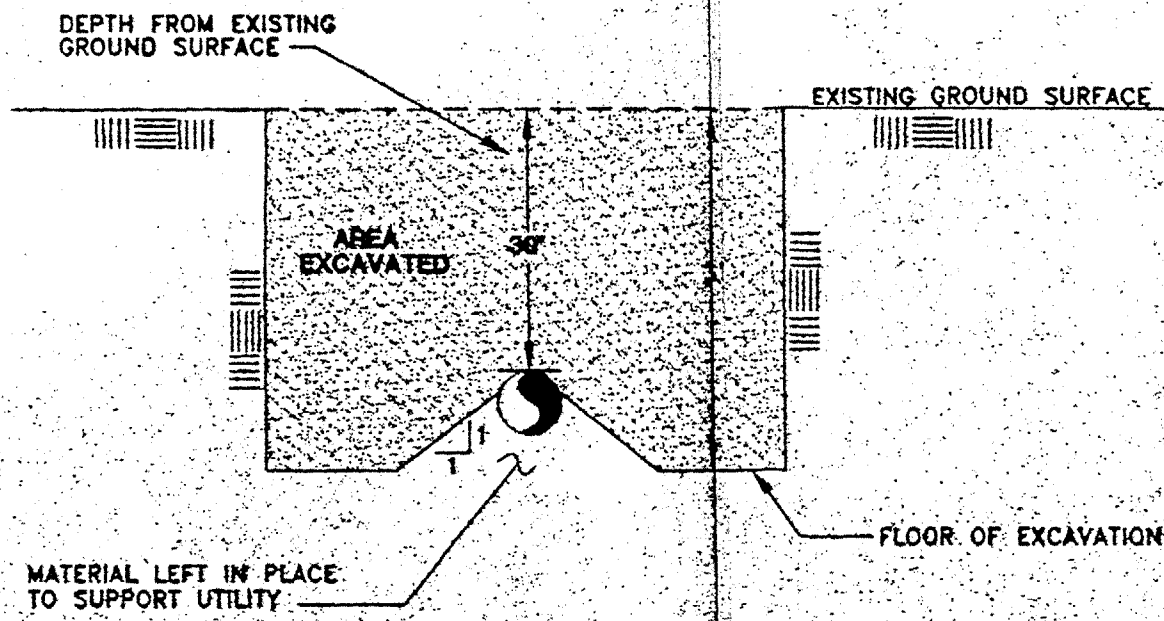
CROSS-SECTION A-A - EXCAVATION DETAIL
NOT TO SCALE



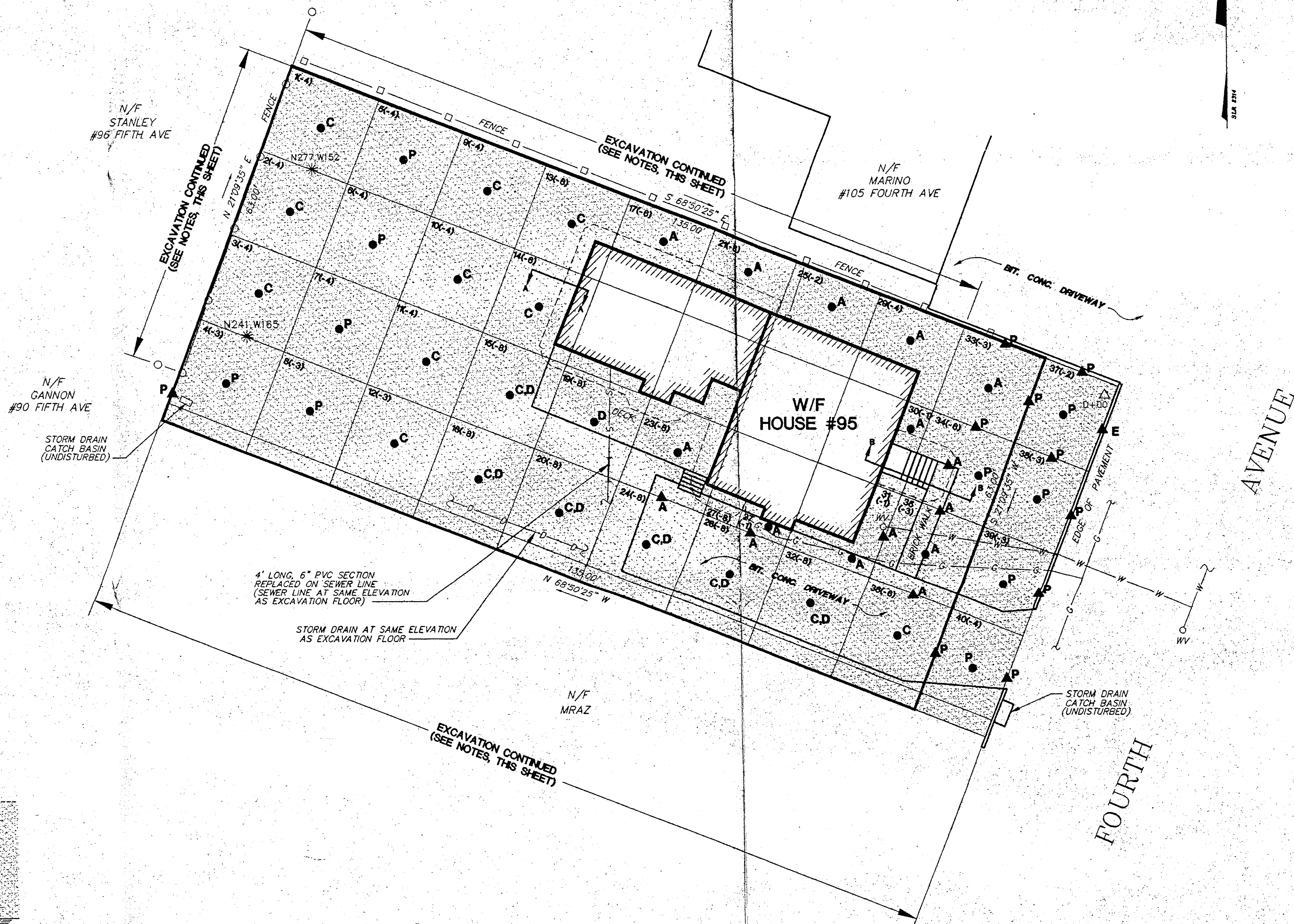
CROSS-SECTION B-B - EXCAVATION DETAIL
NOT TO SCALE
(APPLIES TO PORTION OF GRIDS 30 AND 34)



GAS LINE CROSS-SECTION
NOT TO SCALE



WATER LINE CROSS-SECTION
NOT TO SCALE



LEGEND	
G—G—G	GAS LINE
W—W—W	WATER LINE
WVO	WATER VALVE
S—S—S	SEWER LINE
D—D—D	STORM DRAIN
N/F	NOW OR FORMERLY
BIT CONC.	BITUMINOUS CONCRETE
WOOD STOCKADE FENCE	
CHAIN LINK FENCE	
△	WESTON TAT PRE-EXCAVATION DEPTH SAMPLE
☆	WESTON ARCS PRE-EXCAVATION BORING
N277, W152	INTERSECTION OF SIDEWALL AND FLOOR OF EXCAVATION
---	PROPERTY LINE
■	EXCAVATED AREA
1-4	GRID NUMBER (DEPTH OF EXCAVATION)

SOURCE:
REFERENCE IS MADE TO "DRAWING 5005F93 DATED 10/10/93, PREPARED BY PARSONS BROMFIELD-REDNISS & MEAD FOR OHM CORPORATION"

SURVEY NOTE:
VERTICAL SURVEY CONTROL IS REFERENCED TO STATE OF CONNECTICUT GEODETIC SURVEY BENCHMARK INFORMATION (OBTAINED FROM THE CONNECTICUT DEPARTMENT OF TRANSPORTATION), WHICH IS BASED UPON THE NORTH AMERICAN VERTICAL DATUM OF 1929 (NAVD 1929) (REFERENCED TO MEAN SEA LEVEL AND, IN NEW ENGLAND, EQUIVALENT TO NGVD 1929)

POST-EXCAVATION SAMPLES KEY:

- FLOOR SAMPLE
- ▲ WALL SAMPLE

REASON FOR TERMINATION OF EXCAVATION:

- P - PASSED 2 OUT OF 3 EPA CLEANUP CRITERIA (AS STATED IN 8/9/94 LETTER AND REVISED LEAD CRITERIA IN 11/17/94 LETTER FROM D. TAGLIAFERRO, USEPA, TO R. GOFF, USACE.) (PCBs ≤ 1 PPM, LEAD ≤ 500 PPM, ASBESTOS ≤ 1%)
- A - FOUNDATION OR OTHER AREAS NOT TO BE DISTURBED (SEE CROSS-SECTION A-A & B-B, THIS SHEET)
- B - (NOT USED)
- C - GROUNDWATER ENCOUNTERED
- D - EXCAVATION IS 8' DEEP
- E - ADJACENT NON-RESIDENTIAL PROPERTY OUTSIDE SCOPE OF WORK

NOTES:

- EXCAVATION CONTINUED ON THE ADJACENT PROPERTY AT APPROXIMATELY THE SAME DEPTH IN THE FOLLOWING AREAS:
 - 105 FOURTH AVENUE - NORTH OF GRIDS 1, 5, 9, 13, 17, 21, 25, AND 29.
 - 96 FIFTH AVENUE - WEST OF GRIDS 1, 2, 3, AND PART OF GRID 4.
 - MRAZ PROPERTY (FOURTH AVENUE EXT.) - SOUTH OF GRIDS 4, 8, 12, 16, 20, 24, 28, 32, 36, & 40.

20 0 10 20
SCALE: 1" = 10'

CONTRACTOR	
EBASCO SERVICES INC.	
Approved	
Approved with corrections as noted on submittal and/or attached sheets	
SIGNATURE:	<i>Paul C. Munt</i>
TITLE:	<i>Project Engineer</i>
DATE:	<i>May 25, 1995</i>

U. S. ARMY CORPS OF ENGINEERS NEW ENGLAND DIVISION WALTHAM, MASS.			
POST-EXCAVATION RECORD PLAN FOR #95 FOURTH AVENUE STRATFORD, CT.			
DES. BY GDE	DRAWN BY FGM	CHECKED BY PCM	DATE
SUBMITTED		APPROVED	
CHIEF GENERAL ENGINEERING BRANCH		CHIEF DESIGN DIVISION	
APPROVAL RECOMMENDED		APPROVED	
ENGINEERING MANAGER		DATE	
CHIEF ENGINEERING MANAGEMENT DIVISION		DIRECTOR OF ENGINEERING	
EBASCO SERVICES INCORPORATED 470 ATLANTIC AVENUE BOSTON, MA 02203 (617) 467-8200		SCALE: AS SHOWN	SHEET NO.
DESIGN FILE: 95-48-03		DRAWING NUMBER	
		SHEET 1 OF 1	

104 FOURTH AVE

**104 Fourth Avenue
HNUS
Pre-Excavation Depth Soil Sampling Results**

Sample ID	Sample Depth (ft)	PCBs (ppm)	Lead (ppm)	Asbestos (%)
		Cleanup Criteria		
		1.0	500	1
BO	0.5 - 1.5	0.25 U	53 J	ND
	1.5 - 2.5	0.25 U	83 J	ND
	2.5 - 3.5	0.25 U	67 J	ND
	3.5 - 4.25	0.25 U	64 J	ND
CO	0.5 - 1.5	0.25 U	41 J	ND
	1.5 - 2.0	0.25 U	55 J	ND
DO	0.5 - 1.5	0.25 U	68 J	ND
	1.5 - 2.5	0.25 U	42 J	ND
EO	0.5 - 1.5	0.25 U	78 J	ND
	1.5 - 2.5	0.25 U	ND	ND
	2.5 - 2.7	0.25 U	31 J	ND

Results presented in this table summarize the site investigation (pre-excavation) results for soil left in place after excavation activities were completed.

NOTES:

- U indicates non-detect or detected below detection limit.
- J indicates approximate concentration due to limitations identified during the quality control data review.
- ND indicates not detected

**104 Fourth Avenue
Weston TAT
Pre-Excavation Surface Soil Sampling Results**

Sample ID	Sample Depth (feet)	PCBs (ppm)	Lead (ppm)	Asbestos (%)
		Cleanup Criteria		
		1.0	500	1
A + 00	Surface	0.25 U	260	ND
B + 00	Surface	0.25 U	300	ND
B + 100	Surface	0.25 U	220	ND
B + 150	Surface	0.25 U	260	ND
C + 00	Surface	0.25 U	240	ND
C + 75	Surface	0.25 U	160 J	ND
C + 150	Surface	0.25 U	250	ND

Results presented in this table summarize the site investigation (pre-excavation) results for soil left in place after excavation activities were completed.

NOTES:

PCB Qualifiers

- U indicates contaminant has been analyzed for but not detected.

Lead Qualifiers

- J Result is greater than primary detection limit of 50 ppm.
Less than or equal to primary quantitation limit of 180 ppm.

Asbestos Qualifiers

- ND indicates non-detect for asbestos.

**104 Fourth Avenue
Weston ARCS
Pre-Excavation Depth Soil Sampling Results**

Sample ID	Sample Depth (ft)	PCBs (ppm)	Lead (ppm)	Asbestos (%)
		Cleanup Criteria		
		1.0	500	1
N300 E35	0 - 1.1	1.75	340	< 1
	1.1 - 3.8	3.0 U	260	ND
	1.3 - 2.0	0.25 U	310	3
	4.0 - 5.5	0.50 U	100 J	< 1
	5.5 - 7.0	0.50	ND	ND
	8.0 - 9.5	0.25 U	240	ND
N310 E125	2.0 - 2.4	1.5	340	ND
	2.4 - 3.0	0.50 U	230	ND
	2.5 - 3.3	2.0 U	460	1
	3.3 - 4.1	15	700	1
	4.1 - 4.5	0.25	200	ND
	4.5 - 5.0	0.25 U	220	ND

Results presented in this table summarize the site investigation (pre-excavation) results for soil left in place after excavation activities were completed.

NOTES:

PCB Qualifiers

- U indicates contaminant has been analyzed for but not detected.

Lead Qualifiers

- J Result is greater than primary detection limit of 50 ppm.
Less than or equal to primary quantitation limit of 180 ppm.
- ND Not detected; result is less than or equal to primary detection limit of 50 p

Asbestos Qualifiers

- ND indicates non-detect for asbestos.

104 Fourth Avenue
Post-Excavation Field Screening Results

Grid Number	Sample Location	Sample Depth (feet)	Field Laboratory Results			Sample ID
			PCBs (ppm)	Lead (ppm)	Asbestos (%)	
			Cleanup Criteria			
			Depth Averaging Criteria			
3	North Wall	0-3	0.75	400	Trace	WS4ACP-3NC(0-3)5LX
4	Floor	3	0.72	1100	Trace	FS4A104-4CC(3)X
	North Wall	0-3	0.25	830	Trace	WS4A104-4NC(0-3)X
5	North Wall	0-3	0.71	400	ND	FS4ACP-5NC(0-3)5LX
	North Wall	3-5	2.7	890	Trace	WS4ACP-5NC(3-5)5LX
	North Perimeter	0.25	1.6	360	<1	PS4ACP-5NG(0.25)5LX
	North Perimeter	0.25	0.76	340	Trace	PS4A104-5NG(0.25)X
6	Floor	6	0.43	1700	1	FS4A104-6CC(6)X
	North Wall	0-3	0.14 U	100 U	ND	WS4A104-6NC(0-3)X
	North Wall	3-4	10 E	1700	<1	WS4A104-6NC(3-4)X
	North Wall	3-6	0.83	1700	1	WS4A104-6NC(3-6)X
7	Floor	8	0.13 U	100 U	ND	FS4A104-7CC(8)X
	North Wall	0-3	0.11 U	100 U	ND	WS4A104-7NC(0-3)X
	North Wall	3-6	7.9 E	2200	Trace	WS4A104-7NC(3-6)X
	North Wall	6-8	6.8 E	1900	ND	WS4A104-7NC(6-8)X
	West Wall	6-8	0.94	700	ND	WS4A104-7WC(6-8)X
8	Floor	8	0.13 U	100 U	ND	FS4A104-8CC(8)X
	North Wall	0-3	0.41	100U	ND	WS4A104-8NC(0-3)X
	North Wall	3-6	7.6 E	2100	ND	WS4A104-8NC(3-6)X
	North Wall	6-8	7.9 E	2100	Trace	WS4A104-8NC(6-8)X
9	Floor	6	1.4	540	ND	FS4A104-9CC(6)X
	North Wall	0-3	0.29	100	ND	WS4A104-9NC(0-3)X
	North Wall	3-6	1.8	450	<1	WS4A104-9NC(3-6)X
10	North Wall	0-3	0.23	100 U	ND	FS4ACP-10NC(0-3)X
	North Wall	3-5	0.94	790	Trace	WS4ACP-10NC(3-5)X
	North Perimeter	0.25	0.12 U	100	ND	PS4ACP-10NG(0.25)X
11	North Wall	0-3	0.11 U	120	ND	FS4ACP-11NC(0-3)5LX
	North Wall	3-6	0.13 U	100	ND	WS4ACP-11NC(3-6)5LX
	East Wall	0-3	0.12 U	100 U	<1	WS4ACP-11EC(0-3)X
	East Wall	3-6	0.14 U	100 U	ND	WS4ACP-11EC(3-6)X
	North Perimeter	0.25	0.11 U	100 U	ND	PS4ACP-11NG(0.25)5LX

Results presented in this table summarize the field screening results for soil left in place after excavation activities were completed.

NOTES:

- See attached 4/27/95 memorandum from A. Wing, USEPA to R. Goff, USACE
- Floor (composite) samples obtained from the base of the excavation.
- Wall (composite) samples obtained from the vertical face of the excavation.
- Perimeter (grab) samples obtained approximately 2.5 feet from the edge of the excavation.
- ND indicates the contaminant was not detected in the sample.
- E indicates the actual result exceeds the value listed.
- U indicates the contaminant was not detected in the sample; the reported value is the detection limit.
- Highlighted cells indicate samples which failed to meet the Depth Averaging Criteria

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Interoffice Memorandum

DATE: November 27, 1995

REF. #: 4A104rsp

TO: Marty Sklaver

FROM: Helen Douglas *Bme for HP*

SUBJECT: USACE CONTRACT NO. DACW33-94-D-0002 NE TERC
Delivery Order No. 0004 Stratford Superfund Sites
Post-Excavation Data - 104 4th Avenue
Amendment to Transmittal No. 01410-4A104-GRID

Final results for post excavation samples representing soil "left in place" at 104 4th Avenue are included on the attached table. These results were reviewed in accordance with the procedures described in the project CDAP and outlined below. Based on this review, the data are acceptable for project use.

The individual laboratories (ABB-ES - on-site and Aquatec - off-site) provide a quality assurance check of all data prior to final reporting. Quality control on-site/off-site split sample data are summarized and reported in weekly data comparison memos (WCS). Split sample comparison results for 104 4th Avenue were discussed in transmittals WCS-034. The noted PCB split sample discrepancy is discussed in WCS-040 and is mostly attributed to matrix interferences. On-going correlation studies are reported periodically and are intended to identify trends that could have significant impacts to the data reported by the on-site laboratory. The associated on-going correlation study associated with 104 4th Avenue is transmittal OCS-009.

Approximately 20 percent of the off-site split sample results were reviewed with respect to the data quality objectives given in the CDAP and are reported in transmittal no. DV-007; no significant quality control exceedences were noted in the off-site data review.

An ABB-ES quality control review was performed and the following results were reported differently from the initial field result:

Sample I.D.	Lab I. D.	Date Collected	Correct Result (ppm)	Comments
FS-6CC(6.00-6.00)	11157	070695	0.43 (PCB)	incorrect on COC

Some changed results were due mostly to data validation actions (flagged "J" estimated). In addition, some values reported for PCBs were adjusted slightly due to percent solids correction and/or rounding. The noted data adjustments do not change the field decisions with respect to the depth averaging cleanup criteria.

Please call me at (617)457-8263, if you have any questions.

cc: G. Eckart
J. Francis
Chemistry Distribution

Addendum to
Public Health Implications Statement
for
104 Fourth Avenue
Stratford, CT

The federal Agency for Toxic Substances and Disease Registry (ATSDR) and the Connecticut Department of Public Health (CTDPH) have evaluated environmental sampling results provided to us by EPA Region I in their investigation of the Raymark waste contamination. These sampling results were collected following EPA's cleanup of your property. Based on our evaluation, the health agencies believe that there is no current health threat indicated by the soil sampling results for asbestos, lead, and polychlorinated biphenyls (PCBs) from your property. However, waste had to be left below the surface on your property. As a result, the health agencies have made the following recommendations:

1. Do not dig below 3 feet in areas of your yard indicated by grid numbers 5, 6, 7, and 8.
2. This property should be placed on a notification system so that future owners will be aware that waste had to be left in place. Waste was left in place below the surface because excavation was terminated at 3 feet.

If you have questions or comments, please call the CTDPH hotline at 860/509-7742 or the Stratford Health Department at 203/385-4090.

Type of Samples: Post Excavation Soil Screening

Date of Samples: June, July & August 1995

Signature



Date: 7-26-96

ATSDR Reviewers: David Mellard, Ph.D., Tammie McRae

CTDPH Reviewer : Jennifer Kertanis

Public Health Implications Statement
for
104 Fourth Avenue
Stratford, CT

The federal Agency for Toxic Substances and Disease Registry (ATSDR) and the Connecticut Department of Public Health (CTDPH) have evaluated environmental sampling results provided to us by EPA Region I in their investigation of the Raymark waste contamination. These sampling results were collected following EPA's cleanup of your property. Based on our evaluation, the health agencies believe that there is no current health threat indicated by the soil sampling results for asbestos, lead, and polychlorinated biphenyls (PCBs) from your property.

If you have questions or comments, please call the CTDPH hotline at 860/509-7742 or the Stratford Health Department at 203/385-4090.

Type of Samples: Post Excavation Soil
Date of Samples: June, July, and August 1995

Signature



Date: June 4, 1996

ATSDR Reviewers: David Mellard, Ph.D., Tammie McRae

CTDPH Reviewer: Jennifer Kertanis

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STRATFORD
PROJECT OFFICE

SUBCONTRACTORS

J.J Brennan
Burns Security
Ceimic Corporation
Certified Engineering

Fairfield Resources
Mansfield Construction
Whitcomb & Bradley, Surveyors
Ramada Hotel
Rental Network
Royal Flush
Systems, Inc.

SERVICE PROVIDED

Back-fill material
Site security
Confirmatory soil analysis
Community air monitoring,
soil asbestos screening
Topsoil
Waste soil hauling
Pre-excavation surveying
Lodging
Computer, printer
Portable toilets
Photocopier

2.2 Property Location and Description

104 Fourth Avenue is a residential property located in Stratford, Connecticut (see Figure 1 - Site Location Map). The property encompasses approximately 0.20 acres with a generally flat topography and includes one residential building. The general land use in the area is residential (see Figure 2 - Site Vicinity Map). It is bordered on the north by residential properties, to the south by undeveloped residential property, to the west by Fourth Avenue, and to the east by Third Avenue residential properties.

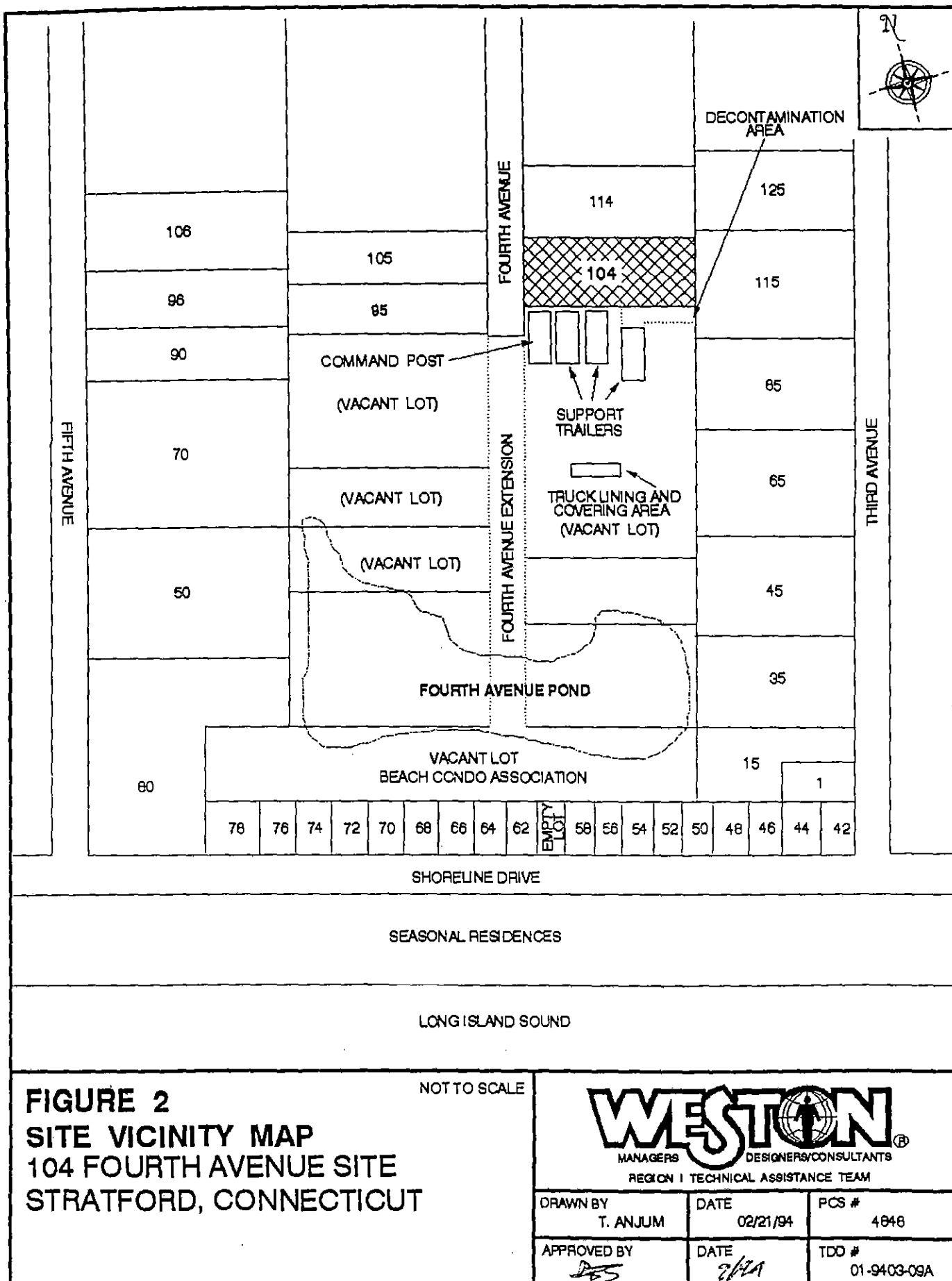
2.3 Property Background

Many sites in Stratford are suspected of receiving manufacturing wastes generated at the Raymark facility site as fill materials. Raymark and its predecessors Raybestos Friction Materials and Raybestos-Manhattan Company, manufactured brake linings, clutch parts and other asbestos-based products at their Stratford facility. Raymark waste contained asbestos, lead and PCBs.

Members of the Stratford Zoning Board and the Conservation Division of the Department of Public Works have stated that Raymark waste was disposed of in the vicinity of this site by Raymark facility. Raymark acknowledged disposing of an unknown quantity of such waste between 1940 and 1977. In the past, some property owners had asked Raymark for waste material (which was used as fill for low-lying areas).

2.4 The Initial Situation

In June 1993, EPA began a comprehensive surface sampling program at the suspect Raymark disposal sites. A total of nine surface samples were taken from the 104 Fourth Avenue property. One of the samples contained traces (<1%) of asbestos (chrysotile). Because the 104 Fourth Avenue site was located adjacent to areas tentatively identified as Raymark waste repositories, ATSDR suggested subsurface sampling to further characterize site conditions.



boreholes in the areas of concern (see Figure 3 - Sample Location Map). Borehole No. 1 would be to excavated to a depth of 4-feet and borehole No. 2 to 2-feet. OHM anticipated using a post hole digger and a shovel to remediate the property.

Wednesday, 4 May 1994

Weather: 50 - 60°F. Overcast.

TAT members Andrews and Curria staked off the areas to be excavated. OHM crew excavated the two contamination points to 1-foot in diameter as directed by OSC Lussier. TAT collected a grab sample from the floor of borehole No. 1 at a depth of 4-feet, and a composite of four wall samples at a depth of 2-feet. Borehole No. 2 was excavated to a depth of 2-feet. The floor was grab sampled and a composite of four wall samples was taken at a depth of 1 - foot.

Additionally, TAT collected perimeter samples from both boreholes. Samples were taken 1-foot from the edge of the excavation at the north, south, east and west locations. The samples were relinquished to TAT for analysis. See Figure 4 - Excavation Sample Reference Map, for details.

At the end of the day, 12 samples remained for PCB analysis and eight remained for metals analysis.

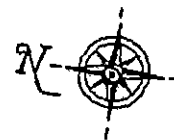
Thursday, 5 May 1994

Weather: 50°F. Overcast.

TAT members and the OHM crew were on site at 0700 hrs.

Analysts completed running the remaining samples. The data were presented to OSC Lussier for review.

Based on the analytical results, OSC Lussier directed the OHM crew to backfill the excavations and emplace topsoil. The excavation was completed.



SAMPLES COLLECTED

C25F15A - FLOOR GRAB SAMPLE AT 4' IN DEPTH

C25W18A - WALL COMPOSITE OF 4 ALIQUOTS TAKEN AT 2' IN DEPTH

BOREHOLE #1

C25NP26A - NORTH PERIMETER SURFACE GRAB SAMPLE 1' FROM EDGE OF HOLE

C25SP28A - SOUTH PERIMETER SURFACE GRAB SAMPLE 1' FROM EDGE OF HOLE

C25EP27A - EAST PERIMETER SURFACE GRAB SAMPLE 1' FROM EDGE OF HOLE

C25WP29A - WEST PERIMETER SURFACE GRAB SAMPLE 1' FROM EDGE OF HOLE



SAMPLES COLLECTED

BOREHOLE #2



C25F17A - FLOOR GRAB SAMPLE AT 2' IN DEPTH

C25W18A - WALL COMPOSITE OF 4 ALIQUOTS TAKEN AT 1' IN DEPTH

C25NP230A - NORTH PERIMETER SURFACE GRAB SAMPLE 1' FROM EDGE OF HOLE

C25SP32A - SOUTH PERIMETER SURFACE GRAB SAMPLE 1' FROM EDGE OF HOLE

C25EP31A - EAST PERIMETER SURFACE GRAB SAMPLE 1' FROM EDGE OF HOLE

C25WP33A - WEST PERIMETER SURFACE GRAB SAMPLE 1' FROM EDGE OF HOLE

FIGURE 4

NOT TO SCALE

EXCAVATION SAMPLE REFERENCE MAP

104 FOURTH AVENUE SITE
STRATFORD, CONNECTICUT



DRAWN BY
S. O'HARE

DATE
09/94

PCS #
4848

APPROVED BY
JES

DATE
4/94

TDD #
01-9403-09A

3.0 Effectiveness of Removal

3.1 Actions Taken By Potentially Responsible Parties

The responsible party is Raymark Industries. Although they have not incurred any costs for this removal action they have allowed the contaminated soil to be transported back to their facility.

3.2 Actions Taken By State and Local Agencies

104 Fourth Avenue was part of the Stratford Sites project, therefore, the majority of local and state agencies contacted the Raymark Team Leader with their concerns.

The State agency that was specific to this site was CT DPHAS. CT DPHAS analyzed 10 % of the asbestos samples per the QA/QC Plan and provided the results within 48 hours to the EPA.

3.3 Actions Taken by Federal Agencies and Special Teams

EPA coordinated the federally-funded cleanup of this site. This cleanup involved directing the TAT and ERCS contractors in implementing the work and safety plans and monitoring expenses.

The United States Coast Guard aided the OSC in reviewing the daily cost documents and the invoices.

ATSDR provided the health consultation and the cleanup levels for the project.

3.4 Contractor and Private Groups

OHM, Findlay, Ohio was the ERCS prime contractor for the site. They provided the personnel, materials, and equipment that were necessary for the successful completion of the project. OHM completed the required work task in a safe and professional manner.

Roy F. Weston, Inc. provided the TAT support for this removal action. TAT was responsible for aiding the OSC in monitoring OHM, maintaining the site file, preparing work plans and site health and safety plans, conducting air monitoring as needed, providing documentation of site activities for future enforcement proceedings, cost tracking, preparing draft POLREPS, and maintaining computer files. TAT support also included collection of soil samples, screening of soil samples for lead and copper on the Spectrace 9000 XRF instrument, and analysis for PCBs by GC/ECD.

4.0 Difficulties Encountered

There were no difficulties encountered.

ANALYTICAL SCREENING RESULTS SUMMARY

TABLE 1

TABLE 1
Analytical Screening Results Summary
Excavation Boundary Samples
104 Fourth Avenue Site
Stratford, Connecticut

Date	Sample Number	Bore Number	Sample Depth	Sample Location*	Lead** (ppm)	Copper** (ppm)	Asbestos*** (%)	PCBs**** (ppm)	PCBs Comment
5/4/94	C25F15A	1	4'	Center of Floor	54 J	42 U	ND	0.25U	ND
5/4/94	C25W16A	1	2'	Composite of wall	55 J	42 U	ND	0.25U	ND
5/4/94	C25NP26A	1	0'	North Perimeter Composite	69 J	42 U	ND	0.25U	ND
5/4/94	C25EP27A	1	0'	East Perimeter Composite	51 J	42 U	ND	0.25U	ND
5/4/94	C25SP28A	1	0'	South Perimeter Composite	82 J	42 U	ND	0.25U	ND
5/4/94	C25WP29A	1	0'	West Perimeter Composite	106 J	42 U	ND	0.25U	ND
5/4/94	C25F17A	2	2'	Center of Floor	337	339	ND	1.0	---
5/4/94	C25W18A	2	1'	Composite of Floor	56 J	42 U	ND	0.25U	ND
5/4/94	C25NP30A	2	0'	North Perimeter Composite	36 U	42 U	ND	0.25U	ND
5/4/94	C25EP31A	2	0'	East Perimeter Composite	36 U	42 U	ND	0.25U	ND
5/4/94	C25SP32A	2	0'	South Perimeter Composite	36 U	42 U	ND	0.25U	ND
5/4/94	C25WP33A	2	0'	West Perimeter Composite	36 U	42 U	ND	0.25U	ND

* = See Figs 3 and 4 for sample locations.

** = The reported lead and copper concentrations are the higher of the two successive determinations from soil screening results on a Spectrace 9000 analyzer.

*** = Asbestos type is chrysotile; Less than 1% indicates trace quantities.

**** = Denotes total PCBs and is the sum of Ar-1254, Ar-1260/62, and Ar-1268.

ND = None Detected.

U = Data Qualifier; denotes that the sample concentration is below the detection limit.
Associated numerical value is the the field screening detection limit.

J = Data Qualifier; denotes that the sample concentration is below the field screening quantitation limit.

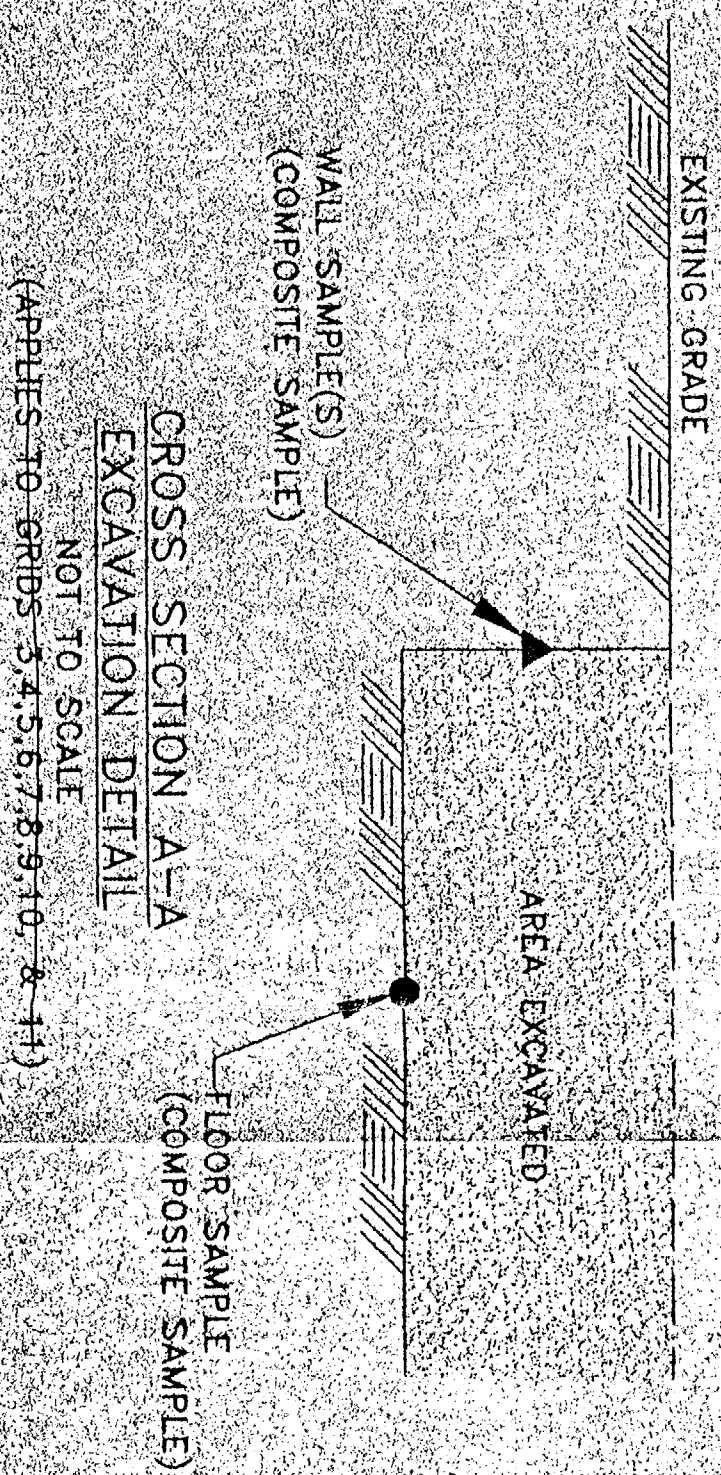
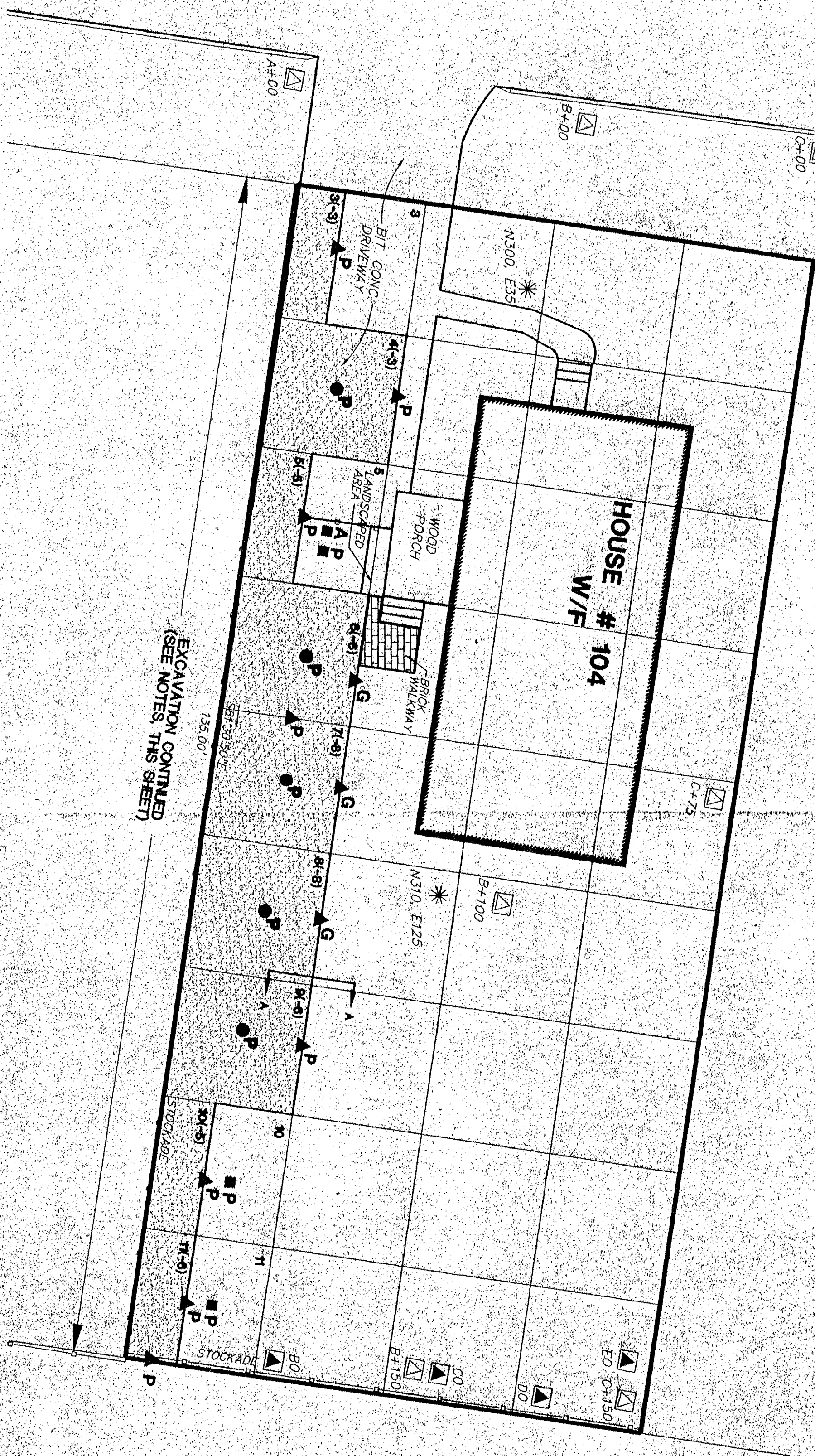
NS = Not Screened.

- = Information not pertinent to sample.

EXCAVATION FLOOR ELEVATION		
GRID NUMBER	DEPTH OF EXCAVATION (FT.)	FLOOR ELEVATION (FT.)
3	3	8.5
4	3	8.5
5	5	7.0
6	5	5.5
7	8	3.5
8	6	3.0
9	6	3.5
10	5	3.0
11	6	1.0

NOTE: ALL ELEVATIONS ARE MEASURED AT THE APPROXIMATE CENTER OF THE EXCAVATED AREA. SEE SURVEY NOTE #15 (SHEET).

FOURTH (60' WDE - PUBLIC) AVENUE



CONTRACTOR
FOSTER WHEELER ENVIRONMENTAL CORPORATION

Approved with corrections as noted on submittal and/or attached sheets

SIGNATURE: *L. B. [Signature]*

TITLE: *Inspector*

DATE: *4/1/96*

LEGEND

WESTON TA SURFACE SAMPLE LOCATION (COLLECTED ON JULY 23 & 24, 1993)

WESTON AROS SURFACE DEPTH SAMPLE LOCATION (COLLECTED ON AUGUST 20 & 24, 1993)

THUS DEPTH SAMPLE LOCATION (COLLECTED ON NOVEMBER 10 & 11, 1993)

WOOD FRAME

WOOD OR EQUIVALENT

WOOD STOCKADE FENCE

BITUMINOUS CONCRETE

EXCAVATED AREA

GRID NUMBER (DEPTH OF EXCAVATION)

POST-EXCAVATION SAMPLE KEY

- FLOOR SAMPLE (COMPOSITE SAMPLE)
- PERIMETER SAMPLE (GRAB SAMPLE)
- ▲ WALL SAMPLE (COMPOSITE SAMPLE)

REASON FOR TERMINATION OF EXCAVATION

- P - PASSED EPA DEPTH AVERAGING CLEANUP CRITERIA (AS STATED IN 4/27/95 MEMORANDUM FROM A. WING, USEPA, TO R. GORT, USECODE)
- A - FOUNDATION OR OTHER AREAS NOT TO BE DISTURBED
- B - NOT USED
- C - NOT USED
- D - NOT USED
- E - NOT USED
- F - NOT USED

G - EXCAVATION TERMINATED PER USEPA/USACE INSTRUCTION BASED ON PASSING SAMPLES FROM 0' - 3' IN DEPTH.



NOTES:

1. EXCAVATION AT 104 FOURTH AVENUE WAS INITIATED ON CONGO PROPERTY (FOURTH AVENUE EXTENSION) AT APPROXIMATELY THE SAME DEPTH AS THE FOLLOWING AREAS:

- SOUTH OF GRIDS 3, 4, 5, 6, 7, 8, 9, 10 AND 11.

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APR 9 1996
FOR #104 FOURTH AVENUE
STRATFORD, CT.

POST-EXCAVATION
RECORD PLAN

U.S. ARMY CORPS OF ENGINEERS
NEW ENGLAND DIVISION
WATUBAL, MASS.

DESIGNED BY: *L. B. [Signature]*

CHECKED BY: *L. B. [Signature]*

APPROVED BY: *L. B. [Signature]*

DATE: *4/1/96*

PROJECT: *104 FOURTH AVENUE EXTENSION*

SCALE: *1"=10'*

SHEET: *1 OF 1*

FEDERAL ON-SCENE COORDINATOR'S REPORT
104 FOURTH AVENUE SITE
STRATFORD, CONNECTICUT

May 3 to May 5, 1994

Prepared By:
AmyJean Lussier, On-Scene Coordinator
U.S. Environmental Protection Agency
Region I
60 Westview Street
Lexington, Massachusetts

and

ROY F. WESTON, INC.
Technical Assistance Team
Region I

January 1995

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LIST OF TABLE (Found at the end of the report)

Table 1 - Analytical Screening Results Summary
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1.0 Executive Summary

The following report, entitled *Federal On-Scene Coordinator's Report for the 104 Fourth Avenue Site, Stratford, Connecticut, May 3 through May 5, 1994*, is a chronological summary of the United States Environmental Protection Agency (EPA), Region I, Emergency Planning and Response Branch's response operations. The report details the situation as it developed, the actions taken, the resources committed, the effectiveness of the removal action, the problems encountered and the On-Scene Coordinator's (OSC) recommendations.

This OSC Report was prepared according to the Code of Federal Regulations, Title 40, Protection of the Environment, Part 300, Subpart B - Responsibility and Organization for Response, Section 300.165.

The 104 Fourth Avenue site is one of many sites located in Stratford that are suspected of accepting manufacturing wastes generated at the Raymark Industries, Inc. (Raymark) as fill materials. Raymark waste consisted of sludges containing asbestos, lead, polychlorinated biphenyls (PCBs), and other contaminants.

104 Fourth Avenue was the third of six developed residential sites in the Third and Fourth Avenue area where removal actions were deemed appropriate. Support facilities and equipment were utilized in succession as each new property underwent removal activities.

Initial preparations for removal activities in the Third and Fourth Avenue area began in the fall of 1993. With owner approval, contaminated undeveloped lots located at the end of Fourth Avenue were chosen as the staging area for all removal activities in the vicinity. The area was excavated where necessary to achieve an acceptable grade, and was temporarily capped with a semi-permeable geotextile fabric and 6-inches of gravel to facilitate movement of trucks and other heavy equipment.

Excavation at two other properties in the vicinity of 104 Fourth Avenue were conducted from November 1993 through January 1994. Due to a particularly harsh winter, removal activities were halted at the second property before completion. In April 1994, excavation at the second property was completed.

From May 3 through May 5, 1994, EPA conducted the following activities at the 104 Fourth Avenue site: excavated contaminated soil, transported contaminated soil from the site, and backfilled excavated areas with gravel and select-fill.

Soil cleanup levels of 400 parts per million (ppm) lead, 1 ppm PCB and 1 percent asbestos were determined through consultation with the Agency for Toxic Substances and Disease Registry (ATSDR). Typically, if any of these parameters were exceeded in wall or perimeter samples, additional excavation would ensue. Excavation depths were typically advanced to clean soil or the groundwater table (whichever came first).

To document post excavation soil conditions and help determine if further excavations were needed, soil samples were collected from the walls, perimeters and base of the excavated areas. The samples were screened for lead, PCBs and asbestos.

The sample screening methodology is outlined in the report entitled, *Raymark Satellite Sites Sampling Quality Control Plan, Stratford, Connecticut (QA/QC Plan)*, prepared by the Roy F. Weston Technical Assistance Team (TAT), and submitted to the EPA in February 1994. The QA/QC Plan was amended in April 1994.

Approximately 0.33 tons of contaminated soil was excavated from the site and transported to Raymark for temporary storage.

2.0 Summary of Events

2.1 Organization of Response

ORGANIZATION OF RESPONSE		
Agencies of Parties Involved	Contact	Description of Participation
U.S. EPA - Region I 60 Westview Street Lexington, MA 02173 (617) 860-4300	AmyJean Lussier David McIntyre	Federal OSC responsible for ERCS oversight and success. Raymark Team Leader - responsible for the Stratford Sites Project.
U.S. EPA - Region I Superfund Community Relations Section JFK Federal Bldg. Boston, MA 02203	Liza Judge	Community involvement coordinator. Served as a sounding board for area residents' complaints.
ATSDR	Tammy McRae	Provided health consultations.
Roy F. Weston, Inc. Technical Assistance Team 99 South Bedford Street Burlington, MA 01803 (617) 229-6430	Sherri Curria Tanveer Anjum David Strzempko John Donohue Sean O'Hare	Provided the OSC with technical assistance, administrative support, sampling/analysis, photo and site documentation, site safety, and draft report preparation.
OHM Remediation Services Corporation 88 C Elm Street Hopkinton, MA 01748	Joseph Overend	Provided personnel and equipment necessary for removal, conducted the cleanup, restored property. Coordinated shipment of waste to the Raymark facility.
Halliburton NUS Corporation Roy F. Weston, Inc. ARCS		Collected samples for CSIR.
Connecticut Department of Public Health and Addiction Services	Diane Aye Janet Kapish Susan Isch	Screened soil samples for asbestos and provided health concerns consultation.
Town of Stratford - Town Manager - Health Dept.	Mark Barnhart Elaine O'Keefe	Assisted the Raymark Team Leader with community relations.

SUBCONTRACTORS

J.J Brennan
Burns Security
Ceimic Corporation
Certified Engineering

Fairfield Resources
Mansfield Construction
Whitcomb & Bradley, Surveyors
Ramada Hotel
Rental Network
Royal Flush
Systems, Inc.

SERVICE PROVIDED

Back-fill material
Site security
Confirmatory soil analysis
Community air monitoring,
soil asbestos screening
Topsoil
Waste soil hauling
Pre-excavation surveying
Lodging
Computer, printer
Portable toilets
Photocopier

2.2 Property Location and Description

104 Fourth Avenue is a residential property located in Stratford, Connecticut (see Figure 1 - Site Location Map). The property encompasses approximately 0.20 acres with a generally flat topography and includes one residential building. The general land use in the area is residential (see Figure 2 - Site Vicinity Map). It is bordered on the north by residential properties, to the south by undeveloped residential property, to the west by Fourth Avenue, and to the east by Third Avenue residential properties.

2.3 Property Background

Many sites in Stratford are suspected of receiving manufacturing wastes generated at the Raymark facility site as fill materials. Raymark and its predecessors Raybestos Friction Materials and Raybestos-Manhattan Company, manufactured brake linings, clutch parts and other asbestos-based products at their Stratford facility. Raymark waste contained asbestos, lead and PCBs.

Members of the Stratford Zoning Board and the Conservation Division of the Department of Public Works have stated that Raymark waste was disposed of in the vicinity of this site by Raymark facility. Raymark acknowledged disposing of an unknown quantity of such waste between 1940 and 1977. In the past, some property owners had asked Raymark for waste material (which was used as fill for low-lying areas).

2.4 The Initial Situation

In June 1993, EPA began a comprehensive surface sampling program at the suspect Raymark disposal sites. A total of nine surface samples were taken from the 104 Fourth Avenue property. One of the samples contained traces (<1%) of asbestos (chrysotile). Because the 104 Fourth Avenue site was located adjacent to areas tentatively identified as Raymark waste repositories, ATSDR suggested subsurface sampling to further characterize site conditions.

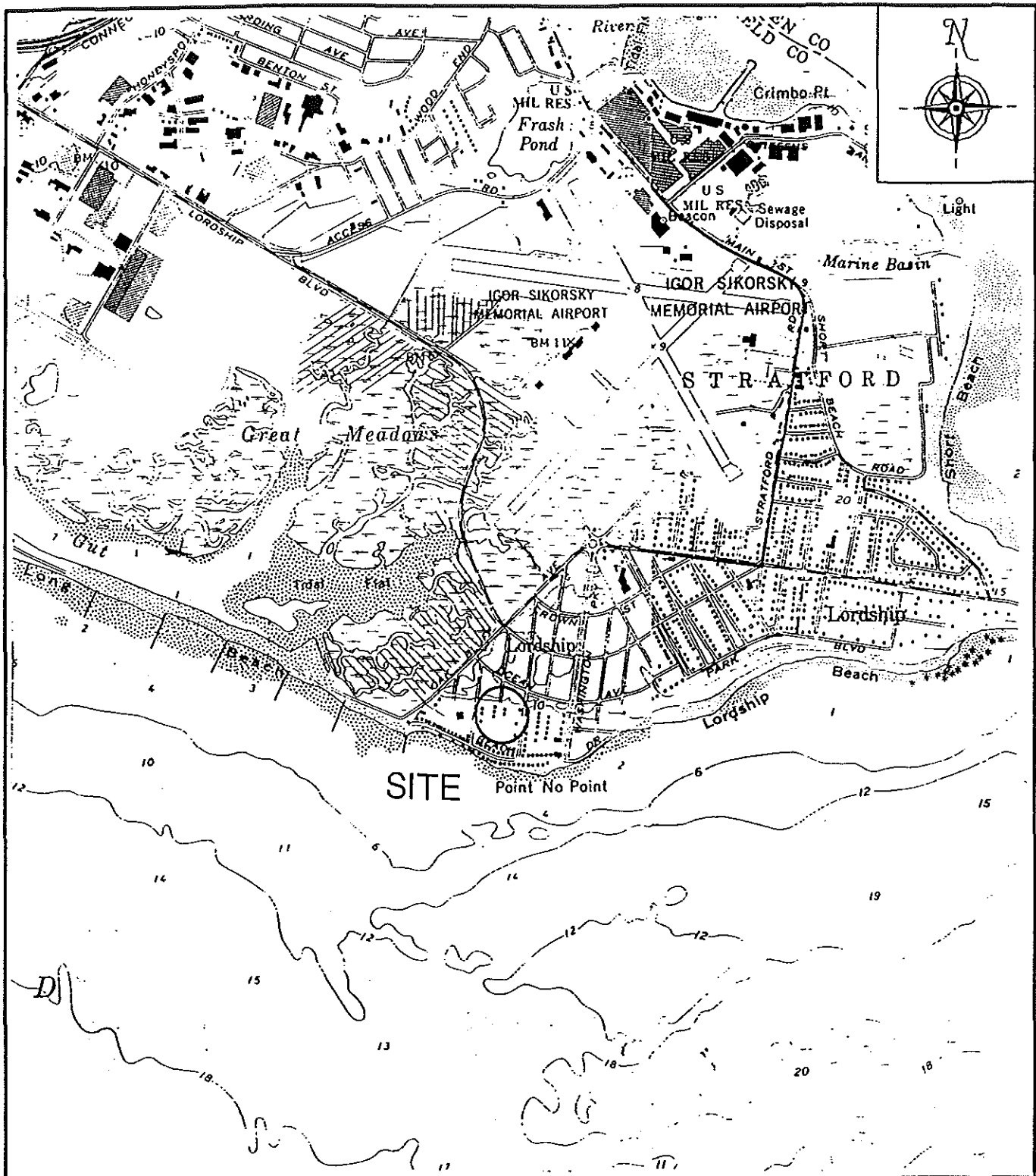


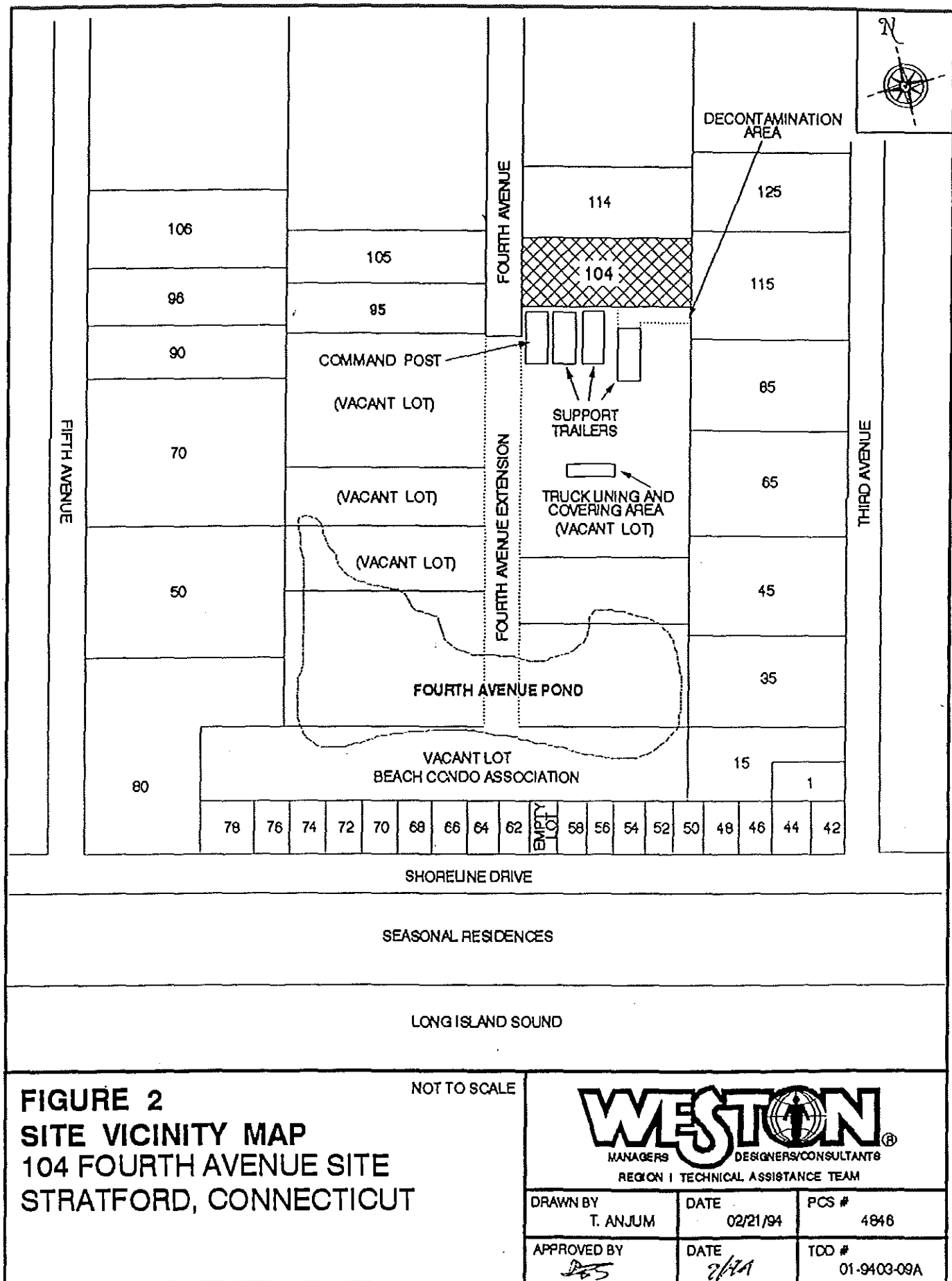
FIGURE 1
SITE LOCATION MAP
104 FOURTH AVENUE SITE
STRATFORD, CONNECTICUT

SCALE 1:24,000

SOURCE: U.S. Geological Survey, 7.5 Minute Series:
 Bridgeport, CT Quadrangle, 1970 (Photorevised 1984);
 Milford, CT Quadrangle, 1960 (Photorevised 1984).

WESTON[®]
 MANAGERS DESIGNERS/CONSULTANTS
 REGION I TECHNICAL ASSISTANCE TEAM

DRAWN BY S. O'Hare	DATE 7/94	PCS # 4846
APPROVED BY <i>[Signature]</i>	DATE 7/94	TCD # 01-9403-09A



Between August 20 and November 11, 1993, 35 subsurface samples were collected by Weston ARCS and Halliburton NUS ARCS at several grid points spaced equally across the property. These samples were collected generally at 1-foot intervals between 0 and 15 feet, and were field screened for lead, copper, PCB and asbestos. In addition, four samples were collected and analyzed for total metals and PCBs/pesticides through the EPA Contract Laboratory Program (CLP).

The field samples were screened for lead, asbestos and PCBs. A portable XMET 880 x-ray fluorescence (XRF) analyzer was used to screen for lead, a single column Thermo Electron Instruments model 621A gas chromatograph/electron capture device (GC/ECD) was used to screen for PCBs, and polarized light microscope (PLM) was used to screen for asbestos detection.

The intent of the extensive sampling was to delineate any subsurface contamination that might pose a future health risk. The maximum concentrations identified during the field screening analysis included: 700 ppm of lead, 15 ppm of PCBs and 3% chrysotile asbestos as well as a trace of amosite asbestos. Using the results of the field screening analysis, the extent of vertical and horizontal contamination was delineated. The results of the sampling conducted were presented in the report entitled *Comprehensive Site Investigation Report for 104 Fourth Avenue, Stratford, Connecticut*, prepared by TAT (a copy may be found in the site file).

In November 1993, OHM tasked Whitcomb & Bradley, Professional Surveyors, to prepare a topographic map of the 104 Fourth Avenue site including the locations from which samples were collected by TAT, Weston ARCS and Halliburton ARCS in September 1993. Based on the results of the sampling, two distinct areas of contamination within the property boundaries were identified.

2.5 Efforts to Obtain Response by Responsible Parties

EPA established that no responsible parties would undertake this cleanup.

2.6 Chronological Summary of Removal Action

The following is a daily chronological summary of field activities conducted by EPA and its subcontractors from May 3 through May 5, 1994.

Tuesday, 3 May 1994

Weather: 60 - 70°F. Sunny.

OSC Lussier spoke with the property owner and gave him a copy of the draft CSIR. OSC Lussier explained the data tables and the corresponding maps to the owner. The OSC explained that based on the results of previous sampling, OHM would be excavating two

boreholes in the areas of concern (see Figure 3 - Sample Location Map). Borehole No. 1 would be excavated to a depth of 4-feet and borehole No. 2 to 2-feet. OHM anticipated using a post hole digger and a shovel to remediate the property.

Wednesday, 4 May 1994

Weather: 50 - 60°F. Overcast.

TAT members Andrews and Curria staked off the areas to be excavated. OHM crew excavated the two contamination points to 1-foot in diameter as directed by OSC Lussier. TAT collected a grab sample from the floor of borehole No. 1 at a depth of 4-feet, and a composite of four wall samples at a depth of 2-feet. Borehole No. 2 was excavated to a depth of 2-feet. The floor was grab sampled and a composite of four wall samples was taken at a depth of 1 - foot.

Additionally, TAT collected perimeter samples from both boreholes. Samples were taken 1-foot from the edge of the excavation at the north, south, east and west locations. The samples were relinquished to TAT for analysis. See Figure 4 - Excavation Sample Reference Map, for details.

At the end of the day, 12 samples remained for PCB analysis and eight remained for metals analysis.

Thursday, 5 May 1994

Weather: 50°F. Overcast.

TAT members and the OHM crew were on site at 0700 hrs.

Analysts completed running the remaining samples. The data were presented to OSC Lussier for review.

Based on the analytical results, OSC Lussier directed the OHM crew to backfill the excavations and emplace topsoil. The excavation was completed.

REPRESENTS EXCAVATED AREA (APPROXIMATELY 2-FOOT DIAMETER HOLE)

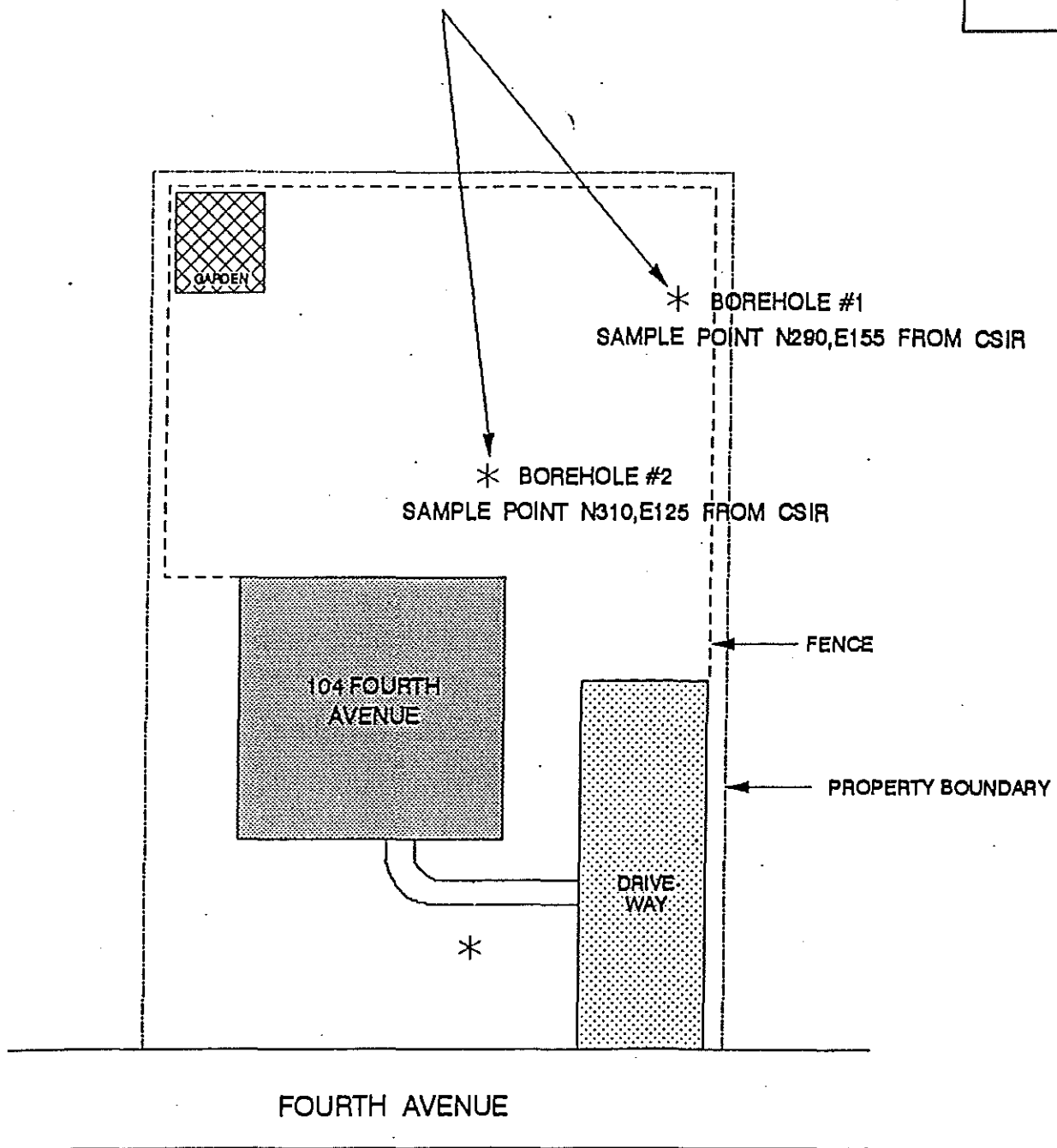
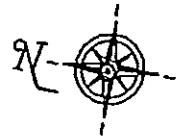
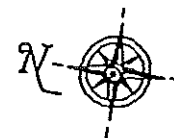


FIGURE 3
SAMPLE LOCATION MAP
104 FOURTH AVENUE SITE
STRATFORD, CONNECTICUT

NOT TO SCALE



DRAWN BY S. O'HARE	DATE 09/94	PCS # 4848
APPROVED BY YES	DATE 7/94	TDD # 01-9403-09A



SAMPLES COLLECTED

C25F15A - FLOOR GRAB SAMPLE AT 4' IN DEPTH
C25W16A - WALL COMPOSITE OF 4 ALIQUOTS TAKEN AT 2' IN DEPTH
C25NP26A - NORTH PERIMETER SURFACE GRAB SAMPLE 1' FROM EDGE OF HOLE
C25SP28A - SOUTH PERIMETER SURFACE GRAB SAMPLE 1' FROM EDGE OF HOLE
C25EP27A - EAST PERIMETER SURFACE GRAB SAMPLE 1' FROM EDGE OF HOLE
C25WP29A - WEST PERIMETER SURFACE GRAB SAMPLE 1' FROM EDGE OF HOLE

BOREHOLE #1



SAMPLES COLLECTED

BOREHOLE #2 C25F17A - FLOOR GRAB SAMPLE AT 2' IN DEPTH
C25W18A - WALL COMPOSITE OF 4 ALIQUOTS TAKEN AT 1' IN DEPTH
C25NP230A - NORTH PERIMETER SURFACE GRAB SAMPLE 1' FROM EDGE OF HOLE
C25SP32A - SOUTH PERIMETER SURFACE GRAB SAMPLE 1' FROM EDGE OF HOLE
C25EP31A - EAST PERIMETER SURFACE GRAB SAMPLE 1' FROM EDGE OF HOLE
C25WP33A - WEST PERIMETER SURFACE GRAB SAMPLE 1' FROM EDGE OF HOLE



FIGURE 4
EXCAVATION SAMPLE
REFERENCE MAP
104 FOURTH AVENUE SITE
STRATFORD, CONNECTICUT

NOT TO SCALE



DRAWN BY
S. O'HARE

DATE
09/94

PCS #
4846

APPROVED BY
DE S

DATE
9/94

TCD #
01-9403-09A

2.7 Treatment, Disposal and Alternative Technology Options and Selections

Excavated waste from 104 Fourth Avenue was transported to the Raymark facility. The excavated soil was stored in a bulk pile inside of a building located on the grounds of the facility. Currently, EPA is evaluating final disposal options.

2.8 Community Relations

During the duration of the work, pollution reports were prepared by OSC and TAT detailing work progress. These were made available to local officials to inform them of site activities.

104 Fourth Avenue was part of a larger EPA project in Stratford involving 30 - 40 residential properties, numerous commercial and municipal properties, as well as the Raymark facility. David McIntyre served as the Raymark Team Leader, and along with Liza Judge, conducted the majority of community relations. Activities included conducting town-wide meetings, addressing local activist concerns and coordinating with local officials.

OSC Lussier addressed community concerns primarily in the immediate vicinity of the site. Some issues which were addressed included safety concerns due to site traffic patterns and visibility, ensuring acceptable noise levels during site activities, dust control and local street cleaning.

OSC Lussier maintained contact with the property owner during the removal and addressed their concerns.

2.9 Resources Committed

ERCS resources committed under the removal action began accruing on November 2, 1993. As of July 27, 1994 the ERCS costs were \$5,537,808. All ERCS costs incurred after this time were in support of the USACE cleanup effort. The total ERCS costs included the costs associated with operating Raymark and the subsequent removal and restoration activities at eight sites. A total of 16,267.00 cubic yards of contaminated soil was removed from the eight properties and shipped to Raymark. The ERCS costs for the removal at 104 Fourth Avenue, is estimated at approximately \$340.43 ($\$5,537,808 \div 16,267 \text{ yards} \times 1 \text{ yard}/104 \text{ Fourth Avenue}$). All other site costs with the exception of TAT can not be divided into the individual sites.

Final estimated TAT costs are summarized by the following Technical Direction Documents (TDDs):

TDD No.	01-9403-09	:	\$ 4,874
TDD No.	01-9403-09A	:	\$ <u>2,381</u>

TOTAL	:	\$ 7,255
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3.0 Effectiveness of Removal

3.1 Actions Taken By Potentially Responsible Parties

The responsible party is Raymark Industries. Although they have not incurred any costs for this removal action they have allowed the contaminated soil to be transported back to their facility.

3.2 Actions Taken By State and Local Agencies

104 Fourth Avenue was part of the Stratford Sites project, therefore, the majority of local and state agencies contacted the Raymark Team Leader with their concerns.

The State agency that was specific to this site was CT DPHAS. CT DPHAS analyzed 10 % of the asbestos samples per the QA/QC Plan and provided the results within 48 hours to the EPA.

3.3 Actions Taken by Federal Agencies and Special Teams

EPA coordinated the federally-funded cleanup of this site. This cleanup involved directing the TAT and ERCS contractors in implementing the work and safety plans and monitoring expenses.

The United States Coast Guard aided the OSC in reviewing the daily cost documents and the invoices.

ATSDR provided the health consultation and the cleanup levels for the project.

3.4 Contractor and Private Groups

OHM, Findlay, Ohio was the ERCS prime contractor for the site. They provided the personnel, materials, and equipment that were necessary for the successful completion of the project. OHM completed the required work task in a safe and professional manner.

Roy F. Weston, Inc. provided the TAT support for this removal action. TAT was responsible for aiding the OSC in monitoring OHM, maintaining the site file, preparing work plans and site health and safety plans, conducting air monitoring as needed, providing documentation of site activities for future enforcement proceedings, cost tracking, preparing draft POLREPS, and maintaining computer files. TAT support also included collection of soil samples, screening of soil samples for lead and copper on the Spectrace 9000 XRF instrument, and analysis for PCBs by GC/ECD.

4.0 Difficulties Encountered

There were no difficulties encountered.

5.0 Recommendations

5.1 Means to Prevent a Recurrence of the Discharge or Release

A similar release would not legally occur under present regulatory constraints.

5.2 Means to Improve Response Actions

No improvements are recommended.

5.3 Proposals for Changes in Regulations and Response Plans

No changes are recommended to the National or Regional Contingency Plans.

TABLE 1

ANALYTICAL SCREENING RESULTS SUMMARY

6.0 Project Support File

2.01 Correspondences

- USACE
- ATSDR
- EPA
- Local Agencies
- OHM
- Residents/Property Owners
- State Agencies
- USCG

2.02 Comprehensive Site Investigation Report

- Site Health and Safety Plan
- Waste Disposal Information
- Sampling and Analysis Data
- Surface Sampling Results
- Sampling and Analysis Data - Confirmatory Sampling Plan

2.03 Sampling and Analysis

- Data - Depth Sampling Data
- Sampling and Analysis Data - Sampling Plan
- Air Monitoring (Personal and Community)

2.04 POLREPs (Pollution Reports)

2.07 Action Memorandum

2.11 Applicable or Relevant and Appropriate Requirements (ARARs)

2.12 Hot Zone Entry/Exit Logs

- Waste Transport Manifests

2.13 Daily Work Orders

2.14 Daily Financial Reports

- 1900-55s
- Daily Cost Summaries
- Incidence Obligation Logs

2.15 Bid Documents

- TAT Technical Direction Documents (TDDs)

11.14 Title Search Deeds

13.01 Community Releases

13.03 News Articles/Press Releases

17.02 Access Agreements

17.04 Photographs

- Site Maps

TABLE 1
Analytical Screening Results Summary
Excavation Boundary Samples
104 Fourth Avenue Site
Stratford, Connecticut

Date	Sample Number	Bore Number	Sample Depth	Sample Location*	Lead** (ppm)	Copper** (ppm)	Asbestos*** (%)	PCBs**** (ppm)	PCBs Comment
5/4/94	C25F15A	1	4'	Center of Floor	54 J	42 U	ND	0.25U	ND
5/4/94	C25W16A	1	2'	Composite of wall	55 J	42 U	ND	0.25U	ND
5/4/94	C25NP26A	1	0'	North Perimeter Composite	69 J	42 U	ND	0.25U	ND
5/4/94	C25EP27A	1	0'	East Perimeter Composite	51 J	42 U	ND	0.25U	ND
5/4/94	C25SP28A	1	0'	South Perimeter Composite	82 J	42 U	ND	0.25U	ND
5/4/94	C25WP29A	1	0'	West Perimeter Composite	106 J	42 U	ND	0.25U	ND
5/4/94	C25F17A	2	2'	Center of Floor	337	339	ND	1.0	---
5/4/94	C25W18A	2	1'	Composite of Floor	56 J	42 U	ND	0.25U	ND
5/4/94	C25NP30A	2	0'	North Perimeter Composite	36 U	42 U	ND	0.25U	ND
5/4/94	C25EP31A	2	0'	East Perimeter Composite	36 U	42 U	ND	0.25U	ND
5/4/94	C25SP32A	2	0'	South Perimeter Composite	36 U	42 U	ND	0.25U	ND
5/4/94	C25WP33A	2	0'	West Perimeter Composite	36 U	42 U	ND	0.25U	ND

* = See Figs 3 and 4 for sample locations.

** = The reported lead and copper concentrations are the higher of the two successive determinations from soil screening results on a Spectrace 9000 analyzer.

*** = Asbestos type is chrysotile; Less than 1% indicates trace quantities.

**** = Denotes total PCBs and is the sum of Ar-1254, Ar-1260/62, and Ar-1268.

ND = None Detected.

U = Data Qualifier; denotes that the sample concentration is below the detection limit. Associated numerical value is the the field screening detection limit.

J = Data Qualifier; denotes that the sample concentration is below the field screening quantitation limit.

NS = Not Screened.

- = Information not pertinent to sample.

876 HOUSATONIC AVE EXT

**876 Housatonic Avenue Ext.
Post-Excavation Field Screening Results**

Grid Number	Sample Location	Sample Depth (feet)	Field Laboratory Results			Sample ID
			PCBs (ppm)	Lead (ppm)	Asbestos (%)	
			Cleanup Criteria			
			Depth Averaging Criteria ¹			
5	East Perimeter	0.25	0.41	220	ND	PS876HUX-9WG(0.25)
8	East Perimeter	0.25	0.87	300	ND	PS876HUX-12WG(0.25)
9	Floor	2	0.12 U	100 U	ND	FS876HUX-9CC(2)
	North Wall	0 - 1	0.81	540	Trace	WS876HUX-9NC(0-1)
	North Wall	1 - 2	0.12 U	100 U	ND	WS876HUX-9NC(1-2)
	South Wall	0 - 1	0.42	160	ND	WS876HUX-9SC(0-1)
	South Wall	1 - 2	0.12 U	100 U	ND	WS876HUX-9SC(1-2)
	West Wall	0 - 1	0.48	190	Trace	WS876HUX-9WC(0-1)
	West Wall	1 - 2	0.12 U	100 U	ND	WS876HUX-9WC(1-2)
10	North Perimeter	0.25	0.47	400	Trace	PS876HUX-9SG(0.25)
11	South Perimeter	0.25	0.49	450	Trace	PS876HUX-12NG(0.25)
12	Floor	1	0.11 U	100 U	ND	FS876HUX-12CC(1)
	North Wall	0 - 1	0.36	130	Trace	WS876HUX-12NC(0-1)
	South Wall	0 - 1	1.1	230	<1	WS876HUX-12SC(0-1)
	West Wall	0 - 1	0.69	150	ND	WS876HUX-12WC(0-1)
	South Perimeter	0.25	0.15	160	ND	PS876HUX-12SG(0.25)
13 ²	Floor	2	2.0 U	100	ND	FS876HUX-13CC(2)
15	South Perimeter	0.25	0.32	150	ND	PS876HUX-16NG(0.25)
16	Floor	1	0.41	200	ND	FS876HUX-16CC(1)
	North Wall	0 - 1	0.91	260	ND	WS876HUX-16NC(0-1)
	East Wall	0 - 1	0.49	160	ND	WS876HUX-16EC(0-1)
	South Wall	0 - 1	0.46	130	Trace	WS876HUX-16SC(0-1)
	South Perimeter	0.25	1.2	110	ND	PS876HUX-16SG(0.25)
17	Floor	1	0.12 U	100 U	ND	FS876HUX-17CC(1)
	South Wall	0-1	0.12 U	100 U	ND	FS876HUX-17SC(0-1)X
20	West Perimeter	0.25	1.1	380	ND	PS876HUX-16EG(0.25)
21	East Wall	0 - 1	0.12 U	100 U	ND	WS876HUX-17EC(0-1)5LX
	Center Perimeter	0.25	0.69	600	Trace	PS876HUX-17EG(0.25)5LX
36	East Perimeter	0.25	1.3	260	ND	PS876HUX-40WG(0.25)
39	West Wall	0 - 1	0.68	200	Trace	WS876HUX-43WC(0.25)5L
	South Perimeter	0.25	1.0	410	<1	PS876HUX-40NG(0.25)
	Center Perimeter	0.25	1.1	170	Trace	PS876HUX-43WG(0.25)5L
40	Floor	1	0.42	100 U	ND	FS876HUX-40CC(1)
	North Wall	0 - 1	0.13 U	160	Trace	WS876HUX-40NC(0-1)
	South Wall	0 - 1	0.52	100 U	ND	WS876HUX-40SC(0-1)
	West Wall	0 - 1	0.12 U	100 U	ND	WS876HUX-40WC(0-1)
	South Perimeter	0.25	0.97	250	ND	PS876HUX-40SG(0.25)
41	East Perimeter	0.25	0.11 U	210	ND	PS876HUX-45WG(0.25)
42	West Wall	0 - 1	1.2	160	<1	WS876HUX-46WC(0-1)5LX
	South Perimeter	0.25	1.7	500	<1	PS876HUX-43NG(0.25)
	Center Perimeter	0.25	0.87	600	<1	PS876HUX-46WG(0.25)5L
43	Floor	1	1.1	260	<1	FS876HUX-43CC(1)
	North Wall	0 - 1	0.97	110	<1	WS876HUX-43NC(0-1)

**876 Housatonic Avenue Ext.
Post-Excavation Field Screening Results**

Grid Number	Sample Location	Sample Depth (feet)	Field Laboratory Results			Sample ID
			PCBs (ppm)	Lead (ppm)	Asbestos (%)	
			Cleanup Criteria			
			Depth Averaging Criteria ¹			
44	Floor	1	1.3	170	<1	FS876HUX-44CC(1)
	South Wall	0 - 1	0.11 U	100 U	2	WS876HUX-44SC(0-1)5LX
	South Perimeter	0.25	0.11 U	100 U	ND	PS876HUX-44SG(0.25)5LX
45	Floor	3	0.11 U	100 U	ND	FS876HUX-45CC(3)
	North Wall	0 - 3	0.11 U	100 U	ND	WS876HUX-45NC(0-3)
	West Wall	0 - 3	0.29	100 U	<1	WS876HUX-45WC(0-3)
46	Floor	1	0.12	100 U	<1	FS876HUX-46CC(1)
47	Floor	1	0.39	150	<1	FS876HUX-47CC(1)
48	Floor	3	0.56	100 U	<1	FS876HUX-48CC(3)
	South Floor	1	0.12 U	100 U	ND	FS876HUX-48CC(1)5LX
	South Wall	0 - 1	0.83	130	ND	WS876HUX-48SC(0-1)5LX
	South Perimeter	0.25	0.49	190	1	PS876HUX-48SG(0.25)5LX
49	Floor	4	1.2	230	1	FS876HUX-49CC(4)
50	Floor	4	1.5	320	2	FS876HUX-50CC(4)
51	Floor	4	0.10 U	150	<1	FS876HUX-51CC(4)
52	Floor	4	0.11 U	100 U	ND	FS876HUX-52CC(4)
	West Wall	0-3	0.11U	130	ND	WS876HUX-56WC5L(0-3)1
	South Wall	0 - 3	3.9	580	1	WS876HUX-52ASC(0-3)
	South Perimeter	0.25	0.55	230	ND	PS876HUX-52SG(0.25)
53	Floor	8	0.96	200	2	FS876HUX-53CC(8)
	North Wall	0 - 3	0.49	130	<1	WS876HUX-53NC(0-3)
	North Wall	3 - 6	0.46	160	1	WS876HUX-53NC(3-6)
	North Wall	6 - 8	0.81	220	3	WS876HUX-53NC(6-8)
	West Wall	3 - 6	2.3	230	3	WS876HUX-53WC(3-6)
	West Wall	6 - 8	0.67	150	<1	WS876HUX-53WC(6-8)
54	Floor	8	7.8	1000	5	FS876HUX-54CC(8)
	West Wall	3 - 6	0.14	200	<1	WS876HUX-54WC(3-6)
	West Wall	6 - 8	0.37	<100	<1	WS876HUX-54WC(6-8)
55	Floor	8	1.2	410	5	FS876HUX-55CC(8)
	West Wall	3 - 6	0.12	180	Trace	WS876HUX-55WC(3-6)
	West Wall	6 - 8	0.76	180	1	WS876HUX-55WC(6-8)
56	Floor	8	4.0	210	2	FS876HUX-56CC(8)
	South Floor	8	0.36	330	<1	FS876HUX-56CC(8)10LX
	South Wall	0-3	0.27	490	ND	FS876HUX-56SC(0-3)10LX
	West Wall	3-6	2.3	360	1	WS876HUX-56WC(3-6)X
	West Wall	6-8	2.2	380	1	WS876HUX-56WC(6-8)X
	West Wall	3-6	0.70	940	2	WS876HUX-56WC(3-6)10L
	West Wall	6-8	0.50U	160	<1	WS876HUX-56WC(6-8)10L
57	Floor	6	1.8	270	2	FS876HUX-57CC(6)
58A	Floor	8	18 E	5000	60	FS876HUX-58ACC(8)
58B	Floor	8	86	9500	60	FS876HUX-58BCC(8)
59	Floor	8	1.5	460	5	FS876HUX-59CC(8)
60	Floor	8	1.6	210	2	FS876HUX-60CC(8)

**876 Housatonic Avenue Ext.
Post-Excavation Field Screening Results**

Grid Number	Sample Location	Sample Depth (feet)	Field Laboratory Results			Sample ID
			PCBs (ppm)	Lead (ppm)	Asbestos (%)	
			Cleanup Criteria			
			Depth Averaging Criteria ¹			
60	South Floor	8	48E	46000	30	FS876HUX-60cc(8)10LX
61	Floor	8	3.5	230	5	FS876HUX-61CC(8)
62A	Floor	8	48	2800	50	FS876HUX-62ACC(8)
62B	Floor	8	21	11000	25	FS876HUX-62BCC(8)
63	Floor	8	11	3500	30	FS876HUX-63CC(8)
64	Floor	8	0.33 U	1240	5	FS876HUX-64CC(8)
65	Floor	6	1.7	100 U	ND	FS876HUX-65CC(6)
66	Floor	7	0.14 U	100 U	<1	FS876HUX-66CC(7)
67	Floor	7	3.9	480	5	FS876HUX-67CC(7)
68	Floor	8	6.9	2500	2	FS876HUX-68CC(8)
69	Floor	5	62	8700	50	FS876HUX-69CC(5)
70	Floor	5	0.53	100 U	<1	FS876HUX-70CC(5)
71	Floor	4.5	2.1	2300	<1	FS876HUX-71CC(4.5)
72	Floor	2	2.1	550	ND	FS876HUX-72CC(2)
73	Floor	4.5	14	2100	2	FS876HUX-73CC(4.5)
74	Floor	4.5	52.48 E	23000	50	FS876HUX-74CC(4.5)
75	Floor	4.5	0.21 U	2300	25	FS876HUX-75CC(4.5)
76	Floor	2	0.18 U	100 U	<1	FS876HUX-76CC(2)
77	Floor	4.5	0.13 U	100 U	<1	FS876HUX-77CC(4.5)
78	Floor	4.5	0.13 U	100 U	<1	FS876HUX-78CC(4.5)
79	Floor	4.5	0.13 U	100 U	Trace	FS876HUX-79CC(4.5)
80	Floor	4.5	0.25 U	190	ND	FS876HUX-80CC(4.5)
	South Wall	0 - 2	0.31 U	300	ND	WS876HUX-80SC(0-2)
	West Wall	3 - 4.5	0.29 U	160	ND	WS876HUX-80WC(3-4.5)
81	Floor	4.5	0.15	120	<1	FS876HUX-81CC(4.5)
	North Wall	3 - 4.5	1.8	100 U	<1	WS876HUX-81NC(3-4.5)
82	Floor	4.5	0.75	100 U	<1	FS876HUX-82CC(4.5)
83	Floor	4.5	1.3	200	<1	FS876HUX-83CC(4.5)
84	Floor	4.5	1.4	780	<1	FS876HUX-84CC(4.5)
	South Wall	0 - 2	0.29 U	210	ND	WS876HUX-84SC(0-2)
85	Floor	4.5	0.14	100 U	1	FS876HUX-85CC(4.5)
	North Wall	3 - 4.5	0.14	100 U	Trace	WS876HUX-85NC(3-4.5)
86	Floor	4.5	1.2	690	1	FS876HUX-86CC(4.5)
87	Floor	5	30 E	10000	Trace	FS876HUX-87CC(5)
88	Floor	4.5	2.7	560	3	FS876HUX-88CC(4.5)
	South Wall	0 - 2	1.6	370	ND	WS876HUX-88SC(0-2)
89	Floor	4.5	1.3	100 U	ND	FS876HUX-89CC(4.5)
	North Wall	0 - 3	0.87	560	<1	WS876HUX-89NC(0-3)
	North Wall	3 - 4.5	0.13 U	100 U	ND	WS876HUX-89NC(3-4.5)
90	Floor	5	0.13 U	100 U	Trace	FS876HUX-90CC(5)
91	Floor	4.5	3.2	120	1	FS876HUX-91CC(4.5)
92	Floor	4.5	1.0	270	ND	FS876HUX-92CC(4.5)
	South Wall	0 - 2	1.4	240	ND	WS876HUX-92SC(0-2)

**876 Housatonic Avenue Ext.
Post-Excavation Field Screening Results**

Grid Number	Sample Location	Sample Depth (feet)	Field Laboratory Results			Sample ID
			PCBs (ppm)	Lead (ppm)	Asbestos (%)	
			Cleanup Criteria			
			Depth Averaging Criteria ¹			
93	Floor	4.5	0.15 U	100 U	Trace	FS876HUX-93CC(4.5)
	North Wall	0 - 3	0.32	100 U	ND	WS876HUX-93NC(0-3)
	North Wall	3 - 4.5	1.4	100 U	<1	WS876HUX-93NC(3-4.5)
94	Floor	4.5	0.12 U	100 U	ND	FS876HUX-94CC(4.5)
95	Floor	4.5	0.15	100 U	<1	FS876HUX-95CC(4.5)
96	Floor	4.5	1.8	5300	ND	FS876HUX-96CC(4.5)
	South Wall	0 - 2	3.0	1500	ND	WS876HUX-96SC(0-2)
97	Floor	4.5	5.6	190	8	FS876HUX-97CC(4.5)
	North Wall	0 - 3	0.11 U	100 U	<1	WS876HUX-97NC(0-3)
	North Wall	3 - 4.5	0.24	260	Trace	WS876HUX-97NC(3-4.5)
98	Floor	4.5	61 E	40000	70	FS876HUX-98CC(4.5)
99	Floor	4.5	0.13 U	100 U	2	FS876HUX-99CC(4.5)
100	Floor	4.5	0.28U	100 U	ND	FS876HUX-100CC(4.5)
	South Wall	0 - 2	5.6	170	ND	WS876HUX-100SC(0-2)
101	Floor	4.5	0.13 U	100 U	ND	FS876HUX-101CC(4.5)
	North Wall	0 - 3	0.67	520	ND	WS876HUX-101NC(0-3)
	North Wall	3 - 4.5	0.13 U	100 U	ND	WS876HUX-101NC(3-4.5)
102	Floor	4.5	21 E	400	2	FS876HUX-102CC(4.5)
103	Floor	4.5	0.14 U	100 U	1	FS876HUX-103CC(4.5)
104	Floor	4.5	0.19 U	100 U	ND	FS876HUX-104CC(4.5)
	South Wall	0 - 2	2.2	1100	ND	WS876HUX-104SC(0-2)
105	Floor	4.5	0.18 U	100 U	ND	FS876HUX-105CC(4.5)
	North Wall	0 - 3	0.40	260	ND	WS876HUX-105NC(0-3)
	North Wall	3 - 4.5	0.14 U	100 U	ND	WS876HUX-105NC(3-4.5)
106	Floor	4.5	50 E	100 U	1	FS876HUX-106CC(4.5)
107	Floor	4.5	11 E	110	<1	FS876HUX-107CC(4.5)
108	Floor	4.5	3.6	760	<1	FS876HUX-108CC(4.5)
	South Wall	0 - 2	7.4 E	650	<1	WS876HUX-108SC(0-2)
109	Floor	4.5	0.14 U	100 U	ND	FS876HUX-109CC(4.5)
110	Floor	4.5	2.8	130	ND	FS876HUX-110CC(4.5)
111	Floor	4.5	1.0 U	100 U	5	FS876HUX-111CC(4.5)
112	Floor	4	0.18	100 U	ND	FS876HUX-112CC(4)
	South Wall	0 - 1	1.0	290	ND	WS876HUX-112SC(0-1)
113	Floor	4.5	1.1	100 U	<1	FS876HUX-113CC(4.5)
114	Floor	4.5	1.5	100 U	<1	FS876HUX-114CC(4.5)
115	Floor	4.5	2.1	160	ND	FS876HUX-115CC(4.5)
116	Floor	4	0.27 U	290	ND	FS876HUX-116CC(4)
	South Floor	1	0.41 U	280	ND	FS876HUX-116CC(1)2LX
	South Wall	0 - 1	0.74	190	ND	WS876HUX-116SC(0-1)2L
117	Floor	4	8.6 E	120	5	FS876HUX-117CC(4)
118	Floor	4.5	300	1700	7	FS876HUX-118CC(4.5)
119	Floor	4.5	0.13 U	100 U	<1	FS876HUX-119CC(4.5)
120	Floor	4	0.49 U	220	ND	FS876HUX-120CC(4)

**876 Housatonic Avenue Ext.
Post-Excavation Field Screening Results**

Grid Number	Sample Location	Sample Depth (feet)	Field Laboratory Results			Sample ID
			PCBs (ppm)	Lead (ppm)	Asbestos (%)	
			Cleanup Criteria			
			Depth Averaging Criteria ¹			
120	South Floor	1	0.45	220	ND	FS876HUX-120CC(1)6LX
	South Wall	0 - 1	2.0	300	ND	WS876HUX-120SC(0-1)6L
121	Floor	4	0.63	100 U	ND	FS876HUX-121CC(4)
122	Floor	4.5	56	2400	7	FS876HUX-122CC(4.5)
123	Floor	4.5	0.61	260	Trace	FS876HUX-123CC(4.5)
124	Floor	4.5	0.16 U	100 U	Trace	FS876HUX-124CC(4.5)
	South Floor	2	0.45 U	230	ND	FS876HUX-124CC(2)14LX
	South Wall	0 - 1	0.76J	1000	Trace	WS876HUX-124SC(0-1)14L
125	Floor	4	26 E	270	1	FS876HUX-125CC(4)
126	Floor	4	48 E	1100	5	FS876HUX-126CC(4)
127	Floor	4	28 E	1900	10	FS876HUX-127CC(4)
128	Floor	4	3.0	660	<1	FS876HUX-128CC(4)
	South Floor	2	1.3	2100	10	FS876HUX-128CC(2)14LX
	South Wall	0 - 1	0.71	690	<1	WS876HUX-128SC(0-1)14L
129	Floor	4.5	12 E	310	ND	FS876HUX-129CC(4.5)
130	Floor	4.5	73	320	<1	FS876HUX-130CC(4.5)
131	Floor	4.5	20 E	950	5	FS876HUX-131CC(4.5)
132	Floor	4.5	0.17 U	100 U	ND	FS876HUX-132CC(4.5)
	South Floor	5	0.20 U	100 U	ND	FS876HUX-132CC(5)10LX
	South Wall	0 - 3	0.20 U	100 U	ND	WS876HUX-132SC(0-3)10L
	South Wall	3 - 5	0.21 U	100 U	ND	WS876HUX-132SC(3-5)10L
133	Floor	4.5	2.2	230	<1	FS876HUX-133CC(4.5)
134	Floor	4.5	8.5 E	290	<1	FS876HUX-134CC(4.5)
135	Floor	4.5	2.6	520	<1	FS876HUX-135CC(4.5)
136	Floor	4.5	0.18 U	100 U	ND	FS876HUX-136CC(4.5)
	South Floor	5	0.14 U	100 U	ND	FS876HUX-136CC(5)10LX
	South Wall	0 - 3	0.32	280	ND	WS876HUX-136SC(0-3)10L
	South Wall	3 - 5	0.17 U	100 U	ND	WS876HUX-136SC(3-5)10L
137	Floor	4.5	8.9 E	100 U	ND	FS876HUX-137CC(4.5)
	East Wall	0 - 3	2.1	130	<1	WS876HUX-137EC(0-3)
	East Wall	3 - 4	3.4	200	ND	WS876HUX-137EC(3-4)
138	Floor	4.5	13	100 U	ND	FS876HUX-138CC(4.5)
	East Wall	0 - 3	0.14 U	100 U	ND	WS876HUX-138EC(0-3)
	East Wall	3 - 4.5	0.16 U	100 U	ND	WS876HUX-138EC(3-4.5)
139	Floor	5	0.15 U	100 U	ND	FS876HUX-139CC(5)
	East Wall	0 - 3	0.29 U	190	ND	WS876HUX-139EC(0-3)
	East Wall	3 - 5	0.27 U	100 U	ND	WS876HUX-139EC(3-5)
140	Floor	5	0.15 U	100 U	ND	FS876HUX-140CC(5)
	East Wall	0 - 3	0.20	330	ND	WS876HUX-140EC(0-3)
	East Wall	3 - 5	0.18 U	100 U	ND	WS876HUX-140EC(3-5)
140	South Wall	0 - 3	0.52 U	380	ND	WS876HUX-140SC(0-3)
	South Wall	3 - 5	0.17 U	100 U	ND	WS876HUX-140SC(3-5)
143	South Perimeter	0.25	0.38	480	ND	PS876HUX-9NG(0.25)

**876 Housatonic Avenue Ext.
Post-Excavation Field Screening Results**

Grid Number	Sample Location	Sample Depth (feet)	Field Laboratory Results			Sample ID
			PCBs (ppm)	Lead (ppm)	Asbestos (%)	
			Cleanup Criteria			
			Depth Averaging Criteria ¹			
144	North Wall	0 - 1	0.54	270	ND	WS876HUX-13NC(0-1)5LX
	North Wall	1 - 2	0.12 U	100 U	ND	WS876HUX-13NC(1-2)5LX
	North Perimeter	0.25	0.11 U	100 U	ND	PS876HUX-13NG(0.25)5LX
145	North Wall	0 - 1	0.12 U	100 U	ND	WS876HUX-17NC(0-1)5LX
	North Perimeter	0.25	0.13	160	3	PS876HUX-17NG(0.25)5LX
152	South Perimeter	0.25	0.11 U	100 U	ND	PS876HUX-45NG(0.25)
153	Floor	3	0.83	180	ND	FS876HUX-153CC(3)
	North Wall	0 - 3	3.0	460	<1	WS876HUX-153NC(0-3)
	West Wall	0 - 3	0.58	130	ND	WS876HUX-153WC(0-3)
	North Perimeter	0.25	11	420	<1	PS876HUX-153NG(0.25)
154	East Wall	0 - 3	0.16	100 U	ND	WS876HUX-153EC(0-3)5L
	East Perimeter	0.25	1.4	240	ND	PS876HUX-53NG(0.25)
155	West Wall	0 - 3	0.12	100 U	ND	WS876HUX-156WC(0-3)5L
	West Perimeter	0.25	1.0 U	100 U	ND	PS876HUX-57NG(0.25)5LX
156	Floor	3	0.43	320	3	FS876HUX-156CC(3)
	North Wall	0 - 3	0.13 U	100 U	ND	WS876HUX-156NC(0-3)
	North Perimeter	0.25	2.3	280	ND	PS876HUX-156NG(0.25)
157	Floor	3	0.14 U	100 U	ND	FS876HUX-157CC(3)
	North Wall	0 - 3	0.11 U	100 U	ND	WS876HUX-157NC(0-3)
	North Perimeter	0.25	0.59	100	ND	PS876HUX-157NG(0.25)
158	Floor	3	0.14 U	100 U	ND	FS876HUX-158CC(3)
	North Wall	0 - 3	0.12 U	100 U	ND	WS876HUX-158NC(0-3)
	North Perimeter	0.25	1.1	270	ND	PS876HUX-158NG(0.25)
159	Floor	3	0.14 U	100 U	ND	FS876HUX-159CC(3)
	North Wall	0 - 3	0.13 U	100 U	ND	WS876HUX-159NC(0-3)
	North Perimeter	0.25	1.9	430	ND	PS876HUX-159NG(0.25)
160	Floor	3	0.14 U	100 U	ND	FS876HUX-160CC(3)
	North Wall	0 - 3	0.12 U	100 U	Trace	WS876HUX-160NC(0-3)
	North Perimeter	0.25	2.2	450	ND	PS876HUX-160NG(0.25)
161	Floor	3	0.13 U	100 U	ND	FS876HUX-161CC(3)
	North Wall	0 - 3	0.18	100 U	Trace	WS876HUX-161NC(0-3)
	North Perimeter	0.25	6.0	220	1	PS876HUX-161NG(0.25)
162	East Wall	0 - 3	0.13 U	100 U	ND	WS876HUX-161EC(0-3)5L
	South Perimeter	0.25	1.3	280	ND	PS876HUX-85NG(0.25)
163	South Perimeter	0.25	0.57	420	ND	PS876HUX-89NG(0.25)
164	South Perimeter	0.25	0.68	370	ND	PS876HUX-93NG(0.25)
165	South Perimeter	0.25	0.40	270	ND	PS876HUX-97NG(0.25)
166	South Perimeter	0.25	0.18 U	380	ND	PS876HUX-101NG(0.25)
167	South Perimeter	0.25	1.4	290	ND	PS876HUX-105NG(0.25)
168	Floor	4.5	0.50 U	130	<1	FS876HUX-168CC(4.5)
	North Wall	0 - 3	0.26	320	<1	WS876HUX-168NC(0-3)
	North Wall	3 - 4.5	0.17 U	100 U	ND	WS876HUX-168NC(3-4.5)
	West Wall	0 - 3	0.21	170	ND	WS876HUX-168WC(0-3)

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Public Health Implications Statement
for
876 Housatonic Avenue
Stratford, CT

The Federal Agency for Toxic Substances and Disease Registry (ATSDR) and the Connecticut Department of Public Health (CTDPH) have evaluated environmental sampling results provided to us by EPA Region I in their investigation of the Raymark waste contamination. These sampling results were collected following EPA's cleanup of your property. Based on our evaluation, the health agencies believe that there is no current health threat indicated by the soil sampling results for asbestos, lead and polychlorinated biphenyls (PCBs) from your property. However, waste was left in place in many locations throughout the property at various depths for various reasons. Based on this, the health agencies make the following recommendations to prevent exposure to waste in the future:

1. Do not dig, below the surface, in areas of the yard indicated by grid numbers 12, 21, 39, 42, 43, 44, 100, 104 and 108 as waste was left at depths of less than one foot in these areas. Waste was also left at a depth of less than one foot in grids 153, 159, 160, 161, 168, 169 and 170, along the Street; and 171, 172, 173 and 175, along adjacent commercial properties. Waste identified in these areas are unlikely to be disturbed because it was identified in wall samples adjacent to the Street and the commercial properties.
2. Do not dig below 2 feet in areas indicated by grid numbers 52, 53, 56, 88, 91, and 128.
3. Do not dig below 4 feet in areas indicated by grid numbers 69, 71, 72, 73, 74, 75, 87, 96, 97, 98, 102, 106, 107, 111, 117, 118, 122, 125, 126, 127, 129, 130, 131, 133, 134, 135, 137 and 138. At these locations, ground water was encountered and excavations were stopped.
4. Waste was also left in place below 8 feet in areas indicated by grid numbers 54, 55, 58A, 58B, 60, 62A, 62B, 63, 64, 61, 67 and 68.
5. This property should be placed on a notification system so that future owners will be aware that waste had to be left below the surface.

If you have questions or comments, please call the CTDPH hotline at 203-240-9022 or the Stratford Health Department at 203-385-4090.

Type of Samples: Soil, Post-Excavation Screening Results

Signature



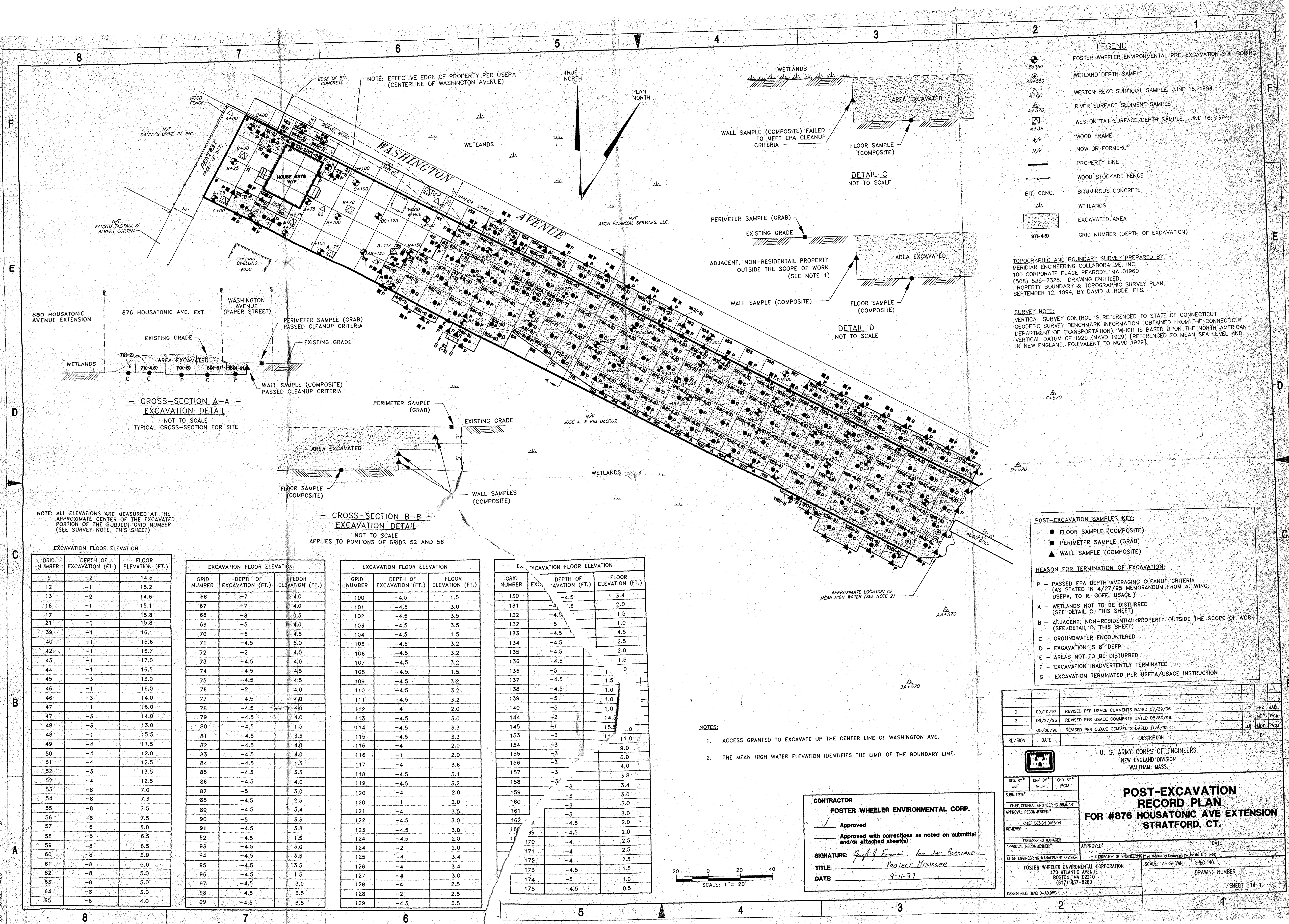
Date: 7/96

ATSDR Reviewers: Dave Mellard, Ph.D., Tammie McRae
CTDPH Reviewer: Jennifer Kertanis

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JUL 29 1996

STRATFORD
PROJECT OFFICE



FOSTER WHEELER ENVIRONMENTAL CORPORATION

Interoffice Memorandum

DATE: May 21, 1996

REF. #: 876hxrsp.doc

TO: Marty Sklaver

FROM: Bianca Cerundolo *BMC*

SUBJECT: USACE CONTRACT NO. DACW33-94-D-0002 NE TERC
Delivery Order No. 0004 Stratford Superfund Sites
Post-Excavation Data - 876 Housatonic Avenue
Amendment to Transmittal No. 01410-876HUX-GRID
Revised memo incorporating USACE comments
Supersedes previous memo

Final results for post excavation samples representing soil "left in place" at 876 Housatonic Avenue are included on the attached table. These results were reviewed in accordance with the procedures described in the project CDAP and outlined below. Based on this review, the data are acceptable for project use.

The individual laboratories (ABB-ES - on-site and Aquatec - off-site) provide a quality assurance check of all data prior to final reporting. Quality control on-site/off-site split sample data are summarized and reported in weekly data comparison memos (WCS). Split sample comparison results were discussed in transmittals WCS-017 through WCS-029. Noted discrepancy resolutions for PCBs, lead and asbestos results were discussed in transmittals WCS-020, WCS-022 through -027 and -029. Split sample discrepancies were mostly attributed to sample inhomogeneity and high percent moisture. On-going correlation studies are reported periodically and are intended to identify trends that could have significant impacts to the data reported by the on-site laboratory. The associated on-going correlation study reports for 876 Housatonic Avenue are provided in transmittals OCS-006, OCS-007 and OCS-009.

Approximately 20 percent of the off-site split sample results were reviewed with respect to the data quality objectives given in the CDAP and are reported in transmittals no. DV-004, -005 and -006; no significant quality control exceedences were noted in the off-site data review.

Following the ABB-ES quality control review, the following results were reported differently from the initial field result.

Sample I.D.	Lab I. D.	Date Collected	Correct Result (ppm)	Comments
FS-112CC(4.00)	8617	3/20/95	0.18 ppm (PCB)	revised PCB result
WS-116SC-2L(0.00-1.00)	8593	3/20/95	0.74 ppm (PCB)	incorrectly transposed result

Sample I.D.	Lab I. D.	Date Collected	Correct Result (ppm)	Comments
FS-117CC(4.00)	8607	3/17/95	120 ppm (lead)	average of duplicate results
WS-12NC(0.00-1.00)	9616	5/11/95	0.36 ppm (PCB)	incorrectly transposed result
WS-12WC(0.00-1.00)	9617	5/11/95	0.69 ppm (PCB)	incorrectly transposed result
FS-156CC(3.00)	9405	5/1/95	320 ppm (lead)	revised lead result
FS-168CC(4.5)	8789	3/27/95	0.50 U ppm (PCB)	revised PCB result
WS-172NC(0.00 - 1.00)	8438	3/14/95	1.8 ppm (PCB)	revised PCB result
FS-97CC(4.5)	8912	4/6/95	5.6 ppm (PCB)	revised PCB result
PS-9SG(0.25)	9565	5/10/95	Trace Chrysotile (asbestos)	incorrectly transposed result
FS-74CC(4.5)	9177	4/19/95	52.48 E* (PCB)	revised PCB result; the "*" indicates the presence of Aroclor 1242
FS-62ACC(8.00)	9504	5/8/95	48 ppm (PCB)	incorrectly transposed result
FS-130CC(4.5)	8900	4/3/95	73 ppm (PCB)	revised PCB result
FS-126CC(4.00)	8502	3/15/95	48 E ppm (PCB)	revised PCB result
WS-40NC(0.00-1.00)	10211	5/25/95	0.13 U (PCB)	revised PCB result
PS-9WG((0.25)	9566	5/10/95	ND (asbestos)	incorrectly transposed result

In addition, some values reported for PCBs were adjusted slightly due to percent solids correction and/or rounding. Following the QC review, some values were flagged "J", estimated due to QC exceedances.

Please call me at (617)457-8256, if you have any questions.

cc: J. Francis
Chemistry Distribution

FOURTH AVE PARCEL 6233

**Fourth Avenue Extension Stratton Property
Foster Wheeler Environmental
Pre-Excavation Soil Boring Results**

Sample ID	Sample Depth (ft)	PCBs (ppm)	Lead (ppm)	Asbestos (%)
		Cleanup Criteria		
		1.0	500	1
A+00	0-0.25	0.12 U	100 U	ND
	0.25-1	0.10 U	100 U	ND
	1-2	0.10 U	100 U	ND
	2-3	0.10 U	100 U	Trace
	3-4	0.11 U	100 U	ND
	4-5	0.11 U	100 U	< 1
	5-6	0.12 U	130	< 1
B+00	0-0.25	0.11 U	100 U	Trace
	0.25-1	0.10 U	100 U	Trace
	1-2	0.10 U	100 U	ND
	2-3	0.11 U	100 U	Trace
B+25	5-6	6.30 E	2300	Trace
B+75	5-6	0.13 U	650	< 1

Results presented in this table summarize the site investigation (pre-excavation) results for soil left in place after excavation activities were completed.

NOTES:

- U indicates non-detect or detected below detection limit.
- J indicates estimated value.
- E Exceeds calibration range.
- UJ indicates non-detect, detection limit is estimated.
- EJ Exceeds calibration range; estimated value.
- ND indicates non-detect for asbestos.

**Fourth Avenue Extension Stratton Property
Weston TAT
Pre-Excavation Surficial Soil Sample Results**

Sample ID	Sample Depth (feet)	PCBs (ppm)	Lead (ppm)	Asbestos (%)
		Cleanup Criteria		
		1.0	500	1
A +135	Surface	0.25 U	150 J	ND
B +135	Surface	0.25 U	140 J	ND
C +110	Surface	0.25 U	130 J	ND

Results presented in this table summarize the site investigation (pre-excavation) results for soil left in place after excavation activities were completed.

NOTES:

PCB Qualifiers

- U indicates contaminant has been analyzed for but not detected.

Lead Qualifiers

- J Result is greater than primary detection limit of 25 ppm.
Less than or equal to primary quantitation limit of 84 ppm.

Asbestos Qualifiers

- ND indicates non-detect for asbestos.

**Fourth Avenue Extension Stratton Property
Weston ARCS
Pre-Excavation Soil Boring Results**

Sample ID	Sample Depth (ft)	PCBs (ppm)	Lead (ppm)	Asbestos (%)
		Cleanup Criteria		
		1.0	500	1
N99,W74	8.5-8.6	0.25 U	280	ND

Results presented in this table summarize the site investigation (pre-excavation) results for soil left in place after excavation activities were completed.

NOTES:

PCB Qualifiers

- U indicates contaminant has been analyzed for but not detected.

Lead Qualifiers

- J Result is greater than primary detection limit of 25 ppm.
Less than or equal to primary quantitation limit of 84 ppm.

Asbestos Qualifiers

- ND indicates non-detect for asbestos.

**Fourth Avenue Extension Stratton Property
Post-Excavation Field Screening Results**

Grid Number	Sample Location	Sample Depth (feet)	Field Laboratory Results			Sample ID
			PCBs (ppm)	Lead (ppm)	Asbestos (%)	
			Cleanup Criteria			
			Depth Averaging Criteria ¹			
1	Floor	7	0.50	270	<1	FS4ASP-1CC(7)X
2	Floor	5	0.29	320	<1	FS4ASP-2CC(5)X
3	Floor	5	1.2	440	2	FS4ASP-3CC(5)X
4	Floor	6	0.47	100 U	ND	FS4ASP-4CC(6)X
	South Wall	0-3	0.14	230	1	WS4ASP-4SC(0-3)X
	South Wall	3-6	0.61	660	2	WS4ASP-4SC(3-6)X
5	Floor	5	0.23	230	2	FS4ASP-5CC(5)X
	South Wall	0-3	0.25	100 U	<1	WS4ASP-5SC(0-3)X
	South Wall	3-5	0.29	310	2	WS4ASP-5SC(3-5)X
	South Perimeter	0.25	0.29	160	2	PS4ASP-5SG(0.25)X
6	Floor	5	0.42	180	2	FS4ASP-6CC(5)X
	South Wall	0-3	0.11 U	100 U	Trace	WS4ASP-6SC(0-3)X
	South Wall	3-5	0.13 U	170	1	WS4ASP-6SC(3-5)X
	South Perimeter	0.25	0.45	180	1	PS4ASP-6SG(0.25)X
7	Floor	4	0.14	100	<1	FS4ASP-4CC(4)X
	West Wall	0-3	0.12 U	100 U	ND	WS4ASP-7WC(0-3)X
	West Wall	3-4	0.11 U	100 U	ND	WS4ASP-7WC(3-4)X
	South Wall	0-3	0.11 U	100 U	ND	WS4ASP-7SC(0-3)X
	South Wall	3-4	0.11 U	100 U	ND	WS4ASP-7SC(3-4)X
	South Perimeter	0.25	0.10 U	100	ND	PS4ASP-7SG(0.25)X
8	East Perimeter	0.25	0.10 U	100 U	ND	PS4ASP-7WG(0.25)X
10	Floor	7	4.1	1200	<1	FS4ASP-10CC(7)X
11	Floor	5	10 E	1900	<1	FS4SP-11CC(5)X
12	Floor	5	2.1	980	10	FS4ASP-12CC(5)X
13	Floor	5	5.3	1800	4	FS4ASP-13CC(5)X
14	Floor	5	0.16	220	1	FS4ASP-14CC(5)X

Results presented in this table summarize the field screening results for soil left in place after excavation activities were completed.

NOTES:

- ¹ See attached 4/27/95 memorandum from A. Wing, USEPA to R. Goff, USACE
- Floor (composite) samples obtained from the base of the excavation.
- Wall (composite) samples obtained from the vertical face of the excavation.
- Perimeter (grab) samples obtained approximately 2.5 feet from the edge of the excavation.
- ND indicates the contaminant was not detected in the sample.
- E indicates the actual result exceeds the value listed.
- J indicates estimated value.
- U indicates the contaminant was not detected in the sample; the reported value is the detection limit.
- Highlighted cells indicate samples which failed to meet EPA depth averaging criteria.

**Fourth Avenue Extension Stratton Property
Post-Excavation Field Screening Results**

Grid Number	Sample Location	Sample Depth (feet)	Field Laboratory Results			Sample ID
			PCBs (ppm)	Lead (ppm)	Asbestos (%)	
			Cleanup Criteria			
			Depth Averaging Criteria ¹			
15	Floor	5	0.35	150	2	FS4ASP-15CC(5)X
16	Floor	5	0.13 U	100	2	FS4ASP-16CC(5)X
	West Wall	0-3	0.11 U	100 U	Trace	WS4ASP-16WC(0-3)X
	West Wall	3-5	0.11 U	100 U	ND	WS4ASP-16WC(3-5)X
17	East Perimeter	0.25	0.10 U	100 U	ND	PS4ASP-16WG(0.25)X
19	Floor	8	0.33 U	180	ND	FS4ASP-19CC(8)X
20	Floor	8	0.29	260	ND	FS4SP-20CC(8)X
	South Wall	5-6	0.53	280	ND	WS4ASP-20SC(5-6)X
	South Wall	6-8	4.4	240	ND	WS4ASP-20SC(6-8)X
21	Floor	8	0.18 U	100 U	ND	FS4ASP-21CC(8)X
	South Wall	5-6	1.3	100 U	ND	WS4ASP-21SC(5-6)X
	South Wall	6-8	0.22 U	100 U	ND	WS4ASP-21SC(6-8)X
22	Floor	8	0.48	100 U	ND	FS4ASP-22CC(8)X
	South Wall	5-6	1.0	260	ND	WS4ASP-22SC(5-6)X
	South Wall	6-8	2.3	770	ND	WSASP-22SC(6-8)X
23	Floor	8	53 E	2500	<1	FS4ASP-23CC(8)X
	West Wall	3-6	7 E	2200	Trace	WS4ASP-23WC(3-6)X
	West Wall	6-8	13 E	2400	<1	WS4ASP-23WC(6-8)X
	South Wall	5-6	20 E	300	ND	WS4ASP-23SC(5-6)X
	South Wall	6-8	0.18 U	100 U	ND	WS4ASP-23SC(6-8)X
24	Floor	5	0.70	210	ND	FS4ASP-24CC(5)X
25	Floor	5	0.18 U	100 U	ND	FS4ASP-25CC(5)X
	West Wall	0-3	0.11 U	100 U	Trace	WS4ASP-25WC(0-3)X
	West Wall	3-5	0.11 U	100 U	ND	WS4ASP-25WC(3-5)X
26	East Perimeter	0.25	0.10 U	100 U	ND	PS4ASP-25WG(0.25)X
28	Floor	8	0.40	100 U	ND	FS4ASP-28CC(8)X
29	Floor	8	1.3	110	ND	FS4ASP-29CC(8)X

Results presented in this table summarize the field screening results for soil left in place after excavation activities were completed.

NOTES:

- ¹ See attached 4/27/95 memorandum from A. Wing, USEPA to R. Goff, USACE
- Floor (composite) samples obtained from the base of the excavation.
- Wall (composite) samples obtained from the vertical face of the excavation.
- Perimeter (grab) samples obtained approximately 2.5 feet from the edge of the excavation.
- ND indicates the contaminant was not detected in the sample.
- E indicates the actual result exceeds the value listed.
- J indicates estimated value.
- U indicates the contaminant was not detected in the sample; the reported value is the detection limit.
- Highlighted cells indicate samples which failed to meet 2 out of 3 EPA depth averaging criteria

**Fourth Avenue Extension Stratton Property
Post-Excavation Field Screening Results**

Grid Number	Sample Location	Sample Depth (feet)	Field Laboratory Results			Sample ID
			PCBs (ppm)	Lead (ppm)	Asbestos (%)	
			Cleanup Criteria			
			Depth Averaging Criteria ¹			
30	Floor	8	0.96	620	ND	FS4ASP-30CC(8)X
31	Floor	8	1.8	500	Trace	FS4ASP-31CC(8)X
32	Floor	8	30 E	2200	<1	FS4ASP-32CC(8)X
33	Floor	7	1.4	440	ND	FS4ASP-33CC(7)X
	South Wall	3-6	42	2700	<1	WS4ASP-33SC(3-6)X
	South Wall	6-7	17 E	2600	<1	WS4ASP-33SC(6-7)X
34	Floor	5	4.7	280	ND	FS4ASP-34CC(5)X
	West Wall	0-3	0.11 U	100 U	<1	WS4ASP-34WC(0-3)X
	West Wall	3-5	0.11 U	100 U	<1	WS4ASP-34WC(3-5)X
35	East Perimeter	0.25	0.10 U	100 U	ND	PS4ASP-34WG(0.25)X
37	Floor	8	0.59	300	ND	FS4ASP-37CC(8)X
38	Floor	8	0.39	100	ND	FS4ASP-38CC(8)X
39	Floor	8	0.60	130	ND	FS4ASP-39CC(8)X
40	Floor	8	0.19 U	370	ND	FS4ASP-40CC(8)X
41	Floor	7	9.8 E	1900	ND	FS4ASP-41CC(7)X
42	Floor	7	0.90	310	ND	FS4ASP-42CC(7)X
43	Floor	7	0.61	180	ND	FS4ASP-43CC(7)X
44	Floor	7	0.61	600	ND	FS4ASP-44CC(7)X

Results presented in this table summarize the field screening results for soil left in place after excavation activities were completed.

NOTES:

- ¹ See attached 4/27/95 memorandum from A. Wing, USEPA to R. Goff, USACE
- Floor (composite) samples obtained from the base of the excavation.
- Wall (composite) samples obtained from the vertical face of the excavation.
- Perimeter (grab) samples obtained approximately 2.5 feet from the edge of the excavation.
- ND indicates the contaminant was not detected in the sample.
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- U indicates the contaminant was not detected in the sample; the reported value is the detection limit.
- Highlighted cells indicate samples which failed to meet 2 out of 3 EPA depth averaging criteria

Addendum to
Public Health Implications Statement
for
Stratton Property, Fourth Avenue Extension
Stratford, CT

The federal Agency for Toxic Substances and Disease Registry (ATSDR) and the Connecticut Department of Public Health (CTDPH) have evaluated environmental sampling results provided to us by EPA Region I in their investigation of the Raymark waste contamination. These sampling results were collected following EPA's cleanup of your property. Based on our evaluation, the health agencies believe that there is no current health threat indicated by the soil sampling results for asbestos, lead, and polychlorinated biphenyls (PCBs) from your property. However, waste had to be left below the surface on your property. As a result, the health agencies have made the following recommendations:

1. Do not dig below the surface in areas of your yard indicated by grid numbers 4 and 5.
2. Do not dig below 3 feet in areas of your yard indicated by grid numbers 23 and 33.
3. Do not dig below 5 feet in areas of your yard indicated by grid numbers 1, 2, 3, 6, 10, 11, 12, 13, 15, 16, 20, 32 and 41.
4. This property should be placed on a notification system so that future owners will be aware that waste was left in place. Waste was left in place below the surface because groundwater was reached during excavation activities or excavation depth reached 8 feet.

If you have questions or comments, please call the CTDPH hotline at 860/509-7742 or the Stratford Health Department at 203/385-4090.

Type of Samples: Post Excavation Soil

Date of Samples: August 1995

Signature 

Date: 7-26-96

ATSDR Reviewers: David Mellard, Ph.D., Tammie McRae

CTDPH Reviewer: Jennifer Kertanis

Public Health Implications Statement
for
Stratton Property, Fourth Avenue Extension
Stratford, CT

The federal Agency for Toxic Substances and Disease Registry (ATSDR) and the Connecticut Department of Public Health (CTDPH) have evaluated environmental sampling results provided to us by EPA Region I in their investigation of the Raymark waste contamination. These sampling results were collected following EPA's cleanup of your property. Based on our evaluation, the health agencies believe that there is no current health threat indicated by the soil sampling results for asbestos, lead, and polychlorinated biphenyls (PCBs) from your property.

If you have questions or comments, please call the CTDPH hotline at 860/509-7742 or the Stratford Health Department at 203/385-4090.

Type of Samples: Post Excavation Soil

Date of Samples: August 1995

Signature 

Date: June 4, 1996

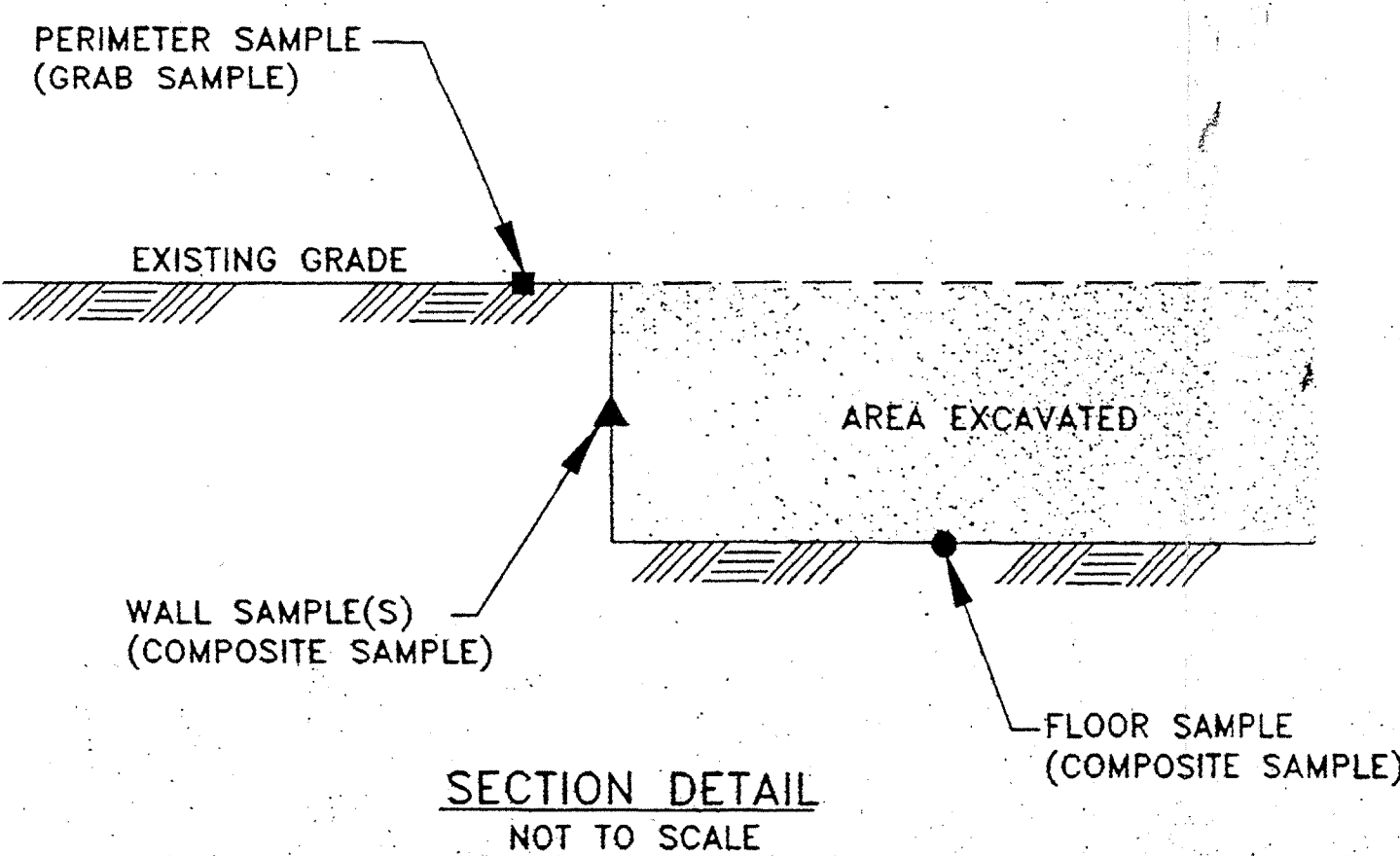
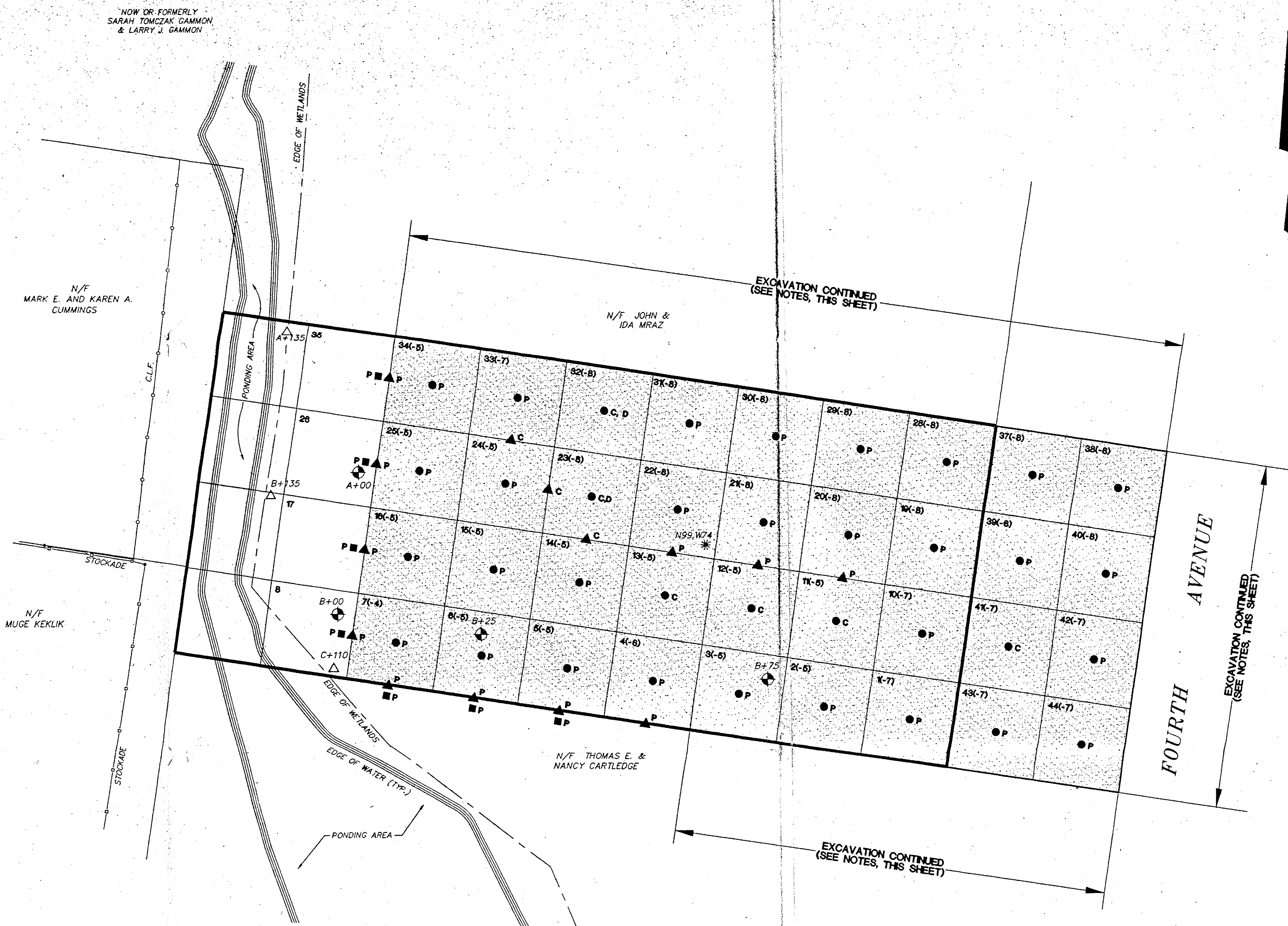
ATSDR Reviewers: David Mellard, Ph.D., Tammie McRae

CTDPH Reviewer: Jennifer Kertanis

CAD FILE NAME: STRATABDWG DATE: 3/27/96
PLOT SCALE: 1"=10' FGM REV. 1

EXCAVATION FLOOR ELEVATION		
GRID NUMBER	DEPTH OF EXCAVATION (FT.)	FLOOR ELEVATION (FT.)
1	-7	0
2	-5	2.5
3	-5	2.5
4	-6	2.0
5	-5	3.0
6	-5	3.0
7	-4	3.0
10	-7	0.5
11	-5	3.0
12	-5	3.0
13	-5	3.0
14	-5	3.0
15	-5	3.0
16	-5	3.0
19	-8	0
20	-8	0
21	-8	0
22	-8	0.5
23	-8	0.5
24	-5	3.5
25	-5	3.0
28	-8	1.0
29	-8	1.0
30	-8	1.0
31	-8	0.5
32	-8	0.5
33	-7	1.5
34	-5	3.0
37	-8	1.0
38	-8	1.0
39	-8	0
40	-8	0
41	-7	1.0
42	-7	0.5
43	-7	0
44	-7	0

NOTE: ALL ELEVATIONS ARE MEASURED AT THE APPROXIMATE CENTER OF THE EXCAVATED PORTION OF THE SUBJECT GRID NUMBER. (SEE SURVEY NOTE, THIS SHEET)



CONTRACTOR
FOSTER WHEELER ENVIRONMENTAL CORP.
Approved
Approved with corrections as noted on submittal and/or attached sheet(s)
SIGNATURE: *W. P. ...*
TITLE: *Project Engineer*
DATE: *4/12/96*

4/17/96		Reviewed by R. Smit			
2 4/16/96		Reviewed by E. ...			
1	3/27/96	REVISED PER USACE COMMENTS DATED 1/23/96		JUF	FGM
REVISION	DATE	DESCRIPTION		BY	
U. S. ARMY CORPS OF ENGINEERS NEW ENGLAND DIVISION WALTHAM, MASS.					
POST-EXCAVATION RECORD PLAN FOR STRATTON PROPERTY FOURTH AVENUE EXTENSION STRATFORD, CT.					
DES. BY: JUF		DRL BY: FPZ		CHD. BY: PCM	
SUBMITTED: CHIEF GENERAL ENGINEERING BRANCH					
APPROVAL RECOMMENDED: CHIEF DESIGN DIVISION					
REVIEWED: ENGINEERING MANAGER					
APPROVAL RECOMMENDED: DIRECTOR OF ENGINEERING					
FOSTER WHEELER ENVIRONMENTAL CORPORATION 470 ATLANTIC AVENUE BOSTON, MA 02210 (617) 457-8200					
SCALE: AS SHOWN SPEC. NO. DRAWING NUMBER					
SHEET 1 OF 1					

LEGEND

- FOSTER WHEELER ENVIRONMENTAL CSIR BORING
- WESTON TAT SURFICIAL SAMPLE (COLLECTED ON 6/28/93)
- WESTON ARCS BORING/SAMPLE LOCATION (COLLECTED ON 9/20/93)
- PROPERTY LINE
- WOOD STOCKADE FENCE
- CHAIN LINK FENCE
- EXCAVATED AREA
- GRID NUMBER (DEPTH OF EXCAVATION)
- EDGE OF WATER

TOPOGRAPHIC AND BOUNDARY SURVEY PREPARED BY:
MERIDIAN ENGINEERING COLLABORATIVE, INC.
100 CORPORATE PLACE PEABODY, MA 01960
(508) 535-7328. DRAWING ENTITLED
PROPERTY BOUNDARY & TOPOGRAPHIC SURVEY PLAN,
SEPTEMBER 12, 1994, BY DAVID J. RODE, PLS.

SURVEY NOTE:
VERTICAL SURVEY CONTROL IS REFERENCED TO STATE OF CONNECTICUT
GEODETIC SURVEY BENCHMARK INFORMATION (OBTAINED FROM THE CONNECTICUT
DEPARTMENT OF TRANSPORTATION), WHICH IS BASED UPON THE NORTH AMERICAN
VERTICAL DATUM OF 1929 (NAVD 1929) [REFERENCED TO MEAN SEA LEVEL AND,
IN NEW ENGLAND, EQUIVALENT TO NGVD 1929]

POST-EXCAVATION SAMPLES KEY:

- FLOOR SAMPLE (COMPOSITE)
- PERIMETER SAMPLE (GRAB)
- WALL SAMPLE (COMPOSITE)

REASON FOR TERMINATION OF EXCAVATION:

- P - PASSED EPA DEPTH AVERAGING CLEANUP CRITERIA (AS STATED IN 4/27/95 MEMORANDUM FROM A. WING, USEPA, TO R. GOFF, USACE.)
- A - NOT USED
- B - NOT USED
- C - GROUNDWATER ENCOUNTERED
- D - EXCAVATION IS 8' DEEP

NOTES:

- EXCAVATION CONTINUED ON THE ADJACENT PROPERTY AT APPROXIMATELY THE SAME DEPTH IN THE FOLLOWING AREAS:
 - CARLIDGE PROPERTY (FOURTH AVE EXT.) - SOUTH OF GRIDS 1,2,3,43 AND 44.
 - MRAZ PROPERTY (FOURTH AVE EXT.) - NORTH OF GRIDS 28,29,30,31,32,33,34,37 AND 38.
 - CURCIO PROPERTY (FOURTH AVE EXT.) - EAST OF GRIDS 38,40,42 AND 44.

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Interoffice Memorandum

DATE: April 22, 1996

REF. #: 4ASPrsp

TO: Marty Sklaver

FROM: Bianca Cerundolo *Bace*

SUBJECT: USACE CONTRACT NO. DACW33-94-D-0002 NE TERC
Delivery Order No. 0004 Stratford Superfund Sites
Post-Excavation Data - 4th Avenue - Stratton Property
Amendment to Transmittal No. 01410-4ASP-GRID
Revised data table attached incorporating USACE comments
Supersedes memo dated April 8, 1996

Final results for post excavation samples representing soil "left in place" at 4th Avenue, Stratton property are included on the attached table. These results were reviewed in accordance with the procedures described in the project CDAP and outlined below. Based on this review, the data are acceptable for project use.

The individual laboratories (ABB-ES - on-site and Aquatec - off-site) provide a quality assurance check of all data prior to final reporting. Quality control on-site/off-site split sample data are summarized and reported in weekly data comparison memos (WCS). Split sample comparison results for 4th Avenue, Stratton property were discussed in transmittals WCS-040 and WCS-041. No split sample discrepancies were reported for this property. On-going correlation studies are reported periodically and are intended to identify trends that could have significant impacts to the data reported by the on-site laboratory. The associated on-going correlation study for 4th Avenue, Stratton property is provided in transmittal OCS-010.

Approximately 20 percent of the off-site split sample results were reviewed with respect to the data quality objectives given in the CDAP and are reported in transmittals no. DV-008, no significant quality control exceedences were noted in the off-site data review.

An ABB-ES quality control review was performed and the following results were reported differently from the initial field result:

Sample I.D.	Lab I. D.	Date Collected	Correct Result (ppm)	Comments
FS-44CC(7.00)	12050	081895	0.61 (PCB)	incorrect on COC

RECEIVED

APR 23 1996

FOR THE DIRECTOR
FEDERAL BUREAU OF INVESTIGATION

Some changed results were due mostly to data validation actions (flagged "J" estimated). In addition, some values reported for PCBs were adjusted slightly due to percent solids correction and/or rounding. The noted data adjustments do not change the field decisions with respect to the depth averaging criteria.

Please call me at (617)457-8256, if you have any questions.

cc: J. Francis
Chemistry Distribution

File # 4.4

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Interoffice Memorandum

DATE: April 8, 1996

REF. #: 4ASPrsp

TO: Marty Sklaver

FROM: Bianca Cerundolo *BC*

SUBJECT: USACE CONTRACT NO. DACW33-94-D-0002 NE TERC
Delivery Order No. 0004 Stratford Superfund Sites
Post-Excavation Data - 4th Avenue - Stratton Property
Amendment to Transmittal No. 01410-4ASP-GRID
Revised data table attached incorporating USACE comments

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An ABB-ES quality control review was performed and the following results were reported differently from the initial field result:

Sample I.D.	Lab I. D.	Date Collected	Correct Result (ppm)	Comments
WS-23SC(5.00-6.00)	12091	082395	20 E (PCB)	incorrect in gridbook
WS-25WC(0.00-3.00)	12052	082195	Trace (asbestos)	incorrect in gridbook
FS-44CC(7.00)	12050	081895	0.61 (PCB)	incorrect on COC

Some changed results were due mostly to data validation actions (flagged "J" estimated). In addition, some values reported for PCBs were adjusted slightly due to percent solids correction and/or rounding. The noted data adjustments do not change the field decisions with respect to the depth averaging criteria.

Please call me at (617)457-8256, if you have any questions.

cc: J. Francis
Chemistry Distribution

FOURTH AVE PARCEL 6236

**Fourth Avenue Extension Joseph Wetmore Property
Weston ARCS
Pre-Excavation Soil Boring Results**

Sample ID	Sample Depth (feet)	PCBs (ppm)	Lead (ppm)	Asbestos (%)
		Cleanup Criteria		
		1.0	500	1
N59,E81	8.0 - 9.7	0.25 U	90 J	ND

Results presented in this table summarize the site investigation (pre-excavation) results for soil left in place after excavation activities were completed.

NOTES:

- Sample collected 13-Sep-93

PCB Qualifiers

- U indicates contaminant has been analyzed for but not detected.

Lead Qualifiers

- J Result is greater than primary detection limit of 25 ppm.
Less than or equal to primary quantitation limit of 84 ppm.

Asbestos Qualifiers

- ND indicates non-detect for asbestos.

**Fourth Avenue Extension Joseph Wetmore Property
Post-Excavation Field Screening Results**

Grid Number	Sample Location	Sample Depth (feet)	Field Laboratory Results			Sample ID
			PCBs (ppm)	Lead (ppm)	Asbestos (%)	
			Cleanup Criteria			
			Depth Averaging Criteria ¹			
1	Floor	5	0.24 U	110	ND	FS4AJW1-1CC(5)X
2	Floor	6	0.16 U	760	5	FS4AJW1-2CC(6)X
3	Floor	6	0.26 U	100 U	ND	FS4AJW1-3CC(6)X
4	Floor	6	0.20 U	100 U	ND	FS4AJW1-4CC(6)X
5	Floor	6	0.13 U	100 U	ND	FS4AJW1-5CC(6)X
6	Floor	6	0.14 U	100 U	ND	FS4AJW1-6CC(6)X
7	Floor	6	0.22 U	170	ND	FS4AJW1-7CC(6)X
8	Floor	6	0.30	240	ND	FS4AJW1-8CC(6)X
	South Floor	2	0.24 U	100	ND	FS4AJW1-8CC(2)5LX
	East Wall	3-6	1.00	1500	20	WS4AJW1-8EC(3-6)X
	South Wall	3-6	0.19 U	210	ND	WS4AJW1-8SC(3-6)X
9	Floor	3	0.26	170	2	FS4AJW1-9CC(3)X
	South Floor	2	0.17 U	290	ND	FS4AJW1-9CC(2)5LX
10	Floor	7	0.22	180	ND	FS4AJW1-10CC(7)X
	West Wall	3-6	0.14 U	330	ND	WS4AJW1-10WC(3-6)X
	West Wall	6-7	0.88	2000	ND	WS4AJW1-10WC(6-7)X
11	Floor	8	0.19 U	120	ND	FS4AJW1-11CC(8)X
	East Wall	0-3	0.11 U	100 U	Trace	WS4AJW1-11EC(0-3)X
	East Wall	3-6	0.11 U	100 U	ND	WS4AJW1-11EC(3-6)X
	East Wall	6-8	0.19 U	110	ND	PS4AJW1-11EC(6-8)X
12	Floor	5	1.30	610	ND	FS4AJW1-12CC(5)X
13	Floor	5	0.98	320	5	FS4AJW1-13CC(5)X
14	Floor	6	0.28 U	100 U	ND	FS4AJW1-14CC(6)X
15	Floor	6	0.27	400	<1	FS4AJW1-15CC(6)X
16	Floor	6	0.14 U	100 U	ND	FS4AJW1-16CC(6)X
	South Wall	3-6	0.19 U	100 U	ND	WS4AJW1-16SC(3-6)X

Results presented in this table summarize the field screening results for soil left in place after excavation activities were completed.

NOTES:

- ¹See attached 4/27/95 memorandum from A. Wing, USEPA to R. Goff, USACE
- Floor (composite) samples obtained from the base of the excavation.
- Wall (composite) samples obtained from the vertical face of the excavation.
- Perimeter (grab) samples obtained approximately 2.5 feet from the edge of the excavation.
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**Fourth Avenue Extension Joseph Wetmore Property
Post-Excavation Field Screening Results**

Grid Number	Sample Location	Sample Depth (feet)	Field Laboratory Results			Sample ID
			PCBs (ppm)	Lead (ppm)	Asbestos (%)	
			Cleanup Criteria			
			Depth Averaging Criteria ¹			
17	Floor	6	0.14 U	100 U	ND	FS4AJW1-17CC(6)X
	South Wall	0-3	0.29	280	Trace	WS4AJW1-17SC(0-3)X
	South Wall	3-6	0.77	230	Trace	WS4AJW1-17SC(3-6)X
18	Floor	6	2.20	1000	ND	FS4AJW1-18CC(6)X
	South Floor	2	0.19 U	100 U	ND	FS4AJW1-18CC(2)5LX
	South Wall	0-1	2.50	220	ND	WS4AJW1-18SC(0-1)5LX
	South Wall (Center)	3-6	3.00	800	ND	WS4AJW1-18SC(3-6)X
19	South Wall	0-1	4.80	1800	ND	WS4AJW1-8SC(0-1)5LX
20	South Wall	0-1	1.90	540	ND	WS4AJW1-9SC(0-1)5LX
21	Floor	6	0.12 U	100	ND	FS4AJW1-21CC(6)X
	West Wall	0-3	0.15	130	ND	WS4AJW1-21WC(0-3)X
	West Wall	3-6	0.44	530	ND	WS4AJW1-21WC(3-6)X
	West Perimeter	0.25	0.11 U	110	ND	PS4AJW1-21WG(0.25)X
22	Floor	7	0.20 U	190	ND	FS4AJW1-22CC(7)X
	East Wall	0-3	0.10 U	100 U	Trace	WS4AJW1-22EC(0-3)X
	East Wall	3-6	0.43	1700	2	WS4AJW1-22EC(3-6)X
	East Wall	6-7	0.12	1100	2	WS4AJW1-22EC(6-7)X
	East Perimeter	0.25	0.11 U	100 U	Trace	PS4AJW1-22EG(0.25)X
23	Floor	5	2.70	970	5	FS4AJW1-23CC(5)X
24	Floor	5	0.25	290	1	FS4AJW1-24CC(5)X
25	Floor	6	0.22 U	100 U	ND	FS4AJW1-25CC(6)X
26	Floor	6	0.32 U	100 U	ND	FS4AJW1-26CC(6)X
	East Wall	3-6	3.40	1900	Trace	WS4AJW1-26EC(3-6)X
27	Floor	3	0.32	230	<1	FS4AJW1-27CC(3)X
	South Wall	0-2	0.14	150	<1	WS4AJW1-27SC(0-2)X

Results presented in this table summarize the field screening results for soil left in place after excavation activities were completed.

NOTES:

- ¹See attached 4/27/95 memorandum from A. Wing, USEPA to R. Goff, USACE
- Floor (composite) samples obtained from the base of the excavation.
- Wall (composite) samples obtained from the vertical face of the excavation.
- Perimeter (grab) samples obtained approximately 2.5 feet from the edge of the excavation.
- ND indicates the contaminant was not detected in the sample.
- E indicates the actual result exceeds the value listed.
- J indicates estimated value.
- U indicates the contaminant was not detected in the sample; the reported value is the detection limit.
- Highlighted cells indicate samples which failed to meet EPA depth averaging criteria.

**Fourth Avenue Extension Joseph Wetmore Property
Post-Excavation Field Screening Results**

Grid Number	Sample Location	Sample Depth (feet)	Field Laboratory Results			Sample ID
			PCBs (ppm)	Lead (ppm)	Asbestos (%)	
			Cleanup Criteria			
			Depth Averaging Criteria ¹			
32	Floor	5	0.18 U	100 U	ND	FS4AJW1-32CC(5)X
	South Floor	3	0.20 U	100 U	ND	FS4AJW1-32CC(3)3LX
	West Wall	0-1	0.12 U	100 U	ND	WS4AJW1-32WC(0-3)3LX
	West Wall (Center)	3-5	0.18 U	180	Trace	WS4AJW1-32WC(3-5)X
33	Floor	6	0.16 U	200	ND	FS4AJW1-33CC(6)X
	East Wall	0-3	0.12 U	100 U	<1	WS4AJW1-33EC(0-3)X
	East Wall	3-6	0.12 U	120	ND	WS4AJW1-33EC(3-6)X
34	Floor	5	0.35	260	ND	FS4AJW1-34CC(5)X
	South Wall	3-5	0.18 U	100 U	ND	WS4AJW1-34SC(3-5)X
35	Floor	5	1.10	400	1	FS4AJW1-35CC(5)X
36	Floor	6	0.25 U	100 U	ND	FS4AJW1-36CC(5)X
37	Floor	6	0.27 U	100 U	ND	FS4AJW1-37CC(6)X
	South Floor	2	0.27 U	100 U	ND	FS4AJW1-37CC(2)10LX
	South Wall (East)	0-1	3.10	2200	20	WS4AJW1-37SC(0-1)10LX
	South Wall (West)	3-6	0.27 U	110	ND	WS4AJW1-37SC(3-6)X
38	Floor	6	0.33 U	130	ND	FS4AJW1-38CC(6)X
	East Wall	0-3	0.37	380	1	WS4AJW1-38EC(0-3)X
	East Wall	3-6	0.21 U	100 U	1	WS4AJW1-38EC(3-6)X
43	Floor	5	0.21 U	100 U	ND	FS4AJW1-43CC(5)X
	West Wall	0-3	0.13 U	100 U	ND	WS4AJW1-43WC(0-3)X
	West Wall	3-5	0.12 U	100 U	ND	WS4AJW1-43WC(3-5)X
	West Perimeter	0.25	0.11 U	100 U	ND	PS4AJW1-43WG(0-25)X
44	Floor	6	0.79	260	ND	FS4AJW1-44CC(6)X
	East Wall	0-3	0.11 U	100 U	ND	WS4AJW1-44AEC(0-3)X
	East Wall	3-6	0.12 U	220	<1	WS4AJW1-44EC(3-6)X
	East Perimeter	0.25	0.11 U	100 U	ND	PS4AJW1-44EG(0.25)X

Results presented in this table summarize the field screening results for soil left in place after excavation activities were completed.

NOTES:

- ¹See attached 4/27/95 memorandum from A. Wing, USEPA to R. Goff, USACE
- Floor (composite) samples obtained from the base of the excavation.
- Wall (composite) samples obtained from the vertical face of the excavation.
- Perimeter (grab) samples obtained approximately 2.5 feet from the edge of the excavation.
- ND indicates the contaminant was not detected in the sample.
- E indicates the actual result exceeds the value listed.
- J indicates estimated value.
- U indicates the contaminant was not detected in the sample; the reported value is the detection limit.
- Highlighted cells indicate samples which failed to meet EPA depth averaging criteria.

07/24/96

12:32

404 639 0655

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RICH

004/010

Public Health Implications Statement
for
Joseph Wetmore Property, Fourth Avenue Extension
Stratford, CT

The federal Agency for Toxic Substances and Disease Registry (ATSDR) and the Connecticut Department of Public Health (CTDPH) have evaluated environmental sampling results provided to us by EPA Region I in their investigation of the Raymark waste contamination. These sampling results were collected following EPA's cleanup of your property. Based on our evaluation, the health agencies believe that there is no current health threat indicated by the soil sampling results for asbestos, lead, and polychlorinated biphenyls (PCBs) from your property. However, waste had to be left at and below the surface on your property at the edge of the pond. As a result, the health agencies have made the following recommendations:

1. Do not dig *below the surface* next to the pond as indicated by grid number: 37.
2. This property should be placed on a notification system so that future owners will be aware that waste had to be left in place. Waste was left in place because groundwater was reached during excavation, excavation was terminated at the edge of the pond, or further excavation would compromise the foundation of the adjacent property owner's garage.

If you have questions or comments, please call the CTDPH hotline at 860/509-7742 or the Stratford Health Department at 203/385-4090.

Type of Samples: Post Excavation Soil Screening

Date of Samples: July & August 1995

Signature



Date: 7-24-96

ATSDR Reviewers: David Mellard, Ph.D., Tammie McRae

CTDPH Reviewer: Jennifer Kortanis

RECEIVED

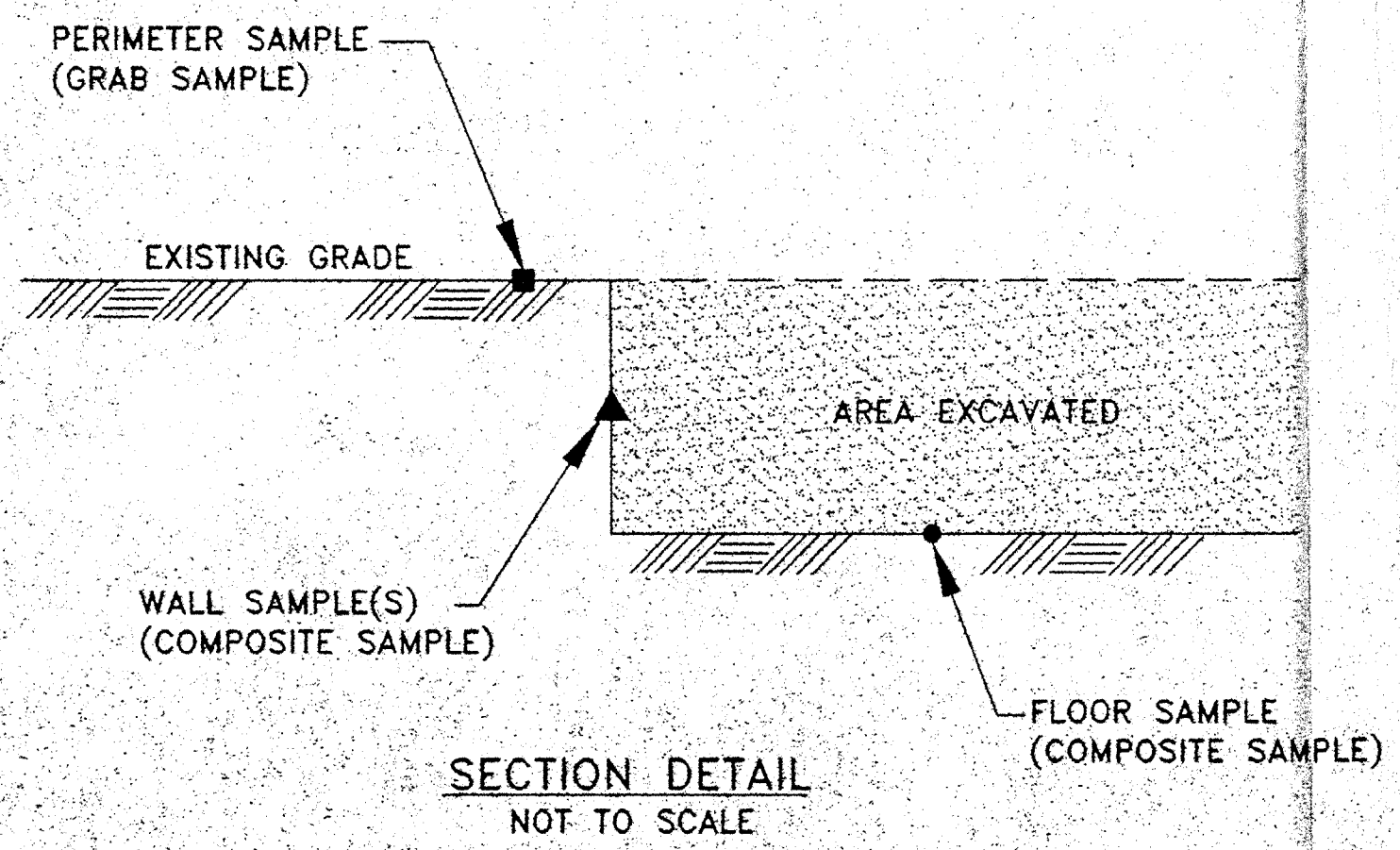
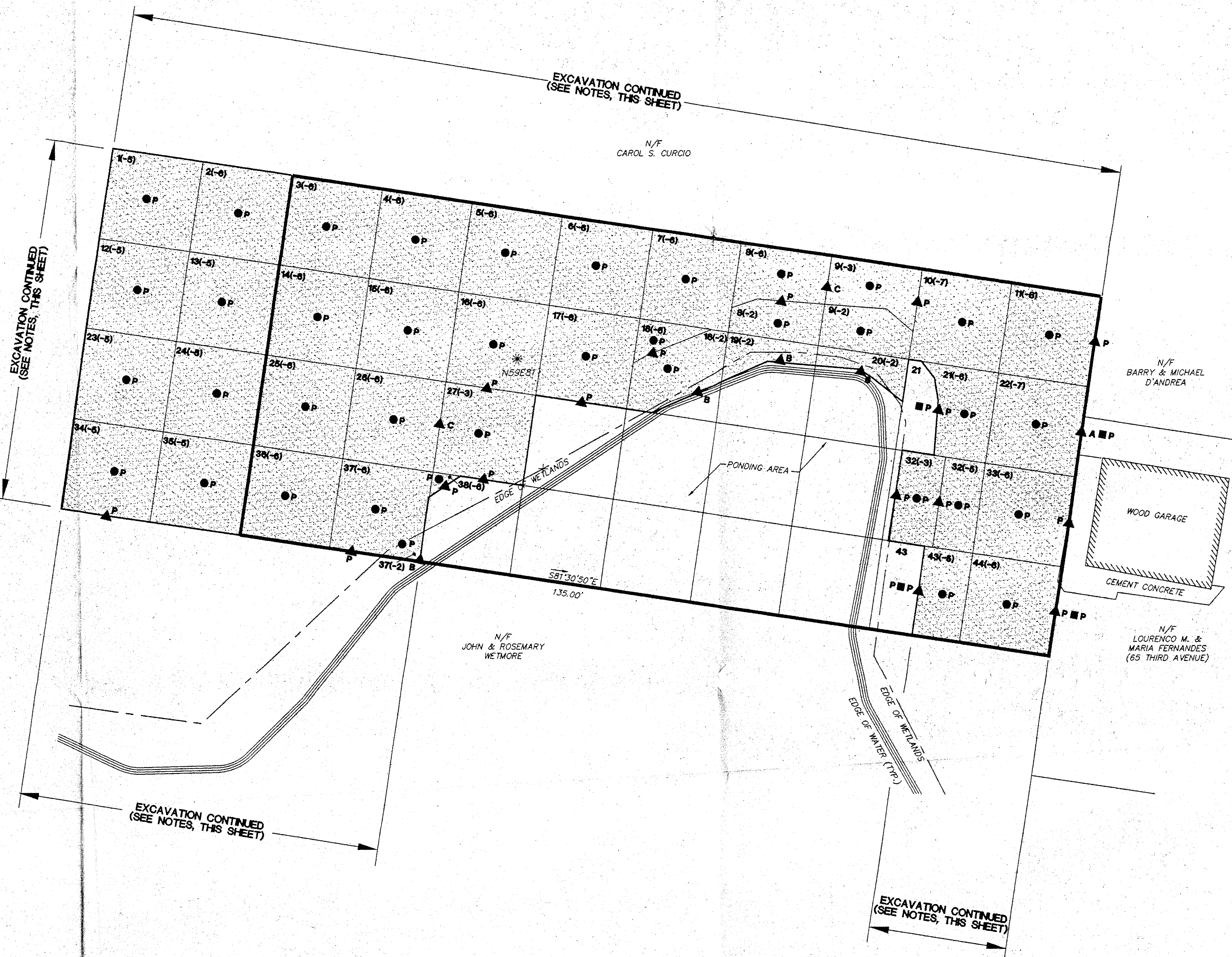
JUL 24 1996

STRATFORD
PROJECT OFFICE

EXCAVATION FLOOR ELEVATION		
GRID NUMBER	DEPTH OF EXCAVATION (FT.)	FLOOR ELEVATION (FT.)
1	-5	1.75
2	-6	0.75
3	-6	0.75
4	-6	1
5	-6	1.25
6	-6	1.25
7	-6	1
8	-6	1
9	-2	4
9	-3	4
9	-2	4
10	-7	0.5
11	-8	1
12	-5	1.5
13	-5	1.5
14	-6	0.5
15	-6	0.75
16	-6	0.5
17	-6	0
18	-6	0
18	-2	3
19	-2	3
20	-2	2.5
21	-6	1.25
22	-7	1.5
23	-5	1.5
24	-5	1.5
25	-6	0.25
26	-6	0
27	-3	2.5
32	-5	2.25
32	-3	3
33	-6	2
34	-5	1.25
35	-5	1.25
36	-6	0
37	-6	-0.5
37	-2	3
38	-6	-1
43	-5	2
44	-6	2

NOTE: ALL ELEVATIONS ARE MEASURED AT THE APPROXIMATE CENTER OF THE EXCAVATED PORTION OF THE SUBJECT GRID NUMBER. (SEE SURVEY NOTE, THIS SHEET)

FOURTH AVENUE
(60' WIDE RIGHT OF WAY)



CONTRACTOR
FOSTER WHEELER ENVIRONMENTAL CORP.

Approved
Approved with corrections as noted on submittal and/or attached sheet(s)

SIGNATURE: *[Signature]*
TITLE: PROJECT MANAGER
DATE: 9-11-97

LEGEND

- * NS92B1 WESTON ARCS DEPTH SAMPLE LOCATION (COLLECTED ON AUGUST AND SEPTEMBER 1993)
- N/F NOW OR FORMERLY
- PROPERTY LINE
- EDGE OF WETLANDS
- EXCAVATED AREA
- 4(-6) GRID NUMBER (DEPTH OF EXCAVATION)
- EDGE OF WATER

TOPOGRAPHIC AND BOUNDARY SURVEY PREPARED BY:
MERIDIAN ENGINEERING COLLABORATIVE, INC.
100 CORPORATE PLACE, PEABODY, MA 01960
(508) 535-7328. DRAWING ENTITLED
PROPERTY BOUNDARY & TOPOGRAPHIC SURVEY PLAN,
SEPTEMBER 12, 1994, BY DAVID J. RODE, PLS.

SURVEY NOTE:
VERTICAL SURVEY CONTROL IS REFERENCED TO STATE OF CONNECTICUT GEODETIC SURVEY BENCHMARK INFORMATION (OBTAINED FROM THE CONNECTICUT DEPARTMENT OF TRANSPORTATION), WHICH IS BASED UPON THE NORTH AMERICAN VERTICAL DATUM OF 1929 (NAVD 1929) [REFERENCED TO MEAN SEA LEVEL AND, IN NEW ENGLAND, EQUIVALENT TO NGVD 1929].

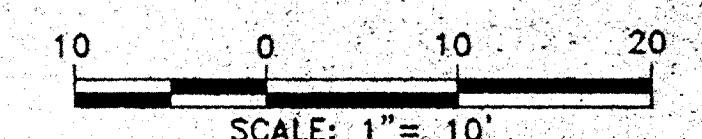
POST-EXCAVATION SAMPLES KEY:

- FLOOR SAMPLE (COMPOSITE)
- PERIMETER SAMPLE (GRAB)
- ▲ WALL SAMPLE (COMPOSITE)

REASON FOR TERMINATION OF EXCAVATION:

- P - PASSED EPA DEPTH AVERAGING CLEANUP CRITERIA (AS STATED IN 4/27/95 MEMORANDUM FROM A. WING, USEPA, TO R. GOFF, USACE.)
- A - FOUNDATION OR OTHER AREAS NOT TO BE DISTURBED
- B - TERMINATED AT THE EDGE OF WATER
- C - GROUNDWATER ENCOUNTERED

- NOTES:**
- EXCAVATION CONTINUED ON THE ADJACENT PROPERTY AT APPROXIMATELY THE SAME DEPTH IN THE FOLLOWING AREAS:
 - CURCIO PROPERTY (FOURTH AVENUE EXT.) - NORTH OF GRIDS 1,2,3,4,5,6,7,8,9,10, & 11.
 - CARLEDGE PROPERTY (FOURTH AVENUE EXT.) - WEST OF GRIDS 1,12,23, & 34.
 - JOHN WETMORE PROPERTY (FOURTH AVENUE EXT.) - SOUTH OF GRIDS 34,35,36,37,43, & 44.



DES. BY*	JUF	DRN. BY*	PPZ	CHD. BY*	PCM
SUBMITTED*					
APPROVAL RECOMMENDED*	CHIEF GENERAL ENGINEERING BRANCH				
REVIEWED*	CHIEF DESIGN DIVISION				
ENGINEERING MANAGER					
APPROVAL RECOMMENDED*	APPROVED*				
CHIEF ENGINEERING MANAGEMENT DIVISION	DIRECTOR OF ENGINEERING (As required by Engineering Order No. 1110-1-26)				
FOSTER WHEELER ENVIRONMENTAL CORPORATION 470 ATLANTIC AVENUE BOSTON, MA 02210 (617) 457-8200			SCALE: AS SHOWN SPEC. NO. DRAWING NUMBER SHEET 1 OF 1		

CAD FILE NAME: FOR-USA-BDWG DATE: 9/10/97
PLOT FILE NAME: FPZ REV. 2
PLOT SCALE: 1"=10'

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Interoffice Memorandum

DATE: March 26, 1996

REF. #: 4AJW1rsp

TO: Marty Sklaver

FROM: Bianca Cerundolo *BMC*

SUBJECT: USACE CONTRACT NO. DACW33-94-D-0002 NE TERC
Delivery Order No. 0004 Stratford Superfund Sites
Post-Excavation Data - 4th Avenue Extension, Joseph Wetmore Property
Amendment to Transmittal No. 01410-4AJW1-GRID

Final results for post excavation samples representing soil "left in place" at 4th Avenue, Joseph Wetmore property are included on the attached table. These results were reviewed in accordance with the procedures described in the project CDAP and outlined below. Based on this review, the data are acceptable for project use.

The individual laboratories (ABB-ES - on-site and Aquatec - off-site) provide a quality assurance check of all data prior to final reporting. Quality control on-site/off-site split sample data are summarized and reported in weekly data comparison memos (WCS). Split sample comparison results were noted and discussed in transmittals WCS-037, -038, and -040 through -042. The majority of noted discrepancies were determined to be the result of high sample percent moisture and sample inhomogeneity and are discussed in transmittals WCS-043. On-going correlation studies are reported periodically and are intended to identify trends that could have significant impacts to the data reported by the on-site laboratory. The associated on-going correlation study for 4th Avenue, Joseph Wetmore property is provided in transmittal OCS-010.

Approximately 20 percent of the off-site split sample results were reviewed with respect to the data quality objectives given in the CDAP and are reported in transmittal no. DV-008; no significant quality control exceedences were noted in the off-site data review.

Following the ABB-ES quality control review, the results summarized below were reported differently from the above mentioned grid book.

Sample I.D.	Lab I. D.	Date Collected	Correct Result (ppm)	Comments
FS-3CC(6.00)	11764	080495	100 U (lead)	incorrectly reported on grid sheet
FS-3CC(6.00)	11764	080495	N (asbestos)	incorrectly reported on grid sheet
FS-44CC(6.00)	11628	072895	0.79 (PCB)	revised COC result
FS-10CC(7)	11656	073195	0.22 U	incorrect on COC
FS-21CC(6)	11645	073195	0.12 U	incorrect on COC

Some final concentrations are flagged as estimated "J" following the on-site QC review. In addition, some values reported for PCBs were adjusted slightly due to percent solids correction and/or rounding. The noted data adjustments do not change the field decisions with respect to the depth averaging criteria.

Please call me at (617)457-8263, if you have any questions.

cc: J. Francis
F. Kulynych
Chemistry Distribution

FOURTH AVE PARCELS 6228-6229-6231

**Fourth Avenue Extension Curcio Property
Foster Wheeler Environmental
Pre-Excavation Soil Boring Results**

Sample ID	Sample Depth (ft)	PCBs (ppm)	Lead (ppm)	Asbestos (%)
		Cleanup Criteria		
		1.0	500	1
A +25	4 - 5	0.59	2100	< 1
	6 - 7	0.13 U	1100	< 1
A +75	7 - 8	0.14 U	120	ND
B +25	4 - 5	0.11 U	250 U	ND
	5 - 6	0.94	250 U	ND
	7 - 8	0.61	4200	Trace
B +50	7 - 8	0.24 U	740	ND
B+150	5 - 6	0.13 U	250 U	ND
B +75	7 - 8	0.21 U	250 U	ND
C +125	4 - 5	0.14 U	250 U	ND
	5 - 6	0.15 U	250 U	ND
D +125	5 - 7	0.13 U	250 U	ND

NOTES:

- U indicates non-detect or detected below detection limit.
- J indicates estimated value.
- E Exceeds calibration range.
- UJ indicates non-detect, detection limit is estimated.
- EJ Exceeds calibration range; estimated value.
- ND indicates non-detect for asbestos.

**Fourth Avenue Extension Curcio Property
Weston ARCS
Pre-Excavation Soil Sampling Results**

Sample ID	Sample Depth (ft)	PCBs (ppm)	Lead (ppm)	Asbestos (%)
		Cleanup Criteria		
		1.0	500	1
001	4.5 - 6.9	0.25 U	110 J	ND
	5.5 - 6.5	0.25 U	140	ND
N103,E140	8.2 - 8.6	3	310	ND
	8.6 - 9.0	3	290	< 1
	9.0 - 10.0	0.25 U	270	ND
	10.0 - 10.6	3	200	ND
N125,E32	8.0 - 9.0	0.25 U	180 J	ND
N175,E82	8.2 - 9.5	0.25 U	150 J	ND
	9.5 - 10.3	0.25 U	90 J	ND
N185,E37	8.0 - 9.8	0.25 U	180 J	ND
	9.8 - 10.8	0.25 U	190	ND
N190,E153	5.3 - 6.4	0.25 U	160 J	< 1
	5.6 - 8.4	0.5	270	ND
	8.7 - 9.5	0.25 U	190	ND

Results presented in this table summarize the site investigation (pre-excavation) results for soil left in place after excavation activities were completed.

NOTES:

PCB Qualifiers

- U indicates contaminant has been analyzed for but not detected.

Lead Qualifiers

- J Result is greater than primary detection limit of 50 ppm.
Less than or equal to primary quantitation limit of 180 ppm.

Asbestos Qualifiers

- ND indicates non-detect for asbestos.

**Fourth Avenue Extension Curcio Property
Post-Excavation Field Screening Results**

Grid Number	Sample Location	Sample Depth (feet)	Field Laboratory Results			Sample ID
			PCBs (ppm)	Lead (ppm)	Asbestos (%)	
			Cleanup Criteria			
			Depth Averaging Criteria ¹			
2	Floor	4	2.40	200	ND	FS4ACP-2CC(4)X
	North Wall	0-0.5	1.40	320	ND	WS4ACP-2NC(0-0.5)X
	North Wall	0.5-3	0.78	570	Trace	WS4ACP-2NC(0.5-3)X
	North Wall	3-4	0.57	190	Trace	WS4ACP-2NC(3-4)X
	West Wall	0-3	1.50	280	<1	WS4ACP-2WC(0-3)X
	West Wall	3-4	0.29	270	ND	WS4ACP-2WC(3-4)X
3	Floor	4	2.0 J	1700	<1	FS4ACP-3CC(4)D
	North Wall	3-4	2.20	800	ND	WS4ACP-3NC(3-4)X
4	Floor	5	0.9 J	1600	ND	FS4ACP-4CC(5)X
	North Wall	3-5	0.97	920	3	WS4ACP-4NC(3-5)X
5	Floor	7	1.70	1400	Trace	FS4ACP-5CC(7)X
	North Wall	5-6	1.1 J	3000	ND	WS4ACP-5NC(5-6)X
	North Wall	6-7	0.3 J	1300	2	WS4ACP-5NC(6-7)X
6	Floor	7	1.7 J	1300	Trace	FS4ACP-6CC(7)X
	North Wall	6-7	6.8 EJ	1500	Trace	WS4ACP-6NC(6-7)X
7	Floor	8	3.30	1900	Trace	FS4ACP-7CC(8)X
	West Wall	6-8	3.0 J	120	<1	WS4ACP-7WC(6-8)X
8	Floor	7	3.80	1700	ND	FS4ACP-8CC(7)X
9	Floor	6	2.70	100 U	ND	FS4ACP-9CC(6)X
10	Floor	5	4.40	1800	ND	FS4ACP-10(5)X
11	Floor	6	0.13 U	100 U	<1	FS4ACP-11CC(6)X
	East Wall	0-3	0.15 U	130	<1	WS4ACP-11EC(0-3)X 5Lx
	East Wall	3-6	0.50 F	1000	ND	WS4ACP-11EC(3-6)X 5Lx
	East Perimeter	0.25	0.12 UJ	100 U	ND	PS4ACP-11-EG(0.25)X
13	Floor	4	0.89	480	Trace	FS4ACP-13CC(4)X
	West Wall	0-3	0.40	200	<1	WS4ACP-13WC(0-3)X
	West Wall	3-4	0.13	510	ND	WS4ACP-13WC(3-4)X
14	Floor	4	0.42	1200	ND	FS4ACP-14CC(4)X
15	Floor	4	1.50	1000	<1	FS4ACP-15CC(4)X
16	Floor	7	3.50	1500	1	FS4ACP-16CC(7)X
	West Wall	4-6	1.30	1300	<1	WS4ACP-16WC(4-6)X
	West Wall	6-7	4.90	1500	<1	WS4ACP-16WC(6-7)X
17	Floor	7	2.20	1400	ND	FS4ACP-17CC(7)X
18	Floor	6	5.30	2700	2	FS4ACP-18CC(6)X
19	Floor	7	0.14 U	100 U	ND	FS4ACP-19CC(7)X
20	Floor	7	0.39	100 U	ND	FS4ACP-20CC(7)X
21	Floor	6	0.21	100 U	ND	FS4ACP-21CC(6)X
22	Floor	6	0.19	100 U	3	FS4ACP-22CC(6)X
	East Wall	0-3	0.11 U	100 U	Trace	WS4ACP-22AEC(0-3)X
	East Wall	3-6	0.33 U	330	ND	WS4ACP-22EC(3-6)X
	East Perimeter	0.25	0.12 UJ	100 U	ND	PS4ACP-22EG(0.25)X
24	Floor	4	0.57 J	110	1	FS4ACP-24CC(4)X
	West Wall	0-3	0.14	100 U	ND	WS4ACP-24WC(0-3)X

**Fourth Avenue Extension Curcio Property
Post-Excavation Field Screening Results**

Grid Number	Sample Location	Sample Depth (feet)	Field Laboratory Results			Sample ID
			PCBs (ppm)	Lead (ppm)	Asbestos (%)	
			Cleanup Criteria			
			Depth Averaging Criteria ¹			
24	West Wall	3-4	0.60	240	<1	WS4ACP-24WC(3-4)X
	South Wall	0-3	1.20	260	ND	WS4ACP-24SC(0-3)X
	South Wall	3-4	0.92	170	<1	WS4ACP-24SC(3-4)X
25	Floor	4	1.00	300	<1	FS4ACP-25CC(4)X
	South Wall	0-3	1.80	180	Trace	WS4ACP-25SC(0-3)X
	South Wall	3-4	1.30	200	ND	WS4ACP-25SC(3-4)X
26	Floor	7	1.60	1100	1	FS4ACP-26CC(7)X
	North Wall	4-6	0.95 J	1100	<1	WS4ACP-26NC(4-6)X
	North Wall	6-7	1.2 J	540	ND	WS4ACP-26NC(6-7)X
	West Wall	4-6	1.30	560	Trace	WS4ACP-26WC(4-6)X
	West Wall	6-7	1.50	730	ND	WS4ACP-26WC(6-7)X
	South Wall	3-4	1.40	210	<1	WS4ACP-26SC(3-4)X
	South Wall	4-6	1.30	620	Trace	WS4ACP-26SC(4-6)X
	South Wall	6-7	0.79	120	<1	WS4ACP-26SC(6-7)X
	26 A	South Floor	3	0.43	180	Trace
West Wall		0-3	0.28	390	<1	WS4ACP-26AWC(0-3)X
East Wall		0-3	0.32	160	<1	WS4ACP-26AEC(0-3)X
South Wall		0-3	0.66	100 U	Trace	WS4ACP-26ASC(0-3)X
27	Floor	7	1.30	1600	Trace	FS4ACP-27CC(7)X
	South Wall	0-3	0.32 J	130	<1	WS4ACP-27SC(0-3)X
	South Wall	3-4	1.70	480	<1	WS4ACP-27SC(3-4)X
	South Wall	4-6	1.40	1300	<1	WS4ACP-27SC(4-6)X
	South Wall	6-7	1.10	1300	<1	WS4ACP-27SC(6-7)X
28	Floor	7	0.50 U	670	ND	FS4ACP-28CC(7)X
	South Wall	0-3	0.73	190	ND	WS4ACP-28SC(0-3)X
	South Wall	3-6	1.80	400	Trace	WS4ACP-28SC(3-6)X
	South Wall	6-7	0.72	280	<1	WS4ACP-28SC(6-7)X
29	Floor	7	0.37 J	360	ND	FS4ACP-29CC(7)X
	South Wall	6-7	1.10 J	370	3	WS4ACP-29SC(6-7)X
29A	South Floor	6	0.45	280	1	FS4ACP-29ACC(6)X
	West Wall	0-3	0.11 U	100 U	ND	WS4ACP-29AWC(0-3)X
	West Wall	3-6	1.10	140	1	WS4ACP-29AWC(3-6)X
30	Floor	7	0.29	100 U	ND	FS4ACP-30CC(7)X
30A	South Floor	7	2.70	990	3	FS4ACP-30ACC(7)X
31	Floor	7	0.14 U	100 U	ND	FS4ACP-31CC(7)X
	South Wall	6-7	0.14 U	100 U	ND	WS4ACP-31SC(6-7)X
31A	South Floor	6	3.80	780	Trace	FS4ACP-31ACC(6)X
32	Floor	5	4.90	330	<1	FS4ACP-32CC(5)X
32A	South Floor	6.5	2.90	960	10	FS4ACP-32ACC(6.5)X
33	Floor	5	1.30	500	ND	FS4ACP-33CC(5)X
	East Wall	0-3	0.11 U	100 U	Trace	WS4ACP-33AEC(0-3)X
	East Wall	3-5	0.32 J	100	3	WS4ACP-33EC(3-5)X
	East Perimeter	0.25	0.13 UJ	100 U	ND	PS4ACP-33EG(0.25)X

**Fourth Avenue Extension Curcio Property
Post-Excavation Field Screening Results**

Grid Number	Sample Location	Sample Depth (feet)	Field Laboratory Results			Sample ID
			PCBs (ppm)	Lead (ppm)	Asbestos (%)	
			Cleanup Criteria			
			Depth Averaging Criteria ¹			
33A	South Floor	5	1.00	270	3	FS4ACP-33ACC(5)X
	East Wall	0-3	0.12 U	200	2	WS4ACP-33AEC(0-3)X
	East Wall	3-5	0.26	100 U	1	WS4ACP-33AEC(3-5)X
	South Wall	3-5	1.00	170	2	WS4ACP-33ASC(3-5)X
34	Floor	4	3.50	2500	<1	FS4ACP-34CC(4)X
	North Wall	0-3	6.30	1800	<1	WS4ACP-34NC(0-3)X
	North Wall	3-4	4.90	1400	<1	WS4ACP-34NC(3-4)X
35	Floor	8	0.14 U	100 U	ND	FS4ACP-35CC(8)X
	North Wall	0-3	0.42	110	Trace	WS4ACP-35NC(0-3)X
	North Wall	3-6	2.50	1400	< 1	WS4ACP-35NC(3-6)X
	North Wall	6-8	3.00	860	< 1	WS4ACP-35NC(6-8)X
	West Wall	0-3	0.41	170	Trace	WS4ACP-35WC(0-3)X
	West Wall	3-6	2.70	1200	ND	WS4ACP-35WC(3-6)X
	West Wall	6-8	2.10	1000	Trace	WS4ACP-35WC(6-8)X
36	Floor	8	1.60	360	ND	FS4ACP-36CC(8)X
	North Wall	0-3	0.47	420	Trace	WS4ACP-36NC(0-3)X
	North Wall	3-6	0.66	340	2	WS4ACP-36NC(3-6)X
	North Wall	6-8	3.30	1100	Trace	WS4ACP-36NC(6-8)X
37	Floor	8	0.66	240	ND	FS4ACP-37CC(8)X
	North Wall	0-3	0.22	180	1	WS4ACP-37NC(0-3)X
	North Wall	3-6	0.92	370	ND	WS4ACP-37NC(3-6)X
	North Wall	6-8	4.10	950	ND	WS4ACP-37NC(6-8)X
38	Floor	8	3.10	1200	ND	FS4ACP-38CC(8)X
	North Wall	6-8	0.93	170	<1	WS4ACP-38NC(6-8)X
38A	North Floor	6	1.20	380	<1	FS4ACP-38ACC(6)X
	North Wall	0-3	0.11 U	100 U	ND	WS4ACP-38ANC(0-3)X
	North Wall	3-6	2.30	320	3	WS4ACP-38ANC(3-6)X
	West Wall	0-3	0.12 U	100 U	ND	WS4ACP-38AWC(0-3)X
	West Wall	3-6	2.00	560	2	WS4ACP-38AWC(3-6)X
	East Wall	0-3	0.11 U	100 U	<1	WS4ACP-38AEC(0-3)X
	East Wall	3-6	1.90	270	<1	WS4ACP-38AEC(3-6)X
39	Floor	8	2.80	2100	ND	FS4ACP-39CC(8)X
	North Wall	0-3	1.10	150	<1	WS4ACP-39NC(0-3)X
	North Wall	3-6	0.56	210	ND	WS4ACP-39NC(3-6)X
	North Wall	6-8	1.50	1100	ND	WS4ACP-39NC(6-8)X
40	Floor	8	0.13 U	100 U	ND	FS4ACP-40CC(8)X
	North Wall	6-8	0.13 U	100 U	ND	WS4ACP-40NC(6-8)X
40A	North Floor	6	0.70	100 U	ND	FS4ACP-40ACC(6)X
	West Wall	0-3	0.13 U	100 U	ND	WS4ACP-40AWC(0-3)X
	West Wall	3-6	0.12 U	160	ND	WS4ACP-40AWC(3-6)X
41	Floor	8	0.16 U	100 U	ND	FS4ACP-41CC(8)X
41A	North Floor	8	1.50	430	ND	FS4ACP-41ACC(8)X
42	Floor	6	2.60	480	ND	FS4ACP-42CC(6)X

**Fourth Avenue Extension Curcio Property
Post-Excavation Field Screening Results**

Grid Number	Sample Location	Sample Depth (feet)	Field Laboratory Results			Sample ID
			PCBs (ppm)	Lead (ppm)	Asbestos (%)	
			Cleanup Criteria			
			Depth Averaging Criteria ¹			
42A	North Floor	6	1.80	770	1	FS4ACP-42ACC(6)X
43	Floor	4	0.13 U	100 U	ND	FS4ACP-43CC(4)X
43A	North Floor	5	3.50	1200	ND	FS4ACP-43ACC(5)X
44	Floor	6	0.14 U	100 U	ND	FS4ACP-44CC(6)X
	North Wall	3-6	0.18 U	100	ND	WS4ACP-44NC(3-6)X
	West Wall	3-6	1.10	120	ND	WS4ACP-44WC(3-6)X
	East Wall	0-3	0.83	300	1	WS4ACP-44EC(0-3)X
	East Wall	3-6	0.24	100 U	ND	WS4ACP-44EC(3-6)X
	East Perimeter	0.25	0.11 UJ	100 U	ND	PS4ACP-44EG(0.25)X
44A	North Floor	3	0.13 U	100 U	ND	FS4ACP-44ACC(3)X
	East Wall	0-3	0.32	420	3	WS4ACP-44AEC(0-3)X
45	Floor	8	0.17 U	100 U	ND	FS4ACP-45CC(8)X
	North Wall	4-6	4.70	1200	2	WS4ACP-45NC(4-6)X
	North Wall	6-8	3.50	1700	<1	WS4ACP-45NC(6-8)X
46	Floor	8	5.30	2000	ND	FS4ACP-46CC(8)X
47	Floor	8	3.40	520	ND	FS4AP-47CC(8)X
48	Floor	8	9.00	550	ND	FS4ACP-48CC(8)X
49	Floor	8	3.0	1200	<1	FS4ACP-49CC(8)X
50	Floor	8	8.0 E	1000	ND	FS4ACP-50CC(8)X
51	Floor	8	6.0	840	3	FS4ACP-51CC(8)X
52	Floor	8	0.15 U	100 U	ND	FS4ACP-52CC(8)X
53	Floor	6	2.9	600	ND	FS4ACP-53CC(6)X
54	Floor	6	0.15 U	100 U	ND	FS4ACP-54CC(6)X
55	Floor	6	0.18 U	400	ND	FS4ACP-55CC(6)X
	East Wall	0-3	0.11 U	170	Trace	WS4ACP-55EC(0-3)X
	East Wall	3-6	2.40	100 U	ND	WS4ACP-55EC(3-6)X
	East Perimeter	0.25	0.11 U	100 U	ND	PS4ACP-55EG(0.25)X
56	Floor	8	1.30	510	ND	FS4ACP-56CC(8)X
57	Floor	8	1.50	1200	ND	FS4ACP-57CC(8)X
58	Floor	8	0.16 U	100 U	ND	FS4ACP-58CC(8)X
59	Floor	8	11 E	2300	ND	FS4ACP-59CC(8)X
60	Floor	8	11 E	1000	ND	FS4ACP-60CC(8)X
61	Floor	8	3.80	570	ND	FS4ACP-61CC(8)X
62	Floor	8	6.20	1400	ND	FS4ACP-62CC(8)X
63	Floor	8	2.70	100 U	ND	FS4ACP-63CC(8)X
64	Floor	6	0.88	100 U	ND	FS4ACP-64CC(6)X
65	Floor	6	0.15 U	100 U	ND	FS4ACP-65CC(6)X
66	Floor	6	0.15 U	100 U	ND	FS4ACP-66CC(6)X
	East Wall	0-3	1.60	2100	<1	WS4ACP-66EC(0-3)X
	East Wall	3-6	0.13 U	100 U	Trace	WS4ACP-66EC(3-6)X
	East Perimeter	0.25	0.23 U	100 U	ND	PS4ACP-66EG(0.25)X
67	Floor	8	0.21	660	ND	WS4ACP-67CC(8)X
68	Floor	8	17 E	820	<1	FS4ACP-68CC(8)X

**Fourth Avenue Extension Curcio Property
Post-Excavation Field Screening Results**

Grid Number	Sample Location	Sample Depth (feet)	Field Laboratory Results			Sample ID
			PCBs (ppm)	Lead (ppm)	Asbestos (%)	
			Cleanup Criteria			
			Depth Averaging Criteria ¹			
69	Floor	8	0.21 U	100 U	ND	FS4ACP-69CC(8)X
70	Floor	8	0.18	130	ND	FS4ACP-70CC(8)X
71	Floor	8	0.20	370	ND	FS4ACP-71CC(8)X
72	Floor	8	5.90	1400	ND	FS4ACP-72CC(8)X
73	Floor	8	0.17 U	100 U	ND	FS4ACP-73CC(8)X
74	Floor	7	0.23	110	ND	FS4ACP-74CC(7)X
75	Floor	7	0.38	100 U	ND	FS4ACP-75CC(7)X
76	Floor	7	0.31	100 U	ND	FS4ACP-76CC(7)X
77	Floor	6	0.20 U	160	ND	FS4ACP-77CC(6)D
	East Wall	0-3	0.78	4800	<1	WS4ACP-77AEC(0-3)X
	East Wall	3-6	0.20 U	100 U	ND	WS4ACP-77EC(3-6)X
	East Perimeter	0.25	0.12 U	100 U	ND	PS4ACP-77EG(0.25)X
78	Floor	8	0.33 U	250	ND	FS4ACP-78CC(8)X
79	Floor	8	1.00	420	ND	FS4ACP-79CC(8)X
80	Floor	8	0.22 U	100 U	ND	FS4ACP-80CC(8)X
81	Floor	8	0.15 U	100 U	ND	FS4ACP-81CC(8)X
82	Floor	8	0.15 U	100 U	ND	FS4ACP-82CC(8)X
83	Floor	8	0.14 U	100 U	ND	FS4ACP-83CC(8)X
84	Floor	8	0.30	100 U	ND	FS4ACP-84CC(8)D
85	Floor	8	0.30	100 U	ND	FS4ACP-85CC(8)X
86	Floor	7	0.77	180	ND	FS4ACP-86CC(7)X
87	Floor	6	0.20 U	100 U	ND	FS4ACP-87CC(6)X
88	Floor	6	0.21	280	ND	FS4ACP-88CC(6)X
	East Wall	0-3	0.11 U	100 U	ND	WS4ACP-88EC(0-3)X
	East Wall	3-6	0.34	1500	ND	WS4ACP-88EC(3-6)X
	East Perimeter	0.25	0.12 U	100 U	ND	PS4ACP-88EG(0.25)X
89	Floor	8	0.19	100 U	ND	FS4ACP-89CC(8)X
90	Floor	8	0.95	150	ND	FS4ACP-90CC(8)X
91	Floor	8	0.15 U	100 U	ND	FS4ACP-91CC(8)X
92	Floor	8	0.15 U	100 U	ND	FS4ACP-92CC(8)X
93	Floor	8	0.22	100 U	ND	FS4ACP-93CC(8)X
94	Floor	8	0.14 U	100 U	ND	FS4ACP-94CC(8)X
95	Floor	8	2.80	430	Trace	FS4ACP-95CC(8)X
96	Floor	8	1.10	230	ND	FS4ACP-96CC(8)D
97	Floor	8	0.12 U	110	ND	FS4ACP-97CC(8)X
98	Floor	8	0.22 U	160	ND	FS4ACP-98CC(8)X
99	Floor	6	0.50 U	340	ND	FS4ACP-99CC(6)X
	East Wall	0-3	0.11 U	100 U	ND	WS4ACP-99EC(0-3)X
	East Wall	3-6	0.12 U	100 U	Trace	WS4ACP-99EC(3-6)X
	East Perimeter	0.25	0.11 U	100 U	ND	PS4ACP-99EG(0.25)X
100	Floor	8	0.15 U	100 U	ND	FS4ACP-100CC(8)X
101	Floor	8	1.20	100 U	ND	FS4ACP-101CC(8)X
102	Floor	8	0.15 U	100 U	ND	FS4ACP-102CC(8)X

**Fourth Avenue Extension Curcio Property
Post-Excavation Field Screening Results**

Grid Number	Sample Location	Sample Depth (feet)	Field Laboratory Results			Sample ID
			PCBs (ppm)	Lead (ppm)	Asbestos (%)	
			Cleanup Criteria			
			Depth Averaging Criteria ¹			
103	Floor	8	0.15 U	100 U	ND	FS4ACP-103CC(8)X
104	Floor	8	0.14 U	100 U	ND	FS4ACP-104CC(8)X
105	Floor	8	0.24	100 U	ND	FS4ACP-105C(8)X
106	Floor	8	2.20	700	ND	FS4ACP-106CC(8)X
107	Floor	8	0.28 U	100 U	ND	FS4ACP-107CC(8)X
108	Floor	8	0.14 U	100 U	ND	FS4ACP-108CC(8)X
109	Floor	8	0.15 U	100 U	ND	FS4ACP-109CC(8)X
110	Floor	8	0.15 U	100 U	ND	FS4ACP-110CC(8)X
	East Wall	0-3	0.11 U	100 U	ND	WS4ACP-110EC(0-3)X
	East Wall	3-6	0.12 U	100 U	ND	WS4ACP-110EC(3-6)X
	East Wall	6-8	0.19 U	100 U	ND	WS4ACP-110EC(6-8)X
	East Perimeter	0.25	0.50 U	100	ND	PS4ACP-110EG(0.25)X
111	Floor	5	0.15 U	2100	ND	FS4ACP-111CC(5)X
112	Floor	6	0.25	100 U	ND	FS4ACP-112CC(6)X
113	Floor	7	0.16 U	100 U	ND	FS4ACP-113CC(7)X
114	Floor	7	0.20 U	100 U	ND	FS4ACP-115CC(7)X
115	Floor	8	0.15 U	100 U	ND	FS4ACP-116CC(8)X
116	Floor	8	0.15 U	100 U	ND	FS4ACP-116ACC(8)X
117	Floor	8	0.30 U	100 U	ND	FS4ACP-117CC(8)X
118	Floor	8	1.30	290	1	FS4ACP-118CC(8)X
119	Floor	8	0.92	200	Trace	FS4ACP-119CC(8)X
120	Floor	6	1.10	660	ND	FS4ACP-120CC(6)X
121	Floor	6	0.14 U	130	Trace	FS4ACP-121CC(6)X
	East Wall	0-3	0.11 U	100 U	Trace	WS4ACP-121EC(0-3)X
	East Wall	3-6	0.12 U	100 U	ND	WS4ACP-121EC(3-6)X
	East Perimeter	0.25	0.12 U	100 U	ND	PS4ACP-121EG(0.25)X
122	Floor	5	0.20	2100	5	FS4ACP-122CC(5)X
123	Floor	6	0.22 U	120	ND	FS4ACP-123CC(6)X
124	Floor	7	0.18 U	100 U	ND	FS4ACP-124CC(7)X
125	Floor	7	2.00	100 U	ND	FS4ACP-126CC(7)X
126	Floor	7	0.15 U	100 U	ND	FS4ACP-127CC(7)X
127	Floor	7	1.50	750	ND	FS4ACP-127ACC(7)X
128	Floor	7	0.14 U	100 U	ND	FS4ACP-128CC(7)X
129	Floor	6	1.40	100 U	ND	FS4ACP-129CC(6)X
130	Floor	6	2.00	1100	2	FS4ACP-130CC(6)X
131	Floor	6	1.70	930	25	FS4ACP-131CC(6)X
132	Floor	8	0.15 U	390	2	FS4ACP-132CC(8)X
	East Wall	0-3	0.11 U	100 U	Trace	FS4ACP-132EC(0-3)X
	East Wall	3-6	0.11 U	100 U	<1	WS4ACP-132EC(3-6)X
	East Wall	6-8	0.16 U	120	ND	WS4ACP-132EC(6-8)X
	East Perimeter	0.25	0.12 U	100 U	ND	PS4ACP-132EG(0.25)X
133	Floor	5	0.20 U	390	ND	FS4ACP-133CC(5)X
134	Floor	6	0.94	290	ND	FS4ACP-134CC(6)X

**Fourth Avenue Extension Curcio Property
Post-Excavation Field Screening Results**

Grid Number	Sample Location	Sample Depth (feet)	Field Laboratory Results			Sample ID
			PCBs (ppm)	Lead (ppm)	Asbestos (%)	
			Cleanup Criteria			
			Depth Averaging Criteria¹			
135	Floor	7	0.18 U	200	ND	FS4ACP-135CC(7)X
136	Floor	7	0.18 U	100 U	ND	FS4ACP-137CC(7)X
137	Floor	7	0.13 U	100 U	ND	FS4ACP-138CC(7)X
138	Floor	7	0.18 U	440	ND	FS4ACP-138ACC(7)X
139	Floor	6	0.15 U	140	ND	FS4ACP-139CC(6)X
140	Floor	6	0.16 U	140	ND	FS4ACP-140CC(6)X
141	Floor	6	5.70	2300	10	FS4ACP-141CC(6)X
	South Wall	3-6	7.60	3000	5	WS-4ACP-141SC(3-6)X
142	Floor	6	0.86	360	<1	FS4ACP-142CC(6)X
143	Floor	8	1.30	1700	25	FS4ACP-143CC(8)X
	East Wall	0-3	0.11 U	100 U	Trace	WS4ACP-143EC(0-3)X
	East Wall	3-6	0.12 U	100 U	2	WS4ACP-143EC(3-6)X
	East Wall	6-8	0.40	170	2	WS4ACP-143EC(6-8)X
	East Perimeter	0.25	0.11 U	100 U	ND	PS4ACP-143EG(0.25)X

Results presented in this table summarize the field screening results for soil left in place after excavation activities were completed.

NOTES:

- ¹ See attached 4/27/95 memorandum from A. Wing, USEPA to R. Goff, USACE
- Floor (composite) samples obtained from the base of the excavation.
- Wall (composite) samples obtained from the vertical face of the excavation.
- Perimeter (grab) samples obtained approximately 2.5 feet from the edge of the excavation.
- ND indicates the contaminant was not detected in the sample.
- E indicates the actual result exceeds the value listed.
- J indicates estimated value.
- U indicates the contaminant was not detected in the sample; the reported value is the detection limit.
- UJ indicates non-detect; detection limit is estimated.
- Highlighted cells indicate samples which failed to meet the USEPA depth averaging cleanup criteria

Public Health Implication Statement
for
Cusick Property, Fourth Avenue Extension
Stratford, CT

The federal Agency for Toxic Substances and Disease Registry (ATSDR) and the Connecticut Department of Public Health (CTDPH) have evaluated environmental sampling results provided to us by EPA Region I in their investigation of Raymark waste contamination. These sampling results were collected following EPA's cleanup of your property. Based on our evaluation, the health agencies believe that there is no current health threat indicated by the soil sampling results for asbestos, lead and polychlorinated biphenyls (PCBs) from your property. However, waste had to be left below the surface on your property. As a result, the health agencies have made the following recommendations:

1. Do not dig below the surface in areas of the property indicated by grid numbers 34 and 77.
2. Do not dig below 3 feet in areas of the property indicated by grid numbers 33A, 35, 38A and 141.
3. Do not dig below 4 feet in areas of the property indicated by grid numbers 10, 15, 26, 45, 16 and 27.
4. Do not dig below 5 feet in areas of the property indicated by grid numbers 5, 32, 32A, 43A, 111 and 122.
5. Do not dig below 6 feet in areas of the property indicated by grid numbers 18, 31A, 36, 37, 39, 130 and 131.
6. Do not dig below 7 feet in areas of the property indicated by grid numbers 8, 17, 30A and 127.
7. Do not dig below 8 feet in areas of the property indicated by grid numbers 7, 38, 46, 48, 49, 50, 51, 53, 57, 59, 60, 61, 62, 63, 68, 72, 95, 106 and 143.
8. This property should be placed on a notification system so that future owners will be aware that waste was left in place. Waste was left in place below the surface because groundwater was reached during excavation activities.

If you have any questions or comments, please call the CTDPH hotline at 860/509-7742 or the Stratford Health Department at 203/385-4090.

Type of Samples: Post Excavation Soil
Date of Samples: May, 1996

Signature



Date:

8/20/96

ATSDR Reviewers: David Mellard, Ph.D., Tammie McRae

CTDPH Reviewer: Jennifer Kortanis

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STRATFORD
PROJECT OFFICE

Public Health Implications Statement
for
Cursio Property, Fourth Avenue
Stratford, CT

The federal Agency for Toxic Substances and Disease Registry (ATSDR) and the Connecticut Department of Public Health and Addiction Services (CTDPHAS) have evaluated the enclosed information. Based on that evaluation, the health agencies believe that a possible health threat exists at this location at this time.

The health agencies have made the following recommendations:

1. Since contamination may be below the surface at this location, samples should be collected from areas underground; and
2. Digging should be avoided until the subsurface investigation has been completed.

If you have questions or comments, please call the CTDPHAS hotline at 240-9024 or the Stratford Health Department at 385-4090.

Signature



Date: July 28, 1993

Type of Samples: Surface Soil Screening

Date of Samples: 6/27/93

ATSDR Reviewers: David Mellard, Ph.D., Lynn Wilder, Rich Nickle
Tammie McRae

CTDPHAS Reviewers: Diane Aye

COPY DATE: 5/20/96
PLOT SCALE: 1"=10'

EXCAVATION FLOOR ELEVATION			EXCAVATION FLOOR ELEVATION		
GRID No.	DEPTH OF EXCAV. (FT.)	FLOOR ELEV. (FT.)	GRID No.	DEPTH OF EXCAV. (FT.)	FLOOR ELEV. (FT.)
2	-4	7.0	68	-8	1.0
3	-4	7.0	69	-8	1.0
4	-5	6.0	70	-8	1.0
5	-7	4.0	71	-8	1.0
6	-7	4.0	72	-8	1.0
7	-8	3.0	73	-8	1.0
8	-7	3.0	74	-7	1.5
9	-6	2.5	75	-7	0.5
10	-5	2.0	76	-7	0.0
11	-6	0.75	77	-6	1.0
13	-4	7.0	78	-8	0.75
14	-4	7.0	79	-8	0.75
15	-4	7.0	80	-8	0.75
16	-7	3.25	81	-8	0.75
17	-7	3.5	82	-8	0.75
18	-6	4.5	83	-8	0.75
19	-7	2.75	84	-8	0.75
20	-7	1.75	85	-8	0.0
21	-6	1.0	86	-7	0.5
22	-6	0.5	87	-6	1.0
24	-4	6.5	88	-6	1.0
25	-4	6.25	89	-8	0.5
26	-7	3.5	90	-8	0.5
26A	-3	7.0	91	-8	0.5
27	-7	3.1	92	-8	0.25
28	-7	3.25	93	-8	0.25
29	-7	3.1	94	-8	0.25
29A	-6	4.0	95	-8	0.0
30	-7	2.5	96	-8	0.0
30A	-7	2.5	97	-8	-0.5
31	-7	1.5	98	-8	-0.5
31A	-6	2.25	99	-6	2.0
32	-5	2.0	100	-8	0.25
32A	-6.5	0.5	101	-8	0.25
33	-5	1.5	102	-8	0.0
33A	-5	1.5	103	-8	0.0
34	-4	6.0	104	-8	0.0
35	-8	2.0	105	-8	0.0
36	-8	2.0	106	-8	0.0
37	-8	1.75	107	-8	-0.5
38	-8	1.8	108	-8	-0.5
38A	-6	4.0	109	-8	-0.5
39	-8	2.0	110	-8	0.5
40	-8	2.0	111	-5	3.0
40A	-6	4.0	112	-6	1.5
41	-8	1.0	113	-7	0.5
41A	-8	1.0	114	-7	0.5
42	-6	2.0	115	-8	-0.5
42A	-6	2.0	116	-8	-0.5
43	-4	3.0	117	-8	-0.5
43A	-5	2.0	118	-8	-0.5
44	-6	0.75	119	-8	-0.5
44A	-3	3.75	120	-6	2.0
45	-8	2.0	121	-6	3.0
46	-8	2.0	122	-5	2.25
47	-8	1.75	123	-6	1.25
48	-8	1.75	124	-7	0.5
49	-8	1.75	125	-7	0.5
50	-8	2.0	126	-7	0.5
51	-8	1.5	127	-7	0.5
52	-8	1.0	128	-7	0.5
53	-6	2.0	129	-6	1.5
54	-6	1.0	130	-6	1.5
55	-6	1.0	131	-8	1.75
56	-8	1.5	132	-8	1.0
57	-8	1.5	133	-5	2.0
58	-8	1.25	134	-6	1.0
59	-8	1.3	135	-7	0.0
60	-8	1.4	136	-7	0.25
61	-8	1.3	137	-7	0.25
62	-8	1.25	138	-7	0.25
63	-8	0.5	139	-6	1.25
64	-6	2.0	140	-6	1.5
65	-6	1.0	141	-6	1.5
66	-6	0.75	142	-6	1.75
67	-8	1.0	143	-8	1.0

NOTE: ALL ELEVATIONS ARE MEASURED AT THE APPROXIMATE CENTER OF THE EXCAVATED PORTION OF THE SUBJECT GRID NUMBER. (SEE SURVEY NOTE, THIS SHEET)

CROSS SECTION A-A
EXCAVATION DETAIL

NOT TO SCALE
(APPLIES TO PORTIONS OF GRIDS 34 AND 45)

SECTION DETAIL
NOT TO SCALE

LEGEND

- N190.E153
- 8+150
- N/F
- BIT. CONC.
- 97(-8)
- WESTON ARCS DEPTH SAMPLE
- FOSTER WHEELER ENVIRONMENTAL PRE-EXCAVATION CSIR BORING
- NOW OR FORMERLY
- PROPERTY LINE
- WOOD STOCKADE FENCE
- DECIDUOUS TREE
- BITUMINOUS CONCRETE
- EXCAVATED AREA
- GRID NUMBER (DEPTH OF EXCAVATION)

TOPOGRAPHIC AND BOUNDARY SURVEY PREPARED BY:
MERIDIAN ENGINEERING COLLABORATIVE, INC.
100 CORPORATE PLACE PEABODY, MA 01960
(508) 535-7328. DRAWING ENTITLED
PROPERTY BOUNDARY & TOPOGRAPHIC SURVEY PLAN,
SEPTEMBER 12, 1994, BY DAVID J. RODE, PLS.

SURVEY NOTE:
VERTICAL SURVEY CONTROL IS REFERENCED TO STATE OF CONNECTICUT
GEODETIC SURVEY BENCHMARK INFORMATION (OBTAINED FROM THE CONNECTICUT
DEPARTMENT OF TRANSPORTATION), WHICH IS BASED UPON THE NORTH AMERICAN
VERTICAL DATUM OF 1929 (NAVD 1929) (REFERENCED TO MEAN SEA LEVEL AND,
IN NEW ENGLAND, EQUIVALENT TO NGVD 1929).

POST-EXCAVATION SAMPLES KEY:

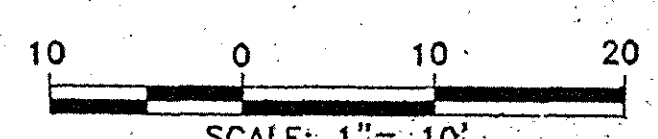
- FLOOR SAMPLE (COMPOSITE)
- PERIMETER SAMPLE (GRAB)
- WALL SAMPLE (COMPOSITE)

REASON FOR TERMINATION OF EXCAVATION:

- P - PASSED EPA DEPTH AVERAGING CLEANUP CRITERIA (AS STATED IN 4/27/95 MEMORANDUM FROM A. WING, USEPA, TO R. GOFF, USEA.)
- A - FOUNDATION OR OTHER AREAS NOT TO BE DISTURBED
- B - FAILED USEPA DEPTH AVERAGING CLEANUP CRITERIA (AS STATED IN 4/27/95 MEMORANDUM FROM A. WING, USEPA, TO R. GOFF, USEA.) CONTAMINATED SOILS WERE INADVERTENTLY LEFT IN PLACE.
- C - GROUNDWATER ENCOUNTERED
- D - EXCAVATION IS 8' DEEP

NOTES:

- EXCAVATION CONTINUED ON THE ADJACENT PROPERTIES AT APPROXIMATELY THE SAME DEPTH IN THE FOLLOWING AREAS:
 - JOSEPH WETMORE PROPERTY (FOURTH AVENUE EXT.) - SOUTH OF GRIDS: 133, 134, 135, 136, 137, 138, 139, 140, 141, 142 & 143.
 - MRAZ PROPERTY (FOURTH AVENUE EXT.) - WEST OF GRIDS: 34, 45, 56, 67, 78 & 89.
 - STRATTON PROPERTY (FOURTH AVENUE EXT.) - WEST OF GRIDS: 89, 100, 111, 112 & 153.

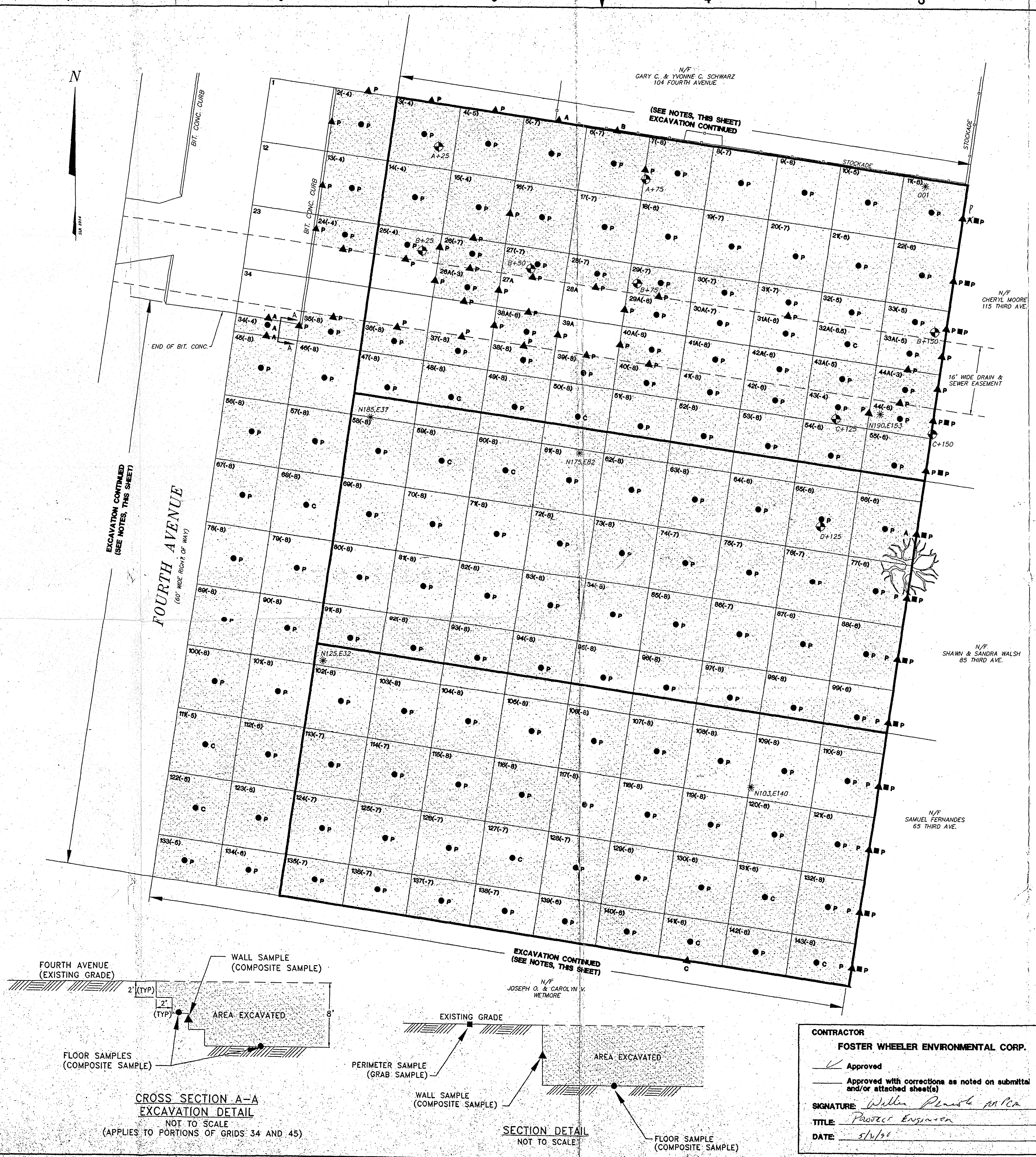


DES. BY: JWP	CHK. BY: FPZ	APP. BY: PCM
SUBMITTED: CHIEF GENERAL ENGINEERING BRANCH		
APPROVAL RECOMMENDED: CHIEF DESIGN DIVISION		
REVIEWED: ENGINEERING MANAGER		
APPROVAL RECOMMENDED: DIRECTOR OF ENGINEERING		
FOSTER WHEELER ENVIRONMENTAL CORPORATION 470 ATLANTIC AVENUE BOSTON, MA 02210 (617) 457-8200		
U. S. ARMY CORPS OF ENGINEERS NEW ENGLAND DIVISION WALTHAM, MASS.		
POST-EXCAVATION RECORD PLAN CURCIO PROPERTY STRATFORD, CT.		
DATE: 5/18/96		
SCALE: AS SHOWN		
DRAWING NUMBER		
SHEET 1 OF 1		

CONTRACTOR
FOSTER WHEELER ENVIRONMENTAL CORP.

Approved
Approved with corrections as noted on submittal and/or attached sheet(s)

SIGNATURE: *William P. Pardo*
TITLE: *Project Engineer*
DATE: *5/14/96*



FOSTER WHEELER ENVIRONMENTAL CORPORATION

Interoffice Memorandum

DATE: March 28, 1996

REF. #: 4ACP_rsp

TO: Marty Sklaver

FROM: Bianca Cerundolo *me*

SUBJECT: USACE CONTRACT NO. DACW33-94-D-0002 NE TERC
Delivery Order No. 0004 Stratford Superfund Sites
Post-Excavation Data - 4th Avenue, Curcio property
Amendment to Transmittal No. 01410-4ACP-GRID
Revised database table attached including 4ACP samples associated with 104 4th Ave.
Superceeds previous memo

Final results for post excavation samples representing soil "left in place" at the 4th Avenue, Curcio property are included on the attached table. These results were reviewed in accordance with the procedures described in the project CDAP and outlined below. Based on this review, the data are acceptable for project use.

The individual laboratories (ABB-ES - on-site and Aquatec - off-site) provide a quality assurance check of all data prior to final reporting. Quality control on-site/off-site split sample data are summarized and reported in weekly data comparison memos (WCS). Split sample comparison results and noted discrepancies were discussed in transmittals WCS-029 through WCS-037 and WCS-042. Noted PCB split sample results were reported to agree to the 1.0 pm project action limit and discrepancies were attributed to matrix interferences and sample inhomogeneity. On-going correlation studies are reported periodically and are intended to identify trends that could have significant impacts to the data reported by the on-site laboratory. The associated on-going correlation study for 4th Avenue, Curcio property is provided in transmittal OCS-010.

Approximately 20 percent of the off-site split sample results were reviewed with respect to the data quality objectives given in the CDAP and are reported in transmittal no. DV-008; no significant quality control exceedences were noted in the off-site data review.

Following the ABB-ES quality control review, the results summarized below were reported differently from the above mentioned grid book.

Sample I.D.	Lab I. D.	Date Collected	Correct Result (ppm)	Comments
WS-28SC(3.00-6.00)	10713	061295	1.80 (PCB)	revised COC result
WS-29AWC(3.00-6.00)	11442	072495	1.10 (PCB)	revised COC result

FS-2CC(4)	11012	062295	2.40 (PCB)	revised COC result
WS-2NC(3.00-4.00)	11020	062295	0.57 (PCB)	revised COC result
FS-68CC(8)	11242	071195	820 (lead)	average of duplicates
FS-70CC(8)	11217	071095	0.18 (PCB)	remove "U" from gridbook
FS-95CC(8)	11317	071395	430 (lead)	average of duplicates
PS-110EG(0.25)	11261	071295	0.50 U (PCB)	interference, raised detection limit
FS-129CC(6)	11392	072095	1.40 (PCB)	revised COC result
FS-22CC(6.00)	10530	060695	0.19 (PCB)	revised COC result
WS-25SC(0.00-3.00)	10688	061295	1.80 (PCB)	revised COC result
WS-2WC(0.00-3.00)	11016	062295	1.50 (PCB)	revised COC result
WS-2WC(3.00-4.00)	11021	062295	0.29 (PCB)	revised COC result
FS-31ACC(6)	11412	072195	3.80 (PCB)	revised COC result
FS-31ACC(6)	11412	072195	780 (lead)	incorrect gridbook entry
FS-33ACC(5)	11402	072195	1.00 (PCB)	revised COC result
WS-33ASC(3.00-5.00)	11404	072195	1.00 (PCB)	reanalysed sample; revised result
FS-3CC(4)	10677	060895	1.30 J (PCB)	revised COC result; qualifier added
FS-55CC(6)	10801	061495	400 (lead)	incorrect gridbook entry
FS-36CC(8)	11028	062695	1.60 (PCB)	revised COC result
WS-44AEC(0.00-3.00)	11407	072195	0.32 (PCB)	revised COC result

Following the on-site QC review, some PCB concentrations were revised and some final concentrations were flagged as estimated "J". In addition, some values reported for PCBs were adjusted slightly due to percent solids correction and/or rounding. The noted data adjustments do not change the field decisions with respect to the depth averaging cleanup criteria.

Please call me at (617)457-8256, if you have any questions.

cc: F. Kulynych
J. Francis
Chemistry Distribution
File # 4.4

FOURTH AVE PARCEL 6232

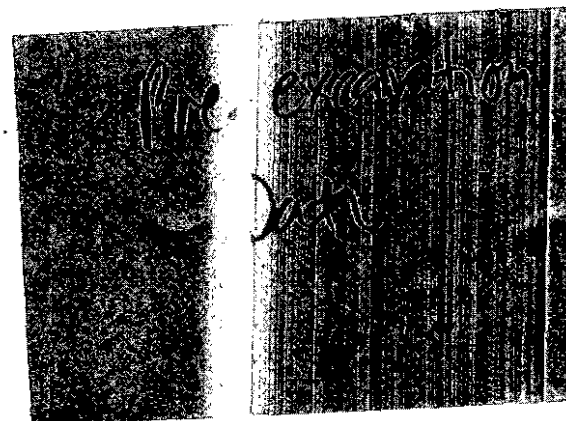
**Fourth Avenue Extension Cartledge Property
Foster Wheeler Environmental
Pre-Excavation Soil Boring Results**

Sample ID	Sample Depth (ft)	PCBs (ppm)	Lead (ppm)	Asbestos (%)
		Cleanup Criteria		
		1.0	500	1
A+00	0-0.25	0.11 U	100 U	ND
	0.25-1	0.11 U	120	2
	1-2	0.11 U	270	< 1
	2-3	0.11 U	140	< 1
	3-4	0.13 U	140	Trace
	4-5	1.3 U	180	ND
	5-6	0.13 U	180	ND
A+50	0-0.25	0.11 U	100 U	< 1
	0.25-1.0	0.12 U	100 U	ND
	1-2	0.21 U	100 U	ND
A+75	0-0.25	0.32	190	< 1
	0.25-1	0.29	300	< 1
	1-2	0.17	590	< 1
B+00	0-0.25	0.11 U	100 U	ND
	0.25-1	0.11 U	120	2
	1-2	1.10 U	250	< 1
	2-3	0.11 U	380	< 1
	3-4	0.12 U	100 U	< 1
	4-5	0.18 J	150	< 1
	5-6	0.54	180	< 1
	6-7	0.12 UJ	140	Trace
B+75	3-4	0.50	100 U	ND
B+100	4-5	2.9 U	500	ND
B+150	5-6	0.13 U	100 U	ND
C+00	0-0.25	0.11 U	120	ND
	0.25-1	0.11 U	120	< 1
	1-2	0.10 U	100 U	ND
	2-3	0.13 U	100 U	ND
	3-4	0.11 U	100 U	ND
	4-5	0.11 U	100 U	< 1
	5-6	0.12 U	190	ND
	6-7	0.12 U	150	ND

Results presented in this table summarize the site investigation (pre-excavation) results for soil left in place after excavation activities were completed.

NOTES:

- U indicates non-detect or detected below detection limit.
- J indicates estimated value.
- UJ indicates non-detect, detection limit is estimated.
- ND indicates non-detect for asbestos.



**Fourth Avenue Extension Cartledge Property
Foster Wheeler Environmental
Pre-Excavation Soil Boring Results**

Sample ID	Sample Depth (ft)	PCBs (ppm)	Lead (ppm)	Asbestos (%)
		Cleanup Criteria		
		1.0	500	1
C+25	0-0.25	0.11 U	170	Trace
	0.25-1	0.11 U	210	Trace
	1-2	0.11 U	260	ND
C+100	3-4	0.85	440	Trace
	4-5	0.25 U	110	< 1
C+125	3-5	2.0	820	ND

Results presented in this table summarize the site investigation (pre-excavation) results for soil left in place after excavation activities were completed.

NOTES:

- U indicates non-detect or detected below detection limit.
- J indicates estimated value.
- UJ indicates non-detect, detection limit is estimated.
- ND indicates non-detect for asbestos.

**Fourth Avenue Extension Cartledge Property
Weston TAT
Pre-Excavation Soil Boring Results**

Sample ID	Sample Depth (feet)	PCBs (ppm)	Lead (ppm)	Asbestos (%)
		Cleanup Criteria		
		1.0	500	1
A+70	Surface	0.25 U	80 J	Trace
A+110	Surface	0.25 U	140 J	ND
B+80	Surface	0.25 U	390	ND
C+55	Surface	0.25 U	440	Trace

Results presented in this table summarize the site investigation (pre-excavation) results for soil left in place after excavation activities were completed.

NOTES:

PCB Qualifiers

- U indicates contaminant has been analyzed for but not detected.

Lead Qualifiers

- J Result is greater than primary detection limit of 25 ppm.
Less than or equal to primary quantitation limit of 84 ppm.

Asbestos Qualifiers

- ND indicates non-detect for asbestos.

**Fourth Avenue Extension Cartledge Property
Weston ARCS
Pre-Excavation Soil Sampling Results**

Sample ID	Sample Depth (ft)	PCBs (ppm)	Lead (ppm)	Asbestos (%)
N57,W47		Cleanup Criteria		
		1.0	500	1
	4.8 - 5.0	0.25 U	310	ND
	5.2 - 5.4	0.25 U	170 J	ND
	6.0 - 6.2	0.25 U	210	ND

Results presented in this table summarize the site investigation (pre-excavation) results for soil left in place after excavation activities were completed.

NOTES:

PCB Qualifiers

- U indicates contaminant has been analyzed for but not detected.

Lead Qualifiers

- J Result is greater than primary detection limit of 25 ppm.
Less than or equal to primary quantitation limit of 84 ppm.

Asbestos Qualifiers

- ND indicates non-detect for asbestos.

Fourth Avenue Extension Cartledge Property

Weston TAT

Pre-Excavation Sediment Results

Sample ID	Sample Depth (feet)	PCBs (ppm)	Lead (ppm)	Asbestos (%)
		Cleanup Criteria		
		1.0	500	1
SED006	Sediment	13 U	210	1
SED007	Sediment	13 U	360	< 1

Results presented in this table summarize the site investigation (pre-excavation) results for soil left in place after excavation activities were completed.

NOTES:

PCB Qualifiers

- U indicates contaminant has been analyzed for but not detected.

Lead Qualifiers

- J Result is greater than primary detection limit of 25 ppm.
Less than or equal to primary quantitation limit of 84 ppm.

Asbestos Qualifiers

- ND indicates non-detect for asbestos.

**Fourth Avenue Extension Cartledge Property
Post-Excavation Field Screening Results**

Grid Number	Sample Location	Sample Depth (feet)	Field Laboratory Results			Sample ID
			PCBs (ppm)	Lead (ppm)	Asbestos (%)	
			Cleanup Criteria			
			Depth Averaging Criteria ¹			
3	North Perimeter	0.25	0.29	160	2	WS4ASP-5SG(0.25)X
4	North Perimeter	0.25	0.45	180	1	WS4ASP-6SG(0.25)X
5	North Perimeter	0.25	0.25	100	ND	WS4ASP-7SG(0.25)X
7	Center Wall	3-6	0.51	210	ND	WS4ASP-3SC(3-6)5LX
	Floor	3	0.53	180	1	FS4ACP2-7CC(3)X
	West Wall	0-3	0.26	460	<1	WS4ACP2-7WC(0-3)X
8	Floor	5	0.76	170	<1	FS4ACP2-8CC(5)X
	West Wall	3-5	1.1	630	<1	WS4ACP2-8WC(3-5)X
9	Floor	5	0.77	620	ND	FS4ACP2-9CC(5)X
15	South Perimeter	0.25	0.55	270	<1	PS4ACP2-24NG(0.25)X
16	Floor	3	0.12 U	350	2	FS4ACP2-16CC(3)X
	West Wall	0-3	0.28	510	<1	WS4ACP2-16WC(0-3)X
17	Floor	5	0.26 U	100 U	ND	FS4ACP2-17CC(5)X
	West Wall	3-5	1.2	550	ND	WS4ACP2-17WC(3-5)X
18	Floor	5	0.22 U	100 U	1	FS4ACP2-18CC(5)X
23	Floor	4	0.23 U	130	ND	FS4ACP2-24CC(4)10LX
	West Wall	0-3	0.30 U	140	ND	WS4ACP2-24WC(0-3)10LX
24	Floor	3	2.3	610	<1	FS4ACP2-24CC(3)X
	North Wall	0-3	0.37	680	1	WS4ACP2-24NC(0-3)X
25	Floor	4	1.0	370	1	FS4ACP2-25CC(4)X
	North Wall	3-4	0.56	1100	<1	WS4ACP2-25NC(3-4)X
26	Floor	5	0.71	170	ND	FS4ACP2-26CC(5)X
27	Floor	5	0.19 U	170	ND	FS4ACP2-27CC(5)X
33	Floor	3	1.5	840	15	FS4ACP2-33CC(3)X
	South Floor	4	0.43 U	100 U	ND	FS4ACP2-33CC(4)10LX
	South Wall	0-3	2.3	1900	ND	WS4ACP2-33SC(0-3)10LX
34	Floor	3	0.51	440	2	FS4ACP2-34CC(3)X

Results presented in this table summarize the field screening results for soil left in place after excavation activities were completed.

NOTES:

- ¹ See attached 4/27/95 memorandum from A. Wing, USEPA to R. Goff, USACE
- Floor (composite) samples obtained from the base of the excavation.
- Wall (composite) samples obtained from the vertical face of the excavation.
- Perimeter (grab) samples obtained approximately 2.5 feet from the edge of the excavation.
- ND indicates the contaminant was not detected in the sample.
- E indicates the actual result exceeds the value listed.
- J indicates estimated value.
- U indicates the contaminant was not detected in the sample; the reported value is the detection limit.
- Highlighted cells indicate samples which failed to meet EPA depth averaging criteria.

**Fourth Avenue Extension Cartledge Property
Post-Excavation Field Screening Results**

Grid Number	Sample Location	Sample Depth (feet)	Field Laboratory Results			Sample ID
			PCBs (ppm)	Lead (ppm)	Asbestos (%)	
			Cleanup Criteria			
			Depth Averaging Criteria ¹			
35	Floor	4	1.3	1300	10	FS4ACP2-35CC(4)X
36	Floor	4	0.16 U	140	2	FS4ACP2-36CC(4)X
37	Floor	6	0.17 U	100 U	ND	FS4ACP2-37CC(6)X
38	Floor	6	0.25	230	ND	FS4ACP2-38CC(6)X
39	Floor	6	0.95	520	ND	FS4ACP2-39CC(6)X
40	Floor	6	2.1	900	1	FS4ACP2-40CC(6)X
41	Floor	5	0.31	430	Trace	FS4ACP2-41CC(5)X
42	Floor	5	2.9	1500	3	FS4ACP2-42CC(5)X
43	Floor	5	2.4	100 U	ND	FS4ACP2-43CC(5)X
44	Floor	5	0.18	100 U	ND	FS4ACP2-44CC(5)X

Results presented in this table summarize the field screening results for soil left in place after excavation activities were completed.

NOTES:

- ¹ See attached 4/27/95 memorandum from A. Wing, USEPA to R. Goff, USACE
- Floor (composite) samples obtained from the base of the excavation.
- Wall (composite) samples obtained from the vertical face of the excavation.
- Perimeter (grab) samples obtained approximately 2.5 feet from the edge of the excavation.
- ND indicates the contaminant was not detected in the sample.
- E indicates the actual result exceeds the value listed.
- J indicates estimated value.
- U indicates the contaminant was not detected in the sample; the reported value is the detection limit.
- Highlighted cells indicate samples which failed to meet EPA depth averaging criteria.

Addendum to
Public Health Implications Statement
for
Cartledge Property, Fourth Avenue Extension
Stratford, CT

The federal Agency for Toxic Substances and Disease Registry (ATSDR) and the Connecticut Department of Public Health (CTDPH) have evaluated environmental sampling results provided to us by EPA Region I in their investigation of the Raymark waste contamination. These sampling results were collected following EPA's cleanup of your property. Based on our evaluation, the health agencies believe that there is no current health threat indicated by the soil sampling results for asbestos, lead, and polychlorinated biphenyls (PCBs) from your property. However, waste had to be left below the surface on your property. As a result, the health agencies have made the following recommendations:

1. Do not dig below the surface in areas of your yard indicated by grid numbers 3 and 33.
2. Do not dig below 2 feet in areas of your yard indicated by grid numbers 16 and 34.
3. Do not dig below 3 feet in areas of your yard indicated by grid numbers 35, 36, 40, 42 and 43.
4. This property should be placed on a notification system so that future owners will be aware that waste was left in place. Waste was left in place below the surface because groundwater was reached during excavation activities.

If you have questions or comments, please call the CTDPH hotline at 860/509-7742 or the Stratford Health Department at 203/385-4090.

Type of Samples: Post Excavation Soil
Date of Samples: August 1995

Signature 

Date: 7-26-96

ATSDR Reviewers: David Mellard, Ph.D., Tammie McRae

CTDPH Reviewer: Jennifer Kertanis

Public Health Implications Statement
for
Cartledge Property, Fourth Avenue Extension
Stratford, CT

The federal Agency for Toxic Substances and Disease Registry (ATSDR) and the Connecticut Department of Public Health (CTDPH) have evaluated environmental sampling results provided to us by EPA Region I in their investigation of the Raymark waste contamination. These sampling results were collected following EPA's cleanup of your property. Based on our evaluation, the health agencies believe that there is no current health threat indicated by the soil sampling results for asbestos, lead, and polychlorinated biphenyls (PCBs) from your property.

If you have questions or comments, please call the CTDPH hotline at 860/509-7742 or the Stratford Health Department at 203/385-4090.

Type of Samples: Post Excavation Soil
Date of Samples: August 1995

Signature



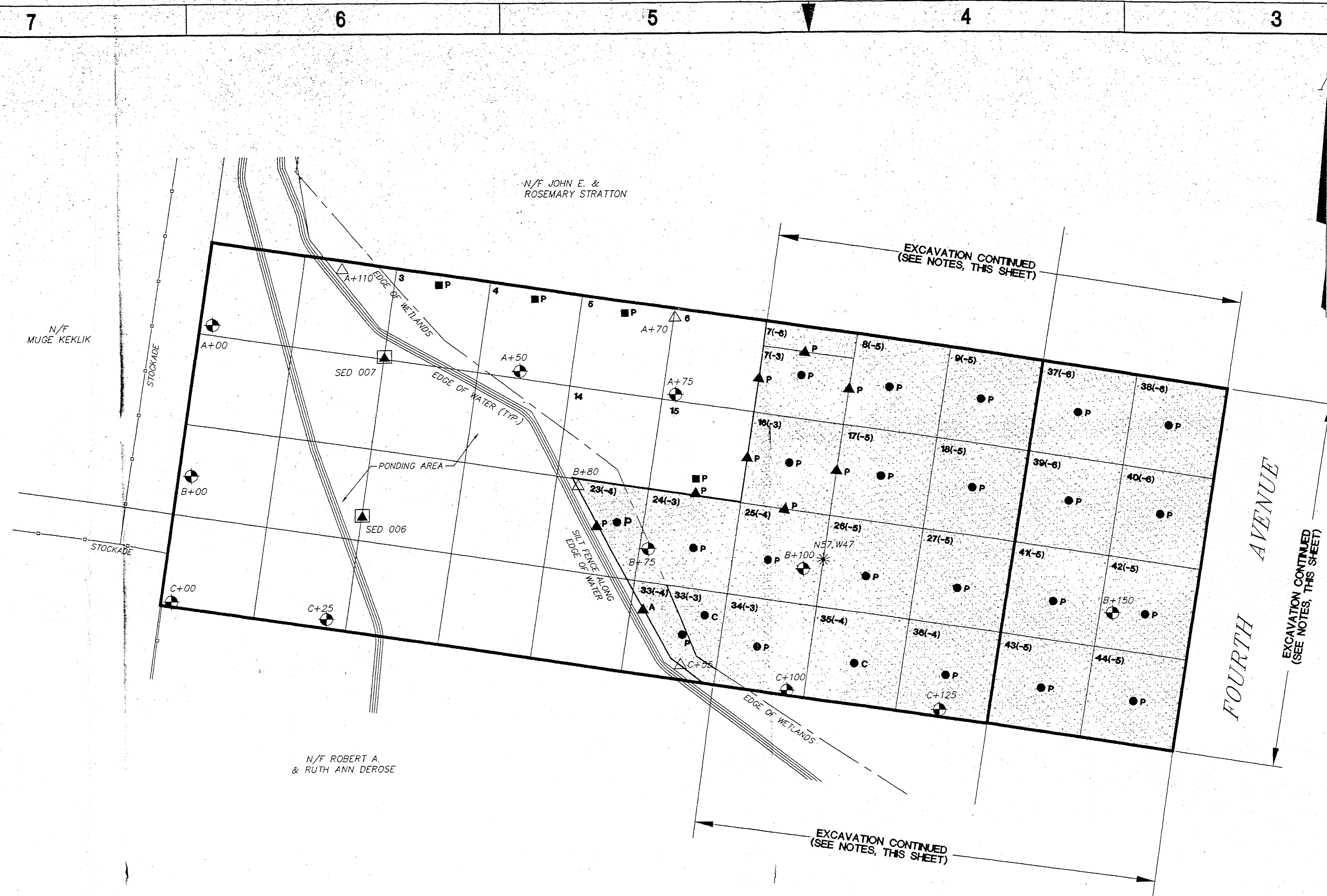
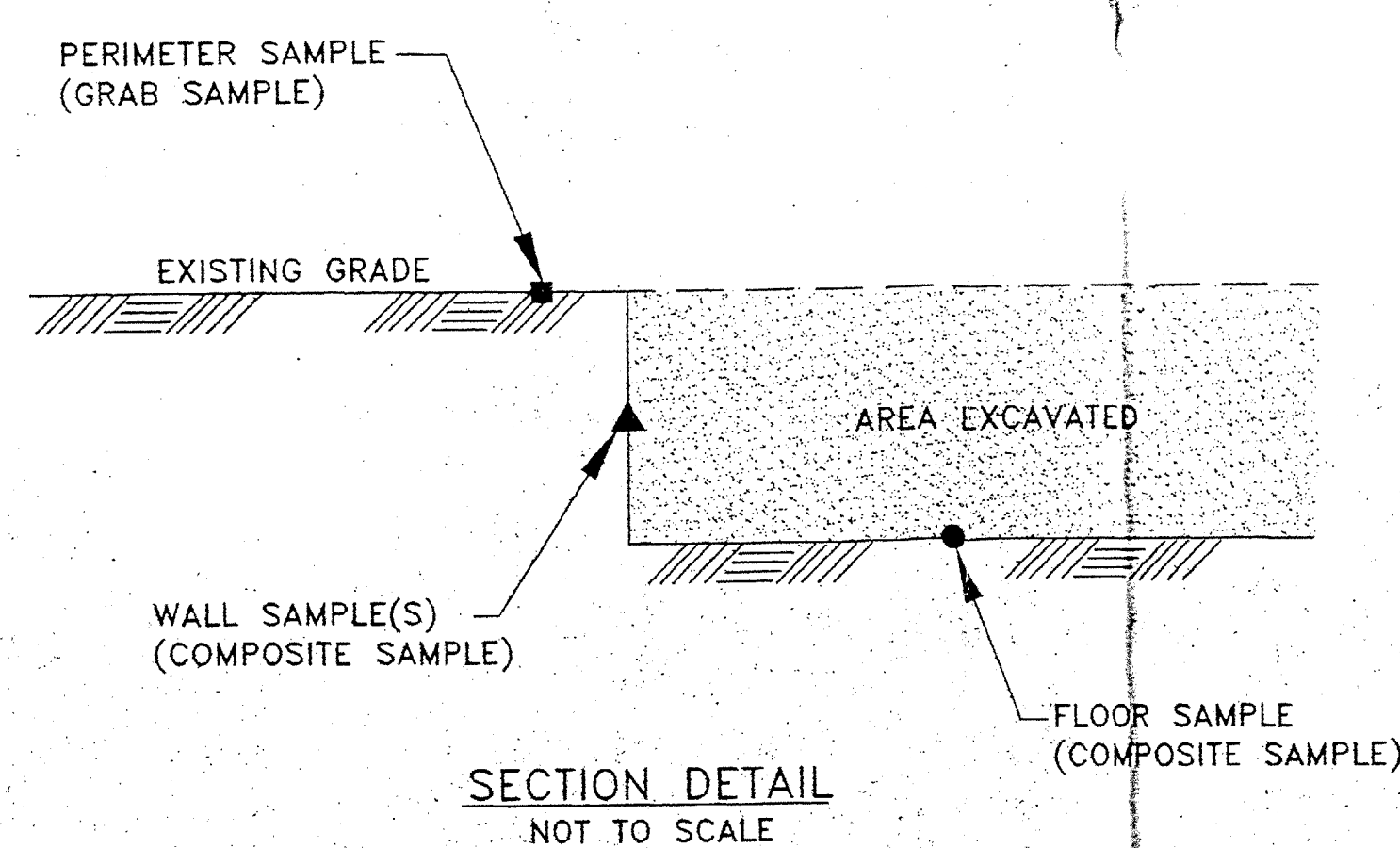
Date: June 4, 1996

ATSDR Reviewers: David Mellard, Ph.D., Tammie McRae

CTDPH Reviewer: Jennifer Kertanis

EXCAVATION FLOOR ELEVATION		
GRID NUMBER	DEPTH OF EXCAVATION (FT.)	FLOOR ELEVATION (FT.)
7	-6	1.0
7	-3	4.0
8	-5	2.0
9	-5	2.0
16	-3	3.5
17	-5	1.5
18	-5	1.5
23	-4	0.0
24	-3	2.0
25	-4	2.0
26	-5	1.5
27	-5	1.5
33	-3	2.0
33	-4	0.0
34	-3	2.5
35	-4	2.0
36	-4	2.5
37	-6	1.0
38	-6	1.0
39	-6	0.5
40	-6	0.5
41	-5	1.5
42	-5	1.5
43	-5	1.5
44	-5	1.5

NOTE: ALL ELEVATIONS ARE MEASURED AT THE APPROXIMATE CENTER OF THE EXCAVATED PORTION OF THE SUBJECT GRID NUMBER. (SEE SURVEY NOTE, THIS SHEET)



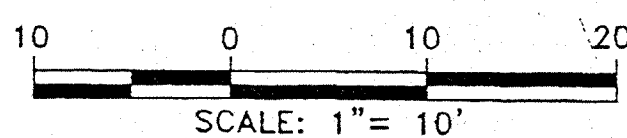
- LEGEND**
- FOSTER WHEELER ENVIRONMENTAL CSIR BORING
 - WESTON TAT SURFACE SAMPLE LOCATION (COLLECTED ON 6/27/93)
 - WESTON TAT POND SEDIMENT SAMPLE LOCATION (COLLECTED ON 9/10/93)
 - WESTON ARCS DEPTH SAMPLE/BORING LOCATION (COLLECTED ON 8/19 & 9/20, 1993)
 - NOW OR FORMERLY
 - PROPERTY LINE
 - WOOD STOCKADE FENCE
 - EXCAVATED AREA
 - GRID NUMBER (DEPTH OF EXCAVATION)
 - EDGE OF WATER

TOPOGRAPHIC AND BOUNDARY SURVEY PREPARED BY:
MERIDIAN ENGINEERING COLLABORATIVE, INC.
100 CORPORATE PLACE PEABODY, MA 01960
(508) 535-7328. DRAWING ENTITLED
PROPERTY BOUNDARY & TOPOGRAPHIC SURVEY PLAN,
SEPTEMBER 12, 1994, BY DAVID J. RODE, PLS.

SURVEY NOTE:
VERTICAL SURVEY CONTROL IS REFERENCED TO STATE OF CONNECTICUT
GEODETIC SURVEY BENCHMARK INFORMATION (OBTAINED FROM THE CONNECTICUT
DEPARTMENT OF TRANSPORTATION), WHICH IS BASED UPON THE NORTH AMERICAN
VERTICAL DATUM OF 1929 (NAVD 1929) [REFERENCED TO MEAN SEA LEVEL AND,
IN NEW ENGLAND, EQUIVALENT TO NGVD 1929].

- POST-EXCAVATION SAMPLES KEY:**
- FLOOR SAMPLE (COMPOSITE)
 - PERIMETER SAMPLE (GRAB)
 - WALL SAMPLE (COMPOSITE)
- REASON FOR TERMINATION OF EXCAVATION:**
- P - PASSED EPA DEPTH AVERAGING CLEANUP CRITERIA (AS STATED IN 4/27/95 MEMORANDUM FROM A. WING, USEPA, TO R. GOFF, USACE.)
 - A - TERMINATED AT EDGE OF WATER
 - B - NOT USED
 - C - GROUNDWATER ENCOUNTERED

- NOTES:**
- EXCAVATION CONTINUED ON THE ADJACENT PROPERTY AT APPROXIMATELY THE SAME DEPTH IN THE FOLLOWING AREAS:
 - DEROSE PROPERTY (FOURTH AVE EXT.) - SOUTH OF GRIDS 34, 35, 36, 43 AND 44.
 - STRATTON PROPERTY (FOURTH AVE EXT.) - NORTH OF GRIDS 7, 8, 9, 37 AND 38.
 - JOSEPH WETMORE PROPERTY (FOURTH AVE EXT.) - EAST OF GRIDS 38, 40, 42, AND 44.



CONTRACTOR
FOSTER WHEELER ENVIRONMENTAL CORP.
Approved
Approved with corrections as noted on submittal and/or attached sheet(s)
SIGNATURE: *[Signature]*
TITLE: *Project Engineer*
DATE: *4/12/96*

DES. BY: J.F.		DRN. BY: FPZ		CHK. BY: PCM	
SUBMITTED: 4/7/96		REVIEWED BY: E. Goffman & R. Sogut		APPROVED: APR 15 1996	
1		3/27/96		REVISED PER USAGE COMMENTS DATED 1/23/96	
REVISION	DATE	DESCRIPTION			BY
U. S. ARMY CORPS OF ENGINEERS NEW ENGLAND DIVISION WALTHAM, MASS.					
POST-EXCAVATION RECORD PLAN FOR CARLTEDGE PROPERTY FOURTH AVENUE EXTENSION STRATFORD, CT.					
DESIGNER: J.F.		APPROVED: [Signature]		DATE: 4/12/96	
FOSTER WHEELER ENVIRONMENTAL CORPORATION		470 ATLANTIC AVENUE		BOSTON, MA 02210	
(617) 457-5200		SCALE: AS SHOWN		SPEC. NO.	
DRAWING NUMBER		SHEET 1 OF 1			

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Interoffice Memorandum

DATE: March 18, 1996
REF. #: 4ACP2rsp
TO: Marty Sklaver
FROM: Helen Douglas *one for #1*
SUBJECT: USACE CONTRACT NO. DACW33-94-D-0002 NE TERC
Delivery Order No. 0004 Stratford Superfund Sites
Post-Excavation Data - 4th Avenue Extension, Cartledge Property
Amendment to Transmittal No. 01410-4ACP2-GRID

RECEIVED
APR 15 1996
STRATFORD
PROJECT OFFICE

Final results for post excavation samples representing soil "left in place" at 4th Avenue, Cartledge property are included on the attached table. These results were reviewed in accordance with the procedures described in the project CDAP and outlined below. Based on this review, the data are acceptable for project use.

The individual laboratories (ABB-ES - on-site and Aquatec - off-site) provide a quality assurance check of all data prior to final reporting. Quality control on-site/off-site split sample data are summarized and reported in weekly data comparison memos (WCS). Split sample comparison results were noted and discussed in transmittals WCS-039, -040 and -041. No discrepancies in on-site/off-site split sample comparisons were noted for 4th Avenue, Cartledge property. On-going correlation studies are reported periodically and are intended to identify trends that could have significant impacts to the data reported by the on-site laboratory. The associated on-going correlation study for 4th Avenue, Cartledge property is provided in transmittal OCS-010.

Approximately 20 percent of the off-site split sample results were reviewed with respect to the data quality objectives given in the CDAP and are reported in transmittal no. DV-008; no significant quality control exceedences were noted in the off-site data review.

Following the ABB-ES quality control review, the results summarized below were reported differently from the above mentioned grid book.

Sample I.D.	Lab I. D.	Date Collected	Correct Result (ppm)	Comments
FS-25CC(4.00)	11954	081495	1.00 J (PCB)	incorrect on COC
FS-34CC(3.00)	11953	081495	0.51 J (PCB)	revised COC result
WS-8WC(3.00-5.00)	11903	081195	640 (lead)	average of duplicate results

Some final concentrations are flagged as estimated "J" following the on-site QC review. In addition, some values reported for PCBs were adjusted slightly due to percent solids correction and/or rounding. The noted data adjustments do not change the field decisions with respect to the depth averaging criteria.

Please call me at (617)457-8263, if you have any questions.

cc: G. Eckart
J. Francis
Chemistry Distribution

FOURTH AVE PARCEL 6235

**Fourth Avenue Extension John Wetmore Property
Foster Wheeler Environmental
Pre-Excavation Soil Boring Results**

Sample ID	Sample Depth (ft)	PCBs (ppm)	Lead (ppm)	Asbestos (%)
		Cleanup Criteria		
		1.0	500	1
D +130	0 - 0.25	0.13 U	170	ND
	0.25 - 1.0	0.12 U	480	ND
	1.0 - 2.0	0.12 UJ	330	ND
	2.0 - 3.0	0.11 U	ND	ND
	3.0 - 4.0	0.12 U	630	ND
	4.0 - 5.0	0.12 U	310	ND
E +130	0 - 0.25	0.12 U	100 U	ND
	0.25 - 1.0	0.11 U	100 U	ND
	1.0 - 2.0	0.11 U	100 U	ND
	2.0 - 3.0	0.12 U	100 U	ND
	3.0 - 4.0	0.11 U	100 U	ND
	4.0 - 5.0	0.4	140	ND
	5.0 - 6.0	0.15 U	100 U	ND

Results presented in this table summarize the site investigation (pre-excavation) results for soil left in place after excavation activities were completed.

NOTES:

- U indicates non-detect or detected below detection limit.
- J indicates estimated value.
- E Exceeds calibration range.
- UJ indicates non-detect, detection limit is estimated.
- EJ Exceeds calibration range; estimated value.
- ND indicates non-detect for asbestos.

Fourth Avenue Extension John Wetmore Property
ABB-Environmental Services
Pre-Excavation Soil Boring Results

Sample ID	Sample Depth (ft)	PCBs (ppm)	Lead (ppm)	Asbestos (%)
		Cleanup Criteria		
		1.0	500	1
3A35-JW	0 - 0.25	0.11 U	100 U	ND.
	0.25 - 1	0.11 U	100 U	ND
	1 - 2	0.10 U	100 U	ND
	2 - 3	0.11 U	210	Trace
	3 - 4	0.11 U	260	ND
	4 - 5	0.11 U	100 U	ND

Results presented in this table summarize the site investigation (pre-excavation) results for soil left in place after excavation activities were completed.

NOTES:

- U indicates non-detect or detected below detection limit.
- ND indicates non-detect for asbestos.

**Fourth Avenue Extension John Wetmore Property
Weston ARCS
Pre-Excavation Soil Sampling Results**

Sample ID	Sample Depth (ft)	PCBs (ppm)	Lead (ppm)	Asbestos (%)
		Cleanup Criteria		
		1.0	500	1
N00,E31	6.0 - 7.1	0.25 U	710	30
	7.1 - 8.5	0.25 U	400	ND
	10.0 - 10.5	0.25 U	170 J	ND
	10.5 - 11.1	0.25 U	190	ND
	11.1 - 13.7	0.25 U	170 J	ND
S10,E170	2.5 - 2.9	0.25 U	140 J	ND

Results presented in this table summarize the site investigation (pre-excavation) results for soil left in place after excavation activities were completed.

NOTES:

PCB Qualifiers

- U indicates contaminant has been analyzed for but not detected.

Lead Qualifiers

- J indicates result is greater than primary detection limit of 50 ppm, and less than or equal to primary quantitation limit of 180 ppm.

Asbestos Qualifiers

- ND indicates non-detect for asbestos.

**Fourth Avenue Extension John Wetmore Property
Weston TAT/USACE
Pre-Excavation Sediment Sampling Results**

Sample ID	Sample Depth (ft)	PCBs (ppm)	Lead (ppm)	Asbestos (%)
		Cleanup Criteria		
		1.0	500	1
SED001 ¹	Sediment	0.25 U	450	1
SED002 ¹	Sediment	0.25 U	370	<1
SED003 ¹	Sediment	13 U	380	1
S006 ²	Sediment	1.0 U	151	ND
S007 ²	Sediment	1.0 U	254	Trace
L#1 ³	1	0.25 U	6 U	ND
	2	0.25 U	10 J	ND
	3	0.25 U	6 U	ND
L#2 ³	1	0.25 U	53.6	ND
	2	0.25 U	6 U	ND
	3	0.25 U	6 U	ND
	4	0.25 U	6 U	ND

Results presented in this table summarize the site investigation (pre-excavation) results for soil left in place after excavation activities were completed.

NOTES:

- ¹ Samples collected by Weston TAT on 10-Sept-93
- ² Samples collected by Weston TAT on 3-Nov-93
- ³ Samples collected by USACE on 22-Nov-93

PCB Qualifiers

- U indicates contaminant has been analyzed for but not detected.

Lead Qualifiers

- U indicates contaminant has been analyzed for but not detected.
- J Denotes that the sample concentration is above the detection limit and below the field screening quantitation limit.

Asbestos Qualifiers

- ND indicates non-detect for asbestos.

**Fourth Avenue Extension John Wetmore Property
Post-Excavation Field Screening Results**

Grid Number	Sample Location	Sample Depth (feet)	Field Laboratory Results			Sample ID
			PCBs (ppm)	Lead (ppm)	Asbestos (%)	
			Cleanup Criteria			
			Depth Averaging Criteria ¹			
1	Floor	4	1.10	470	10	FS4AJW125-1CC(4)X
2	Floor	4	0.97	490	ND	FS4AJW125-2CC(4)X
3	Floor	4	0.39 U	110	1	FS4AJW125-3CC(4)X
4	Floor	4	0.33 U	100 U	5	FS4AJW125-4CC(4)X
	South Floor	2	0.18 U	100 U	ND	FS4AJW125-3CC(2)10LX
	South Wall	0-1	2.00	420	60	WS4AJW125-3SC(0-1)10LX
10	Floor	4	0.16 U	100 U	ND	FS4AJW125-10CC(4)X
	West Floor	3	0.24 U	100 U	ND	FS4AJW125-10CC(3)3LX
	West Wall	0-1	0.12 U	190	2	WS4AJW125-10WC(0-1)3LX
11	Floor	5	0.16 U	200	<1	FS4AJW125-11CC(5)X
	East Wall	0-3	0.11 U	120	<1	WS4AJW125-11EC(0-3)X
	East Wall	3-5	0.97	100 U	1	WS4AJW125-11AEC(3-5)X
12	Floor	4	0.13 U	540	30	FS4AJW125-12CC(4)X
13	Floor	4	0.14 U	540	3	FS4AJW125-13CC(4)X
	Floor	4	0.16 U	1400	3	FS4AJW125-13CC(4)D
14	Floor	4	0.23 U	180	5	FS4AJW125-14CC(4)X
	South Floor	2	0.25 U	160	ND	FS4AJW125-14CC(2)10LX
	South Wall	0-1	0.56	4700	60	WS4AJW125-14SC(0-1)10LX
22	Floor	3	0.16 U	100 U	ND	FS4AJW125-11CC(3)5LX
	South Wall	0-3	0.10 U	100 U	ND	WS4AJW125-11SC(0-3)5LX
23	Floor	2	0.31 U	100 U	ND	FS4AJW125-12CC(2)10LX
	South Wall	0-1	0.23 U	170	ND	WS4AJW125-12SC(0-1)10LX
24	Floor	2	0.31 U	100 U	ND	FS4AJW125-13CC(2)10LX
	South Wall	0-1	0.13 U	100 U	ND	WS4AJW125-13SC(0-1)10LX

Results presented in this table summarize the field screening results for soil left in place after excavation activities were completed.

NOTES:

- ¹ See attached 4/27/95 memorandum from A. Wing, USEPA to R. Goff, USACE
- Floor (composite) samples obtained from the base of the excavation.
- Wall (composite) samples obtained from the vertical face of the excavation.
- Perimeter (grab) samples obtained approximately 2.5 feet from the edge of the excavation.
- ND indicates the contaminant was not detected in the sample.
- E indicates the actual result exceeds the value listed.
- J indicates estimated value.
- U indicates the contaminant was not detected in the sample; the reported value is the detection limit.
- Highlighted cells indicate samples which failed to meet EPA depth averaging criteria.

Public Health Implications Statement
for
John Wetmore Property, Fourth Avenue Extension
Stratford, CT

The federal Agency for Toxic Substances and Disease Registry (ATSDR) and the Connecticut Department of Public Health (CTDPH) have evaluated environmental sampling results provided to us by EPA Region I in their investigation of the Raymark waste contamination. These sampling results were collected following EPA's cleanup of your property. Based on our evaluation, the health agencies believe that there is no current health threat indicated by the soil sampling results for asbestos, lead, and polychlorinated biphenyls (PCBs) from your property. However, waste had to be left at and below the surface on your property at the edge of the pond. As a result, the health agencies have made the following recommendations:

1. Do not dig *below the surface* next to the pond as indicated by grid numbers: 4 and 14.
2. This property should be placed on a notification system so that future owners will be aware that waste had to be left in place. Waste was left in place because groundwater or the edge of the pond was reached during excavation activities.

If you have questions or comments, please call the CTDPH hotline at 860/509-7742 or the Stratford Health Department at 203/385-4090.

Type of Samples: Post Excavation Soil Screening

Date of Samples: July & August 1995

Signature



Date:

7-24-96

ATSDR Reviewers: David Mollard, Ph.D., Tammie McRae

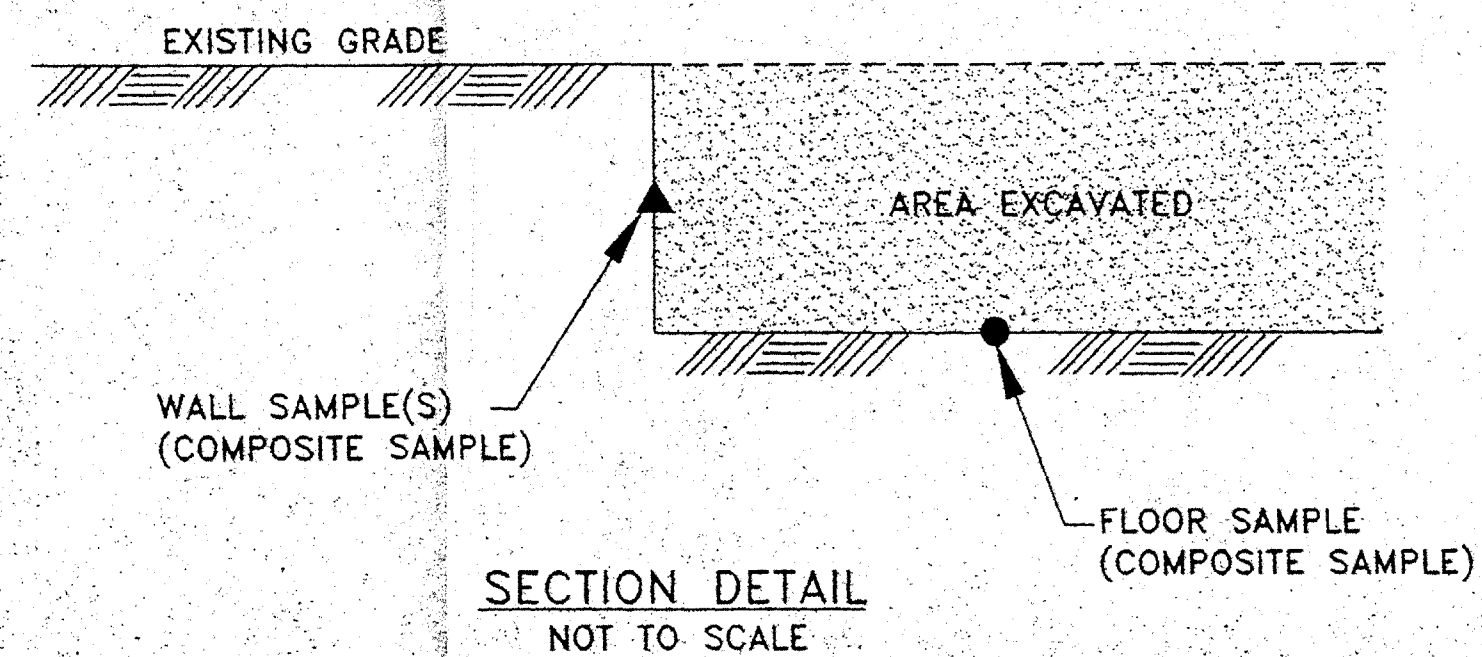
CTDPH Reviewer: Jennifer Kertanis

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JUL 24 1996
STRATFORD
PROJECT OFFICE

CAD FILE NAME: FORSABDWG DATE: 09/10/97
PLOT SCALE: 1"=10'

EXCAVATION FLOOR ELEVATION		
GRID NUMBER	DEPTH OF EXCAVATION (FT.)	FLOOR ELEVATION (FT.)
1	-4	2.5
2	-4	2
3	-4	1.5
4	-4	1.0
4	-2	2.5
10	-4	3
10	-3	2.5
11	-5	3.0
12	-4	2
13	-4	1.5
14	-4	1
14	-2	2.5
15	-2	2.5
22	-3	4
23	-2	2.5
24	-2	2.5
25	-2	2

NOTE: ALL ELEVATIONS ARE MEASURED AT THE APPROXIMATE CENTER OF THE EXCAVATED PORTION OF THE SUBJECT GRID NUMBER. (SEE SURVEY NOTE, THIS SHEET)



CONTRACTOR	
FOSTER WHEELER ENVIRONMENTAL CORP.	
Approved	
Approved with corrections as noted on submittal and/or attached sheet(s)	
SIGNATURE:	<i>John P. From</i> for Jay Borkland
TITLE:	PROJECT MANAGER
DATE:	9-11-97

2		09/10/97	INCORPORATES USACE COMMENTS DATED 7/29/96	JJF	FPZ	JAB
1		04/26/96	REVISED PER USACE COMMENTS DATED 4/4/96	PS	MDP	PCM
REVISION	DATE	DESCRIPTION			BY	
U. S. ARMY CORPS OF ENGINEERS NEW ENGLAND DIVISION WALTHAM, MASS.						
POST-EXCAVATION RECORD PLAN						
JOHN & ROSEMARY WETMORE PROPERTY						
STRATFORD, CT.						
DES. BY: JJF		DRN. BY: FPZ	CHD. BY: PCM	APPROVED: DATE:		
SUBMITTED:		CHIEF GENERAL ENGINEERING BRANCH		APPROVED: DATE:		
APPROVAL RECOMMENDED:		CHIEF DESIGN DIVISION		APPROVED: DATE:		
REVIEWED:		ENGINEERING MANAGER		APPROVED: DATE:		
APPROVAL RECOMMENDED:		DIRECTOR OF ENGINEERING (As required by Engineering Order No. 1112-4-76)		APPROVED: DATE:		
CHIEF ENGINEERING MANAGEMENT DIVISION		FOSTER WHEELER ENVIRONMENTAL CORPORATION 470 ATLANTIC AVENUE BOSTON, MA 02210 (617) 457-8200		SCALE: AS SHOWN		SPEC. NO.
DESIGN FILE: FORSABDWG				DRAWING NUMBER		SHEET 1 OF 1

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Interoffice Memorandum

DATE: May 6, 1996

REF. #: 4Ajw125rsp

TO: Marty Sklaver

FROM: Bianca Cerundolo

SUBJECT: USACE CONTRACT NO. DACW33-94-D-0002 NE TERC
Delivery Order No. 0004 Stratford Superfund Sites
Post-Excavation Data - 4th Avenue Extension, John Wetmore Property
Amendment to Transmittal No. 01410-4AJW125-GRID
Supersedes previous memo

Final results for post excavation samples representing soil "left in place" at 4th Avenue, John Wetmore property are included on the attached table. These results were reviewed in accordance with the procedures described in the project CDAP and outlined below. Based on this review, the data are acceptable for project use.

The individual laboratories (ABB-ES - on-site and Aquatec - off-site) provide a quality assurance check of all data prior to final reporting. Quality control on-site/off-site split sample data are summarized and reported in weekly data comparison memos (WCS). Split sample comparison results were discussed in transmittals WCS-038 and WCS-041. No split sample discrepancies were noted for 4th Avenue, John Wetmore property. On-going correlation studies are reported periodically and are intended to identify trends that could have significant impacts to the data reported by the on-site laboratory. The associated on-going correlation study for 4th Avenue, John Wetmore property is provided in transmittal OCS-010.

Approximately 20 percent of the off-site split sample results were reviewed with respect to the data quality objectives given in the CDAP and are reported in transmittal no. DV-008; no significant quality control exceedences were noted in the off-site data review.

Some final concentrations are flagged as estimated "J" following the on-site QC review. In addition, some values reported for PCBs were adjusted slightly due to percent solids correction and/or rounding. The noted data adjustments do not change the field decisions with respect to the depth averaging criteria.

Please call me at (617)457-8256, if you have any questions.

cc: J. Francis
Chemistry Distribution

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MAY 9 1996
STRATFORD
PROJECT OFFICE

FOURTH AVE PARCEL 9871

**Fourth Avenue Extension Mraz Property
Weston ARCS
Pre-Excavation Soil Sampling Results**

Sample ID	Sample Depth (ft)	PCBs (ppm)	Lead (ppm)	Asbestos (%)
		Cleanup Criteria		
		1.0	500	1
001	8.0 - 8.3	0.25 U	180 J	< 1
	8.3 - 9.8	0.25 U	140 J	ND
	9.0 - 10.5	0.25 U	170 J	ND
	9.8 - 11.7	0.25 U	150 J	ND
N145W132	0.3 - 0.4	0.25 U	220	2
	0.9 - 1.1	0.25 U	140 J	1
	1.7 - 1.9	0.25 U	130 J	< 1
	2.6 - 3.0	0.25 U	130 J	< 1
	4.5 - 5.2	0.25 U	350	2
	4.9 - 5.1	0.75	1030	ND
	5.3 - 5.5	0.25 U	550	< 1
	12.3 - 12.5	0.25 U	310	ND
	13.3 - 13.5	0.25 U	110 J	ND
N192W95	8.3 - 8.5	0.25 U	550	30
	9.1 - 9.3	0.25 U	150 J	ND
	9.8 - 10.0	0.25 U	190	ND

Results presented in this table summarize the site investigation (pre-excavation) results for soil left in place after excavation activities were completed.

NOTES:

PCB Qualifiers

- U indicates contaminant has been analyzed for but not detected.

Lead Qualifiers

- J Result is greater than primary detection limit of 50 ppm.
Less than or equal to primary quantitation limit of 180 ppm.

Asbestos Qualifiers

- ND indicates non-detect for asbestos.

**Fourth Avenue Extension Mraz Property
Weston TAT
Pre-Excavation Soil Sampling Results**

Sample ID	Sample Depth (feet)	PCBs (ppm)	Lead (ppm)	Asbestos (%)
		Cleanup Criteria		
		1.0	500	1
B +135	Surface	2.75	1340	20 - 30
C +135	Surface	0.25 U	140 J	ND

Results presented in this table summarize the site investigation (pre-excavation) results for soil left in place after excavation activities were completed.

NOTES:

- Samples collected on 6/27/93

PCB Qualifiers

- U indicates contaminant has been analyzed for but not detected.

Lead Qualifiers

- J Result is greater than primary detection limit of 25 ppm.
Less than or equal to primary quantitation limit of 84 ppm.

Asbestos Qualifiers

- ND indicates non-detect for asbestos.

**Fourth Avenue Extension Mraz Property
Foster Wheeler Environmental
Pre-Excavation Soil Boring Results**

Sample ID	Sample Depth (ft)	PCBs (ppm)	Lead (ppm)	Asbestos (%)
		Cleanup Criteria		
		1.0	500	1
A+25	6 - 7	0.20 U	350	ND
A+150	1 - 2	0.10 U	100 U	Trace
	2 - 3	0.10 NR	2100	ND
	3 - 4	1.1	190	Trace
	4 - 5	0.8	1000	ND
	5 - 6	0.12 U	1700	Trace
	6 - 7	0.12 U	1400	Trace
B +25	6 - 7	5.7	820	ND
C +25	3 - 4	1.6	1600	Trace
	4 - 5	0.18 U	170	Trace
D +25	0 - 1	0.11 U	100 U	ND
	1 - 2	0.10 U	100 U	Trace
	3 - 4	0.98	800	< 1
	4 - 5	2.7	310	ND

Results presented in this table summarize the site investigation (pre-excavation) results for soil left in place after excavation activities were completed.

NOTES:

- U indicates non-detect or detected below detection limit.
- J indicates estimated value.
- UU indicates non-detect, detection limit is estimated.
- NR not reported
- ND indicates non-detect for asbestos.

**Fourth Avenue Extension Mraz Property
Post-Excavation Field Screening Results**

Grid Number	Sample Location	Sample Depth (feet)	Field Laboratory Results			Sample ID
			PCBs (ppm)	Lead (ppm)	Asbestos (%)	
			Cleanup Criteria			
			Depth Averaging Criteria ¹			
1	Floor	8	3.9	530	ND	FS4AMP-1CC(8)X
2	Floor	8	2.5	570	ND	FS4AMP-2CC(8)X
3	Floor	8	0.23 U	100 U	ND	FS4AMP-3CC(8)X
4	Floor	8	0.74	130	ND	FS4AMP-4CC(8)X
5	Floor	8	0.25 U	100 U	ND	FS4AMP-5CC(8)X
6	Floor	7	0.77	240	ND	FS4AMP-6CC(7)X
7	Floor	6	0.25 U	150	ND	FS4AMP-7CC(7)X
	West Wall	0-3	0.72	200	Trace	WS4AMP-7WC(0-3)X
	West Wall	3-6	1.1	1500	<1	WS4AMP-7WC(3-6)X
10	Floor	8	0.31	380	ND	FS4AMP-10CC(8)X
11	Floor	8	0.26 U	100 U	ND	FS4AMP-11CC(8)X
12	Floor	8	0.19 U	100 U	ND	FS4AMP-12CC(8)X
13	Floor	8	0.20 U	120	ND	FS4AMP-13CC(8)X
14	Floor	7	1.9	2200	ND	FS4AMP-14CC(7)X
15	Floor	8	1.0	170	ND	FS4AMP-15CC(8)X
16	Floor	5	2.3	680	ND	FS4AMP-16CC(5)X
17	Floor	3	4.0	870	<1	FS4AMP-17CC(3)X
	South Wall	0-3	0.34	270	<1	WS4AMP-17SC(0-3)X
18	Floor	3	5.40	780	<1	FS4AMP-18CC(3)X
	South Floor	3	0.25	100 U	ND	FS4AMP-18CC(3)5LX
	West Wall	0-1	0.22 U	360	ND	WS4AMP-18WC(0-1)5LX
19	Floor	8	0.46	100 U	ND	FS4AMP-19CC(8)X
20	Floor	8	0.18 U	100 U	<1	FS4AMP-20CC(8)X
21	Floor	8	0.26	100 U	ND	FS4AMP-21CC(8)X
22	Floor	8	0.18 U	100 U	ND	FS4AMP-22CC(8)X

Results presented in this table summarize the field screening results for soil left in place after excavation activities were completed.

NOTES:

- ¹ See attached 4/27/95 memorandum from A. Wing, USEPA to R. Goff, USACE
- Floor (composite) samples obtained from the base of the excavation.
- Wall (composite) samples obtained from the vertical face of the excavation.
- Perimeter (grab) samples obtained approximately 2.5 feet from the edge of the excavation.
- ND indicates the contaminant was not detected in the sample.
- E indicates the actual result exceeds the value listed.
- J indicates estimated value.
- U indicates the contaminant was not detected in the sample; the reported value is the detection limit.
- Highlighted cells indicate samples which failed to meet EPA depth averaging criteria

**Fourth Avenue Extension Mraz Property
Post-Excavation Field Screening Results**

Grid Number	Sample Location	Sample Depth (feet)	Field Laboratory Results			Sample ID
			PCBs (ppm)	Lead (ppm)	Asbestos (%)	
			Cleanup Criteria			
			Depth Averaging Criteria ¹			
23	Floor	7	2.0	150	<1	FS4AMP-23CC(7)X
24	Floor	7	0.18	300	ND	FS4AMP-24CC(7)X
25	Floor	5	3.1	360	ND	FS4AMP-25CC(5)X
26	Floor	3	12 E	600	2	FS4AMP-26CC(3)X
27	Floor	3	11 E	720	2	FS4AMP-27CC(3)X
	West Wall	0-3	0.59	130	ND	WS4AMP-27WC(0-3)X
28	Floor	8	0.18 U	100 U	ND	FS4AMP-28CC(8)X
29	Floor	8	12 E	1800	<1	FS4AMP-29CC(8)X
30	Floor	8	14 E	1400	<1	FS4AMP-30CC(8)X
31	Floor	8	12 E	2200	5	FS4AMP-31CC(8)X
32	Floor	8	14 E	2900	2	FS4AMP-32CC(8)X
33	Floor	8	0.96	560	ND	FS4AMP-33CC(8)X
34	Floor	7	2.8	210	Trace	FS4AMP-34CC(7)X
35	Floor	5	2.5	480	2	FS4AMP-35CC(5)X
36	Floor	5	2.9	660	ND	FS4AMP-36CC(5)X
	West Floor	3	0.20 U	100 U	ND	FS4AMP-36CC(3)5LX
	West Wall	0-1	0.57	130	ND	WS4AMP-36WC(0-1)5LX
	West Wall	3-4	2.7	520	10	WS4AMP-36WC(3-4)X
37	Floor	8	8.5 E	1400	<1	FS4AMP-37CC(8)X
38	Floor	8	0.41	110	ND	FS4AMP-38CC(8)X
39	Floor	8	7.7E	2100	1	FS4AMP-39CC(8)X
40	Floor	8	3.1	540	1	FS4AMP-40CC(8)X
41	Floor	8	1.4	2500	40	FS4AMP-41CC(8)X
42	Floor	8	0.28	100 U	2	FS4AMP-42CC(8)X
43	Floor	7	0.18 U	130	ND	FS4AMP-43CC(7)X

Results presented in this table summarize the field screening results for soil left in place after excavation activities were completed.

NOTES:

- ¹ See attached 4/27/95 memorandum from A. Wing, USEPA to R. Goff, USACE
- Floor (composite) samples obtained from the base of the excavation.
- Wall (composite) samples obtained from the vertical face of the excavation.
- Perimeter (grab) samples obtained approximately 2.5 feet from the edge of the excavation.
- ND indicates the contaminant was not detected in the sample.
- E indicates the actual result exceeds the value listed.
- J indicates estimated value.
- U indicates the contaminant was not detected in the sample; the reported value is the detection limit.
- Highlighted cells indicate samples which failed to meet EPA depth averaging criteria

**Fourth Avenue Extension Mraz Property
Post-Excavation Field Screening Results**

Grid Number	Sample Location	Sample Depth (feet)	Field Laboratory Results			Sample ID
			PCBs (ppm)	Lead (ppm)	Asbestos (%)	
			Cleanup Criteria			
			Depth Averaging Criteria ¹			
44	Floor	6	0.48	1800	<1	FS4AMP-44CC(6)X
45	Floor	7	2.1	110	ND	FS4AMP-45CC(7)X
	West Wall	3-6	1.1	940	10	WS4AMP-45WC(3-6)X
	West Perimeter	0.25	0.11 U	100 U	ND	PS4AMP-45WG(0.25)X
46	Floor	8	4.1	350	ND	FS4AMP-46CC(8)X
	North Wall	6-8	7.2 E	1200	<1	WS4AMP-45NC(6-8)X
47	Floor	8	0.80	100 U	ND	FS4AMP-47CC(8)X
48	Floor	8	0.15 U	120	ND	FS4AMP-48CC(8)X
49	Floor	8	10 E	3900	<1	FS4AMP-49CC(8)X
50	Floor	8	15 E	2400	2	FS4AMP-50CC(8)X
51	Floor	8	0.21	11000	70	FS4AMP-51CC(8)X
52	Floor	7	0.14 U	100 U	ND	FS4AMP-52CC(7)X
53	Floor	6	0.24	100	ND	FS4AMP-53CC(6)X
54	Floor	7	0.19 U	100 U	ND	FS4AMP-54CC(7)X
	West Wall	0-3	0.11 U	100 U	<1	WS4AMP-54WC(0-3)X
	West Wall	3-6	0.34	140	1	WS4AMP-54WC(3-6)X
55	Floor	8	0.14 U	100 U	ND	FS4AMP-55CC(8)X
	North Wall	0-3	5.6	2000	<1	WS4AMP-55NC(0-3)X
	North Wall	3-6	6.1	1900	<1	WS4AMP-55NC(3-6)X
	North Wall	6-8	4.80	2200	ND	WS4AMP-55NC(6-8)X
56	Floor	8	13 E	2400	Trace	FS4AMP-56CC(8)X
	North Wall	0-3	28 E	2100	<1	FS4AMP-56NC(0-3)X
	North Wall	3-6	3.8	1300	2	WS4AMP-56NC(3-6)X
	North Wall	6-8	5.1	1300	<1	WS4AMP-56NC(6-8)X
57	Floor	8	0.17 U	100 U	ND	FS4AMP-57CC(8)X
58	Floor	8	0.21 U	200	ND	FS4AMP-58CC(8)X

Results presented in this table summarize the field screening results for soil left in place after excavation activities were completed.

NOTES:

- ¹ See attached 4/27/95 memorandum from A. Wing, USEPA to R. Goff, USACE
- Floor (composite) samples obtained from the base of the excavation.
- Wall (composite) samples obtained from the vertical face of the excavation.
- Perimeter (grab) samples obtained approximately 2.5 feet from the edge of the excavation.
- ND indicates the contaminant was not detected in the sample.
- E indicates the actual result exceeds the value listed.
- J indicates estimated value.
- U indicates the contaminant was not detected in the sample; the reported value is the detection limit.
- Highlighted cells indicate samples which failed to meet EPA depth averaging criteria

**Fourth Avenue Extension Mraz Property
Post-Excavation Field Screening Results**

Grid Number	Sample Location	Sample Depth (feet)	Field Laboratory Results			Sample ID
			PCBs (ppm)	Lead (ppm)	Asbestos (%)	
			Cleanup Criteria			
			Depth Averaging Criteria ¹			
59	Floor	8	0.22 U	100 U	ND	FS4AMP-59CC(8)X
60	Floor	8	0.20 U	100 U	ND	FS4AMP-60CC(8)X
61	Floor	8	0.19	220	ND	FS4AMP-61CC(8)X
62	Floor	8	0.93	310	ND	FS4AMP-62CC(8)X
63	Floor	8	0.31	100 U	ND	FS4AMP-63CC(8)X
64	Floor	8	0.20 U	100 U	ND	FS4AMP-64CC(8)X

Results presented in this table summarize the field screening results for soil left in place after excavation activities were completed.

NOTES:

- ¹ See attached 4/27/95 memorandum from A. Wing, USEPA to R. Goff, USACE
- Floor (composite) samples obtained from the base of the excavation.
- Wall (composite) samples obtained from the vertical face of the excavation.
- Perimeter (grab) samples obtained approximately 2.5 feet from the edge of the excavation.
- ND indicates the contaminant was not detected in the sample.
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- J indicates estimated value.
- U indicates the contaminant was not detected in the sample; the reported value is the detection limit.
- Highlighted cells indicate samples which failed to meet EPA depth averaging criteria

Addendum to
Public Health Implications Statement
for
Mraz Property, Fourth Avenue Extension
Stratford, CT

The federal Agency for Toxic Substances and Disease Registry (ATSDR) and the Connecticut Department of Public Health (CTDPH) have evaluated environmental sampling results provided to us by EPA Region I in their investigation of the Raymark waste contamination. These sampling results were collected following EPA's cleanup of your property. Based on our evaluation, the health agencies believe that there is no current health threat indicated by the soil sampling results for asbestos, lead, and polychlorinated biphenyls (PCBs) from your property. However, waste had to be left below the surface on your property. As a result, the health agencies have made the following recommendations:

1. Do not dig below the surface in areas of your yard indicated by grid numbers 55 and 56.
2. Do not dig below 2 feet in areas of your yard indicated by grid numbers 7, 17, 18, 26, 27, 36, and 45.
3. Do not dig below 4 feet in areas of your yard indicated by grid numbers 25 and 35.
4. Do not dig below 5 feet in areas of your yard indicated by grid numbers 34, 44 and 46.
5. Do not dig below 7 feet in areas of your yard indicated by grid numbers 1, 2, 29, 30, 31, 32, 37, 39, 40, 41, 42, 49, 50 and 51.
6. This property should be placed on a notification system so that future owners will be aware that waste was left in place. Waste was left in place below the surface because groundwater was reached during excavation activities, excavation depth reached 8 feet, or the foundation of a structure would be compromised due to excavation activities.

If you have questions or comments, please call the CTDPH hotline at 860/509-7742 or the Stratford Health Department at 203/385-4090.

Type of Samples: Post Excavation Soil
Date of Samples: July and August 1995

Signature  Date: 7-26-96
ATSDR Reviewers: David Mellard, Ph.D., Tammie McRae
CTDPH Reviewer: Jennifer Kertanis

Public Health Implications Statement
for
Mraz Property, Fourth Avenue Extension
Stratford, CT

The federal Agency for Toxic Substances and Disease Registry (ATSDR) and the Connecticut Department of Public Health (CTDPH) have evaluated environmental sampling results provided to us by EPA Region I in their investigation of the Raymark waste contamination. These sampling results were collected following EPA's cleanup of your property. Based on our evaluation, the health agencies believe that there is no current health threat indicated by the soil sampling results for asbestos, lead, and polychlorinated biphenyls (PCBs) from your property.

If you have questions or comments, please call the CTDPH hotline at 860/509-7742 or the Stratford Health Department at 203/385-4090.

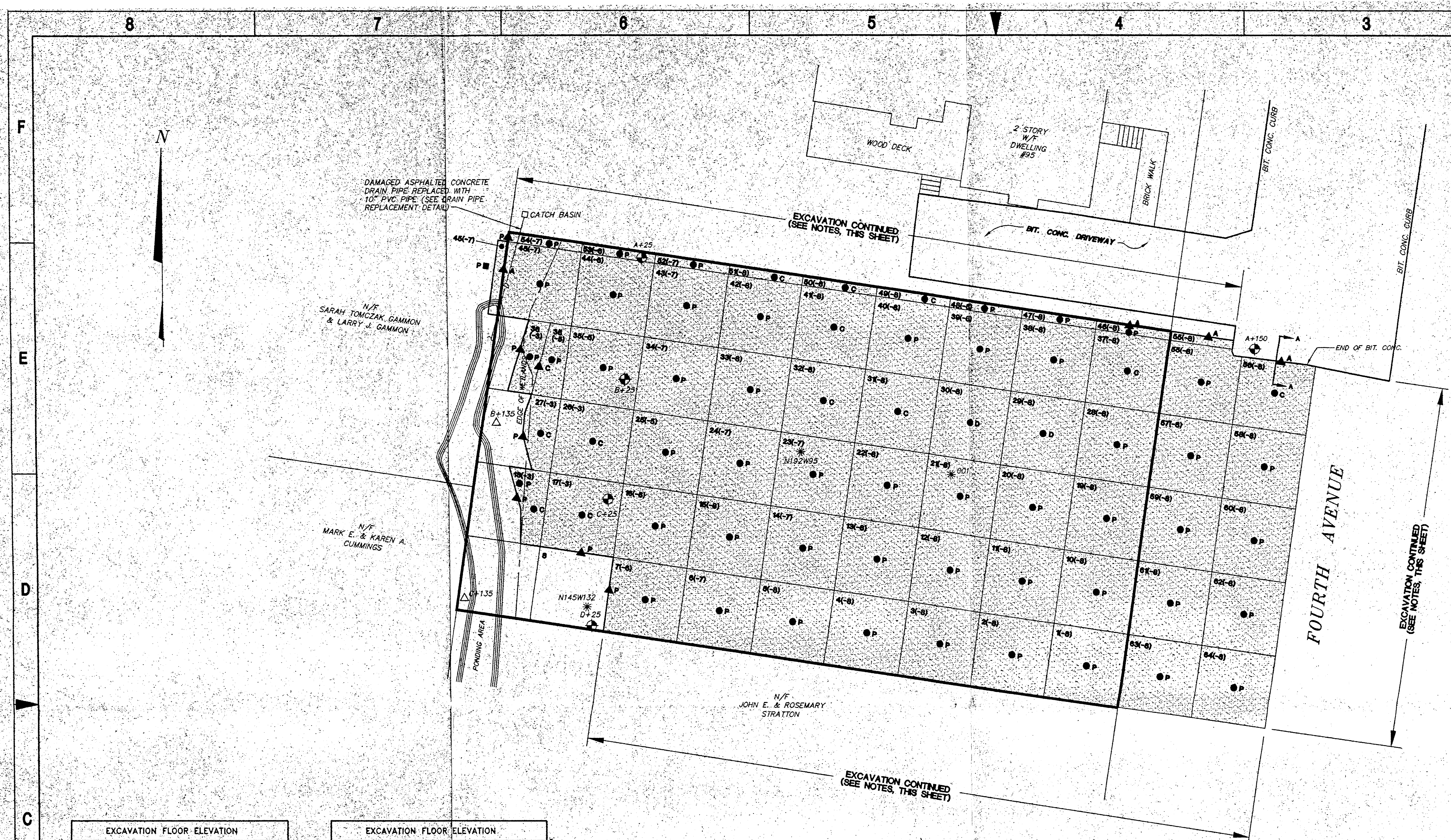
Type of Samples: Post Excavation Soil
Date of Samples: July and August 1995

Signature 

Date: June 4, 1996

ATSDR Reviewers: David Mellard, Ph.D., Tammie McRae

CTDPH Reviewer: Jennifer Kertanis



- LEGEND**
- FOSTER WHEELER ENVIRONMENTAL INC. CSIR BORING
 - WESTON TAT SURFICIAL SAMPLE (SAMPLES COLLECTED ON 6/27/93)
 - WESTON ARCS BORING LOCATION
 - WOOD FRAME
 - NOW OR FORMERLY PROPERTY LINE
 - EDGE OF WATER
 - EDGE OF WETLANDS
 - STORM DRAIN
 - BIT. CONC.
 - BITUMINOUS CONCRETE
 - EXCAVATED AREA
 - GRID NUMBER (DEPTH OF EXCAVATION)

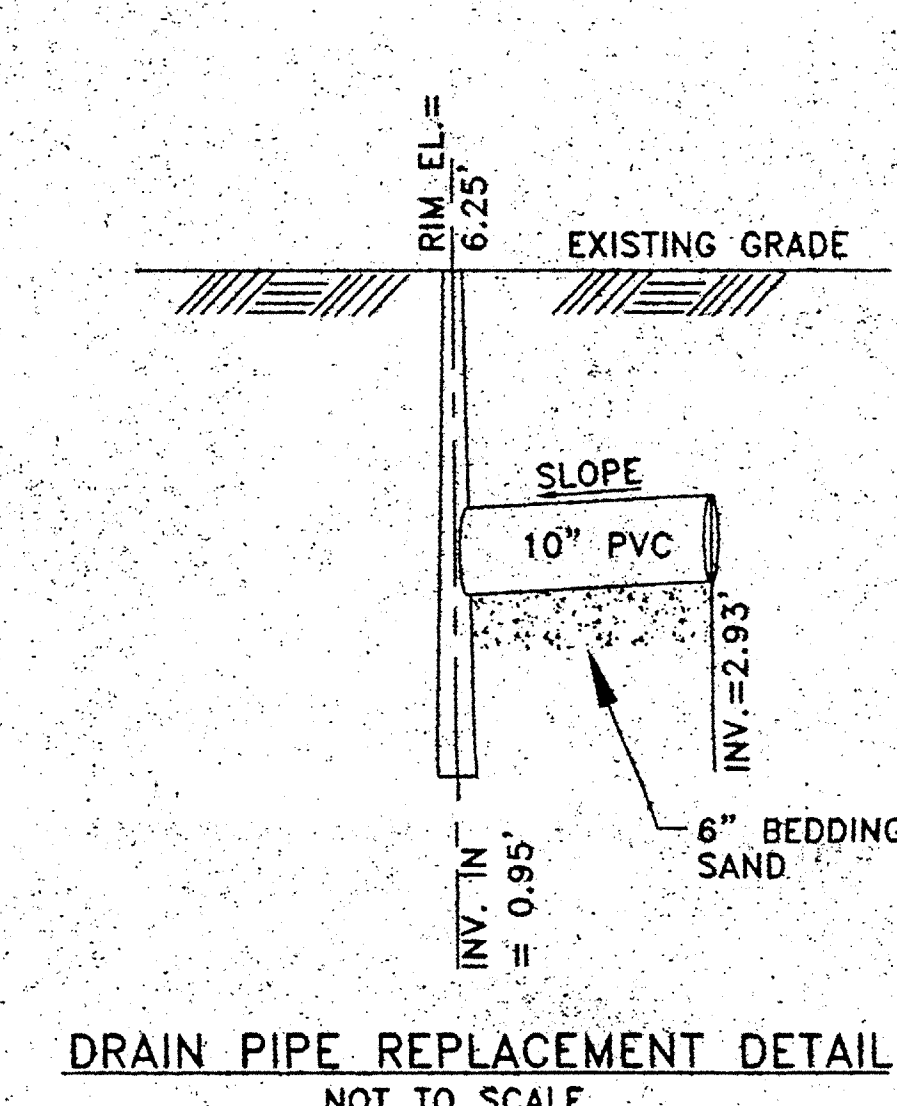
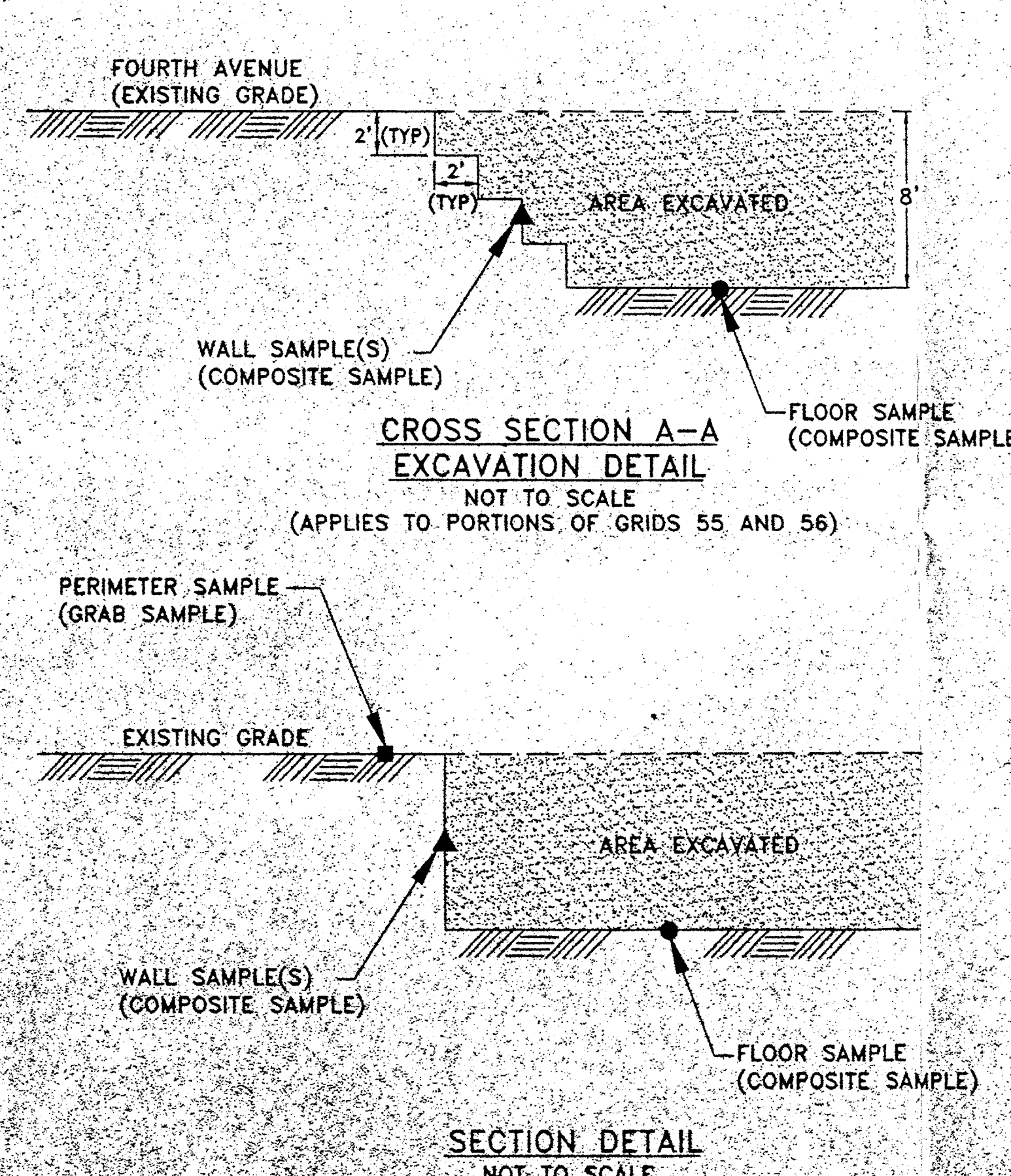
TOPOGRAPHIC AND BOUNDARY SURVEY PREPARED BY:
MERIDIAN ENGINEERING COLLABORATIVE, INC.
100 CORPORATE PLACE, PEABODY, MA 01960
(508) 535-7328. DRAWING ENTITLED:
PROPERTY BOUNDARY & TOPOGRAPHIC SURVEY PLAN,
SEPTEMBER 12, 1994, BY DAVID J. RODE, PLS.
SURVEY NOTE:
VERTICAL SURVEY CONTROL IS REFERENCED TO STATE OF CONNECTICUT
GEODETIC SURVEY BENCHMARK INFORMATION (OBTAINED FROM THE CONNECTICUT
DEPARTMENT OF TRANSPORTATION), WHICH IS BASED UPON THE NORTH AMERICAN
VERTICAL DATUM OF 1929 (NAVD 1929) (REFERENCED TO MEAN SEA LEVEL AND
IN NEW ENGLAND, EQUIVALENT TO NGVD 1929).

- POST-EXCAVATION SAMPLES KEY:**
- FLOOR SAMPLE (COMPOSITE)
 - PERIMETER SAMPLE (GRAB)
 - WALL SAMPLE (COMPOSITE)
- REASON FOR TERMINATION OF EXCAVATION:**
- P - PASSED EPA DEPTH AVERAGING CLEANUP CRITERIA (AS STATED IN 4/27/95 MEMORANDUM FROM A. WING, USEPA, TO R. GOFF, USACE.)
 - A - FOUNDATION OR OTHER AREAS NOT TO BE DISTURBED
 - B - NOT USED
 - C - GROUNDWATER ENCOUNTERED
 - D - EXCAVATION IS 8' DEEP

- NOTES:**
- EXCAVATION CONTINUED ON THE ADJACENT PROPERTY AT APPROXIMATELY THE SAME DEPTH IN THE FOLLOWING AREAS:
 - STRATTON PROPERTY (FOURTH AVE EXT.) - SOUTH OF GRIDS 1,2,3,4,5,6,7,63, & 64.
 - CURCIO PROPERTY (FOURTH AVE EXT.) - EAST OF GRIDS 56,58,60,62, & 64.
 - 95 FOURTH AVENUE - NORTH OF GRIDS 46,47,48,49,50,51,52,53,54, & 55.

EXCAVATION FLOOR ELEVATION		
GRID NUMBER	DEPTH OF EXCAVATION (FT.)	FLOOR ELEVATION (FT.)
1	-8	1
2	-8	1
3	-8	1
4	-8	1
5	-8	1
6	-7	1.5
7	-6	2.0
10	-8	1.0
11	-8	1.0
12	-8	1.0
13	-8	1.0
14	-7	2.0
15	-8	0.5
16	-5	3.0
17	-3	4.0
18	-3	3.0
19	-8	1.0
20	-8	1.0
21	-8	1.0
22	-6	1.0
23	-7	2.0
24	-7	2.0
25	-5	3.0
26	-3	4.5
27	-3	3.5
28	-8	1.5
29	-8	1.5
30	-8	1.5
31	-8	1.5
32	-8	1.0
33	-8	1.0

EXCAVATION FLOOR ELEVATION		
GRID NUMBER	DEPTH OF EXCAVATION (FT.)	FLOOR ELEVATION (FT.)
34	-7	1.5
35	-5	3.0
36	-5	2.0
37	-8	2.0
38	-8	2.0
39	-8	2.0
40	-8	2.0
41	-8	2.0
42	-8	1.5
43	-7	2.0
44	-6	2.0
45	-7	-0.5
46	-8	2.0
47	-8	2.0
48	-8	2.0
49	-8	2.0
50	-8	2.0
51	-8	1.5
52	-7	2.0
53	-6	2.0
54	-7	0
55	-8	2.0
56	-8	2.0
57	-8	1.5
58	-8	1.5
59	-8	1.0
60	-8	1.0
61	-8	1.0
62	-8	-1.0
63	-8	1.0
64	-8	1.0



NOTE: ALL ELEVATIONS ARE MEASURED AT THE APPROXIMATE CENTER OF THE EXCAVATED PORTION OF THE SUBJECT GRID NUMBER. (SEE SURVEY NOTE, THIS SHEET)

CONTRACTOR
FOSTER WHEELER ENVIRONMENTAL CORP.
Approved
Approved with corrections as noted on submittal and/or attached sheets
SIGNATURE: *William Perich for PCA*
TITLE: *Project Engineer*
DATE: *4/16/96*

DES. BY: JLF	DRAWN BY: JPC	CHECKED BY: JPC
SUBMITTAL		
APPROVAL RECOMMENDED: CHIEF GENERAL ENGINEERING BRANCH		
REVIEWER: CHIEF DESIGN DIVISION		
APPROVAL RECOMMENDED: CHIEF ENGINEERING MANAGEMENT DIVISION		
DIRECTOR OF ENGINEERING: <i>As required by Department Order No. 118-2-89</i>		
FOSTER WHEELER ENVIRONMENTAL CORPORATION 470 ATLANTIC AVENUE BOSTON, MA 02210 (617) 457-8200		
SCALE: AS SHOWN		
SPEC. NO.		
DRAWING NUMBER		
SHEET 1 OF 1		

U. S. ARMY CORPS OF ENGINEERS
NEW ENGLAND DIVISION
WALTHAM, MASS.

POST-EXCAVATION RECORD PLAN FOR MRAZ PROPERTY STRATFORD, CT.

RECEIVED APR 18 1996
PROJECT OFFICE

FOSTER WHEELER ENVIRONMENTAL CORPORATION

Interoffice Memorandum

DATE: March 19, 1996

REF. #: 4AMPPrsp

TO: Marty Sklaver

FROM: Helen Douglas *AME for HP*

SUBJECT: USACE CONTRACT NO. DACW33-94-D-0002 NE TERC
Delivery Order No. 0004 Stratford Superfund Sites
Post-Excavation Data - 4th Avenue - Mraz Property
Amendment to Transmittal No. 01410-4AMP-GRID

RECEIVED
APR 15 36
STRATFORD
PROJECT OFFICE

Final results for post excavation samples representing soil "left in place" at 4th Avenue, Mraz property are included on the attached table. These results were reviewed in accordance with the procedures described in the project CDAP and outlined below. Based on this review, the data are acceptable for project use.

The individual laboratories (ABB-ES - on-site and Aquatec - off-site) provide a quality assurance check of all data prior to final reporting. Quality control on-site/off-site split sample data are summarized and reported in weekly data comparison memos (WCS). Split sample comparison results for 4th Avenue, Mraz property were discussed in transmittals WCS-038 through WCS-041. Noted split sample discrepancies were discussed in WCS-043 and were mostly attributed to sample inhomogeneity and low percent solids. On-going correlation studies are reported periodically and are intended to identify trends that could have significant impacts to the data reported by the on-site laboratory. The associated on-going correlation study for 4th Avenue, Mraz property is transmittal OCS-010.

Approximately 20 percent of the off-site split sample results were reviewed with respect to the data quality objectives given in the CDAP and are reported in transmittals no. DV-008, no significant quality control exceedences were noted in the off-site data review.

An ABB-ES quality control review was performed and the following results were reported differently from the initial field result:

Sample I.D.	Lab I. D.	Date Collected	Correct Result (ppm)	Comments
FS-46CC(8.00-8.00)	11891	081195	4.1 (PCB)	incorrect on COC
FS-47CC(8.00-8.00)	11883	081195	0.80 (PCB)	incorrect on COC
FS-49CC((8.00-8.00)	11853	080995	3900 (lead)	average of duplicate results

Sample I.D.	Lab I. D.	Date Collected	Correct Result (ppm)	Comments
FS-18CC(3.00)	11896	081195	5.4 ppm (PCB)	revised COC result
FS-39CC(8.00-8.00)	11860	080995	1% Chrysotile (asbestos)	incorrect on COC

Some changed results were due mostly to data validation actions (flagged "J" estimated). In addition, some values reported for PCBs were adjusted slightly due to percent solids correction and/or rounding. The noted data adjustments do not change the field decisions with respect to the depth averaging criteria.

Please call me at (617)457-8263, if you have any questions.

cc: G. Eckart
J. Francis
Chemistry Distribution

A P P E N D I X D

TABLE 4-2A
CHEMICAL-SPECIFIC ARARs AND TBCs FOR ALTERNATIVE SC-2
DECONTAMINATION, DEMOLITION, CONSOLIDATION, NAPL REMOVAL, CAPPING, AND INSTITUTIONAL CONTROLS
FINAL FEASIBILITY STUDY REPORT
RAYMARK INDUSTRIES, INC. FACILITY, STRATFORD, CONNECTICUT

AUTHORITY	REQUIREMENT	STATUS	REQUIREMENT SYNOPSIS	CONSIDERATION
Criteria, Advisories, and Guidance	TSCA PCB Spill Clean-up Policy (40 CFR 761.120-135)	To Be Considered	This policy applies to recent PCB spills and establishes clean-up levels for PCB spills of 50 ppm or greater at 10 ppm for non-restricted access areas and 25 ppm for restricted access areas.	Standards were considered as guidelines for soil cleanup at the Raymark Facility to address PCB contamination.
	EPA Risk Reference Doses (RfDs)	To Be Considered	RfDs are dose levels developed by EPA for use in estimating the non-carcinogenic effects of exposure to toxic substances.	EPA RfDs were used to assess health risks due to exposure to noncarcinogenic contaminants present at the site. RfDs were used in development of PRGs for facility soils. SC-2 would be consistent with PRGs developed.
	Proposal for the Connecticut Cleanup Standard Regulations (22a-133K CGS)	To Be Considered	The proposed regulations would define minimum hazardous waste site remediation standards, specify numeric criteria for cleanup of soils and groundwater, and specify a process for establishing alternative, site-specific cleanup standards.	The proposed regulations were considered in determining soil cleanup standards. SC-2 would be consistent with the proposed regulations since the selected PRGs are more protective than the proposed direct exposure criteria.
	EPA Carcinogen Assessment Group Potency Factors	To Be Considered	EPA Carcinogenic Potency Factors (CPFs) are used to compute the individual incremental cancer risk resulting from exposure to carcinogens.	CPFs were used to assess health risks due to exposure to carcinogens present at the site. These factors were used in development of PRGs for site soils. SC-2 would be consistent with the PRGs.
	Guidance on Remedial Actions at Superfund Sites with PCB Contamination (EPA/540/G-90/007, August 1990)	To Be Considered	Describes various scenarios and considerations pertinent to determining the appropriate level of PCBs that can be left in each contaminated media to achieve protection of human health and the environment.	This guidance was considered in determining the appropriate level of PCBs that may be left in the soil. SC-2 would be consistent with the guidance.

TABLE 4-2B
ACTION-SPECIFIC ARARs AND TBCs FOR ALTERNATIVE SC-2
DECONTAMINATION, DEMOLITION, CONSOLIDATION, NAPL REMOVAL, CAPPING, AND INSTITUTIONAL CONTROLS
FINAL FEASIBILITY STUDY REPORT
RAYMARK INDUSTRIES, INC. FACILITY, STRATFORD, CONNECTICUT

AUTHORITY	REQUIREMENT	STATUS	REQUIREMENT SYNOPSIS	ACTIONS TO BE TAKEN TO ATTAIN REQUIREMENT
Federal Regulatory Requirements	RCRA - General Facility Standards (40 CFR 265.10 - 265.18)	Applicable	General facility requirements outline general waste analysis, security measures, inspections, and training requirements.	Remedial actions conducted under this alternative would be constructed and operated in accordance with the substantive provisions of this requirement. Alternative SC-2 would comply.
	RCRA - Preparedness and Prevention (40 CFR 265.30 - 265.37)	Applicable	Outlines requirements for safety equipment and spill control.	Safety and communication equipment would be maintained at the site and local authorities would be familiarized with the site operations, in accordance with the substantive provisions of these requirements. Alternative SC-2 would comply.
	RCRA - Contingency Plan and Emergency Procedures (40 CFR 265.50 - 265.56)	Applicable	Outlines requirements for emergency procedures to be used following explosions, fires, etc.	Contingency plans would be developed and response activities would be implemented in accordance with the substantive provisions of these requirements. Alternative SC-2 would comply.
	RCRA - Groundwater Monitoring (40 CFR 265.90 - 265.93)	Applicable	Details requirements for groundwater monitoring and responding to releases from Solid Waste Management Units.	A groundwater monitoring program would be developed in accordance with the substantive provisions of these requirements. Alternative SC-2 would comply.
	RCRA - Closure and Post-Closure (40 CFR 265.110 - 265.120)	Applicable	Details requirements for closure and post-closure of hazardous waste facilities.	Remedial actions implemented under this alternative would be designed to meet the substantive provisions of this requirement. Alternative SC-2 would comply.

TABLE 4-2B

ACTION-SPECIFIC ARARs AND TBCs FOR ALTERNATIVE SC-2

DECONTAMINATION, DEMOLITION, CONSOLIDATION, NAPL REMOVAL, CAPPING, AND INSTITUTIONAL CONTROLS

FINAL FEASIBILITY STUDY REPORT

RAYMARK INDUSTRIES, INC. FACILITY, STRATFORD, CONNECTICUT

PAGE 2 OF 6

AUTHORITY	REQUIREMENT	STATUS	REQUIREMENT SYNOPSIS	ACTIONS TO BE TAKEN TO ATTAIN REQUIREMENT
Federal Regulatory Requirements (Continued)	RCRA - Tank Systems Closure & Post-closure Care (40 CFR 265.197)	Applicable	Contains closure and post-closure requirements for tank systems or individual tanks used for storage of hazardous wastes.	Decontamination and removal of hazardous waste storage tanks would be conducted in accordance with the substantive provisions of these requirements. Alternative SC-2 would comply.
	RCRA - Surface Impoundments (40 CFR 265.228)	Applicable	Details the closure requirements for a RCRA surface impoundment.	The design, construction, maintenance, and monitoring of the cap would meet the substantive provisions of this requirement. SC-2 would comply.
	RCRA - Landfills (40 CFR 265.310)	Applicable except for (40 CFR 265.310(b)(2))	Includes requirements for the closure and post-closure of landfills.	SC-2 would comply since a final cover would be designed and constructed to meet the ARAR.
	TSCA - PCB Storage and Disposal (40 CFR 761.60, .75, .79)	Applicable to PCBs at 50 ppm or greater, removed after February 17, 1978.	This regulation establishes standards for the storage, disposal, and incineration of PCBs at a concentration greater than 50 ppm.	SC-2 would comply with the exception of certain landfill requirements which will be waived under TSCA.
	CAA NESHAPS (40 CFR 61 Subpart M (61.145, 61.150, 61.151) Subpart M, 61.154	Applicable Relevant and Appropriate	These regulations specify requirements regarding removal, management, and disposal of asbestos.	Handling and disposal of soils containing asbestos and building demolition debris containing asbestos would comply with the substantive provisions of these regulations. Alternative SC-2 would comply.

TABLE 4-2B

ACTION-SPECIFIC ARARs AND TBCs FOR ALTERNATIVE SC-2

DECONTAMINATION, DEMOLITION, CONSOLIDATION, NAPL REMOVAL, CAPPING, AND INSTITUTIONAL CONTROLS

FINAL FEASIBILITY STUDY REPORT

RAYMARK INDUSTRIES, INC. FACILITY, STRATFORD, CONNECTICUT

PAGE 3 OF 6

AUTHORITY	REQUIREMENT	STATUS	REQUIREMENT SYNOPSIS	ACTIONS TO BE TAKEN TO ATTAIN REQUIREMENT
State Regulatory Requirements	Connecticut Air Pollution Regulations - Stationary Sources (Sec. 22a-174-3 RCSA)	Applicable	Requires that stationary sources of air pollutants meet specified standards prior to construction and operation. Prohibits operation of sources that interfere with attainment of Air Quality Standards.	The gas collection and treatment system would be designed to meet substantive standards established under these regulations. Alternative SC-2 would comply.
	Connecticut Air Pollution Regulations (Sec. 22a-174-4, 22a-174-5, and 22a-174-7 RCSA)	Applicable	These sections specify air emissions monitoring requirements, emissions sampling and analysis methods, and general air pollution control equipment operation requirements.	Operation and monitoring of the emission control systems would be conducted in accordance with the substantive requirements of these regulations. Alternative SC-2 would comply.
	Connecticut Air Pollution Regulations - Fugitive Dust Emissions (RCSA 22a-174-18b)	Applicable	Requires that reasonable precautions be taken to prevent particulate matter from becoming airborne during demolition and construction activities and material handling operations.	Activities involving building demolition, soil excavation or handling, and cap construction would be conducted in a manner to minimize fugitive dust emissions from the facility. Alternative SC-2 would comply.
	Connecticut Air Pollution Regulations - Hazardous Air Pollutants (RCSA 22a-174-29)	Applicable	Establishes testing requirements and allowable concentrations for any stack emission for the constituents listed.	Emissions control systems for vapor control would be designed and operated to meet the substantive requirements of these regulations. Alternative SC-2 would comply.
	Connecticut Hazardous Waste Site Management Regulations (Sec. 22a-449(c)-105, RCSA)	Applicable	These regulations outline requirements for the management and disposal of hazardous wastes, and the construction, location, operation, and closure of hazardous waste treatment, storage, and disposal facilities. These regulations incorporate by reference substantial portions of 40 CFR 265 (RCRA).	This alternative would comply with those portions of the regulations that are more stringent than the corresponding federal RCRA regulations cited herein.

TABLE 4-2B

ACTION-SPECIFIC ARARs AND TBCs FOR ALTERNATIVE SC-2

DECONTAMINATION, DEMOLITION, CONSOLIDATION, NAPL REMOVAL, CAPPING, AND INSTITUTIONAL CONTROLS

FINAL FEASIBILITY STUDY REPORT

RAYMARK INDUSTRIES, INC. FACILITY, STRATFORD, CONNECTICUT

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AUTHORITY	REQUIREMENT	STATUS	REQUIREMENT SYNOPSIS	ACTIONS TO BE TAKEN TO ATTAIN REQUIREMENT
State Regulatory Requirements (Continued)	Connecticut Water Quality Standards (issued pursuant to Sec. 22a-426 CGS)	Applicable	Establishes designated uses for groundwater and surface water and identifies the criteria necessary to support these uses.	SC-2 would comply with water quality standards since actions are taken to minimize further degradation of groundwater and surface water.
	Connecticut - Discharge of Stormwater Associated with Industrial Activity (Sec. 22a-430b, 22a-430, CGS; Sec. 22a-430-1 to -8, RCSA)	Applicable	Establishes permit, monitoring and reporting requirements for the management and discharge of storm waters.	SC-2 would comply with the substantive requirements of this regulation.
	Connecticut - Air Pollution Control - Control of Odors (Sec. 22a-174-23 RCSA)	Applicable	This regulation prohibits emission of substances that constitute nuisances because of objectionable odors. Several compounds have specific concentration limits.	SC-2 would comply with this regulation during implementation.
Criteria, Advisories, Guidance	TSCA PCB Spill Clean-up Policy (40 CFR 761.120-135)	To Be Considered	This policy applies to recent PCB spills and establishes cleanup levels for PCB spills of 50 ppm or greater at 10 ppm for non-restricted access areas and 25 ppm for restricted access areas.	This policy would be considered in the management of PCB contamination.
	Guidance on Remedial Actions of Superfund Sites with PCB Contamination (EPA/540/G-90/007, Aug. 1990)	To Be Considered	Describes various scenarios and considerations pertinent to determining the appropriate level of PCBs that can be left in each contaminated media to achieve protection of human health and environment.	This guidance was considered in management of PCB contamination under Alternative SC-2, and it would be consistent with this guidance.

TABLE 4-2B

ACTION-SPECIFIC ARARs AND TBCs FOR ALTERNATIVE SC-2

DECONTAMINATION, DEMOLITION, CONSOLIDATION, NAPL REMOVAL, CAPPING, AND INSTITUTIONAL CONTROLS

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AUTHORITY	REQUIREMENT	STATUS	REQUIREMENT SYNOPSIS	ACTIONS TO BE TAKEN TO ATTAIN REQUIREMENT
Criteria, Advisories, Guidance (Continued)	CAA NAAQS for Particulate Matter (40 CFR 50.6)	To Be Considered	The particulate matter NAAQS specifies maximum primary and secondary 24 hour concentrations for particulate matter in the ambient air. These ambient air concentrations are not designed to apply to specific sources; rather, states may promulgate State Implementation Plan emission limits applicable to sources, which would result in attainment and maintenance of the NAAQS. Connecticut has not promulgated any particulate matter emission limits applicable to this source.	Fugitive dust emissions from soil-waste handling activities would be minimized with temporary enclosures and dust suppressants, if necessary. These measures should be sufficient to prevent any exceedences in the ambient air of the 150 $\mu\text{g}/\text{m}^3$ 24-hour primary standard for particulate matter. Alternative SC-2 would be consistent.
	RCRA, Air Emissions from TSDFs, (40 CFR, Part 265, Subpart CC) (Proposed 56 Fed Reg. 33490-33598, 7/22/91)	To Be Considered	Proposed standards for air emissions from treatment, storage, disposal facilities with VOC concentration equal to or greater than 500 ppm.	Proposed standards would be considered in design of the vapor control system if threshold VOC concentrations are met. Alternative SC-2 would be consistent.
	U.S. EPA Technical Guidance - Final Covers of Hazardous Waste Landfills and Surface Impoundments (EPA/530-SW-89-047)	To Be Considered	Provides technical specifications for the design of multi-layer covers at landfills where hazardous wastes were disposed.	This guidance would be considered in the design of the cap and associated systems.

TABLE 4-2B

ACTION-SPECIFIC ARARs AND TBCs FOR ALTERNATIVE SC-2

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AUTHORITY	REQUIREMENT	STATUS	REQUIREMENT SYNOPSIS	ACTIONS TO BE TAKEN TO ATTAIN REQUIREMENT
Criteria, Advisories, Guidance (Continued)	Proposal for the Connecticut Cleanup Standard Regulations (22a-133K CGS)	To Be Considered	The proposed regulations would define minimum hazardous waste site remediation standards, specify numeric criteria for cleanup of soils and groundwater, and specify a process for establishing alternative, site specific cleanup standards.	Portions of this guidance would be considered in implementing SC-2.

Notes:

CGS - Connecticut General Statutes

RCSA - Regulations of Connecticut State Agencies