



GE
159 Plastics Avenue
Pittsfield, MA 01201
USA

Transmitted Via Overnight Delivery

February 5, 2007

Dean Tagliaferro
United States Environmental Protection Agency
c/o Weston Solutions
10 Lyman Street
Pittsfield, MA 01201

**Re: GE-Pittsfield/Housatonic River Site
East Street Area 2-North (GEC120)
Evaluation of Need for Additional Soil Investigations and Sampling Proposal - Woodlawn
Avenue Portion of the East Street Area 2-North RAA**

Dear Mr. Tagliaferro:

In a letter dated January 16, 2007, the United States Environmental Protection Agency (EPA) provided conditional approval of the *Final Removal Design/Removal Action Work Plan for East Street Area 2-North* (Final Work Plan), prepared by the General Electric Company (GE) and dated August 25, 2006. In that letter, EPA directed GE to modify several components of the Final Work Plan and to prepare an Addendum to the Final Work Plan. The conditions presented in the EPA's letter will be addressed in the Addendum to the Final Work Plan (i.e., GE will either document the EPA-identified modifications in the Addendum and/or conduct additional activities and report the results in the Addendum). However, Condition No. 9 of the EPA letter requires GE to perform and provide the results of an evaluation prior to the submittal of the Addendum, as follows:

9. *GE shall include the portion of Woodlawn Avenue located between the East Street Area 2-North RAA and the 40s Complex RAA in the East Street Area 2-North RAA, and shall revise the RD/RA figures, tables, and evaluations in future submittals as necessary to reflect that change. In addition, GE shall evaluate the need for additional sampling in this area (based on the CD requirements for pre-design investigations, and taking into account, among other things, the utility corridor evaluation criteria and any existing soils data) and submit that evaluation to EPA within 21 days of the date of this letter. If GE's evaluation indicates the need for additional sampling, such sampling shall be proposed by GE in that submittal.*

This letter has been prepared by GE to address the above condition.

A. Evaluation of Need for Additional Pre-Design Soil Investigations

In accordance with Condition No. 9, the portion of Woodlawn Avenue shown on Figure 1 (Woodlawn Avenue Area) will now be incorporated into the East Street Area 2-North Removal Action Area (RAA) and, for purposes of Removal Design/Removal Action (RD/RA) evaluations, will be evaluated as part of that area. The Woodlawn Avenue Area is owned by GE and includes the paved roadway of Woodlawn Avenue and its adjacent right-of-way. It is approximately 66 feet wide and varies in length from approximately 225 feet (western edge) to approximately 250 feet (eastern edge) and has an area of approximately 0.35 acres. There are several active subsurface utility lines present within the Woodlawn Avenue Area, including a natural gas line and a stormwater drainage line. Figure 2 provides a more detailed depiction of the utilities within the area.

As part of the pre-design investigations performed within the 40s Complex and East Street Area 2-North, soil samples have been collected by GE or EPA within the Woodlawn Avenue Area, with samples collected for analysis of polychlorinated biphenyls (PCBs) and other non-PCB constituents listed in Appendix IX of 40 CFR Part 264 (excluding pesticides and herbicides), plus three additional constituents – benzidine, 2-chloroethyl vinyl ether, and 1,2-diphenylhydrazine (Appendix IX+3). Figure 2 identifies the locations of such prior soil sampling, while Tables 1 and 2 present a summary of the analytical data for PCBs and other Appendix IX+3 constituents, respectively, from those locations.

As required by EPA in its January 16, 2007 conditional approval letter, GE has evaluated the need for additional pre-design soil investigations within the Woodlawn Avenue Area. Pursuant to the requirements of Technical Attachment D of the *Statement of Work for Removal Actions Outside the River* (SOW), pre-design soil investigations for paved areas within the GE Plant Area are to be conducted such that a sampling frequency of approximately two borings per acre of paved area is achieved, through either existing sampling data or proposed data collection. Since the Woodlawn Avenue Area is paved, this pre-design requirement is applicable. Further, considering that PCB and Appendix IX+3 sampling data already exist from two locations within this area (RAA1-12 and 40-BH000473), and that the area is part of the overall East Street Area 2-North, there is a sufficient sampling coverage for the combined paved areas within the RAA. Therefore, no additional pre-design investigations are required for the existing area.

However, as several existing utilities located within the Woodlawn Avenue Area are potentially subject to future emergency repair, GE has elected to further characterize soils located in proximity to these utilities. As described below, GE is proposing additional soil sampling for PCBs at three new locations with samples to be collected from 0 to 1 foot and 1 to 6 feet.

B. Proposal for Additional Utility-Based Soil Investigations

To accommodate the possible need for future utility maintenance and emergency repair work within the Woodlawn Avenue Area, GE will characterize the soils located in proximity to the utilities such that PCB sampling data are available at the 1- to 6-foot depth increment within a 50-foot wide corridor band centered on the utility (i.e. approximately 25 feet on either side of the utility) and that sampling data be available at intervals of approximately 100 to 150 feet along the length of the affected utility.

To ascertain any utility-related sampling needs, the existing utilities and corresponding corridors were mapped (Figure 3). Although, as previously indicated, GE and EPA have conducted certain pre-design soil investigations at the Woodlawn Avenue Area at the locations shown on Figures 2 and 3, GE is proposing additional utility-based sampling. Existing sampling location RAA1-12 is located within the mapped corridor of the storm drain line which crosses the northern portion of Woodlawn Avenue. However, this sampling location is located more than 25 feet from the gas line that runs along the eastern edge of Woodlawn Avenue. Similarly, sampling location 40-B000473 is not located within the gas line utility corridor. Therefore, GE proposes to advance soil borings within the gas line utility corridor at three locations (sample locations SB-1, SB-2, and SB-3) and to collect samples from the 0- to 1-foot and 1- to 6-foot depth increments for PCB analysis. The three sampling locations will provide samples from the northern, central, and southern portions of the Woodlawn Avenue utility corridor to insure that sampling data will be available within the 50-foot wide corridor of each of the identified utility lines and along each 100- to 150-foot utility segment. In summary, the investigation would involve the following scope:

- PCB soil sampling at three locations within the utility corridor area (with samples collected from the 0- to 1-foot and 1- to 6-foot depth increments); and
- Analysis of six soil samples for PCBs.

The proposed sample locations shown on Figure 3 are approximate and subject to change based on field considerations (e.g., utility clearance requirements, accessibility considerations, difficult drilling conditions). Finally, the collection and analysis of the proposed soil samples will be conducted in accordance with the procedures set forth in GE's approved *Field Sampling Plan/Quality Assurance Project Plan* (FSP/QAPP) and will be consistent with the procedures that were used during previous investigations conducted in the 40s Complex and East Street Area 2-North.

C. Schedule

Upon EPA approval of the sampling proposal presented herein, GE will implement the additional investigations, validate the data, and, include the results in the Addendum to the Final RD/RA Work Plan to be submitted within 60 days of EPA's approval of this evaluation and sampling proposal. In addition, GE will provide to EPA the results of the additional investigation activities described herein as part of the monthly status reports for CD-related activities.

Please call me if you have any questions regarding this proposal.

Sincerely,

Handwritten signature of Michael T. Carroll in cursive, with the initials "JAP" written at the end of the signature.

Michael T. Carroll
Manager-Pittsfield Remediation Programs

Attachments

V:\GE_Pittsfield_CD_ESA_2_North\Reports and Presentations\Woodlawn Ave Eval\082711324Ltr.doc

cc: Richard Hull, EPA
Tim Conway, EPA
John Kilborn, EPA
Rose Howell, EPA*
Holly Inglis, EPA
K.C. Mitkevicius, USACE
Linda Palmieri, Weston (2 copies)
Susan Steenstrup, MDEP (2 copies)
Anna Symington, MDEP
Jane Rothchild, MDEP
Mayor James Ruberto, City of Pittsfield
Thomas Hickey, Director, PEDDA
Gerald Lee, President, Pittsfield City Council
Pittsfield Department of Health
Jeffrey Bernstein, Bernstein, Cushner & Kimmel
Teresa Bowers, Gradient
Nancy E. Harper, MA AG*
Dale Young, MA EOEAA*
Rod McLaren, GE
Andrew Silber, GE
Richard Gates, GE
James Bieke, Goodwin Procter
Samuel Gutter, Sidley Austin
James Nuss, ARCADIS BBL
Public Information Repositories
GE Internal Repository

(* without attachments)

**TABLE 1
SUMMARY OF PCB SOIL DATA**

EVALUATION FOR ADDITIONAL SAMPLING - WOODLAWN AVENUE

**GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)**

Sample ID	Depth(Feet)	Date Collected	Aroclor-1016, -1221, -1232, -1242, -1248	Aroclor-1254	Aroclor-1260	Total PCBs
40-BH000473	0-1	4/6/2001	ND(0.055)	0.092 J	0.22 J	0.312 J
	1-6	4/6/2001	ND(0.018)	ND(0.018)	ND(0.018)	ND(0.018)
	6-15	4/6/2001	ND(0.018)	ND(0.018)	ND(0.018)	ND(0.018)
RAA1-12	0-1	12/19/2000	ND(0.30)	2.6	4.2	6.8
	1-6	12/19/2000	ND(0.49)	ND(0.49)	ND(0.49)	ND(0.49)
	6-15	12/19/2000	ND(0.048)	ND(0.048)	ND(0.048)	ND(0.048)

Notes:

1. Samples were collected by ARCADIS BBL, and submitted to SGS Environmental Services, Inc. for analysis of PCBs.
2. Samples have been validated as per Field Sampling Plan/Quality Assurance Project Plan (FSP/QAPP), General Electric Company, Pittsfield, Massachusetts, Blasland Bouck & Lee, Inc. (approved May 29, 2004 and resubmitted June 19, 2004).
3. ND - Analyte was not detected. The number in parenthesis is the associated detection limit.

Data Qualifiers:

J - Indicates that the associated numerical value is an estimated concentration.

**TABLE 2
SUMMARY OF APPENDIX IX+3 SOIL DATA**

EVALUATION FOR ADDITIONAL SAMPLING - WOODLAWN AVENUE

**GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)**

Sample ID:	40-BH000473-0-0010	40-BH000473-0-0010V	RAA1-12
Sample Depth(Feet):	1-6	1-2	0-1
Parameter	Date Collected:	04/06/01	04/06/01
Date Collected:	04/06/01	04/06/01	12/19/00
Volatile Organics			
1,4-Dioxane	NA	R	ND(0.20) J
2-Butanone	NA	R	ND(0.10)
Acrolein	NA	R	ND(0.17) J
Isobutanol	NA	R	ND(0.34) J
Propionitrile	NA	R	ND(0.086) J
Semivolatile Organics			
4-Nitroquinoline-1-oxide	R	NA	ND(3.1)
Aniline	R	NA	ND(0.60)
Benzo(a)anthracene	0.20 J	NA	ND(0.60)
Benzo(a)pyrene	0.19 J	NA	ND(0.60)
Benzo(b)fluoranthene	0.17 J	NA	ND(0.60)
Benzo(k)fluoranthene	0.16 J	NA	ND(0.60)
Chrysene	0.18 J	NA	ND(0.60)
Fluoranthene	0.34 J	NA	ND(0.60)
Pyrene	0.30 J	NA	ND(0.60)
Organophosphate Pesticides			
None Detected	--	NA	NA
Herbicides			
None Detected	--	NA	NA
Furans			
2,3,7,8-TCDF	0.00000018 J	NA	0.0000016
TCDFs (total)	0.0000031 J	NA	0.000010
1,2,3,7,8-PeCDF	ND(0.00000031)	NA	0.0000066 J
2,3,4,7,8-PeCDF	0.00000051 J	NA	0.0000021 J
PeCDFs (total)	0.0000041 J	NA	0.000020
1,2,3,4,7,8-HxCDF	ND(0.00000040)	NA	0.0000018 J
1,2,3,6,7,8-HxCDF	ND(0.00000040)	NA	0.0000012 J
1,2,3,7,8,9-HxCDF	ND(0.00000015)	NA	0.0000029 J
2,3,4,6,7,8-HxCDF	0.00000050 J	NA	0.0000023
HxCDFs (total)	0.0000035 J	NA	0.000031
1,2,3,4,6,7,8-HpCDF	0.00000090 J	NA	0.000015
1,2,3,4,7,8,9-HpCDF	ND(0.00000012)	NA	0.0000070 J
HpCDFs (total)	0.0000014 J	NA	0.000028
OCDF	ND(0.00000046)	NA	0.0000078
Dioxins			
2,3,7,8-TCDD	ND(0.000000051)	NA	ND(0.000000066)
TCDDs (total)	0.00000029 J	NA	0.0000026
1,2,3,7,8-PeCDD	ND(0.00000017)	NA	ND(0.00000027) X
PeCDDs (total)	0.00000028 J	NA	0.0000070
1,2,3,4,7,8-HxCDD	ND(0.00000011)	NA	0.0000014 J
1,2,3,6,7,8-HxCDD	ND(0.00000020)	NA	0.0000068 J
1,2,3,7,8,9-HxCDD	ND(0.00000013)	NA	0.0000028 J
HxCDDs (total)	0.00000044 J	NA	0.000055
1,2,3,4,6,7,8-HpCDD	ND(0.00000071)	NA	0.000017
HpCDDs (total)	0.0000012 J	NA	0.000030
OCDD	0.00000030 J	NA	0.00015
Total TEQs (WHO TEFs)	0.00000052	NA	0.0000024

**TABLE 2
SUMMARY OF APPENDIX IX+3 SOIL DATA**

EVALUATION FOR ADDITIONAL SAMPLING - WOODLAWN AVENUE

**GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS
(Results are presented in dry weight parts per million, ppm)**

Sample ID:	40-BH000473-0-0010	40-BH000473-0-0010V	RAA1-12
Sample Depth(Feet):	1-6	1-2	0-1
Parameter	Date Collected:	04/06/01	04/06/01
Date Collected:	04/06/01	04/06/01	12/19/00
Inorganics			
Antimony	0.920	NA	ND(16.0)
Arsenic	7.00	NA	ND(27.0)
Barium	41.3	NA	55.0
Beryllium	ND(0.310)	NA	0.440
Cadmium	0.520	NA	ND(2.70)
Chromium	14.4	NA	27.0
Cobalt	12.5	NA	ND(14.0)
Copper	64.9	NA	37.0
Cyanide	ND(0.540)	NA	ND(1.00)
Lead	46.9	NA	46.0
Mercury	0.120	NA	ND(0.360)
Nickel	23.4	NA	17.0
Silver	ND(0.250)	NA	ND(1.40)
Sulfide	ND(8.50)	NA	ND(9.00)
Thallium	0.430 R	NA	ND(2.70) J
Tin	3.30 J	NA	ND(81.0)
Vanadium	14.7	NA	ND(14.0)
Zinc	117	NA	87.0

Notes:

1. Samples were collected by ARCADIS BBL, and submitted to SGS Environmental Services, Inc. for analysis of Appendix IX+3 constituents.
2. Samples have been validated as per Field Sampling Plan/Quality Assurance Project Plan (FSP/QAPP), General Electric Company, Pittsfield, Massachusetts, Blasland Bouck & Lee, Inc. (approved May 29, 2004 and resubmitted June 19, 2004).
3. General Electric Company, Pittsfield, Massachusetts, Blasland Bouck & Lee, Inc. (approved May 29, 2004 and resubmitted June 19, 2004).
4. 2004 and resubmitted June 19, 2004).
5. NA - Not Analyzed - Laboratory did not report results for this analyte.
ND - Analyte was not detected. The number in parenthesis is the associated detection limit.
With the exception of dioxin/furans, only those constituents detected in one or more samples are summarized.

Data Qualifiers:

Organics (volatiles, PCBs, semivolatiles, pesticides, herbicides, dioxin/furans)

- J - Indicates that the associated numerical value is an estimated concentration.
- I - Polychlorinated Diphenyl Ether (PCDPE) Interference.
- R - Data was rejected due to a deficiency in the data generation process.
- X - Estimated maximum possible concentration.

Inorganics

**TABLE 3
EXISTING AND PROPOSED ADDITIONAL SAMPLING**

EVALUATION FOR ADDITIONAL SAMPLING - WOODLAWN AVENUE

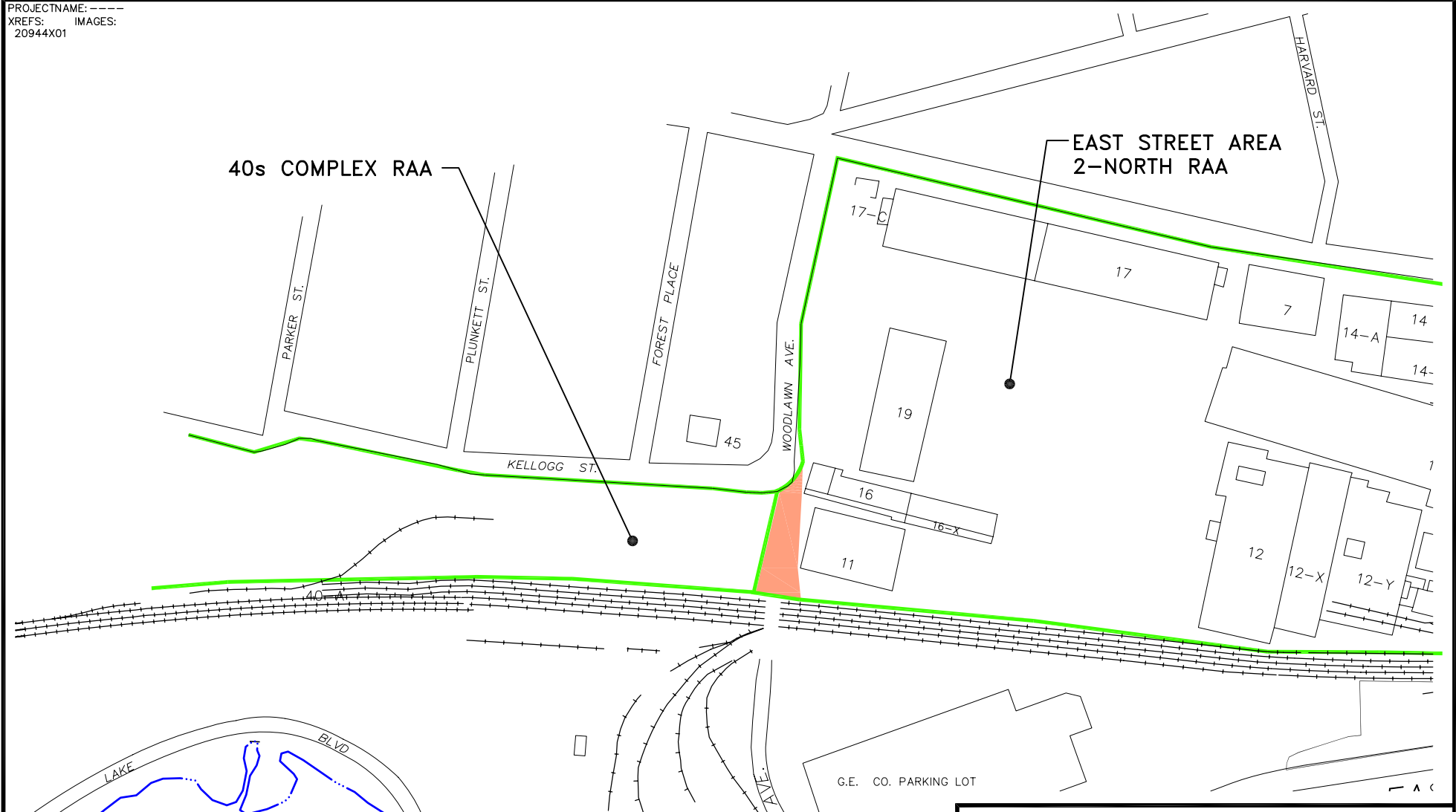
GENERAL ELECTRIC COMPANY - PITTSFIELD, MASSACHUSETTS

0- to 1-foot Depth Interval		1- to 6-foot Depth Interval		6- to 15-foot Depth Interval	
PCBs	Appendix IX+3	PCBs	Appendix IX+3	PCBs	Appendix IX+3
RAA1-12 / P (SB-1)	RAA1-12	RAA1-12 / P (SB-1)	--	RAA1-12	--
P (SB-2)	--	P (SB-2)	--	--	--
40-BH000473 / P (SB-3)	--	40-BH000473 / P (SB-3)	40-BH000473	40-BH000473	--

Notes

1. The corresponding sampling locations are shown on Figure 3.
2. P - Indicates proposed sample location and depth interval.

PROJECTNAME: ---
 XREFS: IMAGES:
 20944X01



NOTES:

1. MAPPING IS BASED ON AERIAL PHOTOGRAPHS AND PHOTOGRAMMETRIC MAPPING BY LOCKWOOD MAPPING, INC. - FLOWN IN APRIL 1990; DATA PROVIDED BY GENERAL ELECTRIC COMPANY; AND BLASLAND AND BOUCK ENGINEERS, P.C. CONSTRUCTION PLANS.
2. NOT ALL PHYSICAL FEATURES SHOWN.
3. SITE BOUNDARIES/LIMITS ARE APPROXIMATE.

LEGEND:

- PORTION OF WOODLAWN AVENUE SUBJECT TO EVALUATION (NOW PART OF EAST STREET AREA 2-NORTH RAA)

GENERAL ELECTRIC COMPANY PITTSFIELD, MASSACHUSETTS WOODLAWN AVENUE AREA	
LOCATION MAP	
	FIGURE 1

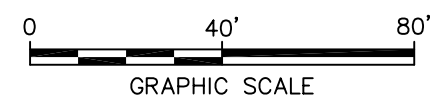
PROJECTNAME: ---
 XREFS: IMAGES:
 20972X01



LEGEND:

- RAILROAD
- UNPAVED (GRASS/DIRT/GRAVEL)
- PAVED (ASPHALT/CONCRETE)
- EXISTING SOIL BORING LOCATION
- GAS LINE
- STORM DRAIN LINE
- ELECTRIC LINE (WITHIN SUBGRADE TUNNEL)
- WOODLAWN AVENUE AREA

- NOTES:**
1. BASE MAP INCLUDING TOPOGRAPHY WAS OBTAINED FROM A SURVEY PREPARED BY HILL ENGINEERS, ARCHITECTS, AND PLANNERS, DRAWING NO. GE-1085-7, DATED 9/7/04, REV. A DATED 10/29/04.
 2. SAMPLE LOCATIONS ARE APPROXIMATE.



GENERAL ELECTRIC COMPANY
 PITTSFIELD, MASSACHUSETTS
WOODLAWN AVENUE AREA

**SITE MAP AND EXISTING SOIL
 SAMPLE LOCATIONS**

ARCADIS BBL
 infrastructure, environment, facilities

FIGURE
2

PROJECTNAME: ---
 XREFS: IMAGES:
 20972X01



- LEGEND:**
- ||||| RAILROAD
 - UNPAVED (GRASS/DIRT/GRAVEL)
 - PAVED (ASPHALT/CONCRETE)
 - EXISTING SOIL BORING LOCATION
 - PROPOSED SOIL BORING LOCATION
 - GAS LINE
 - STORM DRAIN LINE
 - ELECTRIC LINE (WITHIN SUBGRADE TUNNEL)
 - APPROXIMATE LOCATION OF BAND SURROUNDING UTILITIES (25 FEET WIDE ON EACH SIDE OF UTILITY)
 - WOODLAWN AVENUE AREA

- NOTES:**
1. BASE MAP INCLUDING TOPOGRAPHY WAS OBTAINED FROM A SURVEY PREPARED BY HILL ENGINEERS, ARCHITECTS, AND PLANNERS, DRAWING NO. GE-1085-7, DATED 9/7/04, REV. A DATED 10/29/04.
 2. SAMPLE LOCATIONS ARE APPROXIMATE.

GENERAL ELECTRIC COMPANY
 PITTSFIELD, MASSACHUSETTS
WOODLAWN AVENUE AREA

SOIL SAMPLE LOCATION

