



01-0454

Corporate Environmental Programs
General Electric Company
100 Woodlawn Avenue, Pittsfield, MA 01201

February 15, 2002

SDMS 38794

Bryan Olson
EPA Project Coordinator
Office of Site Remediation and Restoration
U.S. Environmental Protection Agency
One Congress Street, Suite 1100
Boston, MA 02114-2023

**Re: GE-Pittsfield/Housatonic River Site
20s, 30s, and 40s Complexes (GEC120)
Addendum to Conceptual RD/RA Work Plan**

Dear Mr. Olson:

In December 2001, the General Electric Company (GE) submitted to the US Environmental Protection Agency (EPA) a document titled *Conceptual Removal Design/Removal Action Work Plan for the 20s, 30s, and 40s Complexes* (Conceptual RD/RA Work Plan or Work Plan). That document summarized the results of several evaluations performed by GE related to polychlorinated biphenyls (PCBs) and other hazardous constituents in soils in these specific Removal Action Areas (RAAs) at the GE facility. Such evaluations were performed to assess the need for response actions to achieve the applicable Performance Standards for these RAAs, as established in an October 27, 2000 Consent Decree (CD) executed by GE, EPA, the Massachusetts Department of Environmental Protection (MDEP), and several other governmental agencies. The evaluations presented in the Work Plan were consistent with procedures established in various components of the CD and accompanying *Statement of Work for Removal Actions Outside the River* (SOW) (Appendix E to the CD).

As described in the Conceptual RD/RA Work Plan, it was determined that response actions were not necessary at these RAAs to achieve the applicable soil Performance Standards for PCBs and for the non-PCB constituents listed in Appendix IX of 40 CFR Part 264 plus three additional constituents -- benzidine, 2-chloroethylvinyl ether, and 1,2-diphenylhydrazine (Appendix IX+3). However, with respect to the evaluation of Appendix IX+3 constituents, the determinations presented in the Work Plan were preliminary and contingent upon the results of a supplemental soil investigation and related evaluations. Since submittal of the Work Plan, GE has conducted the supplemental soil investigation. This Addendum to the Conceptual RD/RA Work Plan (Addendum) presents the results of that supplemental soil investigation, and provides an update concerning the Appendix IX+3 evaluations presented in the Conceptual RD/RA Work Plan.

I. Summary of Preliminary Appendix IX+3 Evaluations

Section 4 of the Conceptual RD/RA Work Plan summarizes the evaluations that were performed concerning the presence of Appendix IX+3 constituents in soil at the 20s, 30s, and 40s Complexes. This section of the Addendum provides an overview of the previous evaluations and then focuses on the specific circumstances leading up to the performance of the supplemental soil investigation and related evaluations.

The Performance Standards established in the CD and SOW for non-PCB Appendix IX+3 constituents in soil involve several prescribed evaluation steps that include (as necessary and depending on the specific constituents) preliminary screening, comparison to numerical standards and/or background conditions, and other risk-based assessments. One of the initial components of this evaluation process involves a comparison of Appendix IX+3 sampling data to the applicable EPA Region 9 Preliminary Remediation Goals (PRGs) or other screening concentrations in the event that EPA Region 9 PRGs do not exist (collectively, these screening criteria are referred to as "Screening PRGs"). In accordance with the CD and SOW, the maximum concentration of each detected constituent -- excluding PCBs, polychlorinated dibenzo-p-dioxins (dioxins), and polychlorinated dibenzofurans (furans) -- is compared to its Screening PRG. Those constituents that exceed the PRGs are retained for further evaluation, while those that are below the Screening PRGs are eliminated from further consideration.

In accordance with the protocols summarized above, the comparisons to the applicable (in this case, industrial) Screening PRGs were made using the maximum concentration of each detected constituent within the 20s, 30s, and 40s Complexes. From these comparisons, the majority of the Appendix IX+3 constituents were eliminated from further evaluation while several were retained for further evaluation. As described in the Work Plan, those constituents that were retained were subject to additional evaluation, and it was determined, based on such additional evaluation, that no response actions were necessary to achieve the applicable Performance Standards for these constituents.

However, in the course of these evaluations, GE noted that, for several volatile organic compounds (VOCs) and semi-volatile organic compounds (SVOCs), there were a number of sample results in which the constituents were not detected but which had elevated analytical detection limits such that one-half the detection limit exceeded the Screening PRG. These constituents were listed in Tables 4-4, 4-5, and 4-6 of the Work Plan. As indicated in those tables, the great majority of these constituents were not detected in any of the samples within the given RAA, although there were a few cases where the constituents were detected in certain samples (at levels below the Screening PRGs) while others were non-detect but had elevated detection limits. Given the elevated detection limits for these constituents, GE could not definitively retain or eliminate these constituents from further evaluation. In this Addendum, these constituents will be referred to as the "targeted VOCs/SVOCs."

Based on a closer review of the available analytical information, it was determined that the likely cause of the elevated detection limits for the targeted VOCs/SVOCs was related to matrix interferences associated with the soil samples rather than the analytical procedures or laboratory methodologies. As a result, to determine an appropriate course of action for these constituents (e.g., whether they should be eliminated or retained for further evaluation), the RD/RA Work Plan identified the performance of a supplemental soil investigation as an initial follow-up activity. That supplemental soil investigation (described below) was performed subsequent to the submittal of the Work Plan to assess whether and to what extent lower analytical detection/reporting limits could be achieved for the targeted VOCs/SVOCs. A summary of the supplemental investigation is presented below.

II. Summary of Supplemental Soil Investigation

In early January 2002, GE collected soil samples from nine of the same locations that had been previously sampled as part of the pre-design investigations conducted within the 20s, 30s, and 40s

Complexes. Figures 1, 2, and 3 identify the approximate sample locations. In selecting these locations, GE sought to identify supplemental sampling locations that represented the overall scope of the prior pre-design activities (in terms of sampling locations and depths) and which generally exhibited the highest detection limits from among the non-detect sample results. In total, nine soil samples were collected and submitted for analysis of the targeted VOCs/SVOCs. Table 1 presents the analytical results for these samples, while a summary of these results is presented below.

As shown in Table 1, none of the targeted VOCs/SVOCs were detected in the samples associated with the supplemental soil investigations, except for one constituent (dibenzo(a,h)anthracene) in one sample (RAA1-1), which was detected at a level below the applicable PRG. Further, unlike the prior analytical results associated with these pre-design sample locations/depths, the analyses of the supplemental soil samples were able to achieve much lower detection/reporting limits, approaching the Practical Quantitation Limits (PQLs) specified in GE's Field Sampling/Sampling/Quality Assurance Project Plan (FSP/QAPP).

The analytical results associated with the supplemental soil samples have not yet been validated consistent with the procedures specified in the FSP/QAPP. However, since no obvious data quality issues were identified in the summary reports prepared by the analytical laboratory, it is not expected that these data will be rejected during future validation activities. In the event that data quality issues are in fact identified, GE will notify EPA concerning the type and nature of such issues.

III. Revised Evaluation of Targeted VOCs/SVOCs and Proposed Course of Action

Based on the results of the supplemental pre-design soil investigation described above, GE proposes to eliminate the targeted VOCs/SVOCs from further RD/RA evaluations associated with the 20s, 30s, and 40s Complexes. This course of action was identified in the Conceptual RD/RA Work Plan as one potential outcome following the performance of the supplemental soil investigation (and related evaluations) and is supported by the following considerations:

- The preliminary Appendix IX+3 evaluations presented in the RD/RA Work Plan assumed that the targeted VOCs/SVOCs were not present at levels that would require further evaluation. The results of the supplemental investigation confirm that assumption. Tables 2, 3, and 4 present a comparison of the prior pre-design soil sampling results and the supplemental soil sampling results for the targeted VOCs/SVOCs at the 20s, 30s, and 40s Complexes, respectively. As indicated in those tables, the supplemental soil sampling results show that these constituents continue to be not detected (or, in one case, was detected below the PRG) even when lower and more appropriate analytical detection limits, at or close to the PQLs in the FSP/QAPP, were achieved.
- For a few of the targeted VOCs/SVOCs, even though lower analytical detection limits were achieved, one-half the detection limits still exceed the applicable PRGs, because the PRGs are well below the PQLs. (These constituents are identified in bold type in Tables 2, 3, and 4.) For example, for benzidine, the supplemental soil analyses were able to achieve detection limits in the range of 0.7 to 0.8 ppm, which is close to the PQL of 0.67 ppm. However, those limits are still more than two times higher than the PRG of 0.013 ppm. Thus, for such constituents, even under optimum analytical conditions, the analytical detection limits would not be low enough to support a comparison to the EPA Region 9 PRGs. For these

constituents, GE proposes to eliminate them from the need for further evaluation at these RAAs on the ground that they were not detected using the lowest analytical detection limits that could feasibly be achieved. (As discussed below, GE also proposes that, in future Appendix IX+3 evaluations at other RAAs, the PQLs should be used as the PRGs for these constituents.)

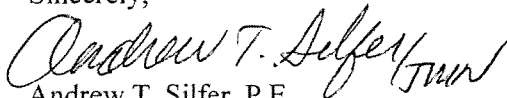
- Although only a subset of the overall pre-design data set was subject to re-sampling, the results are considered to be representative of the soils within the 20s, 30s, and 40s Complexes (i.e., the sampling locations were spatially distributed to include three locations and three depth increments within each area). In addition, the results are considered to be conservative for RD/RA purposes in that they replicate previous pre-design locations where some of the highest analytical detection limits were reported. As a result, it is reasonable to apply the conclusions related to the supplemental sampling data to the overall pre-design sampling data set.

For these reasons, GE believes that there is no need to conduct further sampling or evaluations for the targeted VOCs/SVOCs at the 20s, 30s, and 40s Complexes. Based on the elimination of these constituents from further evaluations, the preliminary Appendix IX+3 evaluations presented in the Conceptual RD/RA Work Plan do not need to be revised. As such, there are no response actions necessary for the 20s, 30s, and 40s Complexes, and hence a Final RD/RA Work Plan is not necessary for these RAAs.

In addition, for the constituents identified in bold type on Tables 2, 3, and 4 and for the reasons discussed in the second bulleted paragraph above, GE proposes that, in future evaluations of Appendix IX+3 constituents at other RAAs, the PQLs, rather than the EPA Region 9 PRGs, should be used as the PRGs for these identified constituents.

GE looks forward to discussing EPA comments on both the Conceptual RD/RA Work Plan and this Addendum at your convenience. In the meantime, please contact me with any questions.

Sincerely,



Andrew T. Silfer, P.E.
GE Project Coordinator

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TABLE 1

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS
ADDENDUM TO CONCEPTUAL RD/RA WORK PLAN FOR 20s, 30s, 40s COMPLEXES

SELECT VOC AND SVOC SAMPLE DATA
(Results are presented in dry weight parts per million, ppm)

Sample ID: Sample Depth(Feet): Parameter Date Collected:	20's Complex			30's Complex			40's Complex		
	RAA3-17 6-15 01/04/02	RAA3-23 0-1 01/04/02	RAA3-26 1-4 01/04/02	RAA2-14 0-1 01/04/02	RAA2-28 1-6 01/07/02	30-BH000470 6-15 01/08/02	RAA1-1 0-1 01/07/02	RAA1-5 1-6 01/07/02	RAA1-6 6-15 01/07/02
Volatile Organics									
1,1,2,2-Tetrachloroethane	NS	NS	NS	NS	NS	ND(0.0060)	NS	NS	NS
1,1-Dichloroethene	NS	NS	NS	NS	NS	ND(0.0060)	NS	NS	NS
1,2,3-Trichloropropane	ND(0.0054)	ND(0.0059)	ND(0.0052) [ND(0.0052)]	ND(0.0052)	ND(0.0055)	ND(0.0060)	ND(0.0057)	ND(0.0060)	ND(0.0060)
1,2-Dibromoethane	NS	NS	NS	NS	NS	ND(0.0060)	NS	NS	NS
1,2-Dichloroethane	NS	NS	NS	NS	NS	ND(0.0060)	NS	NS	NS
1,2-Dichloropropane	NS	NS	NS	NS	NS	ND(0.0060)	NS	NS	NS
Acrylonitrile	NS	NS	NS	NS	NS	ND(0.0060)	NS	NS	NS
Carbon Tetrachloride	NS	NS	NS	NS	NS	ND(0.0060)	NS	NS	NS
Chloroform	NS	NS	NS	NS	NS	ND(0.0060)	NS	NS	NS
trans-1,4-Dichloro-2-butene	NS	NS	NS	NS	NS	ND(0.0060)	NS	NS	NS
Vinyl Chloride	NS	NS	NS	NS	NS	ND(0.0060)	NS	NS	NS
Semivolatile Organics									
1,2-Diphenylhydrazine	NS	NS	NS	ND(0.34)	ND(0.37)	NS	NS	NS	NS
3,3'-Dichlorobenzidine	NS	ND(0.79)	NS	ND(0.70)	ND(0.74)	NS	NS	NS	ND(0.80)
3,3'-Dimethylbenzidine	ND(0.36)	ND(0.39)	ND(0.35) [ND(0.35)]	ND(0.34)	ND(0.37)	ND(0.40)	ND(0.38)	ND(0.40)	ND(0.40)
4-Chlorobenzilate	NS	ND(0.79)	NS	ND(0.70)	ND(0.74)	NS	NS	NS	NS
7,12-Dimethylbenz(a)anthracene	ND(0.73)	ND(0.79)	ND(0.70) [ND(0.70)]	ND(0.70)	ND(0.74)	ND(0.81)	ND(0.76)	ND(0.80)	ND(0.80)
Acetophenone	NS	ND(0.39)	NS	NS	ND(0.37)	ND(0.40)	ND(0.38)	NS	NS
Benzidine	ND(0.73)	ND(0.79)	ND(0.70) [ND(0.70)]	ND(0.70)	ND(0.74)	ND(0.81)	ND(0.76)	ND(0.80)	ND(0.80)
bis(2-Chloroethyl)ether	NS	ND(0.39)	NS	ND(0.34)	ND(0.37)	ND(0.40)	NS	NS	ND(0.40)
Dibenzo(a,h)anthracene	ND(0.36)	ND(0.39)	ND(0.35) [ND(0.35)]	NS	NS	NS	0.25 J	ND(0.40)	ND(0.40)
Hexachlorobenzene	NS	ND(0.39)	NS	ND(0.34)	ND(0.37)	ND(0.40)	NS	NS	NS
Indeno(1,2,3-cd)pyrene	NS	ND(0.39)	NS	NS	NS	NS	NS	NS	NS
N-Nitrosodiethylamine	ND(0.36)	ND(0.39)	ND(0.35) [ND(0.35)]	ND(0.34)	ND(0.37)	ND(0.40)	ND(0.38)	ND(0.40)	ND(0.40)
N-Nitrosodimethylamine	ND(0.36)	ND(0.39)	ND(0.35) [ND(0.35)]	ND(0.34)	ND(0.37)	ND(0.40)	ND(0.38)	ND(0.40)	ND(0.40)
N-Nitroso-di-n-butylamine	ND(0.73)	ND(0.79)	ND(0.70) [ND(0.70)]	ND(0.70)	ND(0.74)	ND(0.81)	ND(0.76)	ND(0.80)	ND(0.80)
N-Nitroso-di-n-propylamine	NS	ND(0.39)	ND(0.35) [ND(0.35)]	ND(0.34)	ND(0.37)	ND(0.40)	ND(0.38)	ND(0.40)	ND(0.40)
N-Nitrosomethylethylamine	ND(0.73)	ND(0.79)	ND(0.70) [ND(0.70)]	ND(0.70)	ND(0.74)	ND(0.81)	ND(0.76)	ND(0.80)	ND(0.80)
N-Nitrosopyrrolidine	NS	ND(0.79)	ND(0.70) [ND(0.70)]	ND(0.70)	ND(0.74)	ND(0.81)	NS	ND(0.80)	ND(0.80)
p-Dimethylaminoazobenzene	ND(0.73)	ND(0.79)	ND(0.70) [ND(0.70)]	ND(0.70)	ND(0.74)	ND(0.81)	ND(0.76)	ND(0.80)	ND(0.80)
Pentachloronitrobenzene	NS	NS	NS	ND(0.70)	ND(0.74)	NS	NS	NS	NS
Pentachlorophenol	NS	NS	NS	ND(1.8)	ND(1.9)	NS	NS	NS	NS

TABLE 1

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS
ADDENDUM TO CONCEPTUAL RD/RA WORK PLAN FOR 20s, 30s, 40s COMPLEXES

SELECT VOC AND SVOC SAMPLE DATA
(Results are presented in dry weight parts per million, ppm)

Notes:

1. Samples were collected by Blasland, Bouck & Lee, Inc., and were submitted to CT&E Environmental Services, Inc. for analysis of select volatile organics and select semivolatile organics.
2. ND - Analyte was not detected. The number in parentheses is the associated detection limit.
3. NS - Not Sampled as part of supplemental sampling activities.
4. J - Indicates an estimated value less than the practical quantitation limit (PQL).
5. Duplicate sample results are presented in brackets.

TABLE 2

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS
ADDENDUM TO CONCEPTUAL RD/RA WORK PLAN FOR 20s, 30s, 40s COMPLEXES

EVALUATION OF SELECT AIX+3 CONSTITUENTS - 20s COMPLEX
(Results in ppm, dry-weight)

Appendix IX+3 Constituent	EPA Region 9 Industrial PRGs	FSP/QAPP Practical Quantitation Limit (PQL)	Prior Pre-Design Results		Sample Result Comparison: Prior Pre-Design v. Supplemental Data					
			Detection Frequency	Maximum Detect	RAA3-17 6-15		RAA3-23 0-1		RAA3-26 1-3.8	
					12/29/00	01/04/02	12/26/00	01/04/02	12/26/00	01/04/02
Volatile Organics										
1,2,3-Trichloropropane	0.0031	0.0050	0/30	ND	ND(0.0068)	ND(0.0054)	ND(0.0084)	ND(0.0059)	ND(0.0066)	ND(0.0052) [ND(0.0052)]
Semi-Volatile Organics										
3,3'-Dichlorobenzidine	6.7	0.67	0/30	ND	--	NS	ND(30)	ND(0.79)	--	NS
3,3'-Dimethylbenzidine	0.33	0.33	0/30	ND	ND(11)	ND(0.36)	ND(30)	ND(0.39)	ND(12)	ND(0.35) [ND(0.35)]
4-Chlorobenzilate	11	0.67	0/31	ND	--	NS	ND(30)	ND(0.79)	--	NS
7,12-Dimethylbenz(a)anthracene	0.36	0.67	0/28	ND	ND(4.2)	ND(0.73)	ND(12)	ND(0.79)	ND(5.0)	ND(0.70) [ND(0.70)]
Acetophenone	1.6	0.33	0/31	ND	--	NS	ND(6.0)	ND(0.39)	--	NS
Benzidine	0.013	0.67	0/29	ND	ND(4.2) J	ND(0.73)	ND(12)	ND(0.79)	ND(5.0)	ND(0.70) [ND(0.70)]
bis(2-Chloroethyl)ether	0.56	0.33	0/31	ND	--	NS	ND(6.0)	ND(0.39)	--	NS
Dibenzo(a,h)anthracene	0.36	0.33	0/28	ND	ND(4.2)	ND(0.36)	ND(12)	ND(0.39)	ND(5.0)	ND(0.35) [ND(0.35)]
Hexachlorobenzene	1.9	0.33	0/31	ND	--	NS	ND(6.0)	ND(0.39)	--	NS
Indeno(1,2,3-cd)pyrene	3.6	0.33	4/28	1.5	--	NS	ND(12)	ND(0.39)	--	NS
N-Nitrosodiethylamine	0.02	0.33	0/31	ND	ND(2.1)	ND(0.36)	ND(6.0)	ND(0.39)	ND(2.5)	ND(0.35) [ND(0.35)]
N-Nitrosodimethylamine	0.059	0.33	0/31	ND	ND(11)	ND(0.36)	ND(30)	ND(0.39)	ND(12)	ND(0.35) [ND(0.35)]
N-Nitroso-di-n-butylamine	0.058	0.67	0/31	ND	ND(4.2)	ND(0.73)	ND(12) J	ND(0.79)	ND(5.0) J	ND(0.70) [ND(0.70)]
N-Nitroso-di-n-propylamine	0.43	0.33	0/31	ND	--	NS	ND(12) J	ND(0.39)	ND(5.0) J	ND(0.35) [ND(0.35)]
N-Nitrosomethylethylamine	0.14	0.67	0/31	ND	ND(2.1)	ND(0.73)	ND(6.0)	ND(0.79)	ND(2.5)	ND(0.70) [ND(0.70)]
N-Nitrosopyrrolidine	1.4	0.67	0/31	ND	--	NS	ND(12)	ND(0.79)	ND(5.0)	ND(0.70) [ND(0.70)]
p-Dimethylaminoazobenzene	0.67 (see Note 2)	0.67	0/31	ND	ND(11)	ND(0.73)	ND(30)	ND(0.79)	ND(12)	ND(0.70) [ND(0.70)]

Notes:

1. ND = Constituent was not detected.
2. The PQL for p-dimethylaminoazobenzene was used as the screening PRG.
3. Constituents that have a Practical Quantitation Limit (PQL) that is two times greater than its PRG are identified in bold print.
4. NS - Not sampled as part of supplemental sampling activities.
5. J - The compound or analyte was positively identified, but the associated numerical value is an estimated concentration.
6. -- Pre-Design result has not been presented because constituent was not resampled at this location.

TABLE 3

GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS
ADDENDUM TO CONCEPTUAL RD/RA WORK PLAN FOR 20s, 30s, 40s COMPLEXES

EVALUATION OF SELECT AIX+3 CONSTITUENTS - 30s COMPLEX
(Results in ppm, dry-weight)

Appendix IX+3 Constituent	EPA Region 9 Industrial PRGs	FSP/QAPP Practical Quantitation Limit (PQL)	Prior Pre-Design Results		Sample Result Comparison: Prior Pre-Design v. Supplemental Data					
			Detection Frequency	Maximum Detect	30-BH000470 6-15		RAA2-14 0-1		RAA2-28 1-6	
					04/05/01	01/08/02	12/04/00	01/04/02	12/27/00	01/07/02
Volatile Organics										
1,1,2,2-Tetrachloroethane	0.87	0.0050	0/61	ND	ND(2.1)	ND(0.0060)	--	NS	--	NS
1,1-Dichloroethene	0.12	0.0050	1/61	0.0016	ND(2.1)	ND(0.0060)	--	NS	--	NS
1,2,3-Trichloropropane	0.0031	0.0050	0/61	ND	ND(2.1)	ND(0.0060)	ND(0.0060)	ND(0.0052)	ND(0.0062)	ND(0.0055)
1,2-Dibromoethane	0.029	0.0050	0/61	ND	ND(2.1)	ND(0.0060)	--	NS	--	NS
1,2-Dichloroethane	0.76	0.0050	0/61	ND	ND(2.1)	ND(0.0060)	--	NS	--	NS
1,2-Dichloropropane	0.76	0.0050	0/61	ND	ND(2.1)	ND(0.0060)	--	NS	--	NS
Acrylonitrile	0.49	0.0050	0/59	ND	ND(2.1)	ND(0.0060)	--	NS	--	NS
Carbon Tetrachloride	0.52	0.0050	0/61	ND	ND(2.1)	ND(0.0060)	--	NS	--	NS
Chloroform	0.52	0.0050	0/61	ND	ND(2.1)	ND(0.0060)	--	NS	--	NS
trans-1,4-Dichloro-2-butene	0.018	0.0050	0/61	ND	ND(2.1)	ND(0.0060)	--	NS	--	NS
Vinyl Chloride	0.048	0.0050	1/61	0.0082	ND(2.1)	ND(0.0060)	--	NS	--	NS
Semi-Volatile Organics										
1,2-Diphenylhydrazine	3.7	0.33	0/58	ND	NS	NS	ND(7.9)	ND(0.34)	ND(6.9)	ND(0.37)
3,3'-Dichlorobenzidine	6.7	0.67	0/63	ND	ND(9.6)	NS	ND(39)	ND(0.70)	ND(34)	ND(0.74)
3,3'-Dimethylbenzidine	0.33	0.33	0/63	ND	ND(9.6) J	ND(0.40)	ND(39)	ND(0.34)	ND(34)	ND(0.37)
4-Chlorobenzilate	11	0.67	0/65	ND	--	NS	ND(39)	ND(0.70)	ND(34)	ND(0.74)
7,12-Dimethylbenz(a)anthracene	0.36	0.67	0/64	ND	ND(9.6)	ND(0.81)	ND(16)	ND(0.70)	ND(14)	ND(0.74)
Acetophenone	1.6	0.33	1/65	0.53	ND(9.6)	ND(0.40)	--	NS	ND(6.9)	ND(0.37)
Benidine	0.013	0.67	0/55	ND	NS	NS	ND(16)	ND(0.70)	ND(14)	ND(0.74)
bis(2-Chloroethyl)ether	0.56	0.33	0/65	ND	ND(9.6)	ND(0.40)	ND(7.9)	ND(0.34)	ND(6.9)	ND(0.37)
Hexachlorobenzene	1.9	0.33	0/65	ND	ND(9.6)	ND(0.40)	ND(7.9)	ND(0.34)	ND(6.9)	ND(0.37)
N-Nitrosodiethylamine	0.02	0.33	0/65	ND	ND(9.6)	ND(0.40)	ND(7.9)	ND(0.34)	ND(6.9)	ND(0.37)
N-Nitrosodimethylamine	0.059	0.33	0/65	ND	ND(9.6)	ND(0.40)	ND(39)	ND(0.34)	ND(34)	ND(0.37)
N-Nitroso-di-n-butylamine	0.058	0.67	0/65	ND	ND(9.6)	ND(0.81)	ND(16)	ND(0.70)	ND(14)	ND(0.74)
N-Nitroso-di-n-propylamine	0.43	0.33	0/65	ND	ND(9.6)	ND(0.40)	ND(16)	ND(0.34)	ND(14) J	ND(0.37)
N-Nitrosomethylethylamine	0.14	0.67	0/65	ND	ND(9.6)	ND(0.81)	ND(7.9)	ND(0.70)	ND(6.9)	ND(0.74)
N-Nitrosopyrrolidine	1.4	0.67	0/65	ND	ND(9.6)	ND(0.81)	ND(16)	ND(0.70)	ND(14)	ND(0.74)
p-Dimethylaminoazobenzene	0.67 (See Note 2)	0.67	1/65	0.61	ND(9.6)	ND(0.81)	ND(39)	ND(0.70)	ND(34)	ND(0.74)
Pentachloronitrobenzene	12	0.67	0/62	ND	--	NS	ND(39)	ND(0.70)	ND(34)	ND(0.74)
Pentachlorophenol	15	1.7	0/65	ND	--	NS	ND(39)	ND(1.8)	ND(34)	ND(1.9)

Notes:

1. ND = Constituent was not detected.
2. The PQL for p-dimethylaminoazobenzene was used as the screening PRG.
3. Constituents that have a Practical Quantitation Limit (PQL) that is two times greater than its PRG are identified in bold print.
4. NS - Not sampled as part of supplemental sampling activities.
5. J - The compound or analyte was positively identified, but the associated numerical value is an estimated concentration.
6. -- Pre-Design result has not been presented because constituent was not resampled at this location.

TABLE 4

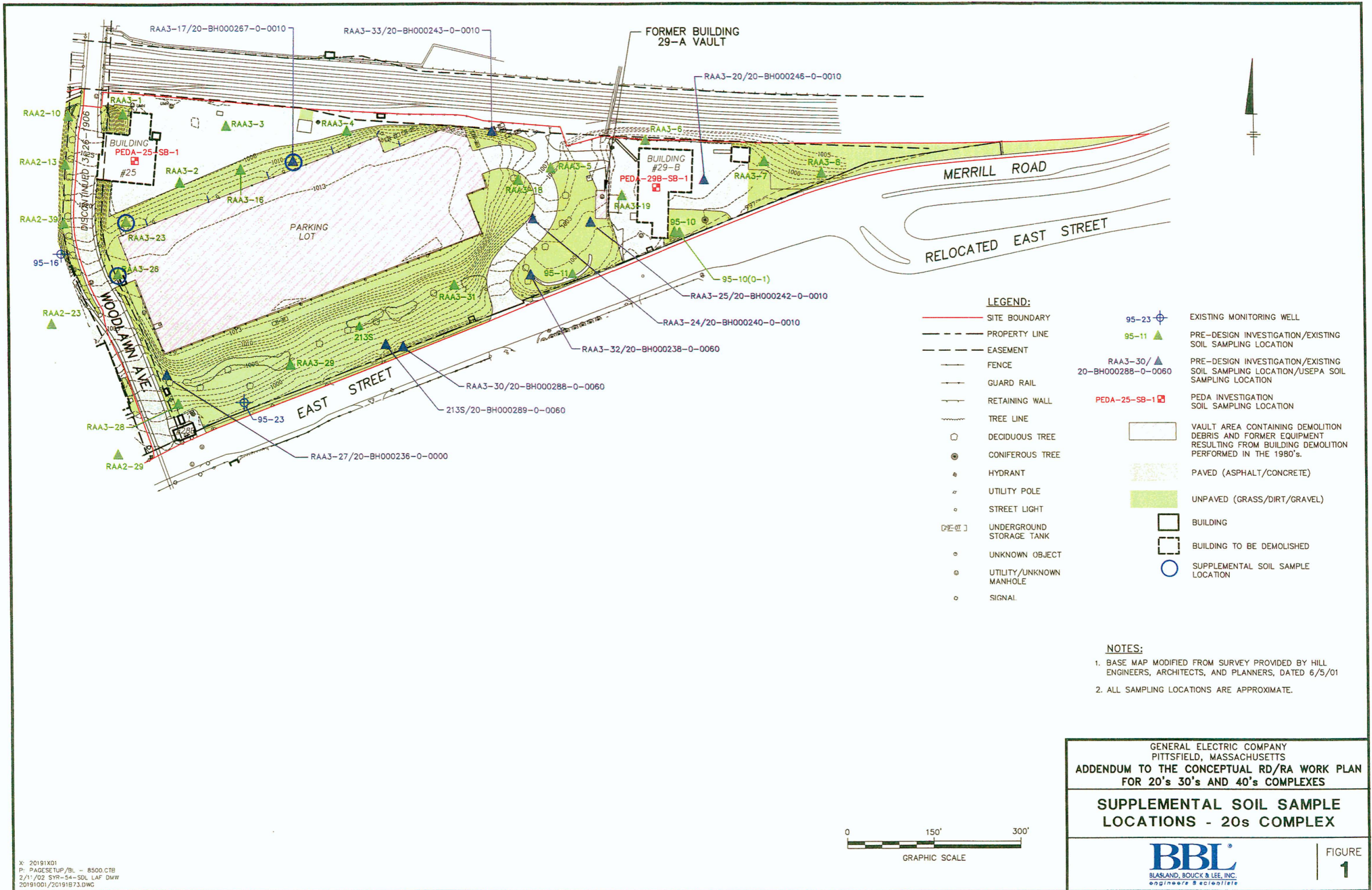
GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS
ADDENDUM TO CONCEPTUAL RD/RA WORK PLAN FOR 20s, 30s, 40s COMPLEXES

EVALUATION OF SELECT AIX+3 CONSTITUENTS - 40s COMPLEX
(Results in ppm, dry-weight)

Appendix IX+3 Constituent	EPA Region 9 Industrial PRGs	FSP/QAPP Practical Quantitation Limit (PQL)	Prior Pre-Design Results		Sample Result Comparison: Prior Pre-Design v. Supplemental Data					
			Detection Frequency	Maximum Detect	RAA1-1 0-1		RAA1-5 1-6		RAA1-6 6-15	
					01/04/01	01/07/02	01/04/01	01/07/02	01/08/01	01/07/02
Volatile Organics										
1,2,3-Trichloropropane	0.0031	0.0050	0/27	ND	ND(0.0071)	ND(0.0057)	ND(0.0079)	ND(0.0060)	ND(0.0092)	ND(0.0060)
Semi-Volatile Organics										
3,3'-Dichlorobenzidine	6.7	0.67	0/27	ND	--	NS	--	NS	ND(15) [ND(16)]	ND(0.80)
3,3'-Dimethylbenzidine	0.33	0.33	0/27	ND	ND(12)	ND(0.38)	ND(13)	ND(0.40)	ND(15) [ND(16)]	ND(0.40)
7,12-Dimethylbenz(a)anthracene	0.36	0.67	0/27	ND	ND(4.8)	ND(0.76)	ND(5.4)	ND(0.80)	ND(5.9) [ND(6.2)]	ND(0.80)
Acetophenone	1.6	0.33	0/27	ND	ND(2.4)	ND(0.38)	--	NS	--	NS
Benzidine	0.013	0.67	0/26	ND	ND(4.8) J	ND(0.76)	ND(5.4) J	ND(0.80)	ND(5.9) J [ND(6.2) J]	ND(0.80)
bis(2-Chloroethyl)ether	0.56	0.33	0/27	ND	--	NS	--	NS	ND(2.9) [ND(3.1)]	ND(0.40)
Dibenzo(a,h)anthracene	0.36	0.33	0/27	ND	ND(4.8)	0.25 J	ND(5.4)	ND(0.40)	ND(5.9) [ND(6.2)]	ND(0.40)
N-Nitrosodiethylamine	0.02	0.33	0/27	ND	ND(2.4)	ND(0.38)	ND(2.7)	ND(0.40)	ND(2.9) [ND(3.1)]	ND(0.40)
N-Nitrosodimethylamine	0.059	0.33	0/27	ND	ND(12)	ND(0.38)	ND(13)	ND(0.40)	ND(15) [ND(16)]	ND(0.40)
N-Nitroso-di-n-butylamine	0.058	0.67	0/27	ND	ND(4.8) J	ND(0.76)	ND(5.4) J	ND(0.80)	ND(5.9) J [ND(6.2) J]	ND(0.80)
N-Nitroso-di-n-propylamine	0.43	0.33	0/27	ND	ND(4.8)	ND(0.38)	ND(5.4)	ND(0.40)	ND(5.9) [ND(6.2)]	ND(0.40)
N-Nitrosomethylethylamine	0.14	0.67	0/27	ND	ND(2.4)	ND(0.76)	ND(2.7)	ND(0.80)	ND(2.9) [ND(3.1)]	ND(0.80)
N-Nitrosopyrrolidine	1.4	0.67	0/27	ND	--	NS	ND(5.4)	ND(0.80)	ND(5.9) [ND(6.2)]	ND(0.80)
p-Dimethylaminoazobenzene	0.67 (See Note 2)	0.67	0/27	ND	ND(12)	ND(0.76)	ND(13)	ND(0.80)	ND(15) [ND(16)]	ND(0.80)

Notes:

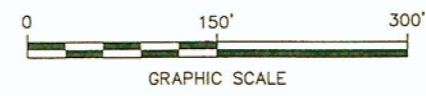
1. ND = Constituent was not detected.
2. The PQL for p-dimethylaminoazobenzene was used as the screening PRG.
3. Constituents that have a Practical Quantitation Limit (PQL) that is two times greater than its PRG are identified in bold print.
4. NS - Not sampled as part of supplemental sampling activities.
5. J - The compound or analyte was positively identified, but the associated numerical value is an estimated concentration.
6. -- Pre-Design result has not been presented because constituent was not resampled at this location.



- LEGEND:**
- SITE BOUNDARY
 - - - PROPERTY LINE
 - - - EASEMENT
 - FENCE
 - GUARD RAIL
 - RETAINING WALL
 - TREE LINE
 - DECIDUOUS TREE
 - CONIFEROUS TREE
 - HYDRANT
 - UTILITY POLE
 - STREET LIGHT
 - [] UNDERGROUND STORAGE TANK
 - UNKNOWN OBJECT
 - UTILITY/UNKNOWN MANHOLE
 - SIGNAL

- 95-23 ⊕ EXISTING MONITORING WELL
- 95-11 ▲ PRE-DESIGN INVESTIGATION/EXISTING SOIL SAMPLING LOCATION
- RAA3-30/▲ PRE-DESIGN INVESTIGATION/EXISTING SOIL SAMPLING LOCATION/USEPA SOIL SAMPLING LOCATION
- 20-BH000288-0-0060
- PEDA-25-SB-1 ■ PEDA INVESTIGATION SOIL SAMPLING LOCATION
- VAULT AREA CONTAINING DEMOLITION DEBRIS AND FORMER EQUIPMENT RESULTING FROM BUILDING DEMOLITION PERFORMED IN THE 1980's.
- ▨ PAVED (ASPHALT/CONCRETE)
- UNPAVED (GRASS/DIRT/GRAVEL)
- BUILDING
- BUILDING TO BE DEMOLISHED
- SUPPLEMENTAL SOIL SAMPLE LOCATION

- NOTES:**
1. BASE MAP MODIFIED FROM SURVEY PROVIDED BY HILL ENGINEERS, ARCHITECTS, AND PLANNERS, DATED 6/5/01
 2. ALL SAMPLING LOCATIONS ARE APPROXIMATE.



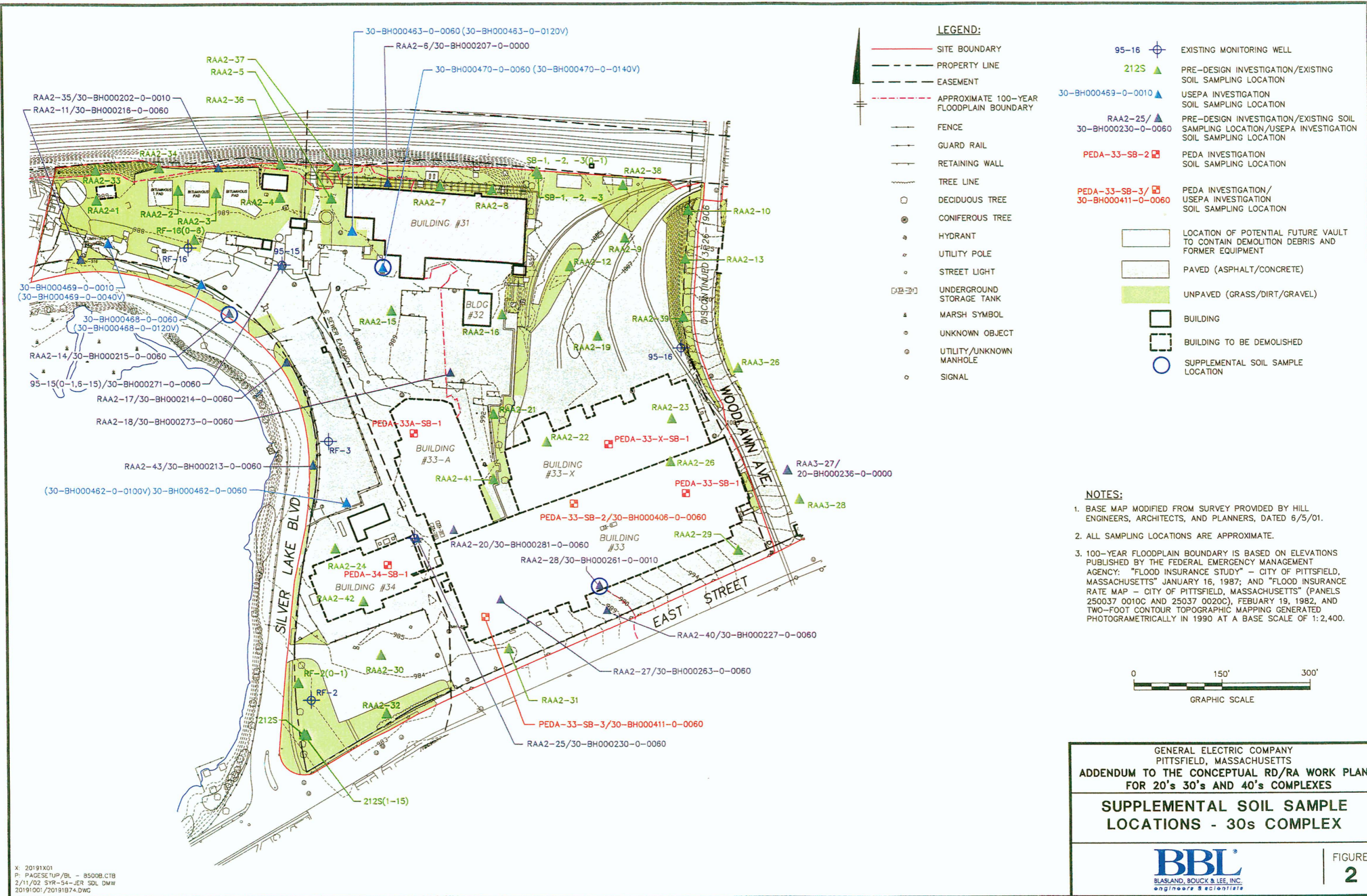
GENERAL ELECTRIC COMPANY
 PITTSFIELD, MASSACHUSETTS
 ADDENDUM TO THE CONCEPTUAL RD/RA WORK PLAN
 FOR 20's 30's AND 40's COMPLEXES

SUPPLEMENTAL SOIL SAMPLE LOCATIONS - 20s COMPLEX

BBL
 BLASLAND, BOUCK & LEE, INC.
 engineers & scientists

FIGURE 1

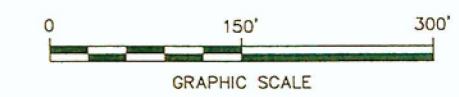
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 20191001/20191B73.DWG



- LEGEND:**
- SITE BOUNDARY
 - - - PROPERTY LINE
 - - - EASEMENT
 - - - APPROXIMATE 100-YEAR FLOODPLAIN BOUNDARY
 - FENCE
 - GUARD RAIL
 - RETAINING WALL
 - TREE LINE
 - DECIDUOUS TREE
 - CONIFEROUS TREE
 - ⊙ HYDRANT
 - ⊙ UTILITY POLE
 - ⊙ STREET LIGHT
 - ⊙ UNDERGROUND STORAGE TANK
 - ⊙ MARSH SYMBOL
 - ⊙ UNKNOWN OBJECT
 - ⊙ UTILITY/UNKNOWN MANHOLE
 - ⊙ SIGNAL

- 95-16 ⊕ EXISTING MONITORING WELL
- 212S ▲ PRE-DESIGN INVESTIGATION/EXISTING SOIL SAMPLING LOCATION
- 30-BH000469-0-0010 ▲ USEPA INVESTIGATION SOIL SAMPLING LOCATION
- RAA2-25/▲ PRE-DESIGN INVESTIGATION/EXISTING SOIL SAMPLING LOCATION/USEPA INVESTIGATION SOIL SAMPLING LOCATION
- 30-BH000230-0-0060
- PEDA-33-SB-2 ⊕ PEDA INVESTIGATION SOIL SAMPLING LOCATION
- PEDA-33-SB-3/⊕ PEDA INVESTIGATION/USEPA INVESTIGATION SOIL SAMPLING LOCATION
- 30-BH000411-0-0060
- LOCATION OF POTENTIAL FUTURE VAULT TO CONTAIN DEMOLITION DEBRIS AND FORMER EQUIPMENT
- ▨ PAVED (ASPHALT/CONCRETE)
- UNPAVED (GRASS/DIRT/GRAVEL)
- BUILDING
- BUILDING TO BE DEMOLISHED
- SUPPLEMENTAL SOIL SAMPLE LOCATION

- NOTES:**
1. BASE MAP MODIFIED FROM SURVEY PROVIDED BY HILL ENGINEERS, ARCHITECTS, AND PLANNERS, DATED 6/5/01.
 2. ALL SAMPLING LOCATIONS ARE APPROXIMATE.
 3. 100-YEAR FLOODPLAIN BOUNDARY IS BASED ON ELEVATIONS PUBLISHED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY: "FLOOD INSURANCE STUDY" - CITY OF PITTSFIELD, MASSACHUSETTS" JANUARY 16, 1987; AND "FLOOD INSURANCE RATE MAP - CITY OF PITTSFIELD, MASSACHUSETTS" (PANELS 250037 0010C AND 25037 0020C), FEBRUARY 19, 1982, AND TWO-FOOT CONTOUR TOPOGRAPHIC MAPPING GENERATED PHOTOGRAMMETRICALLY IN 1990 AT A BASE SCALE OF 1:2,400.



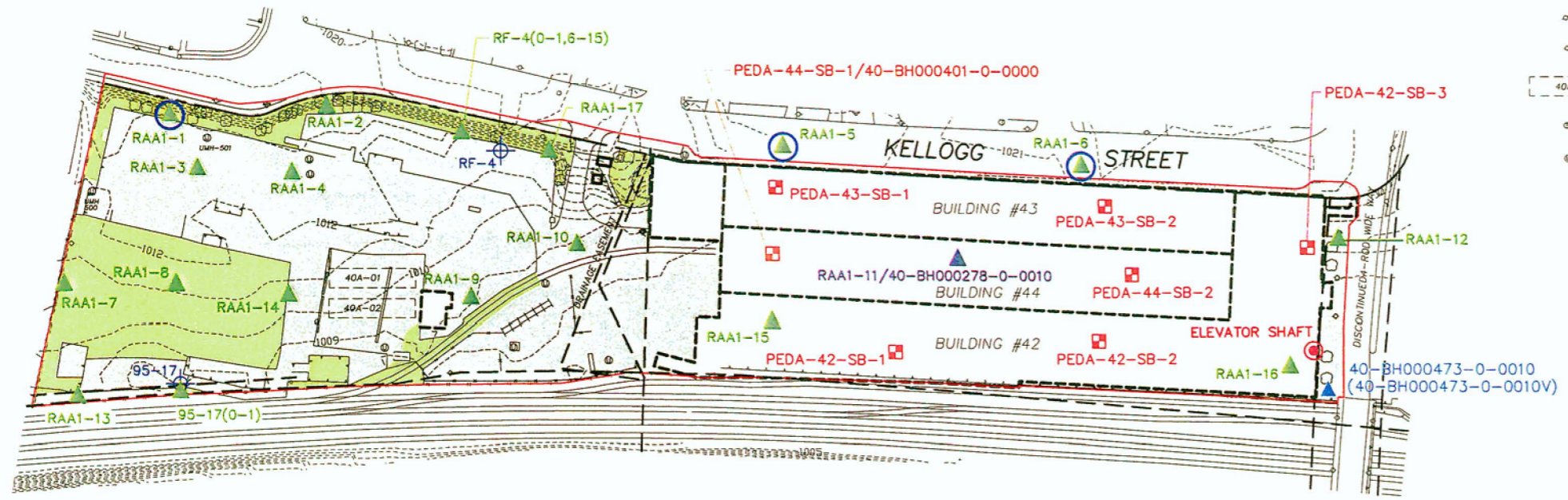
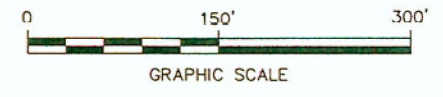
GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS
ADDENDUM TO THE CONCEPTUAL RD/RA WORK PLAN
FOR 20's 30's AND 40's COMPLEXES
**SUPPLEMENTAL SOIL SAMPLE
LOCATIONS - 30s COMPLEX**



- LEGEND:**
- SITE BOUNDARY
 - - - PROPERTY LINE
 - - - EASEMENT
 - FENCE
 - GUARD RAIL
 - RETAINING WALL
 - TREE LINE
 - DECIDUOUS TREE
 - HYDRANT
 - UTILITY POLE
 - STREET LIGHT
 - UNDERGROUND STORAGE TANK
 - UNKNOWN OBJECT
 - UTILITY/UNKNOWN MANHOLE

- RF-4 EXISTING MONITORING WELL
- RAA1-1 PRE-DESIGN INVESTIGATION/EXISTING SOIL SAMPLING LOCATION
- 40-BH000473-0-0010 USEPA INVESTIGATION SOIL SAMPLING LOCATION
- RAA1-11/
40-BH000473-0-0010 PRE-DESIGN INVESTIGATION/EXISTING SOIL SAMPLING LOCATION/USEPA INVESTIGATION SOIL SAMPLING LOCATION
- PEDA-44-SB-1 PED A INVESTIGATION SOIL SAMPLING LOCATION
- PEDA-44-SB-1/
40-BH000401-0-0000 PED A INVESTIGATION/USEPA INVESTIGATION SOIL SAMPLING LOCATION
- PAVED (ASPHALT/CONCRETE)
- UNPAVED (GRASS/DIRT/GRAVEL)
- BUILDING
- BUILDING TO BE DEMOLISHED
- SUPPLEMENTAL SOIL SAMPLE LOCATION

- NOTES:**
1. BASE MAP MODIFIED FROM SURVEY PROVIDED BY HILL ENGINEERS, ARCHITECTS, AND PLANNERS, DATED 6/5/01.
 2. ALL SAMPLING LOCATIONS ARE APPROXIMATE.



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ADDENDUM TO THE CONCEPTUAL RD/RA WORK PLAN
FOR 20's 30's AND 40's COMPLEXES

**SUPPLEMENTAL SOIL SAMPLE
LOCATIONS - 40s COMPLEX**

