



GE
159 Plastics Avenue
Pittsfield, MA 01201
USA

Transmitted Via Hand Delivery

September 6, 2005

Mr. William P. Lovely, Jr.
U.S. Environmental Protection Agency
EPA New England
One Congress Street, Suite 1100
Boston, Massachusetts 02114-2023

**Re: GE-Pittsfield/Housatonic River Site
Newell Street Area II (GEC450)
Proposal for Geophysical Survey at Parcel J9-23-8**

Dear Mr. Lovely:

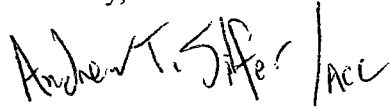
As you know, during the performance of soil removal activities on Parcel J9-23-8 within Newell Street Area II under work plans approved by EPA, drums were encountered in subsurface soil subject to removal. To date, approximately 50 such drums have been found, many of which were crushed or in pieces and some of which appeared to be intact or partially intact. In response, GE: (1) properly removed the drums; (2) sent the crushed drums and drums containing solid material to GE's On-Plant Consolidation Areas (OPCAs) for disposition there; and (3) overpacked the intact or partially intact drums that contained liquid material, sent those drums to GE's on-plant TSCA storage area, and implemented a program to characterize their contents to facilitate the appropriate off-site disposition of these drums. In light of the finding of these drums, EPA requested that GE provide a proposal for further characterization of this area for the presence of drums.

In response to this request and based on discussions with EPA, GE is submitting to EPA the attached *Proposal for Geophysical Survey at Parcel J9-23-8*. This proposal calls for the performance of a geophysical survey at Parcel J9-23-8 for the purpose of identifying other areas within the portion of this property subject to soil remediation where drums may potentially be present in the subsurface soil.

GE is submitting this proposal voluntarily. The EPA-approved work plans for Newell Street Area II pursuant to the 2000 Consent Decree (CD) specify GE's obligations for response actions at this area. Those response actions include soil removal and replacement at Parcel J9-23-8, along with installation of an engineered barrier on a portion of that property. They do not include additional response actions to address the potential presence of drums in subsurface soil that would not be affected by those remediation activities. In submitting the attached proposal, GE preserves its position that any such additional response actions are not required by the CD.

Nonetheless, GE is willing to conduct the additional investigations described in the attached proposal, and further to discuss with EPA, based on the results of the proposed survey, the need for and scope of additional actions to address potential buried drums. Please contact me if you have any questions or comments about the attached proposal.

Sincerely,

Handwritten signature of Andrew T. Silfer in black ink, with the initials 'ACC' written to the right of the signature.

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

Attachment

V:\GE_Pittsfield_CD_Newell_St_Area_IT\Correspondence\54352196.doc

cc: Dean Tagliaferro, EPA
Tim Conway, EPA
Holly Inglis, EPA
Rose Howell, EPA*
K.C. Mitkevicius, USACE
Linda Palmieri, Weston
Anna Symington, MDEP*
Robert Bell, MDEP*
Susan Steenstrup, MDEP (2 copies)
Thomas Angus, MDEP*
Mayor James Ruberto, City of Pittsfield
Pittsfield Commissioner of Public Health
Nancy E. Harper, MA AG*

Dale Young, MA EOE*
Paul Dowd, Western Mass. Electric Co.
Michael Carroll, GE
Richard Gates, GE
Rod McLaren, GE
James Nuss, BBL
James Bieke, Goodwin Procter
Samuel Gutter, Sidley Austin Brown & Wood
John Ciampa, SPECTRA
Public Information Repositories
GE Internal Repositories

(* without attachment)

**GENERAL ELECTRIC COMPANY
NEWELL STREET AREA II**

PROPOSAL FOR GEOPHYSICAL SURVEY AT PARCEL J9-23-8

September 6, 2005

This document describes the General Electric Company's (GE's) proposal for the performance of a geophysical survey, using various geophysical techniques, within Parcel J9-23-8 located in Pittsfield, Massachusetts. Parcel J9-23-8 is owned by an electric utility company and is vacant except for the presence of overhead electric power transmission lines and associated towers. This parcel is included within the Newell Street Area II Removal Action Area (RAA) under the October 2000 Consent Decree (CD) for the GE-Pittsfield/Housatonic River Site and is subject to remediation activities approved by the U.S. Environmental Protection Agency (EPA) to achieve the applicable Performance Standards set forth in the CD. GE initiated soil remediation activities at this parcel in July 2005.

During the performance of soil removal activities at Parcel J9-23-8, GE's remediation contractor encountered numerous drums located in subsurface soils subject to removal. To date, approximately 50 such drums have been found, many of which were crushed or in pieces and some of which appeared to be intact or partially intact. In response, GE: (1) properly removed the drums; (2) sent the crushed drums and drums containing solid material to GE's On-Plant Consolidation Areas (OPCAs) for disposition there; and (3) overpacked the intact or partially intact drums that contained any liquid material, sent those drums to GE's on-plant TSCA storage area, and implemented a program to characterize their contents to facilitate the appropriate off-site disposition of these drums.

As a follow-up to the discovery of the drums, and based on subsequent discussions with EPA, GE has elected to conduct a geophysical survey within Parcel J9-23-8 for the purpose of identifying other areas at that parcel where drums may potentially be present in the subsurface soil within the areas subject to remediation. As described below, the non-invasive geophysical survey will use a combination of geophysical techniques, including magnetometer, electromagnetic (EM) methods, and ground-penetrating radar (GPR). If the geophysical survey identifies subsurface anomalies that could potentially constitute buried drums, GE will discuss with EPA the need for and scope of subsequent intrusive investigations (e.g., test pits) at this parcel, beyond the approved soil remediation activities, to further assess the nature of the subsurface anomalies.

The geophysical survey described in this proposal will be conducted for that portion of Parcel J9-23-8 that is subject to soil remediation activities (soil excavation and/or the installation of an engineered barrier) previously approved by EPA. Figure A-1 identifies the area subject to the survey activities; additional information concerning the proposed geophysical survey for Parcel J9-23-8 is presented below.

I. Summary of Geophysical Instruments

The proposed survey activities combine the use of multiple geophysical techniques to aid in the possible detection of buried drums and other objects/subsurface features. This multi-instrument/survey approach will allow for anticipated potential interferences from man-made items (power lines, structures, fences, etc.) that may affect one survey instrument but not another at the site. The geophysical survey will combine the use of a magnetometer and EM-61 to identify potential drums at the site, and GPR to provide confirmatory radar images of the features identified by the magnetometer and EM-61.

- The magnetometer is used to detect buried ferromagnetic objects. The magnetometer operates on the principle of measuring the earth's magnetic field and deviations in this field caused by the presence of ferromagnetic objects. The intensity and variation caused by ferromagnetic objects in the earth's magnetic field are related to the depth and mass of the buried object and to a lesser degree the orientation of the object. A magnetometer can potentially detect ferromagnetic objects to depths of about 12 to 15 feet depending on the nature and intensity of local interferences.
- The EM-61 is used to detect subsurface metallic objects without significant interference from surface features (e.g., buildings, power lines, and fences). The operation of this instrument is based on the emission, or pulse, of a time-varying magnetic field generated from an alternating current at the transmitter. After each pulse, secondary electromagnetic fields are induced briefly into the earth, and for a longer time in metallic targets. Between each pulse, the EM-61 pauses until the response from the earth dissipates and then measures the prolonged response received from buried metallic objects. The EM-61 is effective in identifying various types of metallic objects to depths of about 10 to 12 feet, and has better spatial resolution than a magnetometer.

- The GPR system transmits high frequency electromagnetic waves into the ground and detects the energy reflected back to the surface. Energy is reflected along subsurface interfaces that possess different electrical properties. Reflections typically occur at lithologic contacts or at changes in subsurface materials having high electrical contrasts, including metal objects such as underground storage tanks (USTs), drums, and utility pipes. These reflections are detected by the antenna and processed into an electrical signal, which can be used to image the subsurface feature. The GPR can detect subsurface objects/features to depths of 20 feet depending on the site conditions and the frequency of the antenna.

II. Survey Procedures

The geophysical surveys to be performed with the magnetometer and EM-61 instruments will use a Global Positioning System (GPS) for horizontal control. This will also permit better coverage of the survey area since survey lines can be adjusted in real time to site conditions without losing positioning accuracy. If, however, site conditions do not permit the use of GPS, or if the accuracy of the GPS system is limited by site conditions, then conventional survey methods will be used to provide horizontal control for the magnetometer and EM-61 surveys. Survey line spacing will initially be at approximately 10 feet. In all areas where potential anomalies are identified during the magnetometer and EM-61 surveys, GPR will be used to provide subsurface images of the objects.

Field data collected during the magnetometer and EM-61 surveys will be recorded and stored in data loggers along with GPS data. These data will be downloaded and contoured to produce total field (magnetometer) and EM-61 response contour maps identifying subsurface anomalies. To the extent feasible, the data will also be interpreted to provide information on the depth of these anomalies. GPR will be used to further evaluate those anomalies that represent potential buried drums. The GPR data will be reviewed and preliminarily interpreted and the locations of objects that those data indicate may constitute drums will be marked and located using GPS or conventional survey methods.

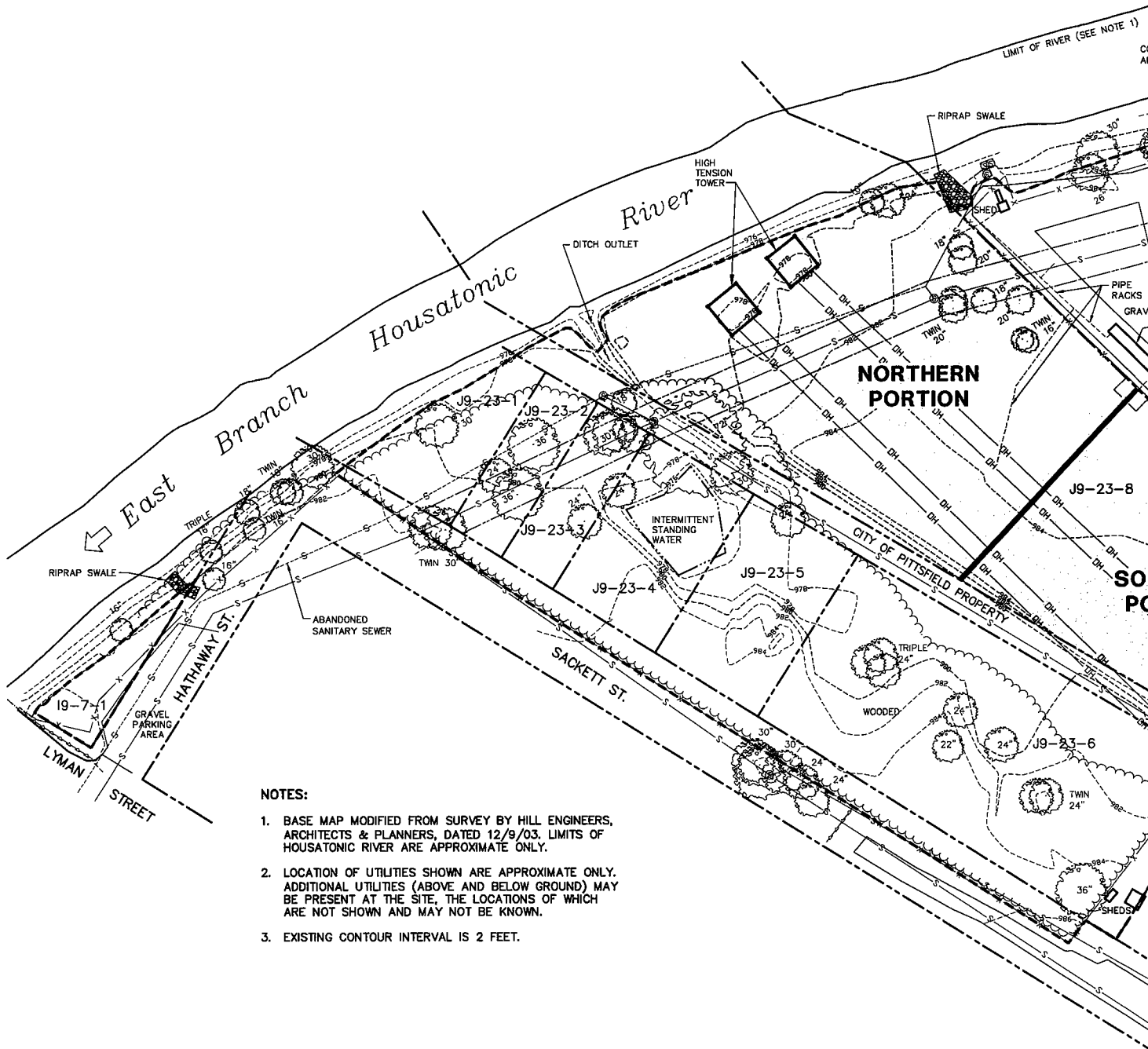
A site map will be prepared of all anomalies identified during the geophysical survey. GPR data will be recorded and available for additional processing and review if needed for further evaluation of select anomaly locations.

The results of the survey activities described above will be reviewed and discussed with EPA, considering the lines of evidence available from all three survey methods. One possible outcome of these discussions may be the performance of follow-up intrusive investigation activities (e.g., test pits). The specific scope of such activities (if any) would consider the results of the survey activities described above, but would also need to consider the ongoing soil remediation activities and the possible integration of the additional investigations into the remediation work.

III. Schedule

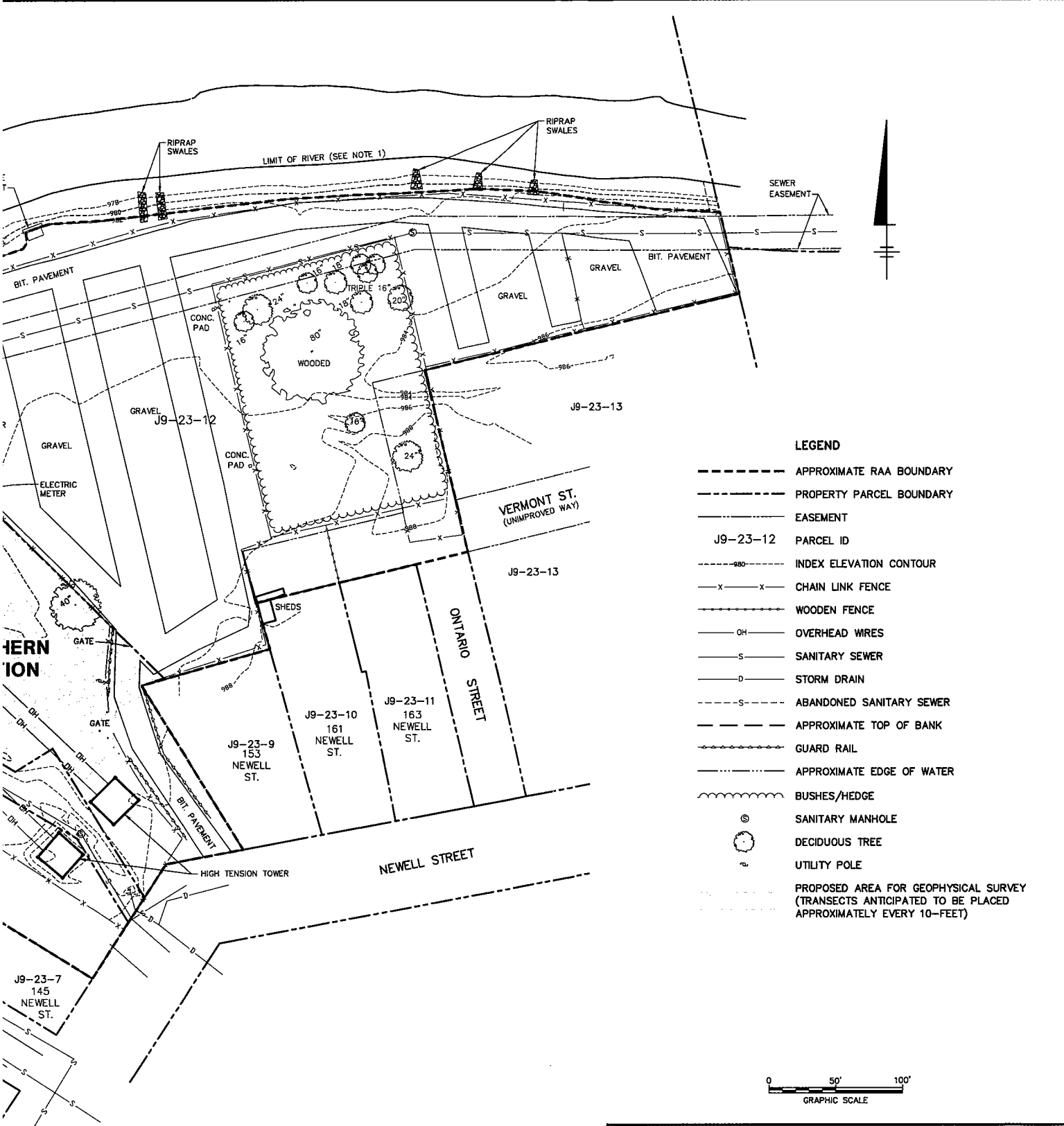
GE proposes to conduct the geophysical surveys described above in two stages. The first stage will cover the southern portion of Parcel J9-23-8, as identified on Figure A-1. It is estimated that the geophysical survey work in that portion of Parcel J9-23-8 and the associated data interpretation can be completed within approximately 7 to 10 days after EPA approval of this proposal. The results will then be discussed with EPA, and subsequent activities (if any) will be based on discussions with EPA.

The second stage of the proposed geophysical work will cover the northern portion of Parcel J9-23-8, as identified on Figure A-1. That stage will begin upon completion of the geophysical survey work for the first stage. It is estimated that the geophysical surveys in the northern portion of Parcel J9-23-8 and the associated data interpretation can be completed within approximately 7 to 10 days after the work is commenced. As with the first stage, the results will then be discussed with EPA, and subsequent activities (if any) will be based on discussions with EPA.



NOTES:

1. BASE MAP MODIFIED FROM SURVEY BY HILL ENGINEERS, ARCHITECTS & PLANNERS, DATED 12/9/03. LIMITS OF HOUSATONIC RIVER ARE APPROXIMATE ONLY.
2. LOCATION OF UTILITIES SHOWN ARE APPROXIMATE ONLY. ADDITIONAL UTILITIES (ABOVE AND BELOW GROUND) MAY BE PRESENT AT THE SITE, THE LOCATIONS OF WHICH ARE NOT SHOWN AND MAY NOT BE KNOWN.
3. EXISTING CONTOUR INTERVAL IS 2 FEET.



- LEGEND**
- APPROXIMATE RAA BOUNDARY
 - PROPERTY PARCEL BOUNDARY
 - EASEMENT
 - J9-23-12 PARCEL ID
 - 980- INDEX ELEVATION CONTOUR
 - x-x- CHAIN LINK FENCE
 - WOODEN FENCE
 - OH OVERHEAD WIRES
 - S SANITARY SEWER
 - D STORM DRAIN
 - S- ABANDONED SANITARY SEWER
 - APPROXIMATE TOP OF BANK
 - GUARD RAIL
 - APPROXIMATE EDGE OF WATER
 - ~ BUSHES/HEDGE
 - ⊙ SANITARY MANHOLE
 - ⊙ DECIDUOUS TREE
 - ⊙ UTILITY POLE
 - PROPOSED AREA FOR GEOPHYSICAL SURVEY (TRANSECTS ANTICIPATED TO BE PLACED APPROXIMATELY EVERY 10-FEET)

**GENERAL ELECTRIC COMPANY
PITTSFIELD, MASSACHUSETTS
NEWELL STREET AREA II RAA**

**PARCEL J9-23-8: PROPOSED AREA
FOR GEOPHYSICAL SURVEY**

BBL[®]
BLASLAND, BOUCK & LEE, INC.
engineers, scientists, economists

FIGURE
A-1