



NYSDEC ID NUMBER: 9-1464-00044
PARTS AND REPAIR SERVICE CENTER
GENERAL ELECTRIC INTERNATIONAL, INC.
175 MILENS ROAD
TONAWANDA, NEW YORK

CORRECTIVE MEASURE IMPLEMENTATION PLAN

OCTOBER 2, 2012

Prepared for:

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TABLE OF CONTENTS

1.0	INTRODUCTION.....	1
2.0	SITE BACKGROUND	2
2.1	Site History	2
2.1.1	Geology and Hydrogeology.....	2
2.1.2	Summary of RCRA Corrective Actions	2
2.2	Current Site Conditions and proposed Corrective Measure changes.....	3
2.3	updated Corrective Measures.....	5
2.3.1	Implemented Corrective Measures	5
2.3.2	Corrective Measures Included in this <i>CMIP</i>	6
2.3.3	Anticipated Future Actions	8
3.0	DESIGN SCOPE AND DESIGN-PHASE INVESTIGATIONS	9
3.1	Remedial Goals.....	9
3.2	Design Considerations	9
3.3	Design investigations.....	10
3.3.1	Identified Information Gaps.....	10
3.3.2	Potential Additional Data Collection and Data Review	10
3.4	Project Plans.....	10
3.4.1	Health and Safety Plan.....	10
3.4.2	Community Air Monitoring Plan.....	11
3.4.3	Quality Assurance Project Plan	11
3.4.4	Storm Water Pollution Prevention Plan.....	11
4.0	PERMITS AND ACCESS AGREEMENTS	12
4.1	Access Agreements.....	12
4.2	Permits	12
5.0	CORRECTIVE MEASURE IMPLEMENTATION AND SCHEDULE.....	14
5.1	Corrective Measure Implementation Elements.....	14
5.2	Corrective Measure Implementation Schedule	15
6.0	POST-CONSTRUCTION PLANS	17
6.1	Site Management Plan	17
6.2	Groundwater Monitoring Plan	17
6.3	Additional Long-Term Requirements.....	17



TABLE OF CONTENTS (CONTINUED)

Table:

Table 1 – Cleanup Objectives for Compounds Detected in Soil, Sediment and Groundwater

Figures:

Figure 1 – Site Location Map

Figure 2 – Corrective Measures as Proposed in Corrective Measure Study

Figure 3 – Milens Road Storm Sewers

Figure 4 – Corrective Measures as Proposed in Focused Corrective Measure Study

Figure 5 – On-Site Sewers, Current Conditions

Figure 6 – CMI Schedule

Appendices:

Appendix A – Health and Safety Plan

Appendix B – Quality Assurance Project Plan



1.0 INTRODUCTION

On behalf of General Electric International, Inc. (GE), URS Corporation – New York (URS) has prepared this *Corrective Measure Implementation Plan (CMIP)* for GE's Parts and Repair Service Center at 175 Milens Road, in Tonawanda, New York. This *CMIP*, is being prepared pursuant to the requirements of the 6NYCRR Part 373 Hazardous Waste Management Permit (373 Permit) issued by the New York State Department of Environmental Conservation (NYSDEC) on July 5, 2012. The 373 Permit (Permit ID 9-1464-00044/00001) was issued under the Resource Conservation and Recovery Act (RCRA) under Title 27, Title 9, and requires GE to perform Corrective Measures at the facility.

This CMIP contains background information on the site (Section 2.0), including a brief site history, a discussion of changes in site conditions since submission of the Revised Corrective Measure Study Final Report in July 2001, and a summary of the Corrective Measures. Section 3.0 presents an overview of the design scope, design investigations that will be undertaken, and the plans that will be utilized during the project. Section 4.0 summarizes the permits and access agreements that will be necessary to perform the work. An overview of the Corrective Measure Implementation elements and the project schedule is presented in Section 5.0. Section 6.0 presents a summary of the post-construction plans that will be developed and additional long-term requirements.

2.0 SITE BACKGROUND

This section presents a brief summary of the site history and the previous reports, provides an overview of the approved Corrective Measures, and describes changes to Areas of Concern that have occurred since submission of the *Revised Corrective Measure Study Final Report* in July 2001. Figure 2 is a site plan.

2.1 SITE HISTORY

GE's Parts and Repair Service Center (or shop) is located on an approximately 5.8 acre parcel at 175 Milens Road, in Tonawanda, New York (Figure 1). As shown on Figure 2, the site is secured with a chain link fence and gate, and is improved with a 69,000-square foot, slab-on-grade building. The northern portion of the building was constructed in 1968 and 1969. A building addition was constructed in 1978.

GE uses the service center to repair industrial equipment such as electric motors, transformers, turbines, pumps, and compressors. Hazardous wastes generated during routine operations were stored in either the RCRA Container Storage Area or the Commercial PCB Storage Area, depending on their nature. These storage areas have been closed, and no remedial measures are necessary for the storage areas.

2.1.1 Geology and Hydrogeology

The soils underlying the site consist of very dense glaciolacustrine sediments, which are predominantly clays and silts. These sediments are approximately 60 to 70 feet thick. There are isolated areas of fill, which may contain perched groundwater, present near the building in utility excavations. The unsaturated zone extends to at least 15 feet below ground surface. The depth to groundwater in the one deep monitoring well (MW-5 on Figure 2) installed at the site indicates the depth to groundwater in native soils at the site is approximately 25 feet. Four shallow monitoring wells (MW-1-4) were installed in filled areas and the depth to groundwater is approximately six to nine feet.

2.1.2 Summary of RCRA Corrective Actions

The service center is subject to RCRA Corrective Action under the terms of the prior 373 Permit, which was issued May 1996. Corrective Actions included a RCRA Facility Assessment (RFA), which was completed in 1988, a RCRA Facility Investigation (RFI), which was conducted in 1998, and a Corrective Measure Study. In a letter dated February 18, 2003, NYSDEC approved the *Revised Corrective Measure Study Final Report*, which was dated July 31, 2001. Numerous supplemental investigations and interim corrective measures have been performed at the site.

The RFI identified five locations for which Corrective Measures were warranted due to concentrations of PCBs in surface soil, subsurface soil, or sediment. In addition, the RFI identified an area with elevated concentrations of volatile organic compounds (VOCs) in soil and perched groundwater within a former rinse tank excavation. The six areas, which are shown on Figures 2 and 3, identified as requiring Corrective Measures were:

- The surface soils near the rail spur;

- The former rinse water underground storage tank (UST) excavation;
- The sewer lines east of the building near the former rinse water tank;
- The area near the old oil water separator (OWS-1);
- The on-site storm sewers and drains; and
- The storm sewer along Milens Road.

Supplemental investigations were performed during closure of the RCRA Container Storage Area (CSA) in 2002, and in conjunction with closure of the Commercial PCB Storage Area, which was decommissioned in November 2000. Samples collected in conjunction with closure of the RCRA CSA indicate that soils near the CSA have not been significantly impacted. Samples collected in conjunction with closing the Commercial PCB Storage Area indicated that the pavement surface south of the building, referred to as the transportation corridor, and the concrete floor slab of the shop were impacted by PCBs. These areas, which are shown on Figure 4, were the subject of a *Focused Corrective Measure Study*.

Off-site impacts include Two-Mile Creek sediments, for which Interim Corrective Measure have been performed. Additional Interim Corrective Measures are necessary and are not covered in this *CMIP*. Interim Corrective Measures for the creek are anticipated to be undertaken prior to implementation of the Corrective Measures described in this *CMIP*.

2.2 CURRENT SITE CONDITIONS AND PROPOSED CORRECTIVE MEASURE CHANGES

This section describes changes in site use and conditions that have occurred since submission of the *Revised Corrective Measure Study Final Report* in July 2001. As a result of these changes and updated information on facility conditions, several minor changes to the approved Corrective Measures are proposed.

Ramp of Depressed Loading Dock

The concrete ramp of the depressed loading dock (Figure 4) was not sampled during the RFI or supplemental investigations. The *Focused Corrective Measure Study* identified the ramp as an area that should be sampled, and dependent on the sample results, be subject to Corrective Measures. Therefore, this area will be subject to a design phase investigation. Corrective Measures for this area will be proposed, if necessary based on the results of the investigation.

Sanitary Sewer Lines East of the Building and Old Oil Water Separator

Since 2001, the facility has made changes to the handling of shop process water in an effort to eliminate the low concentrations of PCBs intermittently detected in sanitary and industrial effluent from the site, which is routinely monitored in accordance with the terms of the discharge permit issued by the Town of Tonawanda. An updated plan of the site storm, sanitary, and process sewers is presented in Figure 5. Historical flows to the old oil water separator (OWS-1) and the associated discharge to the sanitary line east of the shop building have been eliminated. Further efforts to eliminate PCBs in sanitary effluent included identifying and evaluating potential inputs to the sewers in August 2011, and cleaning of all shop sanitary sewers from points of origin to sanitary manhole SANI-1 in late 2011. During this effort a significant



quantity of sediment was found in the line from OWS-1 to the sanitary manhole (known as the 'east line'). In addition, the portion of the east line north of the building bump-out at the southeast corner of the shop exhibited signs of deterioration, which inhibited the cleaning effort. The continued detection of PCBs in sanitary effluent led the facility to conduct a sanitary sewer investigation in July and August 2012. This investigation, which was performed by URS, indicated that the PCBs in site sanitary effluent are likely originating in the east line. The facility is planning to undertake additional corrective actions in fall 2012 for the east sewer line that may include filling or plugging the unused portion of the line, and re-cleaning the portion of the line that serves the upstairs bathroom in the southeast corner of the shop. Filling the unused portion of the east line is intended to be interim action to break a potential migration pathway until Corrective Measure Implementation (CMI)

GE is proposing minor changes to the approved Corrective Measures due to the changes in site conditions. Rather than removing and replacing the sanitary sewer line in areas of subsurface excavation east of the building, GE is proposing removal only of this portion of the sanitary line during CMI. In addition, because the old oil water separator is no longer in use, GE is proposing to remove it during the CMI work, if feasible. If PCBs continue to be detected during routine monitoring of sanitary effluent after the filling and re-cleaning the east line that is anticipated to occur in fall 2012, GE may propose additional actions, such as lining of the in-use portion of the east line. GE believes that because these modifications to the approved Corrective Measures are very minor and more protective of human health and the environment than the approved measures, that they do not warrant a modification to the Part 373 Permit or public notice activities.

Northeast Floor Drain and Spray Booth Drains

Over the years, the facility has made many changes in regards to the floor drains at the shop and process water flows. During the fall 2011 site inspection, the drain shown on historical site plans in the northeast part of the shop was found not to exist. A sump for the vertical boring machine, which is located in the same general area, was verified in the fall of 2011 to be a closed system with no discharge to the sewers. Therefore, discharge flows from the northeast floor drain identified in the *2001 Revised Corrective Measure Study Final Report* have already been addressed by changes in conditions at the facility, and sealing of this drain will be removed from the CMI scope of work.

Use of the spray booths and associated trench drains is an integral part of work performed at the facility. Currently, shop process water from trench drains in the spray booths is collected into a wastewater above ground storage tank (WW AST). The WW AST is periodically emptied, with the wastewater being disposed off-site at properly licensed facilities. Facility personnel report that the plumbing for the spray booths was rerouted in conjunction with installation of the WW AST, and URS confirmed this in August 2011. Therefore, due to the changes in process water flow, cleaning of the lines from the drains in the spray booths is no longer warranted, and cleaning of these lines will be removed from the CMI scope of work.

The remaining storm sewers and drains at the facility will be cleaned or replaced as proposed in the *Revised Corrective Measure Study Final Report*. Included in this effort are: the trench drain and associated piping near the bay doors for the railroad tracks, the drain in the depressed



loading dock and associated sump, and the trench drain in the concrete ramp to the depressed loading dock and associated piping. In August 2011, URS confirmed that the railroad track trench drain and the depressed loading dock drain and sump are not connected to either the storm sewer system or the sanitary sewer system.

2.3 UPDATED CORRECTIVE MEASURES

This section provides an update to the Corrective Measures selected for the site due to additional site knowledge, measures undertaken by GE to address impacts, and changes in site conditions. As discussed previously, since submission and approval of the 2001 *Revised Corrective Measure Study* collection of samples from areas not investigated previously led to the discovery of additional historical impacts to the site. Since 2001 GE has undertaken measures to address impacts to portions of the site, and the facility has made changes to operations and site structures. Furthermore, through the Statement of Basis process for selecting the Corrective Measures for the site, the NYSDEC added requirements for future investigation and potential Corrective Action. The summary below presents an updated list of the Corrective Measures for the site that incorporates these changes.

Presented below is a summary of the Corrective Measures already implemented, the Corrective Measures to be included in CMI, and the anticipated future actions.

2.3.1 Implemented Corrective Measures

GE has undertaken interim measures to address PCB impacts in the four areas discussed below.

Storm Sewer Manhole Sediment Removal

In February 2002, PCB impacted sediments were removed from the two storm sewer manholes (on-site manhole STMH-3 and off-site manhole MH-1), shown on Figures 2 and 3, that exhibited the highest concentrations of PCBs in sediment as determined by sampling conducted in 2000 and 2001. The work was described in the *Manhole Sediment Removal Report*, dated May 17, 2002. Additional actions to address PCB-impacted sediment in the storm sewers are part of the planned Corrective Measures discussed in Section 2.3.2.

Concrete Slab of Shop Floor

As discussed previously, impacts to the concrete floor slab of the shop were discovered during closure of the Commercial PCB Storage Area. To address the PCBs present in the concrete floor slab of the shop, GE addressed the area in accordance with the requirements of the Toxic Substance Control Act (TSCA) for the continued use of PCB-impacted porous surfaces (40 CFR Part 761.30(p)). The concrete floor was double washed and double rinsed followed by double epoxy coating in contrasting colors and labeling the floor with the PCB (M_L) mark in accordance with the procedures proscribed in TSCA. The *Closure Certification Report – Commercial PCB Storage Area (Certification Report)*, dated April 11, 2006, documented the cleaning and coating of the shop floor.

NYSDEC subsequently requested that the shop floor be subjected to a focused Corrective Measure Study. The *Focused Corrective Measure Study* (dated July 2011) determined that



removal of the PCB-impacted concrete is not feasible at an operating facility, and the implementation of the TSCA 761.30(p) cleaning prevents any human exposure to the residual PCB impacts in the concrete. Therefore, additional corrective measures will not be undertaken at this time and are not included in the scope of this *CMIP*. However, the shop floor will be subject to a Site Management Plan and subject to future actions (Section 2.3.3).

Transportation Corridor

Samples collected in conjunction with closing the Commercial PCB Storage Area indicated that the pavement surface south of the building, referred to as the transportation corridor, was impacted by PCBs (Figure 4). To address the PCBs in asphalt south of the shop building, GE elected to remove the top inch of asphalt from the areas of the transportation corridor that were not used for equipment storage. After removal of the top inch of asphalt, the area was repaved with 1.5 inches of new asphalt that serves as an asphalt cover. Residual PCBs present in the transportation corridor are present at concentrations that meet the federal cleanup criteria for low occupancy areas as defined in 40 CFR Part 761.61(a)(4)(i)(B). This work was documented in the *Closure Certification Report – Commercial PCB Storage Area (Certification Report)*, dated April 11, 2006.

NYSDEC subsequently requested that the transportation corridor be subjected to a focused Corrective Measure Study. The *Focused Corrective Measure Study* (dated July 2011) determined that removal of the PCB-impacted asphalt was not feasible at an operating facility with limited access, that investigation and possible remedial action (if necessary) was not currently feasible for the areas that were used for equipment storage, and that the work conducted was protective of human health and the environment. Therefore, additional corrective measures will not be undertaken at this time and are not included in the scope of this *CMIP*. However, when the areas used for equipment storage (Figure 4) become accessible, they will be investigated, and the asphalt cover will be extended to those areas, if needed based on the investigation results. The entire transportation corridor will be subject to a Site Management Plan (Section 2.3.3).

Two Mile Creek

As a result of supplemental investigation to assess potential off-site impacts, it was discovered that sediments in Two Mile Creek had been impacted by low-levels of PCBs. In 2008, the impacted sediment was removed in conjunction with a Town of Tonawanda drainage improvement project. One limited area of low-level PCB impacts remain along the bank of Two Mile Creek. The remaining impacted materials are anticipated to be removed as an Interim Corrective Measure prior to CMI, and therefore are not included in this *CMIP*.

2.3.2 Corrective Measures Included in this *CMIP*

The Corrective Measures included in this *CMIP* are summarized below and incorporate measures proposed in the 2001 *Revised Corrective Measure Study* and the *Focused Corrective Measure Study*, changes in site conditions, and additional requirements set forth by NYSDEC in the November 2011 *Statement of Basis* and March 2012 *Final Corrective Measures and Response to Comments on the Statement of Basis*. The Corrective Measures for the site that are included in this *CMIP* are:

- Excavation and off-site disposal of surface soil with PCB concentrations greater than 1 milligram per kilogram (mg/kg) from these areas of the site:
 - Rail spur;
 - East of building;
 - Small areas near fence east of building;
 - Small areas between building and east fence;
 - Off-site soil south of rail spur; and
 - Off-site soil north of rail spur.

- Excavation and off-site disposal of subsurface soil with PCB concentrations greater than 10 mg/kg from the former rinse water tank excavation.

- Removal of the old oil water separator (OWS-1) on the east side of the building, if feasible.

- Replacement of the storm sewer line that passes through the subsurface excavation areas on the east side of the building.

- Removal of the sanitary sewer line, which is anticipated to be removed from service via filling or plugging in the fall of 2012, that passes through the subsurface excavation areas on the east side of the building.

- Backfilling excavations with clean fill.

- Removal and off-site disposal of sediments in these structures at and near the site:
 - Trench drain within the concrete ramp of the depressed loading dock;
 - Rail bay trench drain and associated sump and piping;
 - Depressed loading dock drain and associated piping and sump;
 - On-site storm sewer, including manholes and catch basins; and
 - Off-site storm sewer along Milens Road, including manholes MH-1 through MH-4.

- Cleaning of the on-site storm sewers (including manholes, catch basins, and trench drain) and approximately 1340 linear feet of off-site storm sewers along Milens Road to remove residual contamination.

- Cleaning of the on-site drain features formerly connected to the storm sewers (including the depressed loading dock drain and sump, and the rail bay trench drain and sump).

- Investigation and if necessary removal and replacement of the concrete truck ramp.

- Proper off-site disposal of removed materials and excavated soils at properly licensed facilities.



- On-site treatment with permitted discharge through the storm or sanitary sewers or proper off-site disposal of wastewaters generated through the remedial effort.

2.3.3 Anticipated Future Actions

In conjunction with the Corrective Measures summarized above, the NYSDEC is requiring an environmental easement on the property that:

- Restricts the facility to commercial use;
- Requires the facility owner to submit a RCRA Facility Investigation work plan that includes a Report on Current Conditions for the inaccessible Sub-slab Area of Concern (AOC) no later than 180 calendar days prior to the date when the AOC becomes accessible for such an investigation; and
- Requires compliance with an approved Site Management Plan.

The Site Management Plan will include a Groundwater Monitoring Plan detailing a five-year groundwater monitoring program to confirm that the underlying groundwater continues to not be impacted by site activities. In addition, it will provide provisions for maintaining the epoxy coating and asphalt covering areas.

When the asphalt on the east and south edges of the transportation corridor (Figure 4) becomes accessible, these areas will be investigated, and if necessary the asphalt cover will be extended by removing 1 inch of the existing asphalt and replacing with 1.5 inches of new asphalt, consistent with the former remedial work undertaken for the transportation corridor.



3.0 DESIGN SCOPE AND DESIGN-PHASE INVESTIGATIONS

This section provides an overview of the design phase investigation(s) that GE plans to undertake at the site and presents plans that will be used to conduct the investigation(s) and perform CMI. Details of the investigation(s) will be provided in a separate Work Plan(s).

3.1 REMEDIAL GOALS

The primary objective of the design will be remediating the site to meet cleanup objectives established during the CMS process. The corrective action objectives for the site, which were established in the CMS Task I Report and approved by the NYSDEC, are to:

- Remove or prevent contact with and off-site transport of sediments that contain PCBs at concentrations greater than the Recommended Soil Cleanup Objective (RSCO) of 1 mg/kg;
- Remove or prevent contact with, off-site transport of, and infiltration of precipitation through surface soils that contain PCBs at concentrations greater than the RSCO of 1 mg/kg;
- Remove or prevent contact with, and infiltration through, subsurface soils that contain PCBs or VOCs at concentrations greater than the RSCOs listed in Table 1; and
- Prevent or control the migration of perched groundwater that contains PCBs or VOCs at concentrations that exceed New York State groundwater standards.

Specific cleanup criteria for the PCBs and VOCs detected in the soil, sediments, and perched groundwater at the Tonawanda facility were presented in the *Revised Corrective Measure Study Final Report* and are reproduced in Table 1.

Additional cleanup objectives were established in the *Revised Closure Plan* for the Commercial PCB Storage Area that was developed in accordance with the Toxic Substance Control Act (TSCA), and reiterated in the *Focused Corrective Measure Study*. The objective of the *Revised Closure Plan* was to ensure that surfaces of the facility that may have been impacted by operation of the Commercial PCB Storage Area were cleaned in accordance with the levels specified in 40 CFR Part 761 Subpart G – PCB Spill Cleanup Policy. Closure-related sampling investigations indicated the presence of additional historical PCBs impacts at the facility, which were addressed to allow continued use of the PCB-impacted shop floor as authorized in 40 CFR Part 761.30(p) and to allow continued use of the asphalt south of the shop as a low occupancy area (40 CFR Part 761.61(a)(4)(i)(B)).

3.2 DESIGN CONSIDERATIONS

The GE service center is an active facility and minimizing impacts to shop operations while achieving the remedial objectives is an important design consideration. A meeting to discuss the proposed Corrective Measures and impacts to the facility is planned for October 2012. Items that will be discussed include:

- The impact to operations with the loss of the east portion of the site during CMI;
- Scheduling and sequencing of work to minimize impacts to operations;
- Facility requirements for restoration of disturbed areas; and



- Possible changes in shop operations that may impact the proposed remedial work, such as the already identified changes in sanitary and process sewers.

3.3 DESIGN INVESTIGATIONS

Additional information regarding the site is necessary before the design can be completed. Several of the information gaps are well defined, and others need further consideration and discussion with facility personnel and neighboring property owners.

3.3.1 Identified Information Gaps

As noted in the Focused Corrective Measures Study, the concrete ramp for the depressed loading dock needs to be sampled to determine if the concrete is impacted by PCBs. An investigation to determine if either the base or sidewalls of the ramp contain PCB concentrations greater than the project cleanup objectives will be performed. A Work Plan summarizing the investigation will be prepared and submitted for NYSDEC review and approval prior to conducting the investigation.

As discussed in Section 2.2, the eastern portion of the sanitary sewers at the site have been impacted by PCBs, and the east line of the sanitary sewers may require Corrective Measures beyond those anticipated at the CMS stage in 2001. In the fall of 2012 the facility plans to plug the out of service portion of the line and re-clean the in-use portion of the line, followed by sampling of the effluent from the line. It is anticipated that the monitoring data collected monthly by the facility will be sufficient to determine whether the measures described above will adequately address residual PCBs present in this line. Because the routine monitoring of site discharge will be utilized to evaluate the success of these measures, a work plan for investigation will not be necessary.

3.3.2 Potential Additional Data Collection and Data Review

Some aspects of the project require a more detailed data review and input from neighboring property owners or facility personnel. These discussions may lead to the collection of additional soil data prior to completing the design. Additional soil investigation may be performed to refine the extent of PCB impacts in certain areas of the site and to determine the extent of soils that can be segregated for disposal purposes.

3.4 PROJECT PLANS

Several project-related plans have been or will be developed to protect human health and the environment and to ensure data quality during the project. These plans are further described below. Work Plans detailing proposed design investigation activities will be prepared separately.

3.4.1 Health and Safety Plan

URS has prepared a site-specific Health and Safety Plan (HASP), which is presented as Appendix A. This HASP will be utilized by URS personnel during the design investigation and oversight of the remedial work. Contractors utilized to perform the Corrective Measures will be required to prepare their own project-specific Health and Safety Plans.



3.4.2 Community Air Monitoring Plan

The contractor selected to perform the Corrective Measures will be required to prepare and submit a project-specific Community Air Monitoring Plan (CAMP), which will be utilized during the soil excavation and associated waste management activities undertaken during CMI. The CAMP will meet the requirements of the New York State Department of Health Generic Community Air Monitoring Plan and the Fugitive Dust and Particulate Monitoring guidance that are published as Appendix 1A and 1B, respectively, to the NYSDEC's DER-10 – *Technical Guidance for Site Investigation and Remediation* (DER-10). The CAMP will be implemented in conjunction with excavation and management of impacted soils.

3.4.3 Quality Assurance Project Plan

A site-specific Quality Assurance Project Plan (QAPP) has been prepared and is presented in Appendix B. The QAPP will be utilized during the design phase investigations, implementation of Corrective Measures, and groundwater monitoring activities to ensure that data on which remedial decisions are based are of sufficient quality to support the decisions.

3.4.4 Storm Water Pollution Prevention Plan

A Storm Water Pollution Prevention Plan (SWPPP) is anticipated to be needed. It will be prepared after design uncertainties, such as whether the concrete ramp will be subject to Corrective Measures, have been resolved. The SWPPP will be utilized during excavation and restoration activities, and the selected remedial contractor will be responsible for implementing the SWPPP.



4.0 PERMITS AND ACCESS AGREEMENTS

In order to implement the selected Corrective Measures, several permits and access agreements will be necessary. This section provides an overview of those that will be or may be needed and the plans for obtaining the necessary permits and access agreements.

4.1 ACCESS AGREEMENTS

Off-site impacts have been identified in three locations off the GE property. Limited areas of soil impacts extend on to the adjacent properties to the north and the east. In order to implement Corrective Measures and design phase investigations, access agreements with each property owner will need to be negotiated. The first step will be to identify each property owner and point of contact for discussions.

Off-site impacts to the Town of Tonawanda storm sewers along Milens Road were also identified. PCB containing sediment was found in storm sewer manholes during the off-site storm sewer investigation performed in early 2001. In order to clean the storm sewers along Milens Road, an access agreement will need to be obtained from the Town of Tonawanda. The first step to obtaining access will be to talk to personnel with Town of Tonawanda sewer department.

Obtaining access from neighboring property owners and the Town of Tonawanda is a critical step towards Corrective Measure Implementation, and therefore will be undertaken immediately following approval of this Corrective Measure Implementation Plan, if not before.

4.2 PERMITS

Permits that may need to be obtained to perform Corrective Measures include a discharge permit, a building permit, and a State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activities.

Discharge Permit

During Corrective Measure Implementation, remedial wastewater will be generated from dewatering activities, storm sewer cleaning activities, and decontamination activities. During the design phase the quantity of wastewater from each source will be estimated and an evaluation performed to determine whether it more cost effective to dispose the wastewater off-site or to treat it on-site and discharge it to the Town of Tonawanda sewers under the terms of a discharge permit. If discharging treated wastewater to the town sewers seems to be more cost-effective, discussions with the town will be undertaken to determine if discharge of treated wastewater would be within the scope of the existing facility discharge permit or if a separate permit would be needed. If GE elects to dispose remedial wastewater off-site at appropriately licensed facilities, a discharge permit will not be necessary.

Building Permit

A building permit from the Town of Tonawanda may be necessary. After impacted soil has been excavated, the disturbed areas will need to be restored. The extent of construction activities



necessary for restoration, such as the replacement of rail road tracks and reconstruction or the concrete ramp, is currently uncertain and will be determined during discussions with the facility and the design investigation. The Town of Tonawanda will be contacted to determine if a building permit is necessary once the scope of reconstruction activities has been determined.

SPDES Permit

A SPDES General Permit for Stormwater Discharges from Construction Activities is not anticipated to be necessary because this project is a hazardous waste site remediation that will be performed under an approved work plan. However, a Storm Water Pollution Prevention Plan (SWPPP) is anticipated to be necessary.



5.0 CORRECTIVE MEASURE IMPLEMENTATION AND SCHEDULE

This section provides an overview of the Corrective Measure Implementation elements and an overview of the project schedule.

5.1 CORRECTIVE MEASURE IMPLEMENTATION ELEMENTS

In order to implement Corrective Measures at GE's Tonawanda shop, these nine steps will be undertaken:

- Obtain access from neighboring property owners;
- Obtain input from facility on proposed Corrective Measures;
- Develop scope and perform design phase investigation(s);
- Perform remedial design;
- Obtain permits (if necessary);
- Prepare bid documents;
- Select remedial contractor;
- Perform Corrective Measures and site restoration; and
- Prepare and submit Corrective Measure Completion Final Report.

During CMI, reports summarizing the progress of the corrective measure activities undertaken in a calendar month will be submitted by the 10th day of the following month, or the next business day. In accordance with the Part 373 Permit, the reports will include: a description of the work completed, summaries of findings and changes, summaries of contacts with community representatives and public interest groups, summaries of problems or potential problems encountered and the steps taken to rectify problems, changes in personnel conducting or managing the corrective action activities, and description of the work planned for the next reporting period. Submission of monthly progress reports will be suspended after submission of the Corrective Measure Completion Final Report.

Access from neighboring property owners will be necessary to address off-site impacts, and depending upon their response to initial contact, may lead to additional soil investigation and project approach. Input from the facility regarding the proposed work and impact to operations is also anticipated to influence the scope of potential additional soil investigation and overall project approach.

The scope of the design phase investigation(s) will be developed based on input from the facility, the initial response of neighboring property owners, and review of the existing data. Work plans for design phase investigation will be submitted to NYSDEC for review and approval. Data gathered during the investigation(s) will be submitted to NYSDEC.

The remedial design will be based on existing data, information gathered during the design investigation(s), and input from the facility, neighboring property owners, and the Town of Tonawanda. The remedial design will include: plans showing the excavation limits and areas of soil that needs to be segregated for disposal purposes, details of remedial wastewater management, and plans for restoration. The remedial design will be utilized to identify the permits necessary for performing the work and to prepare bid documents. Remedial design



documents, such as updated plans showing the areas to be excavated, will be submitted to NYSDEC for review and approval prior to soliciting bids.

The contractor selection process will include identifying potential contractors, pre-screening potential contractors, providing potential contractors with bid documents, a bid walk, and reviewing bids. It is anticipated that GE will retain separate contractors for remedial construction activities and remedial oversight activities. GE may elect to contract separately for waste disposal.

After access agreements and permits (if necessary) are obtained, waste disposal facilities are chosen, and the remedial contractor is selected, performing Corrective Measures will be undertaken. It is anticipated that soil excavation activities, and if necessary corrective measures for the concrete ramp, will be undertaken prior to the cleaning of storm sewers. Backfill and restoration activities will occur after post-excavations soil samples indicate the remedial objectives have been achieved or for areas where pre-sampling has defined the excavation boundaries, after those boundaries have been reached. The work will be scheduled to avoid working in winter.

After the remedial work has been completed, the project documentation will be utilized to prepare the Corrective Measure Completion Final Report. Project documentation is expected to include: a survey of excavation limits and post-restoration conditions and elevations; analytical results for post-excavation soil samples, waste characterization samples, and possibly treated water samples; and manifests documenting off-site waste disposal.

5.2 CORRECTIVE MEASURE IMPLEMENTATION SCHEDULE

The tentative CMI schedule is presented in Figure 6. As shown, key elements of the schedule include obtaining access from neighboring property owners, receiving approval of this CMIP and design investigation Work Plan(s) from NYSDEC, and performing the design investigations. Currently, the tentative schedule works out to performing the design phase soil investigation during winter months, which may not be feasible. In the event that significant winter weather occurs before the design phase soil investigation can be completed, the schedule will need to be adjusted.

Assuming the design phase investigations can be completed as shown, we anticipate that phases of CMI would include:

- Complete Remedial Design – approximately 60 days from completion of pre-design investigation,
- NYSDEC Approval of Remedial design – approximately 28 days from submission of design;
- Obtain Remedial Contractor – approximately 60 days from NYSDEC approval of design;
- Begin Primary Remedial Construction – approximately 28 days from contract award; and
- Submission of the Corrective Measure Completion Final Report – 120 days from receipt of the last validated data.



With this schedule, the remedial construction should be completed prior to the onset of winter weather. However, if there are delays in gaining access or performing the design investigation, the schedule may need to be adjusted, and the remedial construction phase may need to be postponed until the spring of 2014.

6.0 POST-CONSTRUCTION PLANS

This section provides an overview of the plans and permit requirements that will be in place after construction of the Corrective Measures. In accordance with requirements of the Part 373 Permit, the Site Management Plan and accompanying Groundwater Monitoring Plan will be submitted to NYSDEC for review and approval within 120 days of receiving the final validated data from CMI activities.

6.1 SITE MANAGEMENT PLAN

A Site Management Plan (SMP) will be necessary for the site to ensure continued containment of residual impacts in concrete, asphalt, and subsurface soil, and to establish procedures for management of residual impacted materials. The SMP will include descriptions and drawings of areas of the site with residual impacts, procedures for routine inspections and reporting, and procedures for repairs, maintenance, and potential future construction activities.

6.2 GROUNDWATER MONITORING PLAN

A Groundwater Monitoring Plan will be prepared as required by the Part 373 Permit. The groundwater monitoring program proposed in the NYSDEC-approved *Revised Final Corrective Measure Report* included the installation of two new deep groundwater monitoring wells on the east (downgradient) side of the site, and annual monitoring of the two new wells and existing monitoring well MW-5 for PCBs and VOCs for five years. The purpose of the groundwater monitoring program is to verify that groundwater underlying the site has continued to be unimpacted by site activities, as found during the RCRA Facility Investigation.

6.3 ADDITIONAL LONG-TERM REQUIREMENTS

Additional long-term requirements were incorporated into the March 2012 *Final Corrective Measures and Response to Comments on the Statement of Basis* and into the July 2012 Part 373 Permit. These requirements include an environmental easement on the property that:

- Restricts the facility to commercial use;
- Requires the facility owner to submit a RCRA Facility Investigation work plan that includes a Report on Current Conditions for the inaccessible Sub-slab Area of Concern (AOC) no later than 180 calendar days prior to the date when the AOC becomes accessible for such an investigation; and
- Requires compliance with an approved Site Management Plan.

The Part 373 Permit that was issued July 5, 2012 includes requirements for additional investigation and subsequent activities, as warranted, should additional areas of concern be identified or at such time as the facility building is planned for demolition.

TABLE

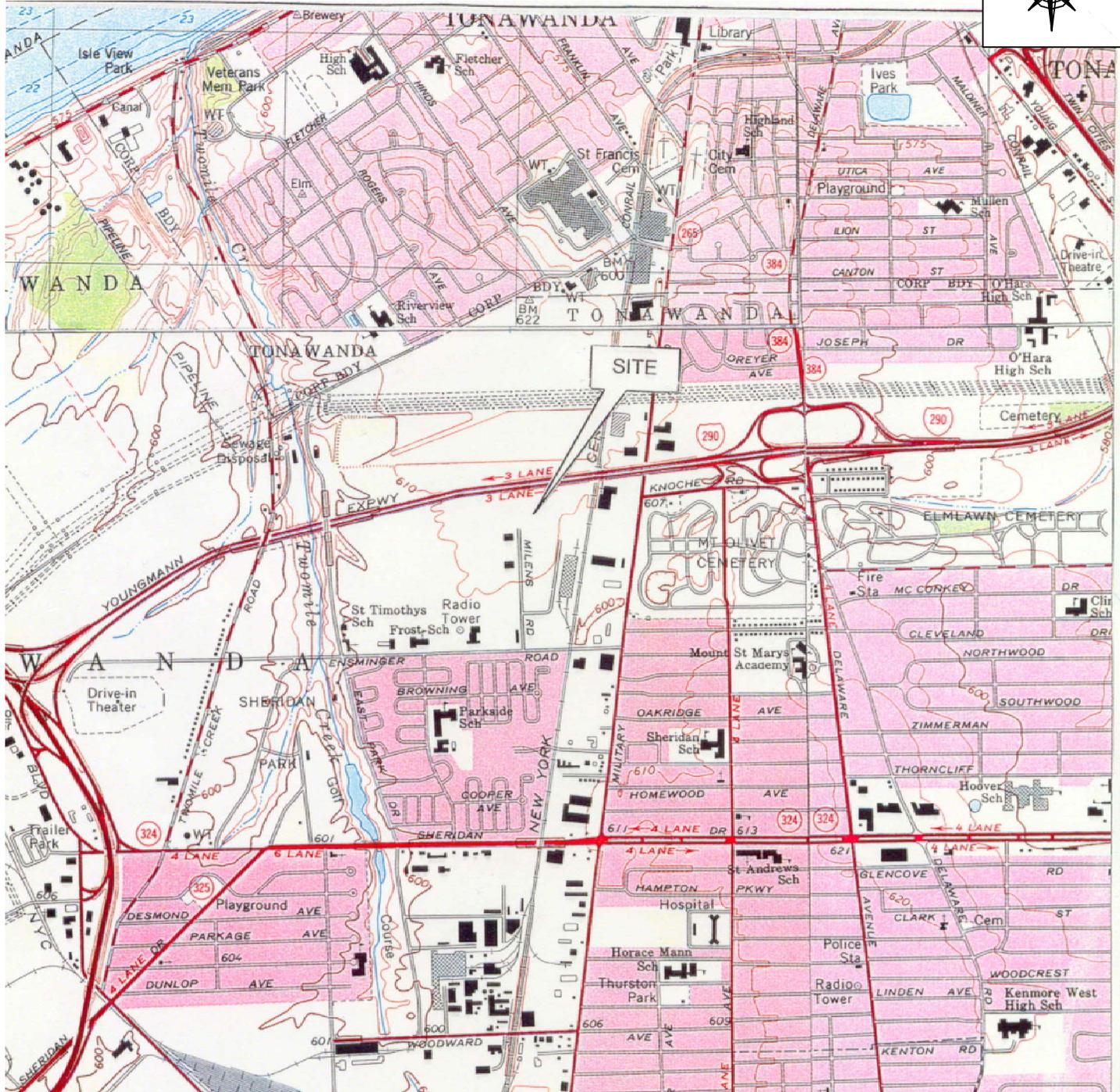
TABLE 1
CLEANUP OBJECTIVES FOR COMPOUNDS DETECTED IN SOIL, SEDIMENT AND GROUNDWATER
GE APPARATUS SERVICE CENTER
TONAWANDA, NEW YORK

Compound	Soil and Sediment					Groundwater				
	Number of Samples Analyzed ¹	Number of Detections	Maximum Concentration Detected (mg/kg)	Cleanup Objective ² (mg/kg)	Number of Samples Above Cleanup Objective	Number of Samples Analyzed ¹	Number of Detections	Maximum Concentration Detected (µg/L)	Cleanup Objective ³ (µg/L)	Number of Samples Above Cleanup Objective
PCBs	Surface Soil and Sediment/Subsurface Soil									
Aroclor 1248	49/48	0/1	ND/0.21	1/10	0/0	7	2	21	0.09	2
Aroclor 1254	49/48	18/11	240/6.3	1/10	12/0	7	2	42	0.09	2
Aroclor 1260	49/48	45/21	160/110	1/10	26/3	7	4	100	0.09	4
Total PCBs (Lab)	49/48	45/23	240/116.3	1/10	30/3	7	4	142	0.1	4
VOCs	Subsurface Soil									
Benzene	19	0	ND	0.06	0	7	2	11	1	2
Chlorobenzene	19	2	34	1.7	1	7	2	540	5	2
Chloroform	19	0	ND	0.3	0	7	3	1.9	7	0
1,2-Dichlorobenzene	19	1	0.0027	7.9	0	7	1	3.5	3	1
1,3-Dichlorobenzene	19	3	6.7	1.6	1	7	4	50	3	4
1,4-Dichlorobenzene	19	4	1.1	8.5	0	7	4	48	3	4
1,1-Dichloroethane	19	1	0.0083	0.2	0	7	2	4.2	5	0
1,1-Dichloroethene	19	0	ND	0.4	0	7	2	6.4	5	1
cis-1,2-Dichloroethene ⁴	19	0	ND	0.3	0	7	1	0.61	5	0
Ethylbenzene	19	0	ND	5.5	0	7	2	5.2	5	1
Methylene chloride	19	0	ND	0.1	0	7	1	0.56	5	0
Toluene	19	0	ND	1.5	0	7	1	1.2	5	0
1,1,1-Trichloroethane	19	0	ND	0.8	0	7	1	3.3	5	0
m-, p-Xylenes ⁵	19	2	0.0012	1.2	0	7	2	25	5	2
o-Xylene ⁵	19	0	ND	1.2	0	7	3	5	5	1
Total VOCs	19	6	34.78	10	1	7	5	626	NS	NS

Notes: 1. Laboratory analysis by EPA Methods 8082 (PCBs) and 8021 (VOCs)
2. Recommended Soil Cleanup Objectives (RSCOs) from NYSDEC TAGM HWR-94-4046
3. NYS Groundwater Standard (6 NYCRR Part 700), Division of Water TOGS, June 1998

4. Soil standards for trans-1,2-DCE
5. Standards for total xylenes
6. NA = Not Analyzed; ND = Not Detected; NS = No Standard

FIGURES



APPROXIMATE SCALE IN FEET
SCALE= 1:24000

BASEMAP SOURCES:

REFERENCE

- USGS 7.5-minute Series Topographic Maps:
 - Buffalo Northwest Quadrangle 1965
 - Buffalo Northeast Quadrangle 1965
 - Tonawanda West Quadrangle 1980
 - Tonawanda East Quadrangle 1980

Title: SITE LOCATION MAP
Location: 175 MILENS ROAD
TONAWANDA, NEW YORK

Client:  GENERAL ELECTRIC INTERNATIONAL, INC.



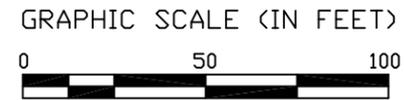
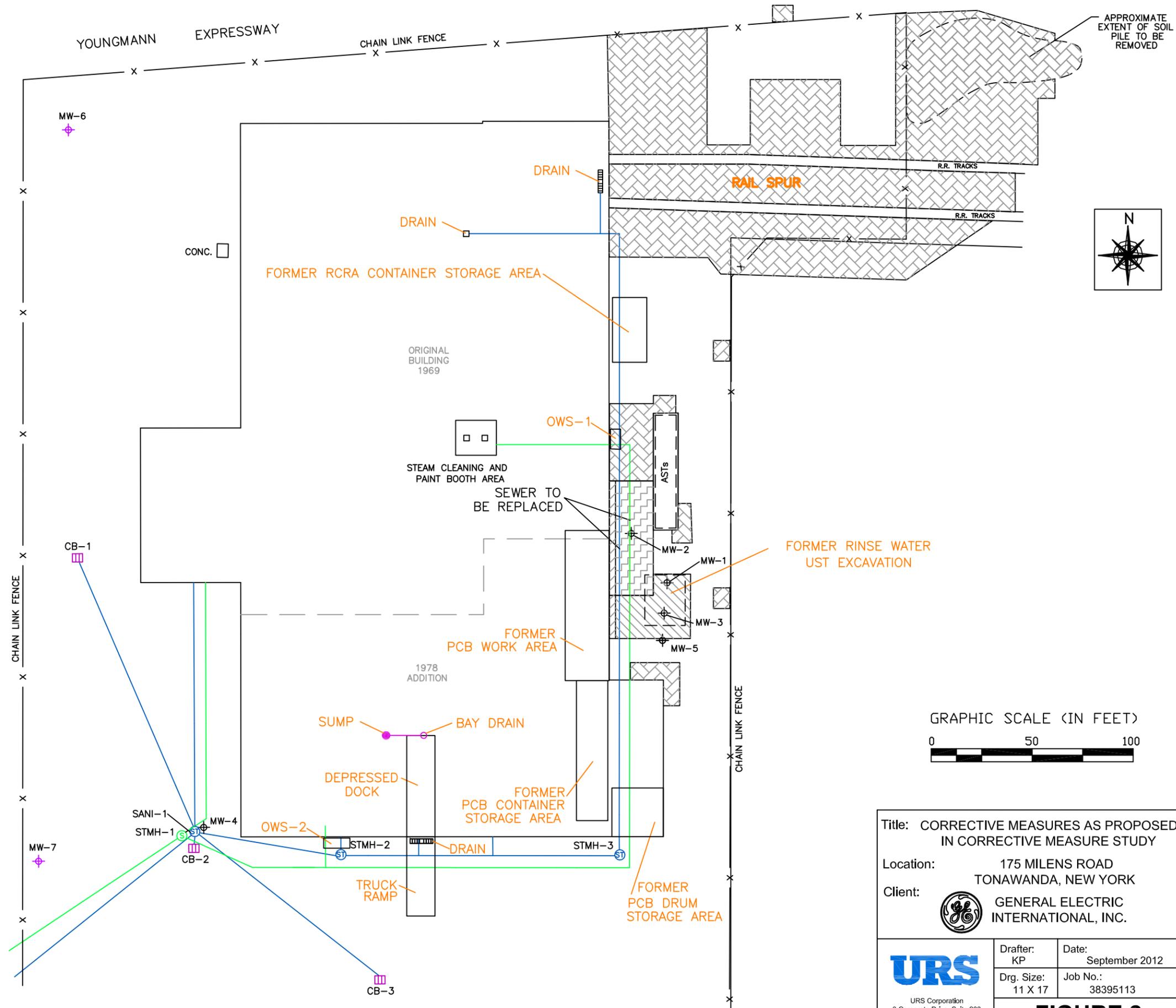
URS Corporation
3 Corporate Drive, Suite 203
Clifton Park, New York 12065

Drafter: KP	Date: September 2012
Drg. Size: 8.5 x 11	Job No.: 38395113

FIGURE 1

LEGEND

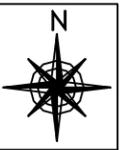
-  - STORM MANHOLE
-  - SANITARY MANHOLE
-  - CATCH BASIN
-  - STORM SEWER
-  - SANITARY SEWER
-  - FLOOR DRAIN
-  - TRENCH WITH FLOOR DRAIN
-  - DEPRESSED DOCK SEWER
-  - EXCAVATION TO 1 FOOT AND BACKFILL
-  - EXCAVATION TO 4 FEET AND BACKFILL
-  - EXCAVATION FROM 6 TO 12 FEET AND BACKFILL
-  - EXCAVATION TO TOP OF FOOTINGS
-  - 8 INCH STORM SEWER TO BE REPLACED
-  - 4 INCH SANITARY SEWER TO BE REPLACED
-  - EXISTING MONITORING WELL
-  - NEW MONITORING WELL



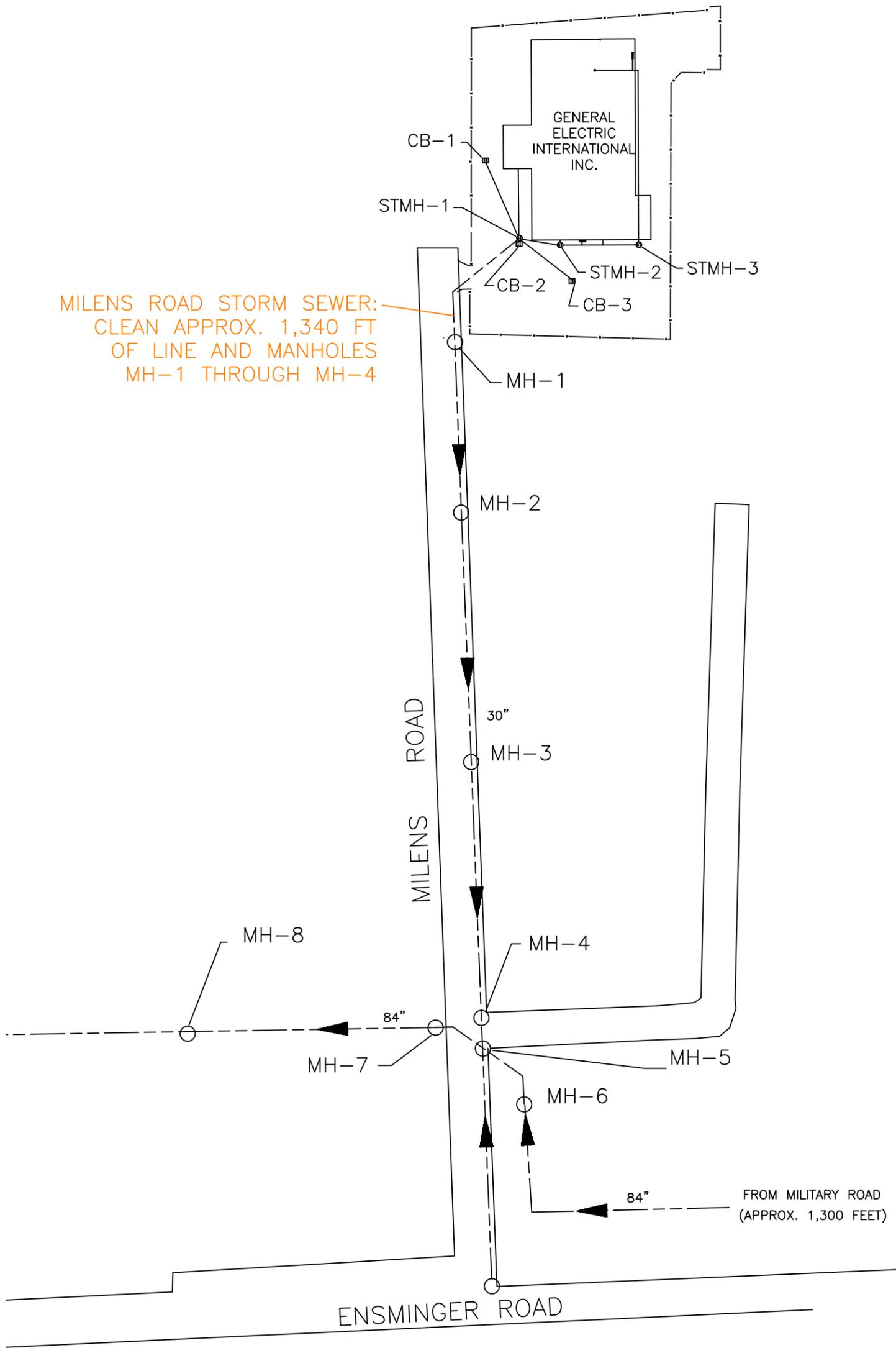
SOURCE: "MAP OF GENERAL ELECTRIC SERVICE CENTER PROPERTY, PART OF LOT 45, TOWNSHIP 12, RANGE 8, TOWN OF TONAWANDA, ERIE COUNTY, NEW YORK" KRIEBEL ASSOCIATES, JULY 29, 1998.

Title: CORRECTIVE MEASURES AS PROPOSED IN CORRECTIVE MEASURE STUDY
 Location: 175 MILENS ROAD TONAWANDA, NEW YORK
 Client:  GENERAL ELECTRIC INTERNATIONAL, INC.

	Drafter: KP	Date: September 2012
	Drg. Size: 11 X 17	Job No.: 38395113
FIGURE 2		



MILENS ROAD STORM SEWER:
CLEAN APPROX. 1,340 FT
OF LINE AND MANHOLES
MH-1 THROUGH MH-4



LEGEND

-
-
-
-
-
-
-
- SEWER PIPE DIAMETER
- APPROX. PIPE LOCATION
- FLOW DIRECTION
- STORM MANHOLE
- STORM MANHOLE
- STORM SEWER
- CATCH BASIN

0 200 400

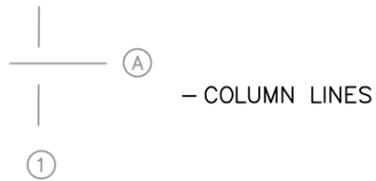


APPROXIMATE GRAPHIC SCALE (IN FEET)

Title: MILENS ROAD STORM SEWERS	
Location: 175 MILENS ROAD TONAWANDA, NEW YORK	
Client:	GENERAL ELECTRIC INTERNATIONAL, INC.
Drawn By: KP	Date: September 2012
Dwg. Size: 11 x 17	Job No.: 38395113
FIGURE 3	

LEGEND

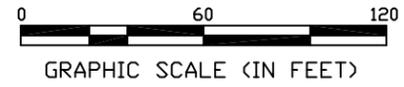
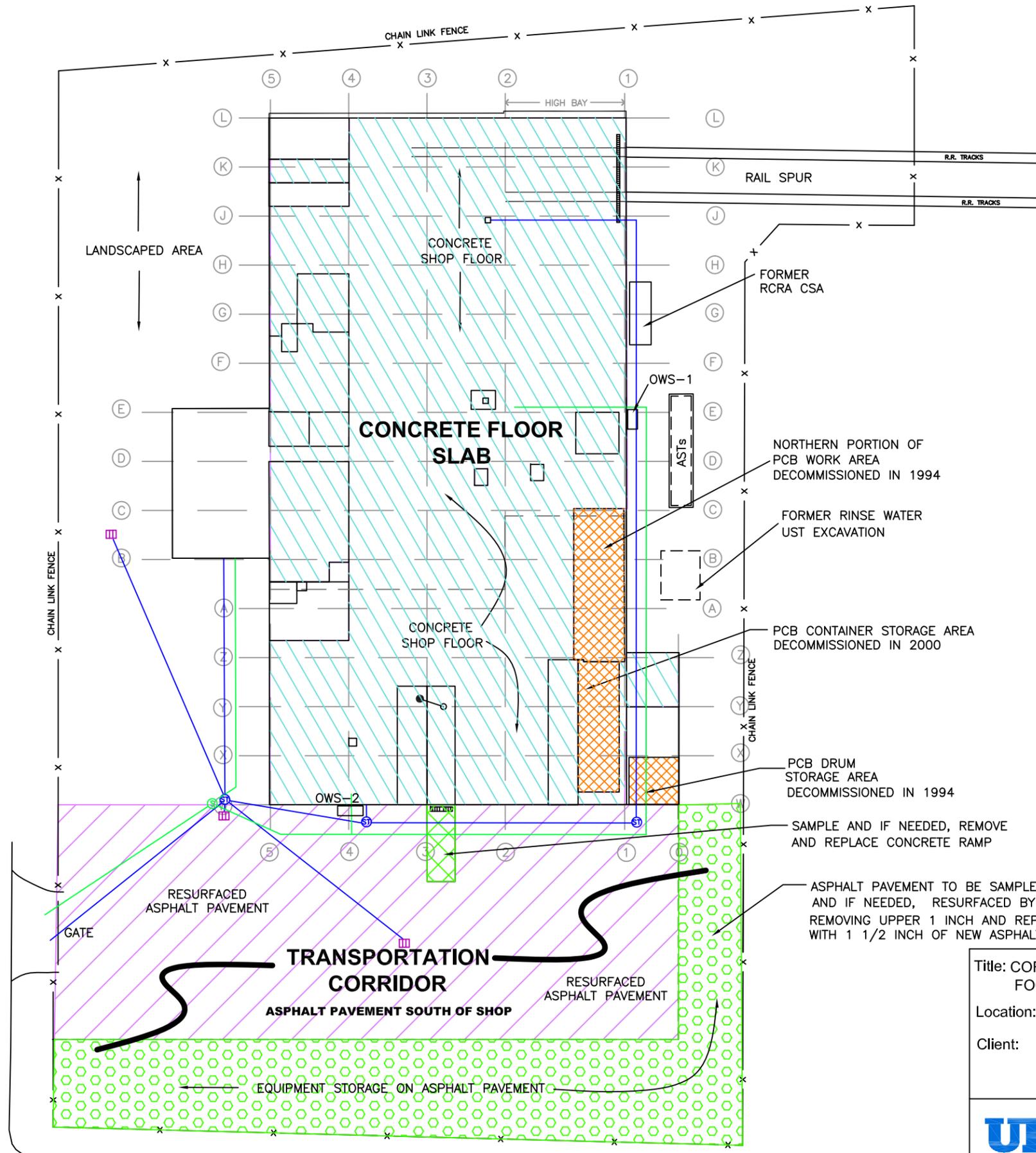
-  - DECOMMISSIONED PCB AREA
-  - FLOOR DRAIN
-  - TRENCH DRAIN
-  - STORM MANHOLE
-  - SANITARY MANHOLE
-  - CATCH BASIN
-  - STORM SEWER
-  - SANITARY SEWER



-  - CLEANED AND EPOXY COATED CONCRETE SURFACES (2003-2004)
-  - ASPHALT PAVEMENT - SURFACE REMOVED AND REPLACED (2004)
-  - CONCRETE RAMP TO BE SAMPLED, AND IF NECESSARY, REMOVED AND REPLACED
-  - ASPHALT PAVEMENT TO BE SAMPLED, WHEN ACCESSIBLE, AND (IF NECESSARY) SURFACE REMOVED AND REPLACED

NOTES:

1. THE LOCATIONS OF SITE FEATURES ARE APPROXIMATE.
2. IN DECEMBER 2004, THE TOP INCH OF ASPHALT PAVEMENT IN THE TRANSPORTATION CORRIDOR WAS REMOVED, DISPOSED OF OFF-SITE, AND REPLACED WITH NEW ASPHALT. THE ASPHALT BENEATH THE EQUIPMENT STORAGE WAS NOT ACCESSIBLE AND THEREFORE NOT REPLACED AT THAT TIME.
3. BETWEEN DECEMBER 2003 AND MAY 2004 THE FACILITY CONCRETE FLOOR WAS SUBJECTED TO A DOUBLE WASH AND DOUBLE RINSE AND EPOXY COATED WITH CONTRASTING COLORS AND LABELING.
4. SOURCES FOR THIS FIGURE WERE:
 - A. "MAP OF GENERAL ELECTRIC SERVICE CENTER PROPERTY, PART OF LOT 45, TOWNSHIP 12, RANGE 8, TOWN OF TONAWANDA, ERIE COUNTY, NEW YORK" KRIEBEL ASSOCIATES, JULY 29, 1998.
 - B. "1/8" PART FLOOR PLAN AND DETAILS," CANNON DESIGN INC., AS-BUILT 4-19-78.



Title: CORRECTIVE MEASURES AS PROPOSED IN FOCUSED CORRECTIVE MEASURE STUDY

Location: 175 MILENS ROAD
TONAWANDA, NEW YORK

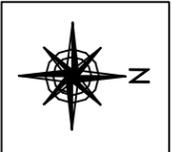
Client:  GENERAL ELECTRIC INTERNATIONAL, INC.

	Drafter: KP	Date: September 2012
	Drg. Size: 11 X 17	Job No.: 38395113

FIGURE 4

J:\38395113 GE Tonawanda CHIP and GC\CHI Plan\CHIP-figures\Fig 4 - FCMS Alt 2.dwg User:Karen_Peppin Dct 02, 2012 - 4:24pm

MILENS ROAD



LEGEND

- PROPERTY LINE
- ▬ RAIL ROAD TRACKS
- SS --- SANITARY SEWER PIPE - CLEANED 2011
- SANITARY MANHOLE
- SANITARY SEWER CLEAN OUT (CO)
- ⊕ SANITARY SEWER TRAP (ST)
- OIL WATER SEPARATOR
- PROCESS WATER PIPE (NOTE 8)
- PROCESS WATER FLOOR DRAIN
- ▬▬▬▬▬ PROCESS WATER TRENCH DRAIN
- ⊕ PROCESS WATER SUMP
- ST --- STORM SEWER PIPE
- STORM SEWER MANHOLE
- ▬▬▬▬▬ STORM SEWER CATCH BASIN
- ▬▬▬▬▬ STORM SEWER TRENCH DRAIN
- ⊕ STORM SEWER SUMP
- RD ○ ROOF DRAIN
- VENT OR HUB DRAIN
- STORM SEWER CLEAN OUT

ORIGINAL FIGURE IN COLOR



FALL 2012 PROPOSED ACTIONS:
 CLEAN SEWER LINE FROM
 PLUG AT CO #2 TO MANHOLE
 SANI-1 (APPROXIMATELY 320
 FEET) AND VIDEO LINE TO
 VERIFY CLEAN.

FALL 2012 PROPOSED ACTIONS:
 INSERT PLUG NORTH OF CO#2.
 FILL LINE WITH FLOWABLE FILL
 FROM PLUG NORTH TO OWS CO
 (APPROXIMATELY 125 FEET).

DRAWING NOTES:

1. DRAWING BASED UPON HISTORICAL DRAWINGS OF FACILITY AND FIELD OBSERVATIONS. LOCATIONS ARE APPROXIMATE.
2. OWS-2 WAS ABANDONED IN FEBRUARY 1998. INFLUENT AND EFFLUENT LINES ARE PLUGGED (2011 CONFIRMATION).
3. OWS-1 REMOVED FROM SERVICE IN NOVEMBER 2010 AND INFLUENT REDIRECTED TO AST. INFLUENT AND EFFLUENT LINES ARE PLUGGED (2011 CONFIRMATION).
4. PIPE DETAIL FOR UPSTAIRS BATHROOM IN SOUTHEAST CORNER NOT SHOWN. JUNCTION WITH SANITARY SEWER MARKED WITH X.
5. COMPRESSOR (2) NON-CONTACT COOLING WATER DRAIN LINES ARE 1/2-INCH TO 1.5-INCH OVERHEAD AND TIE INTO SANITARY LINES FROM MEZZANINE RESTROOMS.
6. SANITARY PIPING FROM MEZZANINE RESTROOMS IS APPROXIMATE. DRESSING ROOM PIPING INFORMATION NOT SHOWN.
7. SIMPLIFIED DRAIN LAYOUT SHOWN FOR OFFICE RESTROOMS AND LOCKER ROOMS.
8. ALL PROCESS WATER IS CONTAINERIZED AND SENT FOR OFF-SITE DISPOSAL. THERE ARE NO REMAINING CONNECTIONS TO THE SANITARY SYSTEM.

J:\36395113 GE Tonawanda CMP and CC\CM\Plan\CMP-figures\Fig 5 - Sewer Update.dwg User:Karen_Feppin Oct 02, 2012 - 4:12pm

Title: ON-SITE SEWERS CURRENT CONDITIONS	
Location: 175 MILENS ROAD TONAWANDA, NEW YORK	
Client:	GENERAL ELECTRIC INTERNATIONAL, INC.
	Drafter: KP Date: October 2012
	Dr. Size: 11 x 17 Job No.: 38395113
FIGURE 5	

FIGURE 6
CORRECTIVE MEASURE IMPLEMENTATION SCHEDULE

GENERAL ELECTRIC INTERNATIONAL, INC.
TONAWANDA, NEW YORK

