Interim Remedial Measures (IRM) Work Plan

Railroad Realignment
Phase I-III Business Park Areas
Lackawanna, New York
BCP Site No.s C915197– C915199

October 2010 0071-010-124

Prepared For:

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Prepared By:

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CERTIFICATION

I, Thomas H. Forbes, P.E., certify that I am currently a NYS registered professional engineer and that this Interim Remedial Measures (IRM) Work Plan was prepared in accordance with all applicable statutes and regulations and in substantial conformance with the DER Technical Guidance for Site Investigation and Remediation (DER-10).

Thomas H. Forbes, P.E.	**Date**
License No.: 070950-1	
Registration State: New York	**SEAL:**

IRM WORK PLAN FOR RAILROAD REALIGNMENT
TECUMSEH REDEVELOPMENT SITE
LACKAWANNA, NEW YORK

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1.0 INTRODUCTION

This document presents the proposed scope of work for completion of an Interim Remedial Measure (IRM) at the Tecumseh Redevelopment Site in Lackawanna, New York (see Figure 1). The IRM is being performed on behalf of Tecumseh Redevelopment Inc. (Tecumseh) through the New York State Department of Environmental Conservation (NYSDEC) Brownfield Cleanup Program (BCP). Tecumseh and the NYSDEC have entered into separate Brownfields Cleanup Agreements (BCAs) for the Phase I, II, and III Business Park Areas of the Site, which will house the majority of the relocated rail line.

The proposed rail corridor realignment, which is planned for implementation by the Erie County Industrial Development Agency (IDA) with State and Federal funding, will relocate tracks currently running along the eastern boundary of the Phase I and II Business Park Areas of the Site (parallel to Route 5) to an alternate alignment along the western portion of the Phase I and II Business Park Areas and along the eastern perimeter of the Phase III Business Park Area (see Figure 2). The proposed corridor measures approximately 12,500 feet, with approximately 10,000 feet located on the Tecumseh property through Business Park Areas I, II, and III.

In May 2009, TurnKey Environmental Restoration, LLC (TurnKey) performed a Remedial Investigation (RI) at the Phase II Business Park Area (Ref. 1). As an extension of this work, a pre-IRM investigation was undertaken along the planned location for the railroad realignment. This IRM Work Plan includes a summary of pre-IRM investigation findings, and the planned approach for implementation of the IRM coincidental with construction of the relocated rail line.

1.1 Background

South Buffalo Railroad (SBRR), now owned by Genesee and Wyoming, Inc. (G&W), operates short haul railroad services supplying local manufacturing plants and connecting them with CSX and Norfolk Southern lines. SBRR operates switching yards and provides rail service for the entire Tecumseh Site, as well as the adjacent Port of Buffalo (Gateway Metroport Canal). In order to maximize the redevelopment potential in the Business Park Areas along NYS Route 5 and improve the currently limited access to and from the Tecumseh property, active rail lines along NYS Route 5 will be relocated to

the western edge of the BCP Business Park Phases I and II as well as into a portion of BCP Business Park Phase III as shown in Figure 2. The relocated rail line will also better serve the medium and heavy industrial transportation needs further toward the western and interior portions of the Tecumseh property as well as the intermodal (e.g., ship to truck, rail to ship, etc.) transportation needs in the vicinity of the Gateway Metroport operation to the north.

Following construction of the relocated line, the improvement (track and ballast) will be owned by the IDA for a period of ten years, after which the asset will revert to Genesee and Wyoming, Inc. The underlying land will remain with Tecumseh Redevelopment, with use of the line governed by an access license between Tecumseh and G&W.

1.2 Purpose and Scope

The proposed railroad relocation is slated to begin in late Fall 2010 prior to completion of remedial activities in the Business Park Areas. Accordingly, Tecumseh is proposing to remediate the portion of the railroad realignment that falls within the Business Parks as an IRM. The proposed scope of IRM activities includes:

- Excavating and disposing off-site impacted hotspot soil/fill material prior to rail corridor construction activities.
- Backfilling and compacting the excavations with NYSDEC Beneficial Use Determination (BUD)-approved iron slag.
- Regrading (minor cut) and leveling the corridor to facilitate placement of ballast as the railroad bed. Proper soil/fill management techniques will be employed to identify and manage any additional impacted soil/fill, if encountered.
- Importing and placing a minimum one foot thick layer of ballast and rail ties over the subgrade fill to serve as a cover system beneath the newly constructed tracks[1].

[1] The subject IRM will pertain only to the tracked area covered by ballast and ties. Ultimately, additional cover may be required across the remainder of the rail corridor and other occupied areas of the Business Parks.

This IRM Work Plan has been prepared in accordance with Section 5.3.b of NYSDEC's May 2010 DER-10 Technical Guidance for Site Investigation and Remediation. As such, it addresses the following items:

- A description of the remedial actions to be undertaken as part of the IRM and the basis for the actions (Sections 2.0 and 3.0).
- The location and description of any temporary construction facilities (Section 3.2).
- Dust, storm water, and erosion control measures required for minimizing potential releases of soil/fill outside the work zone during construction (Section 3.2).
- Health, safety, and community air monitoring procedures (Sections 3.1.4 and 4.0.
- A description of documentation sampling, which was performed in September and October 2010 to pre-establish hotspot excavation limits (Section 2.3).
- Equipment decontamination and site restoration requirements, including requirements for subgrade backfill and cover materials (Sections 3.3 and 3.4).
- Project documentation requirements and anticipated construction schedule (Sections 5.0 and 6.0).
- A description of institutional controls and Site Management requirements that will be implemented as part of the overall remedy for the Business Park Sites (Section 7.0).
- A summary of drawings and information to be provided as part of the Construction Completion Report (Section 5.3).

1.3 Project Organization and Responsibilities

TurnKey will implement the hotspot removal and backfill work, on behalf of Tecumseh Redevelopment, on a design-build basis. Remaining construction activities outlined in this IRM Work Plan will be conducted by the Erie County IDA's contractor, with TurnKey providing observation and documentation of the IRM activities. The NYSDEC Division of Environmental Remediation will monitor the remedial actions to verify that the work is performed in accordance with the approved IRM Work Plan.

2.0 Pre-IRM Investigation

NYSDEC's remedial program regulations (6NYCRR Part 375) require removal of source area materials to the extent feasible. The primary objective of the pre-IRM investigation was to check for the presence of grossly-impacted slag/fill (as identified through visual and olfactory observations and PID readings) as well as inorganic "hotspots" within the realignment area so that they can be appropriately addressed prior to placement of the ballast and railroad tie cover system.

The investigation approach, which involved excavation of a series of test pits along the proposed rail alignment, was documented in the RI Work Plan for the Phase II Business Park Area (Ref. 1). In May of 2009, 48 test pits were excavated along the proposed railroad realignment area within Tecumseh's property (see Figure 2) to allow for visual/olfactory and photoionization detector (PID) assessment of subsurface conditions and to obtain representative samples for chemical characterization. Although 52 test pits were originally planned, four of these test pits were not completed as the locations fell at the center of the South Return Water Trench (RR-TP-24 and RR-TP-48) or the existing railroad track (RR-TP-14 and RR-TP-15). The test pit locations were focused on the portion of the planned rail realignment that fell within Business Parks II and III, since the Remedial Investigation in Business Park I as well as required hotspot soil removal activities in that portion of the Site were already complete at the time of the subject pre-IRM investigation. The test pits, which were spaced at approximate 100-foot intervals, were excavated to native soils or the top of the water table with the majority of the samples collected from the shallow (0-2 feet below grade) slag/fill to characterize the interval of greatest potential exposure. Upon completion of each test pit the associated slag/fill material was returned to the excavation in the opposite order in which it was removed and compacted to match existing grade. Test pit logs are presented in Appendix A.

Following the investigation, the planned rail corridor realignment was slightly altered to accommodate South Buffalo Railroad's final design requirements. As a result, Test Pits RR-TP-17 through RR-TP-23 and RR-TP-47 through RR-TP-52 fell south of the final rail corridor. However, certain test pits excavated in support of the Phase III BPA remedial investigation (i.e., Test Pits BPA 3-TP-52, 53, 54, and 81) are now

proximate to the realignment area and are therefore included in the discussion of the Pre-IRM investigation results presented herein. Similarly, certain test pits advanced during the RI for the Phase II Business Park Area (Test Pits BPA 2-TP-24, 30, 34, 74, and 92) are also described herein as they also fall within the railroad corridor.

2.1 Pre-IRM Sample Collection and Analysis

As indicated above, the pre-IRM investigation was geared toward identifying grossly-impacted slag/fill and inorganic "hotspot" areas within the realignment area. Because inorganics are not readily discernible in the field, representative soil/slag-fill samples were collected from alternating test pits for analysis of select inorganic constituents of potential concern (COPCs), including arsenic, barium, cadmium, chromium, lead and mercury. The Work Plan also specified that if any test pit exhibited elevated PID readings (greater than 20 ppm) in the test pit atmosphere or in the excavated spoils a second representative aliquot from the associated soil/slag-fill location would be analyzed for Target Compound List (TCL) Volatile Organic Compounds (VOCs). In addition, two test pits were subjected to additional analysis based upon field observations: at RR-TP-30, slag/fill was analyzed for PCBs based upon the presence of an apparent transformer pad in that area; and an apparent floating layer on the water table at RR-TP-49 prompted analysis of deeper slag/soil at the water table interface for TCL VOCs and semi-volatile organic compounds (SVOCs).

2.2 Pre-IRM Investigation Results

2.2.1 Field Observations

During the pre-IRM test pit investigation no visual or olfactory evidence of potential impact was documented with the exception of the above-described observation on the water table at TP-49 (which does not fall within the final realigned corridor limits). The highest PID reading (5.3 ppm) was measured at 3 feet below grade in test pit RR-TP-26; the remaining test pits exhibited PID readings ranging from 0-3 ppm (see test pit logs in Appendix A). Similarly, the above-referenced Phase II and III Business Park Area Test Pits proximate to the realignment exhibited low PID readings and no visual or olfactory evidence of impact with the exception of Test Pit BPA-3-TP-54, which exhibited

moderate odor and a maximum PID reading of 102 ppm in the saturated zone beginning at 7.5 feet below grade. However, test pits proximate to the planned rail realignment (BPA-3-TP-52 and 53) indicated no odors and a maximum PID reading of only 7ppm. In addition, analytical results from unsaturated soils at BPA-3-TP-54 indicated only trace levels of VOCs. Thus it appears that the field observation at BPA-3-TP-54 is isolated in the saturated zone at that location.

2.2.2 Analytical Results

Table 1 presents a summary of the test pit analytical data for the pre-IRM investigation. The laboratory analytical data package is included in Appendix A. Table 1 also includes a summary of the Phase II and III Business Park Area RI test pits proximate to the rail realignment (where sampled). For purposes of comparison, Table 1 presents Part 375 commercial soil cleanup objectives (SCOs) as well as industrial SCOs per 6NYCRR Part 375. Comparison of the soil/fill results to Commercial and Industrial SCOs is appropriate based on the industrial nature of the rail operation and the planned commercial and industrial redevelopment of the Business Park Areas per the BCP applications filed for these areas. As indicated on Table 1, arsenic concentrations in 22 of the 30 slag/fill samples (approx 73%) exceeded the Part 375 Commercial and Industrial SCO of 16 ppm, with exceedances ranging from 16.8 to 149 parts per million (ppm). No VOCs were detected with the exception of trace (estimated) concentrations well below the SCOs at BPA-3-TP-54, BPA-2-TP-30 and RR-TP-49. In addition, certain semi-volatile organic compounds (SVOCS), specifically benzo(b)fluoranthene, benzo(a)pyrene, and dibenzo(a,h)anthracene were detected in the proximate Business Park Area RI test pits slightly above restricted-commercial and/or industrial SCOs. Finally, test pit RR-TP-30 exhibited Aroclor 1260 at 52 ppm, which is approximately two times the industrial SCO.

2.3 Supplemental Sampling

Although no evidence of product or grossly impacted soil/fill was encountered, Test pit RR-TP-30 exhibited elevated PCB detections and three others (RR-TP-4, RR-TP-12, and RR-TP-42) exhibited arsenic in the 0-2' depth interval at concentrations above 100 ppm (i.e., approaching an order of magnitude greater than the SCO). Although

elevated arsenic concentrations are prevalent across the Site, these test pit areas are considered by the NYSDEC to be indicative of hot spots that need to be addressed prior to placement of the ballast & track.

To define the lateral extent of these hotspot areas, TurnKey conducted a supplemental investigation in the vicinity of these four test pits. On August 19, 2010, a TurnKey project scientist excavated shallow test pits (approximately 25 feet in each compass direction) from the original test pit. Sidewall samples (0-2 foot) were collected and analyzed for the parameter of concern (arsenic or PCBs) at each of these supplemental sampling locations. In addition, a composite sample was collected from the floor of the supplemental test pits to verify that a 2-foot excavation depth was sufficient. Representative samples for TCLP metals analysis were also collected from the hotspot areas to assess off-site disposal options.

Table 2 summarizes the results from the supplemental sampling; Appendix C contains the laboratory analytical data package. As shown on Table 2, none of the locations exhibited hazardous waste characteristics based upon TCLP metals results. In addition, PCB concentrations are substantially lower at the supplemental locations surrounding RR-TP-30 and at the 2-foot depth interval (and are in fact below the commercial SCOs). Similarly, arsenic levels drop off to levels well below 100 ppm at all of the supplemental test pits surrounding RR-TP-04 with the exception of RR-TP-04 west, which yielded arsenic concentrations of approximately 125 ppm. However, because this western location is proximate to existing rail line with ballast (which will remain as part of the new corridor) the excavation will be limited to approximately 25 feet in the western direction.

At the remaining two locations an additional round of supplemental sampling was required to determine the extent of the arsenic impacts. The supplemental sampling work was undertaken on September 30, 2010. At RR-TP-12, additional sampling was performed from the 0-2' BGS depth at distances of 35 and 50 feet north of the original test pit due to the presence of arsenic at 126 ppm a distance of 25 feet north of RR-TP-12. (Although the sample collected 25 feet west of RR-TP-12 also yielded an elevated arsenic level, additional samples were not completed further west due to the presence of active rail line with ballast, therefore the excavation will be limited to 25-feet in the western direction). At RR-TP-42 additional sampling was performed from the 0-2' BGS interval at distances of 35-feet north and 35-feet and 50-feet south of the original location

because of the presence of elevated arsenic at the 25-foot intervals in these same compass directions. No samples were collected further east of RR-TP-42 due to the presence of an active substation in that area of the Site.

Results of the September 30th sampling are presented on Table 2. Because arsenic remained present at substantially elevated levels at 50 feet north of RR-TP-12 and 50 feet south of RR-TP-42, a third and final round of samples was collected from the 0-2 foot depth interval an additional 25 feet away from these locations (i.e., RR-TP-12 North-75 and RR-TP-42 South-75). The samples were collected on October 13, 2010. As shown on Table 2, the arsenic results at these locations dropped to below 100 ppm in both instances.

3.0 TECHNICAL APPROACH

3.1 Pre-Mobilization Tasks

3.1.1 Public Information and Outreach

Citizen Participation (CP) Plans have been prepared for each of the Tecumseh Business Park Sites. Upon approval of this IRM Work Plan, a fact sheet containing information about the IRM will be developed and submitted to the NYSDEC Region 9 Project Manager and Citizen Participation Specialist for review. After addressing any comments the fact sheet will be finalized and direct-mailed by TurnKey to those individuals on the most recent CP Plan contact list, including property owners and residents proximate to the project site, environmental groups, local political representatives, and interested regulatory agencies. The intent of this effort is to seek community cooperation; minimize disruption of nearby neighborhood residential and commercial activities; and facilitate a safe and secure work site. In addition, a copy of this Work Plan has been made available for public review at the NYSDEC Region 9 office and the Lackawanna Public Library.

3.1.2 Pre-Construction Meeting

A project coordination meeting will be held with key representatives of the Project Team both before the hotspot excavation work and prior to clearing/placement of cover materials. Attendees at the initial (pre-hotspot removal) meeting will include TurnKey's Project Manager and the remediation contractor. The designated NYSDEC Project Manager and New York State Department of Health (NYSDOH) representative will also be notified and invited to attend. At the subsequent (pre-rail construction) meeting, attendees will include these same individuals as well as the Project Manager/Engineer for the rail relocation project and Erie County representatives. Agenda items will include:

- Construction schedule.
- Work sequencing.
- Designation of responsibilities, contact personnel and pager/phone numbers.
- Project documentation requirements.
- Staging of equipment.

- Transportation routes/site egress.
- Health and safety requirements.
- Temporary controls (dust suppression, storm water management).
- Work hours.
- Site security.

TurnKey will prepare meeting minutes for distribution to attendees following the project coordination meeting.

3.1.3 Progress Meetings

Progress meetings will be conducted on a regular basis throughout the construction period. Progress meetings will be attended by TurnKey and the rail relocation Project Manager, contractor personnel, and, if appropriate, key subcontractors. NYSDEC and NYSDOH will have access to all progress meetings.

3.1.4 Health and Safety Plan Development

The April 2010 Site Health and Safety Plan (HASP) for Brownfield Cleanup Program (Appendix E), prepared in accordance with the requirements of 40 CFR 300.150 of the NCP and 29 CFR 1910.120 and previously approved by the NYSDEC for Business Park investigation work, will be used for the IRM activities described herein. TurnKey will be responsible for site control and for the health and safety of its authorized site workers. All contractors and other parties involved in onsite construction will be required to develop a HASP as or more stringent than TurnKey's HASP. The HASP will be subject to revision, as necessary, based on new information that is discovered during the IRM.

TurnKey will also be responsible for the performance of community air monitoring during intrusive activities involving subgrade disturbance as discussed in Section 4.0 of this Work Plan.

3.2 Temporary Facilities and Controls

3.2.1 Temporary Construction Facilities

The former Water Quality Control Station 3A garage located on the Phase III Business Park Site will serve as field office for the personnel involved in hotpot removal and IRM cover system observation work. Additional temporary construction facilities (field trailer) may be installed by the County's contractor prior to initiation of cover system construction. The location of the facilities will be discussed with the NYSDEC during the pre-construction meeting.

3.2.2 Dust Suppression

Dust suppression will be an integral component of the hotspot excavation and regrading activities. During hot spot excavation and regrading work, water will be sprayed across the surface of the work area as necessary to mitigate airborne dust formation and migration and assure conformance with community air monitoring thresholds. Water will also be sprayed as needed to control visible dust migration from the handling, placement, and compaction of cover material. Other dust suppression techniques that may be used to supplement the water spray include:

- Applying water on haul roads.
- Hauling materials in properly tarped containers or vehicles.
- Restricting vehicle speeds on-site.

All reasonable attempts will be made to keep visible and/or fugitive dust to a minimum and adhere to particulate emissions limits identified in the Community Air Monitoring Plan (Section 4.0).

3.2.3 Storm Water Management

Due to the highly permeable nature of the slag/fill material, its coarse gradation, and the relatively flat topography in the proposed work area, storm water ponding/runoff is not expected to pose a significant soil particulate or contaminant transport pathway due to IRM activities. Nevertheless, the project will encompass over 1-acre of property. Accordingly, the County's contractor has prepared a Storm Water Management Plan for

the rail relocation work and has filed an NOI application for SPDES coverage under General Permit for Storm Water Discharges from Construction Activity (i.e., GP-0-10-001).

During the preceding hotspot removal work, TurnKey will undertake specific measures to assure proper management of storm water and preclude migration of contaminants to surface waters or other areas of the Site. These will include:

- Direct loading of trucks where feasible to avoid staging of impacted materials.
- Use of poly sheeting for lay-down and daily cover if staging of impacted materials is necessary.
- Prompt backfilling of excavations upon completion.

3.3 Excavation, Disposal and Backfill of Hotspot Areas

Planned IRM activities involve excavation of hotspot soil/fill areas with off-site disposal at an approved commercial landfill facility(s). Hotspot soil/fill areas will be removed to pre-established excavation limits based on the pre-removal characterization testing and subsequent documentation sampling discussed in Section 2.0. Excavation limits are shown on Figures 3a through 3d and described below:

- **RR-TP-30**: Excavation will proceed to a depth of 2 feet below grade at an approximate 50' x 50' area centered on RR-TP-30. PCB-impacted soil/fill will be disposed at a permitted RCRA Subtitle C landfill.
- **RR-TP-4:** Excavation will proceed to a depth of 2 feet below grade at an approximate 50' x 50' area centered on RR-TP-4. Arsenic-impacted soil/fill will be disposed at a permitted RCRA Subtitle D sanitary landfill facility.
- **RR-TP-12:** Excavation will proceed to a depth of 2 feet below grade with lateral dimensions of approximately 75' N x 25' S x 25' E x 25' W of RR-TP-12. Arsenic-impacted soil/fill will be disposed at a permitted RCRA Subtitle D sanitary landfill facility.
- **RR-TP-42:** Excavation will proceed to a depth of 2 feet below grade with lateral dimensions of approximately 35' N x 75' S x 25' E x 25' W of RR-TP-42. Arsenic-impacted soil/fill will be disposed at a permitted RCRA Subtitle D sanitary landfill facility.

The excavation areas will be backfilled with Beneficial Use Determination (BUD)-approved steel slag (BUD#555-9-15) and compacted to 95% of modified proctor density prior to placement of ballast. Additional documentation samples will not be collected as

the hotspot areas have been defined by sampling conducted during the supplemental investigation described in Section 2.3.

3.4 Rail Bed Construction

3.4.1 Subgrade Preparation and Regrading

Following the hotspot removal work, TurnKey will be on-site periodically during corridor preparation activities to observe Erie County's designated rail construction contractor operations, verify that appropriate Site Management Plan requirements are fulfilled during site clearing work, and verify that no slag/fill materials are removed from the Site unless they are properly characterized and disposed at a permitted offsite disposal facility.

Site preparation activities will begin with removing any loose debris and trash located on the surface of the property. Wooded vegetation will be chipped for mulch and spread onsite. Any exposed steel scrap will be removed from the Site for scrap recovery purposes. Minor regrading to fill in low spots and achieve subgrade elevations will be performed. If cut is necessary to achieve grade, spoils will be reused as fill in low areas or spread onsite near the cut area provided it does not exhibit field evidence of impact. Additional import fill, if necessary, will be comprised of (BUD)-approved steel slag (BUD#555-9-15). Pre- and post-grading elevation measurements will be made to document final subgrade elevations. Erie County's engineering firm, C & S Engineers, Inc., is currently finalizing the Construction Documents showing grading elevations, which will be available on-site for review during construction.

3.4.2 Potentially Impacted Soil/Fill

If field evidence of potentially impacted soil/fill is encountered during regrading activities, TurnKey will arrange for the subject material to be stockpiled on polyethylene sheeting in an accessible location near the impacted area. The location of staged materials will be coordinated with the NYSDEC Project Manager, but will remain within the same Business Park Area as the source to avoid administrative issues associated with import/export of these materials among differing BCP sites. Field evidence of impact is defined as having readily identifiable visual or olfactory signs of contamination, including product, tars, or elevated PID readings (i.e., sustained readings >20 ppm). The stockpiled

material will be covered with polyethylene sheeting to prevent infiltration of precipitation and wind erosion.

All impacted soil/fill removal work will be directed by an experienced TurnKey scientist. Removal will continue until visually impacted soil/fill is removed or NYSDEC agrees that no further removal of deleterious soil/fill is required.

The stockpiled material will be characterized per the requirements of a suitable permitted offsite disposal facility, and an appropriate disposal plan will be developed and submitted to the NYSDEC for approval and implementation.

3.4.3 Cover System Construction

Construction of the railroad bed cover system will follow regrading activities. The railroad bed cover system will involve placement of a minimum 1-foot layer comprised of ballast material meeting the requirements of the specification in Appendix F and embedded wood rail ties. Since the ballast layer and ties will be visually discernible from the underlying slag and will be covered by active rail (minimizing potential for inadvertent removal during other site work), no demarcation material or layer will be installed.

Ballast material shall be compacted in accordance with rail construction contract requirements to mitigate potential for settlement. Verification of ballast material cover depth will be independently verified by TurnKey through survey level measurements relative to adjacent grade spaced no greater than 100 feet on center. Depth verification measurements will be included in the IRM Construction Closeout Report discussed later in this Work Plan.

4.0 COMMUNITY AIR MONITORING

Real-time community air monitoring will be performed by TurnKey during all intrusive IRM activities at the Site, including hotspot removal and grading activities involving soil/fill cut. A Community Air Monitoring Plan (CAMP) is included with TurnKey's HASP. Particulate and vapor monitoring will be performed at a distance of approximately 100 feet downwind of the work area during excavation and grading activities involving subgrade disturbance. In addition, no visible dust will be allowed beyond the site perimeter during these activities or during import/cover material placement/compaction activities. The CAMP is consistent with the requirements for community air monitoring at remediation sites as established by the NYSDOH and NYSDEC. Accordingly, it follows procedures and practices outlined under NYSDOH's Generic Community Air Monitoring Plan (dated June 20, 2000) and NYSDEC Technical Assistance and Guidance Memorandum (TAGM) 4031: Fugitive Dust Suppression and Particulate Monitoring Program at Inactive Hazardous Waste Sites.

5.0 DOCUMENTATION AND REPORTING

TurnKey will be periodically on-site during regrading and cover material placement to document IRM activities. Such documentation will include, at minimum, reports of construction activities, community air monitoring results, and photographs and sketches, as necessary.

5.1 Construction Monitoring

Standard reporting procedures for site activities will include preparation of a daily report and, when appropriate, problem identification and corrective measures reports. Appendix D contains sample project documentation forms. Information that may be included on the daily report form includes:

- Processes and locations of construction under way.
- Equipment and personnel working in the area, including subcontractors.
- A description of off-site materials received, including any quality verification (certification) documentation.

The completed reports will be available on-site and will be submitted to the NYSDEC as part of the IRM Construction Closeout Report.

Problem identification and corrective measures reports will be completed whenever major field problems are encountered and corrective measures are necessary. These reports will be attached to the monthly progress reports. The NYSDEC will be promptly notified of problems requiring modifications to this Work Plan prior to proceeding or completion of the construction item. Changes or additions will be noted in the Construction Closeout Report.

Photo documentation of IRM activities will be prepared by TurnKey throughout the duration of the project as necessary to convey typical work activities and whenever changed conditions or special circumstances arise. Photos will be provided in digital format.

5.2 Progress Reports

TurnKey will prepare and submit to NYSDEC monthly progress reports that include:

- Activities performed during reporting period.
- Results of tests or other pertinent data.
- Work scheduled for the upcoming reporting period.
- Other actions/information pertinent to the project.
- Percentage of completion, delays encountered or anticipated that may affect the schedule, and a description of efforts made to mitigate those delays or anticipated delays.

5.3 IRM Construction Closeout Report

An IRM Construction Closeout Report (CCR) will be prepared and submitted to the NYSDEC after the cover system is constructed. The report will be submitted within 60 days of completion of the work. The CCR will be prepared consistent with the requirements of Section 5.8 of DER-10 and will include:

- Text describing the hotspot removal, regrading and cover system construction activities performed
- A description of any problems encountered, deviations from the Work Plan and associated corrective measures taken; and other pertinent information necessary to document that the Site activities were carried out in accordance with this Work Plan.
- A Site or area planimetric map showing the extent of hotspot areas excavated.
- The mass of hotspot material excavated and offsite disposal facilities per scale receipts from off-site disposal facility.
- Survey record drawings, as provided by the County's Engineer, showing the grade prior to and following cover system placement and Benchmarks.
- Tabular summary of volume/type/source of cover system material.
- Copies of daily inspection reports and, if applicable, problem identification and corrective measure reports.
- A certification by a licensed NYS Professional Engineer in accordance with Section 1.5 of DER-10

The IRM Construction Report will be included as an appendix to each of the Final Engineering Reports for BPA I, II, and III.

6.0 PROJECT SCHEDULE

Hotspot removal and backfill activities will be initiated within 3 weeks of approval of this Work Plan, and are tentatively scheduled for initiation in early November 2010. Construction activities related to the rail corridor relocation are slated to begin in late December 2010. It is anticipated that the IRM field activities will be completed within approximately four weeks of initiation barring significant weather delays or issues related to acceptability by the offsite disposal facility(s). The NYSDEC Project Manager will be notified 7 days in advance of all field activities.

7.0 SITE MANAGEMENT AND INSTITUTIONAL CONTROLS

The IRM activities described herein are expected to become an integral component of the final remedy for the associated Phase I-III Business Park Areas. Because the IRM employs a cover system to achieve the remedial objectives (representing a Track IV cleanup under the BCP), it will be necessary to prepare and implement a Site Management Plan to assure that the IRM remains effective throughout the post-remedial period as described below.

7.1 Site Management Plan

Site Management Plan (SMPs) will be prepared and submitted concurrent with the Final Engineering Reports (FERs) for the Phase I-III Business Park Sites. The purpose of the Site Management Plan is to assure that proper procedures are in place to provide for long-term protection of human health and the environment after remedial construction is complete. The SMP is comprised of four main components:

- Engineering and Institutional Control Plan
- Site Monitoring Plan
- Operation and Maintenance Plan
- Inspections, Reporting, and Certifications

7.1.1 Engineering and Institutional Control Plan

An institutional control in the form of a new Environmental Easement will be necessary to limit future use of each of the Business Park Sites to restricted (commercial or industrial) applications and prevent groundwater use for potable purposes. An existing deed restriction is on file for the Tecumseh Site limiting reuse to commercial/industrial applications. However, industrial uses are loosely defined and allow incidental commercial-type facilities such as offices and laboratories, provided that they do not allow for occupancy by multiple numbers of persons under the age of 18. The deed restriction also prohibits construction or use of groundwater extraction wells (excluding monitoring and remediation wells).

Concurrent with completion of remedial measures Tecumseh will prepare an Engineering and Institutional Control (EC/IC) Plan for each of the Business Park Areas

employed on the Business Park Sites, including the mechanisms that will be used to continually implement, maintain, monitor, and enforce such controls. The EC/IC Plan will include:

- A description of all EC/ICs on the site.
- The basic implementation and intended role of each EC/IC.
- A description of the key components of the ICs set forth in the Environmental Easement.
- A description of the features to be evaluated during each required inspection and periodic review, including the EC/IC certification, reporting, and Site monitoring.
- Any other provisions necessary to identify or establish methods for implementing the EC/ICs required by the Site remedy, as determined by the NYSDEC.

7.1.2 Site Monitoring Plan

The Site Monitoring Plan will describe the measures for evaluating the performance and effectiveness of the final remedy to reduce or mitigate contamination at the Site, including:

- Sampling and analysis of all appropriate media (e.g., groundwater).
- Assessing compliance with applicable NYSDEC standards, criteria and guidance, particularly ambient groundwater standards and Part 375 SCOs for soil.
- Assessing achievement of the remedial performance criteria.
- Evaluating site information periodically to confirm that the remedy continues to be effective in protecting public health and the environment; and
- Preparing the necessary reports for the various monitoring activities.

7.1.3 Operation and Maintenance Plan

An Operation & Maintenance (O&M) plan governing maintenance of the IRM cover system and other Site cover system, to the extent employed, will be prepared. The O&M plan will include:

- Operation and maintenance activities necessary to allow individuals unfamiliar with the Site to maintain the cover systems.

- An O&M contingency plan in the event of cover system failure.
- Periodic evaluations to confirm that the remedy continues to be effective for the protection of public health and the environment. If necessary, the O&M Plan will be updated to reflect changes in Site conditions or the manner in which the cover system is maintained.

8.0 REFERENCES

1. TurnKey Environmental Restoration, LLC. 2009. *Remedial Investigation/Alternatives Analysis Report Work Plan for Phase II Business Park Site.* March.

2. New York State Department of Environmental Conservation. 2010. *DER-10/Technical Guidance for Site Investigation and Remediation.* May 3.

TABLES

TABLE 1

SUMMARY OF RAILROAD REALIGNMENT SOIL ANALYTICAL RESULTS

IRM Work Plan for Railroad Realignment
Tecumseh Redevelopment Inc.
Lackawanna, New York

Parameter [1]	RR-TP-2	RR-TP-4	RR-TP-6	RR-TP-8	RR-TP-10	RR-TP-12	RR-TP-16	RR-TP-18	BPA 3-TP-54	RR-TP-20	RR-TP-22	BPA 2-TP-24	BPA 3-TP-81	RR-TP-26	BPA 2-TP-30	RR-TP-28	RR-TP-30	BPA 2-TP-34	RR-TP-32	RR-TP-34	RR-TP-36	RR-TP-38	RR-TP-40	RR-TP-42	BPA 2-TP-92	RR-TP-44	BPA 2-TP-74	RR-TP-46	RR-TP-49	RR-TP-50	RR-TP-52	Restricted SCOs Commercial (ppm)	Restricted SCOs Industrial (ppm)
Test Pit Location and Sample Depth	0.0 - 2.0	0.0 - 2.0	0.0 - 2.0	0.0 - 2.0	0.0 - 2.0	0.0 - 2.0	0.0 - 2.0	0.0 - 2.0	0.0 - 2.0	0.0 - 2.0	0.0 - 2.0	0.0 - 2.0	0.0 - 2.0	0.0 - 2.0	0.0 - 2.0	0.0 - 2.0	0.0 - 2.0	0.0 - 2.0	0.0 - 2.0	0.0 - 2.0	0.0 - 2.0	0.0 - 2.0	0.0 - 2.0	0.0 - 2.0	0.0 - 2.0	0.0 - 2.0	0.0 - 2.0	0.0 - 2.0	7.0 - 7.5	0.0 - 2.0	0.0 - 2.0		
8260B Full List Volatile Organic Compounds (VOCs) - mg/kg [3]																																	
1,1,1-Trichloroethane	--	--	--	--	--	--	--	--	ND	--	--	--	--	--	ND	--	--	--	--	--	--	--	--	--	ND	--	ND	--	0.002 J	ND	--	**500**	**1,000**
Acetone	--	--	--	--	--	--	--	--	0.008 J	--	--	--	--	--	ND	--	--	--	--	--	--	--	--	--	ND	--	ND	--	ND	ND	--	**500**	**1,000**
Carbon disulfide	--	--	--	--	--	--	--	--	0.002 J	--	--	--	--	--	ND	--	--	--	--	--	--	--	--	--	ND	--	ND	--	ND	ND	--	**NA**	**NA**
Methylene chloride	--	--	--	--	--	--	--	--	0.015 J	--	--	--	--	--	0.003 J	--	--	--	--	--	--	--	--	--	ND	--	ND	--	0.003 J	ND	--	**500**	**1,000**
n-Butylbenzene	--	--	--	--	--	--	--	--	ND	--	--	--	--	--	ND	--	--	--	--	--	--	--	--	--	ND	--	ND	--	ND	ND	--	**500**	**1000**
Trichloroethene	--	--	--	--	--	--	--	--	ND	--	--	--	--	--	ND	--	--	--	--	--	--	--	--	--	ND	--	ND	--	0.003 J	ND	--	**200**	**400**
Vinyl chloride	--	--	--	--	--	--	--	--	ND	--	--	--	--	--	ND	--	--	--	--	--	--	--	--	--	ND	--	ND	--	ND	ND	--	**13**	**27**
Total VOCs	0	0	0	0	0	0	0	0	0.025 J	0	0	0	0	0	0.0028	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0077	0	0		
TCL Semi-Volatile Organic Compounds (SVOCs) - mg/kg [3]																																	
Acenaphthene	--	--	--	--	--	--	--	--	ND	--	--	ND	0.092 J	--	ND	--	--	--	--	--	--	--	--	--	ND	--	ND	--	ND	--	--	**500**	**1,000**
Acenaphthylene	--	--	--	--	--	--	--	--	ND	--	--	0.24 DJ	0.98	--	0.08 DJ	--	--	--	--	--	--	--	--	--	0.15 DJ	--	1.2 DJ	--	ND	--	--	**500**	**1,000**
Anthracene	--	--	--	--	--	--	--	--	ND	--	--	0.18 DJ	0.61	--	0.1 DJ	--	--	--	--	--	--	--	--	--	ND	--	0.81 DJ	--	ND	--	--	**500**	**1,000**
Benzo(a)anthracene	--	--	--	--	--	--	--	--	0.34 J	--	--	1.1 D	3.9	--	0.83 D	--	--	--	--	--	--	--	--	--	0.7 DJB	--	5 DB	--	0.45 DJ	--	--	**5.6**	**11**
Benzo(b)fluoranthene	--	--	--	--	--	--	--	--	0.24 J	--	--	1.5 D	5.6	--	1.4 D	--	--	--	--	--	--	--	--	--	0.9 DJB	--	6 DB	--	ND	--	--	**5.6**	**11**
Benzo(k)fluoranthene	--	--	--	--	--	--	--	--	0.19 J	--	--	0.59 DJ	1.6	--	0.53 DJ	--	--	--	--	--	--	--	--	--	0.88 DJ	--	2.8 DJ	--	ND	--	--	**56**	**110**
Benzo(g,h,i)perylene	--	--	--	--	--	--	--	--	0.28 J	--	--	0.88 D	2.2	--	0.98 D	--	--	--	--	--	--	--	--	--	0.69 DJ	--	3.4 DJ	--	ND	--	--	**500**	**1,000**
Benzo(a)pyrene	--	--	--	--	--	--	--	--	0.22 J	--	--	**1.2 D**	**4.1**	--	**1.1 D**	--	--	--	--	--	--	--	--	--	0.8 DLJ	--	**4.6 DL**	--	ND	--	--	**1**	**1.1**
Carbazole	--	--	--	--	--	--	--	--	ND	--	--	ND	ND	--	0.04 DJ	--	--	--	--	--	--	--	--	--	ND	--	ND	--	ND	--	--	**NA**	**NA**
Chrysene	--	--	--	--	--	--	--	--	0.56 BJ	--	--	1.3 D	3.8 B	--	0.96 D	--	--	--	--	--	--	--	--	--	1 DJB	--	4.6 DB	--	0.35 DJ	--	--	**56**	**110**
Dibenzo(a,h)anthracene	--	--	--	--	--	--	--	--	ND	--	--	0.26 DJ	**0.68 J**	--	0.25 DJ	--	--	--	--	--	--	--	--	--	0.27 DJ	--	0.86 DJ	--	ND	--	--	**0.56**	**1.1**
Dibenzofuran	--	--	--	--	--	--	--	--	ND	--	--	0.05 DJ	0.1 J	--	ND	--	--	--	--	--	--	--	--	--	ND	--	ND	--	ND	--	--	**NA**	**NA**
Fluoranthene	--	--	--	--	--	--	--	--	0.35 J	--	--	2.2 D	7.2	--	1.1 D	--	--	--	--	--	--	--	--	--	0.9 DJB	--	8.6 DB	--	ND	--	--	**500**	**1,000**
Fluorene	--	--	--	--	--	--	--	--	ND	--	--	0.04 DJ	0.19 J	--	ND	--	--	--	--	--	--	--	--	--	ND	--	ND	--	ND	--	--	**500**	**1,000**
Indeno(1,2,3-cd)pyrene	--	--	--	--	--	--	--	--	0.21 J	--	--	0.81 D	2.3	--	0.81 D	--	--	--	--	--	--	--	--	--	0.48 DJ	--	2.8 DJ	--	ND	--	--	**5.6**	**11**
2-Methylnaphthalene	--	--	--	--	--	--	--	--	ND	--	--	0.05 DJ	0.076 J	--	43 DJ	--	--	--	--	--	--	--	--	--	ND	--	ND	--	ND	--	--	**NA**	**NA**
Naphthalene	--	--	--	--	--	--	--	--	ND	--	--	0.06 DJ	0.092 J	--	0.04 DJ	--	--	--	--	--	--	--	--	--	ND	--	ND	--	ND	--	--	**500**	**1,000**
Phenanthrene	--	--	--	--	--	--	--	--	0.41 BJ	--	--	ND	2.6	--	0.38 DJ	--	--	--	--	--	--	--	--	--	0.4 DJB	--	2.8 DJB	--	ND	--	--	**500**	**1,000**
Pyrene	--	--	--	--	--	--	--	--	0.43 J	--	--	ND	5.4	--	0.99 D	--	--	--	--	--	--	--	--	--	0.93 DJ	--	7.4 D	--	ND	--	--	**500**	**1,000**
Total PAHs	0	0	0	0	0	0	0	0	**3.23 J**	0	0	**10.5**	**41.5**	0	**52.59**	0	0	0	0	0	0	0	0	0	**8.11**	0	**50.9**		**0.80**				
TAL Metals - mg/kg																																	
Arsenic	**75**	**143**	**66.9**	**60.2**	**25.2**	**147**	13.5	ND	4.7	**66.6**	13.8	**86.9**	**48.5**	**104**	15.9	ND	15.9	13.2	**30.5**	**83.5**	**62.1**	**19**	**57.1**	**149**	**26.7**	**65.3**	**47.4**	**16.8**	--	**40.6**	**44.3**	**16**	**16**
Barium	158	86.6	91.2	93.5	92.6	110	49.7	125	--	84.5	93.2	96	--	81.6	68.1	66	109	103	90.2	51.4	46	90.8	151	142	10.4	91.3	88.8	116	--	80.1	44.3	**400**	**10,000**
Cadmium	3.05	0.649	1.02	1.6	ND	2.61	ND	ND	4.3 E	0.531	0.646	1.14	0.5	1.79	ND	1.23	5.69	2.49	17	ND	ND	0.919	ND	1.31	0.914	7.01	1.87	1.66	--	ND	ND	**9.3**	**60**
Chromium	140	106	126	368	250	158	45.4	27.2	314	76.2	96.4	46	52.1	77.5	245	464	41.9	55.3	115	29.2	31	146	26	74.6	26.3	227	91.4	325	--	175	26.1	**1500**	**6,800**
Lead	321	154	211	212	63.9	986	119	31.6	549 N	99.2	189	103	119	179	68.7	272	207	265	206	121	237	325	172	207	543	1030	290	280	--	100	49.1	**1000**	**3,900**
Mercury	0.399	0.11	0.322	0.895 D	0.0899	0.271	0.0679	0.0662	0.165	0.153	0.155	0.135	0.123	0.0864	0.0749	0.0891	0.0882	0.375	0.233	0.302	0.297	1.04 D	0.404	2.38	0.035	0.475 D	0.116	0.209	--	1.99 D	0.0485	**2.8**	**5.7**
Aluminum	--	--	--	--	--	--	--	--	--	--	--	--		--	7570	--	--	--	--	--	--	--	--	--	--	--	7760	--	--	--	--	**NA**	**NA**
Beryllium	--	--	--	--	--	--	--	--	--	--	--	--		--	ND	--	--	--	--	--	--	--	--	--	--	--	0.97	--	--	--	--	**590**	**2,700**
Calcium	--	--	--	--	--	--	--	--	--	--	--	--		--	97700 D	--	--	--	--	--	--	--	--	--	--	--	1.87	--	--	--	--	**NA**	**NA**
Cobalt	--	--	--	--	--	--	--	--	--	--	--	--		--	ND	--	--	--	--	--	--	--	--	--	--	--	4.51	--	--	--	--	**NA**	**NA**
Copper	--	--	--	--	--	--	--	--	--	--	--	--		--	70.6	--	--	--	--	--	--	--	--	--	--	--	120	--	--	--	--	**270**	**10,000**
Cyanide	--	--	--	--	--	--	--	--	--	--	--	--		--	ND	--	--	--	--	--	--	--	--	--	--	--	ND	--	--	--	--	**27**	**10,000**
Iron	--	--	--	--	--	--	--	--	--	--	--	--		--	83600 D	--	--	--	--	--	--	--	--	--	--	--	45100	--	--	--	--	**NA**	**NA**
Magnesium	--	--	--	--	--	--	--	--	--	--	--	--		--	19800	--	--	--	--	--	--	--	--	--	--	--	9020	--	--	--	--	**NA**	**NA**
Manganese	--	--	--	--	--	--	--	--	--	--	--	--		--	**15100 D**	--	--	--	--	--	--	--	--	--	--	--	3770 D	--	--	--	--	**10,000**	**10,000**
Nickel	--	--	--	--	--	--	--	--	--	--	--	--		--	17.9	--	--	--	--	--	--	--	--	--	--	--	20	--	--	--	--	**310**	**10,000**
Potassium	--	--	--	--	--	--	--	--	--	--	--	--		--	1190	--	--	--	--	--	--	--	--	--	--	--	900	--	--	--	--	**NA**	**NA**
Silver	--	--	--	--	--	--	--	--	--	--	--	--		--	ND	--	--	--	--	--	--	--	--	--	--	--	0.508	--	--	--	--	**1500**	**6,800**
Sodium	--	--	--	--	--	--	--	--	--	--	--	--		--	386	--	--	--	--	--	--	--	--	--	--	--	234	--	--	--	--	**NA**	**NA**
Vanadium	--	--	--	--	--	--	--	--	--	--	--	--		--	269	--	--	--	--	--	--	--	--	--	--	--	39.7	--	--	--	--	**NA**	**NA**
Zinc	--	--	--	--	--	--	--	--	--	--	--	--		--	159	--	--	--	--	--	--	--	--	--	--	--	380	--	--	--	--	**10000**	**10,000**
PCBs - mg/kg [3]																																	
Aroclor 1254	--	--	--	--	--	--	--	--		--	--	--		--	0.12	--	ND	--	--	--	--	--	--	--	ND	--	ND	--	--	--	--	**1**	**25**
Aroclor 1260	--	--	--	--	--	--	--	--		--	--	--		--	0.36	--	**52 D**	--	--	--	--	--	--	--	ND	--	ND	--	--	--	--	**1**	**25**

Notes:
1. Only those parameters detected at a minimum of one sample location are presented in this table; all other compounds were reported as non-detect.
2. SCO values per 6 NYCRR Part 375-6
3. Sample results were reported by the laboratory in ug/kg and converted to mg/kg for comparison to SCOs.

Definitions:
- **RR-TP-2** = test pit advanced and sampled as part of the Railroad Corridor Investigation.
- **BPA 2-TP-24** = test pit was advanced and sampled as part of Business Park investigation.
- ND = Parameter not detected above laboratory detection limit.
- NA = SCO has not been established for this compound.
- = (blue) Exceedance of Commercial SCO
- = (yellow) Exceedance of Commercial and Industrial SCO
- "--" = Sample not analyzed for parameter.
- J = Estimated value; result is less than the sample quantitation limit but greater than zero.
- B = Analyte was detected in the associated method blank .
- D = All compounds were identified in an analysis at the secondary dilution factor.

TABLE 2

SUMMARY OF SUPPLEMENTAL TEST PIT SOIL ANALYTICAL RESULTS

IRM Work Plan for Railroad Realignment
Tecumseh Redevelopment Inc.
Lackawanna, New York

Parameter [1]	Test Pit Location and Sample Depth																								
	RR-TP-04 North-25	RR-TP-04 South-25	RR-TP-04 East-25	RR-TP-04 West-25	RR-TP-04 Bottom	RR-TP-12 North	RR-TP-12 North-35	RR-TP-12 North-50	RR-TP-12 North-75	RR-TP-12 South	RR-TP-12 East	RR-TP-12 West	RR-TP-12 Bottom	RR-TP-42 North	RR-TP-42 North-35	RR-TP-42 South	RR-TP-42 South-35	RR-TP-42 South-50	RR-TP-42 South-75	RR-TP-42 East	RR-TP-42 West	RR-TP-42 Bottom	RR-TP-30 North	RR-TP-30 South	RR-TP-30 East	RR-TP-30 West	RR-TP-30 Bottom
	0-2' BGS	0-2' BGS	0-2' BGS	0-2' BGS	2' BGS	0-2' BGS	0-2' BGS	0-2' BGS	0-2' BGS	0-2' BGS	0-2' BGS	0-2' BGS	2' BGS	0-2' BGS	0-2' BGS	0-2' BGS	0-2' BGS	0-2' BGS	0-2' BGS	0-2' BGS	0-2' BGS	2' BGS	0-2' BGS	0-2' BGS	0-2' BGS	0-2' BGS	2' BGS
TAL Metals (mg/kg)																											
Total Arsenic	**47**	**43.9**	**48.3**	**112**	**40.2**	**126**	**246**	**162**	**87.9**	**83**	**49.1**	**157**	**39.4**	**114**	**84.6**	**136**	**372**	**127**	**71.8**	**147**	**35.6**	**37.1**	-	-	-	-	-
PCBs (mg/kg)																											
Aroclor 1254	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.046	ND	ND	0.51	ND
Aroclor 1260	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.11	0.12	0.047	ND	0.26

Notes:
1. Only those parameters detected in at least one sample are included.
2. 6NYCRR Part 375 Soil Cleanup Objectives (SCOs).
3. BGS = Below Ground Surface; ND = Not Detected

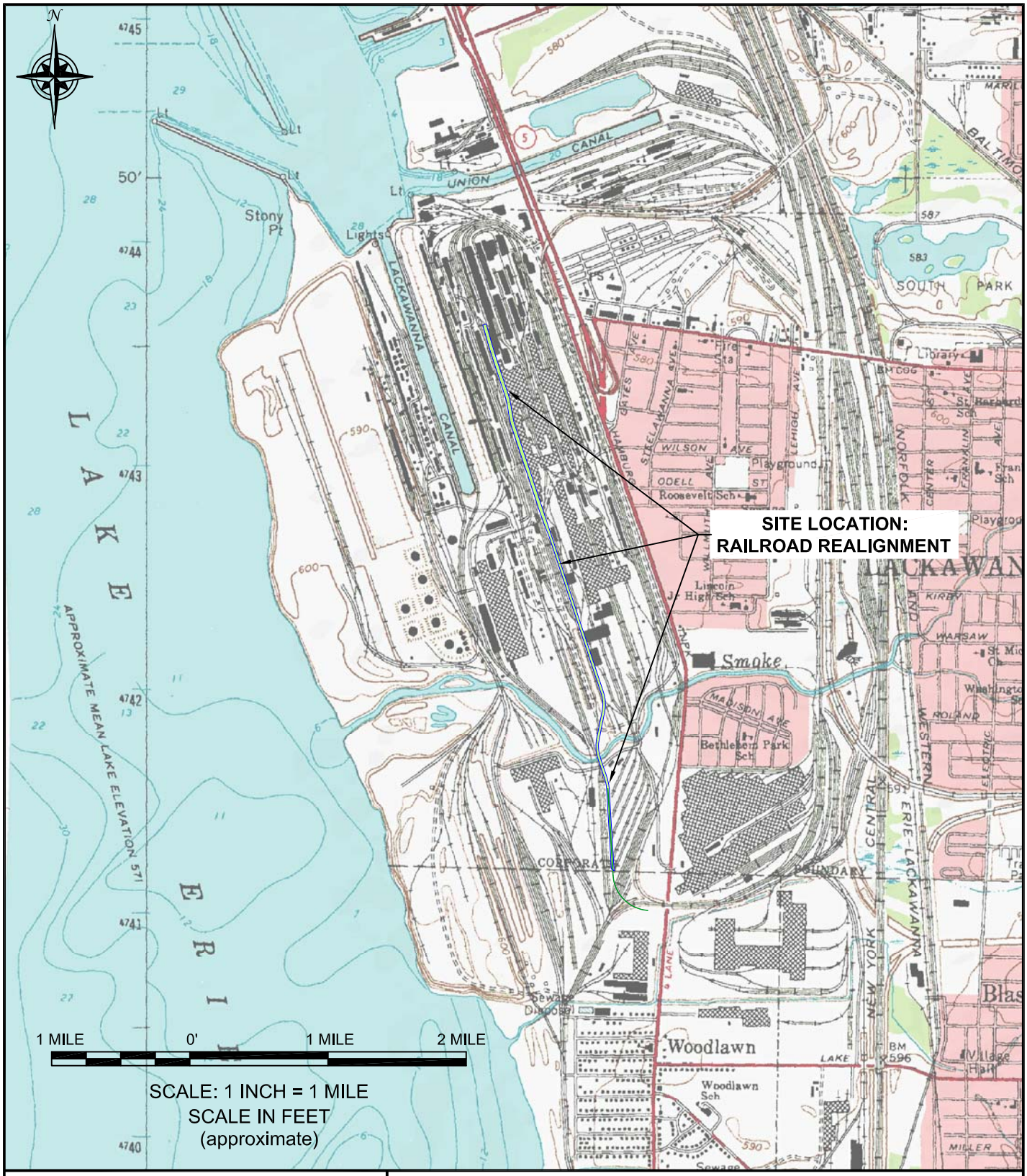
Parameter	RR-TP-04 TCLP	RR-TP-12 TCLP	RR-TP-30 TCLP	RR-TP-42 TCLP	Regulatory Limit (mg/L) [1]
TCLP Metals (mg/L)					
Arsenic	0.0131	0.0104	ND	0.0168	5
Barium	0.397	0.306	0.537	0.487	100
Cadmium	0.0039	0.0158	0.0023	0.0069	1
Chromium	0.0086	ND	ND	ND	5
Lead	0.0431	0.02	0.0229	0.0749	5
Mercury	ND	ND	ND	ND	0.2
Selenium	ND	ND	ND	ND	1
Silver	ND	ND	ND	ND	5

Notes:
1. Per 40 CFR Part 261

FIGURES

F:\CAD\TurnKey\Tecumseh Redevelopment\Brownfield Cleanup Program (BCP)\Phase II Parcel\RR Realignment\Figure 1 - Site Location and Vicinity.dwg, 10/22/2010 9:13:21 AM, Adobe PDF

FIGURE 1



TURNKEY Environmental Restoration, LLC
2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0635

PROJECT NO.: 0071-010-124

DATE: OCTOBER 2010

DRAFTED BY: JCT

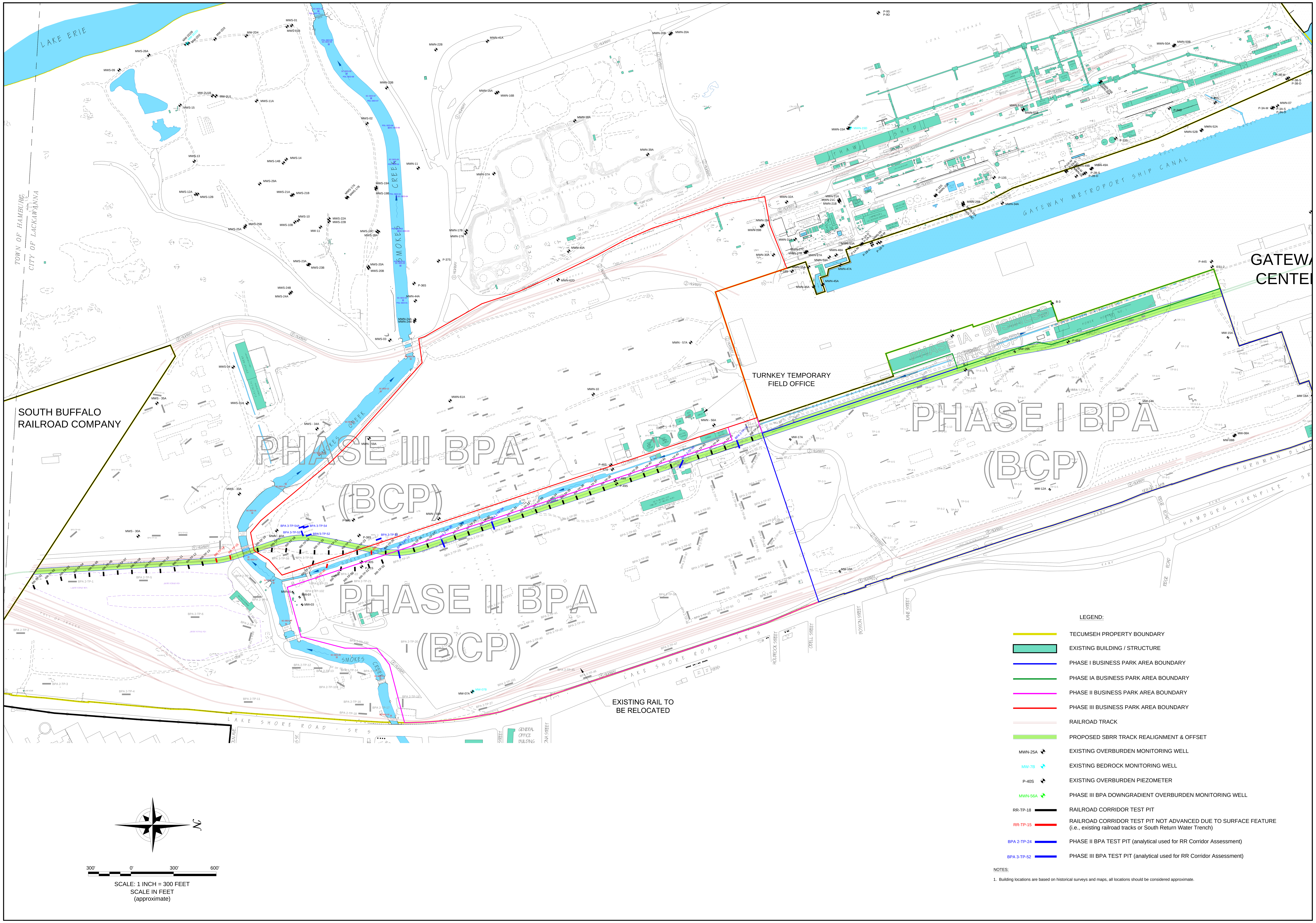
SITE LOCATION & VICINITY MAP

IRM WORK PLAN FOR RAILROAD REALIGNMENT

TECUMSEH LACKAWANNA SITE
LACKAWANNA, NEW YORK

PREPARED FOR

TECUMSEH REDEVELOPMENT INC.



LEGEND:

	TECUMSEH PROPERTY BOUNDARY
	EXISTING BUILDING / STRUCTURE
	PHASE I BUSINESS PARK AREA BOUNDARY
	PHASE IA BUSINESS PARK AREA BOUNDARY
	PHASE II BUSINESS PARK AREA BOUNDARY
	PHASE III BUSINESS PARK AREA BOUNDARY
	RAILROAD TRACK
	PROPOSED SBRR TRACK REALIGNMENT & OFFSET
MWN-25A	EXISTING OVERBURDEN MONITORING WELL
MW-7B	EXISTING BEDROCK MONITORING WELL
P-40S	EXISTING OVERBURDEN PIEZOMETER
MWN-56A	PHASE III BPA DOWNGRADIENT OVERBURDEN MONITORING WELL
RR-TP-18	RAILROAD CORRIDOR TEST PIT
RR-TP-15	RAILROAD CORRIDOR TEST PIT NOT ADVANCED DUE TO SURFACE FEATURE (i.e., existing railroad tracks or South Return Water Trench)
BPA 2-TP-24	PHASE II BPA TEST PIT (analytical used for RR Corridor Assessment)
BPA 3-TP-52	PHASE III BPA TEST PIT (analytical used for RR Corridor Assessment)

NOTES:

1. Building locations are based on historical surveys and maps, all locations should be considered approximate.

TURNKEY Environmental Restoration, LLC
2558 HAMBURG TURNPIKE
SUITE 300
BUFFALO, NY 14218
(716) 856-0635

JOB NO.: 0071-010-124

REVISIONS

NO.	BY	DATE	REMARKS

SEAL

DRAWN BY: BCH/JCT
DATE: SEPTEMBER 2010
CHECKED BY:
APPROVED BY:

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RAILROAD REALIGNMENT CORRIDOR SAMPLE LOCATIONS

IRM WORK PLAN FOR RAILROAD REALIGNMENT

TECUMSEH LACKAWANNA SITE

LACKAWANNA, NEW YORK

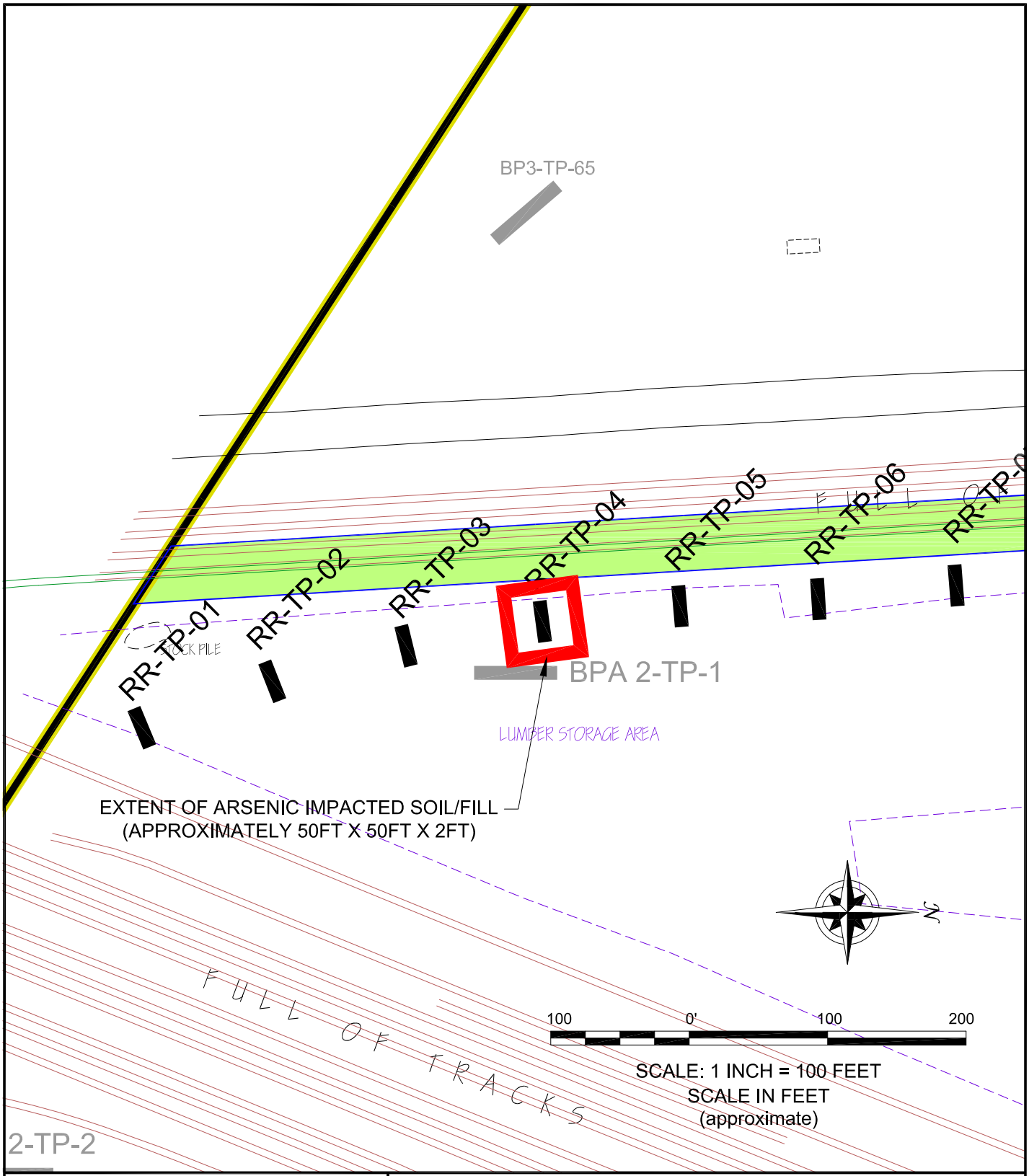
PREPARED FOR

TECUMSEH REDEVELOPMENT INC.

FIGURE 2

F:\CAD\TurnKey\Tecumseh Redevelopment\Brownfield Cleanup Program (BCP)\Phase II Parcel\RR Realignment\Figure 3A-D; RR Corridor Hot Spot Excavation.dwg, 10/22/2010 9:15:55 AM, Adobe PDF

FIGURE 3A



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RR-TP-04 HOT SPOT EXCAVATION LIMITS

IRM WORK PLAN FOR RAILROAD REALIGNMENT

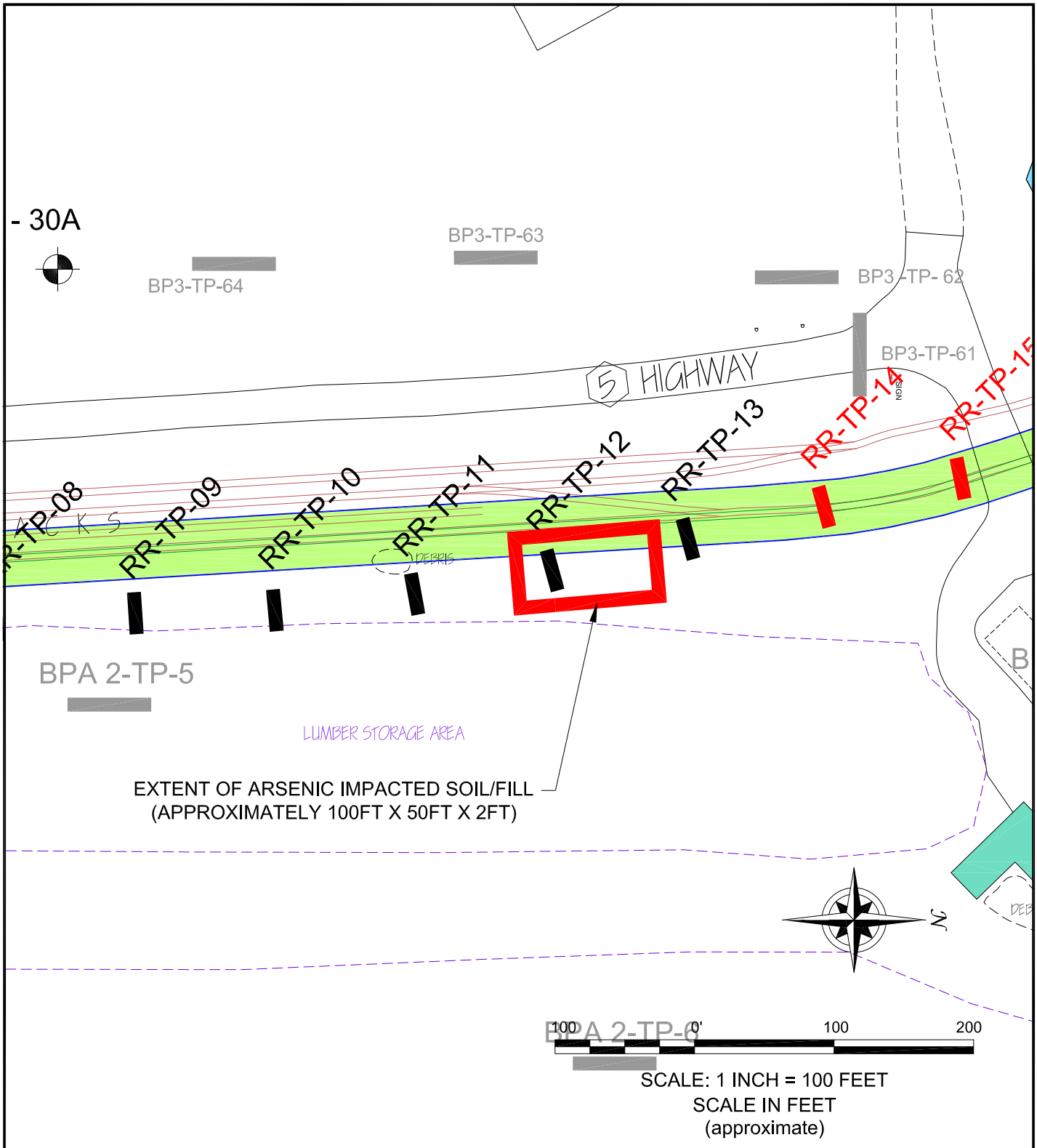
TECUMSEH LACKAWANNA SITE
LACKAWANNA, NEW YORK

PREPARED FOR

TECUMSEH REDEVELOPMENT INC.

F:\CAD\TurnKey\Tecumseh Redevelopment\Brownfield Cleanup Program (BCP)\Phase II Parcel\RR Realignment\Figure 3A-D; RR Corridor Hot Spot Excavation.dwg, 10/22/2010 9:16:20 AM, Adobe PDF

FIGURE 3B



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RR-TP-12 HOT SPOT EXCAVATION LIMITS

IRM WORK PLAN FOR RAILROAD REALIGNMENT

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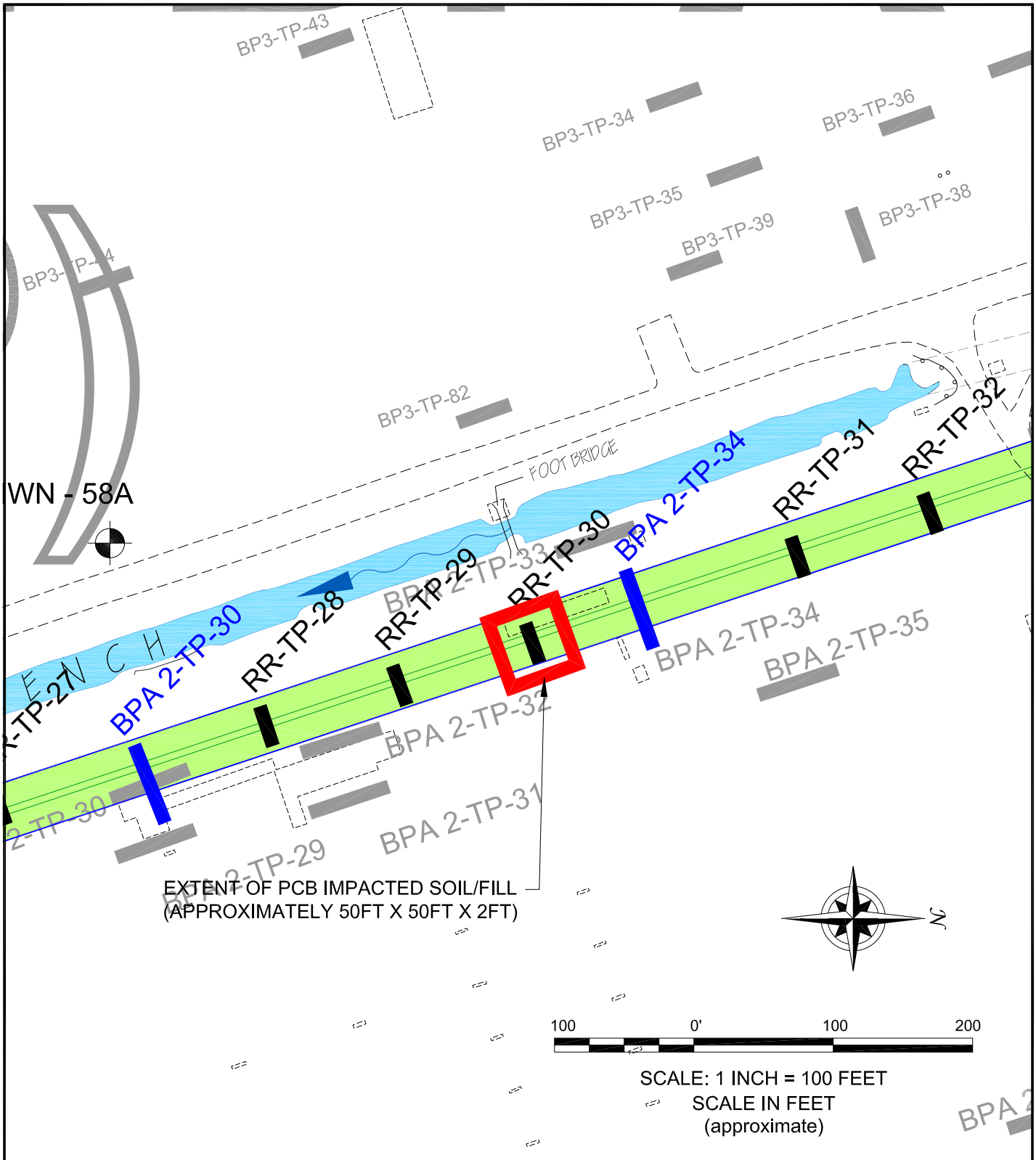
FIGURE 3C



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RR-TP-30 HOT SPOT EXCAVATION LIMITS

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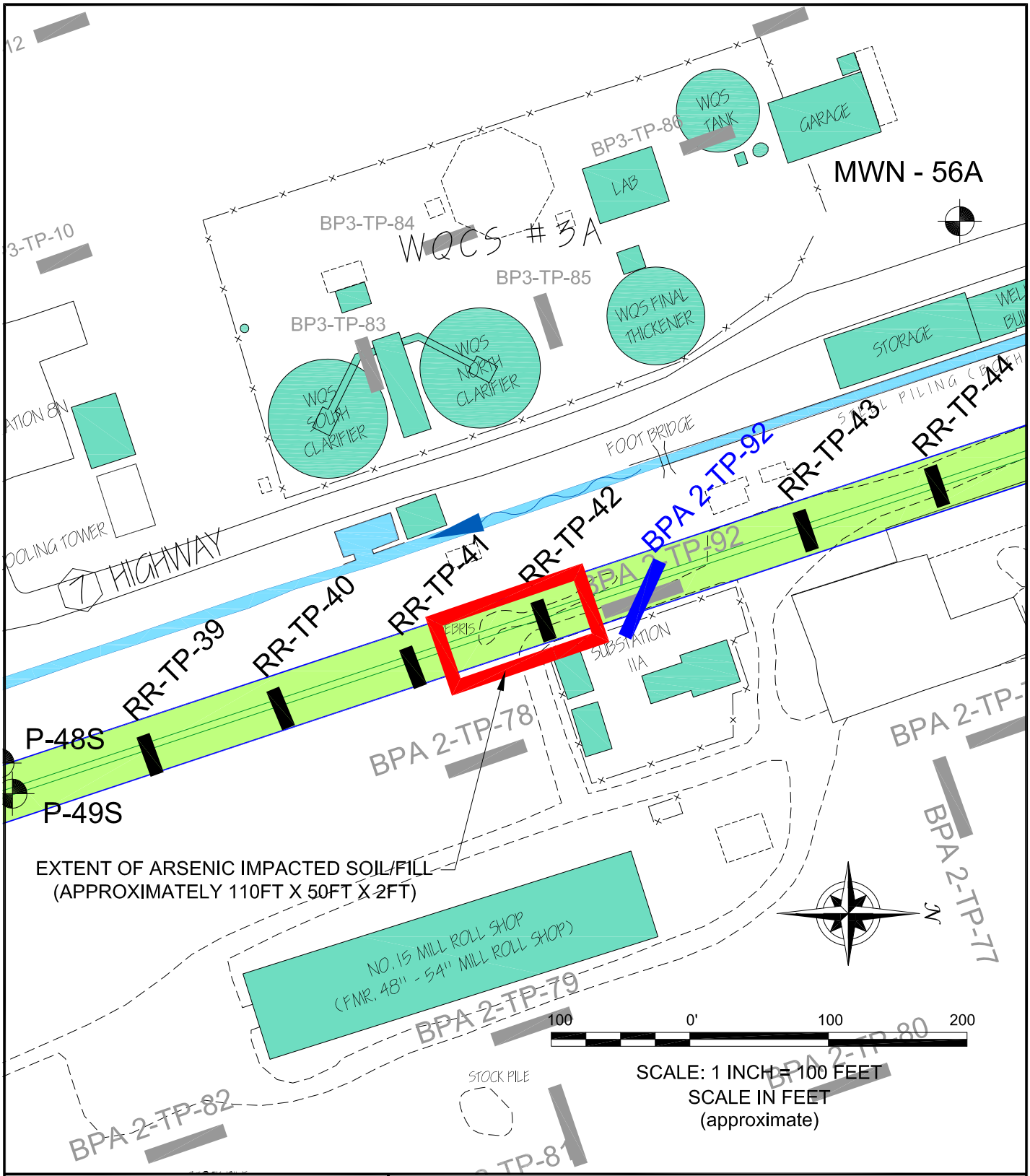
FIGURE 3D



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RR-TP-42 HOT SPOT EXCAVATION LIMITS

IRM WORK PLAN FOR RAILROAD REALIGNMENT

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