CIVIL & ENVIRONMENTAL ENGINEERING, SURVEYING

December 31, 2019

Wisconsin Department of Natural Resources

Attn: Mr. Matt Thompson
1300 W. Clairemont Avenue
Eau Claire, WI 54701

Subject:

Site Investigation Work Plan
City of Wausau – Riverside Rail Corridor
132 River Street
Wausau, WI
BRRTS: 02-37-584785

Dear Mr. Thompson,

REI Engineering, Inc. is hereby submitting the site investigation work plan for the above referenced site. If you have any comments, please contact our office at (715) 675-9784 or electronically at klassa@reiengineering.com.

Sincerely,
REI Engineering, Inc.

Kenneth J. Lassa, P.S.
Senior Consultant

cc: City of Wausau, Mr. Eric Lindman, 407 Grant Street, Wausau, WI 54403

Enclosure

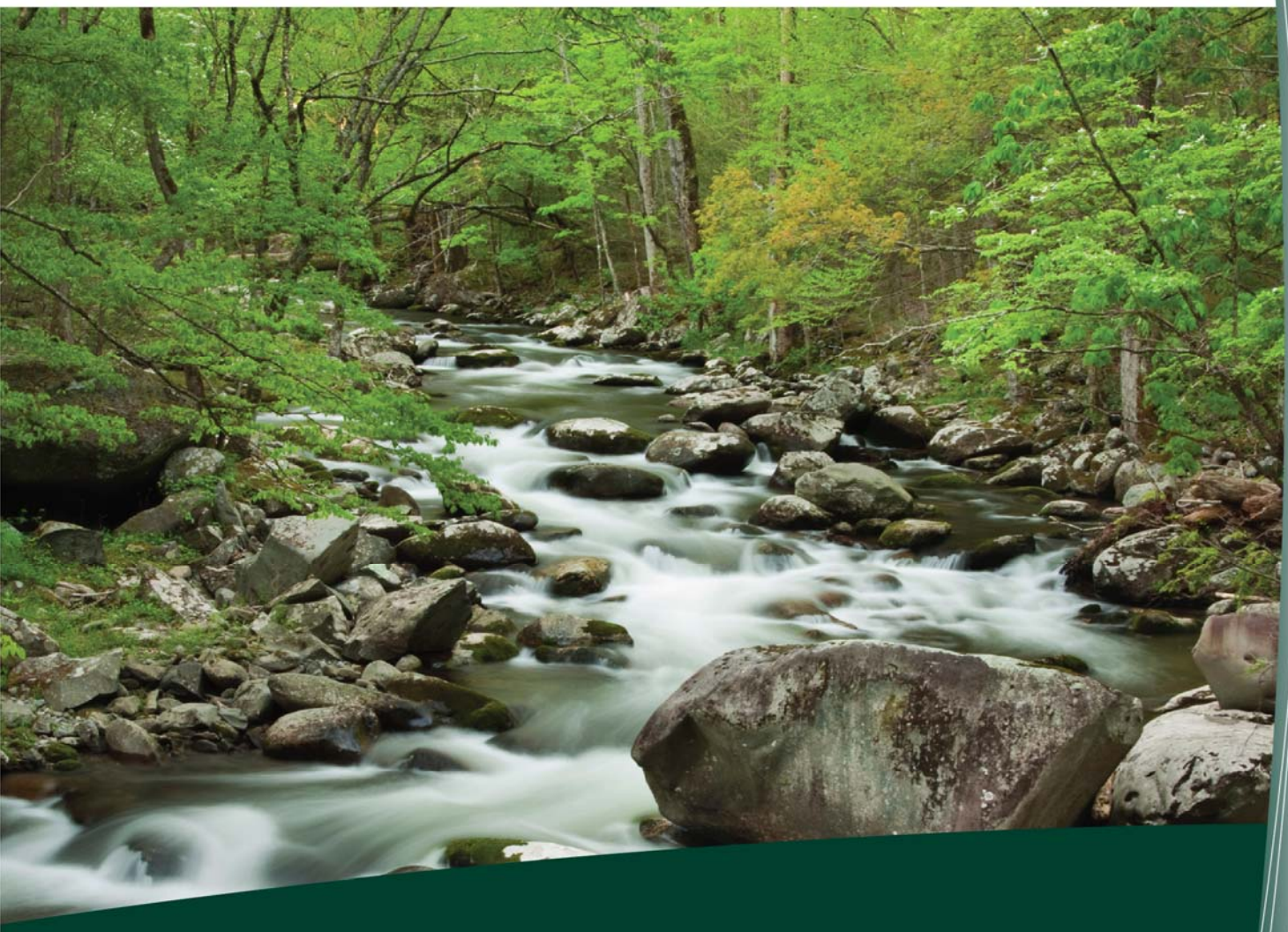
REI

CIVIL & ENVIRONMENTAL
ENGINEERING, SURVEYING

Site Investigation Work Plan
Riverside Rail Corridor
132 River Street
Wausau, WI

BRRTS#02-37-584785

REI Project #9073



COMPREHENSIVE
SERVICES WITH
PRACTICAL
SOLUTIONS

SITE INVESTIGATION WORK PLAN
RIVERSIDE RAIL CORRIDOR
132 RIVER STREET
WAUSAU, WI

BRRTS # 02-37-584785

REI #9073

PREPARED FOR:

City of Wausau
Mr. Eric Lindman
407 Grant Street
Wausau, WI 54403

PREPARED BY:

REI Engineering, Inc.
4080 North 20th Avenue
Wausau, WI 54401
(715) 675-9784

December 2019

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RIVERSIDE RAIL CORRIDOR
132 RIVER STREET
WAUSAU, WI

BRRTS #02-37-584785

REI #9073

1.0 INTRODUCTION

REI Engineering, Inc. (REI) has prepared this work plan per the requirements of the responsible party letter sent to the City of Wausau on November 21, 2019. The purpose of the site investigation is to advance shallow soil borings on the property with the collection of soil samples for laboratory analysis to determine the degree and extent of the contamination. The soil contamination is located on the Riverside rail corridor which is owned by the City of Wausau and is currently part of the larger parcel of land operated as Riverside Park. The Wisconsin Department of Natural Resources (WDNR) received results from the Wauelco, Inc. site investigation on October 31, 2019 which identified soil contamination on the Riverside rail corridor. The WDNR required the City to retain a qualified consultant before December 21, 2019 and submit a site investigation work plan prior to January 20, 2020. Notification that REI was retained was sent to the WDNR project manager via email notification on December 19, 2019.

2.0 BACKGROUND INFORMATION AND SCOPE OF WORK

2.1 Responsible Party

City of Wausau
Attn: Mr. Eric Lindman
407 Grant Street
Wausau, WI 54403

2.2 Consultant

REI Engineering, Inc.
4080 North 20th Avenue
Wausau, Wisconsin 54401
Phone (715) 675-9784

2.3 Site Name, Address, and Location

Site Name:	City of Wausau – Riverside Rail Corridor
Site Address:	132 River Street Wausau, WI
Site Location:	NW¼, SE¼, Section 35, Township 29N, Range 7E, Marathon County, Wisconsin

2.4 Past and Present Land Use

The Riverside rail corridor is located along the south side of Riverside Park. Historical aerial photos reveal the rail corridor as of the 1938 aerial photo. This rail corridor was discontinued for active use by 1998. Riverside park was created by a grant beginning in 1923 with additional land gifts to expand the park in 1928, 1930 and 1936.

This investigation was required due to the sampling results from the wood waste burning soil sampling report completed by TRC Environmental Corporation (TRC) for the Wauleco, Inc. site (BRRTS#02-37-000006) located at 125 Rosecrans Street, Wausau, WI. This report identified other potential sources of contamination including the City of Wausau incinerator, other industrial facilities, railroads, yard burning of waste and residential burn barrels, vehicle traffic and urban conditions. This TRC report referenced EPA reports which identified the presence of treated railroad ties and treated wood power poles as possible sources of dioxins/furans. The site investigation report for the soil samples collected by TRC included photos of each soil sample location. These photos clearly reveal that each of the three (3) soil samples (N4-1, N4-2, N4-3) were collected between the treated railroad ties.

The site investigation report will use newly collected data along with the data previously presented by TRC to discuss other sources of potential contamination.

2.5 Scope of Work

REI recommends that the following workscope be completed to define the extent of contamination as identified in the three (3) soil samples collected by TRC to define the vertical and horizontal extent of soil contamination at the site.

1. REI will coordinate a public utility locate a minimum of three (3) days in advance of any site work. REI will coordinate access with the City of Wausau for advancement of shallow soil borings with the rail corridor and Riverside Park property.

2. REI will advance shallow soil borings and collected up to eight (8) soil samples along the Riverside rail corridor. These soil samples will be submitted to a state certified laboratory for analysis of dioxins/furans. Photographs of the boring location will be taken for documentation purposes. Locations of the soil samples will also be recorded with GPS equipment for coordinates.

3. REI will create a detailed site map showing all significant features including the former soil sample locations along with these additional soil sample locations and approximate property lines.

4. REI will prepare a site investigation report (SIR) and submit to the WDNR. If contamination is not defined and additional investigative work may be required, REI will prepare a scope of work and communicate with the client for the extent of the work and proposed anticipated costs to complete the investigation.

5. REI will containerize all investigative waste at licensed disposal facility. REI will dispose of decontamination water at the City of Wausau Wastewater Treatment plant. REI will include documentation of disposal in the site investigation report.

6. If contamination is defined and the site is eligible for case closure consideration by the WDNR, upon review and approval of the SIR, REI will prepare and submit a case closure packet. These materials will document the findings, degree and extent of residual contamination, and allow for closure of the site.

2.6 Other Sources of Contamination

This investigation was required due to the sampling results from the wood waste burning soil sampling report completed by TRC for the Wauleco, Inc. site (BRRTS#02-37-000006) located at 125 Rosecrans Street, Wausau, WI. The Wauleco site is located just west of the Riverside rail corridor site. The Wauleco Site Investigation report from October 2019 summarized historically collected soil samples as well as those collected as part of the wood waste burning at the Wauleco, Inc. site. This report identified other potential sources of contamination including the City of Wausau incinerator, other industrial facilities, railroads, yard burning of waste and residential burn barrels, vehicle traffic and urban conditions. This report referenced EPA reports which identified the presence of treated railroad ties and treated wood power poles as possible sources of dioxins/furans. This is a likely explanation of the results of three (3) soil samples collected along the railroad corridor as they were collected directly next to treated wood railroad ties.

2.7 Potential Impact to Receptors

REI will investigate and evaluate the potential impact to receptors during the site investigation. Specifically, REI will determine the locations of significant features such as nearby residential properties and surface waters.

2.8 Potable Water Survey

The property is located within the City of Wausau and all properties are serviced by municipal water service. Thus, it is not anticipated that potable wells will be involved in this investigation.

3.0 TOPOGRAPHICAL, GEOLOGICAL, AND HYDROLOGIC CONDITIONS

The property is in the Central Wisconsin River Basin. Site specific soil and geologic conditions, prominent topographic features, significant hydrologic features and surface water drainage patterns will be documented during the site investigation.

4.0 METHODOLOGIES

4.1 Soil Sampling

4.1.1 Shovel/Hand Auger Soil Sampling

Traditional environmental investigations may require sampling within the zone of Direct Contact (DC) which is considered the top four (4) feet of the soil column. The contaminants of concern for this investigation are doxins/furans that were released to the area through aerial deposition. The recently completed site investigation report completed by TRC for the wood waste burning soil sampling report collected soil samples within the top six (6) inches of the surface. REI will also collect additional soil samples from within the top six (6) inches of the surface. A new shovel and metal sampling spade will be used to collect the soil samples. The shovel and spade will be washed and rinsed between collection of each soil sample. Nitrile gloves will also be changed between each sample collected as to eliminate potential cross contamination. Additional soil samples will be collected at a depth of one (1) foot below land surface (bls) or greater to determine soil conditions at depth. Each of the soil samples will be placed into a clean plastic bag and mixed. The soil samples collected will be visually and manually classified by the field geologist/technician in accordance with ASTM:D2488-84. An adequate amount of soil will be placed into laboratory prepared containers and stored in an iced cooler. The samples will be sent to the laboratory in a cooler via a courier. Samples will be accompanied by Chain of Custody records. Each soil sample collected will be given a unique numeric sample identification which will be linked to the sample location. Photos will be taken of each sample location with identifying unique numeric sample number.

4.2 Quality Assurance/Quality Control (QA/QC)

REI personnel will maintain strict adherence to established QA/QC procedures during sample collection and handling. EPA and/or WDNR standard accepted sample collection, transportation and storage protocols will be implemented prior to analysis of samples by a state certified laboratory. Sample containers will be properly preserved and stored prior to analysis. Dates of analysis, contingent upon the shelf life of the parameter of interest, will be noted. Field chain-of-custody (COC) documentation will be maintained for each sample. Internal laboratory QA/QC protocols will be adhered to in accordance with protocols outlined in EPA document SW846, Test Methods for Evaluating Solid Waste.

4.3 Chain of Custody

Upon completion of a soil sample, a chain of custody log will be initiated. The chain of custody record will include the following information: project name, work order number, shipped by, shipped to, sampling point, location, field ID number, date and time taken, sample type, number of containers, analysis required, sampler(s) signature(s), etc. The fewest number of people possible will handle the samples.

4.4 Decontamination

Decontamination of all field equipment will be performed to eliminate potential cross-mixing between discrete sampling points. All sampling equipment will be decontaminated by washing with an Alconox/distilled water solution, rinsing with distilled water and triple rinsing with deionized water. All shovels, spades, augers and any additional tools will be decontaminated. Wash water will be contained on-site in Department of Transportation (DOT) approved 55-gallon drums pending proper disposal or treatment.

5.0 CHEMICAL ANALYSIS OF SOILS

Soil samples collected will be submitted to a state certified laboratory for analysis of appropriate constituents. Laboratory analysis of the collected soil samples will be completed in accordance with EPA and/or WDNR accepted methods. The soil samples will be analyzed according to one or more of the following methodologies:

EPA Method	Analytical Constituent	Method Detection Limit
1613B	17 Dioxin/furan congeners	Variable per isomer

ng/kg = parts per trillion (ppt)

6.0 CHEMICAL ANALYSIS OF GROUNDWATER

Groundwater is not anticipated to be encountered or sampled as part of this investigation.

7.0 REPORTING

At the conclusion of the field investigation, REI will analyze the data collected and prepare a written report of the findings. Measurements that are taken in the field will be utilized to prepare a scaled map of the subject property and adjacent properties as well as significant features. Laboratory reports for soil samples collected during the investigation will be utilized to determine the extent of contamination. All data will be summarized into data tables. All soil samples collected will be classified. The report that follows the investigative work will provide documentation of all work performed for the project and will include recommendations as to whether additional delineation of dioxins/furans is required.

8.0 PROJECT SCHEDULE

REI anticipates waiting to conduct field work until the snow and frost is gone in order to make visual observations of the ground surface. This is anticipated to be in April 2020. Once the Site Investigation Work Plan has been approved, REI anticipates proceeding according to the schedule below after snow or frost is no longer present

on the site. The project schedule may be altered accordingly should additional work be required beyond the scope outlined in the initial Site Investigation Work Plan:

TASK DESCRIPTION	Time in Weeks								
	1	2	3	4	5	6	7	8	9
1. Approval of Work Plan	*								
2. Field Work									
3. Lab Analysis									
4. Data Interpretation & Draft									
5. Client Review									
6. Final Report									

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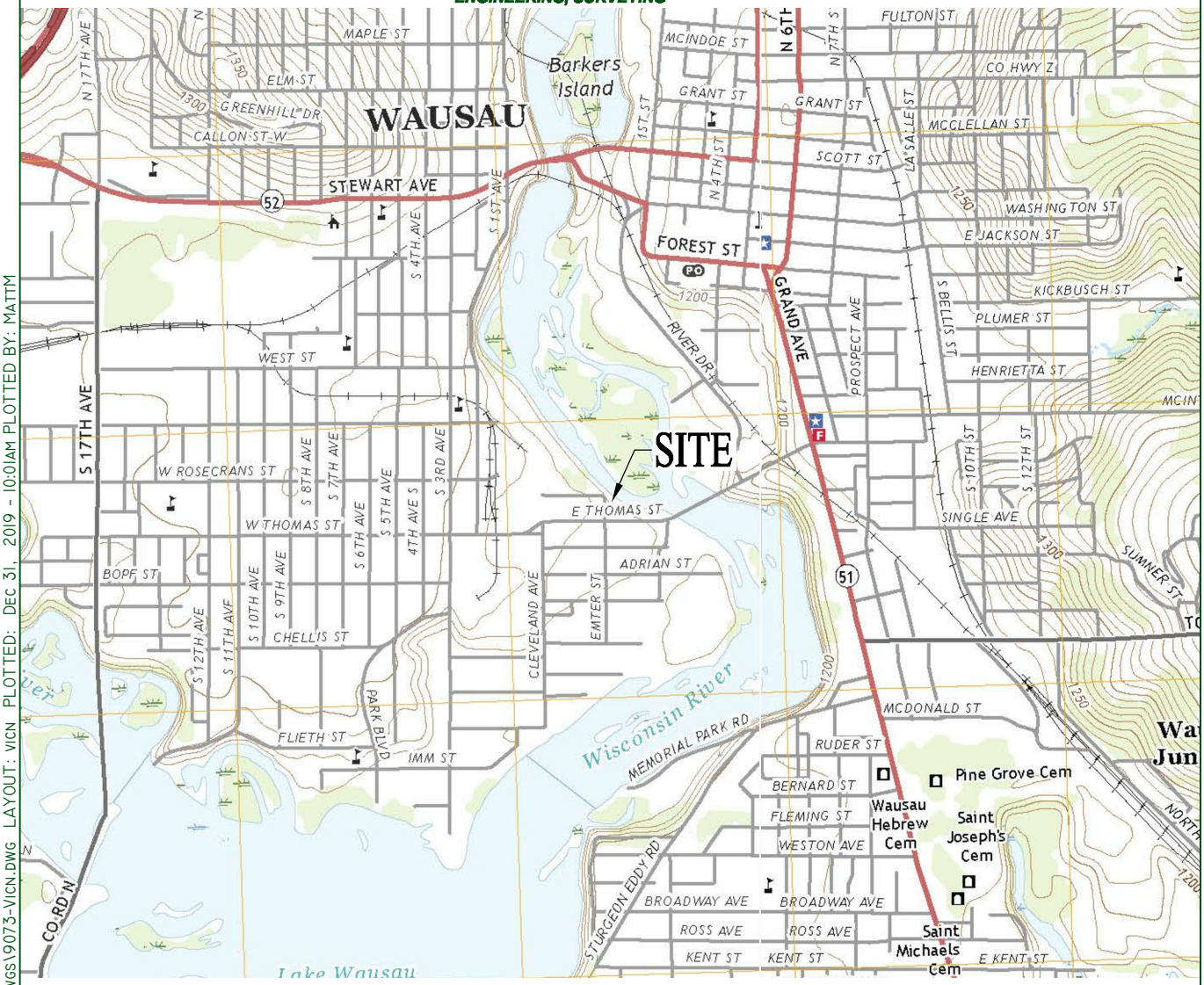

SCALE 1:24 000

1 0.5 0 KILOMETERS 1 2

1000 500 0 METERS 1000 2000

1 0.5 0 1

MILES

1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000

FEET

CONTOUR INTERVAL 10 FEET
NORTH AMERICAN VERTICAL DATUM OF 1988

MN
GN
2°50'
50 MILS
1°54'
34 MILS

UTM GRID AND 2019 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

WAUSAU WEST QUADRANGLE
WISCONSIN - MARATHON COUNTY
7.5-MINUTE SERIES

QUADRANGLE LOCATION

WAUSAU WEST, WI
2018
REI ENGINEERING, INC.

RIVERSIDE RAIL CORRIDOR 132 RIVER STREET WAUSAU, WI	N	FIGURE 1 : VICINITY MAP	
		PROJECT NO. 9073	DRAWN BY: MCM
			DATE: 12/31/2019

DRAWING FILE: P:\9000-9999\9073 - CITY OF WAUSAU RIVERSIDE RR CORRIDOR\DWGS\9073-VICN.DWG LAYOUT: VICN PLOTTED: DEC 31, 2019 - 10:01AM PLOTTED BY: MATTM