

September 8, 2020

Mr. Grant Nietzel Wisconsin Department of Natural Resources Superior Service Center 1701 N 4<sup>th</sup> Street Superior, WI 54880

Subject: Phase 2/2.5 Investigation USH 8, West 8<sup>th</sup> Street North to River Avenue East Ladysmith, Rusk County, Wisconsin WisDOT Project ID #1580-31-00

Dear Mr. Nietzel:

Enclosed is the Phase 2/2.5 Site Investigation Report for the USH 8 project, West 8<sup>th</sup> Street North to River Avenue West, project in Ladysmith, Wisconsin. Contaminated soil was encountered during the investigation within the limits of construction at the following location:

• Site 6 (Former Fuel Station) - Station 343+10 to 343+70, from reference line to limits on RT

TRC recommends that soil excavated at the above locations be observed by the environmental consultant to observe if any evidence of a source of contamination is present. We request the WDNR review this report and attached Special Provisions and provide concurrence by September 30, 2020.

Feel free to contact me, at (608) 826-3628, with questions or comments.

Sincerely,

TRC

Danut Hands

Dan Haak Project Manager

cc: Aaron Gustafson – WisDOT (pdf via email) Shar TeBeest – WisDOT (pdf via email)



# Phase 2/2.5 Investigation

USH 8, West 8<sup>th</sup> Street North to River Avenue East Ladysmith, Rusk County, Wisconsin

September 2020

# WisDOT Project #1580-31-00

**Prepared For:** Wisconsin Department of Transportation

Prepared By: TRC 708 Heartland Trail, Suite 3000 Madison, Wisconsin 53717

Liz Hoerning, P.E. Staff Engineer

Dan Haak, P.E. Project Manager

Oland

Ted O'Connell TRC Quality Assurance



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#### COMMONLY USED ABBREVIATIONS AND ACRONYMS

AST	aboveground storage tank							
bgs	below ground surface							
BRRTS	Bureau for Remediation and Redevelopment Tracking System							
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act							
CTH	County Trunk Highway							
CY	cubic yards							
DATCP	Department of Agriculture, Trade and Consumer Protection							
DRO	diesel range organics							
FDM	Facilities Development Manual							
EMP	Excavation Management Plan							
ERP	Environmental Repair Program							
ES	Enforcement Standards							
ESA	Environmental Site Assessment							
FINDS	Facility Index System/Facility Identification Initiative Program Summary							
	Report							
GIS Registry	WDNR Geographic Information System (GIS) Registry of Closed							
	Remediation Sites							
GRO	gasoline range organics							
HAZWOPER	Code of Federal Registry Chapter 29 (29 CFR) Part 1910.120 Hazardous							
NAZWOFER								
HMA	Waste Operations and Emergency Response Hazardous Materials Assessment							
IH	Interstate Highway							
LQG	large quantity generator							
LUST	leaking underground storage tank							
NPL	National Priorities List							
NR ###	Wisconsin Administrative Code (WAC) Natural Resources (NR) Chapter ###							
PAHs	polynuclear aromatic hydrocarbons							
PAL	Preventive Action Limits							
PCBs	polychlorinated biphenyls							
PCE	perchloroethylene/tetrachloroethylene							
PID	photoionization detector							
PVOCs	petroleum volatile organic compounds							
RCLs	Residual Contaminant Levels in NR 720							
RCRA	Resource Conservation and Recovery Act							
RCRIS	Resource Conservation and Recovery Information System							
R/W or ROW	right-of-way							
sf	square feet							
STH	State Trunk Highway							
TCE	trichloroethylene							
TRIS	Toxic Chemical Release Inventory System							
USGS	United States Geological Survey							
USH	United States Highway							
UST	underground storage tank							
VOCs	volatile organic compounds							
WDNR	Wisconsin Department of Natural Resources							
WisDOT	Wisconsin Department of Transportation							
WGNHS	Wisconsin Geological and Natural History Survey							
WIERP	Wisconsin Environmental Repair Program database							



## **Executive Summary**

The Wisconsin Department of Transportation (WisDOT) is planning highway improvements along USH 8 (Lake Ave. West) from West 8<sup>th</sup> Street North to River Avenue in Ladysmith, Wisconsin (WisDOT Project ID #1580-31-00). Maximum depth of excavations is estimated to be 4 feet below ground surface (bgs) for select storm sewer inlet replacements. Limited real estate acquisitions are planned for the project at Sites 2, 3, 4, and 6.

On June 18, 2020, TRC Environmental Corporation (TRC) and TRC's Geoprobe<sup>®</sup> subcontractor completed a Phase 2/2.5 Investigation to identify and evaluate the nature and extent of potential soil contamination within the limits of construction of the USH 8 corridor. The investigation was completed at four sites identified during a background review completed by the WisDOT. The results of the investigation conclude that potential contaminated soil of concern is present within the limits of construction:

 Site 6 (Former Fuel Station) – Station 343+10 to 343+70, from reference line to limits on LT

Based on observations during this investigation and water level measurement data from a nearby site investigation, groundwater is not likely to be encountered during the proposed USH 8 improvements.

TRC recommends that soil excavated at the above location be field screened by an environmental consultant during excavations for the reconstruction of USH 8 to determine if there is any evidence of soil contamination .

Special Provisions for the management of potentially contaminated soil have been included in this report and should be reviewed by the WDNR. TRC recommends the WisDOT complete no further investigation at these sites.



# 1.0 Background

#### 1.1 Proposed Roadway and Utility Construction

The Wisconsin Department of Transportation (WisDOT) is planning highway improvements along USH 8 between the intersection of West 8<sup>th</sup> Street North and River Avenue East in the City of Ladysmith, Rusk County, Wisconsin (WisDOT Project ID #1580-31-00). A site location map is presented on Figure 1. The plans, specifications, and estimate (PS&E) is November 2020 and construction on the project is anticipated to begin in 2021.

The preliminary construction drawings are included in Appendix A. The proposed improvements include replacement of roadway pavement, sidewalk, and curb ramp, as well as rail crossing upgrades, and relocating storm sewer inlets and piping. Maximum depth of excavations is estimated to be 4 feet bgs for select storm sewer inlet replacements. Groundwater is not anticipated to be encountered during construction.

The project will require minor temporary limited easement at some locations throughout the project and fee acquisition at a few locations. Acquisition areas at sites included in this investigation are summarized in Table 1 and are shown on the Project Plat Map included in Appendix A.

#### **1.2 Previous Site Investigations**

A background review for the project corridor was completed by the WisDOT in June 2019. The review identified nine sites for potential hazardous materials. Of the nine sites identified, four were recommended for additional subsurface investigation. All investigated sites are summarized in Table 1. Site-specific information from the WisDOT Factor Sheet is located in Appendix B.

## 2.0 Phase 2/2.5 Investigation

#### 2.1 Investigation

The WisDOT retained TRC to perform a Phase 2/2.5 Investigation of the USH 8 construction corridor to identify and determine the nature and extent of soil contamination within the construction limits. Representatives from TRC and TRC's Geoprobe® subcontractor, On-Site Environmental Services, Inc. (On-Site) were in Ladysmith, Wisconsin on June 18, 2020 to complete five soil borings, and collect soil samples for laboratory analysis. Photographs are included in Appendix C, and boring locations are shown in Figure 2.

Soil borings were drilled using a truck-mounted Geoprobe and advanced to depths of 5 feet bgs. Each boring was continuously logged by TRC staff according to the United Soil Classification System (USCS) and field-screened for staining, odors, and headspace using a PID. Native soil in the area of the investigation consists predominantly of sand and some silty sand and clay. Fill was observed from 4.5 to 5.0 feet bgs in boring GP-04; and a PID reading of 1.3ppm. PID readings collected at the remaining four borings were found to be <1 ppm. The PID readings for each soil sample interval are included in the boring logs in Appendix D and are summarized in Table 2.



One soil sample interval was selected from each boring, placed in laboratory-provided containers, and submitted to Pace Analytical (Pace)for laboratory analysis for a combination of VOCs, PVOCs/naphthalene, DRO, and GRO. In borings where field screening indicated potential impacts, the soil sample interval with the highest potential for impacts was collected for analysis. If no potential impacts were observed during field-screening, then a soil sample was collected from the depth interval most likely impacted based on historic information or from within the proposed depths of excavation. Analytical results are summarized in Table 2 and the complete laboratory report is included in Appendix E.

Each boring was abandoned immediately following sample collection using 3/8" bentonite chips and the surface was patched to match the surrounding concrete surface materials. Borehole abandonment forms are included in Appendix D.

Groundwater was not encountered during the investigation, and as such was not sampled. Evidence of soil impacts were observed during the field investigation at Site 6 where fee acquisition is planned. The measured depth to groundwater from another recent investigation located nearby was greater than 20 feet bgs, significantly deeper than planned construction activities along the corridor. Therefore, no dewatering is expected for this project.

#### 2.2 Soil Analytical Results

Soil samples were submitted to Pace for laboratory analysis for a combination of VOCs, PVOCs/naphthalene, lead, DRO, and GRO. The complete laboratory report is included in Appendix E, and the results are summarized and compared to the applicable WDNR NR 720 RCLs in Table 2.

The results from the soil sampling indicate that petroleum-related contamination is present at Site 6. Site 6, former fuel station had the highest concentrations of DRO and lead. Soil sample results from 0-2.5 ft bgs in soil boring GP-5 collected at this location indicate concentrations of lead and DRO. However, no WDNR NR 720 RCLs were exceeded in any of the soil samples. As such, no Notification of Hazardous Substances Discharge Form (WDNR Form 4400-225) will be completed for these sites.

#### 2.3 Investigation Derived Waste

All disposable investigative derived waste (IDW), including Geoprobe liners, tubing, gloves, bags, etc. was collected and disposed of as solid waste. Soil cuttings generated during this investigation were containerized and stored at the Ladysmith Municipal Garage located at 300 Minor Avenue West until results were received. Due to the presence of impacts to the soil, the containerized soil will be disposed of under the WisDOT's hazardous waste disposal contract with Veolia Environmental Services (Appendix F).



# 3.0 Conclusions and Recommendations

#### 3.1 Real Estate Acquisitions

Real estate acquisitions planned for the project include fee acquisition and PLE at all four sites investigated for potential contamination. Based on the concentrations of DRO reported in the soil sample collected at GP-5, there is evidence that petroleum-related contamination is present at Site 6. The acquisition requirements proposed for the four sites evaluated in the Phase 2/2.5 investigation are summarized in Table 1 and shown on the Project Plat Map included in Appendix A. Site 6 will require a small amount of fee acquisition within potentially contaminated parcels for curb ramp construction.

#### 3.2 Contaminated Soil Management

Potentially contaminated soil was encountered during the investigation in soil boring GP-5 at Site 6, (DRO of 1,310 mg). Soil borings had detections of lead, but all were less than the Background Threshold Value (BTV) and all WDNR NR 720 RCLs. The soil sample collected at GP-4 and GP-05 contained DRO, however no concentrations are above NR 720 Soil RCLs and no evidence of significant contamination. Special Provisions should be included in the construction documents advising the contractor of these findings, and the requirements to manage potentially impacted soil at the following locations:

- Site 6 (Former Gas Pumps) Station 343+10 to 343+70, from reference line to 70 feet right of the reference line, from 0 to 5 feet bgs. TRC recommends that soil excavated at the locations listed above be field-screened by an environmental consultant during excavations during the reconstruction of USH 8 and managed as follows:
  - Soil with significant petroleum contamination will be hauled a WDNR-licensed landfill for bioremediation treatment and disposal. Soil will be considered to have significant contamination if it exhibits significant odor, staining, and/or elevated PID readings (for example, PID readings greater than 10 ppm), or identified with laboratory analytical results.
  - Soil exhibiting low-level contamination based on field-screening (for example, PID readings less than 10 ppm for petroleum contamination) will be considered suitable for reuse as backfill on the project.
- TRC estimates approximately 20 tons of petroleum-contaminated soil will require off-site treatment and disposal at a WDNR-licensed landfill.

Draft Special Provisions for the management of contaminated soil are included in Appendix G.

The caps over residual soil contamination at the current Holiday Station Store (605 Lake Avenue West, BRRTS# 03-55-000446), historic Goffin Oil (03-55-150407), and historic Ladysmith Standard (03-55-000232) sites will be disturbed for the planned curb ramp construction and roadway paving. The caps will be replaced in kind where it is disturbed for the planned construction activities. A post-closure modification request will be prepared and submitted to the WDNR for the cap replacement for these sites.



Based on the historic use along the corridor, the potential exists that currently unknown contamination may be encountered during construction. If currently unknown contamination is encountered, the engineer should be notified so that appropriate actions can be taken to identify and manage contaminated materials.

#### 3.3 Conclusions

No further investigation is recommended for any of the investigated sites. Special Provisions for management of contaminated soil are included in Appendix G. TRC estimates approximately 20 tons of soil will require off-site bioremediation treatment and disposal at a WDNR-licensed landfill. Special Provisions for the management of contaminated groundwater are not required, as groundwater is deeper than the planned excavations.

#### 3.4 Request for WDNR Reviews

TRC has prepared draft Special Provisions for the management of contaminated soil during construction (Appendix G). TRC recommends that the WDNR review this report and the attached Special Provisions as the Excavation Management Plan (EMP) for the project. If acceptable, the WDNR should respond with a concurrence letter for the EMP.

#### Table 1: Investigation Summary USH 8 Ladysmith - Phase 2/2.5 Investigation WisDOT Project ID #1580-31-00

	SITE INFORMATION										
WisDOT SITE #	SITE ADDRESS	SITE NAME	BRRTS No.	REASON	COCS IDENTIFIED IN HAZMAT FACTOR SHEET	ACQUISITION	PLANNED CONSTRUCTION IN VICINITY OF SITE	DEPTH OF PLANNED CONSTRUCTION	SOIL BORINGS COMPLETED	) LAB ANALYSIS	SOIL RESULTS ABOVE GROUNDWATER PATHWAY RCLS
2	605 Lake Avenue West, Ladysmith, WI	Holiday Station Store	03-55-000446 (closed LUST)	This site is the location of a former gas station. It is currently used as a Holiday gas station. It is a closed LUST site. Potential contamination sources of petroleum.	Petroleum	Fee, PLE	Curb ramps	-	1 boring to 5 ft bgs (GP-01)	PVOCs/naphthalene, lead, DRO, GRO	NA
3	518 Lake Avenue West, Ladysmith, WI	EZ stop	03-55-202055 (closed LUST)	This site is the location of a former fuel station. It is a closed LUST site with soil and groundwater contamination present within USH 8 right-of-way. The site currently has an adult services building and a parking lot. Potential contamination source of petroleum.	Petroleum	Fee, PLE	Curb ramps	-	1 boring to 5 ft bgs (GP-02)	PVOCs/naphthalene, lead, DRO, GRO	NA
4	West 5th Street North crossing at Lake Avenue West	Current Railroad, Former fuel station	02-55-282571 (open site)	This site is the location of a current rail road crossing and former fuel station. Two monitoring wells exist within USH 8 right-of-way. Potential contamination source of petroleum and TCE.	Petroleum and TCE	Fee, PLE, HE	Curb ramps, Storm Sewer inlet and piping relocation		2 borings to 5 ft bgs (GP-03,GP-04)	VOCs, lead, DRO, GRO	NA
6	300 Lake Avenue West, Ladysmith, WI	Former fuel station	03-55-000190 (closed LUST)	This site is a closed LUST site with soil and groundwater contamination present within USH 8 right-of-way. The site is currently an automotive sales and services building. Potential contamination source of petroleum.	Petroleum	Fee	Curb ramps	-	1 boring to 5 ft bgs (GP-05)	PVOCs/naphthalene, lead, DRO, GRO	NA

Created by: L. Hoerning, 6/30/2020 Checked by: L. Auner, 7/17/2020

#### **Table 2: Soil Sampling Results Summary** USH 8 Ladysmith - Phase 2/2.5 Investigation WisDOT Project ID #1580-31-00

		NR 720 SOIL RCLs <sup>(3)</sup>			SOIL BORING ID, SAMPLE DEPTH (feet bgs), DATE				
	SOIL TO	DIRECT CONT	DIRECT CONTACT PATHWAY B		GP-01	GP-02	GP-03	GP-04	GP-05
	GROUNDWATER	NON-	(2)	SURFICIAL	2.5-5	2.5-5	0-2.5	2.5-5	0-2.5
ANALYTES	PATHWAY <sup>(1)</sup>	INDUSTRIAL <sup>(2)</sup>	INDUSTRIAL <sup>(2)</sup>	BTV <sup>(4)</sup>			6/18/20		•
PID (ppm)	-	-	-	-	<1	<1	<1	1.3	<1
DRO (mg/kg)	-	-	-	-	<1.5	<1.5		12.6	1310 DC
GRO (mg/kg)	-	-	-	-	<2.9	<2.8		<3.0	<2.7
VOCs (ug/kg)									
Benzene	5.12	1,600	7,070	-	<25	<25	<25	<25	<25
Ethylbenzene	1,570	8,020	35,400	-	<25	<25	<25	<25	<25
Methyl-tert-butyl-ether	27.021	63,800	282,000	-	<25	<25	<25	<25	<25
Napthalene	658.182	5,520	24,100	-	<25	<25	<27.3	<27.3	<25
Toluene	1,107	818,000	818,000	-	<25	<25	<25	<25	<25
1,2,4-Trimethylbenzene	1378.7 <sup>(5)</sup>	219,000	219,000	-	<25	<25	<25	<25	<25
1,3,5-Trimethylbenzene	1378.7 (7	182,000	182,000	-	<25	<25	<25	<25	<25
m&p-Xylene		778000 <sup>(7)</sup>	778000 <sup>(7)</sup>	-	<50	<50	<50	<50	<50
o-Xylene	3960 <sup>(6)</sup>	434,000	434,000	-	<25	<25	<25	<25	<25
Xylene (Total)		260,000	260,000	-	<75	<75	<75	<75	<75
Metals (mg/kg)									
Lead	27	400	800	52	2.7	4.2		7.9	19.9
lotes: Prepared by: L. Hoerning, 7/5/2020									

Notes:

Samples were analyzed for PVOCs, naphthalene, VOCs, lead, DRO, and/or GRO. 1.

2. Samples were collected by TRC and analyzed by Pace Analytical (WDNR Cert. #405132750)

PID = photoionization detector 3.

DRO = diesel range organics 4.

VOCs = volatile organic compounds analyzed using EPA Method 8260B 5.

6. mg/kg = milligrams per kilogram (ppm)

7. - = Standard not established

8. -- = Not analyzed

9. RCLs = Residual Contaminant Levels.

10. DC = chromatographic pattern inconsistent with typical Diesel Fuel

#### Footnotes:

<sup>(1)</sup> Value is the generic RCL for the groundwater pathway.

<sup>(2)</sup> Value is the generic RCL for exposure by direct contact.

<sup>(3)</sup> RCLs from the Wisconsin DNR's NR 720 RCL Spreadsheet (December 2018 update) found here: https://dnr.wi.gov/topic/Brownfields/soil.html.

<sup>(4)</sup> Background threshold value (BTV) was taken from the Wisconsin DNR's NR 720 RCL spreadsheet.

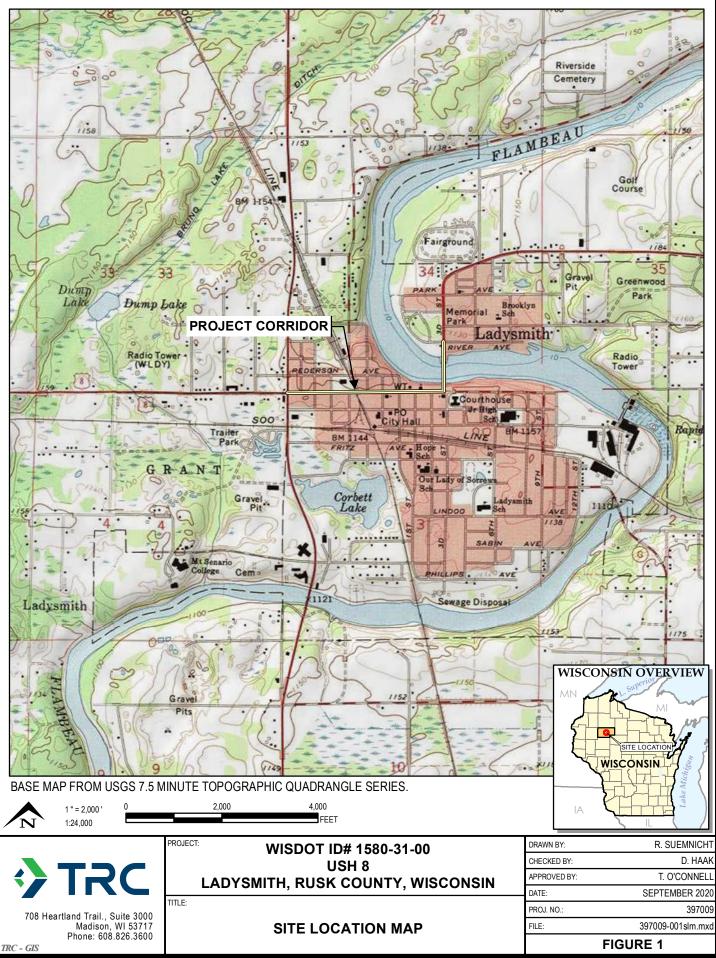
<sup>(5)</sup> Value is the standard for 1,2,4- and 1,3,5-trimethylbenzene combined.

<sup>(6)</sup> Value is the standard for total xylenes.

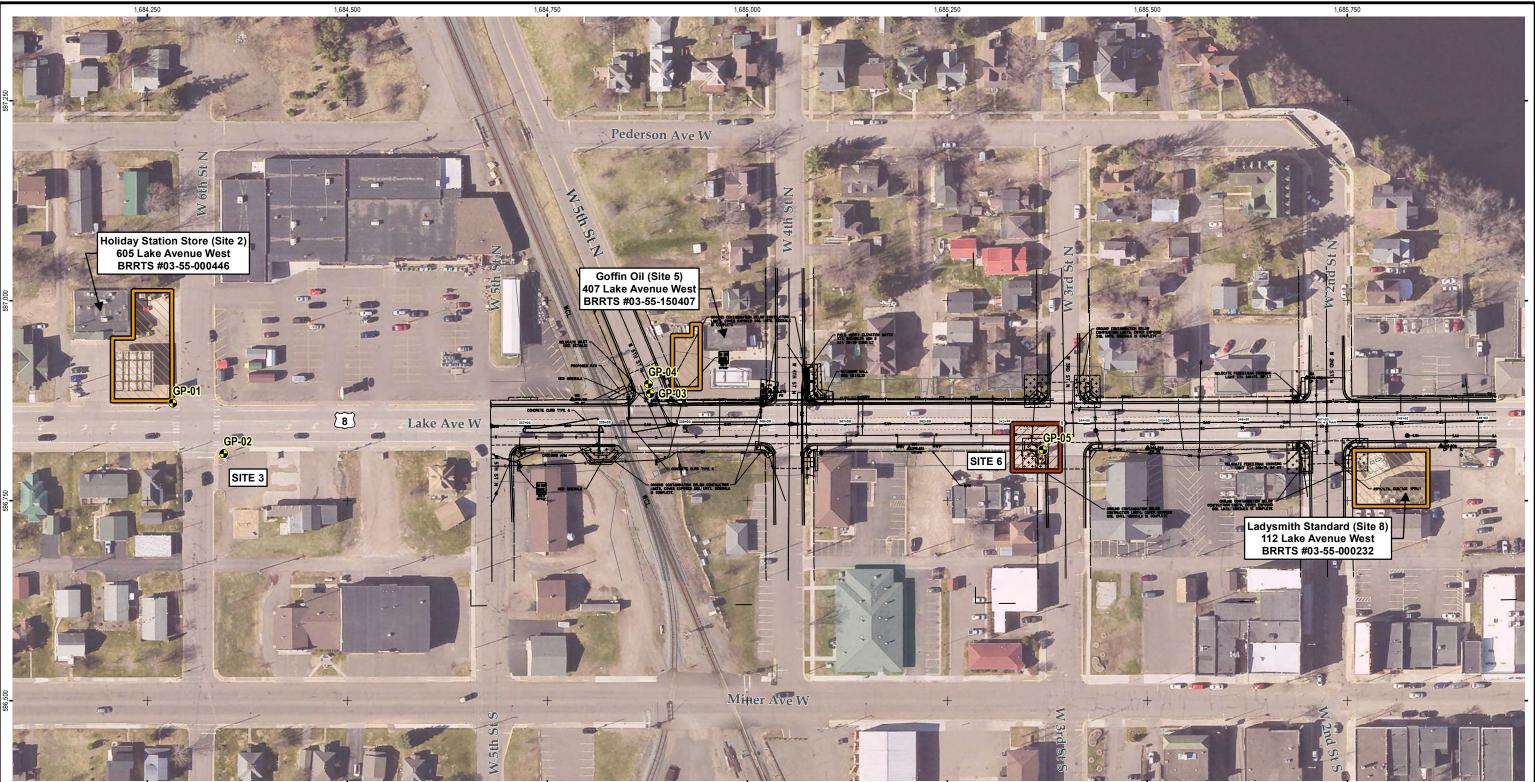
<sup>(7)</sup> Value is the sum of standards for m- and p-xylene.

Prepared by: L. Hoerning, 7/5/2020

Checked by: L. Auner, 7/7/2020



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US)

SOIL BORING LOCATION

POTENTIAL SOIL CONTAMINATION

CAP EXTENT

#### <u>NOTES</u>

- 1. BASE MAP IMAGERY FROM WISCONSIN REGIONAL ORTHOIMAGERY CONSORTIUM (WROC), 2015.
- 2. MAP PROJECTION AND GRID COORDINATES ARE NAD 83 STATE PLANE WISCONSIN CENTRAL (US SURVEY FEET).
- 3. CONSTRUCTION PLANS PROVIDED BY WisDOT. LOCATIONS ARE APPROXIMATE.

WISDOT ID# 1580-31-00 USH 8 LADYSMITH, RUSK COUNTY, WISCONSIN SOIL BORING LOCATIONS R. SUEMNICHT PROJ NO .: RAWN BY: 397009 D. HAAK HECKED BY: PROVED BY: T. O'CONNELL FIGURE 2 SEPTEMBER 2020 240 708 Heartland Trail, Suite 3000 Madison, WI 53717 Phone: 608.826.3600 Feet TRC 1 " = 120 1:1,440 www.trccompanies.com

120

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Appendix A: Construction Plans

#### ORDER OF SHEETS

**PROJECT ID:** WITH: 1580-31-20

580-31-

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COUNTY:

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Section	No.	1	Title
Section	No.	2	Typical Sections and Details
Section	No.	3	Estimate of Quantities
Section	No.	3	Miscellaneous Quantities
Section	No.	4	Right of Way Plat
Section	No.	5	Plan and Profile
Section	No.	6	Standard Detail Drawings
Section	No.	7	Sign Plates
Section	No.	8	Structure Plans
Section	No.	9	Computer Earthwork Data
Section	No.	9	Cross Sections

TOTAL SHEETS =

# STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

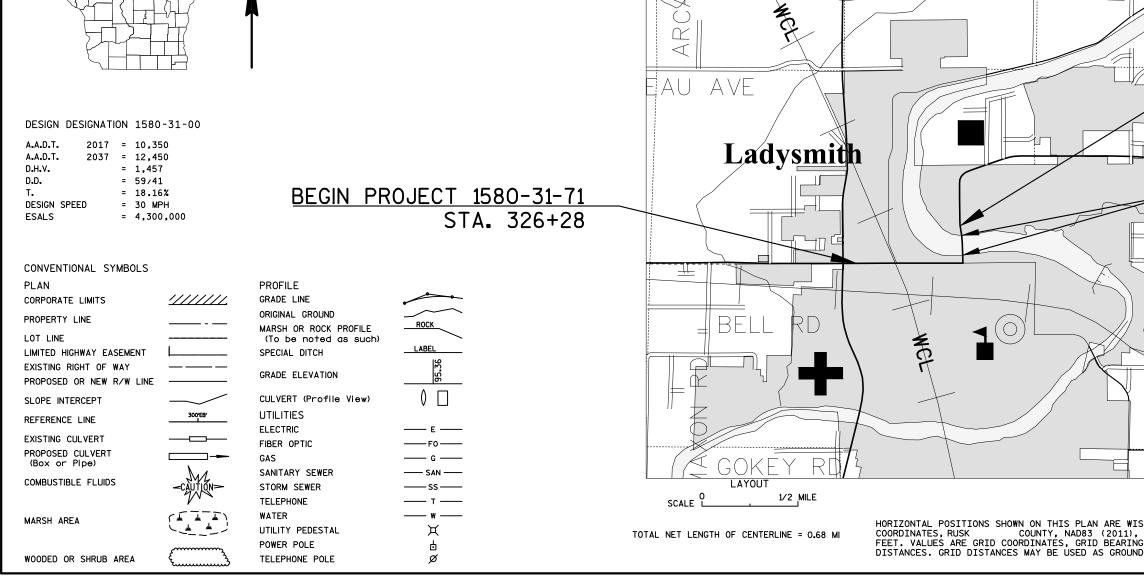
# C LADYSMITH, LAKE AVENUE & E 3RD ST

STH 27 TO RIVER AVE

USH 8

RUSK

state project number 1580-31-71



FILE NAME : N:\PDS\C3D\15803100\SHEETSPLAN\TITLE\1580-TIT.DWG LAYOUT NAME - \*\*\*\*

PLOT DATE : 5/12/2017 7:27 AM

	FEDE	FEDERAL PROJECT			
STATE PROJEC	PROJ		CONTRACT		
1580-31-71					
1580-31-20					
7					
3					
END F	PROJECT 1	<u>580-31-</u>	- <u>71</u>		
STA.	<u>PROJECT 1</u> 367+86 <b>.</b> 50				
_					
EXCEPTION	<u>  TO NET CENT</u> -99 <b>.</b> 35 - 362+0	ERLINE LE	<u>NGTH</u>		
B 54-65	-99.35 - 362+0	4.96			
-					
<del>7</del>	STATE	OF WISCONSI	N		
	DEPARTMENT				
	PREPARED BY				
	Surveyor	TOM ARMSTR MICHAEL PEA			
	Designer Project Manager	PHILIP KEPP			
	Regional Examiner _	REGIONAL EXA			
	Regional Supervisor_	DAVID OSTRO	DWSKI		
	APPROVED FOR THE D	EPARTMENT			
NSIN COUNTY	DATE:				
DNSIN COUNTY N U.S. SURVEY , AND GRID DISTANCES.	DATE:	(Signature	, E		

WISDOT/CADDS SHEET 10

#### LIST OF STANDARD ABBREVIATIONS

	AND ADDICE VIA HONS
4 DU T	ABUTMENT
ABUT. AGG.	AGGREGATE
AH.	AHEAD
APPROX.	APPROXIMATE
A.E.W.	APRON ENDWALL
ASPH.	ASPHALTIC AVERAGE DAILY TRAFFIC
A.D.T. AZ.	AZIMUTH
BK.	BACK
BEG.	BEGIN
B.M.	BENCH MARK CENTER LINE
C/L CONC.	CONCRETE
CONST.	CONSTRUCTION
CO.	COUNTY
C.T.H.	COUNTY TRUNK HIGHWAY CROSS SECTION
X-SEC. CR.	CRUSHED
CFS	CUBIC FEET/SECOND CUBIC YARD
C.Y., CU. YD.	CUBIC YARD
CULV. C.P.	
D.O.T.	CULVERT PIPE DEPARTMENT OF TRANSPORTATION
D.H.V.	DESIGN HOUR VOLUME
DIA.	DIAMETER
	DIRECTIONAL DISTRIBUTION
DISCH. OR DIS. EA.	DISCHARGE EACH
ELECT.	ELECTRIC
EL. OR ELEV.	ELEVATION
EMB.	
E.B.S. EXIST.	EXCAVATION BELOW SUBGRADE EXISTING
FERT.	FERTILIZE
F.E.	FIELD ENTRANCE
FIN.	FINISHED
FT.	
F.L. GA.	FLOW LINE GAUGE
HORIZ.	HORIZONTAL
CWT.	HUNDREDWEIGHT
INL.	INLET
LT. L.H.F.	LEFT LEFT-HAND FORWARD
LIN.	LINEAR
LIN. FT.	LINEAR FOOT
L.S.	
MAX. MI.	MAXIMUM MILE
MISC.	MISCELLANEOUS
N.E.	NORTH EAST
N.W	NORTH WEST
PAV'T P.C.	
P.I.	POINT OF CURVATURE POINT OF INTERSECTION POINT OF TANGENCY
P.T.	POINT OF TANGENCY
P.O.T.	POINT ON TANGENT
LB.	POUND
P.E. PROJ.	PRIVATE ENTRANCE PROJECT
R.	RANGE
REO'D	REQUIRED
RT.	RIGHT
R.H.F. R∕W	RIGHT-HAND FORWARD
RD.	RIGHT OF WAY ROAD
SHR.	SHRINKAGE
SL.	SLOPE
STD. S.D.D.	STANDARD
S.T.H.	STANDARD DETAIL DRAWINGS STATE TRUNK HIGHWAY
STA.	STATION
S.P.P.A.	STRUCTURAL PLATE PIPE ARCH
STRUCT. SURF.	STRUCTURE
TEL.	SURFACE TELEPHONE
TN.	TOWN
т.	TRUCKS (PERCENT OF)
UNCL.	UNCLASSIFIED
U.G. V.	UNDERGROUND VELOCITY OR DESIGN SPEED
v. v.c.	VELOCITY OR DESIGN SPEED
	0 71 71

# **GENERAL NOTES**

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY FACILITIES AS SHOWN ON THE PLAN ARE APPROXIMATE. THERE MAY BE OTHER UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN.

SOME UTILITY LOCATIONS HAVE CHANGED. THE CONTRACTOR SHALL LOCATE UTILITIES PRIOR TO ANY EXCAVATION.

WHEN THE QUANTITY OF BASE AGG. DENSE AND ASPHALTIC PAVEMENT ARE MEASURED FOR PAYMENT BY THE TON, THE DEPTH OR THICKNESS AS SHOWN ON THE PLAN IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND UPON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER IN THE FIELD.

CURVE DATA SHOWN ON THE PLAN IS "ARC DEFINITION".

SURVEY IS REFRENCED TO THE RUSK COUNTY COORDINATE SYSTEM, WISCONSIN; NAD83 (2011); NAVD88 (GEOID 12A)

ALL DISTURBED AREAS WITHIN THE RIGHT-OF-WAY. SHALL BE SEEDED. MULCHED AND STABILIZED WITHIN 7 WORKING DAYS.

CROSS SLOPES AS SHOWN ON THE TYPICAL SECTION WILL VARY AT THE INTERSECTIONS.

NO TREE SHALL BE REMOVED WITHOUT THE APPROVAL OF THE ENGINEER.

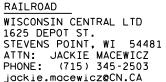
EXPANSION JOINTS TO BE CONSTRUCTED AT ALL RADIUS POINTS IN CURB AND GUTTER OR AT LOCATIONS SHOWN ON THE PLAN.

ALL RADII ARE MEASURED TO EDGE OF PAVEMENT UNLESS OTHERWISE SHOWN OR NOTED ON THE PLAN.

INLET GRATE ELEVATIONS REFERRED TO ON THE PLAN ARE GUTTER FLOW LINE ELEVATIONS. REFER TO CONSTRUCTION DETAILS FOR INSTALLATION.

CROSS SECTION ELEVATIONS ARE BASED ON THE AVAILABLE T.I.N. MODEL AND MAY NEED VERIFICATION IN THE FIELD. INLET AND INVERT ELEVATIONS ARE BASED ON FIELD SURVEY DATA.

FIELD VERIFY ALL RAMP SLOPES AND GRADES PRIOR TO CONSTRUCTION



LADYSMITH MUNICIPLE WATER 120 MINER AVE. P.O. BOX 431 LADYSMITH, WI 54848-0431 ATTN: KURTIS GORSEGNER PHONE: (715) 532-2603

DESIGN CONTACT MICHAEL PEARSON WISDOT NORTHWEST REGION 1701 N. 4TH STREET SUPERIOR WI, 54880 PHONE: (715) 395-3024

RUSK COUNTY HIGHWAY <u>COMMISSIONER</u> SCOTT EMCH N4711 HWY 27 LADYSMITH, WI 54848

CITY OF LADYSMITH 120 MINER AVE. LADYSMITH, WI 54848 PHONE: (715) 532-2600



	F	PROJECT NO:1580-31-71	HWY:USH 8	COUNTY:RUSK	GENERAL NOTES
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PLOT DATE : 12/16/2019 10:05 AM PLOT BY : PEARSON, MICHAEL R PLOT NAME :

2

## UTILITIES

CENTURYLINK 20 S. WILSON AVE. RICE LAKE. WI 54868 ATTN: MONTY PARKER PHONE: (715)234-5528 monty.parker@centurylink.com

CHARTER COMMUNICATIONS 2304 MAIN ST. RICE LAKE, WI 54868 ATTN: TOM HAASE PHONE: (715) 719-0564 tom.haase@charter.com

XCEL ENERGY 1414 W. HAMILTON AVE. EAU CLAIRE, WI 54702-0008 ATTN: DAWN SCHULTZ PHONE: (715) 737-2482 dawn.schultz@xcelenergy.com

WE ENERGIES (GAS/PETROLEUM) 333 WEST EVERETT ST., ROOM A299 MILWAUKEE, WI 53203 ATTN: LATROY BRUMFIELD PHONE: (414) 221-5617 LaTroy.Brumfield@we-energies.com

DNR CONTACT ANDREW BARTA WDNR - NORTHWEST DISTRICT HEADQUARTERS 810 WEST MAPLE STREET SPOONER, WI 54801 PHONE: (715) 635-4071

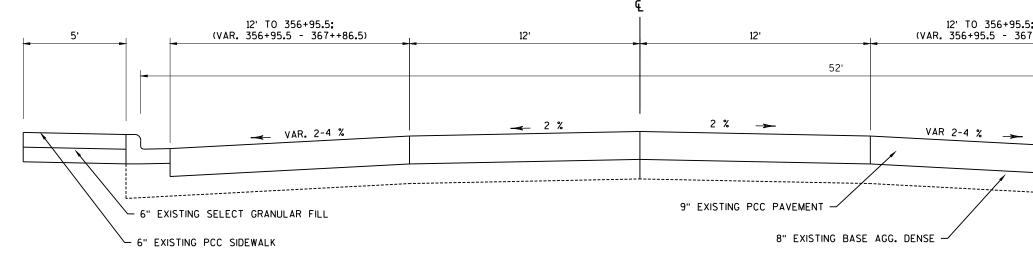
PHONE: (715) 532-2633

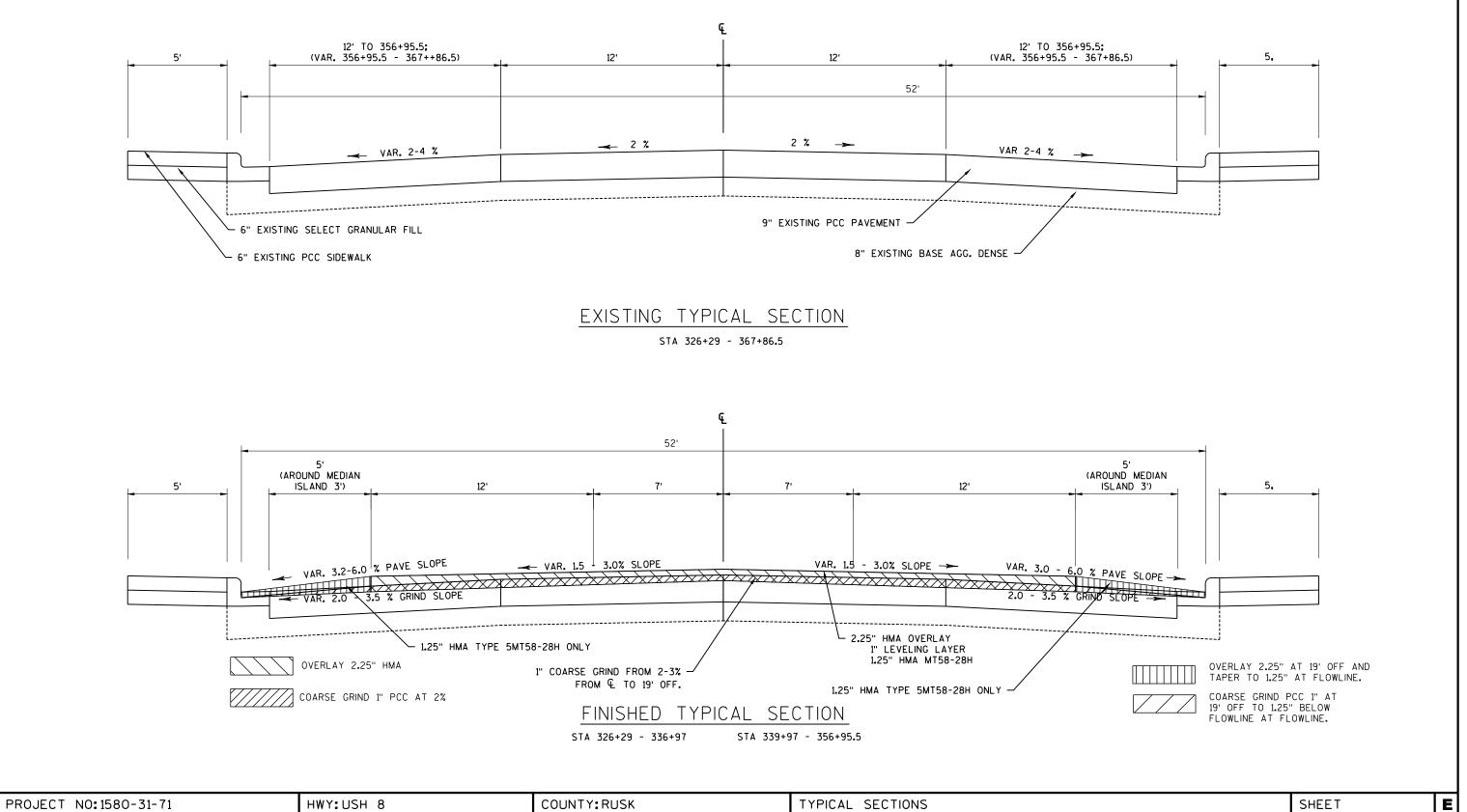
SHEET

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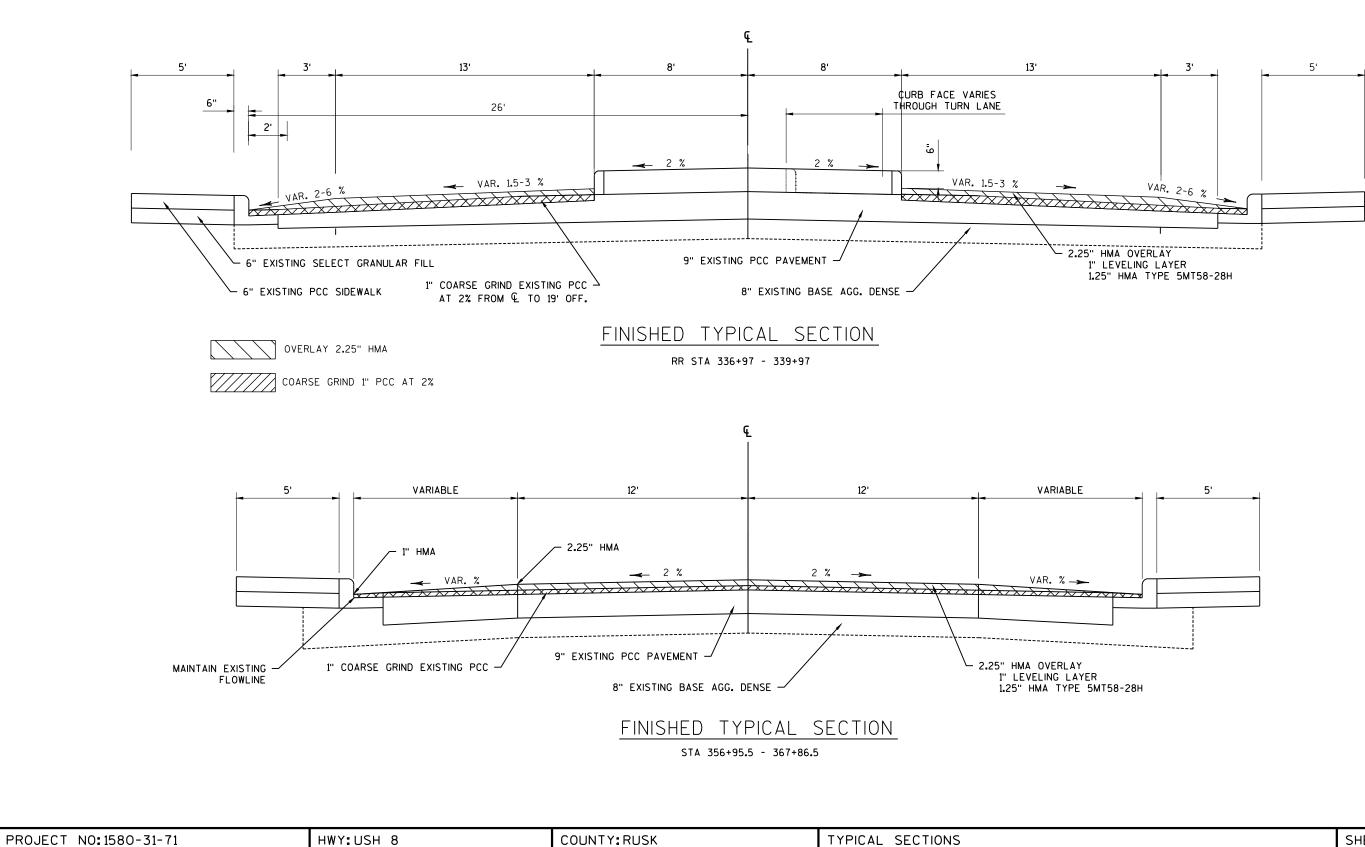




PLOT SCALE : 1 IN:5 FT

WISDOT/CADDS SHEET 42

2



FILE NAME :C:\CIVIL 3D PROJECTS\15803100\SHEETSPLAN\TS\1580-TYP.DWG LAYOUT NAME - \*\*\*\*

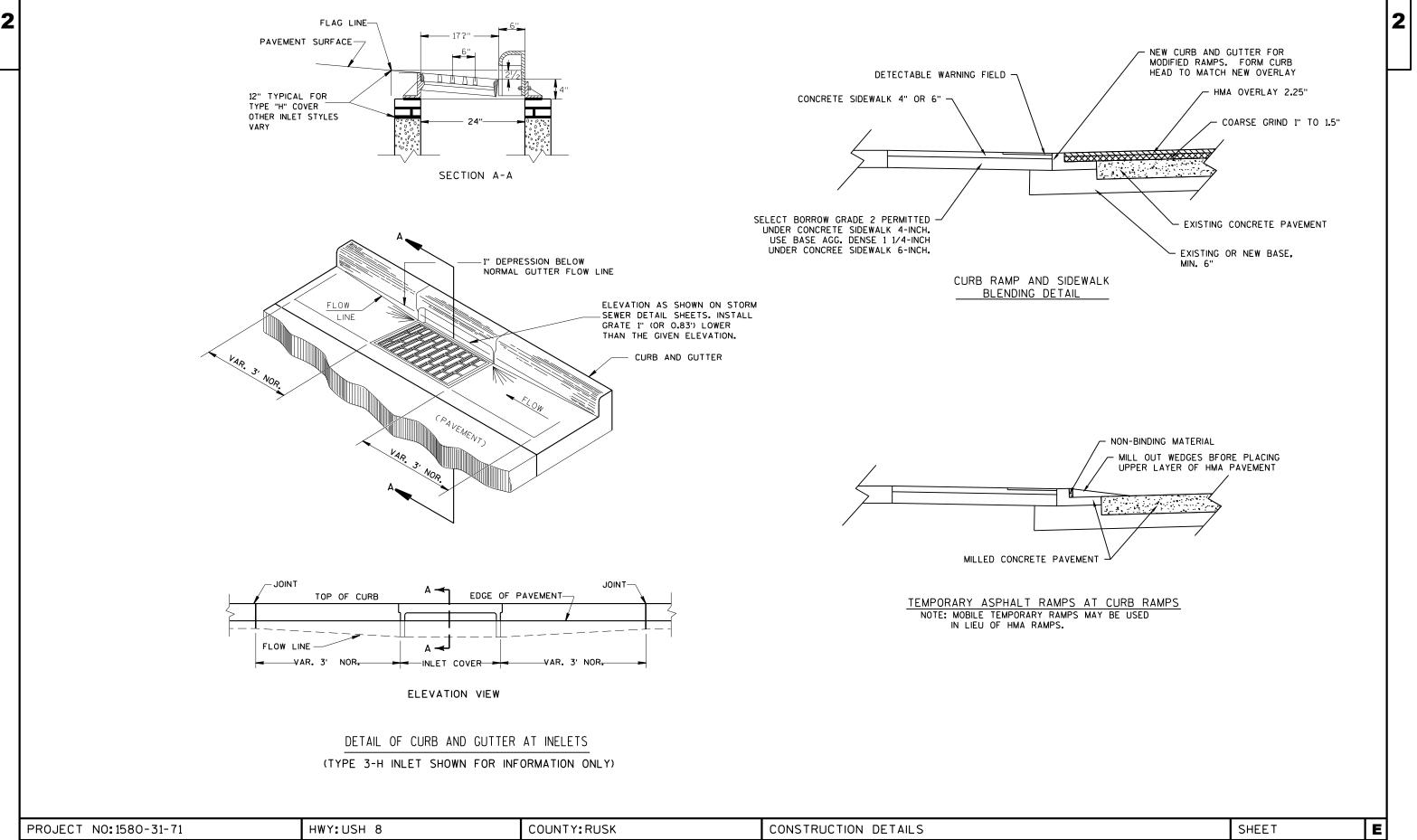
PLOT DATE : 5/26/2020 7:32 AM PLOT BY : PEARSON, MICHAEL R PLOT NAME :

2

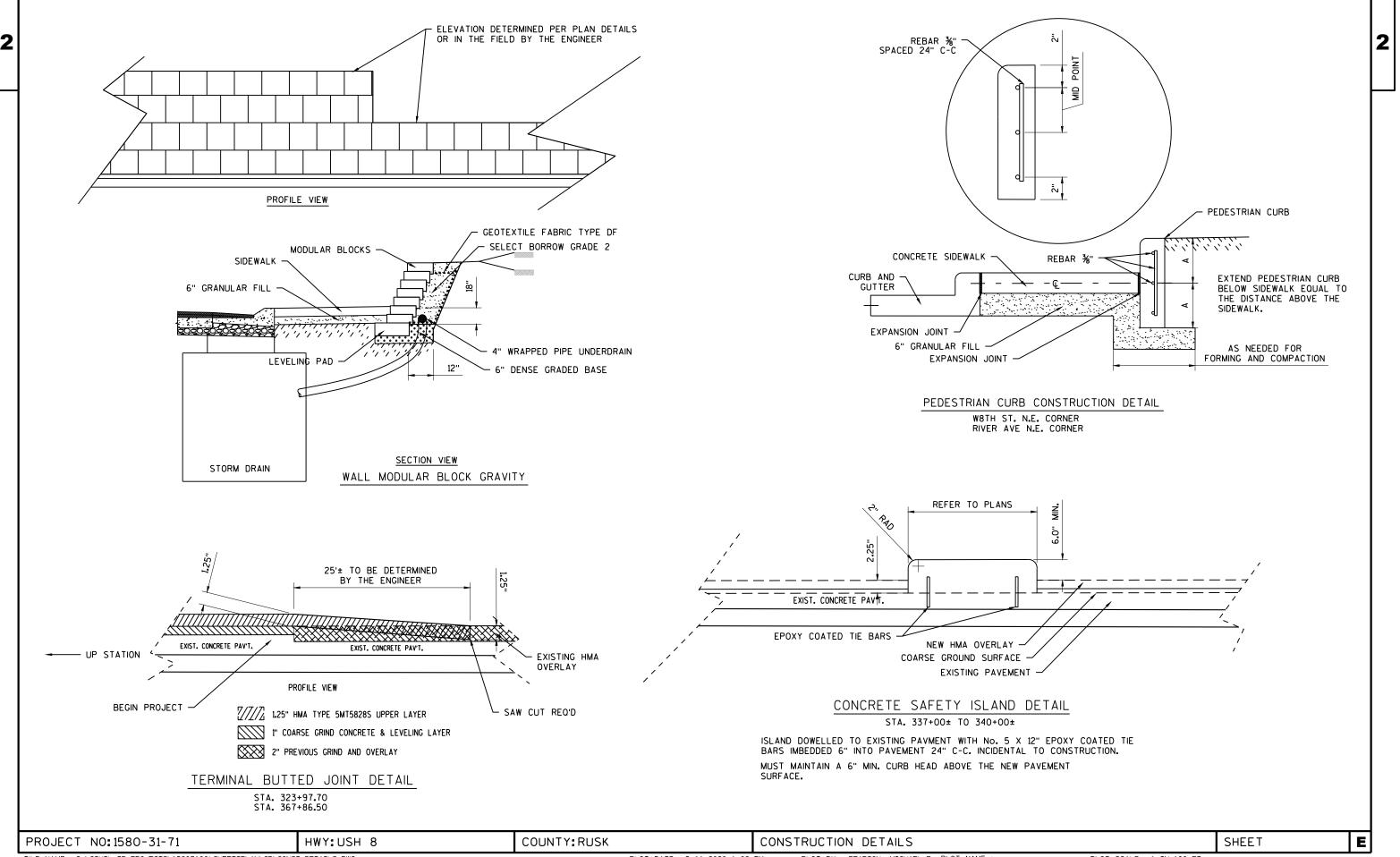


SHEE	ΞT
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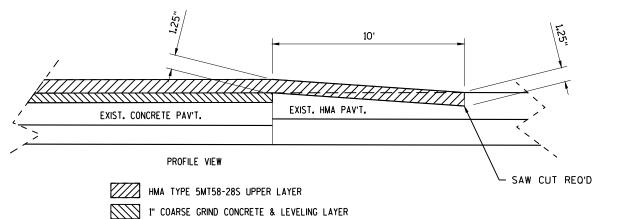


PLOT DATE : 5/11/2020 1:02 PM PLOT BY : PEARSON, MICHAEL R PLOT NAME :



PLOT DATE : 5/11/2020 1:02 PM PLOT BY : PEA

PLOT BY : PEARSON, MICHAEL R PLOT NAME :



SIDE STREET BUTT JOINT DETAIL

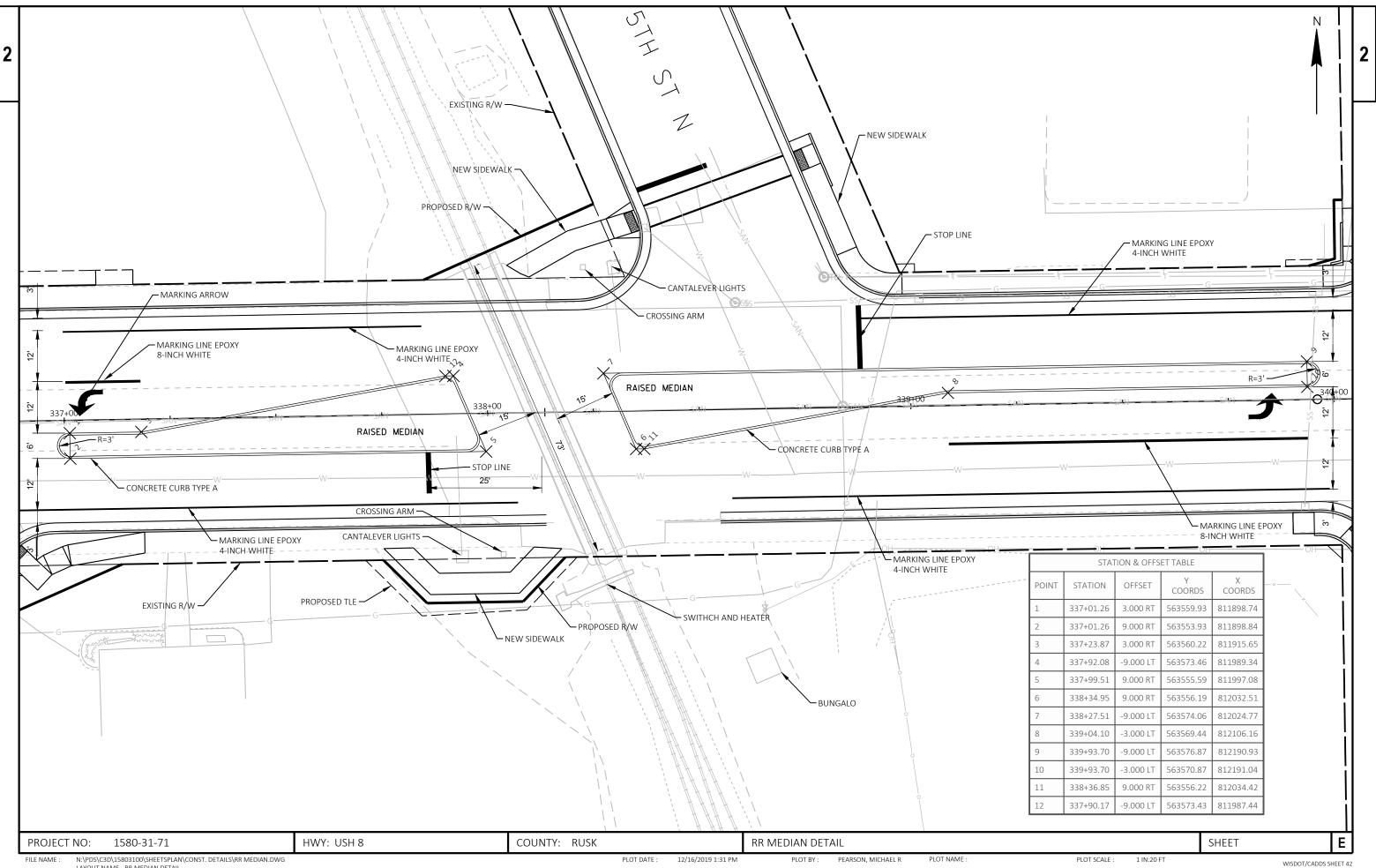
PROJECT NO:1580-31-71	HWY:USH 8	COUNTY: RUSK	CONSTRUCTION DETAILS

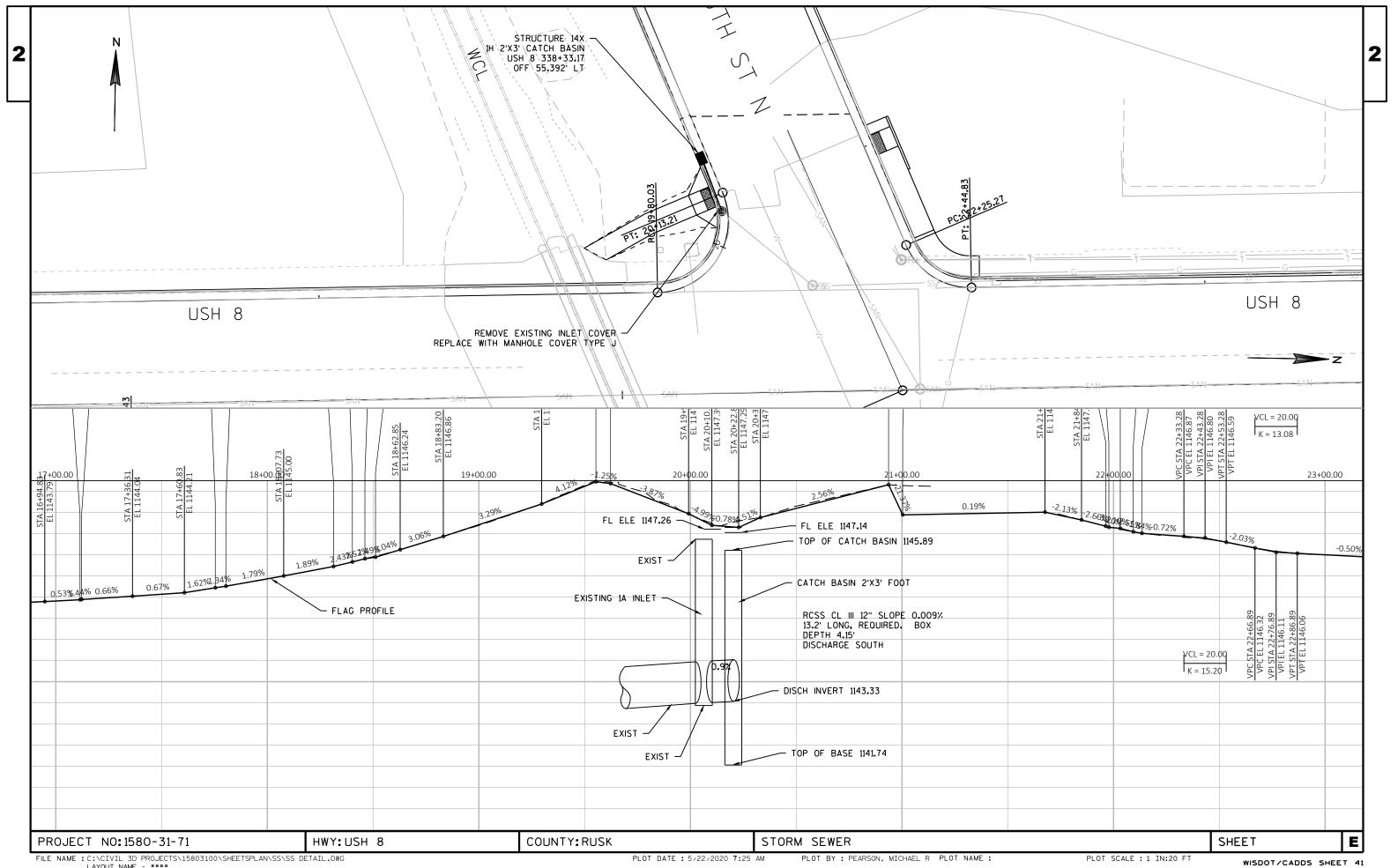
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SHEET

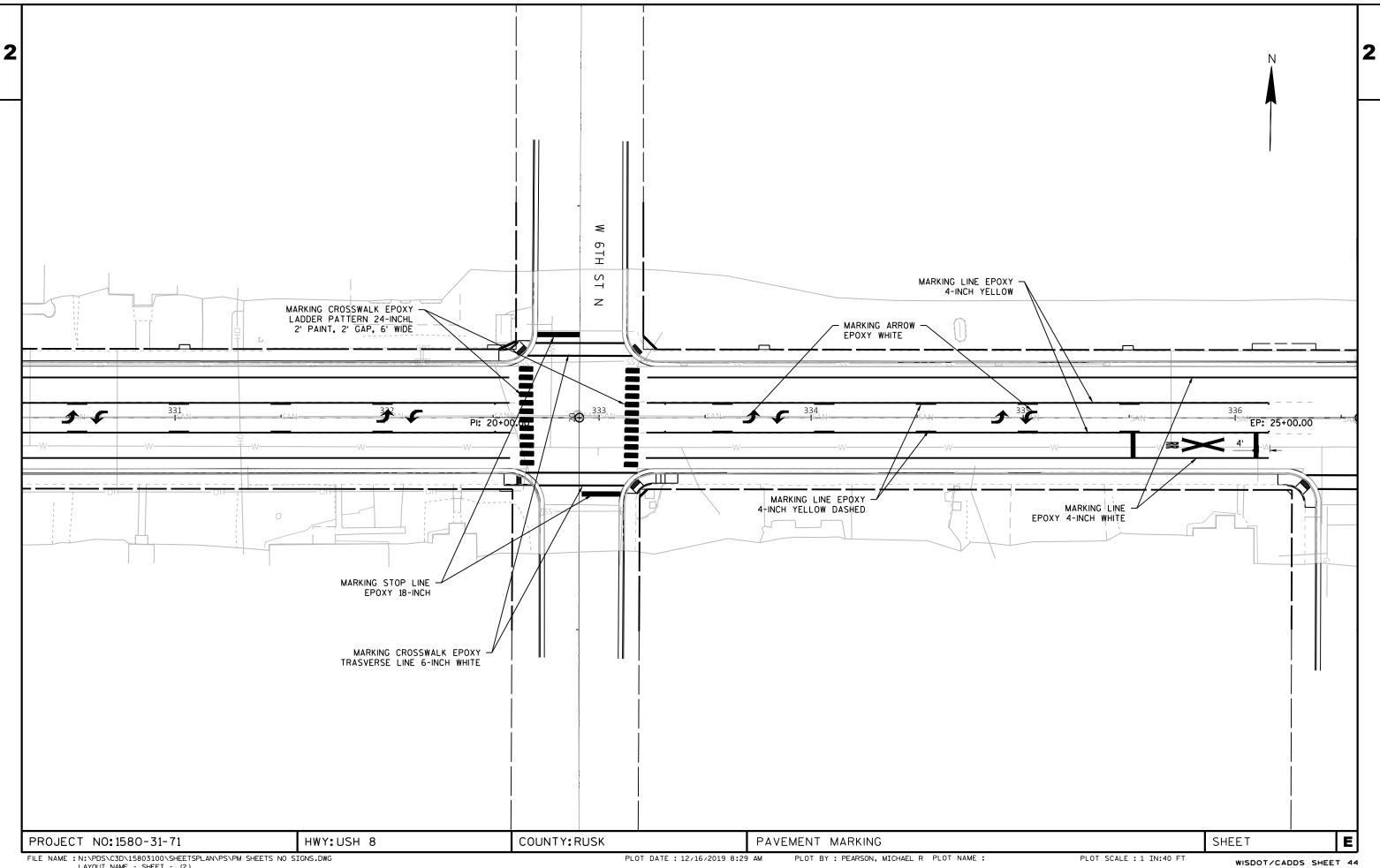
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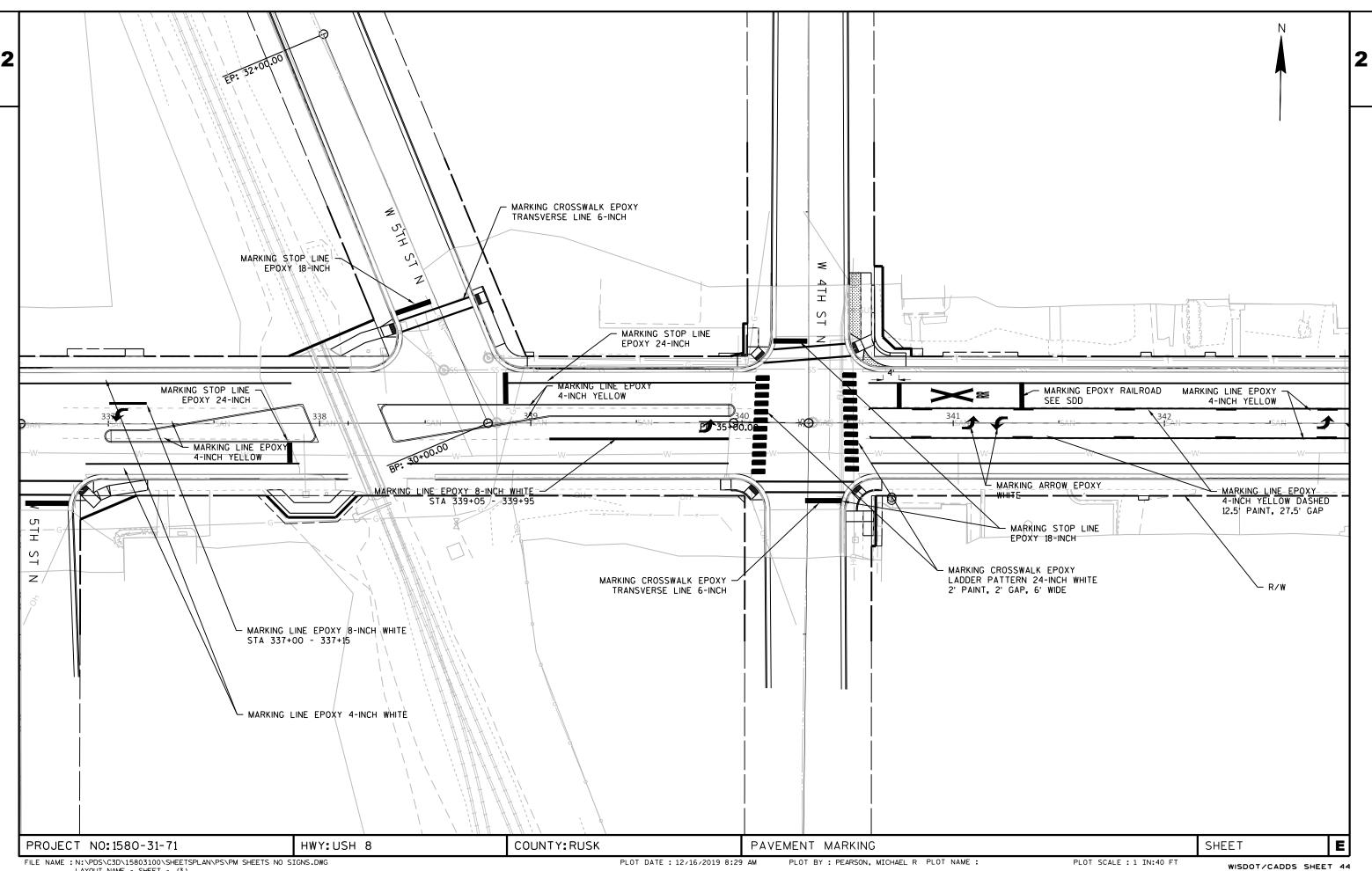




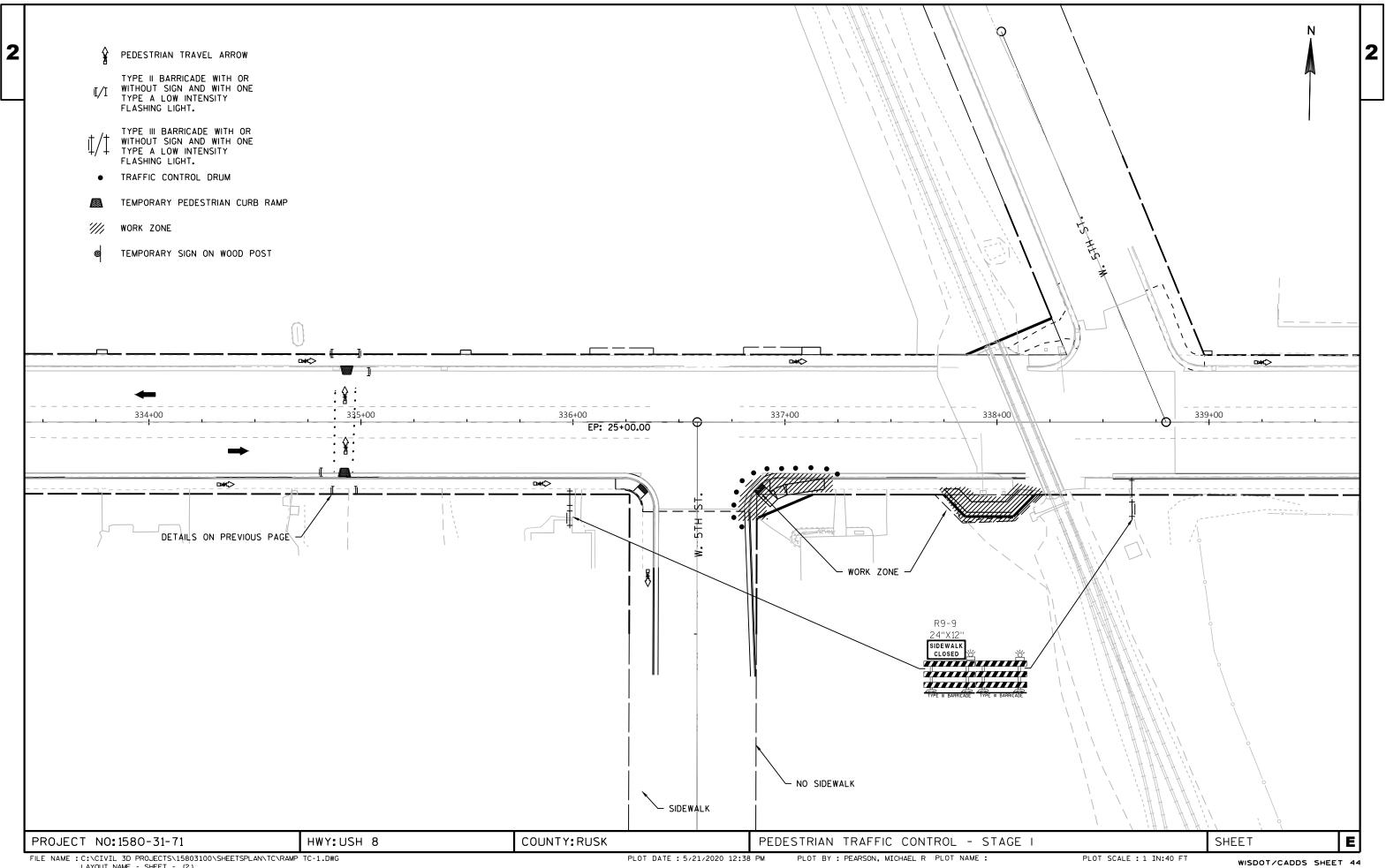
FILE NAME :C:\CIVIL 3D PROJECTS\15803100\SHEETSPLAN\SS\SS DETAIL.DWG LAYOUT NAME - \*\*\*\*

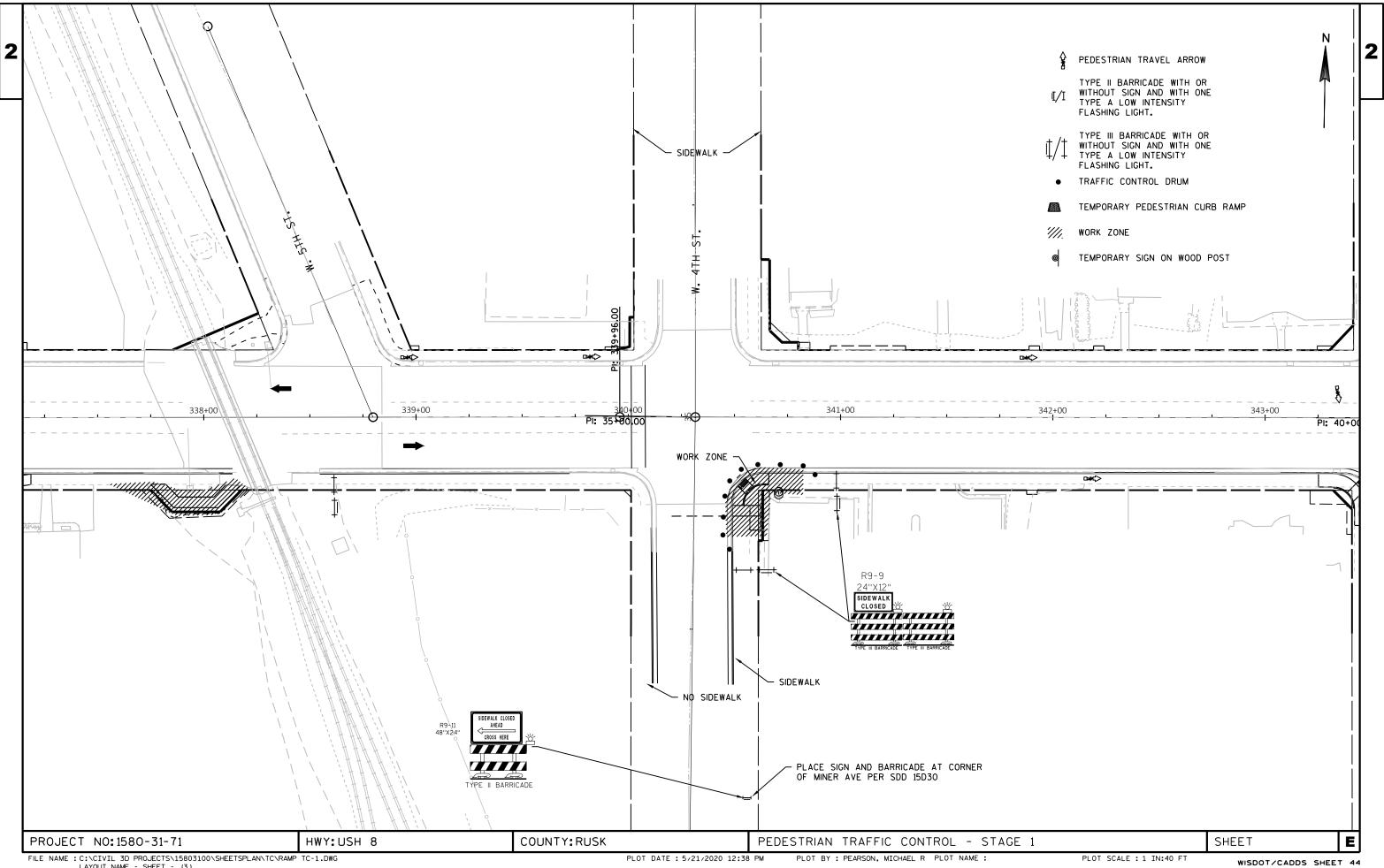


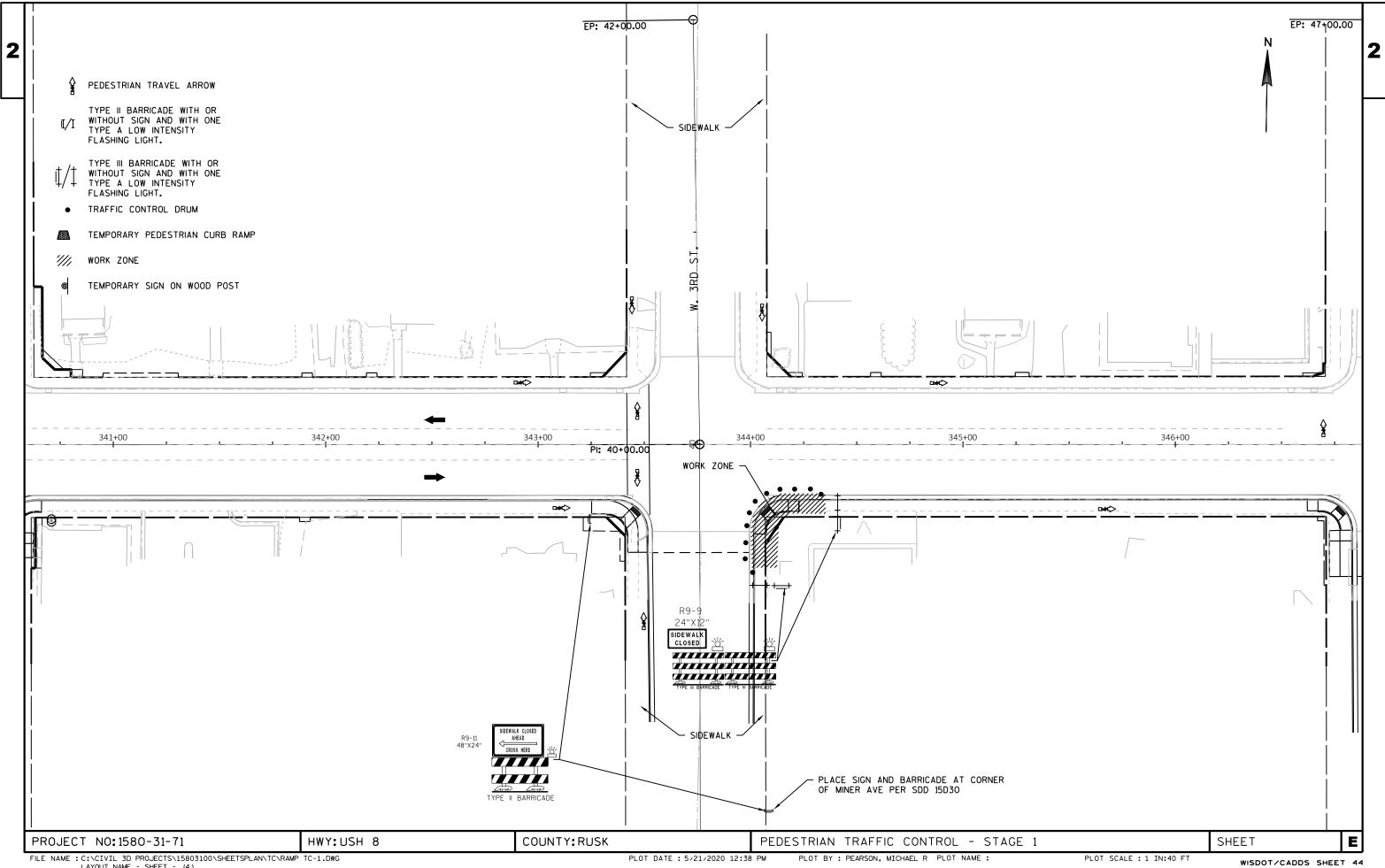
PLOT DATE : 12/16/2019 8:29 AM PLOT BY : PEARSON, MICHAEL R PLOT NAME :

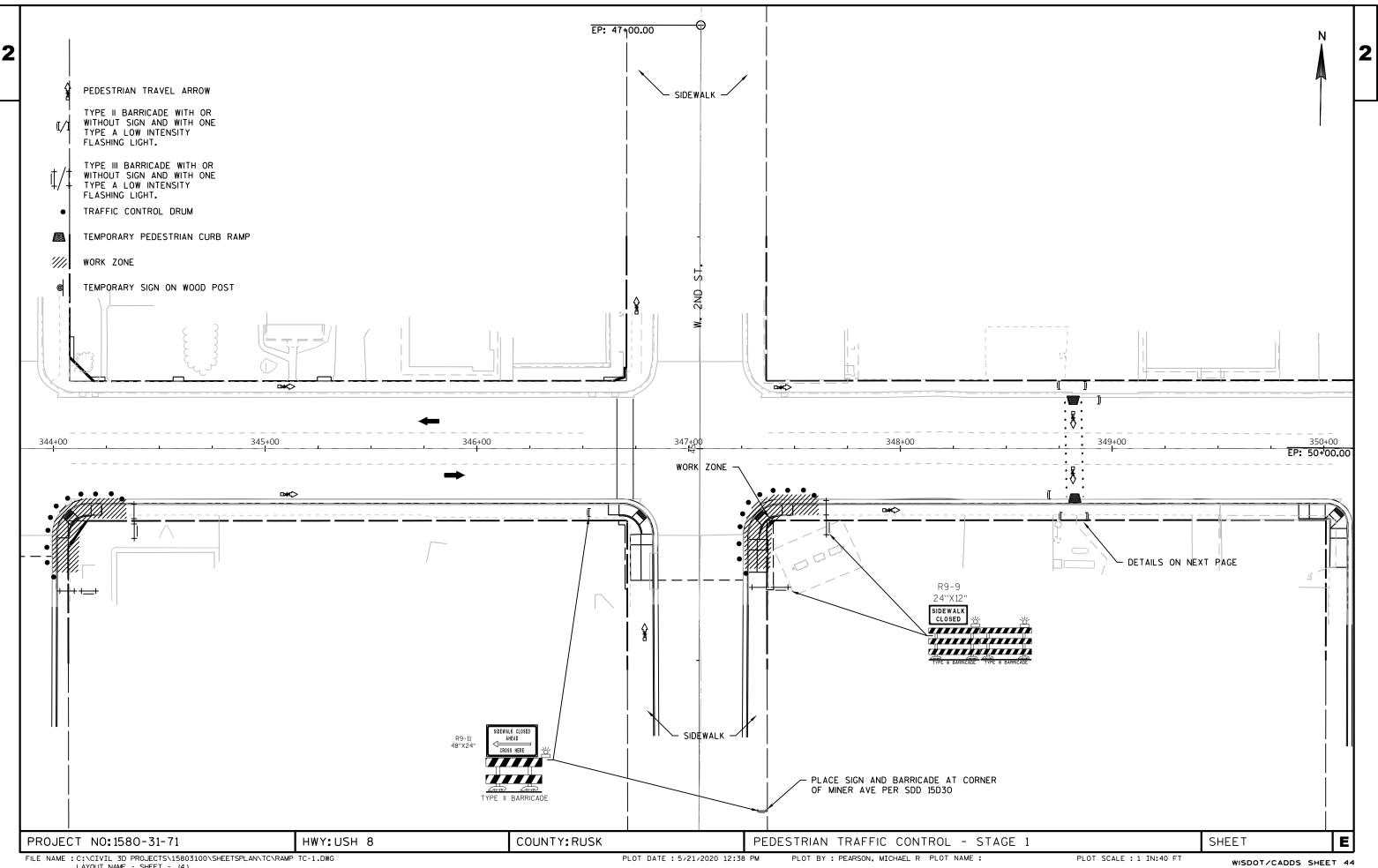


LAYOUT NAME - SHEET - (3)

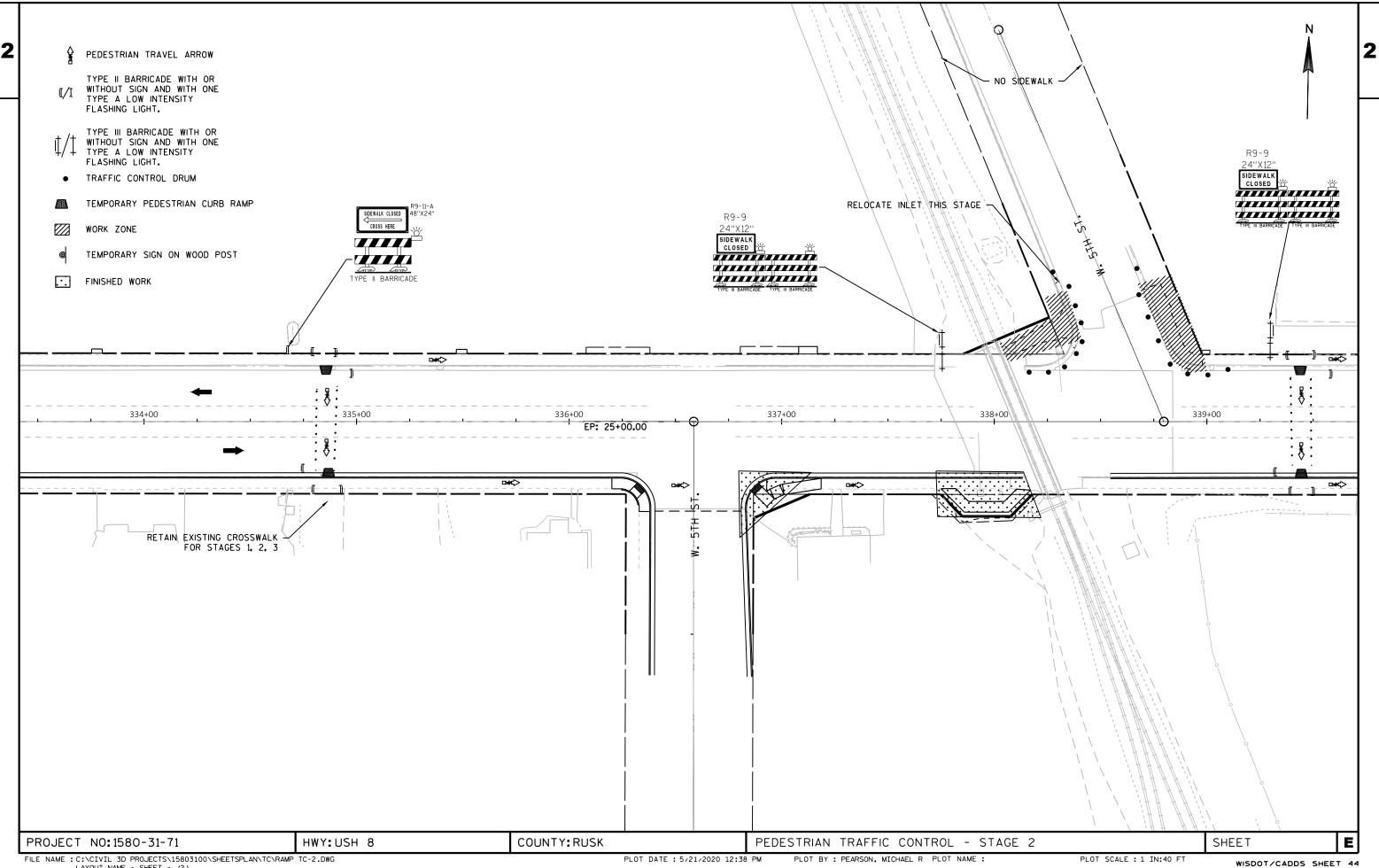


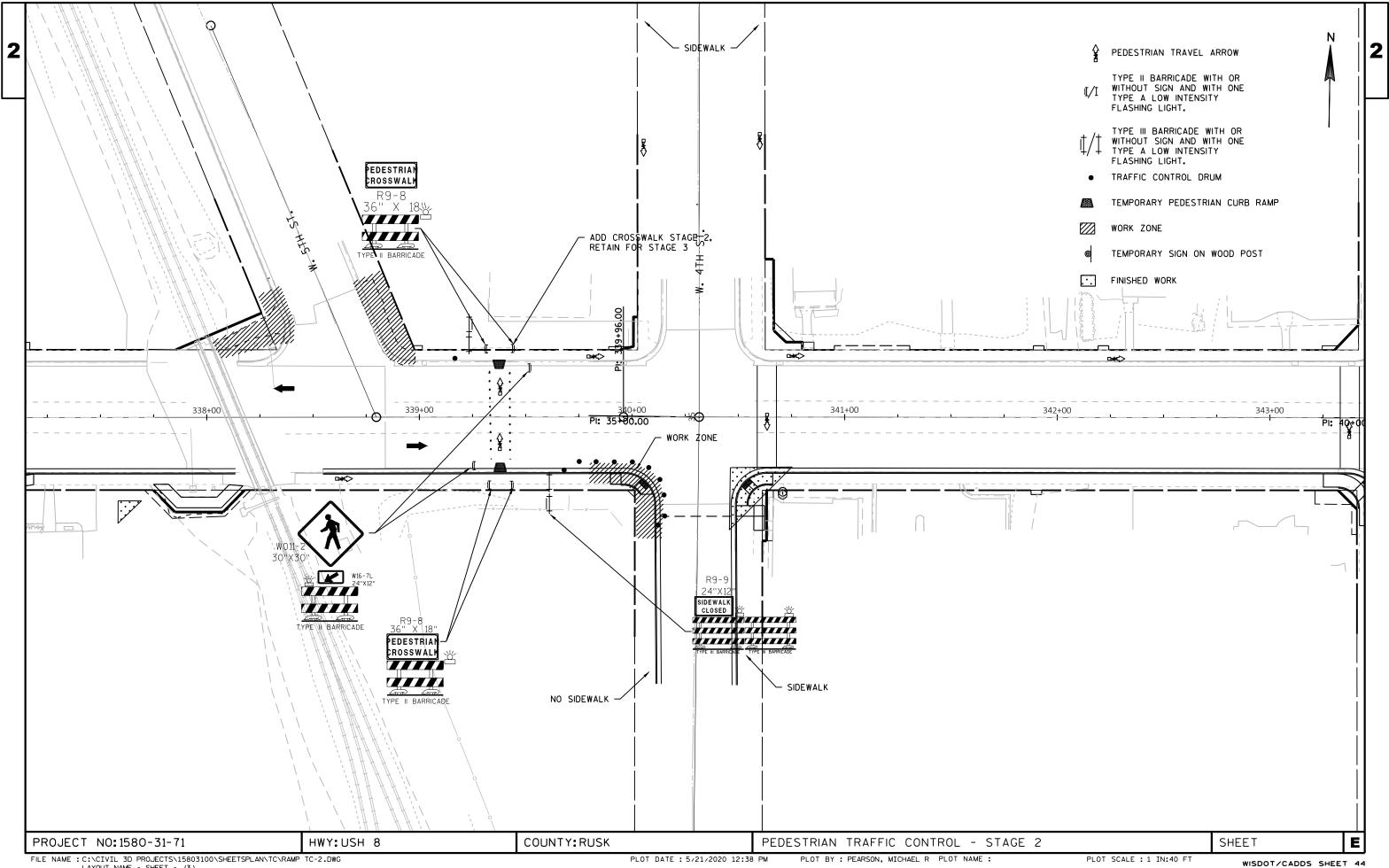




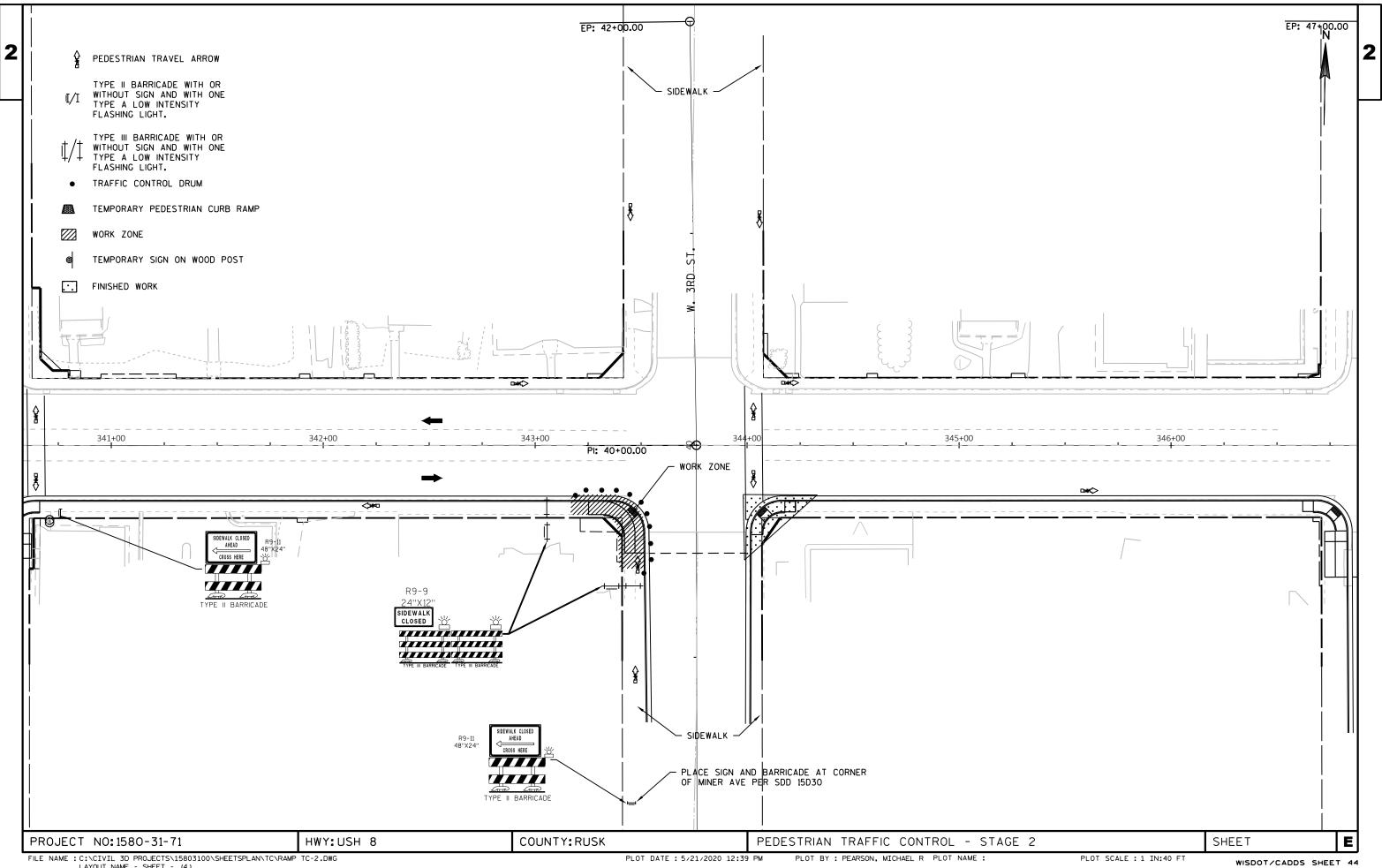


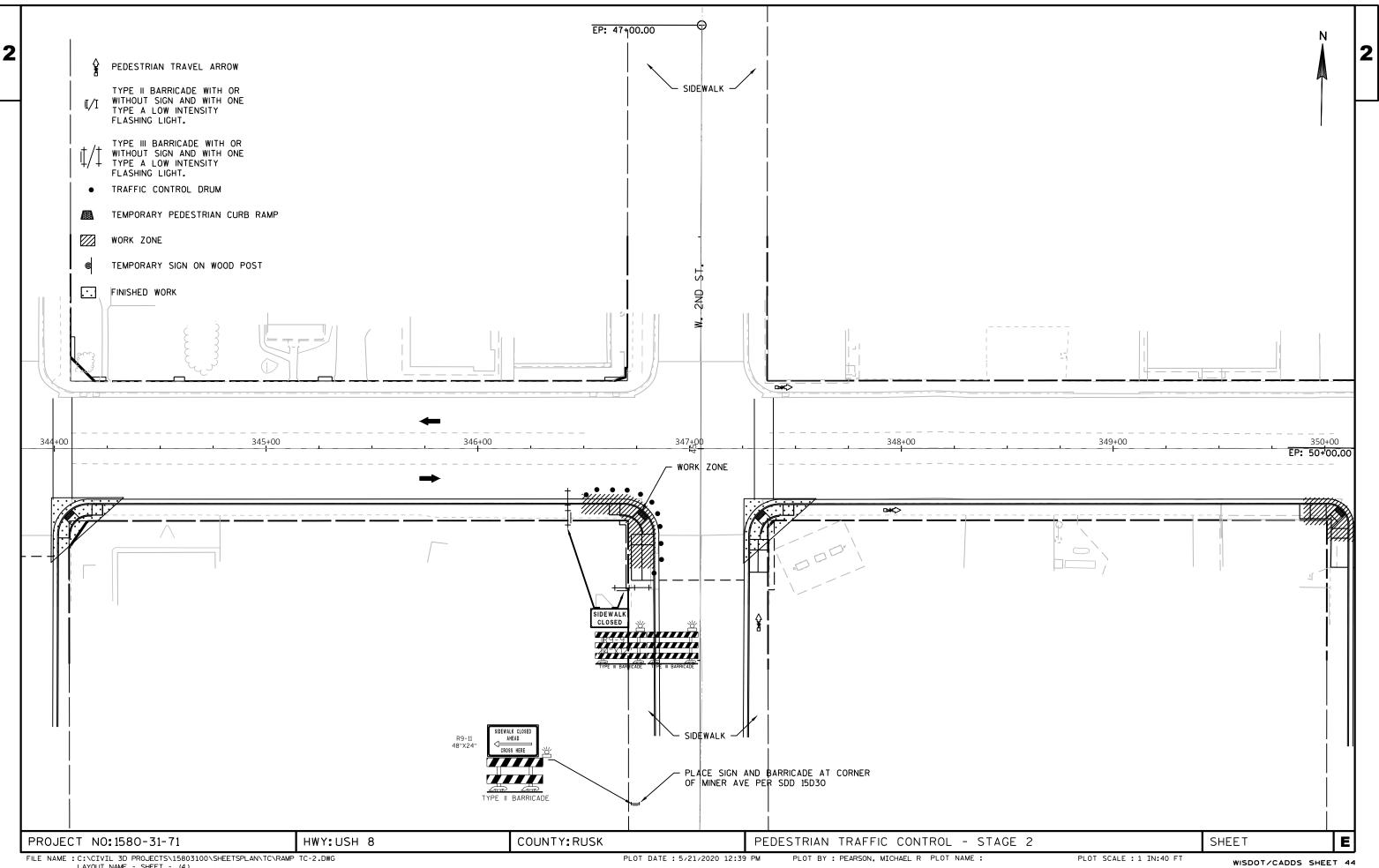
PLOT DATE : 5/21/2020 12:38 PM

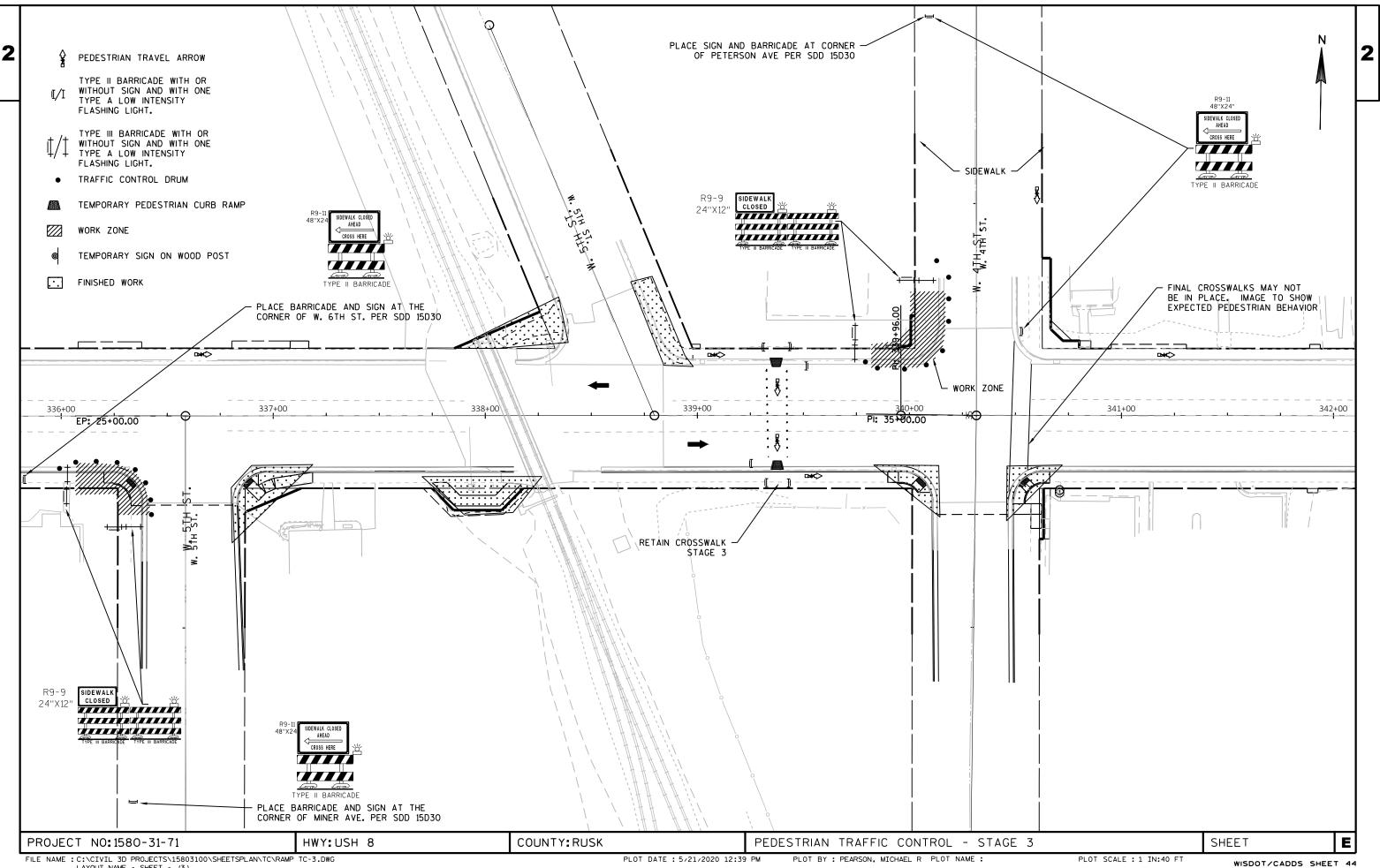


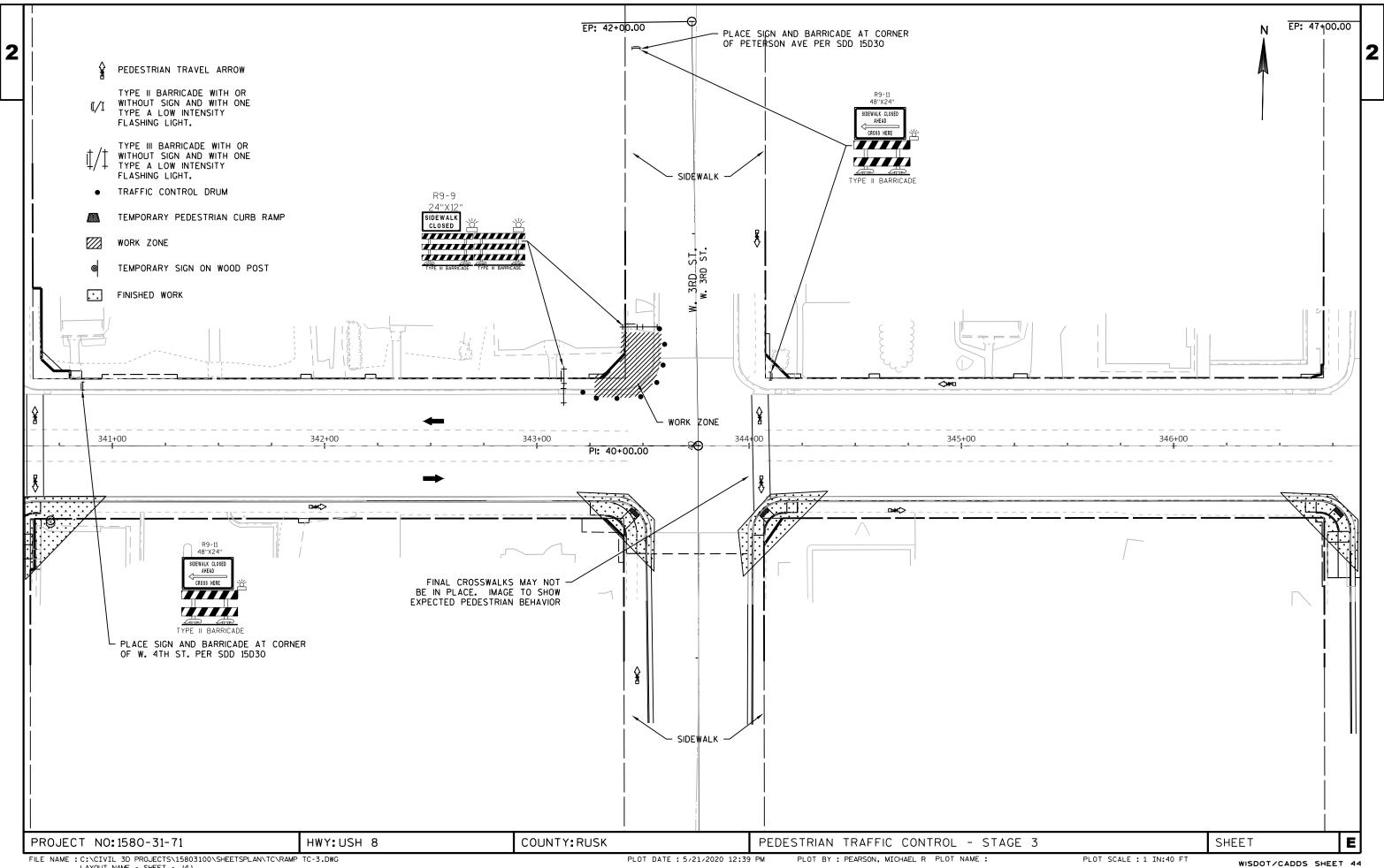


PLOT DATE : 5/21/2020 12:38 PM

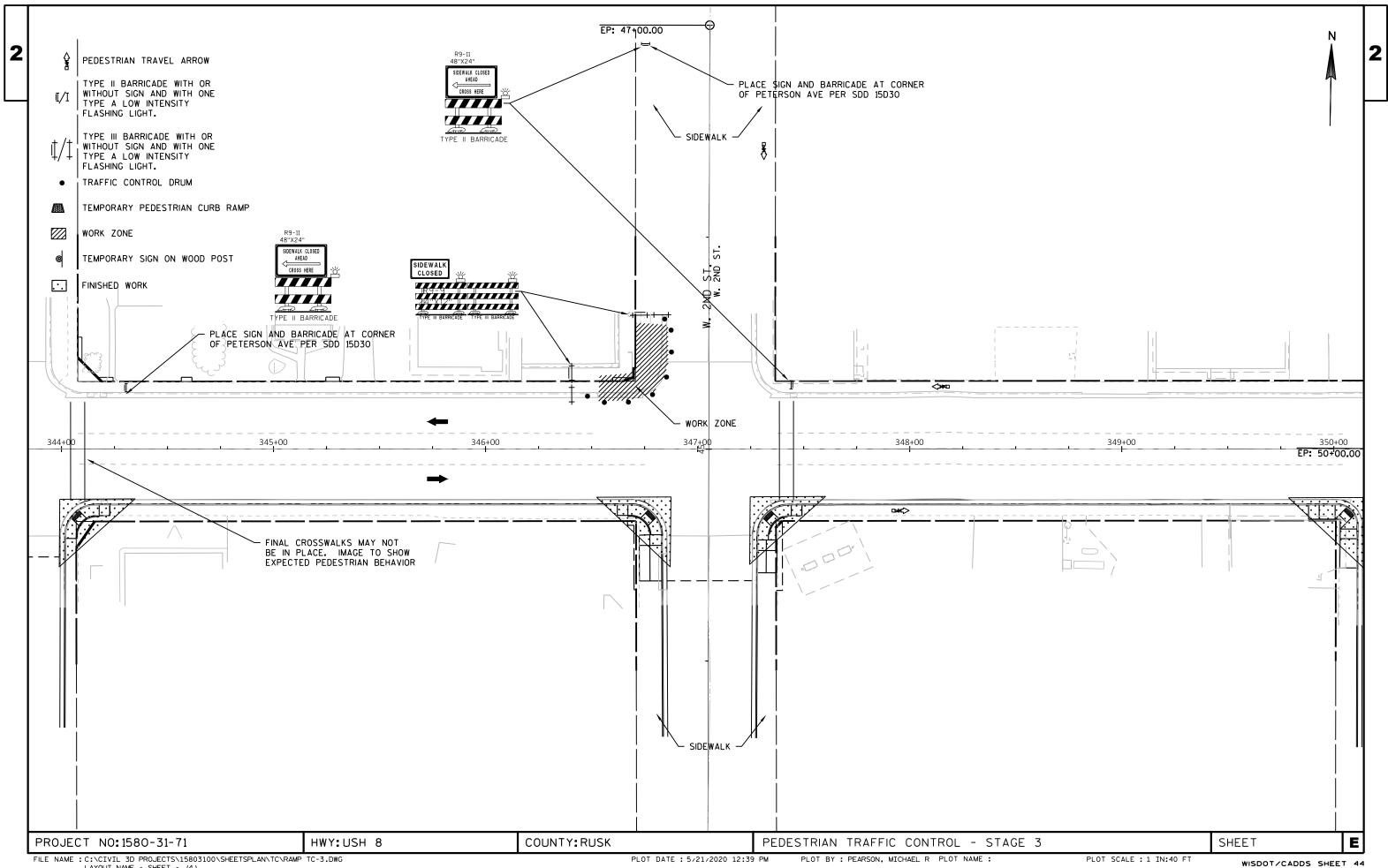


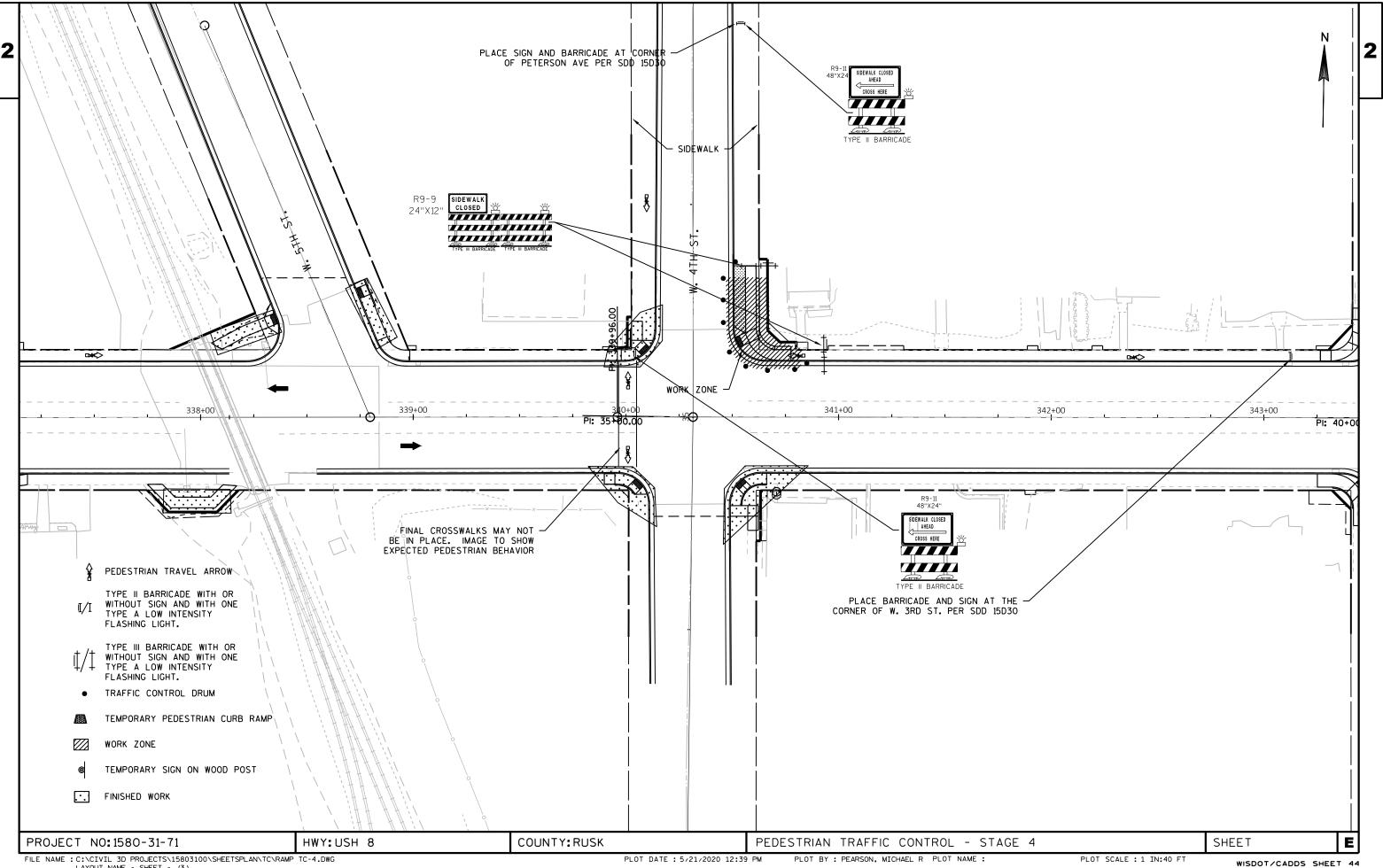


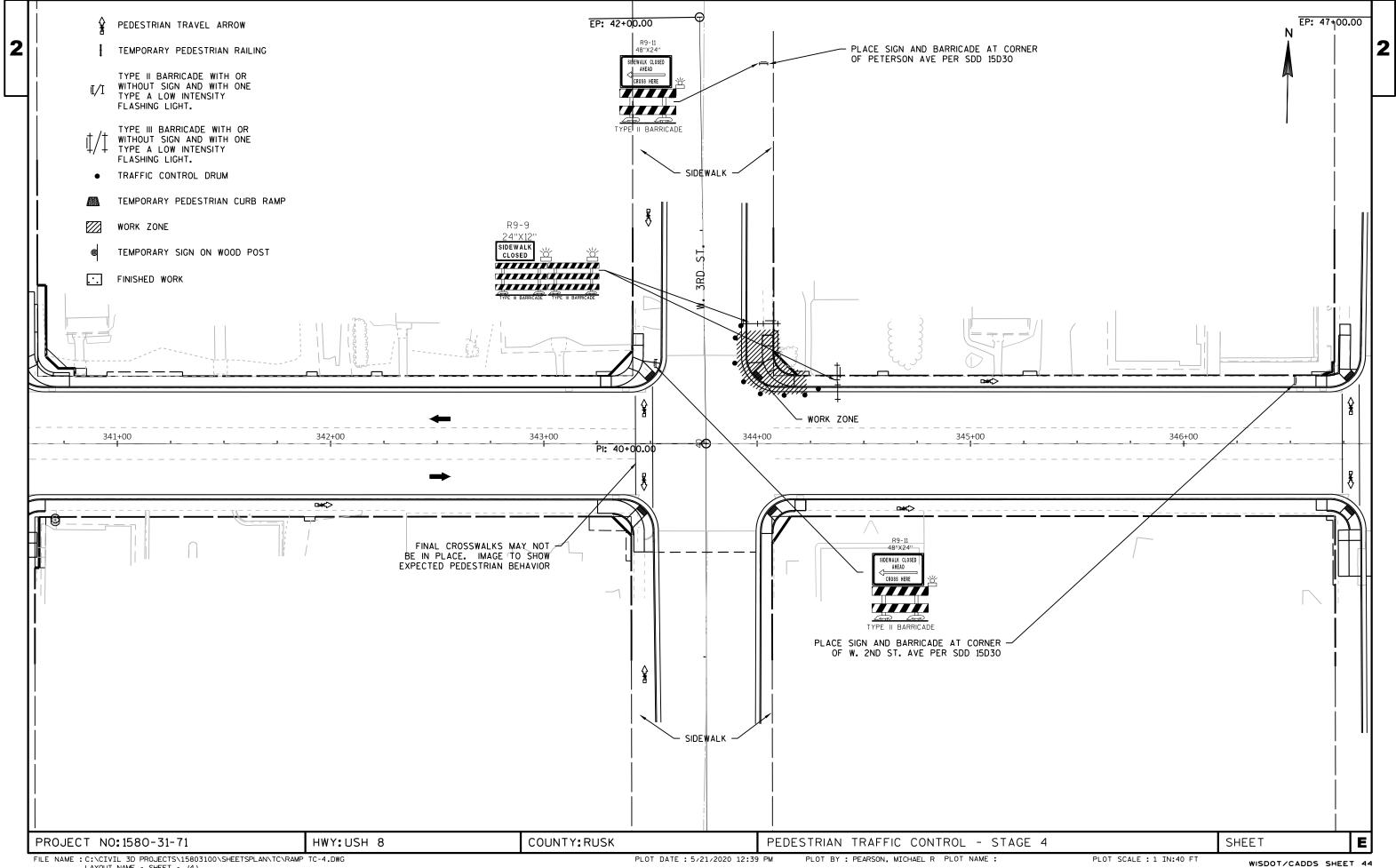


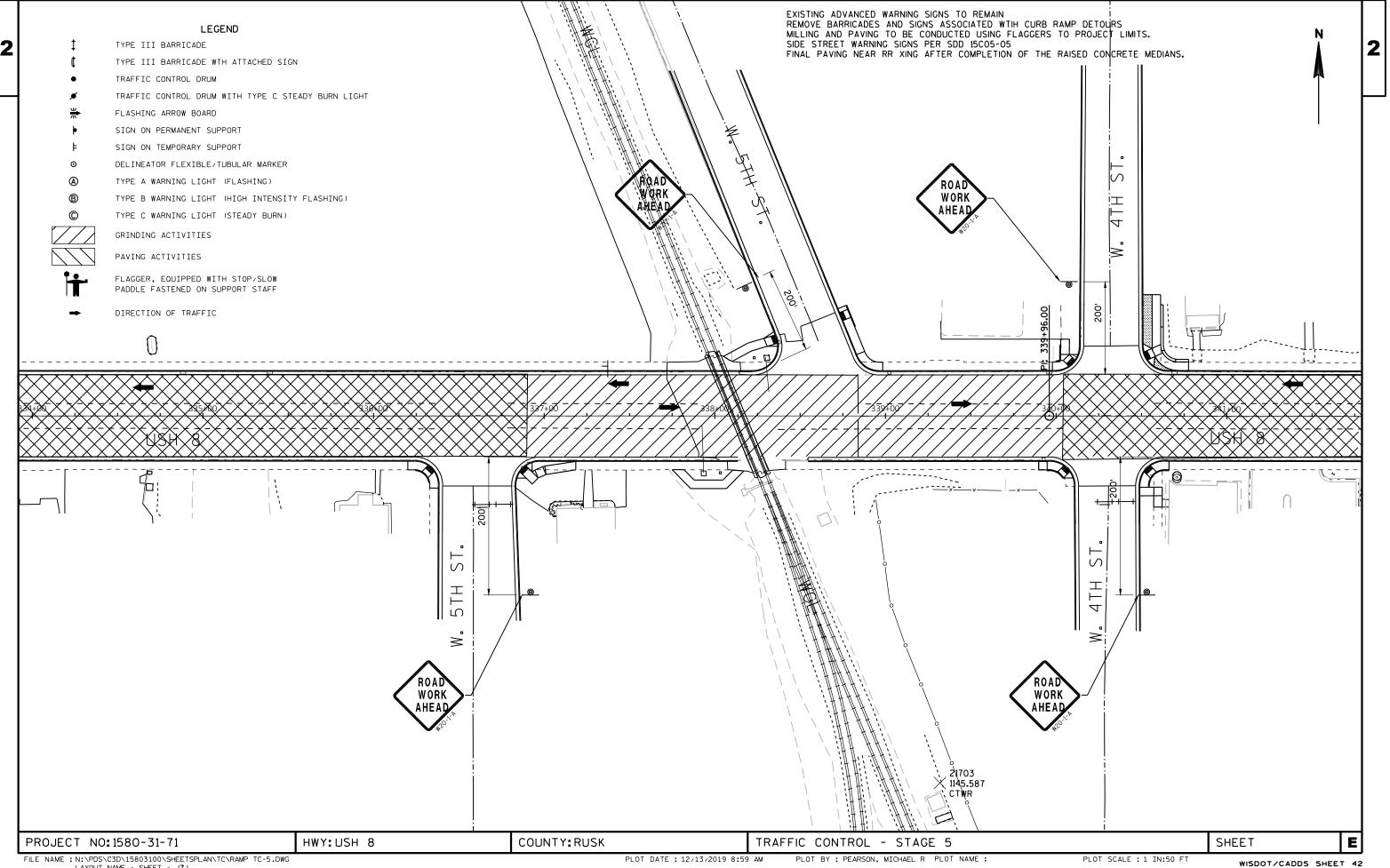


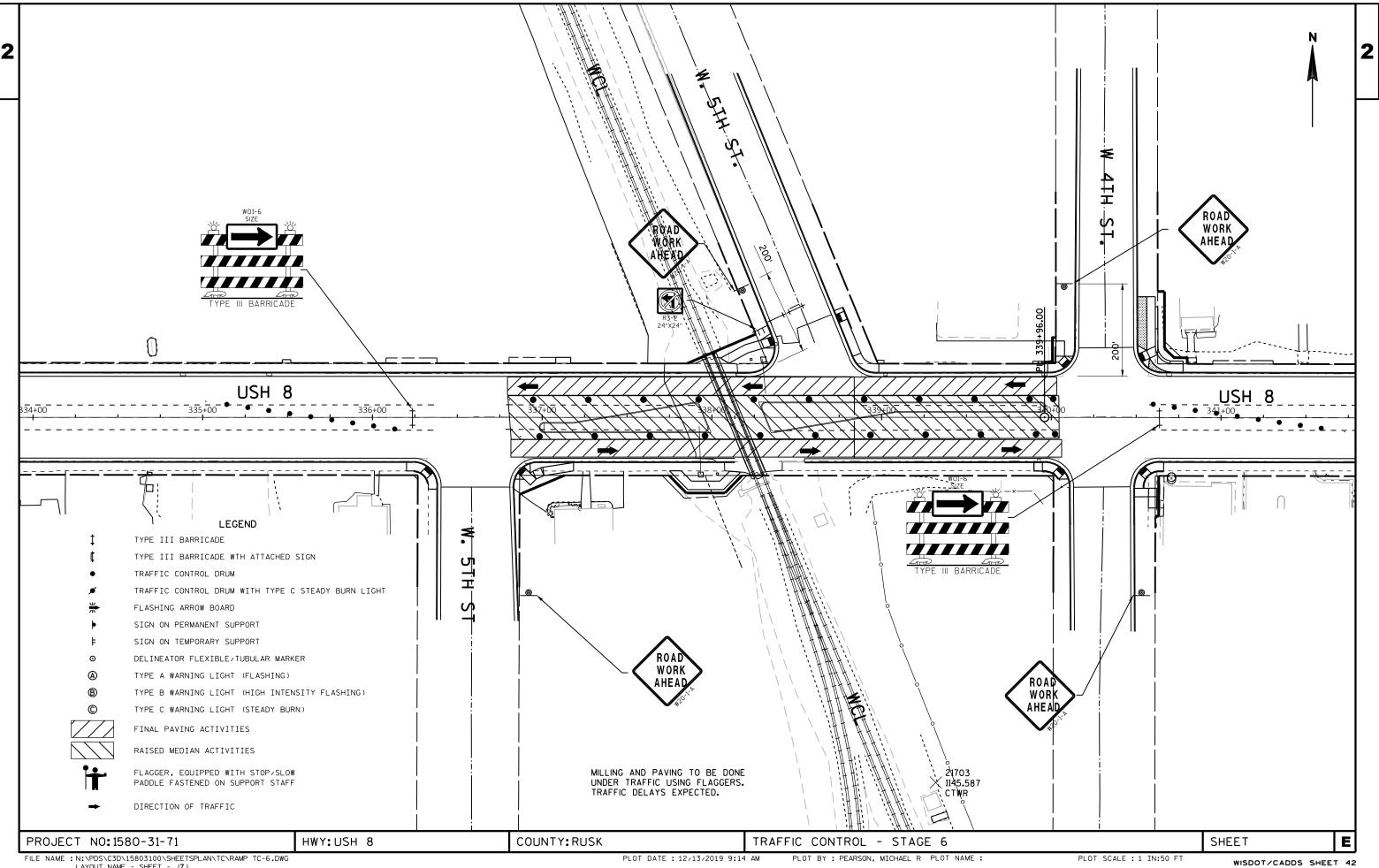
FILE NAME :C:\CIVIL 3D PROJECTS\15803100\SHEETSPLAN\TC\RAMP TC-3.DWG LAYOUT NAME - SHEET - (4)



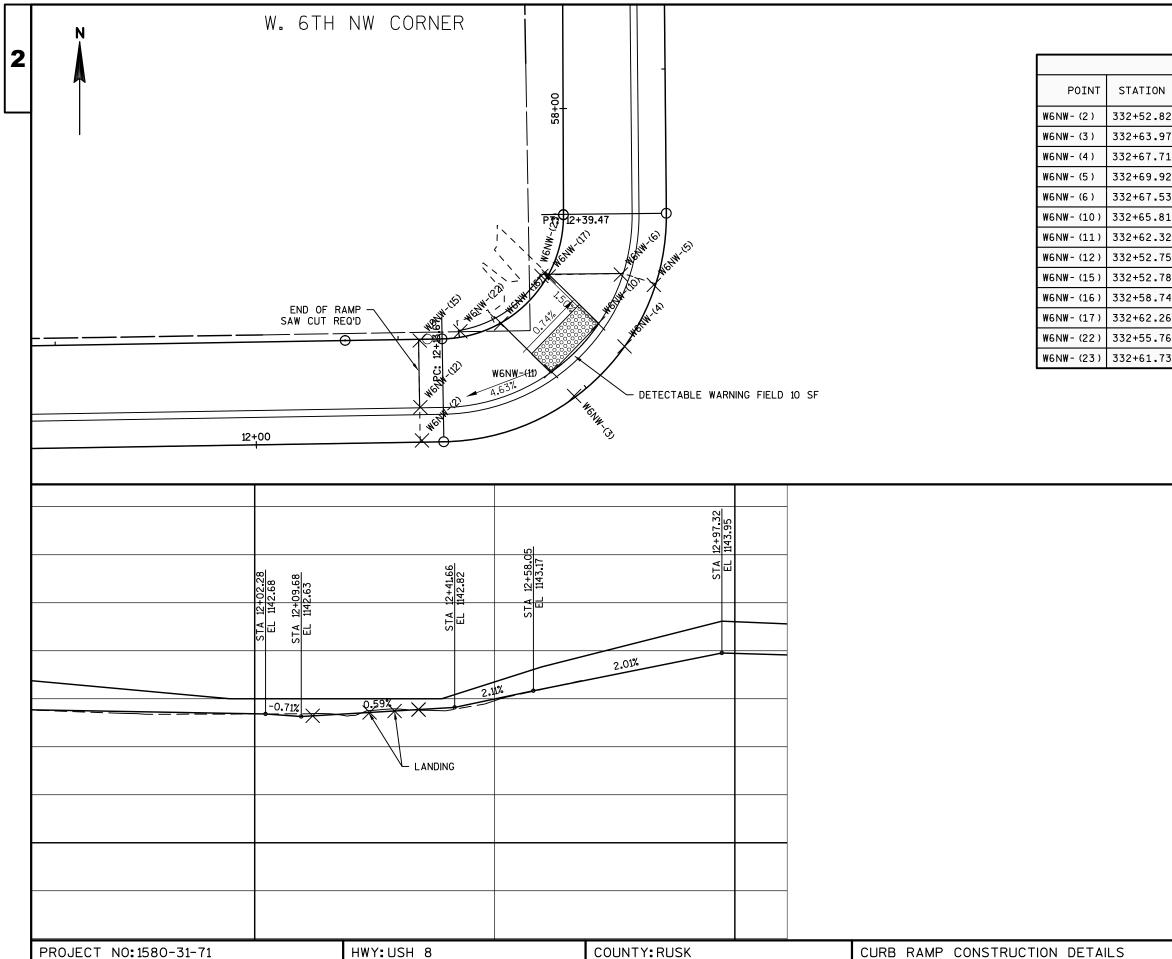








FILE NAME :N:\PDS\C3D\15803100\SHEETSPLAN\TC\RAMP TC-6.DWG LAYOUT NAME - SHEET - (7)



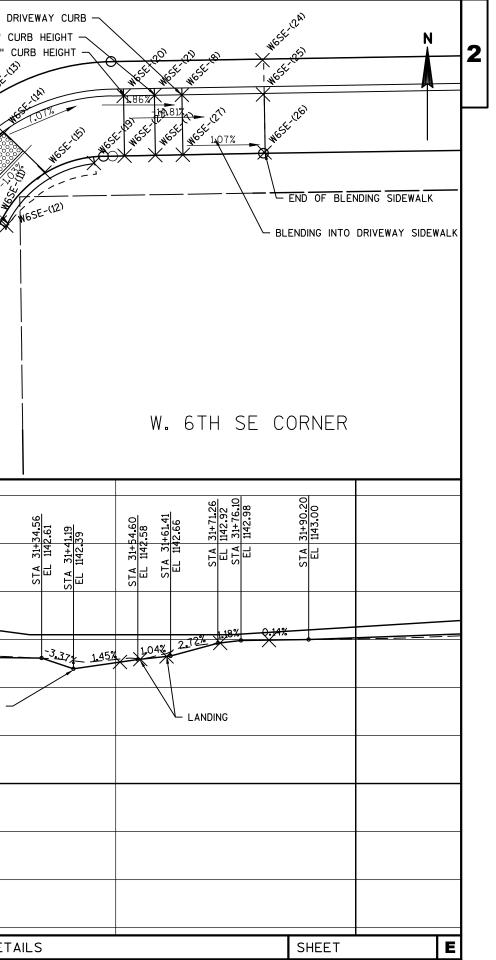
	OFFSET	Y COORDS	X COORDS	ELEVATION
2	24.43 LT	563579.79	811449.91	1142.64
7	27.49 LT	563583.04	811461.01	1142.71
1	31.04 LT	563586.65	811464.68	1142.75
2	35.49 LT	563591.13	811466.81	1142.77
3	36.29 LT	563591.89	811464.41	1143.18
1	32.74 LT	563588.32	811462.76	1142.67
2	29.32 LT	563584.84	811459.32	1142.63
5	26.86 LT	563582.22	811449.79	1143.02
8	31.72 LT	563587.08	811449.74	1143.16
4	32.88 LT	563588.33	811455.68	1142.71
6	36.23 LT	563591.75	811459.14	1142.74
6	32.34 LT	563587.75	811452.71	1143.01
3	36.27 LT	563591.78	811458.62	1143.01

2

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W6SE-(15) 333	3+20 98132 01 RL	563524 50	 1142.52		
W6SE-(19) 333	3+20.98 32.01 RT 3+24.59 31.38 RT				
	3+26.85 26.52 RT			REPLACE CURB & GUTTER AS NEEDED	~
	3+29.09 26.52 RT	l – – – – – – – – – – – – – – – – – – –		FOR BLENDING	
	3+26.85 30.89 RT	1 1			
	3+37.02 24.08 RT		 1142.99		
	3+37.01 26.59 RT 3+37.05 30.82 RT		 1142.90 1143.03		
	3+31.09 30.89 RT	1 1	 		
				-0.12%	NTET NTET NTET NTET NTET NTET NTET NTET

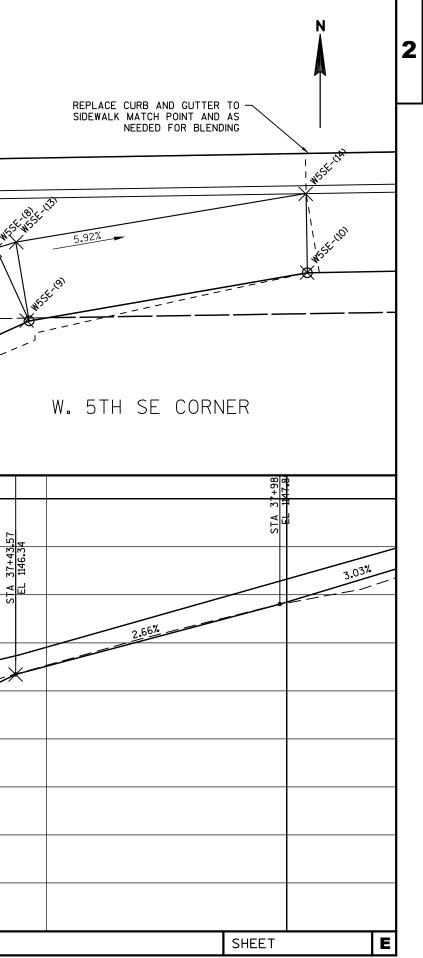
2

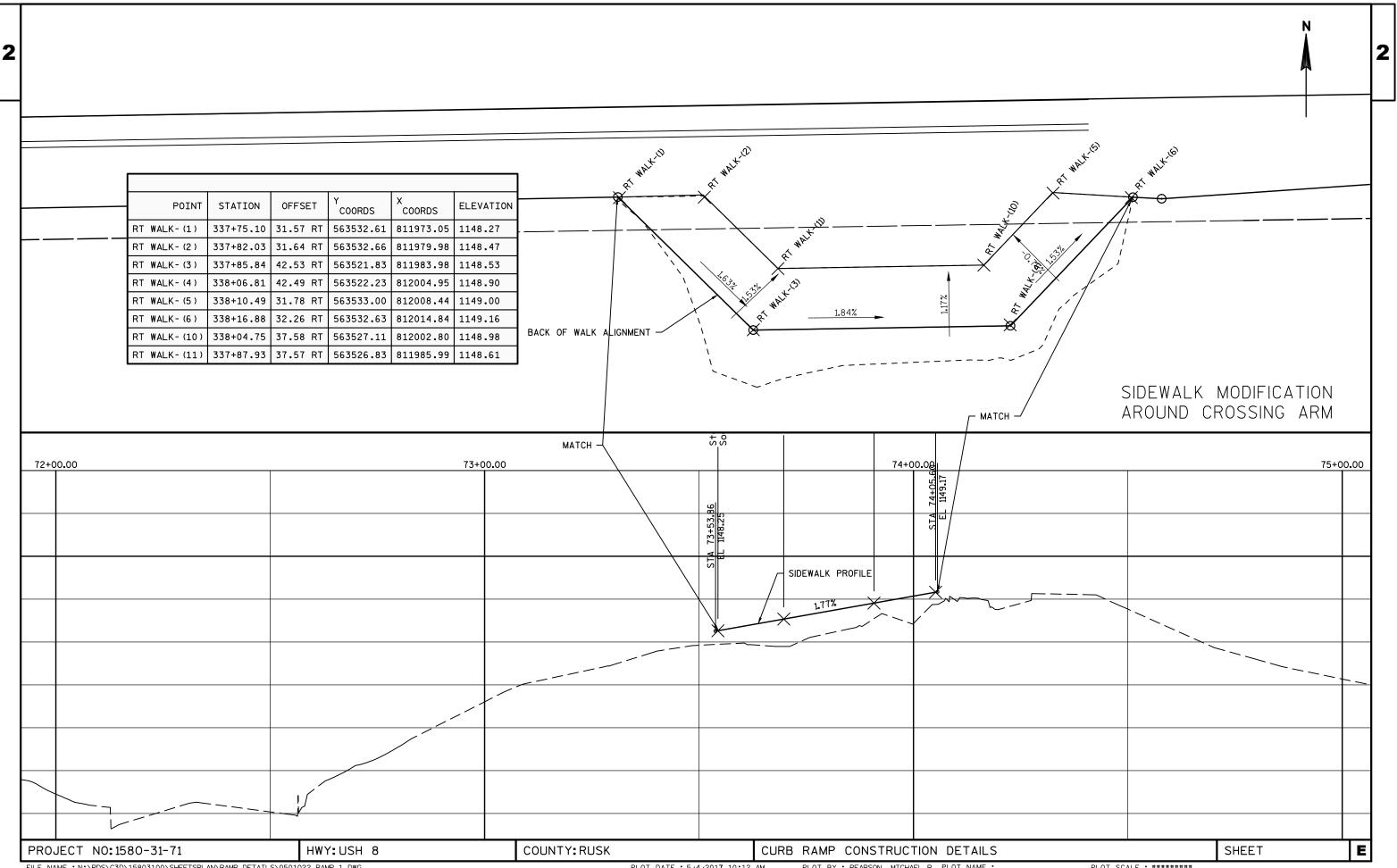


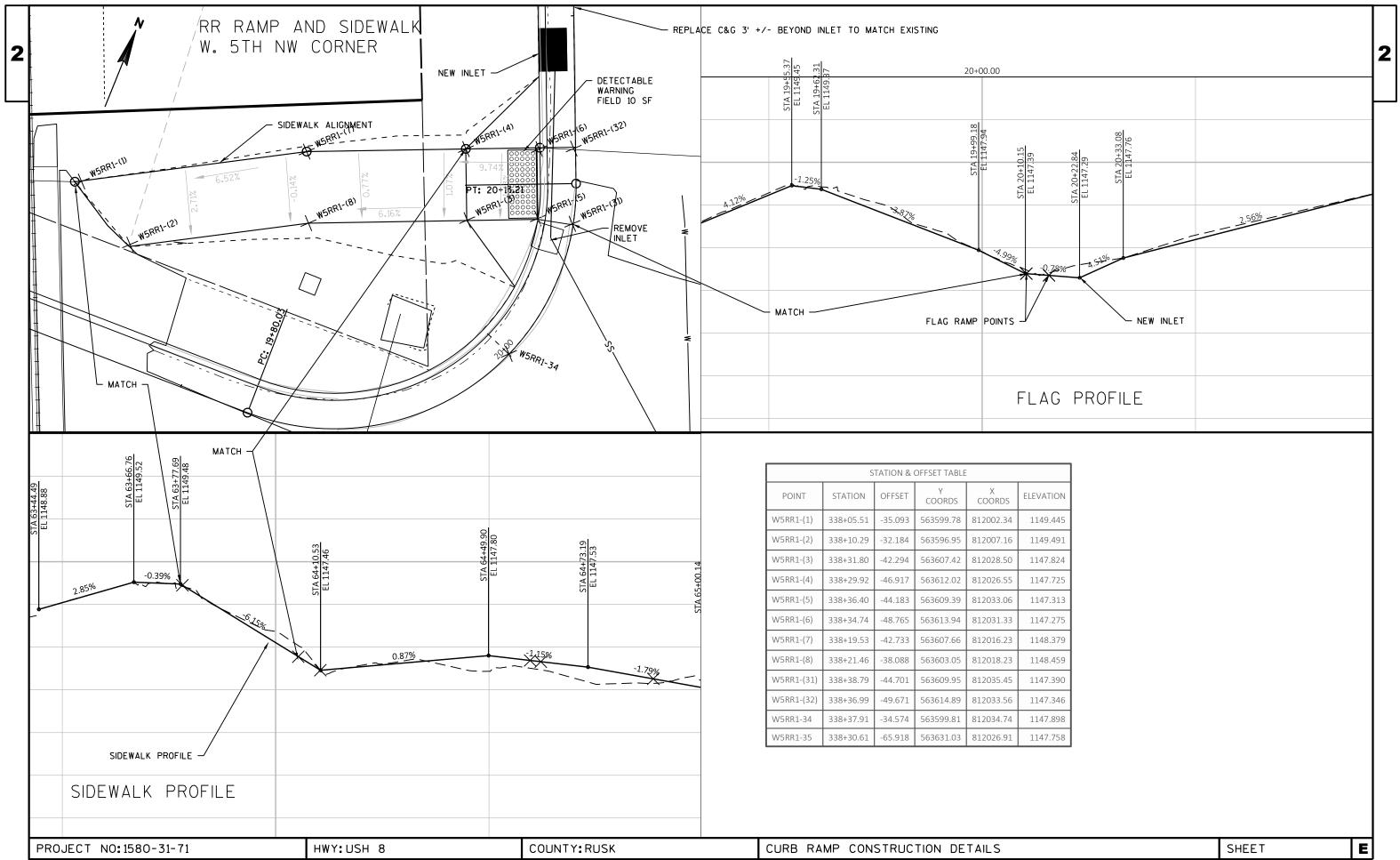
W55E-(1)       336+84.13       31.04 RT       653531.61       811882.00       1144.78         W55E-(2)       336+87.87       27.27 RT       653553.45       811883.00       144.70         W55E-(4)       336+80.32       29.38 RT       65353.35       811887.25       1144.77         W55E-(4)       336+80.32       29.38 RT       65353.35       811891.25       1144.77         W55E-(4)       336+90.07       39.44 RT       65352.25       61199.13       1144.70         W55E-(4)       336+92.04       33.00 RT       65352.63       811890.03       1145.12         W55E-(10)       337+0.05       24.07 RT       65353.03       81199.63       1146.50         W55E-(10)       336+93.05       31.07 RT       65353.03       81199.64       1146.50         W55E-(10)       336+94.19       31.75 RT       65353.10       81199.62       1146.50         W55E-(11)       336+93.16       56353.65       81191.64       1146.50       1146.50         W55E-(12)       336+93.176       56353.65       81198.21       144.61       146.75         W55E-(14)       336+93.16       56353.65       81198.21       144.62       144.61         W55E-(15)       336+93.176       563	PROJECT NO: 1580-31-71		HWY:USH 8		С	COUNTY: RUSK		CURB RAMP	CONSTRUCTION DETAILS	
WSE-(1)       336+84.13       31.04 RT       563531.61       811882.09       1144.78         WSE-(2)       336+87.87       27.27 RT       563535.44       811885.76       1144.85         WSE-(3)       336+85.91       32.81 RT       56352.987       811883.90       1144.70         WSE-(4)       336+99.32       29.38 RT       563532.96       811891.17       1144.99         WSE-(6)       336+96.41       36.40 RT       563522.96       811891.17       1144.99         WSE-(6)       336+96.41       36.40 RT       56352.96       81189.03       1145.55         WSE-(7)       336+99.05       29.87 RT       56353.03       811896.99       1145.52         WSE-(8)       337+00.95       34.30 RT       56352.63       811899.99       1145.55         WSE-(10)       337+18.52       31.60 RT       56352.62       81189.56       1145.50         WSE-(11)       336+93.58       36.45 RT       56353.52       811898.52       1145.61         WSE-(12)       336+94.59       31.75 RT       56353.52       811898.21       1145.61         WSE-(14)       37+18.52       26.68 RT       56352.62 8       81189.21       0.00         WSE-(16)       36+81.76       35.63 R	PROJECT NO:1580-31-71		HWY:USH 8		C		STA EL	3.00% 60%		STA 37+43,57
COORDS CO	W5 SI W5 SI	E- (1)       336+84.13         E- (2)       336+87.87         E- (3)       336+85.91         E- (4)       336+89.32         E- (5)       336+93.07         E- (6)       336+96.41         E- (7)       336+92.94         E- (8)       336+99.05         E- (10)       337+10.95         E- (11)       336+89.58         E- (12)       336+94.59         E- (12)       337+00.39         E- (12)       337+00.39         E- (14)       337+18.52         E- (12)       336+94.59         E- (14)       337+18.52	31.04         RT         563531.61           27.27         RT         563535.44           32.81         RT         563529.87           29.38         RT         563522.96           36.40         RT         563526.46           33.00         RT         563529.80           29.87         RT         563529.80           29.87         RT         563529.80           29.87         RT         563528.63           31.60         RT         563528.63           31.60         RT         563531.63           31.60         RT         563531.63           31.75         RT         563531.07           29.40         RT         563533.52           26.68         RT         563536.55           36.40         RT         563526.25	811882.09       1         811885.76       1         811885.76       1         811887.25       1         811897.25       1         811891.17       1         811894.45       1         811894.45       1         811894.99       1         811896.99       1         811896.99       1         811897.63       1         811892.56       1         811898.32       1         811916.41       1         811882.19       0	144.78 144.85 144.70 144.77 144.99 145.05 145.52 145.50 146.58 145.24 145.61 146.75 0.00	DETECTABI	(	100 100 100 100 100 100 100 100 100 100	1212 1212	
POINT STATION OFFSET Y COOPDS ELEVATION				X						

FILE NAME : N:\PDS\C3D\15803100\SHEETSPLAN\RAMP DETAILS\0501022 RAMP 1.DWG LAYOUT NAME - \*\*\*\*

PLOT DATE : 5/4/2017 10:12 AM PLOT BY : PEARSON, MICHAEL R PLOT NAME :

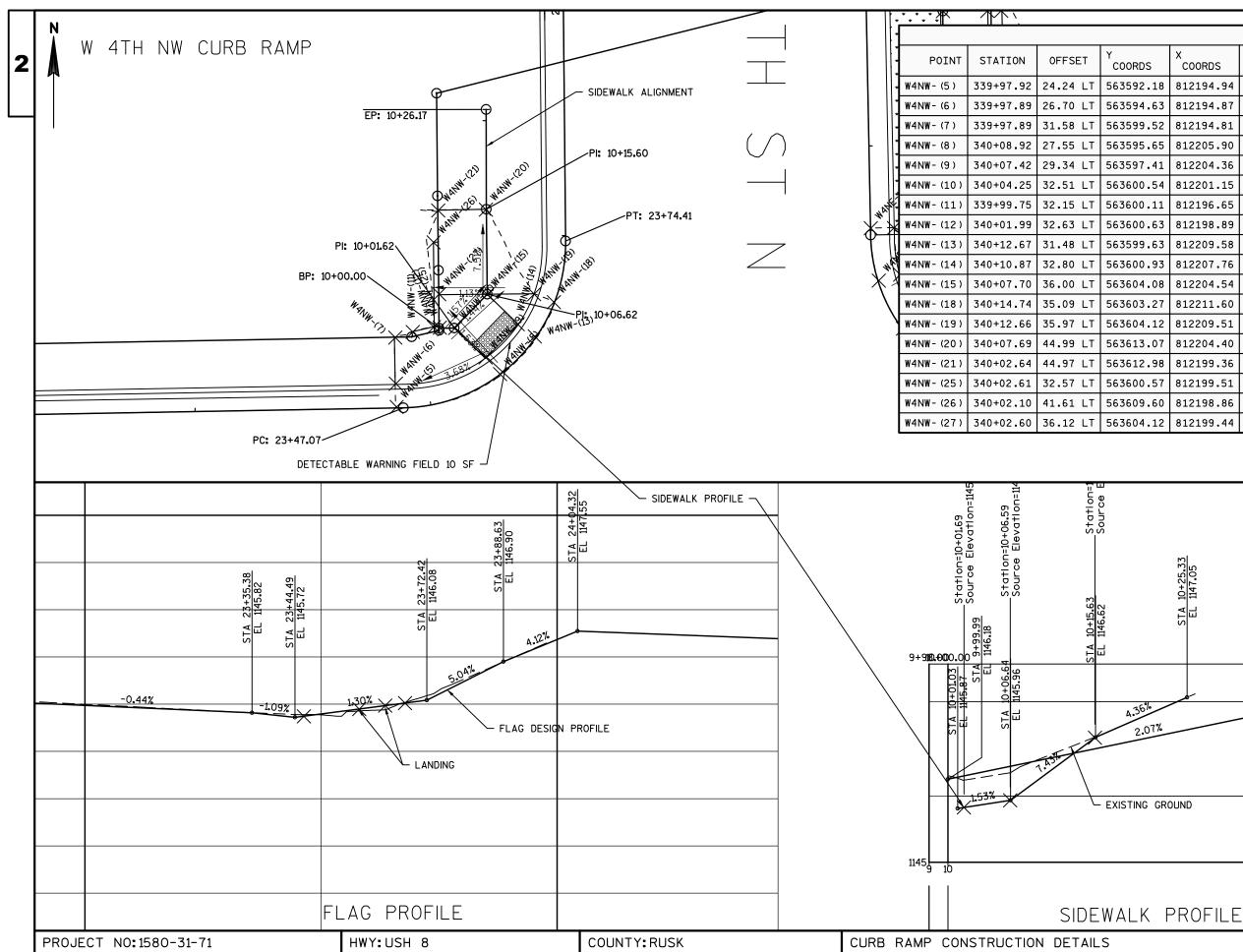






FILE NAME : N:\PDS\C3D\15803100\SHEETSPLAN\RAMP DETAILS\0501022 RAMP 2.DWG LAYOUT NAME - \*\*\*\* PLOT DATE : 3/2/2020 1:35 PM

PLOT BY : PEARSON, MICHAEL R PLOT NAME :

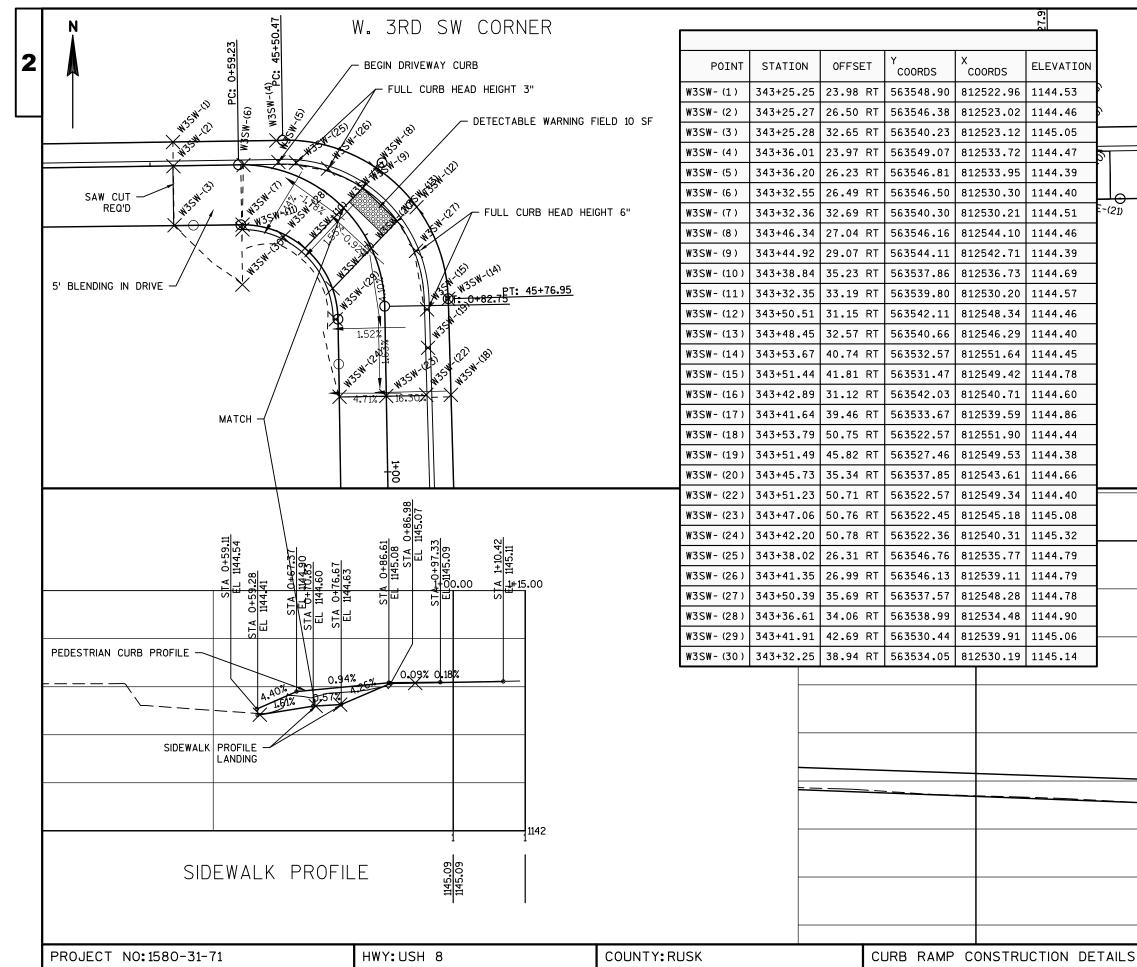


			_	٦
5	X COORDS	ELEVATION		2
.18	812194.94	1145.74		
63	812194.87	1146.12		
52	812194.81	1146.19		
65	812205.90	1145.90		
41	812204.36	1145.82		
54	812201.15	1145.88		
11	812196.65	1146.21		
63	812198.89	1146.22		
.63	812209.58	1145.96		
.93	812207.76	1145.89		
.08	812204.54	1145.96		
.27	812211.60	1146.02		
.12	812209.51	1146.40		
.07	812204.40	1146.62		
.98	812199.36	1146.76		
.57	812199.51	1146.08		
.60	812198.86	1146.44		
.12	812199.44	1146.00		
	STA 10+25.33 EL 1147.05		51A 10+42.84 EL 1147.06	
7%				
17%				
GRO	DUND	Ĺ	- PEDESTRIAN CURB PROFILE	
			10 <sup>1145</sup>	

PLOT SCALE : \*\*\*\*\*\*\*

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SHEET



7.9

COORDS

812530.21

812522.96 1144.53

812523.02 1144.46

812523.12 1145.05

812533.72 1144.47

812533.95 1144.39

812530.30 1144.40

812544.10 1144.46

812542.71 1144.39

812536.73 1144.69

812546.29 1144.40

812551.64 1144.45

812549.42 1144.78

812540.71 1144.60

812539.59 1144.86

812551.90 1144.44

812543.61 1144.66

812549.34 1144.40

812545.18 1145.08

812540.31 1145.32

812535.77 1144.79

812539.11 1144.79

812548.28 1144.78

812534.48 1144.90

812539.91 1145.06

812530.19 1145.14

ELEVATION

1144.51

-(21)

		2	2
.92 2 .65		<u>9-12</u>	
5TA 45+40.92 EL 1144.52 STA 45+47.65 FI 1144.47	EL 1144,46 STA 45+88.00 EL 1144,46	STA 46+09.12 EL 1144,49	
<u>ST</u>		<u> </u>	
-0.75%	-0.03% - 0.17K		
/			
	FLAG PROFILE		
	SHEET	E	
		DS SHEET 44	

								<u> </u>
PC	DINT STATION	OFFSET	Y COORDS	X COORDS	ELEVATION			
E2SE- (1	1) 353+85.50	36.49 RT		813583.21	1145.95			
E2SE- (2	2) 353+87.88	37.07 RT		813585.60				
E2SE- (3	3) 354+00.36	42.66 RT	563545.64	813598.16	1146.34			
E2SE- (6	5) 354+10.30	42.57 RT	563545.86	813608.09	1146.18			
E2SE- (9	354+10.34	34.70 RT	563553.73	813608.03	1146.16			254-00 451-22 4254 -
E2SE- (1			563563.65					*-
E2SE- (1			563561.27					
E2SE- (1		-	563553.61					
E2SE- (1			563555.65			P(	: 64+45.57	
E2SE- (1			563557.08					
E2SE- (1			563561.31					
E2SE- (1			563559.19					
	(25) 354+00.35	_						
	(26) 353+93.83							
E2SE -	(28) 353+97.07	32.44 RT	563555.82	813594.73	1146.34			
						STA 63+66.73 EL 1145.66		STA 64+12.82 EL 1146.07
								EL
							0.89%	0.04 EL 1146.07
							0.89%	EL
							0.89%	EL
							0.89%	EL
							0.89%	EL
							0.89%	EL
							0.89%	EL
							0.89%	EL
							0.89%	EL
							0.89%	EL
							0.89%	EL

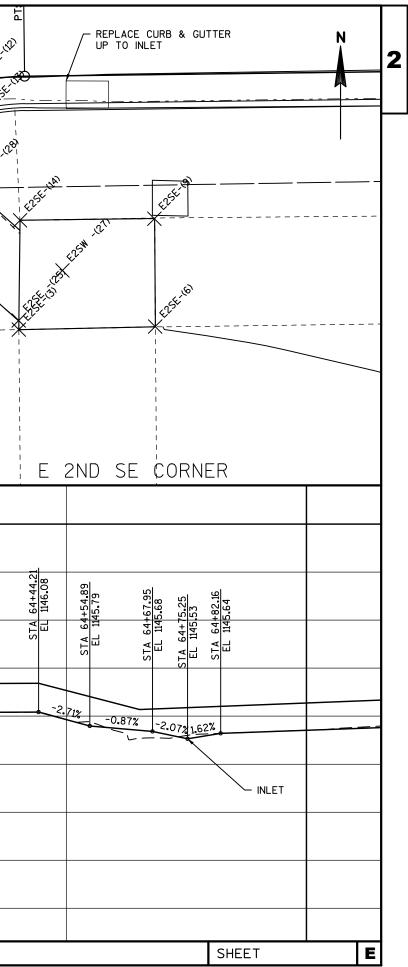
 PROJECT NO:1580-31-71
 HWY:USH

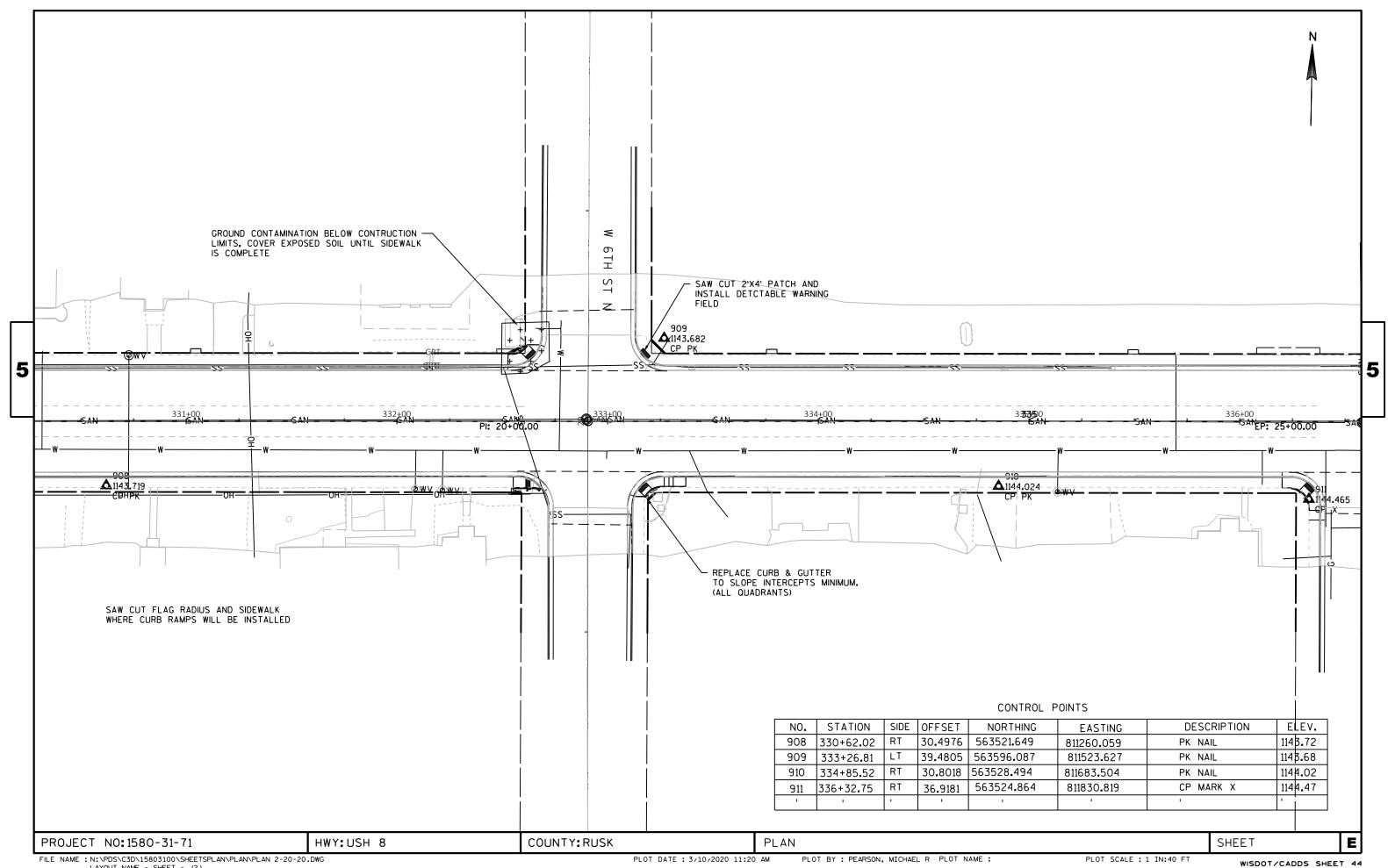
 FILE NAME : N:\PDS\C3D\15803100\SHEETSPLAN\RAMP DETAILS\0501022 RAMP 3.DWG

 LAYOUT NAME - \*\*\*\*\*

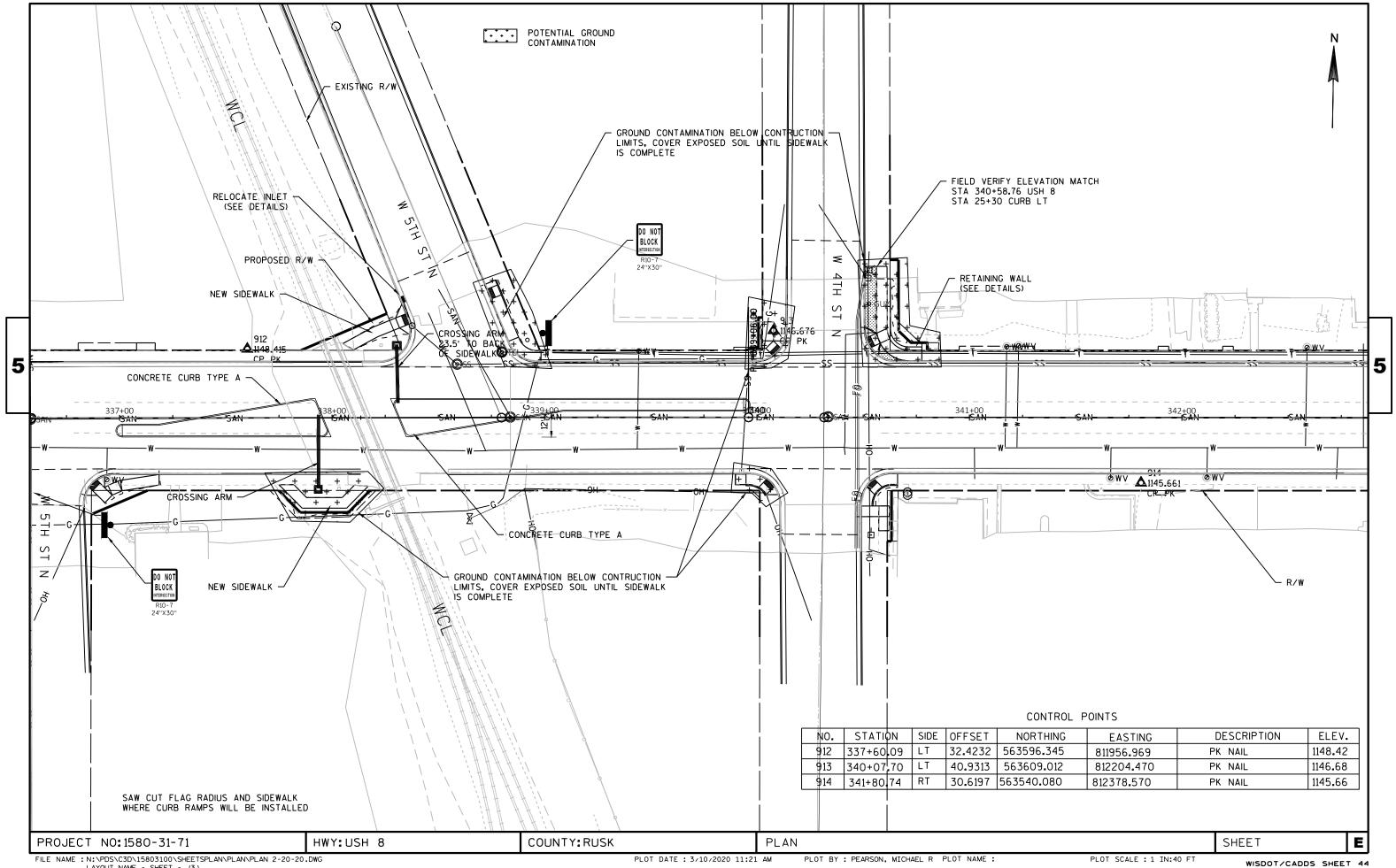
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PLOT DATE : 5/4/2017 8:11 AM PLOT BY : PEARSON, MICHAEL R PLOT NAME :

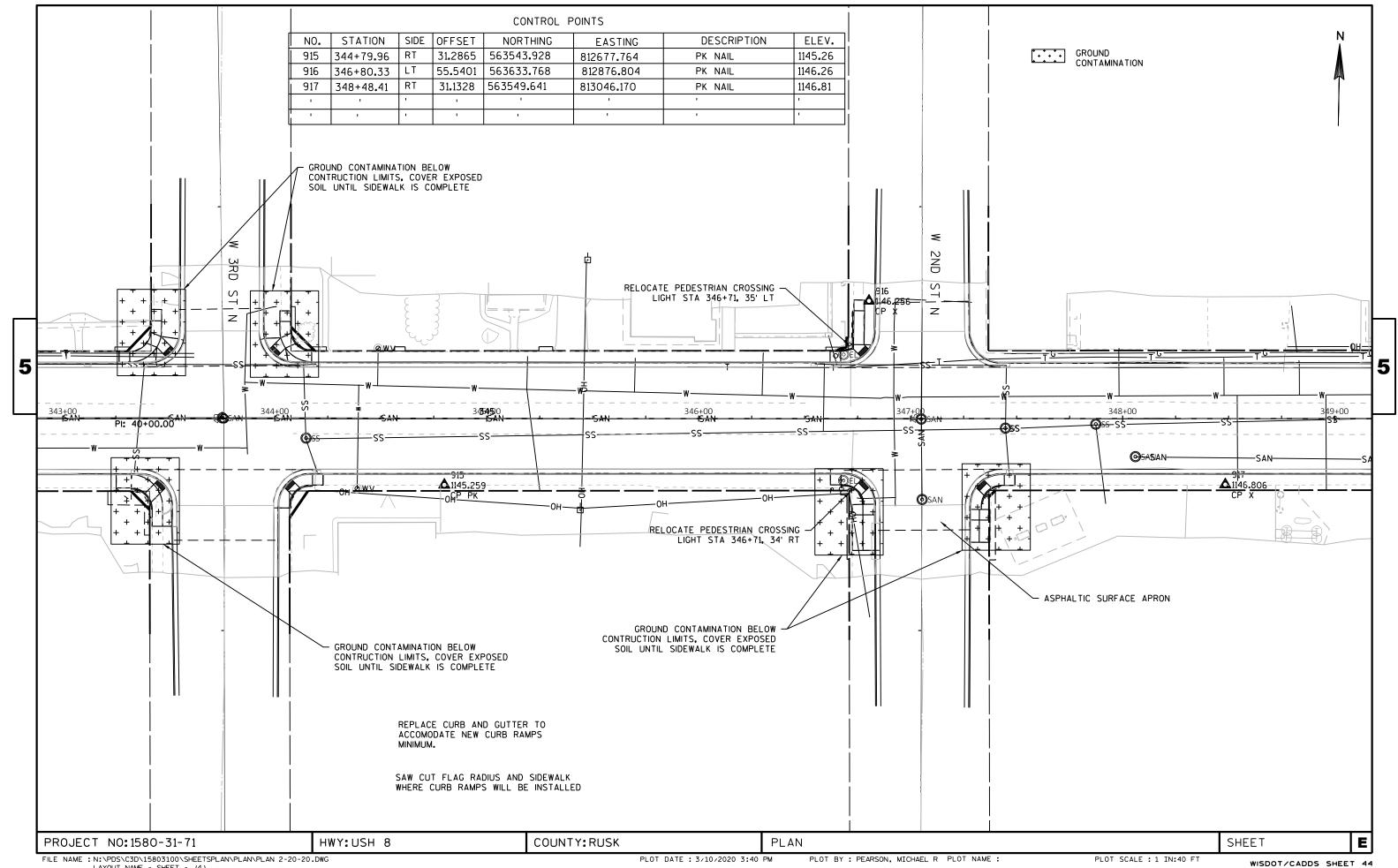




PLOT DATE : 3/10/2020 11:20 AM



LAYOUT NAME - SHEET - (3)



FILE NAME :N:\PDS\C3D\15803100\SHEETSPLAN\PLAN\PLAN 2-20-20.DWG LAYOUT NAME - SHEET - (4)

PLOT DATE : 3/10/2020 3:40 PM



#### CONVENTIONAL SYMBOLS

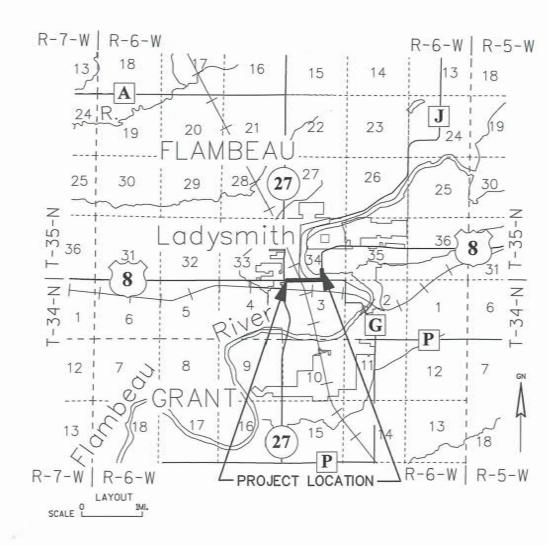
SECTION LINE		SECTION (12)	R/W MONUMEN	
		CORNER (55)		
QUARTER LINE			NON-MONUMENT R/W POINT	TED 🕲
SIXTEENTH LINE		NOTATION FOR MA	FOUND IRON M	ION. O
NEW REFERENCE LINE	$\sim$	COMBUSTIBLE - AN		0
NEW R/W LINE		FLUIDS P	VALVE (GAS, WATER, ETC.)	0 mpb
EXISTING R/W LINE		NOTATION FOR A	•	
PROPERTY LINE	P.L.	HIGH VOLTAGE 7	SIGN	()= SIGN
LOT, TIE & OTHER MINOR LINES		TRANSMISSION CAUTION LINES	OFF-PREMISE ( SIGN	9-35 - ye so
CORPORATE LIMITS	11111111		COMPENSABLE NO	N-COMPENSABLE
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC)	Genti	ELECTRIC POLE TELEPHONE POLE		d ø
FEE ACQUISITION AREA (HATCHING VARIES BY OWNER)		PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)	×	Å
TEMPORARY LIMITED EASEMENT AREA		LIGHT POLE	×	¥
EASEMENT AREA (HIGHWAY, PERMANENT LIMITED, OR RESTRICTED DEVELOPMENT)		ACCESS CONTROLLED BY NO ACCESS (BY STATUTO ACCESS RESTRICTED (BY	RY AUTHORITY)	
TRANSMISSION STRUCTURES	-8-8-	PROJECT OR CONTROL)		-
BUILDING		BRIDGE	PARCEL NUMBER	(25)
NATIONAL GEODETIC SURVEY SIXTEENTH CORNER MONUMENT			UTILITY NUMBER	(40)
		EXISTING MONUMENT NUMB R/W BOUNDARY POINT NU	2010	**** ***

#### CONVENTIONAL ABBREVIATIONS

ACCESS RIGHTS	AR	POINT OF COMPOUND CURVE	PCC
ACRES	AC	POINT OF INTERSECTION	PI
AHEAD	AH	PROPERTY LINE	PL
ALUMINUM	ALUM	RECORDED AS	(100')
AND OTHERS	ET AL	REFERENCE LINE	R/L
BACK	BK	REMAINING	REM
BLOCK	BLK.	RIGHT	RT
CENTERLINE	C/L	RIGHT OF WAY	R/W
CERTIFIED SURVEY MAP	CSM	SECTION	SEC
CONCRETE	CONC	SEPTIC VENT	SEPV
COUNTY	CO	SQUARE FEET	SF
COUNTY TRUNK HIGHWAY	CTH	STATE TRUNK HIGHWAY	STH
DISTANCE	DIST	STATION	STA
CORNER	COR	SUBDIVISION	SUBD
DOCUMENT NUMBER	DOC	TANGENT	TAN
EASEMENT	EASE	TELEPHONE PEDESTAL	TP
EXISTING	EX	TEMPORARY LIMITED	TLE
GAS VALVE	GV	EASEMENT	
GRID NORTH	GN	TRANSPORTATION PROJECT	TPP
HIGHWAY EASEMENT	HE	PLAT	
IDENTIFICATION	ID	UNITED STATES HIGHWAY	USH
LAND CONTRACT	LC	VOLUME	V
LEFT	LT		
MONUMENT	MON	CURVE DATA	
NATIONAL GEODETIC SURVEY	NGS		
NUMBER	NO	LONG CHORD	LC
OUTLOT	OL	LONG CHORD BEARING	LCB
PAGE	P	RADIUS DEGREE OF CLIRVE	R
POINT OF TANGENCY	PT	CENTRAL ANGLE OR DELTA	Δ
PERMANENT LIMITED	PLE	LENGTH OF CURVE	L
EASEMENT		TANGENT	Ť
POINT OF BEGINNING	POB	DIRECTION AHEAD	DA
POINT OF CURVATURE	PC	DIRECTION BACK	DB
	NUMBER OF STREET,	The specific contract of the second second second	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1

# STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION TRANSPORTATION PROJECT PLAT TITLE SHEET PROJECT NO. 1580-31-20

**CITY OF LADYSMITH** STH 27 - RIVER AVE U.S.H. "8" RUSK COUNTY



NOTES:

ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, OR FROM CENTERLINE OF EXISTING PAVEMENTS.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS" OF PUBLIC RECORD.

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE NEW REFERENCE LINES.

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON, THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE, ALL (TLES) ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

A PERMANENT LIMITED EASEMENT (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPWENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESTRABLE. BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHT TO MAKE OR CONSTRUCT IMPROVEMENT ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

A HIGHWAY EASEMENT (HE) IS AN EASEMENT FOR HIGHWAY PURPOSES, AS LONG AS SO USED, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE.

PROPERTY LINES SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES. EXCLUDING RIGHT-OF-WAY, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

FOR THE LATEST ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN NW REGION, WI.

PARCEL IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION. AS NOTED ON THE SCHEDULE OF LANDS & INTERESTS REQUIRED.

FILE NAME : S:\SURVEY\LAND SURVEYS\2015 PROJECTS\W0\*16 ID15803100\_USH8\_TOP0-TPP\C7D\C7D\TPP\C3D\TPP\_USH8\_15803120\_C3D2018.DWG APPRAISAL PLAT DATE :

CONVENTIONAL UTILITY

SYMBOLS

-SAN-

-- 22 ----

TRANSMISSION LINES

CABLE TELEVISION FIBER OPTIC

SANITARY SEWER

STORM SEWER

WATER GAS TELEPHONE OVERHEAD

ELECTRIC

include this note

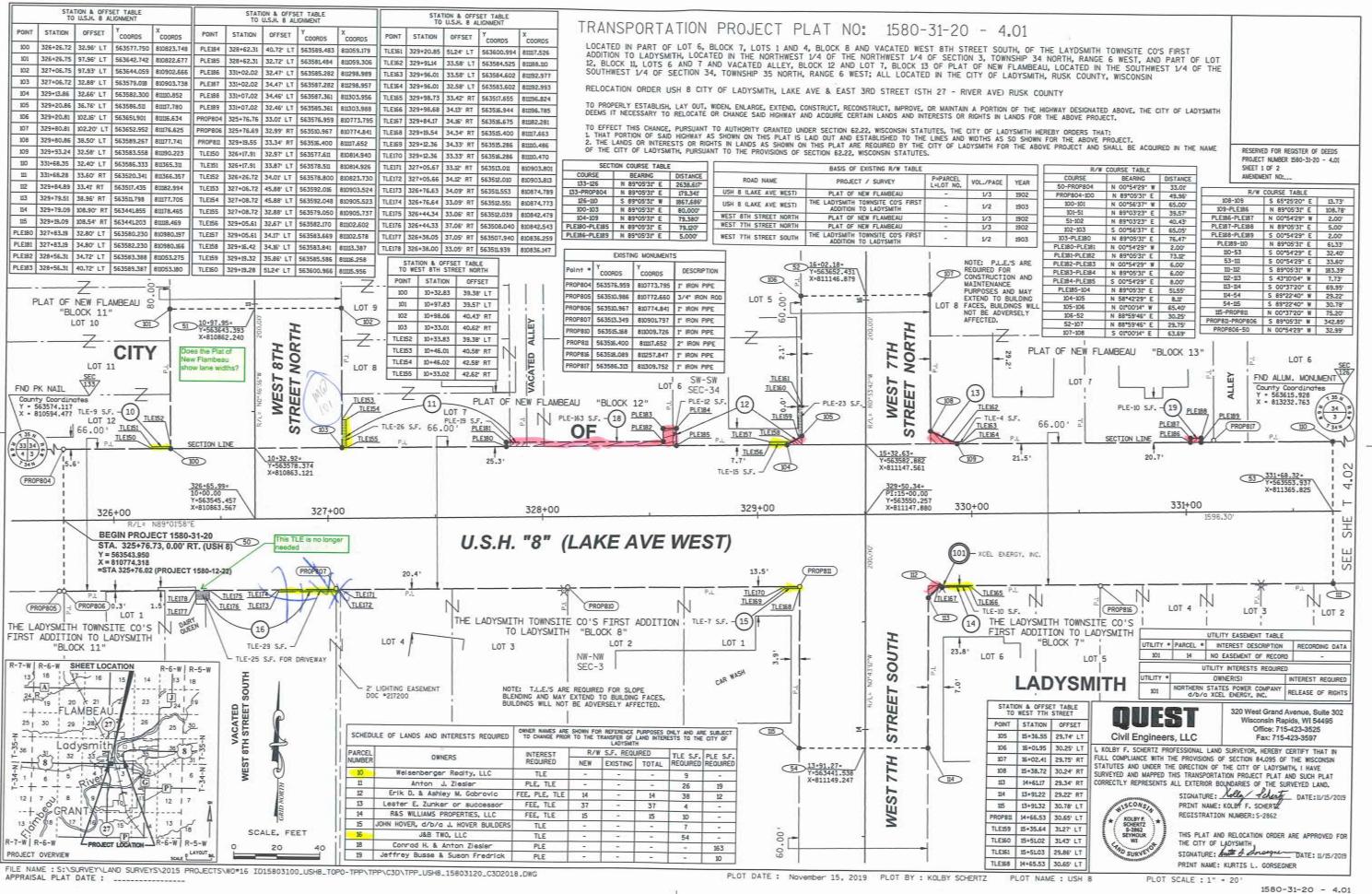
POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), RUSK COUNTY, NAD83(2011), IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

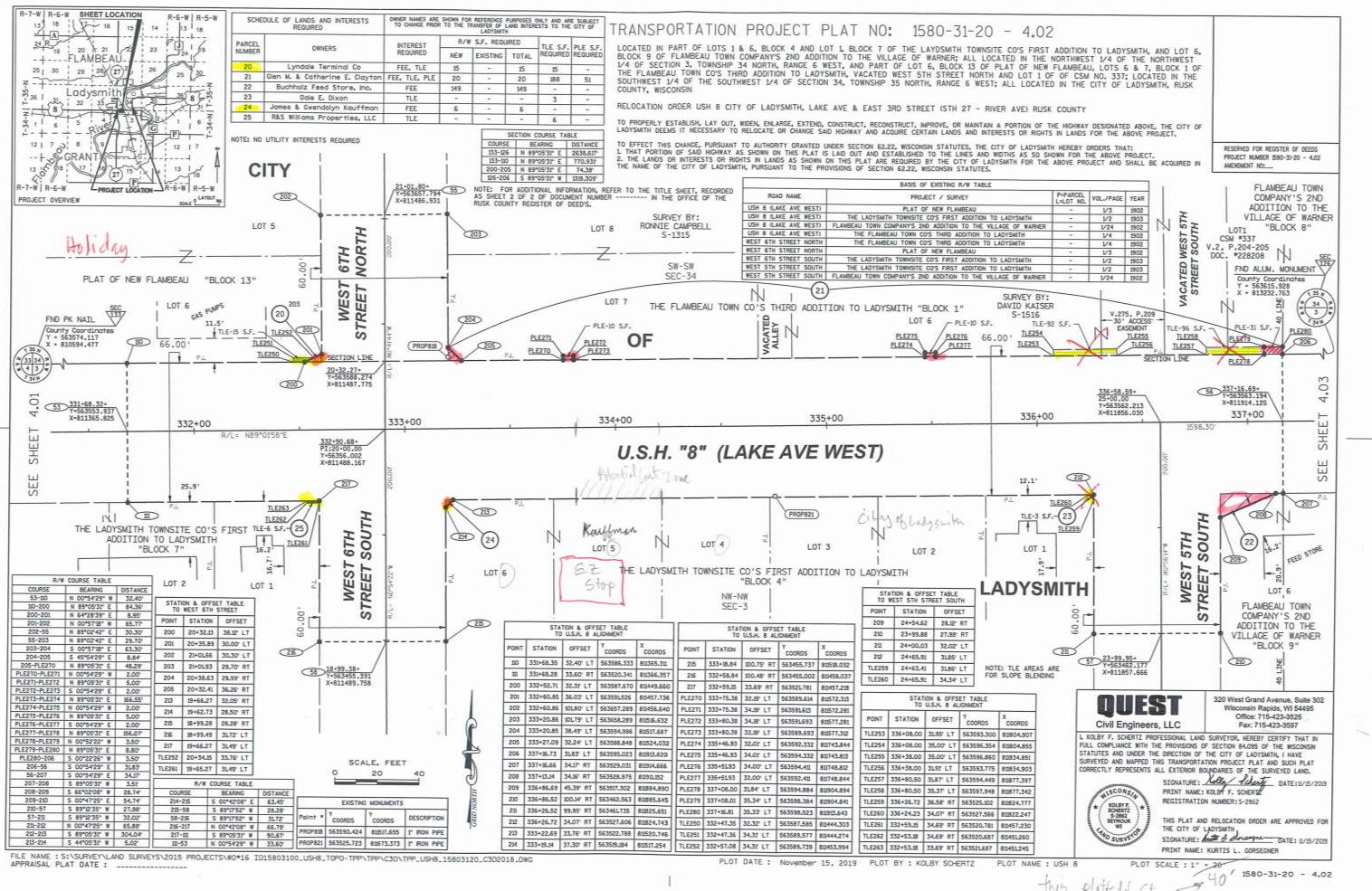
ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY CAPPED 1\* X 24\* IRON PIPES), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

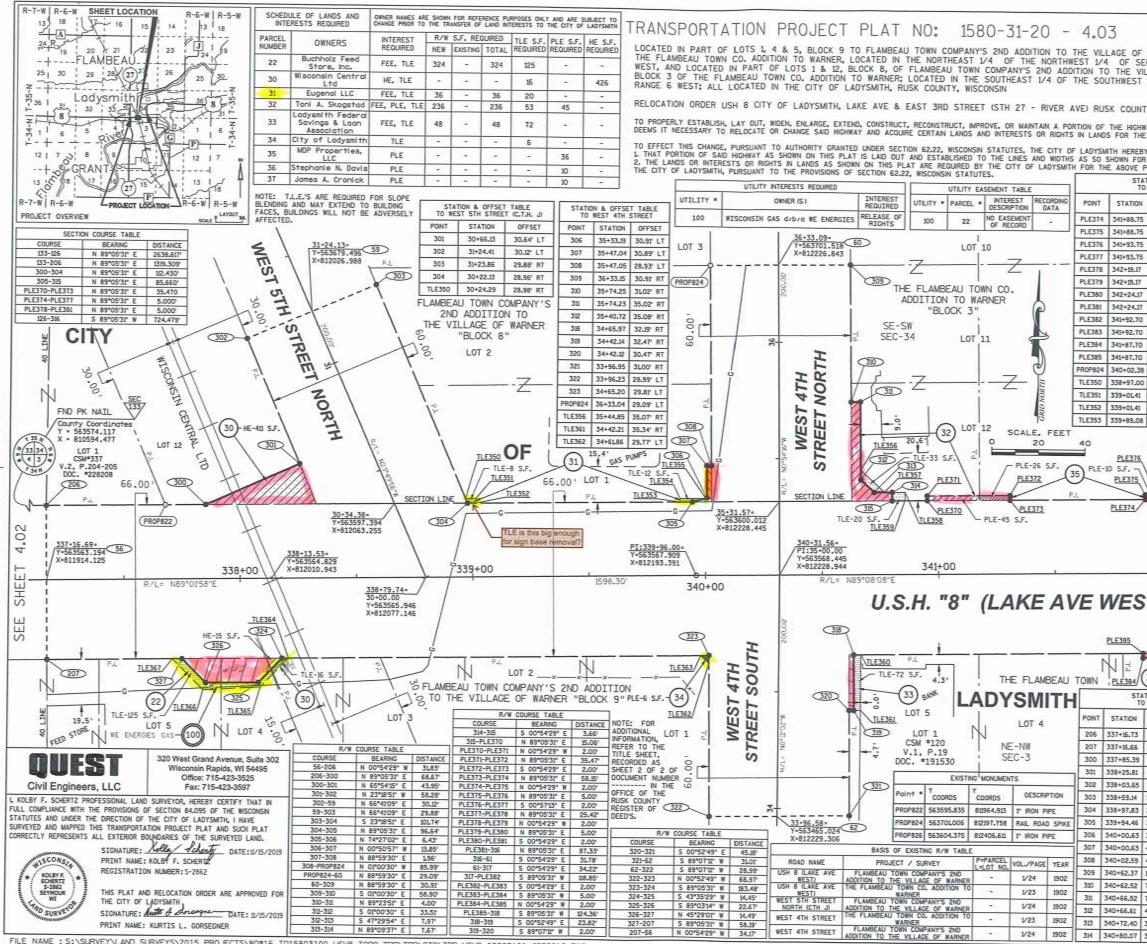
EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE:

EXISTING HIGHWAY RIGHT-OF-WAY FOR U.S.H. "8" ESTABLISHED FROM PREVIOUS PROJECT 1580-10-21, VARIOUS PLATS AND CSM'S AS LAID OUT IN THE BASIS OF EXISTING R/W TABLES.

> RESERVED FOR REGISTER OF DEEDS PROJECT NUMBER 1580-31-20 - 4.01 SHEET 2 OF 2 AMENDMENT NO:







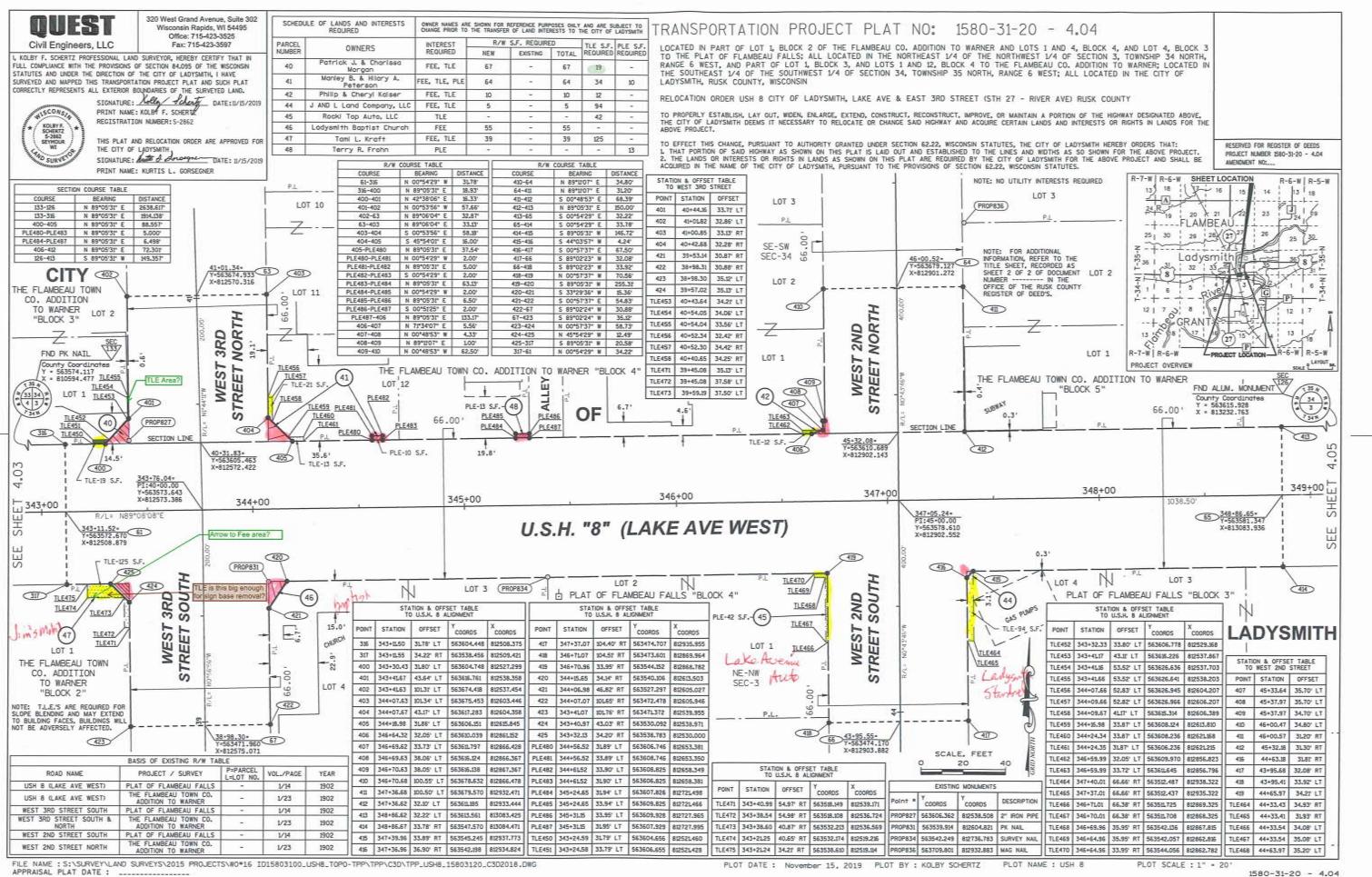
FILE NAME : S:\SURVEY\LAND SURVEYS\2015 PROJECTS\WO#16 ID15803100\_USH8\_TOPO-TPP\TPP\C3D\TPP\_USH8\_15803120\_C3D2018.DWG APPRAISAL PLAT DATE : \_\_\_\_\_\_

PLOT DATE : November 15, 2019 PLOT BY : KOLBY SCHERTZ PLO

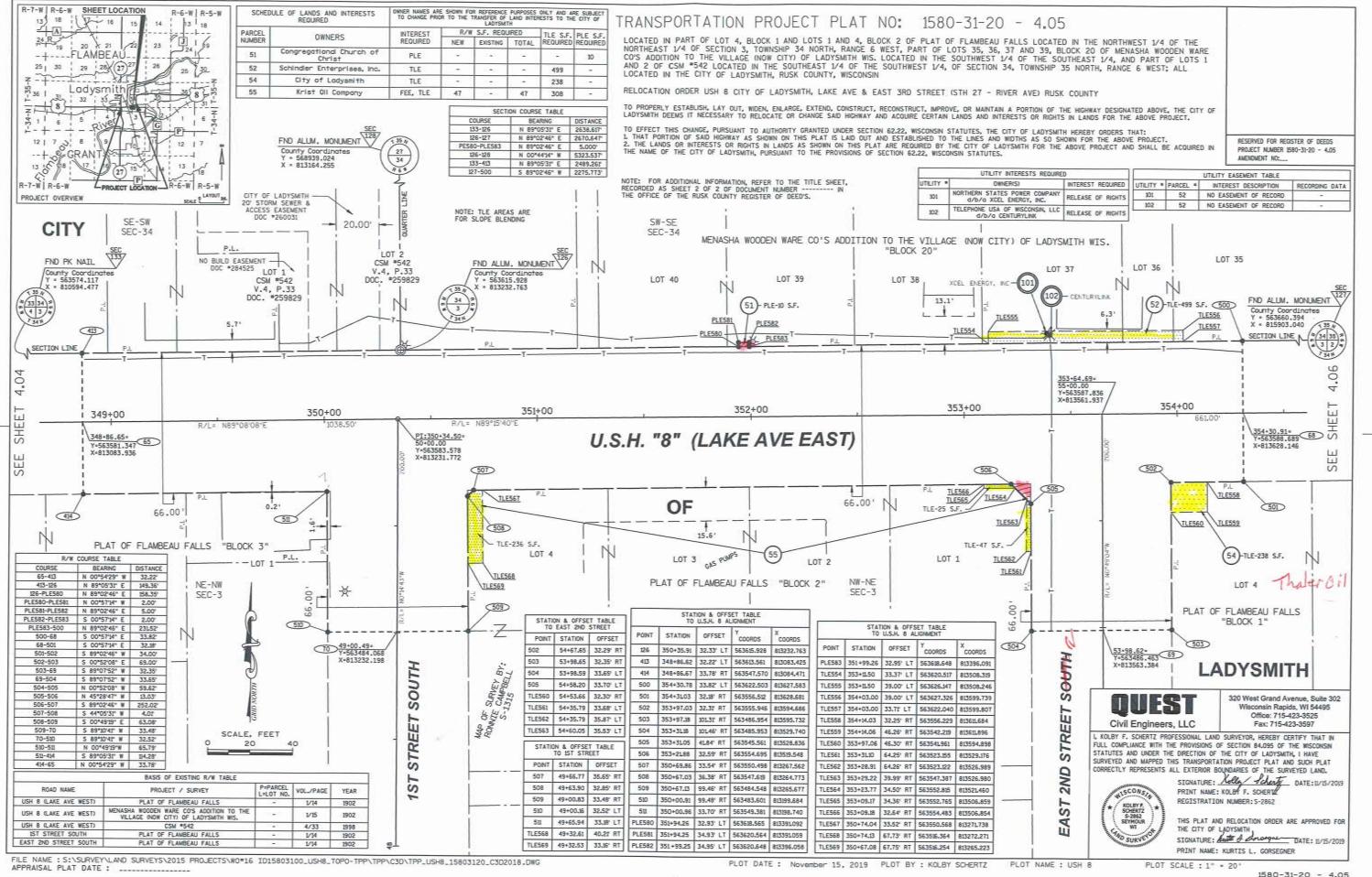
WARNER ECTION 3,	AND LOTS TOWNSHIP	3 AND 5 34 NORT	H. BLOC	K 2 OF			
ILLAGE OF 1/4 OF S	WARNER	AND LOTS	1 AND	12.			
D T OF S		- TURNSI	#F J2	NUR IH,			
TY							
WAY DESIGNA		, THE CITY	OF LADY	SMITH			
E ABOVE PR	OJECT.						
R THE ABOV	E PROJECT.	194 		ŀ	RESERVED	FOR REGISTER	OF DEEDS
PROJECT AN ATION & OFFS		E ACQUIRED	IN THE I	NAME OF	PROJECT N	UMBER 1580-31-	
D U.S.H. 8 AL	LIGNMENT	1		L	AMENOMENT		
OFFSET	Y COORDS	COORDS		STA	ATION & OFF O U.S.H. B A	SET TABLE	
5 3169' LT	563602.503		-11 - 50.00	STATION	OFFSET	Y COORDS	X COORDS
5 33.69' LT	563604.503		TLE35	4 339+89,0	8 33,05' LT	563600.838	
5 3169' LT	563602,582		TLE35				812197.037
31.71 LT	563602.985	-	TLE35			563613.847 563604.392	812263.302
33.77 LT	563604.985	ST INTOLS	TLE35	-		563604.520	
33.72' LT	563605.064	-	TLE35	9 340+85.58	-	563600.868	
34.31° RT	563536.573		TLE36			563534,573	812264.398
36.31 RT	563534.573	02000000	TLE36	-		563510.775	812264.488
36.31 RT	563534.494		TLE36	-		563530,204	812199.307
34.31 RT	563536.494		TLE36	-	-	563530.678	812018.608
8 133.02' LT 0 33.65' LT	56370L006 563599.879	812197.758	TLE36	5 338+08,51	46.57" RT	563518.184	812006.713
33.64° LT	563599.949	812093.839	TLE368			563516.775	811981.969
31.64" LT	563597.949	812098.276	TLE361	337+70,63	12-772-676	563529,886	811958.635
31.55' LT	563599.338	812185.941	]	T	SEC V126 FND	ALUM. MO	NIMENT
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						nty Coordin	
LEY LEY	PROPE	26)	$\sim$	LOT 1	Y =	nty Coordin 563615.928 813232.763	1354
ALLEY				LOT 1 E-10 S.F.	Y =	563615.928	1 35 4
	Td	26) PLE379		LOT 1	Y =	563615.928 813232.763	1 35 AV R. 0
ALEA		26) PLE379		LOT 1 E-10 S.F.	Y =	563615.928	135 AV 135 AV 134 13 14 13 14 13 14 13 14 13 14 15 15 14 15 15 15 15 15 15 15 15 15 15 15 15 15
ALEA	Td	26) PLE379		LOT 1 E-10 S.F.	Y =	563615.928 813232.763	4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
ALL		25 PLE379 PLE380		LOT 1 E-10 S.F.	¥:	563615.928 813232.763	
ALL		25 PLE379 PLE380		LOT 1 E-10 S.F.	¥:	563615.928 813232.763	4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
ALEA	LESTB PLESBI	25 PLE379 PLE380		LOT 1 E-10 S.F.	¥:	563615.928 813232.763	
PLEAT	LESTB PLESBI	25 PLE379 PLE380		LOT 1 E-10 S.F.	13.4'	563615.928 813232.763 P.L 315 343+00	T 4.04
PLE37 PLE37 P 342+00	LESTB PLESBI	25 PLE379 PLE380		LOT 1 E-10 S.F.	x = 13.4'	563615.928 813232.763 <u>P.L</u> <u>315</u> <u>343+00</u> <u>11.52-</u> <u>35172.670</u>	EET 4.04
PLE37 PLE37 P 342+00	LESTB PLESBI	25 PLE379 PLE380		LOT 1 E-10 S.F.	x = 13.4'	563615.928 813232.763 P.L 315 343+00	E SHEET 4.04
PLE37 PLE37 P 342+00	TA LEATB PLEABL	25 PLE379 PLE380		LOT 1 E-10 S.F.	x = 13.4'	563615.928 813232.763 <u>P.L</u> <u>315</u> <u>343+00</u> <u>11.52-</u> <u>35172.670</u>	E SHEET #.04
342+00	TA LEATB PLEABL	25 PLE379 PLE380		LOT 1 E-10 S.F.	x = 13.4'	563615.928 813232.763 <u>P.L</u> <u>315</u> <u>343+00</u> <u>11.52-</u> <u>35172.670</u>	EE SHEET #.04
342+00		28) PLE379 PLE380 22.0'		LOT 1 E-10 S.F. .00'	Y = 13.4'	563615.928 813232.763 813232.763 313232.763 335 343+00 <u>11.52-</u> 3572.670 2508.879	EE SHEET #.04
342+00	0 0 2 LOT 3	28) PLE379 PLE380 22.0'		LOT 1 E-10 S.F. .00' 1038	13.4'	563615.928 813232.763 813232.763 34322.763 335 343400 <u>343+00</u> <u>335</u> 335 2508.879	SEE SHEET 4.04
342+00 7)	0 5.5. 2 LOT 3 3 . ADDITI	28) PLE379 PLE380 22.0'		1 E-10 S.F. .00' 1038 0 F. 1038 0 7 .02	13.4 <sup>4</sup>	563615.9288 813232.763 813232.763 315 315 315 315 315 11.52* 335 317 LOT	SEE SHEET 4.04
342+00 7) 7) 7) 7) 7) 7) 7) 7) 7) 7) 7) 7) 7)	D C C C C C C C C C C C C C	28) PLE379 PLE380 22.0'		LOT I E-10 S.F. .00" 1039 0 1039 0         	13.4'	563615.928 813232.763 813232.763 313232.763 313232.763 313232.763 313232.763 315 315 2508.879	SEE SHEET 4.04
342+00 7) 7) 7) 7) 7) 7) 7) 7) 7) 7) 7) 7) 7)	D C C C C C C C C C C C C C	28) PLE379 PLE380 22.0'		LOT I E-10 S.F. .00" 1039 0 1039 0         	x = 13.4'	563615.928 813232.763 813232.763 313232.763 313232.763 313232.763 315 315 11.522 33572.670 2508.879	
342+00 7 7 7 7 7 7 7 7 7 7 7 7 7	D C C C C C C C C C C C C C	28) PLE379 PLE379 22.0'	LOT	LOT 1 E-10 S.F. .00° 1038 0 1038 0 7. 1038 0 7. 1038 0 7. 1038 0 7. 1038	13.4'	563615.928 813232.763 813232.763 313232.763 313232.763 313232.763 313232.763 315 315 2508.879	=====================================
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7) PLE37 PLE37 PLE41 70 70 70 70 70 70 70 70 70 70	LE378 PLE381 PLE381 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	26) PLE379 PLE379 PLE380 22.0' 22.0' 22.0' X CON TO W X COORDS 811913.620 811913.620 811914.666 811982.279	666 66 LOT ARNER 90NT 315 315 315 317	LOT 1 E-10 S.F. .00° 1038 0 1038 0 1038 0 1038 0 1038 0 1038 0 1038 0 1038 0 1038 0 1038 0 1038 0 1038 0 1038 0 1038 0 10 1 E-10 S.F. .00°	13.4'	563615.928 813232.763 813232.763 34322.763 315 315 315 315 1.52* 3572.670 2508.879 317 LOT ET TABLE IGNMENT Y COORDS 563600.781	1 x coords states states states states statestates statest state
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PLE3 342+00 7 7 9 105,4,8,4 10 7 9 105,4,8,4 10 10 10,5,4,8,4 10 10 10,5,4,8,4 10 10 10,5,4,8,4 10 10 10 10 10 10 10 10 10 10 10 10 10	0 0 0 5 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	285 PLE379 PLE390 22.0' 22.0' 22.0' 22.0' 22.0' 22.0' 22.0' 22.0' 22.0' 22.0'	666 66 LOT ARNER 90NT 315 315 315 315 315 315 319	LOT 1 E-10 S.F. .00 ° 1039 0 1039 1039	V = 13.4' 13.4' 13.4' 13.4' 13.4' 13.4' V=56 X=81 0FFSET 31.5t' LT 31.2t' LT 31.2t' RT 34.4t' RT 58.23' RT	563601.5.928 813232.763 34322.763 315 343+00 11.52= 3572.670 2508.879 317 LOT ET TABLE IGNMENT Y COORDS 563600.781 563604.448 563538.456 563534.523 563510.702	1 X COORDS 812276.972 812261.2148 8128
PLE-1 PLE-1 PLE-1 PLE-1 PLE-3 PLE-4 PLE-3 PLE-4 PLE-3 PL	COORDS 563595.023 563595.023 563595.023 563595.023 563595.023 563595.023	28) PLE379 PLE379 PLE380 22.0' 22.0' 22.0' X CON TO W X CONTO W X CONTO W X CONTO W 811913.620 811913.620 811914.666 811912.279	LOT ARNER 90NT 315 315 315 317 318	LOT 1 E-10 S.F. .00 ° 1038 0 1038 10 1038 1030 1038 1030 1038 100 100 100 100 100 100 100 100 100 10	Y = 13.4' 13.4' 50' Y=56 X=81 V=56 X=81 OFFSET 31.6Y LT 31.6Y LT 31.42Z' RT 34.44' RT	563601.5.928 813232.763 813232.763 343+00 11.52= 335 2508.879 317 L07 ET TABLE GNMENT Y COORDS 563600.781 563604.448 563538.456 563538.456 563538.456	1 x coords 812276.972 812261.2148 812261.514 812269.615
PLE-1 PLE-1 PLE-2 PLE-2 PLE-3 PL	0 0 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	285 PLE379 PLE380 22.0' 22.0' 22.0' 22.0' 22.0' 22.0' 22.0' 22.0' 22.0' 22.0' 22.0' 22.0' 22.0' 22.0' 22.0' 22.0' 22.0' 22.0' 22.0'	L07 ARNER 90INT 315 315 315 315 315 315 315 315 315 315	LUT 1 E-10 S.F. .00° 1039 0 1039 0 F E-10 S.F. .00° 1039 0 F E-10 S.F. .00° 1039 0 F E-10 S.F. .00° 1039 0 F E-10 S.F. .00° 1039 0 F E-10 S.F. .00° 1039 0 C STATION STATION STATION 340+60.35 340+63.35 340+63.35 340+63.35	Y = 13.4' 13.4' 13.4' 13.4' 13.4' 13.4' Y=56 X=81 0FFSET 34.5' LT 34.2' RT 34.2' RT 34.2' RT 58.23' RT	563601.5.928 813232.763 34322.763 315 343+00 11.52= 3572.670 2508.879 317 LOT ET TABLE IGNMENT Y COORDS 563600.781 563604.448 563538.456 563534.523 563510.702	1 X COORDS 812276.972 812261.2148 8128
PLE-1 PLE-1 PLE-2 PL	D C C C C C C C C C C C C C	265 PLE379 PLE380 22.0'	L00 ARNER POINT 315 315 315 315 317 318 319 320 321	LOT 1 E-10 S.F. .00 ° 1038 0 E-10 S.F. .00 ° 1038 0 F E-10 S.F. .00 ° 1038 0 C BLOCK STATION 340+80.07 343+11.55 340+63.35 340+63.35 340+63.37	V = 13.4' 13.4' 13.4' 13.4' 13.4' 13.4' V = 56 X = 81 13.5T LT 13.5T LT 13.5T LT 13.5T LT 13.42T RT 13.42T RT 13.42T RT 13.42T RT 13.42T RT 13.42T RT	563601.5.928 813232.763 813232.763 313232.763 313232.763 313232.763 313232.763 313232.763 313232.763 313222.763 3132 20022.763 313222.763 3132 20022.763 3132 20022.763 3132 20022.763 3132 20022.763 3132 20022.763 3132 20022.763 3132 20022.763 3132 20022.763 3132 20022.763 3132 2002.763 56360.761 563604.449 563530.672 563500.772 563500.772 563546.520	1 x coords 812266.375 81266.375 812266.375 812266.375 8126.375 8126.375 8126.375 8126.375 8126.375 8126.375 8126.375 8126.375 8126.375 8126.375 8126.375 8
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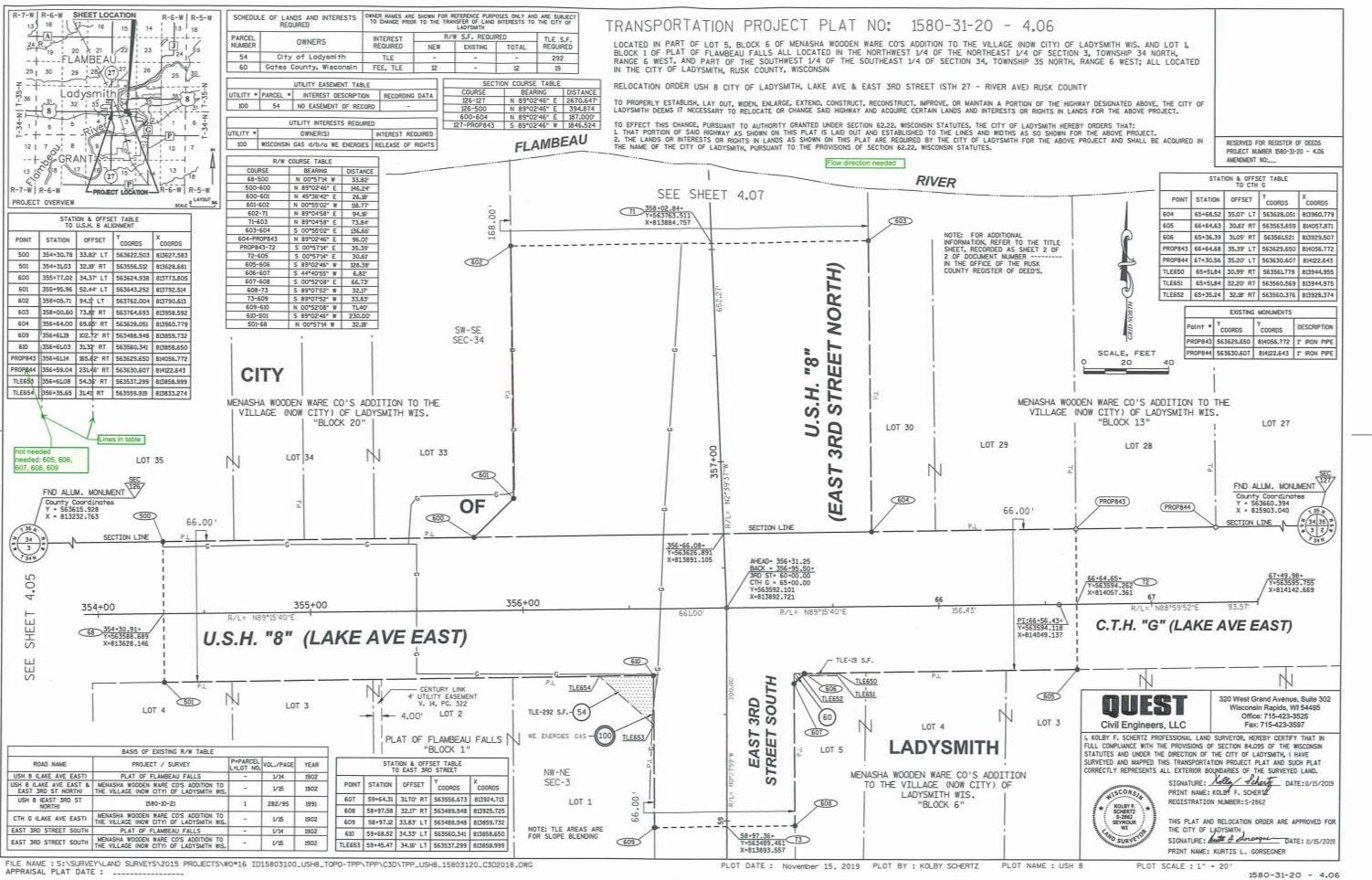
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1580-31-20 - 4.03



APPRAISAL PLAT DATE : \_\_\_\_







Appendix B: Background Information

State of Wisconsin DEPARTMENT OF NATURAL RESOURCES 2501 Golf Course Rd. Ashland WI 54806

Scott Walker, Governor Daniel L. Meyer, Secretary Telephone 608-266-2621 Toll Free 1-888-936-7463 TTY Access via relay - 711



August 16, 2018

LYNDALE TERMINAL COMPANY ATTN: CAMIE PEDERSON 4567 AMERICAN BLVD W BLOOMINGTON MN 55437

# KEEP THIS DOCUMENT WITH YOUR PROPERTY RECORDS

SUBJECT: Final Case Closure with Continuing Obligations Holiday Station Store #176, 605 Lake Avenue West, Ladysmith, Wisconsin DNR BRRTS Activity #03-55-000446 FID #855049030

Dear Ms. Pederson:

The Department of Natural Resources (DNR) considers the Holiday Station Store #176 site closed, with continuing obligations. No further investigation or remediation is required at this time. However, you, future property owners, and occupants of the property must comply with the continuing obligations as explained in the conditions of closure in this letter. Please read over this letter closely to ensure that you comply with all conditions and other on-going requirements. Provide this letter and any attachments listed at the end of this letter to anyone who purchases, rents or leases this property from you. Certain continuing obligations also apply to affected property owners or rights-of-way holders. These are identified within each continuing obligation.

This final closure decision is based on the correspondence and data provided and is issued under Wis. Adm. Code §§ NR 726 and 727. The DNR's Northern Region Closure Committee reviewed the request for closure on January 10, 2018. The Closure Committee reviewed this environmental remediation case for compliance with state laws and standards to maintain consistency in the closure of these cases. A request for remaining actions needed was issued by the DNR on January 19, 2018, and documentation that the conditions in that letter were met was received on April 27, 2018. Revised notifications to affected property owners were sent on June 1, 2018, and a final determination on closure was made after the required 30-day comment period passed.

The site is currently an operating retail gas station. Soil contamination was discovered in 1995 during the removal of the former underground tank system. Remedial actions included a 1,600-ton excavation of contamination soils, installation of a passive soil vent system and soil vapor extraction system. Remaining soil and groundwater contamination will be addressed through natural attenuation. The conditions of closure and continuing obligations required were based on the property being used for commercial purposes.

# **Continuing Obligations**

The continuing obligations for this site are summarized below. Further details on actions required are found in the section <u>Closure Conditions</u>.

- Groundwater contamination is present at or above Wis. Adm. Code § NR 140, enforcement standards.
- Residual soil contamination exists that must be properly managed should it be excavated or removed.
- Pavement must be maintained over contaminated soil and the DNR must be notified and approve any changes to this barrier.



• If a structural impediment that obstructed a complete site investigation and/or cleanup is removed or modified, additional environmental work must be completed.

The attached DNR fact sheet "Continuing Obligations for Environmental Protection," RR-819, helps to explain a property owner's responsibility for continuing obligations on their property. The fact sheet may also be obtained at <u>http://dnr.wi.gov/files/PDF/pubs/rr/RR819.pdf</u>.

# Continuing Obligations Database

This site will be included on the Bureau for Remediation and Redevelopment Tracking System (BRRTS on the Web) at <u>http://dnr.wi.gov/topic/Brownfields/wrrd.html</u>, to provide public notice of residual contamination and of any continuing obligations. The site can also be viewed on the Remediation and Redevelopment Sites Map (RRSM), a map view, under the Geographic Information System (GIS) Registry layer, at the same web address.

DNR approval prior to well construction or reconstruction is required for all sites shown on the GIS Registry, in accordance with Wis. Adm. Code § NR 812.09 (4) (w). This requirement applies to private drinking water wells and high capacity wells. To obtain approval, complete and submit Form 3300-254 to the DNR Drinking and Groundwater program's regional water supply specialist. This form can be obtained on-line at <a href="https://dnr.wi.gov/files/PDF/forms/3300/3300-254.pdf">https://dnr.wi.gov/files/PDF/forms/3300/3300-254.pdf</a>.

All site information is also on file at the DNR's Northern Region office at 107 Sutliff Avenue in Rhinelander, Wisconsin. This letter and information that was submitted with your closure request application, including any maintenance plan and maps, can be found as a Portable Document Format (PDF) in BRRTS on the Web.

# Prohibited Activities

Certain activities are prohibited at closed sites because maintenance of a barrier is intended to prevent contact with any remaining contamination. When a barrier is required, the condition of closure requires notification of the DNR before making a change, in order to determine if further action is needed to maintain the protectiveness of the remedy employed. The following activities are prohibited on any portion of the property where pavement, or a building foundation is required, as shown on the attached Figure D2, Cap Maintenance Area, prepared by American Engineering Testing, Inc., and dated November 21, 2017 (resubmitted June 5, 2018), <u>unless prior</u> written approval has been obtained from the DNR:

- removal of the existing barrier or cover;
- replacement with another barrier or cover;
- excavating or grading of the land surface;
- filling on covered or paved areas;
- plowing for agricultural cultivation;
- construction or placement of a building or other structure;
- changing the use or occupancy of the property to a residential exposure setting, which may include certain uses, such as single or multiple family residences, a school, day care, senior center, hospital, or similar residential exposure settings.

# **Closure Conditions**

Compliance with the requirements of this letter is a responsibility to which you and any subsequent property owners must adhere. DNR staff will conduct periodic prearranged inspections to ensure that the conditions included in this letter and the attached maintenance plan are met. If these requirements are not followed, the DNR may take enforcement action under Wis. Stat. § 292.11, to ensure compliance with the specified requirements, limitations or other conditions related to the property.

Please send written notifications and inspection reports in accordance with the following requirements to: Department of Natural Resources Attn: Remediation and Redevelopment Program Environmental Program Associate 107 Sutliff Avenue Rhinelander, WI 54501

#### Residual Groundwater Contamination (Wis. Adm. Code §§ NR 140, 812)

Groundwater contamination greater than enforcement standards is present both on this contaminated property and off this contaminated property, as shown on the attached Figure B.3.b, Groundwater Isoconcentration July 2017, prepared by American Engineering Testing, Inc., dated August 10, 2017 (resubmitted June 5, 2018). If you intend to construct a new well, or reconstruct an existing well, you'll need prior DNR approval. Affected property owners and right-of-way holders were notified of the presence of groundwater contamination. This continuing obligation also applies to the owners of 503 Lake Avenue West, 212 West 6<sup>th</sup> Street North, and the City of Ladysmith as the ROW holders for West 6<sup>th</sup> Street North.

<u>Residual Soil Contamination</u> (Wis. Adm. Code §§ NR 718, 500 to 536, or Wis. Stat. § 289) Soil contamination remains by the current pump islands, tank bed and canopy and extends to the east onto the right-of-way of West 6<sup>th</sup> Street and on the Westgate Mall property and north by MW-6 as indicated on the attached Figure B.2.b Residual Soil Contamination, prepared by American Engineering Testing, Inc., and dated November 17, 2017 (resubmitted June 5, 2018). If soil in the specific locations described above is excavated in the future, the property owner or right-of-way holder at the time of excavation must sample and analyze the excavated soil to determine if contamination remains. If sampling confirms that contamination is present, the property owner or right-of-way holder at the time of excavation will need to determine whether the material is considered solid or hazardous waste and ensure that any storage, treatment or disposal is in compliance with applicable standards and rules. Contaminated soil may be managed in accordance with Wis. Adm. Code § NR 718, with prior DNR approval. This continuing obligation also applies to the owners of 503 Lake Avenue West, 212 West 6<sup>th</sup> Street North, and the City of Ladysmith as the ROW holders for West 6<sup>th</sup> Street North.

In addition, all current and future owners and occupants of the property and right-of-way holders need to be aware that excavation of the contaminated soil may pose an inhalation or other direct contact hazard and as a result special precautions may need to be taken to prevent a direct contact health threat to humans.

<u>Cover or Barrier</u> (Wis. Stat. § 292.12 (2) (a), Wis. Adm. Code §§ NR 726.15, NR 727.07) The pavement that exists in the location shown on the attached Figure D2, Cap Maintenance Area, shall be maintained in compliance with Attachment D.1 Cap Maintenance Plan, prepared by American Engineering Testing, Inc., and dated October 19, 2017 (resubmitted June 5, 2018), in order to minimize the infiltration of water and prevent additional groundwater contamination that would violate the groundwater quality standards in Wis. Adm. Code § NR 140, and to prevent direct contact with residual soil contamination that might otherwise pose a threat to human health.

In this case, the building is also considered a structural impediment, and additional investigation and response requirements apply as described in the section titled <u>Structural Impediments</u>.

The cover approved for this closure was designed to be protective for a commercial or industrial use setting. A request may be made to modify or replace a cover or barrier. Before removing or replacing the cover, or before using the property for residential purposes, you must notify the DNR at least 45 days before taking an action. The replacement or modified cover or barrier must be protective of the revised use of the property and must be approved in writing by the DNR prior to implementation. A cover or barrier for industrial land uses, or certain types of commercial land uses may not be protective if the use of the property were to change such that a residential exposure would apply. This may include, but is not limited to single or multiple family residences, a

school, day care, senior center, hospital or similar settings. In addition, a cover or barrier for multi-family residential housing use may not be appropriate for use at a single-family residence.

The maintenance plan and inspection log (DNR form 4400-305) included as part of Attachment D.1 Cap Maintenance Plan, are to be kept up-to-date and on-site. Inspections shall be conducted annually, in accordance with the attached maintenance plan. Submit the inspection log to the DNR only upon request.

#### Structural Impediments (Wis. Stat. § 292.12 (2) (b), Wis. Adm. Code §§ NR 726.15, NR 727.07)

The existing site building as shown on the attached Figure B.2.b Residual Soil Contamination, and attachment B.5 Structural Impediment Photos, prepared by American Engineering Testing, Inc., and dated October 5, 2017 (resubmitted June 5, 2018), made complete investigation and/or remediation of the soil contamination on this property impracticable. If the structural impediment is to be removed, the property owner shall notify the DNR at least 45 days before removal and conduct an investigation of the degree and extent of petroleum contamination below the structural impediment. If contamination is found at that time, the contamination shall be properly remediated in accordance with applicable statutes and rules.

#### PECFA Reimbursement

Wis. Stat. § 101.143, requires that Petroleum Environmental Cleanup Fund Award (PECFA) claimants seeking reimbursement of interest costs, for sites with petroleum contamination, submit a final reimbursement claim within 120 days after they receive a closure letter on their site. For claims not received within 120 days of the date of this letter, interest costs after 60 days of the date of this letter will not be eligible for PECFA reimbursement. If there is equipment purchased with PECFA funds remaining at the site, contact the DNR Project Manager to determine the method for salvaging the equipment.

Per Wisconsin Act 55 (2015 State budget), a claim for PECFA reimbursement must be submitted within 180 days of incurring costs (i.e., completing a task). If your final PECFA claim is not submitted within 180 days of incurring the costs, the costs will not be eligible for PECFA reimbursement.

# In Closing

Please be aware that the case may be reopened pursuant to Wis. Adm. Code § NR 727.13, for any of the following situations:

- if additional information regarding site conditions indicates that contamination on or from the site poses a threat to public health, safety, or welfare or to the environment,
- if the property owner does not comply with the conditions of closure, with any deed restrictions applied to the property, or with a certificate of completion issued under Wis. Stat. § 292.15, or
- a property owner fails to maintain or comply with a continuing obligation (imposed under this closure approval letter).

The DNR appreciates your efforts to restore the environment at this site. If you have any questions regarding this closure decision or anything outlined in this letter, please contact Carrie Stoltz at (715) 365-8942 or at <u>Carrie.Stoltz@Wisconsin.gov</u>

Sincerely,

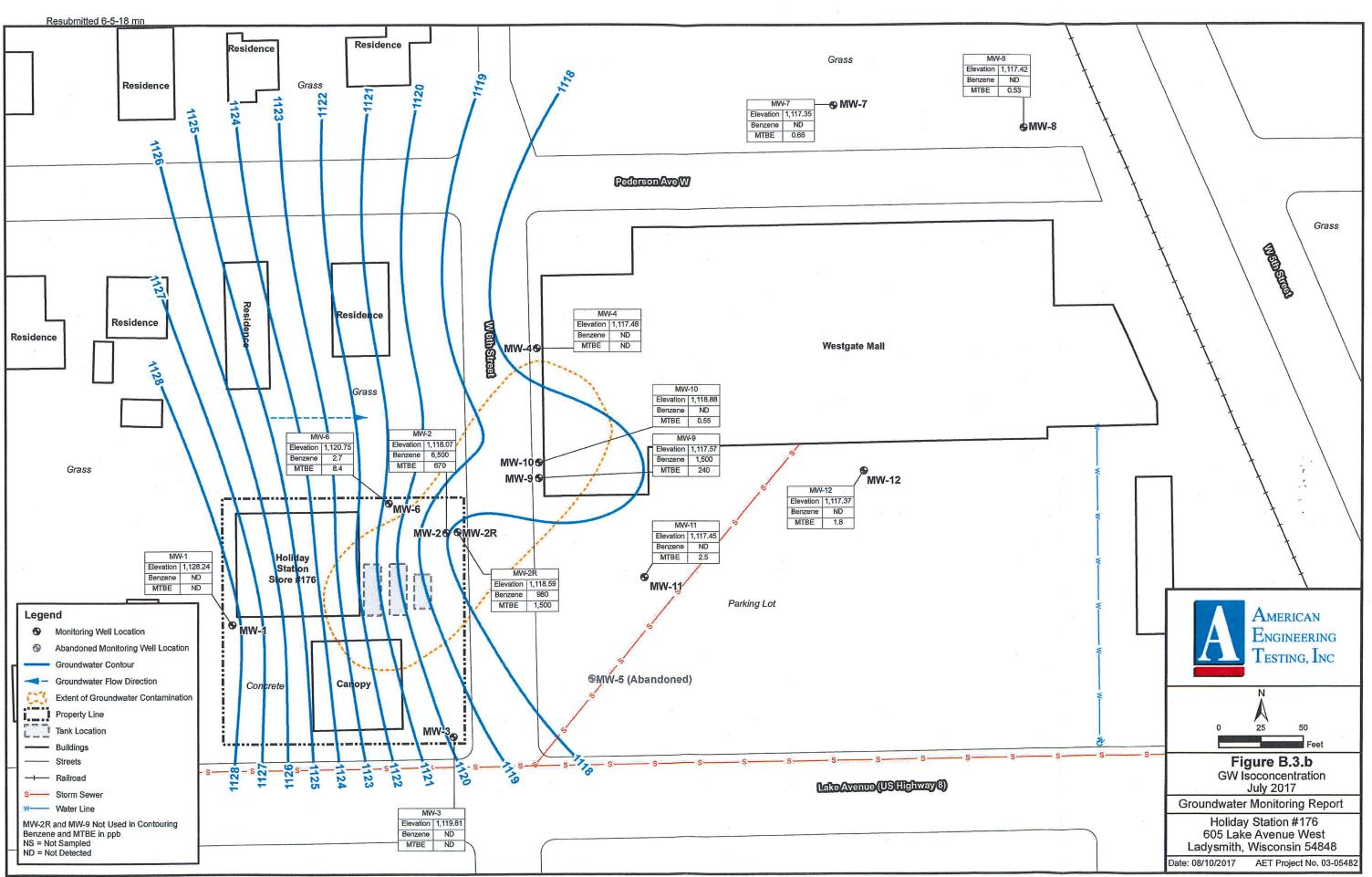
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Christopher A. Saari Northern Region Team Supervisor Remediation and Redevelopment Program

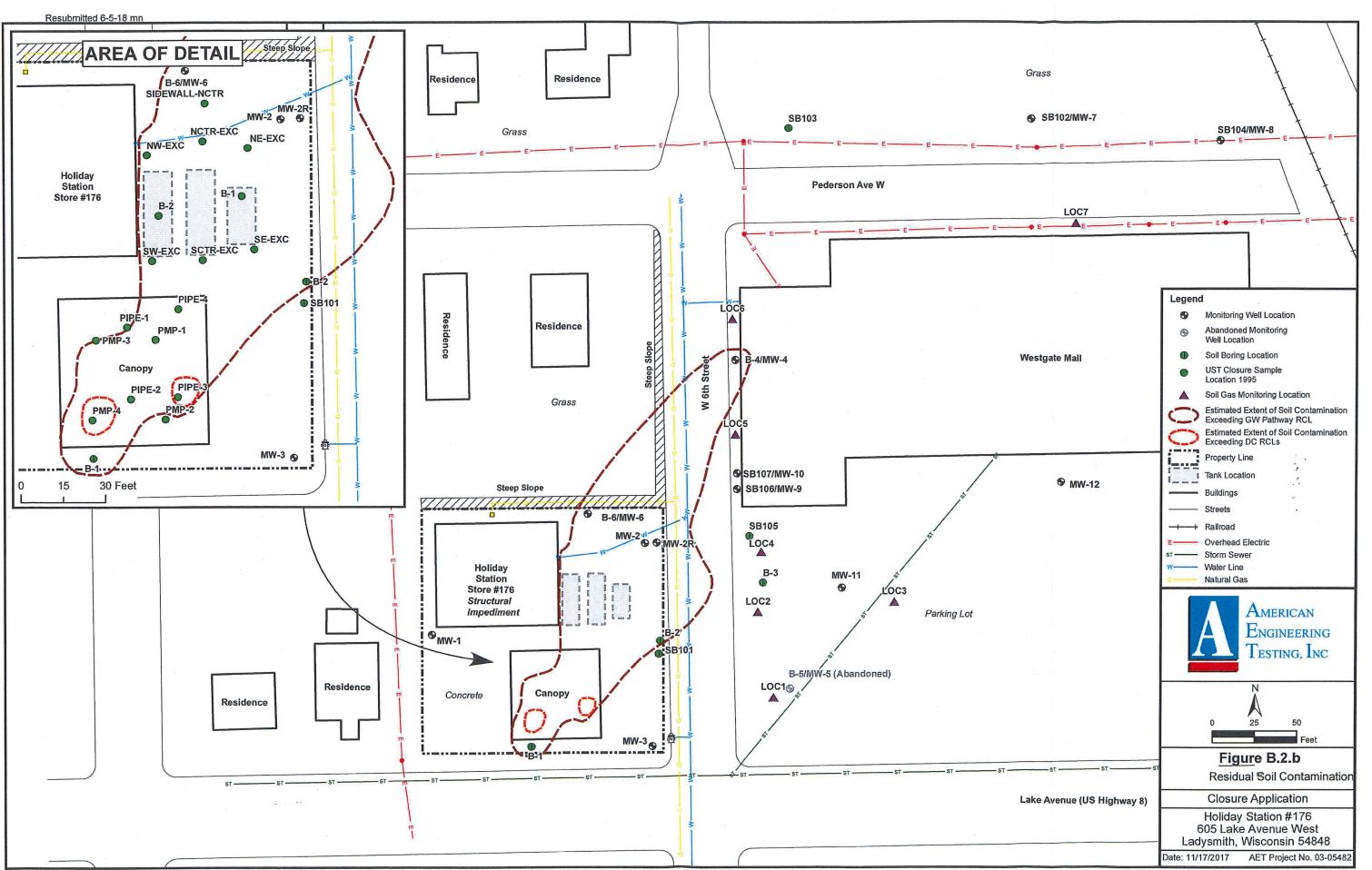
Page 5

Attachments:

- Figure B.3.b, Groundwater Isoconcentration July 2017, American Engineering Testing, Inc., August 10, 2017 (resubmitted June 5, 2018)
- Figure B.2.b Residual Soil Contamination, American Engineering Testing, Inc., November 17, 2017 (resubmitted June 5, 2018)
- Attachment D.1 Cap Maintenance Plan, dated October 19, 2017 (resubmitted June 5, 2018)
- Attachment B5 Structural Impediment Photos, American Engineering Testing, Inc., October 5, 2017 (resubmitted June 5, 2018)
- Continuing Obligations for Environmental Protection, DNR Publication RR-819
- cc: Mike Neal American Engineering Testing, Inc. (via email) Carrie Stoltz – DNR Rhinelander (via email)



File: HS176\_03-05482\_Fig4\_GWD\_0717.mxd Date: 08/10/2017



File: HS176\_LS\_CA\_FigB2a\_SoilCont.mxd Date: 11/17/2017

# State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES



Jim Doyle, Governor Matthew J. Frank, Secretary John Gozdzialski, Regional Director Northern Region Headquarters 107 Sutliff Ave. Rhinelander, Wisconsin 54501-3349 Telephone 715-365-8900 FAX 715-365-8932 TTY Access via relay - 711

September 2, 2009

Mr. Brad Goffin Goffin Oil Company 407 W. Lake Avenue Ladysmith, WI 54848

SUBJECT: Final Case Closure with Continuing Obligations for the Goffin Oil Company Site at 407 Lake Ave. West in Ladysmith, WI (BRRTS # 03-55-150407)

Dear Mr. Goffin:

On August 6, 2009, the Northern Region Closure Committee reviewed the above referenced case for closure. This committee reviews environmental remediation cases for compliance with state laws and standards to maintain consistency in the closure of these cases. In a letter dated August 10, 2009, you were notified that the Closure Committee had granted conditional closure to this case.

In a letter dated August 24, 2009 the Department received information or documentation indicating that you have complied with the requirements for final closure. The conditions of closure included the proper abandonment of the monitoring wells on the site.

Based on the correspondence and data provided, it appears that your case meets the closure requirements in ch. NR 726, Wisconsin Administrative Code. The Department considers this case closed and no further investigation or remediation is required at this time, however, you and future property owners must comply with certain continuing obligations as explained in this letter.

# **GIS Registry**

This site will be listed on the Remediation and Redevelopment Program's GIS Registry. The specific reasons are summarized below:

- Residual soil contamination exists that must be properly managed should it be excavated or removed
- If a structural impediment that obstructed a complete site investigation or cleanup is removed or modified, additional environmental work must be completed



- Pavement must be maintained over contaminated soil and the state must approve any changes to this barrier
- Groundwater contamination is present above Chapter NR 140 enforcement standards

This letter and information that was submitted with your closure request application will be included on the GIS Registry. To review the sites on the GIS Registry web page, visit the RR Sites Map page at <a href="http://dnr.wi.gov/org/aw/rr/gis/index.htm">http://dnr.wi.gov/org/aw/rr/gis/index.htm</a>. If the property is listed on the GIS Registry because of remaining contamination and you intend to construct or reconstruct a well, you will need prior Department approval in accordance with s. NR 812.09(4)(w), Wis. Adm. Code. To obtain approval, Form 3300-254 needs to be completed and submitted to the DNR Drinking and Groundwater program's regional water supply specialist. This form can be obtained on-line <a href="http://dnr.wi.gov/org/water/dwg/3300254.pdf">http://dnr.wi.gov/org/water/dwg/3300254.pdf</a> or at the web address listed above for the GIS Registry.

# **Closure Conditions**

Please be aware that pursuant to s. 292.12 Wisconsin Statutes, compliance with the requirements of this letter is a responsibility to which you and any subsequent property owners must adhere. You must pass on the information about these continuing obligations to the next property owner or owners. If these requirements are not followed or if additional information regarding site conditions indicates that contamination on or from the site poses a threat to public health, safety, welfare, or the environment, the Department may take enforcement action under s. 292.11 Wisconsin Statutes to ensure compliance with the specified requirements, limitations or other conditions related to the property or this case may be reopened pursuant to s. NR 726.09, Wis. Adm. Code. The Department intends to conduct inspections in the future to ensure that the conditions included in this letter including compliance with referenced maintenance plans are met.

#### Residual Soil Contamination

Residual soil contamination remains at the location of the old underground storage tanks (USTs) as indicated in Figure 1 titled "Estimated Extent of Soil Contamination" dated 02/09 in the information submitted to the Department of Natural Resources. If soil in the specific locations described above is excavated in the future, then pursuant to ch. NR 718 or, if applicable, ch. 289, Stats., and chs. 500 to 536, the property owner at the time of excavation must sample and analyze the excavated soil to determine if residual contamination remains. If sampling confirms that contamination is present the property owner at the time of excavation will need to determine whether the material is considered solid or hazardous waste and ensure that any storage, treatment or disposal is in compliance with applicable standards and rules. In addition, all current and future owners and occupants of the property need to be aware that excavation of the contaminated soil may pose an inhalation or other direct contact hazard and as a result special precautions may need to be taken to prevent a direct contact health threat to humans.

# Structural Impediments

Structural impediments existing at the time of cleanup as shown on Figure I and includes areas around the pump island, made complete investigation of the soil contamination on this property impracticable. Pursuant to s. 292.12(2)(b), Wis. Stats., if the structural impediments on this property that are described above are to be removed, the property owner shall notify the Department of Natural Resources before removal and conduct an investigation of the degree and extent of petroleum contamination. If contamination is found at that time, the contamination shall be properly remediated in accordance with applicable statutes and rules. If soil in the specific locations described above is excavated, the property owner at the time of excavation must sample and analyze the excavated soil to determine if residual contamination remains. If sampling confirms that contamination is present the property owner at the time of excavation will need to determine whether the material is considered solid or hazardous waste and ensure that any storage, treatment or disposal is in compliance with applicable statutes and rules. In addition, all current and future owners and occupants of the property need to be aware that excavation of the contaminated soil may pose an inhalation or other direct contact hazard and as a result special precautions may need to be taken during excavation activities to prevent a health threat to humans.

# Cover or Barrier

Pursuant to s. 292.12(2)(a), Wis. Stats., the pavement that currently exists in the location shown on the attached Figure #3 "Exhibit B Soil Excavation Map" shall be maintained in compliance with the attached maintenance plan in order to prevent direct contact with residual soil contamination that might otherwise pose a threat to human health. The attached maintenance plan and inspection log are to be kept up-to-date and on-site. Please submit the inspection log to the Department only upon request.

# **Residual Groundwater Contamination**

Groundwater impacted by petroleum contamination greater than enforcement standards set forth in ch. NR140, Wis. Adm. Code, is present as shown on Figure 2 titled "Extent of Benzene Above and ES in Groundwater as of February 2009". For more detailed information regarding the locations where groundwater samples have been collected (i.e., monitoring well locations) and the associated contaminant concentrations, refer to the Remediation and Redevelopment Program's GIS Registry at the RR Sites Map page at <u>http://dnr.wi.gov/org/aw/rr/gis/index.htm</u>.

# Post-Closure Notification Requirements

In accordance with ss, 292.12 and 292.13, Wis. Stats., you must notify the Department before making changes that affect or relate to the conditions of closure in this letter. For this case, examples of changed conditions requiring prior notification include, but are not limited to:

 Any activity or construction that results in the removal or modification of a structural impediment that obstructed a complete site investigation or cleanup  Disturbance, construction on, change or removal in whole or part of pavement that must be maintained over contaminated soil

Please send written notifications in accordance with the above requirements to William Schultz at Wisconsin DNR, 107 Sutliff Ave., Rhinelander, WI 54501.

The Department appreciates your efforts to restore the environment at this site. If you have any questions regarding this closure decision or anything outlined in this letter, please contact William Schultz at (715) 365-8965.

Sincerely,

cc:

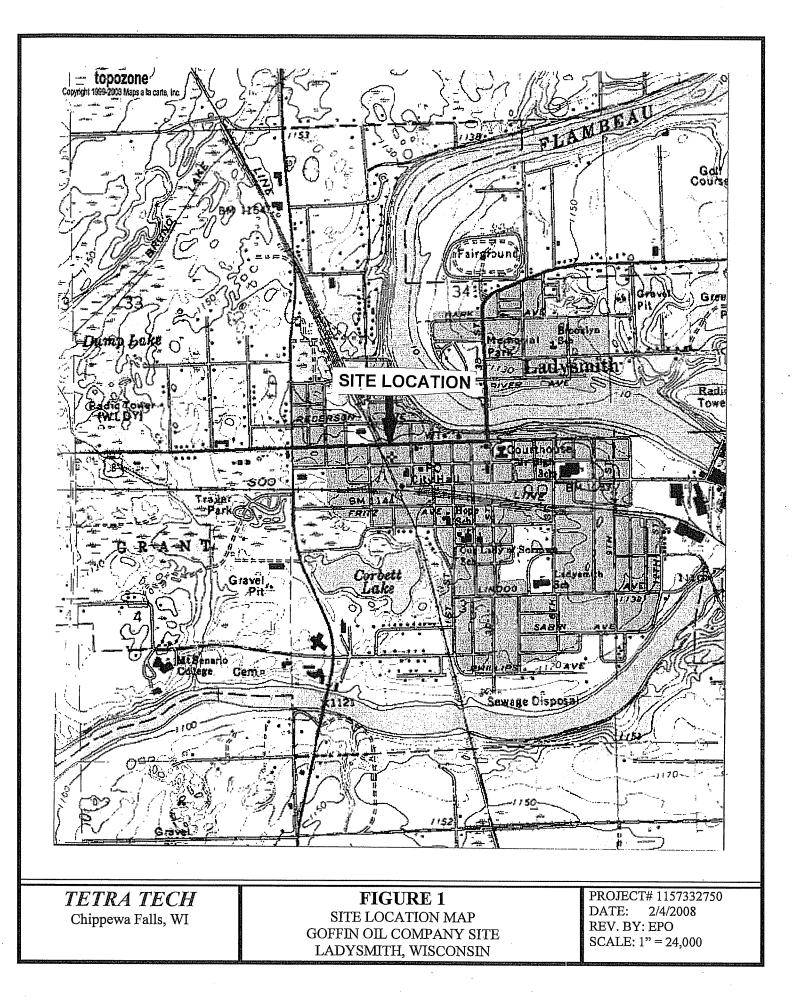
John/Rebinson, Team Supervisor Northern Region Remediation & Redevelopment Program

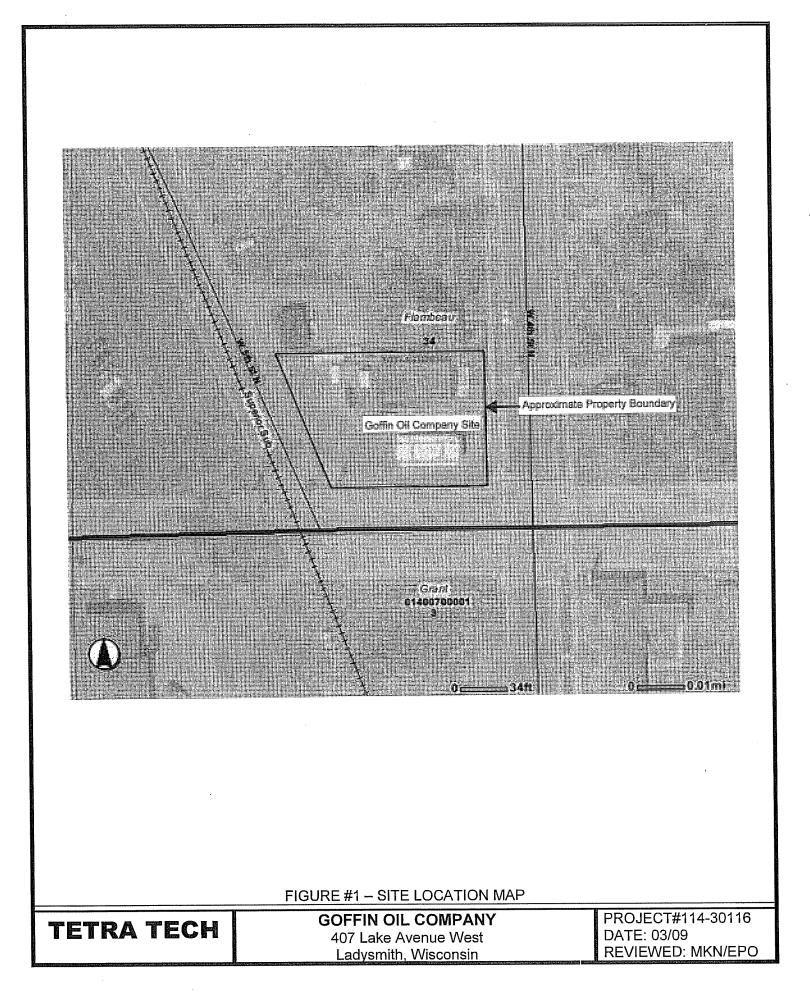
Attachments: Figure 1 – Estimated Extent of Soil Contamination

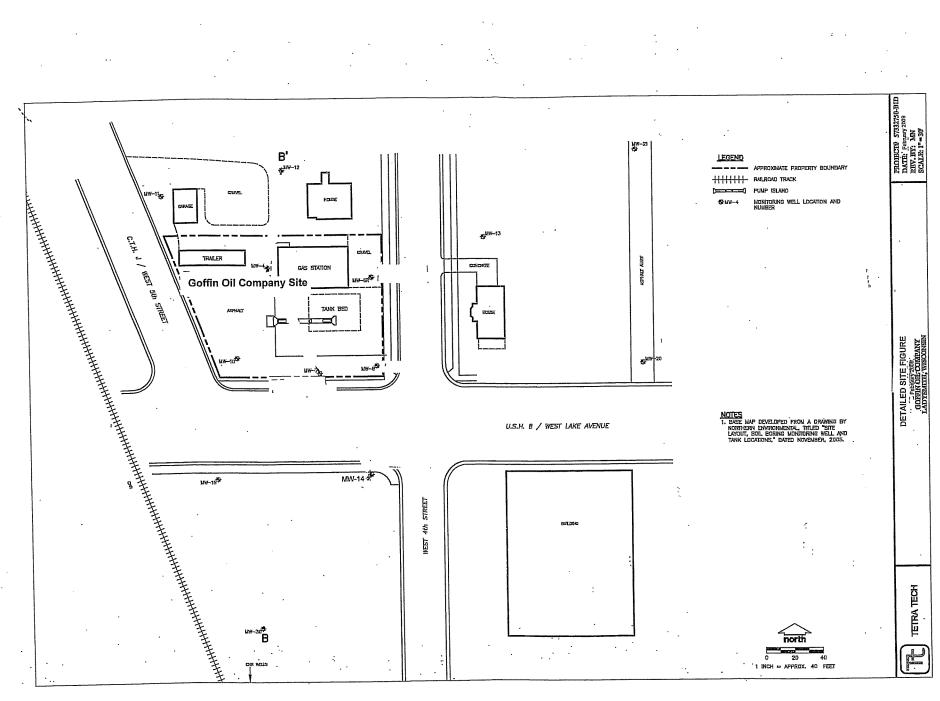
Figure 2 – Extent of Benzene Above and ES in Groundwater as of February 2009 Figure 3 – Exhibit B Soil Excavation Map Pavement Cover Maintenance Plan Cap Inspection Log

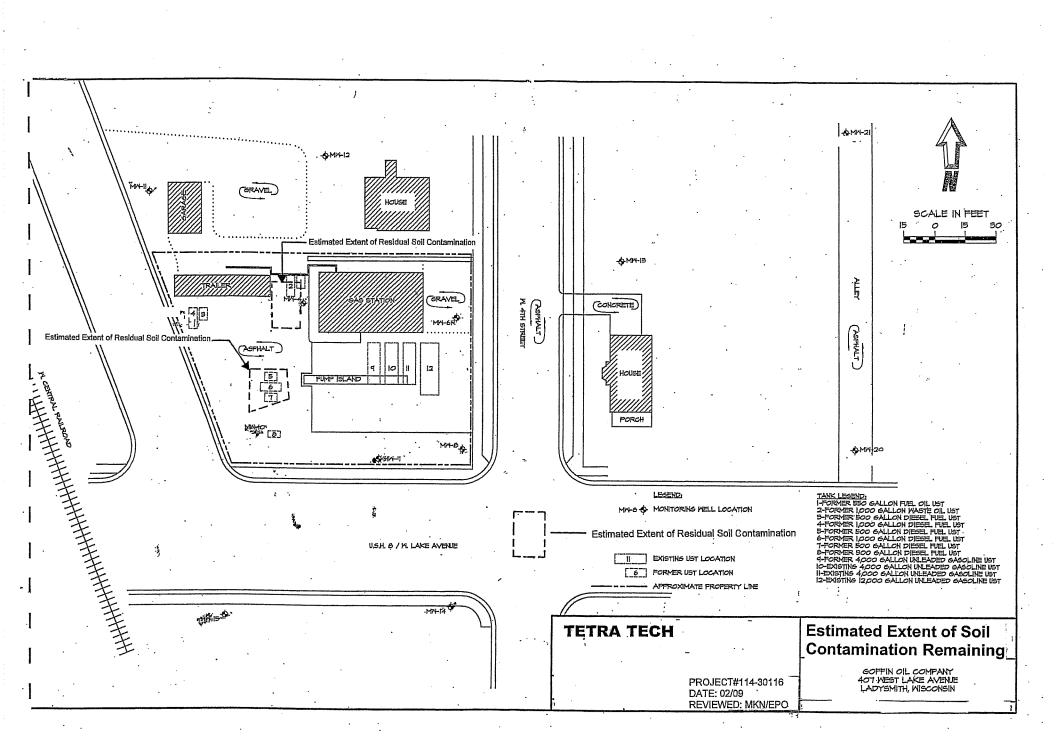
Mike Neal, Tetra Tech 1837 CTH OO Chippewa Falls, WI 54729-6519

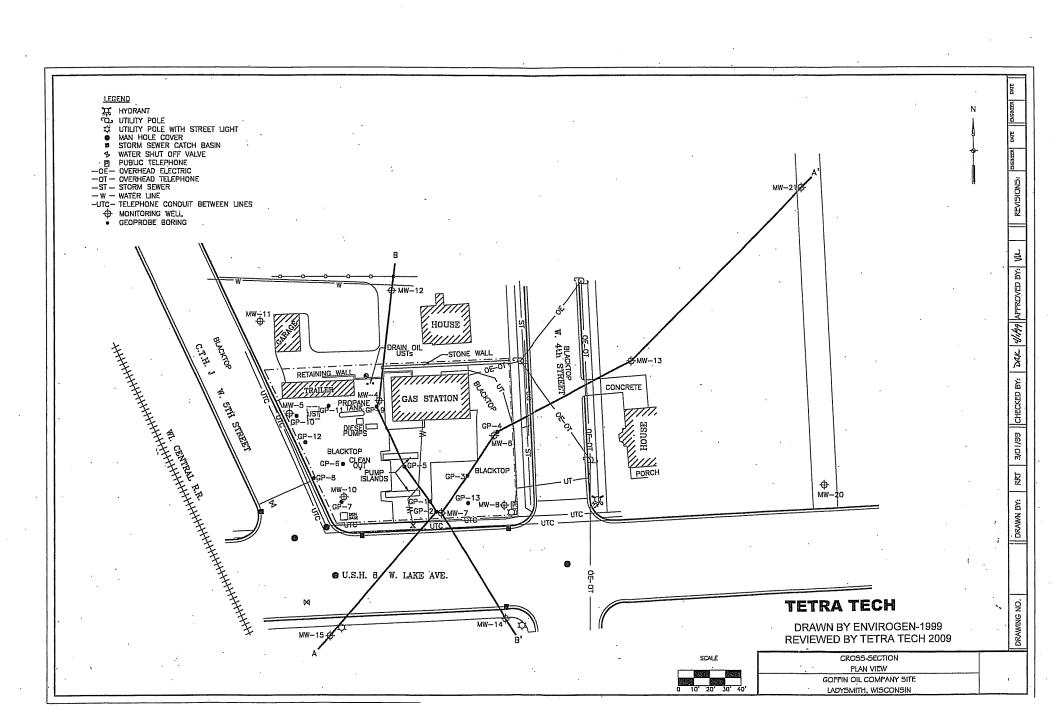
Dave Blair, DCOM (by e-mail)

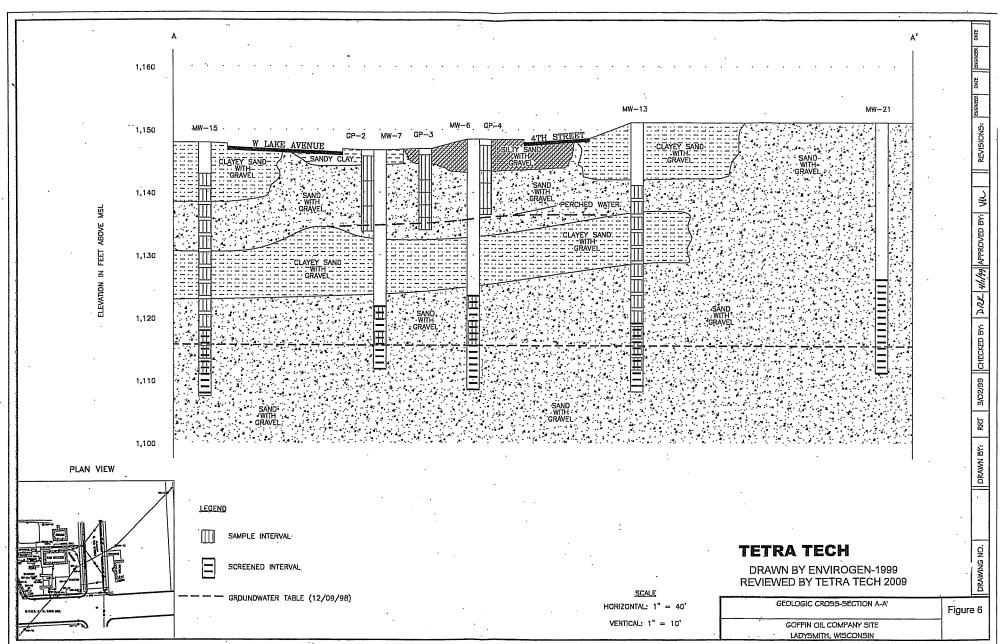


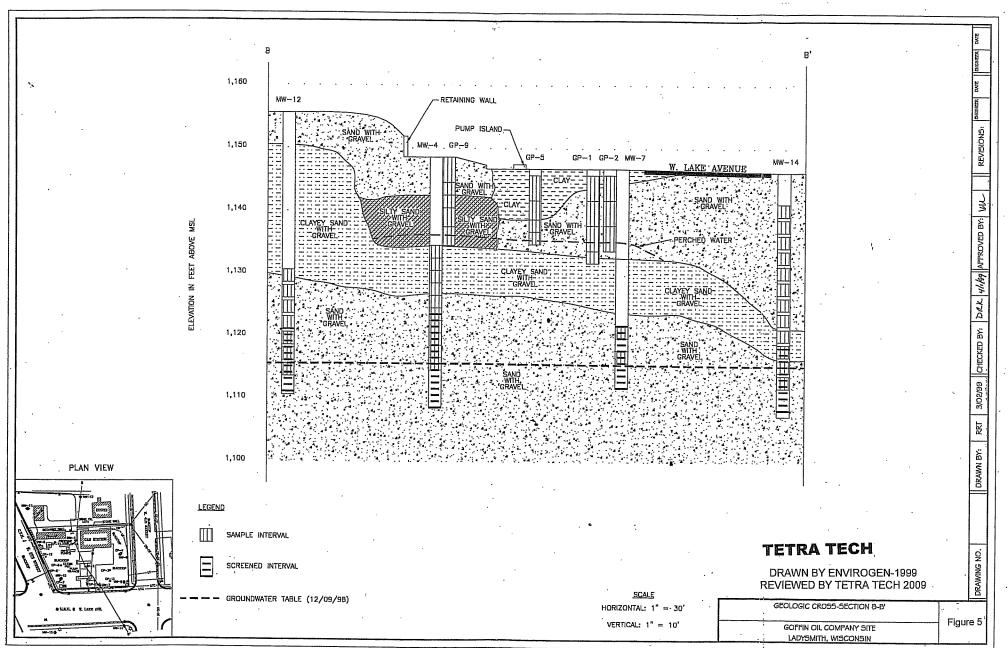




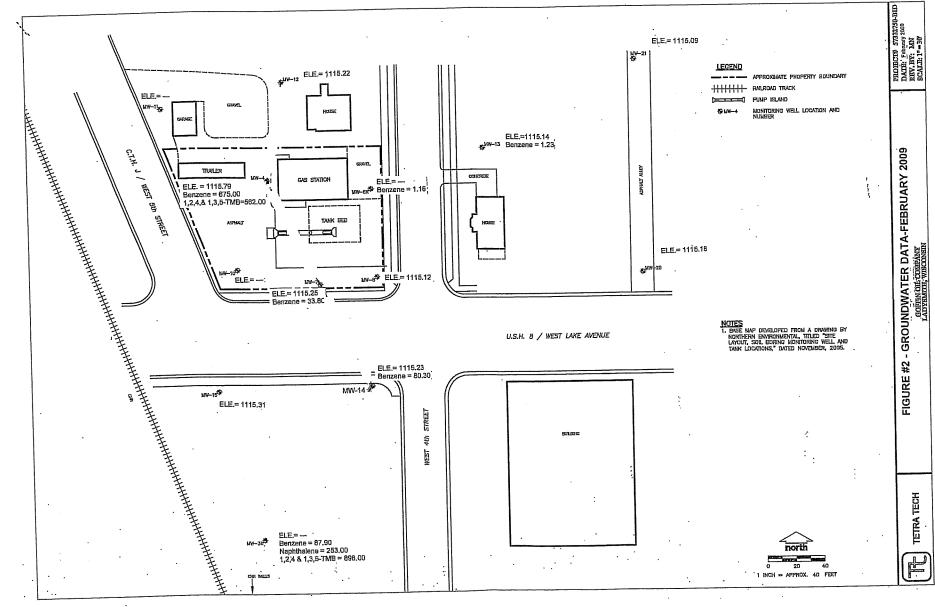






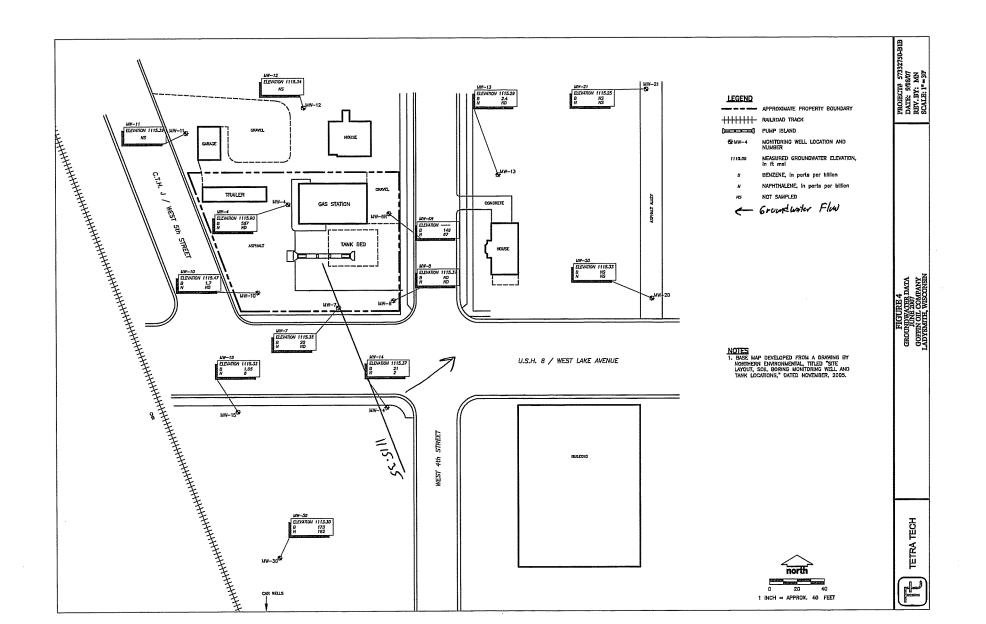


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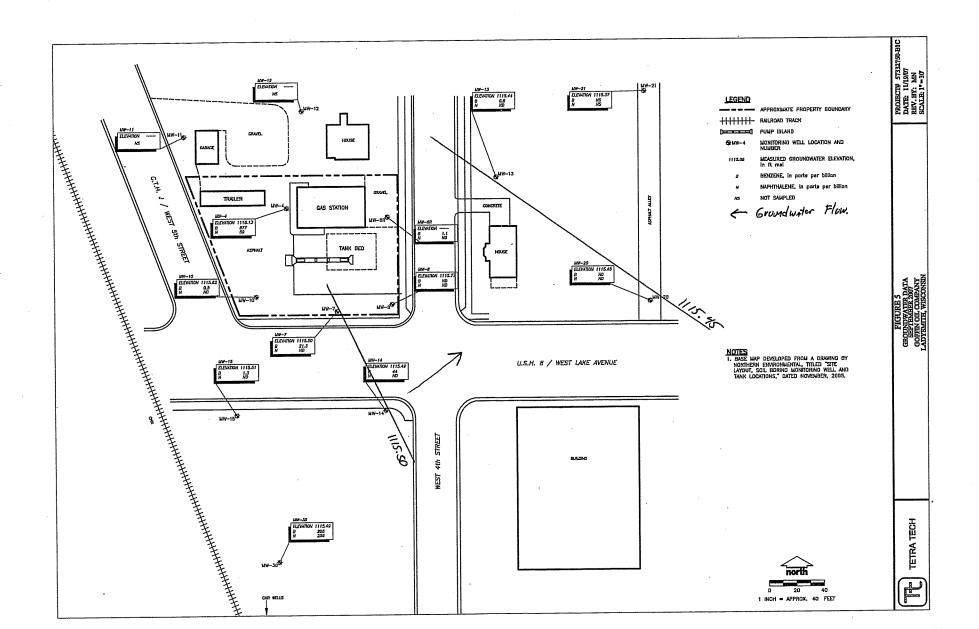
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		·				
Sample	Depth	Sample	Date		D Headspace Analy	***************************************
Label	(feet)	Location	Collected	Time Collected	Time	PID
				Collected	Analyzed	Response (iui)
S1	3	Landfill	10/27/04	0814	0847	195
S2*	5	Landfill	10/27/04	0823	0848	1990
S3	8	Landfill	10/27/04	0829	1848	1172
S4	10	Landfill	10/27/04	0900	0930	681
S5	11	Landfill	10/27/04	0909	0931	729
S6	13	Landfill	10/27/04	0949	1059	111
S7	14	Landfill	10/27/04	0958	1100	123
S8	15	Landfill	10/27/04	1005	1101	79
S9	13	Landfill	10/27/04	1038	1101	341
S10	3	Northéast comer	10/27/04	1043	1126	32
S11	6	Northeast corner	10/27/04	1044	1127	143
. S12	9	Northeast corner	. 10/27/04	1045	1127	366
S13*	12	Northeast comer	10/27/04	1046	1128	249
S14*	3	West Wall	10/27/04	1047	1129	· 88
S15	6	West Wall	10/27/04	1048	1129	275
S16*	9 '	West Wall	10/27/04	1049	1130	276
S17	12	West Wall	10/27/04	1050	1130	123
S18	3	Southeast corner	10/27/04	1051	1130	71
S19*	6	Southeast corner	10/27/04	1052	1131	359
S20	9	Southeast corner	10/27/04	1053	1131	104
S21	12	Southeast corner	10/27/04	1054	1131	108
S22*	15	Bottom	10/27/04	1055	1132	206
 S23	3	Landfill	10/27/04	1303	1336	493
S24*	6	Landfill	10/27/04	1310	1336	809
S25	8	Landfill	10/27/04	1318	1337	505
· S26	9	Landfill	10/27/04	1350	1414	213
 S27	10	Landfill	10/27/04	1357	1414	343
 S28	15	Landfill	10/27/04	1410 ·	1433	498
S29	14	Landfill	10/27/04	1440	1526	168
S30	. 15	Landfill	10/27/04	1447	1526	115
	15	Landfill	10/27/04	1500	1527	277
	3	Northeast corner	10/27/04	1508	1529	33
S33	6	Northeast corner	10/27/04	1509	1529	98
	9	Northeast corner	10/27/04	1510	1530	266
	12	Northeast comer	10/27/04	1510	1530	416
	3	Southeast corner	10/27/04	1512	1530	65
S37*	6	Southeast corner	10/27/04	1513	1531	215
	9		10/27/04	1513	1531	133
S38		Southeast corner				234
S39	12	Southeast corner	10/27/04	1515	1534	
S40*	3	West Wall	10/27/04	1516	1535	333
S41	6	West Wall	10/27/04	1517	1535	342
S42	9	West Wall	10/27/04	1518	1535	233
S43	12	West Wall	10/27/04	1519	1536	162
S44*	15	Bottom	10/27/04	1520	1536	330

#### Table 1, Remedial Excavation Soil Field Screening Results, Giffin Oil Company, Ladysmith, Wisconsin

NOTÉ: PID

> iui •

= Photoionization Detector

instrument units as isobutylene

= submitted for laboratory analysis

= not analyzed

s:\proj\goc\04-0992\tables\^

#### Table 2, Remedial Excavation Soil Analytical Results (Lead, DRO, GRO, PVOCs), Goffin Oil Company, Ladysmith, Wisconsin

						Relevant a	nd Significa	ant Analytic				
								P	VOCs (µg/k	g)		
Sample Number	Sample Depth (feet)	Dale Sampled	, Lead (mg/kg)	DRO (mg/kg).	GRO (mg/kg)	Benzene	Ethylbenzene	MTBE	Тојиепе	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Xylenes
	Chapter NR 72		50	100	100	5.5	2900	NE	1500	NE	NE	4100
	DComm 46 Tat		NE	NE	NE	1100	NE	NE	NE	NE	NE	NE
NR 746/WI	DComm 46 Tat	ole 1 Values	NE	ŃE	NE	8500	4600	NE	38000	83000	11000	42000
S2	5	10/27/04	-		_	1950	8790	<271	<694	78100	26000	87900
S13	12	10/27/04	<4.4	9.9	<5.5	<27	<27	<27	<27	80	31	<82
S14	3	10/27/04	<4.4	622	75	<28	100	<28	92	488	31	577
S16	9	10/27/04	<4.5	1790	548	<134	1680	<134	302	3240	682	2130
S19	6	10/27/04	<4.6	922	717	876	2620	<28	<523	15900	5350	10700
\$22	15	10/27/04	<4.4	2320	507	805	2980	<28	<sup>.</sup> 1430	7720	2540	7390
S24	6	10/27/04			-	307	953	<27	745	2960	876	3180
S34	9	10/27/04	<4.7	<5,8	<5.8	79	<29	48	110	70	<29	128
S35	12	10/27/04	<4.3	640	1190	3150	21700	<271	26000	78100	21700	108000
S37	6	10/27/04	<4.5	871	1230	5470	22300	<279	45800	78100	22300	123000
S40	з	10/27/04	6.4	653	676	991	4170	<28	1100	37200	12400	10000
S44	15	10/27/04	<4.5	<5.6	<5.6	30	30	<28	64	98	39	157

Note: PVOCs = Petroleum Volatile Organic Compounds

DRO = Diesel Range Organics

GRO = Gasoline Range Organics

mg/kg = milligrams per kilogram

µg/kg = micrograms per kilogram

MTBE = Methyl Tert-Butyl Ether

NE = Not Established by Wisconsin Administrative Code (WAC) Chapter NR 720

S15 = sample submitted to confirm that soil being removed was petroleum contaminated

53 = WAC Chapter NR 720 Residual Contaminant Level (RCL) Exceeded

NR = Natural Resources

<x = Not detected above laboratory detection limit of x</p>

"J" = analyte detected between laboratory Limit of Detection (LOD) and Limit of Quantilation (LOQ)

— = not analyzed

Table 3, Ron	nedlal Excav	ation Soil An	alytical Resu	ts (PAHs),	Goffin Oli (	Company, L	adysmith,	Wisconsin			Relevant a	nd Signific	ant Analyti	cal Repults	r							
												PAHs (	mg/kg)									
Ol alquia	Sampla Depth (foot) ,	Dato Sampled	QC Hold Tlime Met	1-Methyinaphihateno	2-Methyinaphthaione	Acanaphthana	Aconaphthylano	Anthraceno	Bonza(a)anthracone	Banza(a)pyrana	Bonzo(b)fluoranthano	Benzo(g,h,l)porylano	Bonzo(k)fluoranthono	Chrysone	Diben±o[a,h]anthmceno	. Fluorantiono	Fluorano	ladono(1,2,3-cd)pyrona	Naphthalene	Phananthrano	Pyrana .	
F:R-51	97 PAH Grown	d-Waler Palliwa	ry RCLs	- 23	20	38	0.7	3000	17	46	380	0080	870	37	38	500	100	060	. 0,4	1.8	8700	
RR-510-07 P/	VH Direct Conto	t Palinway Non-	Industrial RCLs	1100	600	900	18	5000	0.089	0,0088	0,088	1.6	Q.88	8,8	0,0088	600	600	0.088	20	18	500	
RR-519-97	PAH Direct Con	laci Palitway inc	ustrial RCLs	70000	40000	60000	300	300000-	3,9	0,39	3,9	39	38	380	0,39	40000	40000	3,9	110	390	30000	Notes:
S13	12	10/27/04	Yes	<33	<27	<55	<83	<5.5	12	<5.5	<5,5	<5,5	<5.5	<5.5	<6.2	12	<11	<5.5	<33	14	<5.5	PAHs
514	3	10/27/04	Yes	<33	60	<55	<94	8.8	40	<5.5	<5.5	<5.5	<5.5	<5.5	<8.3	69	18	<5.5	36	42	41	mg/kg
518	. 8	10/27/04	Yes	2130	4250	78	<85	179	157	<5.6	<5,8	<5.6	<5.0	35	<8.4	851	414	<5.8	705	727	. 338	~
519	6	10/27/04	Yes	250	523	<57	<97	23	11	.<5.7	<5.7	<5,7	<5.7	<5.7	. <8.5	80	30	<5.7	100	. 71	148	. v
522	15	10/27/04	Yes	4000	6730	254	<94	320	1210	<5.5	10	<5.5	<5.5	17	<8,9	1650	848	<5.5	1900	1760	1050	
S34	9	10/27/04	Yes	<35	47	<58	<99	<5.8	<5,8	<5,8	<5,8	<5.B	<5.8	<5.8	<8.7	<12	<12	<5,8	<35	<5.8	<5,8	Bold Print
\$35	12	10/27/04	Yes	10200	21700	<51	< 92	68	79	5,7	<5.4	5,9	<5.4	20	<8.1	206	510	<5,4	15200	174	130	<u> </u>
537 .	a	10/27/04	Yes	6700	13400	<58	<05	57	71	8,0	10	9,5	<5,6	21	<8.4	110	223	<5,6	6510	98	88	
540	3	10/27/04	Yes	293	529	<58	<98	7,4	6.4	́. в.8	<5.8	6,9	<5.6	<5,8	<8,4	24	18	<5,6	225	27	18	
S44	15	10/27/04	Yes	<34	<28	<56	<95	<5.6	<5.6	<5.8	<5,8	<5.6	<5,6	<5.8	<8.4	. <11	<11	<5.8	<34	<5.6	<5,8	].

ciprojigaci04-00673isblasi

PAHs = Polycyclic Aromatic Hydrocarbons

mp/kg 🖛 milligrams per kilogram

cx = not detected above laboratory detection limit of x

"J" = analyte detected between laboratory Limit of Detection (LOD) and Limit of Ouantilation (LOO)

Bold = RR-519-97 PAH Ground-Water Pathway Residual Contaminant Lovel (RCL) Exceeded Print 1 of 1

# RR-518-97 PAH Direct Contact Pathway Non-Industrial RCL Exceeded

	<u></u>					NALYTICA	ABLE 1 (pa L RESULT SITE, LAD	S - GROU	NDWATEF						<b>F</b>	
							MV	V-4							NR 140 Rem	edial Action
Date	Oct-97	Jun-98	Dec-98	Nov-99	Mar-00	Jun-02	Dec-04	Jun-05	Sep-05	Mar-07	Jun-07	Sep-07	Dec-07	Feb-09	Lin	nits
Relative Elevation (ft)										1115.75	1115.90	1116.13	1116.65	1115.79		
ANALYTE															ES	PAL
VOCs/PVOCs (ppb)																0.5
Benzene 7,300 460 620 4,000 227 2,200 1,000 550 640 376 567 877 1,460 675															5	0.5
2-Chlorotoluene										22						 140
Ethylbenzene	3,300	900	850	1,800	80	1,000	710	530	380	136	77	391	503	378	700,	
Isopropylbenzene										9						
мтве	< 28	< 40	< 4	41	18	< 25	< 5	< 6	< 6	< 5	< 6	< 6	<6	45.4	60	12
Naphthalene	590					200	190	110	80	< 50	< 16	59	149	77	100	10
Propylbenzene										30						
Toluene	27,000	2,600	2,100	9,100	211	4,900	2,600	1,800	1,200	324	409	1,190	1,590	960	1,000	200
1,2,4- & 1,3,5-TMB	3,600	1,550	1,540	2,610	60	1,950	1,470	1,290	690	265	253	527	682	562	480	96
Total Xylenes	19,000	4,900	4,600	9,000	396	4,800	3,200	2,600	1,700	676	769	1,998	2,841	1,991	10,000	1,000
ND = Not Detected		L		1										Well D	epth (feet):	40
ND - Not Detected														TOC Ele	vation (feet):	1148.25

23-Sep-97

15

Date Installed:

Screen Length (feet):

---- = not analyzed or no standard

MTBE = methyl-tert-butylether

TMB = trimethylbenzene

Bold italic numbers indicate concentrations above the ES outlined in NR 140.10.

Bold numbers indicate concentrations above the PAL outlined in NR 140.10.

			ANALYTICA	ABLE 1 (page 2 of 11 AL RESULTS - GROU SITE, LADYSMITH, V	NDWATER				•
				MW-6R				NR 140 Rem	nedial Action
Date	Dec-04	Jun-05	Mar-07	Jun-07	Sep-07	Dec-07	Feb-09	Lin	nits
Relative Elevation (ft)									
ANALYTE	<u> </u>	1	1					ES	PAL
VOCs/PVOCs (ppb)						· · · · · · · · · · · · · · · · · · ·	·		
Benzene	22	2.6	247	149	1.1	17.7	1.16	5	0.5
2-Chlorotoluene			14						
Ethylbenzene	< 0.2	< 0.5	153	168	< 0.5	0.5	<0.5	700	140
Isopropylbenzene			9						
MTBE	< 6	7.5	9	5.5	< 0.3	1.5	2.5	60	12
Naphthalene	< 0.5		31	67	< 0.8	< 0.8	<0.8	100	10
Propylbenzene			21						
Toluene	0.13	< 0.13	118	< 2	< 0.3	0.8	<0.3	1,000	200
1,2,4- & 1,3,5-TMB	< 0.4	< 2	153	135	< 0.4	< 0.4	<0.4	480	96
Total Xylenes	< 0.4	< 2	546	157	< 0.6	1	<0.6	10,000	1,000

--- = not analyzed or no standard

MTBE = methyl-tert-butylether

TMB = trimethylbenzene

Bold italic numbers indicate concentrations above the ES outlined in NR 140.10.

Bold numbers indicate concentrations above the PAL outlined in NR 140.10.

Well Depth (feet): TOC Elevation (feet): Date Installed:

Screen Length (feet):

			<u></u>	-			TABLE 1 ICAL RES DIL SITE, I		OUNDWA						-1-10-2-1	<b>I</b>	
								MW-7								NR 140 Ren	
Dete	Oct-97	Jun-98	Dec-98	Nov-99	Маг-00	Jun-02	Dec-04	Маг-05	Jun-05	Sep-05	Маг-07	Jun-07	Sep-07	Dec-07	Feb-09		nits
Date	re Elevation (ft) 1115.15 1115.35 1115.50 1116.06 1115.2																
ANALYTE																ES	PAL
	s/PVOCs (ppb)																
	nzene 1,800 1,500 780 1,300 1,120 210 170 160 440 360 2.5 20 21.3 13.4 33.8															5	0.5
	nzene 1,800 1,500 780 1,300 1,120 210 170 160 440 360 2.5 20 21.3 13.4 33.8															70	77
1,2-Dichloroethylene (cis)	95	72	14	76	900	4	3	2	8	< 3	< 0.1	< 0.5	< 0.5	0.8	0.56	700	140
Ethylbenzene											0.32						
Isopropylbenzene		< 20	< 2	13	28	< 0.4	< 3	< 0.8	< 0.6	< 0.5	3	3.5	3	1.6	1.57	60	12
MTBE	12						< 0.5				< 1	< 0.8	< 0.8	< 0.8	0.85	100	10
Naphthalene	· · · · · · · · · · · · · · · · · · ·			25	3,660	2	1	1.5	3	< 0.7	< 0.4	< 1	< 1	< 0.3	0.58	1,000	200
Toluene	82	21	4								1.5					5	0.5
Trichloroethene	190								< 6	< 6	<1	< 0.4	< 0.4	< 0.4	<0.4	480	96
1,2,4- & 1,3,5-TMB	19	9	2	15	1,785	< 2	0.4	0.5	< 10	< 9	<1	< 0.6	< 0.6	< 0.6	0.86	10,000	1,000
Total Xylenes	40	13	2	17	4,950	< 2	1	0.9	< 10	<u> </u>		~ 0.0	. 0.0	1 0.0		epth (feet):	35

---- = not analyzed or no standard

MTBE = methyl-tert-butylether

TMB = trimethylbenzene

Bold italic numbers indicate concentrations above the ES outlined in NR 140.10.

Bold numbers indicate concentrations above the PAL outlined in NR 140.10.

Well Depth (feet):

TOC Elevation (feet): Date Installed:

25-Sep-97

1146.45

10 Screen Length (feet):

					ANALYT	TABLE 1 ICAL RES	(page 4 o ULTS - GF		TER						
					GOFFIN	OIL SITE, I		'H, WISCO	NSIN					n	
							MVV-8							NR 140 Ren	
Date	Oct-97	Jun-98	Dec-98	Nov-99	Jun-02	Dec-04	Jun-05	Sep-05	Mar-07	Jun-07	Sep-07	Dec-07	Feb-09		nits
Relative Elevation (ft) 1115.16 1115.37 1115.77 1116.05 1115.															
ANALYTE	<u>I</u>	1	1			· ·	<u>.</u>	·····						ES	PAL
VOCs/PVOCs (ppb)															
Benzene	2,700	170	510	860	81	4.9	0.74	1.6	< 0.1	< 0.3	< 0.3	2.2	<0.3	5	0.5
1,2-Dichloroethylene (cis)	5.6								0.22					70	7
Ethylbenzene	270	93	22	56	1	< 0.2	< 0.5	< 0.5	< 0.1	< 0.5	< 0.5	< 0.5	<0.5	700	140
MTBE	< 3	< 13	< 1	13	< 0.5	< 0.5	< 0.1	< 0.1	< 0.1	< 0.3	< 0.3	< 0.3	<0.3	60	12
Naphthalene	150	37			< 2	< 0.5			< 1	< 0.8	< 0.8	< 0.8	<0.8	100	10
Toluene	460	220	3	20	2	< 0.1	< 0.2	< 0.2	< 0.4	< 0.3	< 0.3	< 0.3	<0.3	1,000	200
Trichloroethene	130								6.4					5	0.5
1,2,4- & 1,3,5-TMB	660	64	1.3	9	< 2	< 0.4	< 2	< 2	< 1	< 0.4	< 0.4	< 0.4	<0.4	480	96
Total Xylenes	1,000	230	3	25	< 2	< 0.4	< 2	< 2	< 0.4	< 0.6	< 0.6	< 0.6	<0.6	10,000	1,000
	1 .,						A						Well D	epth (feet):	40

1146.22

25-Sep-97

15

TOC Elevation (feet):

Date Installed:

Screen Length (feet):

ND = Not Detected

---- = not analyzed or no standard

MTBE = methyl-tert-butylether

TMB = trimethylbenzene

Bold italic numbers indicate concentrations above the ES outlined in NR 140.10.

Bold numbers indicate concentrations above the PAL outlined in NR 140.10.

						ANALYTIC	AL RESULT	ige 5 of 11) IS - GROUN YSMITH, W	DWATER	•					1	
•							MM	/-10							NR 140 Ren	nedial Action
Data	Jun-98	Dec-98	Nov-99	Mar-00	Jun-02	Dec-04	Mar-05	Jun-05	Sep-05	Mar-07	Jun-07	Sep-07	Dec-07	Feb-09	Lin Lin	nits
Date Relative Elevation (ft)										1115.22	1115.47	1115.62	1116.14			
			I	L				1							ES	PAL
ANALYTE																1
VOCs/PVOCs (ppb)			I	(		010	4 000	370	2,100	0.9	1.7	0.5	15		5	0.5
Benzene	690	2,000	2,700	1,170	560	610	1,900	370							5	0.5
1,2-Dichloroethane										0.47		l			700	140
Ethylbenzene	180	210	300	179	66	14	80	4	110	0.13	< 0.5	< 0.5	2.5			
MTBE	51	74	61	50	15	23	< 10	22	65	1.22	2.3	< 0.3	1.2		60	12
Naphthalene	37				15	4	44	< 6	92	<1	< 0.8	< 0.8	< 0.8		100	10
		320	560	293	14	8	14	8	19	0.72	14	13	94		1,000	200
Toluene	220						4	< 6	21	0.26	< 0.4	< 0.4	< 0.4		480	96
1,2,4- & 1,3,5-TMB	64	89	125	78	30	4				0.16	< 0.6	< 0.6	5		10,000	1,000
Total Xylenes	230	310	500	293	63	22	26	< 10	93	0.10		. 0.0	L	Well De	epth (feet):	38

--- = not analyzed or no standard MW-10-PVC was broken and frozen-No Sample Taken on 2/11/09.

MTBE = methyl-tert-butylether

TMB = trimethylbenzene

Bold italic numbers indicate concentrations above the ES outlined in NR 140.10.

Bold numbers indicate concentrations above the PAL outlined in NR 140.10.

1147.07 TOC Elevation (feet):

21-Apr-98 10

Date Installed: Screen Length (feet):

<u>.</u>	TABLE 1 (page 6 of 11)
	ANALYTICAL RESULTS - GROUNDWATER
	GOFFIN OIL SITE, LADYSMITH, WISCONSIN
	MW-13
	Jun-98 Dec-98 Nov-99 Mar-00 Jun-02 Dec-04 Jun-05 Sep-05 Mar-07 Jun-07 Sep-07 Dec-07
	<u> 1115.09</u> <u>1115.29</u> <u>1115.44</u> <u>1115.97</u>
1	
1	

Relative Elevation (ft)						<u> </u>		L						ES	PAL
ANALYTE															
VOCs/PVOCs (ppb)			r			1	1	<b></b>	1		0.8	4	1.23	5	0.5
Benzene	56	22	2.8	8.5	8.6	0.52	1.7	1.3	0.46	2.4	0.0	ļ	1.25		0.5
1.2-Dichloroethane									0.18					5	0.5
1,2-Dichloroethylene (cis)	15								1.1					70	
Ethylbenzene	< 0.25	< 0.25	< 0.25	2	< 0.25	< 0.25	< 0.25	< 0.25	0.1	< 0.5	< 0.5	< 0.5	<0.5	700	140
									0.16						—
Isopropylbenzene						0.3	< 1	< 1	2.02	3	2	0.7	1.53	60	12
MTBE	< 3	< 1	3.7	10	<1		<u> </u>				.]		<0.8	100	10
Naphthalene	< 1					< 1		< 1	< 1	< 0.8	< 0.8	< 0.8	<0.0		
1,1,1,2-Tetrachloroethane									0.12					70	
Toluene	< 1	< 1	< 1	3	1	< 1	< 1	<1	< 0.4	< 0.3	< 0.3	0.6	0.959	1,000	200
	i								22.4					5	0.5
Trichloroethene	420						<u> </u>			10.1	40.4	< 0.4	<0.4	480	96
1,2,4- & 1,3,5-TMB	< 2	< 1	< 2	< 2	< 2	<1	< 1	< 2	1.16	< 0.4	< 0.4	<u> </u>			1,000
Total Xylenes	< 3	2	< 2	3	< 2	< 1	< 1	< 2	0.13	<0 .6	<0 .6	1	<0.6	10,000	1,000

Date

Relative Elevation (ft)

---- = not analyzed or no standard

MTBE = methyl-tert-butylether

TMB = trimethylbenzene

Bold italic numbers indicate concentrations above the ES outlined in NR 140.10.

Bold numbers indicate concentrations above the PAL outlined in NR 140.10.

Well Depth (feet): 1150.74 TOC Elevation (feet):

> 22-Apr-98 10

42

Screen Length (feet):

Date Installed:

NR 140 Remedial Action Limits

Feb-09

1115.14

						TICAL RES		11) OUNDWATI H, WISCON						11	
							MW-14							NR 140 Ren	nedial Action nits
Date ·															
Relative Elevation (ft)	tive Elevation (ft) — — — — — — — — — 1115.18 1115.37 1115.49 1116.10 1115.2														
ANALYTE	LYTE														
VOCs/PVOCs (ppb)											r <u> </u>	I			
Benzene	490	570	400	490	110	88	97	95	23	21	44	124	80.3	5	0.5
1,2-Dichloroethylene (cis)	29								7.56					70	7
Ethylbenzene	17	84	15	45	4	1	1	1	< 0.5	< 0.5	< 3	7	1.58	700	140
Isopropylbenzene									2,32						
MTBE	< 3	< 1	< 1	< 5	24	< 1	< 1	< 1	< 0.5	< 0.3	< 2	< 0.3	17.4	60	12
Naphthalene	< 1				< 3				< 5	2	< 4	5.4	<0.8	100	10
Toluene	8	170	14	12	3	3	4	4	< 2	< 1	< 2	3	6.87	1,000	200
Trichloroethene	26								38.6					5	0.5
1,2,4- & 1,3,5-TMB	6	71	6	< 51	3	< 1	1	2	1.1	< 1	< 2	7	2.25	480	96
Total Xylenes	4	170	9	53	< 2	1	< 2	< 2	< 2	< 0.6	< 3	6	1.50	10,000	1,000
ND = Not Detected													Well De	epth (feet):	38

---- = not analyzed or no standard

-

MTBE = methyl-tert-butylether

TMB = trimethylbenzene

Bold italic numbers indicate concentrations above the ES outlined in NR 140.10.

Bold numbers indicate concentrations above the PAL outlined in NR 140.10.

TOC Elevation (feet): 1145.73

23-Арг-98

Screen Length (feet): 10

Date Installed:

			1997			TABLE YTICAL RES		OUNDWAT							
							MW-15							NR 140 Ren	
Date	Jun-98	Dec-98	Nov-99	Jun-02	Dec-04	Mar-05	Jun-05	Sep-05	Mar-07	Jun-07	Sep-07	Dec-07	Feb-09	Lin	nits
Relative Elevation (ft)									1115.18	1115.33	1115.51	1116.12	1115.31		
ANALYTE														ES	PAL
VOCs/PVOCs (ppb)															
Benzene	1,000	580	160	12	17	9.6	3	2.2	0.94	1.05	1.3	1.2	<0.3	5	0.5
1,2-Dichloroethylene (cis)	< 5								1.04					70	7
Ethylbenzene	380	86	55	1	1	1	< 1	< 1	< 0.5	< 0.5	< 0.5	0.6	<0.5	700	140
MTBE	< 5	< 1	7	< 1	< 1	< 1	< 1	2	< 0.5	< 0.3	< 0.3	< 0.3	<0.3	60	12
Naphthalene	72			< 2	< 1				< 5	6	< 0.8	< 0.8	<0.8	100	10
Toluene	980	170	130	3	< 1	< 1	< 1	< 1	< 2	< 0.3	< 0.3	0.6	<0.3	1,000	200
Trichloroethene	560								40.4					5	0.5
1,2,4- & 1,3,5-TMB	470	74	51	< 2	< 1	< 1	< 2	<2	1.09	5	< 2	< 0.4	<0.4	480	96
Total Xylenes	1,000	170	138	< 2	< 1	1	< 2	< 2	< 2	<1	< 0.6	< 0.6	<0.6	10,000	1,000
ND - Not Detected	1,000			I	1								Well De	epth (feet):	40

--- = not analyzed or no standard

MTBE = methyl-tert-butylether

TMB = trimethylbenzene

Bold italic numbers indicate concentrations above the ES outlined in NR 140.10.

Bold numbers indicate concentrations above the PAL outlined in NR 140.10.

Well Depth (feet):

TOC Elevation (feet): 1147.35 Date Installed:

23-Apr-98

1

10 Screen Length (feet):

			/ G		E 1 (page 9 of ESULTS - GR E, LADYSMITI	OUNDWATER					
					MW-20					NR 140 Ren	nedial Action
Date	Dec-98	Nov-99	Jun-02	Dec-04	Mar-05	Jun-05	Sep-05	Mar-07	Feb-09	- Lin	nits
Relative Elevation (ft)								1115.13	1115.18		
ANALYTE										ES	PAL
VOCs/PVOCs (ppb)			····								
Benzene	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.3	< 0.1	<0.3	5	0.5
Ethylbenzene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	0.14	<0.5	700	140
MTBE	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 0.1	<0.3	60	12
Naphthalene	< 1			< 1				< 1	<0.8	100	10
Toluene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.4	<0.3	1,000	200
Trichloroethene								0.92		5	0.5
1,2,4- & 1,3,5-TMB	< 1	< 1	< 1	< 1	< 1	< 1	<1	0.93	<0.4	480	96
Total Xylenes	<1	< 1	< 1	< 1	< 1	< 1	< 1	0.55	<0.6	10,000	1,000
ND = Not Detected			L		Anno 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1997 - 1			<u>, , , , , , , , , , , , , , , , , , , </u>	Well De	pth (feet):	35

1145.48

28-Oct-98

15

TOC Elevation (feet):

Date Installed:

Screen Length (feet):

ND = Not Detected

---- = not analyzed or no standard

MTBE = methyl-tert-butylether

TMB = trimethylbenzene

Bold italic numbers indicate concentrations above the ES outlined in NR 140.10.

Bold numbers indicate concentrations above the PAL outlined in NR 140.10.

						ge 10 of 11) TS - GROUND\ YSMITH, WIS(					11	
					MV	/-21					NR 140 Ren	nedial Action
Date	Dec-98	Nov-99	Mar-00	Jun-02	Dec-04	Mar-05	Jun-05	Sep-05	Mar-07	Feb-09	] Lin	nits
Relative Elevation (ft)									1115.09	1115.25		, 
ANALYTE											ES	PAL
VOCs/PVOCs (ppb)										•••••		
Benzene	2.4	3.2	2.63	3.5	0.26	0.7	0.95	55	0.4	<0.3	5	0.5
Butylbenzene									0.55			
Carbon Tetrachloride									1.25	***	5	0.5
Ethylbenzene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.1	<0.5	700	140
Isopropylbenzene									0.6			
MTBE	< 1	9	7	9	< 1	< 1	2	5	4.84	0.939	60	12
Naphthalene	< 1				< 1				< 1	<0.8	100	10
Toluene	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.4	<0.3	1,000	200
Trichloroethene									2.3		5	0.5
1,2,4- & 1,3,5-TMB	< 1	< 1	< 1	< 1	<1	< 1	< 1	<1	0.62	<0.4	480	96
Total Xylenes	< 1	< 1	< 1	< 1	< 1	<1	. <1	< 1	< 0.4	<0.6	10,000	1,000
ND = Not Detected										Well Dep	oth (feet):	40
= not analyzed or no star	ndard									TOC Eleva	ation (feet):	1152.51

---- = not analyzed or no standard

MTBE = methyl-tert-butylether

TMB = trimethylbenzene

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Bold italic numbers indicate concentrations above the ES outlined in NR 140.10.

Bold numbers indicate concentrations above the PAL outlined in NR 140.10.

Date Installed:

28-Oct-98

15

Screen Length (feet):

		ANALYTIC	TABLE 1 (page 11 of 11) CAL RESULTS - GROUNDM IL SITE, LADYSMITH, WISC			I	
			MW-30			NR 140 Rer	nedial Action
Date	Mar-07	Jun-07	Sep-07	Dec-07	Feb-09	Lir	nits
Relative Elevation (ft)	1115.06	1113.30	1115.49	1115.66			·····
ANALYTE			-			ES	PAL
VOCs/PVOCs (ppb)							
Benzene	269	173	208	101	87.9	5	0.5
2-Chlorotoluene	24.1			****			
1,2-Dichloroethylene (cis)	17.4					70	7
Ethylbenzene	193	134	221	689	154	700	140
Isopropylbenzene	40						
4-Isopropyltoluene	14						
МТВЕ	< 5	< 6	< 3	< 6	26.6	60	12
Naphthalene	166	192	259	2,950	253	100	10
Toluene	31.2	24	31	57	47.3	1,000	200
1,2,4- & 1,3,5-TMB	363	356	494	9,610	898	480	96
Total Xylenes	634	337	531	7,454	574	10,000	1,000
ND = Not Detected					Well Depth	(feet):	35

--- = not analyzed or no standard

MTBE = methyl-tert-butylether

TMB = trimethylbenzene

Bold italic numbers indicate concentrations above the ES outlined in NR 140.10.

Bold numbers indicate concentrations above the PAL outlined in NR 140.10.

No water level measurement taken 2/11/09 - Free Product in well.

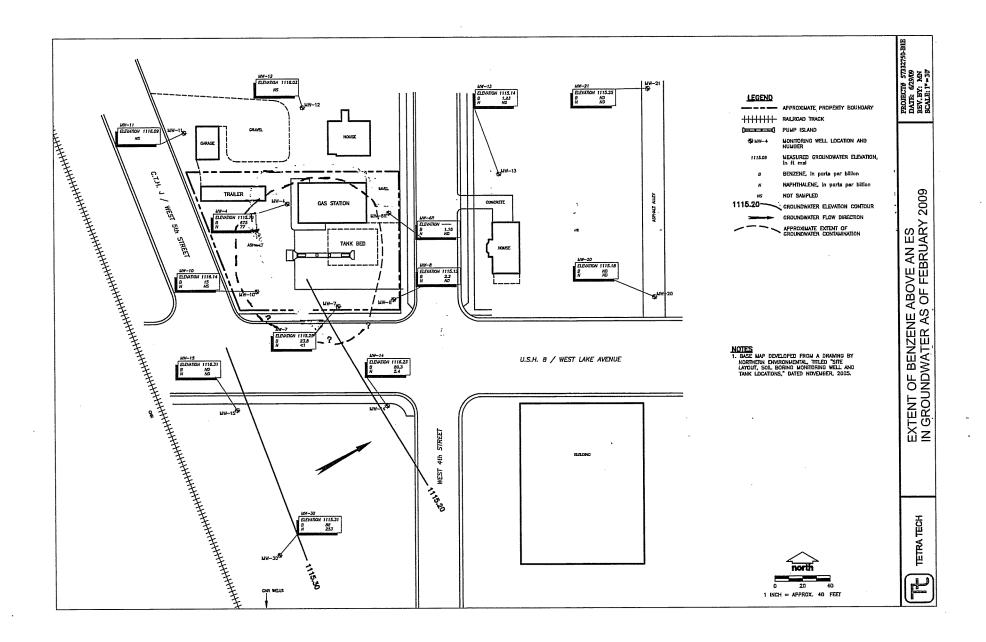
Well Depth (feet): TOC Elevation (feet):

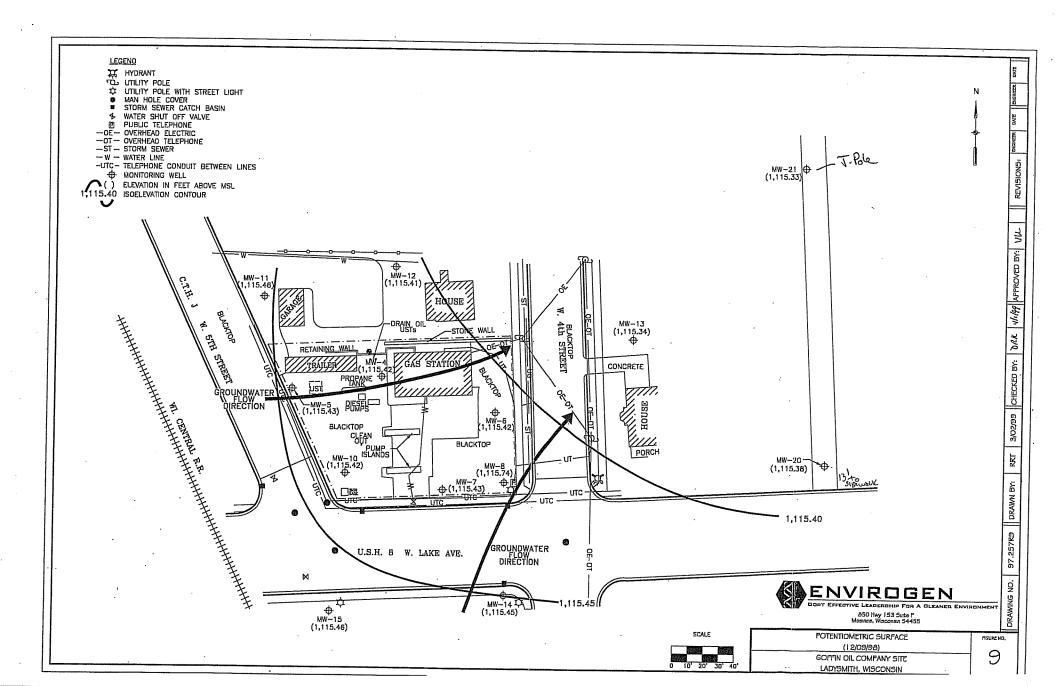
Date Installed:

1144.61 2-Feb-07

10

Screen Length (feet):





GIS REGISTRY INFORMATION

	Ladus	mith St	indand	Service		
SITE NAME:				Service		
	3-55-00023		appropriate):			]
COMMERCE # (if appropriate):	54848-1	323-12	<u>- A · · · · · · · · · · · · · · · · · · </u>		·····	
CLOSURE DATE:		12/11/0	<i>56</i>			
STREET ADDRESS:	/12	Lake Au	lenue.	·		
CITY:		dy smith				
SOURCE PROPERTY GPS COORD WTM91 projection):	INATES (meters in	x=_433	853	Y= 555	205	1
CONTAMINATED MEDIA:	Groundwater		Soil		Both	X
OFF-SOURCE GW CONTAMINATIO	)N >ES:	Yes		<b>⊠</b> №		
IF YES, STREET ADDRESS 1:						
GPS COORDINATES (meters in WT	M91 projection):	X=		Y=		
OFF-SOURCE SOIL CONTAMINATI Specific RCL (SSRCL):	ON >Generic or Site	Yes		N° No		
IF YES, STREET ADDRESS 1:						
GPS COORDINATES (meters in WT	M91 projection):	X=		Y=		,
CONTAMINATION IN RIGHT OF W/	AY:	Yes		No		
DOCUMENTS NEEDED:						<b></b>
Closure Letter, and any conditional clo	sure letter or denial let	ter issued				X
Copy of any maintenance plan reference						凶
Copy of (soil or land use) deed notice i					NIA	
Copy of most recent deed, including le			5			X
Certified survey map or relevant portio County Parcel ID number, if used for c	ounty, for all affected p	properties				XX
Location Map which outlines all properties w parcels to be located easily (8.5x14" if paper co potable wells within 1200' of the site.	py). If groundwater standard	is are exceeded, the in	nap must also include		инкиранани	凶
Detailed Site Map(s) for all affected pro and potable wells. (8.5x14", if paper copy) This relation to the source property and in relation to ch. NR 720 generic or SSRCLs.	s map shall also show the loo the boundaries of groundwa	cation of all contamination exce iter contamination exce	ted public streets, nig seding ch. NR 140 ES	nway and rainoad ng	Jilla-Ol-Way III	X
Tables of Latest Groundwater Analytic	al Results (no shading	or cross-hatching	)			Ø
Tables of Latest Soil Analytical Results Isoconcentration map(s), <i>if required fo</i>	; (no snading or cross-	Natening) /8 5y14" if paper copy	(). The isoconcentr	ation map should ha	ave flow direction and	F
extent of groundwater contamination defined. If	not available, include the	latest extent of conta	minant piume map.		NIA	
GW: Table of water level elevations, w GW: Latest groundwater flow direction greater than 20 degrees)	n/monitoring well locati	ion map (should be	e 2 maps ir maxin		flow direction is	
SOIL: Latest horizontal extent of conta			with one contour	r	-	凶
Geologic cross-sections, if required fo	r SI. (8.5x14' if paper co	opy)				Ø
RP certified statement that legal descri		na accurate			NIA	۴Ť
Copies of off-source notification letter Letter informing ROW owner of residu		licable)(public bio	hway or railroad R	OW)		冈
Letter informing KUW owner of residu	ai comanimation (n app	mana (papio, mg		· <b>,</b>	•	

revised 5/06

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### State of Wisconsin \ DEPARTMENT OF NATURAL RESOURCES

Jim Doyle, Governor Scott Hassett, Secretary John Gozdzialski, Regional Director Northern Region Headquarters 107 Sutliff Ave. Rhinelander, Wisconsin 54501-3349 Telephone 715-365-8900 FAX 715-365-8932 TTY Access via relay - 711

December 11, 2006

Mr. Jerry Wojeik 112 Lake Avenue West Ladysmith, WI 54848

### SUBJECT: Final Case Closure with Land Use Limitations or Conditions for the Ladysmith Standard, located at 112 Lake Avenue West, Ladysmith, Wisconsin 54868, WDNR BRRTS Activity #: 03-55-000232

Dear Mr. Wojeik:

On September 7, 2006, the Northern Region Closure Committee reviewed the above referenced case for closure. This committee reviews environmental remediation cases for compliance with state laws and standards to maintain consistency in the closure of these cases. In a letter dated September 19, 2006, you were notified that the Closure Committee had granted conditional closure to this case.

Based on the correspondence and data provided on December 6, 2006 (final monitoring well abandonment documentation) it appears that your case meets the requirements of ch. NR 726, Wisconsin Administrative Code. The Department considers this case closed and no further investigation or remediation is required at this time.

Please be aware that pursuant to s. 292.12 Wisconsin Statutes, compliance with the requirements of this letter is a responsibility to which you and any subsequent property owners must adhere. If these requirements are not followed or if additional information regarding site conditions indicates that contamination on or from the site poses a threat to public health, safety, welfare, or the environment, the Department may take enforcement action under s. 292.11 Wisconsin Statutes to ensure compliance with the specified requirements, limitations or other conditions related to the property or this case may be reopened pursuant to s. NR 726.09, Wis. Adm. Code. It is the Department's intent to conduct inspections in the future to ensure that the conditions included in this letter including compliance with referenced maintenance plans are met.

Structural impediments existing at the time of cleanup, the existing active underground storage tank system, the canopy over the pump islands and the building foundation made complete investigation and remediation of the soil contamination on this property impracticable in the area shown on the attached map (Figure 4: Area of Residual Soil Contamination prepared by REI on August 17, 2006). Pursuant to s. 292.12(2)(b), Wis. Stats., if the structural impediments on this property that are described above are



December 11, 2006 Jerry Wojeik

removed, the property owner shall conduct an investigation of the degree and extent of PVOC contamination. If contamination is found at that time, the Wisconsin Department of Natural Resources shall be immediately notified and the contamination shall be properly remediated in accordance with applicable statutes and rules.

Pursuant to s. 292.12(2)(a), Wis. Stats., the pavement or other impervious cap that currently exists in the location shown on the attached map shall be maintained in compliance with the attached maintenance plan in order to minimize the infiltration of water and prevent additional groundwater contamination that would violate the groundwater quality standards in ch. NR 140, Wis. Adm. Code, and to prevent direct contact with residual soil contamination that might otherwise pose a threat to human health.

If soil in the specific locations described above is excavated in the future, the property owner at the time of excavation must sample and analyze the excavated soil to determine if residual contamination remains. If sampling confirms that contamination is present the property owner at the time of excavation will need to determine whether the material would be considered solid or hazardous waste and ensure that any storage, treatment or disposal is in compliance with applicable statutes and rules. In addition, all current and future owners and occupants of the property need to be aware that excavation of the contaminated soil may pose an inhalation or other direct contact hazard and as a result special precautions may need to be taken during excavation activities to prevent a health threat to humans.

Your site will be listed on the DNR Remediation and Redevelopment GIS Registry of Closed Remediation Sites. Information that was submitted with your closure request application will be included on the GIS Registry. To review the sites on the GIS Registry web page, visit <u>http://dnr.wi.gov/org/aw/rr/gis/index.htm</u>. If your property is listed on the GIS Registry because of remaining contamination and you intend to construct or reconstruct a well, you will need prior Department approval in accordance with s. NR 812.09(4)(w), Wis. Adm. Code. To obtain approval, Form 3300-254 needs to be completed and submitted to the DNR Drinking and Groundwater program's regional water supply specialist. This form can be obtained on-line <u>http://www.dnr.state.wi.us/org/water/dwg/3300254.pdf</u> or at the web address listed above for the GIS Registry.

Section 101.143, Wis. Stats., requires that PECFA claimants seeking reimbursement of interest costs, for sites with petroleum contamination, submit a final reimbursement claim within 120 days after they receive a closure letter on their site. For claims not received by the PECFA Program within 120 days of the date of this letter, interest costs after 60 days of the date of this letter will not be eligible for PECFA reimbursement. If

December 11, 2006 Jerry Wojeik

there is equipment purchased with PECFA funds remaining at the site, contact the Commerce PECFA Program to determine the method for salvaging the equipment.

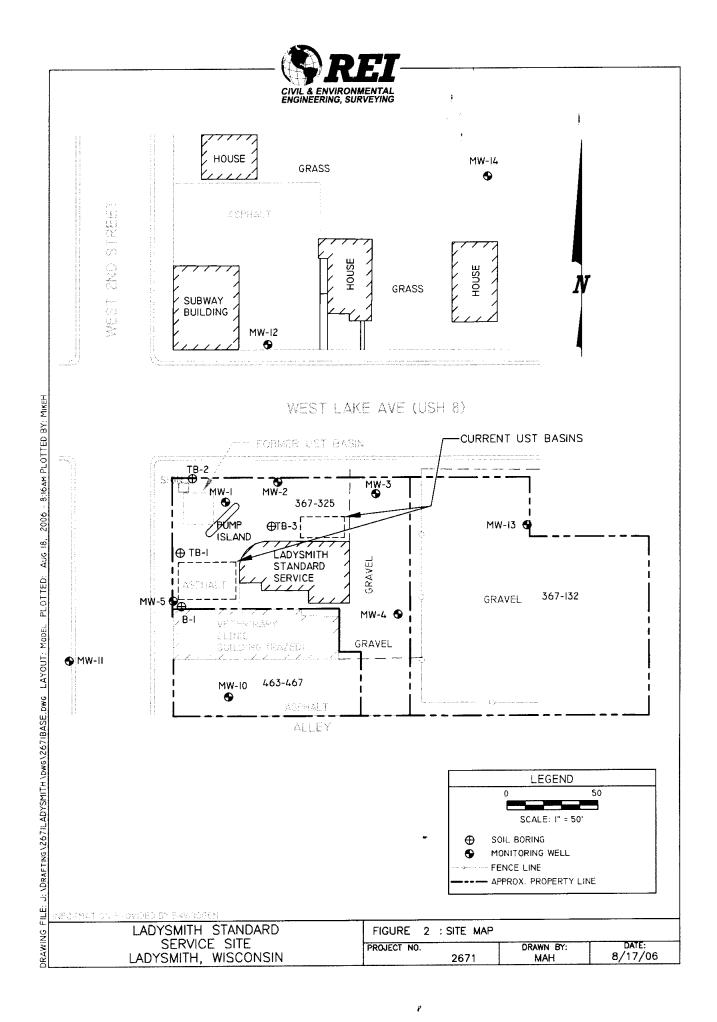
The Department appreciates your efforts to restore the environment at this site. If you have any questions regarding this closure decision or anything outlined in this letter, please contact William Schultz at (715) 369-4047.

Sincerely, Robinson

NOR Remediation & Redevelopment Team Supervisor

Attachments:

cc: Andrew Delforge REI Engineering 4080 N. 20<sup>th</sup> Ave. Wausau, WI 54401



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## Table 2a Monitoring Well MW1 Groundwater Analytical Results Ladysmith Standard Service Site Ladysmith, W1

4

								MW1				
······································			Date	12/11/97	7/15/98	5/11/99	2/21/02	7/21/04	10/25/04	1/26/05	10/5/05	1/24/06
Parameter	ES	PAL	Units									
DRO		-	mg/L	3.8	6.7	NA	31	NA	NA	NA	NA	NA
GRO	<u> </u>		mg/L	41	34	74	53	NA	NA	NA	NA	NA
Detected VOCs												
Benzene	5	0.5	ug/L	6,100	3,900	4,900	3,800	1,200	1,500	1,700	1,700	1,400
Toluene	1.000	200	ug/L	15,000	9,200	12,000	8,100	6,300	5,800	6,500	6,400	5,000
Ethylbenzene	700	140	ug/L	3,300	2,800	3,900	4,000	3,000	2,800	3,100	3,100	2,600
Xylene (total)	10,000	1,000	ug/L	13,000	11,000	16,200	17,000	11,400	10,500	11,700	11,300	10,200
MTBE	60	12	ug/L	<50	<66	<22	<23	<18	<18	<18	20	
Total Trimethylbenzenes	480	96	ug/L	2,550	2,120	6,400	5,400	2,770	2,390	2,630	2,530	2,190
Napthalene	40	8	ug/L	200	200	1,300	670	320	330	340	320	NA
Detected PAHs												NA
Acenaphthene	I	-	ug/L	<3.8	NA	NA	NA	<1.7	NA	NA	NA	NA
Acenaphthylene	· · ·		ug/L	<3.6	NA	NA	NA	<1.8	NA	NA	NA	NA NA
Anthracene	3,000	600	ug/L	<0.080	NA	NA	NA	<1.9	NA	NA	NA	NA NA
Benzo (a)Anthracene		-	ug/L	<0.13	NA	NA	NA_	<1.1	NA	NA	NA NA	NA NA
Benzo (a)Pyrene	0.2	0.02	ug/L	<0.25	NA	NA	NA	<1.3	NA	NA		NA NA
Benzo (b)Fluoranthene	0.2	0.02	ug/L	< 0.35	NA	NA	NA_	<1.2	NA	NA	NA NA	NA NA
Benzo (g.h.i) Pervlene	<u> </u>	-	ug/L	<0.44	NĄ	NA_	NA	<1.5	NA	NA		NA
Benzo (k)Fluoranthene	-	•	ug/L	<0.24	NA	NA	NA	<1.8	NA	NA	NA NA	NA NA
Chrysene	0.2	0.02	ug/L	<0.084	NA	NA	NA	<1.3	NA	NA	NA NA	NA NA
Dibenzo(a,h) anthracene	-	-	ug/L	<0.52	NA	NA	NA	<1.5	NA	NA	NA NA	NA
Indeno (1,2,3,-cd) Pyrene	-	•	ug/L	<0.23	NA	NA	NA	<2.0	NA	NA	NA NA	NA
Fluoranthene	400	80	ug/L	<0.24	NA	NA	NA	<1.2	NA	NA	NA NA	NA
Pyrene	250	50	ug/L	<0.26	NA	NA	NA	<1.6	NA	NA NA	NA NA	NA NA
Naphthalene	40	8	ug/L	330	NA	NA	NA	370	NA	NA NA	NA	NA
1-Methyl naphthalene	•	•	ug/L	160	NA	NA	NA	130	NA NA	NA NA	NA	NA
2-Methyl naphthalene	•	-	ug/L	87	NA	NA	NA	230		NA NA	NA	NA
Fluorene	400	80	ug/L	<0.30	NA	NA	NA_	<1.6	NA	NA NA	NA	NA
Phenanthrene	-	•	ug/L	<0.10	NA_	NA	NA	2	NA			- 104
Inorganics			L	<u> </u>	<u> </u>	<u> </u>	<u> </u>		12	6.1	NA	NA
Dissolved Lead	15	1.5	ug/L	14	NA	NA	<u><u> </u></u>	15	20.000	21,000	NA	NA
Dissolved Iron	300	150	ug/L	NA	NA	9,500	NA_	22,000		21,000 NA		NA
Manganese	50	25	ug/L	NA	NA_	16,000	NA	NA	15,000 <0.063	<0.063	NA NA	NA
Nitrate, NO3+NO2	10	2	mg/L	NA	NA	0.037	NA	<0.063	0.72	0.73	NA NA	NA
Sulfate	250	125	mg/L	NA	NA	1.2	NA	0.62	0.72	U.73		A

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Notes:

All values report in  $\mu g/L$  (ppb). Unless otherwise noted. ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

X = Not Detected

NA= Not Analyzed

ES exceeded PAL exceeded

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## Table 2b Monitoring Well MW2 Groundwater Analytical Results Ladysmith Standard Service Site Ladysmith, WI

								MW2	<u> </u>			
		T	Date	12/11/97	7/15/98	5/11/99	2/21/02	7/21/04	10/25/04	1/26/05	10/5/05	1/24/00
Parameter	ES	PAL	Units									NA
DRO			mg/L	5.3	6.8	NA	17	NA	NA	NA	NA	NA
GRO			mg/L	34	42	57	51	NA	NA	NA	NA	NA
Detected VOCs												1 200
Benzene	5	0.5	ug/L	5,100	4,400	4,200	5,100	1,800	1,800	1,300	1,000	1,200
Toluene	1.000	200	ug/L	7,500	8,700	8,900	6,100	4,300	7,400	2,800	1,400	
Ethylbenzene	700	140	ug/L	3,100	2,600	3,900	2,600	2,200	2,600	3,100	2,500	2,300
	10,000	1.000	ug/L	12,000	10,000	15,000	12,000	9,300	11,300	12,100	8,500	8,500
Xylene (total) MTBE	60	12	ug/L	<25	<8.0	<22	<46	<9.0	<18	<9.0	11	<9.0
Total Trimethylbenzenes	480	96	ug/L	2,630	2,460	4,690	8,000	3,690	4,360	4,690	2,530	2,060
	400	8	ug/L	130	NA	NA	1,200	450	660	520	360	NA
Napthalene			<u> </u>									
PAHs			ug/L	<3.6	NA	NA	NA	<1.7	NA	NA	NA	NA
Acenaphthylene	<u> </u>		ug/L	<3.8	NA	NA	NA	<1.8	NA	NA	NA	NA
Acenaphthene	3.000	600	ug/L	<0.080	NA	NA	NA	<1.9	NA	NA	NA	NA
Anthracene	3,000	000	ug/L ug/L	<0.13	NA	NA	NA	<1.1	NA	NA	NA	NA NA
Benzo (a)Anthracene		0.02	ug/L	<0.25	NA	NA	NA	<1.3	NA	NA	NA	NA
Benzo (a)Pyrene	0.2			<0.35	NA	NA	NA	<1.2	NA	NA	NA	NA
Benzo (b)Fluoranthene	0.2	0.02	ug/L ug/L	<0.44	NA	· NA	NA	<1.5	NA	NA	NA	NA
Benzo (g,h,i) Perylene	÷			<0.24	NA	NA	NA	<1.8	NA	NA	NA	NA
Benzo (k)Fluoranthene		<u> </u>	ug/L	<0.084	NA	NA	NA	<1.3	NA	NA	NA	NA
Chrysene	0.2	0.02	ug/L	<0.52	NA	NA	NA	<1.5	NA	NA	NA	NA
Dibenzo(a,h) anthracene	<u> </u>	· ·	ug/L	<0.32	NA NA	NA	NA	<2.0	NA	NA	NA	NA
Indeno (1,2,3,-cd) Pyrene	<u> </u>	<u> </u>	ug/L	<0.23	NA	NA	NA	<1.2	NA	NA	NA	NA
Fluoranthene	400	80	ug/L	<0.24	NA	NA	NA	<1.6	NA	NA	NA	NA
Рутепе	250	50	ug/L		NA NA	NA	NA	290	NA	NA	NA	NA
Naphthalene	40	8	ug/L	380	NA	NA	NA	100	NA	NA	NA	NA
1-Methyl naphthalene	-	-	ug/L	180		NA	NA	180	NA	NA	NA	NA
2-Methyl naphthalene			ug/L	89	NA NA	NA NA	NA NA	<1.6	NA	NA	NA	NA
Fluorene	400	80	ug/L	<0.30	NA	NA NA	NA	<1.5	NA	NA	NA	NA
Phenanthrene			ug/L	<0.10	NA	I NA	1 114		+	†	<u>+</u> -	1
Inorganics			<u> </u>	+	<u> </u>	NA	30	17	22	3.8	NA	NA
Dissolved Lead	15	1.5	ug/L	5.3	NA		NA NA	20,000	20,000	23,000	NA	NA
Dissolved Iron	300	150	ug/L	NA	8,800	12,000		20,000 NA	1,400	NA	NA	NA
Manganese	50	25	ug/L	NA	11,000	14,000	NA NA	<0.063	<0.063	<0.063	NA	NA
Nitrate, NO3+NO2	10	2	mg/L	NA	<0.017	0.028		0.48	0.7	0.74	NA	NA
Sulfate	250	125	mg/L	NA	17	<0.62	NA	0.48	0.7	0.74		

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Notes:

All values report in  $\mu g/L$  (ppb). Unless otherwise noted. ES = NR140.10 Enforcement Standards PAL = NR140.10 Preventive Action Limits

X = Not Detected

NA= Not Analyzed

ES exceeded

PAL exceeded

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## Table 2c Monitoring Well MW3 Groundwater Analytical Results Ladysmith Standard Service Site Ladysmith, WI

		MW3											
· · · · · · · · · · · · · · · ·	r		Date	12/11/97	7/15/98	5/11/99	2/21/02	7/21/04	10/25/04	1/26/05	10/5/05	1/24/06	
Parameter	ES	PAL	Units										
DRO	· · ·		mg/L	0.46	0.48	NA	<0.1	NA	NA	NA	NA	NA_	
GRO		-	mg/L	1.6	0.67	0.34	0.25	NA	NA	NA	NA	NA	
Detected VOCs													
Benzene	5	0.5	ug/L	45	17	21	3.2	0.44	<0.14	<0.14	<0.14	<0.14	
Toluene	1,000	200	ug/L	28	20	8.8	0.71	23	1.1	<0.36	<0.36	< 0.36	
Ethylbenzene	700	140	ug/L	270	66	21	64	220	8.4	70	15	30	
Xylene (total)	10.000	1,000	ug/L	460	110	21.5	7.2	384	14.6	2.5	2.6	<0.74	
MTBE	60	12	ug/L	<1.2	<0.16	0.35	<0.46	0.66	<0.36	<0.36	< 0.36	<0.36	
Total Trimethylbenzenes	480	96	ug/L	232	98	58.8	92.5	442	12.5	51.99	56	34	
Napthalene	40	8	ug/L	13	NA	NA	NA	34	0.92	0.67	0.71	NA	
Detected PAHs		· · · · ·											
Acenaphthene			ug/L	<0.99	NA	NA	NA	0.05	NA	NA	NA	NA	
Acenaphthylene	<u> </u>		ug/L	<0.92	NA	NA	NA	0.019	NA	NA	NA	NA	
Anthracene	3,000	600	ug/L	<0.021	NA	NA	NA	<0.019	NA	NA	NA	NA	
Benzo (a)Anthracene		•	ug/L	<0.033	NA	NA	NA	<0.011	NA	NA	NA	NA	
Benzo (a)Pyrene	0.2	0.02	ug/L	<0.067	NA	′ NA	NA	<0.013	NA	NA	NA	NA	
Benzo (b)Fluoranthene	0.2	0.02	ug/L	<0.091	NA	NA	NA	<0.012	NA	NA	NA	NA	
Benzo (g,h,i) Perylene	<u>                                      </u>		ug/L	<0.11	NA	NA	NA	<0.015	NA	NA	NA	NA	
Benzo (k)Fluoranthene	+	-	ug/L	<0.063	NA	NA	NA	<0.018	NA	NA	NA	NA_	
Chrysene	0.2	0.02	ug/L	<0.022	NA	NA	NA_	<0.013	NA	NA	NA	NA	
Dibenzo(a,h) anthracene		-	ug/L	<0.13	NA	NA	NA	<0.015	NA	NA	NA	NA	
Indeno (1,2,3,-cd) Pyrene		-	ug/L	<0.059	NA	NA	NA	<0.020	NA	NA	NA	NA	
Fluoranthene	400	80	ug/L	<0.062	NA	NA	NA	<0.012	NA	NA	NA	NA	
Pyrene	250	50	ug/L	<0.066	NA	NA	NA	<0.016	NA	NA	NA	NA	
Naphthalene	40	8	ug/L	27	NA	NA	NA	17	NA	NA	NA	NA	
1-Methyl naphthalene			ug/L	32	NA	NA	NA	8.1	NA	NA	NA	NA	
2-Methyl naphthalene			ug/L	8.7	NA	NA	NA	3.9	NA	NA	NA	NA	
Fluorene	400	80	ug/L	<0.077	NA	NA	NA	0.058	NA	NA	NA	NA	
Phenanthrene		-	ug/L	<0.026	NA	NA	NA	0.037	NA_	NA	NA	NA	
Inorganics	+						ļ		ļ			+- <del></del> -	
Dissolved Lead	15	1.5	ug/L	<0.89	NA	NA	NA	<3.9	<1.5	<1.5	NA	NA	
Dissolved Iron	300	150	ug/L	NA	NA	2,900	NA	2,000	3,400	580	NA	NA	
Manganese	50	25	ug/L	NA	NA	7,600	NA	NA	3,900	NA	NA	NA	
Nitrate, NO3+NO2	10	2	mg/L	NA	NA	<0.017	NA	0.99	1.7	2.4	NA	NA	
Sulfate	250	125	mg/L	NA	NA	24	NA	31	40	72	NA	NA	

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Notes:

All values report in µg/L (ppb). Unless otherwise noted. ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits X = Not Detected

NA= Not Analyzed

ES exceeded

PAL exceeded

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# Table 2d Monitoring Well MW4 Groundwater Analytical Results Ladysmith Standard Service Site Ladysmith, W1

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							MW4	<u> </u>		
,,,,,,,,,			Date	12/11/97	7/15/98	2/21/02	7/21/04	10/25/04	1/26/05	10/5/05
Parameter	ES	PAL	Units							
DRO	<u> </u>	-	mg/L	<0.10	<0.10	2.8	NA	NA	NA	NA
GRO		-	mg/L	<0.05	< 0.05	<0.1	NA	NA	NA	NA
Detected VOCs										
Benzene	5	0.5	ug/L	0.26	<0.13	<0.21	<0.14	<0.14	<0.14	<0.14
Toluene	1,000	200	ug/L	1.6	0.21	<0.41	< 0.36	<0.36	<0.36	< 0.36
Ethylbenzene	700	140	ug/L	0.46	<0.22	<0.22	< 0.40	<0.40	<0.40	< 0.40
Xylene (total)	10,000	1,000	ug/L	2.5	<0.23	<0.69	<0.74	<0.74	<0.74	<0.74
MTBE	60	12	ug/L	<0.25	<0.16	<0.46	< 0.36	<0.36	<0.36	< 0.36
Total Trimethylbenzenes	480	96	ug/L	0.85	<0.51	<0.60	<0.4	<0.4	<0.4	<0.4
Napthalene	40	8	ug/L	<0.10	NA	NA	<0.47	<0.47	<0.47	<0.47
Detected PAHs										
Acenaphthene		-	ug/L	<1.0	NA	NA	<0.017	NA	NA	NA
Acenaphthylene	<u> </u>	-	ug/L	<1.1	NA	NA	< 0.018	NA	NA	NA
Anthracene	3,000	600	ug/L	<0.022	NA	NA	< 0.019	NA	NA	NA
Benzo (a)Anthracene			ug/L	<0.036	NA	NA	< 0.011	NA	NA	NA
Benzo (a)Pyrene	0.2	0.02	ug/L	< 0.071	NA	NA	<0.013	NA	NA	NA
Benzo (b)Fluoranthene	0.2	0.02	ug/L	<0.099	NA	NA	<0.012	NA	NA	NA
Benzo (g,h,i) Perylene	<u> </u>	-	ug/L	<0.12	NA	NA	<0.015	NA	NA	NA
Benzo (k)Fluoranthene	<u> </u>		ug/L	<0.068	NA	NA	<0.018	NA	NA	NA
Chrysene	0.2	0.02	ug/L	< 0.024	NA	NA	<0.013	NA	NA	NA
Dibenzo(a,h) anthracene	-		ug/L	<0.15	NA	NA	<0.015	NA	NA	NA
Indeno (1,2,3,-cd) Pyrene			ug/L	<0.064	NA	NA	<0.020	NA	NA	NA
Fluoranthene	400	80	ug/L	<0.067	NA	NA	<0.012	NA	NA	NA
Pyrene	250	50	ug/L	< 0.072	NA	NA	<0.016	NA	NA	NA
Naphthalene	40	8	ug/L	< 0.35	NA	NA	0.11	NA	NA	NA
1-Methyl naphthalene		<u> </u>	ug/L	<0.65	NA	NA	0.026	NA	NA	NA
2-Methyl naphthalene	+	-	ug/L	<0.73	NA	NA	0.047	NA	NA	NA
Fluorene	400	80	ug/L	< 0.084	NA	NA	<0.016	NA	NA	NA
Phenanthrene			ug/L	<0.028	NA	NA	< 0.015	NA	NA	NA
				<u> </u>						<u> </u>
Inorganics Dissolved Lead	15	1.5	ug/L	< 0.89	NA	NA	<3.9	<1.5	<1.5	NA
Dissolved Lead	300	1.5	ug/L	NA	NA	NA	27	<17	20	NA
	50	25	ug/L ug/L	NA	NA	NA	NA	7.1	NA	NA
Manganese	10	25	mg/L	NA	NA	NA	6.2	6.7	6.7	NA
Nitrate, NO3+NO2	250	125	mg/L	NA	NA	NA	41	56	71	NA

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Notes:

All values report in  $\mu g/L$  (ppb). Unless otherwise noted.

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

X = Not Detected

NA= Not Analyzed

ES exceeded PAL exceeded

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## Table 2e Monitoring Well MW5 Groundwater Analytical Results Ladysmith Standard Service Site Ladysmith, WI

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								W5	·		
			Date	12/11/97	7/15/98	5/11/99	2/21/02	7/21/04	10/25/04	10/5/05	1/24/06
Parameter	ES	PAL	units								
DRO			mg/L	6.9	13	NA	23	NA	NA	NA	NA
GRO		-	mg/L	48	62	83	100	NA	NA	NA	NA
Detected VOCs											
Benzene	5	0.5	ug/L	8,500	13,000	12,000	8,200	7,000	5,300	5,800	5,900
Toluene	1.000	200	ug/L	20,000	29,000	28,000	38,000	28,000	30,000	21,000	19,000
Ethylbenzene	700	140	ug/L	2,800	3,100	3,100	4,800	4,400	4,400	4,000	4,300
Xylene (total)	10,000	1,000	ug/L	14,000	14,000	13,300	21,000	18,400	19,100	19,100	16,100
MTBE	60	12	ug/L	<50	<330	<44	<92	<72	<90	<45	<90
Total Trimethylbenzenes	480	96	ug/L	3,190	2,260	2,550	5,100	3,700	3,840	4,150	5,100
Napthalene	40	8	ug/L	180	340	400	670	500	490	520	NA
Detected PAHs											
Acenaphthene	<u> </u>	· ·	ug/L	<3.8	NA	NA	NA	0.28	NA	NA	NA
Acenaphthylene			ug/L	<3.6	NA	NA	NA	0.1	NA	NA	NA
Anthracene	3.000	600	ug/L	<0.080	NA	NA	NA	0.094	NA	NA	NA
Benzo (a)Anthracene			ug/L	<0.13	NA	NA	NA_	0.025	NA	NA	NA
Benzo (a)Pyrene	0.2	0.02	ug/L	<0.25	NA	NA	NA	0.017	NA	NA	NA
Benzo (b)Fluoranthene	0.2	0.02	ug/L	< 0.35	NA	NA	NA	0.013	NA	NA	NA_
Benzo (g,h,i) Perylene	+	•	ug/L	<0.44	NA	NA	NA	0.019	NA	NA	NA
Benzo (k)Fluoranthene	<u> </u>	-	ug/L	<0.24	NA	NA	NA	<0.018	NA	NA	NA
Chrysene	0.2	0.02	ug/L	< 0.084	NA	NA	NA	0.017	NA	NA	NA
Dibenzo(a,h) anthracene			ug/L	<0.52	NA	NA	NA	<0.015	NA	NA	NA
Indeno (1,2,3,-cd) Pyrene	<u> </u>	· · ·	ug/L	<0.23	NA	NA	NA	<0.020	NA	NA	NA
Fluoranthene	400	80	ug/L	<0.24	NA	NA	NA	0.057	NA	NA	NA
Pyrene	250	50	ug/L	<0.26	NA	NA	NA	0.08	NA	NA	NA
Naphthalene	40	8	ug/L	260	NA	NA	NA	430	NA	NA	NA
1-Methyl naphthalene			ug/L	150	NA	NA	NA	87	NA	NA	NA
2-Methyl naphthalene		<u> </u>	ug/L	80	NA	NA	NA	150	NA	NA	NA
Fluorene	400	80	ug/L	< 0.30	NA	NA	NA	0.26	NA	NA	NA
Phenanthrene			ug/L	<0.10	NA	NA	NA	<5.1	NA	NA	NA
Inorganics	<u> </u>										
Dissolved Lead	15	1.5	ug/L	26	NA	NA	27	13	37	NA	NA
Dissolved Iron	300	150	ug/L	NA	5,700	1,800	NA	25	28,000	NA	NA
Manganese	50	25	ug/L	NA	19,000	11,000	NA	NA	7,300	NA	NA
Nitrate, NO3+NO2	10	2	mg/L	NA	0.071	0.28	NA	0.21	< 0.063	NA	NA
Sulfate	250	125	mg/L	NA	18	3.4	NA	1.2	3.2	NA	NA

Notes:

All values report in  $\mu g/L$  (ppb). Unless otherwise noted.

ES = NR140.10 Enforcement Standards PAL = NR140.10 Preventive Action Limits

X = Not Detected

NA= Not Analyzed

ES exceeded

PAL exceeded

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#### Table 2f Monitoring Well MW10 Groundwater Analytical Results Ladysmith Standard Service Site Ladysmith, WI

						MW			
			Date	7/15/98	2/21/02	07/21/04	10/25/04	01/26/05	10/05/05
Parameter	ES	PAL	units						
DRO	- 1	-	mg/L	0.33	<0.1	NA	NA	NA	NA
GRO		-	mg/L	<0.05	<0.1	NA	NA	NA	NA
Detected VOCs									
Benzene	5	0.5	ug/L	<0.31	< 0.21	<0.14	<0.14	<0.14	<0.14
Toluene	1,000	200	ug/L	<0.48	<0.41	<0.36	< 0.36	< 0.36	< 0.36
Ethylbenzene	700	140	ug/L	<0.26	< 0.22	<0.40	<0.40	<0.40	<0.40
Xylene (total)	10,000	1,000	ug/L	<1.0	<0.69	<0.74	<0.74	<0.74	<0.74
MTBE	60	12	ug/L	<0.66	< 0.46	< 0.36	< 0.36	< 0.36	< 0.36
Total Trimethylbenzenes	480	96	ug/L	<0.45	<0.60	<0.40	<0.40	<0.40	<0.40
Napthalene	40	8	ug/L	<0.49	NA	<0.47	<0.47	<0.47	<0.47
Detected PAHs					L		L	<u> </u>	<u> </u>
Acenaphthene	- 1	•	ug/L	<0.23	NA	<0.017	NA	NA	NA
Acenaphthylene	-	-	ug/L	<0.58	NA	<0.018	NA	NA	NA
Anthracene	3,000	600	ug/L	<0.019	NA	< 0.019	NA	NA	NA
Benzo (a)Anthracene	-	-	ug/L	0.046	NA	<0.011	NA_	NA	NA
Benzo (a)Pyrene	0.2	0.02	ug/L	0.050	NA	<0.013	NA	NA	NA
Benzo (b)Fluoranthene	0.2	0.02	ug/L	<0.046	NA	<0.012	NA	NA	NA
Benzo (g,h,i) Perylene		•	ug/L	<0.11	NA	<0.015	NA	NA	NA
Benzo (k)Fluoranthene		•	ug/L	<0.031	NA	<0.018	NA	NA	NA
Chrysene	0.2	0.02	ug/L	0.049	NA	<0.013	NA	NA	NA
Dibenzo(a,h) anthracene	-	-	ug/L	<0.17	NA	<0.015	NA	NA	NA
Indeno (1,2,3,-cd) Pyrene		-	ug/L	<0.088	NA	<0.020	NA	NA	NA
Fluoranthene	400	80	ug/L	<0.11	NA	< 0.012	NA	NA	NA
Pyrene	250	50	ug/L	0.12	NA	<0.016	NA	NA	NA
Naphthalene	40	8	ug/L	<0.23	NA	0.026	NA	NA_	NA
1-Methyl naphthalene	-	•	ug/L	<0.42	NA	< 0.017	NA	NA	NA
2-Methyl naphthalene		-	ug/L	<0.64	NA	< 0.016	NA	NA	NA
Fluorene	400	80	ug/L	< 0.031	NA	<0.016	NA	NA	NA
Phenanthrene		-	ug/L	0.11	NA	<0.015	NA	NA	NA
Inorganics		[							<u> </u>
Dissolved Lead	15	1.5	ug/L	NA	<1	<3.9	<1.5	<1.5	NA
Dissolved Iron	300	150	ug/L	NA	NA	27	23	<17	NA
Manganese	50	25	ug/L	NA	NA	NA	47	NA	NA
Nitrate, NO3+NO2	10	2	mg/L	NA	NA	6.5	8.5	8.8	NA
Sulfate	250	125	mg/L	NA	NA	55	110	180	NA

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Notes:

All values report in µg/L (ppb). Unless otherwise noted. ES = NR140.10 Enforcement Standards PAL = NR140.10 Preventive Action Limits X = Not Detected NA= Not Analyzed ES exceeded bold PAL exceeded *italic* 

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#### Table 2g Monitoring Well MW11 Groundwater Analytical Results Ladysmith Standard Service Site Ladysmith, WI

							MWII			0.1.15 - 15 -
			Date	7/15/98	2/21/02	7/21/04	10/25/04	01/26/05	10/05/05	01/24/06
Parameter	ES	PAL	Units							
DRO		•	mg/L	0.33	0.43	NA	NA	NA	NA	NA
GRO		-	mg/L	<0.05	0.56	NA	NA	NA	NA	NA
Detected VOCs										
Benzene	5	0.5	ug/L	<6.2	<0.21	<0.14	<0.14	<0.14	<0.14	< 0.14
Toluene	1,000	200	ug/L	<9.6	1.7	< 0.36	< 0.36	< 0.36	<0.36	< 0.36
Ethylbenzene	700	140	ug/L	130	2.9	1.8	<0.40	1.9	2.8	0.46
Xylene (total)	10,000	1,000	ug/L	240	2.1	1.37	<0.74	0.86	0.59	<0.74
MTBE	60	12	ug/L	<13	<0.46	0.4	<0.36	<0.36	0.54	< 0.36
Total Trimethylbenzenes	480	96	ug/L	1,540	23.9	31.2	2.72	7.82	31.8	7.1
Napthalene	40	8	ug/L	_26	0.92	1.7	<0.47	0.72	2.3	NA
Detected PAHs							. <u> </u>			<u> </u>
Acenaphthene	•	•		<1.1	NA	<0.014	NA	NA	NA	NA
Acenaphthylene	-	-		<2.8	NA	<0.014	NA	NA	NA	NA
Anthracene	3,000	600		<0.090	NA	<0.015	NA	NA	NA	NA
Benzo (a)Anthracene	-	-		<0.085	NA	<0.091	NA	NA	NA	NA
Benzo (a)Pyrene	0.2	0.02		<0.14	NA	<0.011	NA	NA	NA	NA
Benzo (b)Fluoranthene	0.2	0.02		<0.22	NA	<0.098	NA	NA	NA	NA_
Benzo (g,h,i) Perylene		-		<0.50	NA	<0.12	NA	NA	NA	NA
Benzo (k)Fluoranthene		-		<0.14	NA	<0.014	NA	NA	NA	NA
Chrysene	0.2	0.02		<0.065	NA	<0.011	NA	NA .	NA	NA
Dibenzo(a,h) anthracene	-	-		< 0.80	NA	< 0.012	NA	NA	NA	NA
Indeno (1.2.3cd) Pyrene		-		<0.42	NA	<0.016	NA	NA	NA	NA
Fluoranthene	400	80		< 0.50	NA	<0.098	NA	NA	NA	NA
Pyrene	250	50		<0.24	NA	< 0.013	NA	NA	NA	NA
Naphthalene	40	8		28	NA	0.38	NA	NA	NA	NA
1-Methyl naphthalene		-		48	NA	1.4	NA	NA	NA	NA
2-Methyl naphthalene		-		94	NA	1.5	NA	NA	NA	NA
Fluorene	400	80		<0.14	NA	<0.013	NA	NA	NA	NA
Phenanthrene		-		<0.070	NA	<0.012	NA	NA	NA	NA
Inorganics	-						<u> </u>	ļ		
Dissolved Lead	15	1.5	ug/L	12	<1	<3.9	<1.5	<1.5	NA	NA
Dissolved Iron	300	150	ug/L	2,000	NA	530	240	1,700	NA	NA
Manganese	50	25	ug/L	5,800	NA	NA	1,700	NA	NA	NA
Nitrate, NO3+NO2	10	2	mg/L	1.8	NA	5.6	4.9	6.6	NA	NA
Sulfate	250	125	mg/L	27	NA	250	110	140	NA	NA

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Notes:

All values report in  $\mu g/L$  (ppb). Unless otherwise noted. ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

X = Not Detected

NA= Not Analyzed

ES exceeded

PAL exceeded

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## Table 2h Monitoring Well MW12 Groundwater Analytical Results Ladysmith Standard Service Site Ladysmith, WI

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							MW12			
			Date	7/15/98	5/11/99	2/21/02	7/21/04	10/25/04	01/26/05	10/05/05
Parameter	ES	PAL	Units							
DRO		-	mg/L	<0.10	NA	<0.1	NA	NA	NA	NA
GRO		-	mg/L	< 0.05	<0.05	<0.1	NA	NA	NA	NA
Detected VOCs										
Benzene	5	0.5	ug/L	< 0.31	0.30	<0.21	< 0.14	<0.14	<0.14	< 0.14
Toluene	1,000	200	ug/L	< 0.48	3.3	< 0.41	< 0.36	< 0.36	< 0.36	< 0.36
Ethylbenzene	700	140	ug/L	< 0.26	1.1	<0.22	<0.40	<0.40	<0.40	<0.40
Xylene (total)	10,000	1,000	ug/L	<1.0	4.7	<0.69	<0.74	<0.74	<0.74	<0.74
MTBE	60	12	ug/L	<0.66	<0.22	<0.46	< 0.36	< 0.36	<0.36	< 0.36
Total Trimethylbenzenes	480	96	ug/L	<0.45	1.0	<0.60	<0.40	<0.40	<0.40	< 0.40
Napthalene	40	8	ug/L	<0.49	NA	NA	<0.47	<0.47	<0.47	< 0.47
Detected PAHs										L
Acenaphthene		-		<0.22	NA	NA	< 0.017	NA	NA	NA
Acenaphthylene			<u> </u>	<0.55	NA	NA	< 0.018	NA	ŇA	NA
Anthracene	3,000	600		< 0.018	NA	NA	< 0.019	NA	NA	NA
Benzo (a)Anthracene				< 0.017	NA	NA	< 0.011	NA	NA	NA
	0.2	0.02	+	<0.027	NA	NA	< 0.013	NA	NA	NA
Benzo (a)Pyrene	0.2	0.02		< 0.043	NA	NA	< 0.012	NA	NA	NA
Benzo (b)Fluoranthene	- 0.2	0.02		<0.10	NA	NA	< 0.015	NA	NA	NA
Benzo (g,h,i) Perylene				<0.029	NA	NA	< 0.018	NA	NA	NA
Benzo (k)Fluoranthene		0.02		<0.023	NA	NA	< 0.013	NA	NA	NA
Chrysene	0.2	0.02		<0.16	NA	NA	< 0.015	NA	NA	NA
Dibenzo(a,h) anthracene				<0.083	NA	NA	< 0.020	NA	NA	NA
Indeno (1,2,3,-cd) Pyrene	-	-		<0.003	NA	NA	<0.012	NA	NA	NA
Fluoranthene	400	80		<0.047	NA	NA	<0.012	NA	NA	NA
Pyrene	250	50	<u> </u>		NA NA	NA NA	0.56	NA	NA	NA
Naphthalene	40	8		<0.22	NA NA	NA	0.24	NA	NA	NA
1-Methyl naphthalene		-	<u> </u>	<0.40		NA NA	0.24	NA	NA	NA
2-Methyl naphthalene		-	<u> </u>	<0.60	NA	NA NA	< 0.016	NA	NA	NA
Fluorene	400	80		< 0.029	NA		<0.010	NA NA	NA	NA NA
Phenanthrene	-	-	<u> </u>	< 0.014	NA	NA	<0.015		INA .	
Inorganics				<u> </u>		<u> </u>		<1.5	<1.5	NA
Dissolved Lead	15	1.5	ug/L	NA	NA	2.5	<3.9	1	<1.5	NA
Dissolved Iron	300	150	ug/L	NA	<47	NA	<7.5	<17		NA NA
Manganese	50	25	ug/L	NA	2,300	NA	NA	5.7	NA	
Nitrate, NO3+NO2	10	2	mg/L	NA	2.8	NA	4.4	4.1	4.2	NA
Sulfate	250	125	mg/L	NA	32	NA	38	40	NA	NA

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Notes:

All values report in  $\mu g/L$  (ppb). Unless otherwise noted.

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

X = Not Detected

NA= Not Analyzed

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ES exceeded	bold
PAL exceeded	italic

## Table 2i Monitoring Well MW13 Groundwater Analytical Results Ladysmith Standard Service Site Ladysmith, WI

						<u>MW13</u>		
			Date	7/15/98	7/21/04	10/25/04	01/26/05	10/05/05
Parameter	ES	PAL	Units					
DRO	- 1	-	mg/L	<0.10	NA	NA	NA	NA
GRO	-	-	mg/L	<0.05	NA	NA	NA	NA
Detected VOCs								
Benzene	5	0.5	ug/L	< 0.31	< 0.14	<0.14	<0.14	<0.14
Toluene	1,000	200	ug/L	<0.48	< 0.36	<0.36	< 0.36	< 0.36
Ethylbenzene	700	140	ug/L	<0.26	<0.40	<0.40	<0.40	<0.40
Xylene (total)	10,000	1,000	ug/L	<1.0	<0.74	<0.74	<0.74	<0.74
MTBE	60	12	ug/L	<0.66	< 0.36	< 0.36	< 0.36	< 0.36
Total Trimethylbenzenes	480	96	ug/L	<0.45	<0.40	<0.40	<0.40	<0.40
Napthalene	40	8	ug/L	<0.49	<0.47	<0.47	<0.47	<0.47
Detected PAHs								
Acenaphthene		-		< 0.22	<0.017	NA	NA	NA
Acenaphthylene	-	-		<0.55	< 0.018	NA	NA	NA
Anthracene	3,000	600		< 0.018	<0.019	NA	NA	NA
Benzo (a)Anthracene	-	-		<0.017	<0.011	NA	NA	NA
Benzo (a)Pyrene	0.2	0.02		< 0.027	<0.013	NA	NA	NA
Benzo (b)Fluoranthene	0.2	0.02		< 0.043	<0.012	NA	NA	NA
Benzo (g,h,i) Perylene	-	-		<0.10	<0.015	NA	NA	NA
Benzo (k)Fluoranthene		-		< 0.029	<0.018	NA	NA	NA
Chrysene	0.2	0.02		<0.013	<0.013	NA	NA	NA
Dibenzo(a,h) anthracene		-		<0.16	< 0.015	NA	NA	NA
Indeno (1,2,3,-cd) Pyrene		-		< 0.083	<0.020	NA	NA	NA
Fluoranthene	400	80		<0.10	< 0.012	NA	NA	NA
Pyrene	250	50		< 0.047	<0.016	NA	NA	NA
Naphthalene	40	8		< 0.22	0.16	NA	NA	NA
1-Methyl naphthalene				<0.40	0.069	NA	NA	NA
2-Methyl naphthalene	<u> </u>	-		<0.60	0.1	NA	NA	NA
Fluorene	400	80		<0.029	< 0.016	NA	NA	NA
Phenanthrene			†	<0.014	< 0.015	NA	NA	NA
Inorganics		+						
Dissolved Lead	15	1.5	ug/L	NA	<3.9	<1.5	<1.5	NA
Dissolved Iron	300	150	ug/L	NA	<7.5	<17	<17	NA
	50	25	ug/L	NA	NA	6.0	NA	NA
Manganese Nitrate, NO3+NO2	10	25	mg/L	NA	6.8	7.8	8.3	NA
Sulfate	250	125	mg/L	NA	42	56	92	NA

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## Notes:

All values report in  $\mu g/L$  (ppb). Unless otherwise noted.

ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

X = Not Detected

NA= Not Analyzed

ES exceeded	bold
PAL exceeded	italic

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## Table 2j Monitoring Well MW14 Groundwater Analytical Results Ladysmith Standard Service Site Ladysmith, WI

					V14
			Date	7/15/98	2/21/02
Parameter	ES	PAL	Units		
DRO	-	-	mg/L	<0.10	<0.10
GRO	-	-	mg/L	<0.05	<0.10
Detected VOCs					
Benzene	5	0.5	ug/L	< 0.31	< 0.21
Toluene	1,000	200	ug/L	<0.48	<0.41
Ethylbenzene	700	140	ug/L	<0.26	< 0.22
Xylene (total)	10,000	1,000	ug/L	<1.0	<0.69
MTBE	60	12	ug/L	<0.66	<0.46
Total Trimethylbenzenes	480	96	ug/L	<0.45	<0.60
Napthalene	40	8	ug/L	<0.49	NA
Detected PAHs					
Acenaphthene		-		<0.22	NA
Acenaphthylene	-	-		<0.56	NA
Anthracene	3,000	600		< 0.018	NA
Benzo (a)Anthracene		-		<0.017	NA
Benzo (a)Pyrene	0.2	0.02		<0.027	NA
Benzo (b)Fluoranthene	0.2	0.02		< 0.044	NA
Benzo (g,h,i) Perylene	-	-		<0.10	NA
Benzo (k)Fluoranthene	-			< 0.030	NA
Chrysene	0.2	0.02		< 0.013	NA
Dibenzo(a,h) anthracene		-		<0.16	NA
Indeno (1,2,3,-cd) Pyrene		-		< 0.085	NA
Fluoranthene	400	80		<0.10	NA
Pyrene	250	50		<0.048	NA
Naphthalene	40	8		<0.22	NA
1-Methyl naphthalene		-		<0.41	NA
2-Methyl naphthalene		-	1	<0.61	NA
Fluorene	400	80		< 0.030	NA
Phenanthrene		-		< 0.014	NA
Inorganics			1		
Dissolved Lead	15	1.5	ug/L	<0.089	NA
Dissolved Iron	300	150	ug/L	230	NA
Manganese	50	25	ug/L	2,700	NA
Nitrate, NO3+NO2	10	2	mg/L	1.9	NA
Sulfate	250	125	mg/L	51	NA

Notes:

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All values report in  $\mu g/L$  (ppb). Unless otherwise noted.

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ES = NR140.10 Enforcement Standards

PAL = NR140.10 Preventive Action Limits

X = Not Detected

NA= Not Analyzed

ES exceeded	bold
PAL exceeded	italic

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#### Table 1a Soil Boring Analytical Results Ladysmith Standard Service Site Ladysmith, WI

			Date>	11/11/97	11/11/97	11/12/97	11/12/97	11/12/97	11/11/97	11/11/97	11/11/97	11/12/97	11/13/97	11/13/97	11/13/97
			Sample->	TB-I	TB-1	TB-2	ТВ-3	TB-3	MW-I	MW-I	MW-1	MW-2	MW-3	MW-4	MW-5
		Sample Dep	nh-(Feet)>	28-30	40-41	28-30	28-30	40-41	15-17	28-30	37-39	28-30	28-30	28-30	12-14
Detected PVOC's (ug/kg)	RCL	Table 1	Table 2												
Benzene	5.5	8,500	1,100	34	<25	<25	<25	<25	<25	140	420	<25	<25	<25	28,000
Ethylbenzene	2,900	4,600	NS	150	69	<25	<25	<25	54	5,500	1,400	<25	<25	57	120,000
Toluene	1,500	38,000	NS	280	220	26	31	<25	94	5,800	2,800	<25	37	240	380,000
Xylenes (Total)	4.100	42,000	NS	890	308	28	149	<50	330	28,500	5,700	33	<50	218	500,000
Methly tert Butyl Ether	NS	NS	NS	<25	<25	<25	<25	<25	<25	<25	<100	<25	<25	<25	<1300
1,2,4-Trimethylbenzene	NS	83,000	NS	1,300	140	<25	310	<25	420	23,000	3,000	<25	<25	40	210,000
1,3,5-Trimethylbenzene	NS	11,000	NS	370	41	<25	89	<25	120	7,000	900	<25	<25	<25	62,000
1,2 -Dichloroethane	NS	8,500	540	<25	<25	<25	<25	<25	<25	<25	<100	<25	<25	<25	<1300
Naphthalene	400	2,700	NS	470	<25	<25	170	<25	100	2,400	250	<25	<25	<25	15,000
PAH's (ug/kg)							ļ		l					<u> </u>	4,500
1-Methyl Naphthalene	23,000	NS	NS	49	NA	NA .	<16	NA	NA	250	NA	NA	NA NA	NA NA	4,500
2-Methyl Naphthalene	20,000	NS	NS	72	NA	NA	<15	NA	NA	410	NA	NA NA	NA NA	NA NA	<150
Phenanthrene	1,800	NS	NS	<14	NA	NA	<15	NA	NA	26	<u>NA</u> 53	NA <2.6	NA <2.6	<2.6	4,700
GRO (mg/kg)	100	NS	NS	27	<2.9	<2.6	6.7	<2.7	<u> </u>	400	<4.3	<4.3	<4.2	17	510
DRO (mg/kg)	100	NS	NS	7.5	<4.1	<3.9	<4.3	< <u>4.1</u> <3.5	<u>11</u> <3.1	<3.4	<3.8	<3.1	<3.4	21	111
Lead (mg/kg)	50	NS	NS	<3.3	5.1	<3.0	<3.3	<3.5	1 5.1					<u> </u>	
			Date	11/13/07	11/13/97	6/10/98	6/10/98	6/11/98	6/11/98	6/12/98	10/6/05	10/6/05	10/6/05	10/6/05	10/6/05
			Date> Sample>	11/13/97 MW-5	11/13/97 MW-5	6/10/98 MW-10	6/10/98 MW-11	6/11/98 MW-12	6/11/98 MW-13	6/12/98 MW-14	10/6/05 B-1	10/6/05 B-1	10/6/05 B-1	10/6/05 B-1	10/6/05 B-1
		Sample De	Sample>	11/13/97 MW-5 28-30	11/13/97 MW-5 35-36				1						
Detected PVOC's (ug/kg)	RCL	Sample De Table 1		MW-5	MW-5	MW-10	MW-11	MW-12	MW-13 27-29	MW-14 30-32	B-1 2.5-4.5	B-1 10-12	B-1 12-17	B-1 23-25	<u>B-1</u> 27-29
Detected PVOC's (ug/kg) Benzene	RCL 5.5		Sample> pth-(Feet)>	MW-5	MW-5	MW-10	MW-11	MW-12	MW-13	MW-14 30-32 <27	B-1 2.5-4.5 <25	B-1 10-12 <62	B-1 12-17 <25	B-1 23-25 <200	<b>B-1</b> 27-29 <25
		Table 1	Sample> pth(Feet)> Table 2	MW-5 28-30	MW-5 35-36	MW-10 27-29	MW-11           27-29           <31	MW-12 27-29 <26 <26	MW-13 27-29 <26 <26	MW-14 30-32 <27 <27	B-1 2.5-4.5 <25 <25	B-1 10-12 <62 5,800	B-1 12-17 <25 65	B-1 23-25 <200 26,000	B-1           27-29           <25
Benzene	5.5	Table 1 8,500	Sample> pth-(Feet)> Table 2 1,100	MW-5 28-30 5,600	MW-5 35-36 99	MW-10 27-29 <27	<i>MW-11</i> 27-29 <31	MW-12           27-29           <26	MW-13 27-29 <26 <26 <26	MW-14 30-32 <27 <27 <27	B-1 2.5-4.5 <25 <25 <25 <25	<i>B</i> -1 10-12 <62 <b>5,800</b> 1,400	B-1 12-17 <25 65 <25	B-1 23-25 <200 26,000 5,400	B-1           27-29           <25
Benzene Ethylbenzene	5.5 2,900	Table 1           8,500           4,600	Sample> pth-(Feet)> Table 2 1,100 NS	MW-5 28-30 5,600 9,900	MW-5 35-36 99 610	MW-10 27-29 <27 <27	MW-11           27-29           <31	MW-12 27-29 <26 <26	MW-13 27-29 <26 <26 <26 <78	MW-14 30-32 	<b>B-1</b> 2.5-4.5 <25 <25 <25 <75	B-1 10-12 <62 5,800 1,400 41,000	<b>B-1</b> 12-17 <25 65 <25 65	B-1 23-25 <200 26,000 5,400 95,000	B-1           27-29              <25
Benzene Ethylbenzene Toluene	5.5 2,900 1,500	Table 1           8,500           4,600           38,000	Sample> pth(Feet)> Table 2 1,100 NS NS	MW-5 28-30 5,600 9,900 32,000 42,000 <100	MW-5 35-36 99 610 1,000 2,310 460	MW-10 27-29 27 27 27 27 27 27 37 27	MW-11           27-29           <31	MW-12           27-29              <26	MW-13           27-29              <26	MW-14         30-32           27         27           27         27           81         27	B-1           2.5-4.5              <25	B-1           10-12           <62	B-1           12-17           <25	<i>B-1</i> 23-25 <200 26,000 5,400 95,000 <200	B-1           27-29              <25
Benzene Ethylbenzene Toluene Xylenes (Total)	5.5 2,900 1,500 4,100	Table 1           8,500           4,600           38,000           42,000	Sample> pth(Feet)> Table 2 1,100 NS NS NS	MW-5 28-30 5,600 9,900 32,000 42,000	MW-5 35-36 99 610 1,000 2,310	MW-10           27-29	MW-11           27-29           <31	MW-12           27-29           <26	MW-13           27-29              <26	MW-14         30-32	B-I           2.5-4.5              <25	B-1           10-12           <62	B-1           12-17              <25	B-1           23-25           <200	B-1           27-29              <25
Benzene Ethylbenzene Toluene Xylenes (Total) Methly tert Butyl Ether	5.5 2,900 1,500 4,100 NS	Table 1           8,500           4,600           38,000           42,000           NS	Sample-> pth-(Feet)> Table 2 1,100 NS NS NS NS NS	MW-5 28-30 5,600 9,900 32,000 42,000 <100	<i>MW-5</i> <i>35-36</i> <i>99</i> <i>610</i> <i>1,000</i> <i>2,310</i> <i>460</i> <i>1,400</i> <i>560</i>	MW-10           27-29	MW-11           27-29           <31	MW-12         27-29           <26	MW-13           27-29           <26	MW-14         30-32	B-1           2.5-4.5           <25	B-1           10-12           <62	B-1           12-17           <25	B-1           23-25           -           26,000           5,400           95,000           -           -           48,000           19,000	B-1           27-29           <25
Benzene Ethylbenzene Toluene Xylenes (Total) Methly tert Butyl Ether 1,2,4-Trimethylbenzene	5.5 2,900 1,500 4,100 NS NS	Table 1           8,500           4,600           38,000           42,000           NS           83,000	Sample> pth-(Feet)> Table 2 1,100 NS NS NS NS NS NS NS S40	MW-5 28-30 5,600 9,900 32,000 42,000 <100 19,000	<i>MW-5</i> 35-36 99 610 1,000 2,310 460 1,400 560 NA	MW-10           27-29	MW-11           27-29           <31	MW-12           27-29           <26	MW-13           27-29           <26	MW-14         30-32           27         27           27         27           27         27           81         27           27         27           27         27           NA         27	B-1           2.5-4.5           <25	B-1           10-12           <62	B-1           12-17           <25	B-1           23-25           -           26,000           5,400           95,000           <200	B-1           27-29           <25
Benzene Ethylbenzene Toluene Xylenes (Total) Methly tert Butyl Ether 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene	5.5 2,900 1,500 4,100 NS NS NS	Table 1           8,500           4,600           38,000           42,000           NS           83,000           11,000	Sample> pth-(Feet)> Table 2 1,100 NS NS NS NS NS NS NS NS	<i>MW-5</i> 28-30 5,600 9,900 32,000 42,000 <100 19,000 5,400	<i>MW-5</i> <i>35-36</i> <i>99</i> <i>610</i> <i>1,000</i> <i>2,310</i> <i>460</i> <i>1,400</i> <i>560</i>	MW-10           27-29	MW-11           27-29           <31	MW-12         27-29           <26	MW-13           27-29           <26	MW-14         30-32	B-1           2.5-4.5           <25	B-1           10-12           <62	B-1           12-17           <25	B-1           23-25           -           26,000           5,400           95,000           -           -           48,000           19,000	B-1           27-29           <25
Benzene Ethylbenzene Toluene Xylenes (Total) Methly tert Butyl Ether 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene 1,2 -Dichloroethane	5.5 2,900 1,500 4,100 NS NS NS NS 400	Table 1           8,500           4,600           38,000           42,000           NS           83,000           11,000           8,500           2,700	Sample-> pth-(Feet)> Table 2 1,100 NS NS NS NS NS NS NS NS S40 NS	MW-5           28-30           5,600           9,900           32,000           42,000           <100	<i>MW-5</i> 35-36 99 610 1,000 2,310 460 1,400 560 NA NA	MW-10           27-29	MW-11           27-29           <31	MW-12         27-29           <26	MW-13 27-29 26 26 26 26 26 26 26 26 26 26 26 26 8 26 26 8 26 26 26	MW-14 30-32 27 27 27 27 81 27 27 27 27 27 NA 227	B-1           2.5-4.5           <25	B-1           10-12           <62	B-1           12-17           <25	B-1           23-25           <200	8-1 27-29 25 25 25 25 25 25 25 25 25 25 8 25 NA NA
Benzene Ethylbenzene Toluene Xylenes (Total) Methly tert Butyl Ether 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene 1,2-Dichloroethane Naphthalene PAH's (ug/kg) 1-Methyl Naphthalene	5.5 2,900 1,500 4,100 NS NS NS NS 400 23,000	Table 1           8,500           4,600           38,000           42,000           NS           83,000           11,000           8,500           2,700           NS	Sample-> pth-(Feet)> Table 2 1,100 NS NS NS NS NS NS S40 NS NS S40 NS	MW-5           28-30           5,600           9,900           32,000           42,000           <100	<i>MW-5</i> 35-36 99 610 1,000 2,310 460 1,400 560 NA NA	MH-10           27-29           -21	MW-11           27-29           <31	MW-12         27-29           -226         -226           -226         -226           -226         -226           -226         -226           -226         -226           -226         -226           -226         -226           -226         -226           -226         -226           -226         -226           -226         -226           -226         -226           -226         -226	MW-13 27-29 26 26 26 26 26 26 26 26 26 26 26 26 26	MH-14 30-32 	B-1           2.5-4.5           <25	B-1 10-12 <62 5,800 1,400 41,000 <62 53,000 22,000 NA NA NA	B-1 12-17 <25 65 <25 65 <25 270 530 NA NA NA	B-1 23-25 <200 26,000 5,400 95,000 <200 48,000 19,000 NA NA NA	8-1 27-29 25 25 25 25 25 25 25 25 25 25 25 25 25
Benzene Ethylbenzene Toluene Xylenes (Total) Methly tert Butyl Ether 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene 1,2-Dichloroethane Naphthalene PAH's (ug/kg)	5.5 2,900 1,500 4,100 NS NS NS NS 400 23,000 20,000	Table 1           8,500           4,600           38,000           42,000           NS           83,000           11,000           8,500           2,700           NS           NS           NS	Sample-> pth-(Feet)> Table 2 1,100 NS NS NS NS NS S40 NS NS S40 NS NS S40 NS NS	MW-5           28-30           5,600           9,900           32,000           42,000           <100	<i>MW-5</i> 35-36 99 610 1,000 2,310 460 1,400 560 NA NA NA NA	MH-10 27-29 27 27 27 27 27 27 27 27 27 27 27 27 27	MW-11           27-29           <31	MW-12         27-29           -226         -226           -226<	MW-13 27-29 276 26 26 26 26 26 26 26 26 NA 26 NA 26 NA NA NA	MH-14 30-32 	B-1           2.5-4.5           <25	B-1           10-12           <62	B-1 12-17 <25 65 <25 65 <25 270 530 NA NA NA NA	B-1 23-25 <200 26,000 5,400 95,000 <200 48,000 19,000 NA NA NA NA	B-1           27-29           <25
Benzene Ethylbenzene Toluene Xylenes (Total) Methly tert Butyl Ether 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene 1,2-Dichloroethane Naphthalene PAH's (ug/kg) 1-Methyl Naphthalene	5.5 2,900 1,500 4,100 NS NS NS NS 400 23,000 20,000 1,800	Table 1           8,500           4,600           38,000           42,000           NS           83,000           11,000           8,500           2,700           NS           NS           NS           NS	Sample-> pth-(Feet)> Table 2 1,100 NS NS NS NS NS S40 NS NS NS NS S40 NS NS NS NS NS NS NS NS NS NS	MW-5           28-30           5,600           9,900           32,000           42,000           <100	<i>MW-5</i> 35-36 99 610 1,000 2,310 460 1,400 560 NA NA NA NA	MH-10 27-29 27 27 27 27 27 27 27 27 27 27 27 27 27	MW-11           27-29           <31	MW-12         27-29           -26         -26           -26         -26           -37         -26           -34         -26           -26         -26           -26         -26           -27         -26           -26         -26           -26         -26           -26         -26           -26         -26           NA         NA           NA         NA	MW-13 27-29 26 26 26 26 26 26 26 26 26 26 NA 226 NA 226 NA NA NA	MW-14 30-32 	B-1           2.5-4.5           <25	B-1           10-12           <62	B-1           12-17           <25	B-1 23-25 200 26,000 5,400 95,000 200 48,000 19,000 NA NA NA NA	B-1           27-29           <25
Benzene Ethylbenzene Toluene Xylenes (Total) Methly tert Butyl Ether 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene 1,2 -Dichloroethane Naphthalene PAH's (ug/kg) 1-Methyl Naphthalene 2-Methyl Naphthalene Bhenanthrene GRO (mg/kg)	5.5 2,900 1,500 4,100 NS NS NS NS 400 23,000 20,000 1,800 100	Table 1           8,500           4,600           38,000           42,000           NS           83,000           11,000           8,500           2,700           NS           NS	Sample-> pth-(Feet)> Table 2 1,100 NS	MW-5           28-30           5,600           9,900           32,000           42,000           <100	<i>MW-5</i> 35-36 99 610 1,000 2,310 460 1,400 560 NA NA NA NA NA NA 39	MH-10 27-29 27 27 27 27 27 27 27 27 27 27 27 27 27	MW-11           27-29           <31	MW-12         27-29           <26	MW-13 27-29 26 26 26 26 26 26 26 26 26 26 26 26 8 8 8 26 26 8 8 8 8	MH-14 30-32 27 27 27 81 27 27 81 27 27 81 27 27 81 27 27 81 27 27 81 27 27 81 27 27 81 27 27 81 27 27 27 81 27 27 27 27 27 27 27 27 27 27 27 27 27	B-1           2.5-4.5           <25	B-1 10-12 <62 5,800 1,400 41,000 <62 53,000 22,000 NA NA NA NA NA	B-1 12-17 <25 65 <25 270 530 NA NA NA NA NA	B-1 23-25 <200 26,000 5,400 95,000 <200 48,000 19,000 NA NA NA NA NA	8-1 27-29 <25 <25 <25 <25 <25 <25 <25 <25 <25 <25
Benzene Ethylbenzene Toluene Xylenes (Total) Methly tert Butyl Ether 1,2,4-Trimethylbenzene 1,3,5-Trimethylbenzene 1,2-Dichloroethane Naphthalene PAH's (ug/kg) 1-Methyl Naphthalene 2-Methyl Naphthalene Phenanthrene	5.5 2,900 1,500 4,100 NS NS NS NS 400 23,000 20,000 1,800	Table 1           8,500           4,600           38,000           42,000           NS           83,000           11,000           8,500           2,700           NS           NS           NS           NS	Sample-> pth-(Feet)> Table 2 1,100 NS NS NS NS NS S40 NS NS NS NS S40 NS NS NS NS NS NS NS NS NS NS	MW-5           28-30           5,600           9,900           32,000           42,000           <100	<i>MW-5</i> 35-36 99 610 1,000 2,310 460 1,400 560 NA NA NA NA	MH-10 27-29 27 27 27 27 27 27 27 27 27 27 27 27 27	MW-11           27-29           <31	MW-12         27-29           -26         -26           -26         -26           -37         -26           -34         -26           -26         -26           -26         -26           -27         -26           -26         -26           -26         -26           -26         -26           -26         -26           NA         NA           NA         NA	MW-13 27-29 26 26 26 26 26 26 26 26 26 26 NA 226 NA 226 NA NA NA	MW-14 30-32 	B-1           2.5-4.5           <25	B-1           10-12           <62	B-1           12-17           <25	B-1 23-25 26,000 5,400 95,000 2200 48,000 19,000 NA NA NA NA	B-1           27-29           <25

#### Notes:

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RCL - NR 720 Soil Residual Contaminant Level

RCL for PAHs - "suggested" NR 720 Groundwater Pathway Standard

Table 1 - COMM 46 Table 1 Value - Indicates Petroleum Product in Soil Pores

Table 2 - Direct Contact Standard

< - Concentration below listed laboratory detection limit

RCL exceedences are shaded

PVOCs - Petroleum Volatile Organic Compounds

PAHs - Polynuclear Aromatic Compounds

NS - No Standard

Bold - Exceeds RCL

Outline =- Exceeds Table 1 Italic - Exceeds Table 2

# Table 1b Summary of Soil Performance Testing - Site Specific Residual Contaminant Levels Ladysmith Standard Service Ladysmith, WI

CSS#1 @ 12-17	Proposed Cl	eanup Levels
Parameter	SSRCL - PAL	SSRCL - ES
Units	μg/kg	µg/kg
Benzene	6	63
Ethylbenzene	3,370	16,852
Toluene	1,471	7,353
Xylenes (mixed isomers)	8,779	87,786
Methyl tert-Butyl Ether (MTBE)	100	500
1,2,4-Trimethylbenzenes	5,400	27,000
1,3,5-Trimethylbenzenes	12,410	62,049
CSS#1 @ 10-12	Proposed Cl	eanup Levels
Parameter	SSRCL - PAL	SSRCL - ES
Units	μg/kg	µg/kg
Benzene	16	155
Ethylbenzene	300,741	1,503,704
Toluene	82,353	411,765
Xylenes (mixed isomers)	836,735	8,367,347
Methyl tert-Butyl Ether (MTBE)	248	1,240
1,2,4-Trimethylbenzenes	77,091	385,455
1,3,5-Trimethylbenzenes	29,333	146,667
CSS#1 @ 23-25	Proposed Cl	eanup Levels
Parameter	SSRCL - PAL	SSRCL - ES
Units	μg/kg	μg/kg
Benzene	34.48	344.83
Ethylbenzene	6,385.96	31,929.82
Toluene	9,818.18	49,090.91
Xylenes (mixed isomers)	43,577.98	435,779.82
Methyl tert-Butyl Ether (MTBE)	800.00	4,000.00
1,2,4-Trimethylbenzenes	5,984.42	29,922.08
1,3,5-Trimethylbenzenes	8,290.91	41,454.55

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Geometric Mean Values	SSRCL - PAL	SSRCL - ES
	µg/kg	µg/kg
Benzene	19	187
Ethylbenzene	103,499	517,495
Toluene	31,214	156,070
Xylenes (mixed isomers)	296,364	2,963,638
Methyl tert-Butyl Ether (MTBE)	383	1,913
1,2,4-Trimethylbenzenes	29,492	147,459
1,3,5-Trimethylbenzenes	16,678	83,390

# Summary of Soil Performance Testing CSS#1 @ 10-12 Jerry's Auto Ladysmith, WI

CSS#1 @ 10-12	State of W	isconsin Defa	ult Values	Soil Performan	ce Testing Results	Proposed C	leanup Levels
Parameter	RCL	ES	PAL	<b>PVOC Concentration</b>	SPLP Concentration	SSRCL - PAL	SSRCL - ES
Units	μg/kg	μg/l	μg/l	µg/kg	μg/l	μg/kg	μg/kg
Benzene	5.5	5	0.5	62	2	16	155
Ethylbenzene	2,900	700	140	5,800	2.7	300,741	1,503,704
Toluene	1,500	1,000	200	1,400	3.4	82,353	411,765
Xylenes (mixed isomers)	4,100	10,000	1,000	41,000	49	836,735	8,367,347
Methyl tert-Butyl Ether (MTBE)	None	60	12	62	3	248	1,240
1,2,4-Trimethylbenzenes	None	480	96	53,000	66	77,091	385,455
1,3,5-Trimethylbenzenes	None	480	96	22,000	72	29,333	146,667

# Notes:

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Concentrations reported at detection limit.

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# Summary of Soil Performance Testing CSS#1 @ 12-17 Jerry's Auto Ladysmith, WI

CSS#1 @ 12-17	State of Wisconsin Default Values			Soil Performan	ce Testing Results	Proposed Cleanup Levels		
Parameter	RCL	ES	PAL	<b>PVOC Concentration</b>	SPLP Concentration	SSRCL - PAL	SSRCL - ES	
Units	μg/kg	μg/l	μg/l	μg/kg	μg/l	μg/kg	μg/kg	
Benzene	5.5	5	0.5	25	2	6	63	
Ethylbenzene	2,900	700	140	65	2.7	3,370	16,852	
Toluene	1,500	1,000	200	25	3.4	1,471	7,353	
Xylenes (mixed isomers)	4,100	10,000	1,000	115	13.1	8,779	87,786	
Methyl tert-Butyl Ether (MTBE)	None	60	12	25	3	100	500	
1,2,4-Trimethylbenzenes	None	480	96	270	4.8	5,400	27,000	
1,3,5-Trimethylbenzenes	None	480	96	530	4.1	12,410	62,049	

# Notes:

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Concentrations reported at detection limit.

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# Summary of Soil Performance Testing CSS#1 @ 23-25 Jerry's Auto Ladysmith, WI

CSS#1 @ 23-25	State of W	isconsin Defa	ult Values	Soil Performan	e Testing Results	Proposed Cleanup Levels		
Parameter	RCL	ES	PAL	<b>PVOC Concentration</b>	SPLP Concentration	SSRCL - PAL	SSRCL - ES	
Units	μg/kg	μg/l	μg/l	μg/kg	μg/l	μg/kg	μg/kg	
Benzene	5.5	5	0.5	200	2.9	34	345	
Ethylbenzene	2,900	700	140	26,000	570.0	6,386	31,930	
Toluene	1,500	1,000	200	5,400	110.0	9,818	49,091	
Xylenes (mixed isomers)	4,100	10,000	1,000	95,000	2,180	43,578	435,780	
Methyl tert-Butyl Ether (MTBE)	None	60	12	200	3	800	4,000	
1,2,4-Trimethylbenzenes	None	480	96	48,000	770	5,984	29,922	
1,3,5-Trimethylbenzenes	None	480	96	19,000	220	8,291	41,455	

## Notes:

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Concentrations reported at detection limit.

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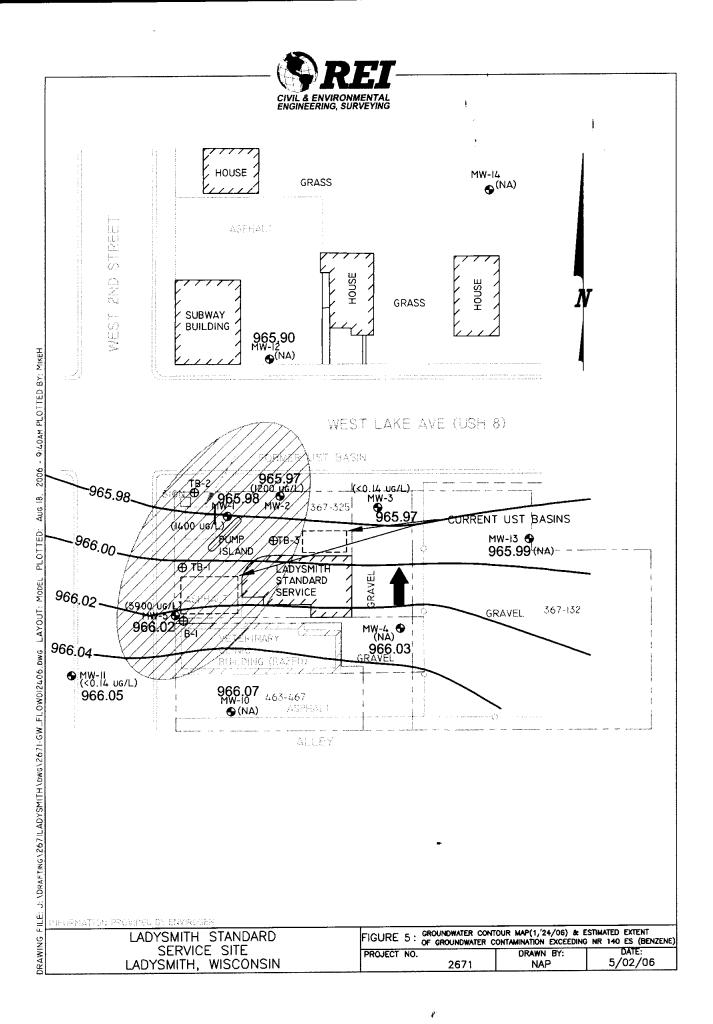
Table 3
Groundwater Elevation Data
Ladysmith Standard Service Site
Ladysmith, WI

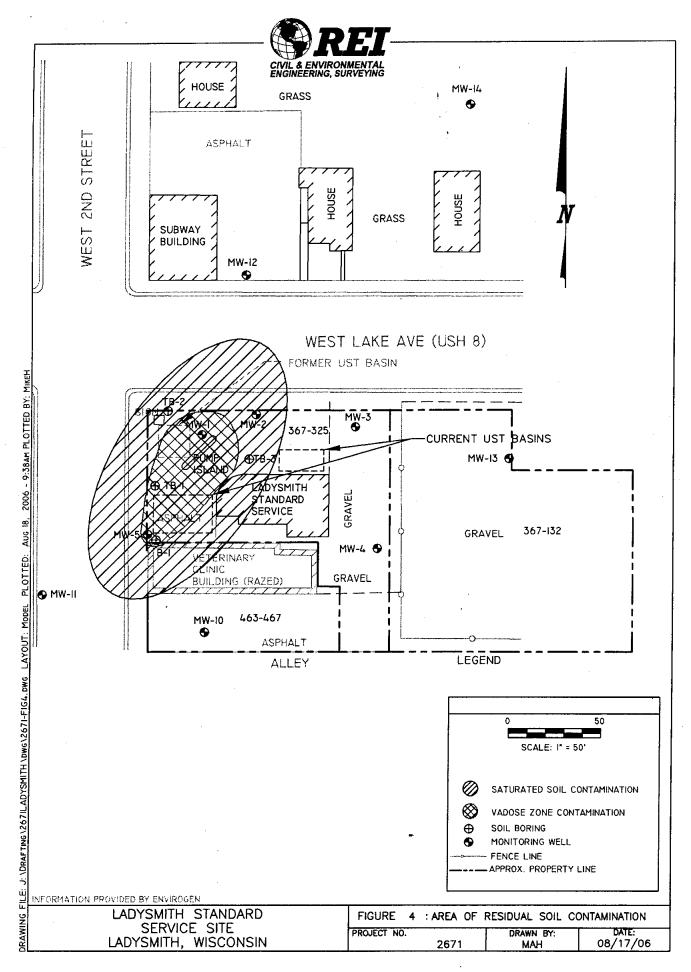
Well	MW1	MW2	MW3	MW4	MW5	MW10	- MW11	. MW12	MW13	MW14 .
TOC Elevation	996.40	996.38	996.71	996.53	994.85	994.79	994.27	996.51	996.83	999.43
Top of Screen Elevation	974.90	974.70	975.00	974.90	975.20	972.10	972.70	972.90	974.10	964.60
Depth of well	37.00	40.00	37.00	37.00	35.00	38.00	39.00	30.80	30.80	45.00
Depth to Water (from TOC)										
12/11/1997	30.37	30.36	30.75	30.52	28.78	NI	NI	NI	NI	NI
7/15/1998	30.23	30.23	30.61	30.39	28.66	28.54	28.12	31.49	30.75	33.70
7/21/2004	29.40	29.40	29.80	29.55	NM	27.71	27.22	29.66	29.95	NM
10/25/2004	30.11	30.11	30.48	30.25	NM	28.44	27.97	30.36	30.62	NM
1/26/2005	30.50	30.48	30.87	30.64	NM	28.87	28.40	30.73	31.00	NM
10/6/2005	30.51	30.42	30.88	30.67	NM	28.86	28.41	30.71	31.00	NM
1/24/2006	NM	30.37	30.74	NM	28.85	NM	<u>NM</u>	NM	NM	NM
							ļ			
Water Elevation							<u> </u>			
12/11/1997	966.03	966.02	965.96	966.01	966.07	<u>NI</u>	NI	NI	NI	NI
7/15/1998	966.17	966.15	966.10	966.14	966.19	966.25	966.15	965.02	966.08	965.73
7/21/2004	967.00	966.98	966.91	966.98	NM	967.08	967.05	966.85	966.88	NM
10/25/2004	966.29	966.27	966.23	966.28	NM	966.35	966.30	966.15	966.21	NM
1/26/2005	965.90	965.90	965.84	965.89	NM	965.92	965.87	965.78	965.83	NM
10/6/2005	965.89	965.96	965.83	965.86	NM	965.93	965.86	965.80	965.83	NM
1/24/2006	NM	966.01	965.97	NM	966.00	NM	NM	NM	NM	NM
						00.40	00.00	30.59	30.66	
Average Depth to Water	30.19	30.20	30.59	30.34	28.76	28.48	28.02	30.39	30.00	· · · ·
(from TOC)							.		<u> </u>	
Average Elevation of Water	966.21	966.18	966.12	966.19	966.09	966.31	966.25	965.92	966.17	-
Minimum Depth to Water	29.40	29.40	29.80	29.55	28.66	27.71	27.22	29.66	29.95	•
(from TOC)										

Note : Elevations surveyed on May 6, 2000 by Tess, Inc.

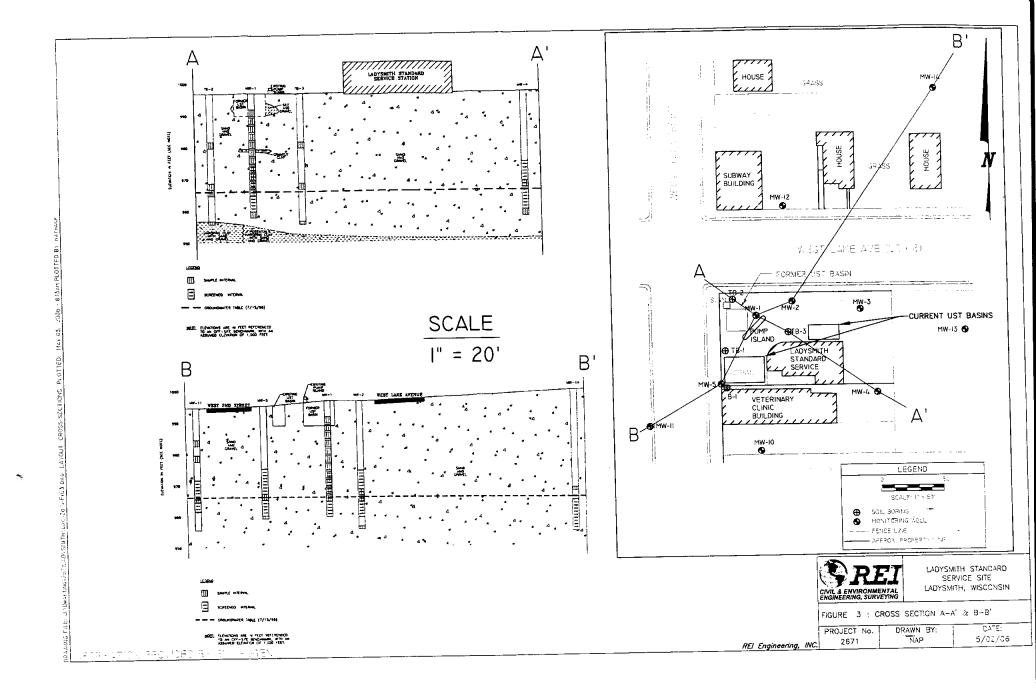
NI - Not Installed

NM - Not Measured





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Appendix C: Site Photographic Log



Client	t Name:	Site Location:	Project No.:							
	Department of portation	USH 8, West 8th Street North to River Avenue East, Ladysmith, Rusk County, Wisconsin	WisDOT: 1580-31-00 TRC: 397009.0000							
Photo No.	Date									
1	6/18/2020		W							
the two cemer as viewed faci Two holes we increase recov										
Dhata Na	Data		1							





Wisconsin Department of Transportation       USH 8, West 8th Street North to River Avenue East, Ladysmith, Rusk County, Wisconsin       WisDOT: 1580-31-00 TRC: 397009.0000         Photo No.       Date       6/18/2020         Description       Location of GP-02 marked with an orange cone, as viewed facing northeast, across USH 8.       Image: Cone of Cone	Client	Name:	Site Location:	Project No.:
3 6/18/2020 Description Location of GP-02 marked with an orange cone, as viewed facing northeast,				WisDOT: 1580-31-00 TRC: 397009.0000
Description Location of GP-02 marked with an orange cone, as viewed facing northeast,	Photo No.	Date		
Location of GP-02 marked with an orange cone, as viewed facing northeast,	3	6/18/2020	The t	SPORTSLAND ADE more conter
	Location of GF with an orange viewed facing	e cone, as northeast,		

Photo No.	Date	
4	6/18/2020	
Description Site 5 being m traffic as views southwest.	harked off from ed facing	



Client	Name:	Site Location:	Project No.:								
	Department of	USH 8, West 8th Street North to River Avenue WisDOT: 1580-31-0									
-	oortation	East, Ladysmith, Rusk County, Wisconsin	TRC: 397009.0000								
Photo No.	Date										
5	6/18/2020										
Description Location of GF GP-04 as view southwest.											





Client	t Name:	Site Location:	Project No.:
	Department of portation	USH 8, West 8th Street North to River Avenue East, Ladysmith, Rusk County, Wisconsin	WisDOT: 1580-31-00 TRC: 397009.0000
Photo No.	Date	la dia anti-	
7	6/18/2020	. Harris Harris	



# Appendix D: Soil Boring Logs/WDNR Borehole Filling and Sealing Forms

SOIL BORING LOG INFORMATION Form 4400-122 Rev. 7-98

Route To:	V
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Watershed/Wastewater

Waste Management 
Other

															Pag	ge 1	of	1
Facilit								License/Permit/Monitoring Number Boring Number GP-1										
USH 8 Ladysmith Boring Drilled By: Name of crew chief (first, last) and Firm								Date Drilling Started Date I							npleted		Drill	ing Method
Gage Kapugi														-	-			-
On- WI Un			onment		-	Common Well Nar		Final Stat		/2020		Confee	e Elevat	6/18/2	2020	D		eoprobe Diameter
witun	ique w	ell No		DNR Well ID N	0.	Common well Nar	ne		ne wa Feet l		el	Surfac		t MS	[]	Во		inches
Local		igin		timated: 🗌 ) or				1			71 54	(())	Local C				2.1	
State ]				872 N, 1,684		-		La			<u> </u>				ΠN			Ε
SW		of S	W 1.		4,	T 35 N, R 6	W	Long			<u>5' 27.</u>		7:11	Feet	S			Feet 🗌 W
Facilit	ΠD			County Rusk				County Co 55	de	Civil T Lady		ty/ or	village					
San	ple			10001										Soil	Prope	erties		
	w (ii	10	t		Soil/R	ock Description							0					
e .	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	А	nd Ge	ologic Origin For							Compressive Strength	0		~		nts
Number and Type	gth /	č «	th Ir		Eac	h Major Unit			CS	Graphic Log	Well Diagram	PID/FID	Compress Strength	Moisture Content	uit uit	Plasticity Index	0	RQD/ Comments
Nur and		Blo	Dep						U S	Grap Log	Well Diagr	DID	Con Stre	Moi Con	Liquid Limit	Plastic Index	P 200	RQD/ Comm
1 GP	60 18		_	CONCRETE						P A A A A A A								
GP GP	10		-0.5	POORLY GRAI	DED S sand, t	AND (SP), fine- to ace subrounded grav	el an	d										
						n (7.5YR 4/4), no odd												
			-1.0	10030.														
			-1.5									<1						
			$\begin{bmatrix} 1.3\\ \end{bmatrix}$															
			-2.0															
			2.0															
			-2.5						SP									
			-3.0															
			-3.5															
			$\begin{bmatrix} -3.3\\ \end{bmatrix}$															
			-4.0									<1						Soil sampled from 2.5-5 ft
			-4.0															bgs.
			-4.5															
			F															
			-5.0	Borehole terminat	ted at :	5 ft bgs.												
			1				—				1	1						<u> </u>

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature Liz Hoerning Firm TRC Environmental Corporation Tel: (608) 708 Heartland Trail Madison, WI 53717 Fax: (608)
--

SOIL BORING LOG INFORMATION Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater	
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Remediation/Redevelopment

Waste Management 
Other

													Pag		of	1
Facility						License	License/Permit/Monitoring Number Boring Number GP-2									
	H 8 La			f crew chief (first, las	Date Dr	illing S	tarted		Da	te Drilli				Drill	ing Method	
	e Kap	•		r crew enter (first, las	Date Di	innig 5	lanca		Da		ing COI	npicicu			ing wienioù	
			nmen	tal			6/18	8/2020				6/18/2	2020		G	eoprobe
WI Un	ique W	ell No	•	DNR Well ID No.	Common Well Name	Final St			el	Surfac	e Eleva			Bc		Diameter
T 14	2:10	<del></del>					Feet	MSL				t MS			2.1	inches
Local C State I		ıgın		stimated:  ) or  ,809 N, 1,684,34		L	at _ 4	5°_27	<u> </u>	049 "	Local (	irid Lo				
NW		of N		/4  of Section  3,	T 35 N, R 6 W	Lor	nσ 9	1° 6	o' 27.	003 "		Feet				□ E Feet □ W
Facility		01 10		County	1.55 11,10 11	County C	-6	Civil T	_		Village	1000	. 🗆 5			
				Rusk		55		Lady	smith							
San	nple											Soil	Prope	erties		
	k (ii	s	et	So	il/Rock Description						6					
္ရန္က	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	And	Geologic Origin For						Compressive Strength	e		Ŷ		nts
Typ	igth sove	A M	oth I		Each Major Unit		CS	Graphic Log	Well Diagram	PID/FID	Compress	Moisture Content	Liquid Limit	Plasticity Index	00	RQD/ Comments
Number and Type	Len Rec	Blo	Dep				U S	Grap Log	Well Diagr	PID	Co1 Stre	Mo Cor	Liquic Limit	Plastic Index	P 200	RQD/ Comm
1 GP	60 36		11	CONCRETE				A A A								
-3	50		F	POORLY GRADE	D SAND WITH GRAVEI	L <b>(SP)</b> , aded		0	-							
			-0.5	fine-coarse gravel, b	rown (7.5YR 4/3), no odor,	moist,		• ()								
				loose. At 0.33 ft bgs wet.	, as above, dark brown (7.5)	YR 3/3),		0 (	-							
			-1.0					• O								
			E				SP	• 🔿	•	<1						
			-1.5					0 (	•							
			-					° O	•							
			-2.0					• 🔿	•							
			-					$\rho$ (								
			-2.5	POORLY GRADE	D SAND (SP), mostly fine-	orained		0	-							
			_	¬ sand, trace coarse ro	unded gravel, dark gray (7.5	5YR 3/1),	SP	00	-							
			-3.0	\no odor, moist, loose SAND WITH GRA	e. VEL (SP), mostly fine san	/ d. little		° ()								
			-	subrounded fine-coa	rse gravel, dark brown (7.5)	YR 3/3),		)								
			-3.5	no odor, moist, loose	<i>.</i>			Ø ( 0	- - -							
			-4.0				SP	<u>،</u> ک	•	<1						Soil sampled from 2.5-5 ft
			-4.0													bgs.
			÷					0								
			-4.5					° ()								
			E					0	• •							
			-5.0	Borehole terminated	at 5 ft bgs.				1							

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Likyounny	08) 826-3600 08) 826-3941
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SOIL BORING LOG INFORMATION Form 4400-122 Rev. 7-98

Route To: Watershed/Wastewater	
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Remediation/Redevelopment

Waste Management 
Other

													Pag		of	1	
Facility	-					License/Permit/Monitoring Number GP-3											
	H 8 La Drilled			f crew chief (first, last) :	and Firm	Date Dri	Date Drilling Started Date Drilling								Drill	ing Method	
Gag	e Kap	ougi					6					-	-				
On-	Site Ê	nviro	nmen			<b>D</b> ' 1 C		/2020			6/18/2020					Geoprobe	
WI Un	ique W	ell No.		DNR Well ID No.	Common Well Name	Final Sta	tic Wa Feet I			Surface		Elevation Bo Feet MSL				Diameter inches	
Local	Grid Or	igin		stimated: 🗌 ) or Bo		<u> </u>					Local C				2.1		
State ]				,884 N, 1,684,879	-	La		_		863 "			□ N			□ E	
SE Facility		of S	W 1	/4 of Section 34, County	T 35 N, R 6 W	Long County Co		<u> </u>	<u>19.</u>		Village	Feet			I	Feet 🗌 W	
Facility	μ			Rusk		55	de	Lady		ty/ or v	vinage						
San	ple											Soil	Prope	erties			
	(ii) &	s	t l	Soil/	Rock Description						0						
. e	Att. ed (	ount	1 Fee	And G	eologic Origin For						ssive	9		y		nts	
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet	Ea	ich Major Unit		CS	Graphic Log	Well Diagram	PID/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	200	RQD/ Comments	
Nun and		Blo	Dep				U S		Well Diagr	PID	Cor Stre	Mo Cor	Liquid	Plastic Index	P 2(	RQD/ Comir	
1 GP	60 30		F	CONCRETE				A A A A									
1 GP GP III III III IIII IIIIIIIIIIIIIII			-0.5														
			-	mostly fine- to medium	SAND WITH GRAVEL n-grained sand, som angula	(SP), r fine		0 0									
			-1.0	gravel, brown (7.5YR	5/4), no odor, moist, loose.			° ()									
			- 1.0	As above, little subrout brown (7.5YR 4/4).	nded coarse gravel (no fine	gravel),											
			-1.5	, ,				V.		<1						Soil sampled from 0-2.5 ft	
			- 1.5					° ()								bgs.	
			-2.0														
			- 2.0					ľο									
			-2.5					Þ.,									
			- 2.3				SP	0									
			F 20				SP	° • ()									
			-3.0					Þ.,									
			-					0									
			-3.5					° • ()	}								
								Þ.		<1							
			-4.0	As above, very dark gr	ay (7.5YR 3/1).			0									
			-					° • ()	}								
			-4.5					þ									
			-						-								
			-5.0	Borehole terminated at	5 ft bgs.			0	Ì								

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature	Li	z Hoernin	Firm	TRC Environmental Corporation 708 Heartland Trail Madison, WI 53717	Tel: (608) 826-3600 Fax: (608) 826-3941

SOIL BORING LOG INFORMATION Form 4400-122 Rev. 7-98

Route	To:	V

Watershed/Wastewater

Waste Management 
Other

													Pag	ge 1	of	1
Facility/ USH	-					License/	Permit/	Monito	ring Nu	umber		Boring	Numb G <b>P-4</b>			
				crew chief (first, last) a	nd Firm	Date Dri	lling St	tarted		Da	te Drilli				Dril	ling Method
Gage	e Kap	ugi		,								0	1			8
			nment					/2020	- 1			6/18/2	2020			eoprobe
WI Unio	que W	ell No		DNR Well ID No.	Common Well Name		Static Water LevelSurface ElevationFeet MSLFeet MSI				r	Bc		Diameter inches		
Local G	rid Or	igin	(es	timated: 🗌 ) or Bo	ring Location	1					Local C				2.1	
State Pl		0		896 N, 1,684,877			t <u>45</u>		54.				🗆 N	[		Ε
SE		of S	W 1	/4 of Section 34,	T 35 N, R 6 W		<u>91</u>		<u>' 19.</u>			Feet	S			Feet 🗌 W
Facility	ID			County Rusk		County Co 55	de	Civil To Lady:		-	Village					
Sam	ple			KUSK		55		Lauy				Soil	Prope	erties		<u> </u>
			L	Soil/F	Rock Description							2011				-
	stt. s ed (i	unts	Fee		eologic Origin For						sive					Its
Type	gth A overe	Blow Counts	Depth In Feet		ch Major Unit		CS	ohic	ram	FD	upres ngth	sture tent	it id	ticity	0	D/ men
Number and Type	Length Att. & Recovered (in)	Blov	Dept				U S	Graphic Log	Well Diagram	PID/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments
1 GP	60 36		-	CONCRETE				P 6 4 9 4 7								<u> </u>
	30		Farl													
			-0.5	POORLY GRADED	SAND WITH GRAVEL ne subrounded fine-coarse	(SP),		0								
				brown (7.5YR 4/3), no		e gravei,		<u>, ○</u>								
			-1.0					0 (								
								• O		<1						
			-1.5				SP	° ()								
								0 (								
			-2.0					° 0								
			E					° ⊖								
			-2.5		SAND WITH GRAVEL			0 0 1								
			E	brown (7.5YR 4/2), no	subrounded fine gravel, tr odor, moist, loose. 2" crus			• 🔿								
			-3.0	cobble at 3.75 ft bgs.				) Ø. (								
			E				SP	<sub>0</sub> Ο								
			-3.5					° ()								
								0 (		1.3						Soil sampled
			-4.0	FAT CLAY (CH), trac dark gravish brown, tra	ce fine sand, high plasticity	y clay,										from 2.5-5 ft bgs.
			E	8,,	<b>i</b>											6
			-4.5				CH									
			E													
벽			-5.0	Borehole terminated at	5 ft bgs.											
															1	
															1	
															1	
															<u> </u>	<u> </u>

I hereby certify that the information on this form is true and correct to the best of my knowledge.

Signature in Hoopping	Firm TRC Environmental Corporation	Tel: (608) 826-3600
	708 Heartland Trail Madison, WI 53717	Fax: (608) 826-3941

SOIL BORING LOG INFORMATION Form 4400-122 Rev. 7-98

Route	To:	V

Watershed/Wastewater

Waste Management 
Other

													Pag		of	1	
	y/Projec					License	e/Permit/	Monitor	ring Nu	ımber			Numb				
	H 8 La	2		f crew chief (first, last) a	and Eimm	Doto D	rilling St	ortad		Det	te Drilli		GP-5		D::11	ing Method	
	ge Kap	•	vanie o	r crew chier (first, fast) a	llia filli	Date D	rining Si	aneu		Da	le Dinn	ng Con	lipieteu			ing Method	
	Site E		nmen	tal			6/18/2020					6/18/2	2020		Geoprobe		
WI Uı	nique W	ell No		DNR Well ID No.	Common Well Name	Final S	tatic Wa		1	Surface					orehole Diameter		
							Feet I	MSL				et MS			2.1	inches	
Local State	Grid Or Plana	igin		stimated:  ) or Boi ,814 N, 1,685,370		1	at 45	° 27	' 54.	232 "	Local C	Grid Lo		_		— —	
NE		of N		$/4 \text{ of Section} \qquad 34$	T 35 N, R 6 W		ng 91	° 6	' 12.	633 "		Feet				□ E Feet □ W	
Facilit		01 14	** 1	County		County C	"s	Civil To	_		/illage	Tu					
	-			Rusk		55		Ladys	smith	-	U						
Sar	nple											Soil	Prope	erties			
	& n)		<del>и</del>	Soil/F	Rock Description												
o	Att. 4 ed (j	ounts	ιFee	And Ge	eologic Origin For				_		ssive			>		ıts	
lber Typ	gth / ver	د Cc	th In		ch Major Unit		CS	hic	l gram	FD	ngth	sture	it d	ticity x	0	mer	
Number and Type	Length Att. & Recovered (in)	Blow Counts	Depth In Feet				U S	Graphic Log	Well Diagram	PID/FID	Compressive Strength	Moisture Content	Liquid Limit	Plasticity Index	P 200	RQD/ Comments	
			-	CONCRETE				0 0 1 0 4 7	, , ,								
	36		E														
			-0.5	POORLY GRADED S	SAND WITH GRAVEL	. <b>(SP)</b> ,		0									
Ē			F	mostly coarse sand, son (7.5YR 4/3), no odor, n	ne subrounded fine gravel	l, brown		• 🔿									
Ē			-1.0		se-grained sand, some sub	rounded		0									
			F	fine-coarse gravel, very moist, loose.	/ dark gray (7.5YR 3/1), n	no odor,		, O		<1						Soil sampled	
			-1.5	moist, ioose.				• 🔿		1						from 0-2.5 ft	
			E													bgs.	
			-2.0					, O									
			F				SP	οΛ									
			-2.5					þ.,									
Ē			- 2.3	As above, coarse sand, brown (7.5YR 4/3), no	some angular fine-coarse odor, moist, loose.	gravel,		0									
Ē				010001 (7.5 110 0.5), 110	ouor, moist, roose.			0									
			-3.0					$\circ$									
			È I														
			-3.5					0									
			E					0.0		<1							
			-4.0	LEAN CLAY (CL), m	nostly clay, some fine sand	d,											
			-	medium plasticity, med	lium/dark brown, no odor,	, moist.											
			-4.5				CL										
			È														
=			-5.0	Borehole terminated at	5 ft bas			¥///									
				Borenoie terminated at	5 II 0gs.												

I hereby certify that the information on this form is true and correct to the best of my knowledge.

/08 Heartland Trail Madison, WI 53/1/ Fax: (608) 826-3941	Signature Liz Hoerning	Firm TRC Environmental Corporation 708 Heartland Trail Madison, WI 53717	Tel: (608) 826-3600 Fax: (608) 826-3941
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# Well / Drillhole / Borehole Filling & Sealing Report Page 1 of 2

Form 3300-005 (R 4/2015)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

			Route	to DNR Bureau:						
Verification Only o	of Fill and Sea	al		rinking Water	Ľ	Watershed/Wa	astewater	X Remedi	iation/Redeve	elopment
			V	aste Manageme	nt 🗌	Other:				
1. Well Location Inform					2. Facilit	ty / Owner Info	ormation			
County V	VI Unique Well # Removed Well	of	Hicap #		Facility Na					
Rusk						B Ladysmith (FID or PWS)	1			
Latitude / Longitude (see ins 45.465014		Format		Method Code CPS008						
	N	X	D	SCR002	License/Pe	ermit/Monitoring	#			
-91.107501	W		DM							
<sup>1/4</sup> / <sup>1/4</sup> SW <sup>1/4</sup> SV or Gov't Lot #	V Section 34		nship 5 N	Range E	Original W	ell Owner				
	54		N C	6 🛛 w	Present W	/ell Owner				
Well Street Address 518 Lake Avenue	West					onsin DOT -	NW Regio	n		
Well City, Village or Town			Well	ZIP Code	Mailing Ad	Idress of Present	Owner			
Ladysmith				1848						
Subdivision Name			Lot #		City of Pre	esent Owner mith		State WI	ZIP Code 54848	1
Reason for Removal from Se	ervice WI Un	ique Wel	# of Re	placement Well		, Liner, Scree		Sealing Mate	erial	
Soil Boring						ind piping remove	ed?		Yes No	X N/A
3. Filled & Sealed Well	/ Drillhole / Bo	orehole	Inform	nation	The second second	removed?			Yes No	X N/A
Monitoring Well	Original Co	onstructio	n Date	(mm/dd/yyyy)		perforated?		Ц	Yes No	X N/A
Water Well	6/18	/2020				removed?		님	Yes No	N/A
	10.040 State State	11 11 11 11 11 11 11 11 11 11 11 11 11	on Repo	ort is available,		left in place?			Yes No	X N/A
Borehole / Drillhole	please att	ach.	1.0.0		<ul> <li>School of Color School of Color Schol of Color School of Color School of Color School of Color Sc</li></ul>	sing cut off below			Yes No	N/A
Construction Type:					and the second second	ling material rise		님	Yes No Yes X No	
	iven (Sandpoint)		Du	3		es, was hole reto		H	Yes No	
	irect Push					nite chips were u		hydrated		=
Formation Type:	-					ter from a known			Yes No	N/A
Unconsolidated Format	L	Bedro				Method of Placing			and the second se	
Total Well Depth From Grou	nd Surface (ft.)	Casing I	Diamete	r (in.)		ductor Pipe-Grav ened & Poured		tor Pipe-Pump	bea	
Lower Drillhole Diameter (in.	)	Casing I	Denth (ft	• )	Sealing Ma	tonite Chips)		Explain):		
· ·	.)		Jepui (ii	)	I ~	t Cement Grout				
2.1			5 mm 10	1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.		d-Cement (Concr	rete) Grout	X Bentonite		
Was well annular space grou	ted?	Yes	X No	Unknown		oring Wells and N				
If yes, to what depth (feet)?	Dept	h to Wate	er (feet)	225 325		tonite Chips		ntonite - Ceme		
					Gran	ular Bentonite	Be	ntonite - Sand	Slurry	
5. Material Used to Fill	Well / Drillhol	е			From (ft.	) To (ft.)	No. Yards, Sac		Mix Rat	
3/8" Bentonite Chi					Surface		Volume (ci 0.22 cub		Mud W	eight
	20				Surace	5.0	0.22 000			
6. Comments										
GP-2										
7. Supervision of Work								DNR Use		
Name of Person or Firm Doi	ng Filling & Seali	ng Lic	ense #	a construction of the second		ing or Verification	Date Receive	d	Noted By	
On-Site Enviro	onmental			(mm/dd/yy		18/2020	0			
Street or Route				22	elephone Ni	umber 37-8992	Comments			
PO Box 280		State	7IP	Code		of Person Doing	Work	Dat	te Signed	
Sun Prarie		W		53590	- graded of	Liz Hoe			7/6/2020	

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# Well / Drillhole / Borehole Filling & Sealing Report Page 1 of 2

Form 3300-005 (R 4/2015)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

			Route	to DNR Bureau	_					
Verification Only of	of Fill and Se	al		rinking Water		Watershed/W	astewater	stewater X Remediation		
9 <u></u>			V	aste Manageme	ent [	Other:				
1. Well Location Inform						ty / Owner Inf	ormation	l l		
County	WI Unique Well # Removed Well	# of	Hicap #		Facility Na					
Rusk						B Ladysmit	า			
Latitude / Longitude (see in 45.465524	structions)	Format		Method Code			4			
-91.105426	w		DDM	SCR002	License/P	ermit/Monitoring	#			
1/4/1/4 SW 1/4 SV	N Section	Tov	vnship		Original W	/ell Owner				
or Gov't Lot #	34		35 <sub>N</sub>							
Well Street Address			.,			/ell Owner				
West 5th Street N	lorth at Lak	e Ave	nue W	/est			- NW Regio	<u>n</u>		
Well City, Village or Town				ZIP Code	Mailing Ad	Idress of Presen	t Owner			
Ladysmith				1848	City of Dro	agent Owner		Ctata	ZIP Code	
Subdivision Name			Lot #		Ladys			State WI	54848	•
Reason for Removal from S	Service WI Ur	nique We	II # of Re	placement Well		, Liner, Scree and piping remove	en, Casing & S			
Soil Boring						removed?	eu ?	님	Yes No	X N/A
3. Filled & Sealed Well				The second se		perforated?		님	Yes No	
Monitoring Well	Original C	constructi	on Date	(mm/dd/yyyy)		removed?		H	Yes No	
Water Well	6/18	3/2020				left in place?		H	Yes No	
Borehole / Drillhole	If a Well please at		tion Repo	ort is available,	-	sing cut off belo	w surface?		Yes No	
Construction Type:	picuse u				- Contraction of the Definition of the	ling material rise		=	Yes No	
	riven (Sandpoint	)		r	Did mat	terial settle after	24 hours?	Π	Yes X No	N/A
	irect Push	/			lf ye	es, was hole reto	opped?		Yes No	X N/A
Formation Type:						nite chips were ter from a known	used, were they	hydrated	Yes No	□ N/A
Unconsolidated Forma	ation	Bedr	ock				ng Sealing Mater			
Total Well Depth From Grou			Diamete	r (in.)		ductor Pipe-Grav	_	ctor Pipe-Pump	bed	
					(Ben	ened & Poured tonite Chips)	Other (	Explain):		
Lower Drillhole Diameter (in	ı.)	Casing	Depth (f	)	Sealing M			<b>—</b> .		
2.1						t Cement Grout				
Was well annular space grou	uted?	Yes	X No	Unknown		d-Cement (Conc		Bentonite		
If yes, to what depth (feet)?		th to Wat					Monitoring Well	8		
						tonite Chips nular Bentonite		entonite - Ceme entonite - Sand		
-							No. Yards, Sad		Mix Ra	tio or
5. Material Used to Fill		le			From (ft.		Volume (c	ircle one)	Mud W	
3/8" Bentonite Ch	ips				Surface	5.0	0.22 cub	ic feet		
						-				
6. Comments										
GP-3										
							_	5115 II	~ '	
7. Supervision of Work Name of Person or Firm Do		ing Lie	ense #	Date of F	illing & Seali	ing or Verificatio	n Date Receive	DNR Use	Noted By	
On-Site Enviro				(mm/dd/y		18/2020		i verset		
Street or Route	intenta				elephone N	a na una sena cens arnas	Comments			
PO Box 280	)				North Contractory of the second se	37-8992				
City		State	ZIP	Code	Signature	of Person Doing	Work	Da	te Signed	
Sun Prarie		W	ù l	53590		Liz Hoe	rning		7/6/2020	

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# Well / Drillhole / Borehole Filling & Sealing Report Page 1 of 2

Form 3300-005 (R 4/2015)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

			Route	to DNR Bureau:	_					
Verification Only o	of Fill and Se	al		Drinking Water		Watershed/W	/astewater	X Remed	liation/Redeve	elopment
19-17) 2011 19-			V	Vaste Manageme	nt [	Other:				
1. Well Location Inform						ty / Owner Inf	formation			
County V	NI Unique Well # Removed Well	of	Hicap #		Facility Na		i.			
Rusk						B Ladysmit (FID or PWS)	n			
Latitude / Longitude (see ins 45.465272	structions)	Format		Method Code		ermit/Monitoring	. #			
-91.105436	w			SCR002	License/F	ermininionitoning	#			
1/4/1/4 SW 1/4 SW			nship	Range E	Original W	/ell Owner				
or Gov't Lot #	34	3	5 N	6 🛛 W	Duranti	/ell Owner				
Well Street Address							- NW Regio	าท		
West 5th Street N	orth at Lak	e Aver				dress of Preser		511		
Well City, Village or Town Ladysmith				ZIP Code 4848						
Subdivision Name			Lot #		City of Pre	esent Owner mith		State	ZIP Code 54848	31
							en, Casing & S	WI Sealing Mat		
Reason for Removal from Se	ervice WI Ur	lique Wel	I # of Re	eplacement Well		and piping remov			Yes No	X N/A
Soil Boring 3. Filled & Sealed Well	/ Drillholo / P	oroholo	Inform	action		) removed?		п	Yes No	
			a second s	(mm/dd/yyyy)	Liner(s)	) perforated?		Π	Yes No	X N/A
Monitoring Well	10000000000000000000000000000000000000		, Duite	(	Screen	removed?			Yes 🗌 No	N/A
Water Well	10000 State 500	/2020	on Don	art is susilable	Casing	left in place?			Yes 🗌 No	X N/A
If a Well Construction Report is available,           Description           please attach.				Was ca	sing cut off belo	w surface?	X	Yes No	□ N/A	
Construction Type:					Did sea	ling material rise	e to surface?		Yes 🗌 No	
Drilled Driven (Sandpoint) Dug				Did material settle after 24 hours?						
X Other (specify):	irect Push	-2				es, was hole ret		L	Yes No	X N/A
Formation Type:						iter from a know	used, were they n safe source?		Yes No	N/A
Unconsolidated Format	tion	Bedro	ock		Required	Method of Placin	ng Sealing Mater	rial		
Total Well Depth From Grou	ind Surface (ft.)	Casing	Diamete	r (in.)		ductor Pipe-Gra	· 🗆	ctor Pipe-Pump	ped	
						ened & Poured tonite Chips)	Other (	Explain):		
Lower Drillhole Diameter (in	.)	Casing	Depth (f	t.)	Sealing M			_		
2.1						t Cement Grout				
Was well annular space grou	ited?	Yes	X No	Unknown		d-Cement (Cond	20	X Bentonite		
If yes, to what depth (feet)?		th to Wat	-				Monitoring Well			
in yes, to what deput (leet)?	Dep	in to wat	er (leet)			tonite Chips		entonite - Cem		
		ANTLAN .				nular Bentonite	No. Yards, Sad	entonite - Sand		tio or
5. Material Used to Fill		е			From (ft.	.) To (ft.)	Volume (c		Mud W	
3/8" Bentonite Chi	ps				Surface	5.0	0.22 cub	oic feet		
6. Comments										
GP-4										
7. Supervision of Work								DNR Use	Only	
Name of Person or Firm Doi		ing Lic	ense #	Date of Fi	illing & Seal	ing or Verificatio	n Date Receive		Noted By	
On-Site Enviro				(mm/dd/y		18/2020				
Street or Route					elephone N		Comments			
PO Box 280						37-8992				
City		State		Code	Signature	of Person Doing	g Work	Da	ate Signed	
Sun Prarie		W		53590		Liz Hoe	rning		7/6/2020	)

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## Well / Drillhole / Borehole Filling & Sealing Report Page 1 of 2

Form 3300-005 (R 4/2015)

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and chs. NR 141 and 812, Wis. Adm. Code. In accordance with chs. 281, 289, 291-293, 295, and 299, Wis. Stats., failure to file this form may result in a forfeiture of between \$10-25,000, or imprisonment for up to one year, depending on the program and conduct involved. Personally identifiable information on this form is not intended to be used for any other purpose. Return form to the appropriate DNR office and bureau. See instructions on reverse for more information.

			Route	to DNR Bureau:						
Verification Only of	of Fill and Se	eal		Prinking Water		Watershed/Wa	astewater	X Remed	iation/Redeve	elopment
v			V	Vaste Manageme	nt 🗌	Other:				
1. Well Location Inform						y / Owner Info	ormation			
County	WI Unique Well Removed Well	# of	Hicap #		Facility Na					
Rusk						B Ladysmith (FID or PWS)				
Latitude / Longitude (see in 45.465064	structions)	Format		Method Code		11.1	"			
-91.103509	N		DDM	SCR002	License/Pe	ermit/Monitoring a	#			
1/4/1/4 SW 1/4 SN			nship	Range E	Original W	ell Owner				
or Gov't Lot #	34	3	35 N	6 🛛 W	Present W					
Well Street Address	1.4.7 (					nsin DOT -	NW Regio	n		
300 Lake Avenue Well City, Village or Town	vvest		Wall	ZIP Code		dress of Present				
Ladysmith				1848						
Subdivision Name			Lot #		City of Pre Ladysr	sent Owner nith		State WI	ZIP Code 54848	
Reason for Removal from S	envice WILL	nique We	I # of Re	placement Well	4. Pump	, Liner, Scree	n, Casing & S			
Soil Boring		nique we		placement wen		nd piping remove			Yes No	X N/A
3. Filled & Sealed Well	/ Drillhole / E	Borehole	Inform	nation	Liner(s)	removed?			Yes No	X N/A
Monitoring Well				(mm/dd/yyyy)		perforated?			Yes No	X N/A
	6/18	3/2020				removed?			Yes No	X N/A
Water Well	10000 1000 100		ion Rep	ort is available,		left in place?			Yes No	X N/A
Borehole / Drillhole	please a				and the second s	sing cut off below		X	Yes No	□ N/A
Construction Type:						ling material rise		니	Yes No	X N/A
Drilled Driven (Sandpoint) Dug				erial settle after 2		님	Yes X No			
X Other (specify):	irect Push					es, was hole reto nite chips were u			Yes No	X N/A
Formation Type:						ter from a known			Yes No	<b>N/A</b>
Unconsolidated Forma	ition	Bedro	ock			Method of Placing				
Total Well Depth From Grou	und Surface (ft.)	Casing	Diamete	r (in.)		ductor Pipe-Gravi ened & Poured	ity Conduct	tor Pipe-Pump	bed	
Lower Drillhole Diameter (in	1.)	Casing	Depth (fl	t.)	Sealing Ma	tonite Chips) aterials				
2.1		J		)		Cement Grout	4	Concrete		
					Sanc	I-Cement (Concr	ete) Grout	X Bentonite	Chips	
Was well annular space grou		Yes	X No	Unknown	For Monito	oring Wells and N	Ionitoring Well B	oreholes Only	Y:	
If yes, to what depth (feet)?	Dep	oth to Wat	er (feet)		Bent	onite Chips	Be	ntonite - Cem	ent Grout	
a					Gran	ular Bentonite		ntonite - Sand		
5. Material Used to Fill	Well / Drillho	ole			From (ft.)	) To (ft.)	No. Yards, Sack Volume (cir		Mix Ra Mud W	
3/8" Bentonite Ch	ips				Surface	5.0	0.22 cubi			
6. Comments										
GP-5										
7. Supervision of Work	٢							DNR Use	Only	
Name of Person or Firm Do		aling Lic	ense #	Date of Fi		ng or Verification	Date Receive		Noted By	
On-Site Enviro	onmental			(mm/dd/y		18/2020				
Street or Route					elephone Nu		Comments			
PO Box 280	)		1			37-8992		le.		
City		State		Code	Signature	of Person Doing	WORK		te Signed	
Sun Prarie		W	11	53590		~ 1100	any	1	7/6/2020	

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# Appendix E: Laboratory Analytical Reports



Pace Analytical Services, LLC 1241 Bellevue Street - Suite 9 Green Bay, WI 54302 (920)469-2436

July 06, 2020

Liz Hoerning TRC 708 Heartland Trail Suite 3000 Madison, WI 53717

RE: Project: 397009.0000 LADYSMITH PHASE 2. Pace Project No.: 40209920

Dear Liz Hoerning:

Enclosed are the analytical results for sample(s) received by the laboratory on June 20, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network: • Pace Analytical Services - Green Bay

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Tod holtemeyor

Tod Noltemeyer tod.noltemeyer@pacelabs.com (920)469-2436 Project Manager

Enclosures

cc: Peggy Popp, TRC - Madison





Pace Analytical Services, LLC 1241 Bellevue Street - Suite 9 Green Bay, WI 54302 (920)469-2436

## CERTIFICATIONS

Project: 397009.0000 LADYSMITH PHASE 2.

Pace Project No.: 40209920

#### Pace Analytical Services Green Bay

1241 Bellevue Street, Green Bay, WI 54302 Florida/NELAP Certification #: E87948 Illinois Certification #: 200050 Kentucky UST Certification #: 82 Louisiana Certification #: 04168 Minnesota Certification #: 055-999-334 New York Certification #: 12064 North Dakota Certification #: R-150 Virginia VELAP ID: 460263 South Carolina Certification #: 83006001 Texas Certification #: T104704529-14-1 Wisconsin Certification #: 405132750 Wisconsin DATCP Certification #: 105-444 USDA Soil Permit #: P330-16-00157 Federal Fish & Wildlife Permit #: LE51774A-0



## SAMPLE SUMMARY

Project: 397009.0000 LADYSMITH PHASE 2.

Pace Project No.: 40209920

Lab ID	Sample ID	Matrix	Date Collected	Date Received
40209920001	GP-01 (2.5-5)	Solid	06/18/20 11:10	06/20/20 10:35
40209920002	GP-02 (2.5-5)	Solid	06/18/20 11:35	06/20/20 10:35
40209920003	GP-03 (0-2.5)	Solid	06/18/20 12:30	06/20/20 10:35
40209920004	GP-04 (2.5-5)	Solid	06/18/20 12:45	06/20/20 10:35
40209920005	GP-05 (0-2.5)	Solid	06/18/20 13:15	06/20/20 10:35



# SAMPLE ANALYTE COUNT

Project: 397009.0000 LADYSMITH PHASE 2.

Pace Project No.: 40209920

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
40209920001	GP-01 (2.5-5)	WI MOD DRO	MRN	1	PASI-G
		WI MOD GRO	ALD	11	PASI-G
		EPA 6010	TXW	1	PASI-G
		ASTM D2974-87	MMX	1	PASI-G
40209920002	GP-02 (2.5-5)	WI MOD DRO	MRN	1	PASI-G
		WI MOD GRO	ALD	11	PASI-G
		EPA 6010	TXW	1	PASI-G
		ASTM D2974-87	EMW	1	PASI-G
40209920003	GP-03 (0-2.5)	EPA 8260	ALD	64	PASI-G
		ASTM D2974-87	EMW	1	PASI-G
40209920004	GP-04 (2.5-5)	WI MOD DRO	MRN	1	PASI-G
		WI MOD GRO	ALD	1	PASI-G
		EPA 6010	TXW	1	PASI-G
		EPA 8260	ALD	64	PASI-G
		ASTM D2974-87	EMW	1	PASI-G
40209920005	GP-05 (0-2.5)	WI MOD DRO	MRN	1	PASI-G
		WI MOD GRO	ALD	11	PASI-G
		EPA 6010	TXW	1	PASI-G
		ASTM D2974-87	EMW	1	PASI-G

PASI-G = Pace Analytical Services - Green Bay



## SUMMARY OF DETECTION

Project: 397009.0000 LADYSMITH PHASE 2.

Pace Project No.: 40209920

Lab Sample ID	Client Sample ID						
Method	Parameters	Result	Units	Report Limit	Analyzed	Qualifiers	
40209920001	GP-01 (2.5-5)						
EPA 6010	Lead	2.7	mg/kg	2.3	06/25/20 19:38		
ASTM D2974-87	Percent Moisture	13.7	%	0.10	07/02/20 16:30		
40209920002	GP-02 (2.5-5)						
EPA 6010	Lead	4.2	mg/kg	2.2	06/25/20 19:41		
ASTM D2974-87	Percent Moisture	10.6	%	0.10	07/02/20 16:45		
40209920003	GP-03 (0-2.5)						
ASTM D2974-87	Percent Moisture	9.8	%	0.10	07/02/20 16:45		
40209920004	GP-04 (2.5-5)						
WI MOD DRO	Diesel Range Organics	12.6	mg/kg	4.7	06/25/20 09:56	DC	
EPA 6010	Lead	7.9	mg/kg	2.2	06/25/20 19:43		
ASTM D2974-87	Percent Moisture	15.4	%	0.10	07/02/20 16:45		
40209920005	GP-05 (0-2.5)						
WI MOD DRO	Diesel Range Organics	1310	mg/kg	85.2	06/25/20 11:00	DC	
EPA 6010	Lead	19.9	mg/kg	2.1	06/25/20 19:45		
ASTM D2974-87	Percent Moisture	7.0	%	0.10	07/02/20 16:45		



## **PROJECT NARRATIVE**

Project: 397009.0000 LADYSMITH PHASE 2.

### Pace Project No.: 40209920

### Method: WI MOD DRO Description: WIDRO GCS

Client:TRC - MADISONDate:July 06, 2020

### **General Information:**

4 samples were analyzed for WI MOD DRO by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

#### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

#### Sample Preparation:

The samples were prepared in accordance with WI MOD DRO with any exceptions noted below.

#### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

#### **Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

#### Surrogates:

All surrogates were within QC limits with any exceptions noted below.

#### Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

#### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:



## **PROJECT NARRATIVE**

Project: 397009.0000 LADYSMITH PHASE 2.

### Pace Project No.: 40209920

### Method: WI MOD GRO Description: WIGRO GCV Client: TRC - MADISON

 Date:
 July 06, 2020

### **General Information:**

4 samples were analyzed for WI MOD GRO by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

#### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

#### Sample Preparation:

The samples were prepared in accordance with TPH GRO/PVOC WI ext. with any exceptions noted below.

#### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

#### **Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

#### Surrogates:

All surrogates were within QC limits with any exceptions noted below.

#### Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

#### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:



## **PROJECT NARRATIVE**

Project: 397009.0000 LADYSMITH PHASE 2.

### Pace Project No.: 40209920

 Method:
 EPA 6010

 Description:
 6010 MET ICP

 Client:
 TRC - MADISON

 Date:
 July 06, 2020

### **General Information:**

4 samples were analyzed for EPA 6010 by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

#### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

#### Sample Preparation:

The samples were prepared in accordance with EPA 3050 with any exceptions noted below.

#### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

#### **Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

#### Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

#### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

#### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

## Additional Comments:



### **PROJECT NARRATIVE**

Project: 397009.0000 LADYSMITH PHASE 2.

Pace Project No.: 40209920

#### Method: EPA 8260

Description:8260 MSV Med Level Normal ListClient:TRC - MADISONDate:July 06, 2020

#### **General Information:**

2 samples were analyzed for EPA 8260 by Pace Analytical Services Green Bay. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

#### Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

#### Sample Preparation:

The samples were prepared in accordance with EPA 5035/5030B with any exceptions noted below.

#### Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

#### **Continuing Calibration:**

All criteria were within method requirements with any exceptions noted below.

#### Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

#### Surrogates:

All surrogates were within QC limits with any exceptions noted below.

#### Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

#### Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

#### Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

### Additional Comments:

This data package has been reviewed for quality and completeness and is approved for release.



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## **ANALYTICAL RESULTS**

. . . . . . . . . .

Project: 397009.0000 LADYSMITH PHASE 2.

Pace Project No.: 40209920

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Sample: GP-01 (2.5-5)	Lab ID:	40209920001	Collected	d: 06/18/20	) 11:10	Received: 06/	20/20 10:35 Ma	atrix: Solid	
Results reported on a "dry weight" b	asis and are	e adjusted for	percent mo	oisture, san	nple si	ize and any diluti	ions.		
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS	Analytical	Method: WI MC	DD DRO Pr	eparation N	lethod:	: WI MOD DRO			
	Pace Anal	ytical Services	- Green Bay	y					
Diesel Range Organics	<1.5	mg/kg	4.9	1.5	1	06/24/20 09:06	06/25/20 08:42		
WIGRO GCV	Analytical	Method: WI MC	DD GRO Pi	reparation N	/lethod	: TPH GRO/PVO	C WI ext.		
	Pace Anal	ytical Services	- Green Bay	y					
Benzene	<25.0	ug/kg	60.0	25.0	1	06/23/20 08:30	06/23/20 12:59	71-43-2	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	06/23/20 08:30	06/23/20 12:59	100-41-4	W
Gasoline Range Organics	<2.9	mg/kg	5.8	2.9	1	06/23/20 08:30	06/23/20 12:59		
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	06/23/20 08:30	06/23/20 12:59	1634-04-4	W
Naphthalene	<25.0	ug/kg	60.0	25.0	1	06/23/20 08:30	06/23/20 12:59	91-20-3	W
Toluene	<25.0	ug/kg	60.0	25.0	1	06/23/20 08:30	06/23/20 12:59	108-88-3	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	06/23/20 08:30	06/23/20 12:59	95-63-6	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	06/23/20 08:30	06/23/20 12:59	108-67-8	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	06/23/20 08:30	06/23/20 12:59	179601-23-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	06/23/20 08:30	06/23/20 12:59	95-47-6	W
<i>Surrogates</i> a,a,a-Trifluorotoluene (S)	102	%	80-120		1	06/23/20 08:30	06/23/20 12:59	98-08-8	
6010 MET ICP	Analytical	Method: EPA 6	010 Prepar	ration Metho	od: EP/	A 3050			
	Pace Anal	ytical Services	- Green Bay	y					
Lead	2.7	mg/kg	2.3	0.69	1	06/25/20 07:24	06/25/20 19:38	7439-92-1	
Percent Moisture	Analytical	Method: ASTM	D2974-87						
			О П						
	Pace Anal	ytical Services	- Green Bay	y					



Project: 397009.0000 LADYSMITH PHASE 2.

Pace Project No.: 40209920

Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.         Parameters       Results       Units       LOQ       LOD       DF       Prepared       Analyzed       CAS N         WIDRO GCS       Analytical Method: WI MOD DRO       Preparation Method: WI MOD DRO       Prepared       Analyzed       CAS N	
WIDRO GCS       Analytical Method: WI MOD DRO       Preparation Method: WI MOD DRO	
	o. Qual
Pace Analytical Services - Green Bay	
Diesel Range Organics         <1.5         mg/kg         4.9         1.5         1         06/24/20 09:06         06/25/20 08:51	
WIGRO GCV Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext.	
Pace Analytical Services - Green Bay	
Benzene <25.0 ug/kg 60.0 25.0 1 06/23/20 08:30 06/23/20 13:25 71-43-2	W
Ethylbenzene <25.0 ug/kg 60.0 25.0 1 06/23/20 08:30 06/23/20 13:25 100-41-4	W
Gasoline Range Organics <2.8 mg/kg 5.6 2.8 1 06/23/20 08:30 06/23/20 13:25	
Methyl-tert-butyl ether <25.0 ug/kg 60.0 25.0 1 06/23/20 08:30 06/23/20 13:25 1634-04-	4 W
Naphthalene <25.0 ug/kg 60.0 25.0 1 06/23/20 08:30 06/23/20 13:25 91-20-3	W
Toluene <25.0 ug/kg 60.0 25.0 1 06/23/20 08:30 06/23/20 13:25 108-88-3	W
1,2,4-Trimethylbenzene <b>&lt;25.0</b> ug/kg 60.0 25.0 1 06/23/20 08:30 06/23/20 13:25 95-63-6	W
1,3,5-Trimethylbenzene <25.0 ug/kg 60.0 25.0 1 06/23/20 08:30 06/23/20 13:25 108-67-8	W
m&p-Xylene <50.0 ug/kg 120 50.0 1 06/23/20 08:30 06/23/20 13:25 179601-2	3-1 W
o-Xylene <25.0 ug/kg 60.0 25.0 1 06/23/20 08:30 06/23/20 13:25 95-47-6	W
Surrogates	
a,a,a-Trifluorotoluene (S) 102 % 80-120 1 06/23/20 08:30 06/23/20 13:25 98-08-8	
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3050	
Pace Analytical Services - Green Bay	
Lead 4.2 mg/kg 2.2 0.65 1 06/25/20 07:24 06/25/20 19:41 7439-92-	1
Percent Moisture Analytical Method: ASTM D2974-87	
Pace Analytical Services - Green Bay	
Percent Moisture         10.6         %         0.10         0.10         1         07/02/20 16:45	



Project: 397009.0000 LADYSMITH PHASE 2.

Pace Project No.: 40209920

 Sample:
 GP-03 (0-2.5)
 Lab ID:
 40209920003
 Collected:
 06/18/20
 12:30
 Received:
 06/20/20
 10:35
 Matrix:
 Solid

 Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical	Method: EPA	8260 Prepa	ration Metho	od: EP	A 5035/5030B			
	Pace Anal	ytical Service	es - Green Bag	y					
1,1,1,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:13	630-20-6	W
1,1,1-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:13		W
1,1,2,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:13		W
1,1,2-Trichloroethane	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:13		W
1,1-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:13		W
1,1-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:13		W
1,1-Dichloropropene	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:13	563-58-6	W
1,2,3-Trichlorobenzene	<47.3	ug/kg	158	47.3	1	06/24/20 08:15	06/24/20 23:13	87-61-6	W
1,2,3-Trichloropropane	<37.4	ug/kg	125	37.4	1	06/24/20 08:15	06/24/20 23:13	96-18-4	W
1,2,4-Trichlorobenzene	<41.7	ug/kg	250	41.7	1	06/24/20 08:15	06/24/20 23:13	120-82-1	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:13	95-63-6	W
1,2-Dibromo-3-chloropropane	<237	ug/kg	789	237	1	06/24/20 08:15	06/24/20 23:13	96-12-8	W
1,2-Dibromoethane (EDB)	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:13	106-93-4	W
1,2-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:13	95-50-1	W
1,2-Dichloroethane	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:13	107-06-2	W
1,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:13	78-87-5	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:13	108-67-8	W
1,3-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:13	541-73-1	W
1,3-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:13	142-28-9	W
1,4-Dichlorobenzene	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:13	106-46-7	W
2,2-Dichloropropane	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:13	594-20-7	W
2-Chlorotoluene	<25.0	ug/kg	64.0	25.0	1	06/24/20 08:15	06/24/20 23:13	95-49-8	W
4-Chlorotoluene	<25.0	ug/kg	64.0	25.0	1	06/24/20 08:15	06/24/20 23:13	106-43-4	W
Benzene	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:13	71-43-2	W
Bromobenzene	<25.0	ug/kg	62.0	25.0	1	06/24/20 08:15	06/24/20 23:13	108-86-1	W
Bromochloromethane	<25.0	ug/kg	70.0	25.0	1	06/24/20 08:15	06/24/20 23:13	74-97-5	W
Bromodichloromethane	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:13	75-27-4	W
Bromoform	<25.0	ug/kg	72.0	25.0	1	06/24/20 08:15	06/24/20 23:13	75-25-2	W
Bromomethane	<63.8	ug/kg	250	63.8	1	06/24/20 08:15	06/24/20 23:13	74-83-9	W
Carbon tetrachloride	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:13	56-23-5	W
Chlorobenzene	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:13	108-90-7	W
Chloroethane	<46.4	ug/kg	250	46.4	1	06/24/20 08:15	06/24/20 23:13	75-00-3	W
Chloroform	<47.5	ug/kg	250	47.5	1	06/24/20 08:15	06/24/20 23:13	67-66-3	W
Chloromethane	<25.0	ug/kg	80.0	25.0	1	06/24/20 08:15	06/24/20 23:13	74-87-3	W
Dibromochloromethane	<229	ug/kg	763	229	1	06/24/20 08:15	06/24/20 23:13	124-48-1	W
Dibromomethane	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:13	74-95-3	W
Dichlorodifluoromethane	<25.0	ug/kg	72.0	25.0	1	06/24/20 08:15	06/24/20 23:13	75-71-8	W
Diisopropyl ether	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:13	108-20-3	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:13	100-41-4	W
Hexachloro-1,3-butadiene	<68.7	ug/kg	229	68.7	1	06/24/20 08:15	06/24/20 23:13	87-68-3	W
Isopropylbenzene (Cumene)	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:13	98-82-8	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:13	1634-04-4	W
Methylene Chloride	<26.3	ug/kg	88.0	26.3	1	06/24/20 08:15	06/24/20 23:13	75-09-2	W
Naphthalene	<27.3	ug/kg	91.0	27.3	1	06/24/20 08:15			W



Project: 397009.0000 LADYSMITH PHASE 2.

Pace Project No.: 40209920

 Sample:
 GP-03 (0-2.5)
 Lab ID:
 40209920003
 Collected:
 06/18/20
 12:30
 Received:
 06/20/20
 10:35
 Matrix:
 Solid

 Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List			A 8260 Prepar		od: EP	A 5035/5030B			
	Pace Anal	ytical Service	es - Green Bay	/					
Styrene	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:13	100-42-5	W
Tetrachloroethene	<38.7	ug/kg	129	38.7	1	06/24/20 08:15	06/24/20 23:13	127-18-4	W
Toluene	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:13	108-88-3	W
Trichloroethene	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:13	79-01-6	W
Trichlorofluoromethane	<25.0	ug/kg	65.0	25.0	1	06/24/20 08:15	06/24/20 23:13	75-69-4	W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:13	75-01-4	W
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:13	156-59-2	W
cis-1,3-Dichloropropene	<42.3	ug/kg	141	42.3	1	06/24/20 08:15	06/24/20 23:13	10061-01-5	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	06/24/20 08:15	06/24/20 23:13	179601-23-1	W
n-Butylbenzene	<30.0	ug/kg	100	30.0	1	06/24/20 08:15	06/24/20 23:13	104-51-8	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:13	103-65-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:13	95-47-6	W
p-Isopropyltoluene	<25.0	ug/kg	72.0	25.0	1	06/24/20 08:15	06/24/20 23:13	99-87-6	W
sec-Butylbenzene	<25.0	ug/kg	72.0	25.0	1	06/24/20 08:15	06/24/20 23:13	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	62.0	25.0	1	06/24/20 08:15	06/24/20 23:13	98-06-6	W
trans-1,2-Dichloroethene	<25.0	ug/kg	67.0	25.0	1	06/24/20 08:15	06/24/20 23:13	156-60-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	74.0	25.0	1	06/24/20 08:15	06/24/20 23:13	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	99	%	58-145		1	06/24/20 08:15	06/24/20 23:13	1868-53-7	
Toluene-d8 (S)	98	%	56-140		1	06/24/20 08:15	06/24/20 23:13	2037-26-5	
4-Bromofluorobenzene (S)	90	%	52-137		1	06/24/20 08:15	06/24/20 23:13	460-00-4	
Percent Moisture	Analytical	Method: AST	FM D2974-87						
	Pace Anal	ytical Service	es - Green Bay	/					
Percent Moisture	9.8	%	0.10	0.10	1		07/02/20 16:45		

## **REPORT OF LABORATORY ANALYSIS**



Project: 397009.0000 LADYSMITH PHASE 2.

Pace Project No.: 40209920

WIDRO GCS         Analytical Method: WI MOD DRO         Preparation Method: WI MOD DRO           Pace Analytical Services - Green Bay         Diesel Range Organics         12.6         mg/kg         4.7         1.4         1         06/24/20 09:06         06/25/20 09:56         DC           WIGRO GCV         Analytical Method: WI MOD ORO         Preparation Method: TPH GRO/PVOC WI ext.         Pace Analytical Services - Green Bay           Gasoline Range Organics         3.0         mg/kg         5.9         3.0         1         06/23/20 08:30         06/23/20 13:50           6010 MET ICP         Analytical Method: EPA 6010         Preparation Method: EPA 50350         Pace Analytical Services - Green Bay           Lead         7.9         mg/kg         6.0         1         06/25/20 07:24         06/25/20 19:43         7439-92-1           2560 MSV Med Level Normal List         Analytical Services - Green Bay         Analytical Services - Green Bay         11.1,1-Trichtoroethane         25.0         1         06/24/20 08:15         06/24/20 23:35         71.55.6         W           1,1,2-Tetrachioroethane         25.0         ug/kg         6.0         25.0         1         06/24/20 08:15         06/24/20 23:35         75.4-3         W           1,10-Dichoroethane         25.0         ug/kg         6.0         25.0<	Sample: GP-04 (2.5-5)	Lab ID:	40209920004	Collected:	06/18/20	12:45	Received: 06/	20/20 10:35 Ma	atrix: Solid	
WIDRO GCS         Analytical Method: WI MOD DRO         Preparation Method: WI MOD DRO           Pace Analytical Services - Green Bay         Diesel Range Organics         12.6         mg/kg         4.7         1.4         1         06/24/20 09:06         06/25/20 09:56         DC           WIGRO GCV         Analytical Method: WI MOD ORO         Preparation Method: TPH GRO/PVOC WI ext.         Pace Analytical Services - Green Bay           Gasoline Range Organics         3.0         mg/kg         5.9         3.0         1         06/23/20 08:30         06/23/20 13:50           6010 MET ICP         Analytical Method: EPA 6010         Preparation Method: EPA 50350         Pace Analytical Services - Green Bay           Lead         7.9         mg/kg         6.0         1         06/25/20 07:24         06/25/20 19:43         7439-92-1           2560 MSV Med Level Normal List         Analytical Services - Green Bay         Analytical Services - Green Bay         11.1,1-Trichtoroethane         25.0         1         06/24/20 08:15         06/24/20 23:35         71.55.6         W           1,1,2-Tetrachioroethane         25.0         ug/kg         6.0         25.0         1         06/24/20 08:15         06/24/20 23:35         75.4-3         W           1,10-Dichoroethane         25.0         ug/kg         6.0         25.0<	Results reported on a "dry weight"	" basis and ar	e adjusted fo	r percent mois	sture, san	nple si	ze and any diluti	ions.		
Diese Aarge Organics         12.6         mg/kg         4.7         1.4         1         06/24/20 08/0         06/25/20 09/5         DC           WiGR OCV         Analytical WithOD_Servertation Viet WithOD_Servertat	Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
Wisko GCV         Analytical Method: WI MOD GRO. Preparation Method: TPH GRO/PVOC WI ext. Pace Analytical Services - Green Bay           Gasoline Range Organics         <3.0         nalytical Services - Green Bay           Gasoline Range Organics         <3.0         nalytical Services - Green Bay           Gasoline Range Organics         <3.0         nalytical Services - Green Bay           Lead         7.9         mg/kg         2.2         0.66         1         06/23/20 07:24         06/25/20 19:43         7439-92-1           Bace Analytical Method: EPA 8260         Preparation Method: EPA 5035/5030B         East Services - Green Bay           1,1,1,2-Tetrachloroethane         <25.0         ug/kg         60.0         25.0         1         06/24/20 08:15         06/24/20 23:35         73-45         W           1,1,2-Tetrachloroethane         <25.0         ug/kg         60.0         25.0         1         06/24/20 08:15         06/24/20 23:35         73-45         W           1,1,2-Tetrachloroethane         <25.0         ug/kg         60.0         25.0         1         06/24/20 08:15         06/24/20 23:35         73-43.4         W           1,1,2-Tetrachloroethane         <25.0         ug/kg         60.0         25.0         1         06/24/20 08:15         06/24/20 23:35         73-43.4	WIDRO GCS				paration N	lethod:	WI MOD DRO			
Pace Analytical Services - Green Bay           Gasoline Range Organics	Diesel Range Organics	12.6	mg/kg	4.7	1.4	1	06/24/20 09:06	06/25/20 09:56		DC
G010 MET ICP         Analytical Method: EPA 6010 Preparation Method: EPA 3050 Pace Analytical Services - Green Bay           Lead         7.9         mg/kg         2.2         0.66         1         06/25/20 07:24         06/25/20 19:43         7439-92:1           B260 MSV Med Level Normal List         Analytical Method: EPA 8260         Preparation Method: EPA 5303/5030B         Pace Analytical Services - Green Bay           1,1,1,2-Tetrachloroethane           QS,0         25.0         1         06/24/20 08:15         06/24/20 23:35         630-20-6         W           1,1,1,2-Tetrachloroethane           QS,0         0.5.0         1         06/24/20 08:15         06/24/20 23:35         79:3-5-6         W           1,1,2-Trichioroethane           QS,0         0.5.0         1         06/24/20 08:15         06/24/20 23:35         79:3-5-6         W           1,1-Dichioroethane           QS,0         QS,0         1         06/24/20 08:15         06/24/20 23:35         79:3-54         W           1,1-Dichioroethane           QS,0         QS,0         1         06/24/20 08:15         06/24/20 23:35         87-61-6         W           1,2-Diriohoropropane           Q	WIGRO GCV	-			paration N	/lethod:	TPH GRO/PVO	C WI ext.		
Lead         7.9         mg/kg         2.2         0.66         1         0.625/20 07:24         0.625/20 19:43         7439-921           8260 MSV Med Level Normal Liss         Analytical Wert-Er Rave         Event-Surverse         Event-Surverse           1,11,2-Tetrachloroethane         225.0         ug/kg         60.0         25.0         1         0.624/20 08:15         6/24/20 23:35         71-55-6         W           1,12-Tetrachloroethane         25.0         ug/kg         60.0         25.0         1         0.624/20 08:15         6/24/20 23:35         79-34-5         W           1,12-Trichloroethane         25.0         ug/kg         60.0         25.0         1         0.624/20 08:15         6/24/20 23:35         79-34-5         W           1,12-Trichloroethane         25.0         ug/kg         60.0         25.0         1         0.624/20 08:15         6/24/20 23:35         76-34-3         W           1,12-Trichloroethane         25.0         ug/kg         10.0         2         0.624/20 08:15         6/24/20 23:35         87-61-6         W           1,23-Trichlorobenzene         47.3         ug/kg         12         1         0.624/20 08:15         6/24/20 23:35         87-61-6         W           1,23-Trichlorobenzen	Gasoline Range Organics	<3.0	mg/kg	5.9	3.0	1	06/23/20 08:30	06/23/20 13:50		
Based MSV Med Level Normal List         Analytical Method: EPA 8260         Preparation Method: EPA 5035/5030B           Pace Analytical Services - Green Bay           1,1,1,2-Tetrachloroethane         <25.0	6010 MET ICP	-			tion Metho	od: EPA	3050			
Pace Analytical Services - Green Bay           1,1,1_2-Tetrachloroethane         <25.0	Lead	7.9	mg/kg	2.2	0.66	1	06/25/20 07:24	06/25/20 19:43	7439-92-1	
1,1,1-Trichloroethane       <25.0	8260 MSV Med Level Normal List	-		•	tion Metho	od: EPA	A 5035/5030B			
1,1,2,2-Tetrachloroethane       <25.0	1,1,1,2-Tetrachloroethane	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:35	630-20-6	W
1,1,2-Trichloroethane       <25.0				60.0		1	06/24/20 08:15	06/24/20 23:35	71-55-6	W
1,1-Dichloroethane       <25.0										
1,1-Dichloroethene       <25.0       ug/kg       60.0       25.0       1       06/24/20       08/24/20       23.35       75.35.4       W         1,1-Dichloropropene       <25.0										
1.1-Dichloropropene       <25.0       ug/kg       60.0       25.0       1       06/24/20 08:15       06/24/20 23:35       563-58-6       W         1.2.3-Trichlorobenzene       <47.3	,									
1,2,3-Trichlorobenzene       <47.3	,									
1,2,3-Trichloropropane       <37.4										
1,2,4-Trichlorobenzene       <41.7			ug/kg							
12,4-Trimethylbenzene       <25.0	• •									
1,2-Dibromo-3-chloropropane       <237       ug/kg       789       237       1       06/24/20       08:15       06/24/20       23:35       96-12-8       W         1,2-Dibromoethane (EDB)       <25.0										
1,2-Dibromoethane (EDB)       <25.0										
1,2-Dichlorobenzene       <25.0										
1,2-Dichloroethane       <25.0       ug/kg       60.0       25.0       1       06/24/20 08:15       06/24/20 23:35       107-06-2       W         1,2-Dichloropropane       <25.0										
1,2-Dichloropropane<25.0ug/kg60.025.0106/24/2008:1506/24/2023:3578-87-5W1,3,5-Trimethylbenzene<25.0										
1,3,5-Trimethylbenzene<25.0ug/kg60.025.0106/24/2006/24/2023:35108-67-8W1,3-Dichlorobenzene<25.0										
1.3-Dichlorobenzene<25.0ug/kg60.025.0106/24/2008:1506/24/2023:35541-73-1W1.3-Dichloropropane<25.0										
1,3-Dichloropropane<25.0ug/kg60.025.0106/24/20 08:1506/24/20 23:35142-28-9W1,4-Dichlorobenzene<25.0	•									
1.4-Dichlorobenzene<25.0ug/kg60.025.0106/24/2008:1506/24/2023:35106-46-7W2,2-Dichloropropane<25.0	-									
2,2-Dichloropropane<25.0ug/kg60.025.0106/24/2008:1506/24/2023:35594-20-7W2-Chlorotoluene<25.0										
2-Chlorotoluene       <25.0										
4-Chlorotoluene       <25.0										
Benzene       <25.0       ug/kg       60.0       25.0       1       06/24/20       08:15       06/24/20       23:35       71-43-2       W         Bromobenzene       <25.0										
Bromobenzene       <25.0       ug/kg       62.0       25.0       1       06/24/20       08:15       06/24/20       23:35       108-86-1       W         Bromochloromethane       <25.0										
Bromochloromethane         <25.0         ug/kg         70.0         25.0         1         06/24/20         08:15         06/24/20         23:35         74-97-5         W           Bromodichloromethane         <25.0										
Bromodichloromethane         <25.0         ug/kg         60.0         25.0         1         06/24/20         08:15         06/24/20         23:35         75-27-4         W           Bromoform         <25.0										
Bromoform         <25.0         ug/kg         72.0         25.0         1         06/24/20         08:15         06/24/20         23:35         75-25-2         W           Bromomethane         <63.8										
Bromomethane         <63.8         ug/kg         250         63.8         1         06/24/20         08:15         06/24/20         23:35         74-83-9         W           Carbon tetrachloride         <25.0										
Carbon tetrachloride         <25.0         ug/kg         60.0         25.0         1         06/24/20         08:15         06/24/20         23:35         56-23-5         W           Chlorobenzene         <25.0										
Chlorobenzene <25.0 ug/kg 60.0 25.0 1 06/24/20 08:15 06/24/20 23:35 108-90-7 W										
	Chloroethane	<25.0 <46.4	ug/kg ug/kg	250	23.0 46.4	1	06/24/20 08:15			Ŵ



Project: 397009.0000 LADYSMITH PHASE 2.

Pace Project No.: 40209920

 Sample:
 GP-04 (2.5-5)
 Lab ID:
 40209920004
 Collected:
 06/18/20
 12:45
 Received:
 06/20/20
 10:35
 Matrix:
 Solid

 Results reported on a "dry weight" basis and are adjusted for percent moisture, sample size and any dilutions.

Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Med Level Normal List	Analytical	Method: EPA	A 8260 Prepara	ation Meth	od: EP	A 5035/5030B			
	Pace Anal	ytical Service	es - Green Bay						
Chloroform	<47.5	ua/ka	250	47.5	1	06/24/20 08:15	06/24/20 23:35	67-66-3	W
Chloromethane	<25.0	ug/kg	80.0	25.0	1	06/24/20 08:15	06/24/20 23:35	74-87-3	W
Dibromochloromethane	<229	ug/kg	763	229	1	06/24/20 08:15	06/24/20 23:35	124-48-1	W
Dibromomethane	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:35	74-95-3	W
Dichlorodifluoromethane	<25.0	ug/kg	72.0	25.0	1	06/24/20 08:15	06/24/20 23:35		W
Diisopropyl ether	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:35	108-20-3	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:35	100-41-4	W
Hexachloro-1,3-butadiene	<68.7	ug/kg	229	68.7	1	06/24/20 08:15	06/24/20 23:35	87-68-3	W
Isopropylbenzene (Cumene)	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:35	98-82-8	W
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:35	1634-04-4	W
Methylene Chloride	<26.3	ug/kg	88.0	26.3	1	06/24/20 08:15	06/24/20 23:35	75-09-2	W
Naphthalene	<27.3	ug/kg	91.0	27.3	1	06/24/20 08:15	06/24/20 23:35	91-20-3	W
Styrene	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:35	100-42-5	W
Tetrachloroethene	<38.7	ug/kg	129	38.7	1	06/24/20 08:15	06/24/20 23:35	127-18-4	W
Toluene	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:35	108-88-3	W
Trichloroethene	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:35	79-01-6	W
Trichlorofluoromethane	<25.0	ug/kg	65.0	25.0	1	06/24/20 08:15	06/24/20 23:35	75-69-4	W
Vinyl chloride	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:35	75-01-4	W
cis-1,2-Dichloroethene	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:35	156-59-2	W
cis-1,3-Dichloropropene	<42.3	ug/kg	141	42.3	1	06/24/20 08:15	06/24/20 23:35	10061-01-5	W
m&p-Xylene	<50.0	ug/kg	120	50.0	1	06/24/20 08:15	06/24/20 23:35	179601-23-1	W
n-Butylbenzene	<30.0	ug/kg	100	30.0	1	06/24/20 08:15	06/24/20 23:35	104-51-8	W
n-Propylbenzene	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:35	103-65-1	W
o-Xylene	<25.0	ug/kg	60.0	25.0	1	06/24/20 08:15	06/24/20 23:35	95-47-6	W
p-lsopropyltoluene	<25.0	ug/kg	72.0	25.0	1	06/24/20 08:15	06/24/20 23:35	99-87-6	W
sec-Butylbenzene	<25.0	ug/kg	72.0	25.0	1	06/24/20 08:15	06/24/20 23:35	135-98-8	W
tert-Butylbenzene	<25.0	ug/kg	62.0	25.0	1	06/24/20 08:15	06/24/20 23:35	98-06-6	W
trans-1,2-Dichloroethene	<25.0	ug/kg	67.0	25.0	1	06/24/20 08:15	06/24/20 23:35	156-60-5	W
trans-1,3-Dichloropropene	<25.0	ug/kg	74.0	25.0	1	06/24/20 08:15	06/24/20 23:35	10061-02-6	W
Surrogates									
Dibromofluoromethane (S)	101	%	58-145		1	06/24/20 08:15	06/24/20 23:35		
Toluene-d8 (S)	104	%	56-140		1	06/24/20 08:15	06/24/20 23:35	2037-26-5	
4-Bromofluorobenzene (S)	94	%	52-137		1	06/24/20 08:15	06/24/20 23:35	460-00-4	
Percent Moisture	Analytical	Method: AST	FM D2974-87						
	Pace Anal	ytical Service	es - Green Bay						
Percent Moisture	15.4	%	0.10	0.10	1		07/02/20 16:45		



Project: 397009.0000 LADYSMITH PHASE 2.

Pace Project No.: 40209920

Sample: GP-05 (0-2.5)	Lab ID:	40209920005	Collected	d: 06/18/20	) 13:15	Received: 06/	20/20 10:35 Ma	atrix: Solid	
Results reported on a "dry weight" b	asis and are	e adjusted for	percent mo	oisture, san	nple si	ze and any diluti	ions.		
Parameters	Results	Units	LOQ	LOD	DF	Prepared	Analyzed	CAS No.	Qual
WIDRO GCS	Analytical	Method: WI MC	DD DRO Pi	reparation N	lethod:	WI MOD DRO			
	Pace Anal	ytical Services	- Green Bag	у					
Diesel Range Organics	1310	mg/kg	85.2	25.5	20	06/24/20 09:06	06/25/20 11:00		DC
WIGRO GCV	Analytical	Method: WI MC	DD GRO P	reparation N	/lethod:	TPH GRO/PVO	C WI ext.		
	Pace Anal	ytical Services	- Green Bag	у					
Benzene	<25.0	ug/kg	60.0	25.0	1	06/23/20 08:30	06/23/20 14:16	71-43-2	W
Ethylbenzene	<25.0	ug/kg	60.0	25.0	1	06/23/20 08:30	06/23/20 14:16	100-41-4	W
Gasoline Range Organics	<2.7	mg/kg	5.4	2.7	1	06/23/20 08:30	06/23/20 14:16		
Methyl-tert-butyl ether	<25.0	ug/kg	60.0	25.0	1	06/23/20 08:30	06/23/20 14:16	1634-04-4	W
Naphthalene	<25.0	ug/kg	60.0	25.0	1	06/23/20 08:30	06/23/20 14:16	91-20-3	W
Toluene	<25.0	ug/kg	60.0	25.0	1	06/23/20 08:30	06/23/20 14:16	108-88-3	W
1,2,4-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	06/23/20 08:30	06/23/20 14:16	95-63-6	W
1,3,5-Trimethylbenzene	<25.0	ug/kg	60.0	25.0	1	06/23/20 08:30	06/23/20 14:16	108-67-8	W
n&p-Xylene	<50.0	ug/kg	120	50.0	1	06/23/20 08:30	06/23/20 14:16	179601-23-1	W
o-Xylene <b>Surrogates</b>	<25.0	ug/kg	60.0	25.0	1	06/23/20 08:30	06/23/20 14:16	95-47-6	W
a,a,a-Trifluorotoluene (S)	102	%	80-120		1	06/23/20 08:30	06/23/20 14:16	98-08-8	
6010 MET ICP	Analytical	Method: EPA 6	010 Prepai	ration Metho	od: EPA	A 3050			
	Pace Anal	ytical Services	- Green Ba	у					
_ead	19.9	mg/kg	2.1	0.62	1	06/25/20 07:24	06/25/20 19:45	7439-92-1	
Percent Moisture	Analytical	Method: ASTM	D2974-87						
	Pace Anal	ytical Services	- Green Bag	у					



Project: 397009.0000 LADYSMITH PHASE 2.

Pace Project No.: 40209920

QC Batch:	358368	Analysis Method:	WI MOD GRO
QC Batch Method:	TPH GRO/PVOC WI ext.	Analysis Description:	WIGRO Solid GCV
		Laboratory:	Pace Analytical Services - Green Bay
Associated Lab Sam	ples: 40209920001, 40209920002, 4	40209920004, 4020992000	5
METHOD BLANK:	2072873	Matrix: Solid	
Associated Lab Sam	ples: 40209920001, 40209920002, 4	40209920004, 4020992000	5
		Blank Departin	~

Associated Lab Samples.	40209920001, 40209920002, 40	JZU99Z0004, 40	0209920005		
		Blank	Reporting		
Parameter	Units	Result	Limit	Analyzed	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	<25.0	50.0	06/23/20 09:06	
1,3,5-Trimethylbenzene	ug/kg	<25.0	50.0	06/23/20 09:06	
Benzene	ug/kg	<25.0	50.0	06/23/20 09:06	
Ethylbenzene	ug/kg	<25.0	50.0	06/23/20 09:06	
Gasoline Range Organics	mg/kg	<1.2	4.1	06/23/20 09:06	
m&p-Xylene	ug/kg	<50.0	100	06/23/20 09:06	
Methyl-tert-butyl ether	ug/kg	<25.0	50.0	06/23/20 09:06	
Naphthalene	ug/kg	<25.0	50.0	06/23/20 09:06	
o-Xylene	ug/kg	<25.0	50.0	06/23/20 09:06	
Toluene	ug/kg	<25.0	50.0	06/23/20 09:06	
a,a,a-Trifluorotoluene (S)	%	101	80-120	06/23/20 09:06	

LABORATORY CONTROL SAMPL	E & LCSD: 2072874	1	20	)72875						
		Spike	LCS	LCSD	LCS	LCSD	% Rec		Max	
Parameter	Units	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qualifiers
1,2,4-Trimethylbenzene	ug/kg	1000	1100	1030	110	103	80-120	6	20	
1,3,5-Trimethylbenzene	ug/kg	1000	1090	1030	109	103	80-120	6	20	
Benzene	ug/kg	1000	1070	1020	107	102	80-120	5	20	
Ethylbenzene	ug/kg	1000	1090	1040	109	104	80-120	5	20	
Gasoline Range Organics	mg/kg	10	9.8	9.4	98	94	80-120	4	20	
m&p-Xylene	ug/kg	2000	2210	2090	110	104	80-120	5	20	
Methyl-tert-butyl ether	ug/kg	1000	1080	1040	108	104	80-120	4	20	
Naphthalene	ug/kg	1000	1160	1100	116	110	80-120	5	20	
o-Xylene	ug/kg	1000	1100	1030	110	103	80-120	6	20	
Toluene	ug/kg	1000	1060	1010	106	101	80-120	5	20	
a,a,a-Trifluorotoluene (S)	%				101	103	80-120			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### **REPORT OF LABORATORY ANALYSIS**



Project:			MITH PHASE	2.									
Pace Project No.:	40209920												
QC Batch:	358550			Analy	sis Metho	d:	EPA 6010						
QC Batch Method:	EPA 305	0		Analy	/sis Descri	ption:	6010 MET						
				Labo	ratory:		Pace Analy	ical Service	es - Green	Bay			
Associated Lab San	nples: 40	0209920001	, 4020992000	2, 4020992	20004, 402	09920005							
METHOD BLANK:	2073515				Matrix: So	olid							
Associated Lab San	nples: 40	0209920001	, 4020992000	2, 4020992	20004, 402	09920005							
				Blar	nk	Reporting							
Paran	neter		Units	Res	ult	Limit	Anal	yzed	Qualifier	s			
Lead			mg/kg		<0.60	2	2.0 06/25/2	0 19:02					
LABORATORY COM	NTROL SAM	MPLE: 20	73516										
				Spike	LC	-	LCS	% R					
Paran	neter		Units	Conc.	Res	sult	% Rec	Limi	ts	Qualifiers			
Lead			mg/kg	5	50	51.1	10	2 8	80-120				
MATRIX SPIKE & M			ATE: 2073	517		207351	8						
		INE DOI ER	2010	MS	MSD	201001	0						
		4	0209975001	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter		Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
Lead		mg/kg	1.3J	53.3	53.5	52.4	52.9	96	96	75-125	1	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: 397009.0000 LADYSMITH PHASE 2.

Pace Project No.:	40209920
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QC Batch:	
QC Batch Method:	

358533 EPA 5035/5030B Analysis Method:

Analysis Description: Laboratory:

EPA 8260 8260 MSV Med Level Normal List Pace Analytical Services - Green Bay

Associated Lab Samples: 40209920003, 40209920004

Associated Lab Samples:40209920003, 40209920004ParameterUnitsBlank ResultReporting LimitQualifiers1,1,1,2-Tetrachloroethaneug/kg<7.850.006/24/20 17:34Qualifiers1,1,1-Trichloroethaneug/kg<13.550.006/24/20 17:3406/24/20 17:34
ParameterUnitsBlank ResultReporting LimitAnalyzedQualifiers1,1,1,2-Tetrachloroethaneug/kg<7.8
ParameterUnitsResultLimitAnalyzedQualifiers1,1,1,2-Tetrachloroethaneug/kg<7.8
1,1,1,2-Tetrachloroethane         ug/kg         <7.8         50.0         06/24/20 17:34
1,1,2,2-Tetrachloroethane ug/kg <15.7 52.0 06/24/20 17:34
1,1,2-Trichloroethane ug/kg <15.7 52.0 06/24/20 17:34
1,1-Dichloroethane ug/kg <13.5 50.0 06/24/20 17:34
1,1-Dichloroethene ug/kg <11.8 50.0 06/24/20 17:34
1,1-Dichloropropene ug/kg <10.7 50.0 06/24/20 17:34
1,2,3-Trichlorobenzene ug/kg <47.3 158 06/24/20 17:34
1,2,3-Trichloropropane ug/kg <37.4 125 06/24/20 17:34
1,2,4-Trichlorobenzene ug/kg <41.7 250 06/24/20 17:34
1,2,4-Trimethylbenzene ug/kg <18.1 60.0 06/24/20 17:34
1,2-Dibromo-3-chloropropane ug/kg <237 789 06/24/20 17:34
1,2-Dibromoethane (EDB) ug/kg <17.0 57.0 06/24/20 17:34
1,2-Dichlorobenzene ug/kg <13.1 50.0 06/24/20 17:34
1,2-Dichloroethane ug/kg <13.8 50.0 06/24/20 17:34
1,2-Dichloropropane ug/kg <13.5 50.0 06/24/20 17:34
1,3,5-Trimethylbenzene ug/kg <16.0 53.0 06/24/20 17:34
1,3-Dichlorobenzene ug/kg <13.0 50.0 06/24/20 17:34
1,3-Dichloropropane ug/kg <11.0 50.0 06/24/20 17:34
1,4-Dichlorobenzene ug/kg <12.0 50.0 06/24/20 17:34
2,2-Dichloropropane ug/kg <15.7 52.0 06/24/20 17:34
2-Chlorotoluene ug/kg <19.3 64.0 06/24/20 17:34
4-Chlorotoluene ug/kg <19.3 64.0 06/24/20 17:34
Benzene ug/kg <12.5 42.0 06/24/20 17:34
Bromobenzene ug/kg <18.5 62.0 06/24/20 17:34
Bromochloromethane ug/kg <20.9 70.0 06/24/20 17:34
Bromodichloromethane ug/kg <10.0 50.0 06/24/20 17:34
Bromoform ug/kg <21.6 72.0 06/24/20 17:34
Bromomethane ug/kg <63.8 250 06/24/20 17:34
Carbon tetrachloride ug/kg <7.5 50.0 06/24/20 17:34
Chlorobenzene ug/kg <16.8 56.0 06/24/20 17:34
Chloroethane ug/kg <46.4 250 06/24/20 17:34
Chloroform ug/kg <47.5 250 06/24/20 17:34
Chloromethane ug/kg <24.0 80.0 06/24/20 17:34
cis-1,2-Dichloroethene ug/kg <14.8 50.0 06/24/20 17:34
cis-1,3-Dichloropropene ug/kg <42.3 141 06/24/20 17:34
Dibromochloromethane ug/kg <229 763 06/24/20 17:34
Dibromomethane ug/kg <17.7 59.0 06/24/20 17:34
Dichlorodifluoromethane ug/kg <21.7 72.0 06/24/20 17:34
Diisopropyl ether ug/kg <14.0 50.0 06/24/20 17:34

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

## **REPORT OF LABORATORY ANALYSIS**



Project: 397009.0000 LADYSMITH PHASE 2.

Pace Project No.: 40209920

#### METHOD BLANK: 2073457 Matrix: Solid Associated Lab Samples: 40209920003, 40209920004 Blank Reporting Parameter Result Limit Analyzed Qualifiers Units Ethylbenzene ug/kg <14.5 50.0 06/24/20 17:34 Hexachloro-1,3-butadiene <68.7 229 06/24/20 17:34 ug/kg Isopropylbenzene (Cumene) <17.7 59.0 06/24/20 17:34 ug/kg m&p-Xylene <32.4 108 06/24/20 17:34 ug/kg Methyl-tert-butyl ether 54.0 06/24/20 17:34 ug/kg <16.2 Methylene Chloride ug/kg <26.3 88.0 06/24/20 17:34 n-Butylbenzene ug/kg <30.0 100 06/24/20 17:34 n-Propylbenzene ug/kg <17.8 59.0 06/24/20 17:34 Naphthalene ug/kg <27.3 91.0 06/24/20 17:34 60.0 06/24/20 17:34 o-Xylene ug/kg <18.1 p-Isopropyltoluene ug/kg <21.7 72.0 06/24/20 17:34 ug/kg sec-Butylbenzene <21.5 72.0 06/24/20 17:34 <12.3 50.0 06/24/20 17:34 Styrene ug/kg tert-Butylbenzene <18.7 62.0 06/24/20 17:34 ug/kg Tetrachloroethene ug/kg <38.7 129 06/24/20 17:34 Toluene ug/kg <13.1 50.0 06/24/20 17:34 trans-1,2-Dichloroethene ug/kg <20.2 67.0 06/24/20 17:34 trans-1,3-Dichloropropene ug/kg <22.2 74.0 06/24/20 17:34 Trichloroethene ug/kg <12.8 50.0 06/24/20 17:34 Trichlorofluoromethane ug/kg <19.6 65.0 06/24/20 17:34 <14.5 Vinyl chloride ug/kg 50.0 06/24/20 17:34 4-Bromofluorobenzene (S) % 90 52-137 06/24/20 17:34 Dibromofluoromethane (S) % 95 58-145 06/24/20 17:34 Toluene-d8 (S) % 98 56-140 06/24/20 17:34

#### LABORATORY CONTROL SAMPLE: 2073458

	2010100					
		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
1,1,1-Trichloroethane	ug/kg	2500	2700	108	70-130	
,1,2,2-Tetrachloroethane	ug/kg	2500	2700	108	70-130	
,1,2-Trichloroethane	ug/kg	2500	2550	102	70-130	
,1-Dichloroethane	ug/kg	2500	2650	106	69-143	
,1-Dichloroethene	ug/kg	2500	2430	97	73-118	
,2,4-Trichlorobenzene	ug/kg	2500	2410	97	60-130	
,2-Dibromo-3-chloropropane	ug/kg	2500	2480	99	66-130	
,2-Dibromoethane (EDB)	ug/kg	2500	2450	98	70-130	
,2-Dichlorobenzene	ug/kg	2500	2490	100	70-130	
,2-Dichloroethane	ug/kg	2500	2520	101	70-130	
,2-Dichloropropane	ug/kg	2500	2500	100	78-126	
,3-Dichlorobenzene	ug/kg	2500	2470	99	70-130	
,4-Dichlorobenzene	ug/kg	2500	2380	95	70-130	
Benzene	ug/kg	2500	2450	98	70-130	
Bromodichloromethane	ug/kg	2500	2510	100	70-130	
Bromoform	ug/kg	2500	2150	86	67-130	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

## **REPORT OF LABORATORY ANALYSIS**



Project: 397009.0000 LADYSMITH PHASE 2.

Pace Project No.: 40209920

#### LABORATORY CONTROL SAMPLE: 2073458

		Spike	LCS	LCS	% Rec	
Parameter	Units	Conc.	Result	% Rec	Limits	Qualifiers
Bromomethane	ug/kg	2500	2450	98	45-134	
Carbon tetrachloride	ug/kg	2500	2560	102	70-130	
Chlorobenzene	ug/kg	2500	2450	98	70-130	
Chloroethane	ug/kg	2500	2570	103	58-143	
Chloroform	ug/kg	2500	2490	100	76-122	
Chloromethane	ug/kg	2500	1970	79	45-120	
cis-1,2-Dichloroethene	ug/kg	2500	2520	101	69-130	
cis-1,3-Dichloropropene	ug/kg	2500	2200	88	70-130	
Dibromochloromethane	ug/kg	2500	2250	90	70-130	
Dichlorodifluoromethane	ug/kg	2500	1600	64	26-99	
thylbenzene	ug/kg	2500	2500	100	80-120	
opropylbenzene (Cumene)	ug/kg	2500	2440	98	70-130	
n&p-Xylene	ug/kg	5000	5000	100	70-130	
lethyl-tert-butyl ether	ug/kg	2500	2440	98	70-130	
lethylene Chloride	ug/kg	2500	2320	93	70-130	
-Xylene	ug/kg	2500	2530	101	70-130	
Styrene	ug/kg	2500	2490	100	70-130	
etrachloroethene	ug/kg	2500	2420	97	70-130	
oluene	ug/kg	2500	2530	101	80-120	
rans-1,2-Dichloroethene	ug/kg	2500	2620	105	70-130	
rans-1,3-Dichloropropene	ug/kg	2500	2180	87	70-130	
richloroethene	ug/kg	2500	2510	100	70-130	
richlorofluoromethane	ug/kg	2500	2440	98	70-128	
'inyl chloride	ug/kg	2500	2120	85	53-110	
-Bromofluorobenzene (S)	%			89	52-137	
Dibromofluoromethane (S)	%			98	58-145	
Toluene-d8 (S)	%			93	56-140	

MATRIX SPIKE & MATRIX SP	PIKE DUPL	CATE: 2073	459		2073460							
			MS	MSD								
		40209941007	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
1,1,1-Trichloroethane	ug/kg	<25.0	1690	1690	1670	1820	99	108	66-130	9	20	
1,1,2,2-Tetrachloroethane	ug/kg	<25.0	1690	1690	1860	1750	110	104	70-133	6	20	
1,1,2-Trichloroethane	ug/kg	<25.0	1690	1690	1670	1680	99	99	70-130	1	20	
1,1-Dichloroethane	ug/kg	<25.0	1690	1690	1690	1680	100	99	69-143	1	20	
1,1-Dichloroethene	ug/kg	<25.0	1690	1690	1310	1280	78	76	58-120	3	20	
1,2,4-Trichlorobenzene	ug/kg	<41.7	1690	1690	1670	1600	99	95	60-130	5	20	
1,2-Dibromo-3- chloropropane	ug/kg	<237	1690	1690	1620	1640	96	97	59-136	1	20	
1,2-Dibromoethane (EDB)	ug/kg	<25.0	1690	1690	1720	1700	102	101	70-130	1	20	
1,2-Dichlorobenzene	ug/kg	<25.0	1690	1690	1700	1670	101	99	70-130	2	20	
1,2-Dichloroethane	ug/kg	<25.0	1690	1690	1610	1690	95	100	70-136	5	20	
1,2-Dichloropropane	ug/kg	<25.0	1690	1690	1650	1600	98	95	78-128	3	20	
1,3-Dichlorobenzene	ug/kg	<25.0	1690	1690	1680	1580	99	94	70-130	6	20	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

## **REPORT OF LABORATORY ANALYSIS**



Project: 397009.0000 LADYSMITH PHASE 2.

Pace Project No.: 40209920

MATRIX SPIKE & MATRIX SP	IKE DUPLI	CATE: 2073			2073460							
			MS	MSD								
		40209941007	Spike	Spike	MS	MSD	MS	MSD	% Rec		Max	
Parameter	Units	Result	Conc.	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qual
1,4-Dichlorobenzene	ug/kg	<25.0	1690	1690	1590	1620	94	96	70-130	1	20	
Benzene	ug/kg	<25.0	1690	1690	1590	1580	94	94	70-130	1	20	
Bromodichloromethane	ug/kg	<25.0	1690	1690	1520	1640	90	97	70-130	8	20	
Bromoform	ug/kg	<25.0	1690	1690	1640	1630	97	97	63-130	1	20	
Bromomethane	ug/kg	<63.8	1690	1690	1110	1180	66	70	33-146	6	20	
Carbon tetrachloride	ug/kg	<25.0	1690	1690	1530	1660	91	98	65-130	8	20	
Chlorobenzene	ug/kg	<25.0	1690	1690	1650	1620	98	96	70-130	2	20	
Chloroethane	ug/kg	<46.4	1690	1690	1320	1290	78	77	46-156	2	20	
Chloroform	ug/kg	<47.5	1690	1690	1620	1670	96	99	75-130	3	20	
Chloromethane	ug/kg	<25.0	1690	1690	791	758	47	45	20-139	4	20	
cis-1,2-Dichloroethene	ug/kg	43.6J	1690	1690	1690	1700	97	98	69-130	1	20	
cis-1,3-Dichloropropene	ug/kg	<42.3	1690	1690	1510	1520	89	90	70-130	1	20	
Dibromochloromethane	ug/kg	<229	1690	1690	1630	1690	97	100	70-130	4	20	
Dichlorodifluoromethane	ug/kg	<25.0	1690	1690	504	464	30	27	10-99	8	22	
Ethylbenzene	ug/kg	<25.0	1690	1690	1610	1630	95	97	80-120	2	20	
Isopropylbenzene (Cumene)	ug/kg	<25.0	1690	1690	1600	1640	95	97	70-130	2	20	
m&p-Xylene	ug/kg	<50.0	3380	3380	3310	3300	98	98	70-130	0	20	
Methyl-tert-butyl ether	ug/kg	<25.0	1690	1690	1570	1700	93	100	70-130	8	20	
Methylene Chloride	ug/kg	<26.3	1690	1690	1490	1410	88	84	70-136	5	20	
o-Xylene	ug/kg	<25.0	1690	1690	1660	1670	98	99	70-130	1	20	
Styrene	ug/kg	<25.0	1690	1690	1600	1630	95	97	70-130	2	20	
Toluene	ug/kg	<25.0	1690	1690	1650	1620	98	96	80-120	1	20	
trans-1,2-Dichloroethene	ug/kg	<25.0	1690	1690	1610	1660	95	98	70-130	3	20	
trans-1,3-Dichloropropene	ug/kg	<25.0	1690	1690	1530	1570	90	93	70-130	3	20	
Trichloroethene	ug/kg	205	1690	1690	1750	1860	91	98	70-130	6	20	
Trichlorofluoromethane	ug/kg	<25.0	1690	1690	1340	1330	79	79	53-128	0	20	
Vinyl chloride	ug/kg	<25.0	1690	1690	955	949	57	56	32-118	1	20	
4-Bromofluorobenzene (S)	%						91	94	52-137			
Dibromofluoromethane (S)	%						113	111	58-145			
Toluene-d8 (S)	%						101	103	56-140			

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

### **REPORT OF LABORATORY ANALYSIS**



Project:	397009.0000 LAD	YSMITH PHASE 2.									
Pace Project No .:	40209920										
QC Batch:	358532		Analysi	s Method:	W		RO				
QC Batch Method:	WI MOD DRO		Analysi	s Description	on: W	IDRO G	CS				
			Labora	tory:	Pa	ace Anal	tical Ser	vices - Gree	en Bay		
Associated Lab Sam	nples: 402099200	001, 40209920002,	402099200	004, 40209	920005						
METHOD BLANK:	2073454		N	latrix: Solic	ł						
Associated Lab Sam	nples: 402099200	001, 40209920002,	402099200	004, 40209	920005						
			Blank	Re	porting						
Param	neter	Units	Result		Limit	Ana	lyzed	Qualifi	ers		
Diesel Range Organ	nics	mg/kg		<1.3	4.4	06/25/	20 07:57				
LABORATORY CON	NTROL SAMPLE &	LCSD: 2073455		20	073456						
			Spike	LCS	LCSD	LCS	LCSD	% Rec		Max	
Param	neter	Units	Conc.	Result	Result	% Rec	% Rec	Limits	RPD	RPD	Qualifiers
Diesel Range Organ	nics	mg/kg	40	34.3	32.0	86	80	70-120		7	20

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: Pace Project No.:	397009.0000 LADYSM 40209920	11TH PHASE 2	2.						
QC Batch:	359311		Analysis Meth	od:	ASTM D2974	-87			
QC Batch Method:	ASTM D2974-87		Analysis Desc	cription:	Dry Weight/P	ercent M	loisture		
			Laboratory:		Pace Analytic	al Servio	es - Gree	en Bay	
Associated Lab Sat	mples: 40209920001								
SAMPLE DUPLICA	TE: 2078245								
			40209889009	Dup			Max		
Para	meter	Units	Result	Result	RPD		RPD	Qualifier	S
Percent Moisture		%	6.6		6.8	3		10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



Project: Pace Project No.:	397009.0000 LADY 40209920	SMITH PHASE	2.					
QC Batch:	359312		Analysis Meth	od:	ASTM D2974-87	,		
QC Batch Method:	ASTM D2974-87		Analysis Desc	ription:	Dry Weight/Perc	ent Moisture		
			Laboratory:		Pace Analytical	Services - Gree	en Bay	
Associated Lab Sar	mples: 4020992000	02, 4020992000	3, 40209920004, 40	209920005				
SAMPLE DUPLICA	TE: 2078253							
			40210525003	Dup		Max		
Parar	neter	Units	Result	Result	RPD	RPD	Qualifiers	
Percent Moisture		%	19.0	18	.6	2	10	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.



### QUALIFIERS

Project: 397009.0000 LADYSMITH PHASE 2.

Pace Project No.: 40209920

#### DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above LOD.

J - Estimated concentration at or above the LOD and below the LOQ.

LOD - Limit of Detection adjusted for dilution factor, percent moisture, initial weight and final volume.

LOQ - Limit of Quantitation adjusted for dilution factor, percent moisture, initial weight and final volume.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected at or above the adjusted LOD.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The NELAC Institute.

### ANALYTE QUALIFIERS

- DC Chromatographic pattern inconsistent with typical Diesel Fuel.
- W Non-detect results are reported on a wet weight basis.



## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 397009.0000 LADYSMITH PHASE 2.

Pace Project No.: 40209920

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
40209920001	GP-01 (2.5-5)	WI MOD DRO	358532	WI MOD DRO	358586
40209920002	GP-02 (2.5-5)	WI MOD DRO	358532	WI MOD DRO	358586
40209920004	GP-04 (2.5-5)	WI MOD DRO	358532	WI MOD DRO	358586
40209920005	GP-05 (0-2.5)	WI MOD DRO	358532	WI MOD DRO	358586
40209920001	GP-01 (2.5-5)	TPH GRO/PVOC WI ext.	358368	WI MOD GRO	358406
40209920002	GP-02 (2.5-5)	TPH GRO/PVOC WI ext.	358368	WI MOD GRO	358406
40209920004	GP-04 (2.5-5)	TPH GRO/PVOC WI ext.	358368	WI MOD GRO	358406
40209920005	GP-05 (0-2.5)	TPH GRO/PVOC WI ext.	358368	WI MOD GRO	358406
40209920001	GP-01 (2.5-5)	EPA 3050	358550	EPA 6010	358700
40209920002	GP-02 (2.5-5)	EPA 3050	358550	EPA 6010	358700
40209920004	GP-04 (2.5-5)	EPA 3050	358550	EPA 6010	358700
40209920005	GP-05 (0-2.5)	EPA 3050	358550	EPA 6010	358700
40209920003	GP-03 (0-2.5)	EPA 5035/5030B	358533	EPA 8260	358534
40209920004	GP-04 (2.5-5)	EPA 5035/5030B	358533	EPA 8260	358534
40209920001	GP-01 (2.5-5)	ASTM D2974-87	359311		
40209920002	GP-02 (2.5-5)	ASTM D2974-87	359312		
40209920003	GP-03 (0-2.5)	ASTM D2974-87	359312		
40209920004	GP-04 (2.5-5)	ASTM D2974-87	359312		
40209920005	GP-05 (0-2.5)	ASTM D2974-87	359312		

spec	Fax:	Telephone:	Email #2:	Transmit Prel		Rush Tu (Rush T	) - 1				QU2	PUY	5	6	100	PACE LAB #	ב ק	] []	Data Pack	PO #:	Sampled By (Sign):	Sampled By (Print):	Project State:	Project Name:	Project Number:	Phone:	Project Contact:	Branch/Location:	Company Name:	
Samples on HOLD are subject to special pricing and release of liability				Transmit Prelim Rush Results by (complete what you want): all #1·	Date Needed:	(Rush TAT subject to approval/surcharge)					(c.7-0) CA 10		- 03 (0-2	1	(mp-01 (2.5-5)	CLIENT FIELD ID	EPA Level IV Vour needed on s your sample s	(billable)			di 22 -	(Print): Liz Horrning-	18: 19	ne: Ladusmith Phase 2.5	mber: 397009.0000	E860- 4 5 C- 809	Mact LIZ Hoerning	ation: Madison, W1	Name: TRC	(Please Print Clearly)
Relinquished By:		Relinquished By:	Kenndhistied by:		Relinquished By:	Relinquished By:					×10 13.15 3	110 12:45		6118 11:35 S	S 04:11 81/9	COLLECTION MATRIX	= Soil WW = Waste Water I = Sludge WP = Wipe	B = Biota DW = Drinking Water C = Charcoal GW = Ground Water D = Oil SW = Stuffson Water	Matrix Codes	Regulatory Program:		PRESERVATION (CODE)*	FILTERED? (YES/NO)		A=None	   				
Date/Time:		Date/Time	Uate/1ime:	010010	Date/Tin	Date/Time:					×	×		×	×	р Р Ч	10 C		Requ a pH			Letter T F	Z Z	H=Sodium Bisulfate Solution I=Sodium Thiosulfate	*Preservation Codes B=HCL C=H2SO4 D=HNO3 E=DI Water	CHAIN OF CUSTOD		Pace Analytical		٢
				1035	)	.0 3:20 pm					7 _7 _7		• • •	× × ×	×××	ľ.	arc DR ea	0					2 2	niosulfate J=Other	n Codes E=DI Water F=Methanol	CUSTOD				E
Received By:		Received By:	ived By:	Controll 1		Received By:							-												G=NaOH	Ϋ́			MN: 612-607-1700 WI: 920-469-2436	UPPER MIDWEST REGION
Date/Time:		Date/Time:	Date/Time:	SCOI ORDER DAY IG	2	Date/Time:							bottles			COMMENTS	CLIENT	Invoice To Phone:		Invoice To Address:	Invoice To Company:	Invoice To Contact:		Mail To Address:	Mail To Company:	Mail To Contact:	Quote #:		<b>WI:</b> 920-469-2436	<u>-Gion</u>
Present / Not Present	Cooler Custody Seal	OK / Adjusted	Sample Receipt pH	õ	A (Mak											(Lab Use Only)	LAB COMMENTS											100999		Page 1
Present Intact	dy Seal	Ited	1														Profile #											) je 28		<b>ਰ</b>

C019a(27Jun2006)

ORIGINAL

All containers needing preservation have been checked and noted below. □Yes □No	have been checked and noted below: Lab Lot# of pH paper:	N/A	Lab Std #ID of preservation (if pH adjusted):	usted):	Initial when completed:	Date/ Time:
						ed
Glass	Plastic	Vials	Jars	General	≤2 Act p ≥12	
1U 1U 1H 4S 4U 5U 2S	3U 1U 3U 3B 3N 3S	9A 9T 9U 9H 9M	9D FU 9U 3FU YFU	5T LC	\ <b>Vials</b> O4 pH H+Zn H pH ≥ )3 pH ≤	ifter ad
B( A( A( A(	B( Bl Bl Bl		M Jo	S	VC H2 Na	p⊢
		0.				2.5
002		<u>କ</u>				2.5/5/10
003						2.5/5/10
			-			2.5/5/10
			-			2.5/5/10
			-			2.5/5/10
						2.5 / 5 / 10
						2.5/5/10
						2.5 / 5 / 10
						2.5/5/10
						2.5/5/10
	/		-			2.5/5/10
	/					2.5 / 5 / 10
						2.5/5/
015		/		**		2.5/5
016		/	J A AND	8		2.5/5
017		/	M X M			2.5/5/
			/ £			2.5 / 5 / 10
019			/			2.5 / 5 / 10
020						2.5/5/10
Exceptions to preservation check: VOA, Coliform, TOC	bliform, TOC, TOX, TOH, O&G, WI DRO,	DRO, Phenolics, Other:	Headspace in VOA V	ials (>6mm) : □Y	Headspace in VOA Vials (>6mm) : □Yes □No Ki/A *If yes look in headspace column	idspace colum
AG1U 1 liter amber glass	a filmer	VG9A	L clear ascorbic		4 oz amber jar unpres 9 oz amber iar unpres	
			40 ml clear vial linnres	4 (	4 oz clear iar unpres	
AG1H 1 litter amber glass HCL AG4S 125 mL amber glass H2SO4	BP3N 250 mL plastic HNO3	H69A	40 mL clear vial unpres		4 oz plastic jar unpres	
AG4U 120 mL amber glass unpres		M65A	40 mL clear vial MeOH		120 mL plastic Na Thiosulfate	
AG5U 100 mL amber glass unpres			40 mL clear vial Di		zipioc bag	

ac.ac.a

Pace Analytical"	Document Na Sample Condition Upon	Receipt (SCUR)	Documer	t Revised:	25Apr2018
241 Bellevue Street, Green Bay, WI 54302	Document No.: F-GB-C-031-Rev.07		Issuing Authority: Pace Green Bay Quality Office		
Sample Co	ondition Upon Rec	eipt Form (S			
Client Name:		- •	-	1100 0	a 90 m
		P(	oject #	4020	1100
Additional Comments/Resolution:	the second s	· · ·			
<u>Iclumes upon receipt (g)</u> 03-27.01, 004-27.57,00	: 001-24.49-1	302-246	51 bet	h ìกรูเ	Avien
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Pace Analytical <sup>®</sup>		nent Name: n Upon Receipt (SCUF	Document Revised: 26Mar2020	
	Docu	ument No.:	Author:	
1241 Bellevue Street, Green Bay, WI 54	302 ENV-FRM-G	BAY-0014-Rev.00	Pace Green Bay Quality Office	
Samp	e Condition Upo	n Receipt Form (	SCUR)	
Client Name: <u>TRC</u>		and the second	JO#:40209920	
Courier: CS Logistics Fed Ex Spe Client Pace Other:	edee 🗖 UPS 🗖 W	/altco		
Custody Seal on Cooler/Box Present: Ve	) 645 s	 Z∕yes ⊏ no		· · ·
Custody Seal on Samples Present: [ yes	no Seals intact:	 ⊑ves ⊑no	<u> </u>	
Packing Material: 7 Bubble Wrap 7 B	ubble Bags 🔲 None	Other		
Thermometer Used' <u>SR - MA</u>	Type of Ice: Wet	Blue Dry None	Samples on ice, cooling process has be	egun
Cooler Temperature Uncorr: Rotticorr			Person examining cor	
Temp Blank Present: Tyes Tho	Biological T	issue is Frozen: 🔽 y	es no Date:	Enru
Femp should be above freezing to 6°Ć. Biota Samples may be received at ≤ 0°C if shipped o	n Dry Ice.		Labeled By Initials: M	IR
Chain of Custody Present:	ØYes □No □N/A	1+ CC	ollection year Mullo-20.70	There
Chain of Custody Filled Out:	□Yes ZNo □N/A	2 Alo Datt	Mail to when	6 Spine
Chain of Custody Relinquished:	ZYes □No □N/A	- Nopg+/	1 an phosice	6120
Sampler Name & Signature on COC:			<u>na sun til de de sun de la sea de la sea</u> Segundo de la segundo de la se	
Samples Arrived within Hold Time:				
- VOA Samples frozen upon receipt		5.		
		Date/Time:		· .
Short Hold Time Analysis (<72hr):		6.		
Rush Turn Around Time Requested:		7. A. A		
For Analysis: Pres Pro UMS/M	SD: □Yes Kno □N/A	For 005	al for GRD and PVC 003 W6FU received	50 Sm (42
Correct Containers Used:	Yes No	9.		
-Pace Containers Used:	ZYes □No □N/A			
-Pace IR Containers Used:				
Containers Intact: 5/WW 6/20/7		10. 1 V69m re	ceived broken for 00	5 Sm
iltered volume received for Dissolved tests			MIGHUM TO DO	2 UJ
Sample Labels match COC: ()		12.002 IVia	il no death	
-Includes date/time/ID/Analysis Matrix:	$\leq$		I writing unreaded	10 Ent
rip Blank Present:		13 object by	other barned and and	
rip Blank Custody Seals Present		process	other bagged contents	In
ace Trip Blank Lot # (if purchased):				6/20
lient Notification/ Resolution:		If check	ed, see attached form for additional comm	ents M
Person Contacted:	Date/T	ime:		
Comments/Resolution: (1) year 70° P urte on CCC to accord extra	bittles" with	005 WGFU + 001	price to male of Mu	16-70
			<u>er en </u>	
				· · · · · · · · · · · · · · · · · · ·
M Review is documented electronically in L	IMs. By releasing the p	roject, the PM acknov	ledges they have reviewed the sam	nple logir
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			i-702 Sage 7	Pate Tot
			6-00 2	43



# Appendix F: Waste Disposal Documentation



## NON-HAZARDOUS WASTE INVENTORY RECORD

Wisconsin Department of Transportation DT1229 6/2016 (For use with DT1208)

DTSD Region and Office		
Northwest - Eau Claire		
WisDOT Project ID	County	Highway and Termini
1580-31-00	Rusk	USH 8
Site Name		Phase of Investigation
Various Sites along USH 8 be	tween W 8 <sup>th</sup> St and River Ave E.	2.5
Consultant Company		
TRC Environmental		
Consultant Contact		
Liz Hoerning		
Contact (Area Code) Telephone Numl	ber	
608-234-0987		
Contact Email Address		
Ihoerning@trccompanies.com		
Consultant ID for this Site		
397009		
Generation Date (m/d/yyyy)		
6/18/2020		
Comments, special instructions for pic	kup or site access	
Bucket placed next to side sou	uthwest side of front garage	

Waste Description – describe containers of similar size and contents in one row. Insert additional rows as needed. *Number and Label Each Container.* 

Container ID Number	Container Size and Type	Estimated Volume of Waste	Source: Tank, Well, Boring	Contents: Soil, Water, Other (Describe)
Example: 1, 4, 5, 6, 7, 18, 22, 23	Example: 30 gallon metal drum	Example: 8 drums x 30 gal = 240 gallons	Example: monitoring wells # MW3, MW4, and MW7	Example: wash water, alconox
1	5 gallon bucket	5 gallons	Soil borings GP-01 thorough GP-05	soil

Total Number of Containers to be picked up: 1

Container Location: Attach map or site sketch to Email

Analytical Results: Attach analytical results to Email

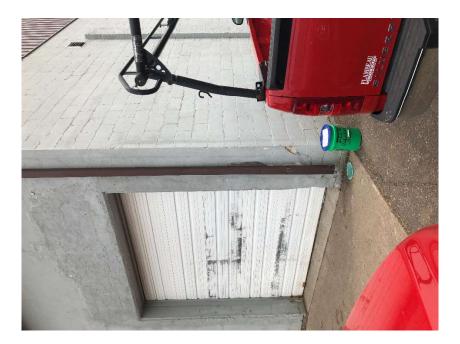
Email one copy of this form to each of the following:

- DOT Hazardous Materials Specialist
- Regional Environmental or Hazardous Materials Coordinator
- Hazardous Waste Contractor

Include a copy of this form as the final appendix in the report for this site.









**Appendix G: Special Provisions** 

## Excavation, Hauling, and Disposal of Petroleum Contaminated Soil, Item

## A Description

## A.1 General

This special provision describes excavating, loading, hauling, treatment, and disposing of contaminated soil at a DNR approved bioremediation and disposal facility. The closest DNR approved disposal facilities are:

Waste Management Timberline Trail RDF N4581 Hutchinson Road Weyerhaeuser, WI 54895

Seven Mile Creek Landfill 8001 Olson Drive Eau Claire, WI 547030

Perform this work in accordance to standard spec 205 and with pertinent parts of Chapters NR 700-754 of the Wisconsin Administrative Code, as supplemented herein. Per NR 718.07, a solid waste collection and transportation service-operating license is required under NR 502.06 for each vehicle used to transport contaminated soil.

## A.2 Notice to the Contractor – Contaminated Soil and Groundwater Locations

The department completed testing for soil contamination for locations within this project where excavation is required.

Contaminated soil is potentially present at the following locations:

1. Site 6 (Former Gas Station) - Station 343+10 to 343+70, from reference line to limits on RT

Contaminated soils and/or underground storage tanks (USTs) may be encountered at other locations within the construction limits. If contaminated soils and/or USTs are encountered elsewhere on the project, terminate excavation activities in the area and notify the engineer and the environmental consultant. Contaminated soil at other locations shall be managed by the contractor under this contract. USTs will be removed by others.

For further information regarding previous investigation and remediation activities at these sites contact:

Name:	Daniel Haak
Address:	TRC Environmental Corporation
	708 Heartland Trail, Suite 3000, Madison, WI 53717
Phone:	(608) 826-3628
Fax:	(608) 826-3941
e-mail:	dhaak@trccompanies.com

## A.3 Coordination

Coordinate work under this Contract with the environmental consultant retained by the department:

Consultant:	TRC Environmental Corporation
Contact:	Mr. Dan Haak
Address:	708 Heartland Trail, Suite 3000, Madison, WI 53717
Phone:	(608) 826-3628
Fax:	(608) 826-3941
e-mail:	dhaak@trccompanies.com

The role of the environmental consultant will be limited to:

- 1. Determining the location and limits of contaminated soil to be excavated based on soil analytical results from previous investigations, visual observations, and field screening of soil that is excavated;
- 2. Identifying contaminated soils to be hauled to the disposal facility;
- 3. Documenting that activities associated with management of contaminated soil are in conformance with the contaminated soil management methods for this project as specified herein; and
- 4. Obtaining the necessary approvals for disposal of contaminated soil from the disposal facility.

Provide at least a 14-calendar day notice of the preconstruction conference date to the environmental consultant. At the preconstruction conference, provide a schedule for all excavation activities in the areas of contamination to the environmental consultant. Also notify the environmental consultant at least three calendar days prior to commencement of excavation activities in each of the contaminated areas.

Identify the DNR approved disposal facility that will be used for disposal of contaminated soils, and provide this information to the environmental consultant no later than 30 calendar days prior to commencement of excavation activities in the contaminated areas or at the preconstruction conference, whichever comes first. The environmental consultant will be responsible for obtaining the necessary approvals for disposal of contaminated soils from the disposal facility.

Coordinate with the environmental consultant to ensure that the environmental consultant is present during excavation activities in the contaminated areas. Perform excavation work in each of the contaminated areas on a continuous basis until excavation work is completed. Do not transport contaminated soil or pump contaminated groundwater offsite without prior approval from the environmental consultant.

## A.4 Protection of Groundwater Monitoring Wells

Groundwater monitoring wells may be present within the construction limits. Protect all groundwater monitoring wells to maintain their integrity. Adjust wells that do not conflict

with utilities, structures, curb and gutter, etc.to be flush with the final grade. For wells that conflict with the previously mentioned items, notify the environmental consultant, and coordinate with the environmental consultant for the abandonment or adjustment of the wells by others. The environmental consultant will provide maps indicating the locations of all known monitoring wells, if requested by the contractor.

## A.5 Excavation Management Plan Approval

The excavation management plan for this project has been designed to minimize the off-site disposal of contaminated material. The excavation management plan, including these special provisions, has been developed in cooperation with the WDNR. The WDNR's concurrence letter is on file at the Wisconsin Department of Transportation. For further information regarding the investigations, including waste characterization within the project limits, contact Aaron Gustafson with the department, at (715) 817-0407.

## A.6 Health and Safety Requirements

Subsection 107.1 of the Standard Specifications is supplemented with the following:

During excavation activities, expect to encounter soil contaminated with gasoline, diesel fuel, fuel oil, or other petroleum related products; polycyclic aromatic hydrocarbons; and metals. Site workers taking part in activities that will result in the reasonable probability of exposure to safety and health hazards associated with hazardous materials shall have completed health and safety training that meets the Occupational Safety and Health Administration (OSHA) requirements for Hazardous Waste Operations and Emergency Response (HAZWOPER), as provided in 29 CFR 1910.120.

Prepare a site-specific Health and Safety Plan, and develop, delineate and enforce the health and safety exclusion zones for each contaminated site location as required by 29 CFR 1910.120. Submit the site-specific health and safety plan and written documentation of up-to-date OSHA training to the engineer prior to the start of work.

Disposal of contaminated soil at the bioremediation and disposal facility is subject to the facility's safety policies.

## **B** (Vacant)

## **C** Construction

Supplement standard spec 205.3 with the following:

The environmental consultant will periodically examine excavated soil during excavations in the areas of known soil contamination within the construction limits.

Control operations in the contaminated areas to minimize the quantity of contaminated soil excavated and to ensure that excavations do not extend beyond the minimum required to construct utilities and highway improvements unless expressly directed to do so by the engineer.

The environmental consultant will periodically evaluate soil excavated from the contaminated areas to determine if the soil will require offsite disposal or can be beneficially re-used onsite. The environmental consultant will evaluate excavated soil based on field screening results, visual observations, and soil analytical results from previous environmental investigations. Assist the environmental consultant in collecting soil samples for evaluation using excavation equipment. The sampling frequency shall be a maximum of one sample for every 20 cubic yards excavated.

On the basis of the results of such field-screening, the material will be designated for disposal as follows:

- Excavation Common consisting of clean soil and/or clean construction and demolition fill (such as clean soil, boulders, concrete, reinforced concrete, bituminous pavement, bricks, building stone, and unpainted or untreated wood), which under NR 500.08 are exempt materials, or
- Low-level contaminated material for reuse as fill within the construction limits, or
- Contaminated soil for off-site treatment and disposal at the WDNR-licensed disposal facility, or
- Potentially contaminated for temporary stockpiling and additional characterization prior to disposal

Some material may require additional characterization prior to disposal. Provide for the temporary stockpiling of up to 100 cubic yards of contaminated soil on-site that require additional characterization. Construct and maintain a temporary stockpile of the material in accordance with NR 718.05(3), including, but not limited to, placement of the contaminated soil/fill material on an impervious surface and covering the stockpile with impervious material to prevent infiltration of precipitation. The Department's environmental consultant will collect representative samples of the stockpiled material, laboratory-analyze the samples, and advise the contractor, within 10 business days of the construction of the stockpile, of disposal requirements. The stockpiled material shall be disposed either at the WDNR-licensed disposal facility by the contractor or, if characterized as hazardous waste, by the Department. As an alternative to temporarily stockpiling contaminated soil/fill material that requires additional characterization, the contractor has the option of suspending excavation in those areas where such soil is encountered until such time as characterization is completed.

Directly load and haul soils designated by the environmental consultant for off-site disposal to the DNR approved disposal facility. Use loading and hauling practices that are appropriate to prevent any spills or releases of contaminated soils or residues. Prior to transport, sufficiently dewater soils designated for off-site disposal so as not to contain free liquids. Verify that the vehicles used to transport contaminated material are licensed for such activity in accordance with applicable state and federal regulations.

When material is encountered outside the above-identified limits of known contamination that appears to have been impacted with petroleum products, or when other obvious potentially contaminated materials are encountered or material exhibits characteristics of industrial-type wastes, such as fly ash, foundry sand, and cinders, or when underground storage tanks are encountered, suspend excavation in that area and notify the Engineer and the Environmental Consultant.

## E Measurement

The department will measure Excavation, Hauling, and Disposal of Petroleum Contaminated Soil in tons of contaminated soil accepted by the disposal facility as documented by weight tickets generated by the disposal facility.

## **F** Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
	Excavation, Hauling, and Disposal of Petroleum	Ton
	Contaminated Soil	

Payment is full compensation for excavating, segregating, loading, hauling, treatment, and disposal of contaminated soil; tipping fees including applicable taxes and surcharges; obtaining solid waste collection and transportation service operating licenses; assisting in the collection soil samples for field evaluation; dewatering of soils prior to transport, if necessary; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work in accordance with the Contract.