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October 6, 2014

Mr. Tauren Beggs
Wisconsin Department of Natural Resources
2984 Shawano Avenue
Green Bay, WI 54313-6727

Subject: Contaminated Soil Management Documentation Report
STH 32, Pulaski, Wisconsin
WisDOT ID #9190-13-71

Dear Mr. Beggs:

The attached report documents the contaminated soil management at sites along STH 32 in Pulaski, Wisconsin. The report includes a brief summary of the activities that occurred during the project.

The WisDOT retained TRC to provide construction oversight and services for contaminated soil management during the project

Feel free to call me at (608) 826-3659, or Dan Haak at (608) 826-3628, with any questions.

Sincerely,

TRC Environmental Corporation

Dennis Siewert
Senior Designer

Daniel Haak, P.E.
Project Manager

cc: Kathie VanPrice – WisDOT (hard copy and pdf on CD)
Shar TeBeest – WisDOT (hard copy and pdf on CD)
Jim Morse - TRC

# Contaminated Soil Management Documentation Report

STH 32
Pulaski, Wisconsin

WisDOT ID #9190-13-71

October 2014

# Contaminated Soil Management Documentation Report

## STH 32
## Pulaski, Wisconsin

*WisDOT ID #9190-13-71*

**October 2014**


Dennis Siewert
Senior Designer

Daniel Haak, P.E.
Project Manager

James E. Morse
Senior Client Service Manager





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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 Waste Operations and Emergency Response |
| HMA | 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 |
| WI ERP | Wisconsin Environmental Repair Program database |

# Executive Summary

The WisDOT is completing the reconstruction of STH 32 (Wisconsin St. / Pulaski St. / St. Augustine St.) from the intersection of Green Bay St. and Wisconsin St., to the approximate intersection of Deer Dr. and St. Augustine St., including Pulaski St. from Wisconsin St. to St. Augustine St. (WisDOT Project ID #9190-13-71), in Pulaski, Wisconsin. The Special Provisions describe the management of potentially petroleum-contaminated soil at four sites (2, 3, 5, and 6) along the project corridor, the potential for lead-contaminated soil at one site (6), and the potential for USTs at three sites (3, 4, and 6) along the project corridor.

The WisDOT retained TRC Environmental Corporation (TRC) to provide construction oversight management services for this project during utility excavations within potentially petroleum-contaminated and low level lead contaminated soil. This report summarizes the observations and activities performed by TRC during this project.

TRC observed Peters Concrete Co. (Peters) complete excavations for the installation of new storm sewers, the removal of old storm sewers, and excavation beyond subgrade (EBS) within the limits of potentially petroleum-contaminated soil at 4 sites and low level lead at 1 site. Also, TRC observed Peters excavate nine test pits to approximately 6-feet bgs within areas which were previously identified as areas of potential USTs.

TRC field-screened soil with a PID, and also observed for odors and visual evidence of soil staining. If previous investigations and/or field screening indicated significant petroleum-soil contamination, the soil was hauled to the landfill under the contaminated soil waste profile for treatment and disposal at Advanced Disposal Hickory Meadows Landfill in Hilbert, Wisconsin. A total of 1289.39 tons of petroleum-contaminated soil was taken to the landfill for treatment and disposal. Low-level petroleum-contaminated soil was re-used as backfill in accordance with the Special Provisions. No evidence of a potential source of low-level lead contamination was observed in soils adjacent to Site 6. Groundwater was not encountered at the identified sites during utility construction, and no evidence of USTs were observed within the test pit investigation locations.

The WisDOT has fulfilled their commitment to manage the contaminated soil during the STH 32 reconstruction in Pulaski in accordance with the Special Provision for the project.

On the basis of the results of the field observations, field-screening, and information included in the Special Provision, the WisDOT has properly managed the excavated soil for the new storm sewer line construction, old storm sewer removal, and EBS adjacent to the identified petroleum-contaminated sites on Pulaski Street/STH 32. TRC recommends that the WisDOT take no further action to investigate or remediate soil or groundwater impacts that may remain at these sites.

# Section 1
# Introduction

## 1.1 Background

The WisDOT is completing the reconstruction of STH 32 (Wisconsin St. / Pulaski St. / St. Augustine St.) from the intersection of Green Bay St. and Wisconsin St. to the approximate intersection of Deer Dr. and St. Augustine St., including Pulaski St. from Wisconsin St. to St. Augustine St. (WisDOT Project ID #9190-13-71) in Pulaski, Wisconsin. Highway construction plans are presented in Appendix A, and Special Provisions are presented in Appendix B. The reconstruction included replacement of curb and gutter, sidewalk, and pavement, as well as the installation of new underground utilities (including storm sewer) along STH 32.

A Phase I HMA Report , previously completed by STS Consultants, Ltd. (STS) in June 2007, identified six potential hazardous materials sites along the STH 32 project corridor that were recommended for additional investigations. Based on the investigation and the latest WisDOT plans, TRC investigated the six sites.

On February 25, 2013, TRC completed a Phase 2/2.5 Investigation of the project corridor adjacent to the six sites. The results of the investigation, and the previous Phase 1 HMA along the project corridor, indicate that petroleum-contaminated and potentially low-level lead contaminated soil may exist within the limits of construction at the following four locations:

- **Site 2** - Adjacent to 108 S. St. Augustine Street, from Station 498+75 to 500+00 from reference line to construction limits left and right, and from Station 35+25 to 36+00 (E. Pulaski Street) from reference line to construction limits on the left.
- **Site 3** - Adjacent to 118 E. Pulaski Street, from Station 32+75 to 34+40, from reference line to the construction limits on the left.
- **Site 5** - Adjacent to 113 S. Wisconsin Street, from Station 12+75 to 15+00, from reference line to the construction limits on the left.
- **Site 5 and 6** - Adjacent to 113 S. Wisconsin Street and 104 S. Wisconsin Street, from Station 11+50 to 12+75, from reference line to the construction limits on the left and construction limits on the right.

Historical information collected prior to TRC's investigation, as well as a metal detector survey conducted during the investigation, indicate a potential for USTs to exist at the following locations:

- **Site 3** - Station 32+75 to 33+00 and Station 34+00 to 34+50, from 20-feet left of reference line to limits of construction left.
- **Site 4** - Station 30+50 to 31+25, from 20-feet left of reference line to limits of construction left.
- **Site 6** - Station 299+25 to 299+50, from 20-feet left of reference line to limits of construction left, and Station 12+25 to Station 12+50, from 20-feet right of reference line to limits of construction right.

The WisDOT retained TRC to provide construction oversight and contaminated soil management services for this project.

## 1.2 Purpose

TRC observed the utility contractor, Peters, during utility construction within areas of potential soil contamination. This report summarizes the observations and activities performed by TRC during this project, and documents disposal of contaminated soil from the project corridor.

# Section 2
# Contaminated Soil Management

TRC was on-site periodically during excavation of the sites with potential contamination from April through August 2014.

At sites with potentially petroleum-contaminated soil, TRC field-screened soil with a PID, and also observed for odors and visual evidence of soil staining. Soil field-identified as significant petroleum-contaminated (based on previous investigations and field-screening, including PID >10 ppm), was hauled to the Advanced Disposal-Hickory Meadows Landfill for treatment and disposal. If previous investigations and/or field screening (PID <10 ppm) indicates low-level petroleum contamination, the soil was re-used as backfill.

Petroleum-contaminated soil was encountered during underground utility construction at the intersection of Wisconsin Street and Pulaski Street (Sites 5 and 6), Pulaski Street (Site 3), and at the intersection of Pulaski Street and St. Augustine Street (Site 2).

EBS on Pulaski Street (Site 3) took place between Stations 33+20 and 35+40 from reference line to construction limits left and contained contaminated soil. This soil was removed during construction activities. Following excavation of the contaminated EBS soils, field screening of soils collected from the base indicate that contaminated soil (>10 ppm) exists beneath the road base at this location.

A total of 1289.39 tons of petroleum-contaminated soil was taken to the landfill for treatment and disposal. Field screening PID results including the location of field screening samples are summarized in Table 1. Landfill documentation of petroleum-contaminated soil disposal is attached in Appendix C. Photographs from the project are included in Appendix D.

# Section 3
# Conclusions

TRC completed observation of the contractor's excavations and their management of petroleum-contaminated soil for the WisDOT during the reconstruction of STH 32 in Pulaski, Wisconsin.

TRC field-screened areas of potential petroleum-contaminated soil. Petroleum-contaminated soil was encountered during storm sewer excavations on Wisconsin Street (Site 6), between Stations 11+60 to 12+35, at the intersection of Wisconsin Street and Pulaski Street, on Pulaski Street (Site 3) between Stations 33+45 and 34+00, at the intersection of Pulaski Street and St. Augustine Street (Site 2) and in the EBS on Pulaski Street (Site 3) between Stations 33+20 and 35+40) as identified in the Special Provisions. Following excavation of the EBS soils, soil samples collected from the base indicate that contaminated soil (>10 ppm) exists beneath the road between Stations 33+20 to 35+40 from reference line to construction limits left. A total of 1289.39 tons of soil was taken for treatment and disposal at Advanced Disposal Hickory Meadows Landfill.

Groundwater was not encountered at the sites with potential petroleum contamination. No USTs were encountered during test-pit investigations at the identified locations at Sites 3, 4, and 6. Test pits excavations for the location of potential USTs are presented on Table 1. No evidence of low-level lead-contaminated soil adjacent to 104 S. Wisconsin Street (Site 6) was encountered during the test pit investigation.

The WisDOT has fulfilled their commitment to manage the contaminated soils during the STH 32 reconstruction in Pulaski in accordance with the Special Provision for the project.

On the basis of the results of the field observations, field-screening, and information included in the Special Provision, the WisDOT has properly managed the excavated soil from the new storm sewer line construction and EBS adjacent to the identified petroleum-contaminated sites on STH 32. TRC recommends that the WisDOT take no further action to investigate or remediate soil or groundwater impacts that may remain at the investigated sites.

Table 1
Summary of Soil Field-Screening Results
STH 32, Pulaski, Wisconsin
WisDOT Project ID #9190-13-71

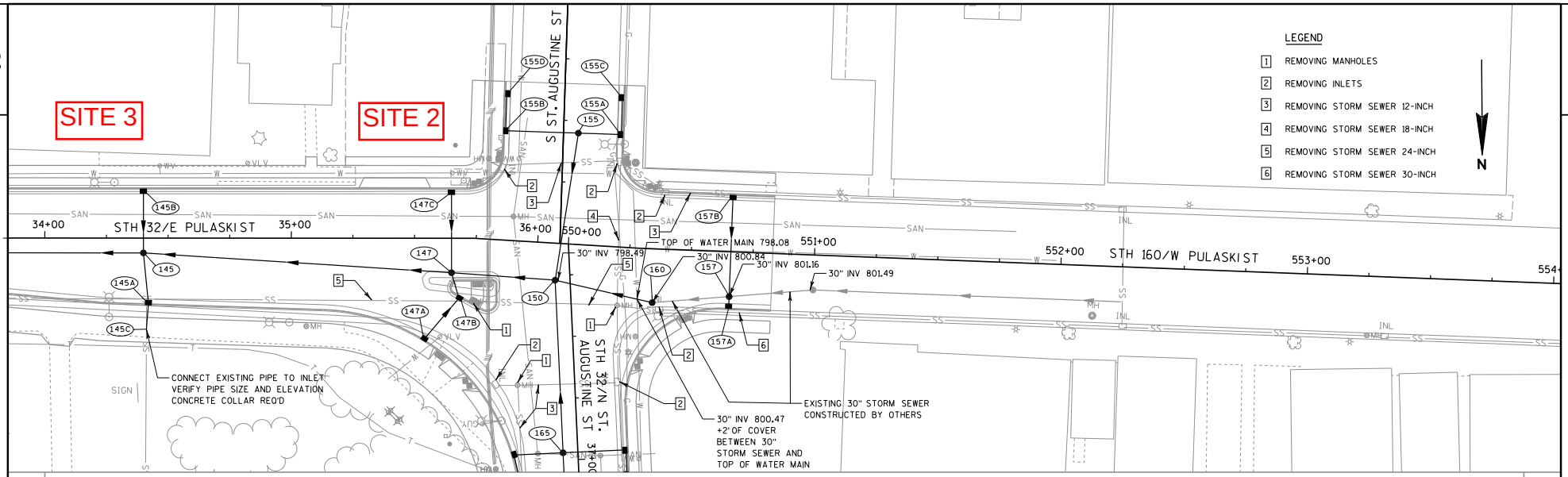
| DATE | Site # | LOCATION | DEPTH (ft bgs) | PID (ppm) | COMMENTS |
|---|---|---|---|---|---|
| 4/10/2014 | 3 | E. Pulaski St. Station 33+45, 6' R of reference line. Stormsewer trench. | 3-5' | 45 | Brown silty clay, strong gasoline odor |
| 4/10/2014 | 3 | E. Pulaski St. Station 33+60, 6' R of reference line. Stormsewer trench. | 3-5' | 21 | Brown silty clay, strong gasoline odor |
| 4/10/2014 | 3 | E. Pulaski St. Station 33+80, 6' R of reference line. Stormsewer trench. | 3-5' | 75 | Brown silty clay, strong gasoline odor |
| 4/10/2014 | 3 | E. Pulaski St. Station 34+00, 6' R of reference line. Stormsewer trench. | 3-5' | 170 | Brown silty clay, strong gasoline odor |
| 4/15/2014 | 3 | E. Pulaski St. Station 34+25, 6' R of reference line. Stormsewer trench. | 3-5' | 10 | Brown silty clay, mild gasoline odor |
| 4/15/2014 | 3 | E. Pulaski St. Station 34+40, 6' R of reference line. Stormsewer trench. | 3-5' | 7.5 | Brown silty clay, mild gasoline odor |
| 4/15/2014 | 3 | E. Pulaski St. Station 34+50, 6' R of reference line. Stormsewer trench. | 3-5' | 7 | Brown silty clay, mild gasoline odor |
| 4/15/2014 | 3 | E. Pulaski St. Station 34+65, 6' R of reference line. Stormsewer trench. | 3-5' | 0 | Brown silty clay, no odor |
| 4/15/2014 | 2 | E. Pulaski St. Station 34+80, 6' R of reference line. Stormsewer trench. | 3-5' | 0 | Brown silty clay, no odor |
| 4/15/2014 | 2 | E. Pulaski St. Station 34+95, 6' R of reference line. Stormsewer trench. | 3-5' | 0 | Brown silty clay, no odor |
| 4/15/2014 | 2 | E. Pulaski St. Station 35+15, 6' R of reference line. Stormsewer trench. | 3-5' | 0 | Brown silty clay, no odor |
| 4/15/2014 | 2 | E. Pulaski St. Station 35+30, 6' R of reference line. Stormsewer trench. | 3-5' | 0 | Brown silty clay, no odor |
| 4/15/2014 | 2 | E. Pulaski St. Station 35+50, 6' R of reference line. Stormsewer trench. | 3-5' | 0 | Brown silty clay, no odor |
| 4/16/2014 | 5 | E. Pulaski St. Station 14+53 from 5' R of reference line to construction limits left. Installation of MH-30, and Inlet connections 30A/B and connecting stormsewer trench. | 8' / 5' | 0 / 0 | Brown sandy / silty soil, no odor |
| 4/16/2014 | 6 | E. Pulaski Street - Station 299+50, at construction limits left (installation of Inlet basins 25C & 25D). | 8 | 3 | Brown silty clay, mild gasoline odor |
| 4/21/2014 | 6 | E. Pulaski Street - Station 299+50, installation of MH 25 and stormsewer from MH 25 to inlet basin 25C. | 8' / 5' | 1.1 / 3.0 | Brown silty clay, no odor |
| 4/21/2014 | 5 | S. Wisconsin Street - Stormsewer trench between Stations 12+20 to 12+70 between 6' to 20' Left of reference line. | 3-5' | 58 | Brown silty clay, strong gasoline odor |
| 4/21/2014 | 5 | S. Wisconsin Street - North/South Stormsewer trench between Inlet Basins 60D and 60A, Stations 12+20 to 12+38 at construction limits left. | 3-5' | 128 | Brown silty clay, strong gasoline odor |
| 4/22/2014 | 3 | E. Pulaski St. Station 34+40, Construction limits left for Inlet Basin 145B | 6' | 40 | Brown silty clay, strong gasoline odor |
| 4/23/2014 | 5 | Intersection of Wisconsin Street and Pulaski Street - North/South Stormsewer trench between Inlet Structure 60A and 60C, Stations 12+00 to 12+20 at construction limits left. | 3-5' | 585 | Brown silty clay, strong gasoline odor |
| 4/23/2014 | 5 | Intersection of Wisconsin Street and Pulaski Street -Stormsewer trench between Inlet Basin 60A and MH60, Station 12+15 from 5' Left of reference line to construction limits left. | 3-5' | 276 | Brown silty clay, strong gasoline odor |
| 4/23/2014 | 6 | S. Wisconsin St. Station 12+15 between MH 60 to Inlet Basin 60B. | 3' / 5' | 55 / 158 | Brown silty clay, strong gasoline odor |
| 4/23/2014 | 5 | S. Wisconsin St. - abandonment of existing stormsewer trench from approximate STA 12+00 to 12+38 - 20' left of reference line. | 3-5' | 510 | Brown silty clay, strong gasoline odor |

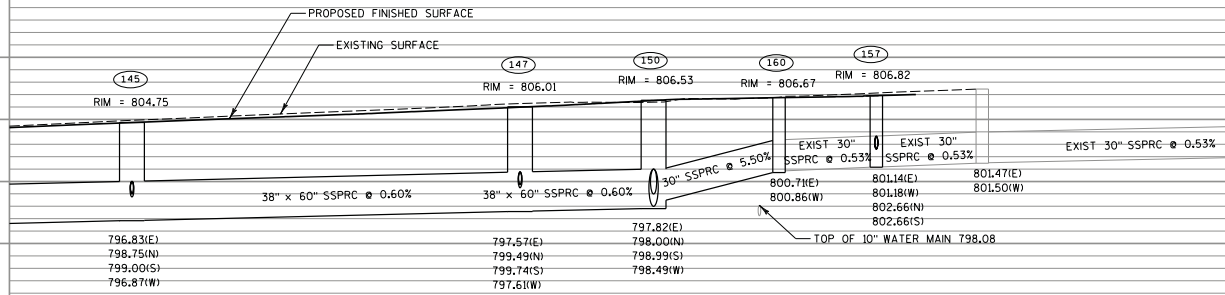
| DATE | Site # | LOCATION | DEPTH (ft bgs) | PID (ppm) | COMMENTS |
|---|---|---|---|---|---|
| 4/23/2014 | 5 | S. Wisconsin St. - abandonment of existing stormsewer trench from approximate STA 12+38 to 12+75 - 20' left of reference line. | 3-5' | 4 | Brown silty clay, mild gasoline odor |
| 4/23/2014 | 5 | E. Pulaski Street - Stormsewer trench between MH 60 and MH20, Station 12+50 to 13+00. | 3-5' | 0 | Brown sandy silty clay, no odor |
| 4/23/2014 | 5 | E. Pulaski St. Station 15+55 between construction limits Left and Right. (Installation of MH-35 and Inlet Basins 35A, 35B, 35C, and 35D. | 8' / 5' | 0 / 0 | Brown sandy silty clay, no odor |
| 5/13/2014 | 2 | E. Pulaski St. Station 35+65, construction limits Left, (Installation of Inlet Basin 147C). | 8' | 286 | Brown silty clay, strong gasoline odor |
| 5/13/2014 | 2 | St. Augustine St. Station 549+40 - 55, construction limits right (installation of inlet basins 155B and 155D. | 8' | 1340 | Brown silty clay, strong gasoline odor |
| 5/13/2014 | 2 | St. Augustine St. Station 549+40 - 55, construction limits left (installation of inlet basins 155A and 155C. | 8' | 0 | Brown sandy silty clay, gasoline odor |
| 5/14/2014 | 3 | E. Pulaski St. between Stations 33+20 and 35+40 from reference line to construction limits Left, Excavation Beyond Subgrade (EBS). | 2' EBS | 22 - 280 | Brown silty clay, strong gasoline odor |
| 8/6/2014 | 5/6 | S. Wisconsin St. - installation of new storm sewer between STA 11+30 to 11+50 - 8' left of reference line. | 3-6' | 0 | Brown sandy silty clay, no odor |
| 8/6/2014 | 5/6 | S. Wisconsin St. - installation of new storm sewer between STA 11+60 - 8' left of reference line. | 3-6' | 10 | Brown sandy silty clay, mild gasoline odor |
| 8/6/2014 | 5/6 | S. Wisconsin St. - installation of new storm sewer between STA 11+70 - 8' left of reference line. | 3-6' | 7 | Brown sandy silty clay, mild gasoline odor |
| 8/6/2014 | 5/6 | S. Wisconsin St. - installation of new storm sewer between STA 11+85 - 8' left of reference line. | 3-6' | 34 | Brown sandy silty clay, mild gasoline odor |
| 8/18/2014 | 5/6 | S. Wisconsin St. - Station 12+15 at construction limits right - Installation of inlet basin 60B | 3'/5'/8' | 0/39/1584 | Brown silty sand, strong gasoline odor |
| **Test Pits for Potential UST Search** | | | | | |
| 4/22/2014 | 6 | Test Pit for UST search - E. Pulaski St. - Station 299+70 - Construction limits left | 2'/4'/6' | 0/31/40 | No UST encountered |
| 4/22/2014 | 6 | Test Pit for UST search - E. Pulaski St. - Station 299+50 - Construction limits left | 2'/4'/6' | 0/30/40 | No UST encountered |
| 4/22/2014 | 6 | 1 Test Pit for UST search - E. Pulaski St. - Station 299+30 - Construction limits left | 2'/5'/6' | 0/104/85 | No UST encountered |
| 4/22/2014 | 4 | 1 Test Pit for UST search - E. Pulaski St. - Station 30+50 - Construction limits left | 3'/5.5' | 0/0 | No UST encountered |
| 4/22/2014 | 4 | 1 Test Pit for UST search - E. Pulaski St. - Station 30+75 - Construction limits left | 3'/5.5' | 0/0 | No UST encountered |
| 4/22/2014 | 4 | 1 Test Pit for UST search - E. Pulaski St. - Station 31+15 - Construction limits left | 2.5'/5.5' | 4/0 | No UST encountered |
| 4/22/2014 | 3 | 1 Test Pit for UST search - E. Pulaski St. - Station 32+80 - Construction limits left | 2'/4'/6' | 0/0/0 | No UST encountered |
| 4/22/2014 | 3 | 1 Test Pit for UST search - E. Pulaski St. - Station 34+20 - Construction limits left | 2'/6' | 4/40 | No UST encountered |
| 4/22/2014 | 3 | 1 Test Pit for UST search - E. Pulaski St. - Station 34+40 - Construction limits left | 6' | 59 | No UST encountered |

Notes:
PID=Photoionization Detector

Created By: D. Siewert - 8/80/14
Checked By: N. Braun 9/4/14

# Appendix A
# Highway Construction Plans




NOTE

EXISTING AND FINISHED SURFACES ARE SHOWN OVER THE PROPOSED STORM SEWER

| PROJECT NO: 9190-13-71 | HWY: STH 32 | COUNTY: BROWN | STORM SEWER | SHEET E |
|---|---|---|---|---|



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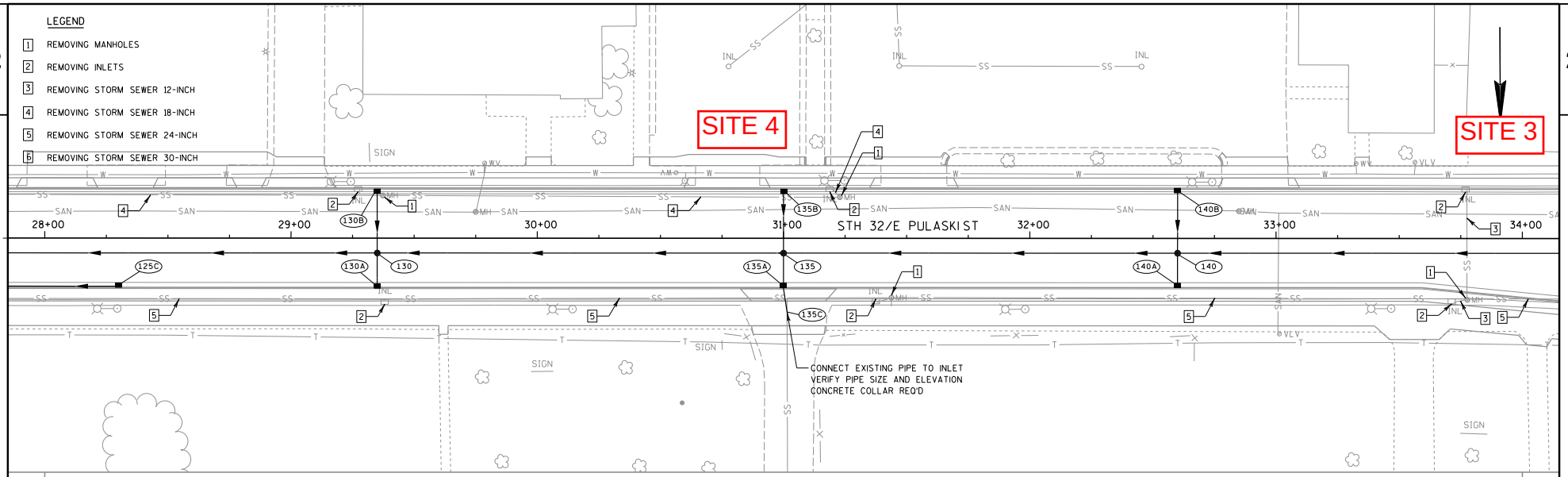
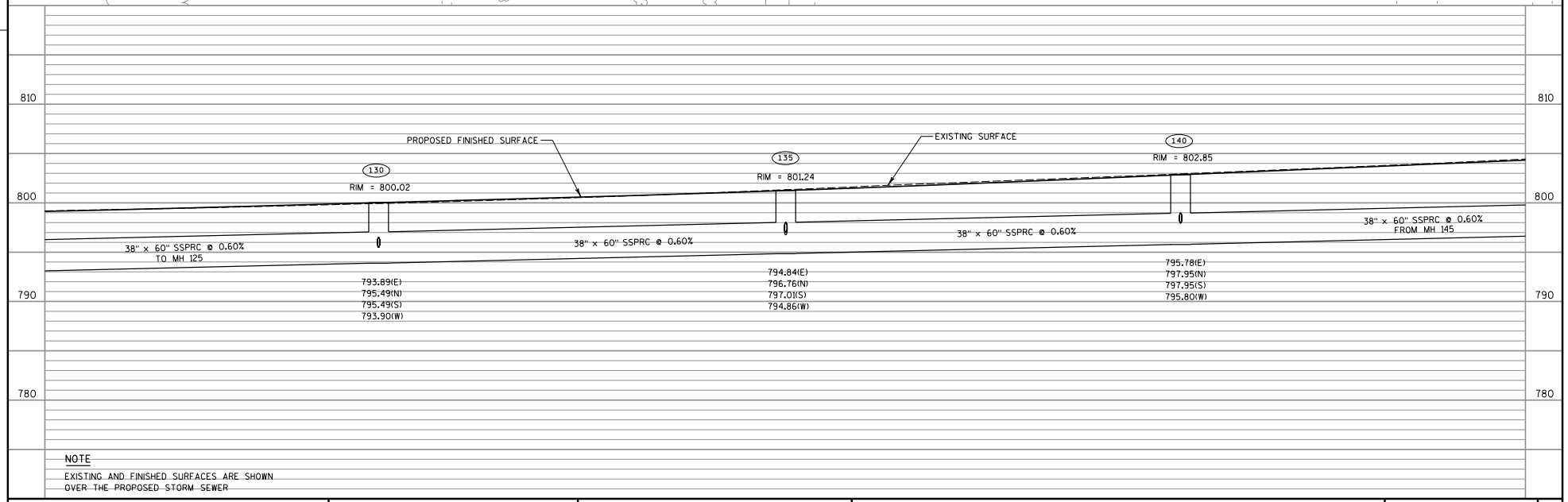
WISDOT/CADDS SHEET 41




NOTE

EXISTING AND FINISHED SURFACES ARE SHOWN OVER THE PROPOSED STORM SEWER

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|---|---|---|---|---|---|



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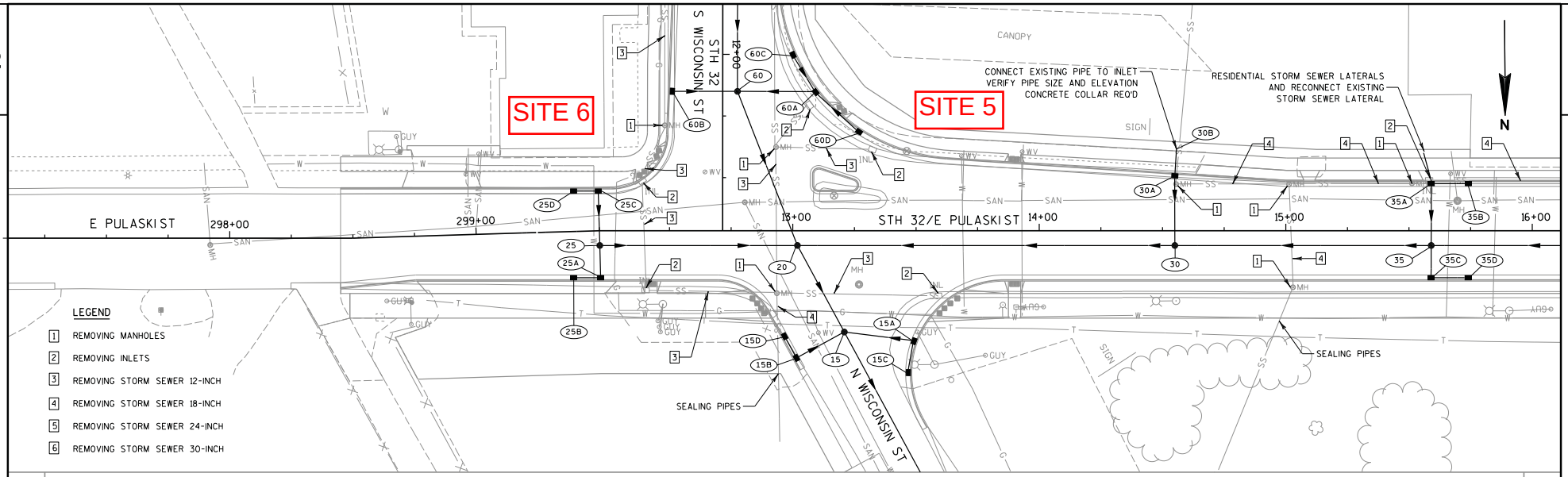
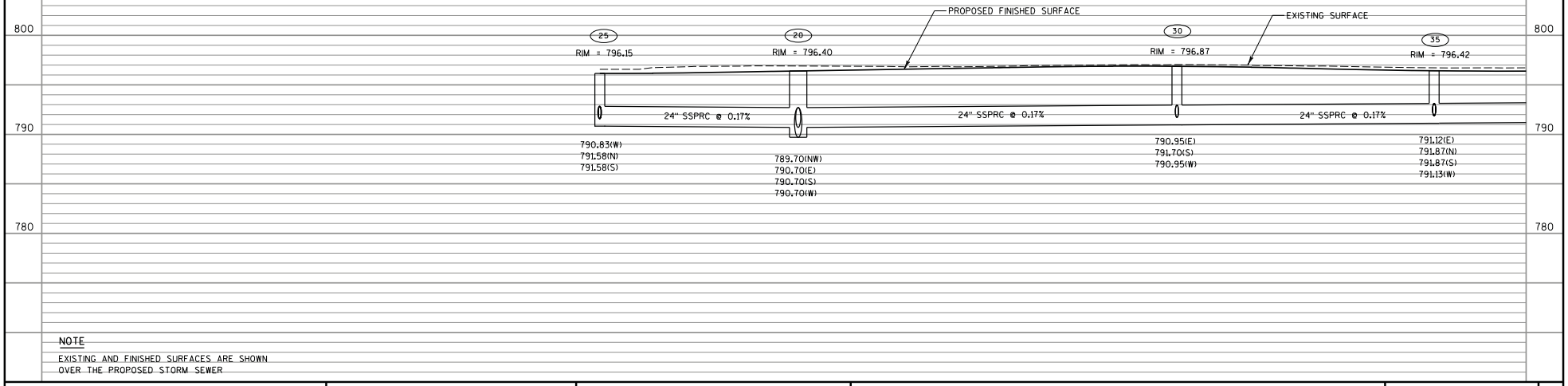
WISDOT/CADDS SHEET 41




NOTE

EXISTING AND FINISHED SURFACES ARE SHOWN OVER THE PROPOSED STORM SEWER

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WISDOT/CADDS SHEET 41

# Appendix B
# Special Provisions

## Haak, Daniel

**From:** Taddy, Vickie J - DNR <Vickie.Taddy@wisconsin.gov>
**Sent:** Tuesday, April 16, 2013 4:42 PM
**To:** Sellwood, Alyssa
**Subject:** FW: Concurrence with Special Provisions for STH 32 Pulaski Project WI DOT Project ID # 9190-13-00

Sorry-guess the first email went to an old address

**From:** Taddy, Vickie J - DNR
**Sent:** Tuesday, April 16, 2013 4:35 PM
**To:** Sellwood, Alyssa; kathie.vanprice@dot.state.wi.us
**Subject:** Concurrence with Special Provisions for STH 32 Pulaski Project WI DOT Project ID #9190-13-00

Kathie and Alyssa:

I have reviewed the Phase 2/2.5 Site Investigation Report and Special Provisions Plan submitted by TRC, and I concur with the Excavation Management Plan (EMP) for the STH 32 project in Pulaski, Wisconsin, WisDot Project ID #9190-13-00.

Vickie

*Vickie Taddy*
*Hydrogeologist*
*Remediation and Redevelopment Program*
*Wisconsin Department of Natural Resources*
*2984 Shawano Ave., Green Bay, WI 54307*

**phone:** (920) 662-5178
**e-mail:** vickie.taddy@wisconsin.gov

This email has been scanned by the Symantec Email Security.cloud service.
For more information please visit http://www.symanteccloud.com

**B Materials**

Provide cellular concrete meeting the following specifications: 1 part cement, 1 part fly ash, 8 parts sand, or an approved equal, and water. Provide cement meeting the requirements of standard spec 501.2.1 for Type 1 Portland Cement. Provide sand meeting the requirements of standard spec 501.2.5.3 Provide water meeting the requirements of standard spec 501.2.4.

**C Construction**

Fill the abandoned sewer pipe with cellular concrete as directed by the engineer. In the event that the sewer cannot be completely filled from existing manholes, tap the sewer where necessary and fill from these locations.

**D Measurement**

The department will measure Abandoning Sewer in volume by the cubic yard according to standard spec 109.1.3.

**E Payment**

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

| ITEM NUMBER | DESCRIPTION | UNIT |
|---|---|---|
| 204.0291.S | Abandoning Sewer | CY |

Payment is full compensation for furnishing all materials and excavating and backfilling where necessary.

204-050 (20080902)

## 22. Excavation, Hauling, and Disposal of Petroleum Contaminated Soil, Item 205.0501.S.

**A Description**

**A.1 General**

This special provision describes excavating, loading, hauling, and disposing of petroleum-contaminated soil and management of lead-contaminated soil. Petroleum-contaminated soil shall be disposed of at a Wisconsin Department of Natural Resources (WDNR)-approved bioremediation facility. Lead-contamination soil shall be reused within the limits of construction. The closest bioremediation facilities are:

Waste Management – Ridgeview RDF
6207 Hempton Lake Road
Whitelaw, Wisconsin 54247
(920) 732-4473 Ext. 228

Veolia – Hickory Meadows Landfill
W3105 Schneider Road
Hilbert, Wisconsin 54129
(920) 853-8553

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 petroleum- and lead-contaminated soil.

**A.2 Notice to the Contractor**

The department completed testing for soil contamination for locations within this project where excavation is required. Testing indicated that petroleum-contaminated soil is present at the following locations:

- Site 2: Station 498+75 to 500+00 and from Station 35+25 to 36+00, from reference line to the construction limits on the left
- Site 3: Station 32+75 to 34+40, from reference line to the construction limits on the left.
- Site 5: Station 12+75 to 15+00, from reference line to the construction limits on the left.
- Site 5 and 6: Station 11+50 to 12+75, from reference line to the construction limits on the left and construction limits on the right

Testing indicated that lead-contaminated soil is present at the following locations:

- Site 6: Station 10+75 to 11+25 from reference line to the construction limits on the right.

No underground storage tanks (USTs) were encountered during the testing; however, historical data and metal detector survey indicate USTs may exist at the following locations:

- Site 3: Station 32+75 to 33+00 and Station 34+00 to 34+50, from 20-feet left of reference line to limits of construction left.
- Site 4: Station 30+50 to 31+25, from 20-feet left of reference line to limits of construction left.
- Site 6: Station 299+25 to 299+50, from 20-feet left of reference line to limits of construction left, and Station 12+25 to Station 12+50, from 20-feet right of reference line to limits of construction right.

Contaminated soils and 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. Contaminated soil at other locations shall be managed by the contractor under this contract as specified herein. USTs will be removed by others.

For further information regarding previous investigation at these sites contact:

| | |
|---|---|
| Name: | Kathie VanPrice<br>Wisconsin DOT, Northeast Region |
| Address: | 944 Vanderperren Way<br>Green Bay, WI 54304 |
| Phone: | (920) 492-7175 |
| Fax: | (920) 492-0144 |
| e-mail: | kathie.vanprice@dot.state.wi.us |

**A.3 Coordination**

Coordinate work under this contract with the environment consultant:

| | |
|---|---|
| Consultant: | TRC Environmental Corporation |
| Address: | 708 Heartland Trail, Suite 3000, Madison, WI 53717 |
| Fax: | (608) 826-3941 |
| | |
| Contact: | Dan Haak |
| Phone: | (608) 826-3628 office, (608) 886-7423 mobile |
| e-mail: | DHaak@trcsolutions.com |
| | |
| Contact: | Alyssa Sellwood |
| Phone: | (608) 826-3658 office, (608) 234-8001 mobile |
| e-mail: | ASellwood@trcsolutions.com |

The role of the environmental consultant will be limited to:

- 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;
- Identifying petroleum-contaminated soils to be hauled to the bioremediation facility;
- Documenting that activities associated with management of petroleum- and lead-contaminated soil are in conformance with the contaminated soil management methods for this project as specified herein;
- Obtaining the necessary approvals for disposal of petroleum-contaminated soil from the bioremediation facility,
- Characterizing and obtaining necessary approvals for disposal of contaminated material not previously identified during testing.

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 WDNR-approved bioremediation facility that will be used for disposal of petroleum-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 bioremediation 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 offsite without prior approval from the environmental consultant.

**A.4 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 Kathie VanPrice with the department, at (920) 492-7175.

**A.5 Health and Safety Requirements for Workers Remediating Contamination**

*Supplement standard spec 107.1 with the following:*

During excavation activities, expect to encounter soil contaminated with lead, gasoline, diesel fuel, or other petroleum related products. 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 petroleum-contaminated soil at the bioremediation facility is subject to the facility's safety policies.

**B (Vacant)**

**C Construction**

*Supplement standard spec 205.3 with the following:*

Control operations in the contaminated areas to minimize the quantity of contaminated soil excavated Contaminated soils are expected to be beyond the excavation limits necessary to complete the work under this project. Control construction operations at these locations

to ensure that they do not extend beyond the minimum required to construct utilities and highway improvements unless expressly directed to do so by the engineer.

Assist the environmental consultant in determining the extent of contaminated soil (if any), by performing a backhoe pit investigation, as directed by the environmental consultant, in the following areas:

- Site 3: Station 32+75 to 33+00 and Station 34+00 to 34+50, from 20-feet left of reference line to limits of construction left.
- Site 4: Station 30+50 to 31+25, from 20-feet left of reference line to limits of construction left.
- Site 6: Station 299+25 to 299+50, from 20-feet left of reference line to limits of construction left, and Station 12+25 to Station 12+50, from 20-feet right of reference line to limits of construction right.

Perform the backhoe pit investigation as soon as practical after structures, sidewalks, curb and gutter, and pavement are removed and prior to significant excavations (if any) beginning in those areas. The backhoe pit investigations shall include up to 3 test pits per location, to a maximum depth of 6 feet bgs. The test pit investigations shall be incidental to this pay items.

The environmental consultant will periodically evaluate soil excavated from the contaminated areas to determine if the soil will require offsite disposal. 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 managed 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 Petroleum-contaminated Material: PID readings less than 10 ppm and no observation of staining or petroleum odor for reuse as fill within the construction limits, or
- Petroleum-contaminated Soil: Significant petroleum odor, staining, and/or PID readings greater than 10 ppm for off-site treatment and disposal at the WDNR-licensed bioremediation facility, or
- Lead-contaminated Soil: Soil removed from Station 10+75 to 11+25 from reference line to the construction limits on the right for reuse as fill within the construction limits, or
- Potentially Contaminated: Contaminated material from areas other than listed above for temporary stockpiling and additional characterization prior to disposal.

If contaminated soils and/or USTs are encountered outside the limits of known contamination on the project, terminate excavation activities in the area and notify the engineer. Environmental consultant will screen the potentially-contaminated material and some material may require additional characterization prior to disposal. Provide for the temporary stockpiling of up to 100 cubic yards of potentially-contaminated soil on-site for additional characterization. Construct and maintain a temporary stockpile of the material in accordance to 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 offsite disposal to the WDNR approved bioremediation facility. Verify that vehicles used to transport contaminated material are licensed for such activity in accordance to applicable state and federal regulations. 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 bioremediation and/or disposal so as not to contain free liquids.

**D Measurement**

The department will measure Excavation, Hauling, and Disposal of -Contaminated Soil in tons of contaminated soil accepted by the bioremediation facility as documented by weight tickets generated by the bioremediation facility. Load tickets must be delivered to the engineer within 10 business days of the date on which the soil was accepted by the bioremediation facility.

**E Payment**

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

| ITEM NUMBER | DESCRIPTION | UNIT |
|---|---|---|
| 205.0501.S | Excavation, Hauling, and Disposal of Petroleum Contaminated Soil | Ton |

Payment is full compensation for excavating, segregating, loading, hauling, and treatment via bioremediation of contaminated soil; tipping fees including any applicable taxes and surcharges; obtaining solid waste collection and transportation service operating licenses; assisting in the collection soil samples for field evaluation including test pits; dewatering

of soils prior to transport, if necessary; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.
205-003 (20080902)

## 23. QMP Base Aggregate.

### A Description

### A.1 General

(1) This special provision describes contractor quality control (QC) sampling and testing for base aggregates, documenting those test results, and documenting related production and placement process changes. This special provision also describes department quality verification (QV), independent assurance (IA), and dispute resolution.

(2) Conform to standard spec 301, standard spec 305, and standard spec 310 as modified here in this special provision. Apply this special provision to material placed under all of the Base Aggregate Dense and Base Aggregate Open Graded bid items, except do not apply this special provision to material classified as reclaimed asphaltic pavement placed under the Base Aggregate Dense bid items.

(3) Do not apply this special provision to material placed under the Aggregate Detours, Salvaged Asphaltic Pavement Base, Breaker Run, Select Crushed, Pit Run, Subbase, or Riprap bid items.

(4) Provide and maintain a quality control program, defined as all activities related to and documentation of the following:
1. Production and placement control and inspection.
2. Material sampling and testing.

(5) Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes required sampling and testing procedures. The contractor may obtain the CMM from the department's web site at:

http://roadwaystandards.dot.wi.gov/standards/cmm/index.htm

### A.2 Contractor Testing for Small Quantities

(1) The department defines a small quantity, for each individual Base Aggregate bid item, as a plan quantity of 9000 tons or less of material as shown in the schedule of items under that bid item.

(2) The requirements under this special provision apply equally to a small quantity for an individual bid item except as follows:
1. The contractor need not submit a full quality control plan but shall provide an organizational chart to the engineer including names, telephone numbers, and current certifications of all persons involved in the quality control program for material under affected bid items.

# Appendix C
# Soil Disposal Records

Advanced Disposal

# CERTIFICATE OF RECEIPT FOR BIOREMEDIATION

Advanced Disposal Services Hickory Meadows Landfill, LLC certifies that the following petroleum contaminated soil has been received and placed into our "Bio Pile" area for treatment as permitted by the Wisconsin DNR, license #4291.

Generator Name: WisDOT #9190-13-71

Generator Address: STH 32
Pulaski, WI

Waste Description: Petroleum Impacted Soil

Waste Category: 33b

Profile Number: HML14-015

Tonnage Received: 1289.39

Date of Receipt: April 10, 2014 – August 19, 2014

Kari Robidoux
Landfill Representative

9/12/2014
Date

W3105 Schneider Road Hilbert, WI 54129 Tel (920)853-8553 Fax (920)853-3513
AdvancedDisposal.com

# Detail Contract Activity Report

All Ticket Types | January 01, 2014 to September 12, 2014 | All Facilities

Specific Contract: HML14-015

History and Waiting

* - Confirmed Qty Applied to Billing

HML14-015

| Ticket Date | Facility & Ticket Number | Customer | Truck | Material | Contract Rate | Billing Quantity | Minimum Quantity |
|---|---|---|---|---|---|---|---|
| 04/10/2014 | I 85 | 455873 000664 - PETERS CONCRETE COMPANY | 99DEN | 33B@ C-Soil / Unleaded / UST (Ext) | | 22.60 tn | |
| 04/10/2014 | I 85 | 455874 000664 - PETERS CONCRETE COMPANY | 547PE | 33B@ C-Soil / Unleaded / UST (Ext) | | 22.97 TN | |
| 04/10/2014 | I B5 | 455875 000664 - PETERS CONCRETE COMPANY | 700PI | 33B@ C-Soil / Unleaded / UST (Ext) | | 22.16 tn | |
| 04/10/2014 | I B5 | 455877 000664 - PETERS CONCRETE COMPANY | 542P | 33B@ C-Soil / Unleaded / UST (Ext) | | 26.78 tn | |
| 04/10/2014 | I B5 | 455878 000664 - PETERS CONCRETE COMPANY | 546PE | 33B@ C-Soil / Unleaded / UST (Ext) | | 29.39 tn | |
| 04/10/2014 | I B5 | 455879 000664 - PETERS CONCRETE COMPANY | 22TMA | 33B@ C-Soil / Unleaded / UST (Ext) | | 22.61 tn | |
| 04/10/2014 | I B5 | 455880 000664 - PETERS CONCRETE COMPANY | 962S | 33B@ C-Soil / Unleaded / UST (Ext) | | 22.30 tn | |
| 04/11/2014 | I B5 | 455911 000664 - PETERS CONCRETE COMPANY | 546PE | 33B@ C-Soil / Unleaded / UST (Ext) | | 22.70 tn | |
| 04/11/2014 | I B5 | 455923 000664 - PETERS CONCRETE COMPANY | 547PE | 33B@ C-Soil / Unleaded / UST (Ext) | | 24.34 tn | |
| 04/11/2014 | I B5 | 455924 000664 - PETERS CONCRETE COMPANY | 542P | 33B@ C-Soil / Unleaded / UST (Ext) | | 26.90 tn | |
| 04/11/2014 | I B5 | 455925 000664 - PETERS CONCRETE COMPANY | 544PE | 33B@ C-Soil / Unleaded / UST (Ext) | | 21.34 tn | |
| 04/15/2014 | I B5 | 456287 000664 - PETERS CONCRETE COMPANY | 962S | 33B@ C-Soil / Unleaded / UST (Ext) | | 24.86 tn | |
| 04/15/2014 | I B5 | 456290 000664 - PETERS CONCRETE COMPANY | 99DEN | 33B@ C-Soil / Unleaded / UST (Ext) | | 23.88 tn | |
| 04/15/2014 | I B5 | 456293 000664 - PETERS CONCRETE COMPANY | 15DU | 33B@ C-Soil / Unleaded / UST (Ext) | | 23.18 tn | |
| 04/15/2014 | I B5 | 456307 000664 - PETERS CONCRETE COMPANY | 22TMA | 33B@ C-Soil / Unleaded / UST (Ext) | | 22.53 TN | |
| 04/15/2014 | I B5 | 456310 000664 - PETERS CONCRETE COMPANY | 17MTA | 33B@ C-Soil / Unleaded / UST (Ext) | | 20.75 tn | |
| 04/15/2014 | I B5 | 456311 000664 - PETERS CONCRETE COMPANY | 402J | 33B@ C-Soil / Unleaded / UST (Ext) | | 23.92 tn | |
| 04/16/2014 | I B5 | 456555 000664 - PETERS CONCRETE COMPANY | 22TMA | 33B@ C-Soil / Unleaded / UST (Ext) | | 19.28 TN | |
| 04/16/2014 | I B5 | 456562 000664 - PETERS CONCRETE COMPANY | 32ORL | 33B@ C-Soil / Unleaded / UST (Ext) | | 22.23 tn | |
| 04/16/2014 | I B5 | 456572 000664 - PETERS CONCRETE COMPANY | 07DU | 33B@ C-Soil / Unleaded / UST (Ext) | | 18.71 tn | |
| 04/16/2014 | I B5 | 456573 000664 - PETERS CONCRETE COMPANY | 66OR | 33B@ C-Soil / Unleaded / UST (Ext) | | 19.01 tn | |
| 04/16/2014 | I B5 | 456575 000664 - PETERS CONCRETE COMPANY | 700PI | 33B@ C-Soil / Unleaded / UST (Ext) | | 18.16 TN | |
| 04/16/2014 | I B5 | 456576 000664 - PETERS CONCRETE COMPANY | 17MTA | 33B@ C-Soil / Unleaded / UST (Ext) | | 18.72 TN | |
| 04/16/2014 | I B5 | 456587 000664 - PETERS CONCRETE COMPANY | 962S | 33B@ C-Soil / Unleaded / UST (Ext) | | 23.29 TN | |
| 04/16/2014 | I B5 | 456589 000664 - PETERS CONCRETE COMPANY | 15DU | 33B@ C-Soil / Unleaded / UST (Ext) | | 20.65 TN | |
| 04/16/2014 | I B5 | 456594 000664 - PETERS CONCRETE COMPANY | 99DEN | 33B@ C-Soil / Unleaded / UST (Ext) | | 21.94 TN | |
| 04/16/2014 | I B5 | 456611 000664 - PETERS CONCRETE COMPANY | 16AIM | 33B@ C-Soil / Unleaded / UST (Ext) | | 21.65 tn | |
| 04/16/2014 | I B5 | 456617 000664 - PETERS CONCRETE COMPANY | 78CA | 33B@ C-Soil / Unleaded / UST (Ext) | | 21.36 tn | |
| 04/16/2014 | I B5 | 456647 000664 - PETERS CONCRETE COMPANY | 15DU | 33B@ C-Soil / Unleaded / UST (Ext) | | 18.77 TN | |
| 04/16/2014 | I B5 | 456652 000664 - PETERS CONCRETE COMPANY | 22TMA | 33B@ C-Soil / Unleaded / UST (Ext) | | 21.04 TN | |
| 04/21/2014 | I B5 | 457299 000664 - PETERS CONCRETE COMPANY | 32ORL | 33B@ C-Soil / Unleaded / UST (Ext) | | 33.31 TN | |
| 04/22/2014 | I B5 | 457475 000664 - PETERS CONCRETE COMPANY | 962S | 33B@ C-Soil / Unleaded / UST (Ext) | | 10.93 tn | |
| 04/24/2014 | I B5 | 457881 000664 - PETERS CONCRETE COMPANY | 22TMA | 33B@ C-Soil / Unleaded / UST (Ext) | | 26.47 tn | |
| 04/24/2014 | I B5 | 457891 000664 - PETERS CONCRETE COMPANY | 32ORL | 33B@ C-Soil / Unleaded / UST (Ext) | | 21.81 TN | |
| 04/24/2014 | I B5 | 457906 000664 - PETERS CONCRETE COMPANY | 66OR | 33B@ C-Soil / Unleaded / UST (Ext) | | 17.75 tn | |
| 04/24/2014 | I B5 | 457950 000664 - PETERS CONCRETE COMPANY | 554CE | 33B@ C-Soil / Unleaded / UST (Ext) | | 19.10 tn | |
| 05/13/2014 | I B5 | 460625 000664 - PETERS CONCRETE COMPANY | 22TMA | 33B@ C-Soil / Unleaded / UST (Ext) | | 21.19 tn | |
| 05/13/2014 | I B5 | 460648 000664 - PETERS CONCRETE COMPANY | 32ORL | 33B@ C-Soil / Unleaded / UST (Ext) | | 22.58 TN | |
| 05/13/2014 | I B5 | 460649 000664 - PETERS CONCRETE COMPANY | GEN_PUBLIC | 33B@ C-Soil / Unleaded / UST (Ext) | | 20.55 tn | |
| 05/13/2014 | I B5 | 460650 000664 - PETERS CONCRETE COMPANY | 92JJ | 33B@ C-Soil / Unleaded / UST (Ext) | | 24.32 tn | |
| 05/14/2014 | I B5 | 460668 000664 - PETERS CONCRETE COMPANY | 24ORL | 33B@ C-Soil / Unleaded / UST (Ext) | | 25.52 tn | |
| 05/14/2014 | I B5 | 460679 000664 - PETERS CONCRETE COMPANY | 66OR | 33B@ C-Soil / Unleaded / UST (Ext) | | 20.80 tn | |
| 05/14/2014 | I B5 | 460680 000664 - PETERS CONCRETE COMPANY | 99DEN | 33B@ C-Soil / Unleaded / UST (Ext) | | 21.77 tn | |
| 05/14/2014 | I B5 | 460683 000664 - PETERS CONCRETE COMPANY | 17BO | 33B@ C-Soil / Unleaded / UST (Ext) | | 21.87 tn | |
| 05/14/2014 | I B5 | 460687 000664 - PETERS CONCRETE COMPANY | 22TMA | 33B@ C-Soil / Unleaded / UST (Ext) | | 22.60 tn | |
| 05/14/2014 | I B5 | 460698 000664 - PETERS CONCRETE COMPANY | 402J | 33B@ C-Soil / Unleaded / UST (Ext) | | 22.43 tn | |
| 05/14/2014 | I B5 | 460701 000664 - PETERS CONCRETE COMPANY | 01JLA | 33B@ C-Soil / Unleaded / UST (Ext) | | 18.81 tn | |
| 05/14/2014 | I B5 | 460702 000664 - PETERS CONCRETE COMPANY | 17MTA | 33B@ C-Soil / Unleaded / UST (Ext) | | 20.90 tn | |
| 05/14/2014 | I B5 | 460703 000664 - PETERS CONCRETE COMPANY | 92JJ | 33B@ C-Soil / Unleaded / UST (Ext) | | 20.62 tn | |
| 05/14/2014 | I B5 | 460707 000664 - PETERS CONCRETE COMPANY | 77CA | 33B@ C-Soil / Unleaded / UST (Ext) | | 20.64 tn | |
| 05/14/2014 | I B5 | 460739 000664 - PETERS CONCRETE COMPANY | 542P | 33B@ C-Soil / Unleaded / UST (Ext) | | 24.46 TN | |
| 05/14/2014 | I B5 | 460749 000664 - PETERS CONCRETE COMPANY | 66OR | 33B@ C-Soil / Unleaded / UST (Ext) | | 20.37 TN | |
| 05/14/2014 | I B5 | 460751 000664 - PETERS CONCRETE COMPANY | 99DEN | 33B@ C-Soil / Unleaded / UST (Ext) | | 24.32 TN | |
| 05/14/2014 | I B5 | 460752 000664 - PETERS CONCRETE COMPANY | 24ORL | 33B@ C-Soil / Unleaded / UST (Ext) | | 23.27 TN | |
| 05/14/2014 | I B5 | 460759 000664 - PETERS CONCRETE COMPANY | 17BO | 33B@ C-Soil / Unleaded / UST (Ext) | | 19.40 TN | |
| 08/06/2014 | I B5 | 472608 000664 - PETERS CONCRETE COMPANY | 542P | 33B@ C-Soil / Unleaded / UST (Ext) | | 25.07 tn | |
| 08/06/2014 | I B5 | 472611 000664 - PETERS CONCRETE COMPANY | 547PE | 33B@ C-Soil / Unleaded / UST (Ext) | | 20.32 tn | |
| 08/18/2014 | I 85 | 474365 000664 - PETERS CONCRETE COMPANY | 24ORL | 33B@ C-Soil / Unleaded / UST (Ext) | | 14.35 tn | |
| 08/19/2014 | I B5 | 474530 000664 - PETERS CONCRETE COMPANY | 32ORL | 33B@ C-Soil / Unleaded / UST (Ext) | | 15.84 TN | |
| | | | | | | **1,289.39 Tons** | |

Advanced Disposal

# Special Waste Profile Sheet
# Contaminated Soil

Profile # IIMCL14-015

Designated Facility: Advanced Disposal Services Hickory Meadows Landfill, LLC ☐ Pecfa ☒ Bio Pile

Sales Representative: Kari A. Rabideau ☐ Non-Pecfa ☐ Landfill

**A. Generator**

| | |
|---|---|
| Name | WisDOT (WisDOT # 9190-13-71) |
| Site Address | STH 32 |
| City, State, Zip | Pulaski, Brown/Shawano/Oconto Counties, WI |
| Contact | Sharlene TeBeest |
| Phone | (608) 266-1476 |
| Fax | |
| E-mail | Sharlene.TeBeest@dot.wi.gov |

**B. Billing**

| | |
|---|---|
| Name | Peters Concrete, Inc. |
| Address | 1516 Atkinson Drive |
| City, State | Green Bay, WI Zip 54303 |
| Contact | James Peters |
| Phone | (920) 494-3700 |
| Fax | (920) 494-5475 |

**C. Description of Waste**

Soil Contaminated With: ☒ Unleaded Gasoline ☐ Leaded Gasoline ☐ Diesel ☐ Fuel Oil ☐ Waste Oil ☐ Other

Source of Contamination: ☒ LUST ☐ AST ☐ Spill ☐ Other

Quantity of Soil 1,500 Tons Frequency total Free Liquids none

**D. Other Waste Data or Comments**

**E. Sample/Analysis Information**

Check all that apply:

☐ Sample submitted with profile ☒ Laboratory Analysis submitted ☐ Material Safety Data Sheet submitted

Laboratory Name Pace Analytical Sample Date 2/25/2013 Sample I.D. GP3-1/6-1

**F. Generator Certification**

1. This waste is not a hazardous waste as defined in Wisconsin Administrative Code NR 661 or 40 CFR 261.
2. This waste does not contain regulated quantities of PCB's.
3. This waste does not contain regulated quantities of herbicides or pesticides.
4. This waste does not contain infectious wastes as defined in Wisconsin Administrative Code NR 526.
5. To the best of my knowledge, all the information in this and all attached documents contain true and accurate descriptions of this waste. Any sample submitted is representative as defined in 40 CFR 261 - Appendix 1 and was obtained by using this or an equivalent sampling method. All relevant information regarding known or suspected hazards in the possession of the generator has been disclosed.

Generator's Signature Sharlene TeBeest Title Sharlene B. TeBeest Hazardous Materials Specialist

Print Name Date 1/31/14

**G. Landfill Approval**

My approval is based upon the laboratory analysis of a representative sample and/or material safety data sheet submitted by the generator.

Landfill Signature Date

Approvals Signature Date

Waste Category Analytical Protocol Disposal Operation Recert. Date

VOC Concentration

# Appendix D
# Photo Log

# Photographic Log

| Client Name: | Site Location: | Project No.: |
|---|---|---|
| Wisconsin Department of Transportation (WisDOT) | STH 32<br>Pulaski, WI | TRC: 213159.0000.0000<br>WisDOT: 9190-13-71 |

| Photo No. | Date |
|---|---|
| 1 | 04/08/2014 |

**Description**
Lateral excavation for connection to MH30, Pulaski Street: STA. 14+55 (Site 5).

| Photo No. | Date |
|---|---|
| 2 | 04/08/2014 |

**Description**
Main storm sewer and lateral connection to MH 30 – Pulaski Street: STA. 14+55 (Site 5).

# Photographic Log

| Client Name: | Site Location: | Project No.: |
|---|---|---|
| Wisconsin Department of Transportation (WisDOT) | STH 32<br>Pulaski, WI | TRC: 213159.0000.0000<br>WisDOT: 9190-13-71 |

| Photo No. | Date |
|---|---|
| 3 | 05/02/2014 |

**Description**
Grade excavation at intersection of Wisconsin Street and Pulaski Street.

| Photo No. | Date |
|---|---|
| 4 | 04/10/2014 |

**Description**
Main storm sewer installation in Pulaski Street (Sites 3&4).

# Photographic Log

| Client Name: | Site Location: | Project No.: |
|---|---|---|
| Wisconsin Department of Transportation (WisDOT) | STH 32<br>Pulaski, WI | TRC: 213159.0000.0000<br>WisDOT: 9190-13-71 |

| Photo No. | Date |
|---|---|
| 5 | 04/16/2014 |

**Description**
Excavation for manhole near intersection of Wisconsin St. and Pulaski St.

| Photo No. | Date |
|---|---|
| 6 | 04/16/2014 |

**Description**
Inlet basins 60A & 60D installation at intersection of Wisconsin & Pulaski St. (Site 5).

# Photographic Log

| Client Name: | Site Location: | Project No.: |
|---|---|---|
| Wisconsin Department of Transportation (WisDOT) | STH 32<br>Pulaski, WI | TRC: 213159.0000.0000<br>WisDOT: 9190-13-71 |

| Photo No. | Date |
|---|---|
| 7 | 05/13/2014 |

**Description**
Excavation below subgrade (EBS) on Pulaski Street (Sites 2&3).

| Photo No. | Date |
|---|---|
| 8 | 05/13/2014 |

**Description**
Excavation below subgrade (EBS) on Pulaski Street (Sites 2&3).

# Photographic Log

| Client Name: | Site Location: | Project No.: |
|---|---|---|
| Wisconsin Department of Transportation (WisDOT) | STH 32<br>Pulaski, WI | TRC: 213159.0000.0000<br>WisDOT: 9190-13-71 |

| Photo No. | Date |
|---|---|
| 9 | 05/13/2014 |

**Description**
EBS mat and base rock on Pulaski Street (Sites 2&3).

| Photo No. | Date |
|---|---|
| 10 | 08/06/2014 |

**Description**
Storm sewer installation on Wisconsin Street (Sites 5&6).

# Photographic Log

| Client Name: | Site Location: | Project No.: |
|---|---|---|
| Wisconsin Department of Transportation (WisDOT) | STH 32<br>Pulaski, WI | TRC: 213159.0000.0000<br>WisDOT: 9190-13-71 |

| Photo No. | Date |
|---|---|
| 11 | 08/18/2014 |

**Description**
Excavation for inlet basin 60 B with contaminated soil.

| Photo No. | Date |
|---|---|
| 12 | 08/18/2014 |

**Description**
Excavation for inlet basin 60 B. Close-up view of contaminated soil.

I have processed the sites for the completed STH 32 Pulaski road construction project. The Phase 2/2.5 and Contaminated Soil Management Documentation reports will be uploaded electronically in BRRTS with the closed case, Brad's Service – Union 76 Station, BRRTS # 03-05-000819. For your files, the following lists the DNR actions for each of the sites investigated as part of the construction project:

| Site | Address | Existing BRRTS Case | BRRTS Case Assigned | Comment |
|---|---|---|---|---|
| Site 1: Heartland Fabrication & Machine, Inc. | 207 N St Augustine St | -- | Heartland Fabrication & Machine, Inc – WI DOT 09-05-NAR //2014 | No detects in soil samples, so assigned a NAR |
| Site 2: Brad's Service | 108 S St Augustine St | Brad's Service – Union 76 Station 03-05-000819 Closed 03/22/2001 | -- | Petroleum impacts in soil associated with residual contamination for closed case. |
| Site 3: Boutique Village | 118 E Pulaski St | -- | Boutique Village-ROW – WI DOT 09-05-560268 NAR 03/26/2013 | Contamination in soil associated with residual contamination from Site 2 closed case??? |
| Site 4: Citizens Bank Parking Lot | 152 E Pulaski St | -- | Citizens Bank Parking Lot – WI DOT 09-05-NAR //2014 | No detects in soil samples, so assigned a NAR |
| Site 5: Pulaski Shell Station | 113 S Wisconsin St | Westerfield Mobil Station 03-05-096591 Closed 02/24/2003 | -- | Petroleum impacts in soil associated with residual contamination for closed case. |
| Site 6: Trails End Food and Spirits | 104 S Wisconsin St | -- | Trails End Food & Spirits-ROW – WI DOT 09-05-560267 NAR 03/26/2013 | Contamination in soil associated with residual contamination from Site 5 closed case. |

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March 27, 2013

Ms. Vickie Taddy
Wisconsin Department of Natural Resources
2984 Shawno Avenue
Green Bay, WI 54313

Subject: Phase 2/2.5 Soil Investigation and Special Provisions
STH 32, Pulaski, WI
WisDOT Project ID #9190-13-00

Dear Ms. Taddy:

Enclosed is the Phase 2/2.5 Site Investigation Report and Special Provisions for the STH 32 project in Pulaski, Wisconsin. Together these documents constitute the Excavation Management Plant (EMP) for the project.

We are requesting WDNR's concurrence with the Special Provisions by May 10, 2013, prior to the PS&E.

Please feel free to contact Alyssa Sellwood at 608-826-3658 or Dan Haak at 608-826-3628, if you have any question or would like to discuss in further detail.

Sincerely,

TRC Environmental Corporation

Alyssa Sellwood, P.E.
Project Engineer

Dan Haak, P.E.
Project Manager

Enclosure

cc: Kathie VanPrice – WisDOT (hard copy and pdf on CD)
Alyssa Barrette – WisDOT (hard copy and pdf on CD)
Sharlene TeBeest – WisDOT (hard copy and pdf on CD)
Jim Morse – TRC

# Phase 2/2.5 Investigation Report

STH 32
Pulaski, Wisconsin

WisDOT Project #9190-13-00

March 2013

# Phase 2/2.5 Investigation Report

## STH 32
## Pulaski, Wisconsin

*WisDOT Project #9190-13-00*

**March 2013**

Wesley Braga
Staff Geologist

Daniel Haak, P.E.
Project Manager

Alyssa Sellwood, P.E.
Project Engineer

James E. Morse
Senior Client Service Manager



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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 |
| 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 Waste Operations and Emergency Response |
| HMA | 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 |
| WDSPS | Wisconsin Department of Safety and Professional Services |
| WDNR | Wisconsin Department of Natural Resources |
| WisDOT | Wisconsin Department of Transportation |
| WGNHS | Wisconsin Geological and Natural History Survey |
| WI ERP | Wisconsin Environmental Repair Program database |

# Executive Summary

The Wisconsin Department of Transportation (WisDOT) is planning to reconstruct STH 32 from Green Bay Street to Chase Road in Pulaski, Wisconsin (WisDOT Project ID #9190-13-71). Soil is planned to be excavated to a maximum depth of eight feet below ground surface (bgs) for the reconstruction of the roadway and storm sewer. Groundwater is deeper than the maximum excavation depth, and is not anticipated to be encountered during construction. Real estate acquisitions are planned for the project, and include strip temporary easements and fee title strip acquisitions for properties along the construction corridor. The let date for the project is December 10, 2013.

On February 25, 2013, TRC completed a Phase 2/2.5 Investigation to identify and evaluate nature and extent of potential soil contamination within the limits of construction. The investigation was completed adjacent to six sites with potential impacts identified in the 2007 Phase 1 Hazardous Materials Assessment (HMA) prepared by STS Consultants, Ltd. (STS). The results of the investigation include:

- Petroleum-contaminated soil is present within the limits of construction at the following locations:
  - Site 2: Station 498+75 to 500+00 and from Station 35+25 to 36+00, from reference line to the construction limits on the left.
  - Site 3: Station 32+75 to 34+40, from reference line to the construction limits on the left.
  - Site 5: Station 11+50 to 15+00, from reference line to the construction limits on the left.
  - Site 6: Station 11+50 to 12+75, from reference line to the construction limits on the right.
- Low-level lead impacted soil was detected at one location during the investigation:
  - Site 6: Station 10+75 to 11+25 from reference line to the construction limits on the right.
- No USTs were encountered during the investigation; however, historical data and metal detector survey indicate a potential for USTs to exist at the following locations:
  - Site 3: Station 32+75 to 33+00 and Station 34+00 to 34+50, from 20-feet left of reference line to limits of construction left.
  - Site 4: Station 30+50 to 31+25, from 20-feet left of reference line to limits of construction left.

- Site 6: Station 299+25 to 299+50, from 20-feet left of reference line to limits of construction left, and Station 12+25 to Station 12+50, from 20-feet right of reference line to limits of construction right.

Petroleum impacts are within the extent of the fee title strip acquisitions for Sites 2, 5 and 6 and temporary easement near Site 3 and USTs may be present at Site 4. The WisDOT should consider the environmental liability prior to property acquisition for these sites.

TRC recommends that petroleum-impacted soil excavated at the locations listed above be field-screened by an environmental consultant during excavations for the reconstruction of STH 32, and soil with significant petroleum-impacts be treated and disposed at a WDNR-licensed bioremediation facility. TRC estimates that approximately 1,500 tons of petroleum-contaminated soil will require off-site treatment and disposal, at a unit cost of approximately $60 per ton. TRC recommends that soil with low-level petroleum and low-level lead impacts be reused as backfill within the limits of construction of the project under paved areas.

# Section 1
# Background

## 1.1 Proposed Roadway and Utility Construction

The Wisconsin Department of Transportation (WisDOT) is planning to reconstruct STH 32 from Green Bay Street to Chase Road in Pulaski, Wisconsin (WisDOT Project ID #9190-13-71). A site location map and project overview map are presented in Figures 1 and 2, respectively.

The preliminary construction drawings are included in Appendix A. The proposed reconstruction includes replacement of curb and gutter, sidewalk, and pavement, as well as the installation of new storm sewer along STH 32. Soil is planned to be excavated to depths ranging from five to eight feet below ground surface (bgs) for the construction of the storm sewer. Groundwater is reported at depths ranging from 10 to 12 feet below grade, and is not expected to be encountered during construction. The let date for the project is December 10, 2013.

Real estate acquisitions planned for the project include strip temporary easements and fee title strip acquisitions. A summary of the acquisition requirements for the project are included in Appendix B.

## 1.2 Previous Site Investigations

STS Consultants, Ltd completed a Phase I Hazardous Materials Assessment (HMA) for the project corridor in July 2007. TRC reviewed the Phase 1 HMA and the current WisDOT plans, and determined that six sites required additional assessment through a Phase 2/2.5 investigation for potential petroleum- impacts to soil. The sites are summarized in Table 1, and the locations are shown on Figures 2 and 3. The sites include the following:

- Site 1: 207 N St. Augustine Street (Heartland Fabrication & Machine, Inc.)
- Site 2: 108 S. St. Augustine Street (Brad's Service)
- Site 3: 118 E. Pulaski Street (Boutique Village)
- Site 4: 152 E. Pulaski Street (Citizens Bank parking lot)
- Site 5: 113 S. Wisconsin Street (Pulaski Shell Station)
- Site 6: 104 S. Wisconsin Street (Trails End Food and Spirits)

### 1.2.1 Sites 1, 3, 4, and 6 – Potential USTs

Sites 1, 3, 4, and 6 were reported in the Phase 1 HMA to historically have had one to three USTs. The USTs reported for Sites 3 and 4 may have been in or near the right of way, based on information provided in historical Sanborn maps. The relevant Sanborn maps for Sites 3 and 4 are included in Appendix C. The USTs reported for Sites 1 and 6 were based on information provided in interviews regarding historical site activities, and the location of the potential USTs on these sites was unknown.

### 1.2.2 Site 2 – Closed BRRTS Site 03-05-000819

Site 2 is a closed LUST WDNR BRRTS site (BRRTS #03 05 000819, Brad's Service). The site contains residual petroleum impacts to soil and groundwater, and the residual impacts were reported to extend into the right of way. Previous site investigation data for Site 2 is included in Appendix C.

### 1.2.3 Site 5 – Closed BRRTS Site 03-05-096591

Site 5 currently operates as a gas station and is a closed LUST WDNR BRRTS site (BRRTS #03 05 096591). The site contains residual petroleum impacts to soil and groundwater, and the residual impacts were reported to extend into the right of way. Previous site investigation data for Site 5 is included in Appendix C.

# Section 2
# Phase 2/2.5 Investigation

## 2.1 Investigation

The WisDOT retained TRC to perform a Phase 2/2.5 Investigation of the STH 32 corridor to identify and determine the nature and extent of soil contamination within the construction limits adjacent to the six sites listed in Section 1. Representatives from TRC and TRC's Geoprobe® subcontractor, Probe Technologies Inc. (Probe), were in Pulaski on February 25, 2013, to complete 16 soil borings. Photographs are included in Appendix D and boring locations are shown in Figures 3-1, 3-2 and 3-3.

The boring locations were selected based on TRC's review of previous environmental investigations, the current construction plans, and field observations. The borings were completed to a depth of 8-feet, which is the maximum depth anticipated for reconstruction of the storm sewer adjacent to the six sites. Groundwater is not expected to be encountered during construction and therefore groundwater sampling was not included in this investigation.

Probe abandoned each boring following sampling, and the abandonment forms are included in Appendix E. Soil cuttings generated during this investigation were containerized and disposed of under the WisDOT's hazardous waste disposal contract with Veolia Environmental Services (Appendix F).

## 2.2 Soil Screening and Sampling

During the Phase 2/2.5 Investigation, TRC logged the soil collected from each boring. The boring logs are included in Appendix E. Native soil in the area of the investigation is predominately light brown to brownish red dense clay, with some fine- to coarse-grained sand and gravel layering. Moist soil was encountered near the base of each boring, but saturated soil and groundwater were not observed.

TRC field-screened the soil for staining and odors, and for volatile organic compounds (VOCs) using a photoionization detector (PID). The PID readings are summarized in Table 2 and are included on the boring logs in Appendix E. Petroleum odor and elevated PID responses were detected in soil collected from nine of the 16 borings, at Site 2, 3, 5 and 6. No impacts were observed at Sites 1 and 4.

One soil sample was collected from each boring, and a second sample was collected from borings GP3-1, GP5-2, and GP6-1 for laboratory analysis. Soil samples were collected from the

depth interval(s) with the highest impacts based on field-screening results. If no impacts were observed in the field, then a soil sample was collected from an intermediate depth interval of the native material.

## 2.3 Soil Analytical Results

Soil samples were submitted to Pace Analytical, Inc. (Pace) for laboratory analysis for DRO, GRO, PVOCs, and lead. The laboratory report is included in Appendix G, and the results are summarized in Table 2. Table 2 compares the results to the generic NR 720 Residual Contaminant Levels (RCLs) and EPA Regional Screening Levels (RSLs).

The results from the soil sampling indicate that petroleum-contaminated soil is present within the limits of construction. Soil with petroleum-impacts over the WDNR NR 720 RCLs and/or EPA RSLs was encountered at Sites 2, 3, 5, and 6, which is consistent with the field screening results. In general the soil impacts are primarily gasoline related with concentrations that exceed the RCLs for GRO and PVOCs. The samples from Site 3 also contained DRO concentrations that were slightly above the RCL.

The extents of the petroleum-impacts to soil within the limits of construction are summarized in Table 1 and are shown on Figures 3-1, 3-2 and 3-3. The lateral extent of the impacts were defined based on the results of the Phase 2/2.5 sampling and results from previous site investigations. The vertical extent was not defined and is assumed to extend beyond the maximum depth of 8 feet in each boring (i.e. deeper than the maximum depth of the proposed construction). The extent of the petroleum-impacts is described as follows:

- Site 2: Station 498+75 to 500+00 and from Station 35+25 to 36+00, from reference line to the construction limits on the left.
- Site 3: Station 32+75 to 34+40, from reference line to the construction limits on the left.
- Site 5: Station 11+50 to 15+00, from reference line to the construction limits on the left.
- Site 6: Station 11+50 to 12+75, from reference line to the construction limits on the right.

Lead was detected above the residential direct contact RCL in the sample from boring GP6-3. Because the detected concentration of lead from this sample is below the industrial direct contact RCL and the EPA's RSLs because no evidence of source of lead impacts, and because no petroleum-impacts were detected at this location, the material in this area will be considered low-level impact for lead and will be allowed to be reused on-site from within the excavation from which it was removed.

## 2.4 UST - Metal Detector Survey

During the Phase 2/2.5 investigation, TRC completed a metal detector survey within the right of way for those sites with potential to contain historical USTs (Sites 1, 3, 4, and 6) based on the Phase 1 HMA. The purpose of the survey was to evaluate these sites for presence of metal below grade that may be associated with USTs. The results of the metal detector survey are included on Figures 3-1, 3-2 and 3-3.

The survey detected metal at several locations within the right of way near Site 3, 4 and 6.

- Site 3: Station 32+75 to 33+00 and Station 34+00 to 34+50, from 20-feet left of reference line to limits of construction left.
- Site 4: Station 30+50 to 31+25, from 20-feet left of reference line to limits of construction left.
- Site 6: Station 299+25 to 299+50, from 20-feet left of reference line to limits of construction left, and Station 12+25 to Station 12+50, from 20-feet right of reference line to limits of construction right.

These results suggest that USTs may be present at these locations. However, the positive response in the survey may also be a result of other surface or subsurface metal features and not related to USTs. The metal detector had no response within the limits of the survey for Site 1 (except for a manhole cover), suggesting that no USTs are present within the limits of construction at this location. No USTs were directly observed during the subsurface Geoprobe investigation.

## 2.5 Notice of Release

The impacts observed at Sites 2 and 5 are associated with closed BRRTS sites and responsible parties are listed for these impacts. Because the impacts observed at Sites 3 and 6 were potentially a result of historical USTs and not previously reported, a Notification of Hazardous Substances Discharge Form (WDNR Form 4400-225) was completed for each site and submitted to the WDNR. Copies of the submitted forms are included in Appendix H. A few general observations are summarized below:

- Site 3: Site 3 is downgradient and in proximity to Site 2 (BRRTS 03-05-000819). However, the soil sample collected from the boring located between Site 2 and 3 (GP3-2) did not contain petroleum impacts. In addition, DRO and benzene were detected at Site 3, and these compounds were not detected at Site 2. These observations may indicate that the impacts observed at Site 3 are not associated with Site 2.
- Site 6: Petroleum impacts were only detected in GP6-1, which is downgradient and directly adjacent to the petroleum-impacted soil observed at Site 5 (BRRTS 03-05-096591. This may indicate that the impacts observed at Site 6 are associated with Site 5.

# Section 3
# Conclusions and Recommendations

## 3.1 Real Estate Acquisitions

Real estate acquisitions are planned for the project and includes strip temporary easements and fee title strip acquisitions. The acquisition requirements proposed for the six sites evaluated in the Phase 2/2.5 investigation are summarized in Table 1.

Petroleum-impacts were detected at four of the six sites. The sites and the petroleum compounds with concentrations over NR 720 RCLs and/or EPA RSLs are listed below:

- Site 2: GRO, ethylbenzene, xylene and trimethylbenzene
- Site 3: GRO, DRO, benzene, ethylbenzene, xylene , trimethylbenzene, and MTBE
- Site 5: GRO, ethylbenzene, xylene , trimethylbenzene, and MTBE
- Site 6. GRO, benzene, ethylbenzene, toluene, xylene , trimethylbenzene, and MTBE

The impacts detected during the Phase 2/2.5 investigation were present within the extent of the fee title strip acquisitions for Sites 2, 5 and 6, and within the temporary easement near Site 3. No impacts were observed at Sites 1 and 4; however, the potential for USTs to be present near Site 4 (see Section 3.3) remains an open issue. The WisDOT should consider the environmental liability prior to property acquisition at the above listed sites, and consider that the WDNR may require additional investigation and/or remediation.

## 3.2 Petroleum Contaminated Soil Management

Petroleum-contaminated soil is present within the limits of construction at the following locations:

- Site 2: Station 498+75 to 500+00 and from Station 35+25 to 36+00, from reference line to the construction limits on the left.
- Site 3: Station 32+75 to 34+40, from reference line to the construction limits on the left.
- Site 5: Station 11+50 to 15+00, from reference line to the construction limits on the left.
- Site 6: Station 11+50 to 12+75,, from reference line to the construction limits on the right.

TRC recommends that soil excavated at the locations listed above be field-screened by an environmental consultant during excavations for the reconstruction of STH 32, and

- Soil with significant petroleum-impacts be treated and disposed at a WDNR-licensed bioremediation facility. Soil will be considered to have significant petroleum contamination if it exhibits significant petroleum odor, staining, and/or elevated PID readings (for example, PID readings greater than 10 ppm).
- Soil exhibiting low-level petroleum contamination based on field screening (for example, PID readings less than 10 ppm) will be considered suitable for reuse as backfill in the excavation from which it came. Excess low-level petroleum contaminated soil that cannot be reused as backfill in these areas will also be treated and disposed at a WDNR-licensed bioremediation facility.

TRC estimates that approximately 1,500 tons of petroleum-contaminated soil will require off-site treatment and disposal, at a unit cost of approximately $60 per ton. Based on historic land uses along the STH 32 construction corridor, additional contaminated soil may be encountered during construction at locations other than those listed.

## 3.3 Low-level Lead Impacted Soil Management

Low-level lead impacted soil was detected at one location during the investigation:

- Site 6: Station 10+75 to 11+25 from reference line to the construction limits on the right.

TRC recommends that the low-level lead impacts soil removed from this location be reused as backfill within the limits of construction of the project under paved areas.

## 3.4 USTs

No USTs were encountered during the investigation; however, the information in the Phase 1 HMA and metal detector survey indicate a potential for USTs to exist within the limits of construction at the following locations:

- Site 3: Station 32+75 to 33+00 and Station 34+00 to 34+50, from 20-feet left of reference line to limits of construction left.
- Site 4: Station 30+50 to 31+25, from 20-feet left of reference line to limits of construction left.
- Site 6: Station 299+25 to 299+50, from 20-feet left of reference line to limits of construction left, and Station 12+25 to Station 12+50, from 20-feet right of reference line to limits of construction right.

The WisDOT may want to complete additional subsurface investigations (e.g. GPR survey) at these locations prior to construction to determine if USTs are present, and /or test pit investigations during highway construction. Based on historic land uses along the STH 32 construction corridor, additional USTs may be encountered during construction at locations other than those listed above.

## 3.5 Request for WDNR Reviews

TRC has prepared draft Special Provisions for the management contaminated soil during construction (Appendix I). TRC recommends that the WDNR review this report and the attached Special Provisions as the EMP. If acceptable, the WDNR should provide record of their concurrence with the EMP.

The WDNR should complete their review of this report and the Notifications of Hazardous Substances Discharge forms that were submitted Sites 3 and 6 and provide a determination regarding the responsible parties for the petroleum impacts detected at these two sites.

Table 1
Site Results Summary
STH 32 Phase 2/2.5 Investigation - Pulaski, Wisconsin
WisDOT #: 9190-13-00

| PH 1 ESA SITE ID | WisDOT PARCEL ID | SITE NAME | SITE ADDRESS | PHASE 1 POTENTIAL ISSUES | ACQUISITION REQUIREMENTS | MAX EXCAVATION REQUIREMENTS | PHASE 2 RESULTS SUMMARY |
|---|---|---|---|---|---|---|---|
| 1 | 54 | Heartland Fabrication & Machine, Inc. | 207 N St. Augustine St. | Historic Auto Shop<br>UST (interview) | TLE | 5 ft storm sewer | No Impacts Detected |
| 2 | 42 | Brad's Service | 108 S St Augustine St. | Closed BRRTS #03-05-000819<br>11 Removed USTs<br>Residual Impacts near ROW | 13 SF | 5 ft storm sewer | **Petroleum-Impact**s: Station 498+75 to 500+00 and 35+25 to 36+00 |
| 3 | 39 | Boutique Village | 118 E Pulaski St. | 3 USTs (Sanborn) | TLE | 5 ft storm sewer | **Petroleum-Impacts:** Station 32+75 to 34+25<br>**Potential USTs:** Station 32+75 to 33+00 and 34+00 to 34+50 |
| 4 | 38 | Citizens Bank Parking Lot | 152 E Pulaski St. | 2 USTs (Sanborn) | TLE | 5 ft storm sewer | No Impacts Detected<br>**Potential USTs:** Station 30+50 to 31+25 |
| 5 | 7 | Pulaski Shell Station | 113 S Wisconsin St. | Closed BRRTS # 03-05-096591<br>5 Removed USTs<br>Residual Impacts near ROW | 218 SF | 5 ft storm sewer | **Petroleum Impact**s: Station 11+50 to 14+25 |
| 6 | 21 | Trails End Food and Spirits | 104 S Wisconsin St. | UST (interview and EDR) | 8.5 SF | 5 ft storm sewer | **Petroleum Impacts**: Station 11+50 to Station 12+75<br>**Lead Impacts**: Station 10+75 to 11+25<br>**Potential USTs** : Station 299+25 to 299+50 and 12+25 to 12+50 |

Table 2
Summary of Soil Analytical Results
STH 32 Phase 2/2.5 Investigation - Pulaski, Wisconsin
WisDOT # 9190-13-00
February 25, 2013

| SAMPLE ID | SAMPLE DEPTH (FT BGS) | PID ppm | GRO mg/kg | DRO (L2) mg/kg | PVOCs BENZENE ug/kg | ETHYLBENZENE ug/kg | TOLUENE ug/kg | XYLENE ug/kg | MTBE ug/kg | 1,2,4-TMB ug/kg | 1,3,5-TMB ug/kg | LEAD mg/kg |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **GP1-1** | **2.5-5'** | 0.3 | <3.1 | <1.2 | <25.0 | <25.0 | <25.0 | <75.0 | <25.0 | <25.0 | <25.0 | 7.3 |
| **GP1-2** | **2.5-5'** | 0 | <2.7 | <0.80 | <25.0 | <25.0 | <25.0 | <75.0 | <25.0 | <25.0 | <25.0 | 3.5 |
| **GP2-1** | **7-8'** | **124** | 5.6 | 23.5 T4 | <25.0 | 56 J | <25.0 | 206 | <25.0 | 1,370 | 377 | 7.1 |
| **GP2-2** | **5-6.5'** | **330** | **628** | 59.8 T4 | <200 | **5,610** | 306 J | **15,400** | <200 | **35,500** | **14,300** | 6.1 |
| **GP3-1**[4] | **3.5-5'** | **152** | 36.5 | <1.1 | **88.5** | 284 | 51.5 J | 882 | <25.0 | 780 | 440 | 8.3 |
| | **5-6'** | **530** | **1,100** | **118** T4 | **1,220** | **8,780** | 584 J | **35,000** | **307** J | **20,300** | **9,800** | 7.8 |
| **GP3-2** | **3-5'** | 0.2 | <3.0 | 43.1 T4 | <25.0 | <25.0 | <25.0 | <75.0 | <25.0 | <25.0 | <25.0 | 25.7 |
| **GP3-3** | **2.5-5'** | **180** | 1.9 | **107** T4 | <25.0 | 696 | <25.0 | 1,814 | <25.0 | **1,810** | 815 | 11.4 |
| **GP4-1** | **5-7.5'** | 4.8 | <2.7 | 6.8 T4 | <25.0 | <25.0 | <25.0 | <75.0 | <25.0 | <25.0 | <25.0 | 3.7 |
| **GP4-2** | **5-7.5'** | 0 | <2.7 | 1.1 J | <25.0 | <25.0 | <25.0 | <75.0 | <25.0 | <25.0 | <25.0 | 3.9 |
| **GP5-1**[5] | **5.5-7.5'** | **259** | 20.0 | 35.9 T4 | <25.0 | 259 | <25.0 | 396 | <25.0 | **1,640** | 165 | 16.6 |
| **GP5-2** | **5-6'** | **375** | **109** | 12.8 T4 | <50.0 | 852 | 65.7 J | 933 | <50.0 | 1,070 | **1,710** | 3.6 |
| | **6-8'** | **>400** | **180** | 7.0 T4 | <50.0 | **5,700** | 183 | **19,630** | 103 J | **12,700** | **4,230** | 3.1 |
| **GP5-3**[6] | **6.5-8'** | **900** | **678** | 66.3 T4 | <100 | **15,800** | 403 | **42,970** | **323** | **47,000** | **16,000** | 4.1 |
| **GP5-4** | **5-6.5'** | 0 | <2.8 | <1.2 | <25.0 | <25.0 | <25.0 | <75.0 | <25.0 | <25.0 | <25.0 | 3.4 |
| **GP6-1** | **4-5'** | **682** | **1,710** | 92.9 T4 | **565 J** | **7,190** | 779 | **14,360** | **481** J | **12,300** | **7,970** | 7.2 |
| | **6.5-8'** | **884** | **510** | 19.1 T4 | **126 J** | **6,610** | **1,900** | **20,250** | 196 | **10,400** | **5,110** | 3.8 |
| **GP6-2** | **4.5-6.5'** | 0 | <2.8 | 8.8 T4 | <25.0 | <25.0 | <25.0 | <75.0 | <25.0 | <25.0 | <25.0 | 5.8 |
| **GP6-3** | **4-5'** | 0 | <3.5 | 2.4 J | <25.0 | <25.0 | <25.0 | <75.0 | <25.0 | <25.0 | <25.0 | **84** |
| **NR 720 GENERIC RCLs**[1] | | -- | 100 | 100 | 5.5 | 2,900 | 1,500 | 4,100 | -- | -- | -- | 50/500[2] |
| **EPA RSLs FOR SOIL**[3] | | | | | | | | | | | | |
| **DIRECT CONTACT NON-INDUST** | | -- | -- | -- | 1,490 | 7,470 | 818,000 | 258,000 | 59,400 | 89,800 | 182,000 | 400 |
| **DIRECT CONTACT INDUST** | | -- | -- | -- | 7,410 | 37,000 | 818,000 | 258,000 | 293,000 | 219,000 | 182,000 | 800 |
| **GW PATH** | | -- | -- | -- | 5.1 | 1,570 | 1,107 | 3,940 | 270 | 1,378 | 1,378 | 27,000 |

**Notes:**

Created By: WJB 3/11/2013
Checked By: AAS 3/11/13

J = Estimated value. Analyte detected at a level less than the reporting limit and greater than or equal to the detection limit.

L2 = Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results may be biased low.

T4 = Result reported for hydrocarbons within the method-specific range that do not match pattern of laboratory standard.

RCLs = Residual Contaminant Levels.

RSLs = Regional Screening Levels

TMB = Trimethylbenzene

MTBE = Methyl-tert-butyl ether

| | |
|---|---|
| **Bold** | = PID greater than 10 ppm |
| **Bold** | = indicates that the sample exceeds the NR 720 RCL groundwater pathway or non-industrial direct contact pathway |
| **Bold** | = indicates that the sample exceeds the EPA RSL for GW Pathway |

**Footnotes:**

(1) Generic RCL defined by Wisconsin Administrative Code NR 720. Values are the generic RCLs for the groundwater pathway, except where noted.

(2) Values are the generic RCL for exposure by direct contact for non-industrial and industrial, respectively.

(3) Calculated from http://epa-prgs.ornl.gov/cgi-bin/chemicals/csl_search using the default assumption listed in Draft Publication WDNR RR-890 (Dec. 2011)

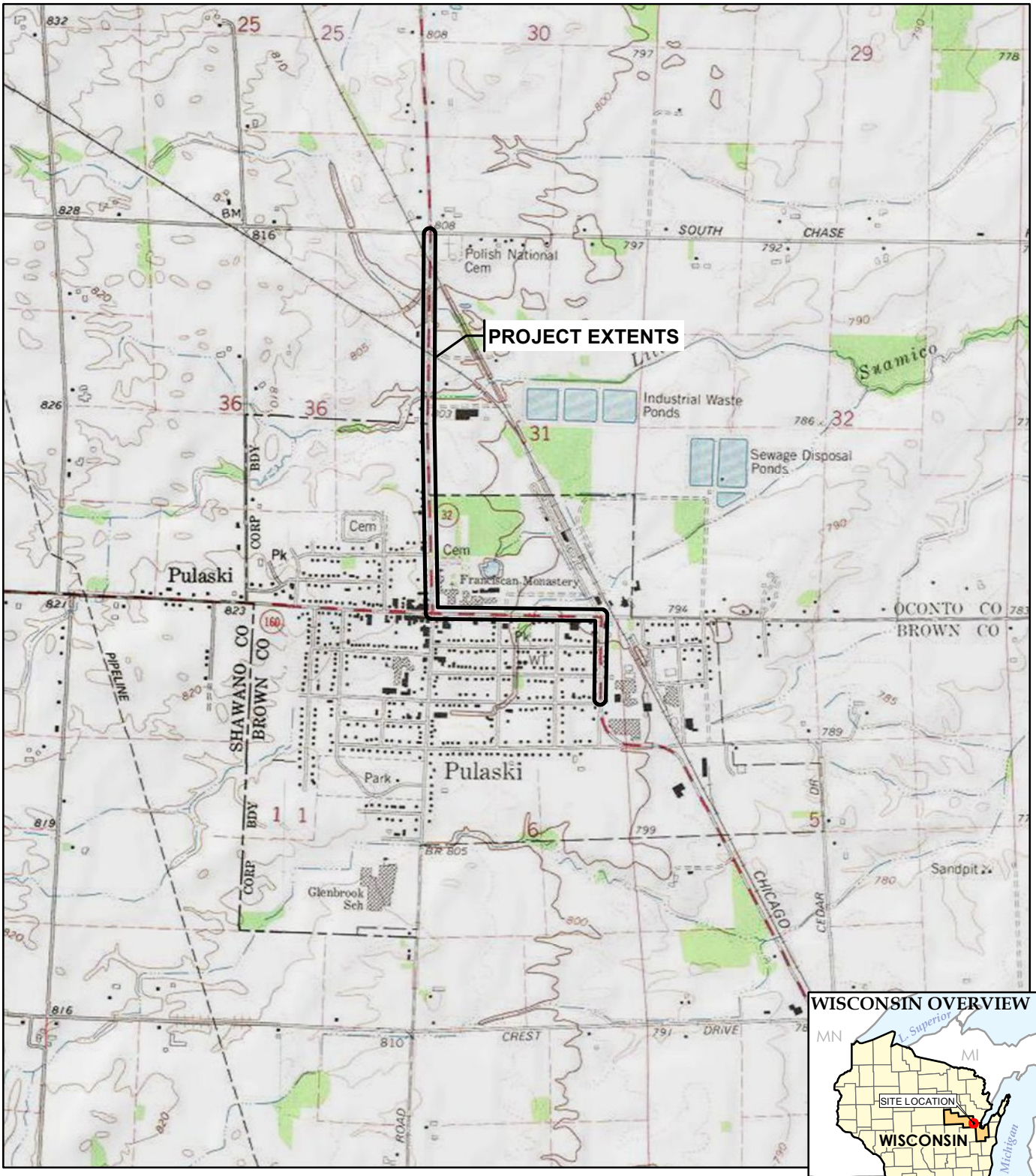
(4) The sample weight in the container did not meet method specifications. Sample was sub-sampled to meet methodcriteria.

(5) VOA vial arrived at lab with reversed septa preventing air tight seal

(6) VOA Vial was broken on arrival at lab, sample for VOC's were taken from dry weight container. Results may be biased low.

Saved By: JPAPEZ on 3/26/2013, 09:38:44 AM

TRC - GIS




BASE MAP FROM USGS 7.5 MINUTE TOPOGRAPHIC QUADRANGLE SERIES.

N

1 " = 2,000 '
1:24,000

0 2,000 4,000
FEET

E:\WI_DOT\2013_201040\201040-002slm.mxd


TRC

708 Heartland Trail
Suite 3000
Madison, WI 53717
Phone: 608.826.3600


**STATE HIGHWAY 32**
**WISDOT ID #9190-13-00**
**PULASKI, WISCONSIN**

**SITE LOCATION MAP**

| | |
|---|---|
| DRAWN BY: | PAPEZ J |
| APPROVED BY: | HAAK D |
| PROJECT NO: | 201040 |
| FILE NO. | 201040-002slm.mxd |
| DATE: | MARCH 2013 |

**FIGURE 1**

TRC - GIS

TRC
708 Heartland Trail
Suite 3000
Madison, WI 53717
Phone: 608.826.3600

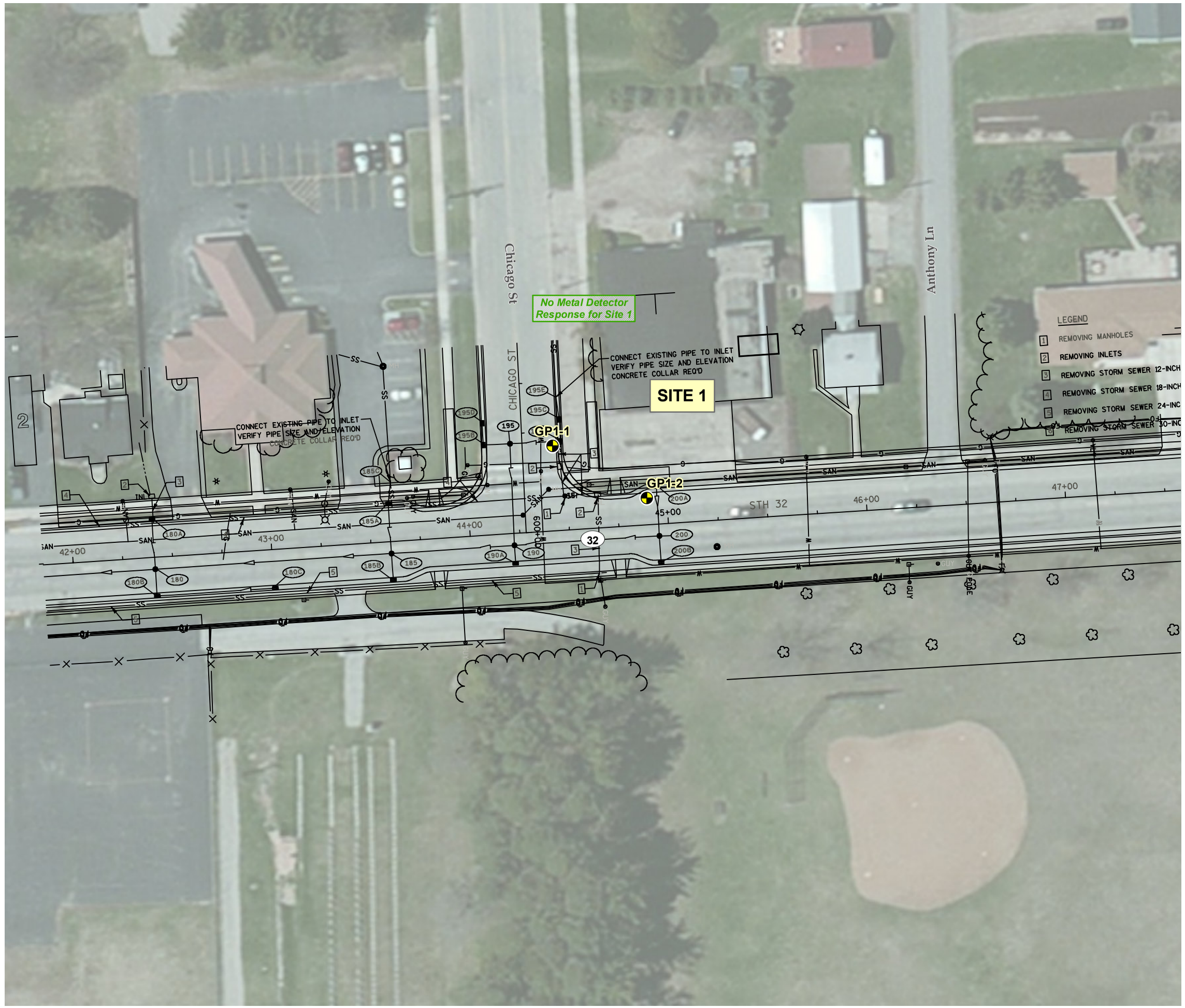
**STATE HIGHWAY 32**
**WISDOT ID #9190-13-00**
**PULASKI, WISCONSIN**

**SITE OVERVIEW MAP**

| | |
|---|---|
| DRAWN BY: | PAPEZ J |
| APPROVED BY: | HAAK D |
| PROJ. NO.: | 201040 |
| FILE NO.: | 201040-003.mxd |
| DATE: | MARCH 2013 |

E:\WI_DOT\2013_201040\201040-003.mxd
Saved By: JPAPEZ on 3/26/2013, 09:37:25 AM

**FIGURE 2**




## LEGEND

- BORING LOCATION
- APPROXIMATE METAL DETECTOR RESPONSE AREA (NOTE 3)

## NOTES

1. BASE MAP IMAGERY FROM ESRI "WORLD IMAGERY" BASEMAP WEB SERVICE LAYER.
2. DESIGN LINEWORK PROVIDED BY WisDOT, LOCATIONS ARE APPROXIMATE.
3. METAL DETECTOR SURVEY COMPLETED TO LOOK FOR POTENTIAL USTs. RESPONSE NOTED MAY REFLECT UTILITY OR OTHER SUBSURFACE OR SURFACE FEATURES OTHER THAN USTs.

N

0 50 100 Feet

1 " = 50 '
1:600

| | |
|---|---|
| PROJECT: | **STATE HIGHWAY 32<br>WISDOT ID #9190-13-00<br>PULASKI, WISCONSIN** |
| SHEET TITLE: | **PHASE 2.5 INVESTIGATION** |

| | | | | | |
|---|---|---|---|---|---|
| DRAWN BY: | PAPEZ J | SCALE: | 1: 600 | PROJ. NO. | 201040 |
| CHECKED BY: | SELLWOOD A | | | FILE NO. | 201040-001mb.mxd |
| APPROVED BY: | HAAK D | DATE PRINTED: | | **FIGURE 3-1** | |
| DATE: | MARCH 2013 | | | | |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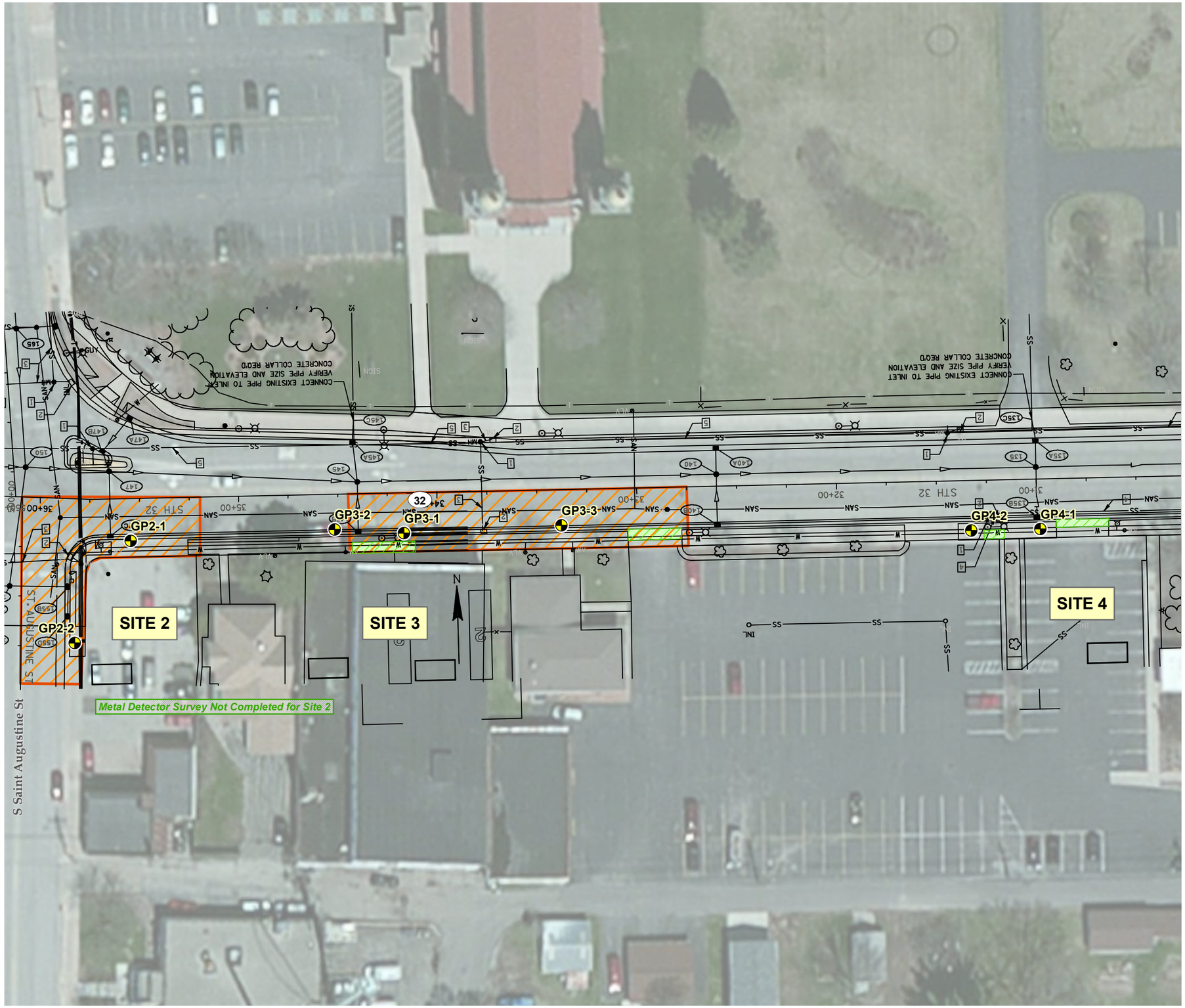
*708 Heartland Trail, Suite 3000*
*Madison, WI 53717*
*Phone: 608.826.3600*
*www.trcsolutions.com*



**Saved By:** JPAPEZ on 3/26/2013, 09:45:11 AM
**Path:** E:\WI_DOT\2013_201040\201040-001mb.mxd
**Coordinate System:** NAD 1983 StatePlane Wisconsin Central FIPS 4802 Feet (Foot US)
**Map Rotation:** 270Degrees
TRC - GIS




## LEGEND

- BORING LOCATION
- APPROXIMATE METAL DETECTOR RESPONSE AREA (NOTE 3)
- APPROXIMATE PETROLEUM-CONTAMINATED SOIL AREA

## NOTES

1. BASE MAP IMAGERY FROM ESRI "WORLD IMAGERY" BASEMAP WEB SERVICE LAYER.
2. DESIGN LINEWORK PROVIDED BY WisDOT, LOCATIONS ARE APPROXIMATE.
3. METAL DETECTOR SURVEY COMPLETED TO LOOK FOR POTENTIAL USTs. RESPONSE NOTED MAY REFLECT UTILITY OR OTHER SUBSURFACE OR SURFACE FEATURES OTHER THAN USTs.

N

0 50 100 Feet

1 " = 50 '
1:600

PROJECT:
**STATE HIGHWAY 32**
**WISDOT ID #9190-13-00**
**PULASKI, WISCONSIN**

SHEET TITLE:
**PHASE 2.5 INVESTIGATION**

| | | | |
|---|---|---|---|
| DRAWN BY: | PAPEZ J | SCALE: 1: 600 | PROJ. NO. 201040 |
| CHECKED BY: | SELLWOOD A | | FILE NO. 201040-001mb.mxd |
| APPROVED BY: | HAAK D | DATE PRINTED: | **FIGURE 3-2** |
| DATE: | MARCH 2013 | | |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TRC - GIS
Coordinate System: NAD 1983 StatePlane Wisconsin Central FIPS 4802 Feet (Foot US)
Map Rotation: 0Degrees
Saved By: JPAPEZ on 3/26/2013, 09:45:11 AM
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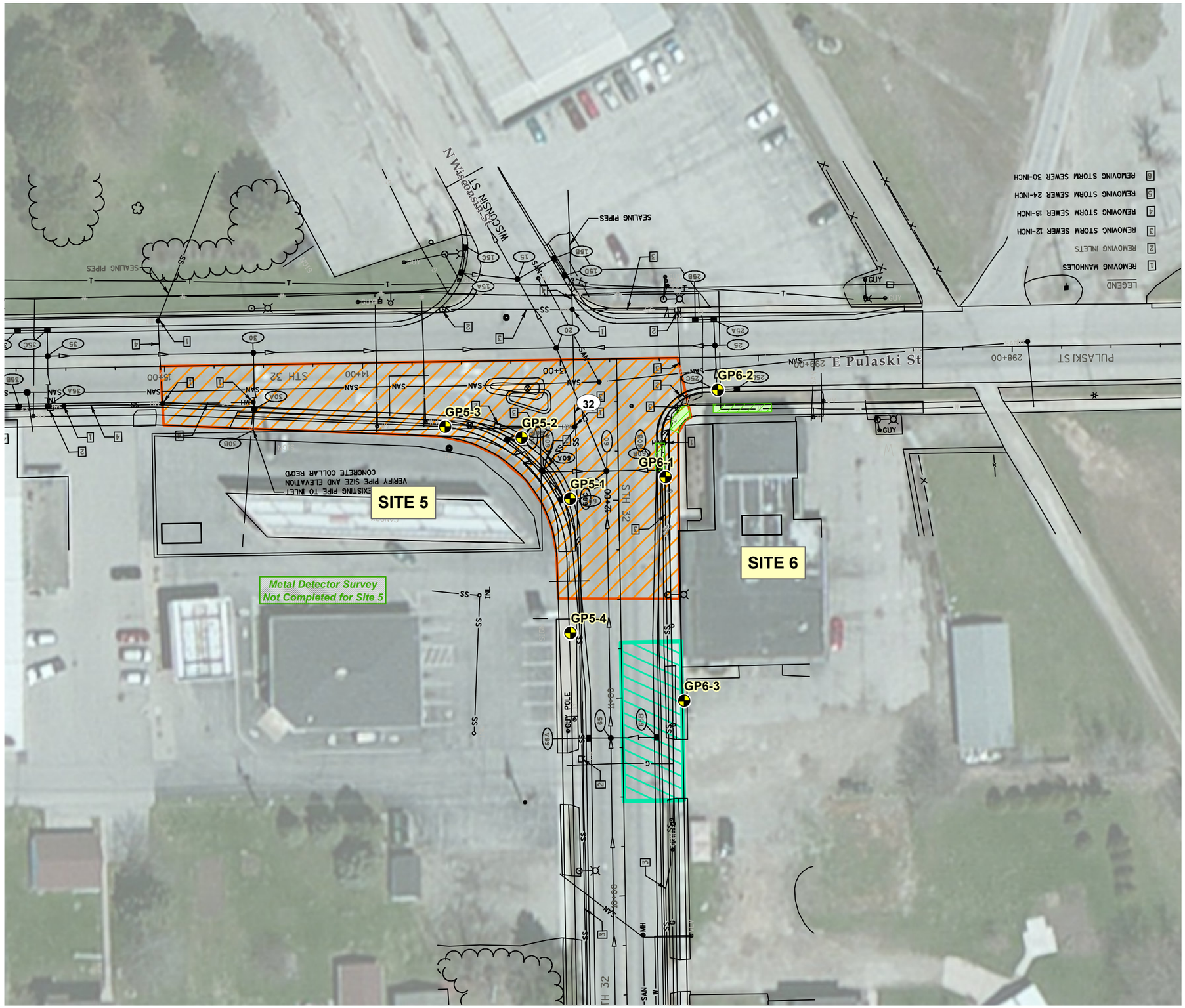


## LEGEND

- BORING LOCATION
- APPROXIMATE METAL DETECTOR RESPONSE AREA (NOTE 3)
- APPROXIMATE PETROLEUM-CONTAMINATED SOIL AREA
- APPROXIMATE LEAD-CONTAMINATED SOIL AREA

## NOTES

1. BASE MAP IMAGERY FROM ESRI "WORLD IMAGERY" BASEMAP WEB SERVICE LAYER.
2. DESIGN LINEWORK PROVIDED BY WisDOT, LOCATIONS ARE APPROXIMATE.
3. METAL DETECTOR SURVEY COMPLETED TO LOOK FOR POTENTIAL USTs. RESPONSE NOTED MAY REFLECT UTILITY OR OTHER SUBSURFACE OR SURFACE FEATURES OTHER THAN USTs.

N

0 50 100 Feet

1 " = 50 '

1:600

| | | | |
|---|---|---|---|
| PROJECT: | STATE HIGHWAY 32<br>WISDOT ID #9190-13-00<br>PULASKI, WISCONSIN | | |
| SHEET TITLE: | PHASE 2.5 INVESTIGATION | | |
| DRAWN BY: PAPEZ J | SCALE: 1: 600 | PROJ. NO. | 201040 |
| CHECKED BY: SELLWOOD A | | FILE NO. | 201040-001mb.mxd |
| APPROVED BY: HAAK D | DATE PRINTED: | FIGURE 3-3 | |
| DATE: MARCH 2013 | | | |

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Madison, WI 53717
Phone: 608.826.3600
www.trcsolutions.com

TRC - GIS
Coordinate System: NAD 1983 StatePlane Wisconsin Central FIPS 4802 Feet (Foot US)
Map Rotation: 0Degrees
Saved By: JPAPEZ on 3/26/2013, 09:45:11 AM
Path: E:\WI_DOT\2013_201040\201040-001mb.mxd

# Appendix A
# Construction Plans

PROJECT ID: 9190-13-71

COUNTY: BROWN

ORDER OF SHEETS


| | | |
|---|---|---|
| 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 =

DESIGN DESIGNATION

| | | |
|---|---|---|
| A.D.T. 2012 | = | 9,300 |
| A.D.T. 2032 | = | 12,300 |
| D.H.V. | = | 793/486 |
| D. | = | 62-38% |
| T. | = | 5.5 |
| DESIGN SPEED | = | 30-60 MPH |
| ESALS | = | 1,416,200 |

CONVENTIONAL SYMBOLS

PLAN

- CORPORATE LIMITS
- PROPERTY LINE (PL + 58.1)
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA
- EROSION MAT

PROFILE

- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (95.36)
- CULVERT (Profile View)

UTILITIES

- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

# STATE OF WISCONSIN
# DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

# VILLAGE OF PULASKI

GREEN BAY - S CHASE RD

## STH 32

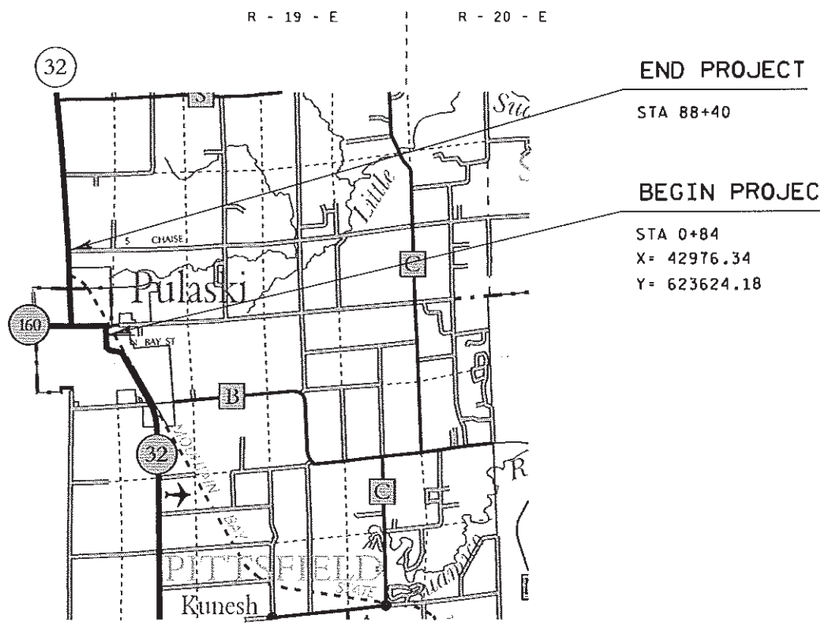
## BROWN COUNTY

| STATE PROJECT | FEDERAL PROJECT | |
|---|---|---|
| | PROJECT | CONTRACT |
| 9190-13-71 | | |
| | | |
| | | |
| | | |

STATE PROJECT NUMBER

9190-13-71

N




T 26 N

T 25 N

LAYOUT

SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 1.66 MI.

COORDINATES ON THIS PLAN ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), BROWN COUNTY

ALL ELEVATIONS ON THIS PROJECT ARE REFERENCED TO THE NATIONAL GEODETIC VERTICAL DATUM OF (NAV29).

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

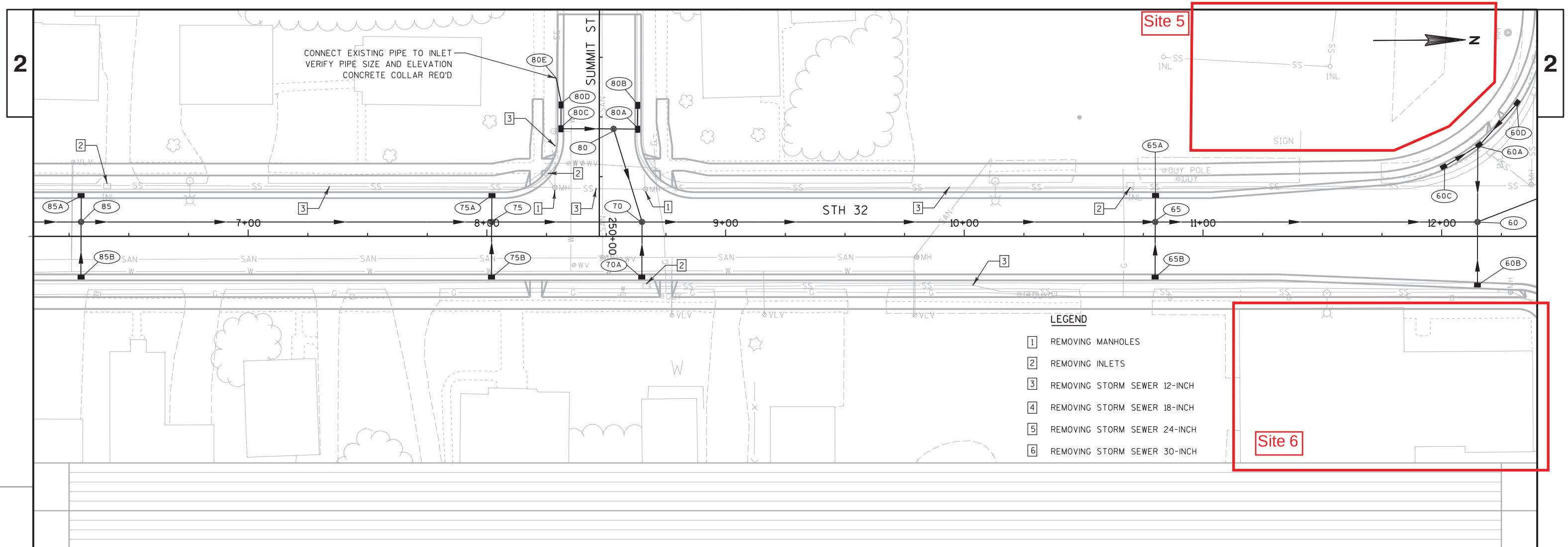
PREPARED BY

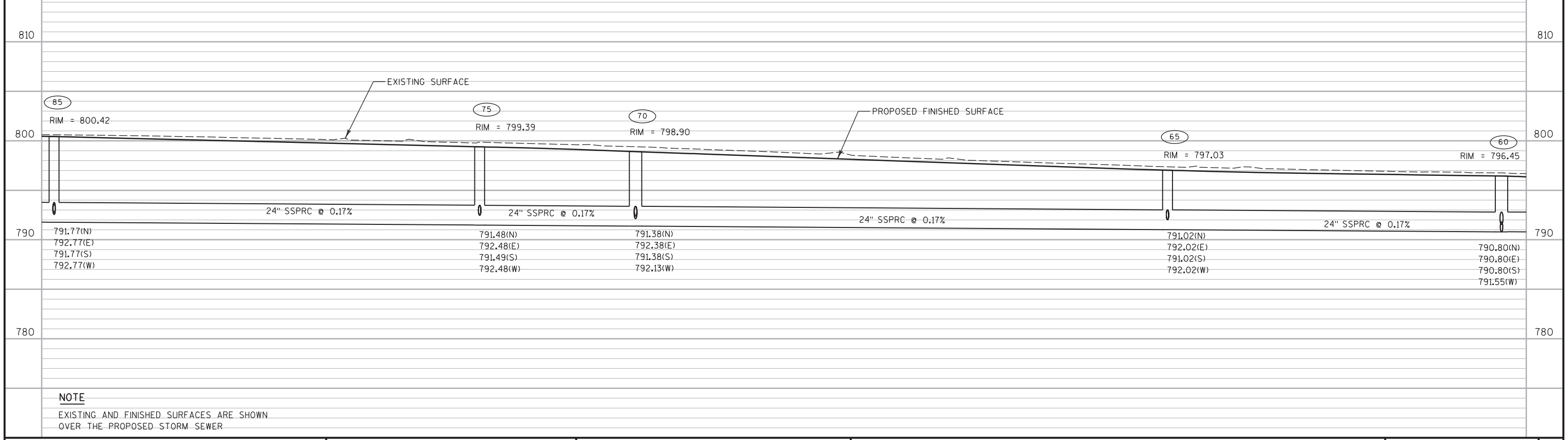
| | |
|---|---|
| Surveyor | NE REGION |
| Designer | J. D. POTTER |
| Project Manager | A. D. FULCER |
| District Examiner | |
| District Supervisor | D. J. SEGERSTROM |
| C.O. Examiner | |

APPROVED FOR DISTRICT OFFICE

DATE: _____ _____ (Signature)

E

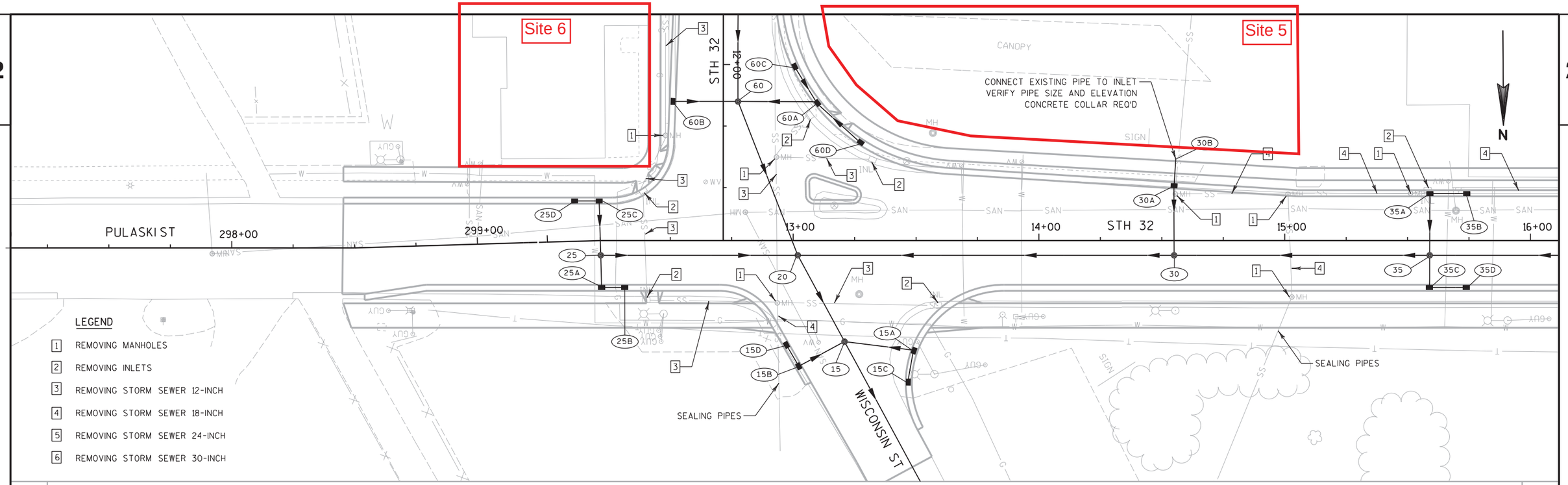


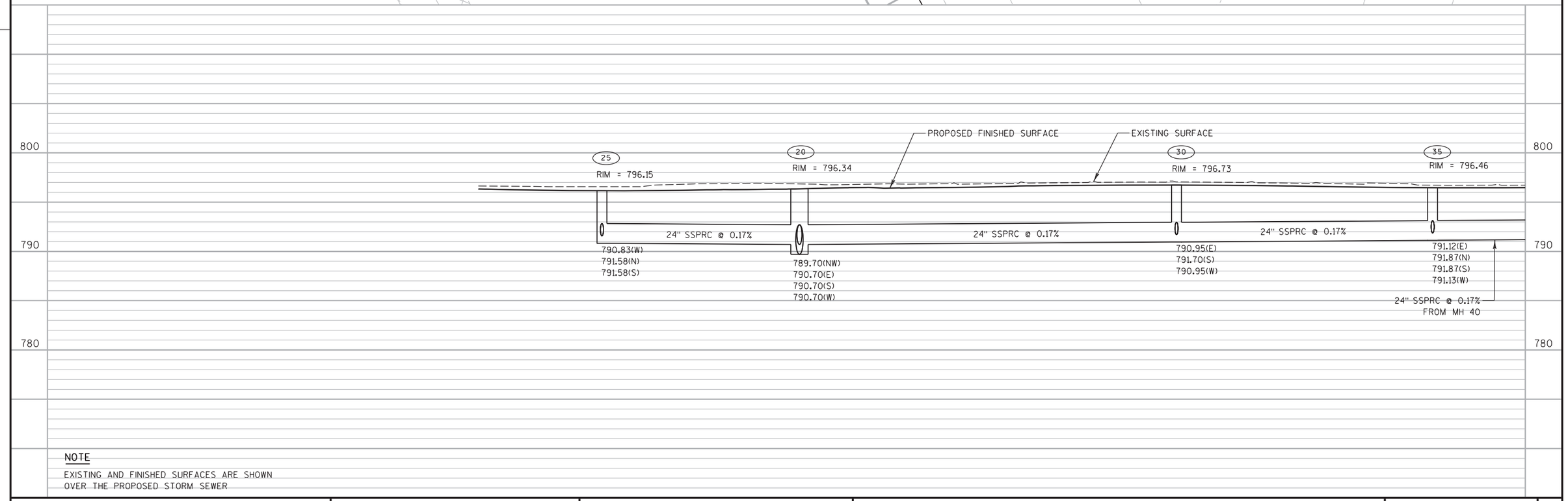




NOTE

EXISTING AND FINISHED SURFACES ARE SHOWN OVER THE PROPOSED STORM SEWER

| PROJECT NO: 9190-13-71 | HWY: STH 32 | COUNTY: BROWN | STORM SEWER - STH 32 | SHEET | E |
|---|---|---|---|---|---|




NOTE

EXISTING AND FINISHED SURFACES ARE SHOWN OVER THE PROPOSED STORM SEWER

| PROJECT NO: 9190-13-71 | HWY: STH 32 | COUNTY: BROWN | STORM SEWER - STH 32 | SHEET | E |
|---|---|---|---|---|---|

LEGEND

1 REMOVING MANHOLES
2 REMOVING INLETS
3 REMOVING STORM SEWER 12-INCH
4 REMOVING STORM SEWER 18-INCH
5 REMOVING STORM SEWER 24-INCH
6 REMOVING STORM SEWER 30-INCH

Site 4

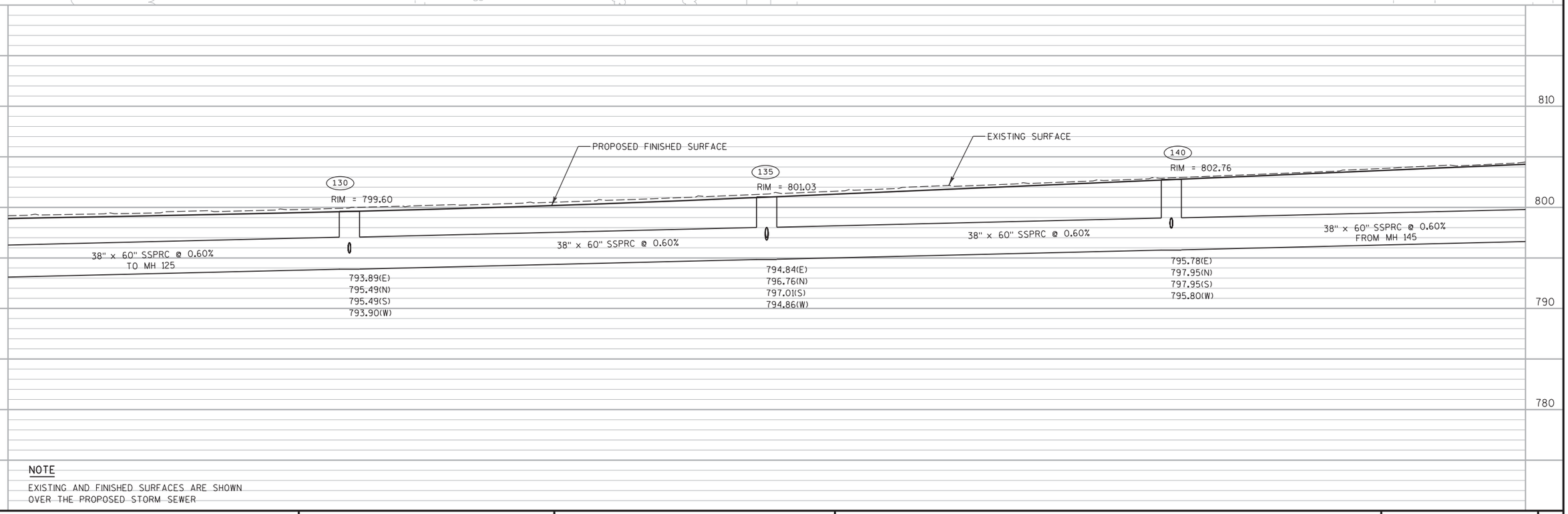
Site 3

N

28+00 29+00 30+00 31+00 STH 32 32+00 33+00 34+00

125C 130B 130A 130 135B 135A 135 135C 140B 140A 140

CONNECT EXISTING PIPE TO INLET
VERIFY PIPE SIZE AND ELEVATION
CONCRETE COLLAR REQ'D

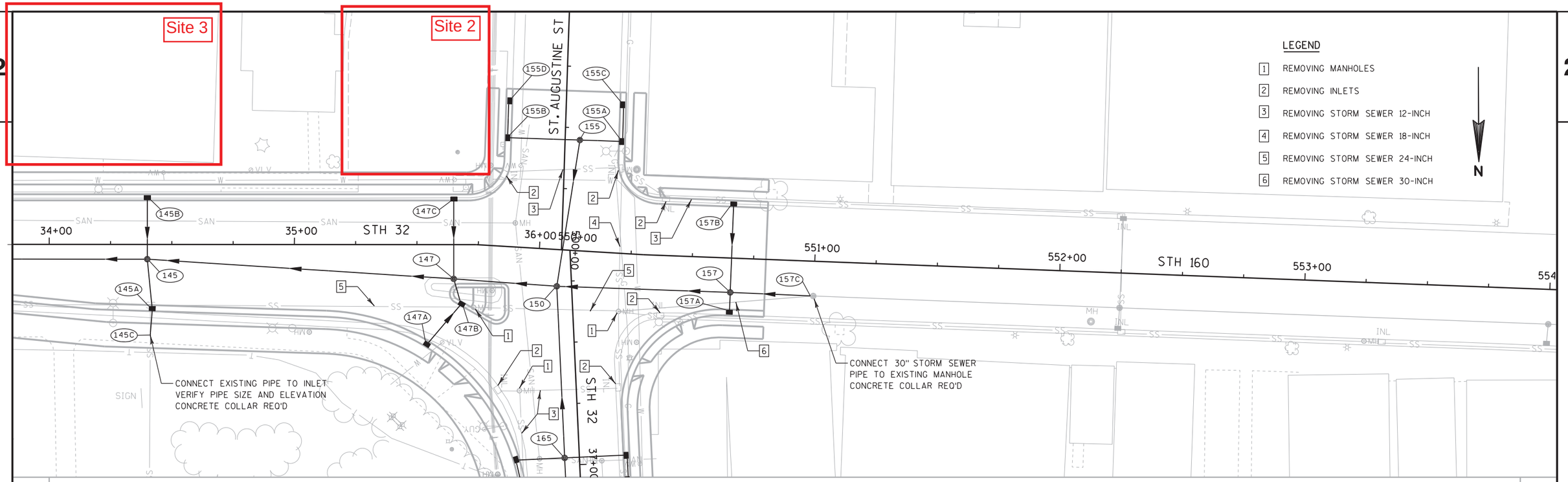


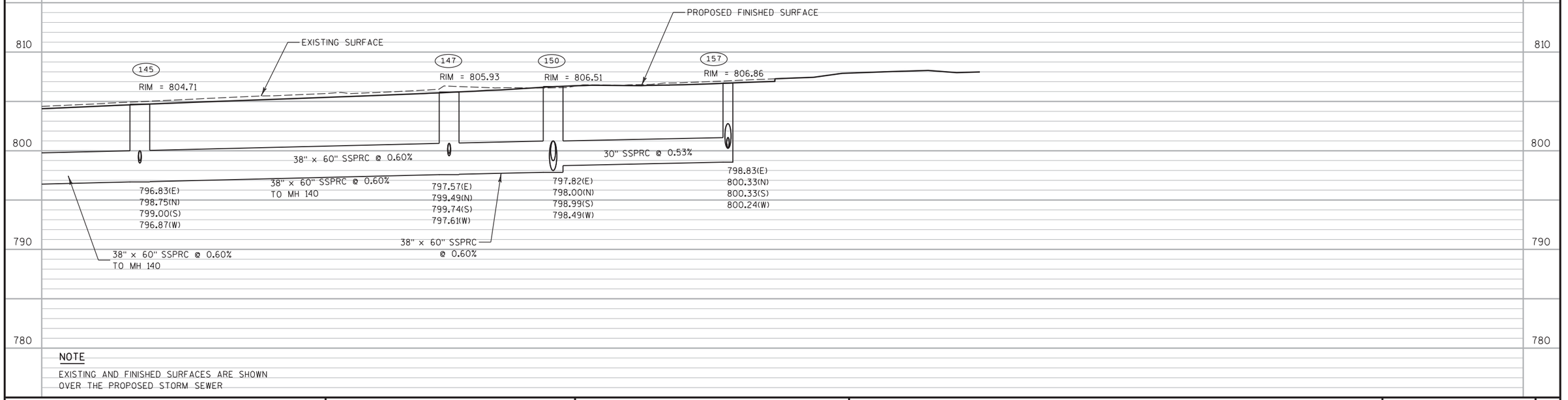

NOTE

EXISTING AND FINISHED SURFACES ARE SHOWN OVER THE PROPOSED STORM SEWER

| PROJECT NO: 9190-13-71 | HWY: STH 32 | COUNTY: BROWN | STORM SEWER - STH 32 | SHEET | E |
|---|---|---|---|---|---|

FILE NAME : P:\47xx\4743_DP.12.STH32.BRN\CADDS\Plan\022507_ss.dgn PLOT DATE : 11/9/2012 PLOT BY : wfs PLOT NAME : PLOT SCALE : 1:40




NOTE

EXISTING AND FINISHED SURFACES ARE SHOWN OVER THE PROPOSED STORM SEWER

| PROJECT NO: 9190-13-71 | HWY: STH 32 | COUNTY: BROWN | STORM SEWER - STH 32 | SHEET | E |
|---|---|---|---|---|---|

CONNECT EXISTING PIPE TO INLET
VERIFY PIPE SIZE AND ELEVATION
CONCRETE COLLAR REQ'D

Site1

CONNECT EXISTING PIPE TO INLET
VERIFY PIPE SIZE AND ELEVATION
CONCRETE COLLAR REQ'D

CHICAGO ST

STH 32

42+00 43+00 44+00 45+00 46+00 47+00 48+00

600+00

**LEGEND**

1. REMOVING MANHOLES
2. REMOVING INLETS
3. REMOVING STORM SEWER 12-INCH
4. REMOVING STORM SEWER 18-INCH
5. REMOVING STORM SEWER 24-INCH
6. REMOVING STORM SEWER 30-INCH

N

180 RIM = 806.10
185 RIM = 806.51
190 RIM = 806.72
200 RIM = 806.97

EXISTING SURFACE
PROPOSED FINISHED SURFACE

24" SSPRC @ 0.30%
24" SSPRC @ 0.30%
24" SSPRC @ 0.30%

180: 801.52(S), 801.51(N), 802.27(E), 802.27(W)
185: 801.86(S), 801.87(N), 802.61(E), 802.61(W)
190: 802.04(S), 802.03(N), 802.79(E), 802.04(W)
200: 802.24(S), 802.99(E), 802.99(W)

24" SSPRC @ 0.30%
TO MH 175

810 800 790

**NOTE**

EXISTING AND FINISHED SURFACES ARE SHOWN
OVER THE PROPOSED STORM SEWER

| PROJECT NO: 9190-13-71 | HWY: STH 32 | COUNTY: BROWN | STORM SEWER - STH 32 | SHEET E |
|---|---|---|---|---|

FILE NAME : P:\47xx\4743_DP.12.STH32.BRN\CADDS\Plan\022510_ss.dgn
PLOT DATE : 11/9/2012
PLOT BY : wfs
PLOT NAME :
PLOT SCALE : 1:40
WISDOT/CADDS SHEET 41

# Appendix B
# Acquisition Summary

# SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

| PARCEL NUMBER | SHEET NUMBER | OWNER(S) | INTEREST REQUIRED | R/W SQUARE FEET REQUIRED | | | T.L.E. SQ. FT. | H.E. ACRES | PARCEL NUMBER |
|---|---|---|---|---|---|---|---|---|---|
| | | | | NEW | EXISTING | TOTAL | | | |
| 1 | 4.06 | ANDREW J. VAN DEN ELZEN | TLE | --- | --- | --- | 1,103 | --- | 1 |
| 2 | 4.06 | SUSAN E. NACHTWEY | TLE | --- | --- | --- | 1,916 | --- | 2 |
| 3 | 4.06 | DONALD P. VOGT & LINDA M. VOGT | TLE | --- | --- | --- | 686 | --- | 3 |
| 4 | 4.06 | JONATHAN STENDER & TANYA LASEE | TLE | --- | --- | --- | 337 | --- | 4 |
| 5 | 4.06 | BRIAN F. & ROSE M. EFFERT | TLE | --- | --- | --- | 948 | --- | 5 |
| 6 | 4.06 | REBECCA L. DeMILLE | TLE | --- | --- | --- | 599 | --- | 6 |
| 7 | 4.06 | ATNA DEVELOPMENT LLC. | FEE & TLE | 218 | --- | 218 | 2,372 | --- | 7 |
| 8 | 4.06 | GARY KOZICKI | TLE | --- | --- | --- | 150 | --- | 8 |
| 9 | 4.06 | ESTATE OF JEROME H. KOZICKI & IRENE R. KOZICKI | TLE | --- | --- | --- | 300 | --- | 9 |
| 10 | 4.06 | GARY KOZICKI | TLE | --- | --- | --- | 300 | --- | 10 |
| 11 | 4.06 | MARQUIS YACHTS, LLC. | TLE | --- | --- | --- | 599 | --- | 11 |
| 12 | 4.06 | KEVIN & MICHELE F. KUBIAK | TLE | --- | --- | --- | 449 | --- | 12 |
| 13 | 4.06 | RONALD P. LaROCK & SUZANNE R. GIBSON | TLE | --- | --- | --- | 699 | --- | 13 |
| 14 | 4.06 | SANDRA BIERHALS | TLE | --- | --- | --- | 300 | --- | 14 |
| 15 | 4.06 | TAMMY L. DEUTSCHER | TLE | --- | --- | --- | 225 | --- | 15 |
| 16 | 4.06 | EDWARD & DELORES J. LEWIS | TLE | --- | --- | --- | 525 | --- | 16 |
| 17 | 4.06 | RUSSEL J. & CRYSTAL M. CIEZKI | TLE | --- | --- | --- | 320 | --- | 17 |
| 18 | 4.06 | WESLEY A. SCHUBERT | TLE | --- | --- | --- | 170 | --- | 18 |
| 19 | 4.06 | ESTATE OF ANGELINE E. BOROWSKI | TLE | --- | --- | --- | 447 | --- | 19 |
| 20 | --- | --- | --- | --- | --- | --- | --- | --- | 20 |
| 21 | 4.06 | CHARLES ULLMER | FEE & TLE | 8.47 | --- | 8.47 | 989 | --- | 21 |
| 22 | 4.07 | ALL WASHED UP, LLC. | TLE | --- | --- | --- | 300 | --- | 22 |
| 23 | 4.07 | McDERMID REALTY PARTNERSHIP, LLP. | TLE | --- | --- | --- | 27 | --- | 23 |
| 24 | 4.07 | WISCONSIN ELECTRIC POWER COMPANY | TLE | --- | --- | --- | 629 | --- | 24 |
| 25 | 4.07 | MARQUIS YACHTS, LLC. | FEE & TLE | 532 | --- | 532 | 1,585 | --- | 25 |
| 26 | 4.07 | MARGARET ADASIEWICZ | TLE | --- | --- | --- | 337 | --- | 26 |
| 27 | 4.07 | MARK & PATRICIA FEMLING | TLE | --- | --- | --- | 848 | --- | 27 |
| 28 | 4.07 | DAVID A. & SHERRIL L. OLSON | TLE | --- | --- | --- | 1,168 | --- | 28 |
| 29 | 4.07 | AMY J. ANGELI | TLE | --- | --- | --- | 1,138 | --- | 29 |
| 30 | 4.06 & 4.07 | WISCONSIN DEPARTMENT OF NATURAL RESOURCES | TLE | --- | --- | --- | 398 | --- | 30 |
| 31 | 4.07 | DOROTHY PEPLINSKI TRUSTEE | FEE & TLE | 88 | --- | 88 | 783 | --- | 31 |
| 32 | 4.08 | VILLAGE OF PULASKI | TLE | --- | --- | --- | 785 | --- | 32 |
| 33 | 4.08 | ESTATE OF ANGELINE BOROWSKI | TLE | --- | --- | --- | 600 | --- | 33 |
| 34 | 4.08 | GEGORY P. & JANICE M. SMURAWA | TLE | --- | --- | --- | 532 | --- | 34 |
| 35 | 4.07,4.08,4.09,4.10 | FRANCISCAN FRIARS ASSUMPTION BVM PROVINCE, INC. | FEE & TLE | 18,414 | --- | 18,414 | 19223 | --- | 35 |


4

| REVISION DATE | DATE 1-14-2013 | SCALE, FEET 0 N/A | HWY: STH 32 | STATE R/W PROJECT NUMBER | PLAT SHEET 4.02 | |
|---|---|---|---|---|---|---|
| | | | COUNTY: BROWN | CONSTRUCTION PROJECT NUMBER | PS&E SHEET | E |

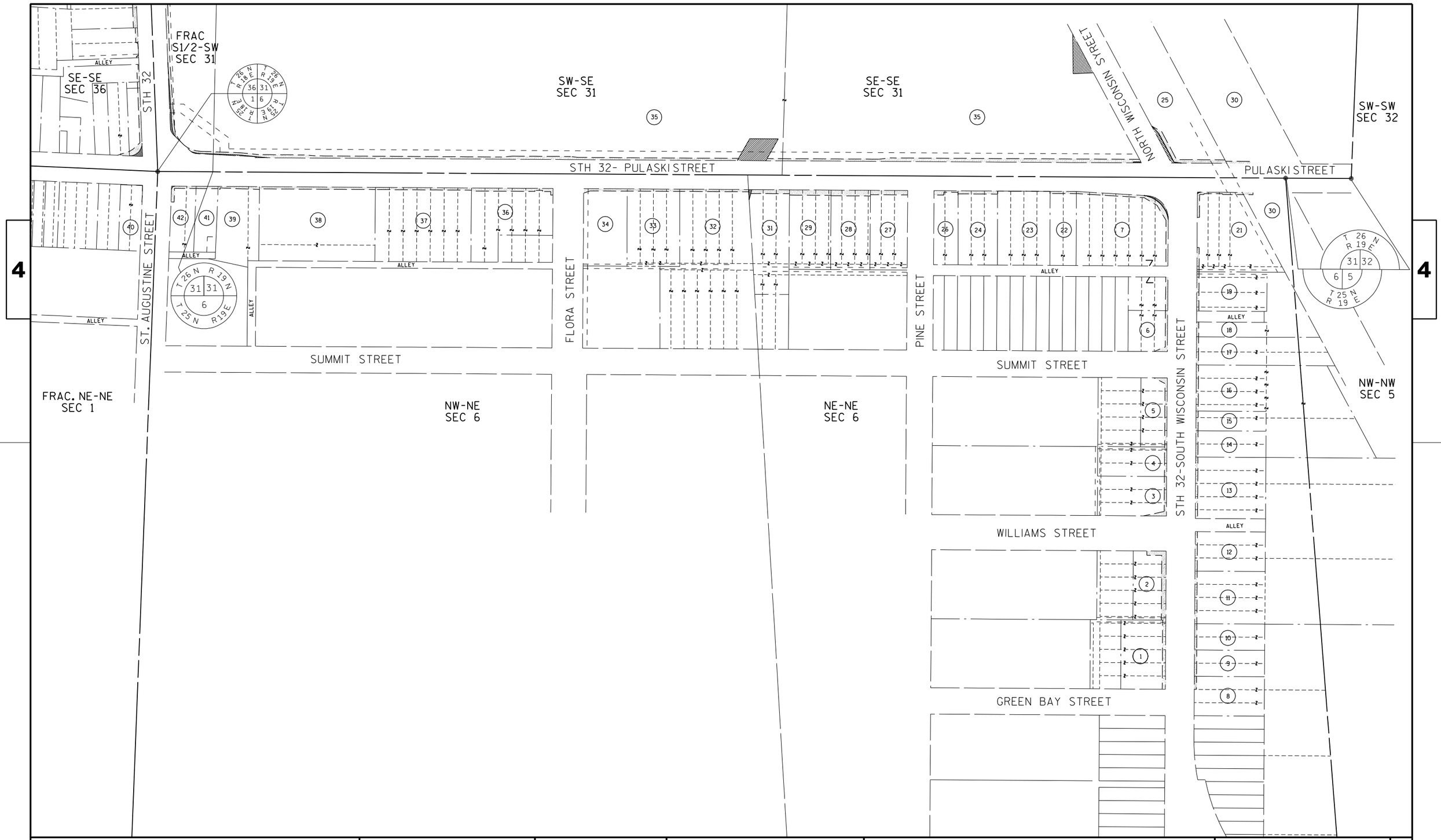
# SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

| PARCEL NUMBER | SHEET NUMBER | OWNER(S) | INTEREST REQUIRED | R/W SQUARE FEET REQUIRED | | | T.L.E. SQ. FT. | H.E. ACRES | PARCEL NUMBER |
|---|---|---|---|---|---|---|---|---|---|
| | | | | NEW | EXISTING | TOTAL | | | |
| 36 | 4.08 | SCOTT D. & PAMELA JANSSEN | TLE | --- | --- | --- | 1299 | --- | 36 |
| 37 | 4.08 | F&M BANK NORTHEAST | TLE | --- | --- | --- | 1,095 | --- | 37 |
| 38 | 4.08 | THE CONGREGATION OF THE ASSUMPTION BLESSED VIRGIN | TLE | --- | --- | --- | 1,322 | --- | 38 |
| 39 | 4.08 | VANDENBUSH ENTERPRISES, LLC. | TLE | --- | --- | --- | 469 | --- | 39 |
| 40 | 4.08 | RICHARD T. KUEHN | TLE | --- | --- | --- | 22 | --- | 40 |
| 41 | 4.08 | NORTHEAST COMMUNICATION OF WISCONSIN | TLE | --- | --- | --- | 250 | --- | 41 |
| 42 | 4.08 | BRADLEY P. AMBROSIUS | FEE & TLE | 13 | --- | 13 | 485 | --- | 42 |
| 43 | 4.09 | VILLAGE OF PULASKI | FEE & TLE | 204 | --- | 204 | 1,057 | --- | 43 |
| 44 | 4.09 | RONALD A. & MELISSA R. MADLEM | TLE | --- | --- | --- | 206 | --- | 44 |
| 45 | 4.09 | PULASKI PROPERTIES, LLC | TLE | --- | --- | --- | 146 | --- | 45 |
| 46 | 4.09 | ROBERT & TRUDY WIED | TLE | --- | --- | --- | 200 | --- | 46 |
| 47 | 4.09 | AMERICAN LEGION POST 337 ADAM V. MIXTOCKI | TLE | --- | --- | --- | 864 | --- | 47 |
| 48 | --- | --- | --- | --- | --- | --- | --- | --- | 48 |
| 49 | 4.09 | KIM A. WOZNIAK | TLE | --- | --- | --- | 439 | --- | 49 |
| 50 | --- | --- | --- | --- | --- | --- | --- | --- | 50 |
| 51 | 4.09 | FLORENCE J. YUREK | TLE | --- | --- | --- | 300 | --- | 51 |
| 52 | 4.09 | ANDREW M. THOMAS | TLE | --- | --- | --- | 675 | --- | 52 |
| 53 | 4.09 | FRONTIER SAVINGS ASSOCIATION | TLE | --- | --- | --- | 1,650 | --- | 53 |
| 54 | 4.09 | ERICK & ANNE MARIE FINKE | TLE | --- | --- | --- | 1,179 | --- | 54 |
| 55 | 4.09 | GRANT I. WOJTA | TLE | --- | --- | --- | 601 | --- | 55 |
| 56 | 4.09 | ROBERT & PHYLLIS BETLEY | TLE | --- | --- | --- | 2,745 | --- | 56 |
| 57 | 4.09 | ROBERT J. & DENISE L. WILLIS | TLE | --- | --- | --- | 1,838 | --- | 57 |
| 58 | 4.10 | CONGREGATION OF THE HOLY CROSS OF PULASKI, WI. | TLE | --- | --- | --- | 1,630 | --- | 58 |
| 59 | 4.10 | CHRISTOPHER G. & AMY J. JACOBS | TLE | --- | --- | --- | 69 | --- | 59 |
| 60 | --- | --- | --- | --- | --- | --- | --- | --- | 60 |
| 61 | 4.10 | JOSEPH M. ULLMER | TLE | --- | --- | --- | 602 | --- | 61 |
| 62 | 4.10 | ARLIN F. & GLORIA J. POLCZINSKI | TLE | --- | --- | --- | 700 | --- | 62 |
| 63 | 4.10 | JAMES E. HELMS & EDITH L. HELMS | TLE | --- | --- | --- | 409 | --- | 63 |
| 64 | 4.10 | SMP ENTERPRISES, LLC. | FEE & TLE | 1,240 | --- | 1,240 | 1,679 | --- | 64 |
| 65 | --- | --- | --- | --- | --- | --- | --- | --- | 65 |
| 66 | 4.10 | COUNTRY CARE PROPERTIES, LLC. | FEE | 7,806 | --- | 7,806 | --- | --- | 66 |


4

| REVISION DATE | DATE 1-14-2013 | SCALE: FEET 0 N/A | HWY: STH 132 | STATE R/W PROJECT NUMBER | PLAT SHEET 4.03 | |
|---|---|---|---|---|---|---|
| | | | COUNTY: BROWN | CONSTRUCTION PROJECT NUMBER | PS&E SHEET | E |




| REVISION DATE | DATE | NOT TO SCALE | HWY: STH 32 | STATE R/W PROJECT NUMBER | PLAT SHEET 4.04 | |
|---|---|---|---|---|---|---|
| | | | COUNTY: BROWN | CONSTRUCTION PROJECT NUMBER | PS&E SHEET | E |

FILE NAME : J:\Jobs2010\20102011-04\CAD\Client\dgn\00\Brown Co\RW Plat\040104_rp.dgn PLOT DATE : 1/14/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 70

4

4

ALLEY

SE-SE
SEC 36

MAIN STREET

FRAC. NE-NE
SEC 1

ALLEY

STH 160-WEST PULASKI STREET

CHICAGO STREET

NE-SE
SEC 36

44 45 ALLEY 46 47 49 51 52 53

43

54 55 ALLEY 56 57 58 59 61 62 63 64

ST. AUGUSTINE STREET

STH 32-ST. AUGUSTINE STREET

FRAC S1/2-SW
SEC 31

35

66

FRAC N1/2-SW
SEC 31

35

NW-NE
SEC 6

SW-SE
SEC 31

NW-SE
SEC 31

STH 32-PULASKI STREET

FLORA STREET

| | | | | | | |
|---|---|---|---|---|---|---|
| REVISION DATE | DATE | NOT TO SCALE | HWY: STH 32 | STATE R/W PROJECT NUMBER | PLAT SHEET 4.05 | |
| | | | COUNTY: BROWN | CONSTRUCTION PROJECT NUMBER | PS&E SHEET | E |

PI 145+45.57
Y=623,619.31
X=42,521.88

PI 194+91.21
Y=624,005.59
X=42,469.94

PI 245+93.20
Y=624,389.29
X=42,574.33

R/L PI 26+67.93
Y=624,818.99
X=41,587.41

Y=624,827.87
X=40,646.11
NAIL

PARCEL 21

| COURSE | BEARING | DISTANCE |
|---|---|---|
| 7001-9063 | S 89°39'50" E | 2,370.73' |
| 9063-8179 | S 00°21'32" W | 33.20' |
| 8179-9020 | S 00°21'32" W | 3.72' |
| - | C52 | - |
| 9018-8179 | N 89°40'14" W | 7.54' |

PARCEL 7

| COURSE | BEARING | DISTANCE |
|---|---|---|
| 7001-9062 | S 89°39'50" E | 2,248.57' |
| 9062-9022 | S 00°20'10" W | 41.51' |
| 9022-8310 | S 86°32'25" E | 7.76' |
| - | C16 | - |
| 8309-8308 | S 11°14'08" E | 8.25' |
| 8308-9021 | S 00°21'32" W | 5.05' |
| - | C53 | - |

VILLAGE

BLOCK 9

BLOCK 6

PEPLINSKI'S ADDITION

BLOCK 5

BLOCK 2

BLOCK 1

PULASKI

GREEN BAY STREET

WILLIAMS STREET

SUMMIT STREET

ALLEY

PULASKI STREET STH 32

SECTION LINE

REFERENCE LINE

BEARING

BEGIN RELOCATION ORDER
STA. 0+00.00
Y= 623,539.45
X= 42,975.81

ANDREW J. VAN DEN ELZEN

SUSAN E. NACHTWEY

DONALD P. VOGT & LINDA M VOGT

JONATHAN STENDER & TANYA LASEE

BRIAN F. & ROSE M. EFFERT

REBECCA L. DeMILLE

ATNA DEVELOPMENT, LLC.

GARY KOZICKI

ESTATE OF JEROME H. KOZICKI & IRENE R. KOZICKI

GARY KOZICKI

MARQUIS YACHTS, LLC.

KEVIN & MICHELE F. KUBIAK

RONALD P. LOROCK & SUZANNE R. GIBSON

SANDRA BIERHALS

TAMMY L. DEUTSCHER

EDWARD & DELORES J. LEWIS

RUSSEL J. & CRYSTAL M. CIEZKI

ESTATE OF ANGELINE E. BOROWSKI

CHARLES ULLMER

WESLEY A. SCHUBERT

WISCONSIN DEPARTMENT OF NATURAL RESOURCES

STH 32-SOUTH WISCONSIN STREET

STA. 0+77.75 STH 32
STA. 150+00.00 GREEN BAY STREET

STA. 04+62.41 STH 32
STA. 200+00.00 WILLIAMS STREET

STA. 08+47.08 STH 32
STA. 250+00.00 SUMMIT STREET

PISTA. 12+71.54 STH 32
STA. 300+00.00 PULASKI STREET
Y=624,810.96
X=42,983.78

R/L PI 299+50.00
Y=624,810.67
X=43,033.78

R/L PI 298+50.00
Y=624,813.10
X=43,133.75

Y=624,812.79
X=43,217.73
NAIL
297+66.02
0.18' RT.

Y=624,811.91
X=43,367.50
NAIL
296+16.25
0.16' RT.

R/L PI 296+16.29
Y=624,811.75
X=43,367.46

SECTION LINE BEARING S 01°40'17" E 3,075.40'

| ROAD NAME | BASIS OF EXISTING R-O-W | WIDTH | YEAR |
|---|---|---|---|
| STH 32-PULASKI ST | | VARIES | |
| STH 32-S. WISCONSIN ST | | 66' | |
| GREEN BAY STREET | | 60' | |
| WILLIAMS STREET | | 80' | |
| SUMMIT STREET | | 60' | |

CURVE TABLE

| CURVE | LENGTH | CHORD LENGTH | CHORD BEARING | RADIUS |
|---|---|---|---|---|
| C16 | 66.37' | 61.70' | S 48°53'16" E | 50.50' |
| C53 | 83.60' | 77.78' | N 45°50'54" W | 64.00' |
| C52 | 8.71' | 8.41' | N 64°03'13" E | 9.50' |

GN

SE-SE SEC 31
NE-NE SEC 6
NW-NW SEC 5
SW-SW SEC 32

| REVISION DATE | DATE | SCALE, FEET | HWY: STH 32 | STATE R/W PROJECT NUMBER | PLAT SHEET 4.06 | |
|---|---|---|---|---|---|---|
| | GRID FACTOR | | COUNTY: BROWN | CONSTRUCTION PROJECT NUMBER | PS&E SHEET | E |

FILE NAME : J:\Jobs2010\20102011-04\CAD\Client\dgn\00\Brown Co\RW Plat\040106_rp.dgn PLOT DATE : 1/14/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

GN

PARCEL 35

| COURSE | BEARING | DISTANCE |
|---|---|---|
| 7001-9064 | S 89°39'50" E | 2260.80' |
| 9064-8187 | N 28°07'43" W | 37.29' |
| 8187-7938 | N 89°40'14" W | 18.75' |
| 7938-7937 | N 00°19'46" E | 2.00' |
| 7937-7936 | S 89°40'14" E | 17.67' |
| 7936-8187 | S 28°07'43" E | 2.27' |

PARCEL 35

| COURSE | BEARING | DISTANCE |
|---|---|---|
| 7001-9064 | S 89°39'50" E | 2260.80' |
| 9064-8187 | N 28°07'43" W | 37.29' |
| 8187-9148 | N 28°07'43" W | 232.90' |
| 9148-9149 | S 87°31'44" W | 46.21' |
| 9149-9150 | N 00°37'14" W | 90.19' |
| 9150-9148 | S 28°07'43" E | 100.00' |

| ROAD NAME | BASIS OF EXISTING R-O-W | WIDTH | YEAR |
|---|---|---|---|
| STH 32 | | | |
| PINE STREET | | | |
| N. WISCONSIN ST. | | | |

PARCEL 25

| COURSE | BEARING | DISTANCE |
|---|---|---|
| 7001-9077 | S 89°39'50" E | 2,329.05' |
| 9077-7944 | N 28°07'43" W | 37.30' |
| 7944-9066 | N 28°07'43" W | 95.40' |
| 9066-9065 | S 43°22'58" E | 22.80' |
| 9065-9067 | S 28°07'43" E | 74.38' |
| 9067-9068 | S 83°03'39" E | 17.37' |
| 9068-7944 | N 89°40'14" W | 23.00' |

SW-SE
SEC 31

SE-SE
SEC 31

NW-NE
SEC 6

NE-NE
SEC 6

NW-NW
SEC 5

4

4

VILLAGE OF PULASKI

SIXTEENTH LINE

Y=624,827.87
X=40,646.11
NAIL

R/L PI 26+67.93
Y=624,818.99
X=41,587.41

7001 — 8064 — 1,345.14' — S 89°39'50" E

7942 — 22+54.35 — 30.00' — S 03°23'27" E — 33.39'
8177 — 22+61.97 — 30.00' — S 89°40'14" E — 7.62'
22+56.72 — 39.00'
7941 — 22+60.46 — 53.19' — S 15°05'24" W — 23.98'
8177 — N 03°23'27" W — 23.23'

STH 32 — PULASKI STREET

23+00 22+00 21+00 20+00 19+00 18+00 17+00 16+00 15+00 14+00 13+00 12+00 11+00 10+00 9+00

SECTION LINE — BEARING — S 89°39'50" E 915.66' — REFERENCE LINE — R BAR

FRANCISCAN FRIARS ASSUMPTION BVM PROVINCE, INC. (35)

TLE SLOPES — 5' — 20' WIDE TLE EASEMENT DOC. 1369698, V. 2182, P. 26

19+65.00 — 41.00'
19+40.00 — 44.00'
STA. 18+69.03 STH 32
STA. 400+00.00 PINE STREET
8'

9150 — 354+00.00 — 48.36'
9149 — 353+20.00 — 90.00'
9148 — 353+00.00 — 48.34'

PI 354+00.00
Y=625,163.87
X=42,774.99

SOUTH WISCONSIN STREET — 60' — S 28°07'43" E — 354+00 — N 28°07'43" W — 352+00

7936 — 13+70.58 — 44.00'
7938 — 13+67.33 — 38.00'
7937 — 13+85.00 — 36.00' & 38.00'
8187 — 13+66.25 — 36.00'
14+00

MAROUIS YACHTS, LLC (25)

351+30.00 — 11.70' — 9066
351+08.00 — 25.70'
351+08.00 — 17.70' — 9065
12+98.00 — 36.00' — 7944
12+92.26 — 38.00' — 9067
12+86.41 — 44.00'
12+75.00 — 36.00' — 9068
13+00 — 68.25'

30' WIDE SAN. EASEMENT DOC. 1432871, V. 20248, P. 28

TLE SLOPES — 8'

WISCONSIN DEPARTMENT OF NATURAL RESOURCES (30)

150'

Y=624,812.79
X=43,217.73
NAIL
297+66.02
0.18' RT.

Y=624,811.91
X=43,367.50
NAIL
296+16.25
0.16' RT.

7002 — 7003

299+03.24 — 42.61'
299+01.71 — 39.57'
298+99.15 — 34.49'
298+45.00 — 33.00' & 38.00'
242.62'
298+00
299+00
S 89°39'50" E 149.77'
N 89°40'14" W
S 88°36'37" W
N 89°40'14" W

R/L PI 296+16.29
Y=624,811.75
X=43,367.46

R/L PI 299+50.00
Y=624,810.67
X=43,033.78

R/L PI 298+50.00
Y=624,813.10
X=43,133.75

PI STA. 12+71.54 STH 32
STA. 300.00 PULASKI STREET
Y=624,810.96
X=42,983.78

N 89°40'14" W 37.29'
N 28°07'43" W 37.30'
N 86°32'25" W
STA. 12+91.82 STH 32
STA. 350.00 N. WIS. ST.
N 11°14'08" W

TLE SLOPES — 5'

16+94.16 — 30.00' — S 89°40'14" E
16+94.14 — 35.00' & 37.00'
15+14.34 — 30.00' & 35.00'

17+84.07 — 30.00' — N 89°40'14" W
17+84.04 — 37.00'
17+84.03 — 37.00'
18+39.03 — 40.00'

WISCONSIN ELECTRIC POWER COMPANY (24)

MARGARET ADASIEWICZ (26)

McDERMID REALTY PARTNERSHIP, LLP. (23)

ALL WASHED UP, LLC. (22)

DOROTHY PEPLINSKI TRUSTEE (31)

AMY J. ANGELI (29)

DAVID A. & SHERRIL L. OLSON (28)

MARK & PATRICIA FEMLING (27)

21+68.55 — 39.00' & 42.00'
20+73.72 — 42.00' & 43.00'
19+83.88 — 40.00' & 43.00'
18+99.03 — 40.00'
19+83.86 — 30.00'
18+99.02 — 30.00'
20+73.70 — 30.00'

TLE SLOPES — 13'

LOI 12 11 10 9 8 7 6 5 4 3 2 1

BLOCK 3

PEPLINSKI'S ADDITION

10' WIDE VILLAGE EASEMENT DOC. 1062986, V. 9465, P. 10

BLOCK 2

ALLEY — 25'

PULASKI

BLOCK 1

PI 396+06.87
Y=624,421.27
X=42,383.78

246+00 247+00 248+00 249+00

SUMMIT STREET

N 00°22'03" E — PINE STREET — 60' — 399+00 — 398+00 — 397+00 — N 00°23'55" E

N 00°21'32" E — 66' — 12+00 — 11+00 — 10+00 — 9+00

STH 32-SOUTH WISCONSIN STREET

SECTION LINE BEARING S 01°40'17" E 3,075.40'

PARCEL 31

| COURSE | BEARING | DISTANCE |
|---|---|---|
| 7001-8064 | S 89°39'50" E | 1,345.14' |
| 8064-8177 | S 03°23'27" E | 33.39' |
| 8177-7942 | S 89°40'14" E | 7.62' |
| 7942-7941 | S 15°05'24" W | 23.98' |
| 7941-8177 | N 03°23'27" W | 23.23' |

| REVISION DATE | DATE | SCALE, FEET 0 50 100 | HWY: STH 32 | STATE R/W PROJECT NUMBER | PLAT SHEET 4.07 | |
|---|---|---|---|---|---|---|
| | GRID FACTOR | | COUNTY: BROWN | CONSTRUCTION PROJECT NUMBER | PS&E SHEET | E |

| ROAD NAME | BASIS OF EXISTING R-O-W | WIDTH | YEAR |
|---|---|---|---|
| STH 32 | | | |
| ST. AUGUSTINE STREET | | | |
| FLORA STREET | | | |
| STH 160 | | | |

GN

PARCEL 35

| COURSE | BEARING | DISTANCE |
|---|---|---|
| 7001-9078 | S 89°39'50" E | 250.94' |
| 9078-8471 | N 00°20'10" E | 32.76' |
| 8471-8747 | N 89°39'13" W | 29.01' |
| 8747-8746 | N 00°20'47" E | 2.31' |
| 8746-8737 | N 87°03'06" W | 132.78' |
| -- | C50 | -- |
| -- | C48 | -- |
| 8466-8467 | S 87°49'09" E | 89.96' |
| 8467-8471 | S 84°12'19" E | 64.55' |

PARCEL 35

| COURSE | BEARING | DISTANCE |
|---|---|---|
| 7001-9079 | S 89°39'50" E | 1,321.27' |
| 9079-8480 | N 00°20'10" E | 32.68' |
| 8480-8481 | N 29°34'41" E | 57.31' |
| 8481-8482 | S 89°40'14" E | 65.00' |
| 8482-7930 | S 29°34'41" W | 57.31' |
| 7930-8480 | N 89°40'14" W | 65.00' |

PARCEL 42

| COURSE | BEARING | DISTANCE |
|---|---|---|
| 7001-9058 | S 89°39'50" E | 33.02' |
| 9058-8114 | S 02°13'47" W | 33.22' |
| 8114-9037 | S 89°39'13" E | 7.74' |
| -- | C54 | -- |
| 9036-8114 | N 02°13'47" E | 7.74' |

CURVE TABLE

| CURVE | LENGTH | CHORD LENGTH | CHORD BEARING | RADIUS |
|---|---|---|---|---|
| C54 | 12.30' | 11.13' | S 46°17'17" W | 8.00' |
| C49 | 39.38' | 38.72' | N 69°37'30" W | 62.00' |
| C51 | 3.25' | 3.24' | S 49°41'21" E | 25.00' |
| C48 | 21.62' | 21.53' | S 78°34'28" E | 67.00' |
| C50 | 14.68' | 14.47' | N 70°13'48" W | 25.00' |

| REVISION DATE | DATE | SCALE, FEET | HWY: STH 32 | STATE R/W PROJECT NUMBER | PLAT SHEET 4.08 | |
|---|---|---|---|---|---|---|
| | GRID FACTOR | 0 50 100 | COUNTY: BROWN | CONSTRUCTION PROJECT NUMBER | PS&E SHEET | E |

FILE NAME : J:\Jobs2010\20102011-04\CAD\Client\dgn\00\Brown Co\RW Plat\040108_rp.dgn PLOT DATE : 1/14/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

PARCEL 43

| COURSE | BEARING | DISTANCE |
|---|---|---|
| 7001-9060 | N 02°13'47" W | 32.98' |
| 9060-7141 | N 87°29'14" W | 33.30' |
| 7141-7508 | N 87°29'14" W | 29.84' |
| -- | C32 | -- |
| 8974-7141 | S 02°16'45" E | 30.44' |

| ROAD NAME | BASIS OF EXISTING R-O-W | WIDTH | YEAR |
|---|---|---|---|
| STH 32 | | | |
| ST. AUGUSTINE STREET | | | |
| CHICAGO STREET | | | |
| STH 160 | | | |

CURVE TABLE

| CURVE | LENGTH | CHORD LENGTH | CHORD BEARING | RADIUS |
|---|---|---|---|---|
| C26 | 15.83' | 15.57' | N 27°49'37" W | 25.00' |
| C46 | 22.49' | 22.38' | S 13°27'08" E | 67.00' |
| C47 | 39.68' | 39.01' | N 22°10'22" W | 62.00' |
| C32 | 45.72' | 40.81' | N 44°29'51" E | 28.00' |

PARCEL 35

| COURSE | BEARING | DISTANCE |
|---|---|---|
| 7001-9061 | N 02°13'47" E | 248.23' |
| 9061-8461 | S 87°46'13" E | 32.63' |
| 8461-8462 | S 03°50'10" E | 145.94' |
| -- | C46 | -- |
| 8463-2269 | N 45°58'12" W | 2.30' |
| -- | C26 | -- |
| 8748-8461 | N 02°16'45" W | 152.14' |

DETAIL 'C' n.t.s.

| REVISION DATE | DATE | SCALE, FEET | HWY: STH 32 | STATE R/W PROJECT NUMBER | PLAT SHEET 4.09 | |
|---|---|---|---|---|---|---|
| | GRID FACTOR | 0 50 100 | COUNTY: BROWN | CONSTRUCTION PROJECT NUMBER | PS&E SHEET | E |

FILE NAME : J:\Jobs2010\20102011-04\CAD\Client\dgn\00\Brown Co\RW Plat\040109_rp.dgn PLOT DATE : 1/14/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

4

CURVE TABLE

| CURVE | LENGTH | CHORD LENGTH | CHORD BEARING | RADIUS |
|---|---|---|---|---|
| C45 | 271.04' | 271.04' | S 01°27'02" E | 12,794.88' |
| C8 | 262.69' | 262.68' | N 01°34'05" W | 11,637.83' |
| C7 | 269.34' | 269.33' | N 01°33'28" W | 11,747.83' |
| C29 | 269.49' | 269.49' | S 01°33'24" E | 11,752.83' |

PARCEL 64

| COURSE | BEARING | DISTANCE |
|---|---|---|
| 145-9100 | S 02°13'47" E | 299.13' |
| 9100-8984 | S 87°46'13" W | 53.02' |
| 8984-7959 | S 02°50'01" W | 80.18' |
| 7959-7958 | S 02°12'53" E | 111.28' |
| 7958-8918 | N 22°03'14" W | 33.17' |
| 8919-8919 | N 02°03'27" W | 50.00' |
| 8919-8984 | N 07°10'22" E | 111.44' |

Y=624,827.87
X=40,646.11
NAIL
STA 36+13.19
3.15' RT.

Y=627,471.95
X=40,543.15
SURVEY NAIL
STA 62+59.24
2.93' LT.

VILLAGE OF SUAMICO

CONGREGATION OF THE HOLY CROSS OF PULASKI, WI. (58)

CHRISTOPHER C. & AMY J. JACOBS (59)

JOSEPH M. ULLMER (61)

ARLIN F. & GLORIA J. POLCZINSKI (62)

CSM#1844 LOT 2

CSM#1844 LOT 1
JAMES E. HELMS & EDITH L. HELMS (63)

MICHAEL M. & DONNA M. MAY

SMP ENTERPRISES, LLC. (64)

COUNTRY CARE PROPERTIES, LLC. (66)

CSM#4347 LOT 1

FRANCISCAN FRIARS ASSUMPTION BVM PROVINCE, INC. (35)

12' WIDE ALONG P.L. CL. UTIL. EASEMENT DOC. 318121, VOL. 7, PG. 437

DRAIN TILE EASEMENT DOC. 369477, V. 5108, P. 5

10' WIDE TELE. EASEMENT DOC. 172704

10' WIDE TELE. EASEMENT DOC. 172818

10' WIDE TELE. EASEMENT DOC. 172782

10' WIDE TELE. EASEMENT DOC. 172819

10' WIDE TELE. EASEMENT DOC. 172705

10' WIDE TELE. EASEMENT DOC. 172817

12' WIDE UTILITY EASEMENT DOC. 1302570, VOL. 27, PG. 207

TLE SLOPES

SAN SEWER

SIGN

WIDTH VARIES

QUARTER LINE BEARING N 87°56'39" W 2,571.69'

QUARTER LINE BEARING N 89°21'09" W 2,927.68' TOTAL

SECTION LINE BEARING N 02°13'47" W 2,646.08'

REFERENCE LINE BEARING N 02°03'27" W

STH 32 - ST AUGUSTINE STREET

SIXTEENTH

NE-SE SEC 36

NW-SE SEC 31

FRAC N1/2-SW SEC 31

COMPUTED QUARTER LINE BY OCONTO COUNTY SURVEYOR DATED 9-29-00

END RELOCATION ORDER
STA. 62+59.17
Y= 627,471.92
X= 40,546.09

PULASKI

R/L PI 49+38.85
Y=626,152.39
X=40,591.18

R/L PI 51+64.95
Y=626,378.33
X=40,582.45

R/L PI 44+28.31
Y=625,642.22
X=40,610.54

PC 59+84.44

PARCEL 66

| COURSE | BEARING | DISTANCE |
|---|---|---|
| 7001-7849 | N 02°13'47" W | 1,323.04' |
| 7849-7982 | S 89°26'54" E | 32.69' |
| 7982-7977 | N 02°12'53" W | 230.29' |
| 7977-7978 | N 87°47'07" E | 12.00' |
| 7978-7979 | N 02°12'53" W | 356.53' |
| 7979-8958 | S 89°46'27" E | 9.99' |
| 8958-8460 | S 02°03'27" E | 356.18' |
| 8460-8454 | S 02°12'53" E | 14.88' |
| 8454-8455 | S 87°47'07" W | 3.00' |
| 8455-8456 | S 02°12'53" E | 211.17' |
| 8456-8956 | S 02°10'21" E | 17.60' |
| 8956-7976 | N 89°46'27" W | 18.01' |
| 7976-7982 | N 02°10'21" W | 12.67' |

PARCEL 35

| COURSE | BEARING | DISTANCE |
|---|---|---|
| 145-7988 | S 89°21'09" E | 63.04' |
| 7988-8445 | S 89°21'09" E | 17.92' |
| -- | C45 | -- |
| 8962-8960 | S 02°03'27" E | 184.44' |
| 8960-8961 | S 02°44'38" W | 250.88' |
| 8961-8958 | S 02°03'27" E | 28.78' |
| 8958-7979 | N 89°46'27" W | 9.99' |
| 7979-7985 | N 02°12'53" W | 161.32' |
| 7985-7986 | N 06°18'58" E | 101.12' |
| 7986-7984 | N 02°12'53" W | 210.66' |
| -- | C8 | -- |

STH 32
PI=62+59.28
Y=627,471.95
X=40,543.15
DELTA=2°26'47" RT
D=0°26'42"
T=274.84'
L=549.60'
R=12,871.88'

| ROAD NAME | BASIS OF EXISTING R-O-W | WIDTH | YEAR |
|---|---|---|---|
| STH 32<br>ST. AUGUSTINE STREET | | | |

GN

| | | | | | |
|---|---|---|---|---|---|
| REVISION DATE | DATE | SCALE, FEET 0 50 100 | HWY: STH 32 | STATE R/W PROJECT NUMBER | PLAT SHEET 4.10 |
| | GRID FACTOR | | COUNTY: BROWN | CONSTRUCTION PROJECT NUMBER | PS&E SHEET E |

FILE NAME : J:\Jobs2010\20102011-04\CAD\Client\dgn\00\Brown Co\RW Plat\040110_rp.dgn PLOT DATE : 1/14/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

# TRANSPORTATION PROJECT PLAT NO: - 4.01

THAT PART OF THE FRACTIONAL S1/2-NW1/4 OF SECTION 31, T.26N., R.19E., TOWN OF CHASE, OCONTO COUNTY, WISCONSIN.

RELOCATION ORDER STH 32 OCONTO COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

NOTES:
POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, BROWN COUNTY, NAD1983 (1991) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 1" X 24" IRON PIPE) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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 RECORD.

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

A **TEMPORARY LIMITED EASEMENT** (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT 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 DESIRABLE. ALL TLES EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.
DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO NEW REFERENCE LINES.

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 4.01
AMENDMENT NO:

BROWN CO.
Y=627,471.95
X=40,543.15
(OCONTO CO.)
Y=103,137.27
X=513,023.61
SURVEY NAIL
STA. 62+59.24
2.93' LT.

145 — T 26 N R 18 E — 36 31 — T 26 N R 19 E

4

QUARTER LINE BEARING N 87°56'39" W 2,571.69'

62+00 63+00 64+00 65+00 PT 65+34.04 66+00 67+00 68+00 REFERENCE LINE 69+00 BEARING N 00°23'20" E 70+00 71+00 72+00 73+00 74+00 75+00 76+00

SECTION LINE BEARING N 00°23'20" E 2,649.62'

32' WIDE ELEC. EASEMENT DOC. 157374, VOL. 160, PG. 116

STH 32 - ST AUGUSTINE STREET

32' WIDE ELEC. EASEMENT DOC. 156914, VOL. 160, PG. 116

62+57.61 (7988) 60.09' — C11 — 65+23.35 (8046) 60.00' — 66+66.44 (8452) 60.00' N 00°23'20" E — (8048) 71+51.31 60.00' — 72+67.90 60.00' N 00°23'20" E (8437) — (7996)

C44

62+56.95 (8453) 85.00' — (8443) 65+34.04 85.00' — 66+66.36 (8451) 85.00' — 68+10.00 75.00'& 85.00' — 67+50.00 (8442) 70.00' — 69+50.00 75.00'& 85.00' — 70+00.00 70.00'& 85.00' — 70+50.00 70.00'& 85.00' — 71+00.00 70.00'& 85.00' — 71+45.32 (8440) 70.00' — 72+61.91 70.00' — 73+00.00 60.00'& 70.00'

15' 5' 15' 15' 10'

N 58°40'17" W 100'

HON TRUST AGREEMNT (74)

TOWN OF CHASE

WADE M. & KATHLEEN B. WILLIAMS (71)

ROBERT J. & ANNETTE M. EGNARSKI (72)

OCONTO COUNTY

WISCONSIN DEPARTMENT OF NATURAL RESCOURCES (30)

STH 32
PI=89+14.30
BROWN CO.
Y=630,126.99
X=40,561.17
(OCONTO CO.)
Y=105,792.31
X=513,044.62
DELTA=3°46'00" LT
D=0°30'00"
T=376.79'
L=753.31'
R=11,459.16'

10' WIDE TELE. EASEMENT DOC. 435202, VOL. 679, PG. 748

FRAC S1/2-NW SEC 31

SW-NE SEC 31

P.L.

QUARTER LINE BEARING S 89°21'09" E 2,927.68'

CENTERLINE OF ELEC. EASEMENT DOC. 197693, VOL. 204, PG. 270

30' 30'

60' WIDE HIGHWAY EASEMENT DOC. 199013, VOL. 205, PG. 551 DOC. 199369, VOL. 207, PG. 214

20' WIDE INGRESS/EGRESS EASEMENT DOC. 384261, VOL. 582, PG. 767

STH 32
PI=62+59.28
BROWN CO.
Y=627,471.95
X=40,543.15
(OCONTO CO.)
Y=103,137.27
X=513,023.61
DELTA=2°26'47" RT
D=0°26'42"
T=274.84'
L=549.60'
R=12,871.88'

PARCEL 71

| COURSE | BEARING | DISTANCE |
|---|---|---|
| 145-7988 | S 89°21'09" E | 63.04' |
| - | C11 | - |
| 8046-8452 | N 00°23'20" E | 143.04' |
| 8452-8451 | S 89°26'50" E | 25.00' |
| 8451-8443 | S 00°23'20" W | 132.32' |
| - | C44 | - |
| 8453-7988 | N 89°21'09" W | 24.92' |

PARCEL 72

| COURSE | BEARING | DISTANCE |
|---|---|---|
| 145-7988 | S 89°21'09" E | 63.04' |
| - | C11 | - |
| 8046-8452 | N 00°23'20" E | 143.04' |
| 8452-8048 | N 00°23'20" E | 484.87' |
| 8048-8440 | S 58°40'17" E | 11.66' |
| 8440-8442 | S 00°23'20" W | 395.32' |
| 8442-8451 | S 09°46'45" E | 84.97' |
| 8451-8452 | N 89°26'50" W | 25.00' |

SIXTEENTH

(1525)

BROWN CO.
Y=630,121.52
X=40,561.14
(OCONTO CO.)
Y=105,786.84
X=513,044.58
NAIL W/ WASHER
STA. 89+08.69
6.01' RT.

COMPUTED QUARTER LINE BY OCONTO COUNTY SURVEYOR DATED 9-29-00

| ROAD NAME | BASIS OF EXISTING R-O-W | WIDTH | YEAR |
|---|---|---|---|
| STH 32 | | | |

## SCHEDULE OF LANDS & INTERESTS REQUIRED

| PARCEL NUMBER | OWNER(S) | INTEREST REQUIRED | R/W SQ. FT. REQUIRED NEW | EXISTING | TOTAL | T.L.E. SQ. FT. |
|---|---|---|---|---|---|---|
| 30 | WISCONSIN DEPT. OF NATURAL RESOURCES | TLE | --- | --- | --- | 1,166 |
| 71 | WADE M. & KATHLEEN B. WILLIAMS | FEE | 10,190 | --- | 10,190 | --- |
| 72 | ROBERT J. & ANNETTE M. EGNARSKI | FEE & TLE | 5,446 | --- | 5,446 | 3,727 |
| 74 | HON TRUST AGREEMENT | TLE | --- | --- | --- | 351 |

NOTE:
OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

## CURVE TABLE

| CURVE | LENGTH | CHORD LENGTH | CHORD BEARING | RADIUS |
|---|---|---|---|---|
| C11 | 264.50' | 264.50' | N 00°16'13" W | 11,637.83' |
| C44 | 275.26' | 275.26' | S 00°13'40" E | 12,786.88' |

## CONVENTIONAL ABBREVIATIONS

| | | | |
|---|---|---|---|
| ACCESS POINT/ DRIVEWAY CONNECTION | AP | RELEASE OF RIGHTS | ROR |
| ACCESS RIGHTS | AR | REMAINING | REM. |
| ACRES | AC. | RIGHT-OF-WAY | R/W |
| AND OTHERS | ET.AL. | SECTION | SEC. |
| CENTERLINE | C/L | STATION | STA. |
| CERTIFIED SURVEY MAP | CSM | TEMPORARY LIMITED EASEMENT | TLE |
| CORNER | COR. | VOLUME | V. |
| DOCUMENT | DOC. | | |
| EASEMENT | EASE. | **CURVE DATA** | |
| HIGHWAY EASEMENT | H.E. | LONG CHORD | LCH |
| LAND CONTRACT | LC | LONG CHORD BEARING | LCB |
| MONUMENT | MON. | RADIUS | R |
| PAGE | P. | DEGREE OF CURVE | D |
| PERMANENT LIMITED EASEMENT | PLE | CENTRAL ANGLE OR DELTA | DELTA |
| PROPERTY LINE | PL | LENGTH OF CURVE | L |
| RECORDED AS | (100') | TANGENT | TAN |
| REFERENCE LINE | R/L | | |

## CONVENTIONAL SYMBOLS

| | |
|---|---|
| FOUND IRON PIPE/PIN (1" UNLESS NOTED) | PROPOSED R/W LINE |
| R/W MONUMENT ●(SET) | EXISTING H.E. LINE |
| R/W STANDARD ▲(SET) | PROPERTY LINE |
| SIGN ISIGN | LOT & TIE LINES |
| SECTION CORNER MONUMENT | SLOPE INTERCEPTS |
| SECTION CORNER SYMBOL | CORPORATE LIMITS |
| FEE (HATCH VARIES) | NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL) |
| TEMPORARY LIMITED EASEMENT | NO ACCESS (BY ACQUISITION) |
| PERMANENT LIMITED EASEMENT | NO ACCESS (BY STATUTORY AUTHORITY) |
| R/W BOUNDARY POINT | SECTION LINE |
| PARCEL NUMBER (RWB20) | QUARTER LINE |
| SIGN NUMBER (OFF PREMISE) (102) | SIXTEENTH LINE |
| BUILDING (21-1) | EXISTING CENTERLINE |
| | PROPOSED REFERENCE LINE |
| | PARALLEL OFFSET |

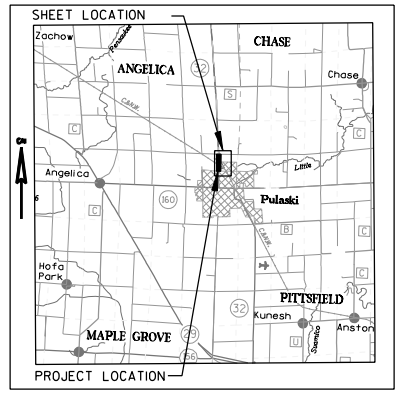
## CONVENTIONAL UTILITY SYMBOLS

| | NON COMPENSABLE | COMPENSABLE |
|---|---|---|
| WATER | W | |
| GAS | G | |
| TELEPHONE | T | |
| OVERHEAD | OH | |
| TRANSMISSION LINES ELECTRIC | E | |
| CABLE TELEVISION | TV | |
| FIBER OPTIC | FO | |
| SANITARY SEWER | SAN | |
| STORM SEWER | SS | |
| POWER POLE | | |
| TELEPHONE POLE | | |
| TELEPHONE PEDESTAL | | |
| ELECTRIC TOWER | | |

GN

SCALE, FEET
0 50 100

SHEET LOCATION





GRAEF
1150 Springhurst Drive,
Suite 201
Green Bay, WI 54304-5950
920 / 592 9440
920 / 592 9445 fax
www.graef-usa.com


I, MICHAEL C. JENSEN, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF WISCONSIN DEPT. OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT - 4.01 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

DATE: _____ MICHAEL C. JENSEN _____
RLS S-1746, FOR GRAEF.

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

DATE _____

FILE NAME : J:\Jobs2010\20102011-04\CAD\Client\dgn\00\Oconto Co\040101_rp.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 1/14/2013 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

# TRANSPORTATION PROJECT PLAT NO: - 4.02

THAT PART OF THE FRACTIONAL N1/2-NW1/4 OF SECTION 31, T.26N., R.19E., TOWN OF CHASE, OCONTO COUNTY, WISCONSIN.

RELOCATION ORDER STH 32 OCONTO COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

NOTES:
POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, BROWN COUNTY, NAD1983 (1991) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 1" X 24" IRON PIPE) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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 RECORD.

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

A **TEMPORARY LIMITED EASEMENT** (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT 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 DESIRABLE. ALL TLES EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

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

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 4.02
AMENDMENT NO:

BROWN CO.
Y=627,471.95
X=40,543.15
(OCONTO CO.)
Y=103,137.27
X=513,023.61
SURVEY NAIL
STA. 62+59.24
2.93' LT.

145 — T 26 N R 18 E / T 26 N R 19 E — 36 31

4

4

7996 — 76+00 — 77+00 — 78+00 — 79+00 — 80+00 — 81+00 — 82+00 — 83+00 — 84+00 — 85+00 — 86+00 — 87+00 — 88+00 — 89+00 — 90+00

REFERENCE LINE BEARING N 00°23'20" E
SECTION LINE BEARING N 00°23'20" E 2,649.62'

32' WIDE ELEC. EASEMENT DOC. 157375, VOL. 160, PG. 117

STH 32 - ST AUGUSTINE STREET

8437 — 8051 — 82+49.06 60.00' — 82+98.75 33.00' 8430 — PC 85+37.51 — 85+08.21 33.00' 8429 — 85+32.02 60.00' — 88+74.21 59.84'

N 00°23'20" E — N 00°23'20" E — C12

76+95.00 60.00'& 85.00' — 77+55.00 60.00'& 85.00' — 78+20.00 70.00' 9155 — 78+00.00 60.00' 9154 — 9156 79+55.00 70.00' — 79+75.00 60.00' 9157 — 81+50.00 70.00' — 82+00.00 86.66' — 82+41.13 70.00' — 82+02.39 91.05' — 83+65.00 60.00'& 70.00' — 84+30.91 75.00' — 84+58.52 60.00' 8053 — 85+28.92 60.00' — 85+28.95 75.00'

10' — 25' — 15' — 100'

N 28°07'43" W — N 28°07'43" W

ROBERT J. HON & ELIZABETH J. CHAFEY-HON TRUSTEES — 79

POLISH NATIONAL CEMETERY ASSOCIATION OF PULASKI, WISCONSIN

BERNADINE DOMBROWSKI — 78

TOWN — OCONTO COUNTY — CHASE

STH 32
PI=62+59.28
BROWN CO.
Y=627,471.955
X=40,543.155
(OCONTO CO.)
Y=103,137.27
X=513,023.61
DELTA=2°26'47" RT
D=0°26'42"
T=274.84'
L=549.60'
R=12,871.88'

STH 32
PI=89+14.30
BROWN CO.
Y=630,126.99
X=40,561.17
(OCONTO CO.)
Y=105,792.31
X=513,044.62
DELTA=3°46'00" LT
D=0°30'00"
T=376.79'
L=753.31'
R=11,459.16'

1525
BROWN CO.
Y=630,121.52
X=40,561.14
(OCONTO CO.)
Y=105,786.84
X=513,044.58
NAIL W/ WASHER
STA. 89+08.69
6.01' RT.

134
BROWN CO.
Y=630,119.89
X=40,880.56
(OCONTO CO.)
Y=105,784.85
X=513,364.00
NAIL W/ WASHER

N 89°42'29" W — 319.43' — S 89°42'29" E — SOUTH CHASE ROAD

P.L. — SIXTEENTH LINE — P.L.

FRAC. N1/2-NW SEC 31 — OF — NW-NE SEC 31

| ROAD NAME | BASIS OF EXISTING R-O-W | WIDTH | YEAR |
|---|---|---|---|
| STH 32 | | | |
| SOUTH CHASE ROAD | | | |

PARCEL 79

| COURSE | BEARING | DISTANCE |
|---|---|---|
| 145-7996 | N 00°23'20" E | 1,324.81' |
| 7996-8437 | S 89°13'32" E | 60.00' |
| 8437-8051 | N 00°23'20" E | 665.45' |
| 8051-8430 | N 28°07'43" W | 56.55' |
| 8430-8429 | N 00°23'20" E | 209.46' |
| 8429-8053 | S 28°07'43" E | 56.55' |
| 8053-8051 | S 00°23'20" W | 209.46' |

COMPUTED QUARTER LINE BY OCONTO COUNTY SURVEYOR DATED 9-29-00

## SCHEDULE OF LANDS & INTERESTS REQUIRED

| PARCEL NUMBER | OWNER(S) | INTEREST REQUIRED | R/W SQ. FT. REQUIRED NEW | EXISTING | TOTAL | T.L.E. SQ. FT. |
|---|---|---|---|---|---|---|
| 78 | BERNADINE DOMBROSKI | FEE & TLE | 1,550 | --- | 1,550 | 6,184 |
| 79 | ROBERT J. HON & ELIZABETH J. CHAFEY-HON TRUSTEES | FEE & TLE | --- | 5,655 | 5,655 | 1,449 |

NOTE:
OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

CURVE TABLE

| CURVE | LENGTH | CHORD LENGTH | CHORD BEARING | RADIUS |
|---|---|---|---|---|
| C12 | 343.95' | 343.93' | N 00°28'00" W | 11,519.16' |

## CONVENTIONAL ABBREVIATIONS

| | | | |
|---|---|---|---|
| ACCESS POINT/ DRIVEWAY CONNECTION | AP | RELEASE OF RIGHTS | ROR |
| ACCESS RIGHTS | AR | REMAINING | REM. |
| ACRES | AC. | RIGHT-OF-WAY | R/W |
| AND OTHERS | ET.AL. | SECTION | SEC. |
| CENTERLINE | C/L | STATION | STA. |
| CERTIFIED SURVEY MAP | CSM | TEMPORARY LIMITED EASEMENT | TLE |
| CORNER | COR. | VOLUME | V. |
| DOCUMENT | DOC. | | |
| EASEMENT | EASE. | | |
| HIGHWAY EASEMENT | H.E. | | |
| LAND CONTRACT | LC | | |
| MONUMENT | MON. | | |
| PAGE | P. | | |
| PERMANENT LIMITED EASEMENT | PLE | | |
| PROPERTY LINE | PL | | |
| RECORDED AS | (100') | | |
| REFERENCE LINE | R/L | | |

### CURVE DATA

| | |
|---|---|
| LONG CHORD | LCH |
| LONG CHORD BEARING | LCB |
| RADIUS | R |
| DEGREE OF CURVE | D |
| CENTRAL ANGLE OR DELTA | DELTA |
| LENGTH OF CURVE | L |
| TANGENT | TAN |

## CONVENTIONAL SYMBOLS

| | |
|---|---|
| FOUND IRON PIPE/PIN (1" UNLESS NOTED) | PROPOSED R/W LINE |
| | EXISTING H.E. LINE |
| ●(SET) | PROPERTY LINE |
| ▲(SET) | LOT & TIE LINES |
| SIGN | SLOPE INTERCEPTS |
| | CORPORATE LIMITS |
| | NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL) |
| | NO ACCESS (BY ACQUISITION) |
| | NO ACCESS (BY STATUTORY AUTHORITY) |
| | SECTION LINE |
| | QUARTER LINE |
| | SIXTEENTH LINE |
| | EXISTING CENTERLINE |
| | PROPOSED REFERENCE LINE |
| | PARALLEL OFFSET |
| R/W MONUMENT | |
| R/W STANDARD | |
| SIGN | |
| SECTION CORNER MONUMENT | |
| SECTION CORNER SYMBOL | |
| FEE (HATCH VARIES) | |
| TEMPORARY LIMITED EASEMENT | |
| PERMANENT LIMITED EASEMENT | |
| R/W BOUNDARY POINT | RWB20 |
| PARCEL NUMBER | 102 |
| SIGN NUMBER (OFF PREMISE) | 21-1 |
| BUILDING | |

## CONVENTIONAL UTILITY SYMBOLS

| | |
|---|---|
| WATER | W |
| GAS | G |
| TELEPHONE | T |
| OVERHEAD | OH |
| TRANSMISSION LINES ELECTRIC | E |
| CABLE TELEVISION | TV |
| FIBER OPTIC | FO |
| SANITARY SEWER | SAN |
| STORM SEWER | SS |

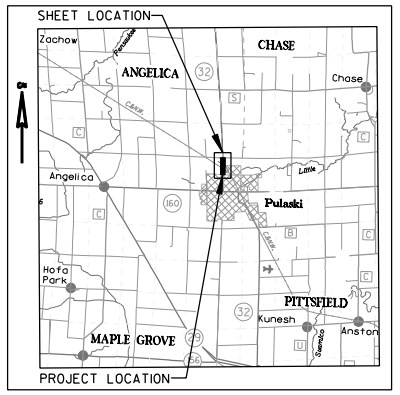
NON COMPENSABLE COMPENSABLE

POWER POLE
TELEPHONE POLE
TELEPHONE PEDESTAL
ELECTRIC TOWER

GN

SCALE, FEET
0 50 100

SHEET LOCATION

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920 / 592 9445 fax
www.graef-usa.com

I, MICHAEL C. JENSEN, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF WISCONSIN DEPT. OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT - 4.02 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

DATE: _____ MICHAEL C. JENSEN
RLS S-1746, FOR GRAEF.

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

DATE _____

FILE NAME : J:\Jobs2010\20102011-04\CAD\Client\dgn\00\Oconto Co\040102_rp.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 1/14/2013
PLOT BY : $$...plotuser...$$ PLOT NAME :
PLOT SCALE : $$.....plotscale.....$$

# TRANSPORTATION PROJECT PLAT NO: - 4.03

THAT PART OF LOTS 1 AND 2 OF CERTIFIED SURVEY MAP #3393, AND PART OF THE SE1/4-NE1/4 OF SECTION 36, T.26N., R.18E., TOWN OF ANGELICA, SHAWANO COUNTY, WISCONSIN.

RELOCATION ORDER STH 32 SHAWANO COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

NOTES:
POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, BROWN COUNTY, NAD1983 (1991) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

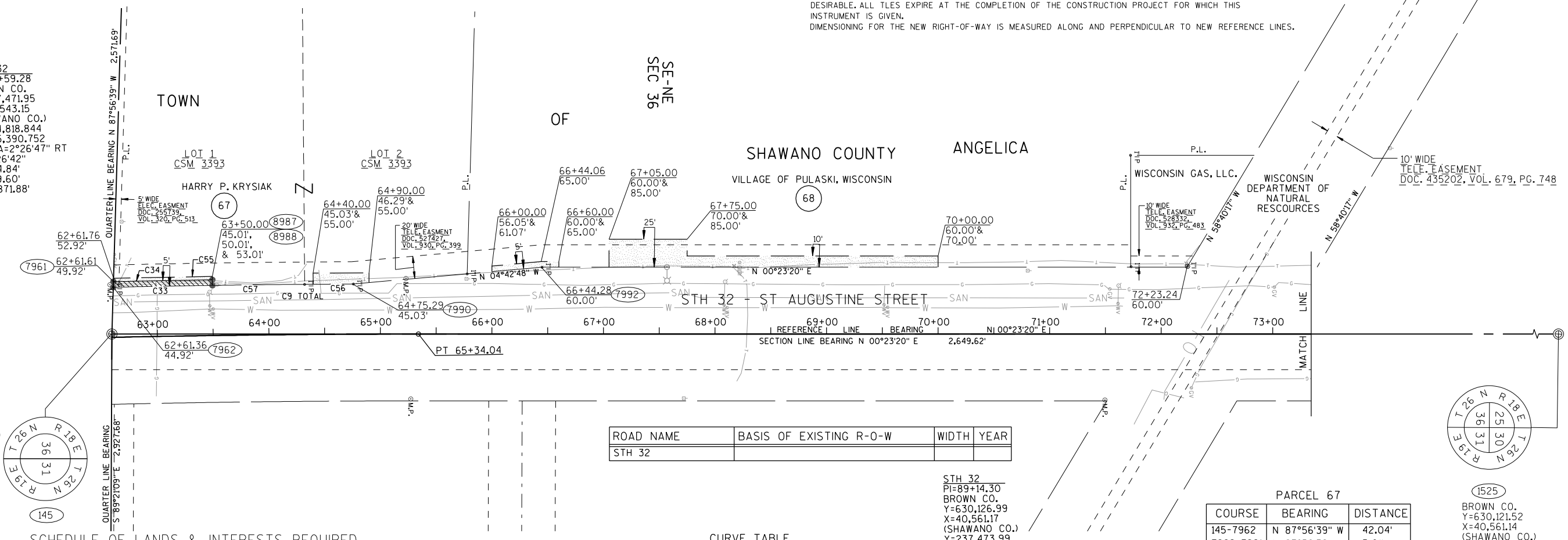
RIGHT-OF-WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 1" X 24" IRON PIPE) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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 RECORD.

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

A **TEMPORARY LIMITED EASEMENT** (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT 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 DESIRABLE. ALL TLES EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.
DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO NEW REFERENCE LINES.

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 4.03
AMENDMENT NO:




| ROAD NAME | BASIS OF EXISTING R-O-W | WIDTH | YEAR |
|---|---|---|---|
| STH 32 | | | |

## SCHEDULE OF LANDS & INTERESTS REQUIRED

| PARCEL NUMBER | OWNER(S) | INTEREST REQUIRED | R/W SQ. FT. REQUIRED NEW | EXISTING | TOTAL | T.L.E. SQ. FT. |
|---|---|---|---|---|---|---|
| 67 | HARRY P. KRYSIAK | FEE & TLE | 444 | --- | 444 | 756 |
| 68 | VILLAGE OF PULASKI, WISCONSIN | TLE | --- | --- | --- | 4,301 |

NOTE:
OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

## CURVE TABLE

| CURVE | LENGTH | CHORD LENGTH | CHORD BEARING | RADIUS |
|---|---|---|---|---|
| C9 | 214.69' | 214.68' | N 00°22'43" W | 11,742.83' |
| C33 | 88.95' | 88.95' | N 00°41'07" W | 11,742.83' |
| C34 | 88.74' | 88.74' | N 00°41'05" W | 11,747.83' |
| C55 | 88.61' | 88.61' | N 00°41'03" W | 11,750.83' |
| C56 | 35.42' | 35.42' | S 00°03'32" W | 11,742.83' |
| C57 | 179.27' | 179.27' | N 00°27'54" W | 11,742.83' |

## PARCEL 67

| COURSE | BEARING | DISTANCE |
|---|---|---|
| 145-7962 | N 87°56'39" W | 42.04' |
| 7962-7961 | N 87°56'39" W | 5.01' |
| - | C34 | - |
| 8987-8988 | N 89°34'11" E | 5.00' |
| - | C33 | - |

## CONVENTIONAL ABBREVIATIONS

| | | | |
|---|---|---|---|
| ACCESS POINT/ DRIVEWAY CONNECTION | AP | RELEASE OF RIGHTS | ROR |
| ACCESS RIGHTS | AR | REMAINING | REM. |
| ACRES | AC. | RIGHT-OF-WAY | R/W |
| AND OTHERS | ET.AL. | SECTION | SEC. |
| CENTERLINE | C/L | STATION | STA. |
| CERTIFIED SURVEY MAP | CSM | TEMPORARY LIMITED EASEMENT | TLE |
| CORNER | COR. | VOLUME | V. |
| DOCUMENT | DOC. | | |
| EASEMENT | EASE. | | |
| HIGHWAY EASEMENT | H.E. | | |
| LAND CONTRACT | LC | | |
| MONUMENT | MON. | | |
| PAGE | P. | | |
| PERMANENT LIMITED EASEMENT | PLE | | |
| PROPERTY LINE | PL | | |
| RECORDED AS | (100') | | |
| REFERENCE LINE | R/L | | |

## CURVE DATA

| | | | |
|---|---|---|---|
| LONG CHORD | LCH | TANGENT | TAN |
| LONG CHORD BEARING | LCB | | |
| RADIUS | R | | |
| DEGREE OF CURVE | D | | |
| CENTRAL ANGLE OR DELTA | DELTA | | |
| LENGTH OF CURVE | L | | |

## CONVENTIONAL SYMBOLS

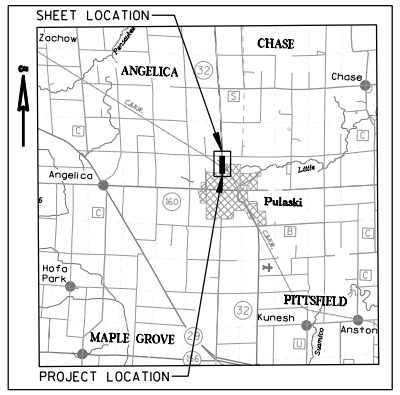
- FOUND IRON PIPE/PIN (1" UNLESS NOTED)
- R/W MONUMENT
- R/W STANDARD
- SIGN
- SECTION CORNER MONUMENT
- SECTION CORNER SYMBOL
- FEE (HATCH VARIES)
- TEMPORARY LIMITED EASEMENT
- PERMANENT LIMITED EASEMENT
- R/W BOUNDARY POINT (RWB20)
- PARCEL NUMBER (102)
- SIGN NUMBER (OFF PREMISE) (21)
- BUILDING
- PROPOSED R/W LINE
- EXISTING H.E. LINE
- PROPERTY LINE
- LOT & TIE LINES
- SLOPE INTERCEPTS
- CORPORATE LIMITS
- NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL)
- NO ACCESS (BY ACQUISITION)
- NO ACCESS (BY STATUTORY AUTHORITY)
- SECTION LINE
- QUARTER LINE
- SIXTEENTH LINE
- EXISTING CENTERLINE
- PROPOSED REFERENCE LINE
- PARALLEL OFFSET

## CONVENTIONAL UTILITY SYMBOLS

| | NON COMPENSABLE | COMPENSABLE |
|---|---|---|
| WATER | W | |
| GAS | G | |
| TELEPHONE | T | |
| OVERHEAD TRANSMISSION LINES ELECTRIC | OH | |
| CABLE TELEVISION | TV | |
| FIBER OPTIC | FO | |
| SANITARY SEWER | SAN | |
| STORM SEWER | SS | |
| POWER POLE | | |
| TELEPHONE POLE | | |
| TELEPHONE PEDESTAL | | |
| ELECTRIC TOWER | | |

GN

SCALE, FEET
0 50 100





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I, MICHAEL C. JENSEN, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF WISCONSIN DEPT. OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT - 4.03 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

DATE: _____ MICHAEL C. JENSEN _____
RLS S-1746, FOR GRAEF.

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

DATE _____ _____

# TRANSPORTATION PROJECT PLAT NO: - 4.04

THAT PART OF THE NE1/4-NE1/4, AND PART OF THE SE1/4-NE1/4 OF SECTION 36, T.26N., R.18E., TOWN OF ANGELICA, SHAWANO COUNTY, WISCONSIN

RELOCATION ORDER STH 32 SHAWANO COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

NOTES:
POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, BROWN COUNTY, NAD1983 (1991) IN U.S. SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

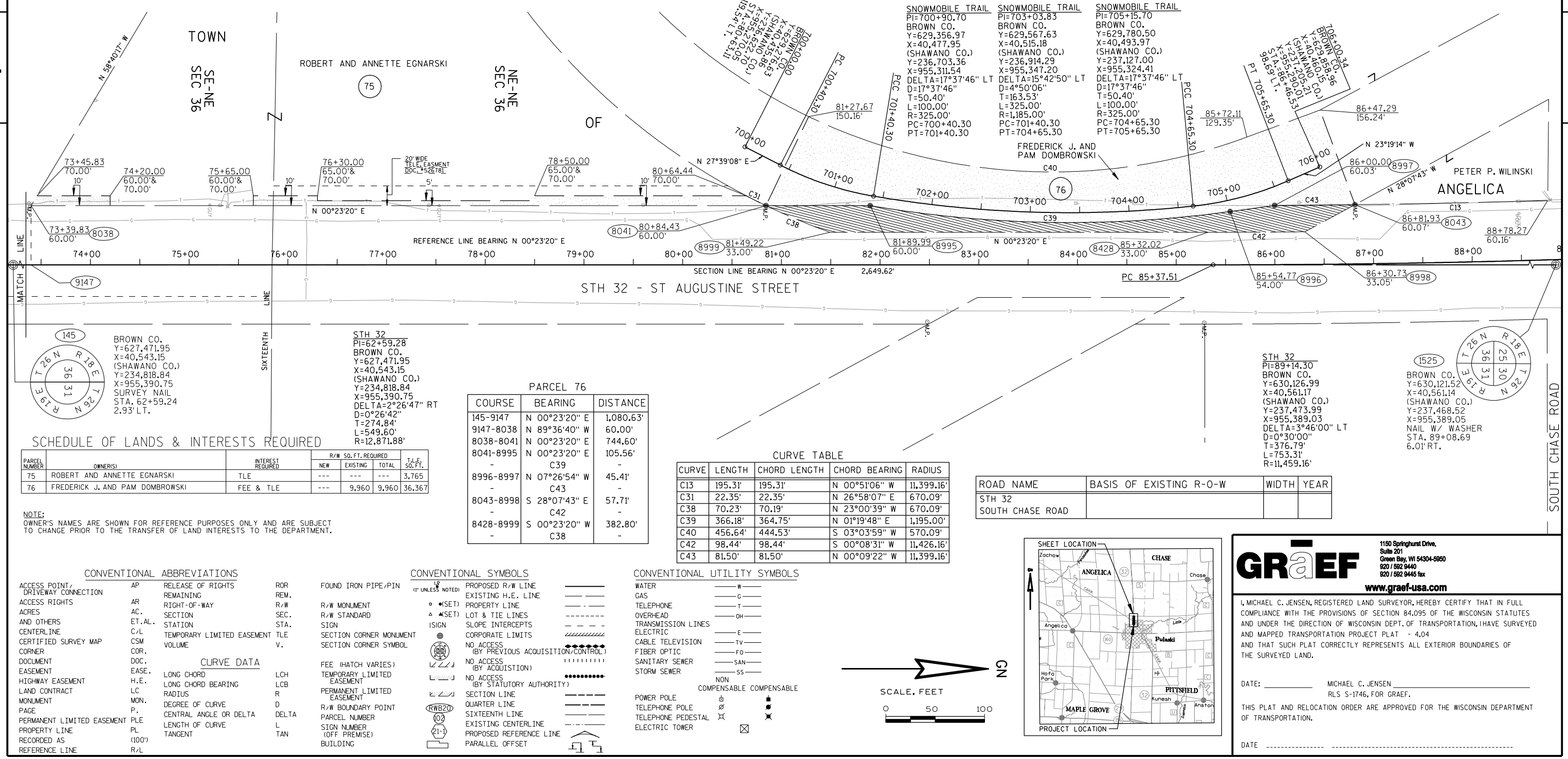
RIGHT-OF-WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 1" X 24" IRON PIPE) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

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 RECORD.

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

A **TEMPORARY LIMITED EASEMENT** (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT 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 DESIRABLE. ALL TLES EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.
DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO NEW REFERENCE LINES.

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 4.04
AMENDMENT NO:




## SCHEDULE OF LANDS & INTERESTS REQUIRED

| PARCEL NUMBER | OWNER(S) | INTEREST REQUIRED | R/W SQ. FT. REQUIRED NEW | EXISTING | TOTAL | T.L.E. SQ. FT. |
|---|---|---|---|---|---|---|
| 75 | ROBERT AND ANNETTE EGNARSKI | TLE | --- | --- | --- | 3,765 |
| 76 | FREDERICK J. AND PAM DOMBROWSKI | FEE & TLE | --- | 9,960 | 9,960 | 36,367 |

NOTE:
OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

### PARCEL 76

| COURSE | BEARING | DISTANCE |
|---|---|---|
| 145-9147 | N 00°23'20" E | 1,080.63' |
| 9147-8038 | N 89°36'40" W | 60.00' |
| 8038-8041 | N 00°23'20" E | 744.60' |
| 8041-8995 | N 00°23'20" E | 105.56' |
| - | C39 | - |
| 8996-8997 | N 07°26'54" W | 45.41' |
| - | C43 | - |
| 8043-8998 | S 28°07'43" E | 57.71' |
| - | C42 | - |
| 8428-8999 | S 00°23'20" W | 382.80' |
| - | C38 | - |

### CURVE TABLE

| CURVE | LENGTH | CHORD LENGTH | CHORD BEARING | RADIUS |
|---|---|---|---|---|
| C13 | 195.31' | 195.31' | N 00°51'06" W | 11,399.16' |
| C31 | 22.35' | 22.35' | N 26°58'07" E | 670.09' |
| C38 | 70.23' | 70.19' | N 23°00'39" W | 670.09' |
| C39 | 366.18' | 364.75' | N 01°19'48" E | 1,195.00' |
| C40 | 456.64' | 444.53' | S 03°03'59" W | 570.09' |
| C42 | 98.44' | 98.44' | S 00°08'31" W | 11,426.16' |
| C43 | 81.50' | 81.50' | N 00°09'22" W | 11,399.16' |

| ROAD NAME | BASIS OF EXISTING R-O-W | WIDTH | YEAR |
|---|---|---|---|
| STH 32 | | | |
| SOUTH CHASE ROAD | | | |

### CONVENTIONAL ABBREVIATIONS

| | | | |
|---|---|---|---|
| ACCESS POINT/ DRIVEWAY CONNECTION | AP | RELEASE OF RIGHTS | ROR |
| ACCESS RIGHTS | AR | REMAINING | REM. |
| ACRES | AC. | RIGHT-OF-WAY | R/W |
| AND OTHERS | ET.AL. | SECTION | SEC. |
| CENTERLINE | C/L | STATION | STA. |
| CERTIFIED SURVEY MAP | CSM | TEMPORARY LIMITED EASEMENT | TLE |
| CORNER | COR. | VOLUME | V. |
| DOCUMENT | DOC. | | |
| EASEMENT | EASE. | **CURVE DATA** | |
| HIGHWAY EASEMENT | H.E. | LONG CHORD | LCH |
| LAND CONTRACT | LC | LONG CHORD BEARING | LCB |
| MONUMENT | MON. | RADIUS | R |
| PAGE | P. | DEGREE OF CURVE | D |
| PERMANENT LIMITED EASEMENT | PLE | CENTRAL ANGLE OR DELTA | DELTA |
| PROPERTY LINE | PL | LENGTH OF CURVE | L |
| RECORDED AS | (100') | TANGENT | TAN |
| REFERENCE LINE | R/L | | |

### CONVENTIONAL SYMBOLS

- FOUND IRON PIPE/PIN (1" UNLESS NOTED)
- R/W MONUMENT ●(SET)
- R/W STANDARD ▲(SET)
- SIGN
- SECTION CORNER MONUMENT
- SECTION CORNER SYMBOL
- FEE (HATCH VARIES)
- TEMPORARY LIMITED EASEMENT
- PERMANENT LIMITED EASEMENT
- R/W BOUNDARY POINT (RWB20)
- PARCEL NUMBER (102)
- SIGN NUMBER (OFF PREMISE) (21-1)
- BUILDING
- PROPOSED R/W LINE
- EXISTING H.E. LINE
- PROPERTY LINE
- LOT & TIE LINES
- SLOPE INTERCEPTS
- CORPORATE LIMITS
- NO ACCESS (BY PREVIOUS ACQUISITION/CONTROL)
- NO ACCESS (BY ACQUISITION)
- NO ACCESS (BY STATUTORY AUTHORITY)
- SECTION LINE
- QUARTER LINE
- SIXTEENTH LINE
- EXISTING CENTERLINE
- PROPOSED REFERENCE LINE
- PARALLEL OFFSET

### CONVENTIONAL UTILITY SYMBOLS

| | NON COMPENSABLE | COMPENSABLE |
|---|---|---|
| WATER | W | |
| GAS | G | |
| TELEPHONE | T | |
| OVERHEAD | OH | |
| TRANSMISSION LINES ELECTRIC | E | |
| CABLE TELEVISION | TV | |
| FIBER OPTIC | FO | |
| SANITARY SEWER | SAN | |
| STORM SEWER | SS | |
| POWER POLE | | |
| TELEPHONE POLE | | |
| TELEPHONE PEDESTAL | | |
| ELECTRIC TOWER | | |

GN
SCALE, FEET
0 50 100





GRAEF
1150 Springhurst Drive, Suite 201
Green Bay, WI 54304-5950
920 / 592 9440
920 / 592 9445 fax
www.graef-usa.com


I, MICHAEL C. JENSEN, REGISTERED LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF WISCONSIN DEPT. OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED TRANSPORTATION PROJECT PLAT - 4.04 AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

DATE: _____ MICHAEL C. JENSEN _____
RLS S-1746, FOR GRAEF.

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION.

DATE ---------- ----------

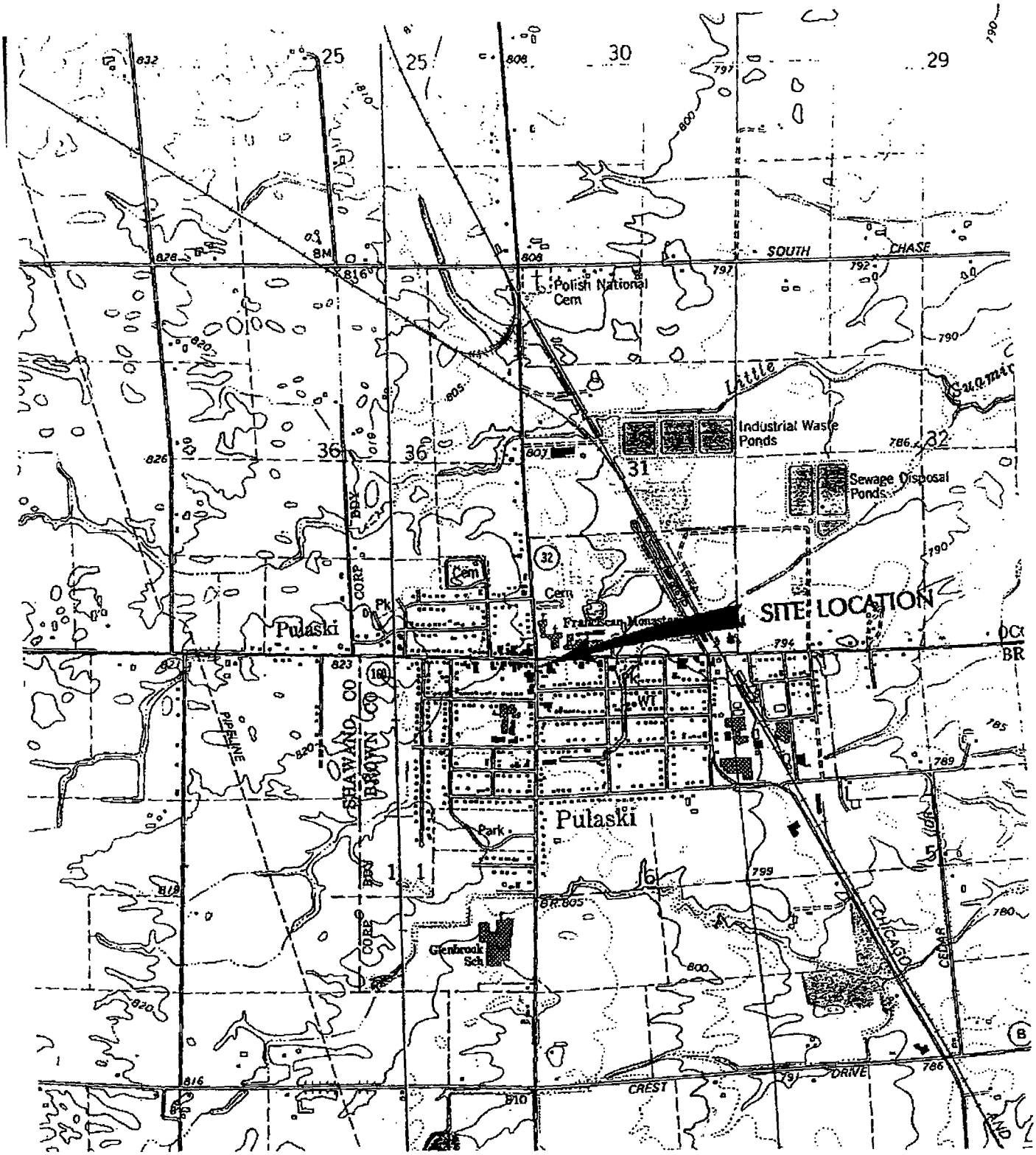
FILE NAME : J:\Jobs2010\20102011-04\CAD\Client\dgn\00\Shawano Co\040104_rp.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 1/14/2013
PLOT BY : $$...plotuser...$$ PLOT NAME :
PLOT SCALE : $$.....plotscale.....$$

# Appendix C
# Background Information

## Table of Contents


- Site #2 - 108 S. St. Augustine Street (Brad's Service)
- Site #3 - 118 E. Pulaski Street (Boutique Village)
- Site #4 – 152 E. Pulaski Street (Citizens Bank Parking Lot)
- Site #5 – 113 S. Wisconsin Street (Pulaski Shell Station)

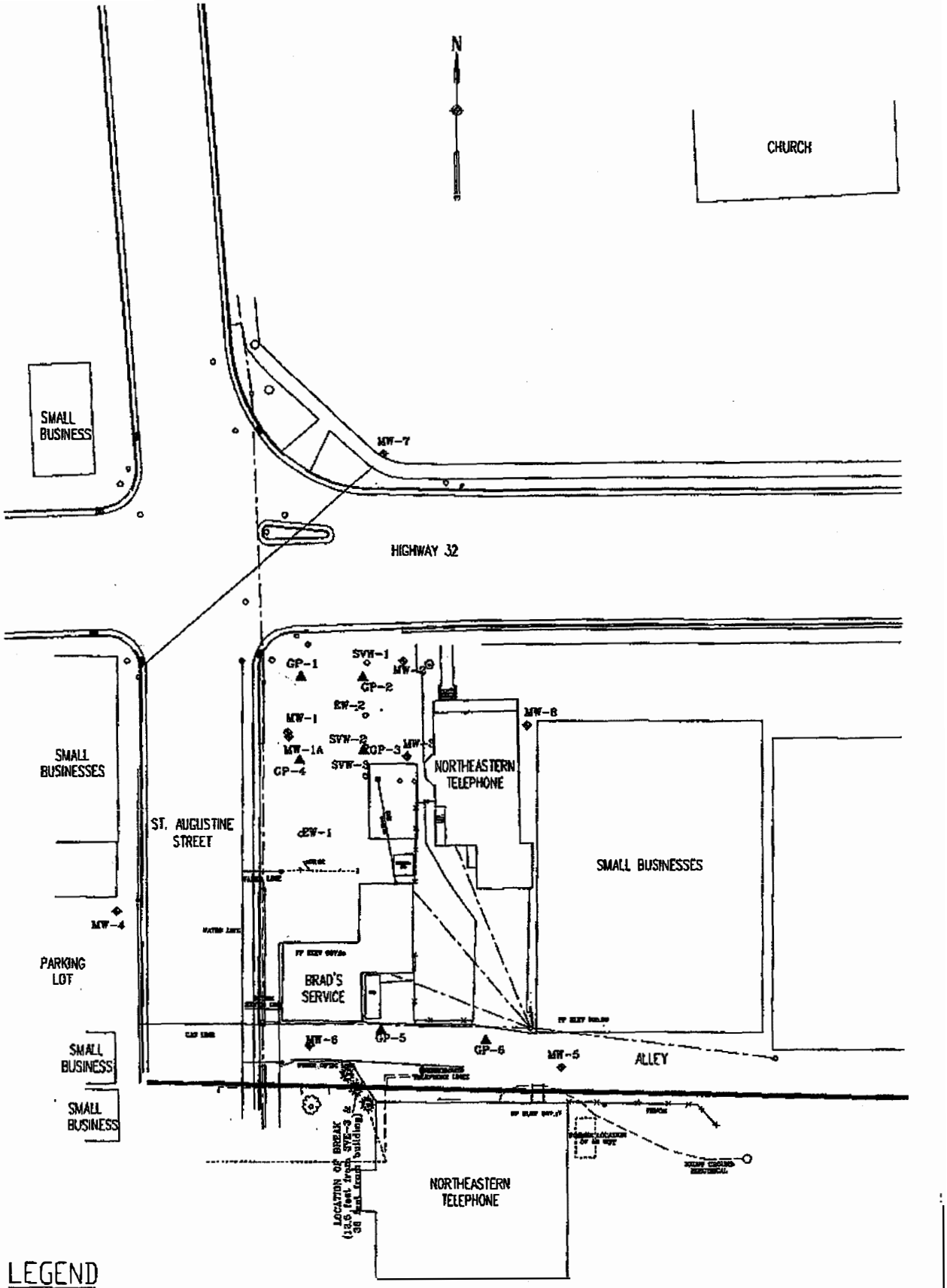
# Site #2
# 108 S. St. Augustine Street (Brad's Service)




N

NOTE: Taken from the Pulaski & Zachow, Wis 7.5 Topographic Map (1974)

| BRAD'S SERVICE - PULASKI, WI | |
|---|---|
| FIGURE 1<br>SITE LOCATION MAP | |
| SCALE: 1" = 2000' | DATE: 12/22/94 |
| Environmental Compliance Consultants, Inc. | BY: J. RABIDEAU |




## LEGEND

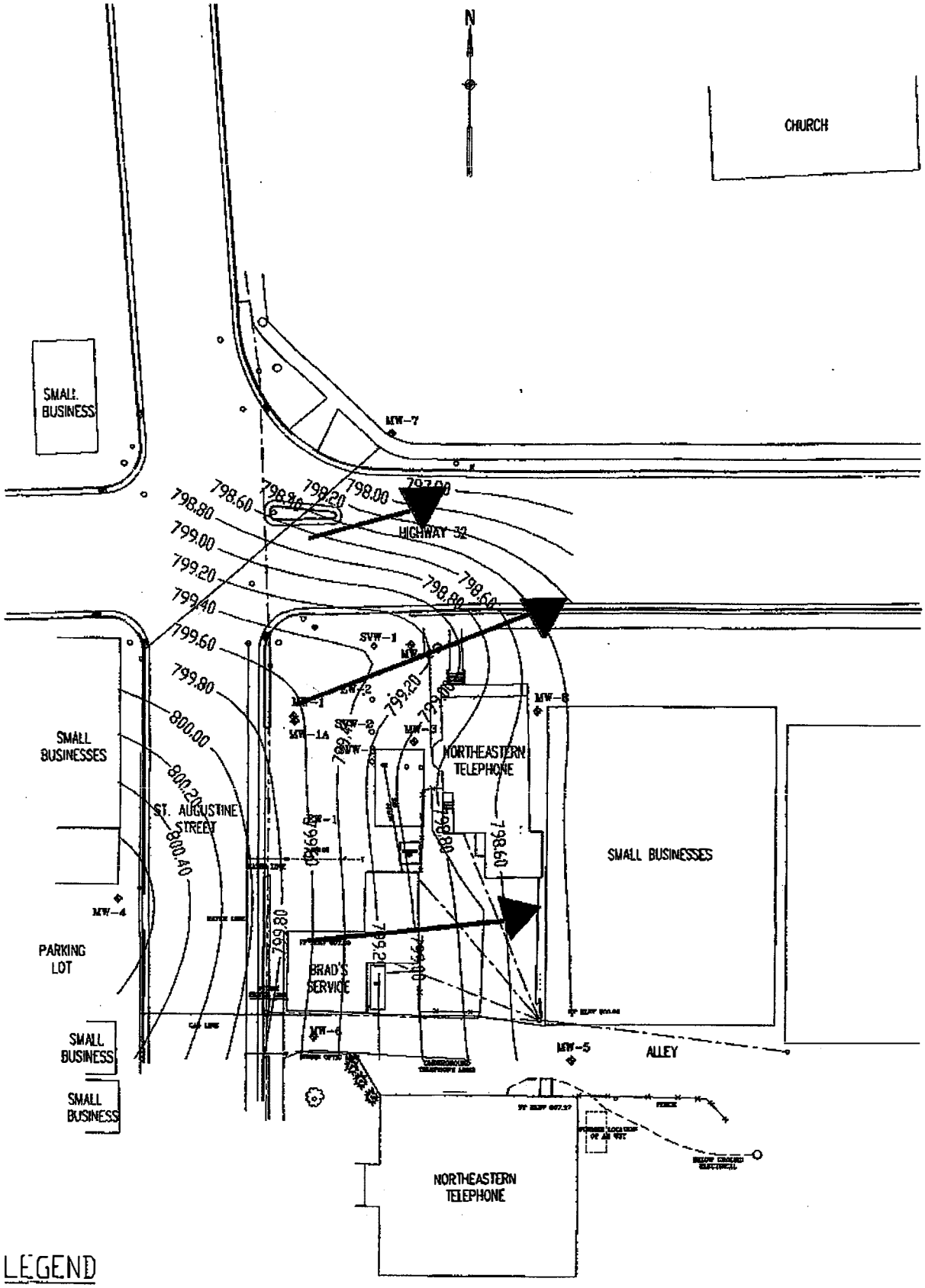
- OVERHEAD POWER & TELEPHONE
- MONITORING WELL
- SOIL PROBE LOCATION
- STORM SEWER LINE
- GROUNDWATER TRENCH
- SVE LINE

BRAD'S UNION 76 SERVICE – PULASKI, WISCONSIN

FIGURE 2
SITE PLOT MAP

SCALE: 1 inch = 70 feet | DATE: MAY 28, 1998

Environmental Compliance Consultants | BY: J Robidoux




LEGEND

OVERHEAD POWER & TELEPHONE

MONITORING WELL

Groundwater Contour (1 foot interval)

BRAD'S UNION 76 SERVICE - PULASKI, WISCONSIN

Figure 3
Water Table Map (28-Oct-99)

SCALE: 1 inch = 70 feet | DATE: MAY 28, 1998

Environmental Compliance Consultants | BY: J Robideau

# TABLE 1
# GROUNDWATER ANALYTICAL RESULTS - MW-1

| MW-1 PARAMETERS | 31-Aug-93 | 19-Nov-93 | 06-Mar-94 | 31-May-94 | 02-Dec-94 | 21-Mar-95 | 21-Jun-95 | 26-Sep-95 | 11-Jan-96 | 16-Apr-96 |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | 6.7 | *1.7* | *1.3* | 2 | <.6 | <.32 | <.5 | <.11 | <.32 | <.6 |
| Ethylbenzene | <1 | <1 | <1 | <1 | <1 | <.34 | <1 | <.15 | <.34 | <1 |
| MTBE | 4.2 | 1.8 | 1.5 | 3.3 | 1.3 | 1.7 | <2 | 0.9 | 1.4 | <1 |
| Toluene | <1 | <1 | <1 | <1 | <1 | <.27 | <2 | <.21 | <.27 | <1 |
| 1,2,4-Trimethylbenzene | <1 | <1 | <1 | <1 | <1 | <.38 | <1 | <.36 | <.25 | <1 |
| 1,3,5-Trimethylbenzene | <1 | <1 | <1 | <1 | <1 | <.25 | <1 | <.24 | <.29 | <1 |
| Xylene O | <1 | <1 | <1 | <1 | <1 | <.29 | <1 | <.46 | <.59 | <1 |
| Xylene m+p | <1 | <1 | <1 | <1 | <1 | <.59 | <1 | <.86 | <.34 | <1 |
| Total Xylenes | <2 | <2 | <2 | <2 | <2 | <.89 | <2 | <1.32 | <.94 | <2 |
| Acenaphthalene | na | na | na | <1 | <1 | <.12 | na | na | na | na |
| Flourathene | na | na | na | <.02 | <.02 | <.12 | na | na | na | |
| Fluorene | na | na | na | <.10 | <.1 | <.13 | na | na | na | 0 |
| 1-Methylnaphthalene | na | na | na | <.5 | <.5 | <.17 | na | na | na | |
| 2-Methylnaphthalene | na | na | na | <.5 | <1.81 | <.20 | na | na | na | na |
| Naphthalene | na | na | na | <.5 | <.5 | <.13 | na | na | na | na |
| Phenanthrene | na | na | na | <.10 | <.1 | <.17 | na | na | na | na |
| GRO | <50 | <50 | <50 | na | na | na | na | na | na | na |
| DRO | <100 | <100 | <100 | na | na | na | na | na | na | na |
| Pb | <2 | <2 | *3.4* | <1 | na | na | na | na | na | na |
| | | | | | | | | | | na |
| Total BETX | 6.7 | 1.7 | 1.3 | 2 | 0 | 0 | 0 | 0 | 0 | na |

| MW-1 PARAMETERS | 10-Sep-96 | 14-Apr-97 | 28-Aug-97 | 06-Nov-97 | 30-Jan-98 | 08-Apr-98 | 05-Nov-98 | 16-Mar-99 | 28-Oct-99 | |
|---|---|---|---|---|---|---|---|---|---|---|
| Benzene | <.6 | na | <.41 | na | na | na | **150** | *1.5* | *4.4* | |
| Ethylbenzene | <1 | na | <.23 | na | na | na | 3.4 | 7.4 | 16 | |
| MTBE | <1 | na | 0.86 | na | na | na | *48* | **86** | *49* | |
| Toluene | <1 | na | <.28 | na | na | na | <2.5 | 0.94 | <0.27 | |
| 1,2,4-Trimethylbenzene | <1 | na | <.3 | na | na | na | <5.0 | <0.86 | <0.22 | |
| 1,3,5-Trimethylbenzene | <1 | na | <.25 | na | na | na | <5.0 | <0.54 | <0.27 | |
| Xylene O | <1 | na | <.28 | na | na | na | | 0.39 | <0.24 | |
| Xylene m+p | <1 | na | <.51 | na | na | na | | 1.6 | <0.43 | |
| Total Xylenes | <2 | na | <.79 | na | na | na | <2.5 | 1.99 | <0.67 | |
| Naphthalene | na | na | na | na | na | na | na | na | <0.35 | |
| | | | | | | | | | | |
| Total BETX | 0 | na | 0 | na | na | na | 153.4 | 11.83 | 20.4 | |
| | | | | | | | | | | |
| Temperature (C) | 13 | na | 18.5 | 14.9 | 9 | 7.1 | na | na | na | |
| DO | 0.19 | na | 0.9 | 3.1 | 1 | 0.8 | na | na | na | |
| Iron | 56 | na | na | na | na | na | na | na | na | |
| Alkalinity | 420 | na | na | na | na | na | na | na | na | |
| Nitrate + Nitrite N | <.05 | na | na | na | na | na | na | na | na | |
| Sulfate | 130 | na | na | na | na | na | na | na | na | |
| Conductivity( uS) | 1057 | na | na | na | na | na | na | na | na | |
| pH | 8.01 | na | na | na | na | na | na | na | na | |

na= Not analyzed

All Results in ppb except conductivity (mmho), temperature (C), pH and NA parameters (ppm)

Bold type indicates ES exceedence  Italicized type indicates PAL exceedence

# TABLE 1
## GROUNDWATER ANALYTICAL RESULTS - MW-1A

| MW-1A PARAMETERS | 31-Aug-93 | 19-Nov-93 | 08-Mar-94 | 31-May-94 | 02-Dec-94 | 21-Mar-95 | 21-Jun-95 | 26-Sep-95 | 11-Jan-96 |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | 15000 | 12000 | 10000 | 480 | 6100 | 8000 | 6400 | 3400 | 4400 |
| Ethylbenzene | 1400 | 2100 | 1800 | 90 | 1100 | 1500 | 880 | *500* | 7200 |
| MTBE | 1700 | 1000 | 800 | 86 | *58* | 240 | <40 | <130 | <69 |
| 1,2,4-Trimethylbenzene | 1700 | 1600 | 1500 | 28 | 1000 | 1300 | 940 | 860 | 3,600 |
| 1,3,5-Trimethylbenzene | 650 | 520 | 500 | 48 | 170 | 170 | 79 | 160 | 1,100 |
| Toluene | 2500 | 3700 | 2000 | *240* | 650 | 360 | *180* | *290* | 370 |
| Xylene O | 640 | 1200 | 1100 | 400 | 230 | 460 | *150* | <230 | 400 |
| Xylene m+p | 4800 | 5200 | 4100 | 320 | 1300 | 2300 | <20 | 750 | 1000 |
| Total Xylenes | 5440 | 6400 | 5200 | 720 | 1530 | 2760 | *150* | 750 | 1400 |
| Acenaphthalene | na | na | na | <2 | <20 | <.16 | nd | na | na |
| Flouranthene | na | na | na | <.04 | <.4 | 0.37 | nd | na | na |
| Fluorene | na | na | na | 0.51 | 2.96 | 1.9 | nd | na | na |
| 1-Methylnaphthalene | na | na | na | 1.2 | 41 | 70 | nd | na | na |
| 2-Methylnaphthalene | na | na | na | 1.1 | 36 | 110 | nd | na | na |
| Naphthalene | na | na | na | *8.9* | 98 | 220 | nd | na | na |
| Phenanthrene | na | na | na | <.2 | <2 | <.17 | nd | na | na |
| GRO | 34000 | 36000 | 35000 | na | na | na | nd | na | na |
| DRO | 17000 | 13000 | 13000 | na | na | na | na | na | na |
| Pb | *2.7* | *2.3* | *4.4* | <1 | na | na | nd | na | na |
| | | | | | | | | | |
| Total BETX | 24340 | 24200 | 19000 | 1530 | 9380 | 12620 | 7610 | 4940 | 13370 |

| MW-1A PARAMETERS | 16-Apr-96 | 10-Sep-96 | 14-Apr-97 | 25-Aug-97 | 06-Nov-97 | 30-Jan-98 | 09-Apr-98 | 05-Nov-98 | 28-Oct-99 |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | 4300 | 2300 | 2700 | 3700 | 3100 | 3400 | 3200 | 1800 | 2100 |
| Ethylbenzene | 790 | *600* | *640* | 960 | 910 | *660* | 840 | *690* | 1200 |
| MTBE | <25 | <50 | 8.4 | <13 | <5 | 130 | <10 | <10 | <3.2 |
| 1,2,4-Trimethylbenzene | 950 | 820 | 620 | 26 | 710 | 110 | 840 | 670 | 900 |
| 1,3,5-Trimethylbenzene | 130 | <50 | 14 | 850 | 19 | 530 | 210 | <50 | 20 |
| Toluene | 450 | *160* | *130* | *160* | *160* | <50 | *120* | *100* | *170* |
| Xylene O | 590 | 270 | 280 | 520 | 680 | | | | 880 |
| Xylene m+p | 1400 | 840 | 780 | 1300 | 1200 | | | | 1800 |
| Total Xylenes | 1990 | 1110 | 1060 | 1820 | 1880 | 1300 | 1700 | 1500 | 2680 |
| Naphthalene | na | na | na | na | na | na | na | na | 110 |
| | | | | | | | | | |
| Total BETX | 7530 | 4170 | 4530 | 6640 | 6050 | 5360 | 5860 | 4090 | 6150 |
| | | | | | | | | | |
| Temperature (C) | na | 17 | na | 19 | 15 | 8.1 | 4.2 | na | na |
| DO | na | 0.2 | na | 0.2 | 0.8 | 0.7 | 0.9 | na | na |
| Iron | na | 640 | na | na | na | na | na | na | na |
| Alkalinity | na | 500 | na | na | na | na | na | na | na |
| Nitrate + Nitrite N | na | 1.2 | na | na | na | na | na | na | na |
| Sulfate | na | 23 | na | na | na | na | na | na | na |
| Conductivity( uS) | na | 1733 | na | na | na | na | na | na | na |
| pH | na | 7.59 | na | na | na | na | na | na | na |

na= Not analyzed

All Results in ppb except conductivity (mmho), temperature (C), pH and NA parameters (ppm)

# TABLE 1
# GROUNDWATER ANALYTICAL RESULTS - MW-2

| MW-2 PARAMETERS | 31-Aug-93 | 19-Nov-93 | 08-Mar-94 | 31-May-94 | 02-Dec-94 | 21-Mar-95 | 21-Jun-95 | 26-Sep-95 | 11-Jan-96 |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | **2300** | **1700** | **2400** | **14000** | **1600** | **2100** | **1500** | **1500** | na |
| Ethylbenzene | **3300** | **3100** | **2800** | **1900** | **2800** | **3200** | **2100** | **2900** | na |
| MTBE | **190** | **95** | *44* | **560** | <25 | <28 | <40 | <26 | na |
| Toluene | **4100** | **2400** | **1800** | **1800** | **1100** | **2000** | **530** | **760** | na |
| 1,2,4-Trimethylbenzene | **1600** | **1800** | **1700** | **1500** | **1900** | **2500** | **1800** | **2200** | na |
| 1,3,5-Trimethylbenzene | **130** | **120** | **690** | **470** | **310** | **480** | **310** | **460** | na |
| Xylene O | **490** | **480** | **430** | **1700** | **500** | **1000** | **410** | **690** | na |
| Xylene m+p | **5300** | **5400** | **4800** | **5500** | **6100** | **7300** | **4400** | **8300** | na |
| Total Xylenes | **5790** | **5880** | **5230** | **7200** | **6600** | **8300** | **4810** | **8990** | na |
| Acenaphthalene | na | na | na | <20 | <20 | <.16 | na | na | na |
| Fluoranthene | na | na | na | <.40 | <.4 | <.12 | na | na | na |
| Fluorene | na | na | na | 5.46 | 3.06 | 0.55 | na | na | na |
| 1-Methylnaphthalene | na | na | na | 68 | 63 | 51 | na | na | na |
| 2-Methylnaphthalene | na | na | na | 51 | 45 | 61 | na | na | na |
| Naphthalene | na | na | na | **160** | **180** | **250** | na | na | na |
| Phenanthrene | na | na | na | <2 | <2 | <.17 | na | na | na |
| GRO | 22000 | 34000 | 27000 | na | na | na | na | na | na |
| DRO | 9400 | 6700 | 6400 | na | na | na | na | na | na |
| Pb | <2 | <2 | <2 | 4 | na | na | na | na | na |
| | | | | | | | | | |
| Total BETX | 11390 | 10680 | 10430 | 23100 | 11000 | 13600 | 8410 | 13390 | na |

| MW-2 PARAMETERS | 16-Apr-96 | 10-Sep-96 | 14-Apr-97 | 26-Aug-97 | 06-Nov-97 | 30-Jan-98 | 08-Apr-98 | 05-Nov-98 | 28-Oct-99 |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | **1300** | **860** | **1100** | **820** | **620** | **2800** | **720** | **1100** | **1500** |
| Ethylbenzene | **2400** | **2700** | **2500** | **2500** | **2000** | **700** | **2000** | **2000** | **2300** |
| MTBE | <25 | <25 | *44* | <13 | <5 | <5 | *53* | <10 | <6.4 |
| Toluene | **510** | *99* | *89* | 32 | 53 | 30 | 53 | *86* | *110* |
| 1,2,4-Trimethylbenzene | **1900** | **2400** | **2200** | **19** | **1600** | **550** | **1900** | **1600** | **2000** |
| 1,3,5-Trimethylbenzene | **330** | **170** | **38** | **2500** | **30** | **78** | **320** | **120** | **110** |
| Xylene O | **540** | **84** | **120** | **43** | **76** | | | | **580** |
| Xylene m+p | **4600** | **2600** | **2100** | **950** | **690** | | | | **1900** |
| Total Xylenes | **5140** | **2684** | **2220** | **993** | **766** | *470* | **1300** | **1700** | **2480** |
| Naphthalene | na | na | na | na | na | na | na | na | **110** |
| | | | | | | | | | |
| Total BETX | 8840 | 6244 | 5820 | 4313 | 3386 | 3970 | 4020 | 4800 | 6390 |
| | | | | | | | | | |
| Temperature (C) | na | 17 | na | 16.8 | 13.1 | 6.8 | 6 | na | na |
| DO | na | 0.21 | na | 0.2 | 1 | 1.1 | 1.9 | na | na |
| Iron | na | 3100 | na | na | na | na | na | na | na |
| Alkalinity | na | 570 | na | na | na | na | na | na | na |
| Nitrate + Nitrite N | na | <.05 | na | na | na | na | na | na | na |
| Sulfate | na | <10 | na | na | na | na | na | na | na |
| Conductivity( uS) | na | 1057 | na | na | na | na | na | na | na |
| pH | na | 7.53 | na | na | na | na | na | na | na |

na= Not analyzed

All Results in ppb except conductivity (mmho), temperature (C), pH and NA parameters (ppm)

Bold type indicates ES exceedence  Italicized type indicates PAL exceedence

# TABLE 1
# GROUNDWATER ANALYTICAL RESULTS - MW-3

| MW-3 PARAMETERS | 31-Aug-93 | 19-Nov-93 | 08-Mar-94 | 31-May-94 | 02-Dec-94 | 21-Mar-95 | 21-Jun-95 | 26-Sep-95 | 11-Jan-96 |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | **400** | **480** | **510** | **2300** | **460** | **640** | **400** | **520** | **400** |
| Ethylbenzene | **890** | **1400** | *670* | **4000** | **1200** | **2100** | **1800** | **2000** | **1600** |
| MTBE | *46* | *46* | **65** | *51* | <10 | <28 | <40 | <26 | <28 |
| Toluene | *67* | *190* | *140* | **570** | **710** | **500** | *130* | **950** | *290* |
| 1,2,4-Trimethylbenzene | *170* | **420** | *140* | **2700** | **550** | **920** | **1100** | **740** | **850** |
| 1,3,5-Trimethylbenzene | *82* | **100** | *53* | **250** | **210** | **220** | **390** | **420** | **270** |
| Xylene O | *5.7* | **36** | **99** | *260* | **610** | **600** | **210** | **770** | **240** |
| Xylene m+p | *490* | **830** | **590** | **7600** | **1900** | **2800** | **2100** | **2900** | **1600** |
| Total Xylenes | *495.7* | **866** | **689** | **7860** | **2510** | **3400** | **2310** | **3670** | **1840** |
| Acenaphthalene | na | na | na | <10 | <20 | 0.46 | na | na | na |
| Flourathene | na | na | na | <.40 | <.4 | <.12 | na | na | na |
| Fluorene | na | na | na | 2.78 | 2.45 | 0.29 | na | na | na |
| 1-Methylnaphthalene | na | na | na | 48 | 22 | 43 | na | na | na |
| 2-Methylnaphthalene | na | na | na | 33 | 17 | 46 | na | na | na |
| Naphthalene | na | na | na | **150** | **42** | **100** | na | na | na |
| Phenanthrene | na | na | na | <2 | <2 | 0.21 | na | na | na |
| GRO | 4200 | 7400 | 6200 | na | na | na | na | na | na |
| DRO | 2900 | 3200 | 3500 | na | na | na | na | na | na |
| Pb | <2 | 3.4 | <2 | <1 | na | na | na | na | na |
| | | | | | | | | | |
| Total BETX | 1852.7 | 2936 | 2009 | 14730 | 4880 | 6640 | 4640 | 7140 | 4130 |

| MW-3 PARAMETERS | 16-Apr-96 | 10-Sep-96 | 14-Apr-97 | 28-Aug-97 | 06-Nov-97 | 30-Jan-98 | 08-Apr-98 | 05-Nov-98 | 28-Oct-99 |
|---|---|---|---|---|---|---|---|---|---|
| Benzene | **240** | **170** | **13** | **69** | **74** | **160** | **62** | **58** | **19** |
| Ethylbenzene | **1700** | **1400** | *460* | **2000** | **2300** | **1700** | **1700** | **1400** | **1400** |
| MTBE | <25 | <50 | 7.4 | <13 | <11 | **390** | <10 | <10 | <3.2 |
| Toluene | *120* | **420** | *46* | 56 | *120* | *97* | *80* | 26 | 30 |
| 1,2,4-Trimethylbenzene | **670** | **660** | *270* | **170** | **1600** | **1200** | **1300** | **610** | **840** |
| 1,3,5-Trimethylbenzene | **240** | **190** | *93* | **1300** | **97** | **110** | **54** | <50 | **68** |
| Xylene O | **57** | **330** | **65** | **42** | **79** | | | | 31 |
| Xylene m+p | **1700** | **2100** | **680** | **2100** | **2400** | | | | 630 |
| Total Xylenes | **1757** | **2430** | **745** | **2142** | **2479** | **2200** | **2000** | **620** | **661** |
| Naphthalene | na | na | na | na | na | na | na | na | **89** |
| | | | | | | | | | |
| Total BETX | 3817 | 4420 | 1264 | 4267 | 4973 | 4157 | 3842 | 2104 | 2110 |
| | | | | | | | | | |
| Temperature (C) | na | 15 | na | 16.5 | 12.4 | 7.7 | 6.5 | na | na |
| DO | na | 0.23 | na | 0.4 | 1.1 | 0.8 | 1.4 | na | na |
| Iron | na | 2700 | na | na | na | na | na | na | na |
| Alkalinity | na | 740 | na | na | na | na | na | na | na |
| Nitrate + Nitrite N | na | <.05 | na | na | na | na | na | na | na |
| Sulfate | na | 21 | na | na | na | na | na | na | na |
| Conductivity( uS) | na | 1225 | na | na | na | na | na | na | na |
| pH | na | 7.59 | na | na | na | na | na | na | na |

na= Not analyzed

All Results in ppb except conductivity (mmho), temperature (C), pH and NA parameters (ppm)

Bold type indicates ES exceedence  Italicized type indicates PAL exceedence

# TABLE 1
# GROUNDWATER ANALYTICAL RESULTS - MW-4

| MW-4 PARAMETERS | 02-Dec-94 | 21-Mar-95 | 21-Jun-95 | 26-Sep-95 | 11-Jan-96 | 16-Apr-96 | 19-Sep-96 |
|---|---|---|---|---|---|---|---|
| Benzene | <1 | <.32 | <.5 | <.11 | <.32 | <.6 | <.6 |
| Ethylbenzene | <1 | <.34 | <1 | <.15 | <.34 | <1 | <1 |
| MTBE | <1 | <.28 | <2 | <.26 | <.28 | <1 | <1 |
| Toluene | <1 | <.27 | <2 | <.21 | <.27 | <1 | <1 |
| 1,2,4-Trimethylbenzene | <1 | <.38 | <1 | <.36 | <.38 | <1 | <1 |
| 1,3,5-Trimethylbenzene | <1 | <.25 | <1 | <.24 | <.25 | <1 | <1 |
| Xylene O | <1 | <.29 | <1 | <.46 | <.29 | <1 | <1 |
| Xylene m+p | <1 | <.59 | <1 | <.86 | <.59 | <1 | <1 |
| Total Xylenes | <2 | <.88 | <2 | <1.32 | <.88 | <2 | <2 |
| Acenaphthalene | <1 | <.16 | na | na | na | na | na |
| Flourathene | <.02 | <.12 | na | na | na | na | na |
| Fluorene | <.1 | <.13 | na | na | na | na | na |
| 1-Methylnaphthalene | <.5 | <.17 | na | na | na | na | na |
| 2-Methylnaphthalene | <.5 | <.20 | na | na | na | na | na |
| Naphthalene | <.5 | <.13 | na | na | na | na | na |
| Phenanthrene | <.1 | <.17 | na | na | na | na | na |
| GRO | na | na | na | na | na | na | na |
| DRO | na | na | na | na | na | na | na |
| Pb | <2 | nd | na | na | na | na | na |
| | | | | | | | |
| Total BETX | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | | | | |
| Temperature (C) | na | na | na | na | na | na | 15.5 |
| DO | na | na | na | na | na | na | 0.98 |
| Iron | na | na | na | na | na | na | <20 |
| Alkalinity | na | na | na | na | na | na | 530 |
| Nitrate + Nitrite N | na | na | na | na | na | na | 2.2 |
| Sulfate | na | na | na | na | na | na | 280 |
| Nitrate + Nitrite N | na | na | na | na | na | na | 2.2 |
| Conductivity( uS) | na | na | na | na | na | na | 1580 |
| pH | na | na | na | na | na | na | 7.89 |

| MW-4 PARAMETERS | 26-Aug-97 | 06-Nov-97 | 30-Jan-98 | 08-Apr-98 | 05-Nov-98 | 28-Oct-99 | |
|---|---|---|---|---|---|---|---|
| Benzene | <.41 | na | na | na | <.50 | <0.27 | |
| Ethylbenzene | <.23 | na | na | na | <.50 | <0.32 | |
| MTBE | <.53 | na | na | na | <.20 | <0.32 | |
| Toluene | <.53 | na | na | na | <.50 | <0.27 | |
| 1,2,4-Trimethylbenzene | <.28 | na | na | na | <1.0 | <0.22 | |
| 1,3,5-Trimethylbenzene | <.25 | na | na | na | <1.0 | <0.27 | |
| Xylene O | <.28 | na | na | na | | <0.24 | |
| Xylene m+p | <.51 | na | na | na | | <0.43 | |
| Total Xylenes | <.79 | na | na | na | <.50 | <0.67 | |
| Naphthalene | na | na | na | na | na | <0.35 | |
| | | | | | | | |
| Total BETX | 0 | na | na | na | 0 | 0 | |
| | | | | | | | |
| Temperature (C) | 19 | 15 | 10.4 | 8.9 | na | na | |
| DO | 1.3 | 3.6 | 5.3 | 3.5 | na | na | |
| Iron | na | na | na | na | na | na | |
| Alkalinity | na | na | na | na | na | na | |
| Nitrate + Nitrite N | na | na | na | na | na | na | |
| Sulfate | na | na | na | na | na | na | |
| Nitrate + Nitrite N | na | na | na | na | na | na | |
| Conductivity( uS) | na | na | na | na | na | na | |
| pH | na | na | na | na | na | na | |

na = not analyzed

All Results in ppb except conductivity (mmho), temperature (C), pH and NA parameters (ppm)

Bold type indicates ES exceedence  Italicized type indicates PAL exceedence

# TABLE 1
# GROUNDWATER ANALYTICAL RESULTS - MW-5

| MW-5 PARAMETERS | 02-Dec-94 | 21-Mar-95 | 21-Jun-95 | 26-Sep-95 | 11-Jan-96 | 16-Apr-96 | 10-Sep-96 |
|---|---|---|---|---|---|---|---|
| Benzene | <1 | <.32 | <.5 | 0.2 | <.32 | <.6 | <.6 |
| Ethylbenzene | <1 | <.34 | <1 | <.15 | <.34 | <1 | <1 |
| MTBE | 1.9 | 2.2 | <2 | 1.7 | 1.2 | <1 | <1 |
| Toluene | <1 | <.27 | <2 | <.21 | <.27 | <1 | 1.4 |
| 1,2,4-Trimethylbenzene | <1 | <.38 | <1 | <.21 | <.25 | <1 | <1 |
| 1,3,5-Trimethylbenzene | <1 | <.25 | <1 | <.36 | <.29 | <1 | <1 |
| Xylene O | <1 | <.29 | <1 | <.46 | <.29 | <1 | <1 |
| Xylene m+p | <1 | <.59 | <1 | <.86 | <.59 | <1 | <1 |
| Total Xylenes | <2 | <.88 | <2 | <1.32 | <.88 | <2 | <2 |
| Chloroform | 35 | na | na | na | na | na | na |
| 1,2-Dichloroethane | 2.3 | na | na | na | na | na | na |
| cis-1,2-DCE | 62 | na | na | na | na | na | na |
| trans-1,2-DCE | 5.3 | na | na | na | na | na | na |
| Methylene Chloride | 3.7 | na | na | na | na | na | na |
| Tetrachloroethene | 3.4 | na | na | na | na | na | na |
| Trichloroethene | 5.6 | na | na | na | na | na | na |
| Naphthalene | 0.41 | <.13 | na | na | na | na | na |
| | | | | | | | |
| Total BETX | 0 | 0 | 0 | 0.2 | 0 | 0 | 1.4 |
| | | | | | | | |
| Temperature (C) | na | na | na | na | na | na | 17.1 |
| DO | na | na | na | na | na | na | 0.2 |
| Iron | na | na | na | na | na | na | 52 |
| Alkalinity | na | na | na | na | na | na | 660 |
| Nitrate + Nitrite N | na | na | na | na | na | na | 1 |
| Sulfate | na | na | na | na | na | na | 350 |
| Conductivity( mS) | na | na | na | na | na | na | 12.05 |
| pH | na | na | na | na | na | na | 7.46 |
| MW-5 PARAMETERS | 14-Apr-97 | 28-Aug-97 | 06-Nov-97 | 30-Jan-98 | 08-Apr-98 | 05-Nov-98 | 28-Oct-99 |
| Benzene | na | <.41 | na | na | na | <.50 | <0.27 |
| Ethylbenzene | na | <.23 | na | na | na | <.50 | <0.32 |
| MTBE | na | <.53 | na | na | na | <.20 | 0.65 |
| Toluene | na | <.28 | na | na | na | <.50 | <0.27 |
| 1,2,4-Trimethylbenzene | na | <.30 | na | na | na | <1.0 | <0.22 |
| 1,3,5-Trimethylbenzene | na | <.25 | na | na | na | <1.0 | <0.27 |
| Xylene O | na | <.51 | na | na | na | | <0.24 |
| Xylene m+p | na | <.28 | na | na | na | | <0.43 |
| Total Xylenes | na | <.79 | na | na | na | <.50 | <0.67 |
| Chloroform | na | na | na | na | na | 3 | 6.6 |
| 1,2-Dichloroethane | na | na | na | na | na | <.50 | <0.37 |
| cis-1,2-DCE | na | na | na | na | na | 14 | 27 |
| trans-1,2-DCE | na | na | na | na | na | 1.9 | 2.8 |
| Methylene Chloride | na | na | na | na | na | 1.7A | <0.36 |
| Tetrachloroethene | na | na | na | na | na | 3.8 | 2.6 |
| Trichloroethene | na | na | na | na | na | 4.5 | 5.2 |
| Naphthalene | na | na | na | na | na | <8.0 | <0.35 |
| | | | | | | | |
| Total BETX | na | 0 | na | na | na | 0 | 0 |
| | | | | | | | |
| Temperature (C) | na | 20 | 16 | 10.9 | 9 | na | na |
| DO | na | 0.3 | 2.2 | 3.4 | 2.6 | na | na |
| Iron | na | na | na | na | na | na | na |
| Alkalinity | na | na | na | na | na | na | na |
| Nitrate + Nitrite N | na | na | na | na | na | na | na |
| Sulfate | na | na | na | na | na | na | na |
| Conductivity( mS) | na | na | na | na | na | na | na |
| pH | na | na | na | na | na | na | na |

na= Not analyzed

All Results in ppb except conductivity (mmho), temperature (C), pH and NA parameters (ppm)

Bold type indicates ES exceedence  Italicized type indicates PAL exceedence

A = Laboratory Director - concentrations found of this analyte are characteristic of laboratory artifact

# TABLE 1
# GROUNDWATER ANALYTICAL RESULTS - MW-6

| MW-6 PARAMETERS | 02-Dec-94 | 21-Mar-95 | 21-Jun-95 | 26-Sep-95 | 11-Jan-96 | 16-Apr-96 | 10-Sep-96 |
|---|---|---|---|---|---|---|---|
| Benzene | <1 | <.32 | <.5 | <.11 | <.32 | <.6 | <.6 |
| Ethylbenzene | <1 | <.34 | <1 | <.15 | <.34 | <1 | <1 |
| MTBE | <1 | <.28 | <2 | <.26 | <.28 | <1 | <1 |
| Toluene | <1 | <.27 | <2 | <.21 | <.27 | <1 | <1 |
| 1,2,4-Trimethylbenzene | <1 | <.38 | <1 | <.36 | <.25 | <1 | <1 |
| 1,3,5-Trimethylbenzene | <1 | <.25 | <1 | <.24 | <.29 | <1 | <1 |
| Xylene O | <1 | <.29 | <1 | <.46 | <.29 | <1 | <1 |
| Xylene m+p | <1 | <.59 | <1 | <.86 | <.59 | <1 | <1 |
| Total Xylenes | <2 | <.88 | <2 | <1.32 | <.88 | <2 | <2 |
| Acenaphthalene | <1 | <.16 | na | na | na | na | na |
| Flouranthene | <.02 | <.12 | na | na | na | na | na |
| Fluorene | <.1 | <.13 | na | na | na | na | na |
| 1-Methylnaphthalene | <.5 | <.17 | na | na | na | na | na |
| 2-Methylnaphthalene | <.5 | <.20 | na | na | na | na | na |
| Naphthalene | <.5 | <.13 | na | na | na | na | na |
| Phenanthrene | <.1 | <.17 | na | na | na | na | na |
| GRO | na | na | na | na | na | na | na |
| DRO | na | na | na | na | na | na | na |
| Pb | <2 | nd | na | na | na | na | na |
| | | | | | | | |
| Total BETX | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | | | | |
| Temperature (C) | na | na | na | na | na | na | 15.1 |
| DO | na | na | na | na | na | na | 0.5 |
| Iron | na | na | na | na | na | na | <20 |
| Alkalinity | na | na | na | na | na | na | 680 |
| Nitrate + Nitrite N | na | na | na | na | na | na | 4.5 |
| Sulfate | na | na | na | na | na | na | 140 |
| Conductivity( mS) | na | na | na | na | na | na | 9.49 |
| pH | na | na | na | na | na | na | 7.4 |

| MW-6 PARAMETERS | 14-Apr-97 | 26-Aug-97 | 06-Nov-97 | 30-Jan-98 | 08-Apr-98 | 05-Nov-98 | 28-Oct-99 |
|---|---|---|---|---|---|---|---|
| Benzene | na | <.41 | na | na | na | <.50 | <0.27 |
| Ethylbenzene | na | <.23 | na | na | na | <.50 | <0.32 |
| MTBE | na | <.53 | na | na | na | <.20 | <0.32 |
| Toluene | na | <.28 | na | na | na | <.50 | <0.27 |
| 1,2,4-Trimethylbenzene | na | <.30 | na | na | na | <1.0 | <0.22 |
| 1,3,5-Trimethylbenzene | na | <.25 | na | na | na | <1.0 | <0.27 |
| Xylene O | na | <.28 | na | na | na | | <0.24 |
| Xylene m+p | na | <.51 | na | na | na | | <0.43 |
| Total Xylenes | na | <.79 | na | na | na | <.50 | <0.67 |
| Naphthalene | na | na | na | na | na | <8.0 | <0.35 |
| | | | | | | | |
| Total BETX | na | 0 | na | na | na | 0 | 0 |
| | | | | | | | |
| Temperature (C) | na | 17 | 13.4 | 7.9 | 7 | na | na |
| DO | na | 0.2 | 1.9 | 2 | 1 | na | na |
| Iron | na | na | na | na | na | na | na |
| Alkalinity | na | na | na | na | na | na | na |
| Nitrate + Nitrite N | na | na | na | na | na | na | na |
| Sulfate | na | na | na | na | na | na | na |
| Conductivity( mS) | na | na | na | na | na | na | na |
| pH | na | na | na | na | na | na | na |

na= Not analyzed

All Results in ppb except conductivity (mmho), temperature (C), pH and NA parameters (ppm)

Bold type indicates ES exceedence  Italicized type indicates PAL exceedence

# TABLE 1
# GROUNDWATER ANALYTICAL RESULTS - MW-7

| MW-7 PARAMETERS | 02-Dec-94 | 21-Mar-95 | 21-Jun-95 | 26-Sep-95 | 11-Jan-96 | 16-Apr-96 | 18-Sep-96 |
|---|---|---|---|---|---|---|---|
| Benzene | <1 | <.32 | <.5 | <.11 | <.32 | <.6 | <.6 |
| Ethylbenzene | <1 | <.34 | <1 | <.15 | <.34 | <1 | <1 |
| MTBE | <1 | <.28 | <2 | <.26 | <.28 | <1 | <1 |
| Toluene | <1 | <.27 | <2 | <.21 | <.27 | <1 | <1 |
| 1,2,4-Trimethylbenzene | <1 | <.38 | <1 | <.36 | <.38 | <1 | <1 |
| 1,3,5-Trimethylbenzene | <1 | <.25 | <1 | <.24 | <.25 | <1 | <1 |
| Xylene O | <1 | <.29 | <1 | <.46 | <.29 | <1 | <1 |
| Xylene m+p | <1 | <.59 | <1 | <.86 | <.59 | <1 | <1 |
| Total Xylenes | <2 | <.88 | <2 | <1.32 | <.88 | <2 | <2 |
| Acenaphthalene | <1 | <.16 | na | na | na | na | na |
| Flouranene | <.02 | <.12 | na | na | na | na | na |
| Fluorene | <.1 | <.13 | na | na | na | na | na |
| 1-Methylnaphthalene | <.5 | 0.64 | na | na | na | na | na |
| 2-Methylnaphthalene | <.5 | 0.44 | na | na | na | na | na |
| Naphthalene | <.5 | 0.52 | na | na | na | na | na |
| Phenanthrene | <.1 | <.17 | na | na | na | na | na |
| GRO | na | na | na | na | na | na | na |
| DRO | na | na | na | na | na | na | na |
| Pb | <2 | na | na | na | na | na | na |
| | | | | | | | |
| Total BETX | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | | | | | |
| Temperature (C) | na | na | na | na | na | na | 15.1 |
| DO | na | na | na | na | na | na | 0.4 |
| Iron | na | na | na | na | na | na | 32 |
| Alkalinity | na | na | na | na | na | na | 450 |
| Nitrate + Nitrite N | na | na | na | na | na | na | 3.3 |
| Sulfate | na | na | na | na | na | na | 880 |
| Conductivity( mS) | na | na | na | na | na | na | 1157 |
| pH | na | na | na | na | na | na | 7.38 |

| MW-7 PARAMETERS | 14-Apr-97 | 28-Aug-97 | 06-Nov-97 | 30-Jan-98 | 08-Apr-98 | 05-Nov-98 | 28-Oct-99 |
|---|---|---|---|---|---|---|---|
| Benzene | na | <.41 | na | na | na | <.50 | <0.27 |
| Ethylbenzene | na | <.23 | na | na | na | <.50 | <0.32 |
| MTBE | na | <.53 | na | na | na | <.20 | <0.32 |
| Toluene | na | <.28 | na | na | na | <.50 | <0.27 |
| 1,2,4-Trimethylbenzene | na | <.30 | na | na | na | <1.0 | <0.22 |
| 1,3,5-Trimethylbenzene | na | <.25 | na | na | na | <1.0 | <0.27 |
| Xylene O | na | <.28 | na | na | na | | <0.24 |
| Xylene m+p | na | <.51 | na | na | na | | <0.43 |
| Total Xylenes | na | <.79 | na | na | na | <.50 | <0.67 |
| Naphthalene | na | na | na | na | na | na | <0.35 |
| | | | | | | | |
| Total BETX | na | 0 | na | na | na | 0 | 0 |
| | | | | | | | |
| Temperature (C) | na | 16 | 12.5 | 6.5 | 6.2 | na | na |
| DO | na | 2.8 | 6.6 | 6.6 | 9.1 | na | na |
| Iron | na | na | na | na | na | na | na |
| Alkalinity | na | na | na | na | na | na | na |
| Nitrate + Nitrite N | na | na | na | na | na | na | na |
| Sulfate | na | na | na | na | na | na | na |
| Conductivity( mS) | na | na | na | na | na | na | na |
| pH | na | na | na | na | na | na | na |

na= Not analyzed

All Results in ppb except conductivity (mmho), temperature (C), pH and NA parameters (ppm)

Bold type indicates ES exceedence  Italicized type indicates PAL exceedence

# TABLE 1

# GROUNDWATER ANALYTICAL RESULTS - MW-8

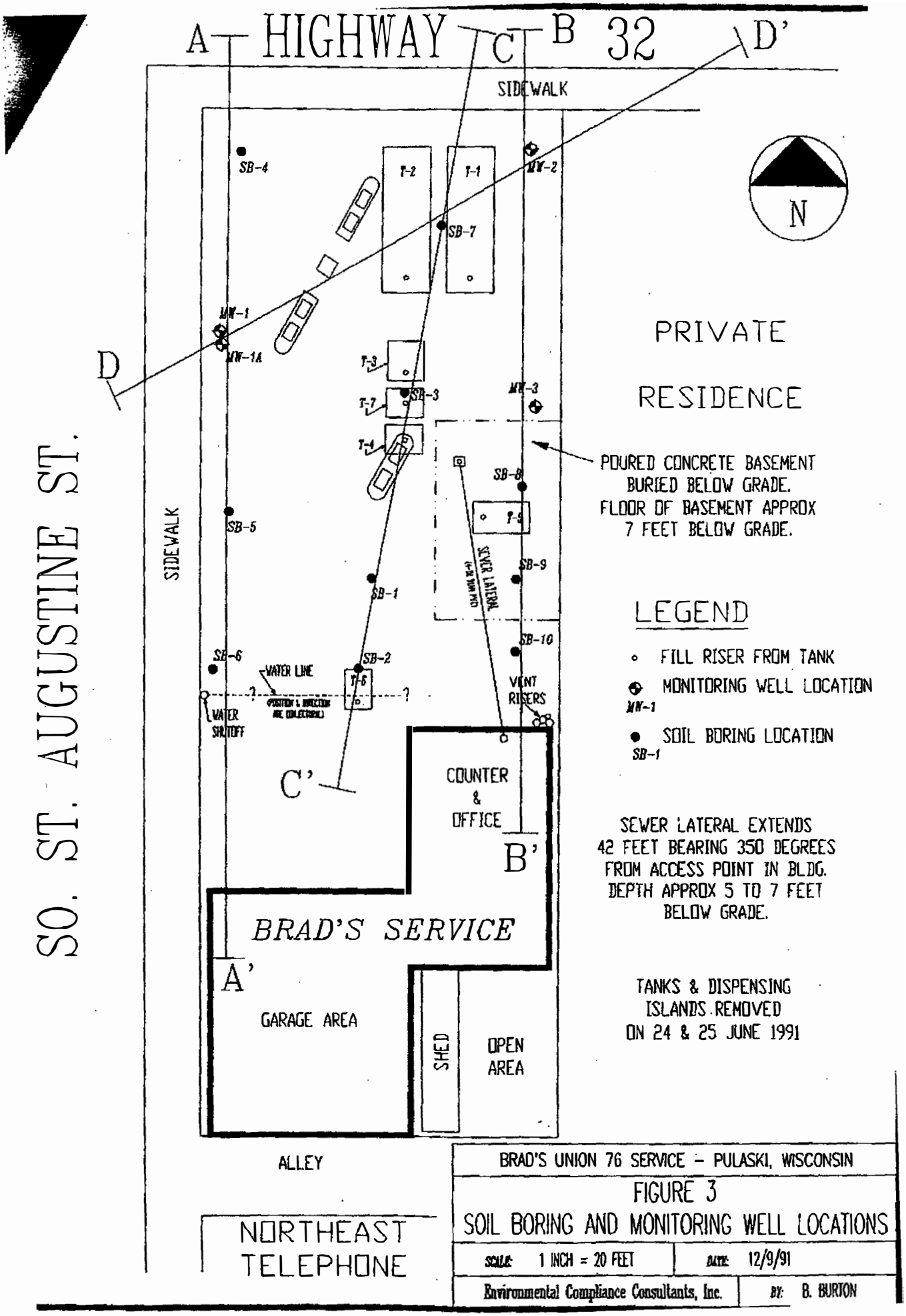
| MW-8 PARAMETERS | 05-Nov-98 | 28-Oct-99 |
|---|---|---|
| Benzene | <.50 | <0.27 |
| Ethylbenzene | <.50 | <0.32 |
| MTBE | <.20 | <0.32 |
| Toluene | <.50 | <0.27 |
| 1,2,4-Trimethylbenzene | <1.0 | <0.22 |
| 1,3,5-Trimethylbenzene | <1.0 | <0.27 |
| Xylene O | | <0.24 |
| Xylene m+p | | <0.43 |
| Total Xylenes | <.50 | <0.67 |
| Naphthalene | na | <0.35 |
| | | |
| Total BETX | 0 | 0 |
| | | |
| Temperature (C) | na | na |
| DO | na | na |
| Iron | na | na |
| Alkalinity | na | na |
| Nitrate + Nitrite N | na | na |
| Sulfate | na | na |
| Conductivity( mS) | na | na |
| pH | na | na |

na= Not analyzed

All Results in ppb except conductivity (mmho), temperature (C), pH and NA parameters (ppm)

Bold type indicates ES exceedence

Italicized type indicates PAL exceedence

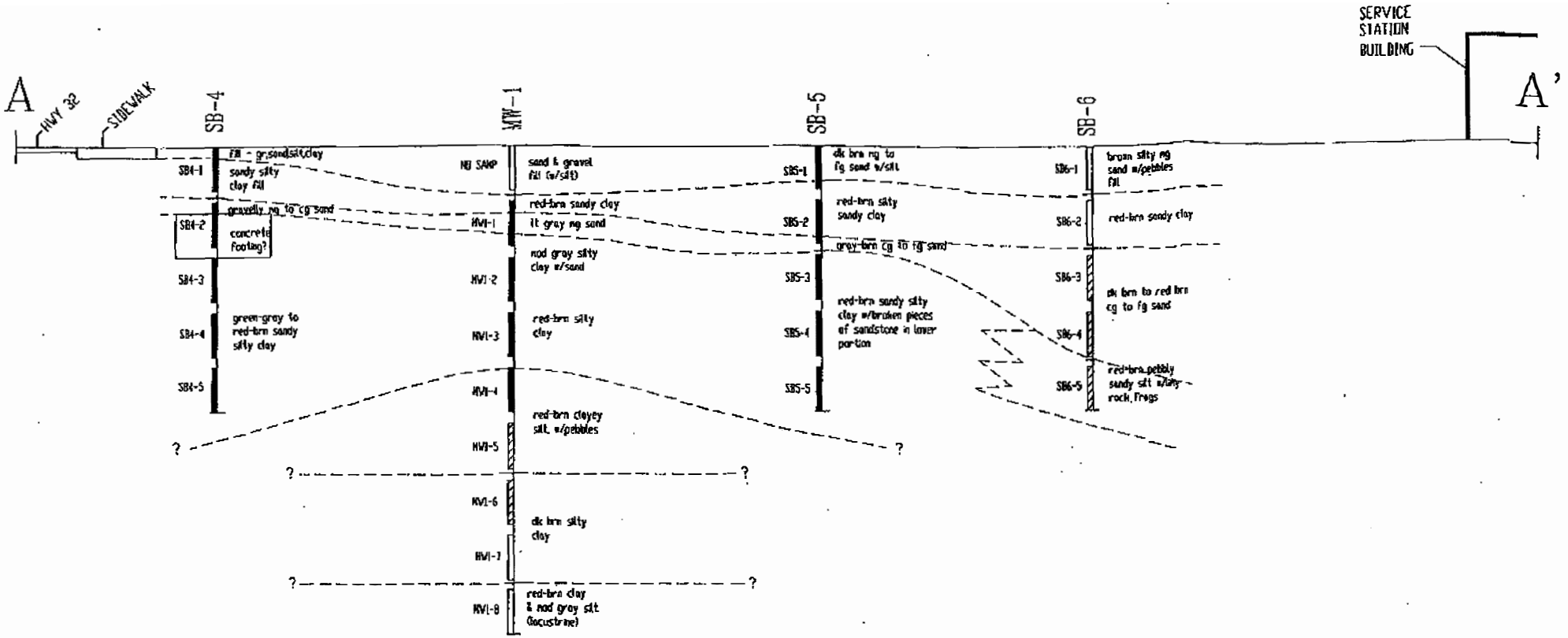



BRAD'S UNION 76 SERVICE – PULASKI, WISCONSIN

FIGURE 3

SOIL BORING AND MONITORING WELL LOCATIONS

| SCALE: 1 INCH = 20 FEET | DATE: 12/9/91 |
|---|---|
| Environmental Compliance Consultants, Inc. | BY: B. BURTON |




## LEGEND

- SOIL SAMPLE INDICATES SEVERE PRODUCT CONTAMINATION (MORE THAN 100 MG/KG OR PID UNITS)
- SOIL SAMPLE INDICATES SLIGHT TO MODERATE PRODUCT CONTAMINATION (11 TO 100 MG/KG OR PID UNITS)
- SOIL SAMPLE INDICATES LITTLE OR NO PRODUCT CONTAMINATION (0 TO 10 MG/KG OR PID UNITS)

## GRAPHIC SCALE

1 INCH = 10 FEET

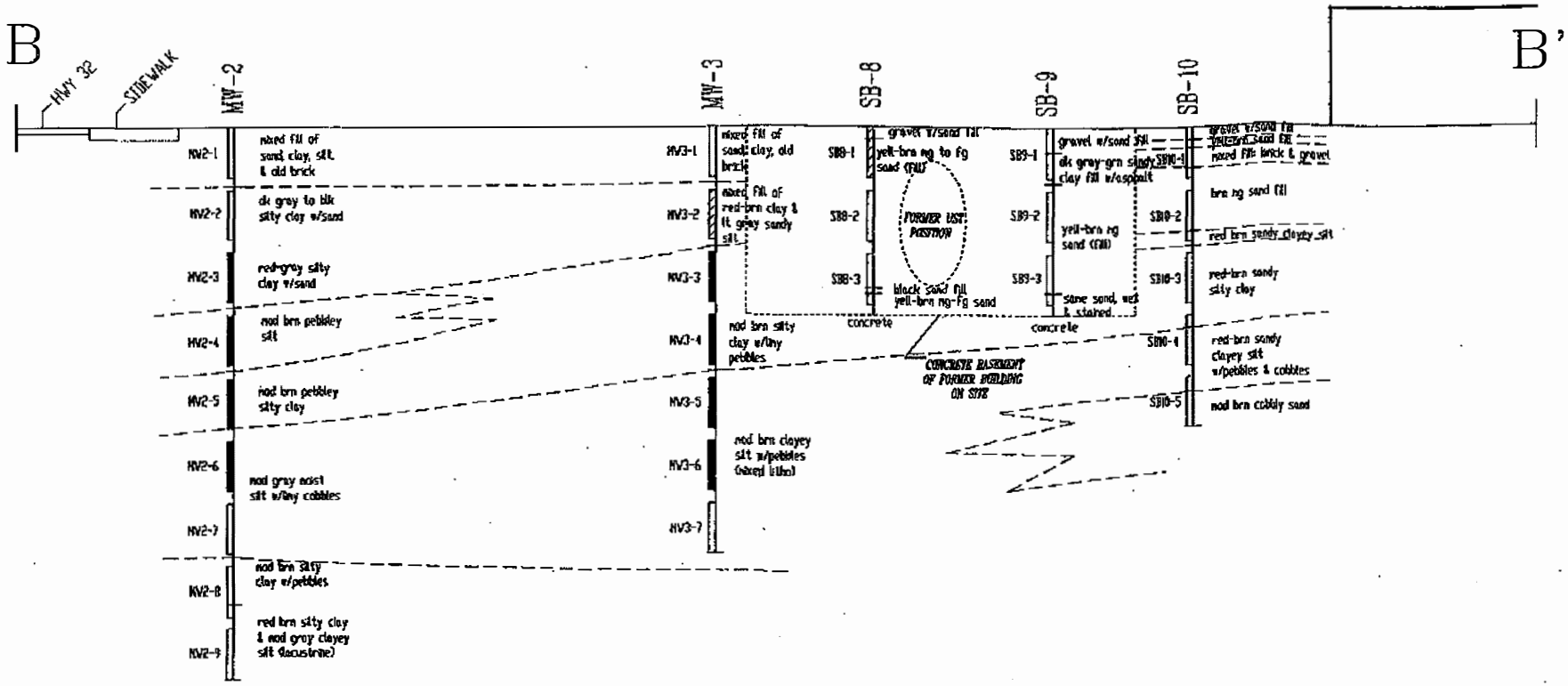
(1 INCH = 5 FEET)

GRAD'S UNION 76 SERVICE - PULASKI, WISCONSIN

FIGURE 4

CROSS-SECTION A - A'

| | |
|---|---|
| SCALE: SEE GRAPHIC SCALE | DATE: 1/1/92 |
| Environmental Compliance Consultants | BY: B. BURTON |




## LEGEND

- SOIL SAMPLE INDICATES SEVERE PRODUCT CONTAMINATION (MORE THAN 100 MG/KG OR PID UNITS)
- SOIL SAMPLE INDICATES SLIGHT TO MODERATE PRODUCT CONTAMINATION (11 TO 100 MG/KG OR PID UNITS)
- SOIL SAMPLE INDICATES LITTLE OR NO PRODUCT CONTAMINATION (0 TO 10 MG/KG OR PID UNITS)

## GRAPHIC SCALE

1 INCH = 10 FEET

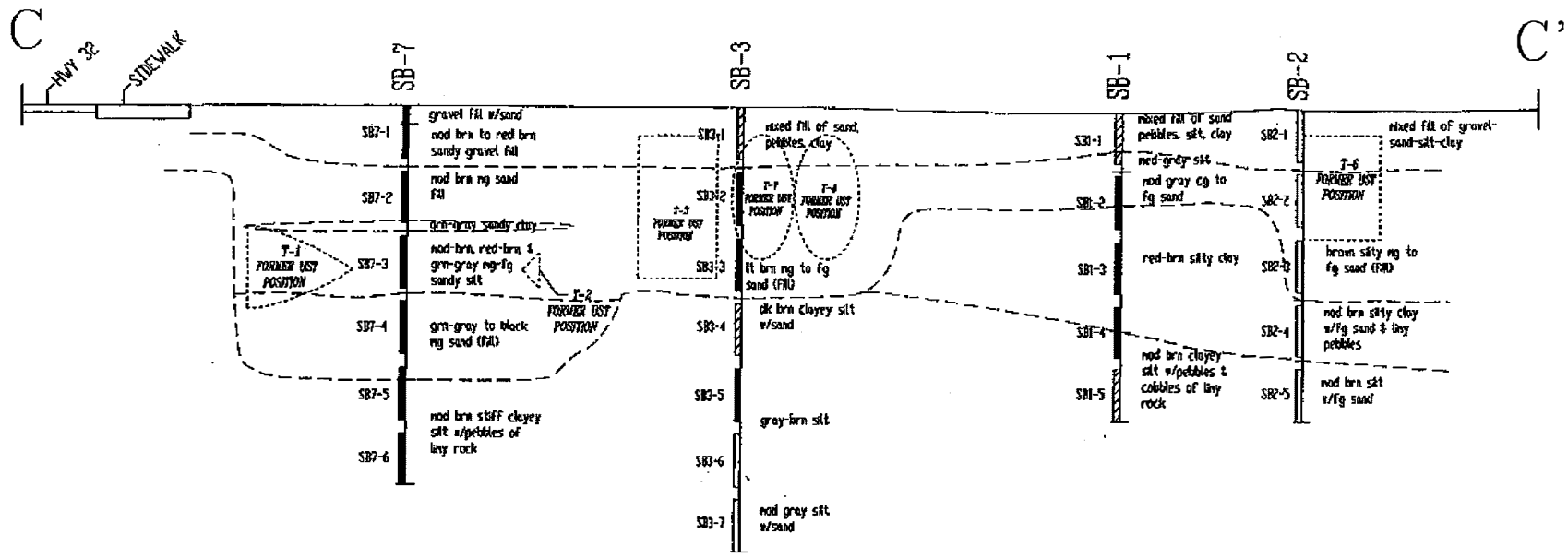
1 INCH = 5 FEET

BRAD'S UNION 76 SERVICE - PULASKI, WISCONSIN

FIGURE 5
CROSS-SECTION B - B'

SCALE: SEE GRAPHIC SCALE | DATE: 1/1/92

Environmental Compliance Consultants | BY: B. BURTON




## LEGEND

SOIL SAMPLE INDICATES SEVERE PRODUCT CONTAMINATION (MORE THAN 100 MG/KG OR PID UNITS)

SOIL SAMPLE INDICATES SLIGHT TO MODERATE PRODUCT CONTAMINATION (11 TO 100 MG/KG OR PID UNITS)

SOIL SAMPLE INDICATES LITTLE OR NO PRODUCT CONTAMINATION (0 TO 10 MG/KG OR PID UNITS)

GRAPHIC SCALE

1 INCH = 10 FEET

1 INCH = 5 FEET

BRAD'S UNION 76 SERVICE - PULASKI, WISCONSIN

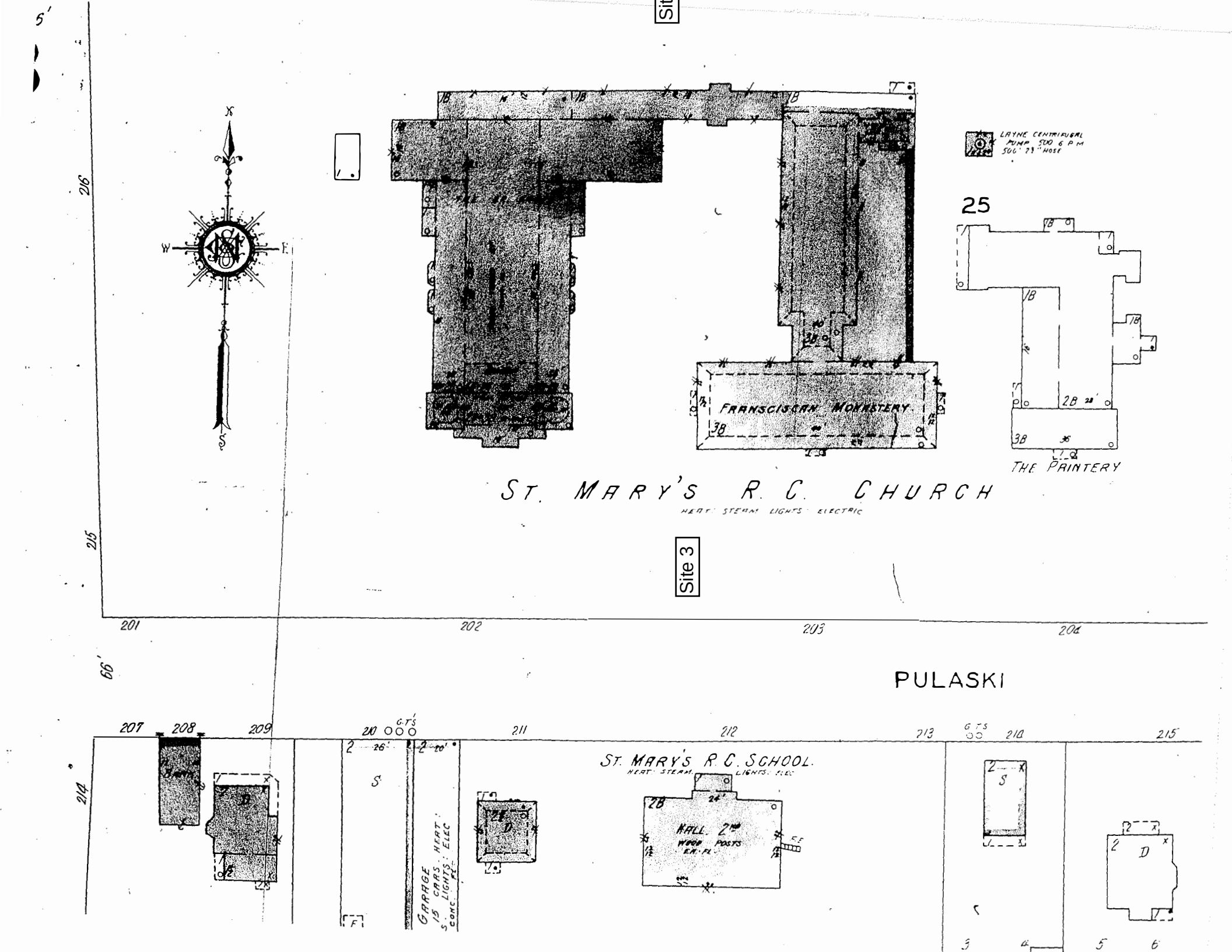
FIGURE 6

CROSS-SECTION C – C'

SCALE: SEE GRAPHIC SCALE | DATE: 1/1/92

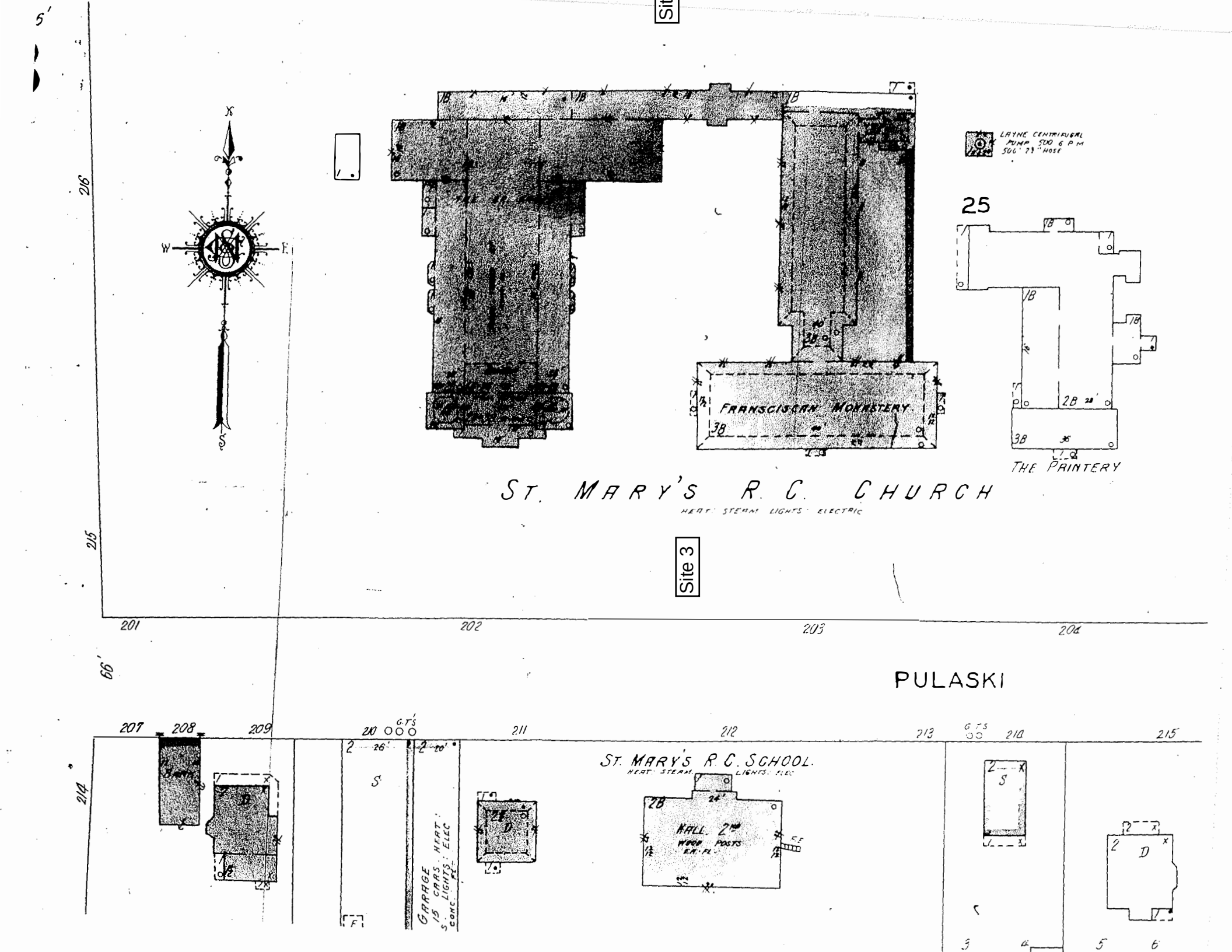
Environmental Compliance Consultants | BY: B. BURTON

# Site #3
# 118 E. Pulaski Street (Boutique Village)



Site 3
25
LAYNE CENTRIFUGAL PUMP 500 G P M 500' 2½" HOSE
FRANSCISCAN MONASTERY
THE PRINTERY
ST. MARY'S R. C. CHURCH
HEAT: STEAM LIGHTS: ELECTRIC
PULASKI
ST. MARY'S R. C. SCHOOL
HEAT: STEAM LIGHTS: ELEC
HALL 2ND WOOD POSTS EA. FL.
GARAGE 15 CARS HEAT: S. LIGHTS: ELEC CONC. FL.
G.T.S
216
215
214
66'
201
202
203
204
207
208
209
210
211
212
213
214
215

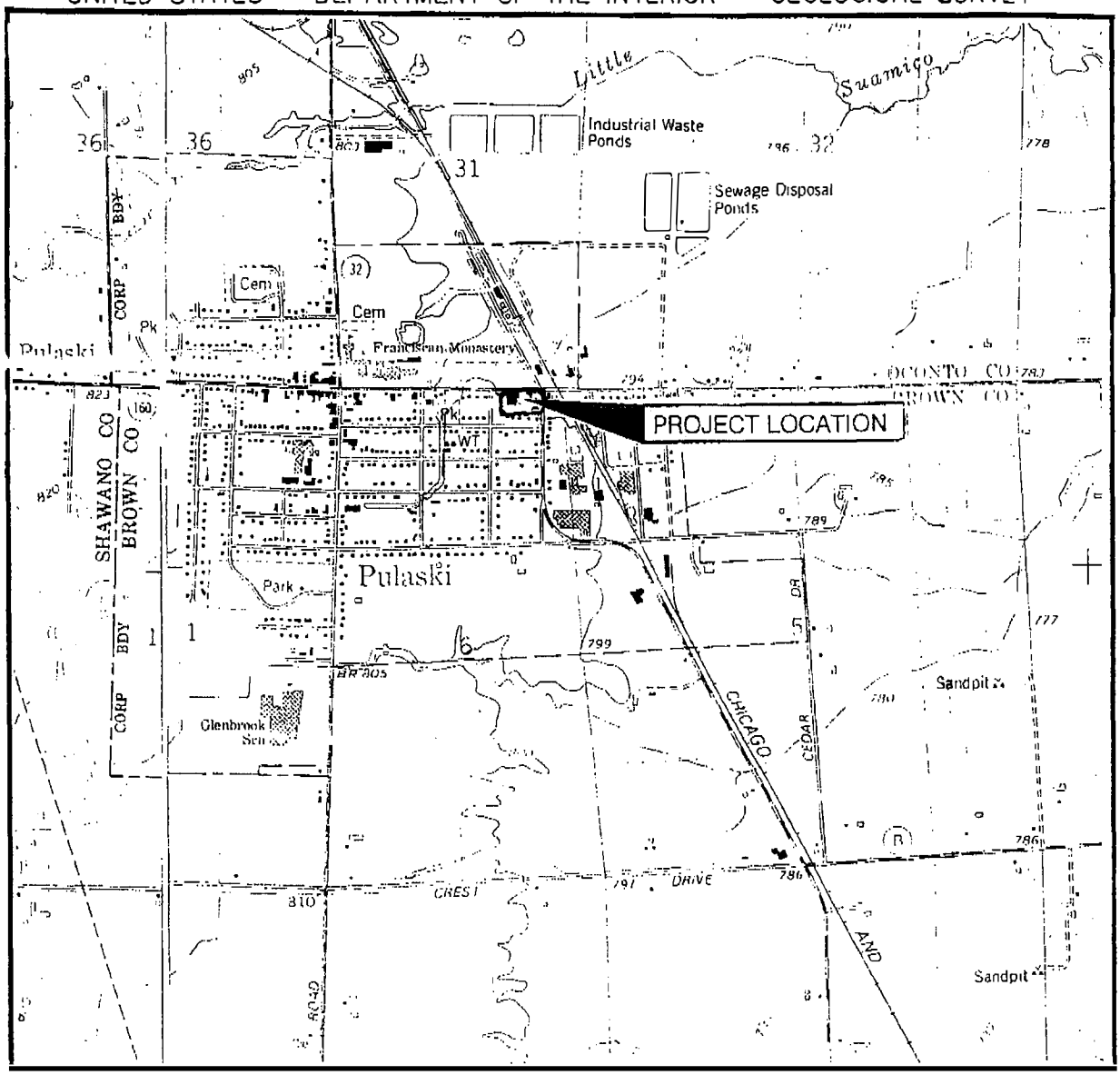
# Site #4
# 152 E. Pulaski Street (Citizens Bank Parking Lot)



Site 3
25
LAYNE CENTRIFUGAL PUMP 500 G P M 500' 2½" HOSE
FRANSCISCAN MONASTERY
THE PRINTERY
ST. MARY'S R. C. CHURCH
HEAT: STEAM LIGHTS: ELECTRIC
PULASKI
ST. MARY'S R. C. SCHOOL
HEAT: STEAM LIGHTS: ELEC
HALL 2ND WOOD POSTS EA. FL.
GARAGE 15 CARS HEAT: S. LIGHTS: ELEC CONC. FL.
G.T.S
216
215
214
66'
201
202
203
204
207
208
209
210
211
212
213
214
215

# Site #5
# 113 S. Wisconsin Street (Pulaski Shell Station)

UNITED STATES – DEPARTMENT OF THE INTERIOR – GEOLOGICAL SURVEY




SCALE 1:24 000

1 .5 0 KILOMETERS 1 2

1000 0 METERS 1000 2000

1 .5 0 1

MILES

1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10 000

FEET

CONTOUR INTERVAL 10 FEET

NATIONAL GEODETIC VERTICAL DATUM OF 1929

DOTTED LINES REPRESENT 5-FOOT CONTOURS

N

# PULASKI QUADRANGLE

## WISCONSIN, BROWN COUNTY

## 7.5 MINUTE SERIES (TOPOGRAPHIC)


Terracon

3535 HOFFMAN ROAD EAST
WHITE BEAR LAKE, MN 55110
(612) 770-1500 FAX (612) 770-1657


PULASKI CHASE COOPERATIVE

PULASKI, WISCONSIN

TERRACON PROJECT NO. 41965018

DRAWN BY: JLK
CHECKED BY: CS
FILE: 0185L.DWG
SCALE: AS SHOWN
DATE: 1/20/99

SITE LOCATION MAP

FIGURE 1

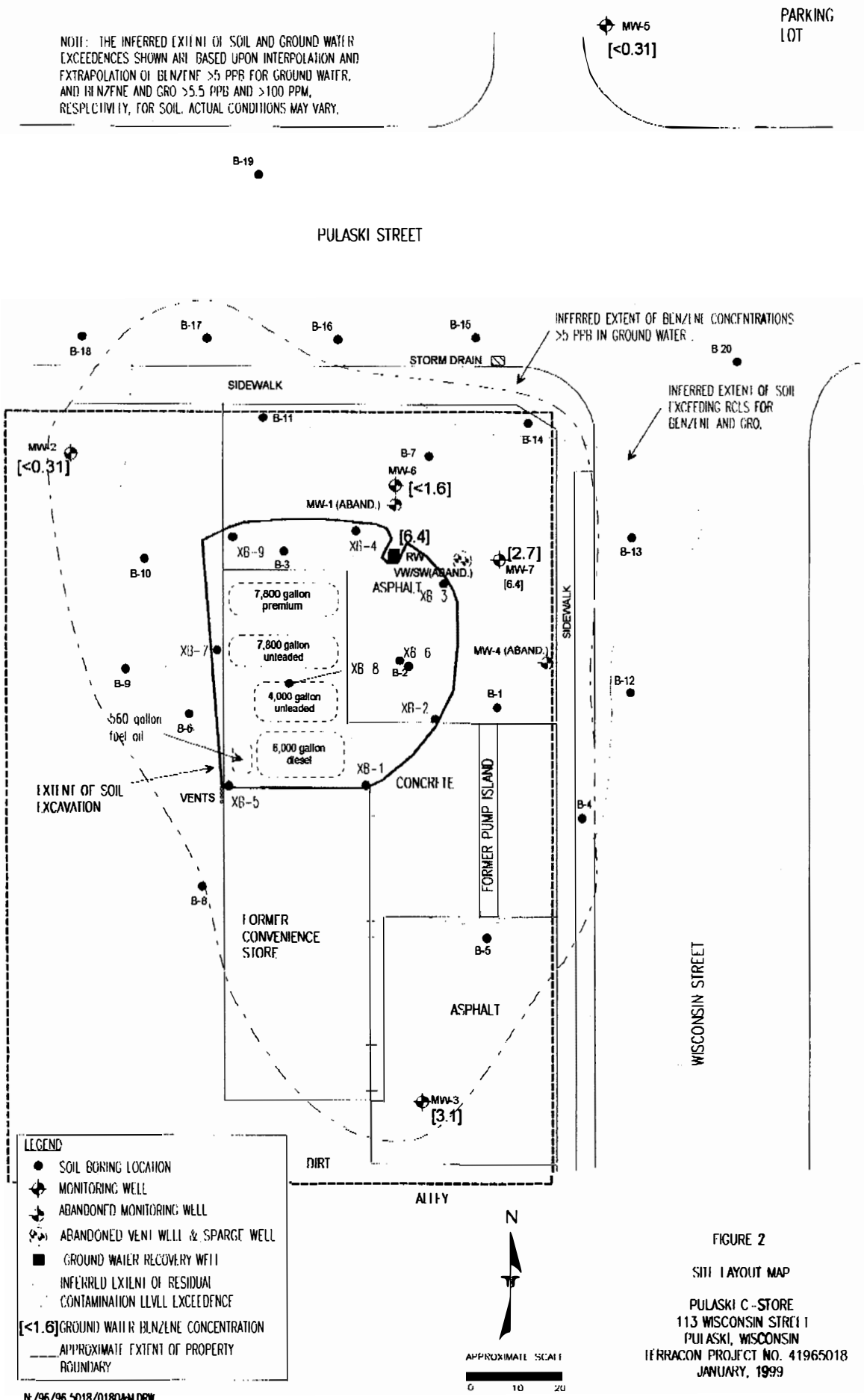



FIGURE 2

SITE LAYOUT MAP

PULASKI C-STORE
113 WISCONSIN STREET
PULASKI, WISCONSIN
TERRACON PROJECT NO. 41965018
JANUARY, 1999

NOTE: THE ACTUAL SCALE HAS BEEN REDUCED FOR SCANNING PURPOSES

TABLE 2

PULASKI CHASE COOPERATIVE
PULASKI, WISCONSIN
TERRACON PROJECT NO. 41965018

GROUND WATER CHEMISTRY

| WELL NUMBER | DATE | BENZENE | TOLUENE | ETHYL-BENZENE | TOTAL XYLENES | MTBE | 1,2,4-TMB | 1,3,5-TMB | GRO | DRO |
|---|---|---|---|---|---|---|---|---|---|---|
| MW-1 | 12/17/1996 | 110 | 120 | 9.3 | 45 | 910 | 10 | 5 | 1,200 | 130 |
| MW-1 | 1/22/1997 | 1,700 | 1,200 | 81 | 730 | 3,300 | 88 | 25 | 6,200 | 1,100 |
| MW-1* | 4/9/1997 | 11,000 | 7,100 | 330 | 3,800 | 8,900 | 480 | 120 | NA | 2,600 |
| MW-1T | 5/1/1997 | 2,900 | 1,700 | 99 | 1,290 | 2,200 | 170 | 48 | 10,000 | NA |
| MW-1B | 5/1/1997 | 4,900 | 3,300 | 150 | 2,350 | 3,400 | 310 | 87 | 18,000 | NA |
| MW-1 | 8/27/1997 | 1,900 | 1,100 | 220 | 1,140 | 3,000 | 240 | 73 | 9,100 | 2,100 |
| MW-2 | 12/20/1996 | 0.8 | 91 | 270 | 670 | <2.0 | 190 | 50 | 2,200 | 390 |
| MW-2 | 11/25/1997 | 1.2 | <0.36 | <0.29 | <0.94 | 2.7 | <0.30 | <0.34 | <50 | <120 |
| MW-2 | 5/27/1998 | 160 | <0.32 | <0.35 | <1.09 | 21 | <0.36 | <0.38 | 220 | 180 |
| MW-2 | 9/1/1998 | 1.8 | <0.32 | <0.35 | <1.09 | 15 | <0.36 | <0.38 | <20 | 270 |
| MW-2 | 11/5/1998 | <0.31 | <0.32 | <0.35 | <0.73 | 6.3 | <0.36 | <0.38 | 20J | 92 |
| MW-3 | 12/20/1996 | <0.6 | 24 | <1.0 | 1.2 | <1.0 | 1 | <1.0 | <50 | <120 |
| MW-3 | 1/22/1997 | 2.3 | 31 | 140 | 330 | 8 | 150 | 44 | 1,200 | 240 |
| MW-3* | 4/9/1997 | <2.0 | 17 | 220 | 650 | <2.5 | 380 | 110 | NA | 1,200 |
| MW-3 | 8/27/1997 | 0.67 | 2 | 140 | 73.66 | 7.6 | 220 | 65 | 1,800 | 750 |
| MW-3 | 11/25/1997 | 1.3 | 3 | 170 | 58.5 | <0.40 | 200 | 20 | 2,000 | 5 0 |
| MW-3 | 5/27/1998 | 20 | 3 | 170 | 46 | <1.4 | 160 | 2 | 2,100 | 580 |
| MW-3 | 9/1/1998 | 7.2 | <0.32 | 0.69 | <1.09 | <0.29 | 0.66 | <0.38 | 370 | 220 |
| MW-3 | 11/5/1998 | 3.1 | 0.42 | 0.93 | 1.83 | <0.29 | 2.4 | 1 | 200 | 290 |
| MW-4 | 12/20/1996 | 170 | 110 | 12 | 58 | 47 | 10 | 2.9 | 620 | 130 |
| MW-4 | 1/22/1997 | 61 | 13 | 5.4 | 94 | 150 | 20 | 13 | 470 | 440 |
| MW-4* | 4/9/1997 | 3,800 | 610 | 24 | 2,410 | 1,200 | 480 | 240 | NA | 3,800 |
| MW-4 | 8/27/1997 | 3,100 | 1,300 | 540 | 3,060 | 1,900 | 770 | 230 | 17,000 | 3,300 |
| MW-5 | 12/20/1996 | 2.3 | 15 | 3.1 | 15.2 | 5.4 | 5.4 | 1.6 | 89 | <100 |
| MW-5 | 1/22/1997 | <1 | 13 | <1 | 2.6 | 6.6 | 1.8 | <1 | <50 | <100 |
| MW-5 | 4/9/1997 | <0.40 | 0.6 | <0.20 | <0.50 | 4.5 | <0.30 | <0.30 | NA | 210 |
| MW-5 | 8/27/1997 | <0.16 | <0.36 | <0.29 | <1.15 | 4 | <0.30 | <0.34 | <50 | <100 |
| MW-5 | 11/25/1997 | <0.16 | <0.36 | <0.29 | <0.94 | 3.9 | <0.30 | <0.34 | <50 | 110 |
| MW-5 | 5/27/1998 | <0.31 | <0.32 | <0.35 | <1.09 | 2.2 | <0.36 | <0.38 | <20 | 130 |
| MW-5 | 9/1/1998 | <0.31 | <0.32 | <0.35 | <1.09 | 2.6 | <0.36 | <0.38 | <20 | 80 |
| MW-5 | 11/5/1998 | <0.31 | <0.32 | <0.35 | <0.73 | 2.9 | <0.36 | <0.38 | 35 | 64 |
| MW-6 | 5/27/1998 | 32 | <1.6 | 2.3 | <5.4 | 1,400 | 2.8 | <1.9 | 820 | 550 |
| MW-6 | 9/1/1998 | 53 | 24.0 | 2 | 15.3 | 1,000 | 2.4 | 0.90 | 740 | 360 |
| MW-6 | 11/5/1998 | <1.6 | <1.6 | <1.8 | <3.6 | 550 | <1.8 | <1.9 | 350 | 190 |
| MW-7 | 5/27/1998 | 34 | 37 | 4.6 | 21 | 17 | 3.2 | 1.0 | 210 | 210 |
| MW-7 | 9/1/1998 | 3.8 | <0.32 | 1.1 | <1.09 | 2.9 | <0.36 | <0.38 | <20 | 280 |
| MW-7 | 11/5/1998 | 2.7 | 0.43 | <0.35 | <0.73 | 1.9 | <0.36 | <0.38 | 24 | 61 |
| RW-1 | 1/23/1997 | 19 | 23 | 5.6 | 41 | 680 | 7.8 | 7.2 | 550 | 250 |
| RW-1 | 8/27/1997 | 110 | <18 | <14 | <57 | 8,200 | <15 | <17 | 4,200 | 3,100 |

TABLE 2

PULASKI CHASE COOPERATIVE
PULASKI, WISCONSIN
TERRACON PROJECT NO. 41965018

GROUND WATER CHEMISTRY

| WELL NUMBER | DATE | BENZENE | TOLUENE | ETHYL-BENZENE | TOTAL XYLENES | MTBE | 1,2,4-TMB | 1,3,5-TMB | GRO | DRO |
|---|---|---|---|---|---|---|---|---|---|---|
| RW | 5/27/1998 | **580** | 5 | 4.8 | 14.7 | **8,300** | 6.8 | 5.0 | 5,500 | 1,900 |
| RW | 9/1/1998 | **160** | 1.70 | <1.8 | 6.4 | **4,400** | 3.0 | 2.1 | 3,400 | 1,500 |
| RW | 11/5/1998 | **6.4** | <1.6 | <1.8 | <3.6 | **4,600** | 2.6 | <1.9 | 510 | 2,000 |
| RW-AM | 4/10/1997 | **12** | 10 | <5.0 | <13 | **2,400** | <7.5 | <7.5 | NA | 1,600 |
| RW-PM | 4/10/1997 | **44** | 19 | <4.0 | 20 | **2,000** | 9.4 | <6.0 | NA | 1,300 |
| EFF | 4/10/1997 | <2.0 | <1.5 | <1.0 | <2.5 | **500** | <1.5 | <1.5 | NA | NA |
| SPW | 5/1/1997 | 0.2 | <0.4 | <0.3 | <0.9 | 18 | <0.3 | <0.3 | <50 | NA |
| SPW | 8/27/1997 | 0.42 | <0.36 | <0.29 | <1.15 | 0.54 | <0.30 | <0.34 | <50 | <100 |
| SVE | 5/1/1997 | **16,000** | **23,000** | **2,000** | **12,700** | **2,200** | <60 | <60 | 81,000 | NA |
| SVE | 8/27/1997 | **15,000** | **8,000** | **1,700** | 9,300 | **1700** | **1,400** | **410** | 59,000 | 6,500 |
| "B-1-W" | 6/5/1996 | **3,000** | **5,900** | 550 | 4,900 | **5,400** | **720** | **210** | 24,000 | 30,000 |
| B-5-W" | 6/5/1996 | **29** | 1.1 | <1.0 | <2.0 | <1.0 | <1.0 | <1.0 | <50 | 220 |
| "B-7-W" | 6/6/1996 | **1,800** | **3,300** | 650 | 6,000 | <25 | **4,200** | **1,100** | 38,000 | 72,000 |
| ES | | 5 | 1,000 | 700 | 10,000 | 60 | 480 (Total TMB) | | NE | NE |
| PAL | | **0.5** | **200** | **140** | **1,000** | 12 | **96 (Total TMB)** | | NE | NE |

All values expressed in micrograms per liter (parts per billion).

GRO - Gasoline range organics

DRO - Diesel range organics

MTBE - Methyl-tert-Butyl Ether

TMB - Trimethylbenzene

* Laboratory analysis detected additional volatile organic compounds. Please refer to Table 2.

< Denotes less than.

NA - Not analyzed

ES - Ground water enforcement standard - NR 140, Wisconsin Administrative Code

PAL - Preventive Action Limit - NR 140, Wisconsin Administrative Code

NE - Not Established

" - Borehole water sample - collected from a thin perched water unit which is shallower than the monitoring wells screened interval.

EFF - Effluent water sample from the discharge from the initial pump test at the recovery test well

SVE - Soil vapor extraction well

SPW - Sparge well

MW-1T - Water sample collected from the water table from MW-1

MW-1B - Water sample collected from the base of the well screen at MW-1

**Bold indicated exceedance of ES**

Box indicated exceedance of PAL

N:\96\96_5018\[018GW.XLS]GW Chem.

TABLE 3

PULASKI CHASE COOPERATIVE
PULASKI, WISCONSIN
TERRACON PROJECT NO. 41965018

SOIL CHEMISTRY

| SOIL SAMPLE | DEPTH (feet) | PID | BENZENE | TOLUENE | ETHYL-BENZENE | TOTAL XYLENES | MTBE | 1,2,4 TMB | 1,3,5 TMB | NAPHTH-ALENE | GRO | DRO | TOTAL LEAD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B-1 | 1-3 | 0.7 | - | - | - | - | - | - | - | - | - | - | - |
| B-1 | 3-5* | 115 | **0.39** | **2.40** | 0.81 | **5.7** | 0.18 | 3.0 | 0.95 | 0.55 | 49 | 20 | 7.2 |
| B-1 | 5-7 | 22 | - | - | - | - | - | - | - | - | - | - | - |
| B-2 | 2-4 | 200 | - | - | - | - | - | - | - | - | - | - | - |
| B-2 | 4-6 | 210 | - | - | - | - | - | - | - | - | - | - | - |
| B-2 | 7-8* | 300 | **15** | **120** | **34** | **208** | 2.3 | 110 | 33 | 19 | **1,200** | **250** | <3.6 |
| B-2 | 9-10* | 65 | **1.5** | 1.4 | 1.4 | 3.7 | 0.95 | 1.4 | 0.45 | 0.32 | 14 | <3.4 | - |
| B-3 | 2-4 | 200 | - | - | - | - | - | - | - | - | - | - | - |
| B-3 | 6-8* | 280 | **7.3** | **61** | **20** | **128** | 1.1 | 60 | 20 | 11 | **1,300** | 59 | <3.6 |
| B-4 | 2-4 | - | **0.16** | 0.40 | <0.025 | 0.26 | <0.025 | <0.025 | <0.025 | <0.025 | <2.9 | <4.7 | 5.1 |
| B-4 | 4-6 | 14 | **0.05** | 0.06 | 0.15 | 0.29 | <0.025 | <0.025 | <0.025 | <0.025 | - | <3.5 | - |
| B-5 | 2-4 | 8 | <0.025 | 0.06 | <0.025 | 0.05 | <0.025 | <0.025 | <0.025 | <0.025 | <2.7 | <4.8 | 5.1 |
| B-5 | 4-6 | 1 | - | - | - | - | - | - | - | - | - | - | - |
| B-6 | 2-4 | 43 | - | - | - | - | - | - | - | - | - | - | - |
| B-6 | 4-6 | 18 | <0.025 | <0.025 | <0.025 | 0.04 | <0.025 | <0.025 | <0.025 | <0.025 | <2.9 | <5.7 | 10.0 |
| B-6 | 6-8* | 22 | **0.68** | **1.7** | 2.3 | **11.6** | <0.025 | 3.9 | 1.2 | 1.0 | 26 | 13 | - |
| B-7 | 2-4 | 51 | - | - | - | - | - | - | - | - | - | - | - |
| B-7 | 4-6* | 22 | **1.5** | **14** | **3.0** | **74** | <0.25 | 58 | 21 | 9.1 | **180** | 12 | <3.7 |
| B-8 | 1-3 | <0.1 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | - | <3.0 | <5.3 | - |
| B-8 | 3-5 | <0.1 | - | - | - | - | - | - | - | - | - | - | - |
| B-8 | 10-12 | 1 | - | - | - | - | - | - | - | - | - | - | - |
| B-8 | 14-16 | 1 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | - | <2.9 | <4.4 | - |
| B-9 | 1-3 | <0.1 | - | - | - | - | - | - | - | - | - | - | - |
| B-9 | 3-5 | <0.1 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | - | <2.9 | <4.6 | - |
| B-9 | 7-9 | <0.1 | - | - | - | - | - | - | - | - | - | - | - |
| B-9 | 11-13 | <0.1 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | - | <2.8 | <4.3 | - |
| B-10 | 1-3 | <0.1 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | - | <2.7 | <4.6 | - |
| B-10 | 5-7 | 335 | - | - | - | - | - | - | - | - | - | - | - |
| B-10 | 10-12 | <0.1 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | - | <2.9 | <4.4 | - |
| B-11 | 1-3 | <0.1 | - | - | - | - | - | - | - | - | - | - | - |
| B-11 | 3-5 | 120 | - | - | - | - | - | - | - | - | - | - | - |

TABLE 3

PULASKI CHASE COOPERATIVE
PULASKI, WISCONSIN
TERRACON PROJECT NO. 41965018

SOIL CHEMISTRY

| SOIL SAMPLE | DEPTH (feet) | PID | BENZENE | TOLUENE | ETHYL-BENZENE | TOTAL XYLENES | MTBE | 1,2,4 TMB | 1,3,5 TMB | NAPHTH-ALENE | GRO | DRO | TOTAL LEAD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| B-11 | 5-7 | 490 | **1.1** | **7.0** | **5.6** | **24.2** | <0.1 | 15 | 5.3 | - | **240** | 37 | - |
| B-11 | 7-9 | 260 | - | - | - | - | - | - | - | - | - | - | - |
| B-11 | 9-11 | 4 | - | - | - | - | - | - | - | - | - | - | - |
| B-11 | 11-13 | <0.1 | <0.025 | 0.03 | <0.025 | 0.05 | <0.025 | 0.04 | <0.025 | - | <2.8 | <5.4 | - |
| B-12 | 1-3 | <0.1 | - | - | - | - | - | - | - | - | - | - | - |
| B-12 | 3-5 | 2 | <0.025 | <0.025 | <0.025 | 0.05 | <0.025 | 0.03 | <0.025 | - | <2.8 | <4.2 | - |
| B-12 | 5-7 | <0.1 | - | - | - | - | - | - | - | - | - | - | - |
| B-13 | 3-5 | 19 | - | - | - | - | - | - | - | - | - | - | - |
| B-13 | 5-7 | 390 | <0.2 | 1.1 | **8.0** | **16.4** | 0.3 | 14 | 5.0 | - | **520** | 48 | - |
| B-13 | 7-9 | 80 | - | - | - | - | - | - | - | - | - | - | - |
| B-13 | 9-11 | 20 | - | - | - | - | - | - | - | - | - | - | - |
| B-13 | 11-13 | 6 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | 0.03 | <0.025 | - | <2.9 | <4.9 | - |
| B-14 | 3-5 | <0.1 | - | - | - | - | - | - | - | - | - | - | - |
| B-14 | 5-7 | 2 | - | - | - | - | - | - | - | - | - | - | - |
| B-14 | 7-9 | 4 | <0.025 | 0.1 | 1.2 | 0.3 | 0.1 | 0.2 | <0.025 | - | 34 | <4.7 | - |
| B-15 | 3-5 | 1 | - | - | - | - | - | - | - | - | - | - | - |
| B-15 | 5-7 | 3 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | - | <2.8 | <4.2 | - |
| B-16 | 3-5 | 4 | - | - | - | - | - | - | - | - | - | - | - |
| B-16 | 5-7 | 15 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | - | <2.8 | <4.2 | - |
| B-17 | 3-5 | 47 | - | - | - | - | - | - | - | - | - | - | - |
| B-17 | 5-7 | 300 | **3.7** | **62** | **26** | **143** | 1.5 | 75 | 25 | - | **1,100** | 43 | - |
| B-18 | 3-5 | 2 | - | - | - | - | - | - | - | - | - | - | - |
| B-18 | 5-7 | 4 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | - | <2.8 | <4.2 | - |
| B-19 | 3-5 | 2 | - | - | - | - | - | - | - | - | - | - | - |
| B-19 | 5-7 | 3 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | - | <2.8 | <4.2 | - |
| B-19 | 7-9 | 2 | - | - | - | - | - | - | - | - | - | - | - |
| B-20 | 3-5 | 2 | - | - | - | - | - | - | - | - | - | - | - |
| B-20 | 5-7 | 2 | - | - | - | - | - | - | - | - | - | - | - |
| B-20 | 7-9 | 4 | <0.025 | 0.04 | 1.2 | 0.20 | <0.025 | <0.025 | <0.025 | - | 2.9 | <5.0 | - |
| MW-1 | 1-3 | 330 | - | - | - | - | - | - | - | - | - | - | - |
| MW-1 | 3-5 | 660 | - | - | - | - | - | - | - | - | - | - | - |
| MW-1 | 5-7 | 500 | - | - | - | - | - | - | - | - | - | - | - |
| MW-1 | 7-9 | 200 | - | - | - | - | - | - | - | - | - | - | - |
| MW-1 | 9-11 | 16 | **0.09** | 0.37 | 0.08 | 0.40 | 1.2 | 0.086 | <0.025 | - | <2.8 | <5.0 | - |
| MW-1 | 13-15 | 20 | - | - | - | - | - | - | - | - | - | - | - |
| MW-1 | 17-19 | 2 | - | - | - | - | - | - | - | - | - | - | - |
| MW-4 | 1-3 | <0.1 | - | - | - | - | - | - | - | - | - | - | - |
| MW-4 | 3-5 | <0.1 | - | - | - | - | - | - | - | - | - | - | - |
| MW-4 | 5-7 | 38 | - | - | - | - | - | - | - | - | - | - | - |
| MW-4 | 7-9 | 31 | - | - | - | - | - | - | - | - | - | - | - |
| MW-4 | 9-11 | 4 | **0.21** | 0.11 | 0.40 | 0.33 | <0.025 | <0.025 | <0.025 | - | 17 | <5.2 | - |
| MW-5 | 3-5 | <0.1 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | - | <2.8 | 6.7 | - |

TABLE 3

PULASKI CHASE COOPERATIVE
PULASKI, WISCONSIN
TERRACON PROJECT NO. 41965018

SOIL CHEMISTRY

| SOIL SAMPLE | DEPTH (feet) | PID | BENZENE | TOLUENE | ETHYL-BENZENE | TOTAL XYLENES | MTBE | 1,2,4 TMB | 1,3,5 TMB | NAPHTH-ALENE | GRO | DRO | TOTAL LEAD |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SW | 5-7 | - | **11** | **60** | **18** | **100** | 1 | 43 | 14 | - | **820** | **170** | - |
| Excavation Soil Sampling - 10/23/97 & 10/24/97 | | | | | | | | | | | | | |
| XB-1 | 9 | <1 | <0.025 | <0.025 | <0.025 | <0.025 | 0.17 | <0.025 | <0.025 | NA | <2.7 | <3.7 | |
| XB-2 | 8 | 68 | **0.96** | 0.1 | 2.2 | **9.3** | 0.26 | 4.3 | 1.2 | NA | 40 | 21 | |
| XB-3 | 8 | 784 | * **2.5** | **9.3** | **4.6** | **27.7** | 0.42 | 18.0 | 5.6 | NA | **220** | **130** | |
| XB-4 | 8 | 95 | **4.2** | 0.94 | 1.7 | **8.5** | 1.9 | 1.1 | 0.27 | NA | 28 | 5.9 | |
| XB-5 | 8-9 | 57 | **0.37** | <0.025 | 0.39 | 0.719 | <0.025 | 1.4 | 0.18 | NA | 31 | **150** | |
| XB-6 | 8-9 | 58 | **1.9** | 0.14 | 1.8 | 3.69 | 0.92 | 0.92 | 0.32 | NA | 22 | 7.4 | |
| XB-7 | 8-9 | 35 | **1.8** | 0.13 | 0.78 | 2.87 | 0.36 | 0.71 | 0.24 | NA | 13 | <4.2 | |
| XB-8 | 9 | 521 | **2.4** | **18** | **5.5** | **83** | 1.5 | 48 | 16 | NA | **570** | **800** | |
| XB-9 | 8 | 247 | **3.1** | **5.9** | 1.5 | **7** | 0.31 | 1.4 | 0.39 | NA | 31 | <4.0 | |
| Roadway Construction Soil Sampling - 9/10/97 & 9/12/97 | | | | | | | | | | | | | |
| Mid Trench | 4 | <1 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | NA | <2.9 | <3.8 | |
| Manhole Base | 4.5 | 4 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | NA | <2.8 | <3.8 | |
| NW Basin | 4 | 804 | **0.43** | **2.1** | 2.2 | **10.8** | 0.1 | 9.8 | 3.4 | NA | **130** | <3.7 | |
| S. Basin | 4 | 118 | **0.063** | 0.088 | 0.44 | 0.90 | <0.025 | 1.6 | 0.56 | NA | 20 | <3.7 | |
| Stockpile #1 | | | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | <0.025 | NA | <2.8 | <4.0 | |
| Stockpile #2 | | | <0.025 | <0.025 | <0.025 | 0.038 | <0.025 | 0.12 | 0.066 | NA | <2.9 | <4.0 | |
| Generic RCL | - | - | **0.0055** | **1.5** | **2.9** | **4.1** | NE | NE | NE | NE | **100** | **100** | **50** |

Values expressed in PPM
PID - Photoionization Detector.
ppm - Parts per million.
mg/kg - milligrams per kilogram (parts per million).
* - Other petroleum related compounds were detected. Refer to the laboratory report.
RCL - Residual Contamination Level in soil (NR 720)
GRO - Gasoline Range Organics.
DRO - Diesel Range Organics.
- Not analyzed
< Denotes less than.
NE - Not Established
**Bold indicates exceedance of Generic RCL**

N:\96\96_5028\018SC.XLS

NOTE: THE INFERRED EXTENT OF SOIL AND GROUND WATER EXCEEDANCES SHOWN ARE BASED UPON INTERPOLATION AND EXTRAPOLATION OF BENZENE >5 PPB FOR GROUND WATER, AND BENZENE AND GRO >5.5 PPB AND >100 PPM, RESPECTIVELY, FOR SOIL. ACTUAL CONDITIONS MAY VARY.

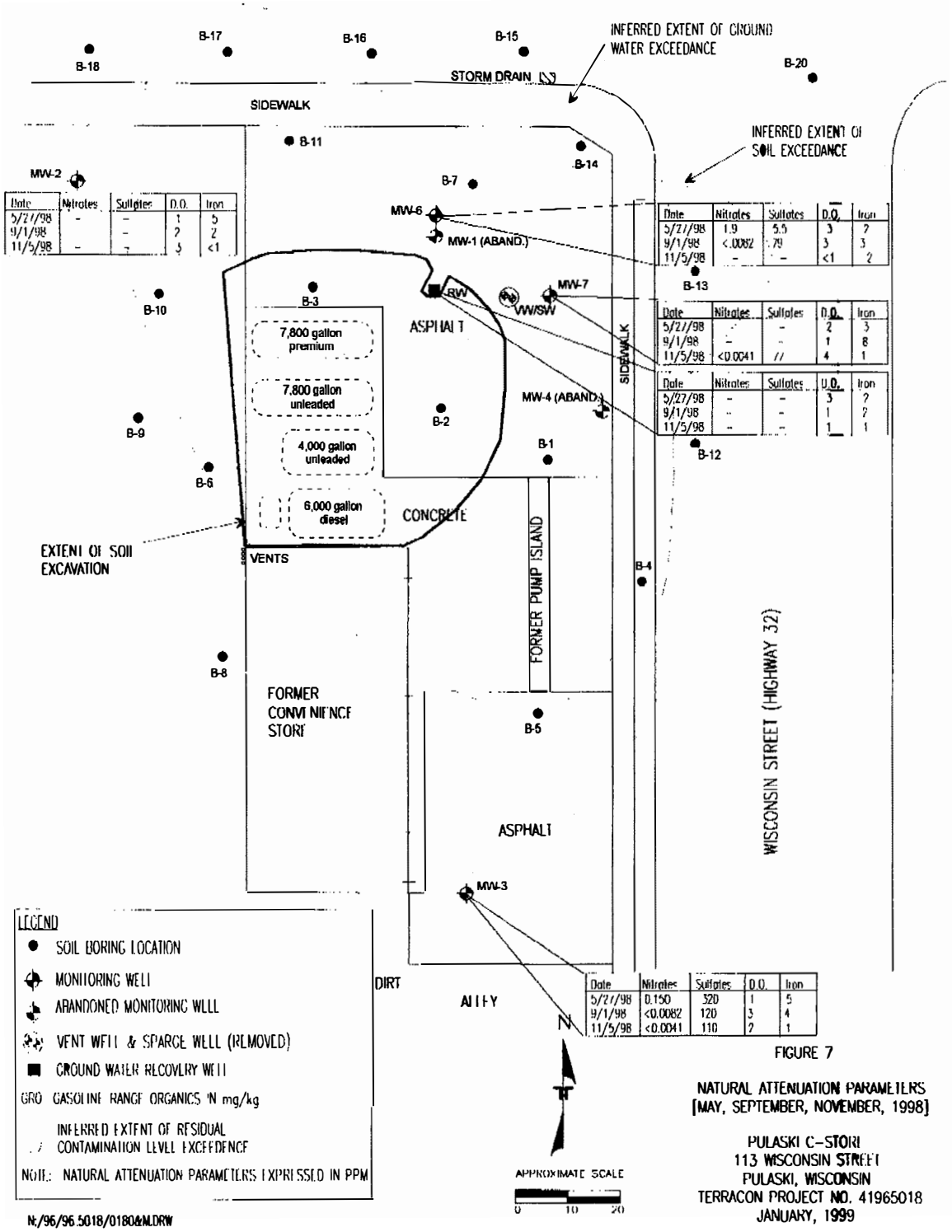
MW-5

| Date | Nitrates | Sulfates | D.O. | Iron |
|---|---|---|---|---|
| 5/27/98 | 0.33 | 98 | 3 | 5 |
| 9/1/98 | 2.5 | 20 | 1 | 5 |
| 11/5/98 | 0.17 | 117 | 4 | 4 |

PARKING LOT

B-19

PULASKI STREET (HIGHWAY 32)




| Date | Nitrates | Sulfates | D.O. | Iron |
|---|---|---|---|---|
| 5/27/98 | - | - | 1 | 5 |
| 9/1/98 | - | - | 2 | 2 |
| 11/5/98 | - | - | 3 | <1 |

| Date | Nitrates | Sulfates | D.O. | Iron |
|---|---|---|---|---|
| 5/27/98 | 1.9 | 5.5 | 3 | 7 |
| 9/1/98 | <.0082 | .79 | 3 | 3 |
| 11/5/98 | - | - | <1 | 2 |

| Date | Nitrates | Sulfates | D.O. | Iron |
|---|---|---|---|---|
| 5/27/98 | - | - | 2 | 3 |
| 9/1/98 | - | - | 1 | 8 |
| 11/5/98 | <0.0041 | // | 4 | 1 |

| Date | Nitrates | Sulfates | D.O. | Iron |
|---|---|---|---|---|
| 5/27/98 | - | - | 3 | 2 |
| 9/1/98 | - | - | 1 | 2 |
| 11/5/98 | - | - | 1 | 1 |

| Date | Nitrates | Sulfates | D.O. | Iron |
|---|---|---|---|---|
| 5/27/98 | 0.150 | 320 | 1 | 5 |
| 9/1/98 | <0.0082 | 120 | 3 | 4 |
| 11/5/98 | <0.0041 | 110 | 2 | 1 |

N:/96/96.5018/0180&MLDRW

FIGURE 7

NATURAL ATTENUATION PARAMETERS
[MAY, SEPTEMBER, NOVEMBER, 1998]

PULASKI C-STORI
113 WISCONSIN STREET
PULASKI, WISCONSIN
TERRACON PROJECT NO. 41965018
JANUARY, 1999

NOTE: THE ACTUAL SCALE HAS BEEN REDUCED FOR SCANNING PURPOSES

TABLE 1

PULASKI C-STORE
PULASKI, WISCONSIN
TERRACON PROJECT NO. 41965018

GROUND WATER ELEVATIONS

| WELL NUMBER | DATE | DEPTH TO WATER | REFERENCE ELEVATION | GROUND WATER ELEVATION | ELEVATION TOP OF SCREEN | ELEVATION BOTTOM OF SCREEN |
|---|---|---|---|---|---|---|
| MW-1 | 12/20/1996 | 11.77 | 796.94 | 785.17 | 787.9 | 777.9 |
| MW-1 | 1/22/1997 | 11.48 | 796.94 | 785.46 | 787.9 | 777.9 |
| MW-1 | 4/9/1997 | 9.38 | 796.94 | 787.56 | 787.9 | 777.9 |
| MW-1 | 5/1/1997 | 10.45 | 796.94 | 786.49 | 787.9 | 777.9 |
| MW-1 | 6/24/1997 | 10.59 | 796.94 | 786.35 | 787.9 | 777.9 |
| MW-1 | 8/27/1997 | 11.55 | 796.94 | 785.39 | 787.9 | 777.9 |
| MW-2 | 12/20/1996 | 12.31 | 797.64 | 785.33 | 788.1 | 778.1 |
| MW-2 | 11/25/1997 | 11.45 | 797.64 | 786.19 | 788.1 | 778.1 |
| MW-2 | 5/27/1998 | 10.25 | 797.64 | 787.39 | 788.1 | 778.1 |
| MW-2 | 9/1/1998 | 11.33 | 797.64 | 786.31 | 788.1 | 778.1 |
| MW-2 | 11/5/1998 | 11.58 | 797.64 | 786.06 | 788.1 | 778.1 |
| MW-3 | 12/20/1996 | 11.21 | 796.39 | 785.18 | 786.9 | 776.9 |
| MW-3 | 1/22/1997 | 12.09 | 796.39 | 784.30 | 786.9 | 776.9 |
| MW-3 | 4/9/1997 | 10.02 | 796.39 | 786.37 | 786.9 | 776.9 |
| MW-3 | 5/1/1997 | 11.06 | 796.39 | 785.33 | 786.9 | 776.9 |
| MW-3 | 6/24/1997 | 11.28 | 796.39 | 785.11 | 786.9 | 776.9 |
| MW-3 | 8/27/1997 | 12.50 | 796.39 | 783.89 | 786.9 | 776.9 |
| MW-3 | 11/25/1997 | 11.34 | 796.39 | 785.05 | 786.9 | 776.9 |
| MW-3 | 5/27/1998 | 10.21 | 796.39 | 786.18 | 786.9 | 776.9 |
| MW-3 | 9/1/1998 | 11.23 | 796.39 | 785.16 | 786.9 | 776.9 |
| MW-3 | 11/5/1998 | 11.45 | 796.39 | 784.94 | 786.9 | 776.9 |
| MW-4 | 12/20/1996 | 11.08 | 796.33 | 785.25 | 788.8 | 778.8 |
| MW-4 | 1/22/1997 | 10.84 | 796.33 | 785.49 | 788.8 | 778.8 |
| MW-4 | 4/9/1997 | 8.78 | 796.33 | 787.55 | 788.8 | 778.8 |
| MW-4 | 5/1/1997 | 9.82 | 796.33 | 786.51 | 788.8 | 778.8 |
| MW-4 | 6/24/1997 | 9.96 | 796.33 | 786.39 | 788.8 | 778.8 |
| MW-4 | 8/27/1997 | 10.81 | 796.33 | 785.52 | 788.8 | 778.8 |
| MW-5 | 12/20/1996 | 11.00 | 796.14 | 785.14 | 787.6 | 777.6 |
| MW-5 | 1/22/1997 | 10.69 | 796.14 | 785.45 | 787.6 | 777.6 |
| MW-5 | 4/9/1997 | 8.57 | 796.14 | 787.57 | 787.6 | 777.6 |
| MW-5 | 5/1/1997 | 9.63 | 796.14 | 786.51 | 787.6 | 777.6 |
| MW-5 | 6/24/1997 | 9.78 | 796.14 | 786.36 | 787.6 | 777.6 |
| MW-5 | 8/27/1997 | 10.72 | 796.14 | 785.42 | 787.6 | 777.6 |
| MW-5 | 11/25/1997 | 11.20 | 796.14 | 784.94 | 787.6 | 777.6 |
| MW-5 | 5/27/1998 | 10.03 | 796.14 | 786.11 | 787.6 | 777.6 |
| MW-5 | 9/1/1998 | 11.07 | 796.33 | 785.26 | 788.8 | 778.8 |
| MW-5 | 11/5/1998 | 11.32 | 796.14 | 784.82 | 787.6 | 777.6 |
| MW-6 | 5/27/1998 | 10.29 | 796.52 | 786.23 | 788.0 | 777.2 |
| MW-6 | 9/1/1998 | 11.34 | 796.52 | 785.18 | 788.0 | 777.2 |
| MW-6 | 11/5/1998 | 11.54 | 796.52 | 784.98 | 788.0 | 777.2 |
| MW-7 | 5/27/1998 | 10.33 | 796.43 | 786.10 | 787.9 | 778.1 |

TABLE 1

PULASKI C-STORE
PULASKI, WISCONSIN
TERRACON PROJECT NO. 41965018

GROUND WATER ELEVATIONS

| WELL NUMBER | DATE | DEPTH TO WATER | REFERENCE ELEVATION | GROUND WATER ELEVATION | ELEVATION TOP OF SCREEN | ELEVATION BOTTOM OF SCREEN |
|---|---|---|---|---|---|---|
| MW-7 | 9/1/1998 | 11.39 | 796.43 | 785.04 | 787.9 | 778.1 |
| MW-7 | 11/5/1998 | 11.56 | 796.43 | 784.87 | 787.9 | 778.1 |
| RW | 1/22/1997 | 7.35 | 796.14 | 788.79 | 787.6 | 777.6 |
| RW[1] | 4/9/1997 | 9.44 | 797.02 | 787.58 | 788.0 | 778.0 |
| RW[1] | 5/1/1997 | 10.51 | 797.02 | 786.51 | 788.0 | 778.0 |
| RW[1] | 6/24/1997 | 10.66 | 797.02 | 786.36 | 788.0 | 778.0 |
| RW[1] | 8/27/1997 | 11.55 | 797.02 | 785.47 | 788.0 | 778.0 |
| RW[1] | 11/25/1997 | 11.80 | 797.02 | 785.22 | 788.0 | 778.0 |
| RW[1] | 5/27/1998 | 10.64 | 797.02 | 786.38 | 788.0 | 778.0 |
| RW[1] | 9/1/1998 | 11.63 | 797.02 | 785.39 | 788.0 | 778.0 |
| RW[1] | 11/5/1998 | 11.84 | 797.02 | 785.18 | 788.0 | 778.0 |
| SW | 4/9/1997 | 9.06 | 796.63 | 787.57 | 778.6 | 776.6 |
| SW | 5/1/1997 | 10.11 | 796.63 | 786.52 | 778.6 | 776.6 |
| SW | 6/24/1997 | 10.25 | 796.63 | 786.38 | 778.6 | 776.6 |
| SW | 8/27/1997 | 11.13 | 796.63 | 785.50 | 778.6 | 776.6 |
| SVE | 4/9/1997 | 4.43 | 796.57 | 792.14 | 793.6 | 789.6 |
| SVE | 5/1/1997 | 4.36 | 796.57 | 792.21 | 793.6 | 789.6 |
| SVE | 6/24/1997 | 4.00 | 795.57 | 792.57 | 793.6 | 789.6 |
| SVE | 8/27/1997 | 4.23 | 795.57 | 791.34 | 793.6 | 789.6 |

Elevations measured in feet.

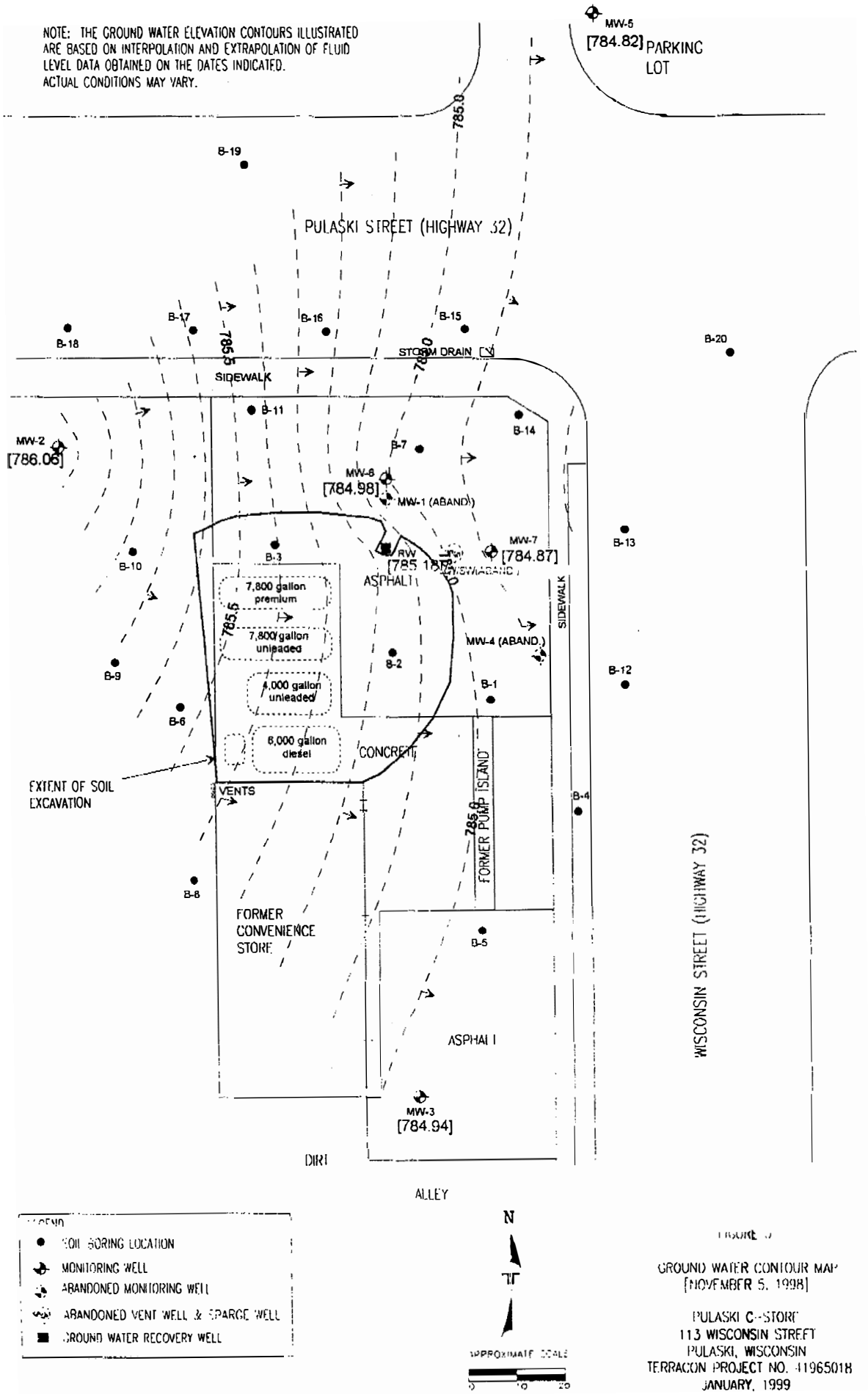
RW - Ground water extraction well

1 - the recovery well was abandoned and a new well was installed on 4/7/97.

SW - Sparge well

SVE - Soil vapor extraction well

N:\96\96_5018\[018GW.XLS]GW Elev.

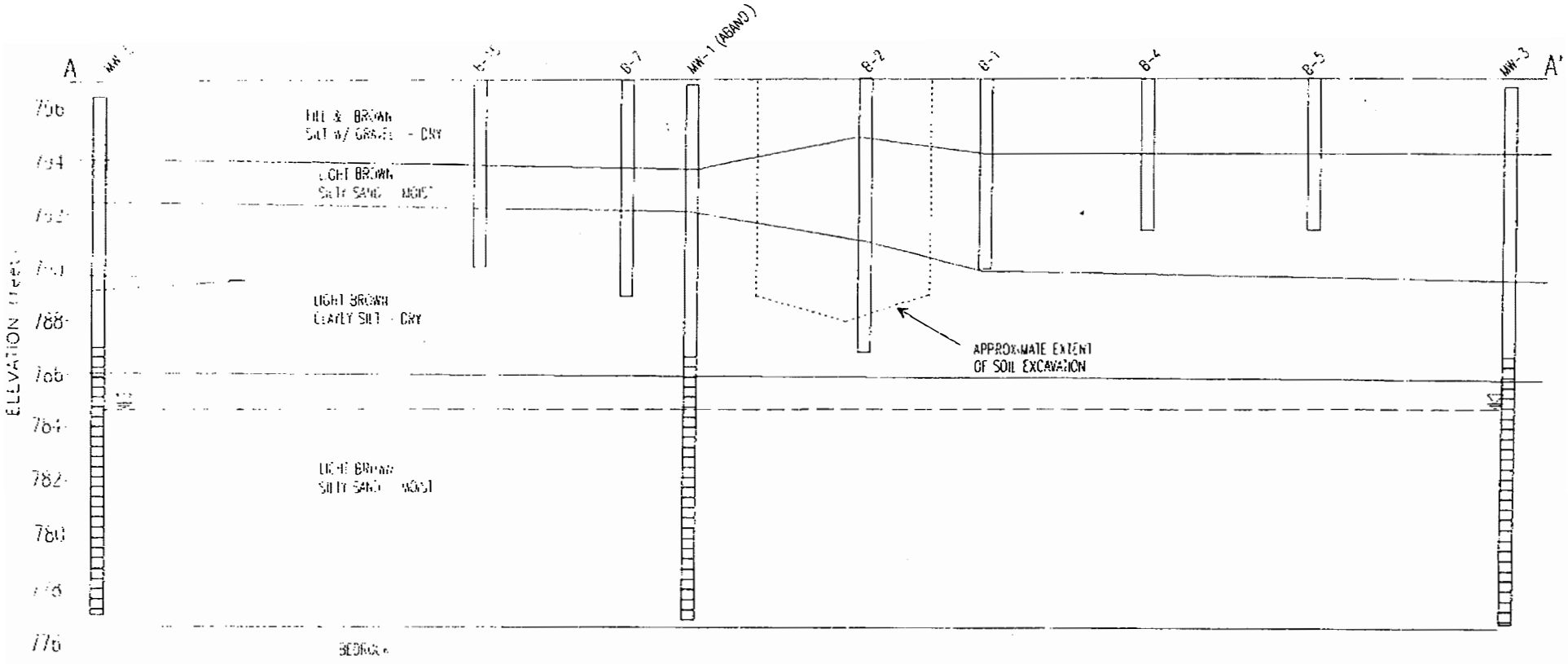



N:/96/96_5018/0180&M.DRW

FIGURE 3

GROUND WATER CONTOUR MAP
[NOVEMBER 5, 1998]

PULASKI C-STORE
113 WISCONSIN STREET
PULASKI, WISCONSIN
TERRACON PROJECT NO. 41965018
JANUARY, 1999




LEGEND:

▽ MEASURED WATER LEVEL IN MONITORING WELL ON NOVEMBER 5, 1998

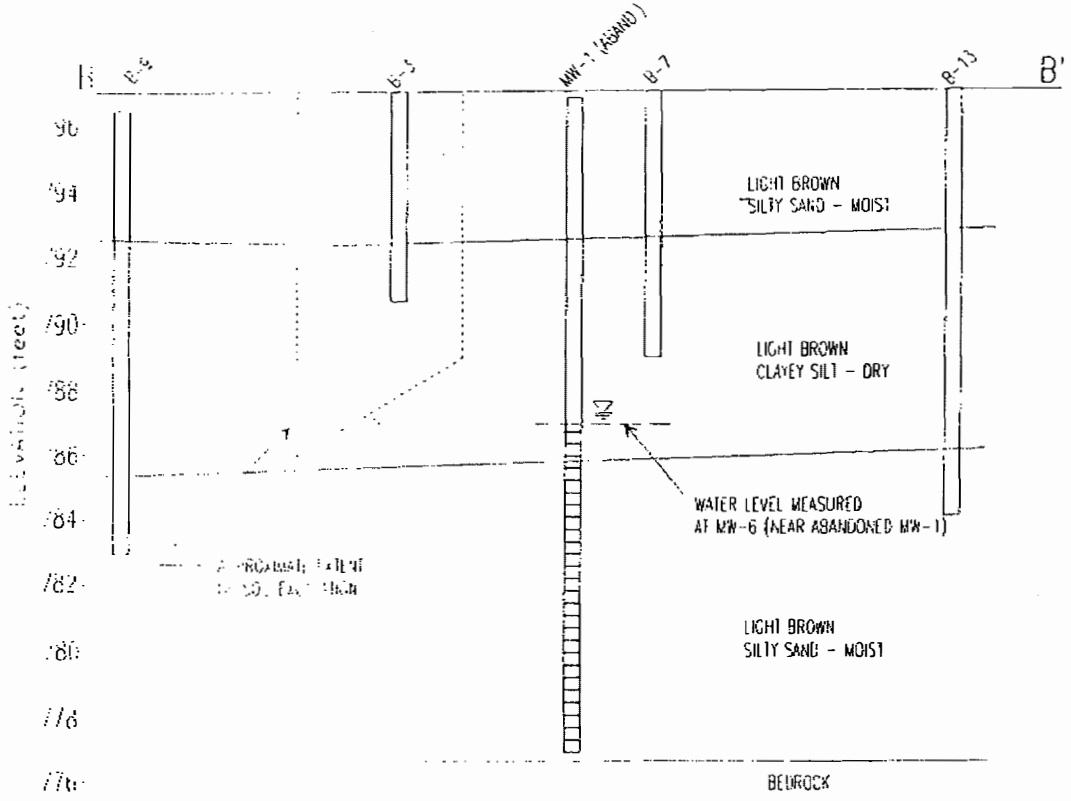
HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=4'
DATUM: MEAN SEA LEVEL

NOTE: THE STRATIGRAPHIC BOUNDARIES ILLUSTRATED ARE BASED ON INTERPOLATION AND EXTRAPOLATION OF SOIL DATA COLLECTED FROM THE BORING SHOWN. ACTUAL CONDITIONS MAY VARY.

FIGURE 9

GEOLOGIC CROSS-SECTION A-A'

PULASKI C-STORE
113 WISCONSIN STREET
PULASKI, WISCONSIN
TERRACON PROJECT NO. 41965018
JANUARY, 1999




NOTE: THE STRATIGRAPHIC BOUNDARIES ILLUSTRATED ARE BASED ON INTERPOLATION AND EXTRAPOLATION OF SOIL DATA COLLECTED FROM THE BORING SHOWN. ACTUAL CONDITIONS MAY VARY.

LEGEND

▽ MEASURED WATER LEVEL ON NOVEMBER 5 1998

HORIZONTAL SCALE: 1"=20'
VERTICAL SCALE: 1"=4'
VERTICAL EXAGGERATION: 20x

FIGURE 10

GEOLOGIC CROSS-SECTION B-B'

PULASKI C-STORE
113 WISCONSIN STREET
PULASKI, WISCONSIN
TERRACON PROJECT NO. 41965018
JANUARY, 1999

# Appendix D
# Site Photographs

# Photographic Log

| Client Name: | Site Location: | Project No.: |
|---|---|---|
| Wisconsin Department of Transportation (WisDOT) | STH 32, Pulaski, WI | TRC: 201040.0000.0000<br>WisDOT: 9190-13-00 |

| Photo No. | Date |
|---|---|
| 1 | 2/25/13 |

**Description**
Site 1- Heartland Fabrication & Machine, Inc. (108 S St. Augustine Street). Looking north down STH 32 on the Southwest corner of Chicago Street and St Augustine Street.

| Photo No. | Date |
|---|---|
| 2 | 2/25/13 |

**Description**
Site 3- Boutique Village (118 East Pulaski Street). Looking east down STH 32.

# Photographic Log

| Client Name: | Site Location: | Project No.: |
|---|---|---|
| Wisconsin Department of Transportation (WisDOT) | STH 32, Pulaski, WI | TRC: 201040.0000.0000<br>WisDOT: 9190-13-00 |

| Photo No. | Date |
|---|---|
| 3 | 2/25/13 |

**Description**
Site 3- Boutique Village (118 East Pulaski Street). Looking south across STH 32.

| Photo No. | Date |
|---|---|
| 4 | 2/25/13 |

**Description**
Site 4- Citizens Bank Parking Lot (152 East Pulaski Street). Looking south east across STH 32.

# Photographic Log

| Client Name: | Site Location: | Project No.: |
|---|---|---|
| Wisconsin Department of Transportation (WisDOT) | STH 32, Pulaski, WI | TRC: 201040.0000.0000<br>WisDOT: 9190-13-00 |

| Photo No. | Date |
|---|---|
| 5 | 2/25/13 |

**Description**
Site 5- Pulaski Shell Station (113 South Wisconsin Street). Looking west down STH 32 from the southeast corner of East Pulaski Street and South Wisconsin Street.

| Photo No. | Date |
|---|---|
| 6 | 2/25/13 |

**Description**
Site 5- Pulaski Shell Station (113 South Wisconsin Street). Looking north down STH 32 at the southeast corner of East Pulaski Street and South Wisconsin Street.

# Photographic Log

| Client Name: | Site Location: | Project No.: |
|---|---|---|
| Wisconsin Department of Transportation (WisDOT) | STH 32, Pulaski, WI | TRC: 201040.0000.0000<br>WisDOT: 9190-13-00 |

| Photo No. | Date |
|---|---|
| 7 | 2/25/13 |

**Description**
Site 6- Trails End Food and Spirits (104 South Wisconsin Street). Looking at boring GP6-3 being drilled across South Wisconsin Street.

| Photo No. | Date |
|---|---|
| 8 | 2/25/13 |

**Description**
Site 6- Trails End Food and Spirits (104 South Wisconsin Street). Looking east across South Wisconsin Street.

# Appendix E
# Soil Boring Logs/WDNR Borehole Filling and Sealing Form

# TRC Field Soil Boring Log Information

TRC Project No:



| Project Name | Start Date | End Date | Boring Number |
|---|---|---|---|
| WisDOT-Pulaski STH 32 | 2/25/2013 | 2/25/2013 | GP-1-1 |

| Boring Drilled By | Drilling Method |
|---|---|
| PROBE TECH, INC. | Geoprobe |

| Drill Rig | Common Well Name | Initial Water Level | Surface Elevation | Borehole Diameter |
|---|---|---|---|---|
| | — | — | — | 2 Inches |

Boring Location State Plane: Easting 2425616 Northing 311656

NW 1/4 of NW 1/4 of Section 6 T 25 N,R 19E

Local Grid Location (If applicable): Feet ☐ N ☐ S Feet ☐ E ☐ W

| County | State | DNR County Code | Civil Town/City/ or Village |
|---|---|---|---|
| BROWN | WI | 05 | PULASKI |

| Number | Length (In) Recovered | Blow Counts | Depth In Feet | Group Name, Percent & Range of Particle Sizes, Plasticity, Color, Odor, Moisture, Density/Consistency, Additional Comments, Geologic Origin (Stratigraphic Unit) | Sample Type | PID/FID | Standard Penetration | Well Diagram | RQD/ Comments |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 4/5 | | | 0-1' Asphalt | | | | | |
| | | | | 1-2.5' Sandy Clay Fill, some gravel, slightly plastic, reddish brown, no odor, med dense, stiff, little moist | | 0.3 | | | 1-2.5' |
| | | | | 2.5-5' Clay, slightly plastic, dark brown to reddish brown, no odor, dry, stiff, dense | | 0.3 | | | 2.5-7' |
| 2 | 3/3 | | | 5-7' same as above | | | | | |
| | | | | 7-8' silty sand, med grained, non-plastic, reddish brown, no odor, semidense wet. | | 0.4 | | | 7-8' |
| | | | | EOB @ 8' BGS | | | | | |
| | | | | Sampled 2.5-7' @ 1635 | | | | | |

Logged By: Wesley J Breaux

Checked By: [signature]

F-204A (R 12-94)

TRC Field Soil Boring Log Information

TRC Project No:

Page 1 of 1

| Project Name | Start Date | End Date | Boring Number |
|---|---|---|---|
| WisDOT PULASKI STH 32 | 2/25/2013 | 2/25/2013 | GP1-2 |

| Boring Drilled By | Drilling Method |
|---|---|
| PROBE TECH. Inc. | GEOPROBE |

| Drill Rig | Common Well Name | Initial Water Level | Surface Elevation | Borehole Diameter |
|---|---|---|---|---|
| | — | — | — | 2 Inches |

Boring Location
State Plane: Easting 2426642 Northing 311703
NW 1/4 of NW 1/4 of Section 6 T 25 N,R 19E

Local Grid Location (If applicable)
☐ N ☐ E
Feet ☐ S Feet ☐ W

| County | State | DNR County Code | Civil Town/City/ or Village |
|---|---|---|---|
| BROWN | WI | 05 | PULASKI |

| Number | Length (In) Recovered | Blow Counts | Depth In Feet | Group Name, Percent & Range of Particle Sizes, Plasticity, Color, Odor, Moisture, Density/Consistency, Additional Comments, Geologic Origin (Stratigraphic Unit) | Sample Type | PID/FID | Standard Penetration | Well Diagram | RQD/ Comments |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 4/5 | | | 0-1' Asphalt | | | | | |
| | | | | 1-5' sand and gravel Fill, med-C grained, non plastic, light brown, no odor, dry to 4.5' then wet to 5', semi dense, stiff. | | 0 | | | 1-2.5' |
| | | | | | | 0 | | | 2.5-5' |
| | | | | | | 0 | | | 5-6.5' |
| 2 | 3/3 | | | 5-8' Clay, semi plastic, reddish brown, no odor, dry, dense, stiff, some coarse gravel throughout. | | 0 | | | 6.5-8' |
| | | | | EOB @ 8' | | | | | |
| | | | | sampled 2.5-5' @ 1645 | | | | | |

Logged By: Wesley J Bruce

Checked By:

F-204A (R 12-94)

# TRC Field Soil Boring Log Information

TRC Project No:



| Project Name | Start Date | End Date | Boring Number |
|---|---|---|---|
| WISDOT PULASKI STH 22 | 2/25/2013 | 2/25/2013 | GP2-1 |

| Boring Drilled By | Drilling Method |
|---|---|
| PROBE TECH, INC. | GEOPROBE |

| Drill Rig | Common Well Name | Initial Water Le el | Surface Elevation | Borehole Diameter |
|---|---|---|---|---|
| | – | – | – | 2 Inches |

Boring Location State Plane: Easting 2425771 Northing 310806

NW 1/4 of NW 1/4 of Section 6 T 25 N,R 19E

Local Grid Location (If applicable): Feet ☐ N ☐ S Feet ☐ E ☐ W

| County | State | DNR County Code | Civil Town/City/ or Village |
|---|---|---|---|
| BROWN | WI | 05 | PULASKI |

| Number | Length (In) Recovered | Blow Counts | Depth In Feet | Group Name, Percent & Range of Particle Sizes, Plasticity, Color, Odor, Moisture, Density/Consistency, Additional Comments, Geologic Origin (Stratigraphic Unit) | Sample Type | PID/FID | Standard Penetration | Well Diagram | RQD/ Comments |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 5/5 | | | 0-1' Asphalt | | | | | |
| | | | | 1-3.5 silty sand and Gravel Fill, Fn-Med, non-plastic, reddish brown, no odor, loose, non-dense | | 0.4 | | | 1-3.5' |
| | | | | 3.5-6' silty clay, semi-plastic, reddish brown, no odor, moist, stiff, dense, some organics @ 4.5' | | 2.6 | | | 3.5-5' |
| 2 | 3/3 | | | 6-7.5' sandy Silt, Fn-med grained sand, slightly plastic, yellowish brown, moist, medium dense, no odor. | | 0.1 | | | 5-7' |
| | | | | 7.5-8' clay, medium plasticity, reddish brown, petroleum odor, semi dense. | | 1.24 | | | 7-8' |
| | | | | EOB @8' | | | | | |
| | | | | sampled 7-8 @1600 | | | | | |

Logged By: Wesley J Bunge

Checked By: [signature]

F-204A (R 12-94)

TRC Field Soil Boring Log Information

TRC Project No:

Page 1 of 1

| Project Name | Start Date | End Date | Boring Number |
|---|---|---|---|
| WISDOT PULASKI STH 32 | 2/25/2013 | 2/25/2013 | GP2-2 |

| Boring Drilled By | Drilling Method |
|---|---|
| PROBE TECH, INC. | GEOPROBE |

| Drill Rig | Common Well Name | Initial Water Level | Surface Elevation | Borehole Diameter |
|---|---|---|---|---|
| | — | — | — | 2 Inches |

Boring Location
State Plane: Easting 2425743 Northing 310755
NW 1/4 of NW 1/4 of Section 6 T 25 N,R 19E

Local Grid Location (If applicable)
☐ N Feet ☐ S ☐ E Feet ☐ W

| County | State | DNR County Code | Civil Town/City/ or Village |
|---|---|---|---|
| BROWN | WI | 05 | PULASKI |

| Number | Length (in) Recovered | Blow Counts | Depth In Feet | Group Name, Percent & Range of Particle Sizes, Plasticity, Color, Odor, Moisture, Density/Consistency, Additional Comments, Geologic Origin (Stratigraphic Unit) | Sample Type | PID/FID | Standard Penetration | Well Diagram | RQD/ Comments |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 5/5 | | | 0-1' Asphalt | | | | | |
| | | | | 1-5' Clay Fill, some organics (wood chips), semi plastic, Brown to dark Gray, No odor, Moist, Dense, stiff. | | 0 | | | 1-3.5' |
| | | | | 5-6.5' Silty clay, semi plastic, greyish blue, slight petroleum odor, moist, stiff, med Dense. | | 10 | | | 3.5-5' |
| 2 | 3/3 | | | | | | | | |
| | | | | | | 330 | | | 5-6.5' |
| | | | | 6.5-8' same as above, reddish brown, strong petro odor | | 295 | | | 6.5-8' |
| | | | | EOB @ 8' | | | | | |
| | | | | Sampled 5-6.5' @ 1625 | | | | | |

Logged By: Wesley J Baeyer

Checked By:

F-204A (R 12-94)

# TRC Field Soil Boring Log Information

TRC Project No:



| Project Name | Start Date | End Date | Boring Number |
|---|---|---|---|
| WISDOT PULASKI STH 32 | 2/25/2013 | 2/25/2013 | GP3-1 |

| Boring Drilled By | Drilling Method |
|---|---|
| PROBE TECH, INC. | GEOPROBE |

| Drill Rig | Common Well Name | Initial Water Level | Surface Elevation | Borehole Diameter |
|---|---|---|---|---|
| | — | — | — | 2 Inches |

Boring Location — State Plane: Easting 2425909 Northing 310810
NW 1/4 of NW 1/4 of Section 6 T 26 N,R 19E
Local Grid Location (If applicable): ☐ N Feet ☐ S ☐ E Feet ☐ W

| County | State | DNR County Code | Civil Town/City/ or Village |
|---|---|---|---|
| BROWN | WI | 05 | PULASKI |

| Number | Length (in) Recovered | Blow Counts | Depth In Feet | Group Name, Percent & Range of Particle Sizes, Plasticity, Color, Odor, Moisture, Density/Consistency, Additional Comments, Geologic Origin (Stratigraphic Unit) | Sample Type | PID/FID | Standard Penetration | Well Diagram | ROD/ Comments |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 5/5 | | | 0-1' Asphalt | | | | | |
| | | | | 1-3.5' sand and Gravel Fill, fn-Med, non-plastic, light brown, slight odor(petro), moist, loose. | | 0.5 | | | 1-3.5' |
| | | | | 3.5-5' silty clay, semi plastic, dark reddish brown to very dark gray, petroleum odor, moist - dry, stiff, dense, | | 152 | | | 3.5-5' |
| | | | | 5-6' same as above | | 530 | | | 5-6' |
| 2 | 3/3 | | | 6-8' clay, plastic, reddish brown, petroleum odor, moist - dry, dense, stiff | | 370 | | | 6-8' |
| | | | | EOB @ 8' | | | | | |
| | | | | sampled 3.5-5 @ 1435 | | | | | |
| | | | | 5-6 @ 1435 | | | | | |

Logged By: Wesley J Bruce

Checked By:

F-204A (R 12-94)

TRC Field Soil Boring Log Information

TRC Project No:

Page 1 of 1

| Project Name | Start Date | End Date | Boring Number |
|---|---|---|---|
| WISDOT-PULASKI STH 32 | 2/25/2013 | 2/25/2013 | GP3-2 |

| Boring Drilled By | Drilling Method |
|---|---|
| PROBE TECH, INC. | GEOPROBE |

| Drill Rig | Common Well Name | Initial Water Level | Surface Elevation | Borehole Diameter |
|---|---|---|---|---|
| | — | — | — | 2 Inches |

Boring Location — State Plane: Easting 2425874 Northing 310812

NW 1/4 of NW 1/4 of Section 6 T 25 N,R 19E

Local Grid Location (If applicable): ☐ N ☐ S Feet ☐ E ☐ W Feet

| County | State | DNR County Code | Civil Town/City/ or Village |
|---|---|---|---|
| BROWN | WI | 05 | PULASKI |

| Number | Length (ft) Recovered | Blow Counts | Depth In Feet | Group Name, Percent & Range of Particle Sizes, Plasticity, Color, Odor, Moisture, Density/Consistency, Additional Comments, Geologic Origin (Stratigraphic Unit) | Sample Type | PID/FID | Standard Penetration | Well Diagram | RQD/ Comments |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 5/5 | | | 0-1' Asphalt | | | | | |
| | | | | 1-3' sandy Fill, Fn-Med grained, dry, light brown, no odor, non-dense. | | 0.4 | | | 1-3' |
| | | | | 3-4' clay w/ some silt, semi plastic, reddish brown, dry, very dense/stiff. | | 0.2 | | | 3-5' |
| | | | | 4-5' silty clay, plastic, greyish brown, | | | | | |
| 2 | 3/3 | | | no odor, wet, semi-dense. | | | | | |
| | | | | 5-8' silty sand, Fn grained, non-plastic, reddish yellow brown, no odor, dry, dense. | | 0.1 | | | 5-8' |
| | | | | EOB @ 8' | | | | | |
| | | | | Sampled 3-5 @ 1335 | | | | | |

Logged By: Wesley J Bunge

Checked By:

F-204A (R 12-94)

# TRC Field Soil Boring Log Information

TRC Project No:



| Project Name | Start Date | End Date | Boring Number |
|---|---|---|---|
| WISDOT-PULASKI STH 32 | 2/25/2013 | 2/25/2013 | GP3-3 |

| Boring Drilled By | Drilling Method |
|---|---|
| PROBE TECH, INC. | GEOPROBE |

| Drill Rig | Common Well Name | Initial Water Level | Surface Elevation | Borehole Diameter |
|---|---|---|---|---|
| | – | – | – | 2 Inches |

Boring Location
State Plane Easting 2425988 Northing 310814
NW 1/4 of NW 1/4 of Section 6 T 25 N,R 19E

Local Grid Location (If applicable)
☐ N Feet ☐ S ☐ E Feet ☐ W

| County | State | DNR County Code | Civil Town/City/ or Village |
|---|---|---|---|
| BROWN | WI | 05 | PULASKI |

| Number | Length (Ft) Recovered | Blow Counts | Depth In Feet | Group Name, Percent & Range of Particle Sizes, Plasticity, Color, Odor, Moisture, Density/Consistency, Additional Comments, Geologic Origin (Stratigraphic Unit) | Sample Type | PID/FID | Standard Penetration | Well Diagram | RQD/ Comments |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 5/5 | | | 0-1' Asphalt | | | | | |
| | | | | 1-5' clay w/ some gravel, plastic, dark brown to dark reddish brown, slight petro odor, some organics | | 0.5 | | | 1-2.5' |
| | | | | | | 180 | | | 2.5-5' |
| 2 | 3/3 | | | 5-8' same as above, wet 7-8' | | 63 | | | 5-7' |
| | | | | | | 205 | | | 7-8' |
| | | | | EOB @ 8' | | | | | |
| | | | | sampled 2.5-5' @ 1535 | | | | | |

Logged By: Wesley J Bunza

Checked By:

F-204A (R 12-94)

# TRC Field Soil Boring Log Information

TRC Project No:

Page 1 of 1

| Project Name | Start Date | End Date | Boring Number |
|---|---|---|---|
| WISDOT - PULASKI | 2/25/2013 | 2/25/2013 | GP4-1 |

| Boring Drilled By | Drilling Method |
|---|---|
| PROBE TECH, INC. | GEOPROBE |

| Drill Rig | Common Well Name | Initial Water Level | Surface Elevation | Borehole Diameter |
|---|---|---|---|---|
| | — | — | — | 2 Inches |

Boring Location — State Plane: Easting 2426228 Northing 310812

NW 1/4 of NW 1/4 of Section 6 T 25 N,R 19E

Local Grid Location (If applicable): ☐ N ☐ S Feet ☐ E ☐ W Feet

| County | State | DNR County Code | Civil Town/City/ or Village |
|---|---|---|---|
| BROWN | WI | 05 | PULASKI |

| Number | Length (In) Recovered | Blow Counts | Depth In Feet | Group Name, Percent & Range of Particle Sizes, Plasticity, Color, Odor, Moisture, Density/Consistency, Additional Comments, Geologic Origin (Stratigraphic Unit) | Sample Type | PID/FID | Standard Penetration | Well Diagram | RQD/ Comments |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 5/5 | | | 0-1' Asphalt | | | | | |
| | | | | 1-4' Clay, sand, silt, some gravel (Fill). Demo debris, semi plastic, reddish brown, no odor, moist, very dense, stiff, | | 0.5 | | | 1-4' |
| | | | | 4-4.5' brick and other demo material Fill, & non plastic, light brown, dry, loose | | | | | |
| | | | | 4.5-5' clay w/ some large gravel, semi plastic, reddish brown, no odor, dry dense. | | 0.3 | | | 4.5-5' |
| | | | | 5-7.5' clay w/ some large gravel, semi plastic, reddish brown, no odor, dry, dense | | 4.8 | | | 5-7.5' |
| 2 | 3/3 | | | 7.5-8' Sand, Fn-Med grained, loose, nonplastic, light reddish brown, no odor, moist, non-dense. | | 0.8 | | | 7.5-8' |
| | | | | EOB @ 8' Sampled 5-7.5 @ 1335 | | | | | |

Logged By: Wesley J Bruce

Checked By:

F-204A (R 12-94)

TRC Field Soil Boring Log Information

TRC Project No:

Page 1 of 1

| Project Name | Start Date | End Date | Boring Number |
|---|---|---|---|
| WISDOT-PULASKI | 2/25/2013 | 2/25/2013 | GP4-2 |

| Boring Drilled By | Drilling Method |
|---|---|
| PROBE TECH, INC. | GEOPROBE |

| Drill Rig | Common Well Name | Initial Water Level | Surface Elevation | Borehole Diameter |
|---|---|---|---|---|
| | - | - | - | 2 Inches |

Boring Location
State Plane Easting 2426194 Northing 310812
NW 1/4 of NW 1/4 of Section 6 T 25 N,R 19E

Local Grid Location (If applicable)
☐ N Feet ☐ S ☐ E Feet ☐ W

| County | State | DNR County Code | Civil Town/City/ or Village |
|---|---|---|---|
| BROWN | WI | 05 | PULASKI |

| Number | Length (In) Recovered | Blow Counts | Depth In Feet | Group Name, Percent & Range of Particle Sizes, Plasticity, Color, Odor, Moisture, Density/Consistency, Additional Comments, Geologic Origin (Stratigraphic Unit) | Sample Type | PID/FID | Standard Penetration | Well Diagram | RQD/ Comments |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 5/5 | | | 0-1' Asphalt | | | | | |
| | | | | 1-5' sand Fill, non plastic, Fn-C grained, reddish brown, no odor, dense, some demo debris | | 0 | | | 1-5' |
| | | | | 5-7.5' clay w/ gravel, non plastic, reddish brown, no odor, dense/stiff. | | 0 | | | 5-7.5' |
| 2 | 3/4 | | | 7.5-8' sand, Fn-Med grained, non-plastic, light reddish brown, dry, loose, no odor. | | 0 | | | 7.5-8' |
| | | | | EOB @ 8' | | | | | |
| | | | | sampled 5-7.5 @ 1355 | | | | | |

Logged By: Wesley J Bruns

Checked By:

F-204A (R 12-94)

TRC Field Soil Boring Log Information

TRC Project No:



| Project Name | Start Date | End Date | Boring Number |
|---|---|---|---|
| WisDOT - PULASKI STH 32 | 2/25/2013 | 2/25/2013 | GP5-1 |

| Boring Drilled By | Drilling Method |
|---|---|
| PROBE TECH, INC. | GEOPROBE |

| Drill Rig | Common Well Name | Initial Water Level | Surface Elevation | Borehole Diameter |
|---|---|---|---|---|
| | - | - | - | 2 Inches |

Boring Location
State Plane Easting 2428032 Northing 310799
NW 1/4 of NW 1/4 of Section 6 T 25 N,R 19E

Local Grid Location (If applicable)
☐ N Feet ☐ S ☐ E Feet ☐ W

| County | State | DNR County Code | Civil Town/City/ or Village |
|---|---|---|---|
| BROWN | WI | 05 | PULASKI |

| Number | Length (In) Recovered* | Blow Counts | Depth In Feet | Group Name, Percent & Range of Particle Sizes, Plasticity, Color, Odor, Moisture, Density/Consistency, Additional Comments, Geologic Origin (Stratigraphic Unit) | Sample Type | PID/FID | Standard Penetration | Well Diagram | RQD/ Comments |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 5/5 | | | 0-1' Asphalt | | | | | |
| | | | | 1-2.5' gravel and sand Fill, gravel is coarse grained, non plastic, gray to light brown, moist@1.5', no odor, loose | | | | | |
| | | | | 2.5-5' clay, semi plastic, reddish brown, no odor, dry, semi dense/med stiff, some fin grained sand. | | 0 | | | 2.5-5' |
| | | | | 5-5.5' same as above | | 107 | | | 5-6.5' |
| 2 | 3/3 | | | 5.5-7.5' silty lean clay, semiplastic, semidense, dark black staining, petro odor, moist | | 259 | | | 6.5-7.5' |
| | | | | 7.5-8' clay, non-plastic, reddish brown, no odor, dry, dense, very stiff. | | 13 | | | 7.5-8' |
| | | | | EOB@8' sampled 5-7.5 (combined 5-6.5 & 6.5-7.5 @1015 | | | | | |

Logged By: Wesley J Berry

Checked By:

F-204A (R 12-94)

# TRC Field Soil Boring Log Information

TRC Project No:



| Project Name | Start Date | End Date | Boring Number |
|---|---|---|---|
| WISDOT-PULASKI STH 32 | 2/25/2013 | 2/25/2013 | GP5-2 |

| Boring Drilled By | Drilling Method |
|---|---|
| PROBE TECH, INC. | GEOPROBE |

| Drill Rig | Common Well Name | Initial Water Level | Surface Elevation | Borehole Diameter |
|---|---|---|---|---|
| | – | – | – | 2 Inches |

Boring Location State Plane: Easting 2428004 Northing [redacted] 310829

NW 1/4 of NW 1/4 of Section 6 T 25 N,R 19E

Local Grid Location (If applicable): Feet ☐ N ☐ S Feet ☐ E ☐ W

| County | State | DNR County Code | Civil Town/City/ or Village |
|---|---|---|---|
| BROWN | WI | 05 | PULASKI |

| Number | Length (In) Recovered | Blow Counts | Depth In Feet | Group Name, Percent & Range of Particle Sizes, Plasticity, Color, Odor, Moisture, Density/Consistency, Additional Comments, Geologic Origin (Stratigraphic Unit) | Sample Type | PID/FID | Standard Penetration | Well Diagram | RQD/ Comments |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 5/5 | | | 0-1' Asphalt | | | | | |
| | | | | 1-2.5' Fill, sand and gravel, coarse, non plastic, wet, light brown, no odor, loose. | | 0.4 | | | 3-5' |
| | | | | 2.5-4' Clay, some silt, non-plastic, dark brown, no odor, dry | | | | | |
| 2 | 3/3 | | | 4-5' Fill, sand, Fn-med grained, non-plastic, light brown, no odor, dry, semi-dense, loose. | | 375 | | | 5-6' |
| | | | | 5-8' Clay, plastic, reddish brown, petro odor (becomes stronger w/ depth), semi moist, dense, stiff. | | >400 | | | 6-8' |
| | | | | EOB @ 8' | | | | | |
| | | | | Sampled 5-6' @1100 | | | | | |
| | | | | sampled 6-8' @1100 | | | | | |

Logged By: Wesley J Bruger

Checked By: [signature]

F-204A (R 12-94)

# TRC Field Soil Boring Log Information

TRC Project No:



| Project Name | Start Date | End Date | Boring Number |
|---|---|---|---|
| WISDOT-PULASKI | 2/25/2013 | 2/25/2013 | GP5-3 |

| Boring Drilled By | Drilling Method |
|---|---|
| PROBE TECH. INC. | GEOPROBE |

| Drill Rig | Common Well Name | Initial Water Level | Surface Elevation | Borehole Diameter |
|---|---|---|---|---|
| | - | - | - | 2 Inches |

Boring Location State Plane: Easting 2427968 Northing 310835

NW 1/4 of NW 1/4 of Section 6 T 25 N,R 19E

Local Grid Location (If applicable): Feet ☐ N ☐ S Feet ☐ E ☐ W

| County | State | DNR County Code | Civil Town/City/ or Village |
|---|---|---|---|
| BROWN | WI | 05 | PULASKI |

| Number | Length (In) Recovered | Blow Counts | Depth In Feet | Group Name, Percent & Range of Particle Sizes, Plasticity, Color, Odor, Moisture, Density/Consistency, Additional Comments, Geologic Origin (Stratigraphic Unit) | Sample Type | PID/FID | Standard Penetration | Well Diagram | RQD/ Comments |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 5/5 | | | 0-1' Asphalt | | | | | |
| | | | | 1-3' Fill, sand, med-Fn grained, non-plastic some silt, dense, reddish brown, moist, some gravel. | | 0.4 | | | 3-5' |
| | | | | 3-4' clay, Non-plastic, reddish brown, no odor, moist, very dense, stiff. | | 40 | | | 5-6.5' |
| | | | | 4-5' Fill, sand, Fn-med grained, some silt, nonplastic, light brown, no odor, dense, stiff | | 900 | | | 6.5-8' |
| 2 | 3/3 | | | 5-8' clay w/ gravel, semiplastic, reddish brown, strong petro odor, dry to moist, dense, stiff | | | | | |
| | | | | EOB @ 8' | | | | | |
| | | | | sampled 6.5-8' @ 1125 | | | | | |

Logged By: Wesley J Bruger

Checked By: [signature]

F-204A (R 12-94)

# TRC Field Soil Boring Log Information

TRC Project No:



| Project Name | Start Date | End Date | Boring Number |
|---|---|---|---|
| WIS DOT-PULASKI | 2/25/2013 | 2/25/2013 | GP5-4 |

| Boring Drilled By | Drilling Method |
|---|---|
| PROBE TECH, INC. | GEOPROBE |

| Drill Rig | Common Well Name | Initial Water Level | Surface Elevation | Borehole Diameter |
|---|---|---|---|---|
| | - | - | - | 2 Inches |

Boring Location State Plane: Easting [redacted] 2428031 Northing [redacted] 310731

NW 1/4 of NW 1/4 of Section 6 T 25 N,R 19E

Local Grid Location (If applicable): Feet ☐ N ☐ S Feet ☐ E ☐ W

| County | State | DNR County Code | Civil Town/City/ or Village |
|---|---|---|---|
| BROWN | WI | 05 | PULASKI |

| Number | Length (In) Ft Recovered | Blow Counts | Depth In Feet | Group Name, Percent & Range of Particle Sizes, Plasticity, Color, Odor, Moisture, Density/Consistency, Additional Comments, Geologic Origin (Stratigraphic Unit) | Sample Type | PID/FID | Standard Penetration | Well Diagram | RQD/ Comments |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 5/5 | | | 0-1 Asphalt | | | | | |
| | | | | 1-2.5' Fill, sand and gravel, Fn-C grained, semi plastic, light brown-reddish light brown, no odor, moist, dense | | 0 | | | 3-5' |
| | | | | 2.5-5' silty lean clay w/ some fn sand, plastic, reddish brown, no odor, semi moist, dense, stiff. | | 0 | | | 5-6.5' |
| 2 | 3/3 | | | 5-8' clay w/ some gravel, semi plastic, light reddish brown, no odor, semi-moist, dense, stiff. | | 0 | | | 6.5-8' |
| | | | | EOB @ 8' | | | | | |
| | | | | sampled 5-6.5 @1135 | | | | | |

Logged By: Wesley J Bunge

Checked By: [signature]

F-204A (R 12-94)

TRC Field Soil Boring Log Information

TRC Project No:

Page 1 of 1

| Project Name | Start Date | End Date | Boring Number |
|---|---|---|---|
| WISDOT-PULASKI STH 32 | 2/25/2013 | 2/25/2013 | GP6-1 |

| Boring Drilled By | Drilling Method |
|---|---|
| PROBE TECH, INC. | GEOPROBE |

| Drill Rig | Common Well Name | Initial Water Level | Surface Elevation | Borehole Diameter |
|---|---|---|---|---|
| | - | - | - | 2 Inches |

Boring Location
State Plane Easting 2428078 Northing 310810
NW 1/4 of NW 1/4 of Section 6 T 25 N,R 19E

Local Grid Location (If applicable)
☐ N ☐ E
Feet ☐ S Feet ☐ W

| County | State | DNR County Code | Civil Town/City/ or Village |
|---|---|---|---|
| BROWN | WI | 05 | PULASKI |

| Number | Length (Ft.) Recovered | Blow Counts | Depth In Feet | Group Name, Percent & Range of Particle Sizes, Plasticity, Color, Odor, Moisture, Density/Consistency, Additional Comments, Geologic Origin (Stratigraphic Unit) | Sample Type | PID/FID | Standard Penetration | Well Diagram | RQD/ Comments |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 5/5 | | | 0-1' Asphalt | | | | | |
| | | | | 1-4' Fill, sand, Fn-med grained, non-plastic, light yellowish brown, no odor, moist, semi dense. | | 0 | | | 1-4' |
| | | | | 4-5' clay/sand, Fn grained w/some silt, plastic, grey-dark gray staining, very strong petroleum odor, moist, semi dense, stiff | | 682 | | | 4-5' |
| | | | | 5-6' clay, semi plastic, reddish brown, strong petroleum odor, semi moist, stiff, staining @ 5.5' and 6'. | | 1068 | | | 5-6.5' |
| 2 | 3/3 | | | | | 884 | | | 6.5-8' |
| | | | | EOB @ 8' | | | | | |
| | | | | Sampled 4-5 @ 1200 | | | | | |
| | | | | 6.5-8 @ 1200 | | | | | |

Logged By: Wesley J Bruce

Checked By:

F-204A (R 12-94)

TRC Field Soil Boring Log Information

TRC Project No:

Page 1 of 1

| Project Name | Start Date | End Date | Boring Number |
|---|---|---|---|
| WISDOT-PULASKI STH 32 | 2/25/2013 | 2/25/2013 | GP6-2 |

| Boring Drilled By | Drilling Method |
|---|---|
| PROBE TECH, INC. | GEOPROBE |

| Drill Rig | Common Well Name | Initial Water Level | Surface Elevation | Borehole Diameter |
|---|---|---|---|---|
| | - | - | - | 2 Inches |

Boring Location
State Plane Easting 2428105 Northing 310853
NW 1/4 of NW 1/4 of Section 6 T 25 N,R 19E

Local Grid Location (If applicable)
☐ N Feet ☐ S ☐ E Feet ☐ W

| County | State | DNR County Code | Civil Town/City/ or Village |
|---|---|---|---|
| BROWN | WI | 05 | PULASKI |

| Number | Length (In) Recovered (In) | Blow Counts | Depth In Feet | Group Name, Percent & Range of Particle Sizes, Plasticity, Color, Odor, Moisture, Density/Consistency, Additional Comments, Geologic Origin (Stratigraphic Unit) | Sample Type | PID/FID | Standard Penetration | Well Diagram | RQD/ Comments |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 5/5 | | | 0-1' Asphalt | | | | | |
| | | | | 1-4.5' clay w/ silt, plastic, reddish brown, no odor, moist, semi dense, med stiff | | 0 | | | 1-4.5' |
| | | | | | | 0 | | | 4.5-6.5' |
| | | | | 4.5-8' sand w/ some gravel, fn-med grained, non plastic, light brown to dark brown, no odor, moist, semi dense. | | 0 | | | 6.5-8' |
| 2 | 3/3 | | | | | | | | |
| | | | | EOB @ 8' | | | | | |
| | | | | Sampled 4.5-6.5' @ 1225 | | | | | |

Logged By: Wesley J Bruyn

Checked By:

F-204A (R 12-94)

TRC Field Soil Boring Log Information

TRC Project No:

Page 1 of 1

| Project Name | Start Date | End Date | Boring Number |
|---|---|---|---|
| WISDOT-PULASKI STH 32 | 2/25/2013 | 2/25/2013 | GP6-3 |

| Boring Drilled By | Drilling Method |
|---|---|
| PROBE TECH, INC. | GEOPROBE |

| Drill Rig | Common Well Name | Initial Water Level | Surface Elevation | Borehole Diameter |
|---|---|---|---|---|
| | - | - | - | 2 Inches |

Boring Location
State Plane Easting 2428088 Northing 310697
NW 1/4 of NW 1/4 of Section 6 T 25 N,R 19E

Local Grid Location (If applicable)
☐ N Feet ☐ S ☐ E Feet ☐ W

| County | State | DNR County Code | Civil Town/City/ or Village |
|---|---|---|---|
| BROWN | WI | 05 | PULASKI |

| Number | Length (Ft.) Recovered | Blow Counts | Depth In Feet | Group Name, Percent & Range of Particle Sizes, Plasticity, Color, Odor, Moisture, Density/Consistency, Additional Comments, Geologic Origin (Stratigraphic Unit) | Sample Type | PID/FID | Standard Penetration | Well Diagram | RQD/ Comments |
|---|---|---|---|---|---|---|---|---|---|
| 1 | 4.6/5 | | | 0-1' Asphalt | | | | | |
| | | | | 1-4.5' sandy Fill, fn-med grained, some silt, non-plastic, yellowish brown, no odor, moist, semi dense, med stiff | | 0 | | | 1-4.5' |
| | | | | 4.5-5' clay, plastic, light to dark gray, no odor, moist, semi dense | | 0 | | | 4.5-5' |
| 2 | 3/3 | | | 5-8' clay, non-plastic, reddish brown, no odor, dry, dense, stiff, layer of coarse gravel and med sand @ 5.5' | | 0 | | | 6-8' |
| | | | | EOB @ 8' | | | | | |
| | | | | Sampled 4.5-5' @ 1235 | | | | | |

Logged By: Wesley J Bussy

Checked By:

F-204A (R 12-94)

State of Wis., Dept. of Natural Resources
dnr.wi.gov

# Well / Drillhole / Borehole Filling & Sealing

Form 3300-005 (R 4/08) 

Notice: Completion of this report is required by chs. 160, 281, 283, 289, 291-293, 295, and 299, Wis. Stats., and ch. NR 141, 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.

☐ **Verification Only of Fill and Seal**

**Route to:** ☐ Drinking Water ☐ Watershed/Wastewater ☐ Remediation/Redevelopment ☐ Waste Management ☐ Other:

## 1. Well Location Information

| County | WI Unique Well # of Removed Well | Hicap # |
|---|---|---|
| BROWN | | |

Lattitude / Longitude (Degrees and Minutes) — Method Code (see instructions)

__ __ ° __ __ . __ __ __ 'N
__ __ ° __ __ . __ __ __ 'W

| ¼ / ¼ | ¼ | Section | Township | Range | |
|---|---|---|---|---|---|
| or Gov't Lot # | | 1 | 25 N | 19 | ☒ E ☐ W |

Well Street Address: PULASKI ST. (STH 32)

Well City, Village or Town: PULASKI — Well ZIP Code: 54162

Subdivision Name — Lot #

Reason For Removal From Service: SOIL BORINGS — WI Unique Well # of Replacement Well

## 2. Facility / Owner Information

Facility Name

Facility ID (FID or PWS)

License/Permit/Monitoring #

Original Well Owner

Present Well Owner: WISCONSIN DOT-NORTHEAST REGION

Mailing Address of Present Owner: 944 VANDERPERREN WAY

City of Present Owner: GREEN BAY — State: WI — ZIP Code: 54304

## 3. Well / Drillhole / Borehole Information

☐ Monitoring Well
☐ Water Well
☒ Borehole / Drillhole

Original Construction Date (mm/dd/yyyy): 02/25/2013

If a Well Construction Report is available, please attach.

Construction Type:
☐ Drilled ☐ Driven (Sandpoint) ☐ Dug
☒ Other (specify): DIRECT PUSH

Formation Type:
☒ Unconsolidated Formation ☐ Bedrock

| Total Well Depth From Ground Surface (ft.) | Casing Diameter (in.) |
|---|---|
| 8 FEET | - |
| **Lower Drillhole Diameter (in.)** | **Casing Depth (ft.)** |
| 2 | - |

Was well annular space grouted? ☐ Yes ☒ No ☐ Unknown

| If yes, to what depth (feet)? | Depth to Water (feet) |
|---|---|
| - | - |

## 4. Pump, Liner, Screen, Casing & Sealing Material

| | | | |
|---|---|---|---|
| Pump and piping removed? | ☐ Yes | ☐ No | ☒ N/A |
| Liner(s) removed? | ☐ Yes | ☐ No | ☒ N/A |
| Screen removed? | ☐ Yes | ☐ No | ☒ N/A |
| Casing left in place? | ☐ Yes | ☐ No | ☒ N/A |
| Was casing cut off below surface? | ☐ Yes | ☐ No | ☒ N/A |
| Did sealing material rise to surface? | ☐ Yes | ☐ No | ☒ N/A |
| Did material settle after 24 hours? | ☐ Yes | ☐ No | ☒ N/A |
| If yes, was hole retopped? | ☐ Yes | ☐ No | ☒ N/A |
| If bentonite chips were used, were they hydrated with water from a known safe source? | ☐ Yes | ☒ No | ☐ N/A |

Required Method of Placing Sealing Material
☐ Conductor Pipe-Gravity ☐ Conductor Pipe-Pumped
☒ Screened & Poured (Bentonite Chips) ☐ Other (Explain):

Sealing Materials
☐ Neat Cement Grout ☐ Clay-Sand Slurry (11 lb./gal. wt.)
☐ Sand-Cement (Concrete) Grout ☐ Bentonite-Sand Slurry " "
☐ Concrete ☒ Bentonite Chips

*For Monitoring Wells and Monitoring Well Boreholes Only:*
☒ Bentonite Chips ☐ Bentonite - Cement Grout
☐ Granular Bentonite ☐ Bentonite - Sand Slurry

## 5. Material Used To Fill Well / Drillhole (# of Holes)

| Material Used To Fill Well / Drillhole (# of Holes) | From (ft.) | To (ft.) | No. Yards, Sacks Sealant or Volume (circle one) | Mix Ratio or Mud Weight |
|---|---|---|---|---|
| BENTONITE CHIPS | Surface | 8 | 0.55 ft³/hole | N/A |
| | | | | |
| | | | | |

## 6. Comments

## 7. Supervision of Work

| Name of Person or Firm Doing Filling & Sealing | License # | Date of Filling & Sealing (mm/dd/yyyy) |
|---|---|---|
| PROBE TECHNOLOGIES INC. | | 02/25/2013 |

Street or Route: W1225 S. SHORE DRIVE — Telephone Number: (262) 495-2319

City: PALMYRA — State: WI — ZIP Code: 53156

Signature of Person Doing Work: Wesley J Bruce / TRC Corp. — Date Signed: 3/15/13

**DNR Use Only**

| Date Received | Noted By |
|---|---|
| | |
| Comments | |

## Instructions

### Well Filling and Sealing

Wisconsin Administrative Code (NR811, NR 812, and NR 141 requires well owners to permanently fill and seal any unused wells/drillholes/boreholes on their property. **As of June 1, 2008 water supply wells can only be filled and sealed by licensed well drillers and pump installers.**

1. Remove any pump, pump piping, debris or other obstacles that could interfere with the sealing operation.
2. Except when bentonite chips are used, the sealing material must be placed with the use of a conductor (tremie) pipe to fill the entire well column to the top with required sealing material. Refer to NR 812 and NR 141 for more details on filling and sealing requirements.

**General Instructions:** Fill out Well/Drillhole/Borehole Filling & Sealing Form 3300-005 as completely as possible for each well or borehole filled and sealed. Information should be provided for every box on the form where available. Sign each form. Please note that these forms are subject to change. (Personally identifiable information on these forms is not intended to be used for any other purpose.)

**Verification Only of Fill and Seal:** If you are only verifying that filling and sealing has previously occurred on a well and are NOT performing any filling and sealing work on the well, check the box near the top of the form. Complete Parts 1 and 2 of the form completely and any information you can provide in Parts 3, 4 and 5. You must provide comments in Part 6 as to the method used to verify both the filling and sealing of the well. Complete Part 7, excluding the date of Filling and Sealing. It will be implied that you did not do the filling and sealing work as stated in Part 7.

**Route to:** Check the appropriate routing box on the top of the form to assure proper routing to the DNR program requiring this well be filled and sealed. Mail the form and any attachments to the Department of Natural Resources, PO Box 7921, Madison, WI 53707-7921.

If you do any work to fill or seal the well, you must complete this form as intended and do not check the Verification Only of Fill and Seal box.

(1) **WELL LOCATION INFORMATION**

**WI Unique Well #**: Fill in the 2 alphabetic and 3 numeric Wisconsin Unique Well Number (WUWN) of the well being filled and sealed. Check the well, sample tap in the house or the fuse box for a WUWN if one has been assigned to the well.

**Hicap #:** If this was a high capacity well, enter the number assigned to the well by the Department.

**Well Location:** The well location can be determined by latitude and longitude coordinates in degrees and decimal minutes (to the thousandths, for example, latitude 43°04.347'N longitude 89°24.803'W) using a Global Positioning System (GPS) unit. If using GPS, check the method code for the GPS unit. The location can also be determined using Public Land Survey (Gov't Lot or ¼ /¼, ¼, Section, Township and Range).

**Method Code:** This field lists data collection method codes for latitude and longitude coordinates. This field must be entered if a latitude/longitude coordinate is entered.

GPS006 - Mapping or recreational grade GPS receiver with no differential correction and selective availability off
GPS007 - Mapping or recreational grade GPS receiver with no differential correction and selective availability on
GPS008 - GPS receiver grade and or differential correction procedures unknown

(2) **FACILITY / OWNER INFORMATION**

If the well is located at a commercial or government facility, fill in the name of landfill, wastewater treatment facility, surface impoundment, spill or project.

**Facility ID:** Fill in the nine digits Facility ID (FID or PWS) assigned to the site by the Department.

**License/Permit/Monitoring #:** Fill in number assigned to facility by the Department. If unknown, leave blank.

**Present Well Owner:** Fill in the name, address, city, state and ZIP code of the present owner.

(3) **WELL/DRILLHOLE/BOREHOLE INFORMATION**

**Original Construction Date:** Fill in the original date of construction for the well or boring in mm/dd/yyyy format.

**Depth to Water:** Enter depth to water from ground surface.

(4) **PUMP, LINER, SCREEN, CASING, & SEALING MATERIAL:** Check only one box where Yes, No or Not Applicable is indicated. Check all boxes which apply otherwise.

(5) **MATERIAL USED TO FILL THE WELL/DRILLHOLE:** Enter the description of the filling material, the depth From and To, circle one measurement unit (Yards, Sacks or Volume), and enter the mix ratio or mud weight (in pounds per gallon).

(6) **COMMENTS:** Describe any of the above boxes in more detail or add information as required to describe the filling and sealing procedures.

(7) **NAME OF PERSON OR FIRM DOING SEALING WORK:** Enter the name (first and last) or firm name, address, and phone number of the person who supervised the work.

**Date of Filling & Sealing:** List Month/Day/Year (mm/dd/yyyy) the well was filled & sealed.

# Appendix F
# Waste Inventory Records

NOTE: Laboratory data is included in Appendix G.

VEOLIA
ENVIRONMENTAL SERVICES

| SHIPPING DOCUMENT | 1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Shipping Document Tracking Number |
|---|---|---|---|---|
| | NONEREQUIRED | 1 | (877) 818-0087 | ZZ 00321061 |

**GENERATOR**

5. Generator's Name and Mailing Address

WI DOT-STH32-PULASKI STREET
ATTN: SHAR TEBBEST
PO BOX 7965 ROOM 451
MADISON, WI 53707

Generator's Phone: 608 234-7374

Generator's Site Address (if different than mailing address)

WI DOT-STH32-PULASKI STREET
STH 32 PULASKI, WI
PORJECT ID #9190-13-71
PULASKI, WI 54162

6. Transporter 1 Company Name: VEOLIA ES TECHNICAL SOLUTIONS — U.S. EPA ID Number: NJD080631369

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address: VEOLIA ES TECHNICAL SOLUTIONS, W124 N9451 BOUNDARY, MENOMONEE FALLS, WI 53051 — U.S. EPA ID Number: WID003967148

Facility's Phone: 262 255-6655

| 9a. HM | 9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any)) | 10. Containers No. | 10. Containers Type | 11. Total Quantity | 12. Unit Wt./Vol. | 13. Codes |
|---|---|---|---|---|---|---|
| | 1. NON-REGULATED MATERIAL, NON-RCRA, NON-DOT., (SOIL) | 3 | DF | 140 | P | NONE |
| | 2. | | | | | |
| | 3. | | | | | |
| | 4. | | | | | |

14. Special Handling Instructions and Additional Information: ER Service Contracted by VESTS + ER SERVICES CONTRACTED BY VESTS OU 36190 WI FIELD SERVICES *STATE WASTE* + 1) W:377213 A:CWDSGRNHS

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offeror's Printed/Typed Name: on Behalf of WI DOT Kenneth Gruennert — Signature — Month 3 Day 22 Year 13

**INT'L**

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:

Transporter signature (for exports only): Date leaving U.S.:

**TRANSPORTER**

17. Transporter Acknowledgment of Receipt of Shipment

Transporter 1 Printed/Typed Name: Kenneth Gruennert — Signature — Month 3 Day 22 Year 13

Transporter 2 Printed/Typed Name — Signature — Month Day Year

**DESIGNATED FACILITY**

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Shipping Document Tracking Number:

18b. Alternate Facility (or Generator) — U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Report Management Method Codes (i.e., codes for treatment, disposal, and recycling systems)

| 1. | 2. | 3. | 4. |
|---|---|---|---|
| | | | |

20. Design ted Facility Owner or Operator: Certification of receipt of shipment except as noted in Item 18a

Printed/Typed Name — Signature — Month Day Year

DESIGNATED FACILITY TO GENERATOR

# Appendix G
# Analytical Results

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

March 07, 2013

ALYSSA SELLWOOD
TRC - Madison
744 HEARTLAND TRAIL
Madison, WI 53717

RE: Project: 201040 WISDOT PULASKI STH32
Pace Project No.: 4074424

Dear ALYSSA SELLWOOD:
Enclosed are the analytical results for sample(s) received by the laboratory on February 28, 2013. The results relate only to the samples included in this report. Results reported herein conform to the most current TNI standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Tod Noltemeyer

Tod Noltemeyer

tod.noltemeyer@pacelabs.com
Project Manager

Enclosures

cc: Wes Braga, TRC



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Green Bay, WI 54302
(920)469-2436

## CERTIFICATIONS

Project: 201040 WISDOT PULASKI STH32
Pace Project No.: 4074424

**Green Bay Certification IDs**
1241 Bellevue Street, Green Bay, WI 54302
Florida/NELAP Certification #: E87948
Illinois Certification #: 200050
Kentucky Certification #: 82
Louisiana Certification #: 04168
Minnesota Certification #: 055-999-334
New York Certification #: 11888
North Dakota Certification #: R-150
South Carolina Certification #: 83006001
US Dept of Agriculture #: S-76505
Wisconsin Certification #: 405132750



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(920)469-2436

## SAMPLE SUMMARY

Project: 201040 WISDOT PULASKI STH32
Pace Project No.: 4074424

| Lab ID | Sample ID | Matrix | Date Collected | Date Received |
|---|---|---|---|---|
| **4074424001** | **GP5-1 (5.5-7.5')** | Solid | 02/25/13 10:15 | 02/28/13 09:35 |
| **4074424002** | **GP5-2 (5-6')** | Solid | 02/25/13 11:00 | 02/28/13 09:35 |
| **4074424003** | **GP5-2 (6-8')** | Solid | 02/25/13 11:00 | 02/28/13 09:35 |
| **4074424004** | **GP5-3 (6.5-8')** | Solid | 02/25/13 11:25 | 02/28/13 09:35 |
| **4074424005** | **GP5-4 (5-6.5')** | Solid | 02/25/13 11:35 | 02/28/13 09:35 |
| **4074424006** | **GP6-1 (4-5')** | Solid | 02/25/13 12:00 | 02/28/13 09:35 |
| **4074424007** | **GP6-1 (6.5-8')** | Solid | 02/25/13 12:00 | 02/28/13 09:35 |
| **4074424008** | **GP6-2 (4.5-6.5')** | Solid | 02/25/13 12:25 | 02/28/13 09:35 |
| **4074424009** | **GP6-3 (4-5')** | Solid | 02/25/13 12:35 | 02/28/13 09:35 |
| **4074424010** | **GP4-1 (5-7.5')** | Solid | 02/25/13 13:35 | 02/28/13 09:35 |
| **4074424011** | **GP4-2 (5-7.5')** | Solid | 02/25/13 13:55 | 02/28/13 09:35 |
| **4074424012** | **GP3-1 (3.5-5')** | Solid | 02/25/13 14:35 | 02/28/13 09:35 |
| **4074424013** | **GP3-1 (5-6')** | Solid | 02/25/13 14:35 | 02/28/13 09:35 |
| **4074424014** | **GP3-2 (3-5')** | Solid | 02/25/13 15:35 | 02/28/13 09:35 |
| **4074424015** | **GP3-3 (2.5-5')** | Solid | 02/25/13 15:40 | 02/28/13 09:35 |
| **4074424016** | **GP2-1 (7-8')** | Solid | 02/25/13 16:00 | 02/28/13 09:35 |
| **4074424017** | **GP2-2 (5-6.5')** | Solid | 02/25/13 16:25 | 02/28/13 09:35 |
| **4074424018** | **GP1-1 (2.5-5')** | Solid | 02/25/13 16:35 | 02/28/13 09:35 |
| **4074424019** | **GP1-2 (2.5-5')** | Solid | 02/25/13 16:45 | 02/28/13 09:35 |



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## SAMPLE ANALYTE COUNT

Project: 201040 WISDOT PULASKI STH32
Pace Project No.: 4074424

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|---|---|---|---|---|---|
| **4074424001** | **GP5-1 (5.5-7.5')** | WI MOD DRO | DAL | 1 | PASI-G |
| | | WI MOD GRO | MRS | 10 | PASI-G |
| | | EPA 6010 | DLB | 1 | PASI-G |
| | | ASTM D2974-87 | SKW | 1 | PASI-G |
| **4074424002** | **GP5-2 (5-6')** | WI MOD DRO | DAL | 1 | PASI-G |
| | | WI MOD GRO | MRS | 10 | PASI-G |
| | | EPA 6010 | DLB | 1 | PASI-G |
| | | ASTM D2974-87 | SKW | 1 | PASI-G |
| **4074424003** | **GP5-2 (6-8')** | WI MOD DRO | DAL | 1 | PASI-G |
| | | WI MOD GRO | MRS | 10 | PASI-G |
| | | EPA 6010 | DLB | 1 | PASI-G |
| | | ASTM D2974-87 | SKW | 1 | PASI-G |
| **4074424004** | **GP5-3 (6.5-8')** | WI MOD DRO | DAL | 1 | PASI-G |
| | | WI MOD GRO | MRS | 10 | PASI-G |
| | | EPA 6010 | DLB | 1 | PASI-G |
| | | ASTM D2974-87 | SKW | 1 | PASI-G |
| **4074424005** | **GP5-4 (5-6.5')** | WI MOD DRO | DAL | 1 | PASI-G |
| | | WI MOD GRO | MRS | 10 | PASI-G |
| | | EPA 6010 | DLB | 1 | PASI-G |
| | | ASTM D2974-87 | SKW | 1 | PASI-G |
| **4074424006** | **GP6-1 (4-5')** | WI MOD DRO | DAL | 1 | PASI-G |
| | | WI MOD GRO | MRS | 10 | PASI-G |
| | | EPA 6010 | DLB | 1 | PASI-G |
| | | ASTM D2974-87 | SKW | 1 | PASI-G |
| **4074424007** | **GP6-1 (6.5-8')** | WI MOD DRO | DAL | 1 | PASI-G |
| | | WI MOD GRO | MRS | 10 | PASI-G |
| | | EPA 6010 | DLB | 1 | PASI-G |
| | | ASTM D2974-87 | SKW | 1 | PASI-G |
| **4074424008** | **GP6-2 (4.5-6.5')** | WI MOD DRO | DAL | 1 | PASI-G |
| | | WI MOD GRO | MRS | 10 | PASI-G |
| | | EPA 6010 | DLB | 1 | PASI-G |
| | | ASTM D2974-87 | SKW | 1 | PASI-G |
| **4074424009** | **GP6-3 (4-5')** | WI MOD DRO | DAL | 1 | PASI-G |
| | | WI MOD GRO | MRS | 10 | PASI-G |
| | | EPA 6010 | DLB | 1 | PASI-G |
| | | ASTM D2974-87 | SKW | 1 | PASI-G |
| **4074424010** | **GP4-1 (5-7.5')** | WI MOD DRO | DAL | 1 | PASI-G |



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## SAMPLE ANALYTE COUNT

Project: 201040 WISDOT PULASKI STH32
Pace Project No.: 4074424

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|---|---|---|---|---|---|
| | | WI MOD GRO | MRS | 10 | PASI-G |
| | | EPA 6010 | DLB | 1 | PASI-G |
| | | ASTM D2974-87 | SKW | 1 | PASI-G |
| **4074424011** | **GP4-2 (5-7.5')** | WI MOD DRO | DAL | 1 | PASI-G |
| | | WI MOD GRO | MRS | 10 | PASI-G |
| | | EPA 6010 | DLB | 1 | PASI-G |
| | | ASTM D2974-87 | SKW | 1 | PASI-G |
| **4074424012** | **GP3-1 (3.5-5')** | WI MOD DRO | DAL | 1 | PASI-G |
| | | WI MOD GRO | MRS | 10 | PASI-G |
| | | EPA 6010 | DLB | 1 | PASI-G |
| | | ASTM D2974-87 | SKW | 1 | PASI-G |
| **4074424013** | **GP3-1 (5-6')** | WI MOD DRO | DAL | 1 | PASI-G |
| | | WI MOD GRO | MRS | 10 | PASI-G |
| | | EPA 6010 | DLB | 1 | PASI-G |
| | | ASTM D2974-87 | SKW | 1 | PASI-G |
| **4074424014** | **GP3-2 (3-5')** | WI MOD DRO | DAL | 1 | PASI-G |
| | | WI MOD GRO | MRS | 10 | PASI-G |
| | | EPA 6010 | DLB | 1 | PASI-G |
| | | ASTM D2974-87 | SKW | 1 | PASI-G |
| **4074424015** | **GP3-3 (2.5-5')** | WI MOD DRO | DAL | 1 | PASI-G |
| | | WI MOD GRO | MRS | 10 | PASI-G |
| | | EPA 6010 | DLB | 1 | PASI-G |
| | | ASTM D2974-87 | SKW | 1 | PASI-G |
| **4074424016** | **GP2-1 (7-8')** | WI MOD DRO | DAL | 1 | PASI-G |
| | | WI MOD GRO | MRS | 10 | PASI-G |
| | | EPA 6010 | DLB | 1 | PASI-G |
| | | ASTM D2974-87 | SKW | 1 | PASI-G |
| **4074424017** | **GP2-2 (5-6.5')** | WI MOD DRO | DAL | 1 | PASI-G |
| | | WI MOD GRO | MRS | 10 | PASI-G |
| | | EPA 6010 | DLB | 1 | PASI-G |
| | | ASTM D2974-87 | SKW | 1 | PASI-G |
| **4074424018** | **GP1-1 (2.5-5')** | WI MOD DRO | DAL | 1 | PASI-G |
| | | WI MOD GRO | MRS | 10 | PASI-G |
| | | EPA 6010 | DLB | 1 | PASI-G |
| | | ASTM D2974-87 | SKW | 1 | PASI-G |
| **4074424019** | **GP1-2 (2.5-5')** | WI MOD DRO | DAL | 1 | PASI-G |
| | | WI MOD GRO | MRS | 10 | PASI-G |



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## SAMPLE ANALYTE COUNT

Project: 201040 WISDOT PULASKI STH32
Pace Project No.: 4074424

| Lab ID | Sample ID | Method | Analysts | Analytes Reported | Laboratory |
|---|---|---|---|---|---|
| | | EPA 6010 | DLB | 1 | PASI-G |
| | | ASTM D2974-87 | SKW | 1 | PASI-G |



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# PROJECT NARRATIVE

Project: 201040 WISDOT PULASKI STH32
Pace Project No.: 4074424

**Method:** **WI MOD DRO**
**Description:** WIDRO GCS
**Client:** TRC - MADISON
**Date:** March 07, 2013

**General Information:**
19 samples were analyzed for WI MOD DRO. All samples were received in acceptable condition with any exceptions noted below.

**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 with any exceptions noted below.

**Laboratory Control Spike:**
All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: OEXT/17614

L0: Analyte recovery in the laboratory control sample (LCS) was outside QC limits.
- LCS (Lab ID: 755788)
  - Diesel Range Organics

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

**Additional Comments:**

Analyte Comments:

QC Batch: OEXT/17614

3q: The sample weight in the container did not meet method specifications. Sample was sub-sampled to meet method criteria.
- GP3-1 (3.5-5') (Lab ID: 4074424012)
  - Diesel Range Organics

T4: Result reported for hydrocarbons within the method-specific range that do not match pattern of laboratory standard.
- GP2-1 (7-8') (Lab ID: 4074424016)
  - Diesel Range Organics



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## PROJECT NARRATIVE

Project: 201040 WISDOT PULASKI STH32
Pace Project No.: 4074424

**Method:** **WI MOD DRO**
**Description:** WIDRO GCS
**Client:** TRC - MADISON
**Date:** March 07, 2013

Analyte Comments:

QC Batch: OEXT/17614

T4: Result reported for hydrocarbons within the method-specific range that do not match pattern of laboratory standard.

- GP2-2 (5-6.5') (Lab ID: 4074424017)
  - Diesel Range Organics
- GP3-1 (5-6') (Lab ID: 4074424013)
  - Diesel Range Organics
- GP3-2 (3-5') (Lab ID: 4074424014)
  - Diesel Range Organics
- GP3-3 (2.5-5') (Lab ID: 4074424015)
  - Diesel Range Organics
- GP4-1 (5-7.5') (Lab ID: 4074424010)
  - Diesel Range Organics
- GP5-1 (5.5-7.5') (Lab ID: 4074424001)
  - Diesel Range Organics
- GP5-2 (5-6') (Lab ID: 4074424002)
  - Diesel Range Organics
- GP5-2 (6-8') (Lab ID: 4074424003)
  - Diesel Range Organics
- GP5-3 (6.5-8') (Lab ID: 4074424004)
  - Diesel Range Organics
- GP6-1 (4-5') (Lab ID: 4074424006)
  - Diesel Range Organics
- GP6-1 (6.5-8') (Lab ID: 4074424007)
  - Diesel Range Organics
- GP6-2 (4.5-6.5') (Lab ID: 4074424008)
  - Diesel Range Organics



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# PROJECT NARRATIVE

Project: 201040 WISDOT PULASKI STH32
Pace Project No.: 4074424

**Method:** **WI MOD GRO**
**Description:** WIGRO GCV
**Client:** TRC - MADISON
**Date:** March 07, 2013

**General Information:**
19 samples were analyzed for WI MOD GRO. All samples were received in acceptable condition with any exceptions noted below.

P4: Sample field preservation does not meet EPA or method recommendations for this analysis.
- GP5-3 (6.5-8') (Lab ID: 4074424004)

**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.

**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.

QC Batch: GCV/9860

S7: Surrogate recovery outside control limits (not confirmed by re-analysis).
- GP2-2 (5-6.5') (Lab ID: 4074424017)
  - a,a,a-Trifluorotoluene (S)

**Method Blank:**
All analytes were below the report limit in the method blank 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:**



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## PROJECT NARRATIVE

Project: 201040 WISDOT PULASKI STH32
Pace Project No.: 4074424

**Method:** **WI MOD GRO**
**Description:** WIGRO GCV
**Client:** TRC - MADISON
**Date:** March 07, 2013

Analyte Comments:

QC Batch: GCV/9860

1q: Sample vial was received with a reversed septa, which prevented an airtight seal.
- GP5-1 (5.5-7.5') (Lab ID: 4074424001)
  - a,a,a-Trifluorotoluene (S)

2q: Sample was sub sampled from a dry weight container
- GP5-3 (6.5-8') (Lab ID: 4074424004)
  - a,a,a-Trifluorotoluene (S)



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# PROJECT NARRATIVE

Project: 201040 WISDOT PULASKI STH32
Pace Project No.: 4074424

**Method:** **EPA 6010**
**Description:** 6010 MET ICP
**Client:** TRC - MADISON
**Date:** March 07, 2013

**General Information:**
19 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below.

**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 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: 201040 WISDOT PULASKI STH32
Pace Project No.: 4074424

**Sample: GP5-1 (5.5-7.5')** **Lab ID: 4074424001** Collected: 02/25/13 10:15 Received: 02/28/13 09:35 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **WIDRO GCS** | Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO | | | | | | | | |
| Diesel Range Organics | **35.9** | mg/kg | 1.9 | 0.96 | 1 | 03/04/13 07:26 | 03/05/13 08:56 | | L2,T4 |
| **WIGRO GCV** | Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext. | | | | | | | | |
| Benzene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 14:58 | 71-43-2 | W |
| Ethylbenzene | **259** | ug/kg | 71.0 | 29.6 | 1 | 03/01/13 07:58 | 03/01/13 14:58 | 100-41-4 | |
| Gasoline Range Organics | **20.0** | mg/kg | 3.0 | 3.0 | 1 | 03/01/13 07:58 | 03/01/13 14:58 | | |
| Methyl-tert-butyl ether | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 14:58 | 1634-04-4 | W |
| Toluene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 14:58 | 108-88-3 | W |
| 1,2,4-Trimethylbenzene | **1640** | ug/kg | 71.0 | 29.6 | 1 | 03/01/13 07:58 | 03/01/13 14:58 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | **165** | ug/kg | 71.0 | 29.6 | 1 | 03/01/13 07:58 | 03/01/13 14:58 | 108-67-8 | |
| m&p-Xylene | **396** | ug/kg | 142 | 59.2 | 1 | 03/01/13 07:58 | 03/01/13 14:58 | 179601-23-1 | |
| o-Xylene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 14:58 | 95-47-6 | W |
| ***Surrogates*** | | | | | | | | | |
| a,a,a-Trifluorotoluene (S) | 108 | %. | 80-120 | | 1 | 03/01/13 07:58 | 03/01/13 14:58 | 98-08-8 | 1q |
| **6010 MET ICP** | Analytical Method: EPA 6010 Preparation Method: EPA 3050 | | | | | | | | |
| Lead | **16.6** | mg/kg | 1.2 | 0.34 | 1 | 03/01/13 10:50 | 03/01/13 16:56 | 7439-92-1 | |
| **Percent Moisture** | Analytical Method: ASTM D2974-87 | | | | | | | | |
| Percent Moisture | **15.5** | % | 0.10 | 0.10 | 1 | | 03/04/13 14:58 | | |



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## ANALYTICAL RESULTS

Project: 201040 WISDOT PULASKI STH32
Pace Project No.: 4074424

**Sample: GP5-2 (5-6')** **Lab ID: 4074424002** Collected: 02/25/13 11:00 Received: 02/28/13 09:35 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **WIDRO GCS** | Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO | | | | | | | | |
| Diesel Range Organics | **12.8** | mg/kg | 1.8 | 0.91 | 1 | 03/04/13 07:26 | 03/05/13 09:02 | | L2,T4 |
| **WIGRO GCV** | Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext. | | | | | | | | |
| Benzene | **<50.0** | ug/kg | 120 | 50.0 | 2 | 03/01/13 07:58 | 03/01/13 15:49 | 71-43-2 | W |
| Ethylbenzene | **852** | ug/kg | 137 | 57.0 | 2 | 03/01/13 07:58 | 03/01/13 15:49 | 100-41-4 | |
| Gasoline Range Organics | **109** | mg/kg | 5.7 | 5.7 | 2 | 03/01/13 07:58 | 03/01/13 15:49 | | |
| Methyl-tert-butyl ether | **<50.0** | ug/kg | 120 | 50.0 | 2 | 03/01/13 07:58 | 03/01/13 15:49 | 1634-04-4 | W |
| Toluene | **65.7J** | ug/kg | 137 | 57.0 | 2 | 03/01/13 07:58 | 03/01/13 15:49 | 108-88-3 | |
| 1,2,4-Trimethylbenzene | **1070** | ug/kg | 137 | 57.0 | 2 | 03/01/13 07:58 | 03/01/13 15:49 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | **1710** | ug/kg | 137 | 57.0 | 2 | 03/01/13 07:58 | 03/01/13 15:49 | 108-67-8 | |
| m&p-Xylene | **539** | ug/kg | 274 | 114 | 2 | 03/01/13 07:58 | 03/01/13 15:49 | 179601-23-1 | |
| o-Xylene | **394** | ug/kg | 137 | 57.0 | 2 | 03/01/13 07:58 | 03/01/13 15:49 | 95-47-6 | |
| ***Surrogates*** | | | | | | | | | |
| a,a,a-Trifluorotoluene (S) | 115 | %. | 80-120 | | 2 | 03/01/13 07:58 | 03/01/13 15:49 | 98-08-8 | |
| **6010 MET ICP** | Analytical Method: EPA 6010 Preparation Method: EPA 3050 | | | | | | | | |
| Lead | **3.6** | mg/kg | 1.1 | 0.33 | 1 | 03/01/13 10:50 | 03/01/13 17:02 | 7439-92-1 | |
| **Percent Moisture** | Analytical Method: ASTM D2974-87 | | | | | | | | |
| Percent Moisture | **12.3** | % | 0.10 | 0.10 | 1 | | 03/04/13 14:58 | | |



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## ANALYTICAL RESULTS

Project: 201040 WISDOT PULASKI STH32
Pace Project No.: 4074424

**Sample: GP5-2 (6-8')** **Lab ID: 4074424003** Collected: 02/25/13 11:00 Received: 02/28/13 09:35 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **WIDRO GCS** | Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO | | | | | | | | |
| Diesel Range Organics | **7.0** | mg/kg | 1.6 | 0.79 | 1 | 03/04/13 07:26 | 03/05/13 09:07 | | L2,T4 |
| **WIGRO GCV** | Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext. | | | | | | | | |
| Benzene | **<50.0** | ug/kg | 120 | 50.0 | 2 | 03/01/13 07:58 | 03/01/13 17:31 | 71-43-2 | W |
| Ethylbenzene | **5700** | ug/kg | 131 | 54.6 | 2 | 03/01/13 07:58 | 03/01/13 17:31 | 100-41-4 | |
| Gasoline Range Organics | **180** | mg/kg | 5.5 | 5.5 | 2 | 03/01/13 07:58 | 03/01/13 17:31 | | |
| Methyl-tert-butyl ether | **103J** | ug/kg | 131 | 54.6 | 2 | 03/01/13 07:58 | 03/01/13 17:31 | 1634-04-4 | |
| Toluene | **183** | ug/kg | 131 | 54.6 | 2 | 03/01/13 07:58 | 03/01/13 17:31 | 108-88-3 | |
| 1,2,4-Trimethylbenzene | **12700** | ug/kg | 131 | 54.6 | 2 | 03/01/13 07:58 | 03/01/13 17:31 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | **4230** | ug/kg | 131 | 54.6 | 2 | 03/01/13 07:58 | 03/01/13 17:31 | 108-67-8 | |
| m&p-Xylene | **16500** | ug/kg | 262 | 109 | 2 | 03/01/13 07:58 | 03/01/13 17:31 | 179601-23-1 | |
| o-Xylene | **3130** | ug/kg | 131 | 54.6 | 2 | 03/01/13 07:58 | 03/01/13 17:31 | 95-47-6 | |
| ***Surrogates*** | | | | | | | | | |
| a,a,a-Trifluorotoluene (S) | 111 | %. | 80-120 | | 2 | 03/01/13 07:58 | 03/01/13 17:31 | 98-08-8 | |
| **6010 MET ICP** | Analytical Method: EPA 6010 Preparation Method: EPA 3050 | | | | | | | | |
| Lead | **3.1** | mg/kg | 0.98 | 0.29 | 1 | 03/01/13 10:50 | 03/01/13 17:04 | 7439-92-1 | |
| **Percent Moisture** | Analytical Method: ASTM D2974-87 | | | | | | | | |
| Percent Moisture | **8.4** | % | 0.10 | 0.10 | 1 | | 03/04/13 14:58 | | |



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## ANALYTICAL RESULTS

Project: 201040 WISDOT PULASKI STH32
Pace Project No.: 4074424

**Sample: GP5-3 (6.5-8')** **Lab ID: 4074424004** Collected: 02/25/13 11:25 Received: 02/28/13 09:35 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **WIDRO GCS** | Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO | | | | | | | | |
| Diesel Range Organics | **66.3** | mg/kg | 3.2 | 1.6 | 2 | 03/04/13 07:26 | 03/05/13 11:43 | | L2,T4 |
| **WIGRO GCV** | Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext. | | | | | | | | |
| Benzene | **<100** | ug/kg | 240 | 100 | 4 | 03/01/13 07:58 | 03/01/13 18:47 | 71-43-2 | W |
| Ethylbenzene | **15800** | ug/kg | 264 | 110 | 4 | 03/01/13 07:58 | 03/01/13 18:47 | 100-41-4 | |
| Gasoline Range Organics | **678** | mg/kg | 11.0 | 11.0 | 4 | 03/01/13 07:58 | 03/01/13 18:47 | | |
| Methyl-tert-butyl ether | **323** | ug/kg | 264 | 110 | 4 | 03/01/13 07:58 | 03/01/13 18:47 | 1634-04-4 | |
| Toluene | **403** | ug/kg | 264 | 110 | 4 | 03/01/13 07:58 | 03/01/13 18:47 | 108-88-3 | |
| 1,2,4-Trimethylbenzene | **47000** | ug/kg | 264 | 110 | 4 | 03/01/13 07:58 | 03/01/13 18:47 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | **16000** | ug/kg | 264 | 110 | 4 | 03/01/13 07:58 | 03/01/13 18:47 | 108-67-8 | |
| m&p-Xylene | **40400** | ug/kg | 529 | 220 | 4 | 03/01/13 07:58 | 03/01/13 18:47 | 179601-23-1 | |
| o-Xylene | **2570** | ug/kg | 264 | 110 | 4 | 03/01/13 07:58 | 03/01/13 18:47 | 95-47-6 | |
| ***Surrogates*** | | | | | | | | | |
| a,a,a-Trifluorotoluene (S) | 116 | %. | 80-120 | | 4 | 03/01/13 07:58 | 03/01/13 18:47 | 98-08-8 | 2q,P4 |
| **6010 MET ICP** | Analytical Method: EPA 6010 Preparation Method: EPA 3050 | | | | | | | | |
| Lead | **4.1** | mg/kg | 1.1 | 0.32 | 1 | 03/01/13 11:55 | 03/01/13 18:45 | 7439-92-1 | |
| **Percent Moisture** | Analytical Method: ASTM D2974-87 | | | | | | | | |
| Percent Moisture | **9.2** | % | 0.10 | 0.10 | 1 | | 03/04/13 14:58 | | |



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## ANALYTICAL RESULTS

Project: 201040 WISDOT PULASKI STH32
Pace Project No.: 4074424

**Sample: GP5-4 (5-6.5')** **Lab ID: 4074424005** Collected: 02/25/13 11:35 Received: 02/28/13 09:35 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **WIDRO GCS** | Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO | | | | | | | | |
| Diesel Range Organics | **<1.2** | mg/kg | 2.4 | 1.2 | 1 | 03/04/13 07:26 | 03/05/13 09:19 | | L2 |
| **WIGRO GCV** | Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext. | | | | | | | | |
| Benzene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 11:34 | 71-43-2 | W |
| Ethylbenzene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 11:34 | 100-41-4 | W |
| Gasoline Range Organics | **<2.8** | mg/kg | 2.8 | 2.8 | 1 | 03/01/13 07:58 | 03/01/13 11:34 | | |
| Methyl-tert-butyl ether | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 11:34 | 1634-04-4 | W |
| Toluene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 11:34 | 108-88-3 | W |
| 1,2,4-Trimethylbenzene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 11:34 | 95-63-6 | W |
| 1,3,5-Trimethylbenzene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 11:34 | 108-67-8 | W |
| m&p-Xylene | **<50.0** | ug/kg | 120 | 50.0 | 1 | 03/01/13 07:58 | 03/01/13 11:34 | 179601-23-1 | W |
| o-Xylene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 11:34 | 95-47-6 | W |
| ***Surrogates*** | | | | | | | | | |
| a,a,a-Trifluorotoluene (S) | 103 | %. | 80-120 | | 1 | 03/01/13 07:58 | 03/01/13 11:34 | 98-08-8 | |
| **6010 MET ICP** | Analytical Method: EPA 6010 Preparation Method: EPA 3050 | | | | | | | | |
| Lead | **3.4** | mg/kg | 1.1 | 0.31 | 1 | 03/01/13 10:50 | 03/01/13 17:11 | 7439-92-1 | |
| **Percent Moisture** | Analytical Method: ASTM D2974-87 | | | | | | | | |
| Percent Moisture | **11.1** | % | 0.10 | 0.10 | 1 | | 03/04/13 14:58 | | |



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## ANALYTICAL RESULTS

Project: 201040 WISDOT PULASKI STH32
Pace Project No.: 4074424

**Sample: GP6-1 (4-5')** **Lab ID: 4074424006** Collected: 02/25/13 12:00 Received: 02/28/13 09:35 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **WIDRO GCS** | Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO | | | | | | | | |
| Diesel Range Organics | **92.9** | mg/kg | 3.8 | 1.9 | 2 | 03/04/13 07:26 | 03/05/13 11:49 | | L2,T4 |
| **WIGRO GCV** | Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext. | | | | | | | | |
| Benzene | **565J** | ug/kg | 739 | 308 | 10 | 03/01/13 07:58 | 03/01/13 17:05 | 71-43-2 | |
| Ethylbenzene | **7190** | ug/kg | 739 | 308 | 10 | 03/01/13 07:58 | 03/01/13 17:05 | 100-41-4 | |
| Gasoline Range Organics | **1710** | mg/kg | 30.8 | 30.8 | 10 | 03/01/13 07:58 | 03/01/13 17:05 | | |
| Methyl-tert-butyl ether | **481J** | ug/kg | 739 | 308 | 10 | 03/01/13 07:58 | 03/01/13 17:05 | 1634-04-4 | |
| Toluene | **779** | ug/kg | 739 | 308 | 10 | 03/01/13 07:58 | 03/01/13 17:05 | 108-88-3 | |
| 1,2,4-Trimethylbenzene | **12300** | ug/kg | 739 | 308 | 10 | 03/01/13 07:58 | 03/01/13 17:05 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | **7970** | ug/kg | 739 | 308 | 10 | 03/01/13 07:58 | 03/01/13 17:05 | 108-67-8 | |
| m&p-Xylene | **9850** | ug/kg | 1480 | 616 | 10 | 03/01/13 07:58 | 03/01/13 17:05 | 179601-23-1 | |
| o-Xylene | **4510** | ug/kg | 739 | 308 | 10 | 03/01/13 07:58 | 03/01/13 17:05 | 95-47-6 | |
| ***Surrogates*** | | | | | | | | | |
| a,a,a-Trifluorotoluene (S) | 112 | %. | 80-120 | | 10 | 03/01/13 07:58 | 03/01/13 17:05 | 98-08-8 | |
| **6010 MET ICP** | Analytical Method: EPA 6010 Preparation Method: EPA 3050 | | | | | | | | |
| Lead | **7.2** | mg/kg | 1.1 | 0.32 | 1 | 03/01/13 10:50 | 03/01/13 17:13 | 7439-92-1 | |
| **Percent Moisture** | Analytical Method: ASTM D2974-87 | | | | | | | | |
| Percent Moisture | **18.8** | % | 0.10 | 0.10 | 1 | | 03/04/13 14:58 | | |



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## ANALYTICAL RESULTS

Project: 201040 WISDOT PULASKI STH32
Pace Project No.: 4074424

**Sample: GP6-1 (6.5-8')** **Lab ID: 4074424007** Collected: 02/25/13 12:00 Received: 02/28/13 09:35 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **WIDRO GCS** | Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO | | | | | | | | |
| Diesel Range Organics | **19.1** | mg/kg | 1.7 | 0.84 | 1 | 03/04/13 07:26 | 03/05/13 09:31 | | L2,T4 |
| **WIGRO GCV** | Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext. | | | | | | | | |
| Benzene | **126J** | ug/kg | 260 | 108 | 4 | 03/01/13 07:58 | 03/01/13 18:22 | 71-43-2 | |
| Ethylbenzene | **6610** | ug/kg | 260 | 108 | 4 | 03/01/13 07:58 | 03/01/13 18:22 | 100-41-4 | |
| Gasoline Range Organics | **510** | mg/kg | 10.8 | 10.8 | 4 | 03/01/13 07:58 | 03/01/13 18:22 | | |
| Methyl-tert-butyl ether | **196J** | ug/kg | 260 | 108 | 4 | 03/01/13 07:58 | 03/01/13 18:22 | 1634-04-4 | |
| Toluene | **1900** | ug/kg | 260 | 108 | 4 | 03/01/13 07:58 | 03/01/13 18:22 | 108-88-3 | |
| 1,2,4-Trimethylbenzene | **10400** | ug/kg | 260 | 108 | 4 | 03/01/13 07:58 | 03/01/13 18:22 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | **5110** | ug/kg | 260 | 108 | 4 | 03/01/13 07:58 | 03/01/13 18:22 | 108-67-8 | |
| m&p-Xylene | **15100** | ug/kg | 521 | 217 | 4 | 03/01/13 07:58 | 03/01/13 18:22 | 179601-23-1 | |
| o-Xylene | **5150** | ug/kg | 260 | 108 | 4 | 03/01/13 07:58 | 03/01/13 18:22 | 95-47-6 | |
| ***Surrogates*** | | | | | | | | | |
| a,a,a-Trifluorotoluene (S) | 100 | %. | 80-120 | | 4 | 03/01/13 07:58 | 03/01/13 18:22 | 98-08-8 | |
| **6010 MET ICP** | Analytical Method: EPA 6010 Preparation Method: EPA 3050 | | | | | | | | |
| Lead | **3.8** | mg/kg | 1.0 | 0.29 | 1 | 03/01/13 10:50 | 03/01/13 17:15 | 7439-92-1 | |
| **Percent Moisture** | Analytical Method: ASTM D2974-87 | | | | | | | | |
| Percent Moisture | **7.8** | % | 0.10 | 0.10 | 1 | | 03/04/13 14:58 | | |



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## ANALYTICAL RESULTS

Project: 201040 WISDOT PULASKI STH32
Pace Project No.: 4074424

**Sample: GP6-2 (4.5-6.5')** **Lab ID: 4074424008** Collected: 02/25/13 12:25 Received: 02/28/13 09:35 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **WIDRO GCS** | Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO | | | | | | | | |
| Diesel Range Organics | **8.8** | mg/kg | 2.3 | 1.1 | 1 | 03/04/13 07:26 | 03/05/13 09:36 | | L2,T4 |
| **WIGRO GCV** | Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext. | | | | | | | | |
| Benzene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 12:00 | 71-43-2 | W |
| Ethylbenzene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 12:00 | 100-41-4 | W |
| Gasoline Range Organics | **<2.8** | mg/kg | 2.8 | 2.8 | 1 | 03/01/13 07:58 | 03/01/13 12:00 | | |
| Methyl-tert-butyl ether | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 12:00 | 1634-04-4 | W |
| Toluene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 12:00 | 108-88-3 | W |
| 1,2,4-Trimethylbenzene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 12:00 | 95-63-6 | W |
| 1,3,5-Trimethylbenzene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 12:00 | 108-67-8 | W |
| m&p-Xylene | **<50.0** | ug/kg | 120 | 50.0 | 1 | 03/01/13 07:58 | 03/01/13 12:00 | 179601-23-1 | W |
| o-Xylene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 12:00 | 95-47-6 | W |
| ***Surrogates*** | | | | | | | | | |
| a,a,a-Trifluorotoluene (S) | 102 | %. | 80-120 | | 1 | 03/01/13 07:58 | 03/01/13 12:00 | 98-08-8 | |
| **6010 MET ICP** | Analytical Method: EPA 6010 Preparation Method: EPA 3050 | | | | | | | | |
| Lead | **5.8** | mg/kg | 1.1 | 0.32 | 1 | 03/01/13 10:50 | 03/01/13 17:18 | 7439-92-1 | |
| **Percent Moisture** | Analytical Method: ASTM D2974-87 | | | | | | | | |
| Percent Moisture | **11.7** | % | 0.10 | 0.10 | 1 | | 03/04/13 14:58 | | |



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## ANALYTICAL RESULTS

Project: 201040 WISDOT PULASKI STH32
Pace Project No.: 4074424

**Sample: GP6-3 (4-5')** **Lab ID: 4074424009** Collected: 02/25/13 12:35 Received: 02/28/13 09:35 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **WIDRO GCS** | Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO | | | | | | | | |
| Diesel Range Organics | **2.4J** | mg/kg | 3.0 | 1.5 | 1 | 03/04/13 07:26 | 03/05/13 09:42 | | L2 |
| **WIGRO GCV** | Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext. | | | | | | | | |
| Benzene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 12:25 | 71-43-2 | W |
| Ethylbenzene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 12:25 | 100-41-4 | W |
| Gasoline Range Organics | **<3.5** | mg/kg | 3.5 | 3.5 | 1 | 03/01/13 07:58 | 03/01/13 12:25 | | |
| Methyl-tert-butyl ether | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 12:25 | 1634-04-4 | W |
| Toluene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 12:25 | 108-88-3 | W |
| 1,2,4-Trimethylbenzene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 12:25 | 95-63-6 | W |
| 1,3,5-Trimethylbenzene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 12:25 | 108-67-8 | W |
| m&p-Xylene | **<50.0** | ug/kg | 120 | 50.0 | 1 | 03/01/13 07:58 | 03/01/13 12:25 | 179601-23-1 | W |
| o-Xylene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 12:25 | 95-47-6 | W |
| ***Surrogates*** | | | | | | | | | |
| a,a,a-Trifluorotoluene (S) | 104 | %. | 80-120 | | 1 | 03/01/13 07:58 | 03/01/13 12:25 | 98-08-8 | |
| **6010 MET ICP** | Analytical Method: EPA 6010 Preparation Method: EPA 3050 | | | | | | | | |
| Lead | **84.0** | mg/kg | 1.3 | 0.38 | 1 | 03/01/13 10:50 | 03/01/13 17:20 | 7439-92-1 | |
| **Percent Moisture** | Analytical Method: ASTM D2974-87 | | | | | | | | |
| Percent Moisture | **27.8** | % | 0.10 | 0.10 | 1 | | 03/04/13 14:58 | | |



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## ANALYTICAL RESULTS

Project: 201040 WISDOT PULASKI STH32
Pace Project No.: 4074424

**Sample: GP4-1 (5-7.5')** **Lab ID: 4074424010** Collected: 02/25/13 13:35 Received: 02/28/13 09:35 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **WIDRO GCS** | Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO | | | | | | | | |
| Diesel Range Organics | **6.8** | mg/kg | 2.2 | 1.1 | 1 | 03/04/13 07:26 | 03/05/13 09:48 | | L2,T4 |
| **WIGRO GCV** | Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext. | | | | | | | | |
| Benzene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 12:51 | 71-43-2 | W |
| Ethylbenzene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 12:51 | 100-41-4 | W |
| Gasoline Range Organics | **<2.7** | mg/kg | 2.7 | 2.7 | 1 | 03/01/13 07:58 | 03/01/13 12:51 | | |
| Methyl-tert-butyl ether | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 12:51 | 1634-04-4 | W |
| Toluene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 12:51 | 108-88-3 | W |
| 1,2,4-Trimethylbenzene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 12:51 | 95-63-6 | W |
| 1,3,5-Trimethylbenzene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 12:51 | 108-67-8 | W |
| m&p-Xylene | **<50.0** | ug/kg | 120 | 50.0 | 1 | 03/01/13 07:58 | 03/01/13 12:51 | 179601-23-1 | W |
| o-Xylene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 12:51 | 95-47-6 | W |
| ***Surrogates*** | | | | | | | | | |
| a,a,a-Trifluorotoluene (S) | 104 | %. | 80-120 | | 1 | 03/01/13 07:58 | 03/01/13 12:51 | 98-08-8 | |
| **6010 MET ICP** | Analytical Method: EPA 6010 Preparation Method: EPA 3050 | | | | | | | | |
| Lead | **3.7** | mg/kg | 1.1 | 0.31 | 1 | 03/01/13 10:50 | 03/01/13 17:22 | 7439-92-1 | |
| **Percent Moisture** | Analytical Method: ASTM D2974-87 | | | | | | | | |
| Percent Moisture | **8.9** | % | 0.10 | 0.10 | 1 | | 03/04/13 14:59 | | |



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## ANALYTICAL RESULTS

Project: 201040 WISDOT PULASKI STH32
Pace Project No.: 4074424

**Sample: GP4-2 (5-7.5')** **Lab ID: 4074424011** Collected: 02/25/13 13:55 Received: 02/28/13 09:35 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **WIDRO GCS** | Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO | | | | | | | | |
| Diesel Range Organics | **1.1J** | mg/kg | 1.6 | 0.81 | 1 | 03/04/13 07:26 | 03/05/13 09:54 | | L2 |
| **WIGRO GCV** | Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext. | | | | | | | | |
| Benzene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 10:18 | 71-43-2 | W |
| Ethylbenzene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 10:18 | 100-41-4 | W |
| Gasoline Range Organics | **<2.7** | mg/kg | 2.7 | 2.7 | 1 | 03/01/13 07:58 | 03/01/13 10:18 | | |
| Methyl-tert-butyl ether | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 10:18 | 1634-04-4 | W |
| Toluene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 10:18 | 108-88-3 | W |
| 1,2,4-Trimethylbenzene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 10:18 | 95-63-6 | W |
| 1,3,5-Trimethylbenzene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 10:18 | 108-67-8 | W |
| m&p-Xylene | **<50.0** | ug/kg | 120 | 50.0 | 1 | 03/01/13 07:58 | 03/01/13 10:18 | 179601-23-1 | W |
| o-Xylene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 10:18 | 95-47-6 | W |
| ***Surrogates*** | | | | | | | | | |
| a,a,a-Trifluorotoluene (S) | 103 | %. | 80-120 | | 1 | 03/01/13 07:58 | 03/01/13 10:18 | 98-08-8 | |
| **6010 MET ICP** | Analytical Method: EPA 6010 Preparation Method: EPA 3050 | | | | | | | | |
| Lead | **3.9** | mg/kg | 0.95 | 0.28 | 1 | 03/01/13 10:50 | 03/01/13 17:25 | 7439-92-1 | |
| **Percent Moisture** | Analytical Method: ASTM D2974-87 | | | | | | | | |
| Percent Moisture | **7.6** | % | 0.10 | 0.10 | 1 | | 03/04/13 14:59 | | |



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## ANALYTICAL RESULTS

Project: 201040 WISDOT PULASKI STH32
Pace Project No.: 4074424

**Sample: GP3-1 (3.5-5')** **Lab ID: 4074424012** Collected: 02/25/13 14:35 Received: 02/28/13 09:35 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **WIDRO GCS** | Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO | | | | | | | | |
| Diesel Range Organics | **<1.1** | mg/kg | 2.1 | 1.1 | 1 | 03/04/13 07:26 | 03/05/13 10:00 | | 3q,L2 |
| **WIGRO GCV** | Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext. | | | | | | | | |
| Benzene | **88.5** | ug/kg | 70.5 | 29.4 | 1 | 03/01/13 07:58 | 03/01/13 10:43 | 71-43-2 | |
| Ethylbenzene | **284** | ug/kg | 70.5 | 29.4 | 1 | 03/01/13 07:58 | 03/01/13 10:43 | 100-41-4 | |
| Gasoline Range Organics | **36.5** | mg/kg | 2.9 | 2.9 | 1 | 03/01/13 07:58 | 03/01/13 10:43 | | |
| Methyl-tert-butyl ether | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 10:43 | 1634-04-4 | W |
| Toluene | **51.5J** | ug/kg | 70.5 | 29.4 | 1 | 03/01/13 07:58 | 03/01/13 10:43 | 108-88-3 | |
| 1,2,4-Trimethylbenzene | **780** | ug/kg | 70.5 | 29.4 | 1 | 03/01/13 07:58 | 03/01/13 10:43 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | **440** | ug/kg | 70.5 | 29.4 | 1 | 03/01/13 07:58 | 03/01/13 10:43 | 108-67-8 | |
| m&p-Xylene | **706** | ug/kg | 141 | 58.8 | 1 | 03/01/13 07:58 | 03/01/13 10:43 | 179601-23-1 | |
| o-Xylene | **176** | ug/kg | 70.5 | 29.4 | 1 | 03/01/13 07:58 | 03/01/13 10:43 | 95-47-6 | |
| ***Surrogates*** | | | | | | | | | |
| a,a,a-Trifluorotoluene (S) | 108 | %. | 80-120 | | 1 | 03/01/13 07:58 | 03/01/13 10:43 | 98-08-8 | |
| **6010 MET ICP** | Analytical Method: EPA 6010 Preparation Method: EPA 3050 | | | | | | | | |
| Lead | **8.3** | mg/kg | 1.1 | 0.31 | 1 | 03/01/13 10:50 | 03/01/13 17:27 | 7439-92-1 | |
| **Percent Moisture** | Analytical Method: ASTM D2974-87 | | | | | | | | |
| Percent Moisture | **14.9** | % | 0.10 | 0.10 | 1 | | 03/04/13 14:59 | | |



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## ANALYTICAL RESULTS

Project: 201040 WISDOT PULASKI STH32
Pace Project No.: 4074424

**Sample: GP3-1 (5-6')** **Lab ID: 4074424013** Collected: 02/25/13 14:35 Received: 02/28/13 09:35 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **WIDRO GCS** | Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO | | | | | | | | |
| Diesel Range Organics | **118** | mg/kg | 5.6 | 2.8 | 3 | 03/04/13 07:26 | 03/05/13 10:52 | | L2,T4 |
| **WIGRO GCV** | Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext. | | | | | | | | |
| Benzene | **1220** | ug/kg | 704 | 293 | 10 | 03/01/13 07:58 | 03/01/13 16:40 | 71-43-2 | |
| Ethylbenzene | **8780** | ug/kg | 704 | 293 | 10 | 03/01/13 07:58 | 03/01/13 16:40 | 100-41-4 | |
| Gasoline Range Organics | **1100** | mg/kg | 29.3 | 29.3 | 10 | 03/01/13 07:58 | 03/01/13 16:40 | | |
| Methyl-tert-butyl ether | **307J** | ug/kg | 704 | 293 | 10 | 03/01/13 07:58 | 03/01/13 16:40 | 1634-04-4 | |
| Toluene | **584J** | ug/kg | 704 | 293 | 10 | 03/01/13 07:58 | 03/01/13 16:40 | 108-88-3 | |
| 1,2,4-Trimethylbenzene | **20300** | ug/kg | 704 | 293 | 10 | 03/01/13 07:58 | 03/01/13 16:40 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | **9800** | ug/kg | 704 | 293 | 10 | 03/01/13 07:58 | 03/01/13 16:40 | 108-67-8 | |
| m&p-Xylene | **24900** | ug/kg | 1410 | 586 | 10 | 03/01/13 07:58 | 03/01/13 16:40 | 179601-23-1 | |
| o-Xylene | **10100** | ug/kg | 704 | 293 | 10 | 03/01/13 07:58 | 03/01/13 16:40 | 95-47-6 | |
| ***Surrogates*** | | | | | | | | | |
| a,a,a-Trifluorotoluene (S) | 111 | %. | 80-120 | | 10 | 03/01/13 07:58 | 03/01/13 16:40 | 98-08-8 | |
| **6010 MET ICP** | Analytical Method: EPA 6010 Preparation Method: EPA 3050 | | | | | | | | |
| Lead | **7.8** | mg/kg | 1.2 | 0.34 | 1 | 03/01/13 10:50 | 03/01/13 17:29 | 7439-92-1 | |
| **Percent Moisture** | Analytical Method: ASTM D2974-87 | | | | | | | | |
| Percent Moisture | **14.7** | % | 0.10 | 0.10 | 1 | | 03/04/13 14:59 | | |



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## ANALYTICAL RESULTS

Project: 201040 WISDOT PULASKI STH32
Pace Project No.: 4074424

**Sample: GP3-2 (3-5')** **Lab ID: 4074424014** Collected: 02/25/13 15:35 Received: 02/28/13 09:35 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **WIDRO GCS** | Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO | | | | | | | | |
| Diesel Range Organics | **43.1** | mg/kg | 2.5 | 1.2 | 1 | 03/04/13 07:26 | 03/05/13 10:11 | | L2,T4 |
| **WIGRO GCV** | Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext. | | | | | | | | |
| Benzene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 13:16 | 71-43-2 | W |
| Ethylbenzene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 13:16 | 100-41-4 | W |
| Gasoline Range Organics | **<3.0** | mg/kg | 3.0 | 3.0 | 1 | 03/01/13 07:58 | 03/01/13 13:16 | | |
| Methyl-tert-butyl ether | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 13:16 | 1634-04-4 | W |
| Toluene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 13:16 | 108-88-3 | W |
| 1,2,4-Trimethylbenzene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 13:16 | 95-63-6 | W |
| 1,3,5-Trimethylbenzene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 13:16 | 108-67-8 | W |
| m&p-Xylene | **<50.0** | ug/kg | 120 | 50.0 | 1 | 03/01/13 07:58 | 03/01/13 13:16 | 179601-23-1 | W |
| o-Xylene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 13:16 | 95-47-6 | W |
| ***Surrogates*** | | | | | | | | | |
| a,a,a-Trifluorotoluene (S) | 104 | %. | 80-120 | | 1 | 03/01/13 07:58 | 03/01/13 13:16 | 98-08-8 | |
| **6010 MET ICP** | Analytical Method: EPA 6010 Preparation Method: EPA 3050 | | | | | | | | |
| Lead | **25.7** | mg/kg | 1.1 | 0.33 | 1 | 03/01/13 10:50 | 03/01/13 17:31 | 7439-92-1 | |
| **Percent Moisture** | Analytical Method: ASTM D2974-87 | | | | | | | | |
| Percent Moisture | **17.0** | % | 0.10 | 0.10 | 1 | | 03/04/13 14:59 | | |



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## ANALYTICAL RESULTS

Project: 201040 WISDOT PULASKI STH32
Pace Project No.: 4074424

**Sample: GP3-3 (2.5-5')** **Lab ID: 4074424015** Collected: 02/25/13 15:40 Received: 02/28/13 09:35 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **WIDRO GCS** | Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO | | | | | | | | |
| Diesel Range Organics | **1.9** | mg/kg | 1.8 | 0.88 | 1 | 03/04/13 07:26 | 03/05/13 10:17 | | L2,T4 |
| **WIGRO GCV** | Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext. | | | | | | | | |
| Benzene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 17:56 | 71-43-2 | W |
| Ethylbenzene | **696** | ug/kg | 66.7 | 27.8 | 1 | 03/01/13 07:58 | 03/01/13 17:56 | 100-41-4 | |
| Gasoline Range Organics | **107** | mg/kg | 2.8 | 2.8 | 1 | 03/01/13 07:58 | 03/01/13 17:56 | | |
| Methyl-tert-butyl ether | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 17:56 | 1634-04-4 | W |
| Toluene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 17:56 | 108-88-3 | W |
| 1,2,4-Trimethylbenzene | **1810** | ug/kg | 66.7 | 27.8 | 1 | 03/01/13 07:58 | 03/01/13 17:56 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | **815** | ug/kg | 66.7 | 27.8 | 1 | 03/01/13 07:58 | 03/01/13 17:56 | 108-67-8 | |
| m&p-Xylene | **1370** | ug/kg | 133 | 55.5 | 1 | 03/01/13 07:58 | 03/01/13 17:56 | 179601-23-1 | |
| o-Xylene | **444** | ug/kg | 66.7 | 27.8 | 1 | 03/01/13 07:58 | 03/01/13 17:56 | 95-47-6 | |
| ***Surrogates*** | | | | | | | | | |
| a,a,a-Trifluorotoluene (S) | 112 | %. | 80-120 | | 1 | 03/01/13 07:58 | 03/01/13 17:56 | 98-08-8 | |
| **6010 MET ICP** | Analytical Method: EPA 6010 Preparation Method: EPA 3050 | | | | | | | | |
| Lead | **11.4** | mg/kg | 1.0 | 0.30 | 1 | 03/01/13 10:50 | 03/01/13 17:38 | 7439-92-1 | |
| **Percent Moisture** | Analytical Method: ASTM D2974-87 | | | | | | | | |
| Percent Moisture | **10** | % | 0.10 | 0.10 | 1 | | 03/04/13 14:59 | | |



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## ANALYTICAL RESULTS

Project: 201040 WISDOT PULASKI STH32
Pace Project No.: 4074424

**Sample: GP2-1 (7-8')** **Lab ID: 4074424016** Collected: 02/25/13 16:00 Received: 02/28/13 09:35 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **WIDRO GCS** | Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO | | | | | | | | |
| Diesel Range Organics | **5.6** | mg/kg | 2.3 | 1.1 | 1 | 03/04/13 07:26 | 03/05/13 10:23 | | L2,T4 |
| **WIGRO GCV** | Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext. | | | | | | | | |
| Benzene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 15:23 | 71-43-2 | W |
| Ethylbenzene | **56.4J** | ug/kg | 72.0 | 30.0 | 1 | 03/01/13 07:58 | 03/01/13 15:23 | 100-41-4 | |
| Gasoline Range Organics | **23.5** | mg/kg | 3.0 | 3.0 | 1 | 03/01/13 07:58 | 03/01/13 15:23 | | |
| Methyl-tert-butyl ether | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 15:23 | 1634-04-4 | W |
| Toluene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 15:23 | 108-88-3 | W |
| 1,2,4-Trimethylbenzene | **1370** | ug/kg | 72.0 | 30.0 | 1 | 03/01/13 07:58 | 03/01/13 15:23 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | **377** | ug/kg | 72.0 | 30.0 | 1 | 03/01/13 07:58 | 03/01/13 15:23 | 108-67-8 | |
| m&p-Xylene | **206** | ug/kg | 144 | 60.0 | 1 | 03/01/13 07:58 | 03/01/13 15:23 | 179601-23-1 | |
| o-Xylene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 15:23 | 95-47-6 | W |
| ***Surrogates*** | | | | | | | | | |
| a,a,a-Trifluorotoluene (S) | 103 | %. | 80-120 | | 1 | 03/01/13 07:58 | 03/01/13 15:23 | 98-08-8 | |
| **6010 MET ICP** | Analytical Method: EPA 6010 Preparation Method: EPA 3050 | | | | | | | | |
| Lead | **7.1** | mg/kg | 1.1 | 0.33 | 1 | 03/01/13 10:50 | 03/01/13 17:40 | 7439-92-1 | |
| **Percent Moisture** | Analytical Method: ASTM D2974-87 | | | | | | | | |
| Percent Moisture | **16.6** | % | 0.10 | 0.10 | 1 | | 03/04/13 16:06 | | |



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## ANALYTICAL RESULTS

Project: 201040 WISDOT PULASKI STH32
Pace Project No.: 4074424

**Sample: GP2-2 (5-6.5')** **Lab ID: 4074424017** Collected: 02/25/13 16:25 Received: 02/28/13 09:35 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **WIDRO GCS** | Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO | | | | | | | | |
| Diesel Range Organics | **59.8** | mg/kg | 1.8 | 0.89 | 1 | 03/04/13 07:26 | 03/05/13 10:29 | | L2,T4 |
| **WIGRO GCV** | Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext. | | | | | | | | |
| Benzene | **<200** | ug/kg | 480 | 200 | 8 | 03/01/13 07:58 | 03/01/13 16:15 | 71-43-2 | W |
| Ethylbenzene | **5610** | ug/kg | 561 | 234 | 8 | 03/01/13 07:58 | 03/01/13 16:15 | 100-41-4 | |
| Gasoline Range Organics | **628** | mg/kg | 23.4 | 23.4 | 8 | 03/01/13 07:58 | 03/01/13 16:15 | | |
| Methyl-tert-butyl ether | **<200** | ug/kg | 480 | 200 | 8 | 03/01/13 07:58 | 03/01/13 16:15 | 1634-04-4 | W |
| Toluene | **306J** | ug/kg | 561 | 234 | 8 | 03/01/13 07:58 | 03/01/13 16:15 | 108-88-3 | |
| 1,2,4-Trimethylbenzene | **35500** | ug/kg | 561 | 234 | 8 | 03/01/13 07:58 | 03/01/13 16:15 | 95-63-6 | |
| 1,3,5-Trimethylbenzene | **14300** | ug/kg | 561 | 234 | 8 | 03/01/13 07:58 | 03/01/13 16:15 | 108-67-8 | |
| m&p-Xylene | **15400** | ug/kg | 1120 | 468 | 8 | 03/01/13 07:58 | 03/01/13 16:15 | 179601-23-1 | |
| o-Xylene | **<200** | ug/kg | 480 | 200 | 8 | 03/01/13 07:58 | 03/01/13 16:15 | 95-47-6 | W |
| ***Surrogates*** | | | | | | | | | |
| a,a,a-Trifluorotoluene (S) | 123 | %. | 80-120 | | 8 | 03/01/13 07:58 | 03/01/13 16:15 | 98-08-8 | S7 |
| **6010 MET ICP** | Analytical Method: EPA 6010 Preparation Method: EPA 3050 | | | | | | | | |
| Lead | **6.1** | mg/kg | 1.0 | 0.30 | 1 | 03/01/13 10:50 | 03/01/13 17:43 | 7439-92-1 | |
| **Percent Moisture** | Analytical Method: ASTM D2974-87 | | | | | | | | |
| Percent Moisture | **14.5** | % | 0.10 | 0.10 | 1 | | 03/04/13 16:07 | | |



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## ANALYTICAL RESULTS

Project: 201040 WISDOT PULASKI STH32
Pace Project No.: 4074424

**Sample: GP1-1 (2.5-5')** **Lab ID: 4074424018** Collected: 02/25/13 16:35 Received: 02/28/13 09:35 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **WIDRO GCS** | Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO | | | | | | | | |
| Diesel Range Organics | **<1.2** | mg/kg | 2.5 | 1.2 | 1 | 03/04/13 07:26 | 03/05/13 10:35 | | L2 |
| **WIGRO GCV** | Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext. | | | | | | | | |
| Benzene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 13:42 | 71-43-2 | W |
| Ethylbenzene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 13:42 | 100-41-4 | W |
| Gasoline Range Organics | **<3.1** | mg/kg | 3.1 | 3.1 | 1 | 03/01/13 07:58 | 03/01/13 13:42 | | |
| Methyl-tert-butyl ether | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 13:42 | 1634-04-4 | W |
| Toluene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 13:42 | 108-88-3 | W |
| 1,2,4-Trimethylbenzene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 13:42 | 95-63-6 | W |
| 1,3,5-Trimethylbenzene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 13:42 | 108-67-8 | W |
| m&p-Xylene | **<50.0** | ug/kg | 120 | 50.0 | 1 | 03/01/13 07:58 | 03/01/13 13:42 | 179601-23-1 | W |
| o-Xylene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 13:42 | 95-47-6 | W |
| ***Surrogates*** | | | | | | | | | |
| a,a,a-Trifluorotoluene (S) | 104 | %. | 80-120 | | 1 | 03/01/13 07:58 | 03/01/13 13:42 | 98-08-8 | |
| **6010 MET ICP** | Analytical Method: EPA 6010 Preparation Method: EPA 3050 | | | | | | | | |
| Lead | **7.3** | mg/kg | 1.1 | 0.31 | 1 | 03/01/13 10:50 | 03/01/13 17:45 | 7439-92-1 | |
| **Percent Moisture** | Analytical Method: ASTM D2974-87 | | | | | | | | |
| Percent Moisture | **18.5** | % | 0.10 | 0.10 | 1 | | 03/04/13 16:07 | | |



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## ANALYTICAL RESULTS

Project: 201040 WISDOT PULASKI STH32
Pace Project No.: 4074424

**Sample: GP1-2 (2.5-5')** **Lab ID: 4074424019** Collected: 02/25/13 16:45 Received: 02/28/13 09:35 Matrix: Solid

***Results reported on a "dry-weight" basis***

| Parameters | Results | Units | LOQ | LOD | DF | Prepared | Analyzed | CAS No. | Qual |
|---|---|---|---|---|---|---|---|---|---|
| **WIDRO GCS** | Analytical Method: WI MOD DRO Preparation Method: WI MOD DRO | | | | | | | | |
| Diesel Range Organics | **<0.80** | mg/kg | 1.6 | 0.80 | 1 | 03/04/13 07:26 | 03/05/13 10:40 | | L2 |
| **WIGRO GCV** | Analytical Method: WI MOD GRO Preparation Method: TPH GRO/PVOC WI ext. | | | | | | | | |
| Benzene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 14:07 | 71-43-2 | W |
| Ethylbenzene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 14:07 | 100-41-4 | W |
| Gasoline Range Organics | **<2.7** | mg/kg | 2.7 | 2.7 | 1 | 03/01/13 07:58 | 03/01/13 14:07 | | |
| Methyl-tert-butyl ether | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 14:07 | 1634-04-4 | W |
| Toluene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 14:07 | 108-88-3 | W |
| 1,2,4-Trimethylbenzene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 14:07 | 95-63-6 | W |
| 1,3,5-Trimethylbenzene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 14:07 | 108-67-8 | W |
| m&p-Xylene | **<50.0** | ug/kg | 120 | 50.0 | 1 | 03/01/13 07:58 | 03/01/13 14:07 | 179601-23-1 | W |
| o-Xylene | **<25.0** | ug/kg | 60.0 | 25.0 | 1 | 03/01/13 07:58 | 03/01/13 14:07 | 95-47-6 | W |
| ***Surrogates*** | | | | | | | | | |
| a,a,a-Trifluorotoluene (S) | 103 | %. | 80-120 | | 1 | 03/01/13 07:58 | 03/01/13 14:07 | 98-08-8 | |
| **6010 MET ICP** | Analytical Method: EPA 6010 Preparation Method: EPA 3050 | | | | | | | | |
| Lead | **3.5** | mg/kg | 1.0 | 0.30 | 1 | 03/01/13 10:50 | 03/01/13 17:47 | 7439-92-1 | |
| **Percent Moisture** | Analytical Method: ASTM D2974-87 | | | | | | | | |
| Percent Moisture | **6.0** | % | 0.10 | 0.10 | 1 | | 03/04/13 16:07 | | |



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## QUALITY CONTROL DATA

Project: 201040 WISDOT PULASKI STH32
Pace Project No.: 4074424

QC Batch: GCV/9860 Analysis Method: WI MOD GRO
QC Batch Method: TPH GRO/PVOC WI ext. Analysis Description: WIGRO Solid GCV
Associated Lab Samples: 4074424001, 4074424002, 4074424003, 4074424004, 4074424005, 4074424006, 4074424007, 4074424008, 4074424009, 4074424010, 4074424011, 4074424012, 4074424013, 4074424014, 4074424015, 4074424016, 4074424017, 4074424018, 4074424019

METHOD BLANK: 755057 Matrix: Solid
Associated Lab Samples: 4074424001, 4074424002, 4074424003, 4074424004, 4074424005, 4074424006, 4074424007, 4074424008, 4074424009, 4074424010, 4074424011, 4074424012, 4074424013, 4074424014, 4074424015, 4074424016, 4074424017, 4074424018, 4074424019

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| 1,2,4-Trimethylbenzene | ug/kg | <25.0 | 60.0 | 03/01/13 09:01 | |
| 1,3,5-Trimethylbenzene | ug/kg | <25.0 | 60.0 | 03/01/13 09:01 | |
| Benzene | ug/kg | <25.0 | 60.0 | 03/01/13 09:01 | |
| Ethylbenzene | ug/kg | <25.0 | 60.0 | 03/01/13 09:01 | |
| Gasoline Range Organics | mg/kg | <2.5 | 2.5 | 03/01/13 09:01 | |
| m&p-Xylene | ug/kg | <50.0 | 120 | 03/01/13 09:01 | |
| Methyl-tert-butyl ether | ug/kg | <25.0 | 60.0 | 03/01/13 09:01 | |
| o-Xylene | ug/kg | <25.0 | 60.0 | 03/01/13 09:01 | |
| Toluene | ug/kg | <25.0 | 60.0 | 03/01/13 09:01 | |
| a,a,a-Trifluorotoluene (S) | %. | 103 | 80-120 | 03/01/13 09:01 | |

LABORATORY CONTROL SAMPLE & LCSD: 755058 755059

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| 1,2,4-Trimethylbenzene | ug/kg | 1000 | 1070 | 1050 | 107 | 105 | 80-120 | 2 | 20 | |
| 1,3,5-Trimethylbenzene | ug/kg | 1000 | 1080 | 1040 | 108 | 104 | 80-120 | 4 | 20 | |
| Benzene | ug/kg | 1000 | 1100 | 1080 | 110 | 108 | 80-120 | 2 | 20 | |
| Ethylbenzene | ug/kg | 1000 | 1100 | 1080 | 110 | 108 | 80-120 | 2 | 20 | |
| Gasoline Range Organics | mg/kg | 10 | 11.1 | 11.2 | 111 | 112 | 80-120 | 0 | 20 | |
| m&p-Xylene | ug/kg | 2000 | 2240 | 2180 | 112 | 109 | 80-120 | 3 | 20 | |
| Methyl-tert-butyl ether | ug/kg | 1000 | 1100 | 1070 | 110 | 107 | 80-120 | 3 | 20 | |
| o-Xylene | ug/kg | 1000 | 1120 | 1100 | 112 | 110 | 80-120 | 2 | 20 | |
| Toluene | ug/kg | 1000 | 1110 | 1090 | 111 | 109 | 80-120 | 2 | 20 | |
| a,a,a-Trifluorotoluene (S) | %. | | | | 102 | 102 | 80-120 | | | |



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## QUALITY CONTROL DATA

Project: 201040 WISDOT PULASKI STH32
Pace Project No.: 4074424

QC Batch: MPRP/8183 Analysis Method: EPA 6010
QC Batch Method: EPA 3050 Analysis Description: 6010 MET
Associated Lab Samples: 4074424001, 4074424002, 4074424003, 4074424005, 4074424006, 4074424007, 4074424008, 4074424009, 4074424010, 4074424011, 4074424012, 4074424013, 4074424014, 4074424015, 4074424016, 4074424017, 4074424018, 4074424019

METHOD BLANK: 755120 Matrix: Solid
Associated Lab Samples: 4074424001, 4074424002, 4074424003, 4074424005, 4074424006, 4074424007, 4074424008, 4074424009, 4074424010, 4074424011, 4074424012, 4074424013, 4074424014, 4074424015, 4074424016, 4074424017, 4074424018, 4074424019

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Lead | mg/kg | <0.29 | 1.0 | 03/01/13 16:51 | |

LABORATORY CONTROL SAMPLE: 755121

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Lead | mg/kg | 50 | 50.3 | 101 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 755122 755123

| Parameter | Units | 4074424001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lead | mg/kg | 16.6 | 58.7 | 59 | 70.4 | 71.8 | 92 | 93 | 75-125 | 2 | 20 | |



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## QUALITY CONTROL DATA

Project: 201040 WISDOT PULASKI STH32
Pace Project No.: 4074424

QC Batch: MPRP/8184
QC Batch Method: EPA 3050
Analysis Method: EPA 6010
Analysis Description: 6010 MET
Associated Lab Samples: 4074424004

METHOD BLANK: 755158 Matrix: Solid
Associated Lab Samples: 4074424004

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Lead | mg/kg | <0.29 | 1.0 | 03/01/13 17:54 | |

LABORATORY CONTROL SAMPLE: 755159

| Parameter | Units | Spike Conc. | LCS Result | LCS % Rec | % Rec Limits | Qualifiers |
|---|---|---|---|---|---|---|
| Lead | mg/kg | 50 | 49.7 | 99 | 80-120 | |

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 755160 755161

| Parameter | Units | 4074409001 Result | MS Spike Conc. | MSD Spike Conc. | MS Result | MSD Result | MS % Rec | MSD % Rec | % Rec Limits | RPD | Max RPD | Qual |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lead | mg/kg | 30.9 | 98.9 | 98.1 | 108 | 105 | 78 | 76 | 75-125 | 3 | 20 | |



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## QUALITY CONTROL DATA

Project: 201040 WISDOT PULASKI STH32
Pace Project No.: 4074424

QC Batch: OEXT/17614 Analysis Method: WI MOD DRO
QC Batch Method: WI MOD DRO Analysis Description: WIDRO GCS
Associated Lab Samples: 4074424001, 4074424002, 4074424003, 4074424004, 4074424005, 4074424006, 4074424007, 4074424008, 4074424009, 4074424010, 4074424011, 4074424012, 4074424013, 4074424014, 4074424015, 4074424016, 4074424017, 4074424018, 4074424019

METHOD BLANK: 755787 Matrix: Solid
Associated Lab Samples: 4074424001, 4074424002, 4074424003, 4074424004, 4074424005, 4074424006, 4074424007, 4074424008, 4074424009, 4074424010, 4074424011, 4074424012, 4074424013, 4074424014, 4074424015, 4074424016, 4074424017, 4074424018, 4074424019

| Parameter | Units | Blank Result | Reporting Limit | Analyzed | Qualifiers |
|---|---|---|---|---|---|
| Diesel Range Organics | mg/kg | <0.99 | 2.0 | 03/05/13 08:50 | |

LABORATORY CONTROL SAMPLE & LCSD: 755788 755789

| Parameter | Units | Spike Conc. | LCS Result | LCSD Result | LCS % Rec | LCSD % Rec | % Rec Limits | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|---|---|---|---|
| Diesel Range Organics | mg/kg | 40 | 25.3 | 30.8 | 63 | 77 | 70-120 | 20 | 20 | L0 |



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

## QUALITY CONTROL DATA

Project: 201040 WISDOT PULASKI STH32
Pace Project No.: 4074424

QC Batch: PMST/8245 Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 4074424001, 4074424002, 4074424003, 4074424004, 4074424005, 4074424006, 4074424007, 4074424008, 4074424009, 4074424010, 4074424011, 4074424012, 4074424013, 4074424014, 4074424015

SAMPLE DUPLICATE: 756029

| Parameter | Units | 4074382007 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Percent Moisture | % | 21.2 | 20.9 | 2 | 10 | |



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Green Bay, WI 54302
(920)469-2436

## QUALITY CONTROL DATA

Project: 201040 WISDOT PULASKI STH32
Pace Project No.: 4074424

QC Batch: PMST/8246 Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 4074424016, 4074424017, 4074424018, 4074424019

SAMPLE DUPLICATE: 756106

| Parameter | Units | 4074483014 Result | Dup Result | RPD | Max RPD | Qualifiers |
|---|---|---|---|---|---|---|
| Percent Moisture | % | 21.6 | 20.7 | 4 | 10 | |



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Green Bay, WI 54302
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# QUALIFIERS

Project: 201040 WISDOT PULASKI STH32
Pace Project No.: 4074424

## DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to changes in sample preparation, dilution of the sample aliquot, or moisture content.

ND - Not Detected at or above adjusted reporting limit.

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PRL - Pace Reporting Limit.

RL - Reporting Limit.

S - Surrogate

1,2-Diphenylhydrazine (8270 listed analyte) decomposes to Azobenzene.

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.

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.

## LABORATORIES

| | |
|---|---|
| PASI-G | Pace Analytical Services - Green Bay |

## ANALYTE QUALIFIERS

| | |
|---|---|
| 1q | Sample vial was received with a reversed septa, which prevented an airtight seal. |
| 2q | Sample was sub sampled from a dry weight container |
| 3q | The sample weight in the container did not meet method specifications. Sample was sub-sampled to meet method criteria. |
| L0 | Analyte recovery in the laboratory control sample (LCS) was outside QC limits. |
| L2 | Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results may be biased low. |
| P4 | Sample field preservation does not meet EPA or method recommendations for this analysis. |
| S7 | Surrogate recovery outside control limits (not confirmed by re-analysis). |
| T4 | Result reported for hydrocarbons within the method-specific range that do not match pattern of laboratory standard. |
| W | Non-detect results are reported on a wet weight basis. |



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(920)469-2436

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 201040 WISDOT PULASKI STH32
Pace Project No.: 4074424

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **4074424001** | **GP5-1 (5.5-7.5')** | WI MOD DRO | OEXT/17614 | WI MOD DRO | GCSV/9200 |
| **4074424002** | **GP5-2 (5-6')** | WI MOD DRO | OEXT/17614 | WI MOD DRO | GCSV/9200 |
| **4074424003** | **GP5-2 (6-8')** | WI MOD DRO | OEXT/17614 | WI MOD DRO | GCSV/9200 |
| **4074424004** | **GP5-3 (6.5-8')** | WI MOD DRO | OEXT/17614 | WI MOD DRO | GCSV/9200 |
| **4074424005** | **GP5-4 (5-6.5')** | WI MOD DRO | OEXT/17614 | WI MOD DRO | GCSV/9200 |
| **4074424006** | **GP6-1 (4-5')** | WI MOD DRO | OEXT/17614 | WI MOD DRO | GCSV/9200 |
| **4074424007** | **GP6-1 (6.5-8')** | WI MOD DRO | OEXT/17614 | WI MOD DRO | GCSV/9200 |
| **4074424008** | **GP6-2 (4.5-6.5')** | WI MOD DRO | OEXT/17614 | WI MOD DRO | GCSV/9200 |
| **4074424009** | **GP6-3 (4-5')** | WI MOD DRO | OEXT/17614 | WI MOD DRO | GCSV/9200 |
| **4074424010** | **GP4-1 (5-7.5')** | WI MOD DRO | OEXT/17614 | WI MOD DRO | GCSV/9200 |
| **4074424011** | **GP4-2 (5-7.5')** | WI MOD DRO | OEXT/17614 | WI MOD DRO | GCSV/9200 |
| **4074424012** | **GP3-1 (3.5-5')** | WI MOD DRO | OEXT/17614 | WI MOD DRO | GCSV/9200 |
| **4074424013** | **GP3-1 (5-6')** | WI MOD DRO | OEXT/17614 | WI MOD DRO | GCSV/9200 |
| **4074424014** | **GP3-2 (3-5')** | WI MOD DRO | OEXT/17614 | WI MOD DRO | GCSV/9200 |
| **4074424015** | **GP3-3 (2.5-5')** | WI MOD DRO | OEXT/17614 | WI MOD DRO | GCSV/9200 |
| **4074424016** | **GP2-1 (7-8')** | WI MOD DRO | OEXT/17614 | WI MOD DRO | GCSV/9200 |
| **4074424017** | **GP2-2 (5-6.5')** | WI MOD DRO | OEXT/17614 | WI MOD DRO | GCSV/9200 |
| **4074424018** | **GP1-1 (2.5-5')** | WI MOD DRO | OEXT/17614 | WI MOD DRO | GCSV/9200 |
| **4074424019** | **GP1-2 (2.5-5')** | WI MOD DRO | OEXT/17614 | WI MOD DRO | GCSV/9200 |
| **4074424001** | **GP5-1 (5.5-7.5')** | TPH GRO/PVOC WI ext. | GCV/9860 | WI MOD GRO | GCV/9861 |
| **4074424002** | **GP5-2 (5-6')** | TPH GRO/PVOC WI ext. | GCV/9860 | WI MOD GRO | GCV/9861 |
| **4074424003** | **GP5-2 (6-8')** | TPH GRO/PVOC WI ext. | GCV/9860 | WI MOD GRO | GCV/9861 |
| **4074424004** | **GP5-3 (6.5-8')** | TPH GRO/PVOC WI ext. | GCV/9860 | WI MOD GRO | GCV/9861 |
| **4074424005** | **GP5-4 (5-6.5')** | TPH GRO/PVOC WI ext. | GCV/9860 | WI MOD GRO | GCV/9861 |
| **4074424006** | **GP6-1 (4-5')** | TPH GRO/PVOC WI ext. | GCV/9860 | WI MOD GRO | GCV/9861 |
| **4074424007** | **GP6-1 (6.5-8')** | TPH GRO/PVOC WI ext. | GCV/9860 | WI MOD GRO | GCV/9861 |
| **4074424008** | **GP6-2 (4.5-6.5')** | TPH GRO/PVOC WI ext. | GCV/9860 | WI MOD GRO | GCV/9861 |
| **4074424009** | **GP6-3 (4-5')** | TPH GRO/PVOC WI ext. | GCV/9860 | WI MOD GRO | GCV/9861 |
| **4074424010** | **GP4-1 (5-7.5')** | TPH GRO/PVOC WI ext. | GCV/9860 | WI MOD GRO | GCV/9861 |
| **4074424011** | **GP4-2 (5-7.5')** | TPH GRO/PVOC WI ext. | GCV/9860 | WI MOD GRO | GCV/9861 |
| **4074424012** | **GP3-1 (3.5-5')** | TPH GRO/PVOC WI ext. | GCV/9860 | WI MOD GRO | GCV/9861 |
| **4074424013** | **GP3-1 (5-6')** | TPH GRO/PVOC WI ext. | GCV/9860 | WI MOD GRO | GCV/9861 |
| **4074424014** | **GP3-2 (3-5')** | TPH GRO/PVOC WI ext. | GCV/9860 | WI MOD GRO | GCV/9861 |
| **4074424015** | **GP3-3 (2.5-5')** | TPH GRO/PVOC WI ext. | GCV/9860 | WI MOD GRO | GCV/9861 |
| **4074424016** | **GP2-1 (7-8')** | TPH GRO/PVOC WI ext. | GCV/9860 | WI MOD GRO | GCV/9861 |
| **4074424017** | **GP2-2 (5-6.5')** | TPH GRO/PVOC WI ext. | GCV/9860 | WI MOD GRO | GCV/9861 |
| **4074424018** | **GP1-1 (2.5-5')** | TPH GRO/PVOC WI ext. | GCV/9860 | WI MOD GRO | GCV/9861 |
| **4074424019** | **GP1-2 (2.5-5')** | TPH GRO/PVOC WI ext. | GCV/9860 | WI MOD GRO | GCV/9861 |
| **4074424001** | **GP5-1 (5.5-7.5')** | EPA 3050 | MPRP/8183 | EPA 6010 | ICP/7204 |
| **4074424002** | **GP5-2 (5-6')** | EPA 3050 | MPRP/8183 | EPA 6010 | ICP/7204 |
| **4074424003** | **GP5-2 (6-8')** | EPA 3050 | MPRP/8183 | EPA 6010 | ICP/7204 |
| **4074424004** | **GP5-3 (6.5-8')** | EPA 3050 | MPRP/8184 | EPA 6010 | ICP/7203 |
| **4074424005** | **GP5-4 (5-6.5')** | EPA 3050 | MPRP/8183 | EPA 6010 | ICP/7204 |
| **4074424006** | **GP6-1 (4-5')** | EPA 3050 | MPRP/8183 | EPA 6010 | ICP/7204 |
| **4074424007** | **GP6-1 (6.5-8')** | EPA 3050 | MPRP/8183 | EPA 6010 | ICP/7204 |
| **4074424008** | **GP6-2 (4.5-6.5')** | EPA 3050 | MPRP/8183 | EPA 6010 | ICP/7204 |
| **4074424009** | **GP6-3 (4-5')** | EPA 3050 | MPRP/8183 | EPA 6010 | ICP/7204 |



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## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 201040 WISDOT PULASKI STH32
Pace Project No.: 4074424

| Lab ID | Sample ID | QC Batch Method | QC Batch | Analytical Method | Analytical Batch |
|---|---|---|---|---|---|
| **4074424010** | **GP4-1 (5-7.5')** | EPA 3050 | MPRP/8183 | EPA 6010 | ICP/7204 |
| **4074424011** | **GP4-2 (5-7.5')** | EPA 3050 | MPRP/8183 | EPA 6010 | ICP/7204 |
| **4074424012** | **GP3-1 (3.5-5')** | EPA 3050 | MPRP/8183 | EPA 6010 | ICP/7204 |
| **4074424013** | **GP3-1 (5-6')** | EPA 3050 | MPRP/8183 | EPA 6010 | ICP/7204 |
| **4074424014** | **GP3-2 (3-5')** | EPA 3050 | MPRP/8183 | EPA 6010 | ICP/7204 |
| **4074424015** | **GP3-3 (2.5-5')** | EPA 3050 | MPRP/8183 | EPA 6010 | ICP/7204 |
| **4074424016** | **GP2-1 (7-8')** | EPA 3050 | MPRP/8183 | EPA 6010 | ICP/7204 |
| **4074424017** | **GP2-2 (5-6.5')** | EPA 3050 | MPRP/8183 | EPA 6010 | ICP/7204 |
| **4074424018** | **GP1-1 (2.5-5')** | EPA 3050 | MPRP/8183 | EPA 6010 | ICP/7204 |
| **4074424019** | **GP1-2 (2.5-5')** | EPA 3050 | MPRP/8183 | EPA 6010 | ICP/7204 |
| **4074424001** | **GP5-1 (5.5-7.5')** | ASTM D2974-87 | PMST/8245 | | |
| **4074424002** | **GP5-2 (5-6')** | ASTM D2974-87 | PMST/8245 | | |
| **4074424003** | **GP5-2 (6-8')** | ASTM D2974-87 | PMST/8245 | | |
| **4074424004** | **GP5-3 (6.5-8')** | ASTM D2974-87 | PMST/8245 | | |
| **4074424005** | **GP5-4 (5-6.5')** | ASTM D2974-87 | PMST/8245 | | |
| **4074424006** | **GP6-1 (4-5')** | ASTM D2974-87 | PMST/8245 | | |
| **4074424007** | **GP6-1 (6.5-8')** | ASTM D2974-87 | PMST/8245 | | |
| **4074424008** | **GP6-2 (4.5-6.5')** | ASTM D2974-87 | PMST/8245 | | |
| **4074424009** | **GP6-3 (4-5')** | ASTM D2974-87 | PMST/8245 | | |
| **4074424010** | **GP4-1 (5-7.5')** | ASTM D2974-87 | PMST/8245 | | |
| **4074424011** | **GP4-2 (5-7.5')** | ASTM D2974-87 | PMST/8245 | | |
| **4074424012** | **GP3-1 (3.5-5')** | ASTM D2974-87 | PMST/8245 | | |
| **4074424013** | **GP3-1 (5-6')** | ASTM D2974-87 | PMST/8245 | | |
| **4074424014** | **GP3-2 (3-5')** | ASTM D2974-87 | PMST/8245 | | |
| **4074424015** | **GP3-3 (2.5-5')** | ASTM D2974-87 | PMST/8245 | | |
| **4074424016** | **GP2-1 (7-8')** | ASTM D2974-87 | PMST/8246 | | |
| **4074424017** | **GP2-2 (5-6.5')** | ASTM D2974-87 | PMST/8246 | | |
| **4074424018** | **GP1-1 (2.5-5')** | ASTM D2974-87 | PMST/8246 | | |
| **4074424019** | **GP1-2 (2.5-5')** | ASTM D2974-87 | PMST/8246 | | |



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**UPPER MIDWEST REGION**
**MN:** 612-607-1700 **WI:** 920-469-2436

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www.pacelabs.com

# CHAIN OF CUSTODY

4074424

| (Please Print Clearly) | |
|---|---|
| Company Name: | TRC |
| Branch/Location: | Madison |
| Project Contact: | Sellwood |
| Phone: | 608 826.3058 |
| Project Number: | 201040 |
| Project Name: | WisDOT Pulaski STH32 |
| Project State: | WI |
| Sampled By (Print): | Bragg |
| Sampled By (Sign): | |
| PO #: | |
| Regulatory Program: | |

| Quote #: | |
|---|---|
| Mail To Contact: | |
| Mail To Company: | |
| Mail To Address: | |
| Invoice To Contact: | |
| Invoice To Company: | |
| Invoice To Address: | |
| Invoice To Phone: | |

**Data Package Options** (billable)
☐ EPA Level III
☐ EPA Level IV

**MS/MSD**
☐ On your sample (billable)
☐ NOT needed on your sample

**Matrix Codes**

| | |
|---|---|
| A = Air | W = Water |
| B = Biota | DW = Drinking Water |
| C = Charcoal | GW = Ground Water |
| O = Oil | SW = Surface Water |
| S = Soil | WW = Waste Water |
| SI = Sludge | WP = Wipe |

***Preservation Codes**
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

| | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FILTERED? (YES/NO) | Y/N | N | N | N | | | | | | | | |
| PRESERVATION (CODE)* | Pick Letter | F | A | A | | | | | | | | |
| Analyses Requested | | PVOC 1EPO | DRO | Lead | | | | | | | | |

| PACE LAB # | CLIENT FIELD ID | COLLECTION DATE | COLLECTION TIME | MATRIX | CLIENT COMMENTS | LAB COMMENTS (Lab Use Only) | Profile # |
|---|---|---|---|---|---|---|---|
| 001 | GP5-1 5.5-7.5 | 2/25/13 | 10:15 | S | | 1-40mlF; 1-4ozcgA; 1-4ozpA | |
| 002 | GP5-2 5-6 | " | 11:00 | " | | " | |
| 003 | GP5-2 6-8 | " | 11:00 | " | | " | |
| 004 | GP5-3 6.5-8 | " | 11:25 | " | | C | |
| 005 | GP5-4 5.5-6.5' | " | 11:35 | " | | " | |
| 006 | GP6-1 4-5 | " | 12:00 | " | | " | |
| 007 | GP6-1 6.5-8 | " | 12:00 | " | | " | |
| 008 | GP6-2 4.5-6.5 | " | 12:25 | " | | " | |
| 009 | GP6-3 4-5 | " | 12:35 | " | | " | |
| 010 | GP4-1 5-7.5' | " | 1:35 | " | | " | |
| 011 | GP4-2 5-7.5 | " | 1:55 | " | | " | |
| 012 | GP3-1 3.5-5 | " | 2:35 | " | | " | |
| 013 | GP3-1 5-6 | ↓ | 2:35 | ↓ | | ↓ | |

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

| | |
|---|---|
| Email #1: | |
| Email #2: | |
| Telephone: | |
| Fax: | |

Samples on HOLD are subject to special pricing and release of liability

| Relinquished By: | Date/Time: | Received By: | Date/Time: |
|---|---|---|---|
| Wesley J Bragg | 12/26/13 | | |
| FedEx | 2/28/13 0935 | E Nelson Pace GB | 2/28/13 0935 |
| | | | |
| | | | |
| | | | |

PACE Project No.: 4074424

Receipt Temp = ROI °C

Sample Receipt pH OK / Adjusted

Cooler Custody Seal: Present / Not Present

Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

4074424

**UPPER MIDWEST REGION**
**MN:** 612-607-1700 **WI:** 920-469-2436

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# CHAIN OF CUSTODY

*Preservation Codes
A=None B=HCL C=H2SO4 D=HNO3 E=DI Water F=Methanol G=NaOH
H=Sodium Bisulfate Solution I=Sodium Thiosulfate J=Other

| (Please Print Clearly) | |
|---|---|
| Company Name: | TRC |
| Branch/Location: | Madison |
| Project Contact: | Sellwood |
| Phone: | 608. 826. 3458 |
| Project Number: | 261040 |
| Project Name: | WisDOT Pulaski STH32 |
| Project State: | WI |
| Sampled By (Print): | Brayer |
| Sampled By (Sign): | |
| PO #: | |
| Regulatory Program: | |

**Data Package Options** (billable)
☐ EPA Level III
☐ EPA Level IV

**MS/MSD**
☐ On your sample (billable)
☐ NOT needed on your sample

**Matrix Codes**
A = Air W = Water
B = Biota DW = Drinking Water
C = Charcoal GW = Ground Water
O = Oil SW = Surface Water
S = Soil WW = Waste Water
SI = Sludge WP = Wipe

| Quote #: | |
|---|---|
| Mail To Contact: | |
| Mail To Company: | |
| Mail To Address: | |
| Invoice To Contact: | |
| Invoice To Company: | |
| Invoice To Address: | |
| Invoice To Phone: | |

| PACE LAB # | CLIENT FIELD ID | COLLECTION DATE | COLLECTION TIME | MATRIX | Analyses Requested | FILTERED? (YES/NO) Y/N | PRESERVATION (CODE)* Pick Letter | Pvc/GRO | DRO | Lead | CLIENT COMMENTS | LAB COMMENTS (Lab Use Only) | Profile # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 014 | GB3-2 3-5 | 2/25/13 | 3:35 | S | | N | F | X | X | X | | 1-40mlF, 1-4ozcgA, 1-4ozpA | |
| 015 | GP3-3 2.5'-5' | " | 3:40 | S | | | | X | X | X | | | |
| 016 | GP2-1 7-8' | | 4:00 | S | | | | X | X | X | | | |
| 017 | GP2-2 5-6.5' | | 4:25 | S | | | | X | X | X | | | |
| 018 | GP1-1 2.5-5' | | 4:35 | S | | | | X | X | X | | | |
| 019 | GP1-2 2.5-5 | ↓ | 4:45 | S | | | | X | X | X | | | |

Rush Turnaround Time Requested - Prelims
(Rush TAT subject to approval/surcharge)
Date Needed:

Transmit Prelim Rush Results by (complete what you want):

| | |
|---|---|
| Email #1: | |
| Email #2: | |
| Telephone: | |
| Fax: | |

Samples on HOLD are subject to special pricing and release of liability

| Relinquished By: | Date/Time: | Received By: | Date/Time: |
|---|---|---|---|
| Wesley D Brayer | 2/26/13 | | |
| FedEx | 2/28/13 0935 | E Kelley PaceGB | 2/28/13 0935 |
| | | | |
| | | | |
| | | | |

PACE Project No.
4074424
Receipt Temp = ROI °C
Sample Receipt pH OK / Adjusted
Cooler Custody Seal Present / Not Present
Intact / Not Intact

Version 6.0 06/14/06

C019a(27Jun2006)

ORIGINAL

# Christopher Hyska - TRC soil sample Pulaski 5.3, depth 6.5-8' 4074424

**From:** Tod Noltemeyer
**To:** WI Sample Receiving; WI VOA
**Date:** 2/28/2013 11:31 AM
**Subject:** TRC soil sample Pulaski 5.3, depth 6.5-8'
**CC:** Hyska, Christopher

Eric in SR told me the VOA vial for this sample was received broken. I talked to Alyssa Sellwood at TRC about it. She said the material has been sitting around anyway, so she would like us to sub sample for VOAs from one of the other jars on that sample and flag it as needed.

Thanks, Tod

Project Manager
Pace Analytical - WI
6409 Odana Road
Suite E
Madison, WI 53719
(608) 232-3300

Tod.Noltemeyer@pacelabs.com

Pace Analytical Services, Inc.
1241 Bellevue Street, Suite 9
Green Bay, WI 54302

Pace Analytical

# Sample Condition Upon Receipt

Client Name: TRC Madison Project # 4024424

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Tracking #: 8022 9008 5475

Custody Seal on Cooler/Box Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Custody Seal on Samples Present: ☐ yes ☑ no Seals intact: ☐ yes ☐ no

Packing Material: ☐ Bubble Wrap ☑ Bubble Bags ☐ None Other

Thermometer Used NA Type of Ice: (Wet) Blue Dry None ☑ Samples on ice, cooling process has begun.

Cooler Temperature RAT Biological Tissue is Frozen: ☐ yes ☐ no

Temp Blank Present: ☐ yes ☑ no

Optional
Proj. Due Date:
Proj. Name:

Person examining contents:
Date: 2/28/13
Initials: EMH

Temp should be above freezing to 6°C for all sample except Biota.
Biota Samples should be received ≤ 0°C.

| | | Comments: |
|---|---|---|
| Chain of Custody Present: | ☑Yes ☐No ☐N/A | 1. |
| Chain of Custody Filled Out: | ☑Yes ☐No ☐N/A | 2. |
| Chain of Custody Relinquished: | ☑Yes ☐No ☐N/A | 3. |
| Sampler Name & Signature on COC: | ☐Yes ☑No ☐N/A | 4. Name only EMH 2/28/13 |
| Samples Arrived within Hold Time: | ☑Yes ☐No ☐N/A | 5. |
| **Short Hold Time Analysis (<72hr):** | ☐Yes ☑No ☐N/A | 6. |
| **Rush Turn Around Time Requested:** | ☐Yes ☑No ☐N/A | 7. |
| Sufficient Volume: | ☑Yes ☐No ☐N/A | 8. |
| Correct Containers Used: | ☑Yes ☐No ☐N/A | 9. |
| -Pace Containers Used: | ☑Yes ☐No ☐N/A | |
| Containers Intact: | ☐Yes ☑No ☐N/A | 10. 004 1-40mlF broken in shipment EMH 2/28/13 |
| Filtered volume received for Dissolved tests | ☐Yes ☐No ☑N/A | 11. |
| Sample Labels match COC: | ☐Yes ☑No ☐N/A | 12. 004 1-4ozP# only has GPS-3, no depth. Matched by time + partial ID EMH 2/28/13 |
| -Includes date/time/ID/Analysis Matrix: S | | |
| All containers needing preservation have been checked. | ☐Yes ☐No ☑N/A | 13. |
| All containers needing preservation are found to be in compliance with EPA recommendation. | ☐Yes ☐No ☑N/A | |
| exceptions: VOA, coliform, TOC, O&G, WI-DRO (water) | ☐Yes ☐No | Initial when completed / Lot # of added preservative |
| Samples checked for dechlorination: | ☐Yes ☐No ☑N/A | 14. |
| Headspace in VOA Vials ( >6mm): | ☐Yes ☐No ☑N/A | 15. |
| Trip Blank Present: | ☐Yes ☐No ☑N/A | 16. |
| Trip Blank Custody Seals Present | ☐Yes ☐No ☑N/A | |
| Pace Trip Blank Lot # (if purchased): | | |

**Client Notification/ Resolution:** Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution: 001 1-40mlF has a flipped septa EMH 2/28/13

**Project Manager Review:** Ckt for TN Date: 2/28/13

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office ( i.e out of hold, incorrect preservative, out of temp, incorrect containers)

# Appendix H
# Notification for Hazardous Substance Discharge

## Table of Contents


- Site #3 - 118 E. Pulaski Street (Boutique Village)
- Site #6 – 104 S. Wisconsin Street (Trails End Food and Spirits)

# Site #3
# 118 E. Pulaski Street (Boutique Village)

State of Wisconsin
Department of Natural Resources
dnr.wi.gov

# Notification For Hazardous Substance Discharge (Non-Emergency Only)

Form 4400-225 (05/12) Page 1 of 2

**Emergency Discharges / Spills should be reported via the 24-Hour Hotline: 1-800-943-0003**

**Notice: Hazardous substance discharges must be reported immediately** according to s. 292.11 Wis. Stats. Non-emergency hazardous substance discharges may be reported by telefaxing or e-mailing a completed report to the Department, or calling or visiting a Department office in person. If you choose to notify the Department by telefax or by email, you should use this form to be sure that all necessary information is included. However, use of this form is not mandatory. Under s. 292.99, Wis. Stats., the penalty for violating the reporting requirements of ch. 292 Wis. Stats., shall be no less than $10 nor more than $5000 for each violation. Each day of continued violation is a separate offense. It is not the Department's intention to use any personally identifiable information from this form for any purpose other than program administration. However, information submitted on this form may also be made available to requesters under Wisconsin's Open Records Law (ss. 19.31 – 19.39, Wis. Stats.).

Confirmatory laboratory data should be included with this form, to assist the DNR in processing this Hazardous Substance Release Notification.

Complete this form. **TYPE or PRINT LEGIBLY.** NOTIFY appropriate DNR region (see next page) **IMMEDIATELY** upon discovery of a potential release from **(check one):**

- ☐ Underground Petroleum Storage Tank System (additional information may be required for Item 6 below)
- ☐ Aboveground Petroleum Storage Tank System
- ☐ Dry Cleaner Facility
- ☒ Other - Describe: Impacts encountered during subsurface investigation in right-of-way for future highway reconstruction

ATTN DNR: **R & R Program Associate** Date DNR Notified: 03/01/2013

## 1. Discharge Reported By

| Name | Firm | Phone No. (include area code) |
|---|---|---|
| WESLEY BRAGA | TRC ENVIORNMENTAL CORPORATION | (608) 826-3693 |

| Mailing Address | Email Address |
|---|---|
| 708 HEARTLAND TRAIL, SUITE 3000, MADISON, WI 53717 | WBRAGA@TRCSOLUTIONS.COM |

## 2. Site Information

Name of site at which discharge occurred. Include local name of site/business, not responsible party name, unless a residence/vacant property. BOUTIQUE VILLAGE

Location: Include street address, not PO Box. If no street address, describe as precisely as possible, i.e., 1/4 mile NW of CTHs 60 & 123 on E side of CTH 60. 118 EAST PULASKI STREET, PULASKI, WI 54162

Municipality: (City, Village, Township) Specify municipality in which the site is located, not mailing address/city.
Pulaski

| County: | Legal Description: | WTM: |
|---|---|---|
| Brown | NW 1/4 NW 1/4 Sec 6 Tn 25 Range 19 ○E ○W | X 659387 Y 468054 |

## 3. Responsible Party (RP) and/or RP Representative

Responsible Party Name: Business or owner name that is responsible for cleanup. If more than one, list all. Attach additional pages as necessary.

WDNR TO DETERMINE RESPONSIBLE PARTY

☐ Reported in compliance with s. 292.11(2), Wis. Stats., by a local government exempt from liability under s. 292.11(9)(e), Wis. Stats. For more information see http://dnr.wi.gov/org/aw/rr/lgu/liability.htm.

| Contact Person Name (if different) | Phone Number | Email Address |
|---|---|---|
| | | |

| Mailing Address | City | State | ZIP Code |
|---|---|---|---|
| | | | |

Property owner if Different From RP: Business or owner name that is responsible for cleanup. If more than one, list all. Attach additional pages as necessary. WISCONSIN DOT CONTACT INFORMATION - WisDOT ID #9190-13-71

| Contact Person Name (if different) | Phone Number | Email Address |
|---|---|---|
| SHARLENE TEBEEST | (608) 266-1476 | SHARLENE.TEBEEST@DOT.WI.GOV |

| Mailing Address | City | State | ZIP Code |
|---|---|---|---|
| PO BOX 7965 | MADISON | WI | 53707 |

(continued)

State of Wisconsin
Department of Natural Resources
dnr.wi.gov

# Notification For Hazardous Substance Discharge (Non-Emergency Only)



## 4. Hazardous Substance Information

Identify hazardous substance discharged (check all that apply):

- ☐ VOC's
- ☐ PAH's
- ☐ Metals (specify): _____
- ☐ Arsenic
- ☐ Chromium
- ☐ Cyanide
- ☐ Lead
- ☐ PCB's
- ☐ Diesel
- ☐ Fuel Oil
- ☐ Gasoline
- ☐ Hydraulic Oil
- ☐ Jet Fuel
- ☐ Mineral Oil
- ☐ Waste Oil
- ☒ Petroleum-Unknown Type
- ☐ PERC (Dry Cleaners)
- ☐ RCRA Hazardous Waste
- ☐ Leachate
- ☐ Fertilizer
- ☐ Pesticide/Herbicide/Insecticide(s)
- ☐ Other (specify): _____
- ☐ Unknown

## 5. Impacts to the Environment Information

Enter "K" for known/confirmed or "P" for potential for all that apply.

- ___ Air Contamination
- ___ Co-Contamination (Petroleum & Non-Petroleum)
- ___ Contamination Within 1 Meter of Bedrock
- ___ Contaminated Private Well
- ___ Contaminated Public Well
- ___ Contamination in Fractured Bedrock
- ___ Sanitary Sewer Contamination
- K Contamination in Right of Way
- ___ Fire Explosion Threat
- ___ Free Product
- P Groundwater Contamination
- P Off-Site Contamination
- ___ Other (specify): _____
- K Soil Contamination
- ___ Storm Sewer Contamination
- ___ Surface Water Contamination
- ___ Within 100 ft of Private Well
- ___ Within 1000 ft of Public Well

Contamination was discovered as a result of:

☐ Tank closure assessment Date _____
☒ Site assessment Date 02/25/2013
☐ Other - Describe: _____ Date _____

Lab results: ☒ Lab results will be faxed upon receipt ☐ Lab results are attached

Additional Comments: Include a brief description of immediate actions taken to halt the release and contain or cleanup hazardous substances that have been discharged.

UST'S NOTED ON 1929 SANDBORN MAP NEAR RIGHT-OF-WAY. SOURCE WAS NOT DETERMINED DURING 2/25/2013 ASSESSMENT. SITE IS DOWNGRADIENT FROM CLOSED BRRTS #03-05-000819.

## 6. Federal Energy Act Requirements (Section 9002(d) of the Solid Waste Disposal Act (SWDA))

For all confirmed releases from UST's occurring after 9/30/2007 please provide the following information:

☒ Does not apply.

**Source**

- ☐ Tank
- ☐ Piping
- ☐ Dispenser
- ☐ Submersible Turbine Pump
- ☐ Delivery Problem
- ☐ Other (specify): _____

**Cause**

- ☐ Spill
- ☐ Overfill
- ☐ Corrosion
- ☐ Physical or Mechanical Damage
- ☐ Installation Problem
- ☐ Other (does not fit any of above)
- ☐ Unknown

Contact information to report non-emergency releases in DNR's five regions are as follows:

**Northeast Region (FAX: 920-662-5197); Attention -- R&R Program Associate:** DNRRRNER@wisconsin.gov

Brown, Calumet, Door, Fond du Lac **(except City of Waupun - see South Central Region)**, Green Lake, Kewaunee, Manitowoc, Marinette, Marquette, Menominee, Oconto, Outagamie, Shawano, Sheboygan, Waupaca, Waushara, Winnebago counties

**Northern Region (FAX: 715-623-6773); Attention -- R&R Program Associate:** DNRRRNOR@wisconsin.gov

Ashland, Barron, Bayfield, Burnett, Douglas, Forest, Florence, Iron, Langlade, Lincoln, Oneida, Polk, Price, Rusk, Sawyer, Taylor, Vilas, Washburn counties

**South Central Region (FAX: 608-273-5610); Attention -- R&R Program Associate:** DNRRRSCR@wisconsin.gov

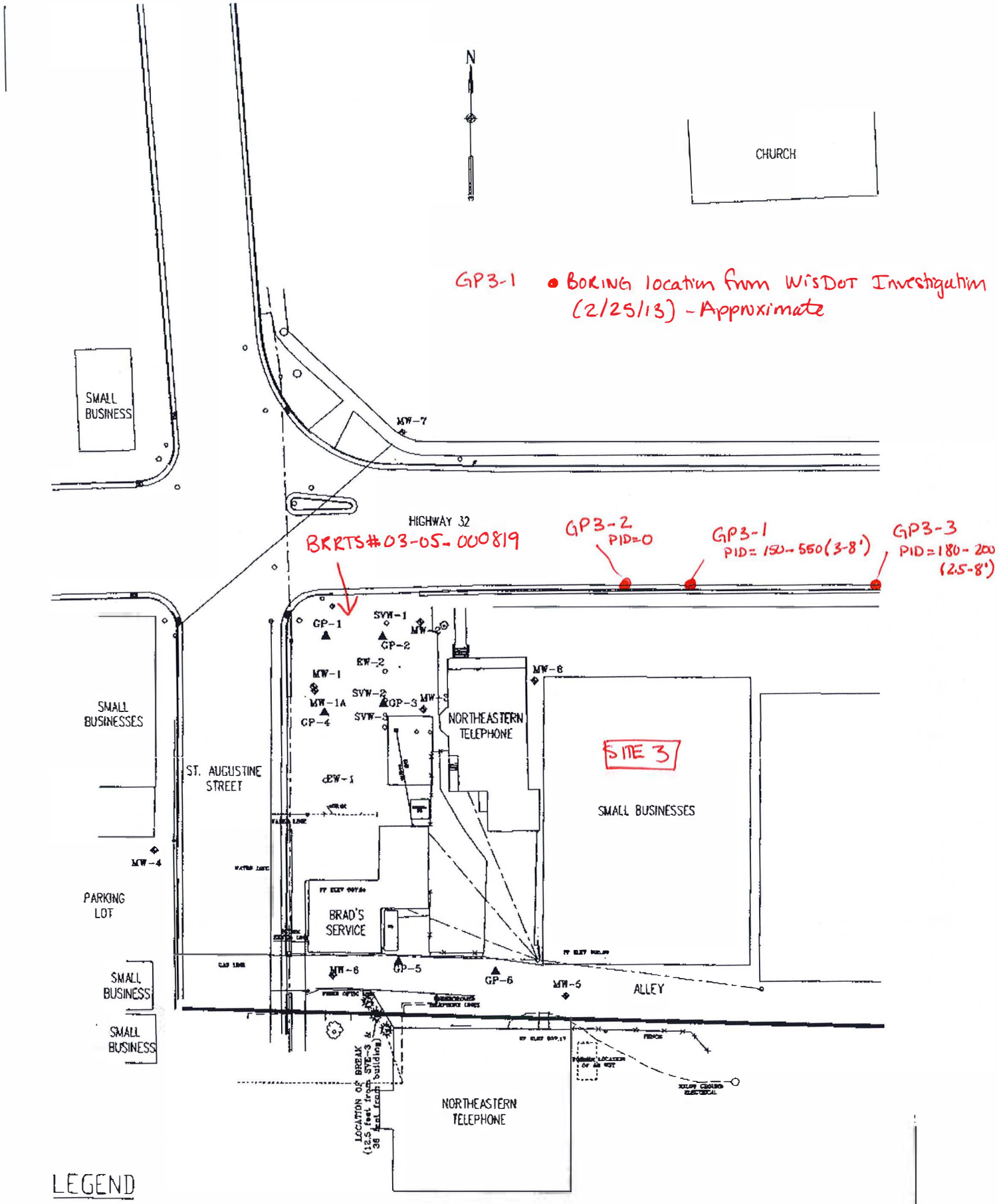
Columbia, Dane, Dodge, Fond du Lac **(City of Waupun only)**, Grant, Green, Iowa, Jefferson, Lafayette, Richland, Rock, Sauk, Walworth counties

**Southeast Region (FAX: 414-263-8550); Attention -- R&R Program Associate:** DNRRRSER@wisconsin.gov

Kenosha, Milwaukee, Ozaukee, Racine, Washington, Waukesha counties

**West Central Region (FAX: 715-839-6076); Attention -- R&R Program Associate:** DNRRRWCR@wisconsin.gov

Adams, Buffalo, Chippewa, Clark, Crawford, Dunn, Eau Claire, Jackson, Juneau, LaCrosse, Marathon, Monroe, Pepin, Pierce, Portage, St. Croix, Trempealeau, Vernon, Wood counties




LEGEND

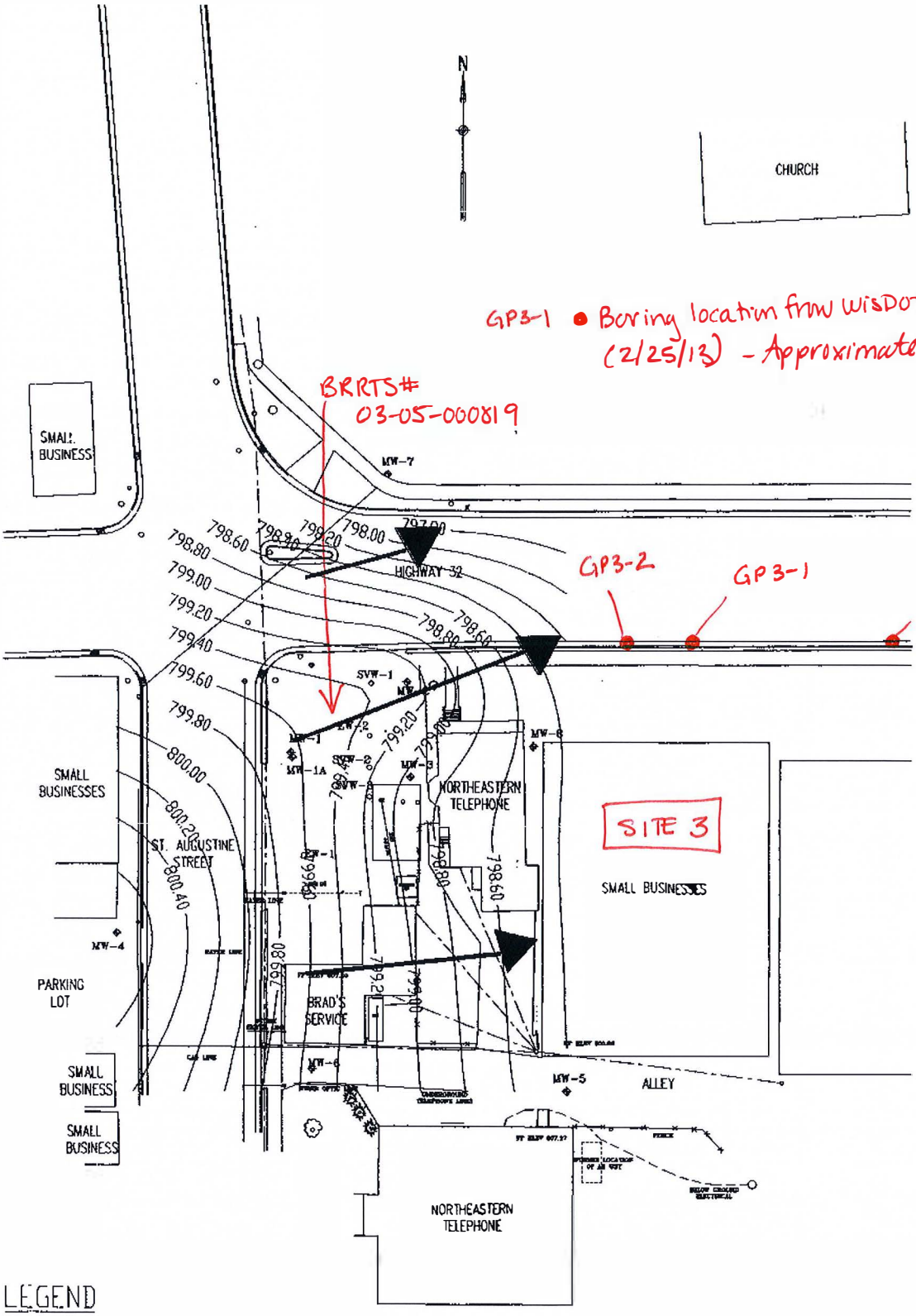
- OVERHEAD POWER & TELEPHONE
- MONITORING WELL
- SOIL PROBE LOCATION
- STORM SEWER LINE
- GROUNDWATER TRENCH
- SVE LINE

BRAD'S UNION 76 SERVICE - PULASKI, WISCONSIN

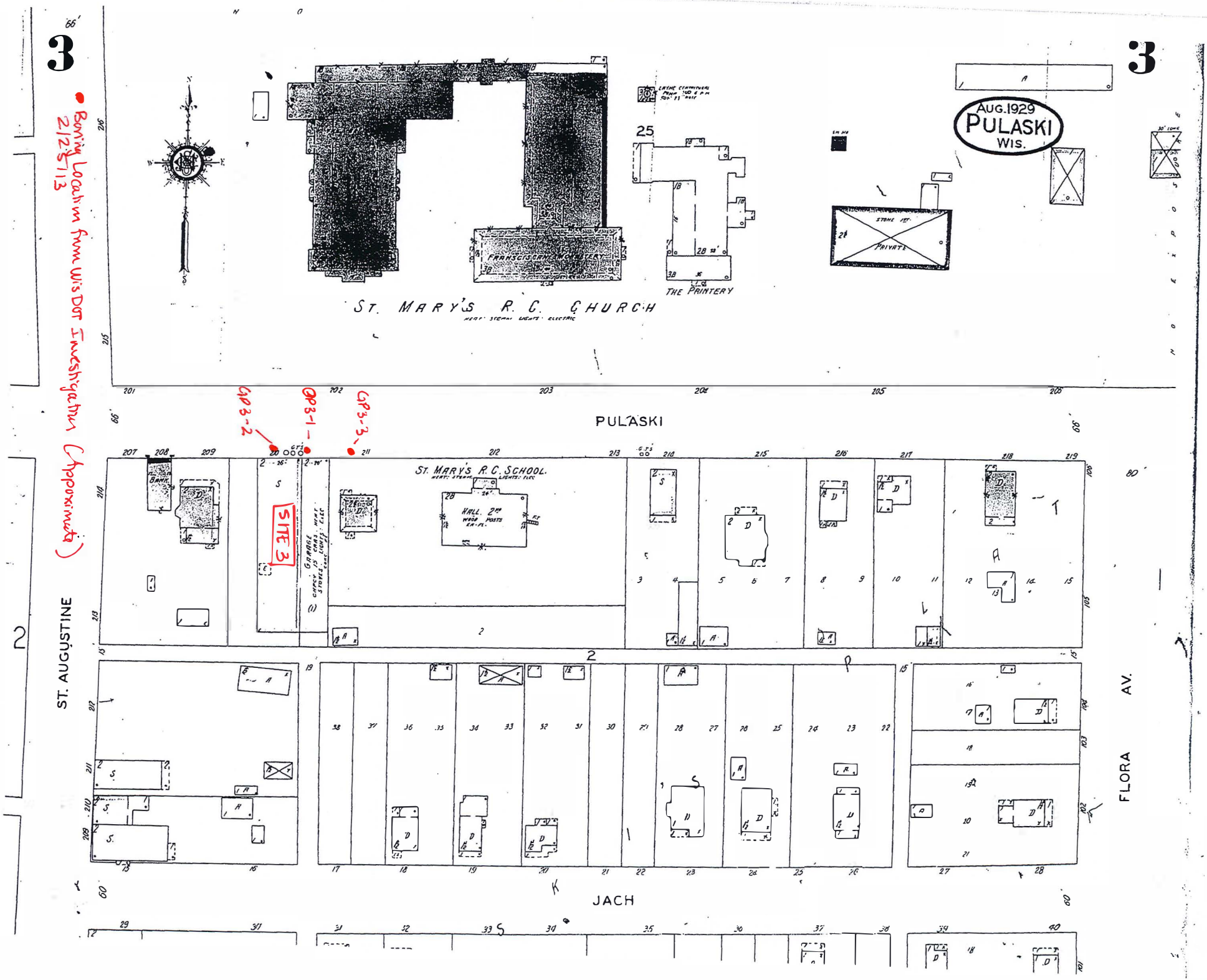
FIGURE 2
SITE PLOT MAP

SCALE: 1 inch = 70 feet | DATE: MAY 28, 1998

Environmental Compliance Consultants | BY: J Robideau




| BRAD'S UNION 76 SERVICE - PULASKI, WISCONSIN | |
|---|---|
| Figure 3<br>Water Table Map (28-Oct-99) | |
| SCALE: 1 inch = 70 feet | DATE: MAY 28, 1998 |
| Environmental Compliance Consultants | BY: J Robideau |


3
3
AUG. 1929
PULASKI
WIS.
ST. MARY'S R. C. CHURCH
THE PRINTERY
ST. MARY'S R. C. SCHOOL.
PULASKI
ST. AUGUSTINE
FLORA AV.
JACH
SITE 3
GP3-1
GP3-2
GP3-3
Boring Location from WisDOT Investigation (Approximate)
2/25/13

# Site #6
# 104 S. Wisconsin Street (Trails End Food and Spirits)

State of Wisconsin
Department of Natural Resources
dnr.wi.gov

# Notification For Hazardous Substance Discharge (Non-Emergency Only)

Form 4400-225 (05/12) Page 1 of 2

**Emergency Discharges / Spills should be reported via the 24-Hour Hotline: 1-800-943-0003**

**Notice: Hazardous substance discharges must be reported immediately** according to s. 292.11 Wis. Stats. Non-emergency hazardous substance discharges may be reported by telefaxing or e-mailing a completed report to the Department, or calling or visiting a Department office in person. If you choose to notify the Department by telefax or by email, you should use this form to be sure that all necessary information is included. However, use of this form is not mandatory. Under s. 292.99, Wis. Stats., the penalty for violating the reporting requirements of ch. 292 Wis. Stats., shall be no less than $10 nor more than $5000 for each violation. Each day of continued violation is a separate offense. It is not the Department's intention to use any personally identifiable information from this form for any purpose other than program administration. However, information submitted on this form may also be made available to requesters under Wisconsin's Open Records Law (ss. 19.31 – 19.39, Wis. Stats.).

Confirmatory laboratory data should be included with this form, to assist the DNR in processing this Hazardous Substance Release Notification.

Complete this form. **TYPE or PRINT LEGIBLY.** NOTIFY appropriate DNR region (see next page) **IMMEDIATELY** upon discovery of a potential release from **(check one):**

- ☐ Underground Petroleum Storage Tank System (additional information may be required for Item 6 below)
- ☐ Aboveground Petroleum Storage Tank System
- ☐ Dry Cleaner Facility
- ☒ Other - Describe: Impacts encountered during subsurface investigation in right-of-way for future highway reconstruction

ATTN DNR: **R & R Program Associate** Date DNR Notified: 03/01/2013

## 1. Discharge Reported By

| Name | Firm | Phone No. (include area code) |
|---|---|---|
| WESLEY BRAGA | TRC ENVIORNMENTAL CORPORATION | (608) 826-3693 |

| Mailing Address | Email Address |
|---|---|
| 708 HEARTLAND TRAIL, SUITE 3000, MADISON, WI 53717 | WBRAGA@TRCSOLUTIONS.COM |

## 2. Site Information

Name of site at which discharge occurred. Include local name of site/business, not responsible party name, unless a residence/vacant property. TRAILS END FOOD AND SPIRITS

Location: Include street address, not PO Box. If no street address, describe as precisely as possible, i.e., 1/4 mile NW of CTHs 60 & 123 on E side of CTH 60. 104 SOUTH WISCONSIN STREET, PULASKI, WI 54162

Municipality: (City, Village, Township) Specify municipality in which the site is located, not mailing address/city.
Pulaski

| County: | Legal Description: | WTM: |
|---|---|---|
| Brown | NW 1/4 NW 1/4 Sec 6 Tn 25 Range 19 ○E ○W | X 660045 Y 468048 |

## 3. Responsible Party (RP) and/or RP Representative

Responsible Party Name: Business or owner name that is responsible for cleanup. If more than one, list all. Attach additional pages as necessary.

WDNR TO DETERMINE RESPONSIBLE PARTY

☐ Reported in compliance with s. 292.11(2), Wis. Stats., by a local government exempt from liability under s. 292.11(9)(e), Wis. Stats. For more information see http://dnr.wi.gov/org/aw/rr/lgu/liability.htm.

| Contact Person Name (if different) | Phone Number | Email Address |
|---|---|---|
| | | |

| Mailing Address | City | State | ZIP Code |
|---|---|---|---|
| | | | |

Property owner if Different From RP: Business or owner name that is responsible for cleanup. If more than one, list all. Attach additional pages as necessary. WISCONSIN DOT CONTACT INFORMATION - WisDOT ID #9190-13-71

| Contact Person Name (if different) | Phone Number | Email Address |
|---|---|---|
| SHARLENE TEBEEST | (608) 266-1476 | SHARLENE.TEBEEST@DOT.WI.GOV |

| Mailing Address | City | State | ZIP Code |
|---|---|---|---|
| PO BOX 7965 | MADISON | WI | 53707 |

(continued)

State of Wisconsin
Department of Natural Resources
dnr.wi.gov

# Notification For Hazardous Substance Discharge (Non-Emergency Only)



## 4. Hazardous Substance Information

Identify hazardous substance discharged (check all that apply):

- ☐ VOC's
- ☐ PAH's
- ☐ Metals (specify): _____
  - ☐ Arsenic
  - ☐ Chromium
  - ☐ Cyanide
  - ☐ Lead
  - ☐ PCB's
- ☐ Diesel
- ☐ Fuel Oil
- ☐ Gasoline
- ☐ Hydraulic Oil
- ☐ Jet Fuel
- ☐ Mineral Oil
- ☐ Waste Oil
- ☒ Petroleum-Unknown Type
- ☐ PERC (Dry Cleaners)
- ☐ RCRA Hazardous Waste
- ☐ Leachate
- ☐ Fertilizer
- ☐ Pesticide/Herbicide/Insecticide(s)
- ☐ Other (specify): _____
- ☐ Unknown

## 5. Impacts to the Environment Information

Enter "K" for known/confirmed or "P" for potential for all that apply.

- ___ Air Contamination
- ___ Co-Contamination (Petroleum & Non-Petroleum)
- ___ Contamination Within 1 Meter of Bedrock
- ___ Contaminated Private Well
- ___ Contaminated Public Well
- ___ Contamination in Fractured Bedrock
- ___ Sanitary Sewer Contamination
- K Contamination in Right of Way
- ___ Fire Explosion Threat
- ___ Free Product
- P Groundwater Contamination
- P Off-Site Contamination
- ___ Other (specify): _____
- ___ Soil Contamination
- P Storm Sewer Contamination
- ___ Surface Water Contamination
- ___ Within 100 ft of Private Well
- ___ Within 1000 ft of Public Well

Contamination was discovered as a result of:

☐ Tank closure assessment Date _____
☒ Site assessment Date 02/25/2013
☐ Other - Describe: _____ Date _____

Lab results: ☒ Lab results will be faxed upon receipt ☐ Lab results are attached

Additional Comments: Include a brief description of immediate actions taken to halt the release and contain or cleanup hazardous substances that have been discharged.

SOURCE WAS NOT DETERMINED DURING 2/2/25 ASSESSMENT. UST'S MAY BE PRESENT ON PROPERTY BASED ON PHASE I ESA INTERVIEW. SITE IS ADJACENT TO CLOSED BRRTS #03-05-096591.

## 6. Federal Energy Act Requirements (Section 9002(d) of the Solid Waste Disposal Act (SWDA))

For all confirmed releases from UST's occurring after 9/30/2007 please provide the following information:

☒ Does not apply.

**Source**

- ☐ Tank
- ☐ Piping
- ☐ Dispenser
- ☐ Submersible Turbine Pump
- ☐ Delivery Problem
- ☐ Other (specify): _____

**Cause**

- ☐ Spill
- ☐ Overfill
- ☐ Corrosion
- ☐ Physical or Mechanical Damage
- ☐ Installation Problem
- ☐ Other (does not fit any of above)
- ☐ Unknown

Contact information to report non-emergency releases in DNR's five regions are as follows:

**Northeast Region (FAX: 920-662-5197); Attention -- R&R Program Associate:** DNRRRNER@wisconsin.gov

Brown, Calumet, Door, Fond du Lac **(except City of Waupun - see South Central Region)**, Green Lake, Kewaunee, Manitowoc, Marinette, Marquette, Menominee, Oconto, Outagamie, Shawano, Sheboygan, Waupaca, Waushara, Winnebago counties

**Northern Region (FAX: 715-623-6773); Attention -- R&R Program Associate:** DNRRRNOR@wisconsin.gov

Ashland, Barron, Bayfield, Burnett, Douglas, Forest, Florence, Iron, Langlade, Lincoln, Oneida, Polk, Price, Rusk, Sawyer, Taylor, Vilas, Washburn counties

**South Central Region (FAX: 608-273-5610); Attention -- R&R Program Associate:** DNRRRSCR@wisconsin.gov

Columbia, Dane, Dodge, Fond du Lac **(City of Waupun only)**, Grant, Green, Iowa, Jefferson, Lafayette, Richland, Rock, Sauk, Walworth counties

**Southeast Region (FAX: 414-263-8550); Attention -- R&R Program Associate:** DNRRRSER@wisconsin.gov

Kenosha, Milwaukee, Ozaukee, Racine, Washington, Waukesha counties

**West Central Region (FAX: 715-839-6076); Attention -- R&R Program Associate:** DNRRRWCR@wisconsin.gov

Adams, Buffalo, Chippewa, Clark, Crawford, Dunn, Eau Claire, Jackson, Juneau, LaCrosse, Marathon, Monroe, Pepin, Pierce, Portage, St. Croix, Trempealeau, Vernon, Wood counties

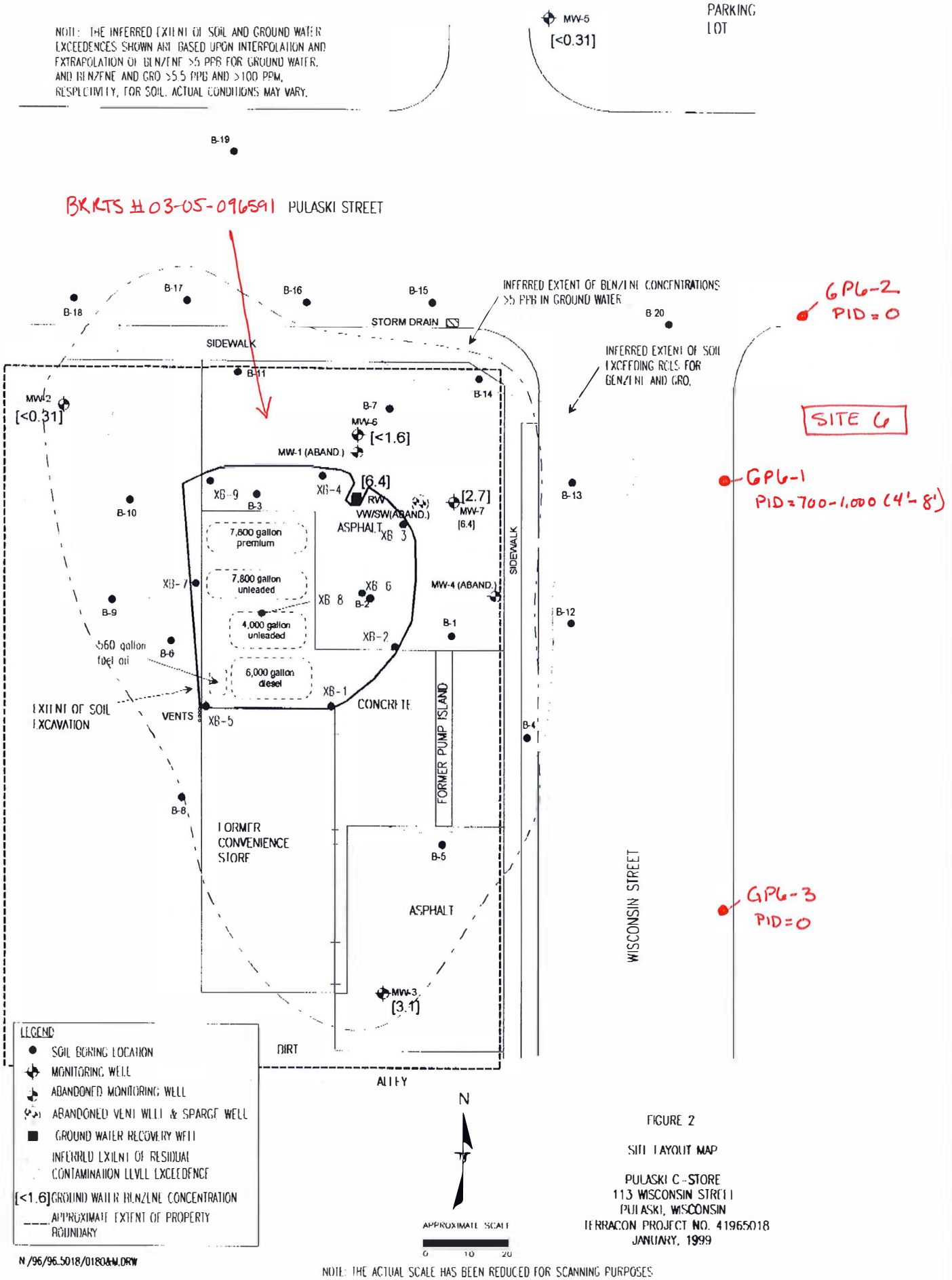



FIGURE 2

SITE LAYOUT MAP

PULASKI C-STORE
113 WISCONSIN STREET
PULASKI, WISCONSIN
TERRACON PROJECT NO. 41965018
JANUARY, 1999

NOTE: THE ACTUAL SCALE HAS BEEN REDUCED FOR SCANNING PURPOSES

GP6-1 • Boring Location from WIS DOT Investigation (Approximate) 2/25/13

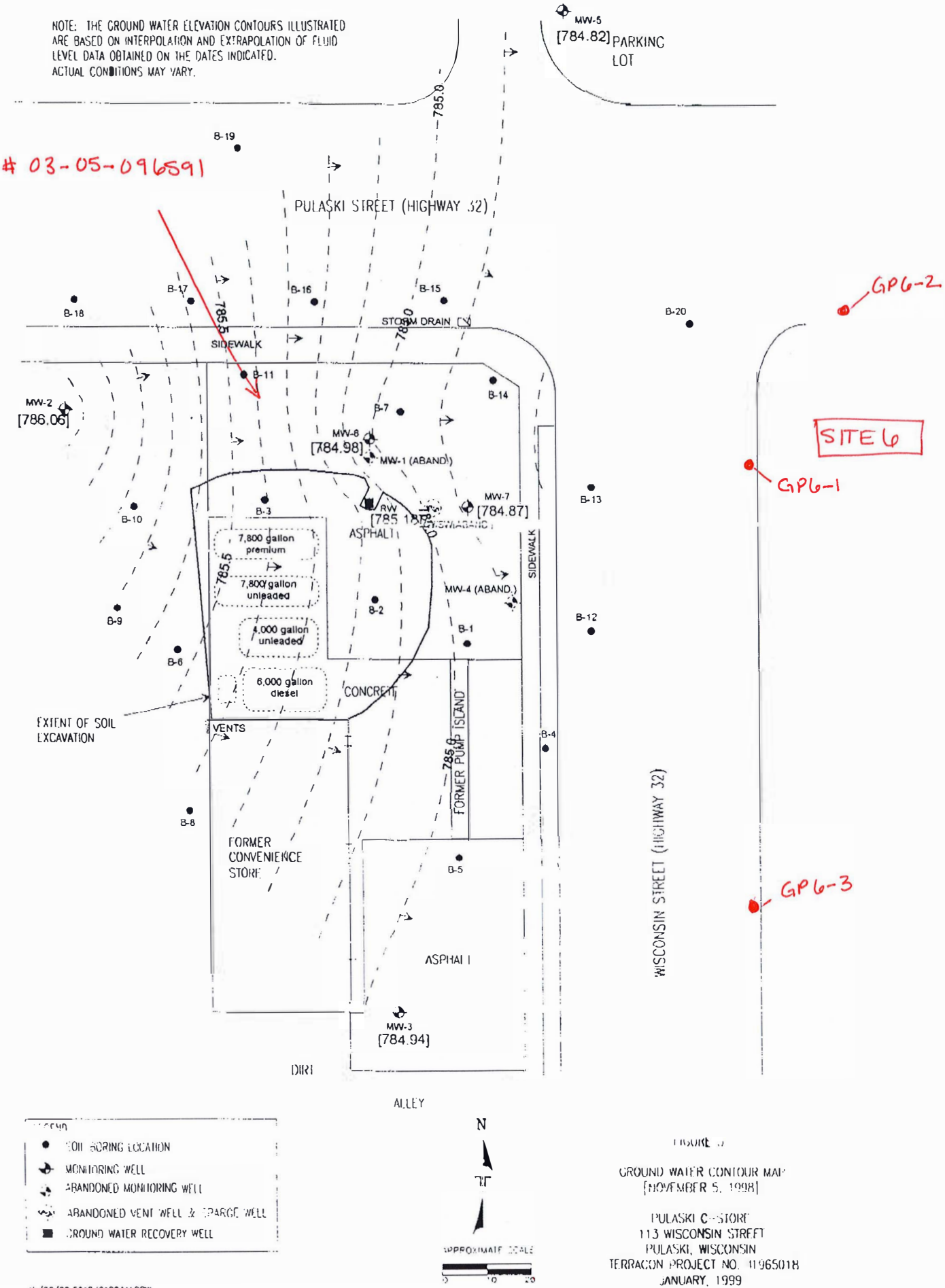



FIGURE 3

GROUND WATER CONTOUR MAP
(NOVEMBER 5, 1998)

PULASKI C-STORE
113 WISCONSIN STREET
PULASKI, WISCONSIN
TERRACON PROJECT NO. 41965018
JANUARY, 1999

GP6-1 • Boring Location from WisDOT Investigation (Approximate)
2/25/13

# Appendix I
# Special Provisions

**March 26, 2013**

# Special Provisions for the Excavation, Hauling, and Disposal of Contaminated Soil

## Project Design I.D. #9190-13-00
## City of Pulaski
## Brown County, Wisconsin

Prepared by
TRC, Inc.
Madison, Wisconsin

# 1. Excavation, Hauling, and Disposal of Contaminated Soil, Item _____

## A Description

### A.1 General

This special provision describes excavating, loading, hauling, and disposing of petroleum-contaminated soil and management of lead-contaminated soil. Petroleum-contaminated soil shall be disposed of at a Wisconsin Department of Natural Resources (WDNR)-approved bioremediation facility. Lead-contamination soil shall be reused within the limits of construction. The closest bioremediation facilities are:

Waste Management – Ridgeview RDF
6207 Hempton Lake Road
Whitelaw, Wisconsin 54247
(920) 732-4473 Ext. 228

Veolia – Hickory Meadows Landfill
W3105 Schneider Road
Hilbert, Wisconsin 54129
(920) 853-8553

Perform this work in accordance with section 205 of the standard specifications 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 petroleum- and lead-contaminated soil.

### A.2 Notice to the Contractor

The department completed testing for soil contamination for locations within this project where excavation is required. Testing indicated that petroleum-contaminated soil is present at the following locations:

- Site 2: Station 498+75 to 500+00 and from Station 35+25 to 36+00, from reference line to the construction limits on the left
- Site 3: Station 32+75 to 34+40, from reference line to the construction limits on the left.
- Site 5: Station 12+75 to 15+00, from reference line to the construction limits on the left.
- Site 5 and 6: Station 11+50 to 12+75, from reference line to the construction limits on the left and construction limits on the right

Testing indicated that lead-contaminated soil is present at the following locations:

- Site 6: Station 10+75 to 11+25 from reference line to the construction limits on the right.

No underground storage tanks (USTs) were encountered during the testing; however, historical data and metal detector survey indicate USTs may exist at the following locations:

- Site 3: Station 32+75 to 33+00 and Station 34+00 to 34+50, from 20-feet left of reference line to limits of construction left.

- Site 4: Station 30+50 to 31+25, from 20-feet left of reference line to limits of construction left.

- Site 6: Station 299+25 to 299+50, from 20-feet left of reference line to limits of construction left, and Station 12+25 to Station 12+50, from 20-feet right of reference line to limits of construction right.

Contaminated soils and 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. Contaminated soil at other locations shall be managed by the contractor under this contract as specified herein. USTs will be removed by others.

For further information regarding previous investigation at these sites contact:

| | |
|---|---|
| Name: | Kathie VanPrice |
| | Wisconsin DOT, Northeast Region |
| Address: | 944 Vanderperren Way |
| | Green Bay, WI 54304 |
| Phone: | 920-492-7175 |
| Fax: | 920-492-0144 |
| e-mail: | kathie.vanprice@dot.state.wi.us |

**A.3 Coordination**

Coordinate work under this contract with the environment consultant:

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| Consultant: | TRC Environmental Corporation |
| Address: | 708 Heartland Trail, Suite 3000, Madison, WI 53717 |
| Fax: | 608-826-3941 |
| | |
| Contact: | Dan Haak |
| Phone: | 608-826-3628 (office), 608-886-7423 (mobile) |
| e-mail: | DHaak@trcsolutions.com |
| | |
| Contact: | Alyssa Sellwood |
| Phone: | 608-826-3658 (office), 608-234-8001 (mobile) |
| e-mail: | ASellwood@trcsolutions.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 petroleum-contaminated soils to be hauled to the bioremediation facility;

3. Documenting that activities associated with management of petroleum- and lead-contaminated soil are in conformance with the contaminated soil management methods for this project as specified herein;

4. Obtaining the necessary approvals for disposal of petroleum-contaminated soil from the bioremediation facility,

5. Characterizing and obtaining necessary approvals for disposal of contaminated material not previously identified during testing.

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 WDNR-approved bioremediation facility that will be used for disposal of petroleum-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 bioremediation 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 offsite without prior approval from the environmental consultant.

### A.4 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 Kathie VanPrice with the department, at 920-492-7175.

**A.5 Health and Safety Requirements for Workers Remediating Contamination**
*Supplement subsection 107.1 of the standard specifications with the following:*

During excavation activities, expect to encounter soil contaminated with lead, gasoline, diesel fuel, or other petroleum related products. 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 petroleum-contaminated soil at the bioremediation facility is subject to the facility's safety policies.

**B (Vacant)**

**C Construction**
*Supplement subsection 205.3 of the standard specification with the following:*

Control operations in the contaminated areas to minimize the quantity of contaminated soil excavated Contaminated soils are expected to be beyond the excavation limits necessary to complete the work under this project. Control construction operations at these locations to ensure that they do not extend beyond the minimum required to construct utilities and highway improvements unless expressly directed to do so by the engineer.

Assist the environmental consultant in determining the extent of contaminated soil (if any), by performing a backhoe pit investigation, as directed by the environmental consultant, in the following areas:

- Site 3: Station 32+75 to 33+00 and Station 34+00 to 34+50, from 20-feet left of reference line to limits of construction left.

- Site 4: Station 30+50 to 31+25, from 20-feet left of reference line to limits of construction left.

- Site 6: Station 299+25 to 299+50, from 20-feet left of reference line to limits of construction left, and Station 12+25 to Station 12+50, from 20-feet right of reference line to limits of construction right.

Perform the backhoe pit investigation as soon as practical after structures, sidewalks, curb and gutter, and pavement are removed and prior to significant excavations (if any) beginning in those areas. The backhoe pit investigations shall include up to 3 test pits per location, to a maximum depth of 6 feet bgs. The test pit investigations shall be incidental to this pay items.

The environmental consultant will periodically evaluate soil excavated from the contaminated areas to determine if the soil will require offsite disposal. 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 managed 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 Petroleum-contaminated Material: PID readings less than 10 ppm and no observation of staining or petroleum odor for reuse as fill within the construction limits, or

- Petroleum-contaminated Soil: Significant petroleum odor, staining, and/or PID readings greater than 10 ppm for off-site treatment and disposal at the WDNR-licensed bioremediation facility, or

- Lead-contaminated Soil: Soil removed from Station 10+75 to 11+25 from reference line to the construction limits on the right for reuse as fill within the construction limits, or

- Potentially Contaminated: Contaminated material from areas other than listed above for temporary stockpiling and additional characterization prior to disposal.

If contaminated soils and/or USTs are encountered outside the limits of known contamination on the project, terminate excavation activities in the area and notify the engineer. Environmental consultant will screen the potentially-contaminated material and some material may require additional characterization prior to disposal. Provide for the temporary stockpiling of up to 100 cubic yards of potentially-contaminated soil on-site for 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 offsite disposal to the WDNR approved bioremediation facility. Verify that vehicles used to transport contaminated material are licensed for such activity in accordance with applicable state and federal regulations. 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 bioremediation and/or disposal so as not to contain free liquids.

**D Measurement**

The department will measure Excavation, Hauling, and Disposal of -Contaminated Soil in tons of contaminated soil accepted by the bioremediation facility as documented by weight tickets generated by the bioremediation facility. Load tickets must be delivered to the engineer within 10 business days of the date on which the soil was accepted by the bioremediation facility.

**E 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 -Contaminated Soil | Ton |

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

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