

July 29, 2022

WDNR-Remediation and Redevelopment Program
1027 West St. Paul Avenue
Milwaukee, Wisconsin 53233

Attn: Eric Amadi
Advanced Hydrogeologist
Eric.Amadi@Wisconsin.gov

Re: NR 716 Site Investigation Work Plan
CITY OF S. MILWAUKEE VACANT PARCEL AND MIDWEST TANNING CORP. (FMR)
222 N. Chicago Avenue
South Milwaukee, Wisconsin 53172
WDNR BRRTS No. 02-41-556175 & 02-41-556117
PSI Project No.: 00542644

Dear Mr. Amadi:

PSI has completed a Site Investigation Work Plan for the two Walmart-owned parcels located at 222 N. Chicago Ave. and 1200 Davis Ave, in South Milwaukee, Wisconsin. The plan has been prepared in general accordance with NR 716. An electronic copy has been submitted to the WDNR.

Please contact PSI at (262) 521-2125 with any questions or comments you may have.

Respectfully submitted,

PROFESSIONAL SERVICE INDUSTRIES, INC.



Patrick J. Patterson, P.E., P.G.
Senior Engineer
Environmental Services



Larry Raether, P.E.
Department Manager
Environmental Services

Enclosures

NR 716 SITE INVESTIGATION WORK PLAN

FOR:

**WALMART STORE #5667
222 N. Chicago Avenue
South Milwaukee
Milwaukee County, Wisconsin 53172
WDNR BRRTS Nos. 02-41-556117 & 02-41-556175**

PREPARED FOR:

**WALMART, INC.
702 SW 8th Street
Bentonville, AR 72716**

PREPARED BY:

**PROFESSIONAL SERVICE INDUSTRIES, INC.
821 Corporate Court
Waukesha, WI 53189
Telephone (262) 521-2125**

PSI PROJECT NO. 00542644

July 29, 2022



A handwritten signature in black ink, appearing to read "Patrick J. Patterson".

Patrick J. Patterson, P.E., P.G.
Senior Engineer

A handwritten signature in black ink, appearing to read "Larry Raether".

Larry Raether, P.E.
Department Manager

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1.0 INTRODUCTION

Professional Service Industries, Inc. (PSI) has prepared this Site Investigation Work Plan (SIWP) for the Walmart Store #5667 parcel located in South Milwaukee, Wisconsin, referred to herein as the "Subject Property." The Subject Property consists of two open ERP cases referenced as City of S. Milwaukee Vacant Parcel and Midwest Tanning Corp. (Fmr). This SIWP has been prepared in general accordance with NR 716. Site information is included under this section.

Site Name: City of S. Milwaukee Vacant Parcel and Midwest Tanning Corp. (Fmr)
(Existing Walmart Store #5667)

Site Address: 222 S. Chicago Avenue
South Milwaukee, Wisconsin 53172

The Subject Property is geographically located in the Northeast $\frac{1}{4}$ of the Northwest $\frac{1}{4}$ of Section 2, in Township 5 North, Range 22 East, in the City of South Milwaukee, Milwaukee County, State of Wisconsin. The location of the existing Walmart Store #5667 parcel is depicted on the attached Site Location Map. The general location of the Subject Property is shown on the Site Features Diagram, included herein.

WDNR BRRTS Nos: 02-41-556117 and 02-41-556175

WDNR FID No: 241043330 and 341189420

Property Owner: Walmart, Inc.

RP Representative: Kevin Butzlaff, Senior Manager, Stormwater Compliance
Environmental Health & Safety-Compliance
702 SW 8th Street
Bentonville, AR 72716
Telephone: (501) 425-4849
E-mail address: Kevin.Butzlaff@walmart.com

Consultant: Patrick J. Patterson, P.E., P.G.
Project Manager
Professional Service Industries, Inc.
821 Corporate Court
Waukesha, WI 53189
Telephone: (262) 521-2125
Email address: patrick.patterson@intertek.com

1.1 PROJECT BACKGROUND

The Subject Property consists of an approximate 9.6-acre commercial parcel located at 222 N. Chicago Avenue in the City of South Milwaukee, Wisconsin. An approximate 113,000 square foot commercial structure is situated in the western portion of the parcel. Asphalt parking areas, concrete drives and sidewalks, and isolated landscaped areas are present generally located to the north, east and west of the building. The Subject Property is currently used as Walmart Supercenter #5667.



The surrounding properties to the north, east, and south are generally occupied by commercial, manufacturing facilities and multifamily properties. An existing railroad line is present to the west of the Subject Property. The general location of the Subject Property is shown on the Site Location Map in the Appendix. A diagram showing the general site features is also included in the Appendix.

Two Phase I Environmental Site Assessments (Phase I ESA) were performed by PSI in 2010 for Walmart. One of the Phase I ESAs was completed on the eastern parking lot portion of the existing Walmart property, which was historically occupied by several manufacturing, commercial and residences. One of the manufacturing facilities included the former Rapco Leather Company. The other Phase I ESA was completed on the western portion that is currently occupied by the existing Walmart store, which was historically occupied by Midwest Tanning Corporation.

Numerous site investigation activities have been completed on the entire Walmart property from 1990s through present day. Contamination from previous historical property usages on both parcels have been detected in both soils and groundwater. These contaminants generally consist of RCRA Metals, Polynuclear Aromatic Hydrocarbons (PAHs), Volatile Organic Compounds (VOCs), and other compounds.

In a letter issued August 17, 2020, the WDNR stated that responsible parties (RPs) are required to assess for emerging contaminants and their potential impacts on all sites that have not yet been closed. Emerging contaminants include perfluoroalkyl and polyfluoroalkyl substances (PFAS), 1,4-dioxane and other compounds. Therefore, the WDNR has paused the final approval of the completed SIR pending an evaluation of potential PFAS compounds and other applicable emerging contaminants that were historically or are presently produced, used, handled, stored, or disposed at the site, per Wis. Admin. Code § NR 716.07 and Wis. Admin. Code § NR 716.09.

Because of the August 17, 2020 WDNR letter and since both parcels were formerly occupied by tanning facilities or facilities that handled tanned products, a potential exists that PFAS containing materials were used, handled, stored or disposed on these parcels. As such, it was recommended that additional investigative activities be performed to evaluate the presence of PFASs within the groundwater associates with six existing wells present on the Walmart property. These wells consist of MW-1 and MW-2 that are present in the eastern portion of the Subject Property and MW-4 through MW-7 that are present in the western portion of the Subject Property. The previous well MW-3 was present on the Burger King restaurant parcel located on the northwest corner of N. Chicago Avenue and Davis Avenue, but has since been abandoned prior to the development of the restaurant. In review of the historical property information, no obvious evidence of the use, handling, storage or the disposal of 1,4-dioxane or other compounds on the Subject Property was observed or apparent within the evaluated data. As such, further evaluation for the presence of 1,4-dioxane or other compounds is not warranted.

This SIWP has been prepared for the recommended evaluation for the presence of PFASs in the groundwater.



2.0 PHYSIOGRAPHICAL AND GEOLOGICAL SETTING

2.1 LOCATION OF THE SUBJECT PROPERTY

PSI reviewed the United States Geological Survey (USGS) South Milwaukee Quadrangle Map, dated 1959 and revised 1994, showing the area of the Subject Property. According to the contour lines on the topographic map, it is located at approximately 660 feet above mean sea level (MSL). The contour lines around the Project Area indicate that the area is generally flat with a slight slope to the east. The nearest water body is Oak Creek to the south. Lake Michigan is located further to the east. The site location is shown on Figure 1. A diagram showing the approximate locations of the six existing groundwater monitoring wells is also included herein.

2.2 PHYSICAL CHARACTERISTICS OF THE SUBJECT PROPERTY

Quaternary Deposits & Geomorphology

Based on PSI's review of the "Soil Survey of Milwaukee and Waukesha Counties, Wisconsin" publication by the United States Department of Agriculture (USDA) Soil Conservation Service (issued July 1971), the Subject Property is indicated to be within an area classified as Clayey Land. These materials consist of clay to clay loam fill soils and is variable in texture and can contain debris such as rocks, bricks, pavement and deleterious material. Sand and silty sand fill layers can also be present in these Clayey Land areas of Milwaukee County. This fill material and the underlying till material is above dolomite bedrock, which is approximately 50 to 100 feet below grade.

Hydrogeology

The estimated hydraulic conductivity of the fill material is significantly variable due to the type of fill, which is generally clayey. It is anticipated that the conductivity could vary from high permeable material ($>1 \times 10^{-3}$ cm/sec) to low permeable material ($<1 \times 10^{-7}$ cm/sec). This is consistent with the subsurface soils encountered within the completed probes/borings/wells placed on the Subject Property, which were varying layers of shallow clayey, silty and sandy fill soils and native deeper clayey and sandy soils to the maximum depths explored. Based upon previous field collected data, the groundwater flow direction is to the east/southeast towards Lake Michigan and Oak Creek.

Surface Drainage

Surface drainage is generally to the east to municipal stormwater catch basin present on the Subject Property and are connected to the City of South Milwaukee stormwater system. The surface water drainage at the Subject Property lies within the Lake Michigan Watershed.

Potential Migration Pathways

Soil and groundwater contamination were detected in several samples collected from the probes and wells placed on the Subject Property. However, the groundwater table is generally at depths ranging from about 14 feet to 23 feet below grade. The exception is an apparent perched groundwater level in MW-5 at about 10 feet below grade. Due to the general depth of the groundwater, no migration pathways would be affected by contamination within the groundwater, and no migration pathways are in the general area of the perched groundwater level near MW-5. Further, a soil vapor evaluation was performed in the eastern portion of the Subject Property (City of South Milwaukee-Vacant Parcel) due to



residual VOC-impacted soils. The evaluation indicated no vapors were present within the subsurface soils located along existing underground utilities nor within the utility lines in the northern/northeastern portion of the Subject Property.

Soil Conditions

The surface material at the previously completed probe and well locations generally consisted of about 4 to 6 inches of asphalt or 5 to 6 inches of concrete overlying granular base course fill material or about 5 to 10 inches of topsoil fill material. The underlying fill material consisted of silty sand to sandy silt and silty clay to sandy clay to depths of about 5 to 10 feet below grade. The underlying natural soils encountered beneath the fill material consisted generally of brown silty clay to clayey silt to depths of about 10 to 20 feet below grade brown to grayish brown silty sand and sandy silt to silt was encountered beneath the clayey soils to the termination depths of about 20 to 30 feet below grade.

Shallow Groundwater Conditions

On March 15, 2021, groundwater levels were measured within the six existing monitoring wells (MW-1, MW-at depths of about 9.62 to 23.88 feet below the top of the well casings. Based upon the groundwater levels and surrounding surface features, the regional shallow groundwater flow direction is east to southeast towards Lake Michigan and Oak Creek.

3.0 SAMPLING AND ANALYSIS STRATEGY

3.1 SCOPE OF WORK

The general proposed scope of work on the Subject Property will consist of the following activities: the collection of water samples from the six existing wells; laboratory analysis of water samples for the presence of PFAS contaminants; and data analysis and interpretation. Following data evaluation, and if favorable test results are received, a revised Site Investigation Report for each open ERP case will be prepared.

1. These services will include purging these wells in accordance with WAC NR141 with certified PFAS-free sampling equipment and PPE and the collection of groundwater samples per WDNR required PFAS sampling procedures to be tested for the presence of the current list of WDNR-suggested PFAS (EPA Method 537M). In addition, one field blank will be collected and tested for the presence of WDNR PFAS listed compounds (EPA Method 537M).
2. Upon completion of the sampling event services, a groundwater monitoring letter report will be prepared for the sampling event and will discuss the results from both BRRTS cases. The report will include: a summary of the work performed, laboratory analytical reports, as well as conclusions and recommendations based upon the information gathered. An electronic copy of the report will be provided to the client. If necessary, hard copies will be provided upon request. If PFAS are detected in the groundwater samples, additional groundwater investigation activities would be required. If no PFAS are detected and following client approval, the emerging contaminants information will be included in case closure requests submitted to the WNDR for both sites.

3.2 QUALITY ASSURANCE/QUALITY CONTROL MEASURES

All equipment decontamination, sample collection, sample custody records, and analysis will be



performed in general accordance with methods prescribed by the United States EPA and the WDNR.

Groundwater samples will be collected with PFAS-free disposal bailers and rope. The groundwater samples from the wells will be handled with disposable Nitrile gloves (PFAS-free) during initial collection, and when placed into laboratory jars. These procedures will be performed to reduce the potential for cross-contamination between sample locations.

Because of previous property usage, the collected groundwater and field blank samples will be submitted to an analytical laboratory to test for the presence of WDNR PFAS listed compounds (EPA Method 537M). The groundwater samples will be placed within PFAS-free, clean laboratory provided jars that are appropriately preserved, as necessary. The samples will be placed on ice, chain of custody procedures initiated, and they will be submitted to a WDNR-licensed laboratory.

4.0 GENERAL

4.1 SCHEDULE

It is anticipated that the field activities will be performed in August 2022. Assuming there are no significant delays in the project and the analytical test results are favorable, work of this nature can usually be completed within one to two weeks.

4.2 UTILITIES

Since no probing or well installation activities are planned, Diggers Hotline for public utility clearance will not be contacted prior to the start of probing activities.

4.3 RESPONSIBILITIES & PROJECT COORDINATION

The client is responsible for obtaining access to the Subject Property for PSI and their subcontractors to perform the work.

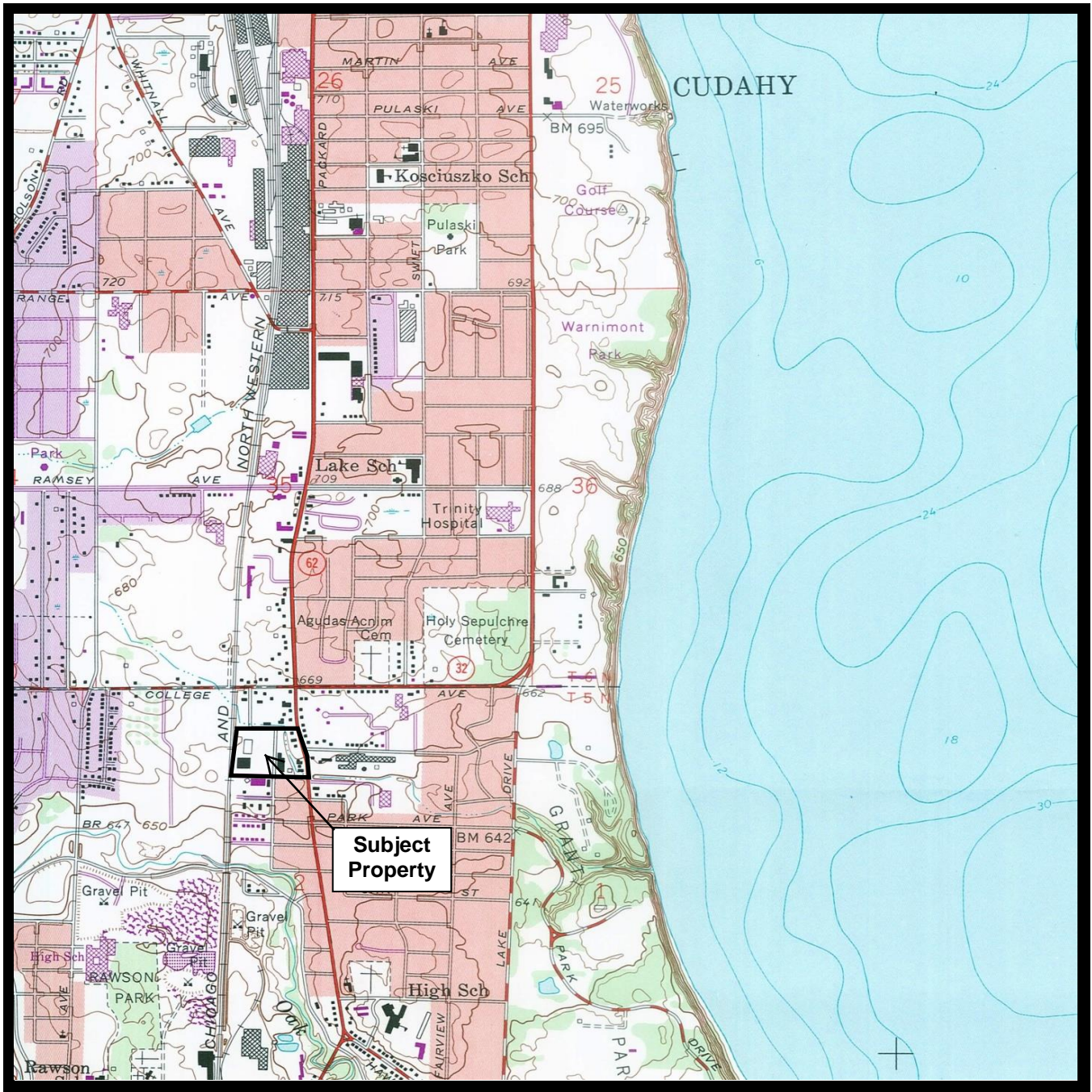
4.4 SUBMITTAL CERTIFICATION

"I, Patrick J. Patterson, hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code, am registered in accordance with the requirements of ch. GHSS 2, Wis. Adm. Code, or licensed in accordance with the requirements of ch. GHSS 3, Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code."

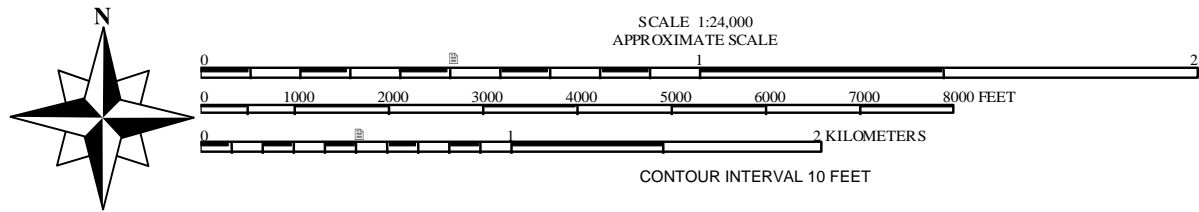
7/29/2022

Signature and Title

Date



Source: United States Geological Survey, South Milwaukee, Wisconsin, 7.5-Minute Topographic Maps, 1958, photorevised 1971, photoinspected 1976



Northeast 1/4 of the Northwest 1/4, Section 2, Township 5 North, Range 22 East

BRRTS No. 02-41-556175 & 02-41-556117

<p>psi Information To Build On Engineering • Consulting • Testing</p>	<p>Environmental Services 821 Corporate Court Waukesha, Wisconsin 53189 (262) 347-0898 Fax (262) 521-2471</p>	<p>City of S Milwaukee Vacant Parcel and Midwest Tanning Corp. South Milwaukee, Wisconsin</p>	DATE: 7/29/2022	PROJECT NO: 00542644
			<p>Figure 1</p>	

Site Location Map

SITE FEATURES DIAGRAM
BRRTs No. 02-41-556117 &
BRRTs No. 02-41-556175

11th Ave

Commercial

Commercial

Commercial

Commercial

Commercial

Carroll Ave

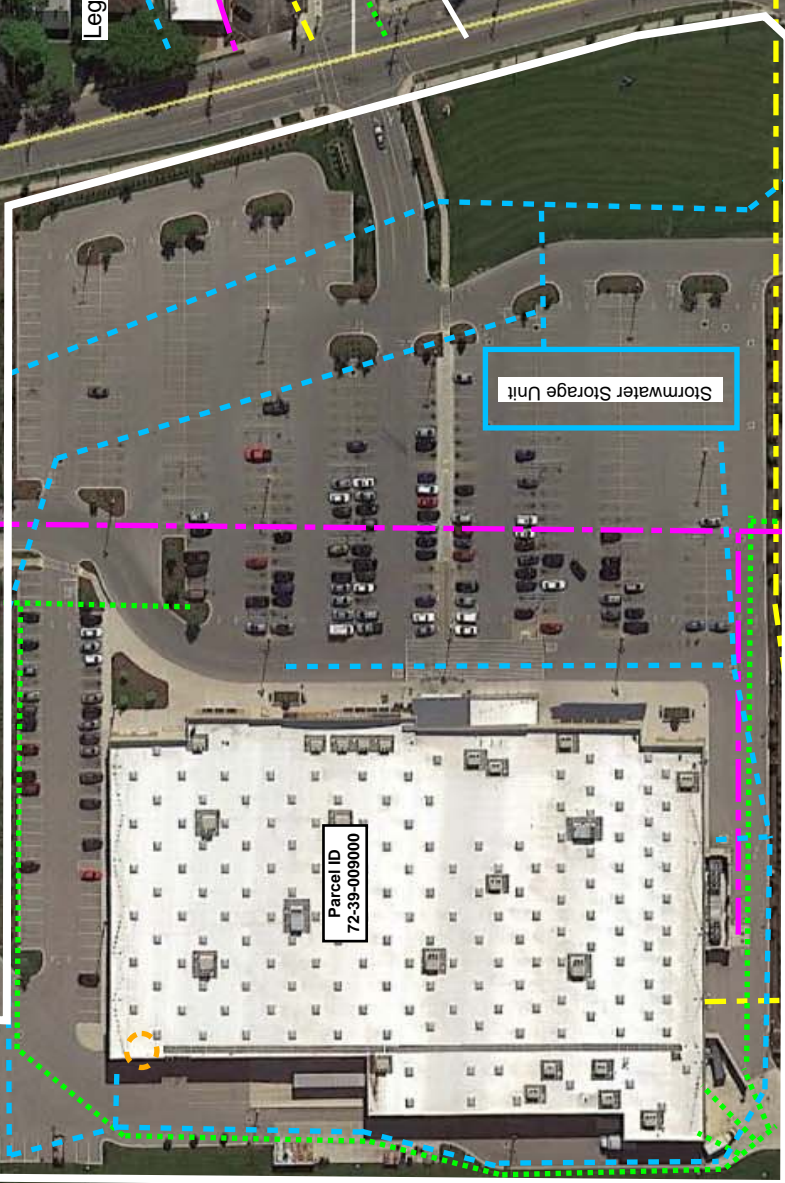
Commercial

Commercial

Commercial

Commercial

Commercial



Parcel ID
72-39-009000

7239995

300'

150'

0

Scale

Legend:

: Stormwater Utility Location

: Sanitary Utility Location

: Gas Utility Location

: Water Utility Location

: Approximate Property Line
(former Midwest Tanning Corp)

Residential

Commercial

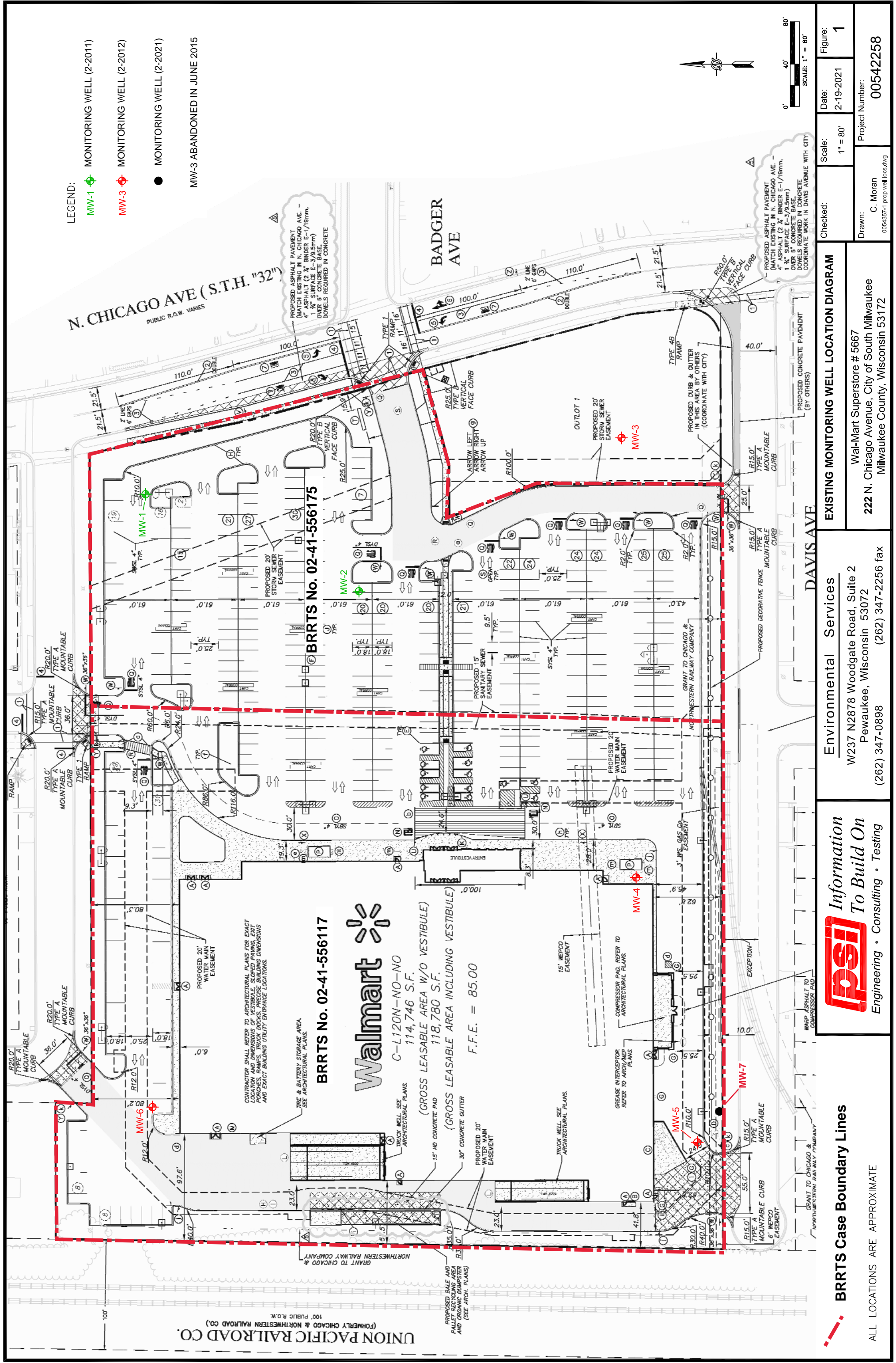
Residential

Manufacturing

Residential

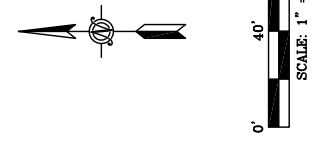
Residential

Midwest Tanning Corp (Fmr) and
City of S. Milwaukee Vacant Parcel
South Milwaukee, Wisconsin 53172



- LEGEND:
- MW-1 ◆ MONITORING WELL (2-2011)
 - MW-3 ◆ MONITORING WELL (2-2012)
 - MONITORING WELL (2-2021)

MW-3 ABANDONED IN JUNE 2015



Environmental Services	EXISTING MONITORING WELL LOCATION DIAGRAM	Checked:	Scale:	Date:	Figure:
W237 N2878 Woodgate Road, Suite 2 Pewaukee, Wisconsin 53072 (262) 347-0898	Wal-Mart Superstore # 5667 222 N. Chicago Avenue, City of South Milwaukee Milwaukee County, Wisconsin 53172		1" = 80'	2-19-2021	1
Information To Build On Engineering • Consulting • Testing		Drawn:			
		C. Moran 0054357-1_prop_well_locs.dwg			00542258
BRRTS Case Boundary Lines					
ALL LOCATIONS ARE APPROXIMATE					