

## COMMUNITY OVERVIEW

Stanley, Wisconsin is located within Chippewa County and is less than 30 miles (30 minutes) from Eau Claire, WI.

Situated in the Chippewa Valley Region of Wisconsin, Stanley West Industrial Park offers over 100 acres of Certified Shovel Ready land. Located just east of Eau Claire it is centrally located between Minneapolis-St. Paul, Green Bay, and the Chicago markets. Stanley Wisconsin's Highway 29 corridor is a great location where industry, agriculture and a sense of community coexist. With a modern infrastructure, shovel ready site, available skilled workforce and a great quality of life-Stanley and Chippewa County are at the top of the list for target industries: metal manufacturing, logistics, agriculture, and energy.

- ✓ 110-acre site with ~107 developable acres (23 acres graded and padded)
- ✓ Located along State Hwy 29, a four-lane divided highway, 46 miles from I-94
- ✓ Industrial zoning
- ✓ Zoning of surrounding properties compatible with industrial development
- ✓ American Land Trust Association (ALTA) survey
- ✓ No known utility easements that would prevent development
- ✓ Wetlands delineation completed
- ✓ Site not located on or adjacent to flood plain
- ✓ No known environmental impediments to industrial development
- ✓ No known impediments to immediate development related to endangered species
- ✓ Phase 1 Archeological complete; no known archaeological/historical impediments to industrial development
- ✓ Minneapolis-St. Paul International Airport (MSP) 107 miles away
- ✓ Chippewa Valley Regional Airport (8,100-foot runway) 30 miles away
- ✓ St. Paul Port 111 miles away
- ✗ No rail planned; Ability for future trans load facility 0.2 mi North of property.
- ✓ Fire insurance classification 4 applies to community



## ABOUT WISCONSIN'S CERTIFIED IN WISCONSIN PROGRAM

This site has been designated as "suitable for development"\* by SSG and the Wisconsin Economic Development Corporation (WEDC). The site meets pre-defined criteria for site size, availability of utility and transportation infrastructure, physical and technical condition, environmental assessments, support by local communities, and other factors.

For more information about this Wisconsin Certified Site, please visit [LocateInWisconsin.com](http://LocateInWisconsin.com) or contact:

Charlie Walker  
President/CEO  
Chippewa Economic Development Corporation  
715-723-7150  
[cwalker@chippewa-wi.com](mailto:cwalker@chippewa-wi.com)

\*Site designation is based on information that has been submitted to SSG and WEDC, and that SSG and WEDC believe to be true. SSG and WEDC have no liability or responsibility for existing or future conditions of the sites.

# COMMUNITY INTRODUCTION

REQUIREMENT	COMMENTS
<p><b>Community overview</b></p> <ul style="list-style-type: none"> <li>General community fit for industrial activity</li> </ul>	<ul style="list-style-type: none"> <li>Stanley population: ~4K; Chippewa County population: ~60K; roader region (~50 mile radius) population: ~250K</li> <li>3.6% unemployment (as of October 2023)</li> <li>Chippewa County recently received an international award for local college training programs focused on local manufacturing industry: a consortium of ~19 local companies designed curriculum with Chippewa Valley Technical College</li> </ul>
<p><b>Site environment overview</b></p> <ul style="list-style-type: none"> <li>General surroundings fit for industrial activity</li> </ul>	<ul style="list-style-type: none"> <li>The property is located in proximity to several other industrial users in the chemical manufacturing and construction materials manufacturing space. This park also benefits from moderate electrical capacity and access to rail service.</li> </ul>
<p><b>Roadway access</b></p> <ul style="list-style-type: none"> <li>Proximity to interstate and other highways providing convenient access for labor and logistics</li> <li>Access roads in place to site, or plans in place to extend access road(s) to site</li> </ul>	<ul style="list-style-type: none"> <li>Property is located along WI Hwy 29, a four-lane divided highway.</li> <li>Property is 46 miles to nearest interstate (I-94) and 66 miles to I-39.</li> </ul>
<p><b>Rail Access</b> (if applicable) – not required</p> <ul style="list-style-type: none"> <li>feasibility of service (if site is to be marketed as rail-served)</li> </ul>	<ul style="list-style-type: none"> <li>Rail service is not currently planned for the industrial park; however, Canadian National Railway Company (CN) operates the rail line 0.2 miles north of the property that serves Ace Ethanol.</li> <li>Future trans-load facility ability on CN rail at the Northside Elevator Site (across the road from park)</li> </ul>
<p><b>Commercial Airport Access</b> – Access to airport(s) with commercial air service</p> <ul style="list-style-type: none"> <li>Driving distance to proximate commercial airport(s) and overview of service available</li> </ul>	<ul style="list-style-type: none"> <li>MSP Airport is 107 miles from the property.</li> </ul>
<p><b>Freight Airport Access</b> – Access to airport(s) with freight air service</p>	<ul style="list-style-type: none"> <li>Chippewa Valley Regional Airport is 30 miles from the property and has an 8,100-foot runway</li> </ul>
<p><b>General community fit for industrial activity</b></p>	<ul style="list-style-type: none"> <li>Park is a publicly owned property in an established industrial area. Community has invested in a graded and padded site within the park. The park boasts strong electric service capabilities as well as access to rail infrastructure.</li> </ul>
<p><b>General surroundings fit for industrial activity</b></p>	<ul style="list-style-type: none"> <li>Adjacent land use is agricultural and industrial and presents as a suitable area for industrial development. Ace Ethanol is located to the northeast of the of the property.</li> <li>Northside Elevator has constructed a fertilizer plant and commodity transload facility to the west of the property.</li> </ul>



<p><b>Access roads</b> in place to site, or plans in place to extend access road(s) to site</p>	<ul style="list-style-type: none"> <li>345th St. (gravel road) provides primary ingress/egress route off Hwy 29 and will need to be upgraded to accommodate industrial-grade traffic.</li> </ul>
<p><b>Feasibility of service</b> (if site is to be marketed as rail-served)</p>	<ul style="list-style-type: none"> <li>Rail service is not currently planned for the industrial park.</li> </ul>
<p><b>Driving distance to proximate commercial airport(s)</b> and overview of service available</p>	<ul style="list-style-type: none"> <li>Above</li> </ul>
<p><b>Description of the handling capacity of each proximate freight airport</b> (e.g., current tonnage/year, runway length)</p>	<ul style="list-style-type: none"> <li>Above</li> </ul>

# SITE INTRODUCTION

REQUIREMENT	COMMENTS
<p><b>Master Site plan</b> and/or site plan illustrating exact dimensions and number of parcels for the specific site being submitted for certification</p> <ul style="list-style-type: none"> <li>Minimum of 50 contiguous developable acres</li> </ul>	<ul style="list-style-type: none"> <li>Master Site Plan has been provided that depicts four (4) parcels totaling 106.95 developable acres. A 23-acre graded pad is finished on the northwestern part of the property.</li> </ul>
<p><b>Aerial photograph</b> illustrating the specific site being submitted for certification as well as the surrounding properties</p>	<ul style="list-style-type: none"> <li>Aerial photo and KMZ file have been submitted that clearly delineate property boundary. Adjacent property primarily consists of raw land and agricultural use. Industrial companies including Ace Ethanol and Northside Elevator are within close proximity to the site.</li> </ul>
<p><b>ALTA Survey</b> (American Land Trust Association) inclusive of site being submitted for certification</p>	<ul style="list-style-type: none"> <li>An ALTA Survey was completed in November 2022 on the property to illustrate easements and site conditions.</li> </ul>
<p><b>Flood Plain map</b> (FEMA-produced FIRM map)</p> <ul style="list-style-type: none"> <li>No part of the site may be located on (or directly adjacent to) a flood plain</li> </ul>	<ul style="list-style-type: none"> <li>Property is located in FEMA Flood Zone X – outside the 100- and 500-year flood zone.</li> </ul>

<p><b>Ownership</b> – entire site must be wholly controlled by a single owner with documented willingness to sell to an industrial user</p> <ul style="list-style-type: none"> <li>• Certificate of title</li> <li>• Letter from property owner/option holder stating that site is for sale/lease</li> </ul>	<ul style="list-style-type: none"> <li>• Property consists of four (4) tax parcels and is owned by the City of Stanley.</li> </ul>
<p><b>Asking Price</b> – current asking price for sale or lease of the land must be indicated</p> <ul style="list-style-type: none"> <li>• Documentation of asking price on a per-acre basis</li> </ul>	<ul style="list-style-type: none"> <li>• Current asking price is \$12,500 per acre. The city is receptive to negotiating the land price depending on economic impact.</li> </ul>
<p><b>Documentation</b> (letter or map from FAA) indicating any restrictions related to airport proximity</p>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
<p><b>Maps of all utility infrastructure</b> directly proximate to (or intersecting) the site</p>	<ul style="list-style-type: none"> <li>• Master Utility System Map has been created that identifies location of electric, natural gas, water, and wastewater infrastructure proximate to the site.</li> </ul>

# SITE PHYSICAL CHARACTERISTICS

REQUIREMENT	COMMENTS
<p><b>Topography</b> – no significant topography issues that could present major obstacles to industrial development of the site</p>	<ul style="list-style-type: none"> <li>• Site is generally flat with an approximate elevation change of 50 ft. across the entire site. A topographic map with clearly defined contour intervals (5 ft. and 1 ft.) is available.</li> </ul>
<p><b>Easements</b> – site not intersected by utility or any other easement that would prevent development of 50 contiguous acres of the site</p>	<ul style="list-style-type: none"> <li>• No known utility easements on site</li> </ul>
<p><b>Wetlands</b> – demonstrate that a user can utilize 50 contiguous acres that are not affected by wetlands</p>	<ul style="list-style-type: none"> <li>• Completed June 2023</li> </ul>

<p><b>Environmental Assessment</b> – no known environmental impediments to immediate industrial development</p> <ul style="list-style-type: none"> <li>Phase I within the past 2 years; Remediated sites provide completed Phase II and documentation of liability protection</li> </ul>	<ul style="list-style-type: none"> <li>Phase I Hazardous Materials Assessment completed March 2023 on approximately 121 acres. No potential hazardous materials sites were identified at the property. See report for full details.</li> </ul>
<p><b>Archaeological / Historical</b> – no known archaeological / historical impediments to immediate industrial development</p>	<ul style="list-style-type: none"> <li>Phase I archaeological investigation was completed in June 2023 on approximately 111 acres. No archaeological sites were identified within the project area, and no additional investigation is recommended. See report for full details.</li> </ul>
<p><b>Endangered Species</b> – no known impediments to immediate industrial development related to endangered species</p>	<ul style="list-style-type: none"> <li>Preliminary desktop analysis of site yielded no development concerns in relation to endangered species.</li> <li>Endangered resources review verification form from Wisconsin DNR provided. In June 2023, Wisconsin DNR reviewed the property and found that the project is covered by “Table 2” of the Broad Incidental Take Permit/ Authorization for No/Low Impact Activities. The no/low BITP/A covers projects that the DNR has determined will have no impact or a minimal impact to endangered and threatened species in the state.</li> </ul>
<p><b>Fire Protection</b></p> <ul style="list-style-type: none"> <li>Fire Insurance Classification Rating</li> <li>Distance to the nearest servicing fire department</li> </ul>	<ul style="list-style-type: none"> <li>Class 4 rating applies to the community.</li> <li>Less than three miles to the Stanley Fire Department.</li> </ul>
<p><b>Topographic map</b> with clearly defined contour intervals of 2’ or less</p>	<ul style="list-style-type: none"> <li>A current topographical map of the site has been produced. Site is generally flat with an approximate elevation change of 50 ft. across the entire site.</li> </ul>
<p><b>Geotechnical</b> – minimum of 5 soil borings (for 50-acre site); no presence of sink holes or limestone caves; suitable water content / water table depth</p>	<ul style="list-style-type: none"> <li>Geotechnical study consisted of 77 borings and resulted in recommendation of seismic class “C.” See report for details.</li> </ul>

# ZONING

REQUIREMENT	COMMENTS
<p><b>Industrial zoning</b> (or equivalent) currently in place, or zoning change procedure underway as of field investigation</p> <ul style="list-style-type: none"> <li>Zoning certificate and relevant ordinance; or, letter from municipal authorities communicating status of zoning change procedure as of field investigation date</li> </ul>	<ul style="list-style-type: none"> <li>Property is in the City of Stanley jurisdiction and is zoned Industrial. A zoning change will not be necessary for industrial use.</li> </ul>

<p><b>Surrounding area zoning</b> – zoning of surrounding properties compatible with industrial development of site</p> <ul style="list-style-type: none"> <li>• Comprehensive Plan of area (if applicable)</li> <li>• Zoning map of area including site (if applicable)</li> <li>• Existing/planned zoning of surrounding land</li> <li>• Codes, Covenants, and Restrictions on site and surrounding sites, as applicable</li> </ul>	<ul style="list-style-type: none"> <li>• Agricultural and industrial zoned land surrounds the property.</li> </ul>
<p><b>Zoning certificate and relevant ordinance;</b> or, letter from municipal authorities communicating status of zoning change procedure as of field investigation date</p>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
<p><b>Comprehensive plan of area</b> (if applicable)</p>	<ul style="list-style-type: none"> <li>• N/A</li> </ul>
<p><b>Zoning map of area including site</b> (if applicable)</p>	<ul style="list-style-type: none"> <li>• A zoning map of the area has been provided by the City of Stanley.</li> </ul>
<p><b>Existing/planned zoning of surrounding land</b></p>	<ul style="list-style-type: none"> <li>• Agricultural and industrial zoned land surrounds the property.</li> </ul>
<p><b>Codes, covenants, and restrictions</b> on site and surrounding sites, as applicable</p>	<ul style="list-style-type: none"> <li>• Codes, covenants, and restrictions have not been established at the property.</li> </ul>

# ELECTRIC UTILITY INFRASTRUCTURE

REQUIREMENT	COMMENTS
<p><b>Proximate electric power</b> infrastructure availability and capacities</p> <ul style="list-style-type: none"> <li>• Utility maps indicating location and current size / capacity of proximate transmission lines, distribution lines, and substations; Available capacity that could be provided to the site for each of the above</li> </ul>	<ul style="list-style-type: none"> <li>• Chippewa Valley Electric Cooperative is the power provider at this property.</li> <li>• Dairyland Power Cooperative provides power generation and transmission to Chippewa Valley Electric Cooperative.</li> <li>• 7.2 kV and 12.47 kV lines are located on site.</li> <li>• 115 kV line is 100 ft from the property.</li> <li>• Delmar Substation is approximately one mile from the property.</li> </ul>

<p><b>Detailed description of dual feed potential</b> (current or proposed redundant service)</p> <ul style="list-style-type: none"> <li>Overview (and map) illustrating dual feed electric service routes, including location, size and capacity of each node of delivery (substation, distribution line, etc.)</li> </ul>	<ul style="list-style-type: none"> <li>Redundant service is feasible up to 7.5 MW. Loads greater than this would require substation upgrades.</li> </ul>
<p><b>Maps of all utility infrastructure</b> directly proximate to (or intersecting) the site</p>	<ul style="list-style-type: none"> <li>Master Utility System Map has been created that identifies location of electric, natural gas, water, and wastewater infrastructure proximate to the site.</li> </ul>

# GAS, WATER, & WASTEWATER UTILITY INFRASTRUCTURE

## NATURAL GAS

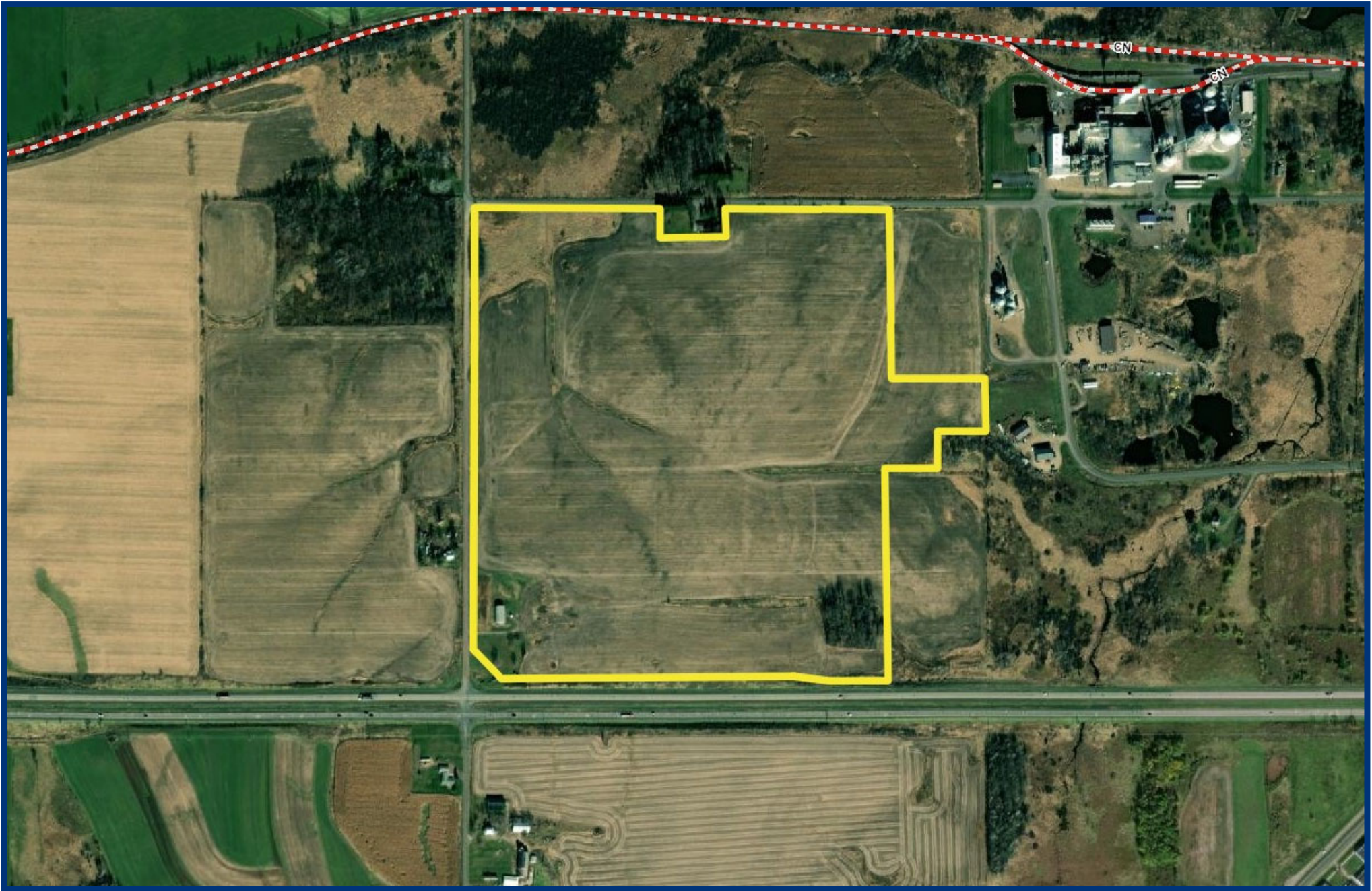
REQUIREMENT	COMMENTS
<p><b>Proximate natural gas infrastructure</b> availability and capacities</p> <ul style="list-style-type: none"> <li>Utility maps indicating location and current size / capacity of proximate transmission lines, distribution lines, and substations; Available capacity that could be provided to the site for each of the above</li> </ul>	<ul style="list-style-type: none"> <li>Viking is the natural gas transmission provider and Wisconsin Gas is the distribution provider to the property.</li> <li>4-inch polyethylene line operating at 60 pig is 100 ft. from the property and a 4-inch steel line operating at 475 pig is 380 ft. from the property. Current infrastructure is expected to be able to serve up to 4,000 mcf per month. High-level estimated \$63,000 and four months to extend the 4-inch line approximately 2,500 ft. to the graded-and-padded site being established at the park.</li> </ul>
<p><b>Introduction of any proposed improvements</b> to / extensions of natural gas service to the site</p>	<ul style="list-style-type: none"> <li>Demands greater than 4,000 mcf per month will require further engineering analysis to determine necessary upgrades, including cost and schedule, to serve the property.</li> </ul>

## WATER & WASTEWATER

REQUIREMENT	COMMENTS
<p><b>Proximate water and wastewater infrastructure</b> availability and capacities</p>	<ul style="list-style-type: none"> <li>City of Stanley is the water provider to the property. 12-inch main is approximately 500 ft. east of the property located at intersection of West Maple Street and Janicki Road</li> <li>City of Stanley provides water treatment plant capacity to the property. Permitted capacity of the Stanley water treatment plant is 1.4 mgd, and excess capacity is 50,000 gpd, factoring peak utilization.</li> <li>City of Stanley provides wastewater service to the property. 8-inch main is approximately 500 ft. east of the property, located at intersection of West Maple Street and Janicki Road. Excess capacity of the wastewater infrastructure serving the property is 30,000 gpd.</li> <li>City of Stanley provides wastewater treatment plant capacity to the property. Permitted capacity of Stanley wastewater treatment plant is 789,000 gpd, and excess capacity is 50,000 gpd.</li> </ul>







# Business Park West

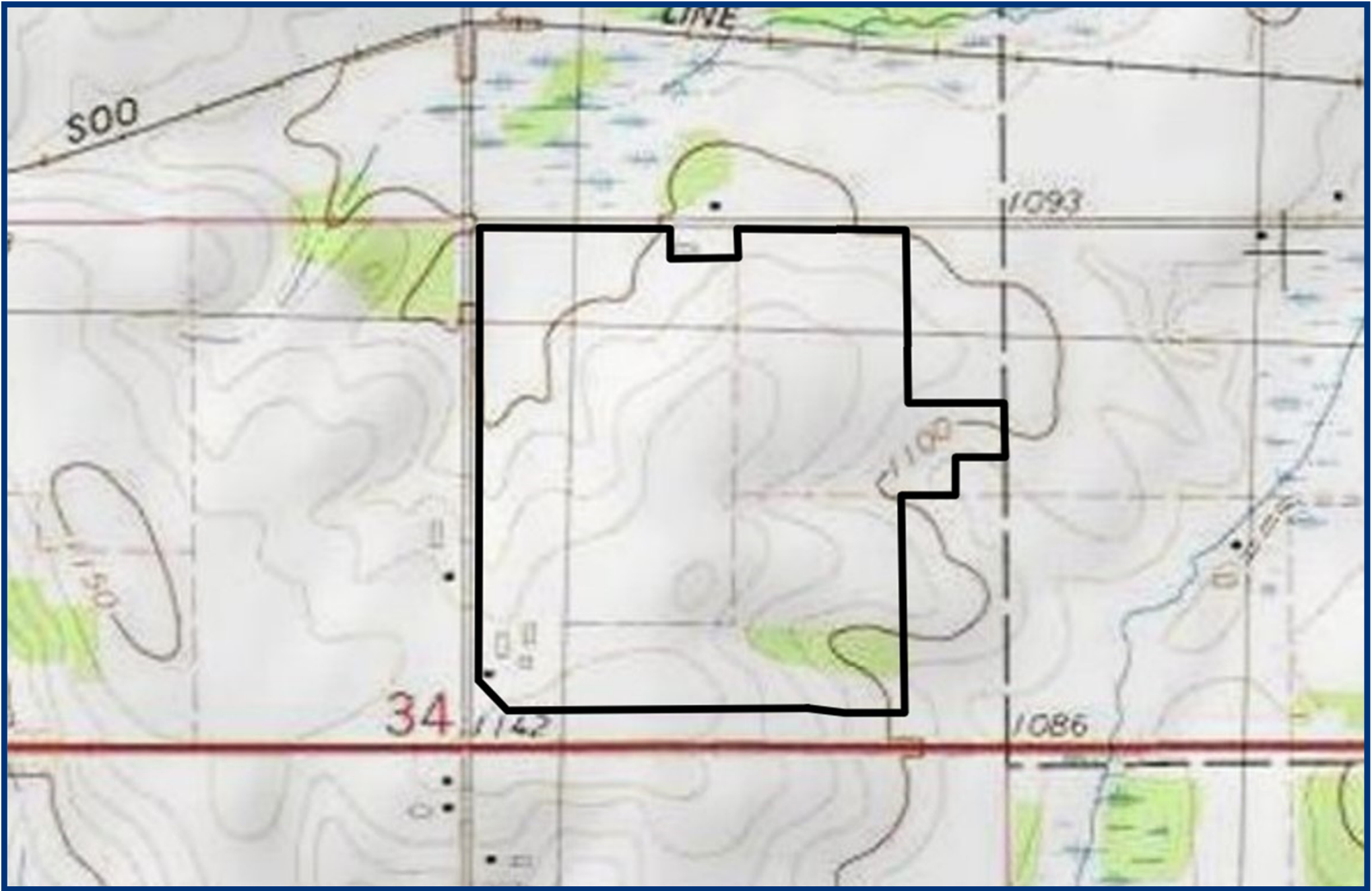
*110-acre site*

Aerial, March 2023

44.9555, -90.9681

Chippewa County, WI





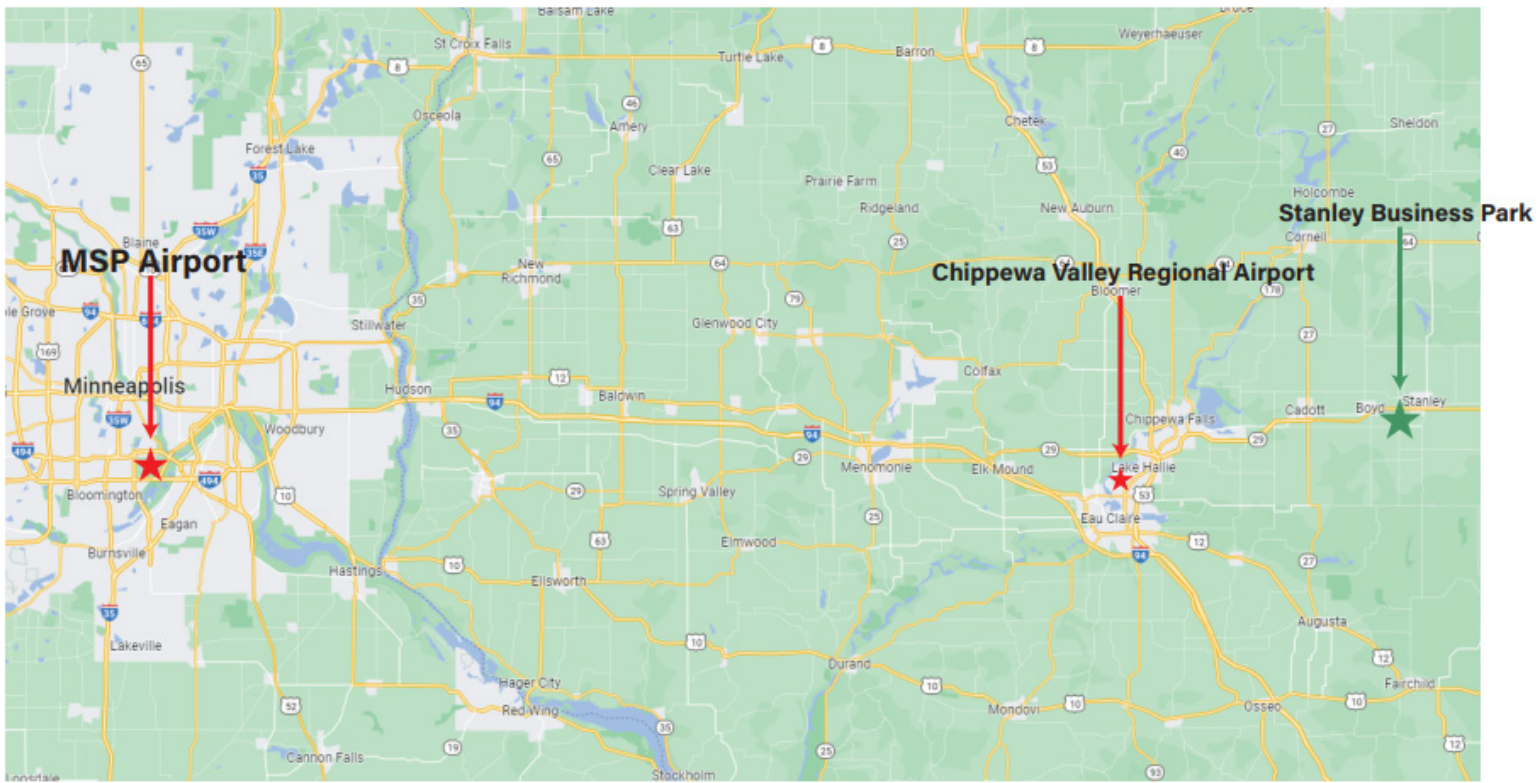
# Business Park West

110-acre site





# Stanley, Wisconsin Business Park West Highway Airport Infrastructure



40 Miles to US Interstate



**MSP International Airport**  
[www.mspairport.com](http://www.mspairport.com)

28 Miles to US Highway



**Chippewa Valley  
Regional Airport**

Located on State Highway



[www.chippewavalleyairport.com](http://www.chippewavalleyairport.com)



A Touchstone Energy® Cooperative





Chippewa Valley Electric Cooperative

WWW.CHIPPEWA-WI.COM

770 TECHNOLOGY WAY  
CHIPPEWA FALLS, WI 54729

# Stanley, Wisconsin Business Park West Nearby Business Map



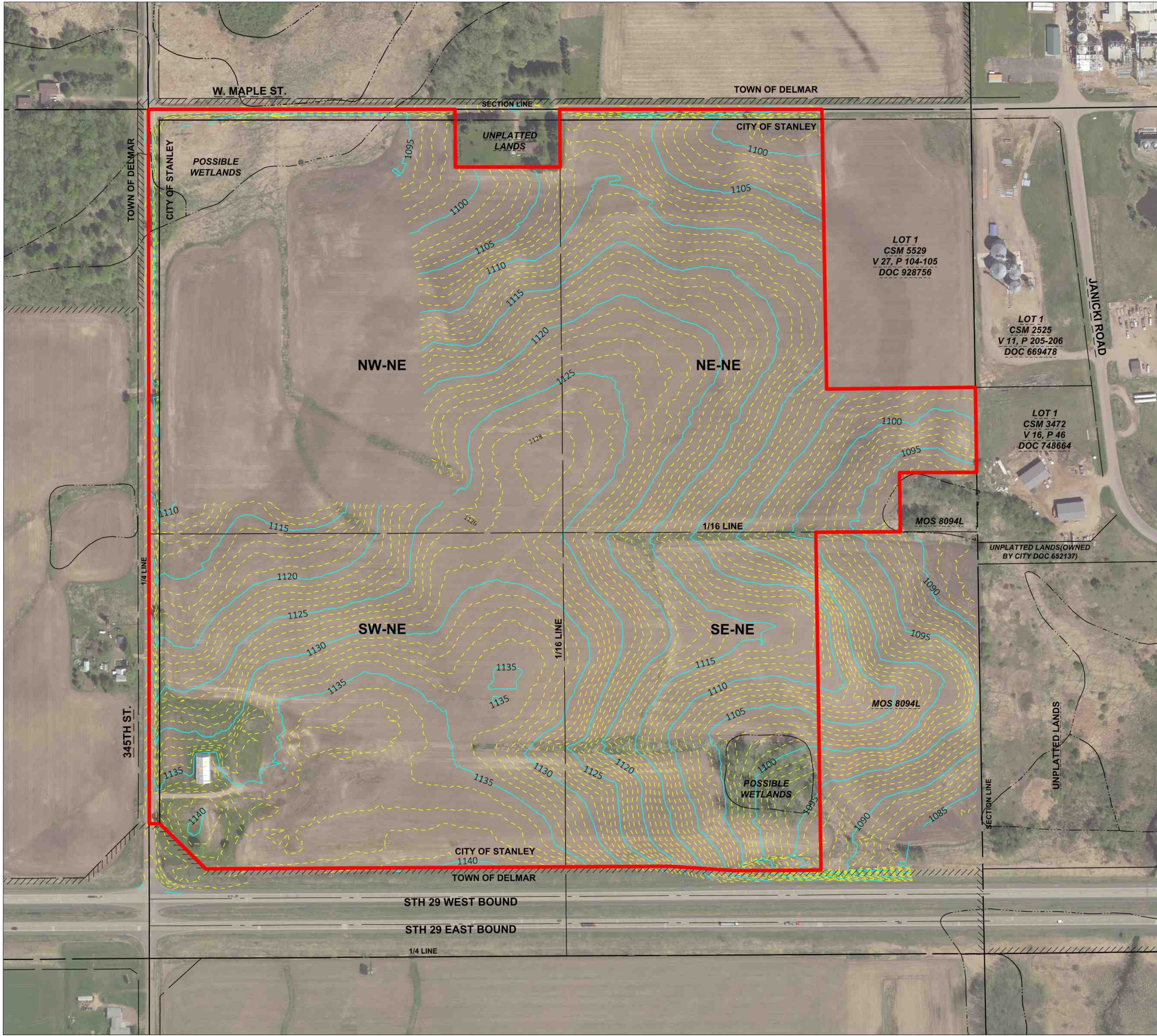
## Stanley Industrial Park Tenants: (Not to scale)

- |   |                                      |   |  |
|---|--------------------------------------|---|--|
| 1. Chwala Construction NAICS 236220         | 14. Not Available                    | 27. Mertens Services NAICS 488410         | 40. Not Available                        |
| 2. Chwala Construction NAICS 236220         | 15. River Country Co-op              | 28. Mertens Services NAICS 488410         | 41. Thaler Oil Inc. NAICS 213112         |
| 3. Available                                | 16. River Country Co-op              | 29. TRV Properties LLC NAICS 531312       | 42. Smith Restorations Inc. NAICS 236118 |
| 4. Mertens Transport NAICS 484220           | 17. Not available                    | 30. TRV Properties LLC NAICS 531312       | 43. ACE Ethanol LLC. NAICS 325193        |
| 5. Mertens Transport NAICS 484220           | 18. Not Available                    | 31. TRV Properties LLC NAICS 531312       | 44. ACE Ethanol LLC. NAICS 325193        |
| 6. Mertens Services NAICS 488410            | 19. Not Available                    | 32. Reit's Floral & Greenhouse            | 45. ACE Ethanol LLC. NAICS 325193        |
| 7. Releve Dance Company LLC<br>NAICS 711120 | 20. Not Available                    | 33. Haas Sons Properties LLC NAICS 484220 | 46. ACE Ethanol LLC. NAICS 325193        |
| 8. Not Available                            | 21. Not Available                    | 34. Francis Melvin INC NAICS 238110       | 47. ACE Ethanol LLC. NAICS 325193        |
| 9. Not Available                            | 22. Not Available                    | 35. Westaby Trucking LLP NAICS 213112     | 48. L Romannowski Corp. NAICS 111219     |
| 10. Not Available                           | 23. Not Available                    | 36. Not Available                         | 49. Not Available                        |
| 11. Not Available                           | 24. Lube Suppliers LLC.              | 37. Not Available                         | 50. 22905-3411-00020001-Available        |
| 12. Not Available                           | 25. Lube Suppliers LLC.              | 38. Excel Steel NAICS 331110              | 50. 22905-3412-00020000A-Available       |
| 13. Not Available                           | 26. Mertens Services<br>NAICS 488410 | 39. Premier Drywalling NAICS 238310       | 50. 22905-3413-00020000A-Available       |
|   |                                      |   | 50. 22905-3414-00020000A-Project Pending |



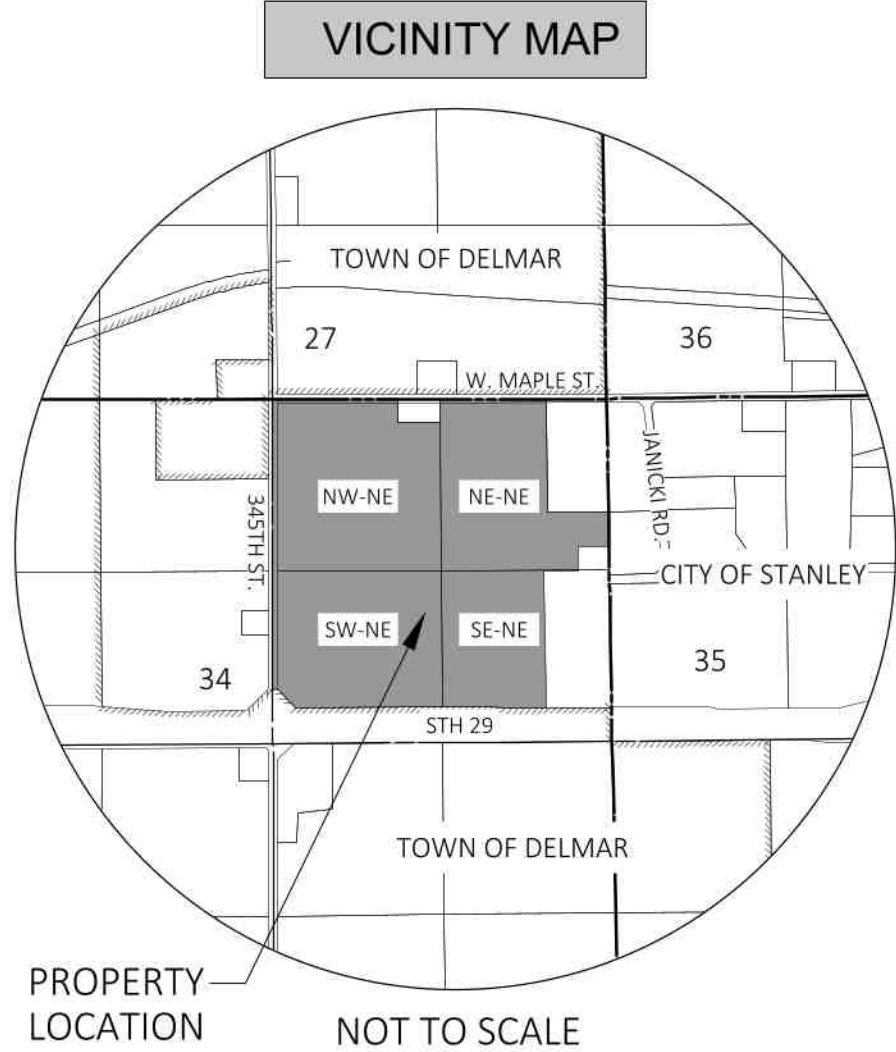
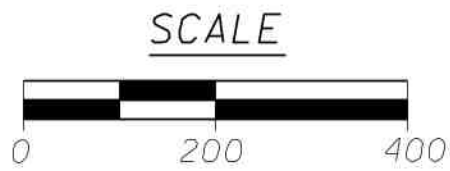


# TOPOGRAPHIC MAP

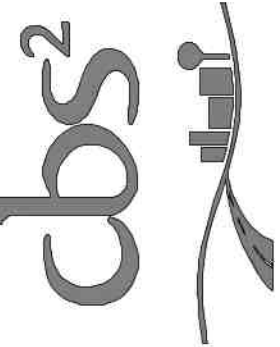


### LEGEND

- 5 FOOT MAJOR CONTOURS
- - - 1 FOOT MINOR CONTOURS
- PROPERTY BOUNDARY



ENGINEERS - SURVEYORS - ARCHITECTS  
 770 TECHNOLOGY WAY  
 CHIPPEWA FALLS, WI 54729  
 PHONE: 715.861.5226  
 www.cbssquaredinc.com



## TOPOGRAPHIC MAP STANLEY, WI

DATE:	3/10/2023	REVISION DATE:	
DRAWN BY:	BPS	CHECKED BY:	NCB
SCALE:	1" = 200'	PROJECT NO.:	CGEDC





353 S Broadway St  
P.O. Box 155  
Stanley, Wisconsin  
54768-0155  
715-644-5758  
[www.stanleywisconsin.us](http://www.stanleywisconsin.us)

December 20, 2022

Wisconsin Economic Development Corporation  
201 West Washington Avenue  
Madison, WI 53703

To Whom it May Concern;

This letter is to certify that the parcels listed below are fully owned by the City of Stanley and have been since prior to 2006. These parcels are currently for sale at a list price of \$12,500.00 per acre. As with all economic development projects, the city is receptive to negotiating the land price depending on the economic impact to the city. This will be done on a case-by-case basis.

22905-3411-00020001  
22905-3412-00020000A  
22905-3413-00020000A  
22905-3414-00020000A

Sincerely,

A handwritten signature in cursive script that reads "Al Haas".

Al Haas, Mayor  
City of Stanley



353 S Broadway St  
P.O. Box 155  
Stanley, Wisconsin  
54768-0155  
715-644-5758  
[www.stanleywisconsin.us](http://www.stanleywisconsin.us)

December 20, 2022

Wisconsin Economic Development Corporation  
201 West Washington Avenue  
Madison, WI 53703

To Whom it May Concern;

This letter is to certify that the parcels listed below are fully owned by the City of Stanley and have been since prior to 2006. These parcels are currently for sale at a list price of \$12,500.00 per acre. As with all economic development projects, the city is receptive to negotiating the land price depending on the economic impact to the city. This will be done on a case-by-case basis.

22905-3411-00020001  
22905-3412-00020000A  
22905-3413-00020000A  
22905-3414-00020000A

Sincerely,

A handwritten signature in cursive script that reads "Al Haas".

Al Haas, Mayor  
City of Stanley

# WARRANTY DEED

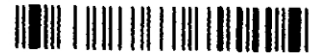
Document Number

DOCUMENT# 701482

Recorded  
MAR. 15, 2005 AT 01:10PM

*Marge L. Geissler*

MARGE L. GEISSLER  
REGISTER OF DEEDS  
CHIPPEWA COUNTY, WI  
Fee Amount: \$13.00  
Fee Exempt 77.25-(17)



THIS SPACE RESERVED FOR RECORDING DATA

Charles M. Storm and Marianne E. Storm, Grantor, warrants and conveys to City of Stanley, a Wisconsin municipal corporation, Grantee, for good and valuable consideration, the following described real estate in Chippewa County, State of Wisconsin:

That portion of Section 34, Township 29 North, Range 5 West, more fully described as follows: Commencing at the NE Corner of Section 34, the Point of Beginning; thence S 0° 54' 29" E, 2350.07 feet to a point on the North Right of Way Line of STH 29; thence along said Right of Way Line, S 89° 39' 42" W, 768.56 feet; thence N 86° 02' 57" W, 200.56 feet; thence S 89° 39' 42" W, 1434.80 feet; thence N 45° 11' 40" W 200.31 feet to a point on the East Right of Way Line of 345th Street; thence Westerly 66.00 feet, more or less, to a point on the West Right of Way Line of 345th Street; thence continuing along the North Right of Way Line of STH 29, S 44° 48' 20" W, 236.76 feet; thence S 89° 39' 42" W, 590.18 feet; thence N 85° 34' 28" W, 516.03 feet to the West Line of the East 1/2 of the NW 1/4 of Section 34; thence along the West Line of the East 1/2 of the NW 1/4 of Section 34, N 0° 17' 02" W, 2335.53 feet to the Northwest Corner of the East 1/2 of the NW 1/4 of Section 34; thence along the North Line of Section 34, S 89° 59' 00" E, 432.12 feet; thence, S 0° 03' 03" E, 611.00 feet; thence N 89° 46' 42" E, 891.00 feet to the Centerline of the Right of Way of 345th Street; thence Northerly along said Centerline, N 0° 03' 03" W, 611.00 feet to the North Line of Section 34; thence along the North Line of Section 34, S 89° 59' 00" E, 915.87 feet; thence, S 0° 28' 41" E, 178.00 feet; thence S 89° 59' 00" E, 323.00 feet; thence N 0° 28' 41" W, 178.00 feet; thence along the North Line of Section 34, N 89° 44' 47" E, 1271.19 feet to the Point of Beginning, subject to the Rights of Way for 80th Avenue and 345th Street; and EXCEPTING from said description the following described parcel of land: That portion of the SE 1/4 of the NW 1/4 of Section 34, commencing at the North Quarter Corner of Section 34; thence along the North Line of Section 34, 33.00 feet to the West Right of Way Line of 345th Street; thence along the West Right of Way Line of 345th Street, S 0° 03' 03" E, 1614.35 feet to the Point of Beginning; thence continuing along the West Right of Way Line of 345th Street, S 0° 03' 03" E, 182.36 feet; thence, N 89° 59' 32" W, 203.18 feet; thence N 0° 44' 19" W, 184.23 feet; thence, S 89° 28' 26" E, 205.40 feet to the Point of Beginning, containing .64 acres, more or less.

RETURN TO:

William G. Thiel  
Weld Riley Prens & Ricci SC  
PO Box 1030  
Eau Claire WI 54702-1030

This is homestead property.

Tax Parcel No. 22905-3413-0002-000;  
22905-3414-0002-0000; 22905-3411-0000-0000  
22905-3412-0002-0000; 22905-3421-0002-0000;  
22905-3424-0002-0000

Exceptions to warranties: Easements, ordinances and restrictions of record.

This Warranty Deed is tendered in satisfaction of a Land Contract between the Grantor and Grantee dated October 29, 2001, and recorded December 31, 2001, as Document No. 634258, Chippewa County Register of Deeds.

Dated this 4th day of February, 2005.

*Charles M Storm*

Charles M. Storm

*Marianne E. Storm*

Marianne E. Storm

STATE OF WISCONSIN )  
                                  )ss.  
CHIPPEWA COUNTY     )

Personally came before me this 4th day of February, 2005, the above-named Charles M. Storm and Marianne E. Storm to me known to be the persons who executed the foregoing instrument and acknowledged the same.

*Diane Zais*

Diane Zais

Print Name of Notary

Notary Public, State of Wisconsin

My commission is permanent/expires February 5, 2006.

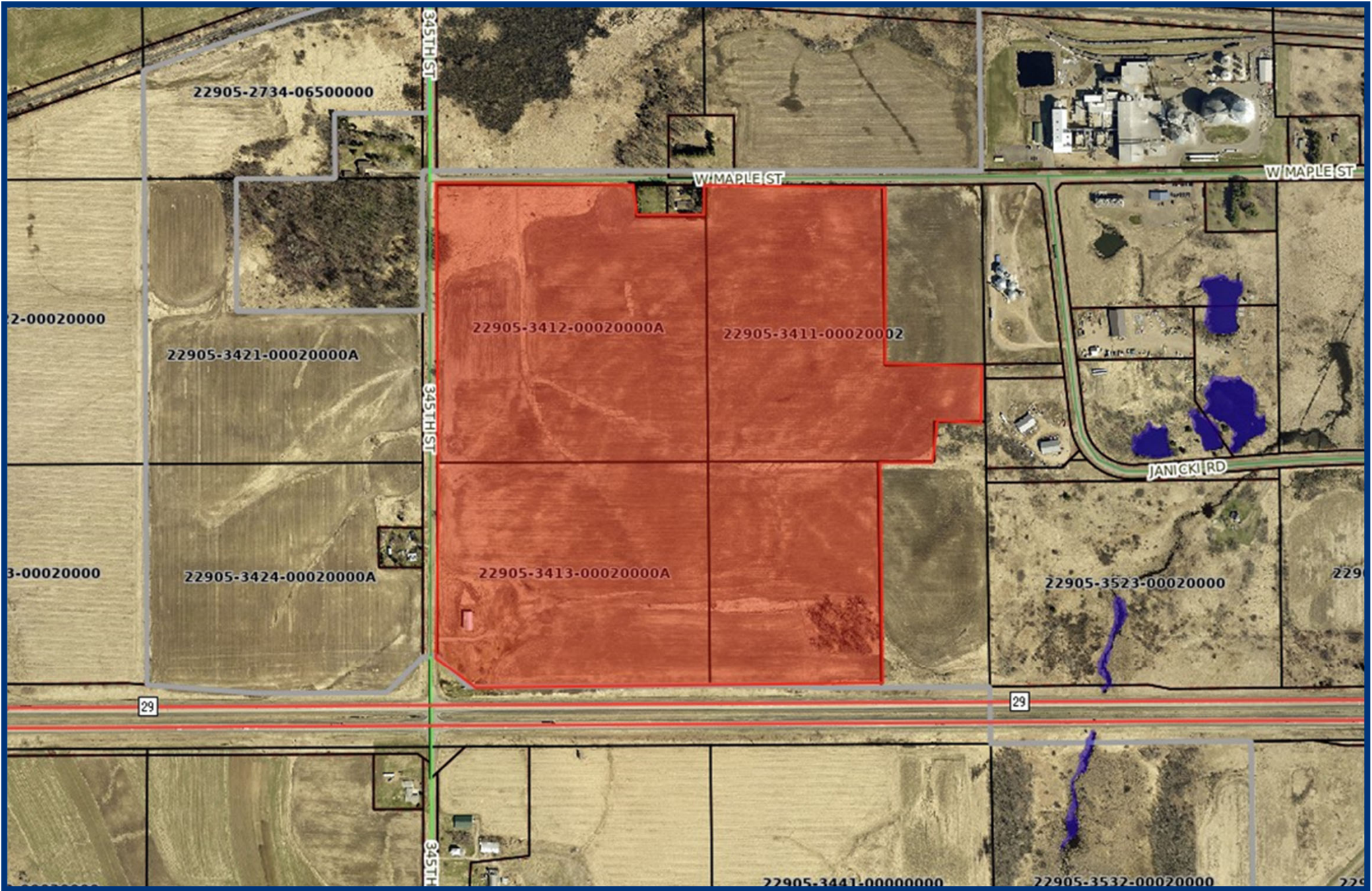
THIS INSTRUMENT WAS DRAFTED BY:

William G. Thiel - Lawyer

State Bar #01016659



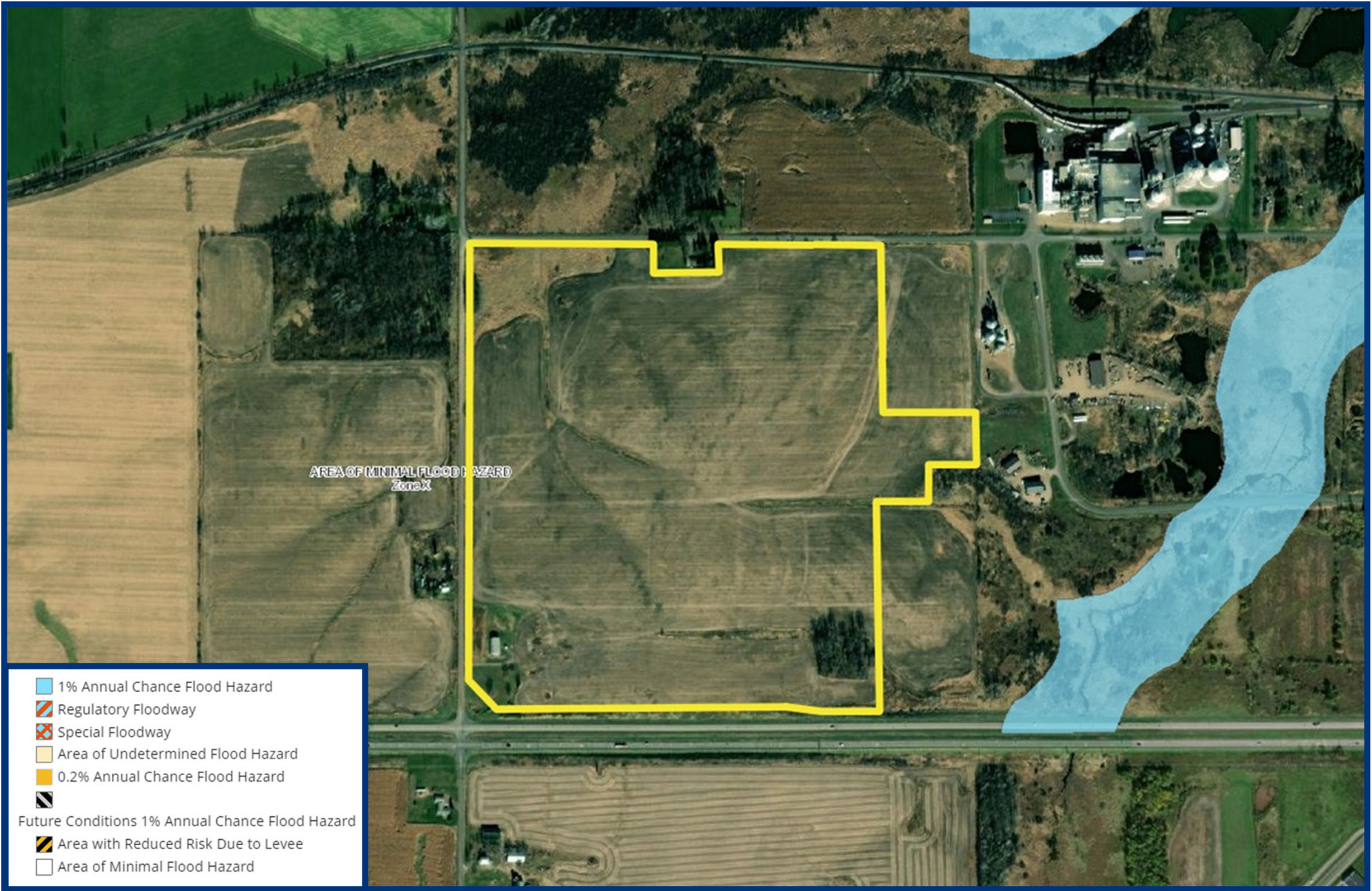




# Business Park West

110-acre site

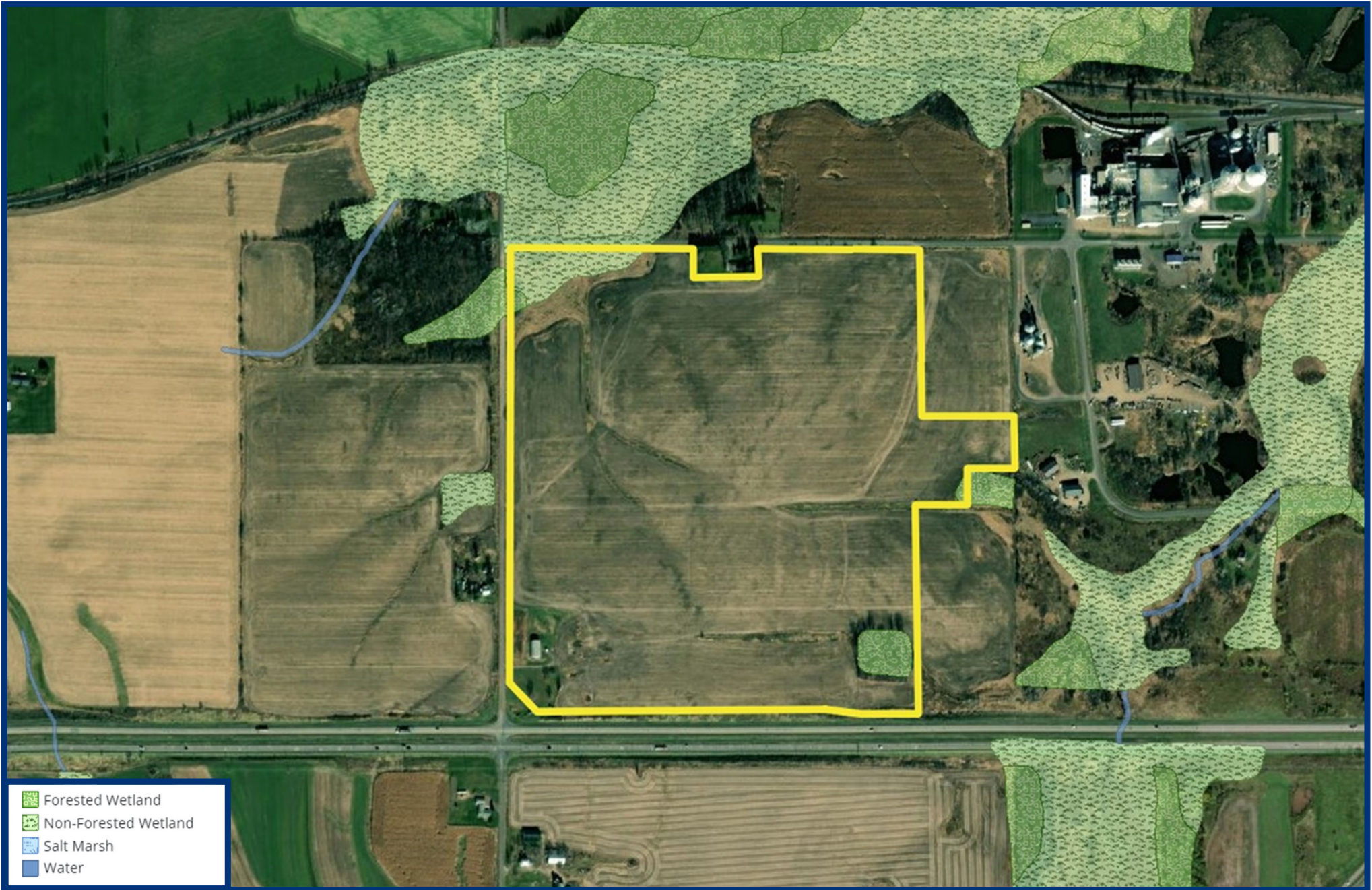




# Business Park West

110-acre site



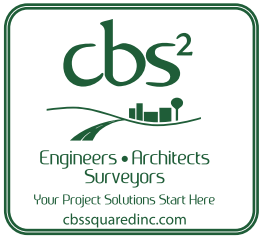


# Business Park West

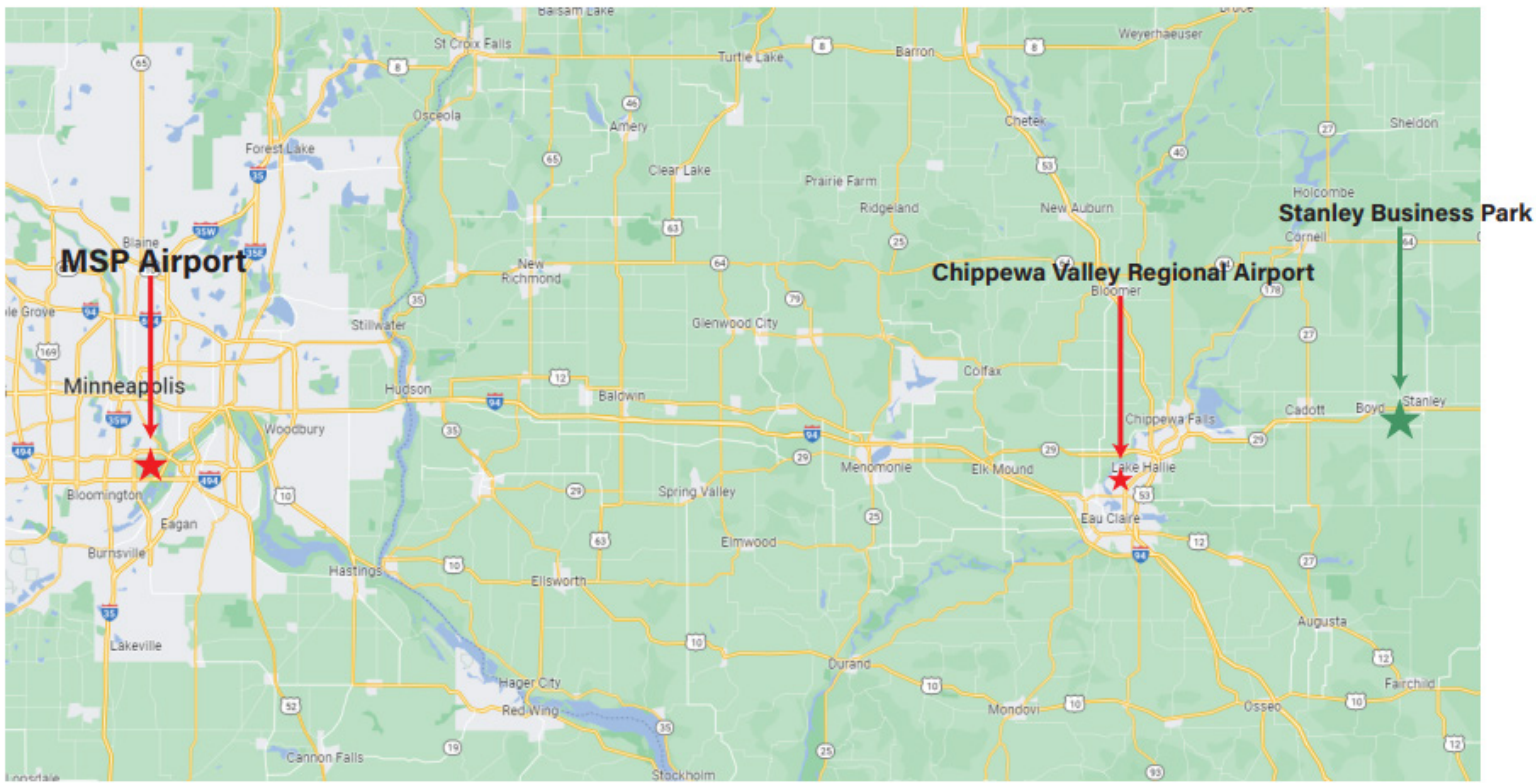
110-acre site







# Stanley, Wisconsin Business Park West Highway Airport Infrastructure



40 Miles to US Interstate



**MSP International Airport**  
[www.mspairport.com](http://www.mspairport.com)

28 Miles to US Highway



**Chippewa Valley  
Regional Airport**

Located on State Highway



[www.chippewavalleyairport.com](http://www.chippewavalleyairport.com)

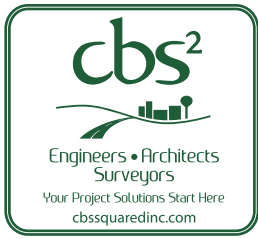


A Touchstone Energy® Cooperative



This site is not marketed as rail-served.



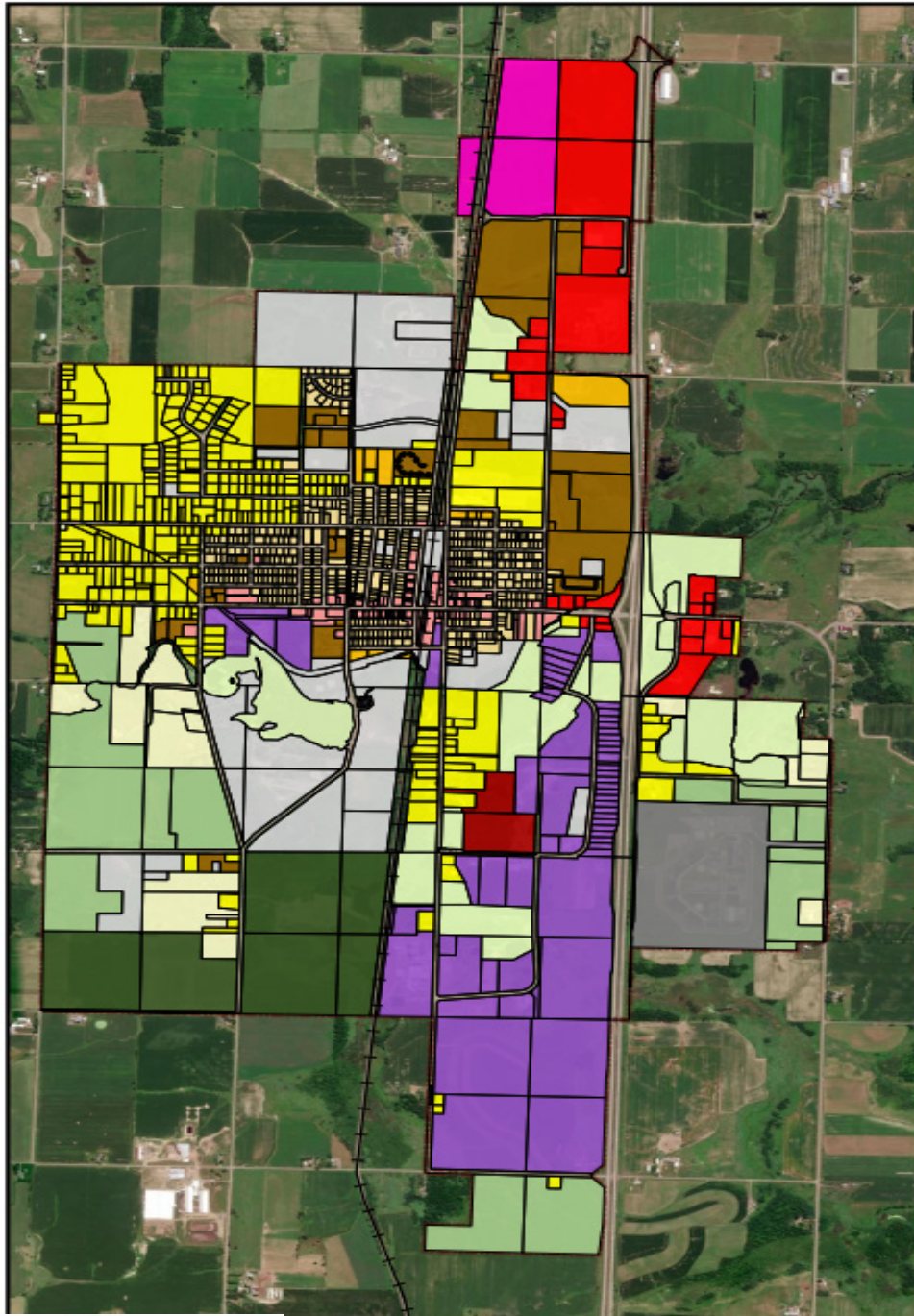


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CHIPPEWA FALLS, WI 54729

Chippewa Valley Electric Cooperative

# Stanley, Wisconsin Business Park West Zoning



**OFFICIAL ZONING MAP CITY OF STANLEY, WISCONSIN** Adopted: March 15, 2021

- R-1 Single-Family Residential District (Low Density)
- R-2 Single-Family Residential District (Medium Density)
- R-3 Two-Family Residential District
- R-4 Multiple-Family Residential District
- R-5 Residential Estate District
- C-1 Conservancy District
- UT-1 Urban Transitional District

- B-1 Central Business District
- B-2 Highway Business District
- B-3 Extensive Commercial District
- B-4 Business Park District
- I-1 Industrial District
- P-1 Public Facilities District
- IN-1 Institutional District

- A-1 Agricultural District (Non-Livestock)
- A-2 Agricultural Enterprise District
- A-3 Exclusive Agricultural District
- SP-1 Special Purpose District

Data Source: WisDOT/DRAW/OWRC, 2017 USDA Image, 2017 Parcel data From the Wisconsin State Cartographer's Office and the Wisconsin Land Information Program.



A Touchstone Energy® Cooperative



### **13-1-52 I-1 Industrial District**

(a) **Purpose.** The I-1 District is intended to provide an area for manufacturing, marketing, and industrial and heavy agribusiness activities not located in a planned B-4 District business park setting. It is also intended to provide an area for a variety of uses which require relatively large installations, facilities or land areas, or which would create or tend to create conditions of public or private nuisance, hazard, or other undesirable conditions, or which for these or other reasons may require special safeguards, equipment, processes, barriers, or other forms of protection, including spatial distance, in order to reduce, eliminate, or shield the public from such conditions.

(b) **Permitted Uses.** The following uses are permitted uses in the I-1 District (The Standard Industrial Classification (SIC) number is shown in [ ] below):

- (1) All commercial activities permitted in the B-1, B-2, B-3 and B-4 Districts.
- (2) Miniwarehouses.
- (3) Building construction contractors. [15-17]
- (4) Food locker plants.
- (5) Offices.
- (6) Class 2 collocation of a new mobile service facility on an existing support structure without substantial modification, per Section 13-1-182.
- (7) Packaging, processing, production, warehousing or wholesaling of products, without open storage from: agricultural crops and produce, furs and leathers, glass, metals, paper, plastic, textiles, wood and related materials of local origin.
- (8) Manufacture, packaging or warehousing, without open storage of products, such as: appliances, confections, cosmetics, electronic devices, instruments, jewelry, toiletries or pharmaceuticals.
- (9) Service industries without open storage, such as:
  - a. Bakeries.
  - b. Breweries.
  - c. Bottling of beverages.
  - d. Commercial cleaners.
  - e. Food pantries.
  - f. Greenhouses.
  - g. Laboratories.
  - h. Machine shops.
  - i. Painting.
  - j. Printing and publishing.
  - k. Storage and sale of lumber and related construction materials.
- (10) Open space uses, such as:
  - a. Agricultural crops and grazing.
  - b. Parks.
  - c. Parking lots.
  - d. Recreational facilities.
  - e. Greenways and open space uses.

(c) **Conditional Uses.** The following are conditional uses pursuant to Article E within the I-1 District. Such use shall be subject to the consideration of the Common Council and Plan Commission with regard to such matters as the creation of nuisance conditions for the public or for the users of nearby areas, the creation of traffic hazards, the creation of health hazards, or other factors:

- (1) Manufacturing establishments, usually described as factories, mills or plants, in which raw materials are transformed into finished products, and establishments engaged in assembling component parts of manufactured products. [20, 23-28, 30, 32-39]
- (2) Other industrial or commercial activities which possess the special problem characteristics described above relating to the creation of hazards or nuisance conditions.
- (3) The outdoor storage of industrial products, machinery, equipment, or other materials associated with a permitted or conditional use, provided that such storage be enclosed by a City-approved suitable fence or other manner of screening. Includes outdoor storage and manufacturing areas such as recycling facilities, scrap yards, salvage yards, wrecking or demolition yards; [50, 51]
- (4) Railroads, including rights-of-way, railroad yards, and structures normally incident to the operation of railroads, including station houses, platforms, and signal towers, but not including warehouses owned by companies other than railroad companies or road terminal companies.
- (5) Wholesale establishments and warehouses. [50-51]
- (6) Highway passenger and motor freight transportation. [41-42]



(7) Commercial service facilities such as: fueling stations, garages, automotive repair shops, truck terminals, transshipment depots, provided such services are related to the industrial district users and/or employees.

(8) ***Light Industry and Service Uses.***

- a. Automotive servicing and body repair.
- b. Automotive upholstery.
- c. Cleaning, pressing, dyeing.
- d. Commercial bakeries.
- e. Commercial greenhouses.
- f. Distributors.
- g. Printing and publishing.
- h. Trade and contractor's facilities.
- i. Painting services.
- j. Retail sales and service facilities such as retail and surplus outlet stores, and restaurants and food service facilities when established in conjunction with a permitted manufacturing or processing facility.
- k. Recreation vehicle, boat and miscellaneous storage.

(9) ***Public Facilities and Uses.***

- a. Governmental, cultural and public buildings or uses, such as fire and police stations, community centers, libraries, public emergency shelters, sewage treatment plants, pumping stations, public utilities facilities, parks, playgrounds and museums.
- b. Schools and churches.
- c. Airports, airstrips and landing fields.

(10) ***Agriculture Related Industry and Service Uses.***

- a. Production of natural and processed cheese.
- b. Production of shortening, table oils, margarine and other edible fats and oils.
- c. Production of condensed and evaporated milk.
- d. Wet milling of com.
- e. Production of creamery butter.
- f. Drying and dehydrating fruits and vegetables.
- g. Preparation of feeds for animal and fowl.
- h. Creameries and dairies.
- i. Production of flour and other grain mill products; blending and preparing of flour.
- j. Fluid milk processing.
- k. Production of frozen fruits, fruit juices, vegetables and other specialties.
- l. Fruit and vegetable sauces and seasoning, and salad dressing preparation.
- m. Poultry and small game dressing and packing providing that all operations be conducted within an enclosed building.
- n. Production of sausages and other meat products providing that all operations be conducted within an enclosed building.
- o. Corn shelling, hay baling and threshing services.
- p. Grist mill services.
- q. Horticultural services.
- r. Canning of fruits, vegetables, preserves, jams and jellies.
- s. Canning of specialty foods.
- t. Grain elevators and bulk storage of feed grains.
- u. Fertilizer production, sales, storage, mixing and blending.
- v. Sales or maintenance of farm implements and related equipment.
- w. Animal hospitals, shelters and kennels.
- x. Veterinarian services.
- y. Portable sawmills.

(11) Wind energy systems per Section 13-1-181.

(12) Siting and construction of any new mobile support structure and/or facility or a Class 1 collocation of a new mobile service facility on an existing support structure, per Section 13-1-182.



(13) Adult entertainment establishments under an AEO Adult Entertainment Overlay District classification per the requirements of Section 13-1-59 and also meeting the standards of Title 11, Chapter 7, whichever is most restrictive.

(d) **Prohibited Uses.** The following are prohibited uses in the I-1 District:

- (1) Specifically excluded from this designation and expressly prohibited is any use or business which is dangerous or which would create a public nuisance.
- (2) All residential uses are expressly prohibited.
- (3) Also specifically excluded and expressly prohibited is any use or business involving garbage removal or the slaughter of animals or poultry.

(e) **Lot, Yard and Building Requirements.**

(1) **Lot Size.**

- a. Minimum Width: One hundred (100) feet.
- b. Minimum Area: Ten thousand (10,000) sq. ft.

(2) **Building.**

- a. Maximum Height: Forty-five (45) feet.
- b. Minimum Floor Area: As required.

(3) **Yards.**

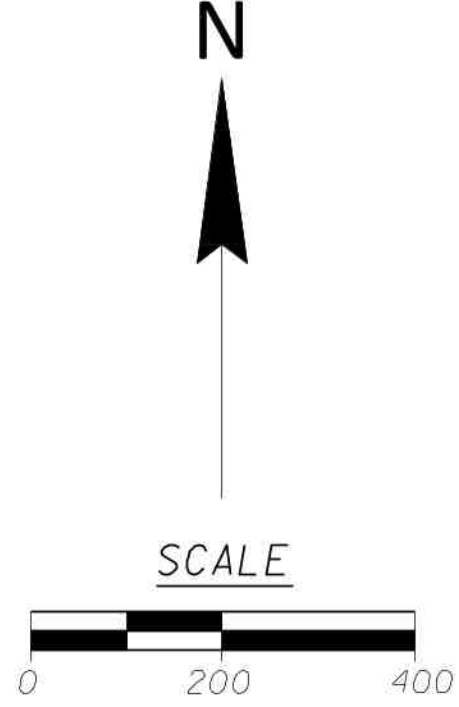
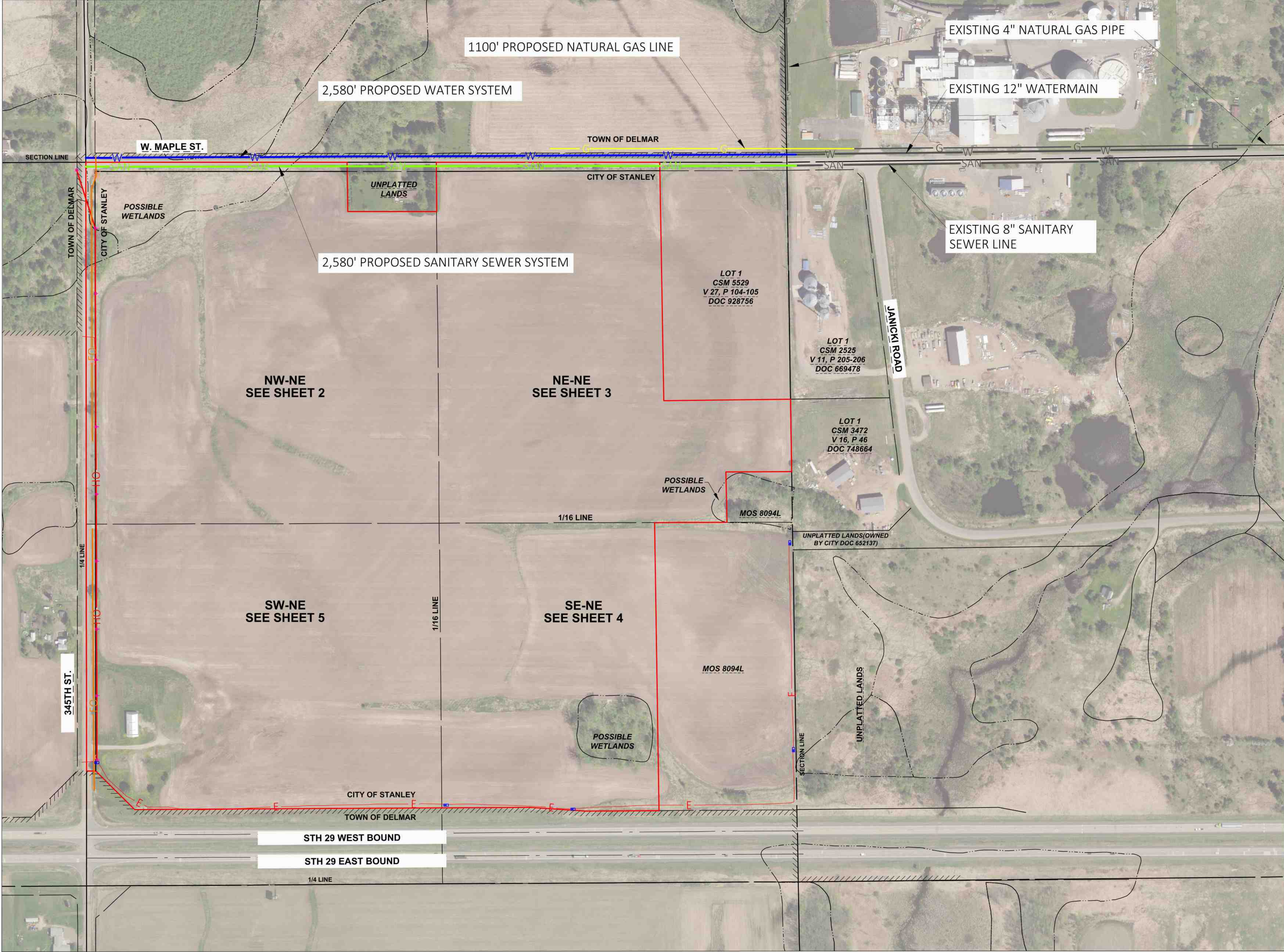
- a. Minimum Street Yard: Thirty (30) feet.
- b. Minimum Side Yard: Twenty (20) feet.
- c. Minimum Rear Yard: Twenty (20) feet.

(4) **Required Buffer Strips in Industrial Districts.** Where an Industrial District abuts a Residential District, there shall be provided along any rear, side or front line, coincidental with any industrial-residential boundary, a City-approved buffer strip not less than forty (40) feet in width as measured at right angles to said lot line. Plant materials at least six (6) feet in height of such variety and growth habits as to provide a year-round, effective visual screen when viewed from the Residential District shall be planted in the exterior twenty-five (25) feet abutting the Residential District. If the required planting screen is set back from the industrial-residential boundary, the portion of the buffer strip facing the Residential District shall be attractively maintained. Fencing may be used in lieu of planting materials to provide said screening. The City-approved fencing shall be not less than four (4) nor more than eight (8) feet in height, and shall be of such materials as to effectively screen the industrial area. The exterior twenty-five (25) feet of the buffer strip shall not be devoted to the parking of vehicles or storage of any material or accessory uses. The interior fifteen (15) feet may be devoted to parking of vehicles.

This site does not currently have CCR's in place

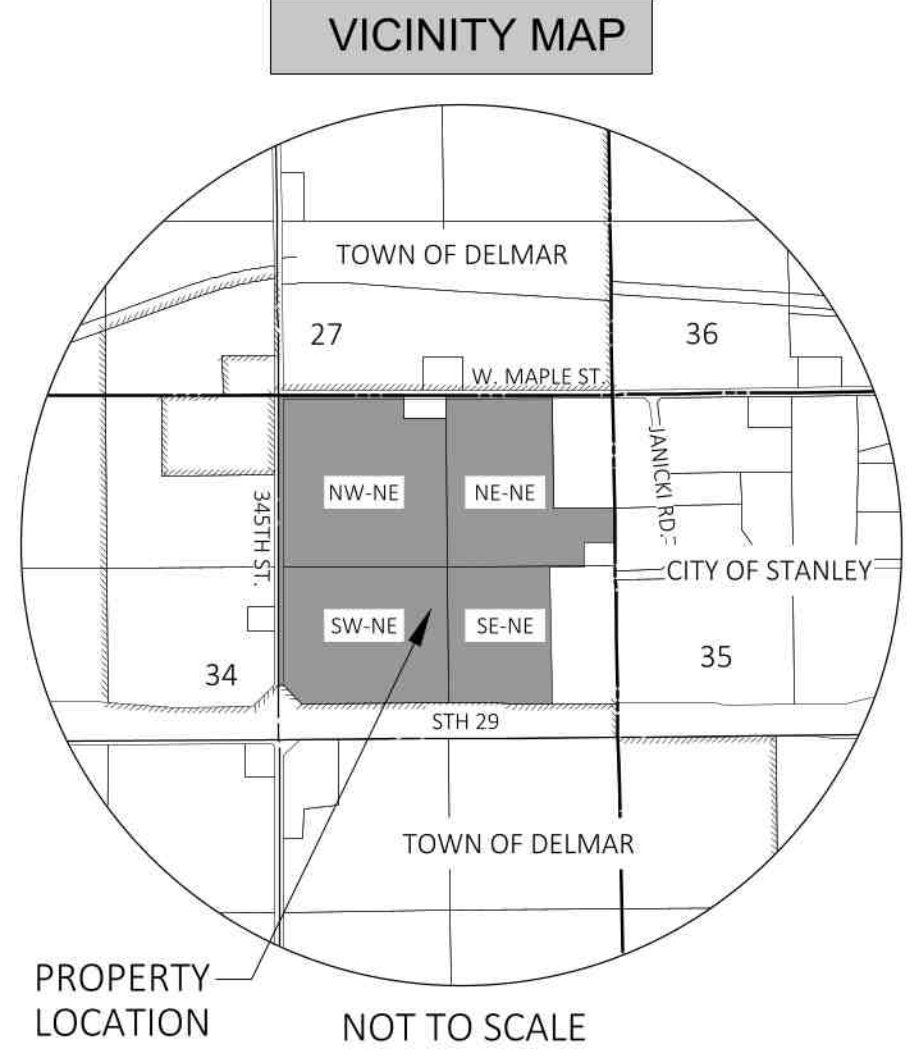


# MASTER UTILITY SYSTEM MAP



### LEGEND

- W — EXISTING WATERMAIN
- SAN — EXISTING SANITARY SEWER
- G — EXISTING NATURAL GAS LINE
- W — PROPOSED WATER SYSTEM
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- FIBER OPTIC PEDESTAL
- ELECTRICAL TRANSFORMER
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ENGINEERS - SURVEYORS - ARCHITECTS

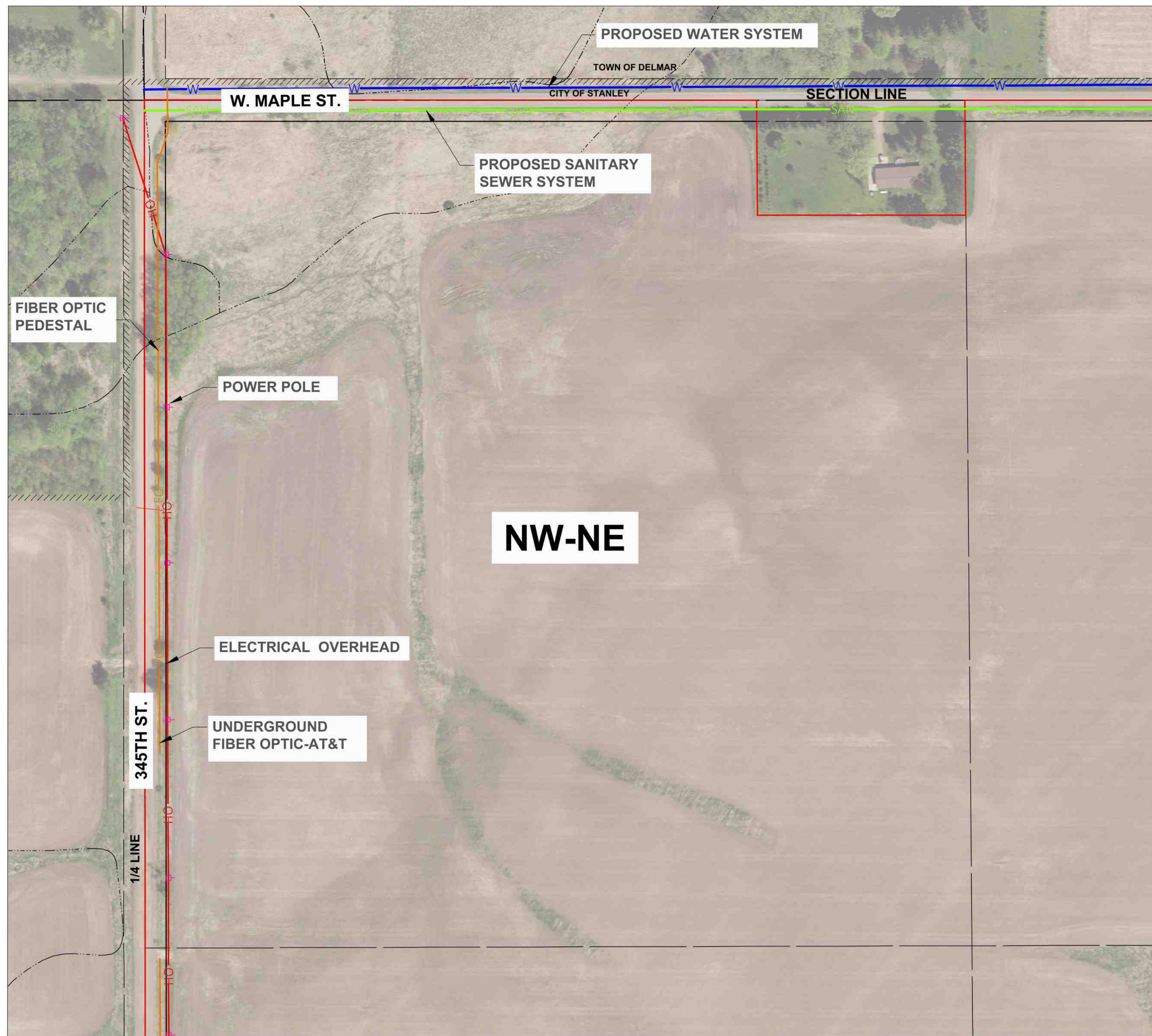
770 TECHNOLOGY WAY  
CHIPPEWA FALLS, WI 54729  
PHONE: 715.861.5226  
www.cbssquaredinc.com

## MASTER UTILITY SYSTEMS MAP STANLEY, WI

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PROJECT NO.	CGEDC	SCALE:	1" = 200'

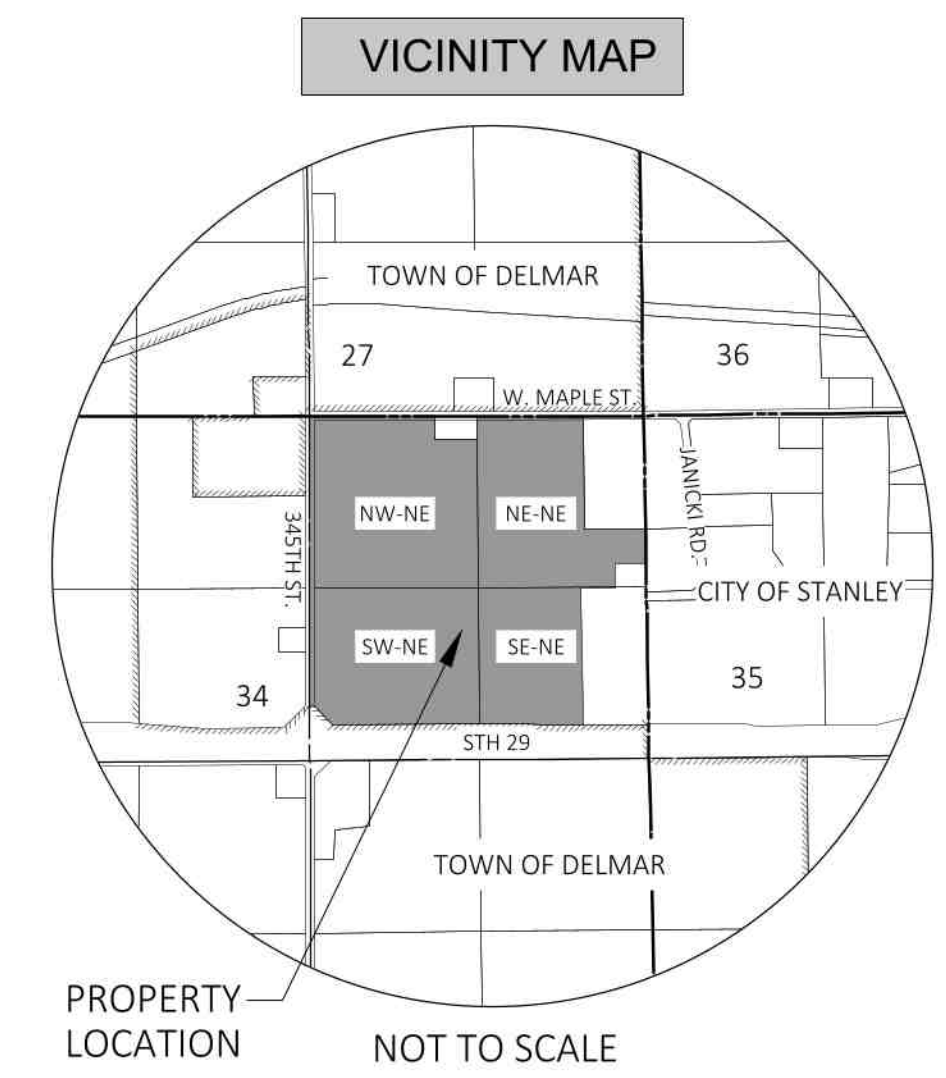
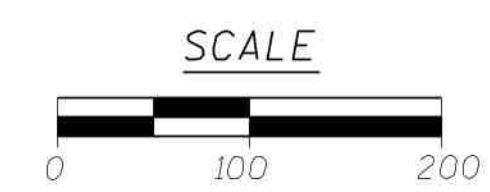


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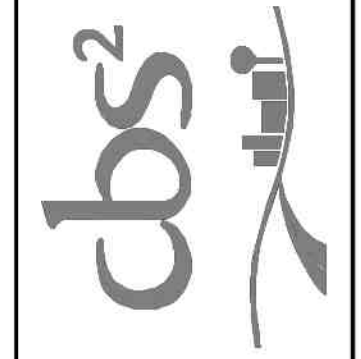


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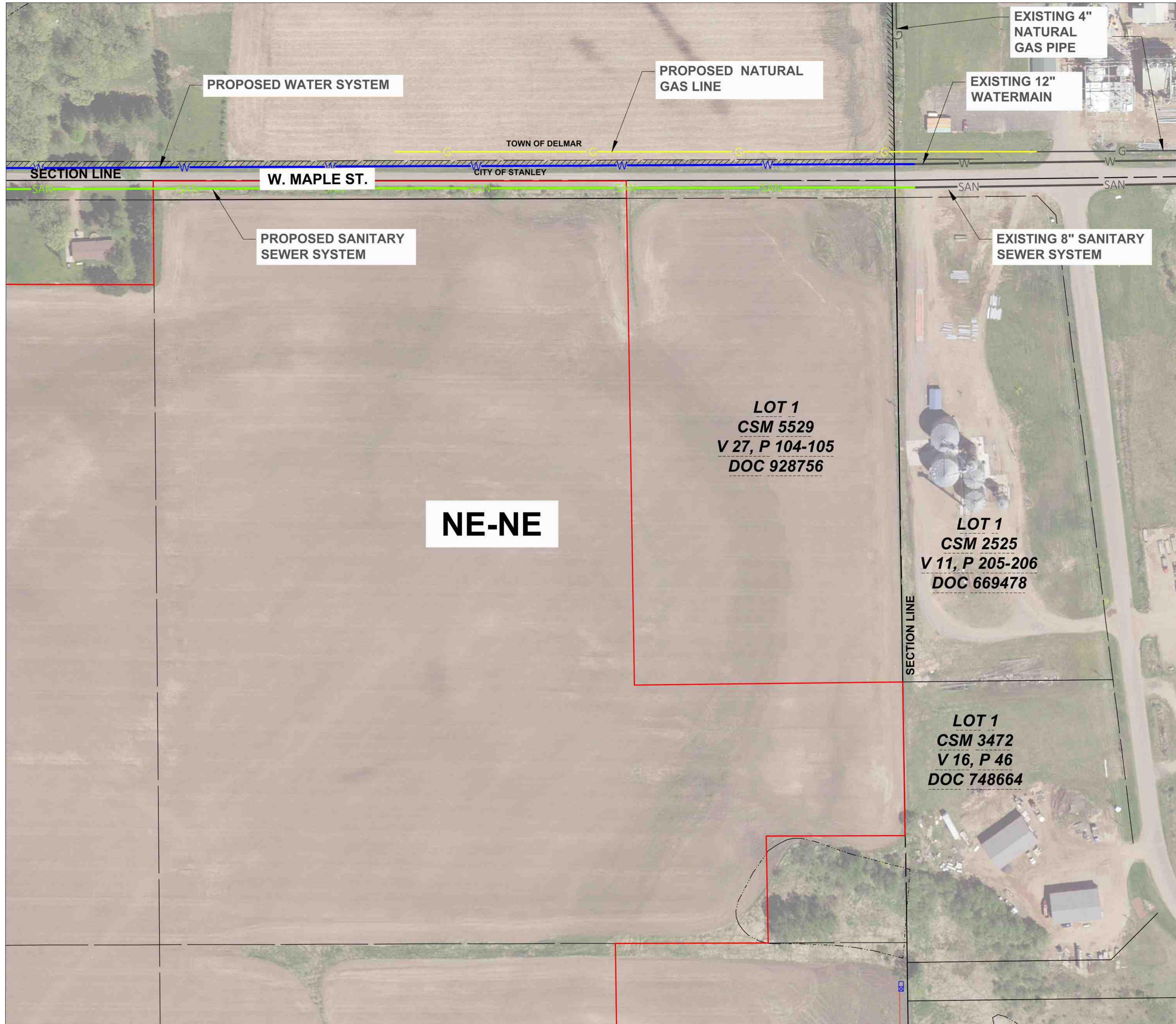
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DRAWN BY:	BPS	CHECKED BY:	NCB	PROJECT NO.:	CCEDC



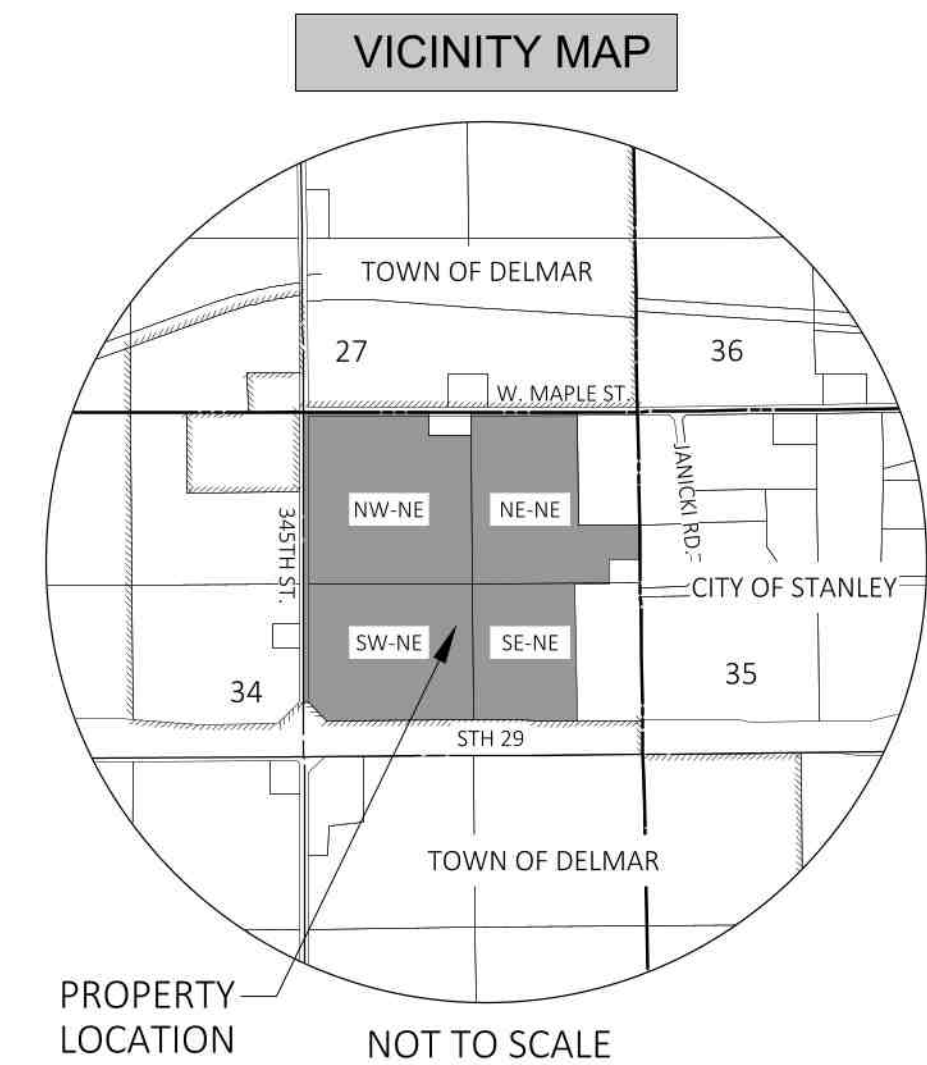
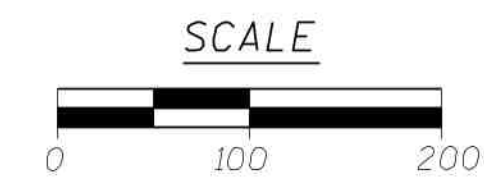
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## DETAIL OF NE-NE

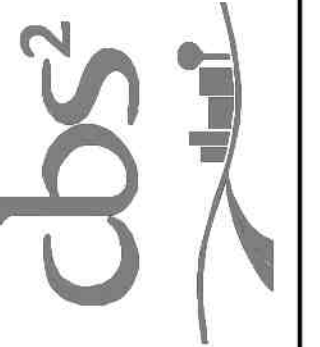


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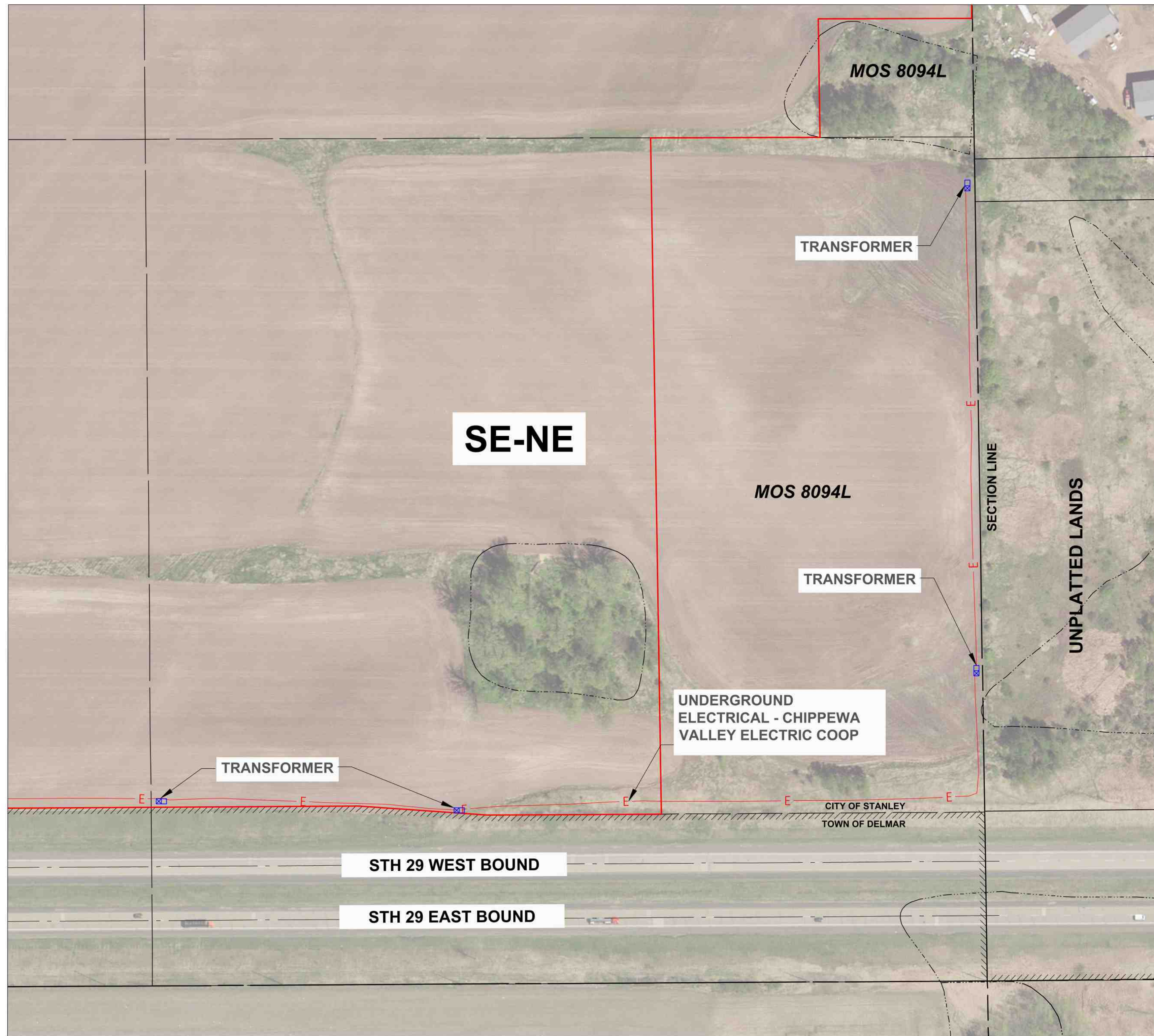
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PROJECT NO.:	CCEDC		



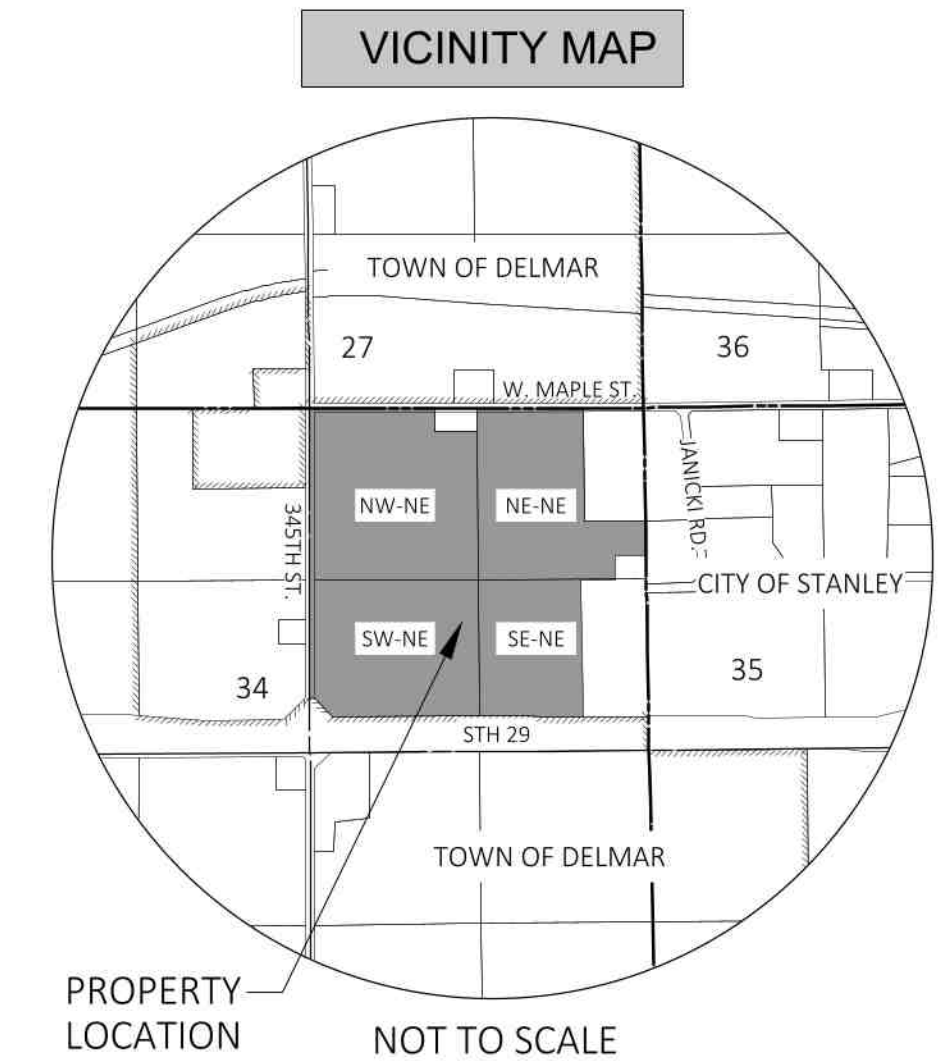
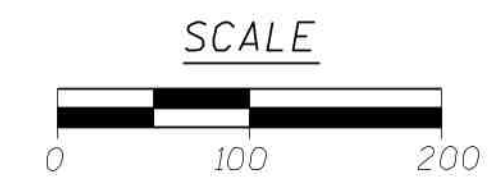
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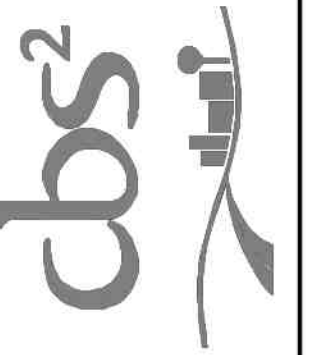


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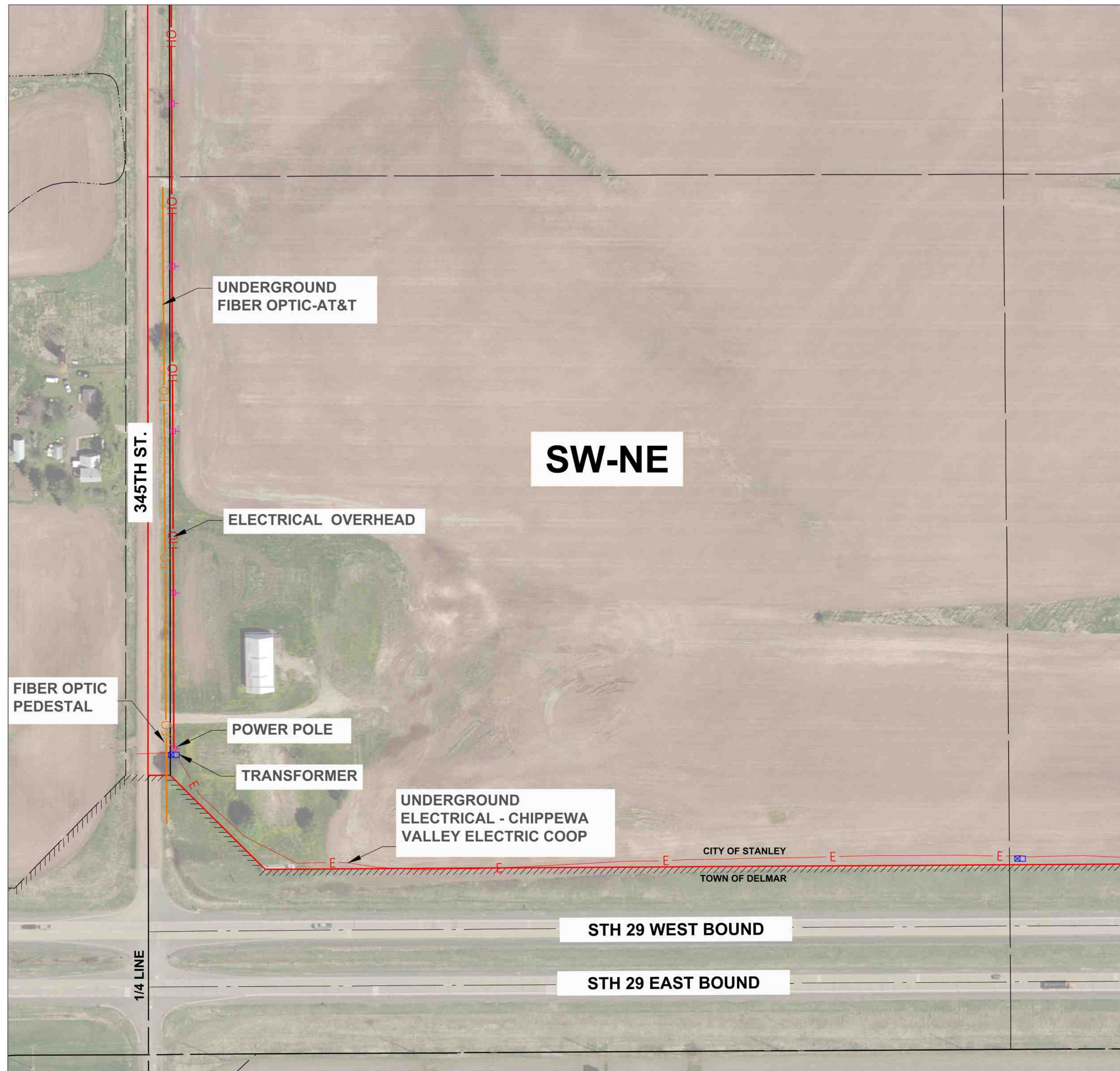


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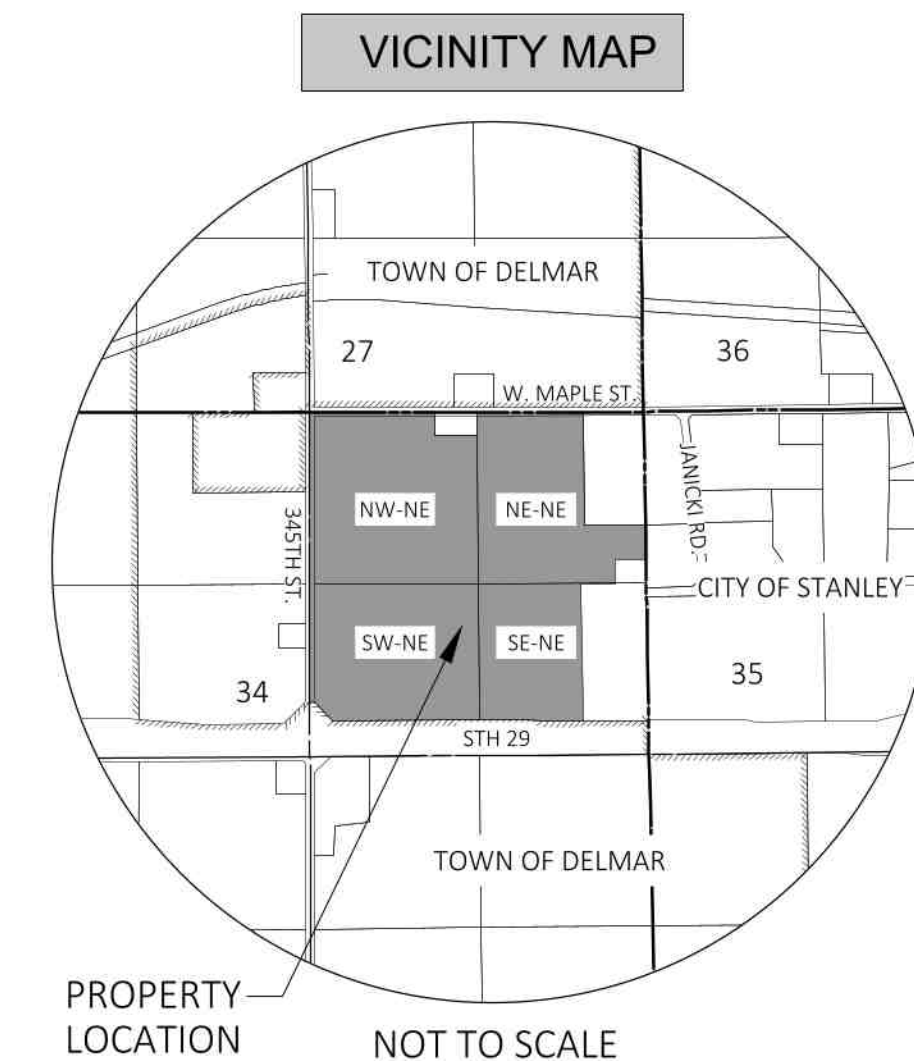
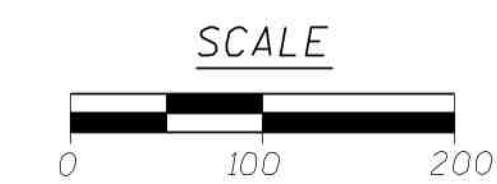


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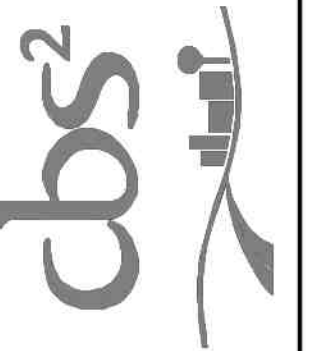


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DATE: 4/6/2023 REVISION DATE:

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CHECKED BY: NCB

SCALE: 1" = 100'

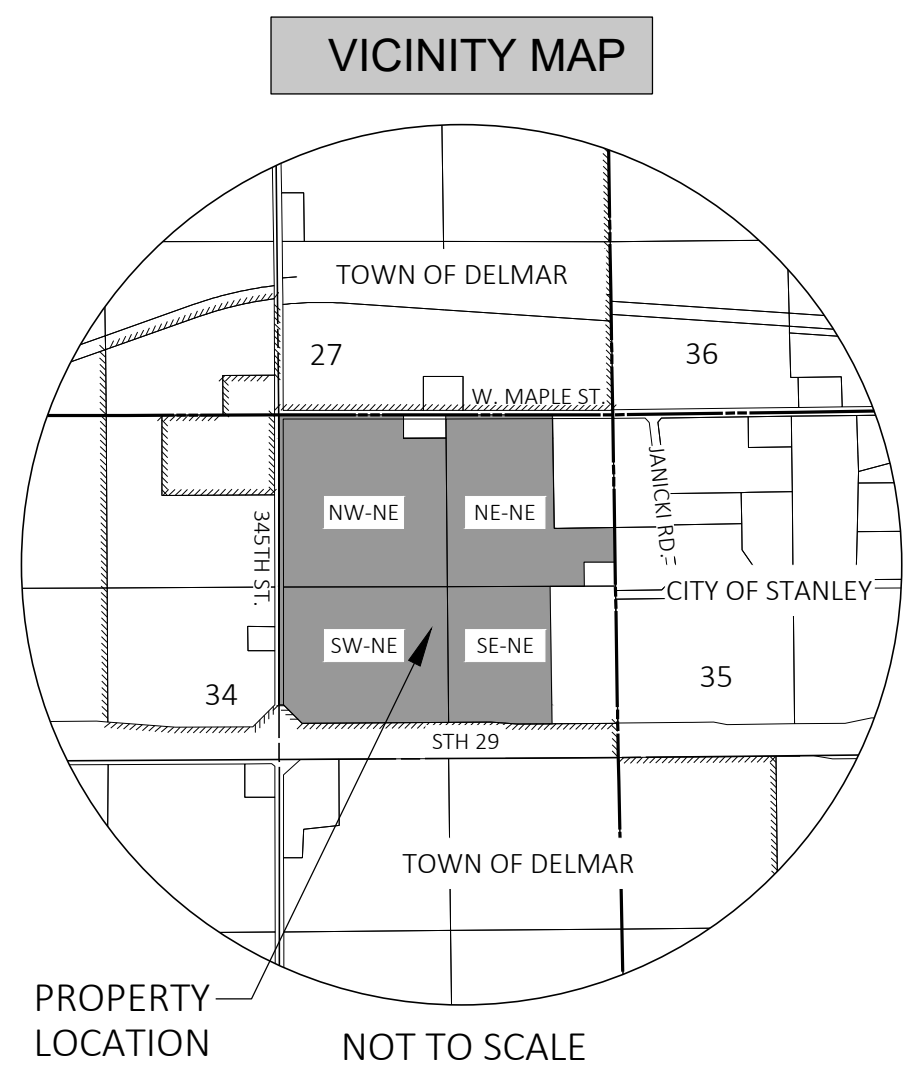
PROJECT NO. CCEDC



# PROPOSED UTILITY SYSTEM MAP



- LEGEND**
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**cbs<sup>2</sup>**  
 770 TECHNOLOGY WAY  
 CHIPPEWA FALLS, WI 54729  
 PHONE: 715.861.5226  
 www.cbssquaredinc.com

**PROPOSED UTILITY SYSTEMS MAP**  
 STANLEY, WI

DATE:	3/14/2023	REVISION DATE:	
DRAWN BY:	BPS	CHECKED BY:	NCB
PROJECT NO.	CCEDC	SCALE:	1" = 200'



# **Phase 1 Hazardous Materials Assessment**

**City of Stanley Industrial Park Development Project**

**Chippewa County**

**PREPARED FOR:  
CCEDC**

**PREPARED BY:  
CBS Squared, Inc.  
770 Technology Way  
Chippewa Falls, WI 54729**

**March 2023**



## **Executive Summary**

CBS Squared, Inc. (CBS<sup>2</sup>) has completed this Phase 1 Hazardous Materials Assessment (HMA) for Charlie Walker of the Chippewa County Economic Development Corporation. The Phase 1 HMA was completed for the City of Stanley Industrial Park Development Project located in Chippewa County, Wisconsin. The project is located on the westside of Stanley, Wisconsin, North of STH 29.

The project involves the construction of the City of Stanley Industrial Park on a one hundred- and twenty-one-acre site.

Grading impacts will be the construction of watermain, sanitary and storm sewer, as well as road and street construction throughout the site.

The purpose of conducting the Phase 1 HMA was to identify potential hazardous materials sites that could impact proposed construction project operations. There are no potential hazardous materials sites identified inside the project area during completion of this Phase 1 HMA.

One site has been identified that could possibly contain hazardous material. The site is located within 0.12 miles of the project area. Thaler Oil Company owns a Propane Terminal / Storage Facility located at 807 Janicki Road deemed as a Tier 2 Site. The site has no record of spills or contamination, no further assessment or investigation is recommended at this site.

Two other sites were determined unplottable due to age and lack of additional information, Buzz's Body Shop located .90 miles to the northeast and an underground storage tank owned by Gene Gustafson located 0.68 miles also to the northeast. Mylon "Buzz" Halterman owns Buzz's Body Shop located at 445 W. Maple Street. Buzz's Body Shop is considered a low-level hazardous waste generator. Gene Gustafson owned the UST located at 617 W. Maple Street in Stanley. Mr. Gustafson abandoned the UST in 1975. Due to these sites being far away from the project area and at a lower elevation, no further assessment or investigation is recommended at these sites.

One site with 2 Aboveground Storage Tanks was also identified. The L. Romanowski Corporation is a custom hire agricultural operator owned by Larry Romanowski. The site is located at 902 W. Maple Street approximately 0.04 miles from the site. There are two 500 gallon storage tanks for refueling agricultural equipment. The tanks are in "like new" condition and appear to be well maintained. Due to the size, type and use of these tanks, no further assessment or investigation is recommended at this site.

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Executive Summary

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Appendix D	Buzz's Body Shop
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## **1. Project Area Information**

CBS Squared, Inc. (CBS<sup>2</sup>) has completed this Phase 1 Hazardous Materials Assessment (HMA) for Charlie Walker of the Chippewa County Economic Development Corporation. The Phase 1 HMA was completed for City of Stanley Industrial Park Development Project located in Chippewa County, Wisconsin. The location is west of Stanley, Wisconsin and north of STH 29.

The project involves the construction of the City of Stanley Industrial Park on a one hundred-and twenty-one-acre site.

Grading impacts will be the construction of watermain, storm and sanitary sewer, as well as road and street construction.

Acquisition of additional real estate is not expected.

CBS<sup>2</sup> has completed this Phase 1 HMA for the City of Stanley Industrial Park Development Project. The purpose of conducting the Phase 1 HMA was to identify potential hazardous materials sites that could impact the proposed project construction operations. Phase 1 HMAs are conducted to provide sufficient information that can be used to minimize potential environmental liabilities, avoid costly construction delays and emergencies, and address worker safety during construction. This Phase 1 HMA was completed in accordance with ASTM procedures (ASTM E 1527 - 05).

### **1.1. Location**

The project area lies within Section 34 in T29N-R05W, Chippewa County, Wisconsin. The project is located at east of 345<sup>th</sup> Street and north of STH 29.

### **1.2. Units of Government**

The units of government that has jurisdiction or are otherwise involved in the project area is the City of Stanley and Chippewa County. No other units of government are known to be involved in the project.

### **1.3. Land Use**

The City of Stanley was founded in 1881 and currently has a population of around 3,800. Historical aerial photographs show the land adjacent to the project, west of Stanley and north of STH 29, was almost exclusively used for agriculture purposes. This still seems to be the current use for the land on the westside of 345<sup>th</sup> Street and north of the project area. Around 1999, the City of Stanley begin developing to the west of the City, which is east of the current site.

### **1.4. Topography**

Throughout the project area, there is a not a significant change in elevation.

## **1.5. Hydrogeology**

The project is in an area of Wisconsin that was covered by glaciers, specifically the Laurentide Ice Sheet. The bedrock in the project area mostly consists of Cambrian Sandstone with some dolomite and shale. The area also includes parts of the Trempealeau, Tunnel City and Elk Mound Formations.

The most prevalent soil in the project area is silt loam. The loams consist of Loyal Silt Loam, Cable Silt Loam, Poskin Silt Loam, Rib Silt Loam, Spencer Silt Loam and Withee Silt Loam. The soil ranges from moderately well drained to very poorly drained.

Water table depth varies with the aquifers and seasonal recharge. The depth to the water table in general, is greater than 7 feet. The static water level at the project site is approximately 15 feet.

## **2. Phase 1 HMA Methodologies**

### **2.1. Records Review**

CBS<sup>2</sup> conducted an environmental records review in order to identify past or present factors that may cause a potential hazardous materials concern to proposed planning efforts and future construction along the project area. This included a review of documents available on-line from the Wisconsin Department of Safety and Professional Services (DSPS) and the Wisconsin Department of Natural Resources (WDNR). In addition, Environmental Risk Information Services (ERIS) provided a government database records search for the project area. A copy of the ERIS database report can be found in Appendix A, “Environmental Records Search Results.”

The on-line databases that were reviewed included the DSPS Storage Tank Database at [http://dvmwapps.wi.gov/ER\\_Tanks/ER-EN-TankSearch.htm](http://dvmwapps.wi.gov/ER_Tanks/ER-EN-TankSearch.htm).

The CLEAN database includes the Bureau for Remediation and Redevelopment Tracking System (BRRTS) and the Remediation and Redevelopment (RR) Sites Maps. BRRTS is an on-line database that provides information on contaminated properties and other activities in Wisconsin. The RR Sites Map is a web-based mapping system that allows a user to view different layers of contamination data using a Geographic Information System (GIS) tool.

The pertinent information obtained from these on-line databases along with the EDR information is included in Table 1, “Potential Hazardous Materials Sites Summary.”

### **2.2. Site Reconnaissance**

As part of the Phase 1 HMA, CBS<sup>2</sup> performed site reconnaissance to observe site conditions on properties within 0.25 miles of the proposed area. The site reconnaissance was conducted on March 23, 2023. Overall appearance of the exterior of structures located along the project area and the associated properties were noted and photographed. No site reconnaissance of building interiors was conducted as part of this Phase 1 HMA.

During the visit, the project area was visited as well as the potential hazardous site. There was no evidence of any contamination during any part of the reconnaissance. Also, no AST's (Aboveground Storage Tank) were observed on the site.

### **2.3. Historical Documents**

CBS<sup>2</sup> reviewed historical aerial photographs of the project area to identify former industrial, commercial, and residential areas and to identify past practices that may be of environmental concern along the project area. Aerial photographs available for years 1938, 1945, 1951, 1960, 1968, 1976, 1980, 1992, 1999, 2004, 2005, 2006, 2008, 2010, 2013, 2015, 2017, 2018, 2020 and 2021 were obtained from ERIS (Refer to Figure 3, "Historical Aerials"). However, the scale of multiple aerial photographs was generally too large to allow for observation of minor activities along the area. Information related to specific properties along the project area that CBS<sup>2</sup> obtained from reviewing aerial photography is included within specific sections or appendices of this report.

Sanborn Fire maps were unavailable. This is likely due to the lack of development at this location during the era when Sanborn maps were drawn.

## **3. Potential Hazardous Materials Sites**

Information for the potential hazardous materials site that was identified along the project area is included in this section. The proposed construction along the project area was considered in identifying the potential hazardous materials sites. Information regarding the reasons each site has the potential to contain hazardous material is included in the following sections and is summarized in Table 1. Recommendations were made for the site on whether or not additional assessment or investigation should be completed.

### **3.1. Thaler Oil Company, Inc.**

Thaler Oil Company, Inc. is located at 807 Janicki Road, less than 0.12 miles from the project. The site is a Propane Terminal / Storage Facility and is deemed as a Tier 2 site. The facility is relatively new and does not have a history of spills or contamination. No further assessment or investigation is recommended at this site.

### **3.2. Buzz's Body Shop**

Buzz's Body Shop located 445 W. Maple Street is approximately .90 miles from the project site. The business is owned by Mylon "Buzz" Halterman. Buzz's Body Shop is considered a low-level hazardous waste generator, the site has been deemed unplottable. There is no record of spills or contamination for this site in the BRRTS database. No further assessment or investigation is recommended at this site.

### **3.3. Gene Gustafson**

The Gene Gustafson residence located at 617 W. Maple Street is approximately .68 miles from the project site. The residence contains an underground storage tank (UST). Records indicate the UST License No. 457883 was installed on March 24, 1959. The UST is a coated steel,

single wall tank with a capacity of 500 gallons. The tank was used for storage of Leaded Gasoline and abandoned without product on January 1, 1975. Age and lack of additional information have deemed this site unplotable. Available records indicate proper protocol was followed for UST abandonment, no further assessment or investigation is recommended at this site.

#### **3.4. L. Romanowski Corporation**

The L. Romanowski Corporation is located 902 W. Maple Street is approximately 0.04 miles from the project site. The business is owned by Larry Romanowski. The L. Romanowski Corporation is a custom hire agriculture operator. The two 500 gallon Aboveground Storage Tanks located on the site are for refueling agricultural equipment. Both tanks appear to be well maintained and are in “like new” condition. There is no record of spills or contamination for this site in the DATCP database. No further assessment or investigation is recommended at this site

### **4. Conclusions and Recommendations**

CBS<sup>2</sup> has completed this Phase 1 HMA for the City of Stanley Industrial Park Development Project that is specifically described in Section 1.1 of this report. During completion of the Phase 1 HMA, CBS<sup>2</sup> identified one potential hazardous materials site within or near the project area.

During the Phase 1 Hazardous Materials investigation of the City of Stanley Industrial Park Development Project, one site had been found that could potentially contain hazardous materials. This site does not have a history of contamination and does not seem to be dangerous. Accordingly, no additional assessment or investigation is recommended for this site. Special provisions should not be necessary given the understood scope of improvements at this property.

### **5. Standard of Care**

The conclusions and recommendations contained in this report were arrived at in accordance with generally accepted professional engineering practice at this time and location. Other than this, no warranty is implied or intended.

### **6. References**

- Environmental Risk Information Services (ERIS) environmental record search and historic aerials.
- Wisconsin Department of Natural Resources, 2014, The Bureau for Remediation and Redevelopment Tracking System (BRRTS) on the Web
- Wisconsin Department of Transportation, December 22, 2011, “Phase 1 Hazardous Material Assessments”
- Bedrock Geologic Map of Wisconsin. 1982 Wisconsin Geologic and Natural Survey History
- NRCS Web Soil Survey
- Wisconsin DATCP Website / Database

**Table 1  
Potential Hazardous Materials Sites Summary**

Report Appendix	Site Name/Address	Owner/Address	Potential Contaminants of Concern	Database Referenced and WDNR BRRTS#	Construction Requirements			Activity Status	Phase 2 or 2.5 SI Recommended?		Special Provisions? (Y/N)	Comments	Recommendations
					acq	eas	exc		Yes	No			
C	<b>Thaler Oil Co., Inc.</b> 807 Janicki Road Stanley, WI 54768	Thaler Oil Co., Inc. 310 S. Main Street Chippewa Falls, WI 54729	Propane	Tier 2 Facility ID: 200309  NAICS: 424710 CAS No: 74986				Operating Tier 2 Facility		X	N	Propane Terminal / Storage Facility	Due to no history of spills or documented contamination, no further assessment or investigation is recommended at this site.
D	<b>Buzz's Body Shop</b> 445 W. Maple Street Stanley, WI 54768	Mylon "Buzz" Halterman 445 W. Maple Street Stanley, WI 54768	Chemicals / Solvents	SHWIMS FID: 609023030				SHWIMS - Closed		X	N	Body Shop Business considered a low-level Hazardous Materials Generator	Due to the amount of Hazardous Waste potentially being generated, no further assessment or investigation is recommended at this site.
E	<b>Gene Gustafson</b> 617 W. Maple Street Stanley, WI 54768	Owner Deceased	Petroleum	UST License #457883 Facility Reference #81373/81373  Tank Reference #265552/090900050				UST - Closed		X	N	1-500 gal leaded tank (Abandoned)  Abandoned without Product  1-Jan-75	Due to UST being documented and abandoned without product, no further assessment or investigation is recommended at this site.
F	<b>L. Romanowski Corp.</b> 902 W. Maple Street Stanley, WI 54768	Larry Romanowski N2118 Skyline Drive Stanley, WI 54768	Petroleum	DATCP - Storage Tank Database				Not in DATCP System		X		Tanks appear to be coated steel, single wall, 500 gallon capacity tanks.	(2) 500 gallon diesel fuel tanks are used for refueling agricultural equipment. The tanks are maintained and do not pose a leak or contamination hazard.

AST = Above ground Storage Tank  
UST= Underground Storage Tank  
Ac. = acre  
acq = acquisition  
BRRTS = Wisconsin Department of Natural Resources Bureau for Remediation and Redevelopment Tracking System  
DSPS = Wisconsin Department of Safety and Professional Services  
exc = excavation  
eas = easement

gal = gallon  
TLE = Temporary Limited Easement  
LUST = Leaking Underground Storage Tank  
NPL = National Priority List  
SHWIMS = Solid and Hazardous Waste Information System  
DCOMM = Wisconsin Department of Commerce

---

## **Figures**

Figure 1 – Project Location Map

Figure 2 – Historical Aerials

Figures 3A & 3B – BRRTS Maps

Figure 4 - Web Soil Survey – Soil Report





**Figure 1**




Project Location Map



# Project Location Map

City of Stanley Industrial Park Development Project

## Legend

-  Project Location
-  Project Location
-  Stanley



Google Earth

2000 ft





**Figure 2**

Historical Aerials



---

# HISTORICAL AERIALS

**Project Property:** City of Stanley Industrial  
Park Development Project  
80th Ave  
Stanley WI 54768

**Project No:** CCEDC 22001

**Requested By:** CBS Squared, Inc

**Order No:** 23031400190

**Date Completed:** March 16,2023

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## **Environmental Risk Information Services**

*A division of Glacier Media Inc.*

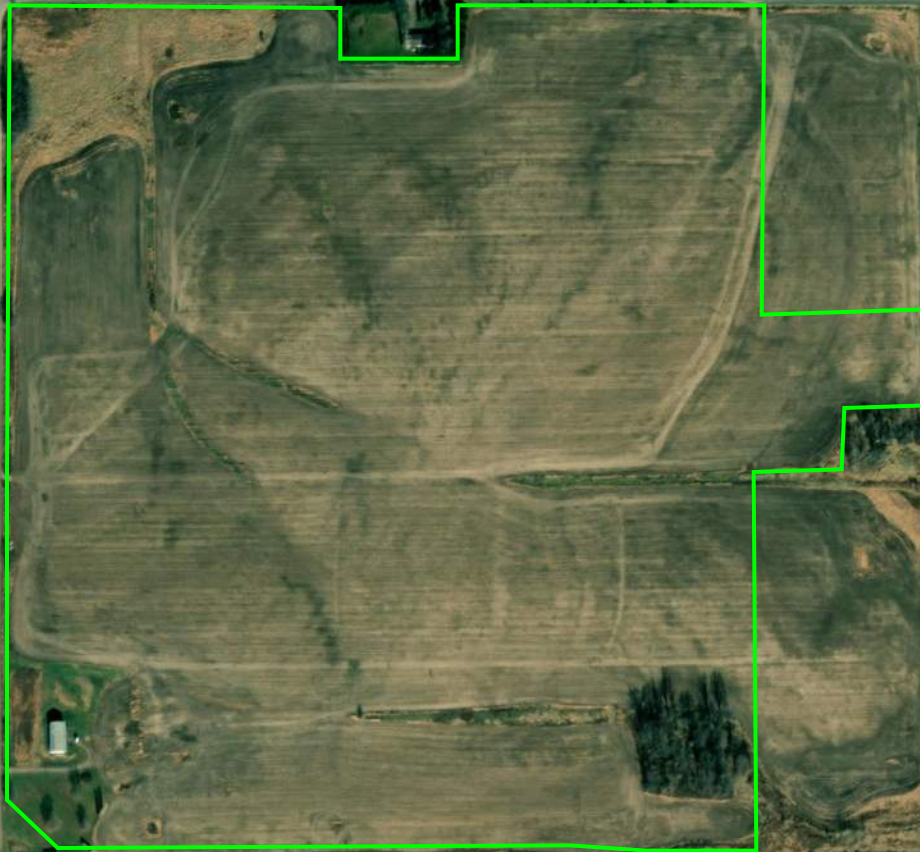
1.866.517.5204 | [info@erisinfo.com](mailto:info@erisinfo.com) | [erisinfo.com](http://erisinfo.com)



<b>Date</b>	<b>Source</b>	<b>Scale</b>	<b>Comments</b>
2021	MAXAR TECHNOLOGIES	1" = 500'	
2020	United States Department of Agriculture	1" = 500'	
2018	United States Department of Agriculture	1" = 500'	
2017	United States Department of Agriculture	1" = 500'	
2015	United States Department of Agriculture	1" = 500'	
2013	United States Department of Agriculture	1" = 500'	
2010	United States Department of Agriculture	1" = 500'	
2008	United States Department of Agriculture	1" = 500'	
2006	United States Department of Agriculture	1" = 500'	
2005	United States Department of Agriculture	1" = 500'	
2004	United States Department of Agriculture	1" = 500'	
1999	United States Geological Survey	1" = 500'	
1992	United States Geological Survey	1" = 500'	Best Copy Available
1980	United States Geological Survey	1" = 500'	
1976	United States Geological Survey	1" = 500'	
1968	Agricultural Stabilization & Conserv. Service	1" = 500'	Photo Index-Best Available
1960	Agricultural Stabilization & Conserv. Service	1" = 500'	
1951	United States Geological Survey	1" = 500'	
1945	United States Geological Survey	1" = 500'	
1938	Agricultural Stabilization & Conserv. Service	1" = 500'	



one inch



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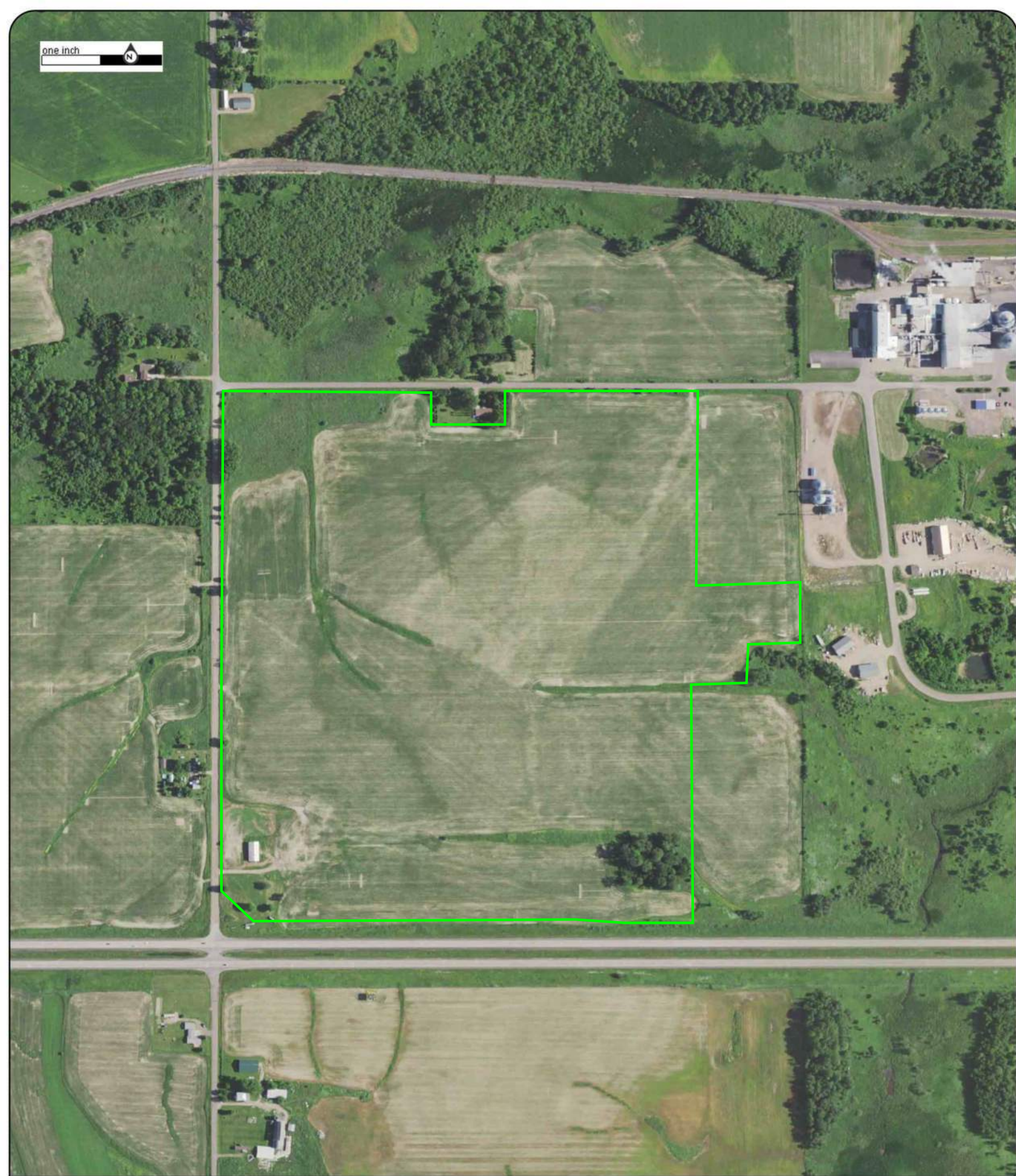
Address: 80th Ave, Stanley, WI  
Approx Center: -90.96929268,44.95539953

Order No: 23031400190





one inch



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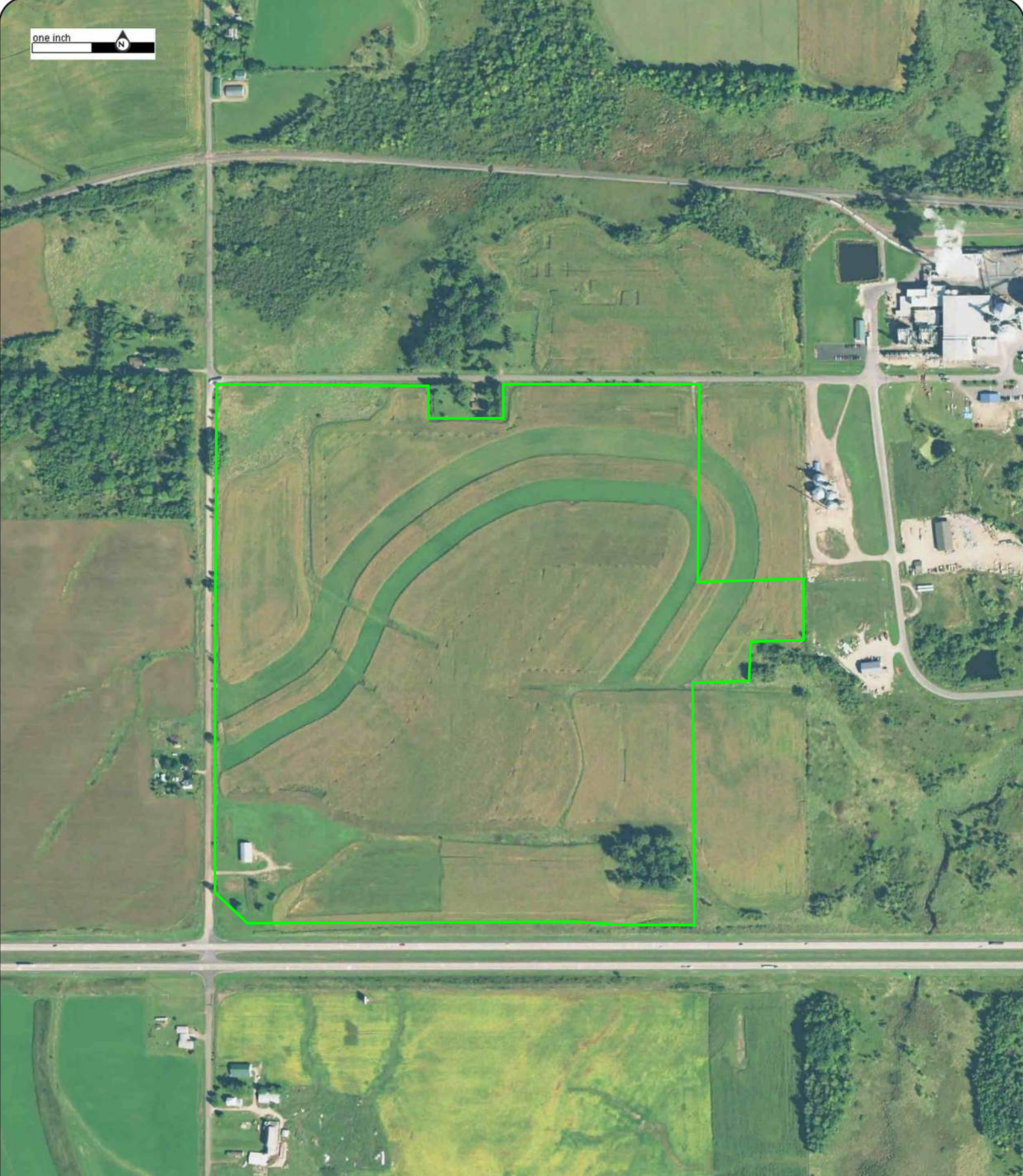
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Order No: 23031400190





one inch



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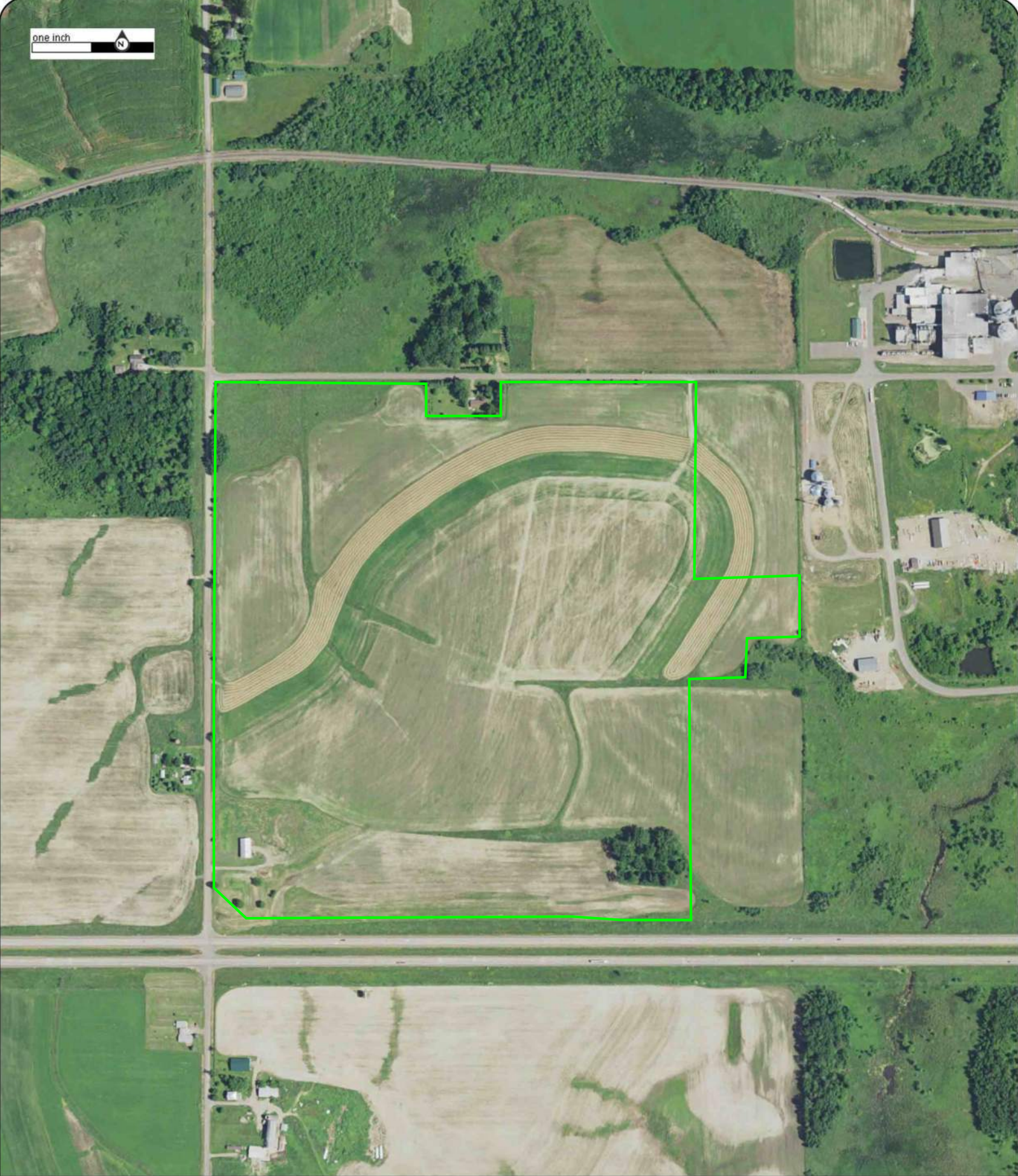
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Order No: 23031400190





one inch



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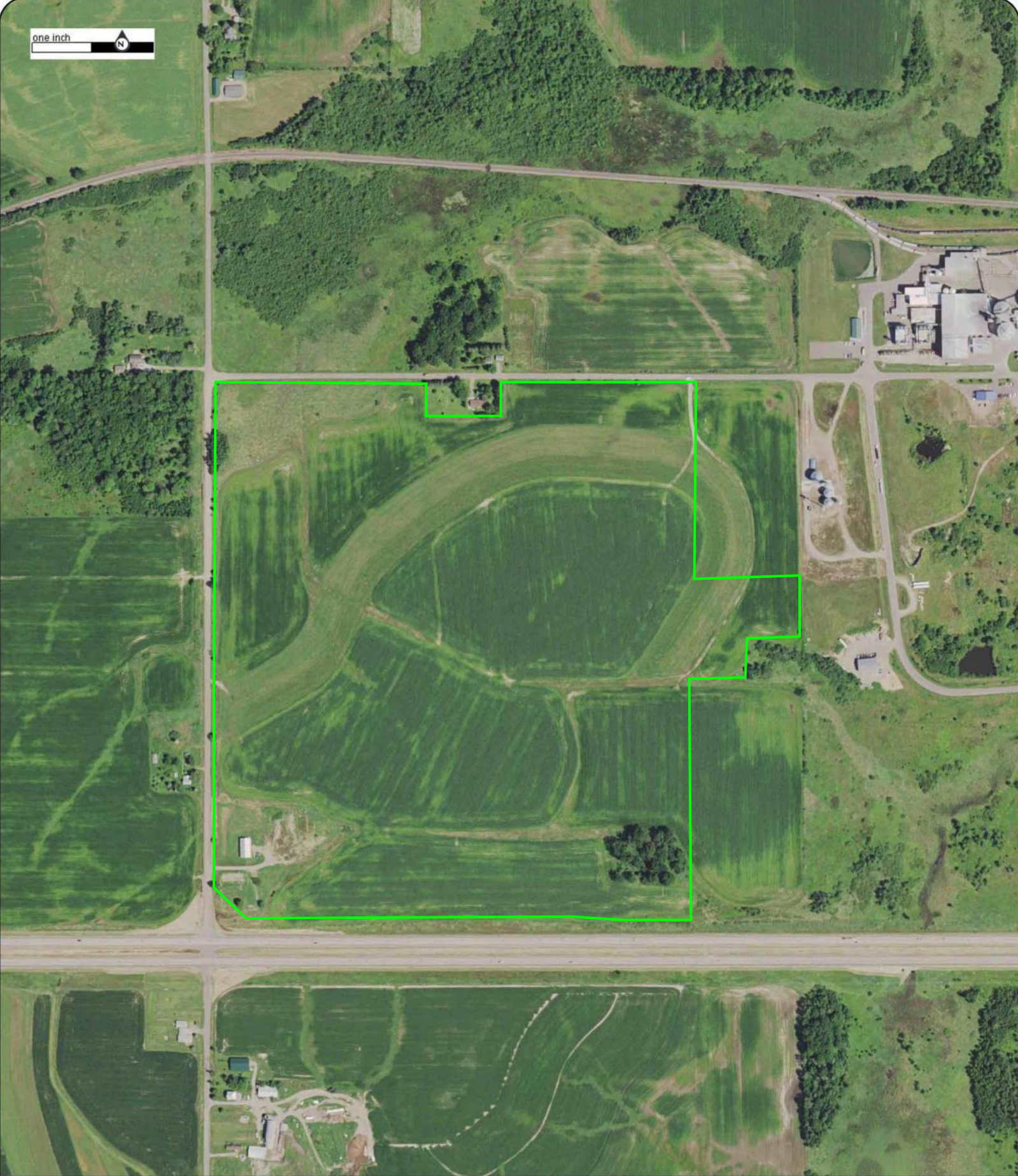
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Order No: 23031400190





one inch



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Comment:

Address: 80th Ave, Stanley, WI  
Approx Center: -90.96929268,44.95539953

Order No: 23031400190





one inch



Year: 2013  
Source: USDA  
Scale: 1" = 500'  
Comment:

Address: 80th Ave, Stanley, WI  
Approx Center: -90.96929268,44.95539953

Order No: 23031400190





one inch



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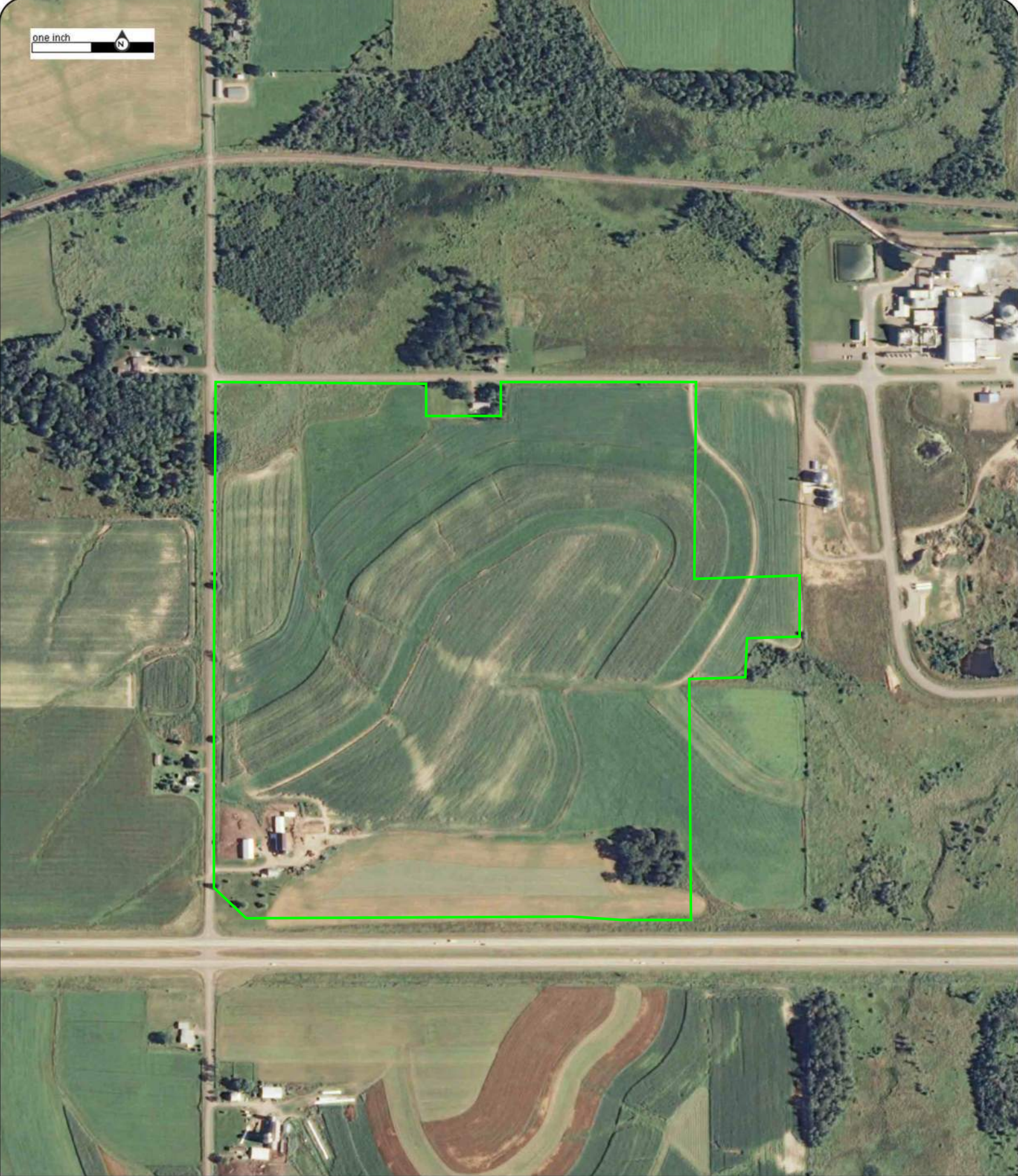
Address: 80th Ave, Stanley, WI  
Approx Center: -90.96929268,44.95539953

Order No: 23031400190





one inch



Year: 2008  
Source: USDA  
Scale: 1" = 500'  
Comment:

Address: 80th Ave, Stanley, WI  
Approx Center: -90.96929268,44.95539953

Order No: 23031400190





one inch



Year: 2006  
Source: USDA  
Scale: 1" = 500'  
Comment:

Address: 80th Ave, Stanley, WI  
Approx Center: -90.96929268,44.95539953

Order No: 23031400190





one inch



Year: 2005  
Source: USDA  
Scale: 1" = 500'  
Comment:

Address: 80th Ave, Stanley, WI  
Approx Center: -90.96929268,44.95539953

Order No: 23031400190





one inch



Year: 2004  
Source: USDA  
Scale: 1" = 500'  
Comment:

Address: 80th Ave, Stanley, WI  
Approx Center: -90.96929268,44.95539953

Order No: 23031400190





one inch



Year: 1999  
Source: USGS  
Scale: 1" = 500'  
Comment:

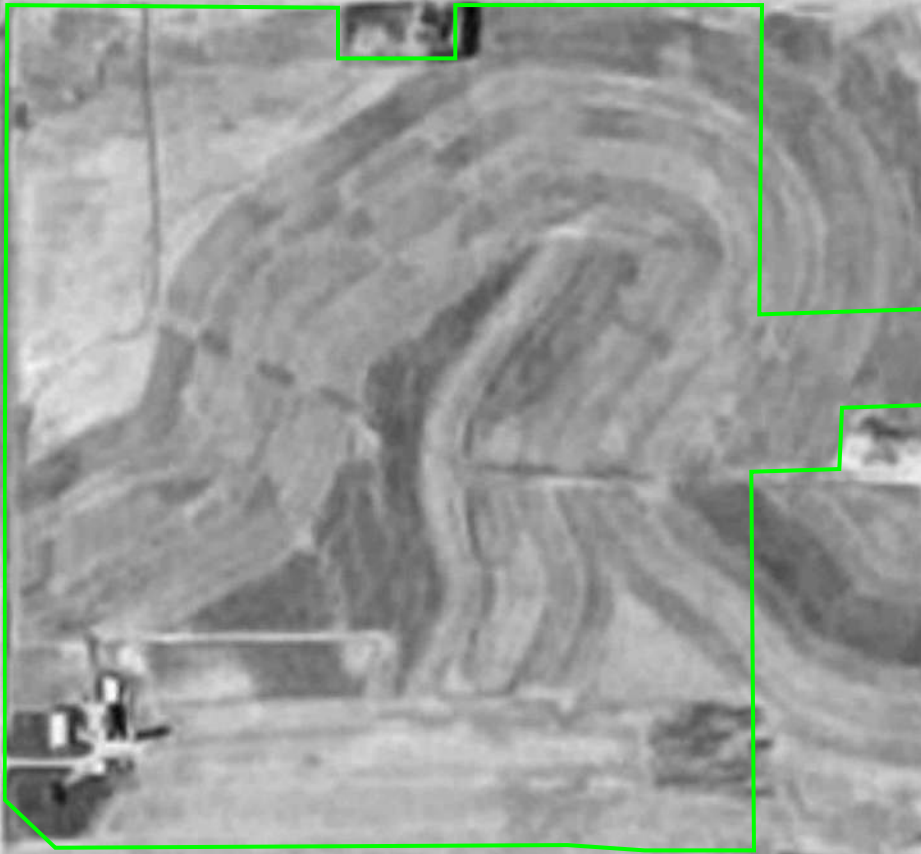
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Order No: 23031400190





one inch



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Source: USGS  
Scale: 1" = 500'  
Comment: Best Copy Available

Address: 80th Ave, Stanley, WI  
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Order No: 23031400190





one inch



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Scale: 1" = 500'  
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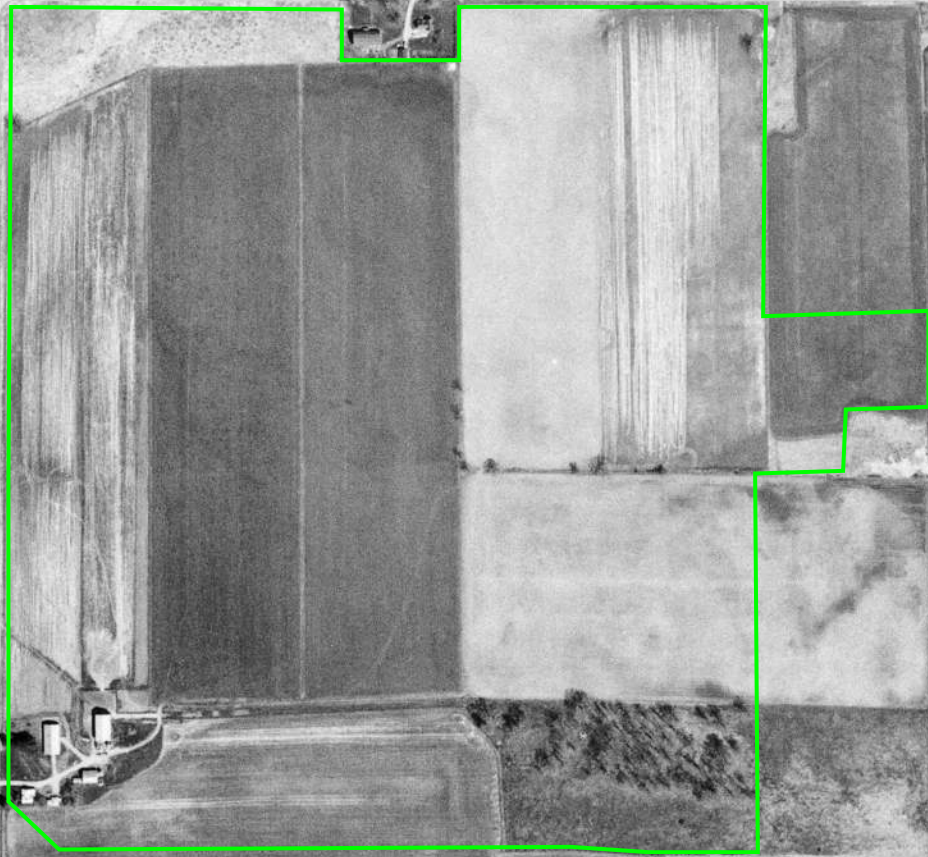
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Order No: 23031400190





one inch



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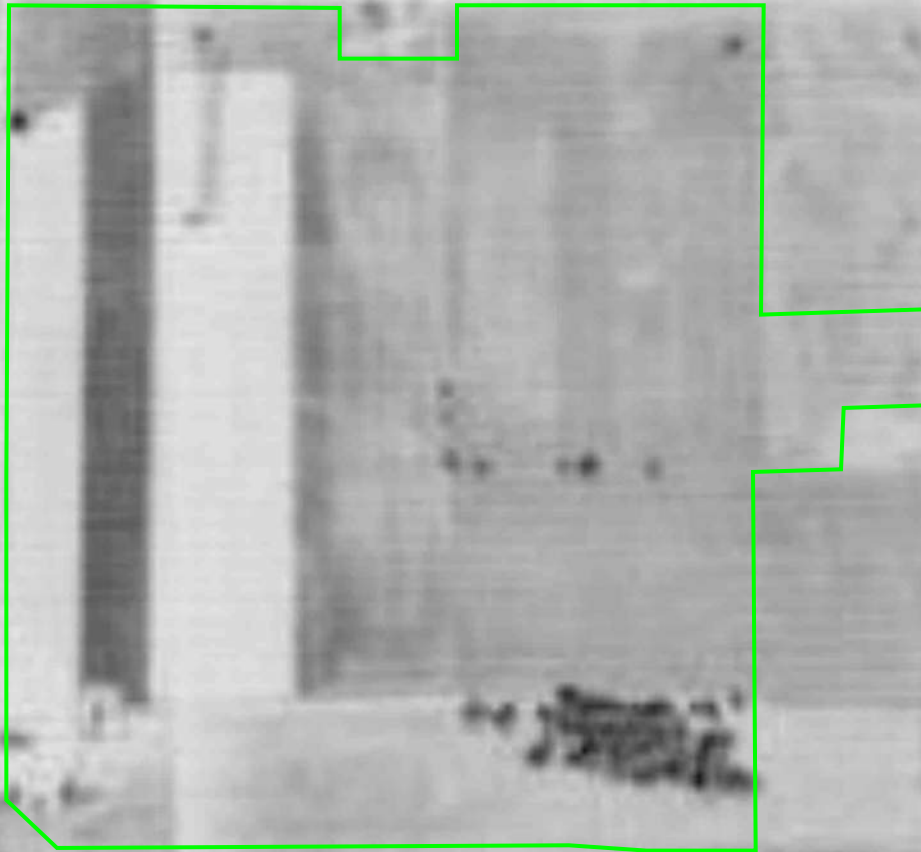
Address: 80th Ave, Stanley, WI  
Approx Center: -90.96929268,44.95539953

Order No: 23031400190





one inch



Year: 1968

Address: 80th Ave, Stanley, WI

Order No: 23031400190

Source: ASCS

Approx Center: -90.96929268,44.95539953

Scale: 1" = 500'

Comment: Photo Index-Best Available





one inch



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Source: ASCS  
Scale: 1" = 500'  
Comment:

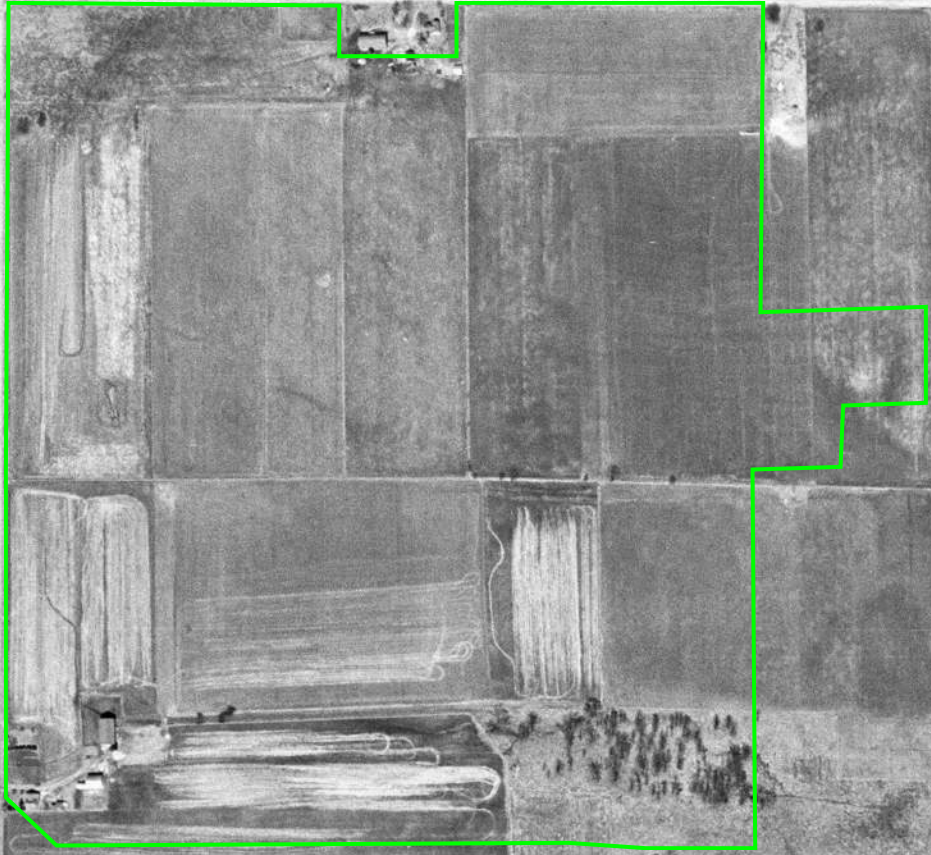
Address: 80th Ave, Stanley, WI  
Approx Center: -90.96929268,44.95539953

Order No: 23031400190





one inch



Year: 1951  
Source: USGS  
Scale: 1" = 500'  
Comment:

Address: 80th Ave, Stanley, WI  
Approx Center: -90.96929268,44.95539953

Order No: 23031400190





one inch



Year: 1945  
Source: USGS  
Scale: 1" = 500'  
Comment:

Address: 80th Ave, Stanley, WI  
Approx Center: -90.96929268,44.95539953

Order No: 23031400190





one inch



Year: 1938  
Source: ASCS  
Scale: 1" = 500'  
Comment:

Address: 80th Ave, Stanley, WI  
Approx Center: -90.96929268,44.95539953

Order No: 23031400190





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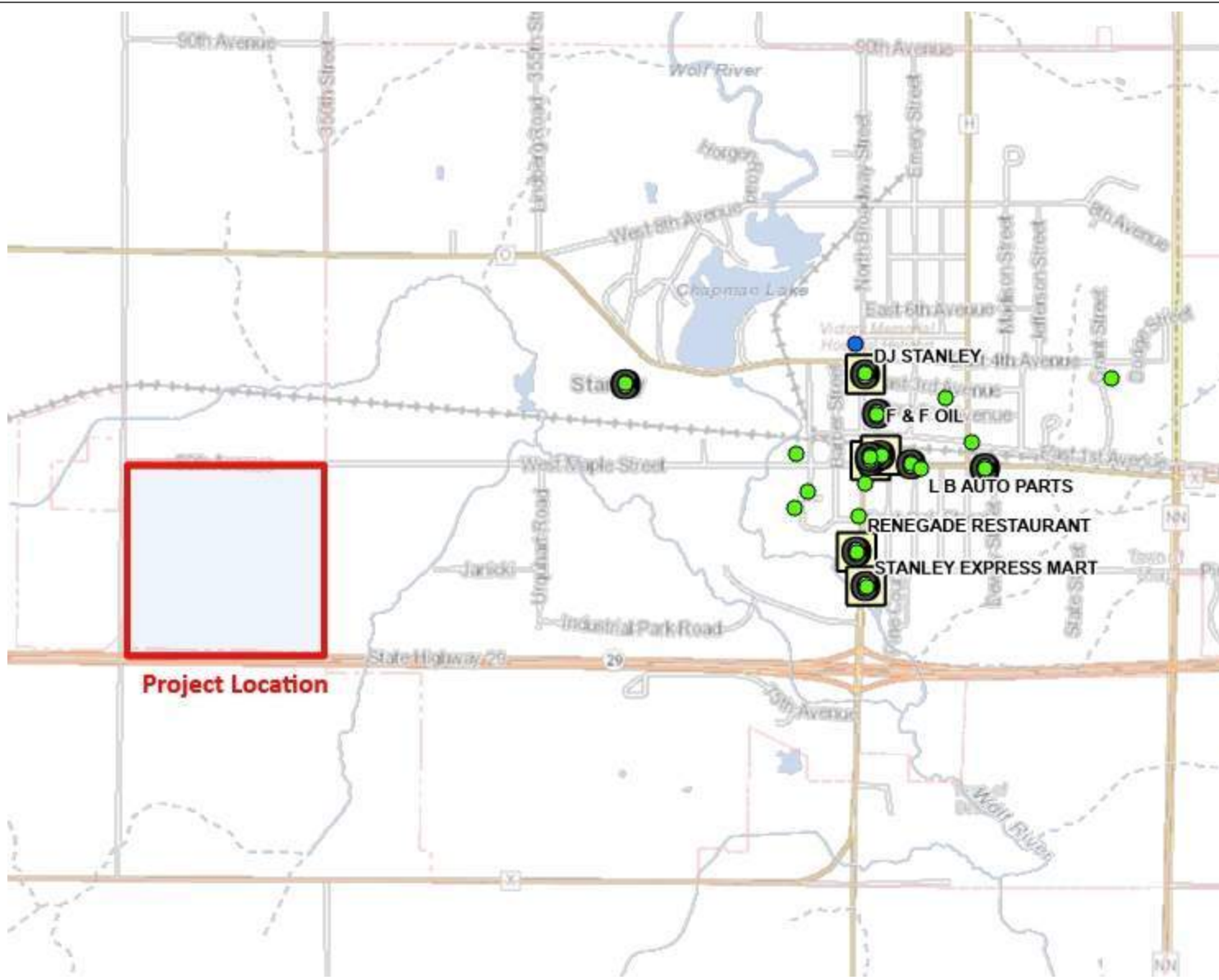
**Figure 3A & 3B**

BRRTS Maps





# City of Stanley Industrial Park Development Project BRRTS Map



### Legend

- Open Site
- Closed Site
- Continuing Obligations Apply
- Impacted Another Property(ies) or Right-
- Facility-wide Site



NAD\_1983\_HARN\_Wisconsin\_TM

1: 23,760



DISCLAIMER: The information shown on these maps has been obtained from various sources, and are of varying age, reliability and resolution. These maps are not intended to be used for navigation, nor are these maps an authoritative source of information about legal land ownership or public access. No warranty, expressed or implied, is made regarding accuracy, applicability for a particular use, completeness, or legality of the information depicted on this map. For more information, see the DNR Legal Notices web page: <http://dnr.wi.gov/org/legal/>

*Note: Not all sites are mapped.*

### Notes







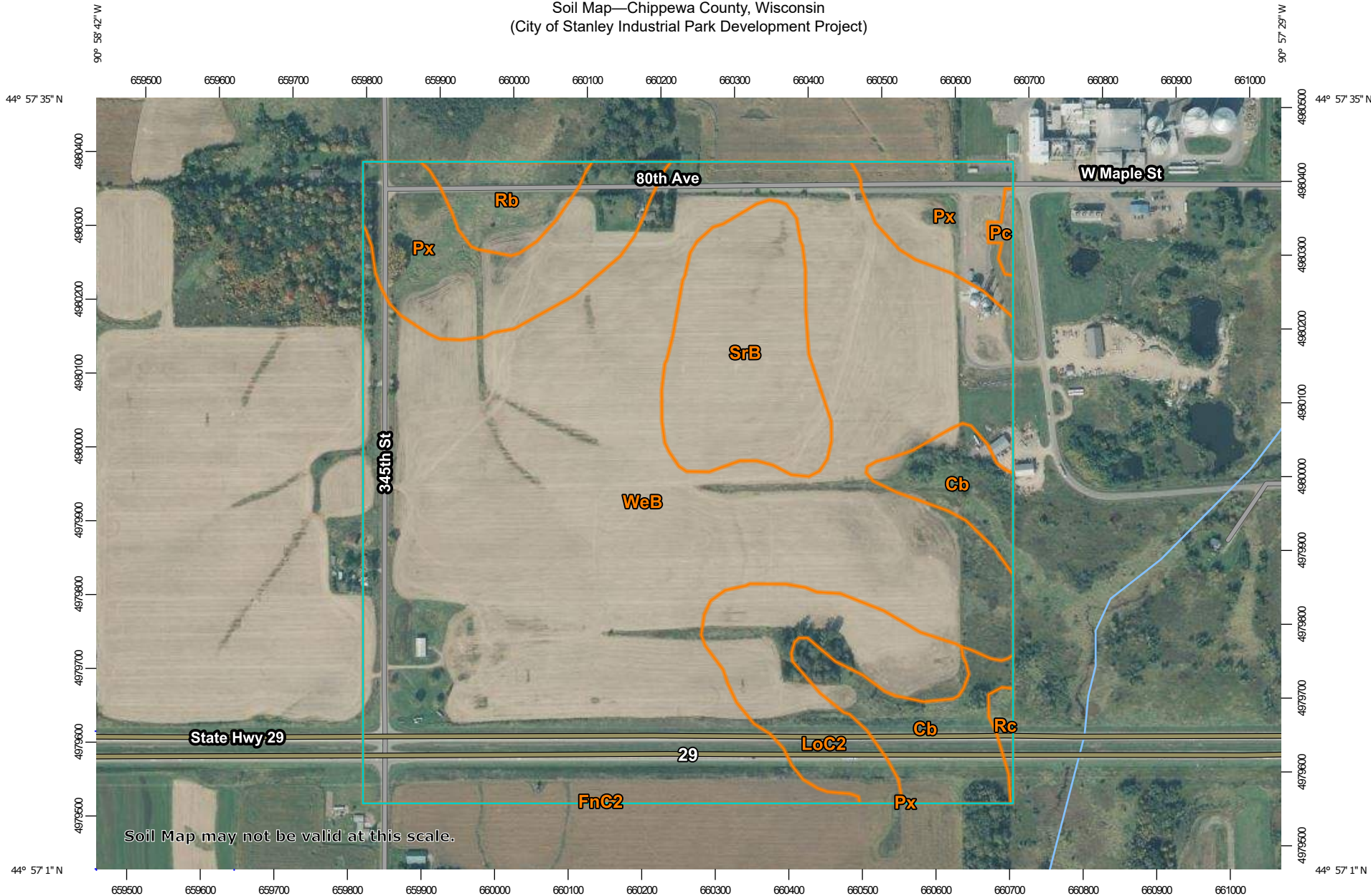


**Figure 4**

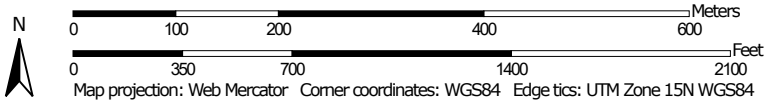
Web Soil Survey – Soil Report



Soil Map—Chippewa County, Wisconsin  
(City of Stanley Industrial Park Development Project)



Map Scale: 1:7,360 if printed on A landscape (11" x 8.5") sheet.








## MAP LEGEND




















### Area of Interest (AOI)






Area of Interest (AOI)

### Soils


-  Soil Map Unit Polygons
-  Soil Map Unit Lines
-  Soil Map Unit Points

### Special Point Features






-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot

-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features

### Water Features

-  Streams and Canals

### Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

### Background

-  Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL:  
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Chippewa County, Wisconsin  
Survey Area Data: Version 19, Sep 15, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Aug 16, 2020—Sep 23, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.



## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Cb	Capitola-Cebana complex, 0 to 2 percent slopes, very stony	12.5	6.6%
FnC2	Freeon silt loam, 6 to 12 percent slopes	0.1	0.0%
LoC2	Loyal silt loam, 6 to 12 percent slopes	13.9	7.3%
Pc	Pits, gravel	0.6	0.3%
Px	Poskin silt loam, 0 to 2 percent slopes	20.5	10.8%
Rb	Rib silt loam, 0 to 2 percent slopes	4.7	2.5%
Rc	Rib mucky silt loam, ponded, 0 to 2 percent slopes	0.7	0.4%
SrB	Spencer silt loam, 2 to 6 percent slopes	16.0	8.4%
WeB	Withee silt loam, 0 to 3 percent slopes	121.6	63.8%
<b>Totals for Area of Interest</b>		<b>190.6</b>	<b>100.0%</b>



---

## **Appendices**

Appendix A – Environmental Records Search Results

Appendix B – Physical Setting Report

Appendix C – Thaler Oil Company, Inc.

Appendix D – Buzz’s Body Shop

Appendix E – Gene Gustafson Residence

Appendix F – L. Romanowski Corporation

Appendix G – Sanborn Fire Map Information



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## **Appendix A**

### Environmental Records Search Results





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# DATABASE REPORT

**Project Property:** *City of Stanley Industrial Park Development  
Project  
80th Ave  
Stanley WI 54768*

**Project No:** *CCEDC 22001*

**Report Type:** *Database Report*

**Order No:** *23031400190*

**Requested by:** *CBS Squared, Inc*

**Date Completed:** *March 14, 2023*



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## **Notice: IMPORTANT LIMITATIONS and YOUR LIABILITY**

**Reliance on information in Report:** This report DOES NOT replace a full Phase I Environmental Site Assessment but is solely intended to be used as database review of environmental records.

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# Executive Summary

## Property Information:

**Project Property:** *City of Stanley Industrial Park Development Project  
80th Ave Stanley WI 54768*

**Project No:** *CCEDC 22001*

**Coordinates:**

<b>Latitude:</b>	<i>44.95539953</i>
<b>Longitude:</b>	<i>-90.96929268</i>
<b>UTM Northing:</b>	<i>4,980,001.86</i>
<b>UTM Easting:</b>	<i>660,175.02</i>
<b>UTM Zone:</b>	<i>15T</i>

**Elevation:** *1,133 FT*

## Order Information:

**Order No:** *23031400190*

**Date Requested:** *March 14, 2023*

**Requested by:** *CBS Squared, Inc*

**Report Type:** *Database Report*

## Historicals/Products:

<b>Aerial Photographs</b>	<i>Historical Aerials (with Project Boundaries)</i>
<b>ERIS Xplorer</b>	<i><u>ERIS Xplorer</u></i>
<b>Excel Add-On</b>	<i>Excel Add-On</i>
<b>Fire Insurance Maps</b>	<i>US Fire Insurance Maps</i>
<b>Physical Setting Report (PSR)</b>	<i>Physical Setting Report (PSR)</i>



# Executive Summary: Report Summary

<i>Database</i>	<i>Searched</i>	<i>Search Radius</i>	<i>Project Property</i>	<i>Within 0.12mi</i>	<i>0.125mi to 0.25mi</i>	<i>0.25mi to 0.50mi</i>	<i>0.50mi to 1.00mi</i>	<i>Total</i>
<b><u>Standard Environmental Records</u></b>								
<b>Federal</b>								
DOE FUSRAP	Y	1	0	0	0	0	0	0
NPL	Y	1	0	0	0	0	0	0
PROPOSED NPL	Y	1	0	0	0	0	0	0
DELETED NPL	Y	0.5	0	0	0	0	-	0
SEMS	Y	0.5	0	0	0	0	-	0
SEMS ARCHIVE	Y	0.5	0	0	0	0	-	0
ODI	Y	0.5	0	0	0	0	-	0
CERCLIS	Y	0.5	0	0	0	0	-	0
IODI	Y	0.5	0	0	0	0	-	0
CERCLIS NFRAP	Y	0.5	0	0	0	0	-	0
CERCLIS LIENS	Y	PO	0	-	-	-	-	0
RCRA CORRACTS	Y	1	0	0	0	0	0	0
RCRA TSD	Y	0.5	0	0	0	0	-	0
RCRA LQG	Y	0.25	0	0	0	-	-	0
RCRA SQG	Y	0.25	0	0	0	-	-	0
RCRA VSQG	Y	0.25	0	0	0	-	-	0
RCRA NON GEN	Y	0.25	0	0	0	-	-	0
RCRA CONTROLS	Y	0.5	0	0	0	0	-	0
FED ENG	Y	0.5	0	0	0	0	-	0
FED INST	Y	0.5	0	0	0	0	-	0
LUCIS	Y	0.5	0	0	0	0	-	0
NPL IC	Y	0.5	0	0	0	0	-	0
ERNS 1982 TO 1986	Y	PO	0	-	-	-	-	0
ERNS 1987 TO 1989	Y	PO	0	-	-	-	-	0
ERNS	Y	PO	0	-	-	-	-	0
FED BROWNFIELDS	Y	0.5	0	0	0	0	-	0
FEMA UST	Y	0.25	0	0	0	-	-	0



Database	Searched	Search Radius	Project Property	Within 0.12mi	0.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
FRP	Y	0.25	0	0	0	-	-	0
DELISTED FRP	Y	0.25	0	0	0	-	-	0
HIST GAS STATIONS	Y	0.25	0	0	0	-	-	0
REFN	Y	0.25	0	0	0	-	-	0
BULK TERMINAL	Y	0.25	0	0	0	-	-	0
SEMS LIEN	Y	PO	0	-	-	-	-	0
SUPERFUND ROD	Y	1	0	0	0	0	0	0

**State**

SHWS	Y	1	0	0	0	0	0	0
SWF/LF	Y	0.5	0	0	0	0	-	0
WDS	Y	0.5	0	0	0	0	-	0
HIST LF	Y	0.5	0	0	0	0	-	0
SHWIMS	Y	0.25	0	0	0	-	-	0
LUST	Y	0.5	0	0	0	0	-	0
LAST	Y	0.5	0	0	0	0	-	0
DELISTED LST	Y	0.5	0	0	0	0	-	0
UST	Y	0.25	0	0	0	-	-	0
AST	Y	0.25	0	0	0	-	-	0
DEL STORAGE TANK	Y	0.25	0	0	0	-	-	0
CRS	Y	0.5	0	0	0	0	-	0
AUL	Y	0.5	0	0	0	0	-	0
VCP	Y	0.5	0	0	0	0	-	0
BEAP	Y	0.5	0	0	0	0	-	0
BROWNFIELDS	Y	0.5	0	0	0	0	-	0
BSA PROJECTS	Y	0.5	0	0	0	0	-	0
BGP	Y	0.5	0	0	0	0	-	0
ERP	Y	0.5	0	0	0	0	-	0

**Tribal**

INDIAN LUST	Y	0.5	0	0	0	0	-	0
INDIAN UST	Y	0.25	0	0	0	-	-	0
DELISTED INDIAN LST	Y	0.5	0	0	0	0	-	0
DELISTED INDIAN UST	Y	0.25	0	0	0	-	-	0

**County**

**No County databases were selected to be included in the search.**

<i>Database</i>	<i>Searched</i>	<i>Search Radius</i>	<i>Project Property</i>	<i>Within 0.12mi</i>	<i>0.125mi to 0.25mi</i>	<i>0.25mi to 0.50mi</i>	<i>0.50mi to 1.00mi</i>	<i>Total</i>
<b>Additional Environmental Records</b>								
<b>Federal</b>								
FINDS/FRS	Y	PO	0	-	-	-	-	0
TRIS	Y	PO	0	-	-	-	-	0
PFAS TRI	Y	0.5	0	0	0	0	-	0
ERNS PFAS	Y	0.5	0	0	0	0	-	0
PFAS FED SITES	Y	0.5	0	0	0	0	-	0
PFAS NPL	Y	0.5	0	0	0	0	-	0
PFAS NPDES	Y	0.5	0	0	0	0	-	0
PFAS SSEHRI	Y	0.5	0	0	0	0	-	0
PFAS WATER	Y	0.5	0	0	0	0	-	0
HMIRS	Y	0.125	0	0	-	-	-	0
NCDL	Y	0.125	0	0	-	-	-	0
TSCA	Y	0.125	0	0	-	-	-	0
HIST TSCA	Y	0.125	0	0	-	-	-	0
FTTS ADMIN	Y	PO	0	-	-	-	-	0
FTTS INSP	Y	PO	0	-	-	-	-	0
PRP	Y	PO	0	-	-	-	-	0
SCRD DRYCLEANER	Y	0.5	0	0	0	0	-	0
ICIS	Y	PO	0	-	-	-	-	0
FED DRYCLEANERS	Y	0.25	0	0	0	-	-	0
DELISTED FED DRY	Y	0.25	0	0	0	-	-	0
FUDS	Y	1	0	0	0	0	0	0
FORMER NIKE	Y	1	0	0	0	0	0	0
PIPELINE INCIDENT	Y	PO	0	-	-	-	-	0
MLTS	Y	PO	0	-	-	-	-	0
HIST MLTS	Y	PO	0	-	-	-	-	0
MINES	Y	0.25	0	0	0	-	-	0
SMCRA	Y	1	0	0	0	0	0	0
MRDS	Y	1	0	0	0	0	0	0
LM SITES	Y	1	0	0	0	0	0	0
ALT FUELS	Y	0.25	0	0	0	-	-	0
CONSENT DECREES	Y	0.25	0	0	0	-	-	0
AFS	Y	PO	0	-	-	-	-	0
SSTS	Y	0.25	0	0	0	-	-	0



Database	Searched	Search Radius	Project Property	Within 0.12mi	0.125mi to 0.25mi	0.25mi to 0.50mi	0.50mi to 1.00mi	Total
PCBT	Y	0.5	0	0	0	0	-	0
PCB	Y	0.5	0	0	0	0	-	0
<b>State</b>								
TIER 2	Y	0.125	0	1	-	-	-	1
SPILLS	Y	0.125	0	0	-	-	-	0
AGSPILLS	Y	0.125	0	0	-	-	-	0
AG SPILL REMED	Y	0.25	0	0	0	-	-	0
BRRTS	Y	PO	0	-	-	-	-	0
DELISTED BRRT	Y	0.5	0	0	0	0	-	0
PFAS	Y	0.5	0	0	0	0	-	0
DRYC REM	Y	0.25	0	0	0	-	-	0
DRYCLEANERS	Y	0.25	0	0	0	-	-	0
DELISTED DRYC REM	Y	0.25	0	0	0	-	-	0
LIENS	Y	PO	0	-	-	-	-	0

**Tribal** *No Tribal additional environmental record sources available for this State.*

**County** *No County additional environmental record sources available for this State.*

---

**Total:** 0 1 0 0 0 0 1

\* PO – Property Only

\* 'Property and adjoining properties' database search radii are set at 0.25 miles.

## Executive Summary: Site Report Summary - Project Property

<i>Map Key</i>	<i>DB</i>	<i>Company/Site Name</i>	<i>Address</i>	<i>Direction</i>	<i>Distance (mi/ft)</i>	<i>Elev Diff (ft)</i>	<i>Page Number</i>
--------------------	-----------	--------------------------	----------------	------------------	-----------------------------	---------------------------	------------------------

No records found in the selected databases for the project property.



## Executive Summary: Site Report Summary - Surrounding Properties

<i>Map Key</i>	<i>DB</i>	<i>Company/Site Name</i>	<i>Address</i>	<i>Direction</i>	<i>Distance (mi/ft)</i>	<i>Elev Diff (ft)</i>	<i>Page Number</i>
<a href="#">1</a>	TIER 2	THALER OIL COMPANY, INC.	807 JANICKI ROAD STANLEY WI 54729	ENE	0.08 / 431.55	-31	<a href="#">16</a>

## Executive Summary: Summary by Data Source

### **Non Standard**

#### **State**

#### **TIER 2 - Tier 2 Report**

A search of the TIER 2 database, dated Jan 19, 2023 has found that there are 1 TIER 2 site(s) within approximately 0.12 miles of the project property.

<b><u>Lower Elevation</u></b>	<b><u>Address</u></b>	<b><u>Direction</u></b>	<b><u>Distance (mi/ft)</u></b>	<b><u>Map Key</u></b>
THALER OIL COMPANY, INC.	807 JANICKI ROAD STANLEY WI 54729	ENE	0.08 / 431.55	<a href="#">1</a>



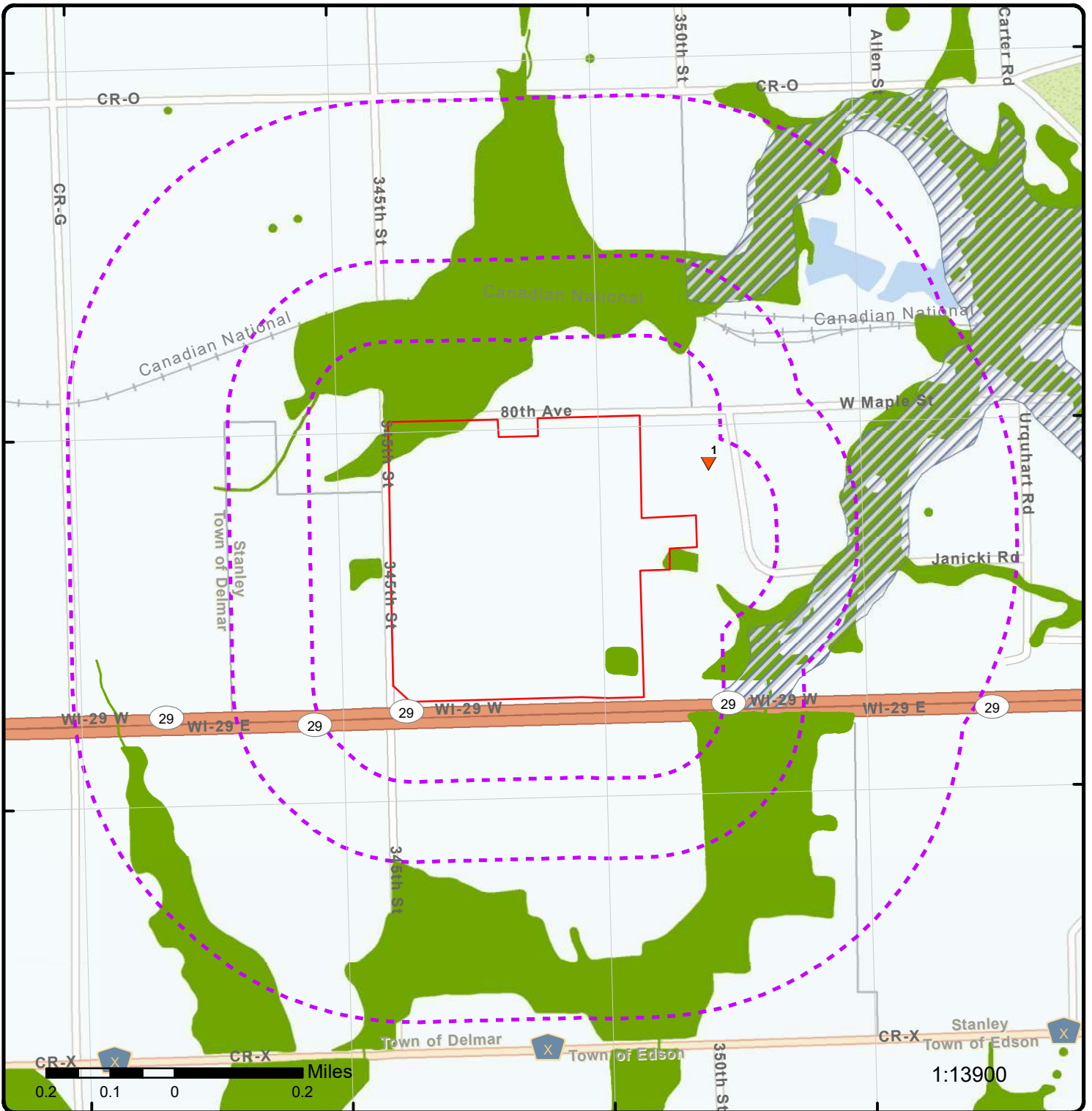


**Map: 1.0 Mile Radius**

Order Number: 23031400190  
 Address: 80th Ave, Stanley, WI



- |                              |                        |                     |  |
|------------------------------|------------------------|---------------------|--|
| Project Property             | Buffer Outline         | State               | FWS Special Designation Areas  |
| Sites with Higher Elevation  | Freeways; Highways     | Country             | National Priorities List (Active, Delisted, Proposed, Institutional Control) |
| Sites with Same Elevation    | Traffic Circle; Ramp   | National Wetland    |  |
| Sites with Lower Elevation   | Major & Minor Arterial | Indian Reserve Land |  |
| Sites with Unknown Elevation | Traffic Circle; Ramp   | Plume               |  |
| Areas with Higher Elevation  | Local Road             | 100 Year Flood Zone |  |
| Areas with Same Elevation    | Rail                   | 500 Year Flood Zone |  |
| Areas with Lower Elevation   |                        |                     |  |
| Areas with Unknown Elevation |                        |                     |  |



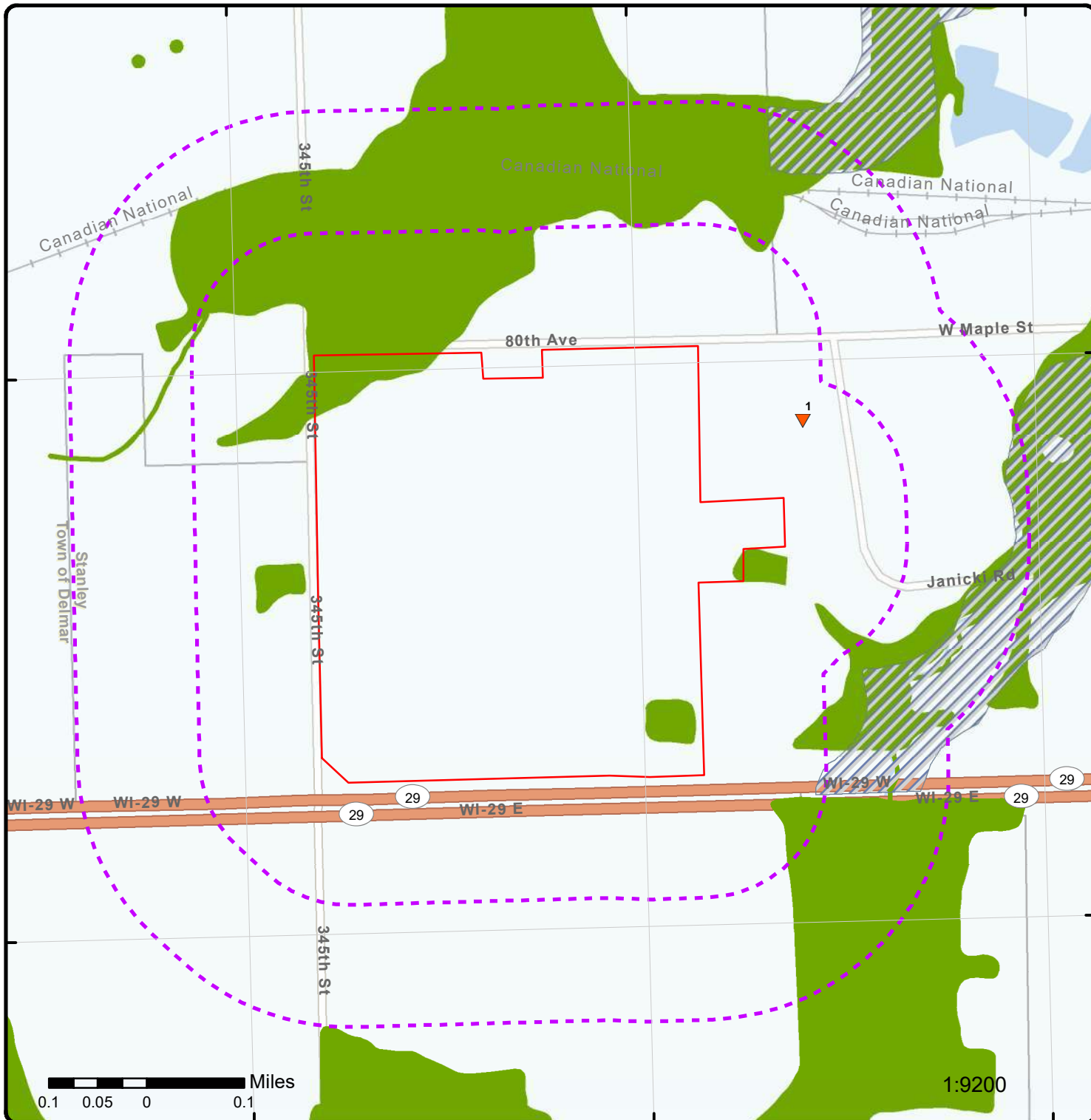
### Map: 0.5 Mile Radius

Order Number: 23031400190  
Address: 80th Ave, Stanley, WI



- Project Property
- Buffer Outline
- ▲ Sites with Higher Elevation
- Sites with Same Elevation
- ▼ Sites with Lower Elevation
- Sites with Unknown Elevation
- Areas with Higher Elevation
- Areas with Same Elevation
- Areas with Lower Elevation
- Areas with Unknown Elevation
- Freeways; Highways
- Traffic Circle; Ramp
- Major & Minor Arterial
- Traffic Circle; Ramp
- Local Road
- Rail
- State
- Country
- National Wetland
- Indian Reserve Land
- Plume
- 100 Year Flood Zone
- 500 Year Flood Zone
- FWS Special Designation Areas
- National Priorities List (Active, Delisted, Proposed, Institutional Control)





### Map: 0.25 Mile Radius

Order Number: 23031400190

Address: 80th Ave, Stanley, WI



- |                              |                        |                     |                     |  |
|------------------------------|------------------------|---------------------|---------------------|--|
| Project Property             | Buffer Outline         | Freeways; Highways  | State               | FWS Special Designation Areas  |
| Sites with Higher Elevation  | Traffic Circle; Ramp   | Country             | National Wetland    | National Priorities List (Active, Delisted, Proposed, Institutional Control) |
| Sites with Same Elevation    | Major & Minor Arterial | Indian Reserve Land | Plume               |  |
| Sites with Lower Elevation   | Traffic Circle; Ramp   | 100 Year Flood Zone | 500 Year Flood Zone |  |
| Sites with Unknown Elevation | Local Road             | Rail                |                     |  |
| Areas with Higher Elevation  |                        |                     |                     |  |
| Areas with Same Elevation    |                        |                     |                     |  |
| Areas with Lower Elevation   |                        |                     |                     |  |
| Areas with Unknown Elevation |                        |                     |                     |  |

90°58'30"W

90°58'W

90°57'30"W

44°57'30"N

44°57'30"N

44°57'N

44°57'N



Service Layer Credits: Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

1:10000

**Aerial** Year: 2020

Address: 80th Ave, Stanley, WI

Source: ESRI World Imagery

Order Number: 23031400190

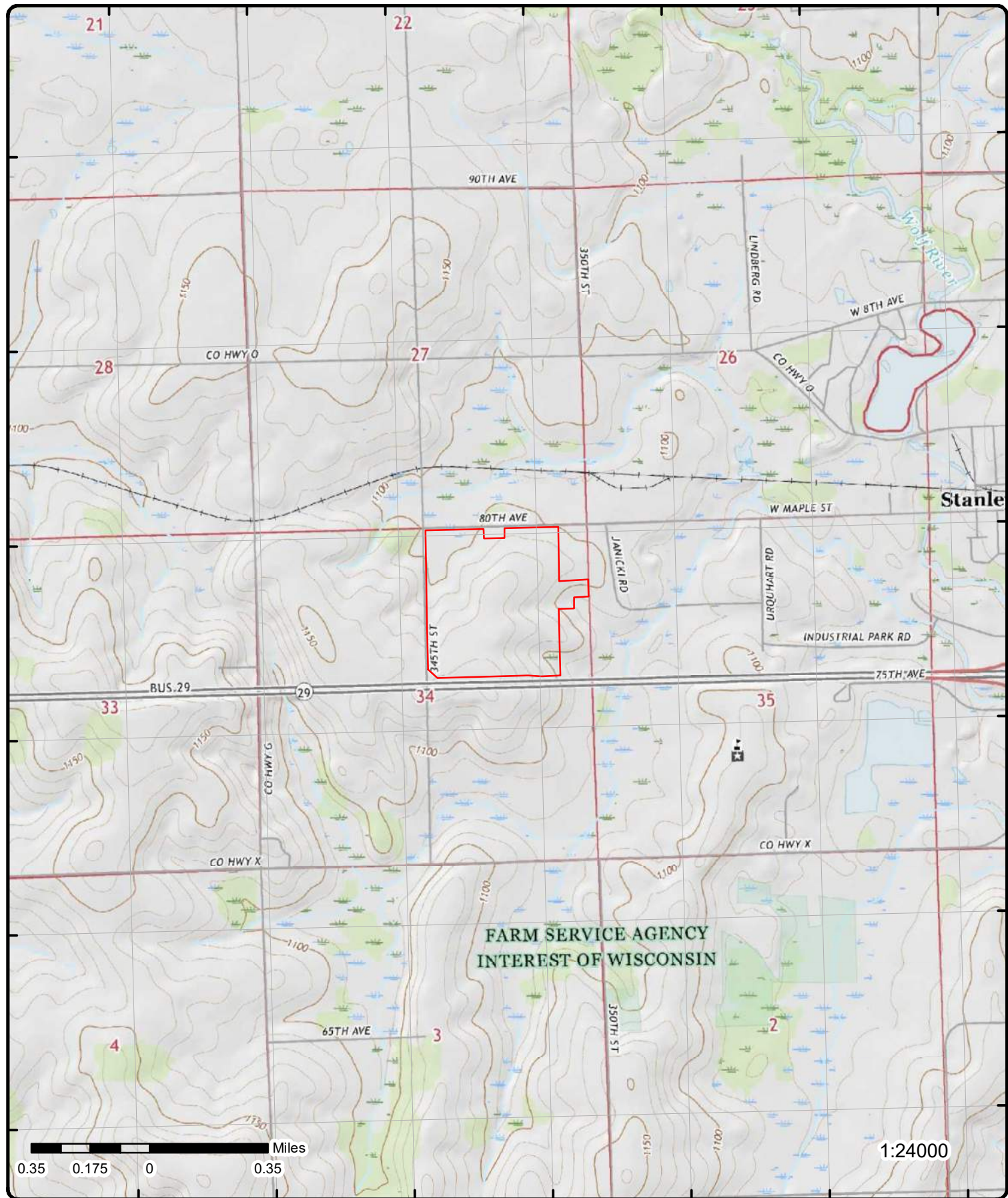


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90°59'30"W 90°59'W 90°58'30"W 90°58'W 90°57'30"W 90°57'W 90°56'30"W

44°58'30"N  
44°58'N  
44°57'30"N  
44°57'N  
44°56'30"N  
44°56'N



44°58'30"N  
44°58'N  
44°57'30"N  
44°57'N  
44°56'30"N  
44°56'N

# Topographic Map

Year: 2018

Order Number: 23031400190

Address: 80th Ave, WI



Quadrangle(s): Stanley, WI; Boyd, WI

© ERIS Information Inc.

Source: USGS Topographic Map

# Detail Report

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
<u>1</u>	1 of 1	ENE	0.08 / 431.55	1,101.63 / -31	THALER OIL COMPANY, INC. 807 JANICKI ROAD STANLEY WI 54729	TIER 2

<b>Facility ID:</b> 200309 <b>Facility Status:</b> ACTIVE <b>Facility Type:</b> Facility <b>NAICS:</b> 424710 <b>Company Name:</b> - <b>No of EHS More Than TPQ:</b> 0	<b>Country:</b> US <b>No of Chemicals:</b> 1 <b>No of EHS Chemicals:</b> 0 <b>Avg Daily Amt Unit:</b> lbs
---	--

**Tier 2 Facilities Details**

<b>CAS No:</b> 74986 <b>No of Days Onsite:</b> 365 <b>Max Daily Amount:</b> 203520 <b>Is Pure:</b> Yes <b>Is EHS:</b> No <b>Is Mix:</b> No <b>Is Solid State:</b> No <b>Is Liquid State:</b> Yes <b>Is Reactive Haz:</b> Yes <b>Is Immediate Haz:</b> No <b>Is Delayed Hazard:</b> No <b>Combustible Dust:</b> No <b>EHS Name:</b> <b>Chemical Name:</b> PROPANE <b>Sudden Release Pressure Haz:</b> Yes <b>Corrosive to Metal:</b> No <b>Gas Under Pressure:</b> Yes <b>Emission of Gas with Water:</b> No <b>Is Pyrophoric Liquid or Solid:</b> No <b>Is Germ Cell Mutagenicity:</b> No <b>Is Reproductive Toxicity:</b> No <b>Respiratory Skin Sensitize:</b> No <b>Serious Eye Damage Irritation:</b> No <b>Is Simple Asphyxiant:</b> No <b>Skin Corrosion or Irritation:</b> Yes <b>Specific Target Organ Toxic:</b> No	<b>Is Explosive:</b> No <b>Is Flammable:</b> Yes <b>Is Physical HNOC:</b> No <b>Organic Peroxide:</b> No <b>Is Oxidizer:</b> No <b>Is Pyrophoric Gas:</b> No <b>Is Self Heating:</b> No <b>Is Self Reactive:</b> No <b>Is Acute Toxicity:</b> No <b>Is Aspiration Haz:</b> No <b>Is Carcinogenic:</b> No <b>Is Health HNOC:</b> No
---	---



# Unplottable Summary

Total: 2 Unplottable sites

DB	Company Name/Site Name	Address	City	Zip	ERIS ID
SHWIMS	BUZZS BODY SHOP	RT 2 W MAPLE	STANLEY WI	54768	867389552
UST	Gene Gustafson	W Maple St	Stanley WI	54768	866805479

*License No:* 457883  
*Tank ID | Tank Status | Install Date:* 32459 | Abandoned without Product |

# Unplottable Report

**Site:** BUZZS BODY SHOP  
RT 2 W MAPLE STANLEY WI 54768

SHWIMS

**FID:** 609023030  
**Status:** OPERATING  
**Activity Type:** HW Generator Activities

**County:** CHIPPEWA  
**Region:** WEST CENTRAL

**Site:** Gene Gustafson  
W Maple St Stanley WI 54768

UST

**License No:** 457883  
**Facility Ref No:** 81373|81373  
**Fire Department ID:** 0909  
**License Type:** Registration  
**License:** Storage Tank Registration  
**Licensee:** GENE GUSTAFSON

**Expiration Date:**  
**Fire Department Nm:** Stanley  
**Municipality Name:** City of Stanley  
**Property County:** Chippewa County

## Tank Details

**Tank ID:** 32459  
**Tank Reference No:** 265552|090900050  
**Equipment Wang ID:** 090900050  
**CAS No:**  
**Tank Status:** Abandoned without Product  
**Tank Type:** Underground Storage Tank  
**Tank Contents:** Leaded Gasoline  
**Tank Occupancy:** Residential  
**Install Date:**  
**Capacity:** 500.00  
**Construction Material:** Coated Steel  
**Wall Size:** Single

**Federally Regulated:** No  
**Leak Detection:**  
**Leak Test Method:**  
**Contain Sump Install:** No  
**Dispen Sump Install:** No  
**Marketer:** No  
**Spill Protection:** Not Installed  
**Overfill Protection:** Not Installed  
**Overfill Protect Type:** Not Installed  
**Corrosion Protect Ty:**  
**Date of Lining:**  
**Lining Inspect Date:**

## Pipe Details

**Related Tank ID:** 118830  
**Status:** Abandoned without Product  
**Type:** Piping (Storage Tank)  
**System Type:**  
**Wall Type:** Single  
**Construction Material:** Unknown  
**Catastrop Leak Detn:**  
**Aboveground Piping:** No  
**Underground Piping:** Yes

**UST Manifoldd:** No  
**Flex Connector:** No  
**Leak Test Method:**  
**Leak Detection:** Unknown  
**Corrosion Protection:**  
**Latest Test Name:**  
**Latest Test Date:**  
**Latest Test Expire Dt:**

## MyDATCP Storage Tank Search - Tank Details

**Tank ID:** 32459  
**Wang ID:** 090900050  
**CAS No:**  
**Tank Status:** Abandoned without Product as of 1975-01-01  
**Install Date:**  
**Tank Type:** Underground Storage Tank  
**Tank Occupancy:** Residential  
**Wall Type:** Single  
**Federally Regulated:** No  
**Leak Detection:**  
**Leak Test Method:**

**Corrosion Protect Ty:**  
**Overfill Protect Type:** Not Installed  
**Construction Material:** Coated Steel  
**Capacity in Gallons:** 500  
**Marketer:** No  
**Spill Protection:** Not Installed  
**Date of Lining:**  
**Contents:** Leaded Gasoline  
**Overfill Protection:** Not Installed  
**Lining Inspect Date:**  
**Underground Piping:** Yes



**Contain Sump Install:** No

**MyDATCP Storage Tank Search - Owner Details**

**Site Anniversary Date:**

**Owner Name:** Gene Gustafson  
**Owner Address1:** W Maple St  
**Owner Address2:**  
**Owner City:** Stanley  
**Owner State:** WI  
**Owner Zip:** 54768

## Appendix: Database Descriptions

*Environmental Risk Information Services (ERIS) can search the following databases. The extent of historical information varies with each database and current information is determined by what is publicly available to ERIS at the time of update. ERIS updates databases as set out in ASTM Standard E1527-13 and E1527-21, Section 8.1.8 Sources of Standard Source Information:*

*"Government information from nongovernmental sources may be considered current if the source updates the information at least every 90 days, or, for information that is updated less frequently than quarterly by the government agency, within 90 days of the date the government agency makes the information available to the public."*

### **Standard Environmental Record Sources**

#### **Federal**

##### **Formerly Utilized Sites Remedial Action Program:**

[DOE FUSRAP](#)

The U.S. Department of Energy (DOE) established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from the Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations. The DOE Office of Legacy Management (LM) established long-term surveillance and maintenance (LTS&M) requirements for remediated FUSRAP sites. DOE evaluates the final site conditions of a remediated site on the basis of risk for different future uses. DOE then confirms that LTS&M requirements will maintain protectiveness.

**Government Publication Date: Mar 4, 2017**

##### **National Priority List:**

[NPL](#)

Sites on the United States Environmental Protection Agency (EPA)'s National Priorities List of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action under the Superfund program. The NPL, which EPA is required to update at least once a year, is based primarily on the score a site receives from EPA's Hazard Ranking System. A site must be on the NPL to receive money from the Superfund Trust Fund for remedial action. Sites are represented by boundaries where available in the EPA Superfund Site Boundaries maintained by the Shared Enterprise Geodata and Services (SEGS). Site boundaries represent the footprint of a whole site, the sum of all of the Operable Units and the current understanding of the full extent of contamination; for Federal Facility sites, the total site polygon may be the Facility boundary. Where there is no polygon boundary data available for a given site, the site is represented as a point.

**Government Publication Date: Nov 3, 2022**

##### **National Priority List - Proposed:**

[PROPOSED NPL](#)

Sites proposed by the United States Environmental Protection Agency (EPA), the state agency, or concerned citizens for addition to the National Priorities List (NPL) due to contamination by hazardous waste and identified by the EPA as a candidate for cleanup because it poses a risk to human health and/or the environment. Sites are represented by boundaries where available in the EPA Superfund Site Boundaries maintained by the Shared Enterprise Geodata and Services (SEGS). Site boundaries represent the footprint of a whole site, the sum of all of the Operable Units and the current understanding of the full extent of contamination; for Federal Facility sites, the total site polygon may be the Facility boundary. Where there is no polygon boundary data available for a given site, the site is represented as a point.

**Government Publication Date: Nov 3, 2022**

##### **Deleted NPL:**

[DELETED NPL](#)

Sites deleted from the United States Environmental Protection Agency (EPA)'s National Priorities List. The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate. Sites are represented by boundaries where available in the EPA Superfund Site Boundaries maintained by the Shared Enterprise Geodata and Services (SEGS). Site boundaries represent the footprint of a whole site, the sum of all of the Operable Units and the current understanding of the full extent of contamination; for Federal Facility sites, the total site polygon may be the Facility boundary. Where there is no polygon boundary data available for a given site, the site is represented as a point.

**Government Publication Date: Nov 3, 2022**



**SEMS List 8R Active Site Inventory:**

[SEMS](#)

The U.S. Environmental Protection Agency's (EPA) Superfund Program has deployed the Superfund Enterprise Management System (SEMS), which integrates multiple legacy systems into a comprehensive tracking and reporting tool. This inventory contains active sites evaluated by the Superfund program that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL. The Active Site Inventory Report displays site and location information at active SEMS sites. An active site is one at which site assessment, removal, remedial, enforcement, cost recovery, or oversight activities are being planned or conducted. This data includes SEMS sites from the List 8R Active file as well as applicable sites from the SEMS GIS/REST file layer obtained from EPA's Facility Registry Service.

**Government Publication Date: Jan 25, 2023**

**SEMS List 8R Archive Sites:**

[SEMS ARCHIVE](#)

The U.S. Environmental Protection Agency's (EPA) Superfund Enterprise Management System (SEMS) Archived Site Inventory displays site and location information at sites archived from SEMS. An archived site is one at which EPA has determined that assessment has been completed and no further remedial action is planned under the Superfund program at this time. This data includes sites from the List 8R Archived site file.

**Government Publication Date: Jan 25, 2023**

**Inventory of Open Dumps, June 1985:**

[ODI](#)

The Resource Conservation and Recovery Act (RCRA) provides for publication of an inventory of open dumps. The Act defines "open dumps" as facilities which do not comply with EPA's "Criteria for Classification of Solid Waste Disposal Facilities and Practices" (40 CFR 257).

**Government Publication Date: Jun 1985**

**Comprehensive Environmental Response, Compensation and Liability Information System -**

[CERCLIS](#)

**CERCLIS:**

Superfund is a program administered by the United States Environmental Protection Agency (EPA) to locate, investigate, and clean up the worst hazardous waste sites throughout the United States. CERCLIS is a database of potential and confirmed hazardous waste sites at which the EPA Superfund program has some involvement. It contains sites that are either proposed to be or are on the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL. The EPA administers the Superfund program in cooperation with individual states and tribal governments; this database is made available by the EPA.

**Government Publication Date: Oct 25, 2013**

**EPA Report on the Status of Open Dumps on Indian Lands:**

[IODI](#)

Public Law 103-399, The Indian Lands Open Dump Cleanup Act of 1994, enacted October 22, 1994, identified congressional concerns that solid waste open dump sites located on American Indian or Alaska Native (AI/AN) lands threaten the health and safety of residents of those lands and contiguous areas. The purpose of the Act is to identify the location of open dumps on Indian lands, assess the relative health and environment hazards posed by those sites, and provide financial and technical assistance to Indian tribal governments to close such dumps in compliance with Federal standards and regulations or standards promulgated by Indian Tribal governments or Alaska Native entities.

**Government Publication Date: Dec 31, 1998**

**CERCLIS - No Further Remedial Action Planned:**

[CERCLIS NFRAP](#)

An archived site is one at which EPA has determined that assessment has been completed and no further remedial action is planned under the Superfund program at this time. The Archive designation means that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL). This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

**Government Publication Date: Oct 25, 2013**

**CERCLIS Liens:**

[CERCLIS LIENS](#)

A Federal Superfund lien exists at any property where EPA has incurred Superfund costs to address contamination ("Superfund site") and has provided notice of liability to the property owner. A Federal CERCLA ("Superfund") lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. This database is made available by the United States Environmental Protection Agency (EPA). This database was provided by the United States Environmental Protection Agency (EPA). Refer to SEMS LIEN as the current data source for Superfund Liens.

**Government Publication Date: Jan 30, 2014**

**RCRA CORRACTS-Corrective Action:**

[RCRA CORRACTS](#)

RCRA Info is the U.S. Environmental Protection Agency's (EPA) comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. At these sites, the Corrective Action Program ensures that cleanups occur. EPA and state regulators work with facilities and communities to design remedies based on the contamination, geology, and anticipated use unique to each site.

**Government Publication Date: Jan 23, 2023**

**RCRA non-CORRACTS TSD Facilities:**

[RCRA TSD](#)

RCRA Info is the U.S. Environmental Protection Agency's (EPA) comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. This database includes Non-Corrective Action sites listed as treatment, storage and/or disposal facilities of hazardous waste as defined by RCRA.

**Government Publication Date: Jan 23, 2023**

**RCRA Generator List:**

[RCRA LQG](#)

RCRA Info is the U.S. Environmental Protection Agency's (EPA) comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Large Quantity Generators (LQGs) generate 1,000 kilograms per month or more of hazardous waste or more than one kilogram per month of acutely hazardous waste.

**Government Publication Date: Jan 23, 2023**

**RCRA Small Quantity Generators List:**

[RCRA SQG](#)

RCRA Info is the U.S. Environmental Protection Agency's (EPA) comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Small Quantity Generators (SQGs) generate more than 100 kilograms, but less than 1,000 kilograms, of hazardous waste per month.

**Government Publication Date: Jan 23, 2023**

**RCRA Very Small Quantity Generators List:**

[RCRA VSQG](#)

RCRA Info is the U.S. Environmental Protection Agency's (EPA) comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Very Small Quantity Generators (VSQG) generate 100 kilograms or less per month of hazardous waste, or one kilogram or less per month of acutely hazardous waste. Additionally, VSQG may not accumulate more than 1,000 kilograms of hazardous waste at any time.

**Government Publication Date: Jan 23, 2023**

**RCRA Non-Generators:**

[RCRA NON GEN](#)

RCRA Info is the U.S. Environmental Protection Agency's (EPA) comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. RCRA Info replaces the data recording and reporting abilities of the Resource Conservation and Recovery Information System (RCRIS) and the Biennial Reporting System (BRS). A hazardous waste generator is any person or site whose processes and actions create hazardous waste (see 40 CFR 260.10). Non-Generators do not presently generate hazardous waste.

**Government Publication Date: Jan 23, 2023**

**RCRA Sites with Controls:**

[RCRA CONTROLS](#)

List of Resource Conservation and Recovery Act (RCRA) facilities with institutional controls in place. RCRA gives the U.S. Environmental Protection Agency (EPA) the authority to control hazardous waste from the "cradle-to-grave." This includes the generation, transportation, treatment, storage, and disposal of hazardous waste. RCRA also set forth a framework for the management of non-hazardous solid wastes. The 1986 amendments to RCRA enabled EPA to address environmental problems that could result from underground tanks storing petroleum and other hazardous substances.

**Government Publication Date: Jan 23, 2023**

**Federal Engineering Controls-ECs:**

[FED ENG](#)

This list of Engineering controls (ECs) is provided by the United States Environmental Protection Agency (EPA). ECs encompass a variety of engineered and constructed physical barriers (e.g., soil capping, sub-surface venting systems, mitigation barriers, fences) to contain and/or prevent exposure to contamination on a property. The EC listing includes remedy component data from Superfund decision documents issued in fiscal years 1982-2020 for applicable sites on the final or deleted on the National Priorities List (NPL); and sites with a Superfund Alternative Approach (SAA) Agreement in place. The only sites included that are not on the NPL; proposed for NPL; or removed from proposed NPL, are those with an SAA Agreement in place.

**Government Publication Date: Dec 22, 2022**



**Federal Institutional Controls- ICs:**

FED INST

This list of Institutional controls (ICs) is provided by the United States Environmental Protection Agency (EPA). ICs are non-engineered instruments, such as administrative and legal controls, that help minimize the potential for human exposure to contamination and/or protect the integrity of the remedy. Although it is EPA's expectation that treatment or engineering controls will be used to address principal threat wastes and that groundwater will be returned to its beneficial use whenever practicable, ICs play an important role in site remedies because they reduce exposure to contamination by limiting land or resource use and guide human behavior at a site. The IC listing includes remedy component data from Superfund decision documents issued in fiscal years 1982-2020 for applicable sites on the final or deleted on the National Priorities List (NPL); and sites with a Superfund Alternative Approach (SAA) Agreement in place. The only sites included that are not on the NPL; proposed for NPL; or removed from proposed NPL, are those with an SAA Agreement in place.

**Government Publication Date: Dec 22, 2022**

**Land Use Control Information System:**

LUCIS

The LUCIS database is maintained by the U.S. Department of the Navy and contains information for former Base Realignment and Closure (BRAC) properties across the United States.

**Government Publication Date: Sep 1, 2006**

**Institutional Control Boundaries at NPL sites:**

NPL IC

Boundaries of Institutional Control areas at sites on the United States Environmental Protection Agency (EPA)'s National Priorities List, or Proposed or Deleted, made available by the EPA's Shared Enterprise Geodata and Services (SEGS). United States Environmental Protection Agency (EPA)'s National Priorities List of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action under the Superfund program. Institutional controls are non-engineered instruments such as administrative and legal controls that help minimize the potential for human exposure to contamination and/or protect the integrity of the remedy.

**Government Publication Date: Nov 3, 2022**

**Emergency Response Notification System:**

ERNS 1982 TO 1986

Database of oil and hazardous substances spill reports controlled by the National Response Center. The primary function of the National Response Center is to serve as the sole national point of contact for reporting oil, chemical, radiological, biological, and etiological discharges into the environment anywhere in the United States and its territories.

**Government Publication Date: 1982-1986**

**Emergency Response Notification System:**

ERNS 1987 TO 1989

Database of oil and hazardous substances spill reports controlled by the National Response Center. The primary function of the National Response Center is to serve as the sole national point of contact for reporting oil, chemical, radiological, biological, and etiological discharges into the environment anywhere in the United States and its territories.

**Government Publication Date: 1987-1989**

**Emergency Response Notification System:**

ERNS

Database of oil and hazardous substances spill reports made available by the United States Coast Guard National Response Center (NRC). The NRC fields initial reports for pollution and railroad incidents and forwards that information to appropriate federal/state agencies for response. These data contain initial incident data that has not been validated or investigated by a federal/state response agency.

**Government Publication Date: Nov 6, 2022**

**The Assessment, Cleanup and Redevelopment Exchange System (ACRES) Brownfield Database:**

FED BROWNFIELDS

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties protects the environment, reduces blight, and takes development pressures off greenspaces and working lands. This data is provided by the United States Environmental Protection Agency (EPA) and includes Brownfield sites from the Cleanups in My Community (CIMC) web application.

**Government Publication Date: Sep 13, 2022**

**FEMA Underground Storage Tank Listing:**

FEMA UST

The Federal Emergency Management Agency (FEMA) of the Department of Homeland Security maintains a list of FEMA owned underground storage tanks.

**Government Publication Date: Dec 31, 2017**

**Facility Response Plan:**

[FRP](#)

List of facilities that have submitted Facility Response Plans (FRP) to EPA. Facilities that could reasonably be expected to cause "substantial harm" to the environment by discharging oil into or on navigable waters are required to prepare and submit Facility Response Plans (FRPs). Harm is determined based on total oil storage capacity, secondary containment and age of tanks, oil transfer activities, history of discharges, proximity to a public drinking water intake or sensitive environments.

**Government Publication Date: Dec 31, 2021**

**Delisted Facility Response Plans:**

[DELISTED FRP](#)

Facilities that once appeared in - and have since been removed from - the list of facilities that have submitted Facility Response Plans (FRP) to EPA. Facilities that could reasonably be expected to cause "substantial harm" to the environment by discharging oil into or on navigable waters are required to prepare and submit Facility Response Plans (FRPs). Harm is determined based on total oil storage capacity, secondary containment and age of tanks, oil transfer activities, history of discharges, proximity to a public drinking water intake or sensitive environments.

**Government Publication Date: Dec 31, 2021**

**Historical Gas Stations:**

[HIST GAS STATIONS](#)

This historic directory of service stations is provided by the Cities Service Company. The directory includes Cities Service filling stations that were located throughout the United States in 1930.

**Government Publication Date: Jul 1, 1930**

**Petroleum Refineries:**

[REFN](#)

List of petroleum refineries from the U.S. Energy Information Administration (EIA) Refinery Capacity Report. Includes operating and idle petroleum refineries (including new refineries under construction) and refineries shut down during the previous year located in the 50 States, the District of Columbia, Puerto Rico, the Virgin Islands, Guam, and other U.S. possessions. Survey locations adjusted using public data.

**Government Publication Date: Aug 30, 2022**

**Petroleum Product and Crude Oil Rail Terminals:**

[BULK TERMINAL](#)

List of petroleum product and crude oil rail terminals made available by the U.S. Energy Information Administration (EIA). Includes operable bulk petroleum product terminals located in the 50 States and the District of Columbia with a total bulk shell storage capacity of 50,000 barrels or more, and/or the ability to receive volumes from tanker, barge, or pipeline; also rail terminals handling the loading and unloading of crude oil that were active between 2017 and 2018. Petroleum product terminals comes from the EIA-815 Bulk Terminal and Blender Report, which includes working, shell in operation, and shell idle for several major product groupings. Survey locations adjusted using public data.

**Government Publication Date: Jun 29, 2022**

**LIEN on Property:**

[SEMS LIEN](#)

The U.S. Environmental Protection Agency's (EPA) Superfund Enterprise Management System (SEMS) provides Lien details on applicable properties, such as the Superfund lien on property activity, the lien property information, and the parties associated with the lien.

**Government Publication Date: Jan 25, 2023**

**Superfund Decision Documents:**

[SUPERFUND ROD](#)

This database contains a list of decision documents for Superfund sites. Decision documents serve to provide the reasoning for the choice of (or) changes to a Superfund Site cleanup plan. The decision documents include completed Records of Decision (ROD), ROD Amendments, Explanations of Significant Differences (ESD) for active and archived sites stored in the Superfund Enterprise Management System (SEMS), along with other associated memos and files. This information is maintained and made available by the U.S. Environmental Protection Agency.

**Government Publication Date: Dec 22, 2022**

**State**

**Hazard Ranking List:**

[SHWS](#)

Last published in 1994, this is a list of sites which were investigated by the Department of Natural Resources (DNR) under the Wisconsin Environmental Repair Law. Hazard ranking of a site or facility was performed to determine if the site or facility presents a substantial danger to the public health, or welfare, or the environment. The DNR Bureau for Remediation and Redevelopment now maintains other programs for the investigation and cleanup of potential and confirmed contamination to soil and groundwater in Wisconsin. This database is state equivalent CERCLIS.

**Government Publication Date: July 1994**

**Licensed Solid Waste Landfills:**

[SWF/LF](#)

List of licensed solid waste landfills in the state of Wisconsin as recorded by the Department of Natural Resources (DNR). The DNR regulates landfills to prevent negative impacts to people and the environment. DNR staff inspect landfills regularly.



**The Historic Registry of Waste Disposal Sites:**

[WDS](#)

Prior to development of on-line databases, the Wisconsin Department of Natural Resources (DNR) provided public information about old waste disposal facilities in a printed publication called the Historic Registry of Waste Disposal Sites (the "Registry").

Government Publication Date: Jul 22, 2013

**Solid Waste - Landfills and Historic Waste Sites:**

[HIST LF](#)

A list of active and inactive solid waste landfills and known historic waste sites available through the Wisconsin Department of Natural Resources' Open Data Portal. This list is based on the known or inferred limits of waste found in the 'Solid Waste - Landfills and Historic Waste Site Extents' dataset.

Government Publication Date: Aug 11, 2022

**Solid & Hazardous Waste Information Management System:**

[SHWIMS](#)

List of sites and facilities in the Solid and Hazardous Waste Information System (SHWIMS) regulated by the Wisconsin Department of Natural Resources (DNR) Waste and Materials Management (WMM) program. Activities that occur at site facilities include landfill operation, waste transportation, hazardous waste generation, wood burning, waste processing, sharps collection and many more.

Government Publication Date: Jan 17, 2023

**Leaking Underground Storage Tanks:**

[LUST](#)

A list of Leaking Underground Storage Tank (LUST) sites as recorded by the Wisconsin Department of Natural Resources (DNR). When petroleum products are released from underground tanks into the soil or groundwater, the DNR will work with the responsible party and environmental professionals to clean up the spill to state standards. This LUST site listing is sourced from the Bureau for Remediation and Redevelopment Tracking System (BRRTS) database and Open Data Portal applicable file/s provided by the DNR.

Government Publication Date: Jan 5, 2023

**Leaking Aboveground Storage Tanks:**

[LAST](#)

List of Leaking Aboveground Storage Tank (LAST) sites as recorded by the Department of Natural Resources (DNR). When petroleum products are released from tanks into the soil or groundwater, the DNR will work with the responsible party and environmental professionals to clean up the spill to state standards.

Government Publication Date: Jan 5, 2023

**Delisted Leaking Tanks:**

[DELISTED LST](#)

This database contains a list of closed leaking tank sites that were removed from the leaking tank database regulated by the Storage Tank Regulation Section of the Wisconsin Department of Natural Resources.

Government Publication Date: Jan 5, 2023

**Underground Storage Tanks:**

[UST](#)

List of Underground Storage Tank (UST) locations. The Bureau of Weights and Measures, operating under the Department of Agriculture, Trade and Consumer Protection is responsible for the administration and regulation of the Wisconsin Administrative Code ATCP 93 - Flammable and Combustible Liquids.

Government Publication Date: Feb 21, 2023

**Aboveground Storage Tanks:**

[AST](#)

List of Aboveground Storage Tank (AST) locations. The Bureau of Weights and Measures, operating under the Department of Agriculture, Trade and Consumer Protection is responsible for the administration and regulation of the Wisconsin Administrative Code ATCP 93 - Flammable and Combustible Liquids.

Government Publication Date: Feb 21, 2023

**Delisted Storage Tanks:**

[DEL STORAGE TANK](#)

This database contains a list of closed storage tank sites that were removed from the storage tank database regulated by the Storage Tank Regulation Section of the Wisconsin Department of Agriculture, Trade, and Consumer Protection.

Government Publication Date: Feb 21, 2023

**Closed Remediation Sites:**

[CRS](#)

This list of closed environmental remediation sites is provided by the Wisconsin Department of Natural Resources (WI DNR). The listing includes Environmental Repair Program (ERP) and Leaking Underground Storage Tank (LUST) sites where contamination affected soil, groundwater or other media, but the DNR has determined, based on information available at the time, that no further remedial action is required. A "site" is a contamination incident, not a property. A site may be smaller than a property or may include more than one property.

**Deed Restriction at Closeout Sites:**

AUL

List of sites for which a deed restriction is recorded at the Register of Deeds office. Deed restrictions limit property use or outline requirements for actions prior to future use. Deed restrictions are applied in cases where there is known soil contamination that is impracticable to remove, or an engineering requirement or NR270 industrial standards are in place.

Government Publication Date: Jan 5, 2023

**Voluntary Party Liability Exemption Sites:**

VCP

List of sites which have participated in the Voluntary Party Liability Exemption (VPLE) program, an elective environmental cleanup program administered by the Wisconsin Department of Natural Resources (DNR), and received an exemption from future environmental liability. Any individual, business or unit of government that conducts an environmental investigation and cleanup of a contaminated property - following state requirements with the oversight of DNR staff - can receive an exemption from future environmental liability. With some restrictions, most properties that have had a discharge of a hazardous substance are eligible for VPLE.

Government Publication Date: Jan 5, 2023

**Brownfields Environmental Assessment Program:**

BEAP

List of sites which participated in the Brownfields Environmental Assessment Program (BEAP) - a federal program that assisted municipalities with Environmental Site Assessments (ESAs) for tax delinquent or bankrupt properties, or properties a local government acquired for redevelopment. Site assessments to determine property contamination were conducted by the Department of Natural Resources staff.

Government Publication Date: Jan 5, 2023

**Brownfields Listing:**

BROWNFIELDS

The Department of Natural Resource (DNR)'s Remediation and Redevelopment program has a wide range of financial and liability tools available to assist local governments, businesses, lenders and others to clean up and redevelop brownfields in Wisconsin. DNR describes brownfields as abandoned, idle or underused commercial or industrial properties, where the expansion or redevelopment is hindered by real or perceived contamination. Brownfield properties present public health, economic, environmental and social challenges to the rural and urban communities in which they are located.

Government Publication Date: Jan 5, 2023

**Brownfield Site Assessment Grant Projects:**

BSA PROJECTS

In 2012, the Brownfield Site Assessment Grant (SAG) program was transferred to the Wisconsin Economic Development Corporation (WEDC), this was previously a financial tool of the Wisconsin Department of Natural Resources (DNR). This grant program helps local governments conduct initial activities and investigations at properties with known or suspected environmental contamination. The awarded grant funds cannot be used for environmental cleanup activities. Applicants must meet the eligibility definition outlined in s.292.75(1)(a), Wisconsin Statutes: "Eligible site or facility" means one or more contiguous industrial or commercial facilities or sites with common or multiple ownership that are abandoned, idle, or underused, the expansion or redevelopment of which is adversely affected by actual or perceived environmental contamination." This listing includes the current WDEC SAG projects, the final DNR Round 11 and 12 SAG DNR projects. The Round 12 SAG projects were tracked by the DNR, but not funded by the DNR since the SAG program was vetoed out of the budget.

Government Publication Date: Sep 30, 2015

**Brownfields Grant Program Sites:**

BGP

This list of Brownfield Grant Program sites is provided by the Wisconsin Economic Development Corporation. The Wisconsin Brownfield Program provides grant funds to assist local governments, businesses and individuals with assessing and remediating the environmental contamination of an abandoned, idle or underused industrial or commercial facility or site. This program will help convert contaminated sites into productive properties that are attractive and ready for redevelopment.

Government Publication Date: Jun 30, 2022

**Environmental Repair:**

ERP

Environmental Repair Program sites are those other than Leaking Underground Storage Tanks (LUSTs) that have contaminated soil and/or groundwater. Examples include industrial spills (or dumping) that need long term investigation, buried containers of hazardous substances, and closed landfills that have caused contamination. This ERP site listing is sourced from the Bureau for Remediation and Redevelopment Tracking System (BRRTS) database and Open Data Portal applicable file/s provided by the Wisconsin Department of Natural Resources (DNR).

Government Publication Date: Jan 5, 2023

**Tribal**



**Leaking Underground Storage Tanks on Tribal/Indian Lands:**

[INDIAN LUST](#)

This list of leaking underground storage tanks (LUSTs) on Tribal/Indian Lands in Region 5, which includes Wisconsin, is made available by the United States Environmental Protection Agency (EPA).

**Government Publication Date: Oct 14, 2022**

**Underground Storage Tanks on Tribal/Indian Lands:**

[INDIAN UST](#)

This list of underground storage tanks (USTs) on Tribal/Indian Lands in Region 5, which includes Wisconsin, is made available by the United States Environmental Protection Agency (EPA).

**Government Publication Date: Oct 14, 2022**

**Delisted Tribal Leaking Storage Tanks:**

[DELISTED INDIAN LST](#)

Leaking Underground Storage Tank (LUST) facilities which once appeared on - and have since been removed from - the Regional Tribal/Indian LUST lists made available by the United States Environmental Protection Agency (EPA).

**Government Publication Date: Nov 23, 2022**

**Delisted Tribal Underground Storage Tanks:**

[DELISTED INDIAN UST](#)

Underground Storage Tank (UST) facilities which once appeared on - and have since been removed from - the Regional Tribal/Indian UST lists made available by the United States Environmental Protection Agency (EPA).

**Government Publication Date: Nov 23, 2022**

**County**

**No County databases were selected to be included in the search.**

**Additional Environmental Record Sources**

**Federal**

**Facility Registry Service/Facility Index:**

[FINDS/FRS](#)

The Facility Registry Service (FRS) is a centrally managed database that identifies facilities, sites, or places subject to environmental regulations or of environmental interest. FRS creates high-quality, accurate, and authoritative facility identification records through rigorous verification and management procedures that incorporate information from program national systems, state master facility records, and data collected from EPA's Central Data Exchange registrations and data management personnel. This list is made available by the Environmental Protection Agency (US EPA).

**Government Publication Date: Aug 18, 2022**

**Toxics Release Inventory (TRI) Program:**

[TRIS](#)

The EPA's Toxics Release Inventory (TRI) is a database containing data on disposal or other releases of over 650 toxic chemicals from thousands of U.S. facilities and information about how facilities manage those chemicals through recycling, energy recovery, and treatment. One of TRI's primary purposes is to inform communities about toxic chemical releases to the environment.

**Government Publication Date: Aug 24, 2021**

**Perfluorinated Alkyl Substances (PFAS) from Toxic Release Inventory:**

[PFAS TRI](#)

List of Toxics Release Inventory (TRI) facilities at which the reported chemical is a Per- or polyfluorinated alkyl substance (PFAS) included in the Environmental Protection Agency (EPA)'s consolidated PFAS Master List of PFAS Substances. The EPA's Toxics Release Inventory (TRI) is a database containing data on disposal or other releases of over 650 toxic chemicals from thousands of U.S. facilities and information about how facilities manage those chemicals through recycling, energy recovery, and treatment.

**Government Publication Date: Aug 24, 2021**

**National Response Center PFAS Spills:**

[ERNS PFAS](#)

National Response Center (NRC) calls from 1990 to the most recent complete calendar year where there is indication of Aqueous Film Forming Foam (AFFF) usage. NRC calls may reference AFFF usage in the "Material Involved" or "Incident Description" fields. Data made available by the US Environmental Protection Agency (EPA). Disclaimer: dataset may include initial or misidentified incident data not yet validated or investigated by a federal/state response agency.

**Government Publication Date: Feb 23, 2022**

**Federal Agency Locations with Known or Suspected PFAS Detections:**

[PFAS FED SITES](#)

List of Federal agency locations with known or suspected detections of Per- and Polyfluoroalkyl Substances (PFAS), made available by the U.S. Environmental Protection Agency (EPA) in their PFAS Analytic Tools data. EPA outlines that these data are gathered from several federal entities, such as the Federal Superfund program, Department of Defense (DOD), National Aeronautics and Space Administration, Department of Transportation, and Department of Energy. Sites on this list do not necessarily reflect the source/s of contamination and detections do not indicate level of risk or human exposure at the site. Agricultural notifications in this data are limited to DOD sites only. At this time, the EPA is aware that this list is not comprehensive of all Federal agencies.

**Government Publication Date: Jun 30, 2022**

**PFOA/PFOS Contaminated Sites:**

[PFAS NPL](#)

List of National Priorities List (NPL) and related Superfund Alternative Agreement (SAA) sites where PFOA or PFOS contaminants have been found in water and/or soil. The site listing is provided by the Federal Environmental Protection Agency (EPA).

**Government Publication Date: Oct 4, 2022**

**PFAS NPDES Discharge Monitoring:**

[PFAS NPDES](#)

This list of National Pollutant Discharge Elimination System (NPDES) permitted facilities with required monitoring for Per- and Polyfluoroalkyl (PFAS) Substances is made available via the U.S. Environmental Protection Agency (EPA)'s PFAS Analytic Tools. Any point-source wastewater discharger to waters of the United States must have a NPDES permit, which defines a set of parameters for pollutants and monitoring to ensure that the discharge does not degrade water quality or impair human health. This list includes NPDES permitted facilities associated with permits that monitor for Per- and Polyfluoroalkyl Substances (PFAS), limited to the years 2007 - present. EPA further advises the following regarding these data: currently, fewer than half of states have required PFAS monitoring for at least one of their permittees, and fewer states have established PFAS effluent limits for permittees. For states that may have required monitoring, some reporting and data transfer issues may exist on a state-by-state basis.

**Government Publication Date: Feb 19, 2023**

**SSEHRI PFAS Contamination Sites:**

[PFAS SSEHRI](#)

This PFAS Contamination Site Tracker database is compiled by the Social Science Environmental Health Research Institute (SSEHRI) at Northeastern University. According to the SSEHRI, the database records qualitative and quantitative data from each known site of PFAS contamination, including timeline of discovery, sources, levels, health impacts, community response, and government response. The goal of this database is to compile information and support public understanding of the rapidly unfolding issue of PFAS contamination. All data presented was extracted from government websites, news articles, or publicly available documents, and this is cited in the tracker. Disclaimer: The source conveys this database undergoes regular updates as new information becomes available, some sites may be missing and/or contain information that is incorrect or outdated, as well as their information represents all contamination sites SSEHRI is aware of, not all possible contamination sites. This data is not intended to be used for legal purposes. Limited location details are available with this data. Access the following for the most current informations <https://pfasproject.com/pfas-contamination-site-tracker/>

**Government Publication Date: Dec 12, 2019**

**Perfluorinated Alkyl Substances (PFAS) Water Quality:**

[PFAS WATER](#)

The Water Quality Portal (WQP) is a cooperative service sponsored by the United States Geological Survey (USGS), the Environmental Protection Agency (EPA), and the National Water Quality Monitoring Council (NWQMC). This listing includes records from the Water Quality Portal where the characteristic (environmental measurement) is in the Environmental Protection Agency (EPA)'s consolidated PFAS Master List of PFAS Substances.

**Government Publication Date: Jul 20, 2020**

**Hazardous Materials Information Reporting System:**

[HMIRS](#)

US DOT - Department of Transportation Pipeline and Hazardous Materials Safety Administration (PHMSA) Incidents Reports Database taken from Hazmat Intelligence Portal, U.S. Department of Transportation.

**Government Publication Date: Sep 1, 2020**

**National Clandestine Drug Labs:**

[NCDL](#)

The U.S. Department of Justice ("the Department"), Drug Enforcement Administration (DEA), provides this data as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy.

**Government Publication Date: Aug 30, 2022**

**Toxic Substances Control Act:**

[TSCA](#)



The Environmental Protection Agency (EPA) is amending the Toxic Substances Control Act (TSCA) section 8(a) Inventory Update Reporting (IUR) rule and changing its name to the Chemical Data Reporting (CDR) rule.

The CDR enables EPA to collect and publish information on the manufacturing, processing, and use of commercial chemical substances and mixtures (referred to hereafter as chemical substances) on the TSCA Chemical Substance Inventory (TSCA Inventory). This includes current information on chemical substance production volumes, manufacturing sites, and how the chemical substances are used. This information helps the Agency determine whether people or the environment are potentially exposed to reported chemical substances. EPA publishes submitted CDR data that is not Confidential Business Information (CBI).

**Government Publication Date: Apr 11, 2019**

**HIST TSCA:**

[HIST TSCA](#)

The Environmental Protection Agency (EPA) is amending the Toxic Substances Control Act (TSCA) section 8(a) Inventory Update Reporting (IUR) rule and changing its name to the Chemical Data Reporting (CDR) rule.

The 2006 IUR data summary report includes information about chemicals manufactured or imported in quantities of 25,000 pounds or more at a single site during calendar year 2005. In addition to the basic manufacturing information collected in previous reporting cycles, the 2006 cycle is the first time EPA collected information to characterize exposure during manufacturing, processing and use of organic chemicals. The 2006 cycle also is the first time manufacturers of inorganic chemicals were required to report basic manufacturing information.

**Government Publication Date: Dec 31, 2006**

**FTTS Administrative Case Listing:**

[FTTS ADMIN](#)

An administrative case listing from the Federal Insecticide, Fungicide, & Rodenticide Act (FIFRA) and Toxic Substances Control Act (TSCA), together known as FTTS. This database was obtained from the Environmental Protection Agency's (EPA) National Compliance Database (NCDB). The FTTS and NCDB was shut down in 2006.

**Government Publication Date: Jan 19, 2007**

**FTTS Inspection Case Listing:**

[FTTS INSP](#)

An inspection case listing from the Federal Insecticide, Fungicide, & Rodenticide Act (FIFRA) and Toxic Substances Control Act (TSCA), together known as FTTS. This database was obtained from the Environmental Protection Agency's (EPA) National Compliance Database (NCDB). The FTTS and NCDB was shut down in 2006.

**Government Publication Date: Jan 19, 2007**

**Potentially Responsible Parties List:**

[PRP](#)

Early in the site cleanup process, the U.S. Environmental Protection Agency (EPA) conducts a search to find the Potentially Responsible Parties (PRPs). The EPA looks for evidence to determine liability by matching wastes found at the site with parties that may have contributed wastes to the site. This listing contains PRPs, Noticed Parties, at sites in the EPA's Superfund Enterprise Management System (SEMS).

**Government Publication Date: Jan 25, 2023**

**State Coalition for Remediation of Drycleaners Listing:**

[SCRD DRYCLEANER](#)

The State Coalition for Remediation of Drycleaners (SCRD) was established in 1998, with support from the U.S. Environmental Protection Agency (EPA) Office of Superfund Remediation and Technology Innovation. Coalition members are states with mandated programs and funding for drycleaner site remediation. Current members are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin. Since 2017, the SCRDC no longer maintains this data, refer to applicable state source data where available.

**Government Publication Date: Nov 08, 2017**

**Integrated Compliance Information System (ICIS):**

[ICIS](#)

The U.S. Environmental Protection Agency's Enforcement and Compliance History Online system incorporates data from the Integrated Compliance Information System - National Pollutant Discharge Elimination System (ICIS-NPDES). ICIS-NPDES is an information management system maintained by the Office of Compliance to track permit compliance and enforcement status of facilities regulated by the NPDES under the Clean Water Act. This data includes permit, inspection, violation and enforcement action information for applicable ICIS records.

**Government Publication Date: Oct 15, 2022**

**Drycleaner Facilities:**

[FED DRYCLEANERS](#)

A list of drycleaner facilities from Enforcement and Compliance History Online (ECHO) online search. The Environmental Protection Agency (EPA) tracks facilities that possess NAIC and SIC codes that classify businesses as drycleaner establishments.

**Government Publication Date: Jun 25, 2022**

**Delisted Drycleaner Facilities:**

[DELISTED FED DRY](#)

List of sites removed from the list of Drycleaner Facilities (sites in the EPA's Integrated Compliance Information System (ICIS) with NAIC or SIC codes identifying the business as a drycleaner establishment).

**Government Publication Date: Jun 25, 2022**

**Formerly Used Defense Sites:**

FUDS

Formerly Used Defense Sites (FUDS) are properties that were formerly owned by, leased to, or otherwise possessed by and under the jurisdiction of the Secretary of Defense prior to October 1986, where the Department of Defense (DOD) is responsible for an environmental restoration. The FUDS Annual Report to Congress (ARC) is published by the U.S. Army Corps of Engineers (USACE). This data is compiled from the USACE's Geospatial FUDS data layers and Homeland Infrastructure Foundation-Level Data (HIFLD) FUDS dataset.

**Government Publication Date: Jul 12, 2022**

**Former Military Nike Missile Sites:**

FORMER NIKE

This information was taken from report DRXTH-AS-IA-83A016 (Historical Overview of the Nike Missile System, 12/1984) which was performed by Environmental Science and Engineering, Inc. for the U.S. Army Toxic and Hazardous Materials Agency Assessment Division. The Nike system was deployed between 1954 and the mid-1970's. Among the substances used or stored on Nike sites were liquid missile fuel (JP-4); starter fluids (UDKH, aniline, and furfuryl alcohol); oxidizer (IRFNA); hydrocarbons (motor oil, hydraulic fluid, diesel fuel, gasoline, heating oil); solvents (carbon tetrachloride, trichloroethylene, trichloroethane, stoddard solvent); and battery electrolyte. The quantities of material a disposed of and procedures for disposal are not documented in published reports. Virtually all information concerning the potential for contamination at Nike sites is confined to personnel who were assigned to Nike sites. During deactivation most hardware was shipped to depot-level supply points. There were reportedly instances where excess materials were disposed of on or near the site itself at closure. There was reportedly no routine site decontamination.

**Government Publication Date: Dec 2, 1984**

**PHMSA Pipeline Safety Flagged Incidents:**

PIPELINE INCIDENT

A list of flagged pipeline incidents made available by the U.S. Department of Transportation (US DOT) Pipeline and Hazardous Materials Safety Administration (PHMSA). PHMSA regulations require incident and accident reports for five different pipeline system types.

**Government Publication Date: Mar 31, 2021**

**Material Licensing Tracking System (MLTS):**

MLTS

A list of sites that store radioactive material subject to the Nuclear Regulatory Commission (NRC) licensing requirements. This list is maintained by the NRC. As of September 2016, the NRC no longer releases location information for sites. Site locations were last received in July 2016.

**Government Publication Date: May 11, 2021**

**Historic Material Licensing Tracking System (MLTS) sites:**

HIST MLTS

A historic list of sites that have inactive licenses and/or removed from the Material Licensing Tracking System (MLTS). In some cases, a site is removed from the MLTS when the state becomes an "Agreement State". An Agreement State is a State that has signed an agreement with the Nuclear Regulatory Commission (NRC) authorizing the State to regulate certain uses of radioactive materials within the State.

**Government Publication Date: Jan 31, 2010**

**Mines Master Index File:**

MINES

The Master Index File (MIF) is provided by the United State Department of Labor, Mine Safety and Health Administration (MSHA). This file, which was originally created in the 1970's, contained many Mine-IDs that were invalid. MSHA removes invalid IDs from the MIF upon discovery. MSHA applicable data includes the following: all Coal and Metal/Non-Metal mines under MSHA's jurisdiction since 1/1/1970; mine addresses for all mines in the database except for Abandoned mines prior to 1998 from MSHA's legacy system (addresses may or may not correspond with the physical location of the mine itself); violations that have been assessed penalties as a result of MSHA inspections beginning on 1/1/2000; and violations issued as a result of MSHA inspections conducted beginning on 1/1/2000.

**Government Publication Date: Aug 3, 2022**

**Surface Mining Control and Reclamation Act Sites:**

SMCRA

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by the Office of Surface Mining Reclamation and Enforcement (OSMRE) to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of Abandoned Mine Land (AML) impacts, as well as information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

**Government Publication Date: Aug 18, 2022**

**Mineral Resource Data System:**

MRDS

The Mineral Resource Data System (MRDS) is a collection of reports describing metallic and nonmetallic mineral resources throughout the world. Included are deposit name, location, commodity, deposit description, geologic characteristics, production, reserves, resources, and references. This database contains the records previously provided in the Mineral Resource Data System (MRDS) of USGS and the Mineral Availability System/Mineral Industry Locator System (MAS/MILS) originated in the U.S. Bureau of Mines, which is now part of USGS. The USGS has ceased systematic updates of the MRDS database with their focus more recently on deposits of critical minerals while providing a well-documented baseline of historical mine locations from USGS topographic maps.



**DOE Legacy Management Sites:**

[LM SITES](#)

The U.S. Department of Energy (DOE) Office of Legacy Management (LM) currently manages radioactive and chemical waste, environmental contamination, and hazardous material at over 100 sites across the U.S. The LM manages sites with diverse regulatory drivers (statutes or programs that direct cleanup and management requirements at DOE sites) or as part of internal DOE or congressionally-recognized programs, such as but not limited to: Formerly Utilized Sites Remedial Action Program (FUSRAP), Uranium Mill Tailings Radiation Control Act (UMTRCA Title I, Title II), Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), Resource Conservation and Recovery Act (RCRA), Decontamination and Decommissioning (D&D), Nuclear Waste Policy Act (NWPA). This site listing includes data exported from the DOE Office of LM's Geospatial Environmental Mapping System (GEMS). GEMS Data disclaimer: The DOE Office of LM makes no representation or warranty, expressed or implied, regarding the use, accuracy, availability, or completeness of the data presented herein.

Government Publication Date: Dec 1, 2022

**Alternative Fueling Stations:**

[ALT FUELS](#)

This list of alternative fueling stations is sourced from the Alternative Fuels Data Center (AFDC). The U.S. Department of Energy's Office of Energy Efficiency & Renewable Energy launched the AFDC in 1991 as a repository for alternative fuel vehicle performance data, which provides a wealth of information and data on alternative and renewable fuels, advanced vehicles, fuel-saving strategies, and emerging transportation technologies. The data includes Biodiesel (B20 and above), Compressed Natural Gas (CNG), Electric, Ethanol (E85), Hydrogen, Liquefied Natural Gas (LNG), Propane (LPG) fuel type locations.

Government Publication Date: Jan 3, 2023

**Superfunds Consent Decrees:**

[CONSENT DECREES](#)

This list of Superfund consent decrees is provided by the Department of Justice, Environment & Natural Resources Division (ENRD) through a Freedom of Information Act (FOIA) applicable file. This listing includes Consent Decrees for CERCLA or Superfund Sites filed and/or as proposed within the ENRD's Case Management System (CMS) since 2010. CMS may not reflect the latest developments in a case nor can the agency guarantee the accuracy of the data. ENRD Disclaimer: Congress excluded three discrete categories of law enforcement and national security records from the requirements of the FOIA; response is limited to those records that are subject to the requirements of the FOIA; however, this should not be taken as an indication that excluded records do, or do not, exist.

Government Publication Date: Jan 11, 2023

**Air Facility System:**

[AFS](#)

This EPA retired Air Facility System (AFS) dataset contains emissions, compliance, and enforcement data on stationary sources of air pollution. Regulated sources cover a wide spectrum; from large industrial facilities to relatively small operations such as dry cleaners. AFS does not contain data on facilities that are solely asbestos demolition and/or renovation contractors, or landfills. ECHO Clean Air Act data from AFS are frozen and reflect data as of October 17, 2014; the EPA retired this system for Clean Air Act stationary sources and transitioned to ICIS-Air.

Government Publication Date: Oct 17, 2014

**Registered Pesticide Establishments:**

[SSTS](#)

List of active EPA-registered foreign and domestic pesticide-producing and device-producing establishments based on data from the Section Seven Tracking System (SSTS). The Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) Section 7 requires that facilities producing pesticides, active ingredients, or devices be registered. The list of establishments is made available by the EPA.

Government Publication Date: Mar 30, 2022

**Polychlorinated Biphenyl (PCB) Transformers:**

[PCBT](#)

Locations of Transformers Containing Polychlorinated Biphenyls (PCBs) registered with the United States Environmental Protection Agency. PCB transformer owners must register their transformer(s) with EPA. Although not required, PCB transformer owners who have removed and properly disposed of a registered PCB transformer may notify EPA to have their PCB transformer de-registered. Data made available by EPA.

Government Publication Date: Oct 15, 2019

**Polychlorinated Biphenyl (PCB) Notifiers:**

[PCB](#)

Facilities included in the national list of facilities that have notified the United States Environmental Protection Agency (EPA) of Polychlorinated Biphenyl (PCB) activities. Any company or person storing, transporting or disposing of PCBs or conducting PCB research and development must notify the EPA and receive an identification number.

Government Publication Date: Nov 3, 2022

**State**

**Tier 2 Report:**

TIER 2

A list of Tier 2 facilities in Wisconsin. This list is provided by the Wisconsin Emergency Management/ State Emergency Response Commission.

**Government Publication Date: Jan 19, 2023**

**Spills:**

SPILLS

A list of spill events reported to the Wisconsin Department of Natural Resources (DNR). The DNR describes a spill as a discharge of a hazardous substance that may adversely impact, or threaten to impact public health, welfare or the environment. This spills listing is sourced from the Bureau for Remediation and Redevelopment Tracking System (BRRTS) database and Open Data Portal applicable file/s provided by the DNR.

**Government Publication Date: Jan 5, 2023**

**Wisconsin Agricultural Spills Boundaries:**

AGSPILLS

Boundaries of agricultural spill sites reported to the Wisconsin Department of Agriculture, Trade and Consumer Protection. The Agricultural Chemical Cleanup Program (ACCP) is in place to identify and manage pesticide and fertilizer spills to prevent these products from reaching the groundwater. Once a site has been identified as requiring remediation, the ACCP provides reimbursement for eligible costs incurred by the responsible person.

**Government Publication Date: Dec 2, 2022**

**Wisconsin Agricultural Spills - Remediation Locations:**

AG SPILL REMED

List of agricultural spill site remediation locations made available by the Wisconsin Department of Agriculture, Trade and Consumer Protection. The Agricultural Chemical Cleanup Program (ACCP) is in place to identify and manage pesticide and fertilizer spills to prevent these products from reaching the groundwater. Once a site has been identified as requiring remediation, the ACCP provides reimbursement for eligible costs incurred by the responsible person.

**Government Publication Date: Dec 2, 2022**

**Wisconsin Bureau for Remediation and Redevelopment Tracking System:**

BRRTS

The Wisconsin Bureau for Remediation and Redevelopment Tracking System (BRRTS) contains information on the investigation and cleanup of potential and confirmed contamination to soil and groundwater in Wisconsin. This database includes: sites where an abandoned container with potentially hazardous contents has been inspected and recovered, and no known discharge to the environment has occurred; sites where there was, or may have been, a discharge to the environment and, based on the known information, the Department of Natural Resources (DNR) has determined that the responsible party does not need to undertake an investigation or cleanup in response to that discharge; materials management sites that receive contaminated soil from other properties; and sites which have been removed from the tracking system and archived.

**Government Publication Date: Jan 5, 2023**

**Delisted BRRT:**

DELISTED BRRT

The Wisconsin Bureau for Remediation and Redevelopment Tracking System (BRRTS) maintained by the Wisconsin Department of Natural Resources contains information on the investigation and cleanup of potential and confirmed contamination to soil and groundwater in Wisconsin. Sites and site details are removed from the data made available to the public when the source of contamination is unclear and an investigation to determine the source of contamination is in progress.

**Government Publication Date: Oct 27, 2015**

**Per- and Polyfluoroalkyl Substances (PFAS):**

PFAS

List of sites at which the Wisconsin Department of Natural Resources (DNR) has determined further action is required due to confirmed per- and polyfluoroalkyl (PFAS) contamination. DNR advises that the information as presented may be incomplete and is subject to change as new information becomes available.

**Government Publication Date: Jan 5, 2023**

**Dry Cleaner Environmental Response Fund:**

DRYC REM

A list of facilities enrolled in the Dry Cleaner Environmental Response Fund (DERF) or have a reported historical use as a dry cleaning facility. This is only a listing of known remediation sites with a cleanup of contamination that may be related to dry cleaning substances. The Remediation & Redevelopment Program does not regulate or license Dry Cleaning Facilities The "status" provided in this list is only in regards to the cleanup and not the operations of the facility.

**Government Publication Date: Jan 25, 2023**

**Five Star Recognition Program Sites:**

DRYCLEANERS

The purpose of Wisconsin's Five Star Environmental Recognition Program for Drycleaners was to encourage drycleaners to become more environmentally-friendly. The program was divided into five different star categories, with the ultimate goal being to achieve the Five Star status. The program was sponsored by the Wisconsin Fabricare Institute (WFI), in cooperation with the Department of Natural Resources, the Department of Commerce, the University of Wisconsin Extension-Solid and Hazardous Waste Education Center and the Center for Neighborhood Technology. WFI discontinued the program on Jan 1, 2013

**Government Publication Date: Jan 1, 2013**



**Delisted Dry Cleaner Environmental Response Fund:**

DELISTED DRYC REM

Sites which once appeared on - but have since been removed from - the list of sites in the Dry Cleaner Environmental Response Fund Program made available by the Wisconsin Department of Natural Resources (DNR). The Dry Cleaner Environmental Response Fund Program reimburses dry cleaners for the investigation and clean up of the release of chemicals used in dry cleaning.

**Government Publication Date: Jan 25, 2023**

**Liens and Notices of Contamination:**

LIENS

A list of sites with liens and notices of contamination. This list is made available by the Wisconsin Department of Natural Resources (DNR).

**Government Publication Date: Feb 22, 2023**

**Tribal**

**No Tribal additional environmental record sources available for this State.**

**County**

**No County additional environmental record sources available for this State.**

# Definitions

**Database Descriptions:** This section provides a detailed explanation for each database including: source, information available, time coverage, and acronyms used. They are listed in alphabetic order.

**Detail Report:** This is the section of the report which provides the most detail for each individual record. Records are summarized by location, starting with the project property followed by records in closest proximity.

**Distance:** The distance value is the distance between plotted points, not necessarily the distance between the sites' boundaries. All values are an approximation.

**Direction:** The direction value is the compass direction of the site in respect to the project property and/or center point of the report.

**Elevation:** The elevation value is taken from the location at which the records for the site address have been plotted. All values are an approximation. Source: Google Elevation API.

**Executive Summary:** This portion of the report is divided into 3 sections:

'Report Summary'- Displays a chart indicating how many records fall on the project property and, within the report search radii.

'Site Report Summary'-Project Property'- This section lists all the records which fall on the project property. For more details, see the 'Detail Report' section.

'Site Report Summary-Surrounding Properties'- This section summarizes all records on adjacent properties, listing them in order of proximity from the project property. For more details, see the 'Detail Report' section.

**Map Key:** The map key number is assigned according to closest proximity from the project property. Map Key numbers always start at #1. The project property will always have a map key of '1' if records are available. If there is a number in brackets beside the main number, this will indicate the number of records on that specific property. If there is no number in brackets, there is only one record for that property.

The symbol and colour used indicates 'elevation': the red inverted triangle will dictate 'ERIS Sites with Lower Elevation', the yellow triangle will dictate 'ERIS Sites with Higher Elevation' and the orange square will dictate 'ERIS Sites with Same Elevation.'

**Unplottables:** These are records that could not be mapped due to various reasons, including limited geographic information. These records may or may not be in your study area, and are included as reference.



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## **Appendix B**

Physical Setting Report



## Property Information

Order Number:	23031400190p
Date Completed:	March 14, 2023
Project Number:	CCEDC 22001
Project Property:	City of Stanley Industrial Park Development Project 80th Ave Stanley WI 54768
Coordinates:	
Latitude:	44.95539953
Longitude:	-90.96929268
UTM Northing:	4980001.85792 Meters
UTM Easting:	660175.022525 Meters
UTM Zone:	UTM Zone 15T
Elevation:	1,132.90 ft
Slope Direction:	ESE

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The ERIS **Physical Setting Report - PSR** provides comprehensive information about the physical setting around a site and includes a complete overview of topography and surface topology, in addition to hydrologic, geologic and soil characteristics. The location and detailed attributes of oil and gas wells, water wells, public water systems and radon are also included for review.

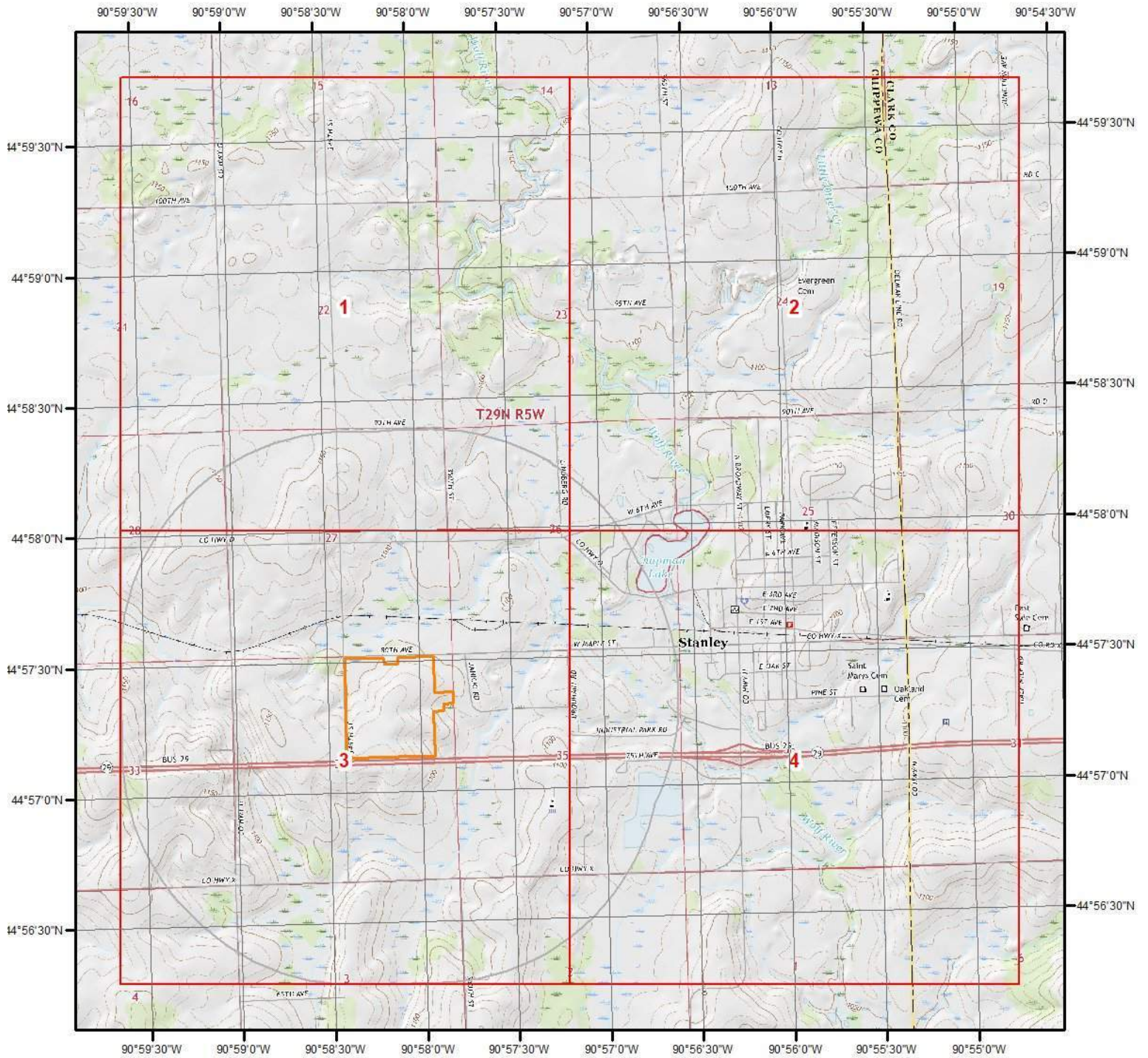
The compilation of both physical characteristics of a site and additional attribute data is useful in assessing the impact of migration of contaminants and subsequent impact on soils and groundwater.

### Disclaimer

This Report does not provide a full environmental evaluation for the site or adjacent properties. Please see the terms and disclaimer at the end of the Report for greater detail.



# Topographic Information



**Current USGS Topo (2015)**



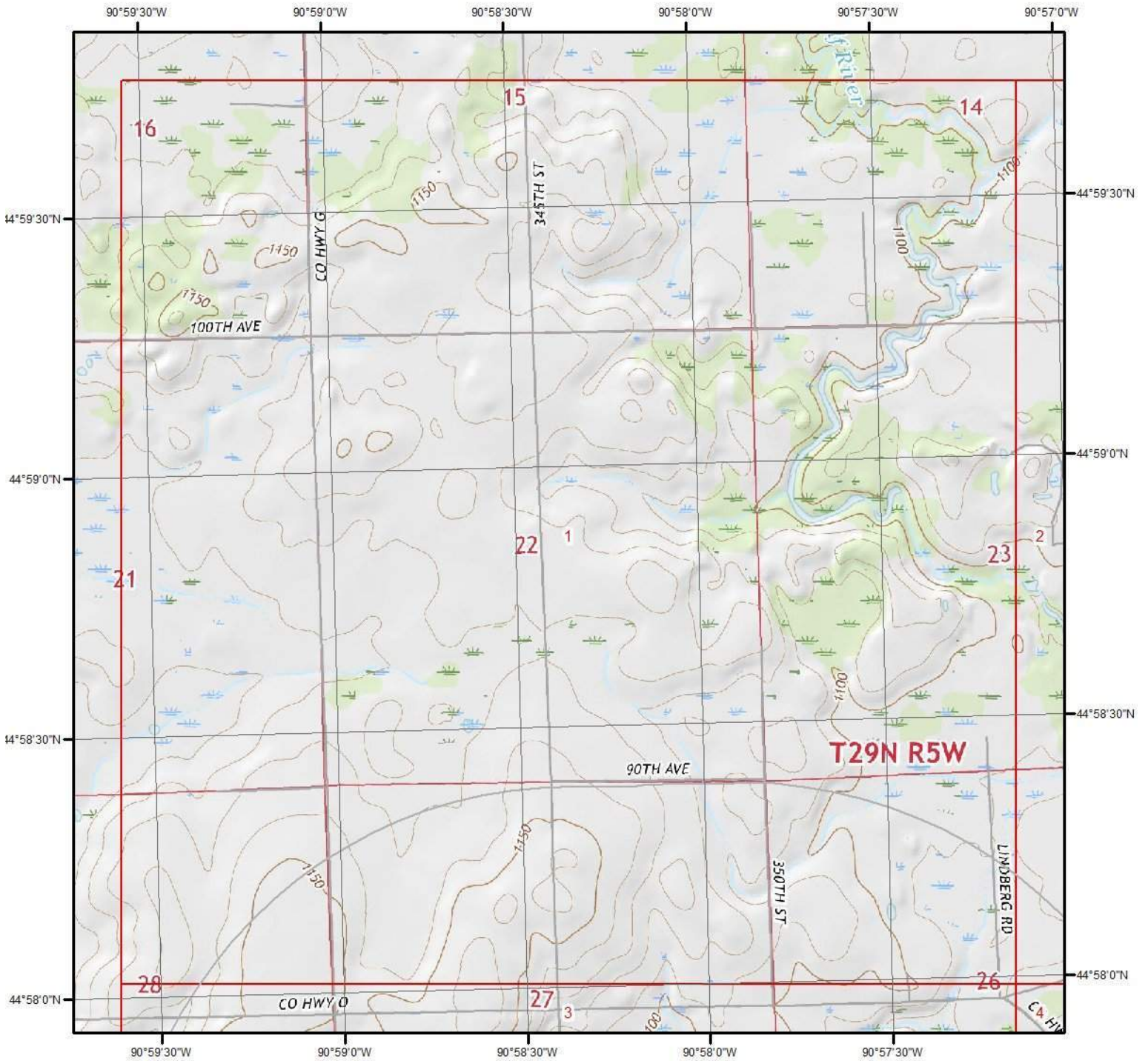
**Quadrangle(s): Bellinger,WI; Boyd,WI; Colburn,WI; Huron,WI; Stanley,WI; Thorp,WI**



Source: USGS 7.5 Minute Topographic Map



# Topographic Information



**Current USGS Topo - Page 1**



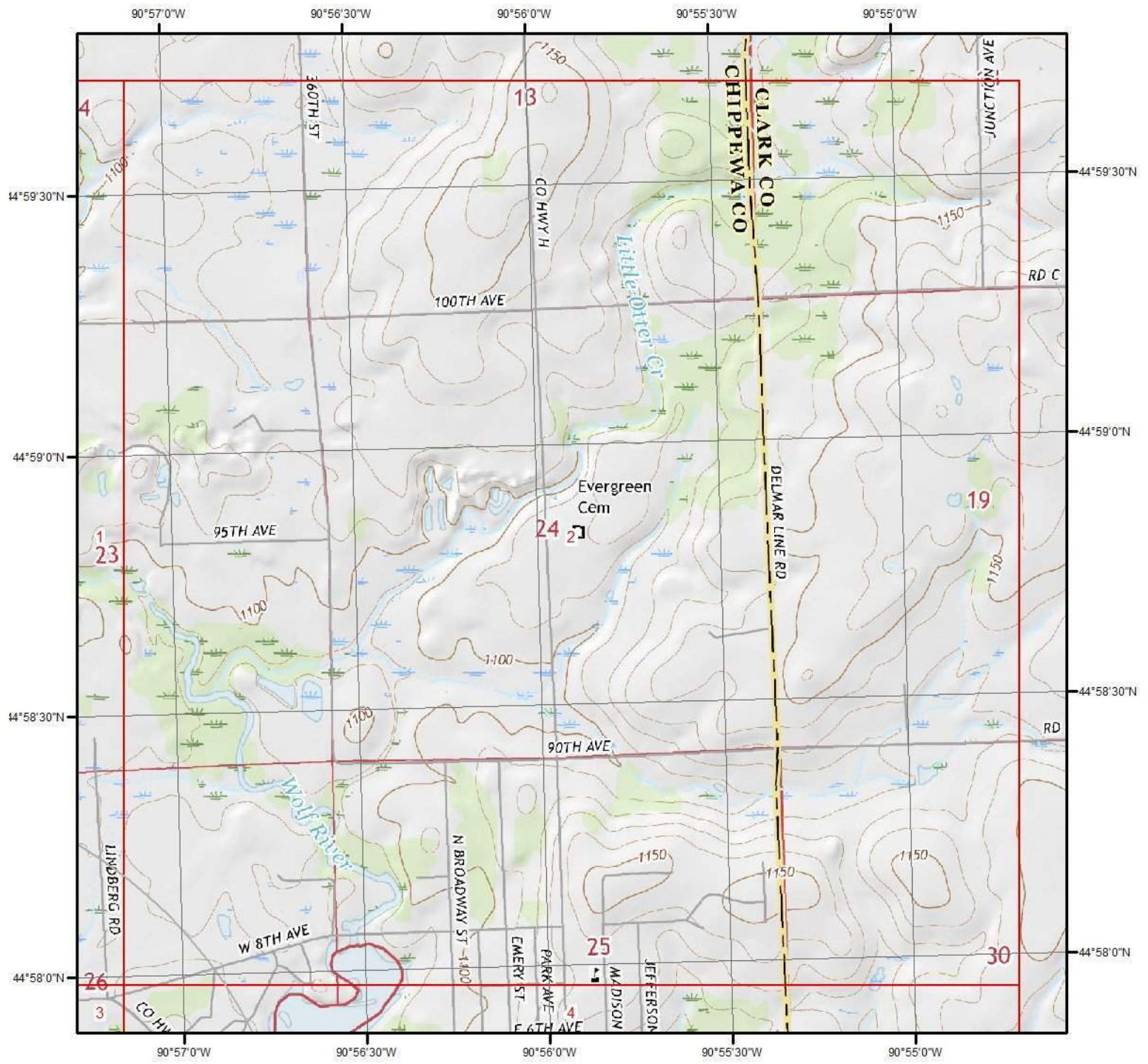
**Quadrangle(s): Stanley, WI**

Source: USGS 7.5 Minute Topographic Map





# Topographic Information



Current USGS Topo - Page 2



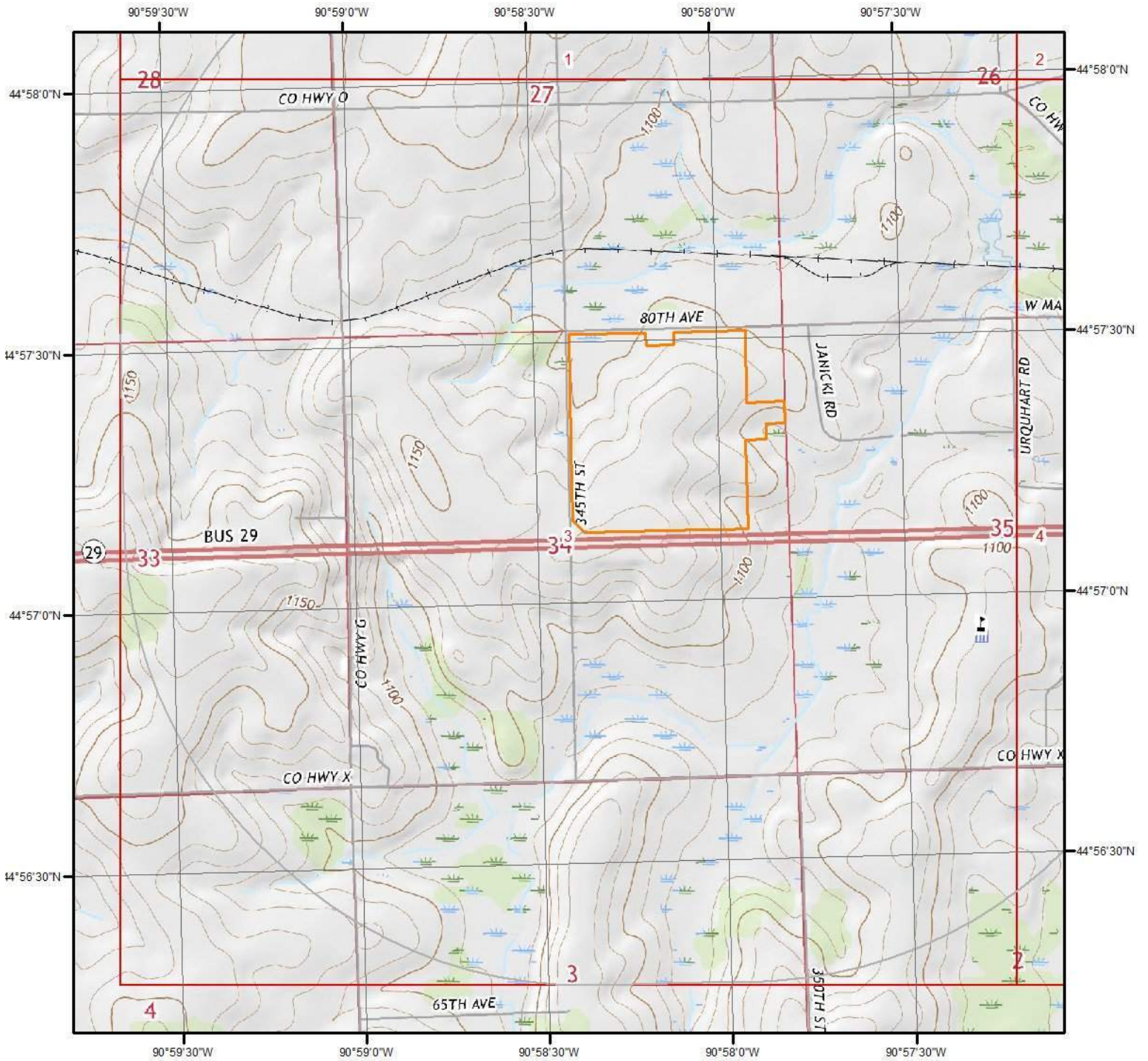
Quadrangle(s): Stanley, WI

Source: USGS 7.5 Minute Topographic Map





# Topographic Information



**Current USGS Topo - Page 3**



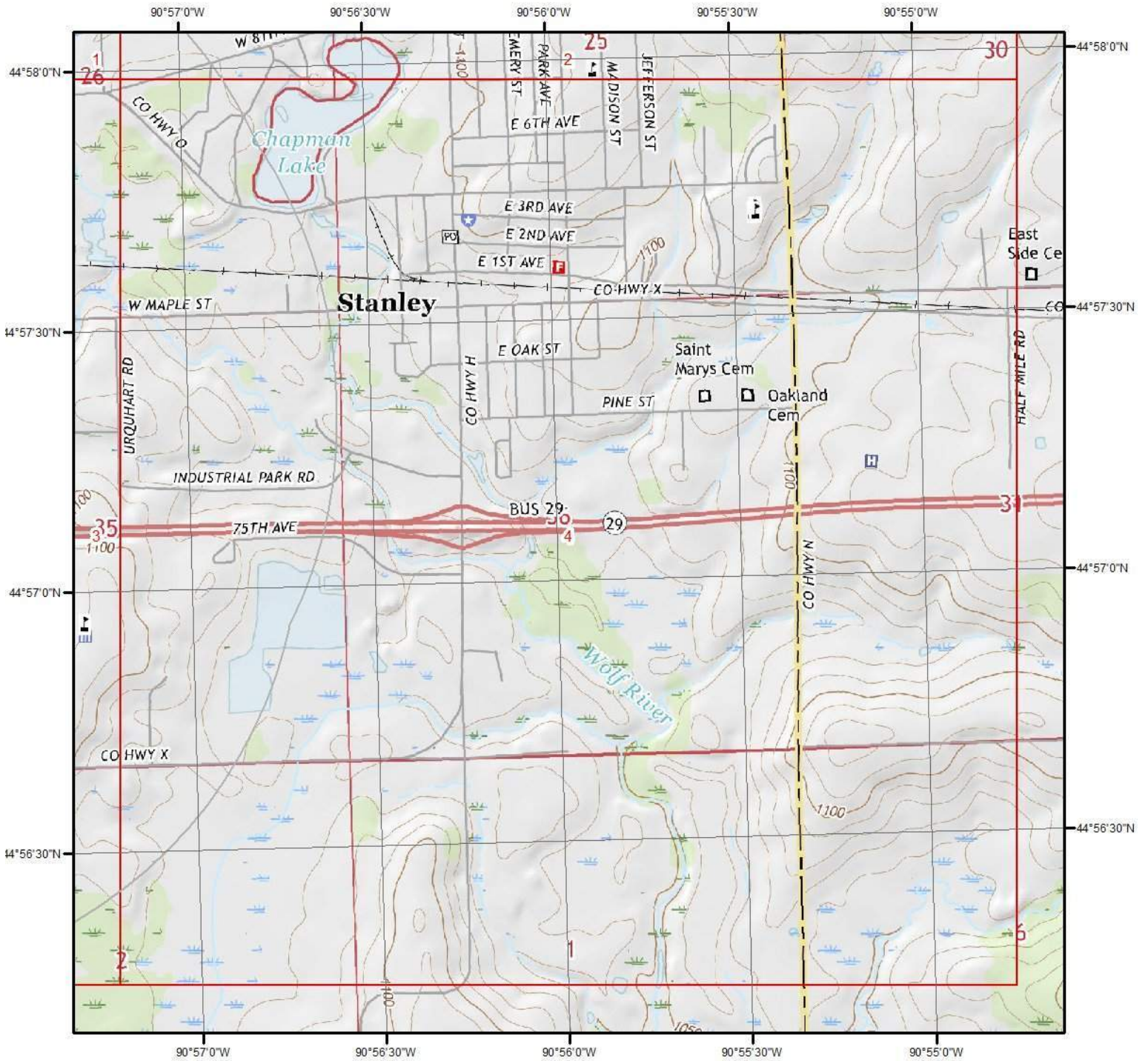
**Quadrangle(s): Stanley, WI**

Source: USGS 7.5 Minute Topographic Map





# Topographic Information



Current USGS Topo - Page 4



Quadrangle(s): Stanley, WI

Source: USGS 7.5 Minute Topographic Map

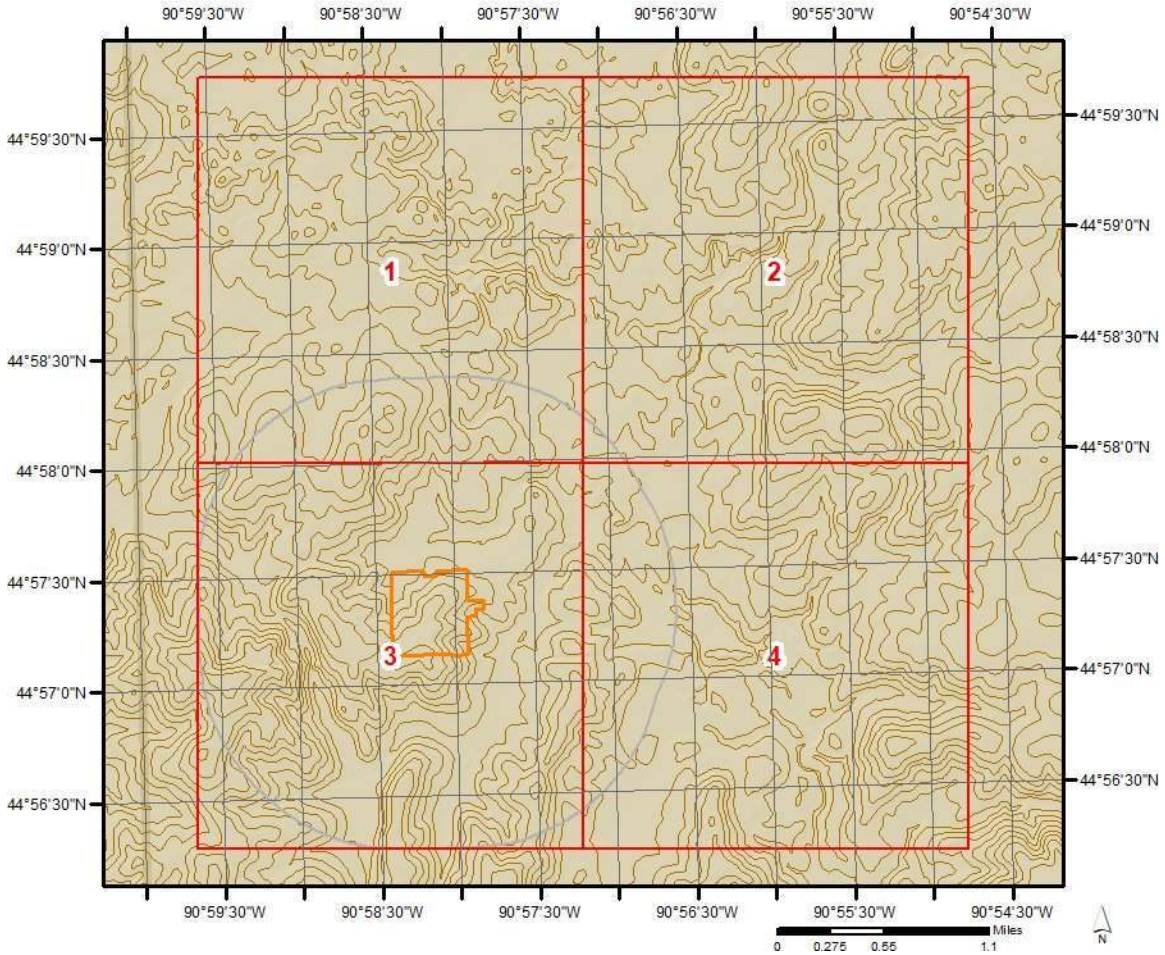


# Topographic Information

The previous topographic map(s) are created by seamlessly merging and cutting current USGS topographic data. Below are shaded relief map(s), derived from USGS elevation data to show surrounding topography in further detail.

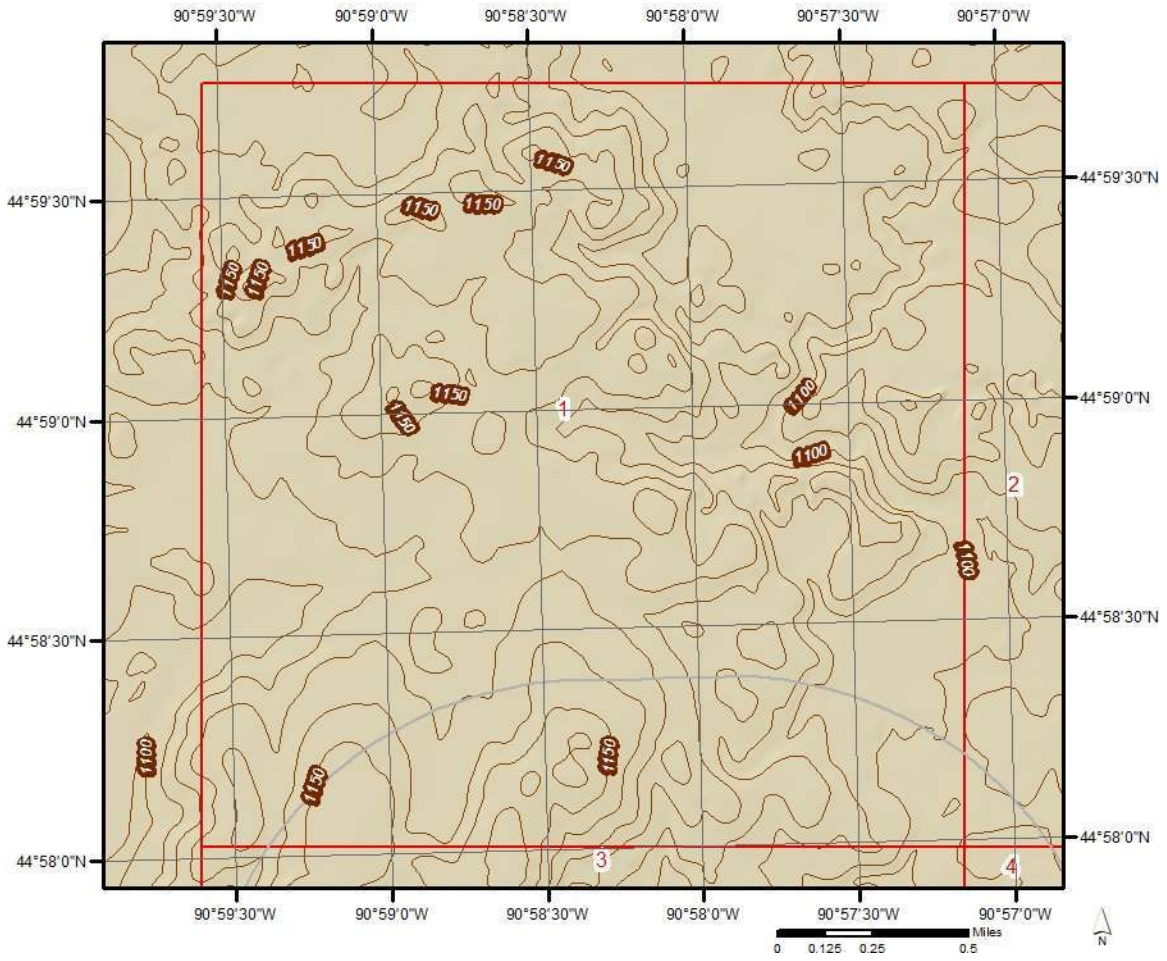
Topographic information at project property:

Elevation: 1,132.90 ft  
Slope Direction: ESE

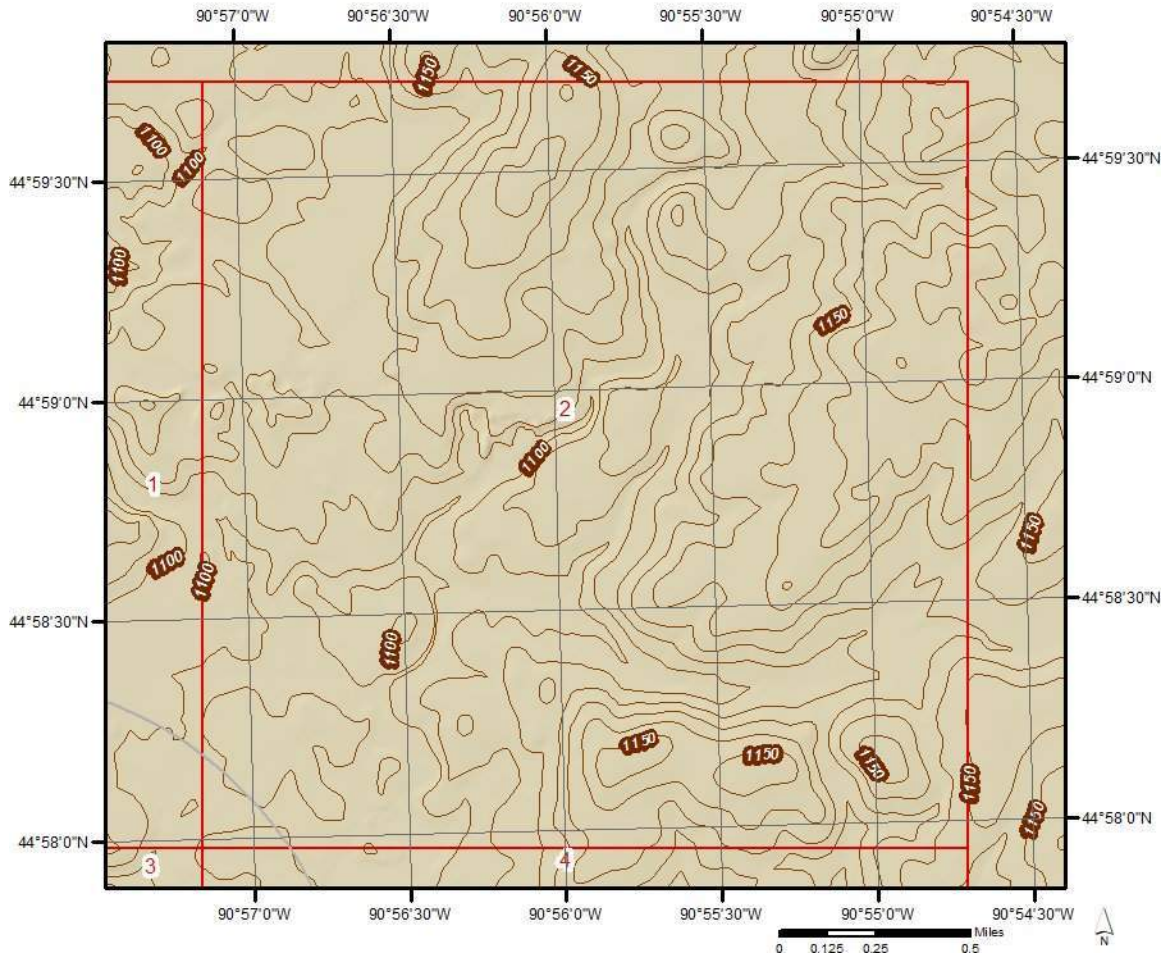




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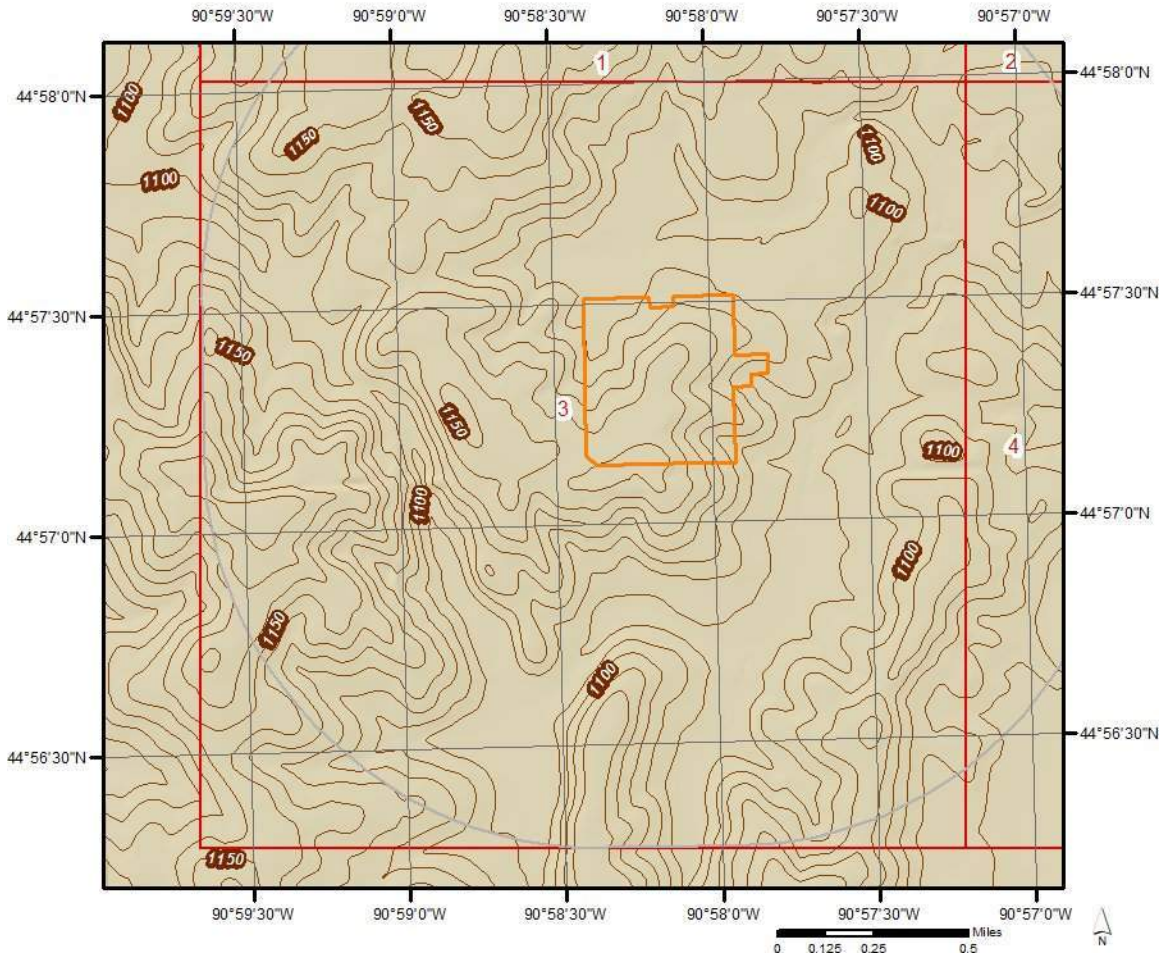


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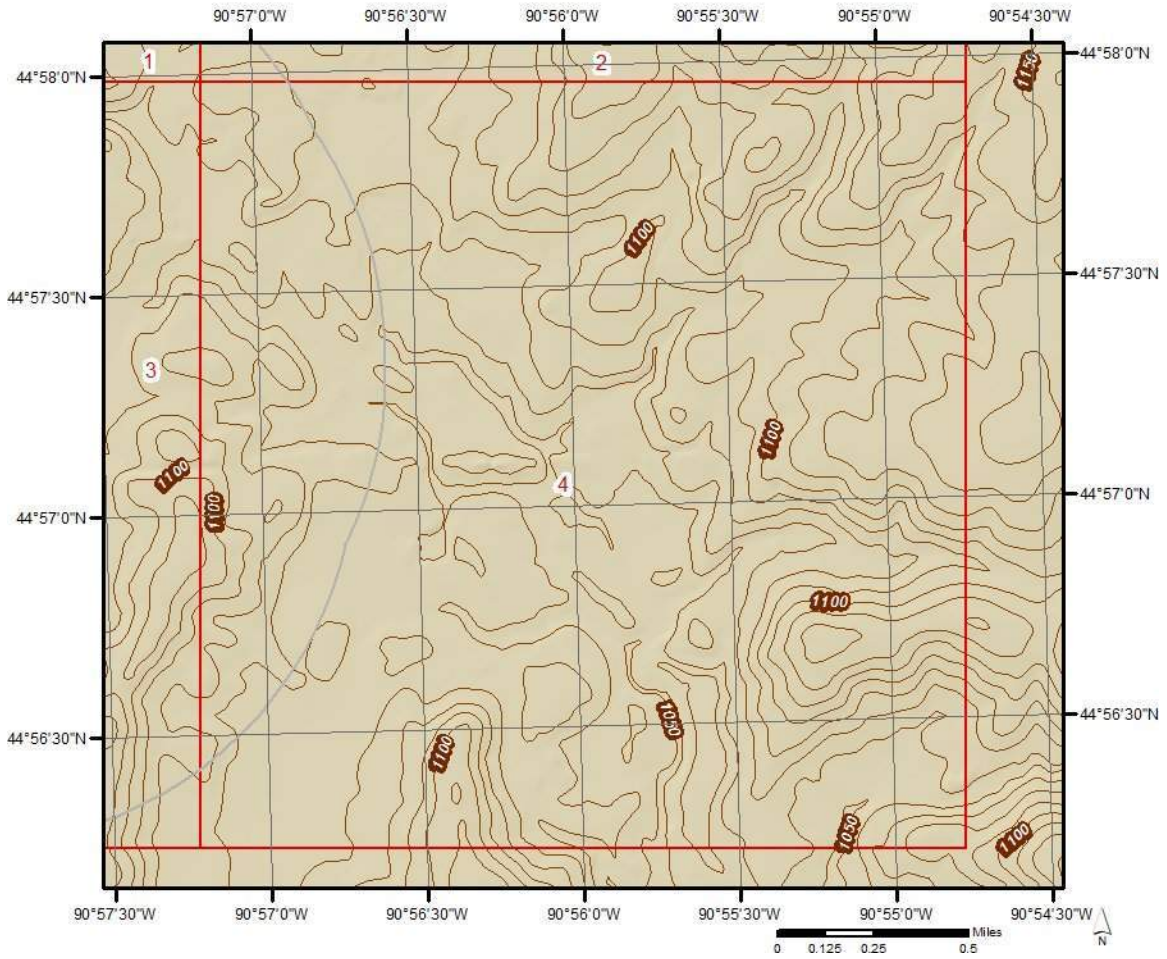




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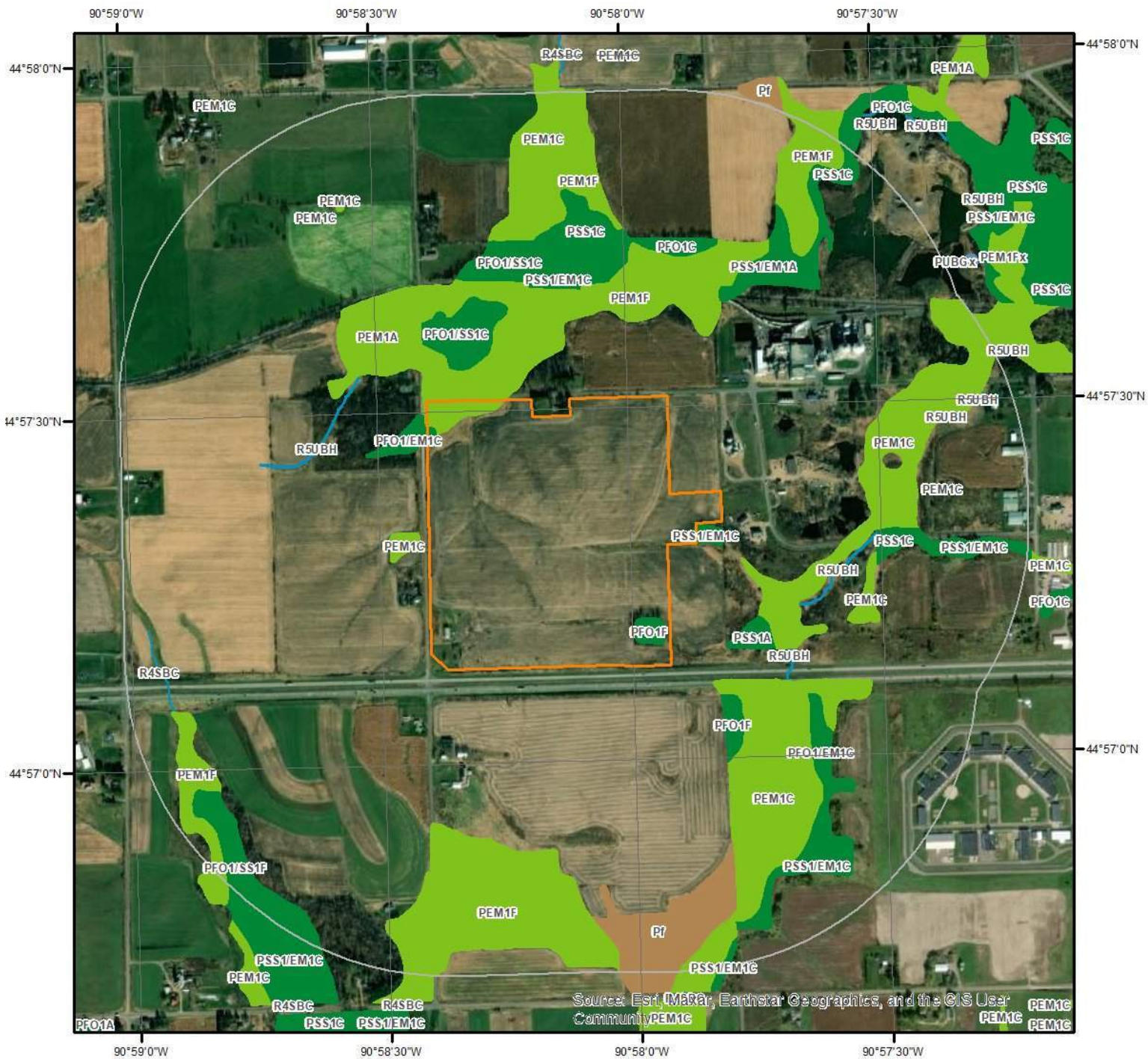


# Topographic Information





# Hydrologic Information

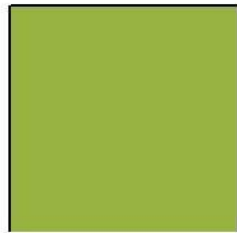


## Wetland

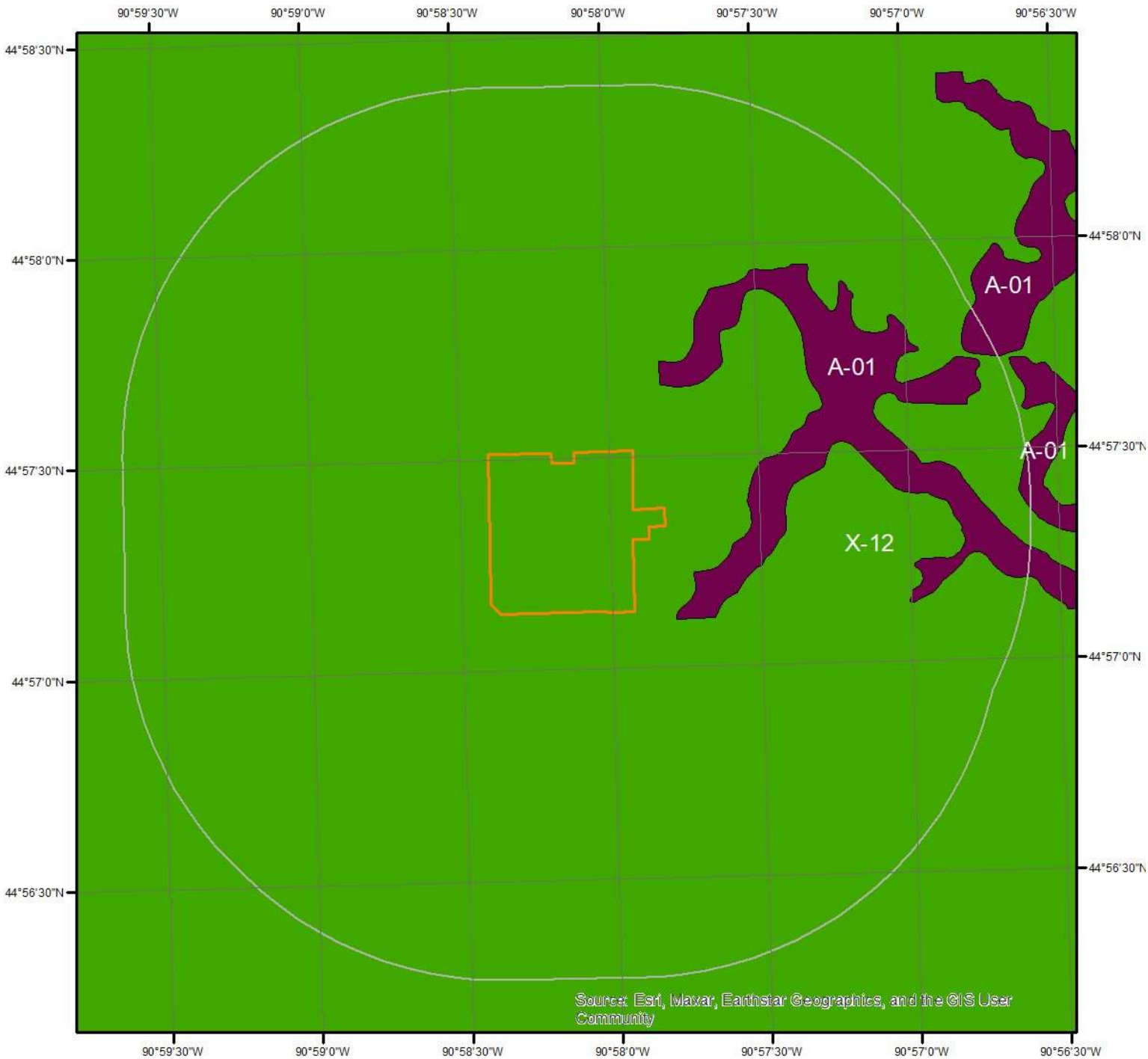


This map shows wetland existence using data from US Fish & Wildlife. Data coverage is shown to the right. Gray indicates no data available in the area.

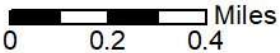
- |   |   |
|---|---|
|  Estuarine and Marine Deepwater    |  Freshwater Pond |
|  Estuarine and Marine Wetland      |  Lake            |
|  Freshwater Emergent Wetland       |  Other           |
|  Freshwater Forested/Shrub Wetland |  Riverine        |



# Hydrologic Information

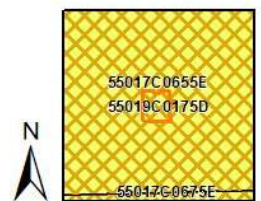


## Flood Hazard Zones



This map shows FEMA flood hazard zones. FIRM panels are shown to the right, and blank indicates no data is available.

- |     |    |                   |
|-----|----|-------------------|
| A   | AO | X                 |
| A99 | V  | OPEN WATER        |
| AE  | VE | NOT POPULATED     |
| AH  | D  | AREA NOT INCLUDED |



Quadrangle(s): Bellinger,WI; Boyd,WI; Colburn,WI; Huron,WI; Stanley,WI; Thorp,WI





## Hydrologic Information

The Wetland Type map shows wetland existence overlaid on an aerial imagery. The Flood Hazard Zones map shows FEMA flood hazard zones overlaid on an aerial imagery. Relevant FIRM panels and detailed zone information is provided below. For detailed Zone descriptions please click the link: <https://floodadvocate.com/fema-zone-definitions>

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Available FIRM Panels in area: 55017C0655E(effective:2010-03-02) 55019C0175D(effective:2010-07-06)

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### Flood Zone A-01

Zone: A

Zone subtype:

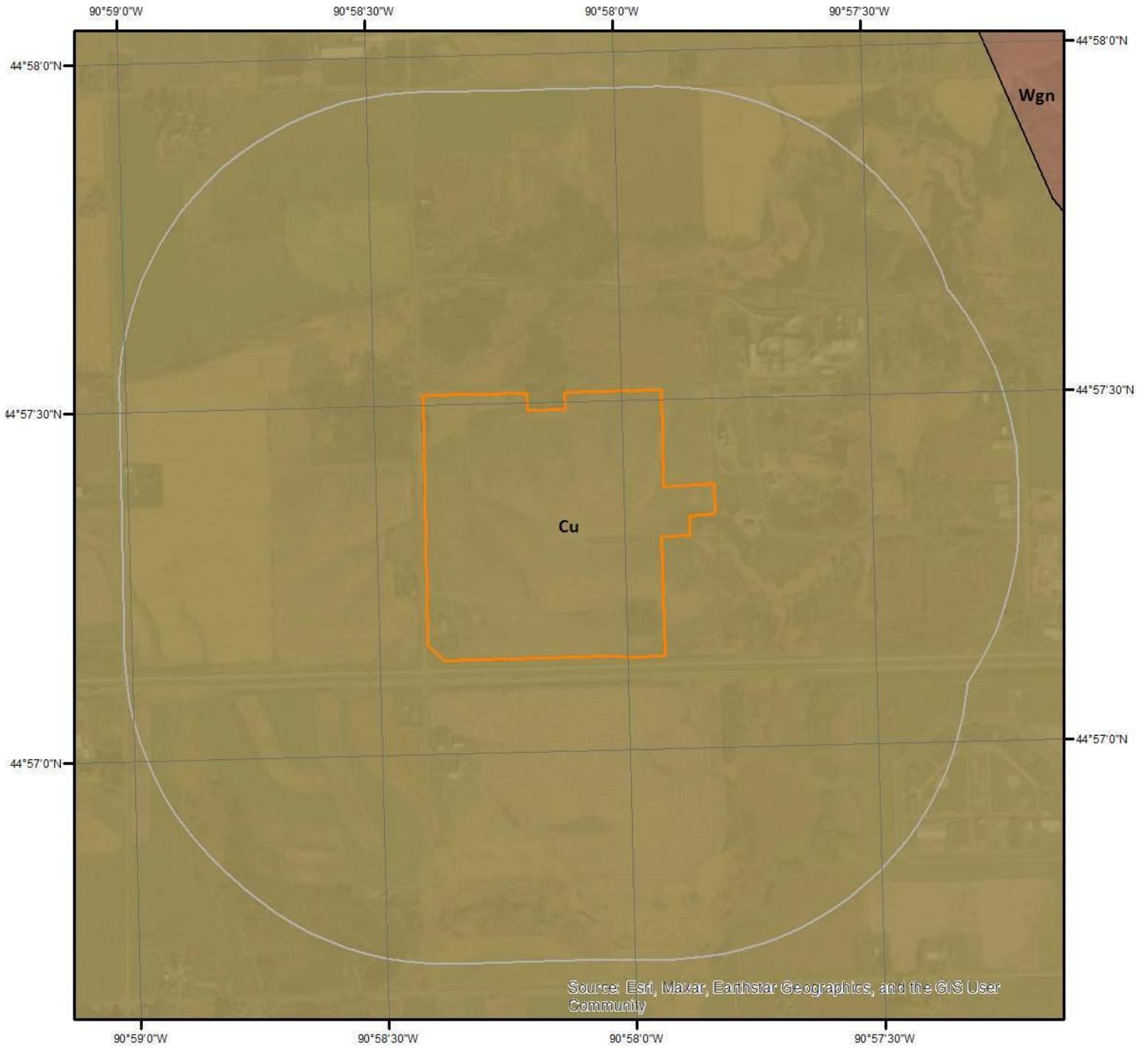
---

### Flood Zone X-12

Zone: X

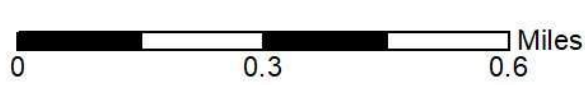
Zone subtype: AREA OF MINIMAL FLOOD HAZARD

# Geologic Information



## Geologic Units

This maps shows geologic units in the area. Please refer to the report for detailed descriptions.





## Geologic Information

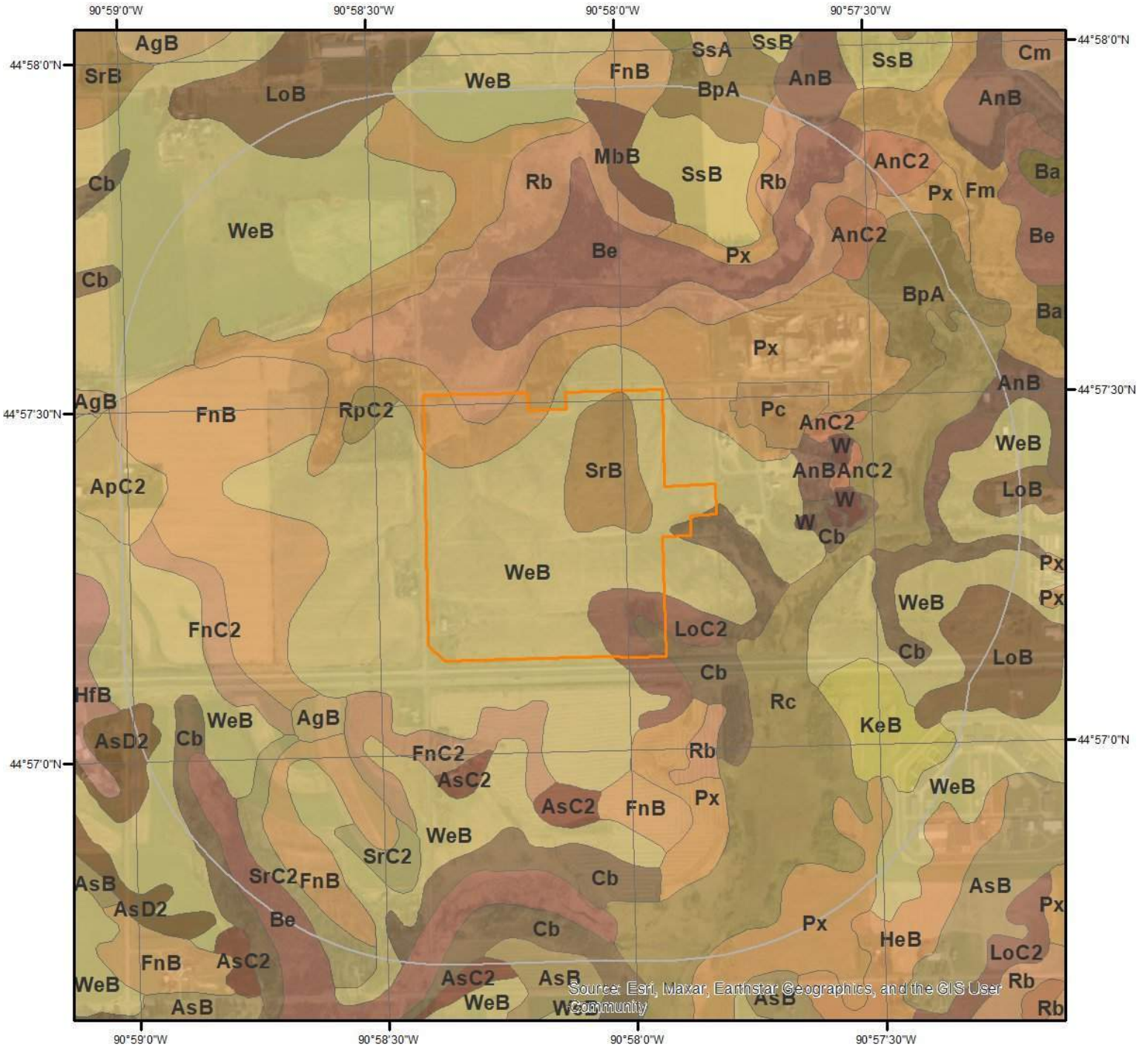
The previous page shows USGS geology information. Detailed information about each unit is provided below.

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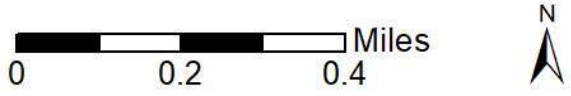
### Geologic Unit Cu

Unit Name:	Cambrian, undivided
Unit Age:	Cambrian
Primary Rock Type:	sandstone
Secondary Rock Type:	dolostone (dolomite)
Unit Description:	Cambrian, undivided - Sandstone with some dolomite and shale, undivided; includes Trempealeau, Tunnel City, and Elk Mound Formations

# Soil Information



## SSURGO Soils



This maps shows SSURGO soil units around the target property. Please refer to the report for detailed soil descriptions.





## Soil Information

The previous page shows a soil map using SSURGO data from USDA Natural Resources Conservation Service. Detailed information about each unit is provided below.

### Map Unit AgB (0.18%)

Map Unit Name: Almena silt loam, 1 to 6 percent slopes  
Bedrock Depth - Min:  
Watertable Depth - Annual Min: 15cm  
Drainage Class - Dominant: Somewhat poorly drained  
Hydrologic Group - Dominant: B/D - These soils have moderately low runoff potential when drained and high runoff potential when undrained.

Major components are printed below

Almena(100%)	
horizon Ap(0cm to 23cm)	Silt loam
horizon E,E/B,B/E(23cm to 61cm)	Silt loam
horizon Bt1,Bt2(61cm to 107cm)	Silt loam
horizon Bt3(107cm to 122cm)	Silt loam
horizon 2C(122cm to 152cm)	Gravelly sandy loam

Component Description:

Minor map unit components are excluded from this report.

Map Unit: AgB - Almena silt loam, 0 to 3 percent slopes

Component: Almena (84%)

The Almena component makes up 84 percent of the map unit. Slopes are 0 to 3 percent. This component is on ground moraines on till plains. The parent material consists of loess and/or silty alluvium over dense loamy till. Depth to a root restrictive layer, densic material, is 59 to 79 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during April. Organic matter content in the surface horizon is about 8 percent. Nonirrigated land capability classification is 2w. This soil does not meet hydric criteria.

Component: Magnor (5%)

Generated brief soil descriptions are created for major soil components. The Magnor soil is a minor component.

Component: Auburndale (5%)

Generated brief soil descriptions are created for major soil components. The Auburndale soil is a minor component.

Component: Spencer (3%)

Generated brief soil descriptions are created for major soil components. The Spencer soil is a minor component.

Component: Freeon (3%)

Generated brief soil descriptions are created for major soil components. The Freeon soil is a minor component.

### Map Unit AnB (2.0%)

Map Unit Name: Antigo silt loam, 1 to 6 percent slopes  
Bedrock Depth - Min:  
Watertable Depth - Annual Min:  
Drainage Class - Dominant: Well drained  
Hydrologic Group - Dominant: B - Soils in this group have moderately low runoff potential when thoroughly wet. Water transmission through the soil is unimpeded.

Major components are printed below

Antigo(100%)

## Soil Information

horizon Ap(0cm to 25cm)	Silt loam
horizon E,E/B,B/E,Bt(25cm to 71cm)	Silt loam
horizon 2Bt3(71cm to 81cm)	Sandy loam
horizon 2C(81cm to 152cm)	Coarse sand

### Component Description:

Minor map unit components are excluded from this report.

Map Unit: AnB - Antigo silt loam, 2 to 6 percent slopes

#### Component: Antigo (80%)

The Antigo component makes up 80 percent of the map unit. Slopes are 2 to 6 percent. This component is on hillslopes on outwash plains. The parent material consists of loess and/or silty glaciofluvial deposits over loamy glaciofluvial deposits over stratified sandy and gravelly outwash. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

#### Component: Sconsin (5%)

Generated brief soil descriptions are created for major soil components. The Sconsin soil is a minor component.

#### Component: Billyboy (5%)

Generated brief soil descriptions are created for major soil components. The Billyboy soil is a minor component.

#### Component: Rosholt (5%)

Generated brief soil descriptions are created for major soil components. The Rosholt soil is a minor component.

#### Component: Brill (3%)

Generated brief soil descriptions are created for major soil components. The Brill soil is a minor component.

#### Component: Ossmer (2%)

Generated brief soil descriptions are created for major soil components. The Ossmer soil is a minor component.

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### Map Unit AnC2 (0.77%)

Map Unit Name: Antigo silt loam, 6 to 12 percent slopes, eroded

Bedrock Depth - Min:

Watertable Depth - Annual Min:

Drainage Class - Dominant: Well drained

Hydrologic Group - Dominant: B - Soils in this group have moderately low runoff potential when thoroughly wet. Water transmission through the soil is unimpeded.

Major components are printed below

#### Antigo(100%)

horizon Ap(0cm to 25cm)	Silt loam
horizon E,E/B,B/E,Bt(25cm to 71cm)	Silt loam
horizon 2Bt3(71cm to 81cm)	Sandy loam
horizon 2C(81cm to 152cm)	Coarse sand

### Component Description:

Minor map unit components are excluded from this report.

Map Unit: AnC2 - Antigo silt loam, 6 to 15 percent slopes

#### Component: Antigo (85%)

The Antigo component makes up 85 percent of the map unit. Slopes are 6 to 15 percent. This component is on hillslopes on outwash plains. The parent material consists of loess and/or silty glaciofluvial deposits over loamy glaciofluvial deposits over stratified sandy and gravelly outwash. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate.



## Soil Information

Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 5 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria.

Component: Rosholt (5%)

Generated brief soil descriptions are created for major soil components. The Rosholt soil is a minor component.

Component: Sconsin (5%)

Generated brief soil descriptions are created for major soil components. The Sconsin soil is a minor component.

Component: Chetek (3%)

Generated brief soil descriptions are created for major soil components. The Chetek soil is a minor component.

Component: Ossmer (2%)

Generated brief soil descriptions are created for major soil components. The Ossmer soil is a minor component.

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### Map Unit ApC2 (0.7%)

Map Unit Name:	Arland sandy loam, 6 to 12 percent slopes, eroded
Bedrock Depth - Min:	89cm
Watertable Depth - Annual Min:	
Drainage Class - Dominant:	Well drained
Hydrologic Group - Dominant:	C - Soils in this group have moderately high runoff potential when thoroughly wet. Water transmission through the soil is somewhat restricted.

Major components are printed below

Arland(100%)	
horizon Ap(0cm to 18cm)	Sandy loam
horizon Bt1(18cm to 28cm)	Sandy loam
horizon Bt2(28cm to 64cm)	Sandy loam
horizon BC,2C(64cm to 89cm)	Sandy loam
horizon 2Cr(89cm to 152cm)	Bedrock

Component Description:

Minor map unit components are excluded from this report.

Map Unit: ApC2 - Arland sandy loam, 6 to 12 percent slopes, eroded

Component: Arland (100%)

The Arland component makes up 100 percent of the map unit. Slopes are 6 to 12 percent. This component is on hills. The parent material consists of loamy till over sandstone and/or sandy residuum. Depth to a root restrictive layer, bedrock, paralithic, inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria.

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### Map Unit AsB (0.49%)

Map Unit Name:	Arland loam, 2 to 6 percent slopes
Bedrock Depth - Min:	89cm
Watertable Depth - Annual Min:	
Drainage Class - Dominant:	Well drained
Hydrologic Group - Dominant:	C - Soils in this group have moderately high runoff potential when thoroughly wet. Water transmission through the soil is somewhat restricted.

Major components are printed below

Arland(100%)	
horizon Ap(0cm to 18cm)	Loam
horizon Bt1(18cm to 28cm)	Sandy loam

## Soil Information

horizon Bt2(28cm to 64cm)	Sandy loam
horizon BC,2C(64cm to 89cm)	Sandy loam
horizon 2Cr(89cm to 152cm)	Bedrock

### Component Description:

Minor map unit components are excluded from this report.

Map Unit: AsB - Arland loam, 2 to 6 percent slopes

### Component: Arland (100%)

The Arland component makes up 100 percent of the map unit. Slopes are 2 to 6 percent. This component is on hills. The parent material consists of loamy till over sandstone and/or sandy residuum. Depth to a root restrictive layer, bedrock, paralithic, inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

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### Map Unit AsC2 (0.5%)

Map Unit Name:	Arland loam, 6 to 12 percent slopes, eroded
Bedrock Depth - Min:	89cm
Watertable Depth - Annual Min:	
Drainage Class - Dominant:	Well drained
Hydrologic Group - Dominant:	C - Soils in this group have moderately high runoff potential when thoroughly wet. Water transmission through the soil is somewhat restricted.

Major components are printed below

Arland(100%)	
horizon Ap(0cm to 18cm)	Loam
horizon Bt1(18cm to 28cm)	Sandy loam
horizon Bt2(28cm to 64cm)	Sandy loam
horizon BC,2C(64cm to 89cm)	Sandy loam
horizon 2Cr(89cm to 152cm)	Bedrock

### Component Description:

Minor map unit components are excluded from this report.

Map Unit: AsC2 - Arland loam, 6 to 12 percent slopes, eroded

### Component: Arland (100%)

The Arland component makes up 100 percent of the map unit. Slopes are 6 to 12 percent. This component is on hills. The parent material consists of loamy till over sandstone and/or sandy residuum. Depth to a root restrictive layer, bedrock, paralithic, inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria.

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### Map Unit AsD2 (1.31%)

Map Unit Name:	Arland loam, 12 to 20 percent slopes, eroded
Bedrock Depth - Min:	89cm
Watertable Depth - Annual Min:	
Drainage Class - Dominant:	Well drained
Hydrologic Group - Dominant:	C - Soils in this group have moderately high runoff potential when thoroughly wet. Water transmission through the soil is somewhat restricted.

Major components are printed below

Arland(100%)
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## Soil Information

horizon Ap(0cm to 18cm)	Loam
horizon Bt1(18cm to 28cm)	Sandy loam
horizon Bt2(28cm to 64cm)	Sandy loam
horizon BC,2C(64cm to 89cm)	Sandy loam
horizon 2Cr(89cm to 152cm)	Bedrock

### Component Description:

Minor map unit components are excluded from this report.

Map Unit: AsD2 - Arland loam, 12 to 20 percent slopes, eroded

### Component: Arland (100%)

The Arland component makes up 100 percent of the map unit. Slopes are 12 to 20 percent. This component is on hills. The parent material consists of loamy till over sandstone and/or sandy residuum. Depth to a root restrictive layer, bedrock, paralithic, inches. The natural drainage class is well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is low. Shrink-swell potential is low. This soil is not flooded. It is not ponded. There is no zone of water saturation within a depth of 72 inches. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 4e. This soil does not meet hydric criteria.

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### Map Unit Be (7.26%)

Map Unit Name:	Beseman muck, 0 to 1 percent slopes
Bedrock Depth - Min:	
Watertable Depth - Annual Min:	0cm
Drainage Class - Dominant:	Very poorly drained
Hydrologic Group - Dominant:	C/D - These soils have moderately high runoff potential when drained and high runoff potential when undrained.

Major components are printed below

Beseman(100%)

horizon Oe,Oa1,Oa2(0cm to 51cm)	Muck
horizon Cg(51cm to 152cm)	Loam

### Component Description:

Minor map unit components are excluded from this report.

Map Unit: Be - Beseman muck, 0 to 1 percent slopes

### Component: Beseman (100%)

The Beseman component makes up 100 percent of the map unit. Slopes are 0 to 1 percent. This component is on depressions on ground moraines. The parent material consists of herbaceous organic material over silty drift and/or loamy drift. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is very poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is very high. Shrink-swell potential is moderate. This soil is not flooded. It is occasionally ponded. A seasonal zone of water saturation is at 0 inches during April, May, June, October, November. Organic matter content in the surface horizon is about 62 percent. Nonirrigated land capability classification is 7w. This soil meets hydric criteria.

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### Map Unit BpA (1.96%)

Map Unit Name:	Brill silt loam, 0 to 3 percent slopes
Bedrock Depth - Min:	
Watertable Depth - Annual Min:	46cm
Drainage Class - Dominant:	Moderately well drained
Hydrologic Group - Dominant:	B/D - These soils have moderately low runoff potential when drained and high runoff potential when undrained.

Major components are printed below

Brill(100%)

## Soil Information

horizon Ap(0cm to 20cm)	Silt loam
horizon E(20cm to 28cm)	Silt loam
horizon E/B(28cm to 33cm)	Silt loam
horizon B/E,Bt(33cm to 64cm)	Silt loam
horizon BC(64cm to 86cm)	Loam
horizon 2C(86cm to 152cm)	Sand

### Component Description:

Minor map unit components are excluded from this report.

Map Unit: BpA - Brill silt loam, 0 to 3 percent slopes

### Component: Brill (100%)

The Brill component makes up 100 percent of the map unit. Slopes are 0 to 3 percent. This component is on stream terraces, outwash plains. The parent material consists of loamy alluvium and/or silty drift over stratified sandy and gravelly outwash. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 18 inches during April. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 2s. This soil does not meet hydric criteria.

## Map Unit Cb (8.6%)

Map Unit Name:	Cable silt loam, 0 to 2 percent slopes
Bedrock Depth - Min:	
Watertable Depth - Annual Min:	0cm
Drainage Class - Dominant:	Very poorly drained
Hydrologic Group - Dominant:	C/D - These soils have moderately high runoff potential when drained and high runoff potential when undrained.

Major components are printed below

### Cable(100%)

horizon A(0cm to 10cm)	Silt loam
horizon Eg,Bg1(10cm to 41cm)	Silt loam
horizon 2Bg2(41cm to 66cm)	Loam
horizon 2C1,2C2(66cm to 152cm)	Sandy loam

### Component Description:

Minor map unit components are excluded from this report.

Map Unit: Cb - Capitola-Cebana complex, 0 to 2 percent slopes, very stony

### Component: Capitola (40%)

The Capitola, very stony component makes up 40 percent of the map unit. Slopes are 0 to 2 percent. This component is on depressions on ground moraines on till plains. The parent material consists of silty alluvium and/or loamy alluvium over dense sandy loam till. Depth to a root restrictive layer, densic material, is 20 to 39 inches (depth from the mineral surface is 20 to 33 inches). The natural drainage class is very poorly drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during April, May, November. Organic matter content in the surface horizon is about 65 percent. Nonirrigated land capability classification is 7w. This soil meets hydric criteria.

### Component: Cebana (30%)

The Cebana, very stony component makes up 30 percent of the map unit. Slopes are 0 to 2 percent. This component is on ground moraines on till plains. The parent material consists of silty loess and/or silty lacustrine deposits over dense loamy till. Depth to a root restrictive layer, densic material, is 39 to 59 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 0 inches during April, May, November. Organic matter content in the surface horizon is about 10 percent. Nonirrigated land capability classification is 6w. This soil meets hydric criteria.

### Component: Cathro (10%)

Generated brief soil descriptions are created for major soil components. The Cathro soil is a minor component.



## Soil Information

### Component: Magnor (10%)

Generated brief soil descriptions are created for major soil components. The Magnor soil is a minor component.

### Component: Auburndale (5%)

Generated brief soil descriptions are created for major soil components. The Auburndale soil is a minor component.

### Component: Capitola (3%)

Generated brief soil descriptions are created for major soil components. The Capitola soil is a minor component.

### Component: Cebana (2%)

Generated brief soil descriptions are created for major soil components. The Cebana soil is a minor component.

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### Map Unit FnB (5.35%)

Map Unit Name: Freeon silt loam, 2 to 6 percent slopes

Bedrock Depth - Min:

Watertable Depth - Annual Min: 30cm

Drainage Class - Dominant: Moderately well drained

Hydrologic Group - Dominant: C/D - These soils have moderately high runoff potential when drained and high runoff potential when undrained.

Major components are printed below

#### Freeon(100%)

horizon Ap(0cm to 20cm)	Silt loam
horizon E,E/B,Bt1(20cm to 58cm)	Silt loam
horizon 2Bt2,2Bt3(58cm to 97cm)	Sandy loam
horizon 2C(97cm to 152cm)	Sandy loam

Component Description:

Minor map unit components are excluded from this report.

Map Unit: FnB - Freeon silt loam, 2 to 6 percent slopes

### Component: Freeon (80%)

The Freeon component makes up 80 percent of the map unit. Slopes are 2 to 6 percent. This component is on ground moraines on till plains. The parent material consists of loess and/or silty lacustrine deposits over dense sandy loam till. Depth to a root restrictive layer, densic material, is 39 to 59 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during April. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

### Component: Magnor (10%)

Generated brief soil descriptions are created for major soil components. The Magnor soil is a minor component.

### Component: Santiago (3%)

Generated brief soil descriptions are created for major soil components. The Santiago soil is a minor component.

### Component: Capitola (3%)

Generated brief soil descriptions are created for major soil components. The Capitola soil is a minor component.

### Component: Freeon (2%)

Generated brief soil descriptions are created for major soil components. The Freeon soil is a minor component.

### Component: Haugen (2%)

Generated brief soil descriptions are created for major soil components. The Haugen soil is a minor component.

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### Map Unit FnC2 (1.49%)

Map Unit Name: Freeon silt loam, 6 to 12 percent slopes, eroded

## Soil Information

Bedrock Depth - Min:

Watertable Depth - Annual Min: 30cm

Drainage Class - Dominant: Moderately well drained

Hydrologic Group - Dominant: C/D - These soils have moderately high runoff potential when drained and high runoff potential when undrained.

Major components are printed below

Freeon(100%)

horizon Ap(0cm to 20cm)	Silt loam
horizon E,E/B,Bt1(20cm to 58cm)	Silt loam
horizon 2Bt2,2Bt3(58cm to 97cm)	Sandy loam
horizon 2C(97cm to 152cm)	Sandy loam

Component Description:

Minor map unit components are excluded from this report.

Map Unit: FnC2 - Freeon silt loam, 6 to 12 percent slopes

Component: Freeon (85%)

The Freeon component makes up 85 percent of the map unit. Slopes are 6 to 12 percent. This component is on ground moraines on till plains. The parent material consists of loess and/or silty lacustrine deposits over dense sandy loam till. Depth to a root restrictive layer, densic material, is 39 to 59 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during April. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria.

Component: Magnor (5%)

Generated brief soil descriptions are created for major soil components. The Magnor soil is a minor component.

Component: Santiago (4%)

Generated brief soil descriptions are created for major soil components. The Santiago soil is a minor component.

Component: Freeon (2%)

Generated brief soil descriptions are created for major soil components. The Freeon soil is a minor component.

Component: Amery (2%)

Generated brief soil descriptions are created for major soil components. The Amery soil is a minor component.

Component: Capitola (2%)

Generated brief soil descriptions are created for major soil components. The Capitola soil is a minor component.

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### Map Unit KeB (0.87%)

Map Unit Name: Kert silt loam, 1 to 6 percent slopes

Bedrock Depth - Min: 102cm

Watertable Depth - Annual Min: 46cm

Drainage Class - Dominant: Somewhat poorly drained

Hydrologic Group - Dominant: B/D - These soils have moderately low runoff potential when drained and high runoff potential when undrained.

Major components are printed below

Kert(100%)

horizon Ap(0cm to 20cm)	Silt loam
horizon E,E/B(20cm to 56cm)	Silt loam
horizon 2Bt1(56cm to 71cm)	Silt loam
horizon 2Bt2(71cm to 102cm)	Silty clay loam
horizon 3Cr1,3Cr2(102cm to 152cm)	Weathered bedrock

Component Description:



## Soil Information

Minor map unit components are excluded from this report.

Map Unit: KeB - Kert silt loam, 1 to 6 percent slopes

Component: Kert (99%)

The Kert component makes up 99 percent of the map unit. Slopes are 1 to 6 percent. This component is on hills. The parent material consists of silty drift and/or loamy drift over silty residuum and/or sandy residuum and/or clayey residuum over weathered sandstone and/or interbedded shale. Depth to a root restrictive layer, bedrock, paralithic, inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is very low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 18 inches during March, April, May, June, October, November, December. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Vesper (1%)

Generated brief soil descriptions are created for major soil components. The Vesper soil is a minor component.

---

### Map Unit LoB (5.16%)

Map Unit Name: Loyal silt loam, 1 to 6 percent slopes

Bedrock Depth - Min:

Watertable Depth - Annual Min: 30cm

Drainage Class - Dominant: Moderately well drained

Hydrologic Group - Dominant: C/D - These soils have moderately high runoff potential when drained and high runoff potential when undrained.

Major components are printed below

Loyal(90%)

horizon Ap(0cm to 23cm)	Silt loam
horizon E(23cm to 36cm)	Silt loam
horizon E/B(36cm to 51cm)	Silt loam
horizon 2B/E(51cm to 61cm)	Loam
horizon 2Bt1(61cm to 91cm)	Loam
horizon 2Bt2(91cm to 114cm)	Loam
horizon 2Cd(114cm to 200cm)	Loam

Component Description:

Minor map unit components are excluded from this report.

Map Unit: LoB - Loyal silt loam, 1 to 6 percent slopes

Component: Loyal (90%)

The Loyal component makes up 90 percent of the map unit. Slopes are 1 to 6 percent. This component is on ground moraines on till plains. The parent material consists of silty alluvium and/or loess over dense loamy till. Depth to a root restrictive layer, densic material, is 40 to 64 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during April. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

Component: Withee (6%)

Generated brief soil descriptions are created for major soil components. The Withee soil is a minor component.

Component: Rietbrock (2%)

Generated brief soil descriptions are created for major soil components. The Rietbrock soil is a minor component.

Component: Fenwood (2%)

Generated brief soil descriptions are created for major soil components. The Fenwood soil is a minor component.

---

### Map Unit LoC2 (0.77%)

## Soil Information

Map Unit Name: Loyal silt loam, 6 to 12 percent slopes  
Bedrock Depth - Min:  
Watertable Depth - Annual Min: 30cm  
Drainage Class - Dominant: Moderately well drained  
Hydrologic Group - Dominant: C/D - These soils have moderately high runoff potential when drained and high runoff potential when undrained.

Major components are printed below

Loyal(90%)

horizon Ap(0cm to 23cm)	Silt loam
horizon E(23cm to 36cm)	Silt loam
horizon E/B(36cm to 51cm)	Silt loam
horizon 2B/E(51cm to 61cm)	Loam
horizon 2Bt1(61cm to 91cm)	Loam
horizon 2Bt2(91cm to 114cm)	Loam
horizon 2Cd(114cm to 200cm)	Loam

Component Description:

Minor map unit components are excluded from this report.

Map Unit: LoC2 - Loyal silt loam, 6 to 12 percent slopes

Component: Loyal (90%)

The Loyal component makes up 90 percent of the map unit. Slopes are 6 to 12 percent. This component is on ground moraines on till plains. The parent material consists of silty alluvium and/or loess over dense loamy till. Depth to a root restrictive layer, densic material, is 40 to 64 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 12 inches during April. Organic matter content in the surface horizon is about 2 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria.

Component: Freeon (4%)

Generated brief soil descriptions are created for major soil components. The Freeon soil is a minor component.

Component: Hiles (3%)

Generated brief soil descriptions are created for major soil components. The Hiles soil is a minor component.

Component: Fenwood (3%)

Generated brief soil descriptions are created for major soil components. The Fenwood soil is a minor component.

---

### Map Unit MbB (0.39%)

Map Unit Name: Magnor silt loam, 1 to 6 percent slopes  
Bedrock Depth - Min:  
Watertable Depth - Annual Min: 15cm  
Drainage Class - Dominant: Somewhat poorly drained  
Hydrologic Group - Dominant: C/D - These soils have moderately high runoff potential when drained and high runoff potential when undrained.

Major components are printed below

Magnor(100%)

horizon Ap(0cm to 20cm)	Silt loam
horizon E(20cm to 28cm)	Silt loam
horizon E/B,B/E(28cm to 46cm)	Silt loam
horizon 2Bt1,2Bt2(46cm to 81cm)	Sandy loam
horizon 2C(81cm to 152cm)	Sandy loam

Component Description:

Minor map unit components are excluded from this report.



## Soil Information

Map Unit: MbB - Magnor silt loam, 0 to 4 percent slopes

Component: Magnor (80%)

The Magnor component makes up 80 percent of the map unit. Slopes are 0 to 4 percent. This component is on ground moraines on till plains. The parent material consists of loess and/or silty lacustrine deposits over dense sandy loam till. Depth to a root restrictive layer, densic material, is 39 to 59 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during April. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 2w. This soil does not meet hydric criteria.

Component: Freeon (8%)

Generated brief soil descriptions are created for major soil components. The Freeon soil is a minor component.

Component: Cebana (4%)

Generated brief soil descriptions are created for major soil components. The Cebana soil is a minor component.

Component: Magnor (2%)

Generated brief soil descriptions are created for major soil components. The Magnor soil is a minor component.

Component: Pesabic (2%)

Generated brief soil descriptions are created for major soil components. The Pesabic soil is a minor component.

Component: Capitola (2%)

Generated brief soil descriptions are created for major soil components. The Capitola soil is a minor component.

Component: Almena (2%)

Generated brief soil descriptions are created for major soil components. The Almena soil is a minor component.

---

### Map Unit Pc (0.41%)

Map Unit Name: Pits, gravel

Bedrock Depth - Min:

Watertable Depth - Annual Min:

Drainage Class - Dominant:

Hydrologic Group - Dominant:

Major components are printed below

Pits(99%)

horizon H1(0cm to 25cm)

Stratified extremely gravelly coarse sand to very gravelly sand

Component Description:

Minor map unit components are excluded from this report.

Map Unit: Pc - Pits, gravel

Component: Pits (99%)

Generated brief soil descriptions are created for major soil components. The Pits is a miscellaneous area.

Component: Aquentis (1%)

Generated brief soil descriptions are created for major soil components. The Aquentis soil is a minor component.

---

### Map Unit Px (8.35%)

Map Unit Name: Poskin silt loam, 0 to 2 percent slopes

Bedrock Depth - Min:

Watertable Depth - Annual Min: 15cm

Drainage Class - Dominant: Somewhat poorly drained

Hydrologic Group - Dominant: B/D - These soils have moderately low runoff potential when drained and high runoff potential when undrained.

## Soil Information

Major components are printed below

Poskin(100%)	
horizon Ap(0cm to 25cm)	Silt loam
horizon E(25cm to 36cm)	Silt loam
horizon E/B,B/E(36cm to 58cm)	Silt loam
horizon Bt1(58cm to 74cm)	Silt loam
horizon 2Bt2(74cm to 97cm)	Sandy loam
horizon 2C(97cm to 152cm)	Stratified sand to g

Component Description:

Minor map unit components are excluded from this report.

Map Unit: Px - Poskin silt loam, 0 to 2 percent slopes

Component: Poskin (99%)

The Poskin component makes up 99 percent of the map unit. Slopes are 0 to 2 percent. This component is on depressions on outwash plains. The parent material consists of loamy drift and/or silty drift over sandy and gravelly outwash. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during April. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 2w. This soil does not meet hydric criteria.

Component: Rib (1%)

Generated brief soil descriptions are created for major soil components. The Rib soil is a minor component.

---

### Map Unit Rb (3.6%)

Map Unit Name:	Rib silt loam, 0 to 2 percent slopes
Bedrock Depth - Min:	
Watertable Depth - Annual Min:	0cm
Drainage Class - Dominant:	Poorly drained
Hydrologic Group - Dominant:	B/D - These soils have moderately low runoff potential when drained and high runoff potential when undrained.

Major components are printed below

Rib(100%)	
horizon Ap(0cm to 20cm)	Silt loam
horizon Bg1,Bg2,Bg3(20cm to 71cm)	Silt loam
horizon 2Bg4(71cm to 84cm)	Loam
horizon 2C(84cm to 152cm)	Stratified coarse sand to loamy sand

Component Description:

Minor map unit components are excluded from this report.

Map Unit: Rb - Rib silt loam, 0 to 2 percent slopes

Component: Rib (100%)

The Rib component makes up 100 percent of the map unit. Slopes are 0 to 2 percent. This component is on drainageways on outwash plains. The parent material consists of loamy drift and/or silty drift over stratified sandy and gravelly outwash. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during January, February, March, April, May, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 7 percent. Nonirrigated land capability classification is 2w. This soil meets hydric criteria.

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### Map Unit Rc (7.05%)



## Soil Information

Map Unit Name: Rib mucky silt loam, ponded, 0 to 2 percent slopes  
Bedrock Depth - Min:  
Watertable Depth - Annual Min: 0cm  
Drainage Class - Dominant: Poorly drained  
Hydrologic Group - Dominant: B/D - These soils have moderately low runoff potential when drained and high runoff potential when undrained.

Major components are printed below

Rib(100%)  
horizon A(0cm to 38cm) Silt loam  
horizon Bg1,2,3,2Bg4(38cm to 112cm) Silt loam  
horizon 2C(112cm to 152cm) Stratified coarse sand to loamy sand

Component Description:

Minor map unit components are excluded from this report.

Map Unit: Rc - Rib mucky silt loam, ponded, 0 to 2 percent slopes

Component: Rib (100%)

The Rib, ponded component makes up 100 percent of the map unit. Slopes are 0 to 2 percent. This component is on depressions on outwash plains. The parent material consists of loamy drift and/or silty drift over stratified sandy and gravelly outwash. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is poorly drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is moderate. This soil is not flooded. It is frequently ponded. A seasonal zone of water saturation is at 0 inches during January, February, March, April, May, June, July, August, September, October, November, December. Organic matter content in the surface horizon is about 15 percent. Nonirrigated land capability classification is 6w. This soil meets hydric criteria.

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### Map Unit RpC2 (0.16%)

Map Unit Name: Rosholt loam, 6 to 12 percent slopes, eroded  
Bedrock Depth - Min:  
Watertable Depth - Annual Min:  
Drainage Class - Dominant: Well drained  
Hydrologic Group - Dominant: B - Soils in this group have moderately low runoff potential when thoroughly wet. Water transmission through the soil is unimpeded.

Major components are printed below

Rosholt(100%)  
horizon Ap(0cm to 20cm) Loam  
horizon E(20cm to 38cm) Fine sandy loam  
horizon B/E,Bt1,Bt2(38cm to 71cm) Fine sandy loam  
horizon 2Bt3(71cm to 86cm) Gravelly loamy sand  
horizon 2C(86cm to 152cm) Stratified coarse sand to sand

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### Map Unit SrB (0.81%)

Map Unit Name: Spencer silt loam, 2 to 6 percent slopes  
Bedrock Depth - Min:  
Watertable Depth - Annual Min: 91cm  
Drainage Class - Dominant: Moderately well drained  
Hydrologic Group - Dominant: C - Soils in this group have moderately high runoff potential when thoroughly wet. Water transmission through the soil is somewhat restricted.

Major components are printed below

Spencer(100%)  
horizon Ap(0cm to 23cm) Silt loam  
horizon E(23cm to 30cm) Silt loam

## Soil Information

horizon E/B,B/E(30cm to 51cm)	Silt loam
horizon Bt1,Bt2,C1(51cm to 107cm)	Silt loam
horizon 2C2(107cm to 152cm)	Sandy loam

### Component Description:

Minor map unit components are excluded from this report.

Map Unit: SrB - Spencer silt loam, 2 to 6 percent slopes

### Component: Spencer (100%)

The Spencer component makes up 100 percent of the map unit. Slopes are 2 to 6 percent. This component is on ground moraines. The parent material consists of silty drift over sandy loam till. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 36 inches during March, April, May, October, November, December. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

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### Map Unit SrC2 (0.86%)

Map Unit Name:	Spencer silt loam, 6 to 12 percent slopes, eroded
Bedrock Depth - Min:	
Watertable Depth - Annual Min:	91cm
Drainage Class - Dominant:	Moderately well drained
Hydrologic Group - Dominant:	C - Soils in this group have moderately high runoff potential when thoroughly wet. Water transmission through the soil is somewhat restricted.

Major components are printed below

#### Spencer(100%)

horizon Ap(0cm to 23cm)	Silt loam
horizon E(23cm to 30cm)	Silt loam
horizon E/B,B/E(30cm to 51cm)	Silt loam
horizon Bt1,Bt2,C1(51cm to 107cm)	Silt loam
horizon 2C2(107cm to 152cm)	Sandy loam

### Component Description:

Minor map unit components are excluded from this report.

Map Unit: SrC2 - Spencer silt loam, 6 to 12 percent slopes, eroded

### Component: Spencer (100%)

The Spencer component makes up 100 percent of the map unit. Slopes are 6 to 12 percent. This component is on ground moraines. The parent material consists of silty drift over sandy loam till. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is moderate. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 36 inches during March, April, May, October, November, December. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 3e. This soil does not meet hydric criteria.

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### Map Unit SsB (0.98%)

Map Unit Name:	Spencer silt loam, gravelly substratum, 2 to 6 percent slopes
Bedrock Depth - Min:	
Watertable Depth - Annual Min:	91cm
Drainage Class - Dominant:	Moderately well drained
Hydrologic Group - Dominant:	C - Soils in this group have moderately high runoff potential when thoroughly wet. Water transmission through the soil is somewhat restricted.

Major components are printed below

#### Spencer(100%)



## Soil Information

horizon Ap(0cm to 20cm)	Silt loam
horizon E,E/B,B/E,Bt(20cm to 127cm)	Silt loam
horizon 2C2(127cm to 152cm)	Gravelly sand

### Component Description:

Minor map unit components are excluded from this report.

Map Unit: SsB - Spencer silt loam, gravelly substratum, 2 to 6 percent slopes

### Component: Spencer (100%)

The Spencer, gravelly substratum component makes up 100 percent of the map unit. Slopes are 2 to 6 percent. This component is on end moraines. The parent material consists of silty drift over sandy loam till. Depth to a root restrictive layer is greater than 60 inches. The natural drainage class is moderately well drained. Water movement in the most restrictive layer is moderately high. Available water to a depth of 60 inches (or restricted depth) is high. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 36 inches during March, April, May, October, November, December. Organic matter content in the surface horizon is about 3 percent. Nonirrigated land capability classification is 2e. This soil does not meet hydric criteria.

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### Map Unit W (0.17%)

Map Unit Name: Water

No more attributes available for this map unit

### Component Description:

Minor map unit components are excluded from this report.

Map Unit: W - Water

### Component: Water (100%)

Generated brief soil descriptions are created for major soil components. The Water is a miscellaneous area.

---

### Map Unit WeB (39.83%)

Map Unit Name: Withee silt loam, 0 to 3 percent slopes

Bedrock Depth - Min:

Watertable Depth - Annual Min: 15cm

Drainage Class - Dominant: Somewhat poorly drained

Hydrologic Group - Dominant: C/D - These soils have moderately high runoff potential when drained and high runoff potential when undrained.

Major components are printed below

#### Withee(83%)

horizon Ap(0cm to 23cm)	Silt loam
horizon E(23cm to 36cm)	Silt loam
horizon E/B(36cm to 46cm)	Silt loam
horizon B/E(46cm to 61cm)	Silt loam
horizon 2Bt1(61cm to 86cm)	Loam
horizon 2Bt2(86cm to 119cm)	Loam
horizon 2Cd(119cm to 200cm)	Loam

### Component Description:

Minor map unit components are excluded from this report.

Map Unit: WeB - Withee silt loam, 0 to 3 percent slopes

### Component: Withee (83%)

The Withee component makes up 83 percent of the map unit. Slopes are 0 to 3 percent. This component is on ground moraines on till plains. The parent material consists of loess and/or silty alluvium over dense loamy till. Depth to a root restrictive layer, densic

## Soil Information

material, is 40 to 64 inches. The natural drainage class is somewhat poorly drained. Water movement in the most restrictive layer is low. Available water to a depth of 60 inches (or restricted depth) is moderate. Shrink-swell potential is low. This soil is not flooded. It is not ponded. A seasonal zone of water saturation is at 6 inches during April. Organic matter content in the surface horizon is about 4 percent. Nonirrigated land capability classification is 2w. This soil does not meet hydric criteria.

Component: Marshfield (10%)

Generated brief soil descriptions are created for major soil components. The Marshfield soil is a minor component.

Component: Loyal (5%)

Generated brief soil descriptions are created for major soil components. The Loyal soil is a minor component.

Component: Rietbrock (1%)

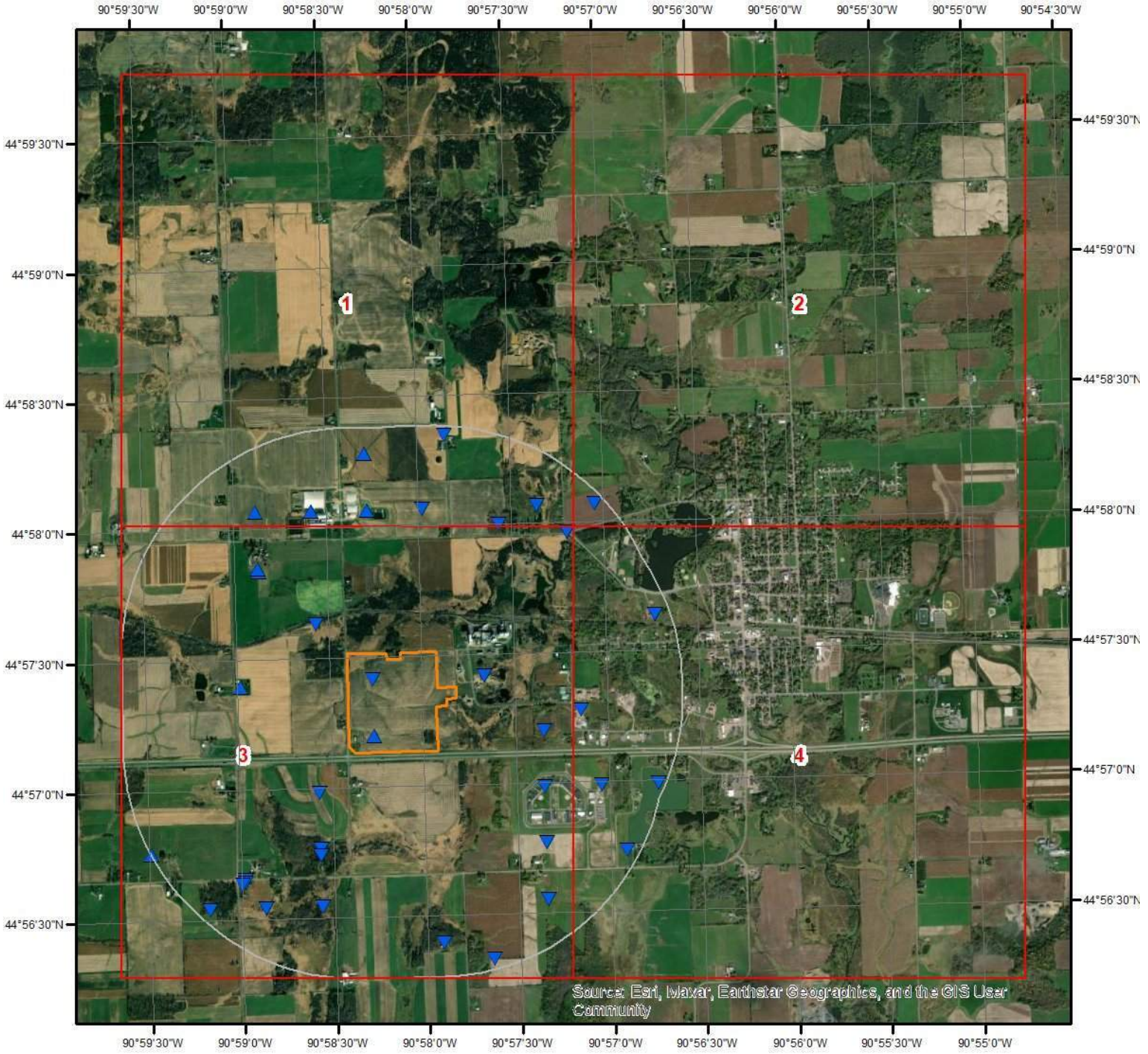
Generated brief soil descriptions are created for major soil components. The Rietbrock soil is a minor component.

Component: Magnor (1%)

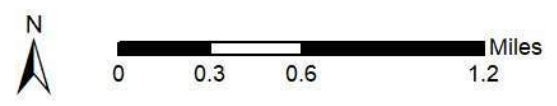
Generated brief soil descriptions are created for major soil components. The Magnor soil is a minor component.



# Wells and Additional Sources



## Wells & Additional Sources



- |                                |                                    |
|--------------------------------|------------------------------------|
| ▲ Sites with Higher Elevation  | ▲ OGW Sites with Higher Elevation  |
| ■ Sites with Same Elevation    | ■ OGW Sites with Same Elevation    |
| ▼ Sites with Lower Elevation   | ▼ OGW Sites with Lower Elevation   |
| ○ Sites with Unknown Elevation | ● OGW Sites with Unknown Elevation |



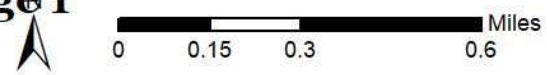


# Wells and Additional Sources



Source: Esri, Imagar, Earthstar Geographics, and the GIS User Community

## Wells & Additional Sources - Page 1

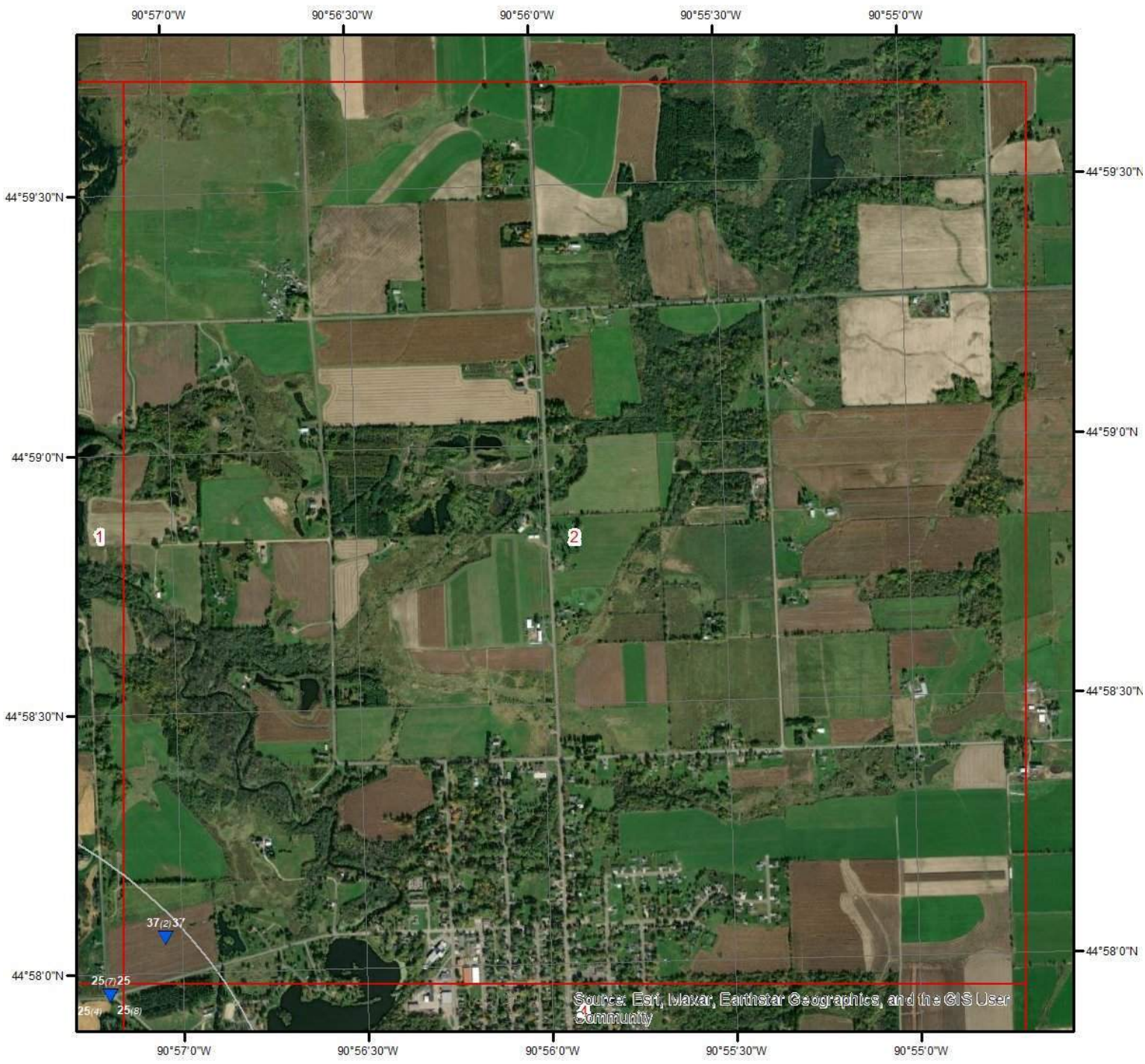


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| ■ Sites with Same Elevation    | ■ OGW Sites with Same Elevation    |
| ▼ Sites with Lower Elevation   | ▼ OGW Sites with Lower Elevation   |
| ○ Sites with Unknown Elevation | ● OGW Sites with Unknown Elevation |

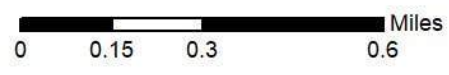




# Wells and Additional Sources



## Wells & Additional Sources - Page 2

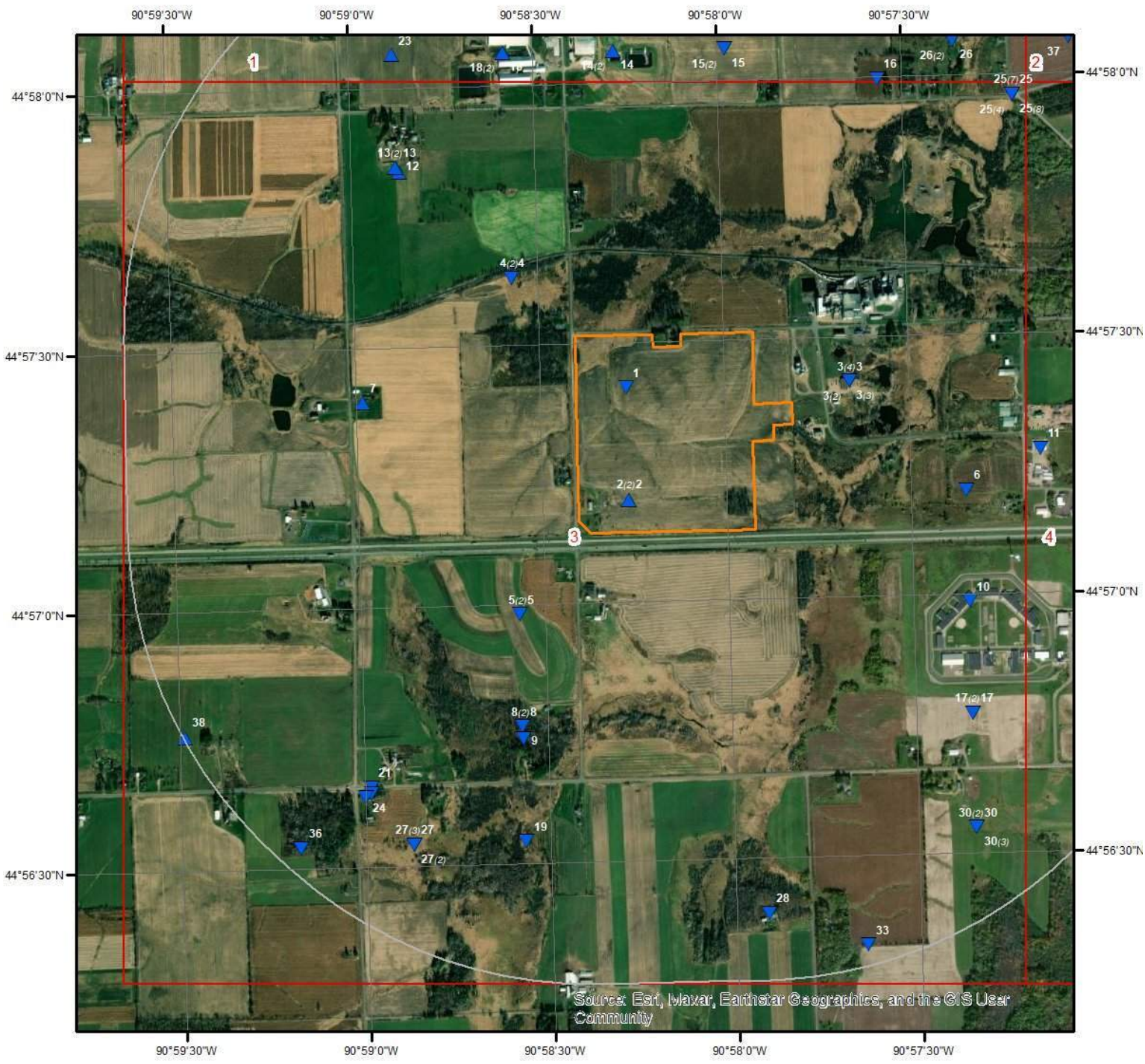


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|--------------------------------|------------------------------------|
| ▲ Sites with Higher Elevation  | ▲ OGW Sites with Higher Elevation  |
| ■ Sites with Same Elevation    | ■ OGW Sites with Same Elevation    |
| ▼ Sites with Lower Elevation   | ▼ OGW Sites with Lower Elevation   |
| ○ Sites with Unknown Elevation | ● OGW Sites with Unknown Elevation |

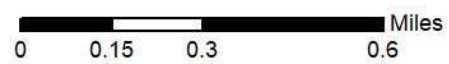




# Wells and Additional Sources



## Wells & Additional Sources - Page 3

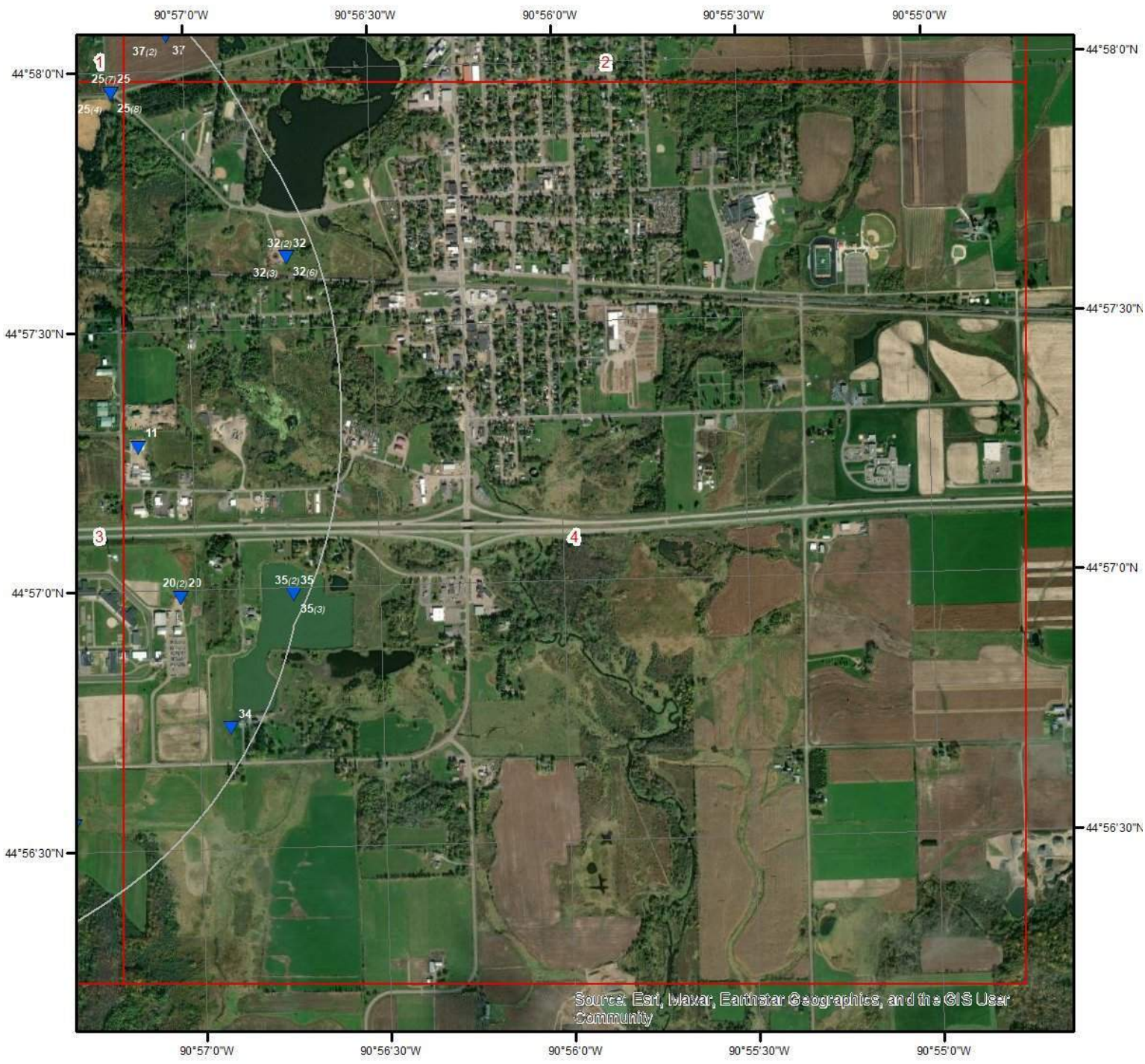


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|--------------------------------|------------------------------------|
| ▲ Sites with Higher Elevation  | ▲ OGW Sites with Higher Elevation  |
| ■ Sites with Same Elevation    | ■ OGW Sites with Same Elevation    |
| ▼ Sites with Lower Elevation   | ▼ OGW Sites with Lower Elevation   |
| ○ Sites with Unknown Elevation | ● OGW Sites with Unknown Elevation |

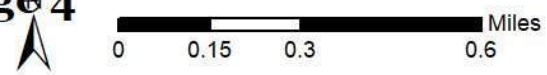




# Wells and Additional Sources



## Wells & Additional Sources - Page 4



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|--------------------------------|------------------------------------|
| ▲ Sites with Higher Elevation  | ▲ OGW Sites with Higher Elevation  |
| ■ Sites with Same Elevation    | ■ OGW Sites with Same Elevation    |
| ▼ Sites with Lower Elevation   | ▼ OGW Sites with Lower Elevation   |
| ○ Sites with Unknown Elevation | ● OGW Sites with Unknown Elevation |



# Wells and Additional Sources Summary

## Federal Sources

### Public Water Systems Violations and Enforcement Data

Map Key	PWS ID	Distance (ft)	Direction
22	WI6090702	3994.81	SW

### Safe Drinking Water Information System (SDWIS)

Map Key	ID	Distance (ft)	Direction
No records found			

### USGS National Water Information System

Map Key	ID	Distance (ft)	Direction
No records found			

### Wells from NWIS

Map Key	ID	Distance (ft)	Direction
No records found			

## State Sources

### Historic Well Construction Reports (1930-1989)

Map Key	WID	Distance (ft)	Direction
2	9505461	0.00	-
3	9505091	709.26	ENE
3	9505463	709.26	ENE
4	9505453	1006.13	NW
5	9505161	1265.12	SW
8	9505233	2406.03	SSW
13	9505454	2877.03	NW
14	9505213	3333.50	N
15	9505455	3319.74	N
17	9505476	3332.88	SE
20	9505089	3920.10	ESE
25	9505252	4120.07	NE
25	9505251	4120.07	NE
26	9505210	4131.97	NE
27	9502300	4199.96	SSW
29	9505214	4659.27	N
30	9505133	4348.25	SE
32	9505220	4932.76	ENE
32	9505245	4932.76	ENE
32	9505243	4932.76	ENE
35	9505090	5126.85	ESE
37	9505451	5056.01	NE



## Wells and Additional Sources Summary

### Oil and Gas Wells

Map Key	ID	Distance (ft)	Direction
No records found			

### Public Water Supply Systems

Map Key	DNR PWS ID	Distance (ft)	Direction
21	60907022	3942.04	SW

### Well Construction Report

Map Key	WI Unique Well No	Distance (ft)	Direction
1	LM946	0.00	-
2	8BA174	0.00	-
3	8BA176	709.26	ENE
3	8LM336	709.26	ENE
4	8BA168	1006.13	NW
5	8BC460	1265.12	SW
6	MY799	2177.87	E
7	AAD819	2496.00	W
8	8BC459	2406.03	SSW
9	SX515	2534.77	SSW
10	MT248	2650.78	ESE
11	YY192	2919.43	E
12	UX232	2814.04	NW
13	8BA169	2877.03	NW
14	8BC448	3333.50	N
15	8BA170	3319.74	N
16	UX162	3295.69	NNE
17	8BA175	3332.88	SE
18	SG663	3423.91	NNW
18	MK033	3423.91	NNW
19	KZ723	3693.60	SSW
20	8BC461	3920.10	ESE
23	UV609	3936.40	NW
24	ZX238	4074.45	SW
25	WR569	4120.07	NE
25	8BC441	4120.07	NE
25	WR566	4120.07	NE
25	XB124	4120.07	NE
25	QM019	4120.07	NE
25	QZ438	4120.07	NE
25	WS645	4120.07	NE
25	8BC440	4120.07	NE
25	QM040	4120.07	NE
25	WR565	4120.07	NE
25	QM041	4120.07	NE
25	XB126	4120.07	NE
26	8BC445	4131.97	NE
27	NN082	4199.96	SSW
27	8BA813	4199.96	SSW
28	QZ363	4496.23	SSE
29	8BC449	4659.27	N
29	XL716	4659.27	N
30	DS293	4348.25	SE
30	8AZ674	4348.25	SE
31	UV629	5048.50	N
32	8BC443	4932.76	ENE
32	8BC444	4932.76	ENE
32	8BC442	4932.76	ENE

## Wells and Additional Sources Summary

33	NJ207	5045.43	SSE
34	YA969	5008.02	ESE
35	8BC462	5126.85	ESE
35	MY658	5126.85	ESE
36	FP106	5014.19	SW
37	8BA166	5056.01	NE
38	MY670	5255.47	WSW

### Well Inventory

Map Key	ID	Distance (ft)	Direction
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No records found



# Wells and Additional Sources Detail Report

## Public Water Systems Violations and Enforcement Data

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
22	SW	0.76	3,994.81	1,123.98	PWSV

Address Line 2:  
 State Code: WI  
 Zip Code: 54768  
 City Name: Stanley  
 Address Line 1: 34027 CTH X  
 PWS ID: WI6090702  
 PWS Type Code: TNCWS  
 PWS Type Description: Transient Non-Community Water System  
 Primary Source Code: GW  
 Primary Source Desc: Groundwater  
 PWS Activity Code: A  
 PWS Activity Description: Active  
 PWS Deactivation Date:  
 Phone Number:

--Details--

Population Served Count: 50  
 City Served: STANLEY  
 County Served: Chippewa  
 State Served: WI  
 Zip Code Served:

## Historic Well Construction Reports (1930-1989)

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
2	-	0.00	0.00	1,137.41	WATER WELLS

WID: 9505461      Latitude: 44.95329  
 Depth to Bedrock:      Longitude: -90.97118  
 County Name: CHIPPEWA

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
3	ENE	0.13	709.26	1,090.00	WATER WELLS

WID: 9505091      Latitude: 44.956907  
 Depth to Bedrock:      Longitude: -90.961098  
 County Name: CHIPPEWA

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
3	ENE	0.13	709.26	1,090.00	WATER WELLS

## Wells and Additional Sources Detail Report

WID: 9505463 Latitude: 44.956907  
 Depth to Bedrock: Longitude: -90.961098  
 County Name: CHIPPEWA

<b>Map Key</b>	<b>Direction</b>	<b>Distance (mi)</b>	<b>Distance (ft)</b>	<b>Elevation (ft)</b>	<b>DB</b>
4	NW	0.19	1,006.13	1,101.87	WATER WELLS

WID: 9505453 Latitude: 44.960488  
 Depth to Bedrock: Longitude: -90.976249  
 County Name: CHIPPEWA

<b>Map Key</b>	<b>Direction</b>	<b>Distance (mi)</b>	<b>Distance (ft)</b>	<b>Elevation (ft)</b>	<b>DB</b>
5	SW	0.24	1,265.12	1,117.39	WATER WELLS

WID: 9505161 Latitude: 44.949681  
 Depth to Bedrock: Longitude: -90.976219  
 County Name: CHIPPEWA

<b>Map Key</b>	<b>Direction</b>	<b>Distance (mi)</b>	<b>Distance (ft)</b>	<b>Elevation (ft)</b>	<b>DB</b>
8	SSW	0.46	2,406.03	1,098.73	WATER WELLS

WID: 9505233 Latitude: 44.946075  
 Depth to Bedrock: Longitude: -90.97622  
 County Name: CHIPPEWA

<b>Map Key</b>	<b>Direction</b>	<b>Distance (mi)</b>	<b>Distance (ft)</b>	<b>Elevation (ft)</b>	<b>DB</b>
13	NW	0.54	2,877.03	1,145.75	WATER WELLS

WID: 9505454 Latitude: 44.964132  
 Depth to Bedrock: Longitude: -90.98134  
 County Name: CHIPPEWA

<b>Map Key</b>	<b>Direction</b>	<b>Distance (mi)</b>	<b>Distance (ft)</b>	<b>Elevation (ft)</b>	<b>DB</b>
14	N	0.63	3,333.50	1,136.61	WATER WELLS

WID: 9505213 Latitude: 44.967721  
 Depth to Bedrock: Longitude: -90.971378  
 County Name: CHIPPEWA

<b>Map Key</b>	<b>Direction</b>	<b>Distance (mi)</b>	<b>Distance (ft)</b>	<b>Elevation (ft)</b>	<b>DB</b>
15	N	0.63	3,319.74	1,119.41	WATER WELLS



## Wells and Additional Sources Detail Report

WID: 9505455 Latitude: 44.967692  
Depth to Bedrock: Longitude: -90.966345  
County Name: CHIPPEWA

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
17	SE	0.63	3,332.88	1,112.52	WATER WELLS

WID: 9505476 Latitude: 44.946157  
Depth to Bedrock: Longitude: -90.955865  
County Name: CHIPPEWA

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
20	ESE	0.74	3,920.10	1,087.58	WATER WELLS

WID: 9505089 Latitude: 44.949761  
Depth to Bedrock: Longitude: -90.950764  
County Name: CHIPPEWA

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
25	NE	0.78	4,120.07	1,090.00	WATER WELLS

WID: 9505252 Latitude: 44.965995  
Depth to Bedrock: Longitude: -90.953387  
County Name: CHIPPEWA

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
25	NE	0.78	4,120.07	1,090.00	WATER WELLS

WID: 9505251 Latitude: 44.965995  
Depth to Bedrock: Longitude: -90.953387  
County Name: CHIPPEWA

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
26	NE	0.78	4,131.97	1,090.18	WATER WELLS

WID: 9505210 Latitude: 44.967761  
Depth to Bedrock: Longitude: -90.956034  
County Name: CHIPPEWA

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
27	SSW	0.80	4,199.96	1,088.62	WATER WELLS

## Wells and Additional Sources Detail Report

WID: 9502300 Latitude: 44.942369  
 Depth to Bedrock: Longitude: -90.981277  
 County Name: CHIPPEWA

<b>Map Key</b>	<b>Direction</b>	<b>Distance (mi)</b>	<b>Distance (ft)</b>	<b>Elevation (ft)</b>	<b>DB</b>
29	N	0.88	4,659.27	1,147.95	WATER WELLS

WID: 9505214 Latitude: 44.971358  
 Depth to Bedrock: Longitude: -90.97145  
 County Name: CHIPPEWA

<b>Map Key</b>	<b>Direction</b>	<b>Distance (mi)</b>	<b>Distance (ft)</b>	<b>Elevation (ft)</b>	<b>DB</b>
30	SE	0.82	4,348.25	1,079.76	WATER WELLS

WID: 9505133 Latitude: 44.94248  
 Depth to Bedrock: Longitude: -90.955818  
 County Name: CHIPPEWA

<b>Map Key</b>	<b>Direction</b>	<b>Distance (mi)</b>	<b>Distance (ft)</b>	<b>Elevation (ft)</b>	<b>DB</b>
32	ENE	0.93	4,932.76	1,080.31	WATER WELLS

WID: 9505220 Latitude: 44.960591  
 Depth to Bedrock: Longitude: -90.945628  
 County Name: CHIPPEWA

<b>Map Key</b>	<b>Direction</b>	<b>Distance (mi)</b>	<b>Distance (ft)</b>	<b>Elevation (ft)</b>	<b>DB</b>
32	ENE	0.93	4,932.76	1,080.31	WATER WELLS

WID: 9505245 Latitude: 44.960591  
 Depth to Bedrock: Longitude: -90.945628  
 County Name: CHIPPEWA

<b>Map Key</b>	<b>Direction</b>	<b>Distance (mi)</b>	<b>Distance (ft)</b>	<b>Elevation (ft)</b>	<b>DB</b>
32	ENE	0.93	4,932.76	1,080.31	WATER WELLS

WID: 9505243 Latitude: 44.960591  
 Depth to Bedrock: Longitude: -90.945628  
 County Name: CHIPPEWA

<b>Map Key</b>	<b>Direction</b>	<b>Distance (mi)</b>	<b>Distance (ft)</b>	<b>Elevation (ft)</b>	<b>DB</b>
35	ESE	0.97	5,126.85	1,071.38	WATER WELLS



## Wells and Additional Sources Detail Report

WID:	9505090	Latitude:	44.949775
Depth to Bedrock:		Longitude:	-90.945663
County Name:	CHIPPEWA		

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
37	NE	0.96	5,056.01	1,089.53	WATER WELLS

WID:	9505451	Latitude:	44.967814
Depth to Bedrock:		Longitude:	-90.950825
County Name:	CHIPPEWA		

### Public Water Supply Systems

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
21	SW	0.75	3,942.04	1,125.36	PWS

DNR PWS ID:	60907022	Purchased Grnd Wtr:	0
Type:	Transient, non-community	Purchased Surf Wtr:	0
Status:	Active	Service Connects:	1
DNR Region:	West Central Region	Water Meters:	0
County:	Chippewa	Storage Capacity:	0
Non Transient Pop:	0	Season Begins:	
Transient Pop:	50	Season Ends:	
Surface Water:	0	Provide Wtr to Sys:	No
Ground Water:	100	Recei Wtr from Sys:	No
Service Types:	Restaurant		
Most Recent Sanitary Survey:	09/04/2019		

### Well Construction Report

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
1	-	0.00	0.00	1,111.48	PRIVATE WW

WI Unique Well No:	LM946	Temp Outer Cas:	
High Cap Well No:		Temp Casing Diam:	
Hi Cap Well:		Temp Casing Rem:	
Hi Cap Property:		Why Not Removed:	
County Well Loc:		Other Drill Method:	
DNR Region:		Other Drillin Desc:	
County:		Screen Diameter:	
Muni Type:		Screen Description:	
Tax Parcel No:		Casing Depth Amt:	70 FEET
Well Complete Date:	06/03/1997	Screen To:	
DNR Rec Date:		Sealant Method:	
Fire No:		Static Depth Amt:	15

## Wells and Additional Sources Detail Report

Subdivision:		Pumping Level:	
Lot:		Pumping At:	
Block:		Pumping Units:	
Government Parcel:		For:	
Survey Township:	29	Well Start Depth:	
Survey Range:	5	Developed:	
Survey Section:	34	Disinfected:	
Q Section:	NE	Capped:	
QQ Section:	NW	Proper Seal:	
Well Status:	Replacement	Contractor Signed:	
Original Year:		Rig Oper Signed:	
Replace Reason:		Geologic Log No:	
Prev WI Well No:		Common Well No:	
Replace Well No:		DNR Facility ID:	
Well Const Type:		Watr Seq No:	676519
Other Const Type:		LL Lat Dd Amt:	
Category:		LL Long Dd Amt:	
No Services:		Survey Range Dir:	W
Facility Type:		Well Name:	
High Pt Property:		Calc Specific Cap:	
In Floodplain:		Well Depth Amt:	155
Rotary Mud Circ:		Well Dep Amt Text:	155 FEET
Rotary Air:		Static Depth:	feet below ground surface
Rotary Foam:		Location Method:	QQ section centroid
Reverse Rotary:		Casing Depth Amt:	70
Cable Tool Bit:		Decade Complete:	1990-1999
Cable Bit Diameter:			
Owner:			
Owner Address:	PO BOX 31		
Owner City:			
Owner State:			
Owner Zip:			
Constructor Name:	KLINE WELL @ PUMP INC		
Constructor Addr:			
Constructor City:			
Constructor State:			
Constructor Zip:			
Seal Description:			
Drilling Difficulty:			
Other Driller Comments:			
Water Quality Comments:			
Water Quantity Comments:			
Exception Area Comments:			
Well URL:			
Well Constr Url:	<a href="https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&amp;download=false&amp;WUWN=LM946">https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&amp;download=false&amp;WUWN=LM946</a>		



# Wells and Additional Sources Detail Report

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
2	-	0.00	0.00	1,137.41	PRIVATE WW

WI Unique Well No: 8BA174

High Cap Well No:

Hi Cap Well:

Hi Cap Property:

County Well Loc:

DNR Region:

County:

Muni Type:

Tax Parcel No:

Well Complete Date:

DNR Rec Date:

Fire No:

Subdivision:

Lot:

Block:

Government Parcel:

Survey Township: 29

Survey Range: 5

Survey Section: 34

Q Section: NE

QQ Section: SW

Well Status:

Original Year:

Replace Reason:

Prev WI Well No:

Replace Well No:

Well Const Type:

Other Const Type:

Category:

No Services:

Facility Type:

High Pt Property:

In Floodplain:

Rotary Mud Circ:

Rotary Air:

Rotary Foam:

Reverse Rotary:

Cable Tool Bit:

Cable Bit Diameter:

Owner:

Owner Address:

Owner City:

Owner State:

Temp Outer Cas:

Temp Casing Diam:

Temp Casing Rem:

Why Not Removed:

Other Drill Method:

Other Drillin Desc:

Screen Diameter:

Screen Description:

Casing Depth Amt:

Screen To:

Sealant Method:

Static Depth Amt:

Pumping Level:

Pumping At:

Pumping Units:

For:

Well Start Depth:

Developed:

Disinfected:

Capped:

Proper Seal:

Contractor Signed:

Rig Oper Signed:

Geologic Log No:

Common Well No:

DNR Facility ID:

Watr Seq No: 113775701

LL Lat Dd Amt:

LL Long Dd Amt:

Survey Range Dir: W

Well Name:

Calc Specific Cap:

Well Depth Amt:

Well Dep Amt Text:

Static Depth:

Location Method: QQ section centroid

Casing Depth Amt:

Decade Complete:

# Wells and Additional Sources Detail Report

Owner Zip:  
 Constructor Name:  
 Constructor Addr:  
 Constructor City:  
 Constructor State:  
 Constructor Zip:  
 Seal Description:  
 Drilling Difficulty:  
 Other Driller Comments:  
 Water Quality Comments:  
 Water Quantity  
 Comments:  
 Exception Area  
 Comments:  
 Well URL:  
 Well Constr Url: <https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&download=false&WUWN=8BA174>

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
3	ENE	0.13	709.26	1,090.00	PRIVATE WW

WI Unique Well No:	8BA176	Temp Outer Cas:	
High Cap Well No:		Temp Casing Diam:	
Hi Cap Well:		Temp Casing Rem:	
Hi Cap Property:		Why Not Removed:	
County Well Loc:		Other Drill Method:	
DNR Region:		Other Drillin Desc:	
County:		Screen Diameter:	
Muni Type:		Screen Description:	
Tax Parcel No:		Casing Depth Amt:	
Well Complete Date:		Screen To:	
DNR Rec Date:		Sealant Method:	
Fire No:		Static Depth Amt:	
Subdivision:		Pumping Level:	
Lot:		Pumping At:	
Block:		Pumping Units:	
Government Parcel:		For:	
Survey Township:	29	Well Start Depth:	
Survey Range:	5	Developed:	
Survey Section:	35	Disinfected:	
Q Section:	NW	Capped:	
QQ Section:	NW	Proper Seal:	
Well Status:		Contractor Signed:	
Original Year:		Rig Oper Signed:	
Replace Reason:		Geologic Log No:	
Prev WI Well No:		Common Well No:	
Replace Well No:		DNR Facility ID:	
Well Const Type:		Watr Seq No:	113775703



## Wells and Additional Sources Detail Report

Other Const Type: Category: No Services: Facility Type: High Pt Property: In Floodplain: Rotary Mud Circ: Rotary Air: Rotary Foam: Reverse Rotary: Cable Tool Bit: Cable Bit Diameter: Owner: Owner Address: Owner City: Owner State: Owner Zip: Constructor Name: Constructor Addr: Constructor City: Constructor State: Constructor Zip: Seal Description: Drilling Difficulty: Other Driller Comments: Water Quality Comments: Water Quantity Comments: Exception Area Comments: Well URL: Well Constr Url:	LL Lat Dd Amt: LL Long Dd Amt: Survey Range Dir:           W Well Name: Calc Specific Cap: Well Depth Amt: Well Dep Amt Text: Static Depth: Location Method:           QQ section centroid Casing Depth Amt: Decade Complete:
https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&download=false&WUWN=8BA176	

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
3	ENE	0.13	709.26	1,090.00	PRIVATE WW

WI Unique Well No:           8LM336 High Cap Well No: Hi Cap Well: Hi Cap Property: County Well Loc: DNR Region: County: Muni Type: Tax Parcel No: Well Complete Date: DNR Rec Date:	Temp Outer Cas: Temp Casing Diam: Temp Casing Rem: Why Not Removed: Other Drill Method: Other Drillin Desc: Screen Diameter: Screen Description: Casing Depth Amt: Screen To: Sealant Method:
--	---

## Wells and Additional Sources Detail Report

Fire No:		Static Depth Amt:	
Subdivision:		Pumping Level:	
Lot:		Pumping At:	
Block:		Pumping Units:	
Government Parcel:		For:	
Survey Township:	29	Well Start Depth:	
Survey Range:	5	Developed:	
Survey Section:	35	Disinfected:	
Q Section:	NW	Capped:	
QQ Section:	NW	Proper Seal:	
Well Status:		Contractor Signed:	
Original Year:		Rig Oper Signed:	
Replace Reason:		Geologic Log No:	
Prev WI Well No:		Common Well No:	
Replace Well No:		DNR Facility ID:	
Well Const Type:		Watr Seq No:	114048190
Other Const Type:		LL Lat Dd Amt:	
Category:		LL Long Dd Amt:	
No Services:		Survey Range Dir:	W
Facility Type:		Well Name:	
High Pt Property:		Calc Specific Cap:	
In Floodplain:		Well Depth Amt:	
Rotary Mud Circ:		Well Dep Amt Text:	
Rotary Air:		Static Depth:	
Rotary Foam:		Location Method:	QQ section centroid
Reverse Rotary:		Casing Depth Amt:	
Cable Tool Bit:		Decade Complete:	
Cable Bit Diameter:			
Owner:			
Owner Address:			
Owner City:			
Owner State:			
Owner Zip:			
Constructor Name:			
Constructor Addr:			
Constructor City:			
Constructor State:			
Constructor Zip:			
Seal Description:			
Drilling Difficulty:			
Other Driller Comments:			
Water Quality Comments:			
Water Quantity Comments:			
Exception Area Comments:			
Well URL:			
Well Constr Url:	<a href="https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&amp;download=false&amp;WUWN=8LM336">https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&amp;download=false&amp;WUWN=8LM336</a>		



# Wells and Additional Sources Detail Report

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
4	NW	0.19	1,006.13	1,101.87	PRIVATE WW

WI Unique Well No:	8BA168	Temp Outer Cas:	
High Cap Well No:		Temp Casing Diam:	
Hi Cap Well:		Temp Casing Rem:	
Hi Cap Property:		Why Not Removed:	
County Well Loc:		Other Drill Method:	
DNR Region:		Other Drillin Desc:	
County:		Screen Diameter:	
Muni Type:		Screen Description:	
Tax Parcel No:		Casing Depth Amt:	
Well Complete Date:		Screen To:	
DNR Rec Date:		Sealant Method:	
Fire No:		Static Depth Amt:	
Subdivision:		Pumping Level:	
Lot:		Pumping At:	
Block:		Pumping Units:	
Government Parcel:		For:	
Survey Township:	29	Well Start Depth:	
Survey Range:	5	Developed:	
Survey Section:	27	Disinfected:	
Q Section:	SW	Capped:	
QQ Section:	SE	Proper Seal:	
Well Status:		Contractor Signed:	
Original Year:		Rig Oper Signed:	
Replace Reason:		Geologic Log No:	
Prev WI Well No:		Common Well No:	
Replace Well No:		DNR Facility ID:	
Well Const Type:		Watr Seq No:	113775695
Other Const Type:		LL Lat Dd Amt:	
Category:		LL Long Dd Amt:	
No Services:		Survey Range Dir:	W
Facility Type:		Well Name:	
High Pt Property:		Calc Specific Cap:	
In Floodplain:		Well Depth Amt:	
Rotary Mud Circ:		Well Dep Amt Text:	
Rotary Air:		Static Depth:	
Rotary Foam:		Location Method:	QQ section centroid
Reverse Rotary:		Casing Depth Amt:	
Cable Tool Bit:		Decade Complete:	
Cable Bit Diameter:			
Owner:			
Owner Address:			
Owner City:			

# Wells and Additional Sources Detail Report

Owner State:  
 Owner Zip:  
 Constructor Name:  
 Constructor Addr:  
 Constructor City:  
 Constructor State:  
 Constructor Zip:  
 Seal Description:  
 Drilling Difficulty:  
 Other Driller Comments:  
 Water Quality Comments:  
 Water Quantity  
 Comments:  
 Exception Area  
 Comments:  
 Well URL:  
 Well Constr Url: <https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&download=false&WUWN=8BA168>

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
5	SW	0.24	1,265.12	1,117.39	PRIVATE WW

WI Unique Well No:	8BC460	Temp Outer Cas:
High Cap Well No:		Temp Casing Diam:
Hi Cap Well:		Temp Casing Rem:
Hi Cap Property:		Why Not Removed:
County Well Loc:		Other Drill Method:
DNR Region:		Other Drillin Desc:
County:		Screen Diameter:
Muni Type:		Screen Description:
Tax Parcel No:		Casing Depth Amt:
Well Complete Date:		Screen To:
DNR Rec Date:		Sealant Method:
Fire No:		Static Depth Amt:
Subdivision:		Pumping Level:
Lot:		Pumping At:
Block:		Pumping Units:
Government Parcel:		For:
Survey Township:	29	Well Start Depth:
Survey Range:	5	Developed:
Survey Section:	34	Disinfected:
Q Section:	SW	Capped:
QQ Section:	NE	Proper Seal:
Well Status:		Contractor Signed:
Original Year:		Rig Oper Signed:
Replace Reason:		Geologic Log No:
Prev WI Well No:		Common Well No:
Replace Well No:		DNR Facility ID:



# Wells and Additional Sources Detail Report

Well Const Type:	Watr Seq No:	113777994
Other Const Type:	LL Lat Dd Amt:	
Category:	LL Long Dd Amt:	
No Services:	Survey Range Dir:	W
Facility Type:	Well Name:	
High Pt Property:	Calc Specific Cap:	
In Floodplain:	Well Depth Amt:	
Rotary Mud Circ:	Well Dep Amt Text:	
Rotary Air:	Static Depth:	
Rotary Foam:	Location Method:	QQ section centroid
Reverse Rotary:	Casing Depth Amt:	
Cable Tool Bit:	Decade Complete:	
Cable Bit Diameter:		
Owner:		
Owner Address:		
Owner City:		
Owner State:		
Owner Zip:		
Constructor Name:		
Constructor Addr:		
Constructor City:		
Constructor State:		
Constructor Zip:		
Seal Description:		
Drilling Difficulty:		
Other Driller Comments:		
Water Quality Comments:		
Water Quantity		
Comments:		
Exception Area		
Comments:		
Well URL:		
Well Constr Url:	<a href="https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&amp;download=false&amp;WUWN=8BC460">https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&amp;download=false&amp;WUWN=8BC460</a>	

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
6	E	0.41	2,177.87	1,095.51	PRIVATE WW

WI Unique Well No:	MY799	Temp Outer Cas:
High Cap Well No:		Temp Casing Diam:
Hi Cap Well:		Temp Casing Rem:
Hi Cap Property:		Why Not Removed:
County Well Loc:		Other Drill Method:
DNR Region:		Other Drillin Desc:
County:		Screen Diameter:
Muni Type:		Screen Description:
Tax Parcel No:		Casing Depth Amt:
Well Complete Date:	04/15/1999	80 FEET
		Screen To:

## Wells and Additional Sources Detail Report

DNR Rec Date:		Sealant Method:	
Fire No:		Static Depth Amt:	15
Subdivision:		Pumping Level:	
Lot:		Pumping At:	
Block:		Pumping Units:	
Government Parcel:		For:	
Survey Township:	29	Well Start Depth:	
Survey Range:	5	Developed:	
Survey Section:	35	Disinfected:	
Q Section:	NW	Capped:	
QQ Section:	SE	Proper Seal:	
Well Status:	New Well	Contractor Signed:	
Original Year:		Rig Oper Signed:	
Replace Reason:		Geologic Log No:	
Prev WI Well No:		Common Well No:	
Replace Well No:		DNR Facility ID:	
Well Const Type:		Watr Seq No:	1027690
Other Const Type:		LL Lat Dd Amt:	
Category:		LL Long Dd Amt:	
No Services:		Survey Range Dir:	W
Facility Type:		Well Name:	
High Pt Property:		Calc Specific Cap:	
In Floodplain:		Well Depth Amt:	117
Rotary Mud Circ:		Well Dep Amt Text:	117 FEET
Rotary Air:		Static Depth:	feet below ground surface
Rotary Foam:		Location Method:	QQ section centroid
Reverse Rotary:		Casing Depth Amt:	80
Cable Tool Bit:		Decade Complete:	1990-1999
Cable Bit Diameter:			
Owner:			
Owner Address:	PO BOX 37		
Owner City:			
Owner State:			
Owner Zip:			
Constructor Name:	WILLIAM D BRUNNER		
Constructor Addr:			
Constructor City:			
Constructor State:			
Constructor Zip:			
Seal Description:			
Drilling Difficulty:			
Other Driller Comments:			
Water Quality Comments:			
Water Quantity Comments:			
Exception Area Comments:			
Well URL:			



# Wells and Additional Sources Detail Report

Well Constr Url: <https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&download=false&WUWN=MY799>

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
7	W	0.47	2,496.00	1,140.34	PRIVATE WW

WI Unique Well No: AAD819  
 High Cap Well No:  
 Hi Cap Well:  
 Hi Cap Property:  
 County Well Loc:  
 DNR Region:  
 County:  
 Muni Type:  
 Tax Parcel No:  
 Well Complete Date: 08/10/2020  
 DNR Rec Date:  
 Fire No:  
 Subdivision:  
 Lot:  
 Block:  
 Government Parcel:  
 Survey Township: 29  
 Survey Range: 5  
 Survey Section: 34  
 Q Section: NW  
 QQ Section: NW  
 Well Status: New Well  
 Original Year:  
 Replace Reason:  
 Prev WI Well No:  
 Replace Well No:  
 Well Const Type:  
 Other Const Type:  
 Category:  
 No Services:  
 Facility Type:  
 High Pt Property:  
 In Floodplain:  
 Rotary Mud Circ:  
 Rotary Air:  
 Rotary Foam:  
 Reverse Rotary:  
 Cable Tool Bit:  
 Cable Bit Diameter:  
 Owner:  
 Owner Address: 7861 COUNTY HIGHWAY G

Temp Outer Cas:  
 Temp Casing Diam:  
 Temp Casing Rem:  
 Why Not Removed:  
 Other Drill Method:  
 Other Drillin Desc:  
 Screen Diameter:  
 Screen Description:  
 Casing Depth Amt: 62 FEET  
 Screen To:  
 Sealant Method:  
 Static Depth Amt: 39  
 Pumping Level:  
 Pumping At:  
 Pumping Units:  
 For:  
 Well Start Depth:  
 Developed:  
 Disinfected:  
 Capped:  
 Proper Seal:  
 Contractor Signed:  
 Rig Oper Signed:  
 Geologic Log No:  
 Common Well No:  
 DNR Facility ID:  
 Watr Seq No: 114141399  
 LL Lat Dd Amt: 44.9566  
 LL Long Dd Amt: -90.9831  
 Survey Range Dir: W  
 Well Name:  
 Calc Specific Cap:  
 Well Depth Amt: 84  
 Well Dep Amt Text: 84 FEET  
 Static Depth: feet below ground surface  
 Location Method: Latitude and longitude  
 Casing Depth Amt: 62  
 Decade Complete: 2020-PRESENT

## Wells and Additional Sources Detail Report

Owner City:  
 Owner State:  
 Owner Zip:  
 Constructor Name: MIDWEST HYDROFRACKING LLC  
 Constructor Addr:  
 Constructor City:  
 Constructor State:  
 Constructor Zip:  
 Seal Description:  
 Drilling Difficulty:  
 Other Driller Comments:  
 Water Quality Comments:  
 Water Quantity  
 Comments:  
 Exception Area  
 Comments:  
 Well URL:  
 Well Constr Url: <https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&download=false&WUWN=AAD819>

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
8	SSW	0.46	2,406.03	1,098.73	PRIVATE WW

WI Unique Well No:	8BC459	Temp Outer Cas:
High Cap Well No:		Temp Casing Diam:
Hi Cap Well:		Temp Casing Rem:
Hi Cap Property:		Why Not Removed:
County Well Loc:		Other Drill Method:
DNR Region:		Other Drillin Desc:
County:		Screen Diameter:
Muni Type:		Screen Description:
Tax Parcel No:		Casing Depth Amt:
Well Complete Date:		Screen To:
DNR Rec Date:		Sealant Method:
Fire No:		Static Depth Amt:
Subdivision:		Pumping Level:
Lot:		Pumping At:
Block:		Pumping Units:
Government Parcel:		For:
Survey Township:	29	Well Start Depth:
Survey Range:	5	Developed:
Survey Section:	34	Disinfected:
Q Section:	SW	Capped:
QQ Section:	SE	Proper Seal:
Well Status:		Contractor Signed:
Original Year:		Rig Oper Signed:
Replace Reason:		Geologic Log No:
Prev WI Well No:		Common Well No:



# Wells and Additional Sources Detail Report

Replace Well No:	DNR Facility ID:
Well Const Type:	Watr Seq No: 113777993
Other Const Type:	LL Lat Dd Amt:
Category:	LL Long Dd Amt:
No Services:	Survey Range Dir: W
Facility Type:	Well Name:
High Pt Property:	Calc Specific Cap:
In Floodplain:	Well Depth Amt:
Rotary Mud Circ:	Well Dep Amt Text:
Rotary Air:	Static Depth:
Rotary Foam:	Location Method: QQ section centroid
Reverse Rotary:	Casing Depth Amt:
Cable Tool Bit:	Decade Complete:
Cable Bit Diameter:	
Owner:	
Owner Address:	
Owner City:	
Owner State:	
Owner Zip:	
Constructor Name:	
Constructor Addr:	
Constructor City:	
Constructor State:	
Constructor Zip:	
Seal Description:	
Drilling Difficulty:	
Other Driller Comments:	
Water Quality Comments:	
Water Quantity Comments:	
Exception Area Comments:	
Well URL:	
Well Constr Url:	<a href="https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&amp;download=false&amp;WUWN=8BC459">https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&amp;download=false&amp;WUWN=8BC459</a>

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
9	SSW	0.48	2,534.77	1,101.10	PRIVATE WW

WI Unique Well No: SX515	Temp Outer Cas:
High Cap Well No:	Temp Casing Diam:
Hi Cap Well:	Temp Casing Rem:
Hi Cap Property:	Why Not Removed:
County Well Loc:	Other Drill Method:
DNR Region:	Other Drillin Desc:
County:	Screen Diameter:
Muni Type:	Screen Description:
Tax Parcel No:	Casing Depth Amt: 33 FEET

## Wells and Additional Sources Detail Report

Well Complete Date:	07/29/2005	Screen To:	
DNR Rec Date:		Sealant Method:	
Fire No:		Static Depth Amt:	11
Subdivision:		Pumping Level:	
Lot:		Pumping At:	
Block:		Pumping Units:	
Government Parcel:		For:	
Survey Township:	29	Well Start Depth:	
Survey Range:	5	Developed:	
Survey Section:	34	Disinfected:	
Q Section:	SW	Capped:	
QQ Section:	SE	Proper Seal:	
Well Status:	New Well	Contractor Signed:	
Original Year:		Rig Oper Signed:	
Replace Reason:		Geologic Log No:	
Prev WI Well No:		Common Well No:	
Replace Well No:		DNR Facility ID:	
Well Const Type:		Watr Seq No:	1563030
Other Const Type:		LL Lat Dd Amt:	44.9457
Category:		LL Long Dd Amt:	-90.9762
No Services:		Survey Range Dir:	W
Facility Type:		Well Name:	
High Pt Property:		Calc Specific Cap:	
In Floodplain:		Well Depth Amt:	43
Rotary Mud Circ:		Well Dep Amt Text:	43 FEET
Rotary Air:		Static Depth:	feet below ground surface
Rotary Foam:		Location Method:	Parcel centroid
Reverse Rotary:		Casing Depth Amt:	33
Cable Tool Bit:		Decade Complete:	2000-2009
Cable Bit Diameter:			
Owner:			
Owner Address:	7158 345TH ST		
Owner City:			
Owner State:			
Owner Zip:			
Constructor Name:	JESSE W BRUNNER		
Constructor Addr:			
Constructor City:			
Constructor State:			
Constructor Zip:			
Seal Description:			
Drilling Difficulty:			
Other Driller Comments:			
Water Quality Comments:			
Water Quantity Comments:			
Exception Area Comments:			

# Wells and Additional Sources Detail Report

Well URL:

Well Constr Url: <https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&download=false&WUWN=SX515>

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
10	ESE	0.50	2,650.78	1,098.59	PRIVATE WW

WI Unique Well No: MT248

High Cap Well No:

Hi Cap Well:

Hi Cap Property:

County Well Loc:

DNR Region:

County:

Muni Type:

Tax Parcel No:

Well Complete Date: 08/11/1998

DNR Rec Date:

Fire No:

Subdivision:

Lot:

Block:

Government Parcel:

Survey Township: 29

Survey Range: 5

Survey Section: 35

Q Section: SW

QQ Section: NE

Well Status: New Well

Original Year:

Replace Reason:

Prev WI Well No:

Replace Well No:

Well Const Type:

Other Const Type:

Category:

No Services:

Facility Type:

High Pt Property:

In Floodplain:

Rotary Mud Circ:

Rotary Air:

Rotary Foam:

Reverse Rotary:

Cable Tool Bit:

Cable Bit Diameter:

Owner:

Temp Outer Cas:

Temp Casing Diam:

Temp Casing Rem:

Why Not Removed:

Other Drill Method:

Other Drillin Desc:

Screen Diameter:

Screen Description:

Casing Depth Amt: 31 FEET

Screen To:

Sealant Method:

Static Depth Amt: 13

Pumping Level:

Pumping At:

Pumping Units:

For:

Well Start Depth:

Developed:

Disinfected:

Capped:

Proper Seal:

Contractor Signed:

Rig Oper Signed:

Geologic Log No:

Common Well No:

DNR Facility ID:

Watr Seq No: 695013

LL Lat Dd Amt:

LL Long Dd Amt:

Survey Range Dir: W

Well Name:

Calc Specific Cap:

Well Depth Amt: 42

Well Dep Amt Text: 42 FEET

Static Depth: feet below ground surface

Location Method: QQ section centroid

Casing Depth Amt: 31

Decade Complete: 1990-1999



# Wells and Additional Sources Detail Report

Owner Address: PO BOX 37  
 Owner City:  
 Owner State:  
 Owner Zip:  
 Constructor Name: WILLIAM D BRUNNER  
 Constructor Addr:  
 Constructor City:  
 Constructor State:  
 Constructor Zip:  
 Seal Description:  
 Drilling Difficulty:  
 Other Driller Comments:  
 Water Quality Comments:  
 Water Quantity  
 Comments:  
 Exception Area  
 Comments:  
 Well URL:  
 Well Constr Url: <https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&download=false&WUWN=MT248>

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
11	E	0.55	2,919.43	1,085.07	PRIVATE WW

WI Unique Well No:	YY192	Temp Outer Cas:	
High Cap Well No:		Temp Casing Diam:	
Hi Cap Well:		Temp Casing Rem:	
Hi Cap Property:		Why Not Removed:	
County Well Loc:		Other Drill Method:	
DNR Region:		Other Drillin Desc:	
County:		Screen Diameter:	
Muni Type:		Screen Description:	
Tax Parcel No:		Casing Depth Amt:	61 FEET
Well Complete Date:	10/31/2017	Screen To:	
DNR Rec Date:		Sealant Method:	
Fire No:		Static Depth Amt:	12
Subdivision:		Pumping Level:	
Lot:		Pumping At:	
Block:		Pumping Units:	
Government Parcel:		For:	
Survey Township:	29	Well Start Depth:	
Survey Range:	5	Developed:	
Survey Section:	35	Disinfected:	
Q Section:	NE	Capped:	
QQ Section:	SE	Proper Seal:	
Well Status:	New Well	Contractor Signed:	
Original Year:		Rig Oper Signed:	
Replace Reason:		Geologic Log No:	

## Wells and Additional Sources Detail Report

Prev WI Well No:	Common Well No:
Replace Well No:	DNR Facility ID:
Well Const Type:	Watr Seq No: 104141967
Other Const Type:	LL Lat Dd Amt: 44.9546
Category:	LL Long Dd Amt: -90.9525
No Services:	Survey Range Dir: W
Facility Type:	Well Name:
High Pt Property:	Calc Specific Cap:
In Floodplain:	Well Depth Amt: 145
Rotary Mud Circ:	Well Dep Amt Text: 145 FEET
Rotary Air:	Static Depth: feet below ground surface
Rotary Foam:	Location Method: Latitude and longitude
Reverse Rotary:	Casing Depth Amt: 61
Cable Tool Bit:	Decade Complete: 2010-2019
Cable Bit Diameter:	
Owner:	
Owner Address: 310 URQUART RD	
Owner City:	
Owner State:	
Owner Zip:	
Constructor Name: MIDWEST HYDROFRACKING LLC	
Constructor Addr:	
Constructor City:	
Constructor State:	
Constructor Zip:	
Seal Description:	
Drilling Difficulty:	
Other Driller Comments:	
Water Quality Comments:	
Water Quantity Comments:	
Exception Area Comments:	
Well URL: <a href="https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&amp;download=false&amp;WUWN=YY192">https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&amp;download=false&amp;WUWN=YY192</a>	
Well Constr Url:	

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
12	NW	0.53	2,814.04	1,145.61	PRIVATE WW

WI Unique Well No: UX232	Temp Outer Cas:
High Cap Well No:	Temp Casing Diam:
Hi Cap Well:	Temp Casing Rem:
Hi Cap Property:	Why Not Removed:
County Well Loc:	Other Drill Method:
DNR Region:	Other Drillin Desc:
County:	Screen Diameter:
Muni Type:	Screen Description:

## Wells and Additional Sources Detail Report

Tax Parcel No:		Casing Depth Amt:	48 FEET
Well Complete Date:	12/02/2013	Screen To:	
DNR Rec Date:		Sealant Method:	
Fire No:		Static Depth Amt:	50
Subdivision:		Pumping Level:	
Lot:		Pumping At:	
Block:		Pumping Units:	
Government Parcel:		For:	
Survey Township:	29	Well Start Depth:	
Survey Range:	5	Developed:	
Survey Section:	27	Disinfected:	
Q Section:	SW	Capped:	
QQ Section:	NE	Proper Seal:	
Well Status:	Replacement	Contractor Signed:	
Original Year:		Rig Oper Signed:	
Replace Reason:		Geologic Log No:	
Prev WI Well No:		Common Well No:	
Replace Well No:		DNR Facility ID:	
Well Const Type:		Watr Seq No:	53337089
Other Const Type:		LL Lat Dd Amt:	44.964
Category:		LL Long Dd Amt:	-90.9812
No Services:		Survey Range Dir:	W
Facility Type:		Well Name:	
High Pt Property:		Calc Specific Cap:	
In Floodplain:		Well Depth Amt:	70
Rotary Mud Circ:		Well Dep Amt Text:	70 FEET
Rotary Air:		Static Depth:	feet below ground surface
Rotary Foam:		Location Method:	Parcel centroid
Reverse Rotary:		Casing Depth Amt:	48
Cable Tool Bit:		Decade Complete:	2010-2019
Cable Bit Diameter:			
Owner:			
Owner Address:	34111 CO RD O		
Owner City:			
Owner State:			
Owner Zip:			
Constructor Name:	JOHN J HATFIELD		
Constructor Addr:			
Constructor City:			
Constructor State:			
Constructor Zip:			
Seal Description:			
Drilling Difficulty:			
Other Driller Comments:			
Water Quality Comments:			
Water Quantity			
Comments:			
Exception Area			



# Wells and Additional Sources Detail Report

Comments:

Well URL:

Well Constr Url: <https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&download=false&WUWN=UX232>

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
13	NW	0.54	2,877.03	1,145.75	PRIVATE WW

WI Unique Well No: 8BA169

High Cap Well No:

Hi Cap Well:

Hi Cap Property:

County Well Loc:

DNR Region:

County:

Muni Type:

Tax Parcel No:

Well Complete Date:

DNR Rec Date:

Fire No:

Subdivision:

Lot:

Block:

Government Parcel:

Survey Township: 29

Survey Range: 5

Survey Section: 27

Q Section: SW

QQ Section: NW

Well Status:

Original Year:

Replace Reason:

Prev WI Well No:

Replace Well No:

Well Const Type:

Other Const Type:

Category:

No Services:

Facility Type:

High Pt Property:

In Floodplain:

Rotary Mud Circ:

Rotary Air:

Rotary Foam:

Reverse Rotary:

Cable Tool Bit:

Cable Bit Diameter:

Temp Outer Cas:

Temp Casing Diam:

Temp Casing Rem:

Why Not Removed:

Other Drill Method:

Other Drillin Desc:

Screen Diameter:

Screen Description:

Casing Depth Amt:

Screen To:

Sealant Method:

Static Depth Amt:

Pumping Level:

Pumping At:

Pumping Units:

For:

Well Start Depth:

Developed:

Disinfected:

Capped:

Proper Seal:

Contractor Signed:

Rig Oper Signed:

Geologic Log No:

Common Well No:

DNR Facility ID:

Watr Seq No: 113775696

LL Lat Dd Amt:

LL Long Dd Amt:

Survey Range Dir: W

Well Name:

Calc Specific Cap:

Well Depth Amt:

Well Dep Amt Text:

Static Depth:

Location Method: QQ section centroid

Casing Depth Amt:

Decade Complete:

# Wells and Additional Sources Detail Report

Owner:  
 Owner Address:  
 Owner City:  
 Owner State:  
 Owner Zip:  
 Constructor Name:  
 Constructor Addr:  
 Constructor City:  
 Constructor State:  
 Constructor Zip:  
 Seal Description:  
 Drilling Difficulty:  
 Other Driller Comments:  
 Water Quality Comments:  
 Water Quantity  
 Comments:  
 Exception Area  
 Comments:  
 Well URL:  
 Well Constr Url: <https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&download=false&WUWN=8BA169>

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
14	N	0.63	3,333.50	1,136.61	PRIVATE WW

WI Unique Well No:	8BC448	Temp Outer Cas:
High Cap Well No:		Temp Casing Diam:
Hi Cap Well:		Temp Casing Rem:
Hi Cap Property:		Why Not Removed:
County Well Loc:		Other Drill Method:
DNR Region:		Other Drillin Desc:
County:		Screen Diameter:
Muni Type:		Screen Description:
Tax Parcel No:		Casing Depth Amt:
Well Complete Date:		Screen To:
DNR Rec Date:		Sealant Method:
Fire No:		Static Depth Amt:
Subdivision:		Pumping Level:
Lot:		Pumping At:
Block:		Pumping Units:
Government Parcel:		For:
Survey Township:	29	Well Start Depth:
Survey Range:	5	Developed:
Survey Section:	27	Disinfected:
Q Section:	NE	Capped:
QQ Section:	SW	Proper Seal:
Well Status:		Contractor Signed:
Original Year:		Rig Oper Signed:

# Wells and Additional Sources Detail Report

Replace Reason:	Geologic Log No:
Prev WI Well No:	Common Well No:
Replace Well No:	DNR Facility ID:
Well Const Type:	Watr Seq No: 113777982
Other Const Type:	LL Lat Dd Amt:
Category:	LL Long Dd Amt:
No Services:	Survey Range Dir: W
Facility Type:	Well Name:
High Pt Property:	Calc Specific Cap:
In Floodplain:	Well Depth Amt:
Rotary Mud Circ:	Well Dep Amt Text:
Rotary Air:	Static Depth:
Rotary Foam:	Location Method: QQ section centroid
Reverse Rotary:	Casing Depth Amt:
Cable Tool Bit:	Decade Complete:
Cable Bit Diameter:	
Owner:	
Owner Address:	
Owner City:	
Owner State:	
Owner Zip:	
Constructor Name:	
Constructor Addr:	
Constructor City:	
Constructor State:	
Constructor Zip:	
Seal Description:	
Drilling Difficulty:	
Other Driller Comments:	
Water Quality Comments:	
Water Quantity	
Comments:	
Exception Area	
Comments:	
Well URL:	
Well Constr Url:	<a href="https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&amp;download=false&amp;WUWN=8BC448">https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&amp;download=false&amp;WUWN=8BC448</a>

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
15	N	0.63	3,319.74	1,119.05	PRIVATE WW

WI Unique Well No:	8BA170	Temp Outer Cas:
High Cap Well No:		Temp Casing Diam:
Hi Cap Well:		Temp Casing Rem:
Hi Cap Property:		Why Not Removed:
County Well Loc:		Other Drill Method:
DNR Region:		Other Drillin Desc:
County:		Screen Diameter:



## Wells and Additional Sources Detail Report

Muni Type:		Screen Description:	
Tax Parcel No:		Casing Depth Amt:	
Well Complete Date:		Screen To:	
DNR Rec Date:		Sealant Method:	
Fire No:		Static Depth Amt:	
Subdivision:		Pumping Level:	
Lot:		Pumping At:	
Block:		Pumping Units:	
Government Parcel:		For:	
Survey Township:	29	Well Start Depth:	
Survey Range:	5	Developed:	
Survey Section:	27	Disinfected:	
Q Section:	NE	Capped:	
QQ Section:	SE	Proper Seal:	
Well Status:		Contractor Signed:	
Original Year:		Rig Oper Signed:	
Replace Reason:		Geologic Log No:	
Prev WI Well No:		Common Well No:	
Replace Well No:		DNR Facility ID:	
Well Const Type:		Watr Seq No:	113775697
Other Const Type:		LL Lat Dd Amt:	
Category:		LL Long Dd Amt:	
No Services:		Survey Range Dir:	W
Facility Type:		Well Name:	
High Pt Property:		Calc Specific Cap:	
In Floodplain:		Well Depth Amt:	
Rotary Mud Circ:		Well Dep Amt Text:	
Rotary Air:		Static Depth:	
Rotary Foam:		Location Method:	QQ section centroid
Reverse Rotary:		Casing Depth Amt:	
Cable Tool Bit:		Decade Complete:	
Cable Bit Diameter:			
Owner:			
Owner Address:			
Owner City:			
Owner State:			
Owner Zip:			
Constructor Name:			
Constructor Addr:			
Constructor City:			
Constructor State:			
Constructor Zip:			
Seal Description:			
Drilling Difficulty:			
Other Driller Comments:			
Water Quality Comments:			
Water Quantity Comments:			

# Wells and Additional Sources Detail Report

Exception Area

Comments:

Well URL:

Well Constr Url: <https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&download=false&WUWN=8BA170>

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
16	NNE	0.62	3,295.69	1,098.56	PRIVATE WW

WI Unique Well No: UX162

High Cap Well No:

Hi Cap Well:

Hi Cap Property:

County Well Loc:

DNR Region:

County:

Muni Type:

Tax Parcel No:

Well Complete Date: 09/02/2010

DNR Rec Date:

Fire No:

Subdivision:

Lot:

Block:

Government Parcel:

Survey Township: 29

Survey Range: 5

Survey Section: 26

Q Section: NW

QQ Section: SW

Well Status: Replacement

Original Year:

Replace Reason:

Prev WI Well No:

Replace Well No:

Well Const Type:

Other Const Type:

Category:

No Services:

Facility Type:

High Pt Property:

In Floodplain:

Rotary Mud Circ:

Rotary Air:

Rotary Foam:

Reverse Rotary:

Cable Tool Bit:

Cable Bit Diameter:

Temp Outer Cas:

Temp Casing Diam:

Temp Casing Rem:

Why Not Removed:

Other Drill Method:

Other Drillin Desc:

Screen Diameter:

Screen Description:

Casing Depth Amt: 41.5 FEET

Screen To:

Sealant Method:

Static Depth Amt: 24

Pumping Level:

Pumping At:

Pumping Units:

For:

Well Start Depth:

Developed:

Disinfected:

Capped:

Proper Seal:

Contractor Signed:

Rig Oper Signed:

Geologic Log No:

Common Well No:

DNR Facility ID:

Watr Seq No: 5659691

LL Lat Dd Amt: 44.9666

LL Long Dd Amt: -90.9595

Survey Range Dir: W

Well Name:

Calc Specific Cap:

Well Depth Amt: 46

Well Dep Amt Text: 46 FEET

Static Depth: feet below ground surface

Location Method: Parcel centroid

Casing Depth Amt: 41.5

Decade Complete: 2010-2019

# Wells and Additional Sources Detail Report

Owner:  
 Owner Address: 20298 CO RD H  
 Owner City:  
 Owner State:  
 Owner Zip:  
 Constructor Name: MIDWEST HYDROFRACKING LLC  
 Constructor Addr:  
 Constructor City:  
 Constructor State:  
 Constructor Zip:  
 Seal Description:  
 Drilling Difficulty:  
 Other Driller Comments:  
 Water Quality Comments:  
 Water Quantity  
 Comments:  
 Exception Area  
 Comments:  
 Well URL:  
 Well Constr Url: <https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&download=false&WUWN=UX162>

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
17	SE	0.63	3,332.88	1,112.52	PRIVATE WW

WI Unique Well No:	8BA175	Temp Outer Cas:
High Cap Well No:		Temp Casing Diam:
Hi Cap Well:		Temp Casing Rem:
Hi Cap Property:		Why Not Removed:
County Well Loc:		Other Drill Method:
DNR Region:		Other Drillin Desc:
County:		Screen Diameter:
Muni Type:		Screen Description:
Tax Parcel No:		Casing Depth Amt:
Well Complete Date:		Screen To:
DNR Rec Date:		Sealant Method:
Fire No:		Static Depth Amt:
Subdivision:		Pumping Level:
Lot:		Pumping At:
Block:		Pumping Units:
Government Parcel:		For:
Survey Township:	29	Well Start Depth:
Survey Range:	5	Developed:
Survey Section:	35	Disinfected:
Q Section:	SW	Capped:
QQ Section:	SE	Proper Seal:
Well Status:		Contractor Signed:
Original Year:		Rig Oper Signed:



## Wells and Additional Sources Detail Report

Replace Reason:	Geologic Log No:
Prev WI Well No:	Common Well No:
Replace Well No:	DNR Facility ID:
Well Const Type:	Watr Seq No: 113775702
Other Const Type:	LL Lat Dd Amt:
Category:	LL Long Dd Amt:
No Services:	Survey Range Dir: W
Facility Type:	Well Name:
High Pt Property:	Calc Specific Cap:
In Floodplain:	Well Depth Amt:
Rotary Mud Circ:	Well Dep Amt Text:
Rotary Air:	Static Depth:
Rotary Foam:	Location Method: QQ section centroid
Reverse Rotary:	Casing Depth Amt:
Cable Tool Bit:	Decade Complete:
Cable Bit Diameter:	
Owner:	
Owner Address:	
Owner City:	
Owner State:	
Owner Zip:	
Constructor Name:	
Constructor Addr:	
Constructor City:	
Constructor State:	
Constructor Zip:	
Seal Description:	
Drilling Difficulty:	
Other Driller Comments:	
Water Quality Comments:	
Water Quantity Comments:	
Exception Area Comments:	
Well URL:	<a href="https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&amp;download=false&amp;WUWN=8BA175">https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&amp;download=false&amp;WUWN=8BA175</a>
Well Constr Url:	

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
18	NNW	0.65	3,423.91	1,158.82	PRIVATE WW

WI Unique Well No:	SG663	Temp Outer Cas:
High Cap Well No:		Temp Casing Diam:
Hi Cap Well:		Temp Casing Rem:
Hi Cap Property:		Why Not Removed:
County Well Loc:		Other Drill Method:
DNR Region:		Other Drillin Desc:
County:		Screen Diameter:

## Wells and Additional Sources Detail Report

Muni Type:		Screen Description:	
Tax Parcel No:		Casing Depth Amt:	56 FEET
Well Complete Date:	06/27/2006	Screen To:	
DNR Rec Date:		Sealant Method:	
Fire No:		Static Depth Amt:	20
Subdivision:		Pumping Level:	
Lot:		Pumping At:	
Block:		Pumping Units:	
Government Parcel:		For:	
Survey Township:	29	Well Start Depth:	
Survey Range:	5	Developed:	
Survey Section:	27	Disinfected:	
Q Section:	NW	Capped:	
QQ Section:	SE	Proper Seal:	
Well Status:	New Well	Contractor Signed:	
Original Year:		Rig Oper Signed:	
Replace Reason:		Geologic Log No:	
Prev WI Well No:		Common Well No:	
Replace Well No:		DNR Facility ID:	
Well Const Type:		Watr Seq No:	1653336
Other Const Type:		LL Lat Dd Amt:	
Category:		LL Long Dd Amt:	
No Services:		Survey Range Dir:	W
Facility Type:		Well Name:	
High Pt Property:		Calc Specific Cap:	
In Floodplain:		Well Depth Amt:	76
Rotary Mud Circ:		Well Dep Amt Text:	76 FEET
Rotary Air:		Static Depth:	feet below ground surface
Rotary Foam:		Location Method:	QQ section centroid
Reverse Rotary:		Casing Depth Amt:	56
Cable Tool Bit:		Decade Complete:	2000-2009
Cable Bit Diameter:			
Owner:			
Owner Address:	34452 CO TK O		
Owner City:			
Owner State:			
Owner Zip:			
Constructor Name:	JOHN J HATFIELD		
Constructor Addr:			
Constructor City:			
Constructor State:			
Constructor Zip:			
Seal Description:			
Drilling Difficulty:			
Other Driller Comments:			
Water Quality Comments:			
Water Quantity Comments:			

# Wells and Additional Sources Detail Report

Exception Area

Comments:

Well URL:

Well Constr Url: <https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&download=false&WUWN=SG663>

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
18	NNW	0.65	3,423.91	1,158.82	PRIVATE WW

WI Unique Well No: MK033

High Cap Well No:

Hi Cap Well:

Hi Cap Property:

County Well Loc:

DNR Region:

County:

Muni Type:

Tax Parcel No:

Well Complete Date: 09/19/1997

DNR Rec Date:

Fire No:

Subdivision:

Lot:

Block:

Government Parcel:

Survey Township: 29

Survey Range: 5

Survey Section: 27

Q Section: NW

QQ Section: SE

Well Status: New Well

Original Year:

Replace Reason:

Prev WI Well No:

Replace Well No:

Well Const Type:

Other Const Type:

Category:

No Services:

Facility Type:

High Pt Property:

In Floodplain:

Rotary Mud Circ:

Rotary Air:

Rotary Foam:

Reverse Rotary:

Cable Tool Bit:

Cable Bit Diameter:

Temp Outer Cas:

Temp Casing Diam:

Temp Casing Rem:

Why Not Removed:

Other Drill Method:

Other Drillin Desc:

Screen Diameter:

Screen Description:

Casing Depth Amt: 52 FEET

Screen To:

Sealant Method:

Static Depth Amt: 40

Pumping Level:

Pumping At:

Pumping Units:

For:

Well Start Depth:

Developed:

Disinfected:

Capped:

Proper Seal:

Contractor Signed:

Rig Oper Signed:

Geologic Log No:

Common Well No:

DNR Facility ID:

Watr Seq No: 690451

LL Lat Dd Amt:

LL Long Dd Amt:

Survey Range Dir: W

Well Name:

Calc Specific Cap:

Well Depth Amt: 83

Well Dep Amt Text: 83 FEET

Static Depth: feet below ground surface

Location Method: QQ section centroid

Casing Depth Amt: 52

Decade Complete: 1990-1999



# Wells and Additional Sources Detail Report

Owner:  
 Owner Address: 34452 CO HWY O  
 Owner City:  
 Owner State:  
 Owner Zip:  
 Constructor Name: JOHN J HATFIELD  
 Constructor Addr:  
 Constructor City:  
 Constructor State:  
 Constructor Zip:  
 Seal Description:  
 Drilling Difficulty:  
 Other Driller Comments:  
 Water Quality Comments:  
 Water Quantity  
 Comments:  
 Exception Area  
 Comments:  
 Well URL:  
 Well Constr Url: <https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&download=false&WUWN=MK033>

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
19	SSW	0.70	3,693.60	1,085.91	PRIVATE WW

WI Unique Well No:	KZ723	Temp Outer Cas:	
High Cap Well No:		Temp Casing Diam:	
Hi Cap Well:		Temp Casing Rem:	
Hi Cap Property:		Why Not Removed:	
County Well Loc:		Other Drill Method:	
DNR Region:		Other Drillin Desc:	
County:		Screen Diameter:	
Muni Type:		Screen Description:	
Tax Parcel No:		Casing Depth Amt:	32 FEET
Well Complete Date:	07/16/1997	Screen To:	
DNR Rec Date:		Sealant Method:	
Fire No:		Static Depth Amt:	18
Subdivision:		Pumping Level:	
Lot:		Pumping At:	
Block:		Pumping Units:	
Government Parcel:		For:	
Survey Township:	28	Well Start Depth:	
Survey Range:	5	Developed:	
Survey Section:	3	Disinfected:	
Q Section:	NW	Capped:	
QQ Section:	NE	Proper Seal:	
Well Status:	New Well	Contractor Signed:	
Original Year:		Rig Oper Signed:	

## Wells and Additional Sources Detail Report

Replace Reason:	Geologic Log No:
Prev WI Well No:	Common Well No:
Replace Well No:	DNR Facility ID:
Well Const Type:	Watr Seq No: 666790
Other Const Type:	LL Lat Dd Amt:
Category:	LL Long Dd Amt:
No Services:	Survey Range Dir: W
Facility Type:	Well Name:
High Pt Property:	Calc Specific Cap:
In Floodplain:	Well Depth Amt: 53
Rotary Mud Circ:	Well Dep Amt Text: 53 FEET
Rotary Air:	Static Depth: feet below ground surface
Rotary Foam:	Location Method: QQ section centroid
Reverse Rotary:	Casing Depth Amt: 32
Cable Tool Bit:	Decade Complete: 1990-1999
Cable Bit Diameter:	
Owner:	
Owner Address: CTY TRK X	
Owner City:	
Owner State:	
Owner Zip:	
Constructor Name: JOHN J HATFIELD	
Constructor Addr:	
Constructor City:	
Constructor State:	
Constructor Zip:	
Seal Description:	
Drilling Difficulty:	
Other Driller Comments:	
Water Quality Comments:	
Water Quantity	
Comments:	
Exception Area	
Comments:	
Well URL:	
Well Constr Url: <a href="https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&amp;download=false&amp;WUWN=KZ723">https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&amp;download=false&amp;WUWN=KZ723</a>	

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
20	ESE	0.74	3,920.10	1,087.58	PRIVATE WW

WI Unique Well No: 8BC461	Temp Outer Cas:
High Cap Well No:	Temp Casing Diam:
Hi Cap Well:	Temp Casing Rem:
Hi Cap Property:	Why Not Removed:
County Well Loc:	Other Drill Method:
DNR Region:	Other Drillin Desc:
County:	Screen Diameter:

## Wells and Additional Sources Detail Report

Muni Type:		Screen Description:	
Tax Parcel No:		Casing Depth Amt:	
Well Complete Date:		Screen To:	
DNR Rec Date:		Sealant Method:	
Fire No:		Static Depth Amt:	
Subdivision:		Pumping Level:	
Lot:		Pumping At:	
Block:		Pumping Units:	
Government Parcel:		For:	
Survey Township:	29	Well Start Depth:	
Survey Range:	5	Developed:	
Survey Section:	35	Disinfected:	
Q Section:	SE	Capped:	
QQ Section:	NW	Proper Seal:	
Well Status:		Contractor Signed:	
Original Year:		Rig Oper Signed:	
Replace Reason:		Geologic Log No:	
Prev WI Well No:		Common Well No:	
Replace Well No:		DNR Facility ID:	
Well Const Type:		Watr Seq No:	113777995
Other Const Type:		LL Lat Dd Amt:	
Category:		LL Long Dd Amt:	
No Services:		Survey Range Dir:	W
Facility Type:		Well Name:	
High Pt Property:		Calc Specific Cap:	
In Floodplain:		Well Depth Amt:	
Rotary Mud Circ:		Well Dep Amt Text:	
Rotary Air:		Static Depth:	
Rotary Foam:		Location Method:	QQ section centroid
Reverse Rotary:		Casing Depth Amt:	
Cable Tool Bit:		Decade Complete:	
Cable Bit Diameter:			
Owner:			
Owner Address:			
Owner City:			
Owner State:			
Owner Zip:			
Constructor Name:			
Constructor Addr:			
Constructor City:			
Constructor State:			
Constructor Zip:			
Seal Description:			
Drilling Difficulty:			
Other Driller Comments:			
Water Quality Comments:			
Water Quantity Comments:			



# Wells and Additional Sources Detail Report

Exception Area

Comments:

Well URL:

Well Constr Url: <https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&download=false&WUWN=8BC461>

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
23	NW	0.75	3,936.40	1,138.06	PRIVATE WW

WI Unique Well No: UV609

High Cap Well No:

Hi Cap Well:

Hi Cap Property:

County Well Loc:

DNR Region:

County:

Muni Type:

Tax Parcel No:

Well Complete Date: 12/14/2006

DNR Rec Date:

Fire No:

Subdivision:

Lot:

Block:

Government Parcel:

Survey Township: 29

Survey Range: 5

Survey Section: 27

Q Section: NW

QQ Section: SW

Well Status: Replacement

Original Year:

Replace Reason:

Prev WI Well No:

Replace Well No:

Well Const Type:

Other Const Type:

Category:

No Services:

Facility Type:

High Pt Property:

In Floodplain:

Rotary Mud Circ:

Rotary Air:

Rotary Foam:

Reverse Rotary:

Cable Tool Bit:

Cable Bit Diameter:

Temp Outer Cas:

Temp Casing Diam:

Temp Casing Rem:

Why Not Removed:

Other Drill Method:

Other Drillin Desc:

Screen Diameter:

Screen Description:

Casing Depth Amt: 43 FEET

Screen To:

Sealant Method:

Static Depth Amt: 51

Pumping Level:

Pumping At:

Pumping Units:

For:

Well Start Depth:

Developed:

Disinfected:

Capped:

Proper Seal:

Contractor Signed:

Rig Oper Signed:

Geologic Log No:

Common Well No:

DNR Facility ID:

Watr Seq No: 1833295

LL Lat Dd Amt:

LL Long Dd Amt:

Survey Range Dir: W

Well Name:

Calc Specific Cap:

Well Depth Amt: 80

Well Dep Amt Text: 80 FEET

Static Depth: feet below ground surface

Location Method: QQ section centroid

Casing Depth Amt: 43

Decade Complete: 2000-2009

# Wells and Additional Sources Detail Report

Owner:  
 Owner Address: 8521 CO HWY G  
 Owner City:  
 Owner State:  
 Owner Zip:  
 Constructor Name: PEAK WELL DRILLING LLC  
 Constructor Addr:  
 Constructor City:  
 Constructor State:  
 Constructor Zip:  
 Seal Description:  
 Drilling Difficulty:  
 Other Driller Comments:  
 Water Quality Comments:  
 Water Quantity  
 Comments:  
 Exception Area  
 Comments:  
 Well URL: <https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&download=false&WUWN=UV609>  
 Well Constr Url:

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
24	SW	0.77	4,074.45	1,122.78	PRIVATE WW

WI Unique Well No:	ZX238	Temp Outer Cas:	
High Cap Well No:		Temp Casing Diam:	
Hi Cap Well:		Temp Casing Rem:	
Hi Cap Property:		Why Not Removed:	
County Well Loc:		Other Drill Method:	
DNR Region:		Other Drillin Desc:	
County:		Screen Diameter:	
Muni Type:		Screen Description:	
Tax Parcel No:		Casing Depth Amt:	46 FEET
Well Complete Date:	07/27/2019	Screen To:	
DNR Rec Date:		Sealant Method:	
Fire No:		Static Depth Amt:	24
Subdivision:		Pumping Level:	
Lot:		Pumping At:	
Block:		Pumping Units:	
Government Parcel:		For:	
Survey Township:	28	Well Start Depth:	
Survey Range:	5	Developed:	
Survey Section:	3	Disinfected:	
Q Section:	NW	Capped:	
QQ Section:	NW	Proper Seal:	
Well Status:	Replacement	Contractor Signed:	
Original Year:		Rig Oper Signed:	

## Wells and Additional Sources Detail Report

Replace Reason:	Geologic Log No:
Prev WI Well No:	Common Well No:
Replace Well No:	DNR Facility ID:
Well Const Type:	Watr Seq No: 113700480
Other Const Type:	LL Lat Dd Amt: 44.9439
Category:	LL Long Dd Amt: -90.9834
No Services:	Survey Range Dir: W
Facility Type:	Well Name:
High Pt Property:	Calc Specific Cap:
In Floodplain:	Well Depth Amt: 63
Rotary Mud Circ:	Well Dep Amt Text: 63 FEET
Rotary Air:	Static Depth: feet below ground surface
Rotary Foam:	Location Method: Latitude and longitude
Reverse Rotary:	Casing Depth Amt: 46
Cable Tool Bit:	Decade Complete: 2010-2019
Cable Bit Diameter:	
Owner:	
Owner Address: 34027 COUNTY HWY X	
Owner City:	
Owner State:	
Owner Zip:	
Constructor Name: MIDWEST HYDROFRACKING LLC	
Constructor Addr:	
Constructor City:	
Constructor State:	
Constructor Zip:	
Seal Description:	
Drilling Difficulty:	
Other Driller Comments:	
Water Quality Comments:	
Water Quantity	
Comments:	
Exception Area	
Comments:	
Well URL:	<a href="https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&amp;download=false&amp;WUWN=ZX238">https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&amp;download=false&amp;WUWN=ZX238</a>
Well Constr Url:	

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
25	NE	0.78	4,120.07	1,090.00	PRIVATE WW

WI Unique Well No: WR569	Temp Outer Cas:
High Cap Well No:	Temp Casing Diam:
Hi Cap Well:	Temp Casing Rem:
Hi Cap Property:	Why Not Removed:
County Well Loc:	Other Drill Method:
DNR Region:	Other Drillin Desc:
County:	Screen Diameter:



## Wells and Additional Sources Detail Report

Muni Type:		Screen Description:	
Tax Parcel No:		Casing Depth Amt:	39 FEET
Well Complete Date:	09/15/2001	Screen To:	
DNR Rec Date:		Sealant Method:	
Fire No:		Static Depth Amt:	8
Subdivision:		Pumping Level:	
Lot:		Pumping At:	
Block:		Pumping Units:	
Government Parcel:		For:	
Survey Township:	29	Well Start Depth:	
Survey Range:	5	Developed:	
Survey Section:	26	Disinfected:	
Q Section:		Capped:	
QQ Section:		Proper Seal:	
Well Status:	New Well	Contractor Signed:	
Original Year:		Rig Oper Signed:	
Replace Reason:		Geologic Log No:	
Prev WI Well No:		Common Well No:	
Replace Well No:		DNR Facility ID:	
Well Const Type:		Watr Seq No:	33934228
Other Const Type:		LL Lat Dd Amt:	
Category:		LL Long Dd Amt:	
No Services:		Survey Range Dir:	W
Facility Type:		Well Name:	
High Pt Property:		Calc Specific Cap:	
In Floodplain:		Well Depth Amt:	60
Rotary Mud Circ:		Well Dep Amt Text:	60 FEET
Rotary Air:		Static Depth:	feet below ground surface
Rotary Foam:		Location Method:	Section centroid
Reverse Rotary:		Casing Depth Amt:	39
Cable Tool Bit:		Decade Complete:	2000-2009
Cable Bit Diameter:			
Owner:			
Owner Address:	116 3RD AVE		
Owner City:			
Owner State:			
Owner Zip:			
Constructor Name:	WILLIAM D BRUNNER		
Constructor Addr:			
Constructor City:			
Constructor State:			
Constructor Zip:			
Seal Description:			
Drilling Difficulty:			
Other Driller Comments:			
Water Quality Comments:			
Water Quantity Comments:			

# Wells and Additional Sources Detail Report

Exception Area

Comments:

Well URL:

Well Constr Url: <https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&download=false&WUWN=WR569>

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
25	NE	0.78	4,120.07	1,090.00	PRIVATE WW

WI Unique Well No:	8BC441	Temp Outer Cas:	
High Cap Well No:		Temp Casing Diam:	
Hi Cap Well:		Temp Casing Rem:	
Hi Cap Property:		Why Not Removed:	
County Well Loc:		Other Drill Method:	
DNR Region:		Other Drillin Desc:	
County:		Screen Diameter:	
Muni Type:		Screen Description:	
Tax Parcel No:		Casing Depth Amt:	
Well Complete Date:		Screen To:	
DNR Rec Date:		Sealant Method:	
Fire No:		Static Depth Amt:	
Subdivision:		Pumping Level:	
Lot:		Pumping At:	
Block:		Pumping Units:	
Government Parcel:		For:	
Survey Township:	29	Well Start Depth:	
Survey Range:	5	Developed:	
Survey Section:	26	Disinfected:	
Q Section:		Capped:	
QQ Section:		Proper Seal:	
Well Status:		Contractor Signed:	
Original Year:		Rig Oper Signed:	
Replace Reason:		Geologic Log No:	
Prev WI Well No:		Common Well No:	
Replace Well No:		DNR Facility ID:	
Well Const Type:		Watr Seq No:	113777975
Other Const Type:		LL Lat Dd Amt:	
Category:		LL Long Dd Amt:	
No Services:		Survey Range Dir:	W
Facility Type:		Well Name:	
High Pt Property:		Calc Specific Cap:	
In Floodplain:		Well Depth Amt:	
Rotary Mud Circ:		Well Dep Amt Text:	
Rotary Air:		Static Depth:	
Rotary Foam:		Location Method:	Section centroid
Reverse Rotary:		Casing Depth Amt:	
Cable Tool Bit:		Decade Complete:	
Cable Bit Diameter:			

# Wells and Additional Sources Detail Report

Owner:  
 Owner Address:  
 Owner City:  
 Owner State:  
 Owner Zip:  
 Constructor Name:  
 Constructor Addr:  
 Constructor City:  
 Constructor State:  
 Constructor Zip:  
 Seal Description:  
 Drilling Difficulty:  
 Other Driller Comments:  
 Water Quality Comments:  
 Water Quantity  
 Comments:  
 Exception Area  
 Comments:  
 Well URL:  
 Well Constr Url: <https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&download=false&WUWN=8BC441>

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
25	NE	0.78	4,120.07	1,090.00	PRIVATE WW

WI Unique Well No:	WR566	Temp Outer Cas:	
High Cap Well No:		Temp Casing Diam:	
Hi Cap Well:		Temp Casing Rem:	
Hi Cap Property:		Why Not Removed:	
County Well Loc:		Other Drill Method:	
DNR Region:		Other Drillin Desc:	
County:		Screen Diameter:	
Muni Type:		Screen Description:	
Tax Parcel No:		Casing Depth Amt:	37 FEET
Well Complete Date:	09/02/2001	Screen To:	
DNR Rec Date:		Sealant Method:	
Fire No:		Static Depth Amt:	7
Subdivision:		Pumping Level:	
Lot:		Pumping At:	
Block:		Pumping Units:	
Government Parcel:		For:	
Survey Township:	29	Well Start Depth:	
Survey Range:	5	Developed:	
Survey Section:	26	Disinfected:	
Q Section:		Capped:	
QQ Section:		Proper Seal:	
Well Status:	New Well	Contractor Signed:	
Original Year:		Rig Oper Signed:	



## Wells and Additional Sources Detail Report

Replace Reason:	Geologic Log No:
Prev WI Well No:	Common Well No:
Replace Well No:	DNR Facility ID:
Well Const Type:	Watr Seq No: 33934227
Other Const Type:	LL Lat Dd Amt:
Category:	LL Long Dd Amt:
No Services:	Survey Range Dir: W
Facility Type:	Well Name:
High Pt Property:	Calc Specific Cap:
In Floodplain:	Well Depth Amt: 60
Rotary Mud Circ:	Well Dep Amt Text: 60 FEET
Rotary Air:	Static Depth: feet above ground surface
Rotary Foam:	Location Method: Section centroid
Reverse Rotary:	Casing Depth Amt: 37
Cable Tool Bit:	Decade Complete: 2000-2009
Cable Bit Diameter:	
Owner:	
Owner Address: 116 3RD AVE	
Owner City:	
Owner State:	
Owner Zip:	
Constructor Name: WILLIAM D BRUNNER	
Constructor Addr:	
Constructor City:	
Constructor State:	
Constructor Zip:	
Seal Description:	
Drilling Difficulty:	
Other Driller Comments:	
Water Quality Comments:	
Water Quantity	
Comments:	
Exception Area	
Comments:	
Well URL:	
Well Constr Url: <a href="https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&amp;download=false&amp;WUWN=WR566">https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&amp;download=false&amp;WUWN=WR566</a>	

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
25	NE	0.78	4,120.07	1,090.00	PRIVATE WW

WI Unique Well No: XB124	Temp Outer Cas:
High Cap Well No:	Temp Casing Diam:
Hi Cap Well:	Temp Casing Rem:
Hi Cap Property:	Why Not Removed:
County Well Loc:	Other Drill Method:
DNR Region:	Other Drillin Desc:
County:	Screen Diameter:

## Wells and Additional Sources Detail Report

Muni Type:		Screen Description:	
Tax Parcel No:		Casing Depth Amt:	41 FEET
Well Complete Date:	07/08/2013	Screen To:	
DNR Rec Date:		Sealant Method:	
Fire No:		Static Depth Amt:	9
Subdivision:		Pumping Level:	
Lot:		Pumping At:	
Block:		Pumping Units:	
Government Parcel:		For:	
Survey Township:	29	Well Start Depth:	
Survey Range:	5	Developed:	
Survey Section:	26	Disinfected:	
Q Section:		Capped:	
QQ Section:		Proper Seal:	
Well Status:	Reconstruction	Contractor Signed:	
Original Year:		Rig Oper Signed:	
Replace Reason:		Geologic Log No:	
Prev WI Well No:		Common Well No:	
Replace Well No:		DNR Facility ID:	
Well Const Type:		Watr Seq No:	41138722
Other Const Type:		LL Lat Dd Amt:	
Category:		LL Long Dd Amt:	
No Services:		Survey Range Dir:	W
Facility Type:		Well Name:	
High Pt Property:		Calc Specific Cap:	
In Floodplain:		Well Depth Amt:	60
Rotary Mud Circ:		Well Dep Amt Text:	60 FEET
Rotary Air:		Static Depth:	feet below ground surface
Rotary Foam:		Location Method:	Section centroid
Reverse Rotary:		Casing Depth Amt:	41
Cable Tool Bit:		Decade Complete:	2010-2019
Cable Bit Diameter:			
Owner:			
Owner Address:	116 3RD AVE		
Owner City:			
Owner State:			
Owner Zip:			
Constructor Name:	WILLIAM D BRUNNER		
Constructor Addr:			
Constructor City:			
Constructor State:			
Constructor Zip:			
Seal Description:			
Drilling Difficulty:			
Other Driller Comments:			
Water Quality Comments:			
Water Quantity Comments:			

# Wells and Additional Sources Detail Report

Exception Area

Comments:

Well URL:

Well Constr Url: <https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&download=false&WUWN=XB124>

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
25	NE	0.78	4,120.07	1,090.00	PRIVATE WW

WI Unique Well No: QM019

High Cap Well No:

Hi Cap Well:

Hi Cap Property:

County Well Loc:

DNR Region:

County:

Muni Type:

Tax Parcel No:

Well Complete Date: 01/16/2002

DNR Rec Date:

Fire No:

Subdivision:

Lot:

Block:

Government Parcel:

Survey Township: 29

Survey Range: 5

Survey Section: 26

Q Section:

QQ Section:

Well Status: New Well

Original Year:

Replace Reason:

Prev WI Well No:

Replace Well No:

Well Const Type:

Other Const Type:

Category:

No Services:

Facility Type:

High Pt Property:

In Floodplain:

Rotary Mud Circ:

Rotary Air:

Rotary Foam:

Reverse Rotary:

Cable Tool Bit:

Cable Bit Diameter:

Temp Outer Cas:

Temp Casing Diam:

Temp Casing Rem:

Why Not Removed:

Other Drill Method:

Other Drillin Desc:

Screen Diameter:

Screen Description:

Casing Depth Amt: 39 FEET

Screen To:

Sealant Method:

Static Depth Amt: 3

Pumping Level:

Pumping At:

Pumping Units:

For:

Well Start Depth:

Developed:

Disinfected:

Capped:

Proper Seal:

Contractor Signed:

Rig Oper Signed:

Geologic Log No:

Common Well No:

DNR Facility ID:

Watr Seq No: 1513777

LL Lat Dd Amt:

LL Long Dd Amt:

Survey Range Dir: W

Well Name:

Calc Specific Cap:

Well Depth Amt: 63

Well Dep Amt Text: 63 FEET

Static Depth: feet below ground surface

Location Method: Section centroid

Casing Depth Amt: 39

Decade Complete: 2000-2009



# Wells and Additional Sources Detail Report

Owner:  
 Owner Address: 116 3RD AVE  
 Owner City:  
 Owner State:  
 Owner Zip:  
 Constructor Name: WILLIAM D BRUNNER  
 Constructor Addr:  
 Constructor City:  
 Constructor State:  
 Constructor Zip:  
 Seal Description:  
 Drilling Difficulty:  
 Other Driller Comments:  
 Water Quality Comments:  
 Water Quantity  
 Comments:  
 Exception Area  
 Comments:  
 Well URL:  
 Well Constr Url: <https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&download=false&WUWN=QM019>

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
25	NE	0.78	4,120.07	1,090.00	PRIVATE WW

WI Unique Well No:	QZ438	Temp Outer Cas:	
High Cap Well No:		Temp Casing Diam:	
Hi Cap Well:		Temp Casing Rem:	
Hi Cap Property:		Why Not Removed:	
County Well Loc:		Other Drill Method:	
DNR Region:		Other Drillin Desc:	
County:		Screen Diameter:	
Muni Type:		Screen Description:	
Tax Parcel No:		Casing Depth Amt:	43 FEET
Well Complete Date:	11/12/2002	Screen To:	
DNR Rec Date:		Sealant Method:	
Fire No:		Static Depth Amt:	8
Subdivision:		Pumping Level:	
Lot:		Pumping At:	
Block:		Pumping Units:	
Government Parcel:		For:	
Survey Township:	29	Well Start Depth:	
Survey Range:	5	Developed:	
Survey Section:	26	Disinfected:	
Q Section:		Capped:	
QQ Section:		Proper Seal:	
Well Status:	New Well	Contractor Signed:	
Original Year:		Rig Oper Signed:	

## Wells and Additional Sources Detail Report

Replace Reason:	Geologic Log No:
Prev WI Well No:	Common Well No:
Replace Well No:	DNR Facility ID:
Well Const Type:	Watr Seq No: 1513791
Other Const Type:	LL Lat Dd Amt:
Category:	LL Long Dd Amt:
No Services:	Survey Range Dir: W
Facility Type:	Well Name:
High Pt Property:	Calc Specific Cap:
In Floodplain:	Well Depth Amt: 58.5
Rotary Mud Circ:	Well Dep Amt Text: 58.5 FEET
Rotary Air:	Static Depth: feet below ground surface
Rotary Foam:	Location Method: Section centroid
Reverse Rotary:	Casing Depth Amt: 43
Cable Tool Bit:	Decade Complete: 2000-2009
Cable Bit Diameter:	
Owner:	
Owner Address: 116 3RD AVE	
Owner City:	
Owner State:	
Owner Zip:	
Constructor Name: WILLIAM D BRUNNER	
Constructor Addr:	
Constructor City:	
Constructor State:	
Constructor Zip:	
Seal Description:	
Drilling Difficulty:	
Other Driller Comments:	
Water Quality Comments:	
Water Quantity	
Comments:	
Exception Area	
Comments:	
Well URL:	
Well Constr Url: <a href="https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&amp;download=false&amp;WUWN=QZ438">https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&amp;download=false&amp;WUWN=QZ438</a>	

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
25	NE	0.78	4,120.07	1,090.00	PRIVATE WW

WI Unique Well No: WS645	Temp Outer Cas:
High Cap Well No:	Temp Casing Diam:
Hi Cap Well:	Temp Casing Rem:
Hi Cap Property:	Why Not Removed:
County Well Loc:	Other Drill Method:
DNR Region:	Other Drillin Desc:
County:	Screen Diameter:

## Wells and Additional Sources Detail Report

Muni Type:		Screen Description:	
Tax Parcel No:		Casing Depth Amt:	47 FEET
Well Complete Date:	03/13/2012	Screen To:	
DNR Rec Date:		Sealant Method:	
Fire No:		Static Depth Amt:	13
Subdivision:		Pumping Level:	
Lot:		Pumping At:	
Block:		Pumping Units:	
Government Parcel:		For:	
Survey Township:	29	Well Start Depth:	
Survey Range:	5	Developed:	
Survey Section:	26	Disinfected:	
Q Section:		Capped:	
QQ Section:		Proper Seal:	
Well Status:	New Well	Contractor Signed:	
Original Year:		Rig Oper Signed:	
Replace Reason:		Geologic Log No:	
Prev WI Well No:		Common Well No:	
Replace Well No:		DNR Facility ID:	
Well Const Type:		Watr Seq No:	23750153
Other Const Type:		LL Lat Dd Amt:	
Category:		LL Long Dd Amt:	
No Services:		Survey Range Dir:	W
Facility Type:		Well Name:	
High Pt Property:		Calc Specific Cap:	
In Floodplain:		Well Depth Amt:	95
Rotary Mud Circ:		Well Dep Amt Text:	95 FEET
Rotary Air:		Static Depth:	feet below ground surface
Rotary Foam:		Location Method:	Section centroid
Reverse Rotary:		Casing Depth Amt:	47
Cable Tool Bit:		Decade Complete:	2010-2019
Cable Bit Diameter:			
Owner:			
Owner Address:	116 3RD AVE		
Owner City:			
Owner State:			
Owner Zip:			
Constructor Name:	JESSE W BRUNNER		
Constructor Addr:			
Constructor City:			
Constructor State:			
Constructor Zip:			
Seal Description:			
Drilling Difficulty:			
Other Driller Comments:			
Water Quality Comments:			
Water Quantity Comments:			



# Wells and Additional Sources Detail Report

Exception Area

Comments:

Well URL:

Well Constr Url: <https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&download=false&WUWN=WS645>

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
25	NE	0.78	4,120.07	1,090.00	PRIVATE WW

WI Unique Well No:	8BC440	Temp Outer Cas:	
High Cap Well No:		Temp Casing Diam:	
Hi Cap Well:		Temp Casing Rem:	
Hi Cap Property:		Why Not Removed:	
County Well Loc:		Other Drill Method:	
DNR Region:		Other Drillin Desc:	
County:		Screen Diameter:	
Muni Type:		Screen Description:	
Tax Parcel No:		Casing Depth Amt:	
Well Complete Date:		Screen To:	
DNR Rec Date:		Sealant Method:	
Fire No:		Static Depth Amt:	
Subdivision:		Pumping Level:	
Lot:		Pumping At:	
Block:		Pumping Units:	
Government Parcel:		For:	
Survey Township:	29	Well Start Depth:	
Survey Range:	5	Developed:	
Survey Section:	26	Disinfected:	
Q Section:		Capped:	
QQ Section:		Proper Seal:	
Well Status:		Contractor Signed:	
Original Year:		Rig Oper Signed:	
Replace Reason:		Geologic Log No:	
Prev WI Well No:		Common Well No:	
Replace Well No:		DNR Facility ID:	
Well Const Type:		Watr Seq No:	113777974
Other Const Type:		LL Lat Dd Amt:	
Category:		LL Long Dd Amt:	
No Services:		Survey Range Dir:	W
Facility Type:		Well Name:	
High Pt Property:		Calc Specific Cap:	
In Floodplain:		Well Depth Amt:	
Rotary Mud Circ:		Well Dep Amt Text:	
Rotary Air:		Static Depth:	
Rotary Foam:		Location Method:	Section centroid
Reverse Rotary:		Casing Depth Amt:	
Cable Tool Bit:		Decade Complete:	
Cable Bit Diameter:			

# Wells and Additional Sources Detail Report

Owner:  
 Owner Address:  
 Owner City:  
 Owner State:  
 Owner Zip:  
 Constructor Name:  
 Constructor Addr:  
 Constructor City:  
 Constructor State:  
 Constructor Zip:  
 Seal Description:  
 Drilling Difficulty:  
 Other Driller Comments:  
 Water Quality Comments:  
 Water Quantity  
 Comments:  
 Exception Area  
 Comments:  
 Well URL:  
 Well Constr Url: <https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&download=false&WUWN=8BC440>

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
25	NE	0.78	4,120.07	1,090.00	PRIVATE WW

WI Unique Well No:	QM040	Temp Outer Cas:	
High Cap Well No:		Temp Casing Diam:	
Hi Cap Well:		Temp Casing Rem:	
Hi Cap Property:		Why Not Removed:	
County Well Loc:		Other Drill Method:	
DNR Region:		Other Drillin Desc:	
County:		Screen Diameter:	
Muni Type:		Screen Description:	
Tax Parcel No:		Casing Depth Amt:	45 FEET
Well Complete Date:	01/29/2002	Screen To:	
DNR Rec Date:		Sealant Method:	
Fire No:		Static Depth Amt:	8
Subdivision:		Pumping Level:	
Lot:		Pumping At:	
Block:		Pumping Units:	
Government Parcel:		For:	
Survey Township:	29	Well Start Depth:	
Survey Range:	5	Developed:	
Survey Section:	26	Disinfected:	
Q Section:		Capped:	
QQ Section:		Proper Seal:	
Well Status:	New Well	Contractor Signed:	
Original Year:		Rig Oper Signed:	

## Wells and Additional Sources Detail Report

Replace Reason:	Geologic Log No:
Prev WI Well No:	Common Well No:
Replace Well No:	DNR Facility ID:
Well Const Type:	Watr Seq No: 1513778
Other Const Type:	LL Lat Dd Amt:
Category:	LL Long Dd Amt:
No Services:	Survey Range Dir: W
Facility Type:	Well Name:
High Pt Property:	Calc Specific Cap:
In Floodplain:	Well Depth Amt: 64.5
Rotary Mud Circ:	Well Dep Amt Text: 64.5 FEET
Rotary Air:	Static Depth: feet below ground surface
Rotary Foam:	Location Method: Section centroid
Reverse Rotary:	Casing Depth Amt: 45
Cable Tool Bit:	Decade Complete: 2000-2009
Cable Bit Diameter:	
Owner:	
Owner Address: 116 3RD AVE	
Owner City:	
Owner State:	
Owner Zip:	
Constructor Name: WILLIAM D BRUNNER	
Constructor Addr:	
Constructor City:	
Constructor State:	
Constructor Zip:	
Seal Description:	
Drilling Difficulty:	
Other Driller Comments:	
Water Quality Comments:	
Water Quantity	
Comments:	
Exception Area	
Comments:	
Well URL:	
Well Constr Url: <a href="https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&amp;download=false&amp;WUWN=QM040">https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&amp;download=false&amp;WUWN=QM040</a>	

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
25	NE	0.78	4,120.07	1,090.00	PRIVATE WW

WI Unique Well No: WR565	Temp Outer Cas:
High Cap Well No:	Temp Casing Diam:
Hi Cap Well:	Temp Casing Rem:
Hi Cap Property:	Why Not Removed:
County Well Loc:	Other Drill Method:
DNR Region:	Other Drillin Desc:
County:	Screen Diameter:



## Wells and Additional Sources Detail Report

Muni Type:		Screen Description:	
Tax Parcel No:		Casing Depth Amt:	40 FEET
Well Complete Date:	08/20/2001	Screen To:	
DNR Rec Date:		Sealant Method:	
Fire No:		Static Depth Amt:	16
Subdivision:		Pumping Level:	
Lot:		Pumping At:	
Block:		Pumping Units:	
Government Parcel:		For:	
Survey Township:	29	Well Start Depth:	
Survey Range:	5	Developed:	
Survey Section:	26	Disinfected:	
Q Section:		Capped:	
QQ Section:		Proper Seal:	
Well Status:	New Well	Contractor Signed:	
Original Year:		Rig Oper Signed:	
Replace Reason:		Geologic Log No:	
Prev WI Well No:		Common Well No:	
Replace Well No:		DNR Facility ID:	
Well Const Type:		Watr Seq No:	33934226
Other Const Type:		LL Lat Dd Amt:	
Category:		LL Long Dd Amt:	
No Services:		Survey Range Dir:	W
Facility Type:		Well Name:	
High Pt Property:		Calc Specific Cap:	
In Floodplain:		Well Depth Amt:	57
Rotary Mud Circ:		Well Dep Amt Text:	57 FEET
Rotary Air:		Static Depth:	feet below ground surface
Rotary Foam:		Location Method:	Section centroid
Reverse Rotary:		Casing Depth Amt:	40
Cable Tool Bit:		Decade Complete:	2000-2009
Cable Bit Diameter:			
Owner:			
Owner Address:	116 3RD AVE		
Owner City:			
Owner State:			
Owner Zip:			
Constructor Name:	WILLIAM D BRUNNER		
Constructor Addr:			
Constructor City:			
Constructor State:			
Constructor Zip:			
Seal Description:			
Drilling Difficulty:			
Other Driller Comments:			
Water Quality Comments:			
Water Quantity Comments:			

# Wells and Additional Sources Detail Report

Exception Area

Comments:

Well URL:

Well Constr Url: <https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&download=false&WUWN=WR565>

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
25	NE	0.78	4,120.07	1,090.00	PRIVATE WW

WI Unique Well No: QM041

High Cap Well No:

Hi Cap Well:

Hi Cap Property:

County Well Loc:

DNR Region:

County:

Muni Type:

Tax Parcel No:

Well Complete Date: 02/13/2002

DNR Rec Date:

Fire No:

Subdivision:

Lot:

Block:

Government Parcel:

Survey Township: 29

Survey Range: 5

Survey Section: 26

Q Section:

QQ Section:

Well Status: New Well

Original Year:

Replace Reason:

Prev WI Well No:

Replace Well No:

Well Const Type:

Other Const Type:

Category:

No Services:

Facility Type:

High Pt Property:

In Floodplain:

Rotary Mud Circ:

Rotary Air:

Rotary Foam:

Reverse Rotary:

Cable Tool Bit:

Cable Bit Diameter:

Temp Outer Cas:

Temp Casing Diam:

Temp Casing Rem:

Why Not Removed:

Other Drill Method:

Other Drillin Desc:

Screen Diameter:

Screen Description:

Casing Depth Amt: 45 FEET

Screen To:

Sealant Method:

Static Depth Amt: 8.2

Pumping Level:

Pumping At:

Pumping Units:

For:

Well Start Depth:

Developed:

Disinfected:

Capped:

Proper Seal:

Contractor Signed:

Rig Oper Signed:

Geologic Log No:

Common Well No:

DNR Facility ID:

Watr Seq No: 1515352

LL Lat Dd Amt:

LL Long Dd Amt:

Survey Range Dir: W

Well Name:

Calc Specific Cap:

Well Depth Amt: 64

Well Dep Amt Text: 64 FEET

Static Depth: feet below ground surface

Location Method: Section centroid

Casing Depth Amt: 45

Decade Complete: 2000-2009

# Wells and Additional Sources Detail Report

Owner:  
 Owner Address: 116 3RD AVE  
 Owner City:  
 Owner State:  
 Owner Zip:  
 Constructor Name: WILLIAM D BRUNNER  
 Constructor Addr:  
 Constructor City:  
 Constructor State:  
 Constructor Zip:  
 Seal Description:  
 Drilling Difficulty:  
 Other Driller Comments:  
 Water Quality Comments:  
 Water Quantity  
 Comments:  
 Exception Area  
 Comments:  
 Well URL:  
 Well Constr Url: <https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&download=false&WUWN=QM041>

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
25	NE	0.78	4,120.07	1,090.00	PRIVATE WW

WI Unique Well No:	XB126	Temp Outer Cas:	
High Cap Well No:		Temp Casing Diam:	
Hi Cap Well:		Temp Casing Rem:	
Hi Cap Property:		Why Not Removed:	
County Well Loc:		Other Drill Method:	
DNR Region:		Other Drillin Desc:	
County:		Screen Diameter:	
Muni Type:		Screen Description:	
Tax Parcel No:		Casing Depth Amt:	47 FEET
Well Complete Date:	05/20/2013	Screen To:	
DNR Rec Date:		Sealant Method:	
Fire No:		Static Depth Amt:	7
Subdivision:		Pumping Level:	
Lot:		Pumping At:	
Block:		Pumping Units:	
Government Parcel:		For:	
Survey Township:	29	Well Start Depth:	
Survey Range:	5	Developed:	
Survey Section:	26	Disinfected:	
Q Section:		Capped:	
QQ Section:		Proper Seal:	
Well Status:	Reconstruction	Contractor Signed:	
Original Year:		Rig Oper Signed:	



## Wells and Additional Sources Detail Report

Replace Reason:	Geologic Log No:
Prev WI Well No:	Common Well No:
Replace Well No:	DNR Facility ID:
Well Const Type:	Watr Seq No: 38613442
Other Const Type:	LL Lat Dd Amt:
Category:	LL Long Dd Amt:
No Services:	Survey Range Dir: W
Facility Type:	Well Name:
High Pt Property:	Calc Specific Cap:
In Floodplain:	Well Depth Amt: 57
Rotary Mud Circ:	Well Dep Amt Text: 57 FEET
Rotary Air:	Static Depth: feet below ground surface
Rotary Foam:	Location Method: Section centroid
Reverse Rotary:	Casing Depth Amt: 47
Cable Tool Bit:	Decade Complete: 2010-2019
Cable Bit Diameter:	
Owner:	
Owner Address: 116 3RD AVE	
Owner City:	
Owner State:	
Owner Zip:	
Constructor Name: WILLIAM D BRUNNER	
Constructor Addr:	
Constructor City:	
Constructor State:	
Constructor Zip:	
Seal Description:	
Drilling Difficulty:	
Other Driller Comments:	
Water Quality Comments:	
Water Quantity	
Comments:	
Exception Area	
Comments:	
Well URL:	
Well Constr Url: <a href="https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&amp;download=false&amp;WUWN=XB126">https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&amp;download=false&amp;WUWN=XB126</a>	

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
26	NE	0.78	4,131.97	1,090.18	PRIVATE WW

WI Unique Well No: 8BC445	Temp Outer Cas:
High Cap Well No:	Temp Casing Diam:
Hi Cap Well:	Temp Casing Rem:
Hi Cap Property:	Why Not Removed:
County Well Loc:	Other Drill Method:
DNR Region:	Other Drillin Desc:
County:	Screen Diameter:

## Wells and Additional Sources Detail Report

Muni Type:		Screen Description:	
Tax Parcel No:		Casing Depth Amt:	
Well Complete Date:		Screen To:	
DNR Rec Date:		Sealant Method:	
Fire No:		Static Depth Amt:	
Subdivision:		Pumping Level:	
Lot:		Pumping At:	
Block:		Pumping Units:	
Government Parcel:		For:	
Survey Township:	29	Well Start Depth:	
Survey Range:	5	Developed:	
Survey Section:	26	Disinfected:	
Q Section:	NW	Capped:	
QQ Section:	SE	Proper Seal:	
Well Status:		Contractor Signed:	
Original Year:		Rig Oper Signed:	
Replace Reason:		Geologic Log No:	
Prev WI Well No:		Common Well No:	
Replace Well No:		DNR Facility ID:	
Well Const Type:		Watr Seq No:	113777979
Other Const Type:		LL Lat Dd Amt:	
Category:		LL Long Dd Amt:	
No Services:		Survey Range Dir:	W
Facility Type:		Well Name:	
High Pt Property:		Calc Specific Cap:	
In Floodplain:		Well Depth Amt:	
Rotary Mud Circ:		Well Dep Amt Text:	
Rotary Air:		Static Depth:	
Rotary Foam:		Location Method:	QQ section centroid
Reverse Rotary:		Casing Depth Amt:	
Cable Tool Bit:		Decade Complete:	
Cable Bit Diameter:			
Owner:			
Owner Address:			
Owner City:			
Owner State:			
Owner Zip:			
Constructor Name:			
Constructor Addr:			
Constructor City:			
Constructor State:			
Constructor Zip:			
Seal Description:			
Drilling Difficulty:			
Other Driller Comments:			
Water Quality Comments:			
Water Quantity Comments:			

# Wells and Additional Sources Detail Report

Exception Area

Comments:

Well URL:

Well Constr Url: <https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&download=false&WUWN=8BC445>

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
27	SSW	0.80	4,199.96	1,088.62	PRIVATE WW

WI Unique Well No: NN082

High Cap Well No:

Hi Cap Well:

Hi Cap Property:

County Well Loc:

DNR Region:

County:

Muni Type:

Tax Parcel No:

Well Complete Date: 11/02/1999

DNR Rec Date:

Fire No:

Subdivision:

Lot:

Block:

Government Parcel:

Survey Township: 28

Survey Range: 5

Survey Section: 3

Q Section: NW

QQ Section: NW

Well Status: Replacement

Original Year:

Replace Reason:

Prev WI Well No:

Replace Well No:

Well Const Type:

Other Const Type:

Category:

No Services:

Facility Type:

High Pt Property:

In Floodplain:

Rotary Mud Circ:

Rotary Air:

Rotary Foam:

Reverse Rotary:

Cable Tool Bit:

Cable Bit Diameter:

Temp Outer Cas:

Temp Casing Diam:

Temp Casing Rem:

Why Not Removed:

Other Drill Method:

Other Drillin Desc:

Screen Diameter:

Screen Description:

Casing Depth Amt: 38 FEET

Screen To:

Sealant Method:

Static Depth Amt: 18

Pumping Level:

Pumping At:

Pumping Units:

For:

Well Start Depth:

Developed:

Disinfected:

Capped:

Proper Seal:

Contractor Signed:

Rig Oper Signed:

Geologic Log No:

Common Well No:

DNR Facility ID:

Watr Seq No: 1051121

LL Lat Dd Amt:

LL Long Dd Amt:

Survey Range Dir: W

Well Name:

Calc Specific Cap:

Well Depth Amt: 65

Well Dep Amt Text: 65 FEET

Static Depth: feet below ground surface

Location Method: QQ section centroid

Casing Depth Amt: 38

Decade Complete: 1990-1999



# Wells and Additional Sources Detail Report

Owner:  
 Owner Address: 6935 CTY HWY G  
 Owner City:  
 Owner State:  
 Owner Zip:  
 Constructor Name: KLINE WELL & PUMP INC  
 Constructor Addr:  
 Constructor City:  
 Constructor State:  
 Constructor Zip:  
 Seal Description:  
 Drilling Difficulty:  
 Other Driller Comments:  
 Water Quality Comments:  
 Water Quantity  
 Comments:  
 Exception Area  
 Comments:  
 Well URL:  
 Well Constr Url: <https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&download=false&WUWN=NN082>

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
27	SSW	0.80	4,199.96	1,088.62	PRIVATE WW

WI Unique Well No:	8BA813	Temp Outer Cas:
High Cap Well No:		Temp Casing Diam:
Hi Cap Well:		Temp Casing Rem:
Hi Cap Property:		Why Not Removed:
County Well Loc:		Other Drill Method:
DNR Region:		Other Drillin Desc:
County:		Screen Diameter:
Muni Type:		Screen Description:
Tax Parcel No:		Casing Depth Amt:
Well Complete Date:		Screen To:
DNR Rec Date:		Sealant Method:
Fire No:		Static Depth Amt:
Subdivision:		Pumping Level:
Lot:		Pumping At:
Block:		Pumping Units:
Government Parcel:		For:
Survey Township:	28	Well Start Depth:
Survey Range:	5	Developed:
Survey Section:	3	Disinfected:
Q Section:	NW	Capped:
QQ Section:	NW	Proper Seal:
Well Status:		Contractor Signed:
Original Year:		Rig Oper Signed:

## Wells and Additional Sources Detail Report

Replace Reason:	Geologic Log No:
Prev WI Well No:	Common Well No:
Replace Well No:	DNR Facility ID:
Well Const Type:	Watr Seq No: 113776343
Other Const Type:	LL Lat Dd Amt:
Category:	LL Long Dd Amt:
No Services:	Survey Range Dir: W
Facility Type:	Well Name:
High Pt Property:	Calc Specific Cap:
In Floodplain:	Well Depth Amt:
Rotary Mud Circ:	Well Dep Amt Text:
Rotary Air:	Static Depth:
Rotary Foam:	Location Method: QQ section centroid
Reverse Rotary:	Casing Depth Amt:
Cable Tool Bit:	Decade Complete:
Cable Bit Diameter:	
Owner:	
Owner Address:	
Owner City:	
Owner State:	
Owner Zip:	
Constructor Name:	
Constructor Addr:	
Constructor City:	
Constructor State:	
Constructor Zip:	
Seal Description:	
Drilling Difficulty:	
Other Driller Comments:	
Water Quality Comments:	
Water Quantity	
Comments:	
Exception Area	
Comments:	
Well URL:	
Well Constr Url:	<a href="https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&amp;download=false&amp;WUWN=8BA813">https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&amp;download=false&amp;WUWN=8BA813</a>

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
28	SSE	0.85	4,496.23	1,101.68	PRIVATE WW

WI Unique Well No:	QZ363	Temp Outer Cas:
High Cap Well No:		Temp Casing Diam:
Hi Cap Well:		Temp Casing Rem:
Hi Cap Property:		Why Not Removed:
County Well Loc:		Other Drill Method:
DNR Region:		Other Drillin Desc:
County:		Screen Diameter:

## Wells and Additional Sources Detail Report

Muni Type:		Screen Description:	
Tax Parcel No:		Casing Depth Amt:	31 FEET
Well Complete Date:	08/28/2002	Screen To:	
DNR Rec Date:		Sealant Method:	
Fire No:		Static Depth Amt:	18
Subdivision:		Pumping Level:	
Lot:		Pumping At:	
Block:		Pumping Units:	
Government Parcel:		For:	
Survey Township:	28	Well Start Depth:	
Survey Range:	5	Developed:	
Survey Section:	3	Disinfected:	
Q Section:	NE	Capped:	
QQ Section:	SE	Proper Seal:	
Well Status:	New Well	Contractor Signed:	
Original Year:		Rig Oper Signed:	
Replace Reason:		Geologic Log No:	
Prev WI Well No:		Common Well No:	
Replace Well No:		DNR Facility ID:	
Well Const Type:		Watr Seq No:	1339894
Other Const Type:		LL Lat Dd Amt:	44.9399
Category:		LL Long Dd Amt:	-90.9653
No Services:		Survey Range Dir:	W
Facility Type:		Well Name:	
High Pt Property:		Calc Specific Cap:	
In Floodplain:		Well Depth Amt:	58
Rotary Mud Circ:		Well Dep Amt Text:	58 FEET
Rotary Air:		Static Depth:	feet below ground surface
Rotary Foam:		Location Method:	Parcel centroid
Reverse Rotary:		Casing Depth Amt:	31
Cable Tool Bit:		Decade Complete:	2000-2009
Cable Bit Diameter:			
Owner:			
Owner Address:	N14638 SANDHILL AVE		
Owner City:			
Owner State:			
Owner Zip:			
Constructor Name:	JESSE W BRUNNER		
Constructor Addr:			
Constructor City:			
Constructor State:			
Constructor Zip:			
Seal Description:			
Drilling Difficulty:			
Other Driller Comments:			
Water Quality Comments:			
Water Quantity Comments:			



# Wells and Additional Sources Detail Report

Exception Area

Comments:

Well URL:

Well Constr Url: <https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&download=false&WUWN=QZ363>

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
29	N	0.88	4,659.27	1,147.95	PRIVATE WW

WI Unique Well No:	8BC449	Temp Outer Cas:	
High Cap Well No:		Temp Casing Diam:	
Hi Cap Well:		Temp Casing Rem:	
Hi Cap Property:		Why Not Removed:	
County Well Loc:		Other Drill Method:	
DNR Region:		Other Drillin Desc:	
County:		Screen Diameter:	
Muni Type:		Screen Description:	
Tax Parcel No:		Casing Depth Amt:	
Well Complete Date:		Screen To:	
DNR Rec Date:		Sealant Method:	
Fire No:		Static Depth Amt:	
Subdivision:		Pumping Level:	
Lot:		Pumping At:	
Block:		Pumping Units:	
Government Parcel:		For:	
Survey Township:	29	Well Start Depth:	
Survey Range:	5	Developed:	
Survey Section:	27	Disinfected:	
Q Section:	NE	Capped:	
QQ Section:	NW	Proper Seal:	
Well Status:		Contractor Signed:	
Original Year:		Rig Oper Signed:	
Replace Reason:		Geologic Log No:	
Prev WI Well No:		Common Well No:	
Replace Well No:		DNR Facility ID:	
Well Const Type:		Watr Seq No:	113777983
Other Const Type:		LL Lat Dd Amt:	
Category:		LL Long Dd Amt:	
No Services:		Survey Range Dir:	W
Facility Type:		Well Name:	
High Pt Property:		Calc Specific Cap:	
In Floodplain:		Well Depth Amt:	
Rotary Mud Circ:		Well Dep Amt Text:	
Rotary Air:		Static Depth:	
Rotary Foam:		Location Method:	QQ section centroid
Reverse Rotary:		Casing Depth Amt:	
Cable Tool Bit:		Decade Complete:	
Cable Bit Diameter:			

# Wells and Additional Sources Detail Report

Owner:  
 Owner Address:  
 Owner City:  
 Owner State:  
 Owner Zip:  
 Constructor Name:  
 Constructor Addr:  
 Constructor City:  
 Constructor State:  
 Constructor Zip:  
 Seal Description:  
 Drilling Difficulty:  
 Other Driller Comments:  
 Water Quality Comments:  
 Water Quantity  
 Comments:  
 Exception Area  
 Comments:  
 Well URL:  
 Well Constr Url: <https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&download=false&WUWN=8BC449>

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
29	N	0.88	4,659.27	1,147.95	PRIVATE WW

WI Unique Well No:	XL716	Temp Outer Cas:	
High Cap Well No:		Temp Casing Diam:	
Hi Cap Well:		Temp Casing Rem:	
Hi Cap Property:		Why Not Removed:	
County Well Loc:		Other Drill Method:	
DNR Region:		Other Drillin Desc:	
County:		Screen Diameter:	
Muni Type:		Screen Description:	
Tax Parcel No:		Casing Depth Amt:	67 FEET
Well Complete Date:	04/09/2015	Screen To:	
DNR Rec Date:		Sealant Method:	
Fire No:		Static Depth Amt:	60
Subdivision:		Pumping Level:	
Lot:		Pumping At:	
Block:		Pumping Units:	
Government Parcel:		For:	
Survey Township:	29	Well Start Depth:	
Survey Range:	5	Developed:	
Survey Section:	27	Disinfected:	
Q Section:	NE	Capped:	
QQ Section:	NW	Proper Seal:	
Well Status:	Replacement	Contractor Signed:	
Original Year:		Rig Oper Signed:	

# Wells and Additional Sources Detail Report

Replace Reason:	Geologic Log No:
Prev WI Well No:	Common Well No:
Replace Well No:	DNR Facility ID:
Well Const Type:	Watr Seq No: 64032616
Other Const Type:	LL Lat Dd Amt:
Category:	LL Long Dd Amt:
No Services:	Survey Range Dir: W
Facility Type:	Well Name:
High Pt Property:	Calc Specific Cap:
In Floodplain:	Well Depth Amt: 120
Rotary Mud Circ:	Well Dep Amt Text: 120 FEET
Rotary Air:	Static Depth: feet below ground surface
Rotary Foam:	Location Method: QQ section centroid
Reverse Rotary:	Casing Depth Amt: 67
Cable Tool Bit:	Decade Complete: 2010-2019
Cable Bit Diameter:	
Owner:	
Owner Address: 8839 345 ST	
Owner City:	
Owner State:	
Owner Zip:	
Constructor Name: MIDWEST HYDROFRACKING LLC	
Constructor Addr:	
Constructor City:	
Constructor State:	
Constructor Zip:	
Seal Description:	
Drilling Difficulty:	
Other Driller Comments:	
Water Quality Comments:	
Water Quantity	
Comments:	
Exception Area	
Comments:	
Well URL:	
Well Constr Url: <a href="https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&amp;download=false&amp;WUWN=XL716">https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&amp;download=false&amp;WUWN=XL716</a>	

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
30	SE	0.82	4,348.25	1,079.76	PRIVATE WW

WI Unique Well No: DS293	Temp Outer Cas:
High Cap Well No:	Temp Casing Diam:
Hi Cap Well:	Temp Casing Rem:
Hi Cap Property:	Why Not Removed:
County Well Loc:	Other Drill Method:
DNR Region:	Other Drillin Desc:
County:	Screen Diameter:



## Wells and Additional Sources Detail Report

Muni Type:		Screen Description:	
Tax Parcel No:		Casing Depth Amt:	49 FEET
Well Complete Date:	07/25/1991	Screen To:	
DNR Rec Date:		Sealant Method:	
Fire No:		Static Depth Amt:	8
Subdivision:		Pumping Level:	
Lot:		Pumping At:	
Block:		Pumping Units:	
Government Parcel:		For:	
Survey Township:	28	Well Start Depth:	
Survey Range:	5	Developed:	
Survey Section:	2	Disinfected:	
Q Section:	NW	Capped:	
QQ Section:	NE	Proper Seal:	
Well Status:	Replacement	Contractor Signed:	
Original Year:		Rig Oper Signed:	
Replace Reason:		Geologic Log No:	
Prev WI Well No:		Common Well No:	
Replace Well No:		DNR Facility ID:	
Well Const Type:		Watr Seq No:	588184
Other Const Type:		LL Lat Dd Amt:	
Category:		LL Long Dd Amt:	
No Services:		Survey Range Dir:	W
Facility Type:		Well Name:	
High Pt Property:		Calc Specific Cap:	
In Floodplain:		Well Depth Amt:	98
Rotary Mud Circ:		Well Dep Amt Text:	98 FEET
Rotary Air:		Static Depth:	feet below ground surface
Rotary Foam:		Location Method:	QQ section centroid
Reverse Rotary:		Casing Depth Amt:	49
Cable Tool Bit:		Decade Complete:	1990-1999
Cable Bit Diameter:			
Owner:			
Owner Address:	RR 1 CO TK X		
Owner City:			
Owner State:			
Owner Zip:			
Constructor Name:	JOHN J HATFIELD		
Constructor Addr:			
Constructor City:			
Constructor State:			
Constructor Zip:			
Seal Description:			
Drilling Difficulty:			
Other Driller Comments:			
Water Quality Comments:			
Water Quantity Comments:			

# Wells and Additional Sources Detail Report

Exception Area

Comments:

Well URL:

Well Constr Url: <https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&download=false&WUWN=DS293>

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
30	SE	0.82	4,348.25	1,079.76	PRIVATE WW

WI Unique Well No: 8AZ674

High Cap Well No:

Hi Cap Well:

Hi Cap Property:

County Well Loc:

DNR Region:

County:

Muni Type:

Tax Parcel No:

Well Complete Date:

DNR Rec Date:

Fire No:

Subdivision:

Lot:

Block:

Government Parcel:

Survey Township: 28

Survey Range: 5

Survey Section: 2

Q Section: NW

QQ Section: NE

Well Status:

Original Year:

Replace Reason:

Prev WI Well No:

Replace Well No:

Well Const Type:

Other Const Type:

Category:

No Services:

Facility Type:

High Pt Property:

In Floodplain:

Rotary Mud Circ:

Rotary Air:

Rotary Foam:

Reverse Rotary:

Cable Tool Bit:

Cable Bit Diameter:

Temp Outer Cas:

Temp Casing Diam:

Temp Casing Rem:

Why Not Removed:

Other Drill Method:

Other Drillin Desc:

Screen Diameter:

Screen Description:

Casing Depth Amt:

Screen To:

Sealant Method:

Static Depth Amt:

Pumping Level:

Pumping At:

Pumping Units:

For:

Well Start Depth:

Developed:

Disinfected:

Capped:

Proper Seal:

Contractor Signed:

Rig Oper Signed:

Geologic Log No:

Common Well No:

DNR Facility ID:

Watr Seq No: 113775200

LL Lat Dd Amt:

LL Long Dd Amt:

Survey Range Dir: W

Well Name:

Calc Specific Cap:

Well Depth Amt:

Well Dep Amt Text:

Static Depth:

Location Method: QQ section centroid

Casing Depth Amt:

Decade Complete:

# Wells and Additional Sources Detail Report

Owner:  
 Owner Address:  
 Owner City:  
 Owner State:  
 Owner Zip:  
 Constructor Name:  
 Constructor Addr:  
 Constructor City:  
 Constructor State:  
 Constructor Zip:  
 Seal Description:  
 Drilling Difficulty:  
 Other Driller Comments:  
 Water Quality Comments:  
 Water Quantity  
 Comments:  
 Exception Area  
 Comments:  
 Well URL:  
 Well Constr Url: <https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&download=false&WUWN=8AZ674>

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
31	N	0.96	5,048.50	1,120.15	PRIVATE WW

WI Unique Well No:	UV629	Temp Outer Cas:	
High Cap Well No:		Temp Casing Diam:	
Hi Cap Well:		Temp Casing Rem:	
Hi Cap Property:		Why Not Removed:	
County Well Loc:		Other Drill Method:	
DNR Region:		Other Drillin Desc:	
County:		Screen Diameter:	
Muni Type:		Screen Description:	
Tax Parcel No:		Casing Depth Amt:	50.5 FEET
Well Complete Date:	09/14/2009	Screen To:	
DNR Rec Date:		Sealant Method:	
Fire No:		Static Depth Amt:	32
Subdivision:		Pumping Level:	
Lot:		Pumping At:	
Block:		Pumping Units:	
Government Parcel:		For:	
Survey Township:	29	Well Start Depth:	
Survey Range:	5	Developed:	
Survey Section:	27	Disinfected:	
Q Section:	NE	Capped:	
QQ Section:	NE	Proper Seal:	
Well Status:	Replacement	Contractor Signed:	
Original Year:		Rig Oper Signed:	



# Wells and Additional Sources Detail Report

Replace Reason:	Geologic Log No:
Prev WI Well No:	Common Well No:
Replace Well No:	DNR Facility ID:
Well Const Type:	Watr Seq No: 1881331
Other Const Type:	LL Lat Dd Amt: 44.9724167
Category:	LL Long Dd Amt: -90.9642333
No Services:	Survey Range Dir: W
Facility Type:	Well Name:
High Pt Property:	Calc Specific Cap:
In Floodplain:	Well Depth Amt: 200
Rotary Mud Circ:	Well Dep Amt Text: 200 FEET
Rotary Air:	Static Depth: feet below ground surface
Rotary Foam:	Location Method: Latitude and longitude
Reverse Rotary:	Casing Depth Amt: 50.5
Cable Tool Bit:	Decade Complete: 2000-2009
Cable Bit Diameter:	
Owner:	
Owner Address: 8900 350TH ST	
Owner City:	
Owner State:	
Owner Zip:	
Constructor Name: PEAK WELL DRILLING LLC	
Constructor Addr:	
Constructor City:	
Constructor State:	
Constructor Zip:	
Seal Description:	
Drilling Difficulty:	
Other Driller Comments:	
Water Quality Comments:	
Water Quantity	
Comments:	
Exception Area	
Comments:	
Well URL:	
Well Constr Url: <a href="https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&amp;download=false&amp;WUWN=UV629">https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&amp;download=false&amp;WUWN=UV629</a>	

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
32	ENE	0.93	4,932.76	1,080.31	PRIVATE WW

WI Unique Well No: 8BC443	Temp Outer Cas:
High Cap Well No:	Temp Casing Diam:
Hi Cap Well:	Temp Casing Rem:
Hi Cap Property:	Why Not Removed:
County Well Loc:	Other Drill Method:
DNR Region:	Other Drillin Desc:
County:	Screen Diameter:

## Wells and Additional Sources Detail Report

Muni Type:		Screen Description:	
Tax Parcel No:		Casing Depth Amt:	
Well Complete Date:		Screen To:	
DNR Rec Date:		Sealant Method:	
Fire No:		Static Depth Amt:	
Subdivision:		Pumping Level:	
Lot:		Pumping At:	
Block:		Pumping Units:	
Government Parcel:		For:	
Survey Township:	29	Well Start Depth:	
Survey Range:	5	Developed:	
Survey Section:	26	Disinfected:	
Q Section:	SE	Capped:	
QQ Section:	SE	Proper Seal:	
Well Status:		Contractor Signed:	
Original Year:		Rig Oper Signed:	
Replace Reason:		Geologic Log No:	
Prev WI Well No:		Common Well No:	
Replace Well No:		DNR Facility ID:	
Well Const Type:		Watr Seq No:	113777977
Other Const Type:		LL Lat Dd Amt:	
Category:		LL Long Dd Amt:	
No Services:		Survey Range Dir:	W
Facility Type:		Well Name:	
High Pt Property:		Calc Specific Cap:	
In Floodplain:		Well Depth Amt:	
Rotary Mud Circ:		Well Dep Amt Text:	
Rotary Air:		Static Depth:	
Rotary Foam:		Location Method:	QQ section centroid
Reverse Rotary:		Casing Depth Amt:	
Cable Tool Bit:		Decade Complete:	
Cable Bit Diameter:			
Owner:			
Owner Address:			
Owner City:			
Owner State:			
Owner Zip:			
Constructor Name:			
Constructor Addr:			
Constructor City:			
Constructor State:			
Constructor Zip:			
Seal Description:			
Drilling Difficulty:			
Other Driller Comments:			
Water Quality Comments:			
Water Quantity Comments:			

# Wells and Additional Sources Detail Report

Exception Area

Comments:

Well URL:

Well Constr Url: <https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&download=false&WUWN=8BC443>

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
32	ENE	0.93	4,932.76	1,080.31	PRIVATE WW

WI Unique Well No: 8BC444

High Cap Well No:

Hi Cap Well:

Hi Cap Property:

County Well Loc:

DNR Region:

County:

Muni Type:

Tax Parcel No:

Well Complete Date:

DNR Rec Date:

Fire No:

Subdivision:

Lot:

Block:

Government Parcel:

Survey Township: 29

Survey Range: 5

Survey Section: 26

Q Section: SE

QQ Section: SE

Well Status:

Original Year:

Replace Reason:

Prev WI Well No:

Replace Well No:

Well Const Type:

Other Const Type:

Category:

No Services:

Facility Type:

High Pt Property:

In Floodplain:

Rotary Mud Circ:

Rotary Air:

Rotary Foam:

Reverse Rotary:

Cable Tool Bit:

Cable Bit Diameter:

Temp Outer Cas:

Temp Casing Diam:

Temp Casing Rem:

Why Not Removed:

Other Drill Method:

Other Drillin Desc:

Screen Diameter:

Screen Description:

Casing Depth Amt:

Screen To:

Sealant Method:

Static Depth Amt:

Pumping Level:

Pumping At:

Pumping Units:

For:

Well Start Depth:

Developed:

Disinfected:

Capped:

Proper Seal:

Contractor Signed:

Rig Oper Signed:

Geologic Log No:

Common Well No:

DNR Facility ID:

Watr Seq No: 113777978

LL Lat Dd Amt:

LL Long Dd Amt:

Survey Range Dir: W

Well Name:

Calc Specific Cap:

Well Depth Amt:

Well Dep Amt Text:

Static Depth:

Location Method: QQ section centroid

Casing Depth Amt:

Decade Complete:



# Wells and Additional Sources Detail Report

Owner:  
 Owner Address:  
 Owner City:  
 Owner State:  
 Owner Zip:  
 Constructor Name:  
 Constructor Addr:  
 Constructor City:  
 Constructor State:  
 Constructor Zip:  
 Seal Description:  
 Drilling Difficulty:  
 Other Driller Comments:  
 Water Quality Comments:  
 Water Quantity  
 Comments:  
 Exception Area  
 Comments:  
 Well URL:  
 Well Constr Url: <https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&download=false&WUWN=8BC444>

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
32	ENE	0.93	4,932.76	1,080.31	PRIVATE WW

WI Unique Well No:	8BC442	Temp Outer Cas:
High Cap Well No:		Temp Casing Diam:
Hi Cap Well:		Temp Casing Rem:
Hi Cap Property:		Why Not Removed:
County Well Loc:		Other Drill Method:
DNR Region:		Other Drillin Desc:
County:		Screen Diameter:
Muni Type:		Screen Description:
Tax Parcel No:		Casing Depth Amt:
Well Complete Date:		Screen To:
DNR Rec Date:		Sealant Method:
Fire No:		Static Depth Amt:
Subdivision:		Pumping Level:
Lot:		Pumping At:
Block:		Pumping Units:
Government Parcel:		For:
Survey Township:	29	Well Start Depth:
Survey Range:	5	Developed:
Survey Section:	26	Disinfected:
Q Section:	SE	Capped:
QQ Section:	SE	Proper Seal:
Well Status:		Contractor Signed:
Original Year:		Rig Oper Signed:

## Wells and Additional Sources Detail Report

Replace Reason:	Geologic Log No:
Prev WI Well No:	Common Well No:
Replace Well No:	DNR Facility ID:
Well Const Type:	Watr Seq No: 113777976
Other Const Type:	LL Lat Dd Amt:
Category:	LL Long Dd Amt:
No Services:	Survey Range Dir: W
Facility Type:	Well Name:
High Pt Property:	Calc Specific Cap:
In Floodplain:	Well Depth Amt:
Rotary Mud Circ:	Well Dep Amt Text:
Rotary Air:	Static Depth:
Rotary Foam:	Location Method: QQ section centroid
Reverse Rotary:	Casing Depth Amt:
Cable Tool Bit:	Decade Complete:
Cable Bit Diameter:	
Owner:	
Owner Address:	
Owner City:	
Owner State:	
Owner Zip:	
Constructor Name:	
Constructor Addr:	
Constructor City:	
Constructor State:	
Constructor Zip:	
Seal Description:	
Drilling Difficulty:	
Other Driller Comments:	
Water Quality Comments:	
Water Quantity Comments:	
Exception Area Comments:	
Well URL:	
Well Constr Url:	<a href="https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&amp;download=false&amp;WUWN=8BC442">https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&amp;download=false&amp;WUWN=8BC442</a>

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
33	SSE	0.96	5,045.43	1,100.29	PRIVATE WW

WI Unique Well No:	NJ207	Temp Outer Cas:
High Cap Well No:		Temp Casing Diam:
Hi Cap Well:		Temp Casing Rem:
Hi Cap Property:		Why Not Removed:
County Well Loc:		Other Drill Method:
DNR Region:		Other Drillin Desc:
County:		Screen Diameter:

## Wells and Additional Sources Detail Report

Muni Type:		Screen Description:	
Tax Parcel No:		Casing Depth Amt:	30 FEET
Well Complete Date:	07/24/1999	Screen To:	
DNR Rec Date:		Sealant Method:	
Fire No:		Static Depth Amt:	12
Subdivision:		Pumping Level:	
Lot:		Pumping At:	
Block:		Pumping Units:	
Government Parcel:		For:	
Survey Township:	28	Well Start Depth:	
Survey Range:	5	Developed:	
Survey Section:	2	Disinfected:	
Q Section:	NW	Capped:	
QQ Section:	SW	Proper Seal:	
Well Status:	New Well	Contractor Signed:	
Original Year:		Rig Oper Signed:	
Replace Reason:		Geologic Log No:	
Prev WI Well No:		Common Well No:	
Replace Well No:		DNR Facility ID:	
Well Const Type:		Watr Seq No:	1044569
Other Const Type:		LL Lat Dd Amt:	
Category:		LL Long Dd Amt:	
No Services:		Survey Range Dir:	W
Facility Type:		Well Name:	
High Pt Property:		Calc Specific Cap:	
In Floodplain:		Well Depth Amt:	38
Rotary Mud Circ:		Well Dep Amt Text:	38 FEET
Rotary Air:		Static Depth:	feet below ground surface
Rotary Foam:		Location Method:	QQ section centroid
Reverse Rotary:		Casing Depth Amt:	30
Cable Tool Bit:		Decade Complete:	1990-1999
Cable Bit Diameter:			
Owner:			
Owner Address:	RR 1 BOX 7		
Owner City:			
Owner State:			
Owner Zip:			
Constructor Name:	WILLIAM D BRUNNER		
Constructor Addr:			
Constructor City:			
Constructor State:			
Constructor Zip:			
Seal Description:			
Drilling Difficulty:			
Other Driller Comments:			
Water Quality Comments:			
Water Quantity Comments:			



# Wells and Additional Sources Detail Report

Exception Area

Comments:

Well URL:

<https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&download=false&WUWN=NJ207>

Well Constr Url:

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
34	ESE	0.95	5,008.02	1,070.02	PRIVATE WW

WI Unique Well No: YA969

High Cap Well No:

Hi Cap Well:

Hi Cap Property:

County Well Loc:

DNR Region:

County:

Muni Type:

Tax Parcel No:

Well Complete Date: 01/21/2017

DNR Rec Date:

Fire No:

Subdivision:

Lot:

Block:

Government Parcel:

Survey Township: 29

Survey Range: 5

Survey Section: 35

Q Section: SE

QQ Section: SE

Well Status: New Well

Original Year:

Replace Reason:

Prev WI Well No:

Replace Well No:

Well Const Type:

Other Const Type:

Category:

No Services:

Facility Type:

High Pt Property:

In Floodplain:

Rotary Mud Circ:

Rotary Air:

Rotary Foam:

Reverse Rotary:

Cable Tool Bit:

Cable Bit Diameter:

Temp Outer Cas:

Temp Casing Diam:

Temp Casing Rem:

Why Not Removed:

Other Drill Method:

Other Drillin Desc:

Screen Diameter:

Screen Description:

Casing Depth Amt: 47 FEET

Screen To:

Sealant Method:

Static Depth Amt: 16

Pumping Level:

Pumping At:

Pumping Units:

For:

Well Start Depth:

Developed:

Disinfected:

Capped:

Proper Seal:

Contractor Signed:

Rig Oper Signed:

Geologic Log No:

Common Well No:

DNR Facility ID:

Watr Seq No: 93302413

LL Lat Dd Amt: 44.945519999999995

LL Long Dd Amt: -90.948619999999999

Survey Range Dir: W

Well Name:

Calc Specific Cap:

Well Depth Amt: 100

Well Dep Amt Text: 100 FEET

Static Depth: feet below ground surface

Location Method: Latitude and longitude

Casing Depth Amt: 47

Decade Complete: 2010-2019

## Wells and Additional Sources Detail Report

Owner:  
 Owner Address: W13687 SHINER DR  
 Owner City:  
 Owner State:  
 Owner Zip:  
 Constructor Name: MIDWEST HYDROFRACKING LLC  
 Constructor Addr:  
 Constructor City:  
 Constructor State:  
 Constructor Zip:  
 Seal Description:  
 Drilling Difficulty:  
 Other Driller Comments:  
 Water Quality Comments:  
 Water Quantity  
 Comments:  
 Exception Area  
 Comments:  
 Well URL:  
 Well Constr Url: <https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&download=false&WUWN=YA969>

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
35	ESE	0.97	5,126.85	1,071.38	PRIVATE WW

WI Unique Well No:	8BC462	Temp Outer Cas:
High Cap Well No:		Temp Casing Diam:
Hi Cap Well:		Temp Casing Rem:
Hi Cap Property:		Why Not Removed:
County Well Loc:		Other Drill Method:
DNR Region:		Other Drillin Desc:
County:		Screen Diameter:
Muni Type:		Screen Description:
Tax Parcel No:		Casing Depth Amt:
Well Complete Date:		Screen To:
DNR Rec Date:		Sealant Method:
Fire No:		Static Depth Amt:
Subdivision:		Pumping Level:
Lot:		Pumping At:
Block:		Pumping Units:
Government Parcel:		For:
Survey Township:	29	Well Start Depth:
Survey Range:	5	Developed:
Survey Section:	35	Disinfected:
Q Section:	SE	Capped:
QQ Section:	NE	Proper Seal:
Well Status:		Contractor Signed:
Original Year:		Rig Oper Signed:

## Wells and Additional Sources Detail Report

Replace Reason:	Geologic Log No:
Prev WI Well No:	Common Well No:
Replace Well No:	DNR Facility ID:
Well Const Type:	Watr Seq No: 113777996
Other Const Type:	LL Lat Dd Amt:
Category:	LL Long Dd Amt:
No Services:	Survey Range Dir: W
Facility Type:	Well Name:
High Pt Property:	Calc Specific Cap:
In Floodplain:	Well Depth Amt:
Rotary Mud Circ:	Well Dep Amt Text:
Rotary Air:	Static Depth:
Rotary Foam:	Location Method: QQ section centroid
Reverse Rotary:	Casing Depth Amt:
Cable Tool Bit:	Decade Complete:
Cable Bit Diameter:	
Owner:	
Owner Address:	
Owner City:	
Owner State:	
Owner Zip:	
Constructor Name:	
Constructor Addr:	
Constructor City:	
Constructor State:	
Constructor Zip:	
Seal Description:	
Drilling Difficulty:	
Other Driller Comments:	
Water Quality Comments:	
Water Quantity Comments:	
Exception Area Comments:	
Well URL:	<a href="https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&amp;download=false&amp;WUWN=8BC462">https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&amp;download=false&amp;WUWN=8BC462</a>
Well Constr Url:	

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
35	ESE	0.97	5,126.85	1,071.38	PRIVATE WW

WI Unique Well No:	MY658	Temp Outer Cas:
High Cap Well No:		Temp Casing Diam:
Hi Cap Well:		Temp Casing Rem:
Hi Cap Property:		Why Not Removed:
County Well Loc:		Other Drill Method:
DNR Region:		Other Drillin Desc:
County:		Screen Diameter:



## Wells and Additional Sources Detail Report

Muni Type:		Screen Description:	
Tax Parcel No:		Casing Depth Amt:	49 FEET
Well Complete Date:	11/17/1998	Screen To:	
DNR Rec Date:		Sealant Method:	
Fire No:		Static Depth Amt:	18
Subdivision:		Pumping Level:	
Lot:		Pumping At:	
Block:		Pumping Units:	
Government Parcel:		For:	
Survey Township:	29	Well Start Depth:	
Survey Range:	5	Developed:	
Survey Section:	35	Disinfected:	
Q Section:	SE	Capped:	
QQ Section:	NE	Proper Seal:	
Well Status:	New Well	Contractor Signed:	
Original Year:		Rig Oper Signed:	
Replace Reason:		Geologic Log No:	
Prev WI Well No:		Common Well No:	
Replace Well No:		DNR Facility ID:	
Well Const Type:		Watr Seq No:	1024180
Other Const Type:		LL Lat Dd Amt:	
Category:		LL Long Dd Amt:	
No Services:		Survey Range Dir:	W
Facility Type:		Well Name:	
High Pt Property:		Calc Specific Cap:	
In Floodplain:		Well Depth Amt:	95
Rotary Mud Circ:		Well Dep Amt Text:	95 FEET
Rotary Air:		Static Depth:	feet below ground surface
Rotary Foam:		Location Method:	QQ section centroid
Reverse Rotary:		Casing Depth Amt:	49
Cable Tool Bit:		Decade Complete:	1990-1999
Cable Bit Diameter:			
Owner:			
Owner Address:	31661 CTY HWY O		
Owner City:			
Owner State:			
Owner Zip:			
Constructor Name:	JOHN J HATFIELD		
Constructor Addr:			
Constructor City:			
Constructor State:			
Constructor Zip:			
Seal Description:			
Drilling Difficulty:			
Other Driller Comments:			
Water Quality Comments:			
Water Quantity Comments:			

# Wells and Additional Sources Detail Report

Exception Area

Comments:

Well URL:

Well Constr Url: <https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&download=false&WUWN=MY658>

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
36	SW	0.95	5,014.19	1,114.11	PRIVATE WW

WI Unique Well No: FP106

High Cap Well No:

Hi Cap Well:

Hi Cap Property:

County Well Loc:

DNR Region:

County:

Muni Type:

Tax Parcel No:

Well Complete Date: 06/24/1994

DNR Rec Date:

Fire No:

Subdivision:

Lot:

Block:

Government Parcel:

Survey Township: 28

Survey Range: 5

Survey Section: 4

Q Section: NE

QQ Section: NE

Well Status: New Well

Original Year:

Replace Reason:

Prev WI Well No:

Replace Well No:

Well Const Type:

Other Const Type:

Category:

No Services:

Facility Type:

High Pt Property:

In Floodplain:

Rotary Mud Circ:

Rotary Air:

Rotary Foam:

Reverse Rotary:

Cable Tool Bit:

Cable Bit Diameter:

Temp Outer Cas:

Temp Casing Diam:

Temp Casing Rem:

Why Not Removed:

Other Drill Method:

Other Drillin Desc:

Screen Diameter:

Screen Description:

Casing Depth Amt: 31 FEET

Screen To:

Sealant Method:

Static Depth Amt: 25

Pumping Level:

Pumping At:

Pumping Units:

For:

Well Start Depth:

Developed:

Disinfected:

Capped:

Proper Seal:

Contractor Signed:

Rig Oper Signed:

Geologic Log No:

Common Well No:

DNR Facility ID:

Watr Seq No: 606251

LL Lat Dd Amt:

LL Long Dd Amt:

Survey Range Dir: W

Well Name:

Calc Specific Cap:

Well Depth Amt: 55

Well Dep Amt Text: 55 FEET

Static Depth: feet below ground surface

Location Method: QQ section centroid

Casing Depth Amt: 31

Decade Complete: 1990-1999

# Wells and Additional Sources Detail Report

Owner:  
 Owner Address: RR 1 BOX 243  
 Owner City:  
 Owner State:  
 Owner Zip:  
 Constructor Name: JOHN J HATFIELD  
 Constructor Addr:  
 Constructor City:  
 Constructor State:  
 Constructor Zip:  
 Seal Description:  
 Drilling Difficulty:  
 Other Driller Comments:  
 Water Quality Comments:  
 Water Quantity  
 Comments:  
 Exception Area  
 Comments:  
 Well URL:  
 Well Constr Url: <https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&download=false&WUWN=FP106>

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
37	NE	0.96	5,056.01	1,089.53	PRIVATE WW

WI Unique Well No:	8BA166	Temp Outer Cas:
High Cap Well No:		Temp Casing Diam:
Hi Cap Well:		Temp Casing Rem:
Hi Cap Property:		Why Not Removed:
County Well Loc:		Other Drill Method:
DNR Region:		Other Drillin Desc:
County:		Screen Diameter:
Muni Type:		Screen Description:
Tax Parcel No:		Casing Depth Amt:
Well Complete Date:		Screen To:
DNR Rec Date:		Sealant Method:
Fire No:		Static Depth Amt:
Subdivision:		Pumping Level:
Lot:		Pumping At:
Block:		Pumping Units:
Government Parcel:		For:
Survey Township:	29	Well Start Depth:
Survey Range:	5	Developed:
Survey Section:	26	Disinfected:
Q Section:	NE	Capped:
QQ Section:	SW	Proper Seal:
Well Status:		Contractor Signed:
Original Year:		Rig Oper Signed:



# Wells and Additional Sources Detail Report

Replace Reason:	Geologic Log No:
Prev WI Well No:	Common Well No:
Replace Well No:	DNR Facility ID:
Well Const Type:	Watr Seq No: 113775693
Other Const Type:	LL Lat Dd Amt:
Category:	LL Long Dd Amt:
No Services:	Survey Range Dir: W
Facility Type:	Well Name:
High Pt Property:	Calc Specific Cap:
In Floodplain:	Well Depth Amt:
Rotary Mud Circ:	Well Dep Amt Text:
Rotary Air:	Static Depth:
Rotary Foam:	Location Method: QQ section centroid
Reverse Rotary:	Casing Depth Amt:
Cable Tool Bit:	Decade Complete:
Cable Bit Diameter:	
Owner:	
Owner Address:	
Owner City:	
Owner State:	
Owner Zip:	
Constructor Name:	
Constructor Addr:	
Constructor City:	
Constructor State:	
Constructor Zip:	
Seal Description:	
Drilling Difficulty:	
Other Driller Comments:	
Water Quality Comments:	
Water Quantity	
Comments:	
Exception Area	
Comments:	
Well URL:	
Well Constr Url:	<a href="https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&amp;download=false&amp;WUWN=8BA166">https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&amp;download=false&amp;WUWN=8BA166</a>

Map Key	Direction	Distance (mi)	Distance (ft)	Elevation (ft)	DB
38	WSW	1.00	5,255.47	1,161.59	PRIVATE WW

WI Unique Well No:	MY670	Temp Outer Cas:
High Cap Well No:		Temp Casing Diam:
Hi Cap Well:		Temp Casing Rem:
Hi Cap Property:		Why Not Removed:
County Well Loc:		Other Drill Method:
DNR Region:		Other Drillin Desc:
County:		Screen Diameter:

## Wells and Additional Sources Detail Report

Muni Type:		Screen Description:	
Tax Parcel No:		Casing Depth Amt:	70 FEET
Well Complete Date:	09/13/1999	Screen To:	
DNR Rec Date:		Sealant Method:	
Fire No:		Static Depth Amt:	45
Subdivision:		Pumping Level:	
Lot:		Pumping At:	
Block:		Pumping Units:	
Government Parcel:		For:	
Survey Township:	29	Well Start Depth:	
Survey Range:	5	Developed:	
Survey Section:	33	Disinfected:	
Q Section:	SE	Capped:	
QQ Section:	SW	Proper Seal:	
Well Status:	New Well	Contractor Signed:	
Original Year:		Rig Oper Signed:	
Replace Reason:		Geologic Log No:	
Prev WI Well No:		Common Well No:	
Replace Well No:		DNR Facility ID:	
Well Const Type:		Watr Seq No:	1057232
Other Const Type:		LL Lat Dd Amt:	
Category:		LL Long Dd Amt:	
No Services:		Survey Range Dir:	W
Facility Type:		Well Name:	
High Pt Property:		Calc Specific Cap:	
In Floodplain:		Well Depth Amt:	112
Rotary Mud Circ:		Well Dep Amt Text:	112 FEET
Rotary Air:		Static Depth:	feet below ground surface
Rotary Foam:		Location Method:	QQ section centroid
Reverse Rotary:		Casing Depth Amt:	70
Cable Tool Bit:		Decade Complete:	1990-1999
Cable Bit Diameter:			
Owner:			
Owner Address:	7378 CTY TK G		
Owner City:			
Owner State:			
Owner Zip:			
Constructor Name:	JOHN J HATFIELD		
Constructor Addr:			
Constructor City:			
Constructor State:			
Constructor Zip:			
Seal Description:			
Drilling Difficulty:			
Other Driller Comments:			
Water Quality Comments:			
Water Quantity Comments:			

## Wells and Additional Sources Detail Report

Exception Area

Comments:

Well URL:

Well Constr Url:

[https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?  
id=WellConstructionReport&download=false&WUWN=MY670](https://dnr.wi.gov/WellConstructionSearch/ReportViewer.aspx?id=WellConstructionReport&download=false&WUWN=MY670)



## Radon Information

This section lists any relevant radon information found for the target property.

Federal EPA Radon Zone for *CHIPPEWA* County: **2**

*Zone 1: Counties with predicted average indoor radon screening levels greater than 4 pCi/L*

*Zone 2: Counties with predicted average indoor radon screening levels from 2 to 4 pCi/L*

*Zone 3: Counties with predicted average indoor radon screening levels less than 2 pCi/L*

---

### Federal Area Radon Information for *CHIPPEWA* County

No Measures/Homes:	18
Geometric Mean:	2.3
Arithmetic Mean:	3.7
Median:	2.7
Standard Deviation:	4.3
Maximum:	18.5
% >4 pCi/L:	33
% >20 pCi/L:	0
Notes on Data Table:	TABLE 1. Screening indoor radon data from the State/EPA Residential Radon Survey of Wisconsin conducted during 1986-87. Data represent 2-7 day charcoal canister measurements from the lowest level of each home tested.

**Federal Sources****FEMA National Flood Hazard Layer****FEMA FLOOD**

The National Flood Hazard Layer (NFHL) data incorporates Flood Insurance Rate Map (FIRM) databases published by the Federal Emergency Management Agency (FEMA), and any Letters Of Map Revision (LOMRs) that have been issued against those databases since their publication date. The FIRM Database is the digital, geospatial version of the flood hazard information shown on the published paper FIRMs. The FIRM Database depicts flood risk information and supporting data used to develop the risk data. The FIRM Database is derived from Flood Insurance Studies (FISs), previously published FIRMs, flood hazard analyses performed in support of the FISs and FIRMs, and new mapping data, where available.

**Indoor Radon Data****INDOOR RADON**

Indoor radon measurements tracked by the Environmental Protection Agency(EPA) and the State Residential Radon Survey.

**Public Water Systems Violations and Enforcement Data****PWSV**

List of drinking water violations and enforcement actions from the Safe Drinking Water Information System (SDWIS) made available by the Drinking Water Protection Division of the US EPA's Office of Groundwater and Drinking Water. Enforcement sensitive actions are not included in the data released by the EPA. Address information provided in SWDIS may correspond either with the physical location of the water system, or with a contact address.

**Radon Zone Level****RADON ZONE**

Areas showing the level of Radon Zones (level 1, 2 or 3) by county. This data is maintained by the Environmental Protection Agency (EPA).

**Safe Drinking Water Information System (SDWIS)****SDWIS**

The Safe Drinking Water Information System (SDWIS) contains information about public water systems as reported to US Environmental Protection Agency (EPA) by the states. Addresses may correspond with the location of the water system, or with a contact address.

**Soil Survey Geographic database****SSURGO**

The Soil Survey Geographic database (SSURGO) contains information about soil as collected by the National Cooperative Soil Survey at the Natural Resources Conservation Service (NRCS). Soil maps outline areas called map units. The map units are linked to soil properties in a database. Each map unit may contain one to three major components and some minor components.

**U.S. Fish & Wildlife Service Wetland Data****US WETLAND**

The U.S. Fish & Wildlife Service Wetland layer represents the approximate location and type of wetlands and deepwater habitats in the United States.

**USGS Current Topo****US TOPO**

US Topo topographic maps are produced by the National Geospatial Program of the U.S. Geological Survey (USGS). The project was launched in late 2009, and the term "US Topo" refers specifically to quadrangle topographic maps published in 2009 and later.

**USGS Geology****US GEOLOGY**

Seamless maps depicting geological information provided by the United States Geological Survey (USGS).

**USGS National Water Information System****FED USGS**

The U.S. Geological Survey (USGS)'s National Water Information System (NWIS) is the nation's principal repository of water resources data. This database includes comprehensive information of well-construction details, time-series data for gage height, streamflow, groundwater level, and precipitation and water use data.

**Wells from NWIS****FED USGS**

The U.S. Geological Survey's National Water Information System (NWIS) is the nation's principal repository of water resources data. The NWIS includes comprehensive information of well-construction details, time-series data for gage height, streamflow, groundwater level, and precipitation and water use data. This NWIS dataset contains select Site Types from the overall NWIS Sites data, limited to the following Group Site Types only: Groundwater Group Site Types: Well, Collector or Ranney type well, Hyporheic-zone well,

# Appendix

Interconnected Wells, Multiple wells; Spring Group Site Type: Spring; and Other Group Site Types: Aggregate groundwater use, Cistern.

## **State Sources**

### **Historic Well Construction Reports (1930-1989)**

A list of Historic Well Construction Reports, made available by the Wisconsin Geological and Natural History Survey (WGNHS). The data includes private wells drilled for drinking water use from 1936 to 1989 and was compiled from well construction reports (WCRs) that were submitted by well drillers to the Wisconsin Department of Natural Resources (DNR). Since 1936, well drillers are required by the Wisconsin Department of Natural Resources (DNR) to file a well construction report for the construction of any well used for drinking water.

**WATER WELLS**

### **Oil and Gas Wells**

As of WI state regulatory agencies, FracTracker Alliance - state of South Wisconsin confirmed not to have any active (drilled but not plugged) oil and gas wells.

**OGW**

### **Public Water Supply Systems**

The Department of Natural Resources, Bureau of Drinking Water and Groundwater maintains data about Wisconsin's drinking water and groundwater quality. The Bureau's Drinking Water System is to enforce the Safe Drinking Water Act (SDWA) regulations covering Public Water Systems (PWS).

**PWS**

### **Well Construction Report**

This is the list of Private Water Well data, maintained by Wisconsin Department of Natural Resources (DNR). The Data contains the private wells drilled for drinking water use, during 1988 to present.

**PRIVATE WW**

### **Well Inventory**

Groundwater Retrieval Network (GRN) database contains the list of well data, maintained by Wisconsin Department of Natural Resources. The Data covers the period from the early 1970s to present for the Public Water Supply data; 1988 to present for the Private Water Supply data; from the mid 1970s to present for the GEMS database; and from the mid 1970s to present for the SWAMP system.

**WELL**



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## **Appendix C**

Thaler Oil Company, Inc.

## Detail Report

Map Key	Number of Records	Direction	Distance (mi/ft)	Elev/Diff (ft)	Site	DB
<u>1</u>	1 of 1	ENE	0.08 / 431.55	1,101.63 / -31	THALER OIL COMPANY, INC. 807 JANICKI ROAD STANLEY WI 54729	TIER 2

<b>Facility ID:</b> 200309 <b>Facility Status:</b> ACTIVE <b>Facility Type:</b> Facility <b>NAICS:</b> 424710 <b>Company Name:</b> - <b>No of EHS More Than TPQ:</b> 0	<b>Country:</b> US <b>No of Chemicals:</b> 1 <b>No of EHS Chemicals:</b> 0 <b>Avg Daily Amt Unit:</b> lbs
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### Tier 2 Facilities Details

<b>CAS No:</b> 74986 <b>No of Days Onsite:</b> 365 <b>Max Daily Amount:</b> 203520 <b>Is Pure:</b> Yes <b>Is EHS:</b> No <b>Is Mix:</b> No <b>Is Solid State:</b> No <b>Is Liquid State:</b> Yes <b>Is Reactive Haz:</b> Yes <b>Is Immediate Haz:</b> No <b>Is Delayed Hazard:</b> No <b>Combustible Dust:</b> No <b>EHS Name:</b> <b>Chemical Name:</b> PROPANE <b>Sudden Release Pressure Haz:</b> Yes <b>Corrosive to Metal:</b> No <b>Gas Under Pressure:</b> Yes <b>Emission of Gas with Water:</b> No <b>Is Pyrophoric Liquid or Solid:</b> No <b>Is Germ Cell Mutagenicity:</b> No <b>Is Reproductive Toxicity:</b> No <b>Respiratory Skin Sensitize:</b> No <b>Serious Eye Damage Irritation:</b> No <b>Is Simple Asphyxiant:</b> No <b>Skin Corrosion or Irritation:</b> Yes <b>Specific Target Organ Toxic:</b> No	<b>Is Explosive:</b> No <b>Is Flammable:</b> Yes <b>Is Physical HNOC:</b> No <b>Organic Peroxide:</b> No <b>Is Oxidizer:</b> No <b>Is Pyrophoric Gas:</b> No <b>Is Self Heating:</b> No <b>Is Self Reactive:</b> No <b>Is Acute Toxicity:</b> No <b>Is Aspiration Haz:</b> No <b>Is Carcinogenic:</b> No <b>Is Health HNOC:</b> No
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## **Appendix D**

Buzz's Body Shop

## WDNR SHWIMS on the Web

Navigation: [SOTW Home](#) >> [Advanced Search](#) >> [Search Results](#) >> Location Detail

### BUZZS BODY SHOP Facility Name

<a href="#">HELP</a>				
General Information				
Facility Name			County	WDNR Region
BUZZS BODY SHOP			CHIPPEWA	WEST CNTRL
Facility Status	FID	EPA ID	SIC Code	NAICS Code
OPERATING	609023030	WID981191851		
Physical Address <a href="#">Find on Google Maps</a> <a href="#">Get Directions</a>		Municipality	State	Zip
RT 2 W MAPLE		STANLEY	WI	54768
Mailing Address		City	State	Zip
ROUTE 2 W MAPLE		STANLEY	WI	54768
Facility Owner Type	Public Land Survey System Desc.		Latitude and Longitude	
PRIVATE	NOT AVAILABLE		NOT AVAILABLE	

Facility Owner(s)
MYLON HALTERMAN ROUTE 2 W MAPLE STANLEY, WI 54768

Waste Management Activities at this Location		
Activity Type <a href="#">Click to view details</a>	Activity Status	License No.
HW GENERATOR - VERY SMALL	ACTIVE	N/A



The Official Internet site for the Wisconsin Department of Natural Resources  
101 S. Webster Street . PO Box 7921 . Madison, Wisconsin 53707-7921 . 608.266.2621

[dnr.wi.gov](http://dnr.wi.gov)

---

## **Appendix E**

Gene Gustafson Residence

To go back to your search results please click the back arrow  in the above Toolbar

## Tank Details

### Site and Owner

#### Site Info

Facility ID: 457883

Gene Gustafson

W Maple St

Stanley

Site Anniversary Date:

#### County & Municipality

Chippewa County

City of Stanley

Fire Dept ID: 0909

Dispenser Has Sumps: N

#### Owner

Gene Gustafson

W Maple St

Stanley

WI 54768

### Underground Storage Tank - ID: 32459, WANG ID: 090900050, Abandoned without Product as of 1975-01-01

<b>Install Date:</b>		<b>Capacity In Gallons:</b>	500	<b>Contents:</b>	Leaded Gasoline
<b>Tank Occupancy:</b>	Residential	<b>Marketer:</b>	N	<b>CAS Number</b>	
<b>Federally Regulated:</b>	No	<b>Spill Protection:</b>	Not Installed	<b>Overfill Protection:</b>	Not Installed
<b>Overfill Prot Type:</b>	Not Installed	<b>Containment Sump Installed:</b>	N	<b>Lining Inspected Date:</b>	
<b>Corrosion Protect Type:</b>		<b>Date Of Lining:</b>		<b>Underground Piping:</b>	Y
<b>Leak Detection:</b>		<b>Wall Type:</b>	Single		
<b>Leak Test Method:</b>					
<b>Construction Material:</b>	Coated Steel				

### PIPING - Abandoned without Product

<b>Flex Connectors:</b>	N	<b>UST Mainfolded:</b>	N	<b>Related Tank ID:</b>	118830
<b>Type:</b>	Piping (Storage Tank)	<b>Aboveground Piping:</b>	N	<b>Aboveground Pipe Cons:</b>	
<b>Construction Material:</b>	Unknown	<b>Corrosion Protect Type:</b>		<b>Leak Detection:</b>	Unknown
<b>Catastrophic Leak Detection:</b>				<b>Leak Test Method:</b>	
				<b>Pipe Wall Type:</b>	Single
				<b>Piping System Type:</b>	

### Inspection Test Dates

Test Type	Test Date	Test Expire Date



---

## **Appendix F**

L. Romanowski Corporation

# Tank Search Public Access

Number of matching records: 4

3/28/2023 9:41 AM

Tank Type	Tank ID	Facility ID	Street Address	Tank Status	Tank Contents	Tank Size (Gal)	Facility Owner
<b>County: Chippewa County, FDID: 0902</b>							
Underground Storage Tank	76896	<u>466131</u>	Rte 3	In Use	Leaded Gasoline	300	Kenneth Romanowski
<b>County: Chippewa County, FDID: 0909</b>							
Underground Storage Tank	71666	<u>463619</u>	Rte 2	In Use	Diesel	300	Jim Romanowski
<b>County: Chippewa County, FDID: 6004</b>							
Underground Storage Tank	75286	<u>416927</u>	N2118 Skyline Dr	In Use	Leaded Gasoline	300	Larry Romanowski
Underground Storage Tank	75292	<u>447090</u>	W17137 Cths	In Use	Leaded Gasoline	300	Dan Romanowski

---

## **Appendix G**

Sanborn Fire Map Information



—  
FIRE  
INSURANCE  
MAPS

**Project Property:** City of Stanley Industrial Park Development Project  
80th Ave  
Stanley WI 54768

**Project No:** CCEDC 22001

**Requested By:** CBS Squared, Inc

**Order No:** 23031400190

**Date Completed:** March 14, 2023

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**Please note that no information was found for your site or adjacent properties.**



# Wetland Delineation Report

Stanley Industrial Park  
City of Stanley  
Chippewa County, Wisconsin

June 2023

Prepared for:  
CBS Squared, Inc  
770 Technology Way  
Chippewa Falls, WI 54729

Prepared by:  
Ingraham Technical Services, Inc.  
19775 55th Avenue  
Chippewa Fall, WI 54729



# WETLAND DELINEATION CONFIRMATION REQUEST CHECK LIST

## WDNR WETLAND IDENTIFICATION PROGRAM

The following is the preferred order for all information provided in wetland delineation reports submitted for wetland confirmation. Please include this completed checklist with all wetland delineation report submittals. All of the following must be included with all wetland delineation reports that are submitted for confirmation:

- X      **Introductory Section**
  - Why the delineation was undertaken
  - Date the field work was completed
  - Who conducted field work
  - Qualifications
  
- X      **Methods used during the wetland delineation**
  - Description of methods
  - Sources Reviewed (WWI mapping, Soil Survey, etc.)
  - Description of any site specific agency guidance (site meetings, etc.)
  
- X      **Results and Discussion**
  - Antecedent hydrologic condition analysis
  - Previous wetland delineation mapping
  - Existing environmental mapping (WWI mapping, Soil survey, etc.)
  - Amount and types of wetland located within the project area
  - Discussion explaining how the wetland/upland boundary was differentiated
  - Disturbed and problematic areas encountered during the delineation
  - Other water resources located in the project area (navigable streams, etc.)
  
- X      **Topographic mapping** (Include map scale, clearly identified review area, a north arrow)
- X      **WWI mapping** (Include map scale, clearly identified review area, a north arrow)
- X      **Soil Survey mapping** (Include map scale, clearly identified review area, a north arrow)
- X      **Wetland Delineation Map** showing an accurate depiction of wetland boundaries and data points identified during field investigation (Include map scale, clearly identified review area, a north arrow)
- X      Complete, legible wetland delineation **data forms** from the appropriate regional supplement
- X      **Site photos**
- X      Any previous delineation information
- X      **Areas that are currently, or were recently (less than three years prior to the delineation) under agricultural production must include a Farm Service Agency (FSA) Slide Review.** All FSA Slide Reviews should include the following:
  - Copies or photos of slides if available
  - A completed wetland documentation form (NRCS form NRCS-CPA-32W)
  - A copy of the draft NRCS Wetland Inventory map if available
  
- X      **Literature Cited**

Please include this completed checklist with all wetland delineation report submittals.



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## **Introduction**

Ingraham Technical Services Inc of Chippewa Falls, Wisconsin (ITS) performed a wetland delineation for the CBS Squared Inc of Chippewa Falls, WI as part of the preliminary design for the Stanley Industrial Park project in Stanley, WI. The area of interest (AOI) for this delineation includes a roughly 82.4-acre parcel located at the intersection of 345<sup>th</sup> Street and State Highway 29 in the City of Stanley.

The AOI is located along the western edge of the City of Stanley, Chippewa County, Wisconsin. The property is owned by the City of Stanley (PIN# 22905-3411-00020002, PIN# 22905-3413-00020000A, PIN# 22905-3414-00020001). The AOI extends from the corner of the intersection of 345<sup>th</sup> Street and STH 29 on the southwest northward to 80<sup>th</sup> Street. The boundary of the AOI on the west, south and north is the road right-of-way (ROW) and did not include the roadside ditches. The boundary on the east is the parcel limits. The 40-acre parcel located northwest of the AOI was not included in the delineation (See Figures 1 - Project Location Map).

The purpose of this study was to investigate the subject properties, identify areas meeting the technical criteria for wetlands, delineate the jurisdictional extent of the wetland basin, and classify the wetland habitat. This report describes the methodology and results of the field delineation performed on May 17<sup>th</sup>-18<sup>th</sup>, 2023.

The wetland delineation was performed by Kerry Ingraham, Environmental Scientist/President with Ingraham Technical Services of Chippewa Falls, Wisconsin. Ms. Ingraham is a WDNR Assured Wetland Delineator.

## **Methods**

According to the US Army Corps of Engineers, wetlands are, “those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.” This wetland delineation followed methods outlined in the *Corps of Engineers Wetland Delineation Manual* (USACE 1987) and the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral Northeast Region* (Version 2.0) where the presence of a wetland is determined based on three hydric criteria - vegetation, soils, and hydrology. The boundary of a wetland is where these hydric criteria give way to upland features. The following offsite and field methods were used to complete this wetland delineation.

### Off Site Resource Review

Prior to completing the field investigation, documents were reviewed which provided information on soils, topography, and areas where wetlands have been identified or are likely to occur. These resources included but are not limited to maps of known and potential wetlands, soil and geologic surveys, topographic maps (2 ft. contour intervals if possible), water resources and floodplain maps, and historical aerial photographs.

Weather data was assembled and reviewed prior to the field investigation. An NRCS Antecedent Rainfall Documentation (ARD) was completed for the three months prior to the field investigation. Recent precipitation data (within 7 days) was also reviewed prior to the field investigation.

### Field Methods

The field investigation identified wetland and upland features within the project limits followed by the establishment of transects perpendicular to the wetland edge. The wetland boundary was determined in the field by identifying the presence/absence of hydrophytic vegetation, hydric soils and hydrology required to establish and support a wetland. The wetland boundary is where wetland features give way to upland features. The boundary was flagged and surveyed to within one meter for documentation.

A detailed description of the Off Site and Field Methods is included in Appendix F.

## **Results**

The results of the Offsite Resource Review and Field Investigation were used to delineate and classify the wetlands within the AOI. The following sections describe the results of these efforts.

### Site Description

The AOI is on the west side of the City of Stanley, Section 34 T29N R05W in Chippewa County Wisconsin. The area investigated was a rural, sparsely developed section of Stanley. Land use in the area is and has historically been agricultural. This area is proposed as a new industrial park. The AOI is bounded on the west and north by the ROW (33-ft from centerline) of 345<sup>th</sup> Street and 80<sup>th</sup> Avenue, respectively. The AOI extends to the adjacent parcel limits on the east and to the STH 29 ROW on the south. See Figure 1 – Site Location.

Recent use of the property has been for row crops. An historical farmstead is in the southwest corner of the AOI. An apparent wooded wet spot in the southeast area of the AOI is not used for crop production.

### Site Topography and Drainage

The topography in the vicinity of the subject properties is relatively flat with rolling hills. The topography of the AOI includes a linear hill at the west and central area with the highest point 1130 ft. The topography slopes away from the high point toward the north and east at 2-5 % before flattening at the edges of the AOI. The wooded wet area and an offsite wetland to the east are allocated in these flatter slope areas. The low points of the AOI are located along the north and east at an elevation of approximately 1095 ft. (see Figure 2 - Topography).

Drainage in the AOI flows by sheet flow and/or is captured by a shallow grass-lined swales that convey drainage downslope from the top of the hill. Drainage toward the southeast includes a swale the discharges into the wooded wet area and offsite toward the east. A second drainage swale runs from the central part of the AOI east to an offsite wet area. Drainage toward the north flows by sheet flow (no swale) to a flat area prior to discharging to a culvert along 80<sup>th</sup> Avenue.

The surface water drainage from the AOI is conveyed north through wetlands toward the low-lying valley. The wet area drains into an unnamed stream (Wisconsin Body Identification Code (WBIC) 2146900) The drainage toward the south and east flows through wet areas to an unnamed stream (WBIC 2147000). Both unnamed streams flow into the Wolf River (WBIC 2146000). The drainage system extends south into the North Fork Eau Claire River, LC17 watershed. The AOI is not in the floodplain of any waterbody according to the Flood Hazard Zone Map review.

### Historical Aerial Photograph Review:

A review of historical aerial photographs was completed to gain an understanding of the historical changes to land use, topography, drainage, or other factors influencing the presence of wetlands. The property has historically been used for agricultural purposes. Accordingly, each photograph was reviewed for the presence of wet signatures in general accordance with USACE Guidance July 1, 2016. Crop signatures of potential wetland hydrology were identified for further evaluation in the field. Aerial photographs from 1938, 1999, 2005, 2010, 2016 and 2019 were reviewed.

The 1938 photograph showed the entire AOI was used for agricultural purposes. The remainder of the photographs confirm that the AOI was used for agricultural purposes until the present. The primary farmstead was in the southwest corner of the AOI, Contour farm methods were used in some years to minimize the erosion from the fields. Grassed drainage swales were left fallow in two locations in the AOI. These swales flow toward the east and discharge into wetlands either onsite (wooded wet area) or offsite along the eastern project limits. Areas near the apparent wetlands show agricultural signatures of wetland hydrology or were left fallow.

The photographs were reviewed for indications of potential indicators of wetland hydrology. Areas identified included the following. All areas were reviewed onsite during the field investigation (See Figure 5):

- Drainage swales flowing east toward wet areas.
- Areas adjacent to mapped wetlands, typically at the toe of the steeper slopes of the agricultural field.
- Areas of the flatter topographic relief exhibiting wet signatures in one or more photographs.

#### Wetland Inventory Map Review:

The Wisconsin Wetland Inventory (WWI) Map (Figure 3) was reviewed to identify the presence of mapped wetlands, wetland indicators and hydric soils on or in the vicinity of the AOI.

The WWI Map identifies two wetlands within the AOI. A T3K is positioned at the foot slope of a drainage swale on the southeast border of the AOI. Hydric soil Cb lies within the borders of the mapped wetland on three sides, extending beyond the wetland and AOI to the southeast

The second mapped wetland is a S3/E1K. It is positioned along the eastern boundary of the AOI, midway between the north and south project limits. Only a small portion of this mapped wetland lies within the AOI.

#### Soils Map Review:

The Chippewa County Soil Survey Map (Figure 4) indicate the following four soil series present within the AOI:

Cb – Capitola-Cabana complex, 0 to 2 percent slopes, very stony. This soil is present in a small area on the southeast border of the AOI, extending southeast beyond the AOI. This soil series is poorly drained to very poorly drained and is listed on the Wisconsin Hydric Soil List as WI Predominantly Hydric.

LoC2 – Loyal silt loam, 6 to 12 percent slopes. This soil surrounds the Capitola-Cabana soil in the southeast corner of the AOI that is actively cropped. This soil series is moderately well drained and is listed on the Wisconsin Hydric Soil List as WI Nonhydric.

SrB – Spencer silt loam, 2 to 6 percent slopes. This soil is formed on ground moraines and is identified in the northern half of the AOI. This soil series is moderately well drained and is listed on the Wisconsin Hydric Soil List as WI Nonhydric.

WeB – Withee silt loam, 0 to 3 percent slopes. This soil is formed on ground moraines and is the most prevalent soil within the AOI. This soil series is somewhat poorly drained and is listed on the Wisconsin Hydric Soil List as WI Predominantly Nonhydric.

#### Climate Data Summary:

An antecedent precipitation evaluation was conducted for the three months prior to the field investigation (Feb-April 2023). The results of an NRCS Antecedent Rainfall Documentation (ARD) evaluation using the Chippewa Valley Regional Airport weather station WETS data indicated conditions were Wetter than normal.

The Palmer Drought Index indicates hydrological conditions were Mid-range (-1.99 to +1.99) just prior to the site visit. In addition to the ARD and Palmer Index, the precipitation data just prior to the field investigation was reviewed. It appears that the precipitation in early May (within 14 days of the field visit) was Normal, trending toward Dry. (Appendix B).

Based on review of all meteorological data, climatic/hydrologic conditions were considered Normal at the time of the field investigation.

### **Field Investigation Results**

Results of the offsite review, topographical position, observations of hydrophytic vegetation, soils and hydrology indicators, or lack thereof, along with best professional judgment were all used to identify wetlands versus upland in the AOI. Four wetland basins were identified in the AOI. The following section describes the four wetland basins and the basis for determining the wetland boundaries. See Table 1 (below), Appendix A for Wetland Delineation Data Forms, Wetland Delineation Map (Figure 5), and site photographs (Appendix D).

All landscape alterations within the AOI are associated with historic agricultural use. These alterations were conducted under normal farming practices and therefore, the AOI was considered to have normal circumstances. Topographical position, review of historical and recent aerial photographs, observation of soil and hydrology indicators (or lack thereof), along with best professional judgement were all used to identify the wetland boundary.

**Table 1 – Wetland Classification**

Wetland No.	Size (Sq. ft.)	WWI Classification	Cowardin Classification	Fish & Wildlife Service Circular 39	Basic Guide to Wisconsin Wetlands and Their Boundaries
1	17,500	E1K	PEM1C	Type 1: Seasonally flooded basin or flat	Fresh (Wet) Meadow
2	39,000	T3K	PFO1C	Type 7: Wooded Swamp	Lowland Hardwood Swamp
3	10,750	S3/E1K	PSS1/EM1C	Type 6: Shrub Swamp/Type 1: Seasonally Basin or Flat.	Shrub-Carr/Fresh (Wet) Meadow
4	5000	E1K	PEM1C	Type 1: Seasonally flooded basin or flat	Fresh (Wet) Meadow

\*Wetland size refers only to the AOI; wetlands may extend outside the AOI

WWI Definitions:

E1K – Emergent/Wet Meadow (E); Persistent (1); Wet soil, Palustrine (K)  
 S3K – Scrub/Shrub (S); Broad-leaved, deciduous (3); Wet soil, Palustrine (K)  
 T3K – Forested; Broad-leaved, deciduous (3); Wet soil, Palustrine (K)

Cowardin Definitions:

PEM1C – Palustrine (P), Emergent (EM), Persistent (1), Seasonally Flooded (C)  
 PSS1 – Palustrine (P); Scrub-shrub (SS); Broad-leaved, deciduous (1), Seasonally Flooded (C)  
 PFO1C - Palustrine (P); Forested (FO); Broad-leaved, deciduous (1), Seasonally Flooded (C)

**Wetland 1 (E1K)**

Wetland 1 is in a depression on the footslope of a hillslope in an agricultural field. It includes the ditch at the base of the road slope. The Wetland Map (figure 3) does not identify a mapped wetland in this location. A large rectangular area appeared to have been sprayed with herbicide. The dead dominant vegetation was reed canary grass (*Phalaris arundinacea* – FACW). The road slope ditch was not sprayed with herbicide and was dominated by reed canary grass. Vegetation was significantly disturbed therefore it did not meet the technical criteria for hydrophytic vegetation. The wetland continues to the east outside the AOI.

Supporting documentation of field observations are found in Appendix A on data sheets labeled Sample Points (SP) 1-wet and SP 1-up.

Soils consisted of silty loam underlain by silty clay loam. Soils met the technical criteria for hydric soil indicators A11 – Depleted Below Dark Surface and F3 – Depleted Matrix.

Primary wetland hydrology indicators were high water table (A2) and saturation (A3). There was one secondary wetland hydrology indicator, geomorphic position (D2). Water table was encountered at 10 inches below ground surface. Saturation was observed at 8 inches below ground surface. The wetland sample point met wetland hydrology criteria.

The wetland sample point did not meet the criteria for hydrophytic vegetation due to the vegetation being significantly disturbed but did meet wetland criteria for hydrophytic soil and wetland hydrology therefore, the wetland sample point met wetland criteria.

The Upland sample point (SP 1-up) is upslope to the west of SP 1-wet. No live vegetation was present (same as SP 1-wet). The dead dominant vegetation was reed canary grass and foxtail. Vegetation was significantly disturbed and therefore, did not meet the technical criteria for hydrophytic vegetation. Soils did not meet the technical criteria for a hydric soil indicator. No primary or secondary hydrology indicators were observed.



Saturation nor water table were encountered. The upland sample point did not meet the technical criteria for hydrophytic soil or wetland hydrology therefore, the upland sample point did not meet wetland criteria.

### **Wetland 2 (T3K)**

Wetland 2 is a wooded wetland in a depression on the footslope of a hillslope. The Wetland Map (Figure 3) shows this wetland as an isolated wetland, but field verification proved Wetland 2 (T3K) to be hydrologically connected to Wetland 1. Surface water flows from a drainage swale upslope to the west into the wetland and downslope to the east into Wetland 1.

Supporting documentation of field observations are found in Appendix A on data sheets labeled sample points (SP) 2-wet, 2.1-up, and 2.2-up.

Dominant vegetation in the tree stratum was white oak (*Quercus alba* – FACU) and American elm (*Ulmus americana* – FACW). Dominated vegetation in the shrub stratum was black cherry (*Prunus serotina* – FACU), buckthorn (*Rhamnus cathartica* – FAC), and Missouri gooseberry (*Ribes missouriense* – NI). Dominant vegetation in the herb layer was Virginia waterleaf (*Hydrophyllum virginianum* – FAC) and stinging nettle (*Urtica dioica* – FACW). Hydrophytic vegetation criteria was met with the Dominance Test.

Soils consisted of 10 inches of dark silty loam underlain by at least 12 inches of light gray silty loam with a depleted matrix. Soils met the technical criteria for hydric soil indicators A11 – Depleted Below Dark Surface and F3 – Depleted Matrix.

There was one primary wetland hydrology indicator, saturation (A3) and one secondary wetland hydrology indicator, geomorphic position (D2). Water table was encountered at 15 inches below ground surface. Saturation was observed at 12 inches below ground surface. The wetland sample point met wetland hydrology criteria.

The wetland sample point met the technical criteria for hydrophytic vegetation, hydrophytic soil and wetland hydrology therefore, the wetland sample point met wetland criteria.

Two upland sample points were taken (SP 2.1-up, SP 2.2-up). SP 2.1-up is located on the north side of the wetland where the cropped field meets the woodland. The field was planted in winter rye. The sample point is in a very shallow depression where the vegetation was sparse and appeared to have been washed out by heavy rainfall. Soil cracks were observed. SP 2.2-up is in a drainage swale west of the wetland. Historic aerial photographs show the drainage swale has never been plowed or planted.

Hydrophytic vegetation criteria was not met at SP 2.1-up due to it being significantly disturbed but was met at SP 2.2-up with reed canary grass being the dominant vegetation (*Phalaris arundinacea* – FACW) in the drainage swale. Soils did not meet the technical criteria for a hydric soil indicator. No primary or secondary hydrology indicators were observed. Saturation nor water table were encountered. Although SP 2.2-up met the criteria for hydrophytic vegetation and SP 2.1-up did not, neither sample point met wetland criteria for hydrophytic soil or wetland hydrology therefore, the upland sample points did not meet wetland criteria.

### **Wetland 3 (S3/E1K)**

Wetland 3 is located on the eastern border, midway between the northern and southern border of the AOI. The Wetland Map (Figure 3) identifies this wetland as an isolated wetland. Only a small portion of the wetland lies within the AOI with the majority extending southeast, outside the AOI.

The wetland is in a cropped field positioned in a depression on the toeslope of a hillslope. Vegetation was significantly disturbed as it is a cropped field currently planted in winter rye. Therefore, the vegetation did not meet the technical criteria for hydrophytic vegetation. The crop was thin and washed out on the slope in and around the wetland border with surface soil cracks present. Downslope to the southeast, the field was left unplowed/unplanted and had deep tire ruts in the soil. Corn stubble remained from last year showing the soil had recently supported a crop. An herbicide application appeared to have been applied possibly last fall as

there was a distinct line of live and dead vegetation. The vegetation was dominated by reed canary grass (*Phalaris arundinacea* – FACW).

Supporting documentation of field observations are found in Appendix A on data sheets labeled sample points (SP) 3-wet, 3.1-wet and 3.2-up.

Soils consisted of 10 inches of dark silty loam underlain by at least 12 inches of light gray silty loam with a depleted matrix. Soils met the technical criteria for hydric soil indicators A11 – Depleted Below Dark Surface and F3 – Depleted Matrix.

SP 3-wet had no primary wetland hydrology indicators. Two secondary wetland hydrology indicators were met with surface soil cracks (B6) and geomorphic position (D2). Neither saturation nor water table observed. The wetland sample point met wetland hydrology criteria.

Two upland sample points were taken (SP 3.1-up, SP 3.2-up). SP 3.1-up is in the cropped field northwest of SP 3-wet. The field was planted in winter rye. The sample point is on an approximate 5 percent slope where the vegetation was sparse and appeared to have been washed out by heavy rainfall. Soil cracks were observed. SP 3.2-up is in a drainage swale west of the wetland. As with SP 2.2-up, historic aerial photographs show the drainage swale at SP 3.2-up has never been plowed or planted.

Hydrophytic vegetation criteria was not met at SP 3.1-up due to it being significantly disturbed but was met at SP 3.2-up with reed canary grass being the dominant vegetation (*Phalaris arundinacea* – FACW) in the drainage swale. Soils did not meet the technical criteria for a hydric soil indicator. No primary or secondary hydrology indicators were observed. Saturation nor water table were encountered. Although SP 3.2-up met the criteria for hydrophytic vegetation and SP 3.1-up did not, neither upland sample point met wetland criteria for hydrophytic soil or wetland hydrology therefore, the upland sample points did not meet wetland criteria.

#### **Wetland 4 (E1K)**

Wetland 4 is in a shallow depression on the northwest border of the AOI west of the entrance to the field. The Wetland Map (figure 3) does not identify a mapped wetland in this location. A cropped planting of winter rye dominated the plowed field portion of the wetland and reed canary grass (*Phalaris arundinacea* – FACW) dominated the unplowed portion adjacent to the road ditch in the road right of way. The wetland continues into the road ditch outside the AOI.

Supporting documentation of field observations are found in Appendix A on data sheets labeled Sample Points (SP) 4-wet and SP 4-up.

SP 4-wet is in the unplowed area of the wetland adjacent to the road ditch. Dominant vegetation was reed canary grass (*Phalaris arundinacea* – FACW) which met the technical criteria for hydrophytic vegetation.

Soils at SP 4-wet consisted of 8 inches of dark silty loam underlain by at least 14 inches of silty loam and silty clay loam with a depleted matrix. Soils met the technical criteria for hydric soil indicator F3 – Depleted Matrix.

SP 4-wet had no primary wetland hydrology indicators. Three secondary wetland hydrology indicators were met with surface soil cracks (B6), geomorphic position (D2), and FAC-neutral test (D5). Neither saturation nor water table observed. The wetland sample point met wetland hydrology criteria.

The wetland sample point met the technical criteria for hydrophytic vegetation, hydrophytic soil and wetland hydrology therefore, the wetland sample point met wetland criteria.

The upland sample point (SP 4-up) is in the cropped field upslope to the south of SP 4-wet. Vegetation was significantly disturbed due to cropping. Hydrophytic vegetation criteria was not met at SP 4-up due to it being significantly disturbed. Soils consisted of silty loam underlain by silty clay loam. Soils at SP 4-up did not meet the technical criteria for a hydric soil indicator. No primary hydrology indicators were observed. There was one secondary hydrology indicator, surface soil cracks (B6). Saturation nor water table were encountered. The

upland sample point did not meet the technical criteria for hydrophytic vegetation, hydric soil, or wetland hydrology therefore, the upland sample point did not meet wetland criteria.

### **Regulatory Considerations**

Kerry Ingraham, Environmental Scientist/President with Ingraham Technical Services is a WDNR Assured Wetland Delineator. A letter describing her authority and the use of this report under the Wetland Delineation Professional Assurance Program is provided in Appendix F.

Wetlands in the project area are regulated by agencies at the local, state, and federal levels including the USACE and USEPA at the federal level and the WDNR at the state level. The findings of this wetland delineation report are based on the site conditions which existed at the time of this investigation and may not be valid if conditions change. Wetland boundaries presented in this report may be subject to confirmation by the WDNR and potentially USACE (depending on jurisdiction). The final authority for wetland boundaries and permit requirements is regulated by the government agencies which have jurisdiction over this project. Construction plans that propose any direct alteration or indirect impact to wetlands or watercourses within the project area will require approvals from the appropriate regulatory agencies (potentially including local zoning requirements). Violation of the wetland regulations can result in substantial civil and/or criminal penalties.

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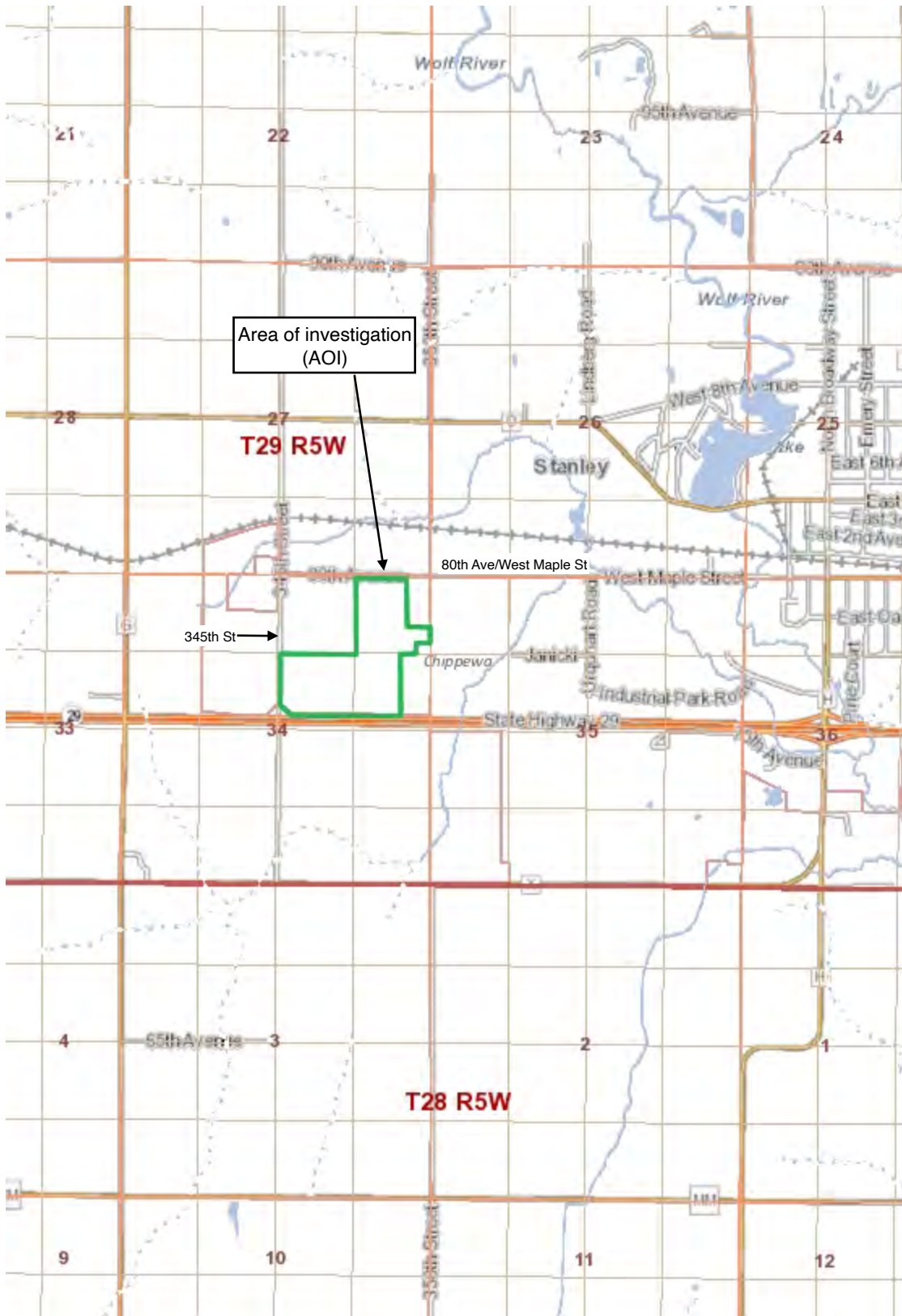
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Figure 6B	Wetland 3 Delineation Map
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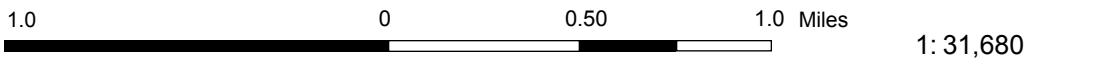


# Project Location Map **Figure 1**



**Legend**

- Township
- Section
- Quarter-Quarter
- County Boundary
- Cities, Towns & Villages**
- City
- Village
- Civil Town
- Municipality
- State Boundaries
- County Boundaries
- Major Roads**
- Interstate Highway
- State Highway
- US Highway
- County and Local Roads**
- County HWY
- Local Road
- Railroads
- Tribal Lands
- Rivers and Streams
- Intermittent Streams
- Lakes and Open water



NAD\_1983\_HARN\_Wisconsin\_TM

DISCLAIMER: The information shown on these maps has been obtained from various sources, and are of varying age, reliability and resolution. These maps are not intended to be used for navigation, nor are these maps an authoritative source of information about legal land ownership or public access. No warranty, expressed or implied, is made regarding accuracy, applicability for a particular use, completeness, or legality of the information depicted on this map. For more information, see the DNR Legal Notices web page: <http://dnr.wi.gov/legal/>

**Notes**

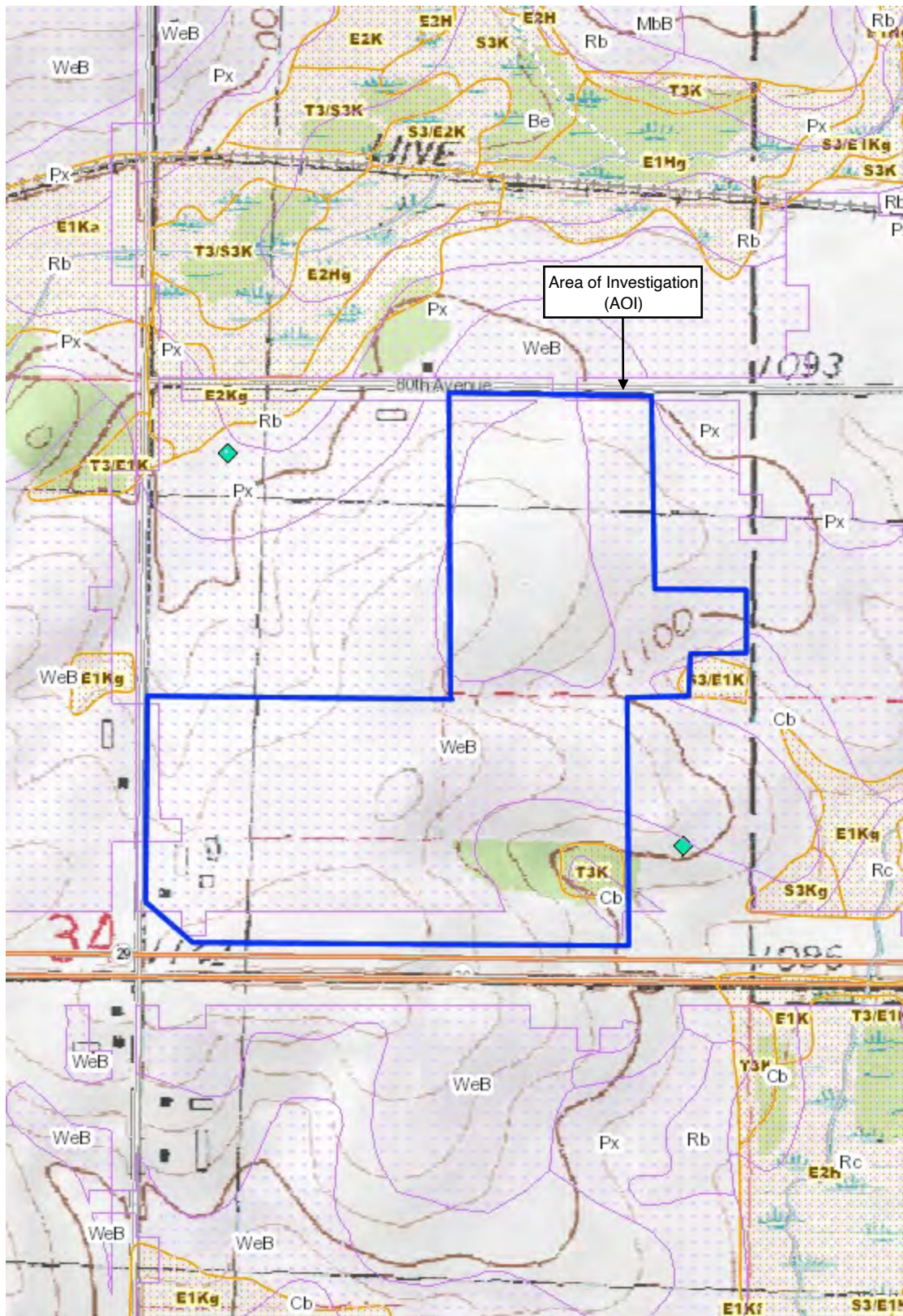
City of Stanley  
 Chippewa County, WI  
 Section 34, T29N, R5W





# Topographic Map (with Wetland and Wetland Indicators)

## Figure 2



### Legend

- Wetland Indicators
- Wetland Class Areas
- Wetland Class Points**
- Dammed pond
- Excavated pond
- Filled/draind wetland
- Wetland too small to delineate
- Filled excavated pond
- Filled Points
- Wetland Class Areas
- Filled Areas
- Wetland Class Areas
- Wetland Class Points**
- Dammed pond
- Excavated pond
- Filled/draind wetland
- Wetland too small to delineate
- Filled excavated pond
- Filled Points
- Wetland Class Areas
- Filled Areas
- Wetland Identifications and Confirmations
- NRCS Wetspots
- Municipality
- State Boundaries
- County Boundaries
- Major Roads**
- Interstate Highway
- State Highway
- US Highway
- County and Local Roads**
- County HWY
- Local Road
- Railroads
- Tribal Lands
- Rivers and Streams
- Intermittent Streams

0.3 0 0.13 0.3 Miles

1:7,920

NAD\_1983\_HARN\_Wisconsin\_TM

DISCLAIMER: The information shown on these maps has been obtained from various sources, and are of varying age, reliability and resolution. These maps are not intended to be used for navigation, nor are these maps an authoritative source of information about legal land ownership or public access. No warranty, expressed or implied, is made regarding accuracy, applicability for a particular use, completeness, or legality of the information depicted on this map. For more information, see the DNR Legal Notices web page: <http://dnr.wi.gov/legal/>

### Notes

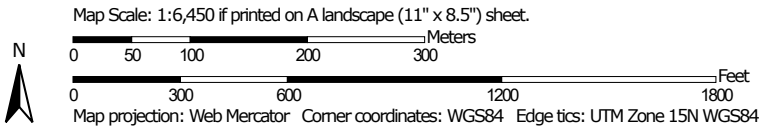
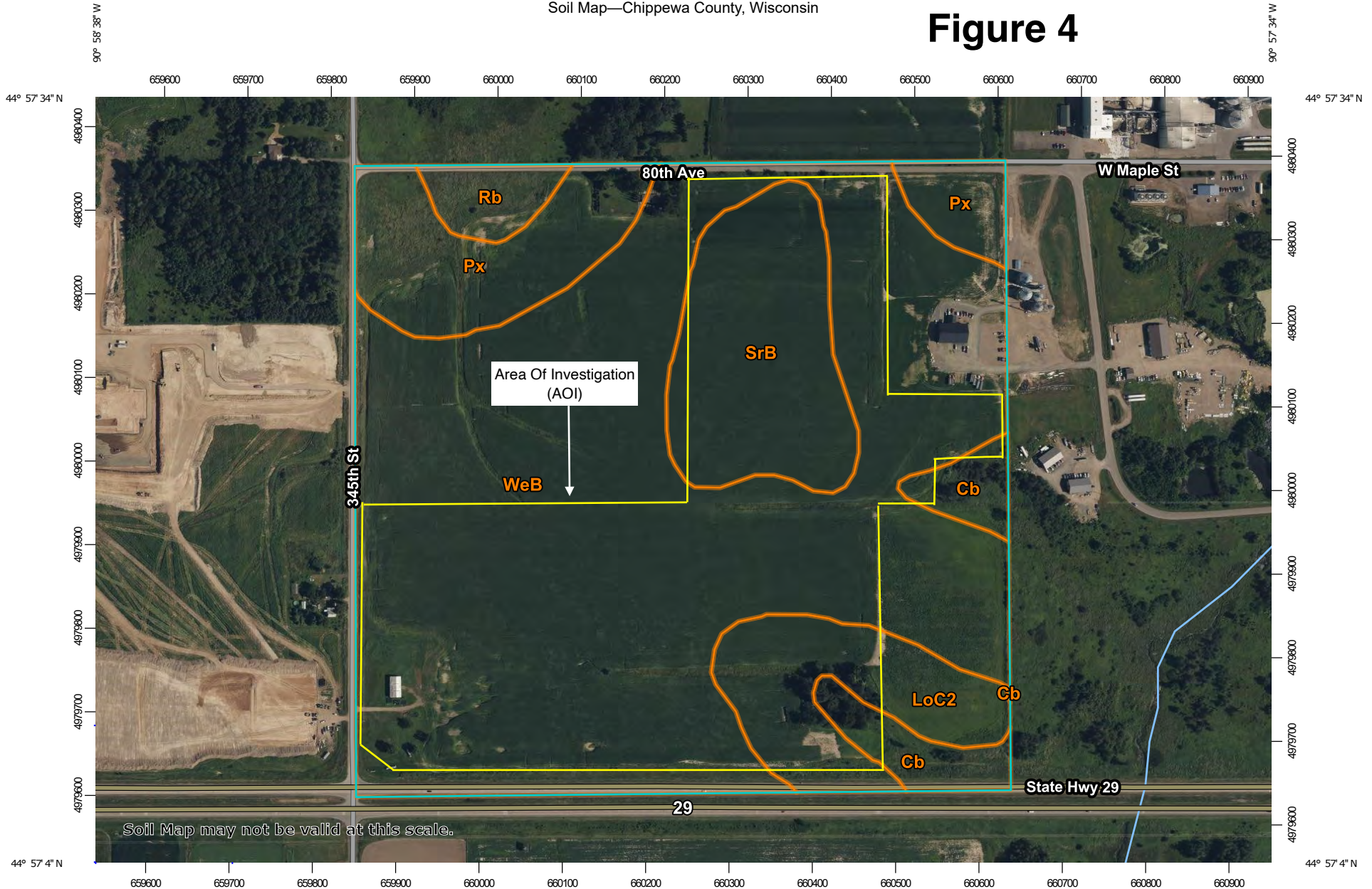
City of Stanley  
Chippewa County, WI  
Section 34, T29N, R5W








# Figure 4






## MAP LEGEND

### Area of Interest (AOI)

 Area of Interest (AOI)




















### Soils







 Soil Map Unit Polygons

 Soil Map Unit Lines


 Soil Map Unit Points

### Special Point Features






-  Blowout
-  Borrow Pit
-  Clay Spot
-  Closed Depression
-  Gravel Pit
-  Gravelly Spot
-  Landfill
-  Lava Flow
-  Marsh or swamp
-  Mine or Quarry
-  Miscellaneous Water
-  Perennial Water
-  Rock Outcrop
-  Saline Spot
-  Sandy Spot
-  Severely Eroded Spot
-  Sinkhole
-  Slide or Slip
-  Sodic Spot

-  Spoil Area
-  Stony Spot
-  Very Stony Spot
-  Wet Spot
-  Other
-  Special Line Features


### Water Features

 Streams and Canals

### Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads
-  Local Roads

### Background

 Aerial Photography

## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

**Warning:** Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
 Web Soil Survey URL:  
 Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Chippewa County, Wisconsin  
 Survey Area Data: Version 19, Sep 15, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 21, 2022—Sep 13, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
Cb	Capitola-Cebana complex, 0 to 2 percent slopes, very stony	5.7	3.9%
LoC2	Loyal silt loam, 6 to 12 percent slopes	11.4	7.8%
Px	Poskin silt loam, 0 to 2 percent slopes	14.4	9.8%
Rb	Rib silt loam, 0 to 2 percent slopes	3.0	2.0%
SrB	Spencer silt loam, 2 to 6 percent slopes	16.0	10.9%
WeB	Withee silt loam, 0 to 3 percent slopes	96.1	65.6%
<b>Totals for Area of Interest</b>		<b>146.6</b>	<b>100.0%</b>

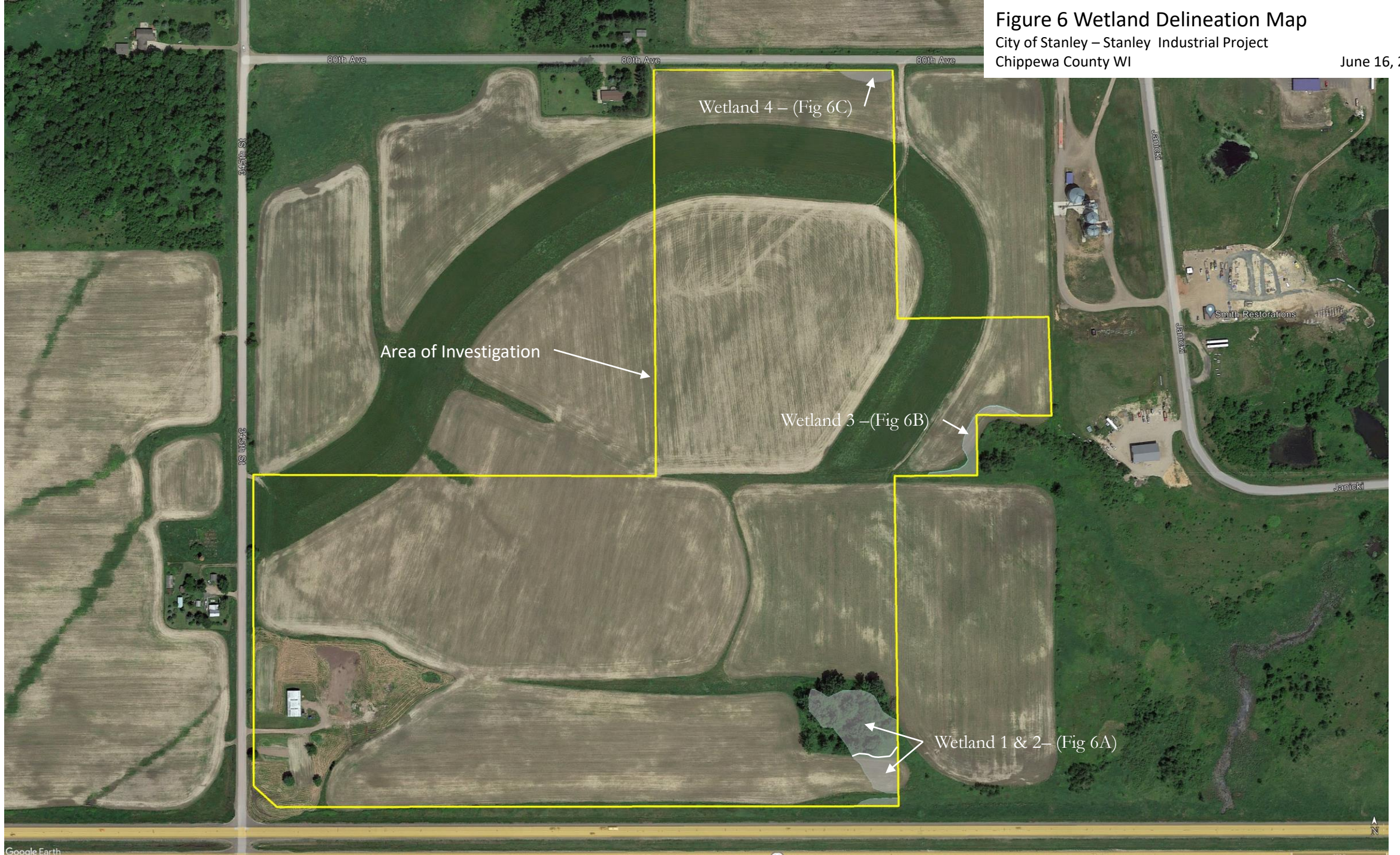


Figure 5 Wetland Hydrology Features  
City of Stanley – Stanley Industrial Project  
Chippewa County WI

May 2023









# Figure 6A Wetland 1 & 2 Delineation Map

City of Stanley – Stanley Industrial Project  
Chippewa County WI

June 16, 2023





# Figure 6B Wetland 3 Delineation Map

City of Stanley – Stanley Industrial Project

Chippewa County WI

June 16, 2023

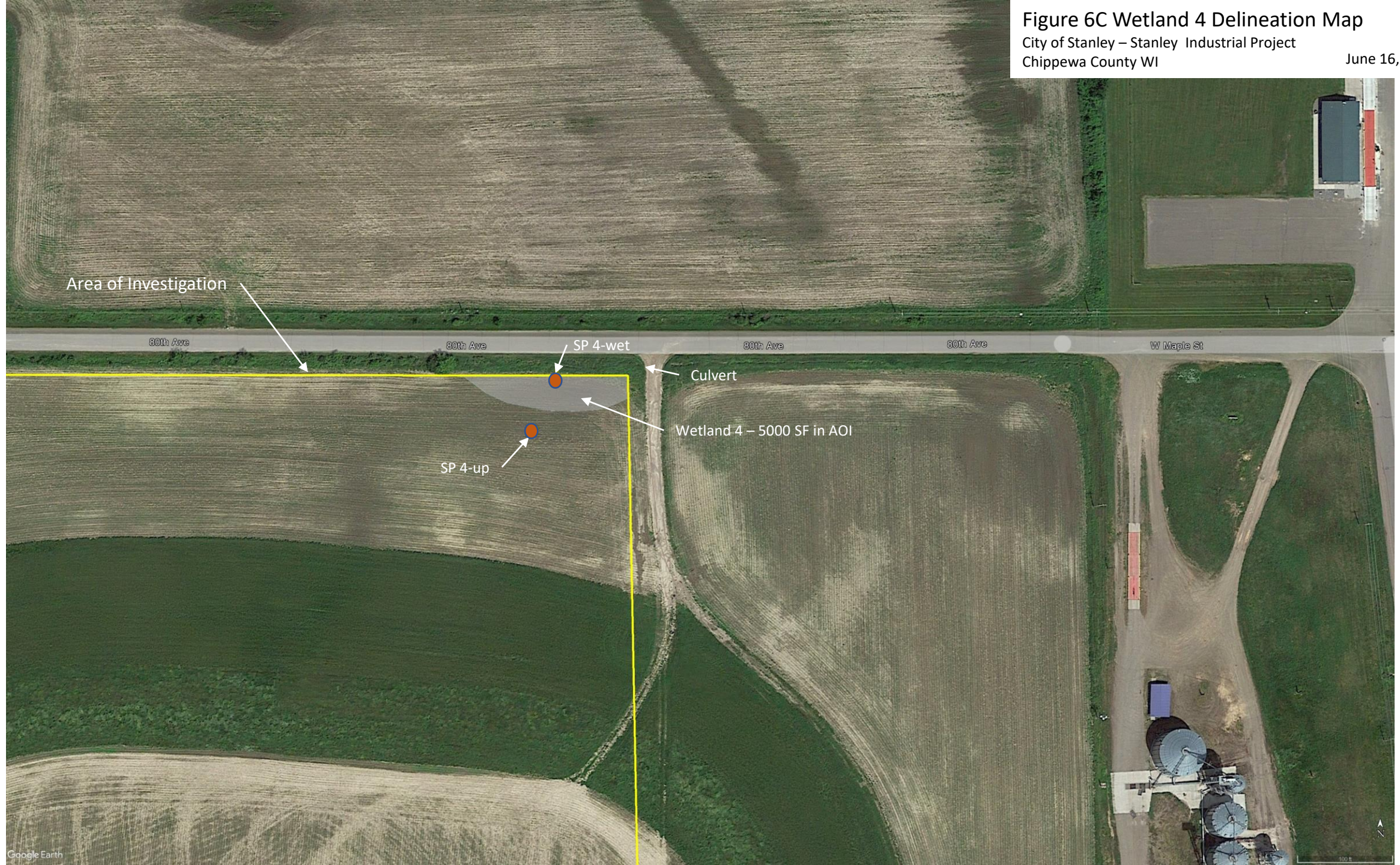




# Figure 6C Wetland 4 Delineation Map

City of Stanley – Stanley Industrial Project  
Chippewa County WI

June 16, 2023



Area of Investigation

80th Ave

80th Ave

SP 4-wet

80th Ave

80th Ave

W Maple St

Culvert

Wetland 4 - 5000 SF in AOI

SP 4-up



# **Appendix A**

Wetland Delineation Data Forms



## WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Stanley Industrial Park City/County: Chippewa County Sampling Date: 5/17/23  
 Applicant/Owner: Neil Bowe, CBS Squared, Inc State: WI Sampling Point: 1-wet  
 Investigator(s): Kerry Ingraham Section, Township, Range: Section 34, T29N, R5W  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave  
 Slope (%): 5 Lat.: \_\_\_\_\_ Long.: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Capitola-Cabana complex, 0 to 2 percent slopes, very stony (Cb) NWI Classification: E1K  
 Are climatic/hydrologic conditions of the site typical for this time of the year? YES (If no, explain in remarks)  
 Are vegetation X, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? circumstances" present? Yes  
 (If needed, explain any answers in remarks)

### SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>    N    </u> Hydric soil present? <u>    Y    </u> Indicators of wetland hydrology present? <u>    Y    </u>	<b>Is the sampled area within a wetland?</b> <u>    Y    </u>  If yes, optional wetland site ID <u>    Wetland 1    </u>
Remarks: (Explain alternative procedures here or in a separate report.) Wetland 1 is in a depression on the toeslope of a hillslope in an agricultural field. It includes the road slope ditch. Vegetation was significantly disturbed. A large rectangular area appeared to have been sprayed with herbicide. The dead dominant vegetation was reed canary grass. The wetland continues to the east outside the AOI.	

### HYDROLOGY

<b>Primary Indicators</b> (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Roots (C3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils <input type="checkbox"/> Inundation Visible on Aerial Imagery <input type="checkbox"/> (C6) <input type="checkbox"/> (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Sparsely Vegetated Concave Surface <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> (B8)	<b>Secondary Indicators</b> (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4)
<b>Field Observations:</b> Surface water present? Yes <u>    </u> No <u>    X    </u> Depth (inches): _____ Water table present? Yes <u>    X    </u> No <u>    </u> Depth (inches): <u>    10    </u> Saturation present? Yes <u>    X    </u> No <u>    </u> Depth (inches): <u>    8    </u> (includes capillary fringe)	<b>Indicators of wetland hydrology present?</b> <u>    Y    </u>
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: See Photos: 1-3	



**SOIL**

**Sampling Point:** 1-wet

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-4	10YR 4/2	60					sily loam	
	10YR 3/2	40						
4-10	10YR 3/2	95	7.5YR 3/4	5	C	M	silty clay loam	distinct concentrations
10-22	10YR 5/2	80	7.5YR 4/6	20	C	M	silty clay loam	prominent concetrations

\*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

\*\*Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (**LRR R, MLRA 149B**)
- Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- Loamy Mucky Mineral (F1) (**LRR K, L**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils:**

- 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- Coast Prairie Redox (A16) (**LRR K, L, R**)
- 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- Dark Surface (S7) (**LRR K, L**)
- Polyvalue Below Surface (S8) (**LRR K, L**)
- Thin Dark Surface (S9) (**LRR K, L**)
- Iron-Manganese Masses (F12) (**LRR K, L, R**)
- Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

\*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):  
 Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric soil present?**   Y  

Remarks:



## WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Stanley Industrial Park City/County: Chippewa County Sampling Date: 5/17/23  
 Applicant/Owner: City of Stanley State: WI Sampling Point: 1-up  
 Investigator(s): Kerry Ingraham Section, Township, Range: Section 34, T29N, R5W  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): linear  
 Slope (%): 5 Lat.: \_\_\_\_\_ Long.: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Loyal silt loam, 6 to 12 percent slopes (LoC2) NWI Classification: none  
 Are climatic/hydrologic conditions of the site typical for this time of the year? YES (If no, explain in remarks)  
 Are vegetation X, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? circumstances" present? Yes  
 (If needed, explain any answers in remarks)

### SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>    N    </u> Hydric soil present? <u>    N    </u> Indicators of wetland hydrology present? <u>    N    </u>	<b>Is the sampled area within a wetland?</b> <u>    N    </u>  If yes, optional wetland site ID _____
Remarks: (Explain alternative procedures here or in a separate report.) SP 1-up is in an agricultural field upslope from Wetland 1 and SP 1-wet. Vegetation was significantly disturbed. A large rectangular area appeared to have been sprayed with herbicide. The dead dominant vegetation was reed canary grass and foxtail. See Photos: 1-3	

### HYDROLOGY

<b>Primary Indicators</b> (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<b>Secondary Indicators</b> (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4)
<b>Field Observations:</b> Surface water present? Yes _____ No <u>    X    </u> Depth (inches): _____ Water table present? Yes _____ No <u>    X    </u> Depth (inches): _____ Saturation present? Yes _____ No <u>    X    </u> Depth (inches): _____ (includes capillary fringe)		<b>Indicators of wetland hydrology present?</b> <u>    N    </u>
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**SOIL**

**Sampling Point:** 1-up

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-6	10YR 3/2						sily loam	
6-12	10YR 3/1	99	7.5YR 4/4	1	C	M	sily loam	
12-18	10YR 5/1	95	7.5YR 5/4	5	D	M	silty clay loam	
18-22	10YR 5/1	90	7.5YR 5/4	10	D	M	silty clay loam	

\*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

\*\*Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (**LRR R, MLRA 149B**)
- Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- Loamy Mucky Mineral (F1) (**LRR K, L**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils:**

- 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- Coast Prairie Redox (A16) (**LRR K, L, R**)
- 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- Dark Surface (S7) (**LRR K, L**)
- Polyvalue Below Surface (S8) (**LRR K, L**)
- Thin Dark Surface (S9) (**LRR K, L**)
- Iron-Manganese Masses (F12) (**LRR K, L, R**)
- Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

\*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):  
 Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric soil present?**   N  

Remarks:



## WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Stanley Industrial Park City/County: Dunn county Sampling Date: 5/17/2023  
 Applicant/Owner: City of Stanley State: WI Sampling Point: 2-wet  
 Investigator(s): Kerry Ingraham Section, Township, Range: Section 34, T29N, R5W  
 Landform (hillslope, terrace, etc.): depression on footslope Local relief (concave, convex, none): concave  
 Slope (%): 3 Lat.: \_\_\_\_\_ Long.: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Capitola-cebana complex, 0 to 2 percent slopes, very stony (Cb) NWI Classification: T3K  
 Are climatic/hydrologic conditions of the site typical for this time of the year? YES (If no, explain in remarks)  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? circumstances" present? Yes  
 (If needed, explain any answers in remarks)

### SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Indicators of wetland hydrology present? <u>Y</u>	<b>Is the sampled area within a wetland?</b> <u>Y</u>  If yes, optional wetland site ID <u>Wetland 2</u>
Remarks: (Explain alternative procedures here or in a separate report.) Wetland 2 is a wooded wetland in a depression on a footslope of a hillslope. Surface water flows from a drainage swale upslope to the west into the wetland and downslope to the east into Wetland 1. See Photos: 4-6	

### HYDROLOGY

<b>Primary Indicators</b> (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<b>Secondary Indicators</b> (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4)
<b>Field Observations:</b> Surface water present? Yes <u>      </u> No <u>X</u> Depth (inches): _____ Water table present? Yes <u>X</u> No _____ Depth (inches): <u>15</u> Saturation present? Yes <u>X</u> No _____ Depth (inches): <u>12</u> (includes capillary fringe)		<b>Indicators of wetland hydrology present?</b> <u>Y</u>
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		

**VEGETATION - Use scientific names of plants**

**Sampling Point:** 2-wet

Tree Stratum					<b>50/20 Thresholds</b>		
Plot Size ( 30 ft. radius )		Absolute % Cover	Dominant Species	Indicator Status	20%	50%	
1	<u>Quercus alba</u>	40	Y	FACU	12	30	
2	<u>Ulmus americana</u>	20	Y	FACW	8	21	
3	_____	_____	_____	_____	31	79	
4	_____	_____	_____	_____	0	0	
5	_____	_____	_____	_____			
6	_____	_____	_____	_____			
7	_____	_____	_____	_____			
8	_____	_____	_____	_____			
9	_____	_____	_____	_____			
10	_____	60	= Total Cover				
Sapling/Shrub Stratum					<b>Dominance Test Worksheet</b>		
Plot Size ( 15 ft. radius )		Absolute % Cover	Dominant Species	Indicator Status	Number of Dominant Species that are OBL, FACW, or FAC: <u>4</u> (A)		
1	<u>Prunus serotina</u>	20	Y	FACU	Total Number of Dominant Species Across all <u>7</u> (B)		
2	<u>Rhamnus cathartica</u>	10	Y	FAC	Percent of Dominant Species that are OBL, FACW, or FAC: <u>57.14%</u> (A/B)		
3	<u>Ribes missouriense</u>	10	Y	NI			
4	<u>Sambucus racemosa</u>	2	N	FACU			
5	_____	_____	_____	_____			
6	_____	_____	_____	_____			
7	_____	_____	_____	_____			
8	_____	_____	_____	_____			
9	_____	_____	_____	_____			
10	_____	42	= Total Cover				
Herb Stratum					<b>Prevalence Index Worksheet</b>		
Plot Size ( 5 ft. radius )		Absolute % Cover	Dominant Species	Indicator Status	Total % Cover of:		
1	<u>Hydrophyllum virginianum</u>	75	Y	FAC	OBL species	<u>0</u>	x 1 = <u>0</u>
2	<u>Urtica dioica</u>	50	Y	FAC	FACW species	<u>50</u>	x 2 = <u>100</u>
3	<u>Impatiens capensis</u>	30	N	FACW	FAC species	<u>135</u>	x 3 = <u>405</u>
4	<u>Arctium minus</u>	2	N	FACU	FACU species	<u>64</u>	x 4 = <u>256</u>
5	_____	_____	_____	_____	UPL species	<u>0</u>	x 5 = <u>0</u>
6	_____	_____	_____	_____	Column totals	<u>249</u> (A)	<u>761</u> (B)
7	_____	_____	_____	_____	Prevalence Index = B/A = <u>3.06</u>		
8	_____	_____	_____	_____			
9	_____	_____	_____	_____			
10	_____	_____	_____	_____			
11	_____	_____	_____	_____			
12	_____	_____	_____	_____			
13	_____	_____	_____	_____			
14	_____	_____	_____	_____			
15	_____	157	= Total Cover				
Woody Vine Stratum					<b>Hydrophytic Vegetation Indicators:</b>		
Plot Size ( 30 ft. radius )		Absolute % Cover	Dominant Species	Indicator Status	<input type="checkbox"/> Rapid test for hydrophytic vegetation <input checked="" type="checkbox"/> Dominance test is >50% <input type="checkbox"/> Prevalence index is ≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic hydrophytic vegetation* (explain) *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic		
1	_____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b> <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> - All woody vines greater than 3.28 ft in height.		
2	_____	_____	_____	_____			
3	_____	_____	_____	_____			
4	_____	_____	_____	_____			
5	_____	0	= Total Cover				
					<b>Hydrophytic vegetation present?</b> <u>Y</u>		

Remarks: (Include photo numbers here or on a separate sheet)

**SOIL**

**Sampling Point:** 2-wet

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-6	10YR 3/2	80					silty loam	
	10YR 2/2	20						
6-10	10YR 3/2	100					silty loam	
10-17	10YR 5/1	90	10YR 5/4	10	D	M	silty loam	Distinct concentrations
17-22	10YR 5/2	80	7.5YR 5/6	20	D	M	silty loam	Prominent concentrations

\*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

\*\*Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

**Indicators for Problematic Hydric Soils:**

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

\*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):  
 Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric soil present?**  Y

Remarks:

## WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Stanley Industrial Park City/County: Chippewa County Sampling Date: 5/17/2023  
 Applicant/Owner: City of Stanley State: WI Sampling Point: 2.1-up  
 Investigator(s): Kerry Ingraham Section, Township, Range: Section 34, T29N, R5W  
 Landform (hillslope, terrace, etc.): depression on slope Local relief (concave, convex, none): concave  
 Slope (%): 1 Lat.: \_\_\_\_\_ Long.: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Loyal silt loam, 6 to 12 percent slopes (LoC2) NWI Classification: none  
 Are climatic/hydrologic conditions of the site typical for this time of the year? YES (If no, explain in remarks)  
 Are vegetation X, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? circumstances" present? Yes  
 (If needed, explain any answers in remarks)

### SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>    N    </u> Hydric soil present? <u>    N    </u> Indicators of wetland hydrology present? <u>    N    </u>	<b>Is the sampled area within a wetland?</b> <u>    N    </u>  If yes, optional wetland site ID _____
Remarks: (Explain alternative procedures here or in a separate report.) SP 2.1-up is located on the north side of Wetland 2 where the cropped field meets the woodland. The field was planted in winter rye. The SP iwhere the vegetation was sparse and looked to have been washed out from heavy rain. Soil cracks were present. See Photos: 4-6	

### HYDROLOGY

<b>Primary Indicators</b> (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<b>Secondary Indicators</b> (minimum of two required) <input checked="" type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4)
<b>Field Observations:</b> Surface water present? Yes _____ No <u>    X    </u> Depth (inches): _____ Water table present? Yes _____ No <u>    X    </u> Depth (inches): _____ Saturation present? Yes _____ No <u>    X    </u> Depth (inches): _____ (includes capillary fringe)		<b>Indicators of wetland hydrology present?</b> <u>    N    </u>
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		





**SOIL**

**Sampling Point:** 2.1-up

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-12	10YR 3/2	100					silty loam	
12-20	10YR 4/2	100					silty loam	
20-22	10YR 4/1	90	7.5YR 3/3	10			silty loam	prominent concentrations

\*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

\*\*Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

**Indicators for Problematic Hydric Soils:**

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

\*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):  
 Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric soil present?  N

Remarks:

## WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Stanley Industrial Park City/County: Chippewa County Sampling Date: 5/17/2023  
 Applicant/Owner: City of Stanley State: WI Sampling Point: 2.2-up  
 Investigator(s): Kerry Ingraham Section, Township, Range: Section 34, T29N, R5W  
 Landform (hillslope, terrace, etc.): drainage swale on hillslope Local relief (concave, convex, none): concave  
 Slope (%): 5 Lat.: \_\_\_\_\_ Long.: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Loyal Silt Loam, 6 to 12 percent slopes (LoC2) NWI Classification: none  
 Are climatic/hydrologic conditions of the site typical for this time of the year? YES (If no, explain in remarks)  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? circumstances" present? Yes  
 (If needed, explain any answers in remarks)

### SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>N</u> Indicators of wetland hydrology present? <u>N</u>	<b>Is the sampled area within a wetland?</b> <u>N</u>  If yes, optional wetland site ID _____
Remarks: (Explain alternative procedures here or in a separate report.)  <p style="margin-left: 40px;">SP 2.2-up is located in a drainage swale upslope to the west of Wetland 2. The drainage swale is left fallow. See Photos: 4-6</p>	

### HYDROLOGY

<b>Primary Indicators</b> (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Roots (C3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils <input type="checkbox"/> Inundation Visible on Aerial Imagery <input type="checkbox"/> (C6) <input type="checkbox"/> (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Sparsely Vegetated Concave Surface <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> (B8)	<b>Secondary Indicators</b> (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4)
<b>Field Observations:</b> Surface water present? Yes _____ No <u>X</u> Depth (inches): _____ Water table present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	<b>Indicators of wetland hydrology present?</b> <u>N</u>
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  <hr/>	
Remarks:	





**SOIL**

**Sampling Point:** 2.2-up

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-6	10YR 3/1	60					silty loam	
	10YR 3/2	40						
6-10	10YR 3/2	100					silty loam	
10-14	10YR 3/2	69	7.5YR 4/3	2	C	M	silty loam	faint concentrations
	10YR 4/2	30						
14-22	10YR 4/2	75	7.5YR 4/4	5	C	M	silty loam	prominent concentrations
	10YR 5/2	20						

\*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

\*\*Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

**Indicators for Problematic Hydric Soils:**

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

\*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):  
 Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric soil present?   N  

Remarks:

## WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Stanley Industrial Park City/County: Chippewa County Sampling Date: 5/18/2023  
 Applicant/Owner: City of Stanley State: WI Sampling Point: 3-wet  
 Investigator(s): Kerry Ingraham Section, Township, Range: Section 34, T29N, R5W  
 Landform (hillslope, terrace, etc.): depression on footslope Local relief (concave, convex, none): concave  
 Slope (%): \_\_\_\_\_ Lat.: \_\_\_\_\_ Long.: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Capitola-cebana complex, 0 to 2 percent slopes, very stony (Cb) NWI Classification: S3/E1K  
 Are climatic/hydrologic conditions of the site typical for this time of the year? YES (If no, explain in remarks)  
 Are vegetation X, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? circumstances" present? Yes  
 (If needed, explain any answers in remarks)

### SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>    N    </u> Hydric soil present? <u>    Y    </u> Indicators of wetland hydrology present? <u>    Y    </u>	<b>Is the sampled area within a wetland?</b> <u>    N    </u>  If yes, optional wetland site ID <u>    Wetland 3    </u>
Remarks: (Explain alternative procedures here or in a separate report.) <p style="margin-left: 20px;">Wetland 3 is located on the eastern border of the AOI, midway between the northern and southern border. Only a small portion lies within the AOI with the majority of the wetland extending southeast outside the AOI. The wetland is in a depression on a cropped field of winter rye on the toeslope of a hillslope. Photos 7-10</p>	

### HYDROLOGY

<b>Primary Indicators</b> (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<b>Secondary Indicators</b> (minimum of two required) <input checked="" type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4)
<b>Field Observations:</b> Surface water present? Yes <u>    </u> No <u>    X    </u> Depth (inches): <u>    </u> Water table present? Yes <u>    </u> No <u>    X    </u> Depth (inches): <u>    </u> Saturation present? (includes capillary fringe) Yes <u>    </u> No <u>    X    </u> Depth (inches): <u>    </u>		<b>Indicators of wetland hydrology present?</b> <u>    Y    </u>
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: <p style="margin-left: 20px;">The crop was thin with surface soil cracks present in and near the wetland border. Wetter areas downslope had were left unplowed/planted and had deep tractor ruts. Corn stubble remained from last year. See Photos 7-10</p>		



**SOIL**

**Sampling Point:** 3-wet

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-10	10YR 4/2	93	7.5YR 3/4	7	C	M	silty loam	prominent concentrations
10-12	10YR 4/1	90	7.5YR 4/6	10	C	M		prominent concentrations
12-20	10YR 4/1	70	7.5YR 4/6	30	C	M	silty loam	prominent concentrations
20-24	10YR 4/1	50	7.5YR 4/6	10	C	M	silty loam	prominent concentrations
	10YR 5/1	40						

\*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

\*\*Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils:**

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

\*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):  
 Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric soil present?**  Y

Remarks:



## WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Stanley Industrial Park City/County: Chippewa County Sampling Date: 5/18/2023  
 Applicant/Owner: City of Stanley State: WI Sampling Point: 3.1-up  
 Investigator(s): Kerry Ingraham Section, Township, Range: Section 34, T29N, R5W  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): linear  
 Slope (%): 5 Lat.: \_\_\_\_\_ Long.: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Loyal silt loam, 6 to 12 percent slopes (LoC2) NWI Classification: none  
 Are climatic/hydrologic conditions of the site typical for this time of the year? YES (If no, explain in remarks)  
 Are vegetation X, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? circumstances" present? Yes  
 (If needed, explain any answers in remarks)

### SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>    N    </u> Hydric soil present? <u>    N    </u> Indicators of wetland hydrology present? <u>    N    </u>	<b>Is the sampled area within a wetland?</b> <u>    N    </u>  If yes, optional wetland site ID _____
Remarks: (Explain alternative procedures here or in a separate report.)  <p style="margin-left: 40px;">SP 3.1-up is in a cropped field of winter rye upslope to the northwest of SP 3-wet and Wetland 3. Vegetation is significantly disturbed as it is a cropped agricultural field. See Photos 7-10</p>	

### HYDROLOGY

<b>Primary Indicators</b> (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<b>Secondary Indicators</b> (minimum of two required) <input checked="" type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4)
<b>Field Observations:</b> Surface water present? Yes _____ No <u>    X    </u> Depth (inches): _____ Water table present? Yes _____ No <u>    X    </u> Depth (inches): _____ Saturation present? Yes _____ No <u>    X    </u> Depth (inches): _____ (includes capillary fringe)		<b>Indicators of wetland hydrology present?</b> <u>    N    </u>
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks:		



**SOIL**

**Sampling Point:** 3.1-up

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-6	10YR 3/2							
6-14	10YR 3/2	98	7.5YR 4/4	2	C	M	silty loam	distinct concentration
14-19	10YR 4/2	95	7.5YR 4/4	5	C	M	silty loam	distinct concentration
19-22	10YR 4/2	90	7.5YR 4/6	10	C	M	silty loam	prominent concentrations

\*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

\*\*Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

**Indicators for Problematic Hydric Soils:**

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (**LRR R, MLRA 149B**)
- Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- Loamy Mucky Mineral (F1) (**LRR K, L**)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

- 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
- Coast Prairie Redox (A16) (**LRR K, L, R**)
- 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
- Dark Surface (S7) (**LRR K, L**)
- Polyvalue Below Surface (S8) (**LRR K, L**)
- Thin Dark Surface (S9) (**LRR K, L**)
- Iron-Manganese Masses (F12) (**LRR K, L, R**)
- Piedmont Floodplain Soils (F19) (**MLRA 149B**)
- Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

\*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):  
 Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric soil present?**   N  

Remarks:

## WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Stanley Industrial Park City/County: Chippewa County Sampling Date: 5/18/2023  
 Applicant/Owner: City of Stanley State: WI Sampling Point: 3.2-up  
 Investigator(s): Kerry Ingraham Section, Township, Range: Section 34, T29N, R5W  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): linear  
 Slope (%): 3 Lat.: \_\_\_\_\_ Long.: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Loyal silt loam, 6 to 12 percent slopes (LoC2) NWI Classification: none  
 Are climatic/hydrologic conditions of the site typical for this time of the year? YES (If no, explain in remarks)  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? circumstances" present? Yes  
 (If needed, explain any answers in remarks)

### SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>N</u> Indicators of wetland hydrology present? <u>N</u>	<b>Is the sampled area within a wetland?</b> <u>N</u>  If yes, optional wetland site ID <u>Wetland 3</u>
Remarks: (Explain alternative procedures here or in a separate report.)  <p style="text-align: center;">SP 3.2-up is located in the drainage swale west of Wetland 3. See Photos 7-10</p>	

### HYDROLOGY

<b>Primary Indicators</b> (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Roots (C3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils <input type="checkbox"/> Inundation Visible on Aerial Imagery <input type="checkbox"/> (C6) <input type="checkbox"/> (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Sparsely Vegetated Concave Surface <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> (B8)	<b>Secondary Indicators</b> (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4)
<b>Field Observations:</b> Surface water present? Yes _____ No <u>X</u> Depth (inches): _____ Water table present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)	<b>Indicators of wetland hydrology present?</b> <u>N</u>
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  <hr/> Remarks:	





**SOIL**

**Sampling Point:** 3.2-up

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-4	10YR 3/3						silty loam	
4-12	10YR 3/2						silty loam	
12-16	10YR 4/2	68	7.5YR 4/6	2	C	M	silty loam	prominent concentrations
	10YR 5/2	30						
16-22	10YR 4/2	65	7.5YR 4/6	5			silty loam	prominent concentrations
	10YR 5/2	30						

\*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

\*\*Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

**Indicators for Problematic Hydric Soils:**

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

\*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric soil present?   N  

Remarks:

## WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Stanley Industrial Park City/County: Chippewa County Sampling Date: 5/18/2023  
 Applicant/Owner: City of Stanley State: WI Sampling Point: 4-wet  
 Investigator(s): Kerry Ingraham Section, Township, Range: Section 34, T29N, R5W  
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave  
 Slope (%): \_\_\_\_\_ Lat.: \_\_\_\_\_ Long.: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Withee silt loam, 0 to 3 percent slopes (WeB) NWI Classification: E1K  
 Are climatic/hydrologic conditions of the site typical for this time of the year? YES (If no, explain in remarks)  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? circumstances" present? Yes  
 (If needed, explain any answers in remarks)

### SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Indicators of wetland hydrology present? <u>Y</u>	<b>Is the sampled area within a wetland?</b> <u>Y</u>  If yes, optional wetland site ID <u>Wetland 4</u>
Remarks: (Explain alternative procedures here or in a separate report.) <p style="margin-left: 20px;">Wetland 4 is in a shallow depression on the NW border of the AOI, west of the field entrance. The wetland continues outside the AOI, into the road side ditch and culvert. The wetland map does not identify a wetland in this area. A portion of the wetland is plowed and planted. SP 4-wet is in the unplowed area next to the ditch.</p>	

### HYDROLOGY

<b>Primary Indicators</b> (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<b>Secondary Indicators</b> (minimum of two required) <input checked="" type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4)
<b>Field Observations:</b> Surface water present? Yes _____ No <u>X</u> Depth (inches): _____ Water table present? Yes _____ No <u>X</u> Depth (inches): _____ Saturation present? Yes _____ No <u>X</u> Depth (inches): _____ (includes capillary fringe)		<b>Indicators of wetland hydrology present?</b> <u>Y</u>
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: <p style="margin-left: 20px;">See Photos 11-13</p>		





**SOIL**

**Sampling Point:** 4-wet

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-8	10YR 3/2	100					silty loam	
8-14	10YR 4/2	60	7.5YR 3/4	7			silty loam	prominent concentrations
	10YR 3/2	33						
14-19	10YR 5/2	80	7.5YR 4/6	20			silty clay loam	prominent concentrations
19-22	10YR 5/1	50	7.5YR 4/6	30			silty clay loam	prominent concentrations
	10YR 5/2	20						

\*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

\*\*Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils:**

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

\*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):  
 Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric soil present?**  Y

Remarks:

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Stanley Industrial Park City/County: Chippewa County Sampling Date: 5/18/2023  
 Applicant/Owner: City of Stanley State: WI Sampling Point: 4-up  
 Investigator(s): Kerry Ingraham Section, Township, Range: Section 34, T29N, R5W  
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave  
 Slope (%): \_\_\_\_\_ Lat.: \_\_\_\_\_ Long.: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Withee silt loam, 0 to 3 percent slopes (WeB) NWI Classification: E1K  
 Are climatic/hydrologic conditions of the site typical for this time of the year? YES (If no, explain in remarks)  
 Are vegetation X, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? circumstances" present? Yes  
 (If needed, explain any answers in remarks)

**SUMMARY OF FINDINGS**

Hydrophytic vegetation present? <u>    N    </u> Hydric soil present? <u>    N    </u> Indicators of wetland hydrology present? <u>    N    </u>	<p align="center"><b>Is the sampled area within a wetland?</b> <u>    N    </u></p> If yes, optional wetland site ID _____
Remarks: (Explain alternative procedures here or in a separate report.)  SP 4-up is south of SP 4-wet in the cropped winter rye field. See Photos 11-13	

**HYDROLOGY**

Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Roots (C3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils <input type="checkbox"/> Inundation Visible on Aerial Imagery <input type="checkbox"/> (C6) <input type="checkbox"/> (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Sparsely Vegetated Concave Surface <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> (B8)	Secondary Indicators (minimum of two required) <input checked="" type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8)  <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4)
---	--

Field Observations: Surface water present? Yes _____ No <u>    X    </u> Depth (inches): _____ Water table present? Yes _____ No <u>    X    </u> Depth (inches): _____ Saturation present? Yes _____ No <u>    X    </u> Depth (inches): _____ (includes capillary fringe)	<p align="center"><b>Indicators of wetland hydrology present?</b> <u>    N    </u></p>
---	--

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



**SOIL**

**Sampling Point:** 4-up

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-4	10YR 3/2	100					silty loam	
4-8	10YR 3/2	95	7.5YR 3/3	5	C	M	silty loam	faint concentrations
8-12	10YR 3/2	75	7.5YR 3/3	5	C	M	silty loam	faint concentrations
	10YR.4/2	20						
12-16	10YR 5/1	80	7.5YR 4/6	20	C	M	silty clay loam	distinct concentrations
16-22	10YR 5/1	70	7.5YR 4/6	30	C	M	silty clay loam	distinct concentrations

\*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

\*\*Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

**Indicators for Problematic Hydric Soils:**

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

\*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):  
 Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

**Hydric soil present?**  N

Remarks:



**Appendix B**  
Climate Summary Data

**NRCS Antecedent Rainfall Documentation Method**

Project: City of Stanley Ind Park  
 Location: Chippewa County  
 WETS Station: CVRA  
 Years: 1989-2020  
 Field Dates

Result	Score	Condition
	6-9	Drier than normal
	10-14	Normal
<b>15</b>	<b>15-18</b>	<b>Wetter than normal</b>
<b>Comments:</b>	2 weeks prior to field work appears normal precipitation.	

Month	Avg Precip	30% chance precip <	30% chance precip >	2023	Condition	Condition Value	Monthly Weight	Weighted Score
Feb	1.08	0.65	1.30	2.02	<b>Wet</b>	<b>3</b>	<b>1</b>	<b>3</b>
Mar	1.98	1.24	2.39	3.22	<b>Wet</b>	<b>3</b>	<b>2</b>	<b>6</b>
Apr	3.02	2.14	3.58	2.92	<b>Normal</b>	<b>2</b>	<b>3</b>	<b>6</b>
							<b>SCORE</b>	<b>15</b>

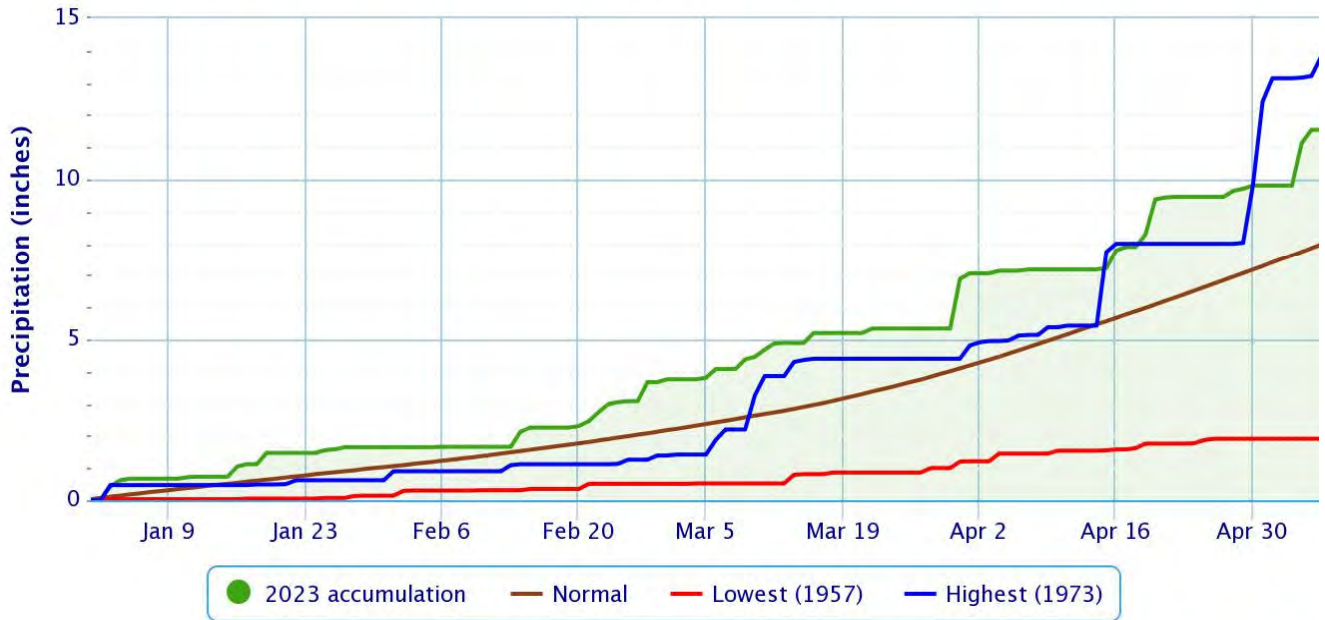
**Daily Record**

Date	Precipitation
4/23/2023	0.00
4/24/2023	0.00
4/25/2023	0.00
4/26/2023	T
4/27/2023	0.19
4/28/2023	0.06
4/29/2023	0.10
4/30/2023	0.00
5/1/2023	0.00
5/2/2023	0.00
5/3/2023	0.00
5/4/2023	1.32
5/5/2023	0.41
5/6/2023	0.00
5/7/2023	0.00



## Accumulated Precipitation – CHIPPEWA VALLEY REGIONAL AIRPORT, WI

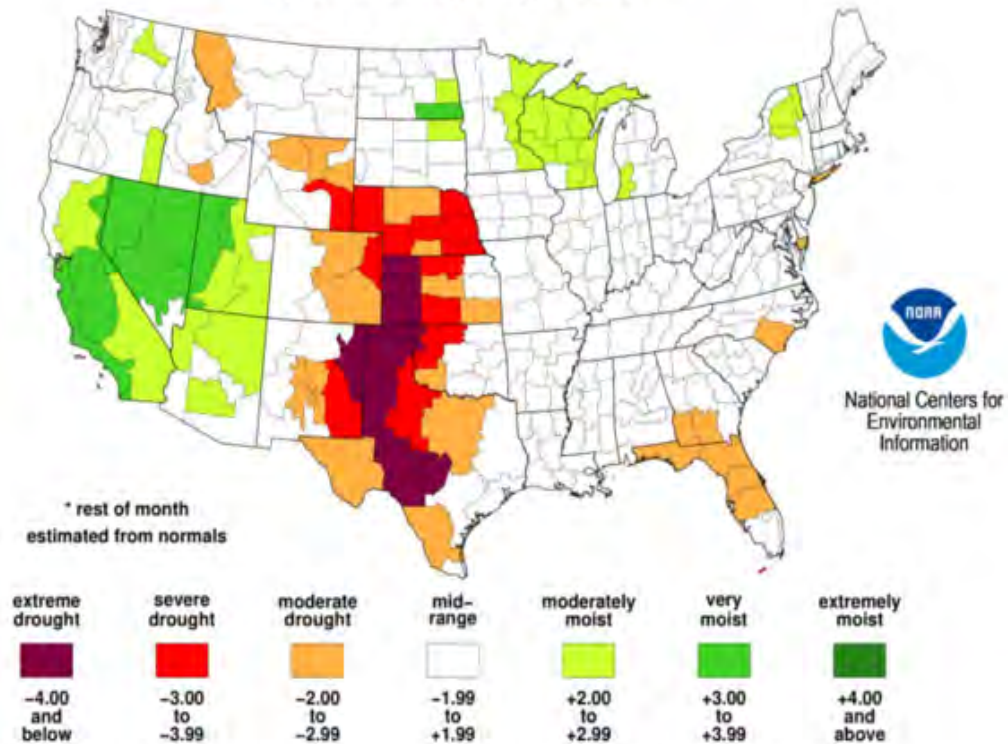
Click and drag to zoom to a shorter time interval; green/black diamonds represent subsequent/missing values



Powered by ACI

## Palmer Hydrological Drought Index Long-Term (Hydrological) Conditions

May 2023: through May 13 2023\*



**Appendix C**  
Site Photographs





Photo 1: Wetland 1 looking south along STH 29 ROW



Photo 2: Wetland 1 looking north.





Photo 3: Wetland 1 looking SE at SP 1-wet



Photo 4: Looking W at Wetland 1/Wetland 2 boundary.





Photo 5: Wetland 2 boundary. Upland on right



Photo 6: looking south at SP 2.2 Up





Photo 7: Looking East along north Wetland 3 Boundary.



Photo 8: Looking East at SP 3.2 Up





Photo 9: Looking East at Wetland 3 Boundary and SP 3.1 Wet beyond

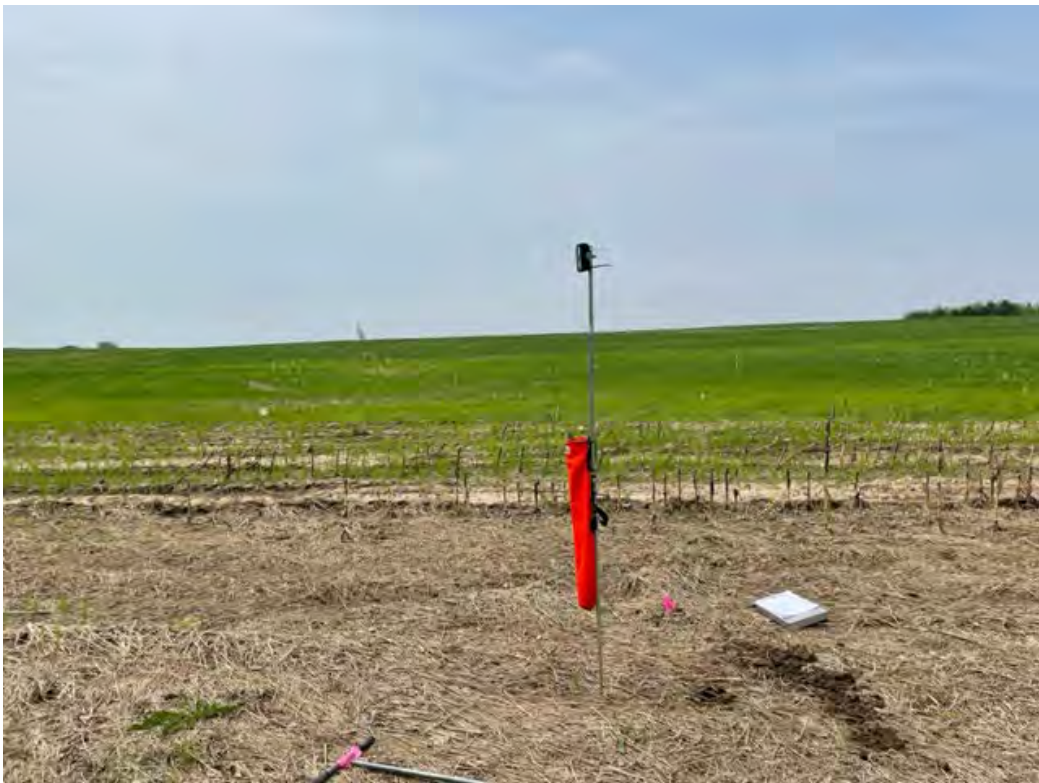


Photo 10: Looking West at SP 3.1 Up





Photo 11: Looking East at Wetland 4



Photo 12: Looking West at Wetland 4



Photo 13: Looking south at SP 4-Wet

**Appendix E**

Methods





## **Wetland Delineation Methods - 2023 Ingraham Technical Services Inc**

According to the US Army Corps of Engineers, wetlands are, “those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. This wetland delineation followed methods outlined in the *Corps of Engineers Wetland Delineation Manual* (USACE 1987) and the *Regional Supplements to the Corps of Engineers Wetland Delineation Manual* where the project is located (*i.e., Midwest or Northeast/Northcentral*) (Version 2.0). Based on these methods, the presence of a wetland is determined based on three hydric criteria - vegetation, soils, and hydrology. The boundary of a wetland is where these hydric criteria give way to upland features.

The delineation procedures in the *Corps Manual* (*i.e., the Routine Onsite Determination Method*), in combination with wetland indicators and guidance provided in the *Regional Supplement* were applied for this delineation. Where differences in the two documents occur, the *Regional Supplement* takes precedence over the *Corps Manual* for applications in the specific *Corps Region* where the project is located (USACE 2012).

### Off Site Resource Review

Prior to completing the field investigation, documents were reviewed which provided information on soils, topography, and areas where wetlands have been identified or are likely to occur. The following resources were reviewed:

- Wisconsin Department of Natural Resources (WDNR) Surface Water Data Viewer (SWDV)
  - Wisconsin Wetland Inventory (WWI) Map for Wetlands
  - Hydric Soil Indicator Map
  - Topographic Map (may be sourced from other locations – 2 ft contour min.)
  - Flood Hazard Map
- Natural Resources Conservation Service (NRCS) Web Soil Survey
  - Soil Map
  - Custom Soil Resource Report
  - Hydric Soils Report
- WEX Bedrock Geology of Wisconsin Maps
- Climate Data
  - WETS
  - Palmer Drought Index
- NRCS and Google Earth Historic Aerial Photographs

An NRCS Antecedent Rainfall Documentation (ARD) is conducted for the three months prior to the field investigation. The closest NOAA Regional Climate Centers agACIS site with complete WETS data (20 years minimum data) is used to assess the precipitation history of the area.

The Palmer Drought Index indicates hydrological conditions for the area in the previous 2-week period prior to the site visit. In addition to the ARD and Palmer Index, the precipitation data for the week prior to the field investigation is reviewed. The review of all meteorological data is used to assess if precipitation conditions at the time of field work are considered to be Wetter, Drier or Normal compared to historical conditions.

## Field Methods

The field investigation identified wetland and upland features within the project limits followed by the establishment of transects perpendicular to the wetland edge. The wetland boundary was identified where wetland features gave way to upland features.

The wetland boundary was determined in the field by identifying the presence/absence of hydrophytic vegetation, hydric soils and hydrology required to establish and support a wetland.

The three wetland criteria were analyzed using the following methods:

- Hydrophytic (Wetland) Vegetation: Wetland plant species nomenclature follows the *US Army Corps of Engineers National Wetland Plant List: 2020 Update of Wetland Ratings*. Wetland vegetation data was collected using nested circular sample plot sizes of 5-feet for the herbaceous stratum, 15-feet for sapling/shrub stratum, and 30-feet for the tree and woody vine strata. Rectangular plots of equal size were used in place of circular plots in areas where abrupt slopes and short distances between upland and wetland sampling points exist.
- Hydric (Wetland) Soils: Soils were observed for hydric soil characteristics. Soils were examined in cores taken with a core auger and pits dug with a tile spade. Soil profiles were observed at a depth necessary to confirm hydric soil characteristics. Soil profile depths are typically within 16-20 inches below ground surface to allow for: (1) observation of an adequate portion of the soil profile to determine presence/absence of hydric soil characteristics; (2) observation of hydrology including depth to water table and saturated soils; and, (3) identification of disturbances (*e.g.* buried horizon, plow line, etc.). Soil color determinations were made using MUNSELL Soil Color Charts (2009). Site soil characteristics were compared to those mapped and described in the Soil Survey for County where the project is located (USDA Web Soil Survey). Hydric soil characteristics were compared to those identified in the *Regional Supplement* (USACE 2012) and the most recent version of the Natural Resources Conservation Service (NRCS) publication *Field Indicators of Hydric Soils in the United States, Version 8.2* (USDA 2018).
- Hydrology: Primary and secondary indicators of hydrology were identified in the field to determine the presence or absence of wetland hydrology. Subsurface wetland hydrology indicators were examined using the soil cores and/or soil pits as deep as 24 inches to confirm soil saturation in the upper 12 inches of the soil profile.

Field Records: The transects were documented at two sample points and one boundary marking. The sample points (Upland and Wetland) were analyzed and the boundary was identified between those points. The sample points were recorded on Wetland Determination Data Forms (Appendix A). Each data sheet is referenced to a sample location along the identified wetland boundary by the plot ID number. Numbers ending in “W” identify data collected within the wetland basin. Numbers ending in “U” identify data collected outside the wetland basin.

Wetland boundaries were located and marked with white “Wetland Boundary” pin flags. Fluorescent pink flags were used to mark upland and wetland sample points. The wetland edge is considered the highest extent of the wetland basin; areas above the boundary fail to meet the three required wetland parameters while areas below the edge meet the wetland parameters required by the field delineation methodology.

The sample points and boundary flags were surveyed in the field with the use of a Trimble R1 GNSS Receiver. The accuracy of this instrument and software is less than one meter of variance in the horizontal plane.

## **Appendix E**

Assured Wetland Delineator Confirmation (2023)

**State of Wisconsin**  
**DEPARTMENT OF NATURAL RESOURCES**  
1027 W St Paul Ave  
Milwaukee WI, WI, 53233

**Tony Evers, Governor**  
**Adam N. Payne, Secretary**  
Telephone 608-266-2621  
Toll Free 1-888-936-7463  
TTY Access via relay - 711



April 3, 2023

Kerry Ingraham  
Ingraham Technical Services, Inc.  
19775 55<sup>th</sup> Avenue  
Chippewa Falls, WI 54729

Subject: 2023 Assured Wetland Delineator Confirmation

Dear Ms. Ingraham:

This letter provides Wisconsin Department of Natural Resources (WDNR) confirmation for the wetland delineations you conduct during the 2023 growing season. You and your clients will not need to wait for the WDNR to review your wetland delineations before moving forward with project planning. This will help expedite the review process for WDNR's wetland regulatory program. Your name and contact information will continue to be listed on our website at: <http://dnr.wi.gov/topic/wetlands/assurance.html>.

In the instance where a municipality may require a letter of confirmation for your work prior to moving forward in the local regulatory process, this letter shall serve as that confirmation. Although your wetland delineations do not require WDNR field review, inclusion of a Wetland Delineation Report is required for projects needing State authorized wetland, waterway and/or storm water permit approvals.

To comply with Chapter 23.321, State Statutes, please supply the department with a polygon shapefile of the wetland boundaries delineated within the project area. Please do not include data such as parcel boundaries, project limits, wetland graphic representation symbols, etc. If internal upland polygons are found within a wetland polygon, then please label as UPLAND. The shapefile should utilize a State Plane Projection and be overlain onto recent aerial photography. If a different projection system is used, please indicate in which system the data are projected. In the correspondence sent with the shapefile, please supply a brief description of each wetland's plant community (eg: wet meadow, floodplain forest, etc.). Please send these data to Calvin Lawrence (608-266-0756 or email at [calvin.lawrence@wisconsin.gov](mailto:calvin.lawrence@wisconsin.gov)).

If you or any client has a question regarding your status in the Wetland Delineation Professional Assurance Program, contact me by email at [kara.brooks@wisconsin.gov](mailto:kara.brooks@wisconsin.gov) or phone at 414-308-6780. Thank you for all your hard work and best wishes for the upcoming field season.

Sincerely,

A handwritten signature in black ink that reads 'Kara Brooks'.

Kara Brooks  
Wetland Identification Coordinator  
Bureau of Watershed Management



**Notice:** Pursuant to s. 23.27(3)(b), Wis. Stats., this form must be completed and submitted to the Department of Natural Resources (DNR) to request an Endangered Resources (ER) Review of proposed development, management, planning or similar type of project. An ER Review provides the requester with information from Wisconsin's Natural Heritage Inventory (NHI) database and other sources on rare plants and animals, high quality natural communities, and other endangered resources that may be impacted by the proposed project. The ER Review will also include specific recommendations and requirements to help projects comply with Wisconsin's Endangered Species Law (s. 29.604, Wis. Stats.) and other laws and regulations protecting endangered resources. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records Law (ss. 19.31-19.39, Wis. Stats.).

**Instructions:** The following materials are required to process this request. Submit all materials by mail to the address above or email (DNRERReview@wisconsin.gov). Do not include payment with this form.

- Completed, signed form
- Map(s) delineating the project area, preferably an aerial photo

Submission of the following materials are strongly encouraged and will facilitate review of your project:

- [NHI Public Portal Preliminary Assessment Printout](#)
- Photographs that clearly show the project area, including natural features and vegetation present on site
- Additional relevant information and reports (e.g., detailed project and habitat descriptions, wetland delineation, and site plans)

**Section 1: Requester Information (ER Review, correspondence and invoice will be sent to this person)**

Name Kerry Ingraham		Organization Ingraham Technical Services Inc.	
Mailing Address 19775 55th Ave		City Chippewa Falls	State WI
Telephone Number (715) 271-4916		ZIP Code 54729	
Email Address kerry@ingrahamtechnicalservices.com			

**Section 2: Landowner Information (if different than Section 1)**

Name City of Stanley		Organization City	
Mailing Address PO Box 155		City Stanley	State WI
Telephone Number (715) 644-5758		ZIP Code 54768	
Email Address clerk@ci.stanley.wi.gov			

Project Name Stanley Industrial Park	Project Address (if applicable)
---	---------------------------------

Project Types:

Residential  
  Commercial  
  Industrial  
  Utility/Energy  
  Transportation (roads, railroads, trails, harbors, airports)

NRCS  
  Other: \_\_\_\_\_

PSC Approval (Utility/Energy only) <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unknown	DOT or FHWA Administered <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unknown
--	--

Start Date (on-site disturbance)	End Date (on-site disturbance)	Federal Land, Funding or Permit <input type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unknown
----------------------------------	--------------------------------	---

County Chippewa	<input checked="" type="radio"/> City <input type="radio"/> Town <input type="radio"/> Village of: Stanley	Land Types (Select all that apply) <input type="checkbox"/> Private <input checked="" type="checkbox"/> Public (e.g. road ROWs, schools, city/county land, etc.)
--------------------	--	---

Township	Range	Direction	Section	Additional Comments on TRS Location (attach additional information if necessary)
29 N	5	<input type="radio"/> E <input checked="" type="radio"/> W	34	See Attached Chippewa County Parcel Information - Stanley Industrail Park
N		<input type="radio"/> E <input type="radio"/> W		

**Section 3: Project Information, *continued***

Provide a detailed description of the proposed project and associated disturbance, including acres to be disturbed. Attach additional pages as needed.

See attached Exhibit A and Figure 1

Provide a detailed description of the habitat types and current land use within the limits of the project area (e.g., 50% in active agriculture-currently corn, 20% floodplain forest, 15% industrial area, 10% hardwood swamp dominated by black ash, 5% fallow field - in active agriculture until one year ago). Attach additional pages as needed.

See attached Exhibit A and Figure 1

List all wetlands and waterbodies (e.g., rivers, intermittent streams, lakes, marshes) within or adjacent to the project area. List any known or suspected impacts of the proposed project to these wetlands and waterbodies. Indicate the location(s) of any point source discharge(s) into wetlands or waterbodies.

See attached Exhibit A and Figure 1

List any reports or correspondence concerning endangered resources or habitat that may be impacted by the proposed project (e.g., wetland delineation, endangered resources reviews, habitat assessments, and rare species surveys). Attach copies if available.

See attached Exhibit A and Figure 1

**Section 4: Related Permits, Licenses or Regulatory Approvals (DNR or other state/federal agency)**

Permit, License or Approval	Permitting Agency Contact Person	Status
<b>Grading and Building Permits</b>		<input checked="" type="checkbox"/> will be applying for <input type="checkbox"/> have applied for <input type="checkbox"/> have received
		<input type="checkbox"/> will be applying for <input type="checkbox"/> have applied for <input type="checkbox"/> have received

**Section 5: Terms and Conditions**

The requested ER Review may contain NHI data and information (including specific locations of endangered resources) which are considered sensitive and are not subject to Wisconsin's Open Records Law (per s. 23.27, Wis. Stats.). The information contained in the ER Review is solely for planning and implementation of the proposed project. As such, the information contained in the ER Review shall only be shared with individuals who need this information to carry out specific roles in the planning, permitting, and implementation of the proposed project. The requester must agree to not reproduce or disseminate the ER Review or the specific locations of endangered resources contained in the ER Review to any other parties or individuals without prior written permission from the DNR Bureau of Natural Heritage Conservation. (Contact the Endangered Resources Review Program at 608-419-2755 if you have any questions about sharing information contained in the ER Review.)

**Section 6: Certification by Requester**

I agree to pay, within 30 days of receipt of an invoice, the \$75/hour fee charged by the Department per s. NR 29.04(1), Wis. Adm. Code, for this ER review. I am the owner, authorized representative of the owner, or utility representative of the property for which I am requesting an Endangered Resources (ER) Review. I accept the terms and conditions outlined in Section 5 (above). To the best of my knowledge, the information I have provided is complete and accurate.



\_\_\_\_\_  
Signature of Requester

\_\_\_\_\_  
Date Signed

\_\_\_\_\_  
Printed Name

June 19, 2023

Kerry F. Ingraham

## Exhibit A

### **Section 3: Project Information (Questions in Bold)**

**Provide a detailed description of the proposed project and associated disturbance, including acres to be disturbed. Attach additional pages as needed.**

The proposed project is for an industrial park in the City of Stanley. The city plans to have the site “shovel-ready” for future use. The project includes four continuous parcels of land owned by the City of Stanley totaling 111.2 acres in size. The project includes the following parcels:

- PIN# 22905-3412-00020000A (38.7 acres)
- PIN# 22905-3411-00020002 (30.2 acres)
- PIN# 22905-3413-00020000A (31.9 acres)
- PIN# 22905-3414-00020001 (20.3 acres)

The majority of the land is currently used for agricultural purposes with the remainder as an historical farmstead and wetlands. Approximately 104.5 acres of crop land and the historical farmstead will be disturbed. The wetland areas are not intended to be disturbed unless proper permits area obtained. The development will include grading, stormwater management and erosion control. Permits will be obtained as necessary for these activities.

**Provide a detailed description of the habitat types and current land use within the limits of the project area (e.g., 50% in active agriculture-currently corn, 20% floodplain forest, 15% industrial area, 10% hardwood swamp dominated by black ash, 5% fallow field - in active agriculture until one year ago).**

Current land use is approximately 90% in active agriculture (most recently in corn), 5.5% wetlands, and 3.5% agricultural buildings, and 1% fallow (drainage swales).

Wetlands total approximately 6.7 acres in size consisting of 83% seasonal flooded basin or flat dominated by reed canary grass (*Phalaris arundinacea* – FACW), 13% wooded swamp dominated by white oak (*Quercus alba* – FACU) and American elm (*Ulmus americana* – FACW), and 4% shrub swamp/seasonal flooded basin or flat dominated by buckthorn (*Rhamnus cathartica* – FAC), gray dogwood (*Cornus racemose* – FAC), reed canary grass (*Phalaris arundinacea* – FACW),

**List all wetlands and waterbodies (e.g., rivers, intermittent streams, lakes, marshes) within or adjacent to the project area. List any known or suspected impacts of the proposed project to these wetlands and waterbodies. Indicate the location(s) of any point source discharge(s) into wetlands or waterbodies.**

Within the project area were four locations where wetlands have been identified. All four locations are along the project boundaries. Refer to Figure 1: ERR Project Overview.

The first wetland area (Area A) is in the northwest corner of the project area. An E2Kg wetland approximately 4.9 acres in size is hydrologically connected by road culverts to wetlands to the north and west of the project area. Two small E1Kf wetlands (total 0.1 acres in size) lie immediately south of the above wetland on the east side of a drainage swale. They were shallow wet spots in the cropped corn field. These three wetlands (E2Kg, 2-E1Kf) were delineated in 2022 (WDNR Docket WP-ADR-WC-2022-9-X07-15T11-14-03). These wetlands drain to an unnamed river/stream (WBIC 2146900) which flows into the Wolf River (WBIC 214600) southeast of the project area. There are no known or expected impacts of the proposed project to these wetlands and waterbodies.

The remainder of the wetlands were delineated in a 2023 (WDNR Docket WP-ADR-WC-2023-9-X06-12T17-02-53). The second wetland location (Area B) is on the northeast corner of the project area. A small E1K (0.1 acres in size) lies west of the field entrance adjacent to the road ditch in the road right-of-way. Water flows to a low spot in the field and drains to the road ditch and culvert. At this time, there are no known or expected impacts of the proposed project to this wetland.

The third wetland location (Area C) is along the eastern project boundary midway between the north and south project limits. A S3/E1K wetland (0.4 acres in size onsite) extends beyond the project boundary. This wetland drains to an unnamed river/stream (WBIC 2147000) which flows into unnamed river/stream (WBIC 2146900) before discharging into the Wolf River southeast of the project area. There are no known or expected impacts of the proposed project to this wetland.

The fourth wetland location (Area D) is in the southeast corner of the project. An isolated T3K wetland (0.9 acres in size onsite) is identified on the WDNR SWDV Map. The 2023 wetland delineation identifies this wetland to be hydrologically connected to an E1K wetland (0.4 acres in size onsite) to the south and southeast beyond the project boundary. This wetland drains to an unnamed river/stream (WBIC 2147000) which flows into unnamed river/stream (WBIC 2146900) before discharging into the Wolf River southeast of the project area. There are no known or expected impacts of the proposed project to this wetland.

**List any reports or correspondence concerning endangered resources or habitat that may be impacted by the proposed project. Attach additional pages as needed.**

See attached:

- Exhibit A: Project information
- Endangered Resource Preliminary Assessment dated 3-13-2023.
- 2022 Wetland Delineation Report: City of Stanley NSE Fill Project
  - (WDNR Docket WP-ADR-WC-2022-9-X07-15T11-14-03)
- 2023 wetland Delineation Report: City of Stanley Industrial Park Project
  - (WDNR Docket WP-ADR-WC-2023-9-X06-12T17-02-53)



# Stanley Industrial Park



Printed 06/16/2023

Scale = 1:343'



PIN: [22905-3413-00020000A](#)  
Owner Name: CITY OF STANLEY  
Owner Address: PO BOX 155  
Owner City, State: STANLEY WI  
Owner Zip Code: 54768  
Assessed Value: 0  
Fair Market Value: 0  
School Code: 5593  
Document 1: [929367\\_701482\\_634258](#)  
Vol-Page: [856-044](#)  
GIS Acres: 29.5  
Location:  
[View Parcel Report](#)

PIN: [22905-3414-00020001](#)  
Owner Name: CITY OF STANLEY  
Owner Address: PO BOX 155  
Owner City, State: STANLEY WI  
Owner Zip Code: 54768  
Assessed Value:  
Fair Market Value:  
School Code: 5593  
Document 1: [701482\\_634258](#)  
Vol-Page: [856-044](#)  
GIS Acres: 18.7  
Location:  
[View Parcel Report](#)

PIN: [22905-3411-00020002](#)  
Owner Name: CITY OF STANLEY  
Owner Address: PO BOX 155  
Owner City, State: STANLEY WI  
Owner Zip Code: 54768  
Assessed Value:  
Fair Market Value:  
School Code: 5593  
Document 1: [701482\\_634258](#)  
Vol-Page: [856-044](#)  
GIS Acres: 27.6  
Location:  
[View Parcel Report](#)

PIN: [22905-3412-00020000A](#)  
Owner Name: CITY OF STANLEY  
Owner Address: PO BOX 155  
Owner City, State: STANLEY WI  
Owner Zip Code: 54768  
Assessed Value: 0  
Fair Market Value: 0  
School Code: 5593  
Document 1: [929367\\_701482\\_634258](#)  
Vol-Page: [856-044](#)  
GIS Acres: 35.4  
Location:  
[View Parcel Report](#)

**Disclaimer:** This map is a compilation of records as they appear in the Chippewa County Offices affecting the area shown and is to be used only for reference purposes.







# **SITE PHOTOGRAPHS**

City of Stanley Industrial Park

ERR

June 19, 2023



Photo 1: Area D looking south along STH 29 ROW



Photo 2: Area D looking north.





Photo 3: Area D looking SE at SP 1-wet



Photo 4: Looking W at Area D from east boundary.





Photo 5: Wetland Area D



Photo 6: looking south at SP 2.2 Up in Area D





Photo 7: Looking East along north Area C.



Photo 8: Looking East at SP 3.2 Up in Area C



Photo 9: Looking East at Area C and SP 3.1 Wet beyond

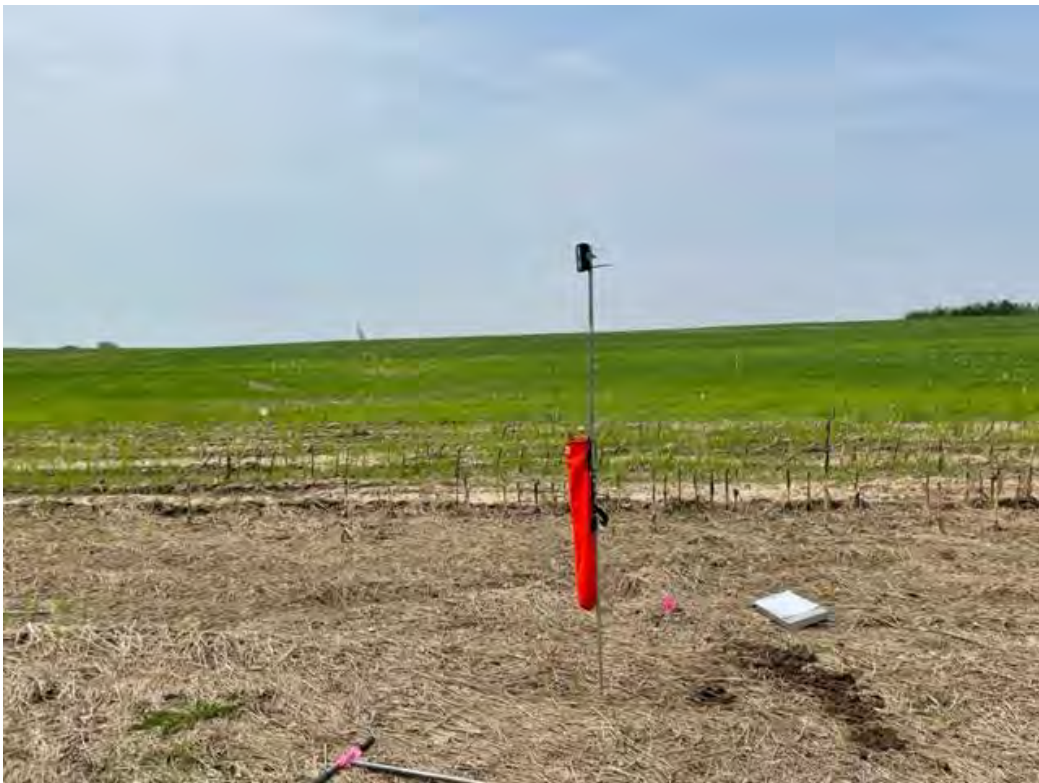


Photo 10: Looking West from Area C at SP 3.1 Up





Photo 11: Looking East at Area B



Photo 12: Looking West at Area B





Photo 13: Looking south at SP 4-Wet from Area D



Photo 14: Looking south from 80<sup>th</sup> Street at Area A. Culvert with standing water flowing north.





Photo 15: Looking NE along Area A from SP-1U.



Photo 16: Looking east at SP-1U. in Area A.





Photo 17: Looking at wet sample point in Area A.



Photo 18: Looking west at SP-2U. Wetland Area A is to the right.





Photo 19: Wetland Area A concave surface and deep cracked soil hydrology indicators.



Photo 20: Looking at small isolate Wetland in Area A.





Photo 21: Looking north along Y-shaped swale from Area A.

State of Wisconsin  
Department of Natural Resources  
Bureau of Natural Heritage Conservation  
Endangered Resources Review Program  
PO Box 7921, Madison WI 53707-7921  
<https://dnr.wi.gov/topic/ERReview/>  
[DNRERReview@wisconsin.gov](mailto:DNRERReview@wisconsin.gov)

## Endangered Resources (ER) Review Verification Broad Incidental Take Permit/Authorization for No/Low Impact Activities

Form 1700-079 (R 03/23)

Page 1 of 2

**Notice:** This form is authorized by s. 29.604, Wis. Stats. This completed signed form, once submitted to [DNRERReview@wi.gov](mailto:DNRERReview@wi.gov) using the Submit by Email button at the bottom of the form, fulfills the requirement of an Endangered Resources Review and should be attached to other permits requiring an ER Review to show that Endangered Resources requirements have been met. Personal information collected on this form will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Public Records law [ss. 19.31-19.39, Wis. Stats.].

**Instructions:** Complete this form if your project is covered under the Broad Incidental Take Permit/Authorization for No/Low Impact Activities and therefore does not require an Endangered Resources Review.

### Section 1: Applicant and Project Information

Requester Name Kerry Ingraham		Organization or Agency Name Ingraham Technical Services Inc.			
Project Name Stanley Industrial Park	County Chippewa	Township 29 N	Range 5	Section 34	Other <input checked="" type="radio"/> W
Telephone Number (715) 271-4916	Email Address kerry@ingrahamtechnicalservices.com				

#### Project Description

The proposed project is for an industrial park in the City of Stanley. The city plans to have the site "shovel-ready" for future use.

Indicate who you are completing this form as:

- DNR Staff  
 Certified Reviewer  
 Other:

### Section 2: Broad Incidental Take Permit/Authorization Coverage Information

How is your project covered under the Broad Incidental Take Permit/Authorization for No/Low Impact Activities?

- It is included in the list of activities in Table 1 – No/Low Impact Table for All Species at All Times of the Year.  
 It is included in the list of activities in Table 2 – No/Low Impact Table by Taxa Group for DNR Staff and ER Certified Reviewers Only and the Taxa groups for the species of concern are covered.  
 It is included in the list of activities in Table 2 – No/Low Impact Table by Taxa Group for DNR Staff ER Certified Reviewers Only and the species of concern are covered by the Avoidance Measures document.

#### Activity Number(s)

Table 2 Footnote 4: This project has only one special concern turtle species and there is no waterway within 900 feet. As a result, there will be no impacts to nesting habitat.

### Section 3: Applicant Certification

By my signature below, I certify that to the best of my knowledge, the information stated above is complete and accurate.

Angela White  
Signature

6/19/2023  
Date Signed

Angela White  
Requester/Submitter Name (please print)

**Endangered Resources (ER) Review Verification  
Broad Incidental Take Permit/Authorization  
for No/Low Impact Activities**

Form 1700-079 (R 03/23)

**Leave Blank – DNR Use Only**

Approve/Deny Form

Approved     Denied

DNR Reviewer Name  
Melissa Tumbleson

DNR Reviewer Date  
06/19/2023



## Neil Bowe

---

**From:** DNR ER Review <DNRERReview@wisconsin.gov>  
**Sent:** Monday, June 19, 2023 3:23 PM  
**To:** Kerry Ingraham  
**Cc:** Neil Bowe  
**Subject:** RE: ERR Request for City Of Stanley Industrial Park  
**Attachments:** verificationform1700-079.pdf

Hi Kerry,

The **Stanley Industrial Park** project is covered by Table 2 of the [Broad Incidental Take Permit/Authorization for No/Low Impact Activities \(No/Low BITP/A\)](#), a formal ER Review letter is not needed and there are no actions that need to be taken to comply with state and/or federal endangered species laws. Any take that may result from the proposed project is permitted/authorized, and the ER Review fee is waived.

Specifically, the project is covered by Table 2 Footnote 4: This project has only one special concern turtle species and there is no suitable waterway within 900 feet. As a result, there will be no impacts to nesting habitat. *Please note, Table 2 is for use by DNR Staff and ER Certified Reviewers only, therefore, the table is not available online.* The no/low BITP/A covers projects that the DNR has determined will have no impact or a minimal impact to endangered and threatened species in the state.

Attached is an ER Review Verification Form for you to keep on file and submit with any other necessary DNR permit applications to indicate that ER requirements have been met. This notice only addresses endangered resources issues. This notice does not constitute DNR authorization of the proposed project and does not exempt the project from securing necessary permits and approvals from the DNR and/or other permitting authorities.

Please contact me if you have any questions.

Thanks,  
Angela

**We are committed to service excellence.**

Visit our survey at <http://dnr.wi.gov/customersurvey> to evaluate how I did.

**Angela White**

Phone: 608-266-5241

Angela.L.White@Wisconsin.gov

---

**From:** Kerry Ingraham <kerry@ingrahamtechnicalservices.com>  
**Sent:** Monday, June 19, 2023 2:27 PM  
**To:** DNR ER Review <DNRERReview@wisconsin.gov>  
**Cc:** Neil Bowe <nbowe@cbssquaredinc.com>  
**Subject:** ERR Request for City Of Stanley Industrial Park

**CAUTION: This email originated from outside the organization.  
Do not click links or open attachments unless you recognize the sender and know the content is safe.**

Good Afternoon,

Attached is an ERR Request for the City of Stanley Industrial Park. Due to the size of the documents, I was unable to attach the two wetland delineation reports but included the docket numbers if you need to download them. Please contact me with any questions.

Thank you,  
Kerry

**Kerry Ingraham**  
**Ingraham Technical Services**  
[kerry@IngrahamTechnicalServices.com](mailto:kerry@IngrahamTechnicalServices.com)  
715-271-4916

**Results of a Phase I Archaeological Survey for A  
Proposed Shovel-Ready Development for the City  
Of Stanley in Chippewa County, Wisconsin**

**Prepared for:  
CBS Squared, Inc.  
770 Technology Way, Suite 1A  
Chippewa Falls, WI 54729**

**Principal Investigator:  
Katherine P. Stevenson**

**Prepared by:  
Jean Dowiasch**

**Mississippi Valley Archaeology Center  
at the  
University of Wisconsin - La Crosse  
Reports of Investigations No. 1219**

**June 2023**

## **ABSTRACT**

In June of 2023, the Mississippi Valley Archaeology Center (MVAC) conducted a Phase I archaeological investigation of approximately 111 acres for a proposed development for the City of Stanley in Chippewa County, Wisconsin. The project lies in Section 34 of T29N-R05W, Delmar Township. Shovel testing and pedestrian survey was conducted throughout the project area. One flake was recovered during pedestrian survey at 15 meter intervals. Intensive pedestrian survey in the immediate adjacent area failed to recover additional cultural materials. As only one flake was recovered, no additional archaeological investigations are recommended.



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# CHAPTER 1 INTRODUCTION

In June of 2023, the Mississippi Valley Archaeology Center (MVAC) conducted a Phase I archaeological survey of approximately 111 acres for a proposed development for the City of Stanley in Chippewa County, Wisconsin (Figure 1). The project lies in the NE ¼ of Section 34 of T29N-R05W. The goal of the project is to make the parcel shovel-ready for development.

Shovel testing and pedestrian survey were conducted throughout the project area. One flake was recovered during pedestrian survey at 15 meter intervals, which was recorded as the Stanley Isolated Find site (47CH-0XXX). Intensive pedestrian survey at less than 1 meter intervals in the immediate adjacent area failed to recover additional artifacts. Since only 1 flake was recovered, no additional archaeological investigations are recommended.



Figure 1. Stanley development project location in Chippewa County, Wisconsin.

## CHAPTER 2 ENVIRONMENTAL SETTING

### Project Area and Area of Potential Effect (APE)

The Stanley Development is located at the southeast corner of the intersection of 345<sup>th</sup> and W. Maple Streets and consists of 111 acres. Stanley is planning a shovel-ready development for businesses in the southwestern portion of the city. The project area is bounded by the Town of Delmar to the west, W. Maple Street to the north, agricultural fields and grain bins to the east, and STH 29 to the south (Figure 2).

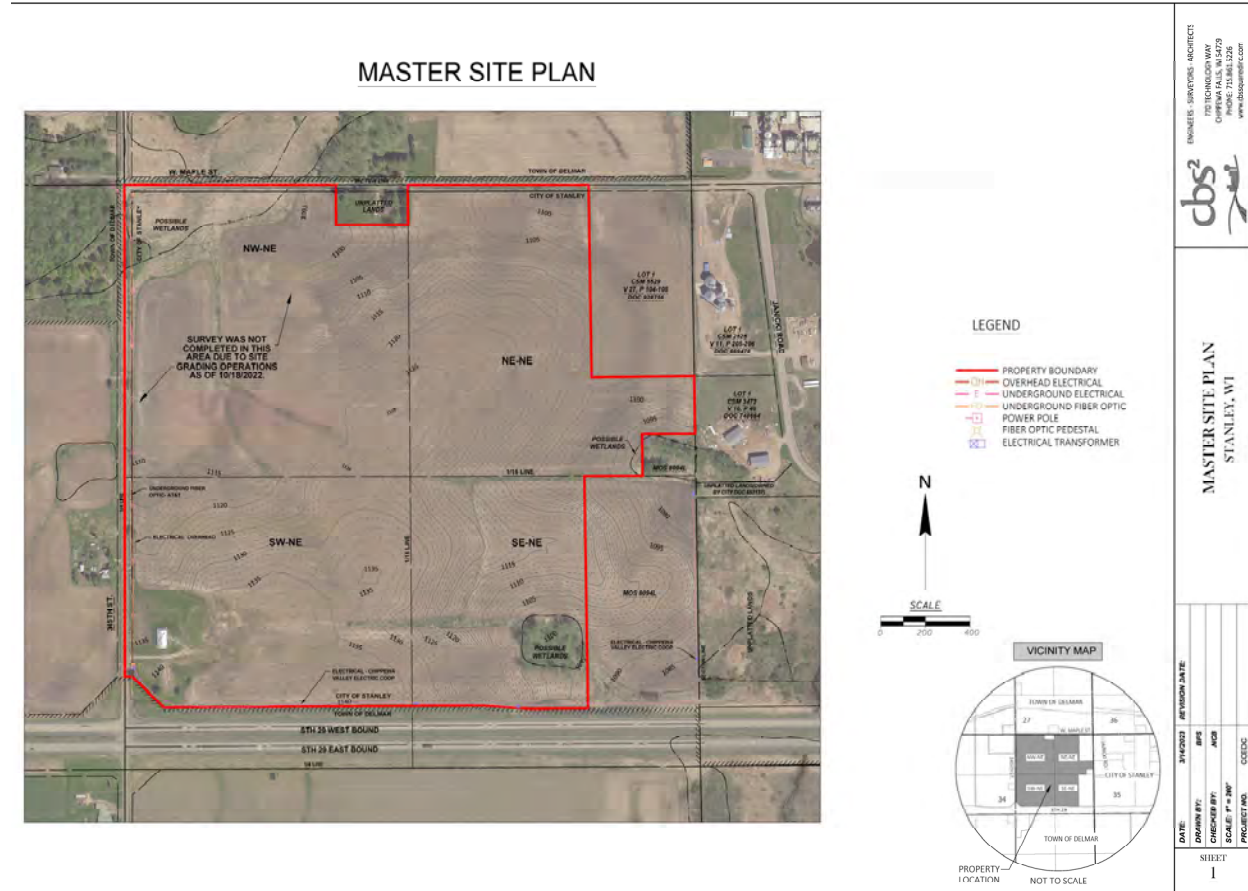


Figure 2. Master Site Plan for the Stanley Development, Chippewa County.

### General Geographical Location

Chippewa County, situated in northwest Wisconsin (see Figure 1), lies partly in the sandstone of the Central Plain and partly in the Northern Highland Geographic Provinces (Martin 1965). The City of Stanley lies in the southeast corner of Chippewa County and extends eastward into Clark County. Stanley lies in the Northern Highland, a peneplain that is an almost completely eroded mountain range. Formed of Precambrian-age, complexly folded and faulted igneous and metamorphic rock, the peneplain exhibits slight dissections. Rivers have trenced the peneplain to depths to 300 feet below its surface, although the Chippewa River exhibits shallow incising. Topography is also heavily affected by deposits of glacial till.

In general, the topography is moderately hilly, with hills having moderate slopes (Martin 1965). Lakes are numerous in the Northern Highland province but are less common in the areas overlain by pre-Wisconsin age glacial drift (Martin 1965).

## **Drainage**

The project area lies within the North Fork of the Eau Claire River watershed, one of 24 watersheds of the Lower Chippewa River Basin (WDNR 2023). Two unnamed tributaries of the Wolf River lie 0.2 miles from the project area, one to the east and one to the north. The Wolf River flows into the North Fork of the Eau Claire River approximately 9 miles south of the project area in the Town of Wilson, Eau Claire County.

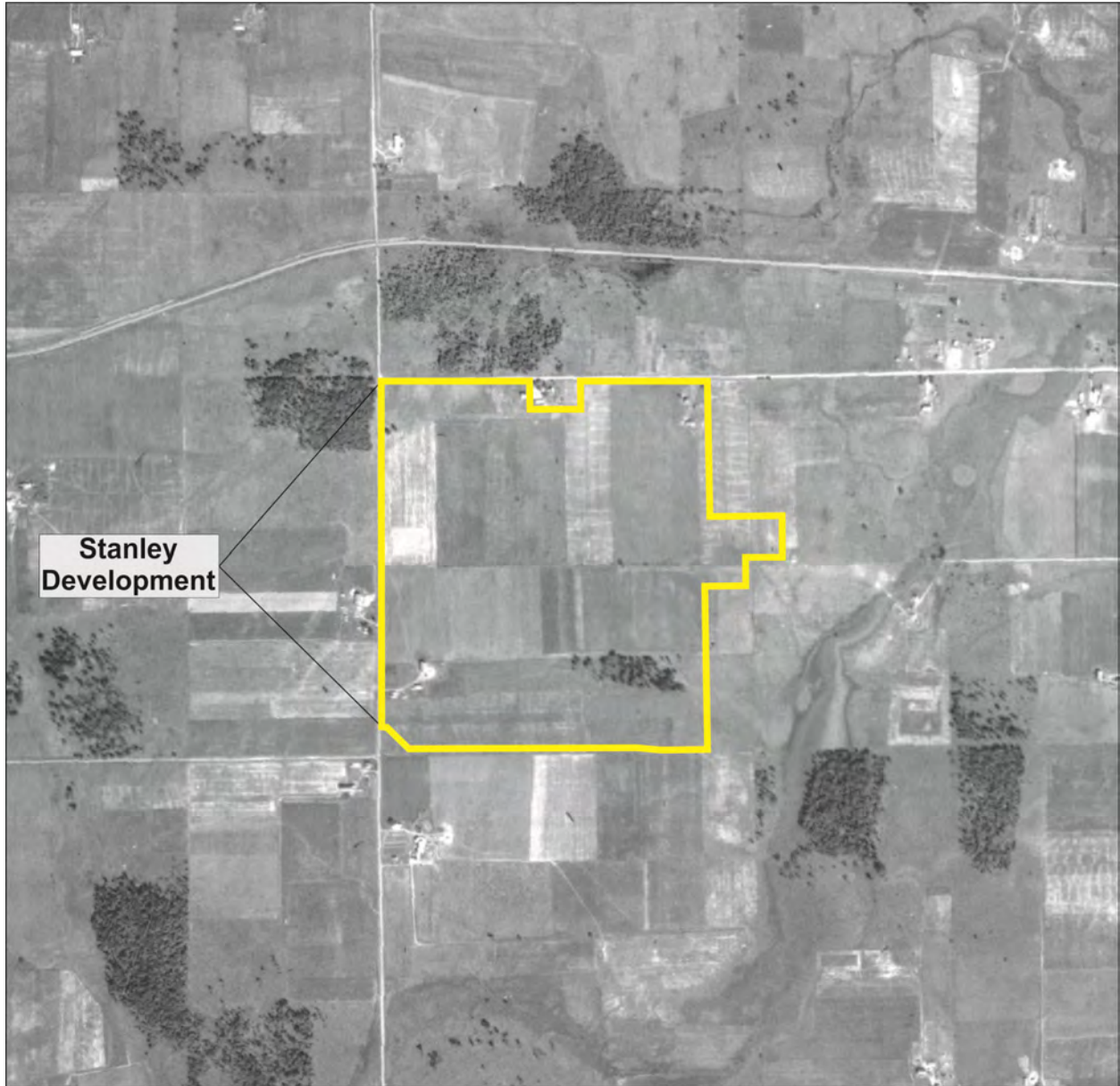
## **Vegetation**

Early vegetation near the project area prior to Euro-American development was mapped in 1852 as part of the Government Land Office surveys. The vegetation in the project area was recorded as northern mesic forests consisting of maple, hemlock, and yellow birch (Cottam and Loucks 1965). The 1938 historic air photo of the project area shows that most of the project area was cultivated, with farmsteads located in the southwest and northeast corners (Figure 3).

## **Soils**

The United States Department of Agricultural Natural Resources Conservation Service maps the predominant soil type within the project area as Withee silt loam (0-3 slopes). Additional soil types include Loyal silt loam (6-12% slopes), Poskin silt loam (0-2% slopes), and Spencer silt loam (2-6% slopes). Withee silt loam soils are found on the foot slopes of ground moraines, are formed over loess and/or silty alluvium over dense loamy till, and are classified as somewhat poorly drained (NRCS 2023). Loyal silt loam soils are found on the shoulders and backslopes of ground moraines, are formed over silty alluvium and/or loess over dense loamy till, and are classified as moderately well drained (NRCS 2023). Poskin silt loam soils are found on the footslopes of depressions on stream terraces and outwash plains, are formed over loamy drift and/or silty drift over sandy and gravelly outwash, and are classified as somewhat poorly drained (NRCS 2023). Spencer silt loam soils are found on the summits of ground moraines, are formed over silty drift over sandy loam till, and are classified as moderately well drained (NRCS 2023).





**Figure 3. Most of the project area was cultivated in 1938, with farmsteads located in the southwest and northeast corners (WHIAF 2023).**

## CHAPTER 3 CULTURAL CONTEXT

Native American occupation of Wisconsin began around the end of the Pleistocene epoch, when groups of hunter-gatherers moved into the region after the retreat of the last glacial advance. Archaeologists have currently established the basic broad chronology of Native American cultural traditions in the region as follows (Theler and Boszhardt 2003):

Paleoindian Tradition: ca. 12,000–8,000 B.P (before present)  
Archaic Tradition: ca. 8,000–2,500 B.P  
Woodland Tradition: ca. 2,500–700 B.P  
Mississippian/Oneota Tradition: ca. 800–350 B.P  
Early Historic: 350–150 B.P  
Late Historic: 150 B.P–Modern Era

These traditions define broad patterns of material culture and are organized by relative and chronometric dating. In general, these periods are somewhat arbitrary as they represent a continuum of changes that occurred over long periods of time. They are distinguished by differences in settlement and subsistence patterns, changes in styles and design of stone tools, the appearance of ceramic technology, and subsequent changes in ceramic style and design as well as the construction and design of various types of earthen mounds.

It is important to note that these changes did not occur at the same time everywhere. They are considered time transgressive, originating in one area and spreading from there at varying rates. Most of the significant cultural changes, such as the adoption of horticulture/agriculture, occurred to the south of the state and gradually worked their way north. Therefore, some of these cultural periods occurred later in northern Wisconsin than in the southern portion of the state. In some cases, such as the adoption of intensive agriculture, the cultural changes never reached the northern portions of the state as they were subject to environmental constraints.

### **Previous Investigations**

A comprehensive literature review was conducted using the Archaeological Reports Inventory (ARI) and Archaeological Site Inventory (ASI), which are parts of the Wisconsin Historic Preservation Database (WHPD) maintained by the Wisconsin Historical Society. The WHPD contains those archaeological sites and previous surveys which have been reported to the Wisconsin Historical Society. It is possible that additional cultural materials which have not yet been recovered or reported may exist within the property.

#### Previous Archaeological Surveys

Ten archaeological investigations have been recorded within one mile of the project area (Table 1, Figure 4). In the early 1990s, multiple archaeological investigations were conducted related to the reconstruction of STH 29, with no cultural materials recovered within one mile of the project areas (WHPD 2023). Four additional archaeological investigations are documented within one mile of the project area. These investigations consisted of Phase I surveys of 2.18 acres for an extension of Janicki Road in 2001, 86 acres for various projects along STH 29 in 2006, 120 acres for a wastewater treatment plant in Stanley in 2011, and 0.35 acres for a cell tower east of Stanley in 2019. No cultural materials were recovered during any of the investigations (WHPD 2023).

Table 1. Previous archaeological investigations within one mile of the project area.

WHS#	Year	Investigation Type
90-1665	1991	Archaeological Reconnaissance of the Proposed STH 29 Reconstruction, Section I (Stillson Creek to Cadott), Chippewa County, Wisconsin.
90-1665	1991	Archaeological Reconnaissance of the Proposed STH 29 Reconstruction, Section II (Cadott to Thorp), Chippewa and Clark Counties, Wisconsin.
90-1665	1991	Archaeological Reconnaissance of the Proposed STH 29 Reconstruction, Section III (Thorp to Abbotsford), Clark County, Wisconsin.
90-1665	1992	Phase I Archaeological Reconnaissance of the Wetlands Mitigation Site Associated with Reconstruction of STH 29, Clark County, Wisconsin.
90-1665	1992	WDOT Archaeological Survey Field Report: Wetland Mitigation for STH 29.
90-1665	1994	WDOT Archaeological Survey Field Report: Clark County Wetland Mitigation Site, Phases II and III, Chippewa and Clark Counties, Wisconsin.
01-1885	2001	Results of a Phase I Archaeological Survey for the Extension of Janicki Road, Town of Stanley, Chippewa County, Wisconsin
06-0274	2006	WDOT Archaeological Survey Field Report: STH 29, Intersections of 300th Street, CTH 'G', Kopenhaver Avenue and Koser Avenue, Chippewa and Clark Counties, Wisconsin
11-1218	2011	Phase One Archaeological Investigation Results: Proposed Water Treatment Facility and Associated Fixtures, Stanley, Chippewa County, Wisconsin
19-0642	2019	Cultural Resource Inventory Survey: Proposed Cell Tower Site - Road X - 330th Street, Town of Delmar, Chippewa County, Wisconsin

Recorded Archaeological Sites

There are no archaeological sites recorded within one mile of the proposed Stanley development project area.

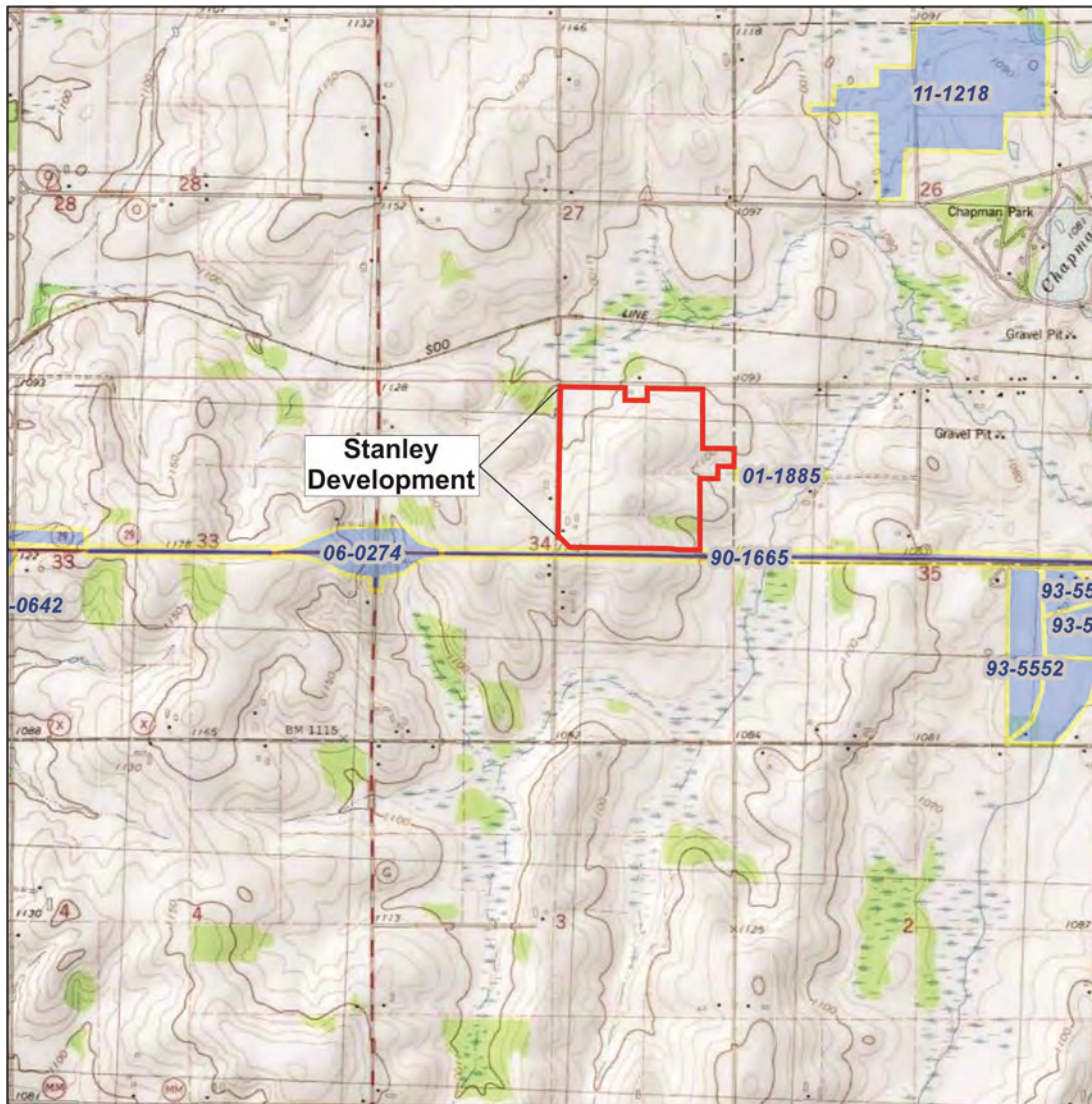


Figure 4. Previously recorded archaeological surveys within one mile of the Stanley Development project area. Stanley 7.5' USGS topographic map.



## CHAPTER 4 ARCHAEOLOGICAL FIELD METHODS AND RESULTS

In June of 2023, the Mississippi Valley Archaeology Center (MVAC) conducted archaeological investigations for a proposed development in the southwest corner of the City of Stanley. The project encompasses approximately 111 acres and was surveyed to establish the parcel as shovel-ready for future development. Survey methods consisted of shovel testing and pedestrian survey (Figure 5).

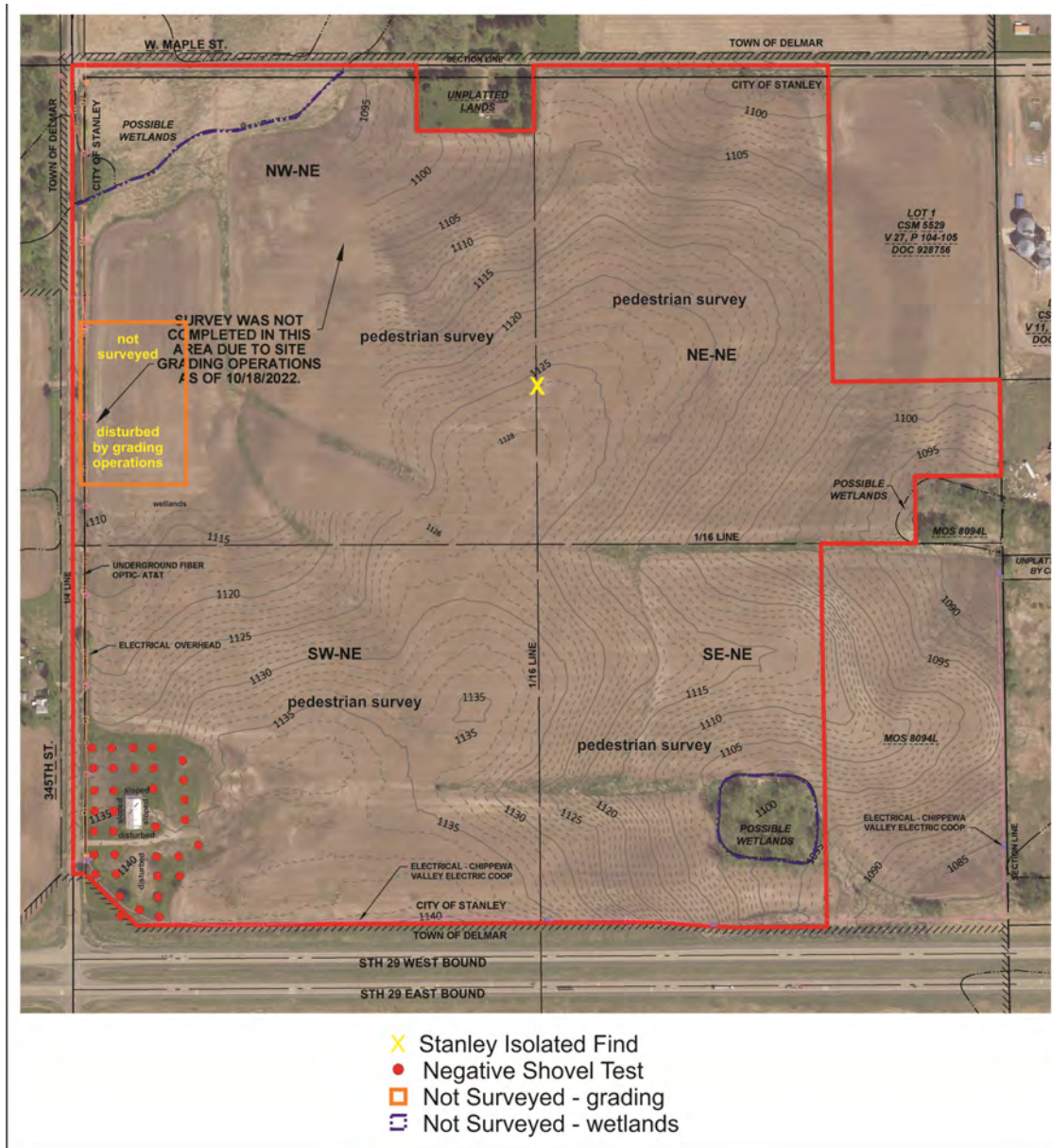


Figure 5. Plan map of the Phase I archaeological survey of the Stanley Development.

### Shovel tests

Shovel testing was conducted over approximately three acres in the southwest corner of the project area, in a former farmstead (Figure 6). A gravel driveway leads into the farmstead from 345<sup>th</sup> Street, with another gravel area extending south opposite an extant shed within the farmstead. Shovel tests were placed at 15 meter intervals throughout the three acres. Insignificant historic artifacts including a rusty nail, window glass, and a piece of whiteware ceramics were noted, but were not retained. Shovel tests were dug through brown (10YR 5/3) silty loam to the very pale brown (10YR 7/4) silty loam subsoil, with an average depth of 40 cm below ground surface. All soils were screened using ¼" mesh hardware screen, in accordance with the Wisconsin Archaeological Survey guidelines (Dudzick et al. 2012). No significant cultural materials were recovered.

### Pedestrian survey

Approximately 100.5 acres of the project area was cultivated at the time of survey. Pedestrian survey was undertaken over the cultivated areas at 15 meter intervals, with an average of 90-95% visibility (Figure 7). During the survey, one Prairie du Chien chert tertiary flake was recovered in the north-central portion of the parcel (see Figure 5). Intensive pedestrian survey was undertaken in the immediate adjacent area at less than 1 meter intervals, with no additional artifacts recovered. The site was reported to the Wisconsin Historical Society as the Stanley Isolated Find site (47CH-0XXX, Appendix A). No additional cultural materials were recovered throughout the remainder of the cultivated areas of the parcel.

### Areas not surveyed

Wetland areas within the parcel included 4 acres in the northwest corner and 1 acre in the southeast corner (see Figure 5, Figure 8). Construction was taking place on the west side of 345<sup>th</sup> Street, and a portion of the project area had been graded and was being used as an equipment staging area (Figure 9). Due to these areas being in wetland and the previous disturbance from grading, these areas did not require survey, in accordance with the Wisconsin Archaeological Survey guidelines (Dudzick et al. 2012). All field notes and digital photographs of the project will be on file at the MVAC laboratory.



**Figure 6. Shovel testing the farmstead in the southwest corner of the project area. Top view facing west, bottom view facing northwest.**





**Figure 7. Pedestrian survey was undertaken over most of the project area with 90-95% visibility. Top: southern portion of the project area along STH 29, view facing south. Bottom: northern portion of the project area, view facing west.**





**Figure 8. Top: wetland area in southeast corner of the parcel, view facing northeast. Bottom: looking toward wetland area in northwest corner of project area, view facing northwest.**



**Figure 9. Part of the parcel had been graded for use as a staging area for equipment for construction on the west side of 345<sup>th</sup> Street, shown in the background, view facing west.**

## **CHAPTER 5**

### **SUMMARY AND RECOMMENDATIONS**

The Mississippi Valley Archaeology Center conducted Phase I investigations for a proposed development in the City of Stanley, Chippewa County. Archaeological investigations consisted of shovel testing and pedestrian survey throughout the 111 acre project area. No archaeological sites were previously recorded within the project area. One isolated flake was recovered from the project area and reported to the Wisconsin Historical Society as the Stanley Isolated Find site (47CH-0XXX). Since only one flake was recovered during the Phase I survey of Stanley Development project area, no additional archaeological investigations are recommended.

## REFERENCES CITED

Cottam, G., and O.L. Loucks

1965 *Early Vegetation in Wisconsin*, a map compiled for the Geological and Natural History Survey. Madison: University of Wisconsin – Extension.

Dudzik, Mark J., Joseph A. Tiffany, and Katherine P. Stevenson

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NRCS

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Theler, James L. and Robert F. Boszhardt

2003 *Twelve Millenia: Archaeology of the Upper Mississippi River Valley*. University of Iowa Press, Iowa.

Wisconsin Department of Natural Resources

2023 *North Fork Eau Claire River Watershed Wisconsin Watersheds*. Electronic document accessed June 2023: [https://www.google.com/url?client=internal-element-cse&cx=002309229756371288958:pv5w7rlar9s&q=https://dnr.wi.gov/water/wsSWIMSDocument.ashx%3FdocumentSeqNo%3D34919920&sa=U&ved=2ahUKEwjzKWes83\\_AhVdg4kEHXA9DYsQFnoECAEQAAQ&usg=AOvVaw02lmQmDgOIPAnp4snSKCwe](https://www.google.com/url?client=internal-element-cse&cx=002309229756371288958:pv5w7rlar9s&q=https://dnr.wi.gov/water/wsSWIMSDocument.ashx%3FdocumentSeqNo%3D34919920&sa=U&ved=2ahUKEwjzKWes83_AhVdg4kEHXA9DYsQFnoECAEQAAQ&usg=AOvVaw02lmQmDgOIPAnp4snSKCwe)

Wisconsin Historic Aerial Imagery Finder

2023 *1938 Stanley aerial photo*. Electronic document accessed June 2023: <https://maps.sco.wisc.edu/WHAIFinder/#7/44.750/-89.750>

Wisconsin Historic Preservation Database

2023 *Archaeological Reports Inventory and Archaeological Site Inventory* forms from the Wisconsin Historical Society, Madison



Appendix A

Siteform

Stanley Isolated Find (47CH-0XXX)

# Wisconsin Archeological Site Inventory Form

CODE #47-\_\_\_\_\_

COUNTY: \_\_\_\_\_

SITE NAME (limit 25 characters)\_\_\_\_\_

FIELD NUMBER(S): \_\_\_\_\_

OTHER NAME: \_\_\_\_\_

## Locational Information (See Appendix B)

CIVIL TOWN(S): \_\_\_\_\_

OR MUNICIPALITY: \_\_\_\_\_

TOWN # \_\_\_\_\_ North RANGE # \_\_\_\_\_ E  or W  SECTION # \_\_\_\_\_

FRENCH/GOV LOT: \_\_\_\_\_

QUARTER-SECTIONS (at least 3) \_\_\_\_\_

QUARTER-SECTION GRID ALIGNMENT (edge and corner): \_\_\_\_\_

-----  
| ADDITIONAL TRS DATA: |

| TOWN # \_\_\_\_\_ North RANGE # \_\_\_\_\_ E  or W  SECTION # \_\_\_\_\_

FRENCH/GOV LOT: \_\_\_\_\_

| QUARTER-SECTIONS (at least 3) \_\_\_\_\_

QUARTER-SECTION GRID ALIGNMENT (edge and corner) \_\_\_\_\_

UTM COORDINATES: (110)Zone \_\_\_\_\_ (112) Easting \_\_\_\_\_ (114) Northing \_\_\_\_\_

(See Appendix C)

Method: Interpolated from USGS QUAD:  GPS Field:

USGS 7.5' QUADRANGLE MAP NAME \_\_\_\_\_

PARCEL ID: \_\_\_\_\_

GEOGRAPHIC LOCATION & RELATION TO LANDSCAPE FEATURES:

## Site Description Information

SITE/FEATURE DESCRIPTION:

SITE DIMENSIONS: \_\_\_\_\_  feet OR  meters (check one)

or

SITE AREA: \_\_\_\_\_  acres OR  hectares (check one)

SITE TYPE(S): (Check all that apply. See Appendix D.)

- |   |  |   |  |
|---|--|---|--|
| <input type="checkbox"/> Abandoned Community    | <input type="checkbox"/> Enclosure/earthworks  | <input type="checkbox"/> Mound(s)- effigy       | <input type="checkbox"/> Trading/fur post              |
| <input type="checkbox"/> Cabin/homestead        | <input type="checkbox"/> Experimental          | <input type="checkbox"/> Mound(s)- conical      | <input type="checkbox"/> Traditional Cultural Property |
| <input type="checkbox"/> Cache/pit/hearth       | <input type="checkbox"/> Farmstead             | <input type="checkbox"/> Mound(s)- linear       | <input type="checkbox"/> Transportation site           |
| <input type="checkbox"/> Campsite/village       | <input type="checkbox"/> Fish weir             | <input type="checkbox"/> Mound(s)- other/unk    | <input type="checkbox"/> Tower                         |
| <input type="checkbox"/> Cave/rockshelter       | <input type="checkbox"/> Foundation/depression | <input type="checkbox"/> Non-arch Feature       | <input type="checkbox"/> Well                          |
| <input type="checkbox"/> CCC/WPA site           | <input type="checkbox"/> HCM concentration     | <input type="checkbox"/> Paleontological        | <input type="checkbox"/> Workshop site                 |
| <input type="checkbox"/> Cemetery/burials       | <input type="checkbox"/> Ice House             | <input type="checkbox"/> Quarry/mine            | <input type="checkbox"/> Unknown                       |
| <input type="checkbox"/> Church/Mission         | <input type="checkbox"/> Isolated find         | <input type="checkbox"/> Recreational           |  |
| <input type="checkbox"/> Commercial             | <input type="checkbox"/> Industrial            | <input type="checkbox"/> Redeposited artifacts  |  |
| <input type="checkbox"/> Corn hills/garden beds | <input type="checkbox"/> Kiln                  | <input type="checkbox"/> Rock art               |  |
| <input type="checkbox"/> Cultural Landscape     | <input type="checkbox"/> Kill site/bone bed    | <input type="checkbox"/> Rock feature/petroform |  |
| <input type="checkbox"/> Cultural Site          | <input type="checkbox"/> Lithic scatter        | <input type="checkbox"/> School/Government      |  |
| <input type="checkbox"/> Dam/historic earthwork | <input type="checkbox"/> Logging camp          | <input type="checkbox"/> Shell midden           |  |
| <input type="checkbox"/> Dance Ring             | <input type="checkbox"/> Military site         | <input type="checkbox"/> Shipwreck              |  |
| <input type="checkbox"/> Dock/pier/crib         | <input type="checkbox"/> Mill/sawmill          | <input type="checkbox"/> Sugar bush             |  |

CULTURE(S): (Check all that apply. See Appendix E.)

- |   |  |   |
|---|--|---|
| <input type="checkbox"/> Paleo-Indian       | <input type="checkbox"/> Woodland          | <input type="checkbox"/> Upper Miss./Oneota           |
| <input type="checkbox"/> Early Paleo-Indian | <input type="checkbox"/> Initial Woodland  | <input type="checkbox"/> Late Pre-contact             |
| <input type="checkbox"/> Late Paleo-Indian  | <input type="checkbox"/> Early Woodland    | <input type="checkbox"/> Post-Contact American Indian |
| <input type="checkbox"/> Archaic            | <input type="checkbox"/> Middle Woodland   | <input type="checkbox"/> Euro-American                |
| <input type="checkbox"/> Early Archaic      | <input type="checkbox"/> Late Woodland     | <input type="checkbox"/> Unknown / Indeterminate      |
| <input type="checkbox"/> Middle Archaic     | <input type="checkbox"/> Terminal Woodland | <input type="checkbox"/> Unknown Post-Contact         |
| <input type="checkbox"/> Late Archaic       | <input type="checkbox"/> Middle Miss.      | <input type="checkbox"/> Unknown Pre-Contact          |
| <input type="checkbox"/> Red Ocher          | <input type="checkbox"/> Old Copper        |   |

INVESTIGATION TYPE(S) COMPLETED: (Check all that apply.)

- |  |   |  |
|--|---|--|
| <input type="checkbox"/> Avocational Survey  | <input type="checkbox"/> Major excavation/Mitigation/PIII | <input type="checkbox"/> Soil core             |
| <input type="checkbox"/> Chance Encounter    | <input type="checkbox"/> Mechanical Stripping             | <input type="checkbox"/> Surface Survey        |
| <input type="checkbox"/> Faunal Analysis     | <input type="checkbox"/> Monitoring                       | <input type="checkbox"/> Test excavation/PII   |
| <input type="checkbox"/> Floral Analysis     | <input type="checkbox"/> Osteological analysis            | <input type="checkbox"/> Traditional Knowledge |
| <input type="checkbox"/> Geomorphology       | <input type="checkbox"/> Records/Background               | <input type="checkbox"/> Underwater            |
| <input type="checkbox"/> Historical Research | <input type="checkbox"/> Remote Sensing                   | <input type="checkbox"/> Walk Over (Reconn.)   |
| <input type="checkbox"/> Interview/informant | <input type="checkbox"/> Shovel Testing/Probing           |  |

PHASE/COMPLEX: (Enter all that apply. Please see Appendix F for list of choices.) \_\_\_\_\_

TRIBE/ETHNIC GROUP: (Enter all that apply. Please see Appendix F for list of choices.) \_\_\_\_\_

MODERN LAND USE (AT LAST UPDATE): (Check one or two.)

- |  |  |  |
|--|--|--|
| <input type="checkbox"/> Agriculture             | <input type="checkbox"/> Marked cemetery | <input type="checkbox"/> Pasture/grassland |
| <input type="checkbox"/> Forest                  | <input type="checkbox"/> Recreational    | <input type="checkbox"/> Residential       |
| <input type="checkbox"/> Industrial/commercial   | <input type="checkbox"/> Submerged       | <input type="checkbox"/> Military          |
| <input type="checkbox"/> Transportation corridor | <input type="checkbox"/> Unknown         | <input type="checkbox"/> Energy corridor   |

DEGREE OF DISTURBANCE (AT LAST UPDATE): (Check one.)

- Minimal(0-25%)  Moderate(25-50%)  Heavy(50-75%)  Completely destroyed  Unknown

IMPACTS TO SITE: (Check all that apply.)

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Residential, urban      | <input type="checkbox"/> Residential, rural | <input type="checkbox"/> Agricultural       |
| <input type="checkbox"/> Commercial, urban       | <input type="checkbox"/> Commercial, rural  | <input type="checkbox"/> Recreational       |
| <input type="checkbox"/> Energy corridor         | <input type="checkbox"/> Impoundment        | <input type="checkbox"/> Collecting/Looting |
| <input type="checkbox"/> Transportation corridor | <input type="checkbox"/> Logging            | <input type="checkbox"/> Defacing/Vandalism |
| <input type="checkbox"/> Military Training       | <input type="checkbox"/> Quarry/Mining      | <input type="checkbox"/> Natural Threats    |

**Ownership Information:**

OWNERSHIP TYPE: (Check all that apply.)

- Public-Federal
- Public-State
- Public-Local
- Private
- Indian
- Unknown

OWNER'S NAME(S) \_\_\_\_\_

OWNER'S ADDRESS(ES) \_\_\_\_\_

YEAR OWNERSHIP DETERMINED \_\_\_\_\_

**Artifact /Archival Information**

ARTIFACT/RECORDS REPOSITORY: \_\_\_\_\_

MATERIAL CLASS(ES): (Check all that apply.)

- |   |  |
|---|--|
| <input type="checkbox"/> Aboriginal ceramics    | <input type="checkbox"/> Ground/pecked /battered stone |
| <input type="checkbox"/> Euro-American ceramics | <input type="checkbox"/> Historic building material    |
| <input type="checkbox"/> Debitage               | <input type="checkbox"/> Standing Structures           |
| <input type="checkbox"/> Faunal remains         | <input type="checkbox"/> Houses/Structures (in ground) |
| <input type="checkbox"/> Features               | <input type="checkbox"/> Human bone                    |
| <input type="checkbox"/> Fire-altered rock      | <input type="checkbox"/> Metal                         |
| <input type="checkbox"/> Floral remains         | <input type="checkbox"/> Other chipped stone           |
| <input type="checkbox"/> Glass                  | <input type="checkbox"/> Projectile points             |
| <input type="checkbox"/> Other: _____           |  |

ARTIFACT LIST:

DATES: \_\_\_\_\_

DATING METHOD(S):

- |  |   |
|--|---|
| <input type="checkbox"/> Artifact style/cross-dating       | <input type="checkbox"/> Radiocarbon    DATE: _____ |
| <input type="checkbox"/> Informant/Oral History            | <input type="checkbox"/> Site type                  |
| <input type="checkbox"/> Thermoluminescence    DATE: _____ | <input type="checkbox"/> Traditional Knowledge      |
| <input type="checkbox"/> Historic records                  | <input type="checkbox"/> Other: _____               |

**Investigator/Reporter Information:**

NAME OF INVESTIGATOR(S)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

ORGANIZATION((See Appendix G.)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

DATE(S) OF INVESTIGATION

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

NAME OF SITE REPORTER

\_\_\_\_\_

ORGANIZATION (See Appendix G.)

\_\_\_\_\_

DATE SITE REPORTED

\_\_\_\_\_



BIBLIOGRAPHIC REFERENCES:

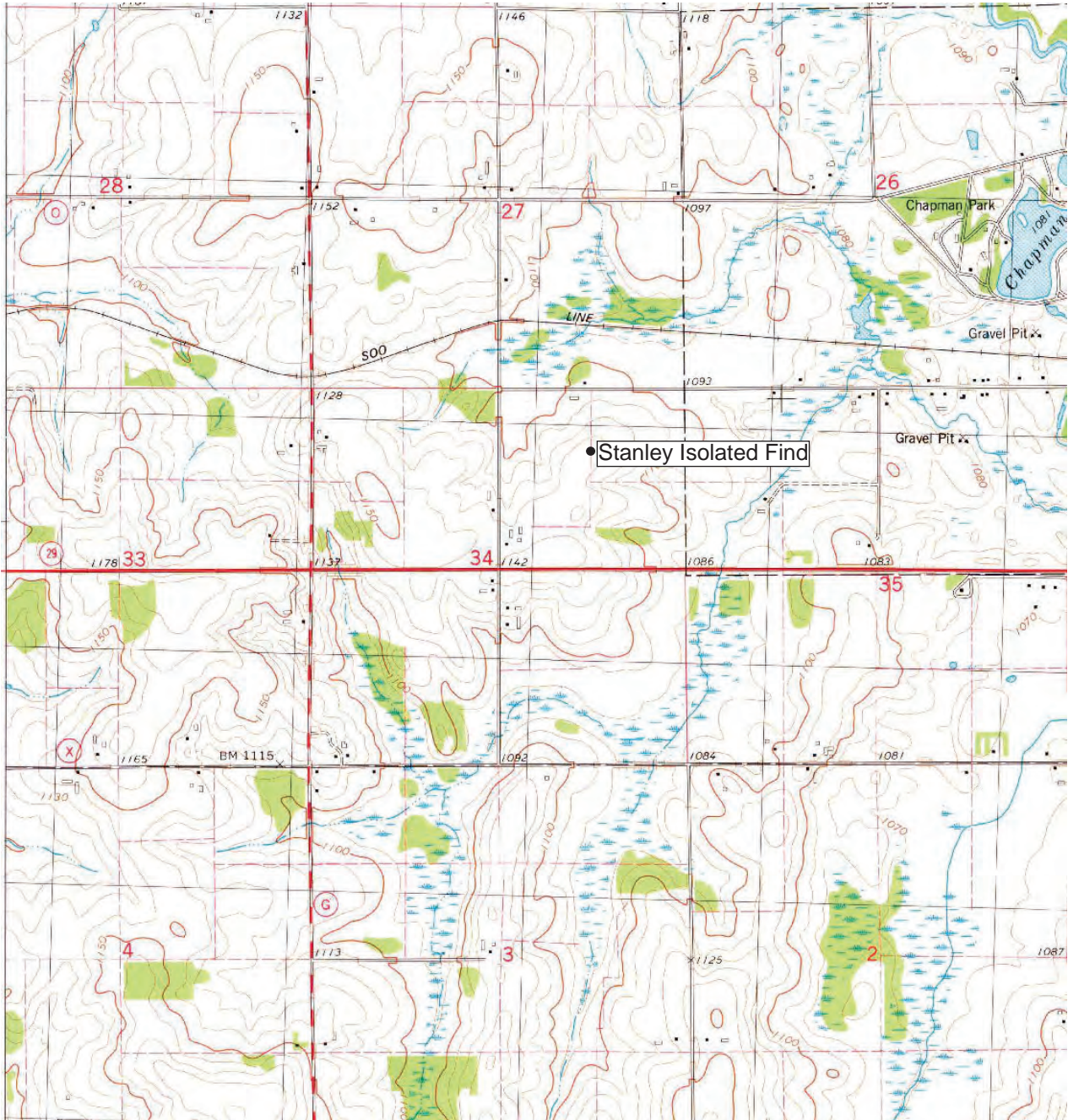
Investigator's Recommendation- (Check all that apply.)

- |  |  |
|--|--|
| <input type="checkbox"/> Additional Field Investigations | <input type="checkbox"/> No Additional Investigation |
| <input type="checkbox"/> Additional Archival Research    | <input type="checkbox"/> Redesign-avoid              |
| <input type="checkbox"/> Protect During Construction     | <input type="checkbox"/> Preserve in Place           |

Comments: \_\_\_\_\_

**Site Recorded For –**

- Section 106/Compliance WHS Project# \_\_\_\_\_
- State Regional Archaeological Program WHS Project# \_\_\_\_\_
- WHS Survey & Planning Grant WHS Project # \_\_\_\_\_
- THPO WHS Project# \_\_\_\_\_
- Personal/Private Site Investigation WHS Project# \_\_\_\_\_
- Education WHS Project# \_\_\_\_\_



Stanley Isolated Find  
Chippewa County  
2905W-34  
Stanley 7.5' USGS topographic map

**WISCONSIN PUBLIC LANDS FIELD ARCHAEOLOGICAL PERMIT 2023**  
REQUIRED TO CONDUCT ARCHAEOLOGY ON ALL NON-FEDERAL PUBLIC LAND UNDER WIS. STAT. § 44.47  
Wisconsin Historical Society

Name/Organization/Contact Jean Dowiasch Telephone 608-792-0781

Address 1725 State Street City La Crosse State WI Zip 54601

E-mail jdowiasch@uwlax.edu

Institutional Affiliation Mississippi Valley Archaeology Center

Location: County Chippewa Civil Town \_\_\_\_\_

Town 29 Range 5W Section 34 Quarter Sections NE

Hwy/Rd  Hwy/Rd: \_\_\_\_\_ Other Type of Project: municipal development

Project Description: Phase I survey of 111 acres for a proposed shovel ready development for the City of Stanley

Type of fieldwork: Phase I/Survey  Phase II/Testing  Phase III/Excavation  Monitoring

Purpose of the fieldwork: Federal Compliance  State Compliance  Education  Other

Site # N/A Burial Site # \_\_\_\_\_ Burial Permit Secured? Y  N  WHS #: \_\_\_\_\_

Dates of field work: Begin date: May 15, 2023 End date: June 2, 2023

What institution will curate recovered artifacts, notes, and records? MVAC  
(A curation agreement must be on file with WHS; all materials must be curated in an appropriate, staffed facility.)

Print name Jean Dowiasch  see attachments

Signature of Archaeologist Jean Dowiasch Date 5/11/2023

Maps and/or Letters of explanation can accompany this application

Landowner or custodian name CITY OF STANLEY Phone 715-644-5758

Affiliation: \_\_\_\_\_

Signature of Landowner AD Hean Date 5-12-2023

Administrative use only below this line.

Permit Approved Amy Rosebrough Date 5/15/2023

PLP # 23-0966

Dr. Amy Rosebrough  
Interim State Archaeologist  
Wisconsin Historical Society  
816 State Street, Madison, WI 53706  
608-264-6494  
statearchaeologist@wisconsinhistory.org



**WISCONSIN  
HISTORICAL  
SOCIETY**

One paper copy and one PDF copy of the final report must be submitted to the State Historic Preservation Office.

Additional authorization or permitting is necessary to conduct work within the boundaries of uncataloged and cataloged human burial sites under Wis. Stat. § 157.70. For more information, [wihist.org/Request-to-Disturb](http://wihist.org/Request-to-Disturb)

# ARCHAEOLOGICAL REPORTS INVENTORY FORM

WHS PROJECT #

COUNTY Chippewa

AUTHORS: Jean Dowiasch

REPORT TITLE: Results of a Phase I Archaeological Survey for a Proposed Shovel-Ready Development for the City of Stanley in Chippewa County, Wisconsin

DATE OF REPORT (MONTH AND YEAR): June 2023

SERIES/NUMBER: 1219

PLACE OF PUBLICATION: Mississippi Valley Archaeology Center

LOCATIONAL INFORMATION [LEGAL DESCRIPTION OF SURVEY AREA (T-R-S)]  
2905W-34

U.S.G.S. QUAD MAP(S): Stanley 7.5'

SITE(S) INVESTIGATED: Stanley Isolated Find (47CH-0XXX)

ACRES INVESTIGATED: 111

AGENCY #

## INVESTIGATION TECHNIQUES COMPLETED (Check all that apply.)

- |  |  |   |
|--|--|---|
| <input type="checkbox"/> Avocational Survey                        | <input type="checkbox"/> Chance Encounter                  | <input type="checkbox"/> Historical Research  |
| <input type="checkbox"/> Faunal Analysis                           | <input type="checkbox"/> Floral Analysis                   | <input type="checkbox"/> Interview/Informant  |
| <input checked="" type="checkbox"/> Literature Background Research | <input type="checkbox"/> Major Excavation/Phase III        | <input type="checkbox"/> Mechanical Stripping |
| <input type="checkbox"/> Monitoring                                | <input type="checkbox"/> Osteological Analysis             | <input type="checkbox"/> Geomorphology        |
| <input checked="" type="checkbox"/> Records/Background             | <input checked="" type="checkbox"/> Surface Survey         | <input type="checkbox"/> Soil Core            |
| <input type="checkbox"/> Remote Sensing                            | <input checked="" type="checkbox"/> Shovel Testing/Probing |   |
| <input type="checkbox"/> Test Excavation/Phase II                  | <input type="checkbox"/> Traditional Knowledge             |   |
| <input type="checkbox"/> Underwater                                | <input type="checkbox"/> Walk Over/Visual Inspection       |   |

ABSTRACT:  Included in report  Written in space below





May 18, 2023

Mr. Neil Bowe, PLS  
CBS Squared, Inc.  
770 Technology Way, Suite 1A  
Chippewa Falls, WI 54729

Subject: Stanley Redevelopment  
Stanley, Chippewa County  
Historical Services

Dear Mr. Bowe:

Mead & Hunt, Inc. (Mead & Hunt) has completed the architecture/history review of the proposed Stanley Redevelopment, which will involve the potential development of a 111-acre site bordering the west side of the city. A project location map may be viewed in Attachment A.

Based on project activities, the Area of Potential Effects (APE) was delineated to include the 111-acre area that will be redeveloped and the first tier of adjacent properties. The site is roughly bound by 345<sup>th</sup> Street to the west, 80<sup>th</sup> Avenue to the north, Janicki Road to the east, and State Trunk Highway 29 to the south. A map of the site can be viewed in Attachment B. Mead & Hunt reviewed the Wisconsin Historic Preservation Database (WHPD) to identify previously recorded properties within the APE, including those listed in the National Register of Historic Places (National Register). No previously surveyed properties were found within or immediately adjacent to the APE.

Mead & Hunt completed a field survey of the APE in April 2023. Within the APE we looked for buildings, structures, and/or objects that are at least 40 years of age, retain sufficient integrity, and appear to be potentially eligible for the National Register based on architectural and/or historical significance. The 111 acres proposed for development are primarily agricultural and surrounded by farmsteads. In addition, industrial development borders the property to the east/northeast. The built environment within and immediately adjacent to the APE includes modest and generally altered residences, agricultural outbuildings, and industrial buildings; none of which meet survey criteria individually or as a complex.

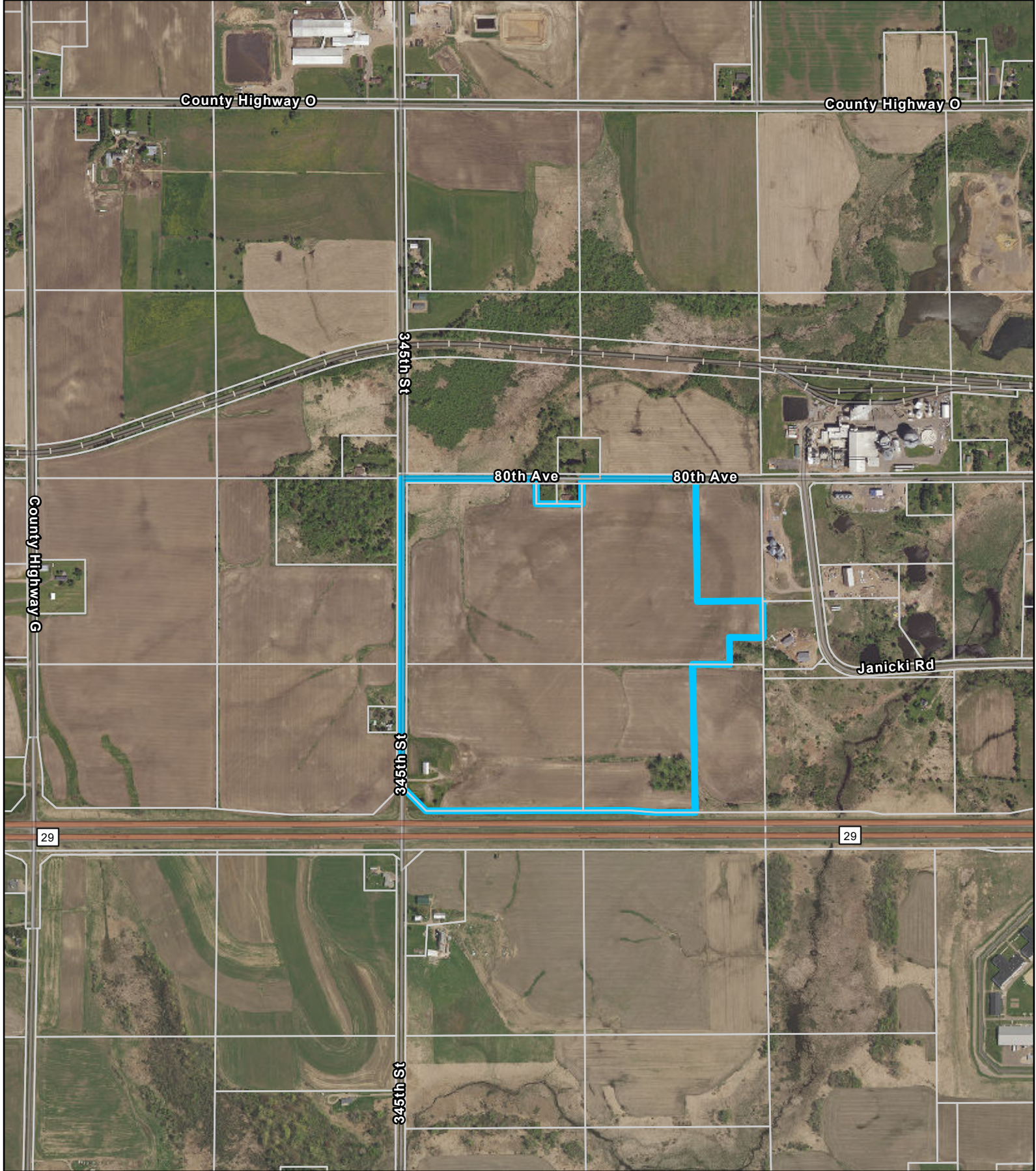
Mead & Hunt concludes that no historic properties are present in the APE. No further architecture/history work is recommended for this project. If you have any questions or require additional information, please contact me by phone at (918) 586-7285 or at [liz.boyer@meadhunt.com](mailto:liz.boyer@meadhunt.com).

Mr. Neil Bowe  
May 18, 2023  
Page 2

Sincerely,

A handwritten signature in blue ink that reads "Liz M Boyer". The signature is written in a cursive style with a large initial "L" and "B".

Liz Boyer  
MEAD & HUNT, Inc.  
Historian





**Stanley Redevelopment  
City of Stanley, Chippewa County, WI  
Section 106 Historical Services**

0 500 1,000 2,000  
Feet

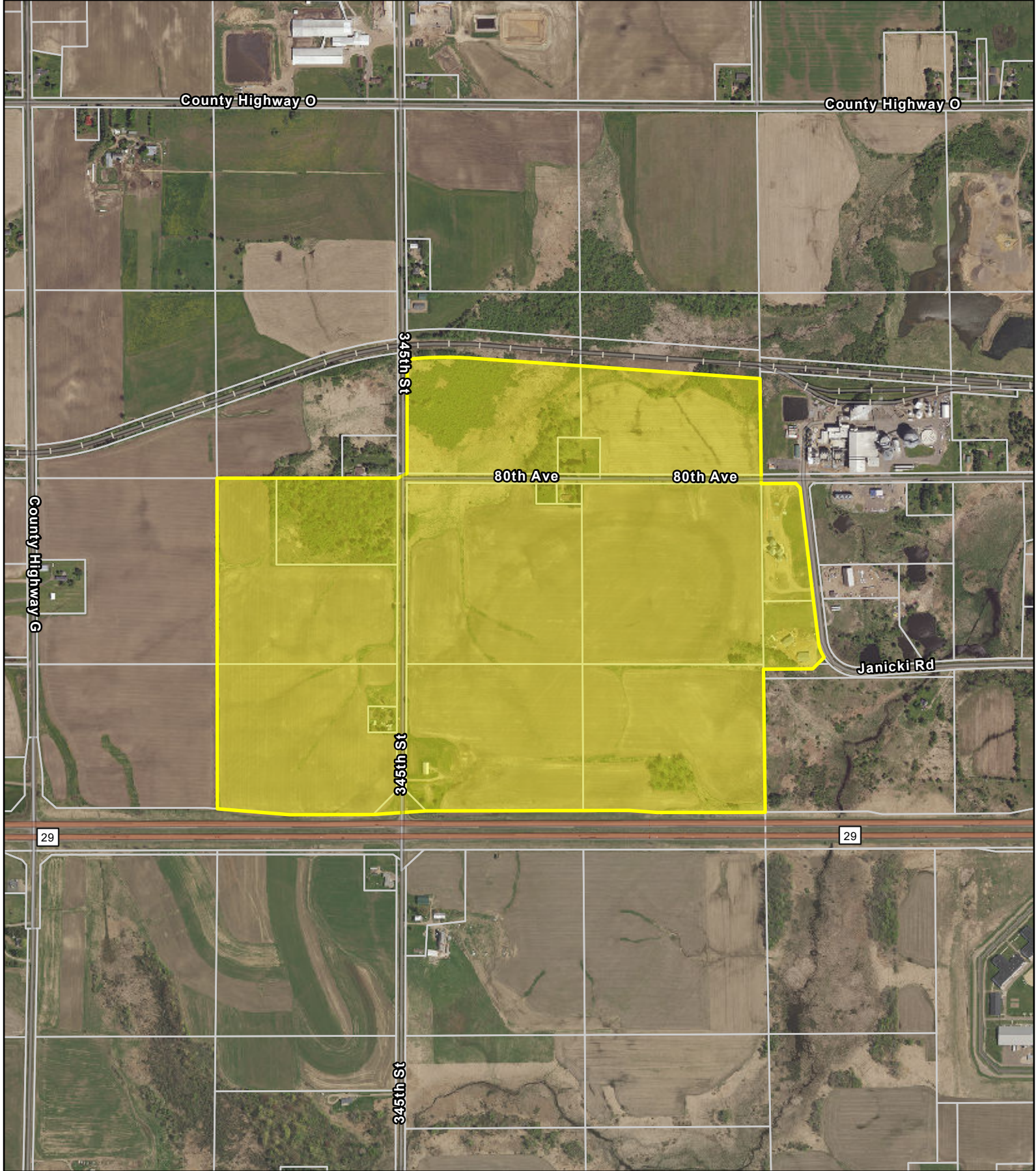


**Legend**

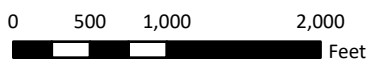
-  Project Location
-  Chippewa County Parcels





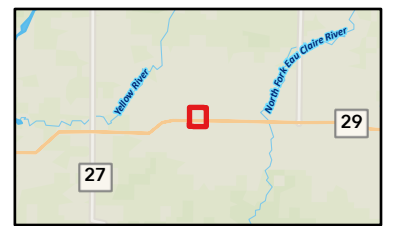


**Stanley Redevelopment**  
**City of Stanley, Chippewa County, WI**  
**Section 106 Historical Services**



**Legend**

- APE
- Chippewa County Parcels







Professional Service Industries, Inc.  
12839 30th Avenue, Chippewa Falls, WI 54729  
Phone: (715) 738-2770  
Fax: (715) 738-2771

July 3, 2023

Mr. Charlie Walker  
Chippewa County Economic Development Corporation  
770 Technology Way  
Chippewa Falls, Wisconsin 54729

SUBJECT: Geotechnical Engineering Services  
Planned Shovel Ready Certified Building Site  
Stanley, Wisconsin  
PSI Project No. 00952022 (Revised)

Dear Mr. Walker,

In accordance with your request, the results of the soil borings for the above-referenced project are provided herein. The description of services and authorization to perform this subsurface exploration were in the form of PSI Proposal No. 397836, dated April 19, 2023. The general conditions for the performance of the work were referenced in the proposal. This report has been prepared on behalf of and exclusively for the use of the Chippewa County Economic Development Corporation. The information contained in this report may not be relied upon by any other parties without the express written consent of PSI, and acceptance by such parties of PSI's General Conditions.

The purpose of this project was to perform soil borings to provide subsurface information for general site feasibility and preliminary design planning for the proposed project. Recommendations for structures, and for utilities and pavements, were beyond the scope of this project. Five (5) soil test borings were performed for this project to depths of about 21.5 feet. A representative of the client staked the boring locations and provided ground surface elevations.

The soil test borings were performed with an ATV-mounted drilling rig utilizing continuous flight hollow stem augers to advance the holes. Representative samples were obtained by the Standard Penetration Test (SPT) method using split-spoon sampling procedures in general accordance with ASTM D-1586 procedures. Samples were secured at 2.5-foot intervals to a depth of 10 feet, and then at 5-foot intervals to the end of the borings. The standard penetration value (N) is defined as the number of blows of a 140 pound hammer, falling 30 inches, required to advance the split-spoon sampler 1 foot into the soil. The sampler is lowered to the bottom of the drill hole and the number of blows recorded for each of the three (3) successive increments of 6 inches of penetration. The "N" value is obtained by adding the second and third incremental numbers. The SPT provides a means of estimating the relative density of granular soils and comparative consistency of cohesive soils, thereby providing a method of evaluating the relative strength and compressibility characteristics of the subsoils.

The SPT soil samples were transferred into clean glass jars immediately after retrieval, and returned to the laboratory upon completion of the field operations. Samples will be discarded unless other instructions are received. All soil samples were visually classified by a soils engineer in general accordance with the Unified Soil Classification System (ASTM D-2488-75). After completion of the borings, the auger holes were backfilled to the ground surface with bentonite chips.

A copy of the Soil Boring Logs and Boring Location Diagram (Figure 1) are enclosed. A description of the subsurface conditions encountered at the test boring locations is shown on the Soil Boring Logs. The lines of demarcation shown on the logs represent an approximate boundary between the various soil classifications; however, some variation is expected. It must be recognized that the soil descriptions are considered representative estimates for the specific test hole location, but that variations may occur between and beyond the sampling intervals and boring locations. Soil depths, topsoil and layer thicknesses, and demarcation lines can be utilized for preconstruction planning, but should not be expected to yield exact and final quantities. A summary of the major soil profile components is described in the following paragraphs. The terms and symbols used on the logs are described in the attached General Notes.

The surface of the site at each of the borings was covered with about 4 to 8 inches of silty clay topsoil. The topsoil at the borings was underlain by clay soils, with varying amounts of silt, sand and gravel, to a depth of about 2.5 feet (EL. 1110 to EL. 1133.3) below ground surface. The clay soils may be considered medium stiff to stiff with unconfined compressive strengths of 0.75 to 2.0 tons per square foot.

The clay soils at each of the borings were generally underlain by sand soils, with varying amounts of silt, clay and gravel, to at least the termination depth of B-3 (21.5 feet) and to depths of about 7.5 to 20 feet (EL. 1101.9 to EL. 1107.2) below ground surface at the remaining borings. The sand soils may be considered loose to very dense with standard penetration resistance of 9 to 62 blows per foot. It should be noted that the sand soils encountered at boring B-4 from depths of about 5 to 7.5 feet (EL. 1105.2 to EL. 1107.7) below ground surface were classified as possible weathered sandstone.

The sand soils at borings B-1, B-2 and B-4 were underlain by weathered sandstone to at least the termination depth of the borings (21.5 feet). The weathered sandstone may be considered dense to extremely dense with standard penetration resistance of 32 blows per foot to 50 blows per 4 inches of sampler penetration. The sand soils at boring B-5 were underlain by very stiff to hard clay soils with sand to at least the termination depth of the boring (21.5).

Groundwater observations were made during the drilling operations and in the open boreholes at completion. Groundwater was not encountered during auger advancement or upon completion at any of the borings. It must be recognized that groundwater levels fluctuate with time due to variations in seasonal precipitation, lateral drainage conditions, and soil permeability characteristics. Longer term monitoring would be required to further evaluate groundwater levels on this site.

This preliminary exploration has been commissioned to provide subsurface information for general site feasibility and preliminary design planning for the proposed development. The number and spacing of the borings requested are not considered sufficient to serve as a conventional foundation evaluation for future buildings, or for more detailed planning with regard to pavements, utility depths and final surface grades. Additional borings are necessary and recommended across the site to assist in developing surface grades and establishing utility depths (considering the presence of weathered sandstone). Additional borings are also recommended and necessary within each of the proposed building footprints to further evaluate more specific soil conditions and provide subsequent recommendations at each building location.

The soils encountered in the borings are considered to meet the criteria for Seismic Site Class C or D (depending on location) in accordance with 1613.2.5.2 of the International Building Code-2018

(which directs to the simplified design procedure outlined in ASCE 7 – Minimum Design Loads and Associated Criteria for Buildings and Other Structures).

Please call at any time with any questions or comments you may have. PSI appreciates the opportunity to be of service on this project, and looks forward to continuing as your geotechnical consultant during the design and construction phases, as well as your upcoming projects.

Sincerely,

**PROFESSIONAL SERVICE INDUSTRIES, INC.**

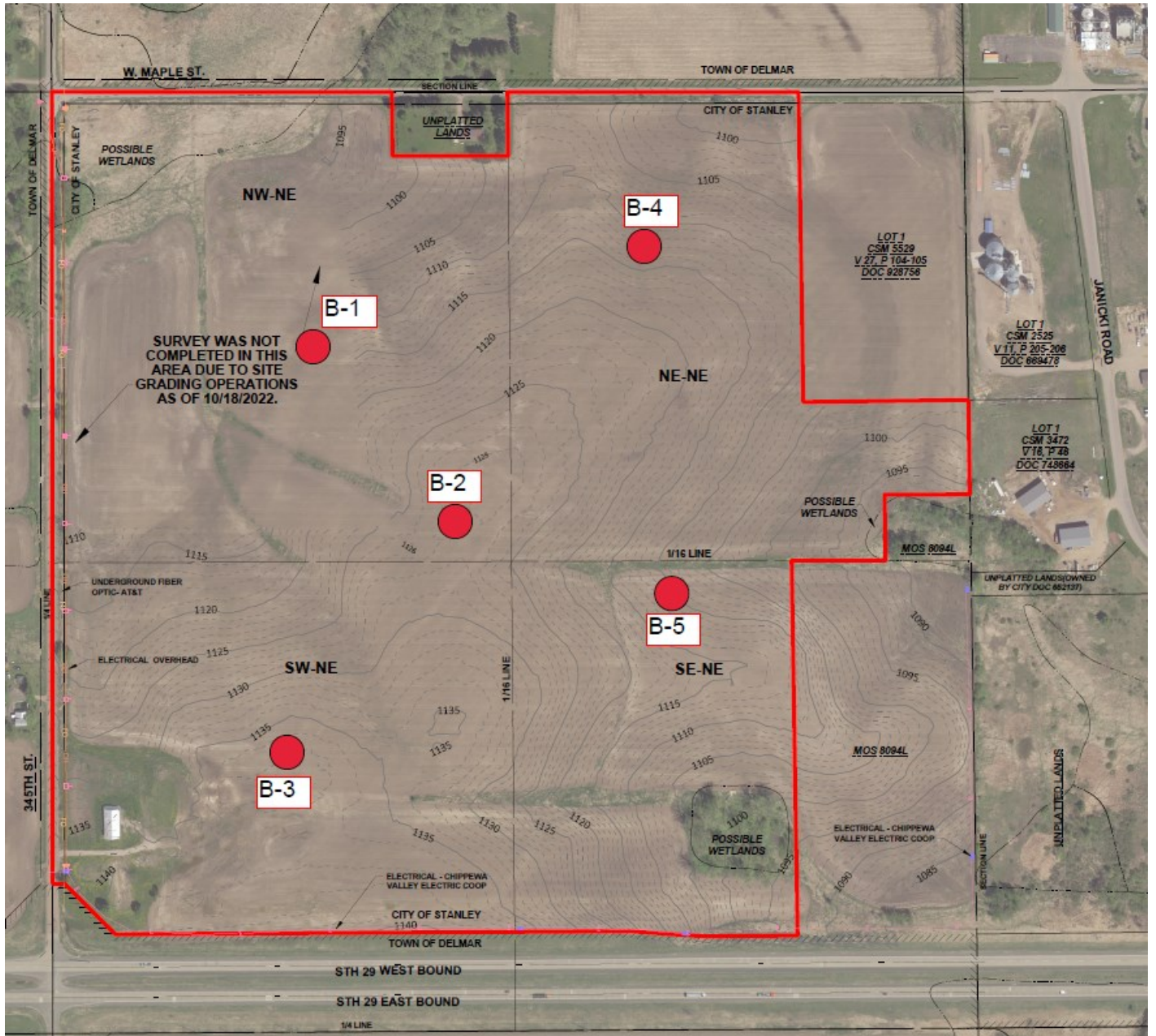


Kalie M. Ress  
Staff Geologist



Jeffrey A. Manninen  
Branch Manager – Chippewa Falls

Attachments: Figure 1 - Boring Location Diagram  
Soil Boring Logs  
General Notes



Planned Shovel Ready  
 Certified Building Site  
 Stanley, Wisconsin

DATE: June 30, 2023

PROJECT NO: 00952022

FIGURE 1 - BORING LOCATION DIAGRAM

PAGE 1 OF 1





## SOIL BORING LOG: B - 1

**Project:** Shovel Ready Certified Building Site

**Project No.:** 00952022

**Location:** Stanley, Wisconsin

**Drill Date:** May 9, 2023

DEPTH/EL. (feet)	VISUAL SOIL CLASSIFICATION GROUND SURFACE ELEVATION: 1112.5	SAMPLE NO.	N (bpf)	Qp (tsf)	Qu (tsf)	MC (%)	REMARKS						
1	1111.5	0 - 4" Dark brown silty CLAY, trace sand and root hairs, damp (TOPSOIL)		1-AU	--	0.75	28						
2	1110.5	Pale grayish brown and orange mottled silty CLAY, trace silt seams, moist											
3	1109.5	2-SS	17			9							
4	1108.5	Reddish brown clayey SAND, with gravel, moist											
5	1107.5							3-SS	11			11	
6	1106.5							White, tan and yellow Weathered SANDSTONE, trace clay seams					
7	1105.5	4-SS	42			--							
8	1104.5	White and pale pink Weathered SANDSTONE, with green clay seams											
9	1103.5							5-SS	50/5.5"			--	
10	1102.5							White and pale pink Weathered SANDSTONE, with green clay seams					
11	1101.5	6-SS	50/4"			--							
12	1100.5	END OF BORING @ 21.5± FEET											
13	1099.5							END OF BORING @ 21.5± FEET					
14	1098.5												
15	1097.5	END OF BORING @ 21.5± FEET											
16	1096.5							END OF BORING @ 21.5± FEET					
17	1095.5	END OF BORING @ 21.5± FEET											
18	1094.5							END OF BORING @ 21.5± FEET					
19	1093.5	END OF BORING @ 21.5± FEET											
20	1092.5							END OF BORING @ 21.5± FEET					
21	1091.5	END OF BORING @ 21.5± FEET											
22	1090.5							END OF BORING @ 21.5± FEET					
23	1089.5	END OF BORING @ 21.5± FEET											
24	1088.5							END OF BORING @ 21.5± FEET					
25	1087.5	END OF BORING @ 21.5± FEET											

**FIELD OBSERVATIONS:**

Water Level during drilling: Not Encountered ▼  
 Water Level upon completion: Not Present ▼  
 Caved at upon completion: 17± feet below ground surface (EL 1095.5±) ↓  
 Frost Depth: N/A  
 Water Level delayed: N/A  
 Caved at delayed: N/A

**ADDITIONAL COMMENTS:**

**Note:** Lines of stratification represent an **approximate** boundary between soil types. Variations may occur between sampling intervals and/or boring locations. Transitions may also be gradual.



## SOIL BORING LOG: B - 2

**Project:** Shovel Ready Certified Building Site

**Project No.:** 00952022

**Location:** Stanley, Wisconsin

**Drill Date:** May 9, 2023

DEPTH/EL. (feet)	VISUAL SOIL CLASSIFICATION GROUND SURFACE ELEVATION: 1127.2	SAMPLE NO.	N (bpf)	Qp (tsf)	Qu (tsf)	MC (%)	REMARKS	
1	1126.2	0 - 7" Dark brown silty CLAY, trace sand and root hairs, damp (TOPSOIL)		1-AU	--	1.75	20	
2	1125.2	Brown and reddish brown mottled sandy CLAY, trace sand seams and gravel, damp						
3	1124.2	2-SS	13	1.5		13		
4	1123.2							
5	1122.2							
6	1121.2	3-SS	11			11		
7	1120.2							
8	1119.2	4-SS	11			13		
9	1118.2							
10	1117.2							
11	1116.2	5-SS	9			15		
12	1115.2	Reddish brown clayey SAND, trace gravel, moist						
13	1114.2							
14	1113.2							
15	1112.2							
16	1111.2	6-SS	13			13		
17	1110.2							
18	1109.2							
19	1108.2							
20	1107.2							
21	1106.2	7-SS	63/10"			--		
22	1105.2	END OF BORING @ 21.5± FEET						
23	1104.2							
24	1103.2							
25	1102.2							

**FIELD OBSERVATIONS:**

Water Level during drilling: Not Encountered ▼  
 Water Level upon completion: Not Present ▼  
 Caved at upon completion: 15± feet below ground surface (EL 1112.2±) ↓  
 Frost Depth N/A  
 Water Level delayed: N/A  
 Caved at delayed: N/A

**ADDITIONAL COMMENTS:**

**Note:** Lines of stratification represent an approximate boundary between soil types. Variations may occur between sampling intervals and/or boring locations. Transitions may also be gradual.



## SOIL BORING LOG: B - 3

**Project:** Shovel Ready Certified Building Site

**Project No.:** 00952022

**Location:** Stanley, Wisconsin

**Drill Date:** May 9, 2023

DEPTH/EL. (feet)	VISUAL SOIL CLASSIFICATION GROUND SURFACE ELEVATION: 1135.8	SAMPLE NO.	N (bpf)	Qp (tsf)	Qu (tsf)	MC (%)	REMARKS						
1	1134.8	0 - 7" Dark brown silty CLAY, trace sand and root hairs, damp (TOPSOIL)		1-AU	--	0.75	22						
2	1133.8	Pale grayish brown and orange mottled silty CLAY, trace silt seams, moist											
3	1132.8												
4	1131.8							2-SS	12			11	
5	1130.8												
6	1129.8							3-SS	20			10	
7	1128.8												
8	1127.8	Reddish brown clayey SAND, trace gravel, moist											
9	1126.8							4-SS	18			--	
10	1125.8												
11	1124.8							5-SS	27			12	
12	1123.8												
13	1122.8	Reddish brown SAND, with silt, clay and gravel, damp											
14	1121.8												
15	1120.8												
16	1119.8							6-SS	62			4	
17	1118.8												
18	1117.8	END OF BORING @ 21.5± FEET											
19	1116.8												
20	1115.8												
21	1114.8	7-SS	47			6							
22	1113.8												
23	1112.8												
24	1111.8												
25	1110.8												

**FIELD OBSERVATIONS:**

Water Level during drilling: Not Encountered ▼  
 Water Level upon completion: Not Present ▼  
 Caved at upon completion: 16± feet below ground surface (EL 1119.8±) ↓  
 Frost Depth: N/A  
 Water Level delayed: N/A  
 Caved at delayed: N/A

**ADDITIONAL COMMENTS:**

**Note:** Lines of stratification represent an approximate boundary between soil types. Variations may occur between sampling intervals and/or boring locations. Transitions may also be gradual.



## SOIL BORING LOG: B - 4

**Project:** Shovel Ready Certified Building Site

**Project No.:** 00952022

**Location:** Stanley, Wisconsin

**Drill Date:** May 9, 2023

DEPTH/EL. (feet)	VISUAL SOIL CLASSIFICATION GROUND SURFACE ELEVATION: 1112.7	SAMPLE NO.	N (bpf)	Qp (tsf)	Qu (tsf)	MC (%)	REMARKS	
1	1111.7	0 - 8" Dark grayish brown silty CLAY, trace sand, root hairs and corn stubble, very moist (TOPSOIL)		1-AU	--	2.0	22	
2	1110.7	Grayish brown and reddish brown mottled sandy CLAY, trace sand seams and gravel, damp						
3	1109.7			2-SS	13		13	
4	1108.7	Reddish brown clayey SAND, trace gravel, damp						
5	1107.7							
6	1106.7	Yellowish tan SAND, very moist (Possible Weathered SANDSTONE)		3-SS	15		4	
7	1105.7							
8	1104.7			4-SS	59		--	
9	1103.7							
10	1102.7							
11	1101.7	White and tan Weathered SANDSTONE		5-SS	50/5"		--	
12	1100.7							
13	1099.7							
14	1098.7							
15	1097.7							
16	1096.7			6-SS	50/5"		--	
17	1095.7							
18	1094.7	White and tan Weathered SANDSTONE, trace clay seams						
19	1093.7							
20	1092.7							
21	1091.7			7-SS	50/5.5"		--	
22	1090.7	END OF BORING @ 21.5± FEET						
23	1089.7							
24	1088.7							
25	1087.7							

**FIELD OBSERVATIONS:**

Water Level during drilling: Not Encountered ▼  
 Water Level upon completion: Not Present ▼  
 Caved at upon completion: 17± feet below ground surface (EL 1095.7±) ↓  
 Frost Depth N/A  
 Water Level delayed: N/A  
 Caved at delayed: N/A

**ADDITIONAL COMMENTS:**

**Note:** Lines of stratification represent an **approximate** boundary between soil types. Variations may occur between sampling intervals and/or boring locations. Transitions may also be gradual.





# SOIL BORING LOG: B - 5

**Project:** Shovel Ready Certified Building Site

**Project No.:** 00952022

**Location:** Stanley, Wisconsin

**Drill Date:** May 9, 2023

DEPTH/EL. (feet)	VISUAL SOIL CLASSIFICATION GROUND SURFACE ELEVATION: 1116.9	SAMPLE NO.	N (bpf)	Qp (tsf)	Qu (tsf)	MC (%)	REMARKS
1 1115.9	0 - 4" Dark brown silty CLAY, trace sand, root hairs and corn stubble, very moist (TOPSOIL)	1-AU	--			21	
2 1114.9	Brown and orange mottled silty CLAY, damp						
3 1113.9		2-SS	34			10	
4 1112.9							
5 1111.9							
6 1110.9	Reddish brown clayey SAND, with gravel, moist	3-SS	11			10	
7 1109.9							
8 1108.9		4-SS	12			12	
9 1107.9							
10 1106.9							
11 1105.9		5-SS	23			2	
12 1104.9							
13 1103.9	Tan SAND, damp						
14 1102.9							
15 1101.9							
16 1100.9		6-SS	33			11	
17 1099.9							
18 1098.9	Brown CLAY, with sand, damp						
19 1097.9							
20 1096.9							
21 1095.9		7-SS	28			11	
22 1094.9	END OF BORING @ 21.5± FEET						
23 1093.9							
24 1092.9							
25 1091.9							

**FIELD OBSERVATIONS:**

Water Level during drilling: Not Encountered ▼  
 Water Level upon completion: Not Present ▼  
 Caved at upon completion: 14± feet below ground surface (EL 1102.9±) ↓  
 Frost Depth N/A  
 Water Level delayed: N/A  
 Caved at delayed: N/A

**ADDITIONAL COMMENTS:**

**Note:** Lines of stratification represent an approximate boundary between soil types. Variations may occur between sampling intervals and/or boring locations. Transitions may also be gradual.



## GENERAL NOTES

### SAMPLE IDENTIFICATION

The Unified Soil Classification System (USCS), AASHTO 1988 and ASTM designations D2487 and D-2488 are used to identify the encountered materials unless otherwise noted. Coarse-grained soils are defined as having more than 50% of their dry weight retained on a #200 sieve (0.075mm); they are described as: boulders, cobbles, gravel or sand. Fine-grained soils have less than 50% of their dry weight retained on a #200 sieve; they are defined as silts or clay depending on their Atterberg Limit attributes. Major constituents may be added as modifiers and minor constituents may be added according to the relative proportions based on grain size.

### DRILLING AND SAMPLING SYMBOLS

SFA: Solid Flight Auger - typically 4" diameter flights, except where noted.	☒	SS: Split-Spoon - 1 3/8" I.D., 2" O.D., except where noted.
HSA: Hollow Stem Auger - typically 3 1/4" or 4 1/4" I.D. openings, except where noted.	■	ST: Shelby Tube - 3" O.D., except where noted.
M.R.: Mud Rotary - Uses a rotary head with Bentonite or Polymer Slurry	▮	RC: Rock Core
R.C.: Diamond Bit Core Sampler	⬇	TC: Texas Cone
H.A.: Hand Auger	☞	BS: Bulk Sample
P.A.: Power Auger - Handheld motorized auger	☒	PM: Pressuremeter
		CPT-U: Cone Penetrometer Testing with Pore-Pressure Readings

### SOIL PROPERTY SYMBOLS

- N: Standard "N" penetration: Blows per foot of a 140 pound hammer falling 30 inches on a 2-inch O.D. Split-Spoon.
- N<sub>60</sub>: A "N" penetration value corrected to an equivalent 60% hammer energy transfer efficiency (ETR)
- Q<sub>u</sub>: Unconfined compressive strength, TSF
- Q<sub>p</sub>: Pocket penetrometer value, unconfined compressive strength, TSF
- w%: Moisture/water content, %
- LL: Liquid Limit, %
- PL: Plastic Limit, %
- PI: Plasticity Index = (LL-PL), %
- DD: Dry unit weight, pcf
- ▼, ▽, ▾ Apparent groundwater level at time noted

### RELATIVE DENSITY OF COARSE-GRAINED SOILS    ANGULARITY OF COARSE-GRAINED PARTICLES

<u>Relative Density</u>	<u>N - Blows/foot</u>
Very Loose	0 - 4
Loose	4 - 10
Medium Dense	10 - 30
Dense	30 - 50
Very Dense	50 - 80
Extremely Dense	80+

<u>Description</u>	<u>Criteria</u>
Angular:	Particles have sharp edges and relatively plane sides with unpolished surfaces
Subangular:	Particles are similar to angular description, but have rounded edges
Subrounded:	Particles have nearly plane sides, but have well-rounded corners and edges
Rounded:	Particles have smoothly curved sides and no edges

### GRAIN-SIZE TERMINOLOGY

<u>Component</u>	<u>Size Range</u>
Boulders:	Over 300 mm (>12 in.)
Cobbles:	75 mm to 300 mm (3 in. to 12 in.)
Coarse-Grained Gravel:	19 mm to 75 mm (¾ in. to 3 in.)
Fine-Grained Gravel:	4.75 mm to 19 mm (No.4 to ¾ in.)
Coarse-Grained Sand:	2 mm to 4.75 mm (No.10 to No.4)
Medium-Grained Sand:	0.42 mm to 2 mm (No.40 to No.10)
Fine-Grained Sand:	0.075 mm to 0.42 mm (No. 200 to No.40)
Silt:	0.005 mm to 0.075 mm
Clay:	<0.005 mm

### PARTICLE SHAPE

<u>Description</u>	<u>Criteria</u>
Flat:	Particles with width/thickness ratio > 3
Elongated:	Particles with length/width ratio > 3
Flat & Elongated:	Particles meet criteria for both flat and elongated

### RELATIVE PROPORTIONS OF FINES

<u>Descriptive Term</u>	<u>% Dry Weight</u>
Trace:	< 5%
With:	5% to 12%
Modifier:	>12%



## GENERAL NOTES

(Continued)

### CONSISTENCY OF FINE-GRAINED SOILS

<u>Q<sub>u</sub> - TSF</u>	<u>N - Blows/foot</u>	<u>Consistency</u>
0 - 0.25	0 - 2	Very Soft
0.25 - 0.50	2 - 4	Soft
0.50 - 1.00	4 - 8	Firm (Medium Stiff)
1.00 - 2.00	8 - 15	Stiff
2.00 - 4.00	15 - 30	Very Stiff
4.00 - 8.00	30 - 50	Hard
8.00+	50+	Very Hard

### MOISTURE CONDITION DESCRIPTION

<u>Description</u>	<u>Criteria</u>
Dry:	Absence of moisture, dusty, dry to the touch
Moist:	Damp but no visible water
Wet:	Visible free water, usually soil is below water table

### RELATIVE PROPORTIONS OF SAND AND GRAVEL

<u>Descriptive Term</u>	<u>% Dry Weight</u>
Trace:	< 15%
With:	15% to 30%
Modifier:	>30%

### STRUCTURE DESCRIPTION

<u>Description</u>	<u>Criteria</u>	<u>Description</u>	<u>Criteria</u>
Stratified:	Alternating layers of varying material or color with layers at least ¼-inch (6 mm) thick	Blocky:	Cohesive soil that can be broken down into small angular lumps which resist further breakdown
Laminated:	Alternating layers of varying material or color with layers less than ¼-inch (6 mm) thick	Lensed:	Inclusion of small pockets of different soils
Fissured:	Breaks along definite planes of fracture with little resistance to fracturing	Layer:	Inclusion greater than 3 inches thick (75 mm)
Slickensided:	Fracture planes appear polished or glossy, sometimes striated	Seam:	Inclusion 1/8-inch to 3 inches (3 to 75 mm) thick extending through the sample
		Parting:	Inclusion less than 1/8-inch (3 mm) thick

### SCALE OF RELATIVE ROCK HARDNESS

<u>Q<sub>u</sub> - TSF</u>	<u>Consistency</u>
2.5 - 10	Extremely Soft
10 - 50	Very Soft
50 - 250	Soft
250 - 525	Medium Hard
525 - 1,050	Moderately Hard
1,050 - 2,600	Hard
>2,600	Very Hard

### ROCK BEDDING THICKNESSES

<u>Description</u>	<u>Criteria</u>
Very Thick Bedded	Greater than 3-foot (>1.0 m)
Thick Bedded	1-foot to 3-foot (0.3 m to 1.0 m)
Medium Bedded	4-inch to 1-foot (0.1 m to 0.3 m)
Thin Bedded	1¼-inch to 4-inch (30 mm to 100 mm)
Very Thin Bedded	½-inch to 1¼-inch (10 mm to 30 mm)
Thickly Laminated	1/8-inch to ½-inch (3 mm to 10 mm)
Thinly Laminated	1/8-inch or less "paper thin" (<3 mm)

### ROCK VOIDS

<u>Voids</u>	<u>Void Diameter</u>
Pit	<6 mm (<0.25 in)
Vug	6 mm to 50 mm (0.25 in to 2 in)
Cavity	50 mm to 600 mm (2 in to 24 in)
Cave	>600 mm (>24 in)

### GRAIN-SIZED TERMINOLOGY

(Typically Sedimentary Rock)

<u>Component</u>	<u>Size Range</u>
Very Coarse Grained	>4.76 mm
Coarse Grained	2.0 mm - 4.76 mm
Medium Grained	0.42 mm - 2.0 mm
Fine Grained	0.075 mm - 0.42 mm
Very Fine Grained	<0.075 mm

### ROCK QUALITY DESCRIPTION

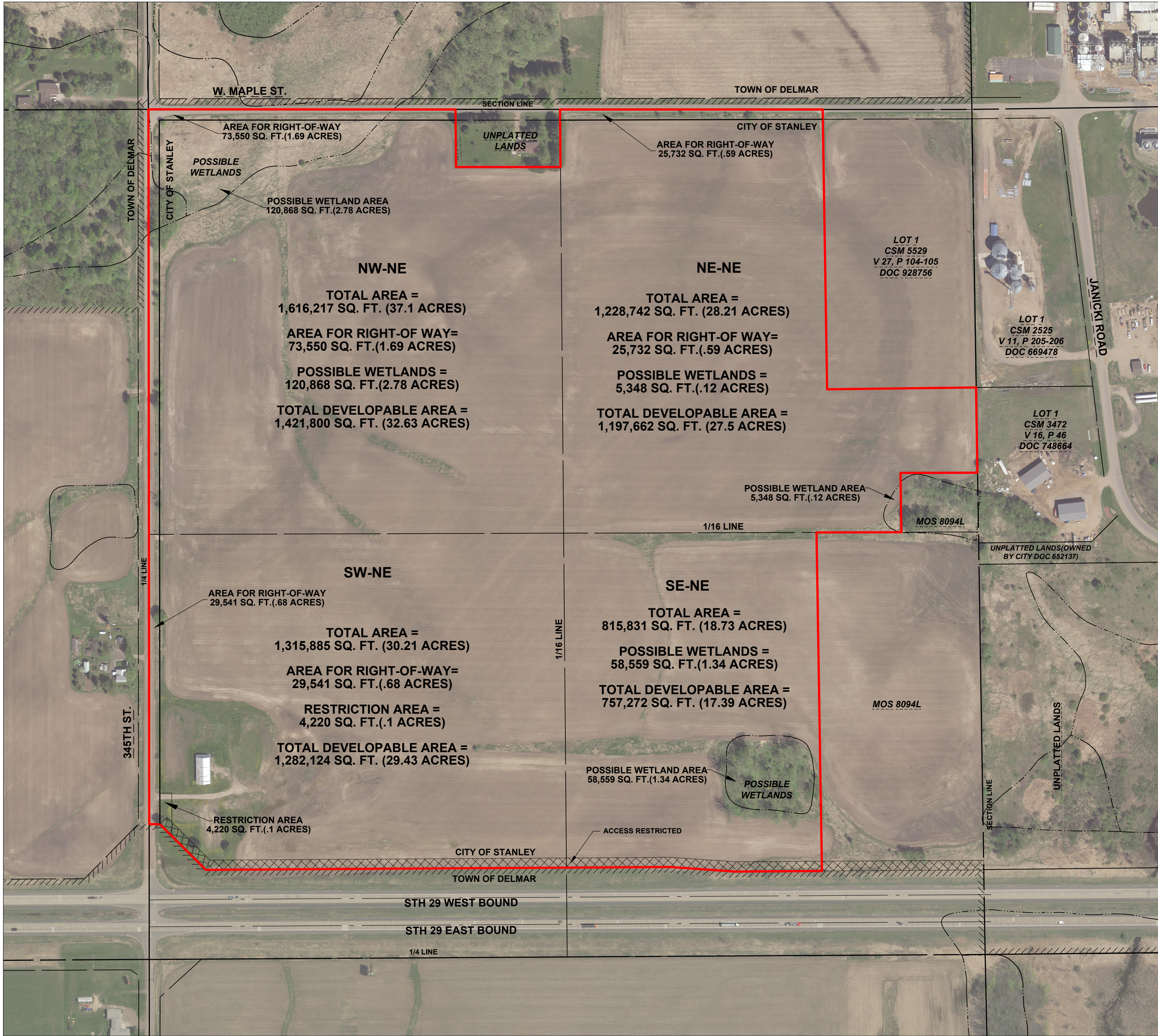
<u>Rock Mass Description</u>	<u>RQD Value</u>
Excellent	90 -100
Good	75 - 90
Fair	50 - 75
Poor	25 -50
Very Poor	Less than 25

### DEGREE OF WEATHERING

Slightly Weathered:	Rock generally fresh, joints stained and discoloration extends into rock up to 25 mm (1 in), open joints may contain clay, core rings under hammer impact.
Weathered:	Rock mass is decomposed 50% or less, significant portions of the rock show discoloration and weathering effects, cores cannot be broken by hand or scraped by knife.
Highly Weathered:	Rock mass is more than 50% decomposed, complete discoloration of rock fabric, core may be extremely broken and gives clunk sound when struck by hammer, may be shaved with a knife.



# DEVELOPABLE ACREAGE

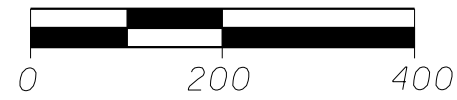


## LEGEND

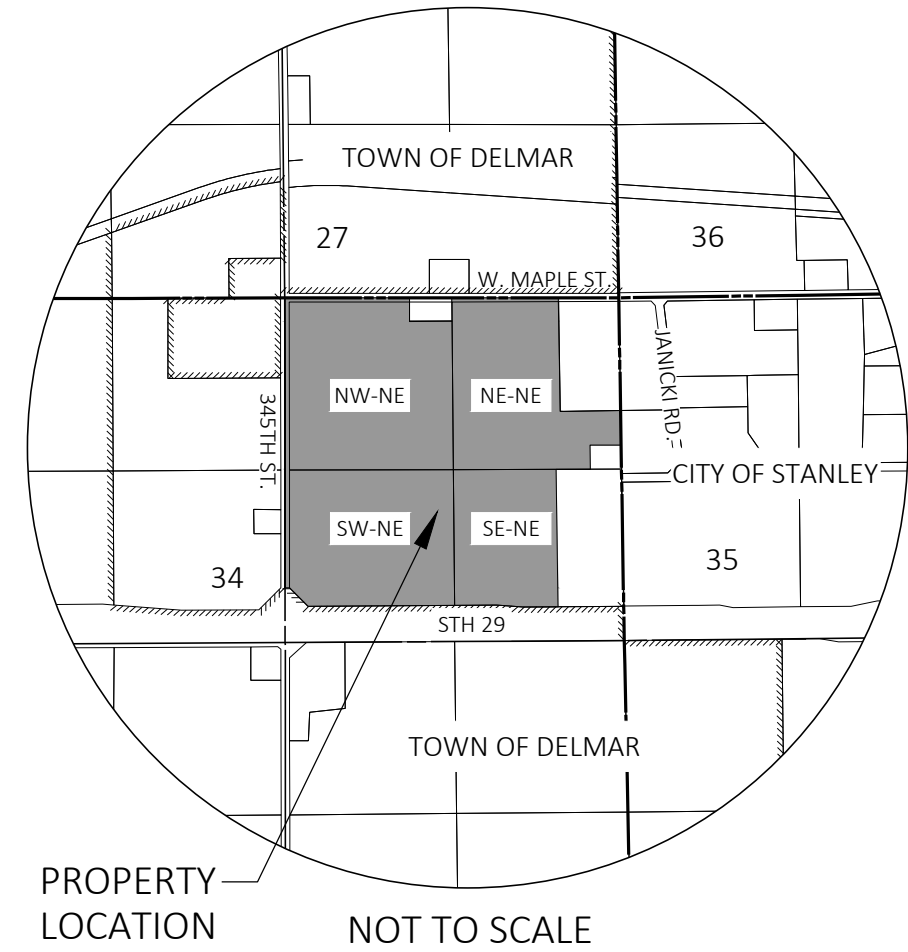
— PROPERTY BOUNDARY

N

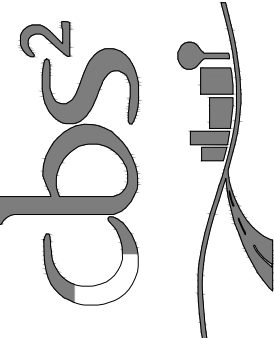
## SCALE



## VICINITY MAP



ENGINEERS - SURVEYORS - ARCHITECTS  
 770 TECHNOLOGY WAY  
 CHIPPEWA FALLS, WI 54729  
 PHONE: 715.861.5226  
 www.cbssquaredinc.com



## DEVELOPABLE ACREAGE STANLEY, WI

DATE:	3/14/2023	REVISION DATE:	
DRAWN BY:	BPS	CHECKED BY:	NCB
PROJECT NO.:	CCEDC	SCALE:	1" = 200'



## DEVELOPABLE ACREAGE

### PART OF THE NE 1/4 OF THE NE 1/4 OF SECTION 34 (PARCEL A)

	SQUARE FOOTAGE	ACRES
TOTAL AREA	1,228,742	28.21
AREA FOR RIGHT-OF WAY	25,732	0.59
POSSIBLE WETLANDS	5,348	0.12
<b>TOTAL BUILDABLE AREA</b>	<b>1,197,662</b>	<b>27.5</b>

### PART OF THE NW 1/4 OF THE NE 1/4 OF SECTION 34 (PARCEL B)

	SQUARE FOOTAGE	ACRES
TOTAL AREA	1,616,217	37.1
AREA FOR RIGHT-OF WAY	73,550	1.69
POSSIBLE WETLANDS	120,868	2.78
<b>TOTAL BUILDABLE AREA</b>	<b>1,421,800</b>	<b>32.63</b>

### PART OF THE SW 1/4 OF THE NE 1/4 OF SECTION 34 (PARCEL C)

	SQUARE FOOTAGE	ACRES
TOTAL AREA	1,315,885	30.21
AREA FOR RIGHT-OF WAY	29,541	0.68
RESTRICTION AREA	4,220	0.1
<b>TOTAL BUILDABLE AREA</b>	<b>1,282,124</b>	<b>29.43</b>

### PART OF THE SE 1/4 OF THE NE 1/4 OF SECTION 34 (PARCEL D)

	SQUARE FOOTAGE	ACRES
TOTAL AREA	815,831	18.73
POSSIBLE WETLANDS	58,559	1.34
<b>TOTAL BUILDABLE AREA</b>	<b>757,272</b>	<b>17.39</b>

	SQUARE FOOTAGE	ACRES
<b>OVERALL BUILDABLE AREA</b>	<b>4,658,857</b>	<b>106.95</b>



# ALTA / NSPS LAND TITLE SURVEY

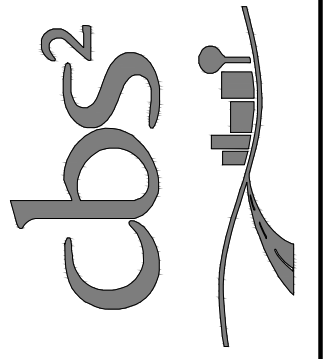
PARCEL A: THE NE 1/4 OF THE NE 1/4 OF SECTION 34, TOWNSHIP 29 NORTH, RANGE 5 WEST, CITY OF STANLEY, CHIPPEWA COUNTY, WISCONSIN. EXCEPT: CHIPPEWA COUNTY CERTIFIED SURVEY MAP NO. 5529 AS RECORDED IN VOLUME 27 OF CERTIFIED SURVEY MAPS ON PAGES 104-105 AS DOCUMENT NO. 928756, CITY OF STANLEY, CHIPPEWA COUNTY, WISCONSIN.  
 PARCEL B: THE NW 1/4 OF THE NE 1/4 OF SECTION 34, TOWNSHIP 29 NORTH, RANGE 5 WEST, CITY OF STANLEY, CHIPPEWA COUNTY, WISCONSIN. EXCEPT: THE NORTH 178 FEET OF THE EAST 323 FEET OF THE NW 1/4 OF THE NE 1/4 OF SECTION 34, TOWNSHIP 29 NORTH, RANGE 5 WEST, CITY OF STANLEY, CHIPPEWA COUNTY, WISCONSIN.  
 PARCEL C: THE SW 1/4 OF THE NE 1/4 OF SECTION 34, TOWNSHIP 29 NORTH, RANGE 5 WEST, CITY OF STANLEY, CHIPPEWA COUNTY, WISCONSIN. EXCEPT: THOSE PORTIONS USED FOR ROAD PURPOSES.  
 PARCEL D: THE SE 1/4 OF THE NE 1/4 OF SECTION 34, TOWNSHIP 29 NORTH, RANGE 5 WEST, CITY OF STANLEY, CHIPPEWA COUNTY, WISCONSIN. EXCEPT: THOSE PORTIONS USED FOR ROADWAY PURPOSES.

## ALTA / NSPS LAND TITLE SURVEY

FOR  
CITY OF STANLEY

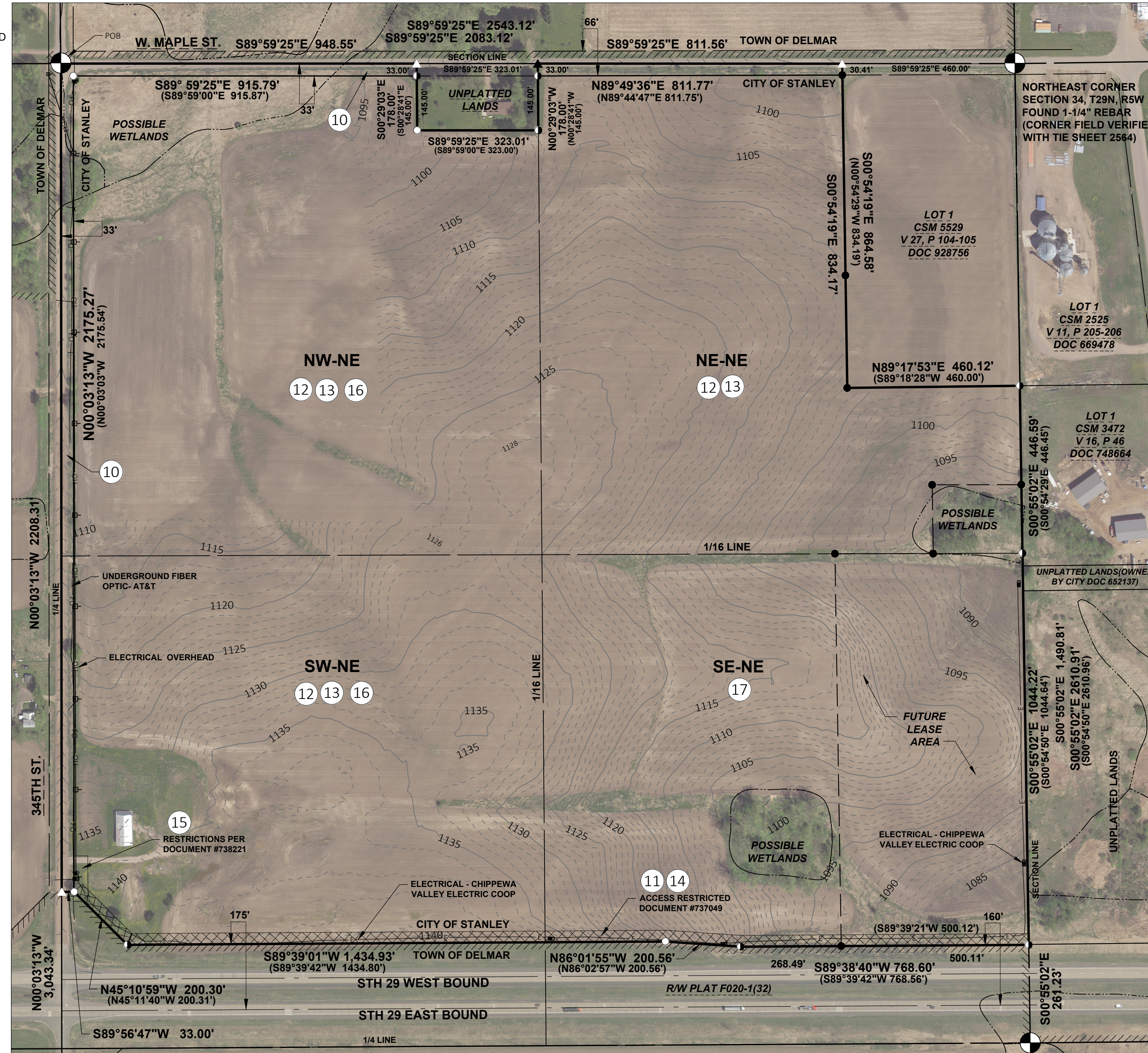
BASED ON TITLE COMMITMENT  
NO. 2182554  
KNIGHT BARRY TITLE UNITED LLC  
COMMITMENT FOR TITLE INSURANCE  
COMMITMENT DATE: OCTOBER 27, 2022 AT 8:00 AM

ENGINEERS - SURVEYORS - ARCHITECTS  
770 TECHNOLOGY WAY  
CHIPPEWA FALLS, WI 54729  
PHONE: 715.861.5226  
www.cbssquaredinc.com



ALTA / NSPS  
LAND TITLE SURVEY  
STANLEY, WI

NORTH 1/4 CORNER  
SECTION 34, T29N, R5W  
FOUND MAG NAIL  
(CORNER FIELD VERIFIED  
WITH TIE SHEET 2563)



### AREA SUMMARY

**PART OF NE-NE**  
29.21 ACRES  
1,272,294 SQ. FT.  
28.62 ACRES EXC. R/W  
1,246,562 SQ. FT. EXC R/W

**PART OF NW-NE**  
37.10 ACRES  
1,616,217 SQ. FT.  
35.41 ACRES EXC. R/W  
1,542,667 SQ. FT. EXC R/W

**PART OF SW-NE**  
30.21 ACRES  
1,315,885 SQ. FT.  
29.53 ACRES EXC. R/W  
1,286,344 SQ. FT. EXC R/W

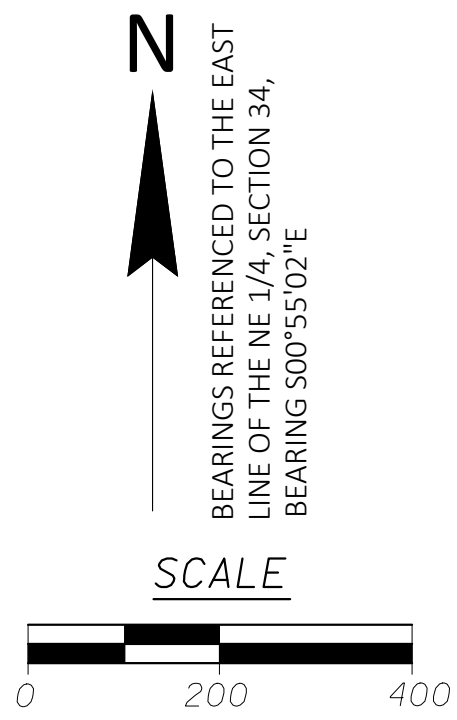
**PART OF SE-NE**  
30.73 ACRES  
1,338,448 SQ. FT.

**TOTAL AREA**  
127.25 ACRES  
5,542,844 SQ. FT.  
124.29 ACRES EXC. R/W  
5,414,021 SQ.FT. EXC. R/W

### SURVEYOR'S NOTES:

ONE (1) BUILDING OBSERVED ON PROPERTY.  
 CHIPPEWA COUNTY PARCEL ID NO. 22905-3412-00020000A, 22905-3411-00020001, 22905-3413-00020000A, & 22905-3414-00020000A.  
 STH 29, ROAD RIGHT-OF-WAY BASED ON PLAT OF RIGHT-OF-WAY PROJECT F 020-1(32), DEC. 14, 1961. 345TH STREET AND WEST MAPLE STREET, ROAD RIGHT-OF-WAY BASED ON MOS 4147B, APRIL 24, 2002.  
 THE AERIAL PHOTOGRAPH WAS TAKEN IN 2021 AND IS SHOWN FOR INFORMATIONAL PURPOSES ONLY.  
 THE NATIONAL GEODETIC SURVEY (NGS) DELMAR C GPS, DL4366 WAS SURVEYED RESULTING IN A 0.03' HORIZONTAL AND 0.05' VERTICAL DIFFERENCE. THIS IS WITHIN THE MAXIMUM ALLOWABLE RELATIVE POSITION PRECISION FOR AN ALTA/NSPS LAND TITLE SURVEY OF 2 CM (0.07 FEET). SITE CONDITIONS AND TERRAIN WERE OPTIMAL FOR GLOBAL NAVIGATION SATELLITE SYSTEM (GNSS) SURVEYING REFERENCING THE WISCONSIN CONTINUOUSLY OPERATING REFERENCE STATIONS (WISCONSIN).  
 THE 66' RIGHT-OF-WAY WIDTH FOR WEST MAPLE STREET AND 345TH STREET WAS ESTABLISHED PER WISCONSIN STATUTE 82.31 (2)(a).

LEGEND	
●	...PUBLIC LAND CORNER MONUMENT
○	...FOUND 1 1/4" OD IRON PIPE
●	...FOUND 3/4" REBAR
○	...FOUND MAGNETIC NAIL
▲	...SET 3/4" X 18" IRON REBAR WEIGHING 1.502 LBS/LF
△	...SET MAGNETIC NAIL
( )	...RECORDED AS
R/W	...RIGHT OF WAY
REBAR	...REINFORCING BAR
LF	...LINEAR FOOT
DOC	...DOCUMENT
P	...VOLUME
SEC	...SECTION
T29N	...TOWNSHIP NORTH
R5W	...RANGE WEST
SF	...SQUARE FEET
LBS	...POUNDS
POB	...POINT OF BEGINNING
----	...CORPORATE LIMITS
----	...1/16 LINE
----	...SECTION LINE
----	...PROPERTY LINE
----	...SETBACK LINE
----	...EASEMENT
----	...R/W LINE
----	...NO ACCESS
----	...DIMENSION LINE
○ MH	...MANHOLE
○ WV	...WATER VALVE
○	...INLET
○	...UTILITY PEDESTAL
○	...SIGN
○	...DRAIN
○	...ELECTRIC
FO	...FIBER OPTIC
OH	...OVERHEAD LINES
SAN	...SANITARY SEWER
W	...WATER
----	... POSSIBLE WETLANDS



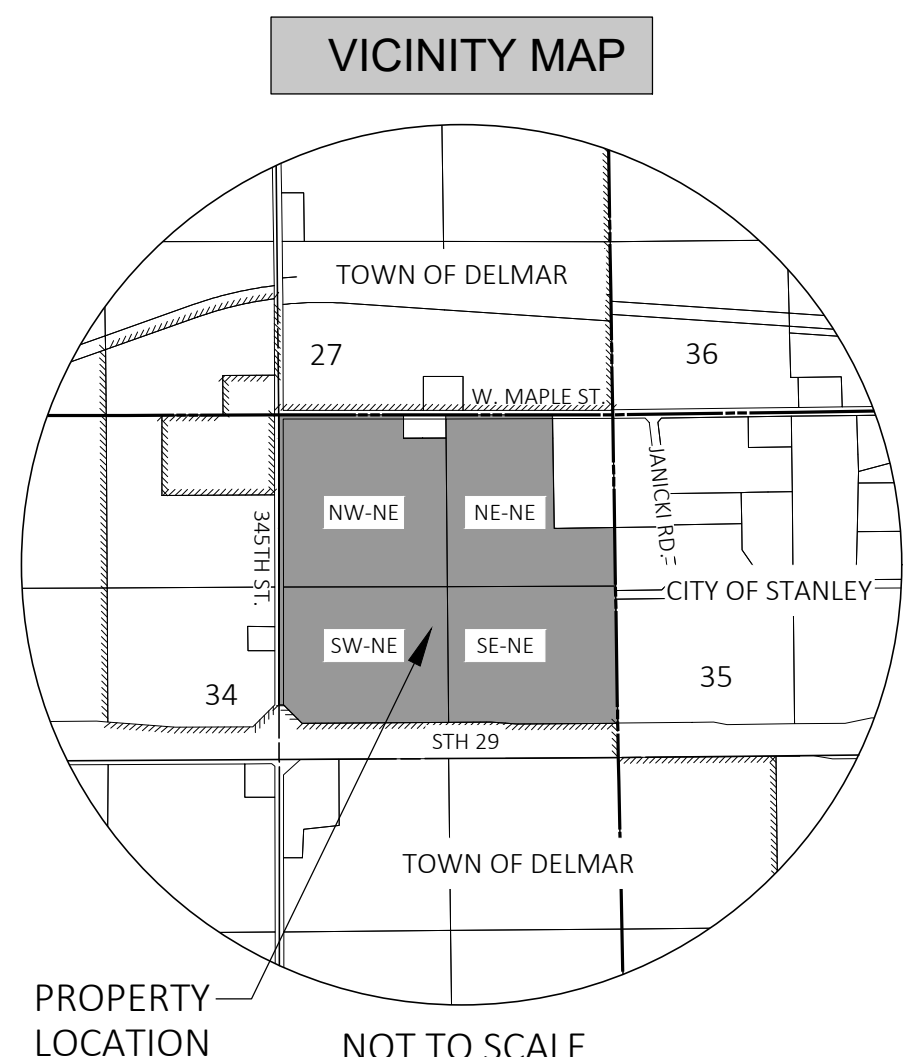
### SURVEYOR'S CERTIFICATE

TO CITY OF STANLEY, IT'S SUCCESSORS AND ASSIGNS AS FOLLOWS:  
 THIS IS TO CERTIFY THAT THIS MAP OR PLAT AND THE SURVEY ON WHICH IT IS BASED WERE MADE IN ACCORDANCE WITH THE 2021 MINIMUM STANDARD DETAIL REQUIREMENTS FOR ALTA/NSPS LAND TITLE SURVEYS, JOINTLY ESTABLISHED AND ADOPTED BY ALTA AND NSPS. THE FIELDWORK WAS COMPLETED ON 10/14/2022.

DATE OF PLAT OR MAP: 11/16/2022  
 Neil C. Bowe  
 NEIL C. BOWE, PLS  
 PROFESSIONAL LAND SURVEYOR NO. 2827  
 WITHIN THE STATE OF WISCONSIN



SURVEY PREPARED BY:  
 CBS² INC.  
 770 TECHNOLOGY WAY  
 CHIPPEWA FALLS, WI 54729  
 PHONE: 715.861.5226  
 FAX: 715.861.5228  
 NBOWE@CBSSQUAREDINC.COM



SOUTH 1/4 CORNER  
SECTION 34, T29N, R5W  
FOUND PK NAIL  
(CORNER FIELD VERIFIED  
WITH TIE SHEET 2673)

### UTILITY INFORMATION



UTILITIES NOTIFIED: CITY OF STANLEY, CHARTER COMMUNICATIONS, WE ENERGIES, CHIPPEWA VALLEY ELECTRIC COOP, BRIGHTSPEED, AND XCEL ENERGY.  
 UTILITIES SHOWN ON THIS MAP ARE BASED ON LOCATES FROM: DIGGER'S HOTLINE TICKET NUMBER #20224206876 AND VISIBLE OBSERVATION ON (10/25/22).  
 THIS SITE MAY CONTAIN BURIED UTILITIES NOT IDENTIFIED ON THIS MAP.

DATE:	11/16/2022	REVISION DATE:	
DRAWN BY:	BPS	CHECKED BY:	NCB
PROJECT NO.:			CCEDC

SHEET  
1



# ALTA / NSPS LAND TITLE SURVEY

PARCEL A: THE NE 1/4 OF THE NE 1/4 OF SECTION 34, TOWNSHIP 29 NORTH, RANGE 5 WEST, CITY OF STANLEY, CHIPPEWA COUNTY, WISCONSIN. EXCEPT: CHIPPEWA COUNTY CERTIFIED SURVEY MAP NO. 5529 AS RECORDED IN VOLUME 27 OF CERTIFIED SURVEY MAPS ON PAGES 104-105 AS DOCUMENT NO. 928756, CITY OF STANLEY, CHIPPEWA COUNTY, WISCONSIN.  
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## Title Commitment No. 2182554

KNIGHT BARRY TITLE UNITED LLC  
 COMMITMENT FOR TITLE INSURANCE  
 COMMITMENT DATE: OCTOBER 27, 2022 AT 8:00 AM

### ITEMS LISTED ON ALTA COMMITMENT NO. 2182554 CORRESPONDING TO SCHEDULE B, PART II

SUBJECT PROPERTY AS USED IN THE (SURVEYOR'S NOTATIONS) BELOW REFERS TO THE LANDS DESCRIBED WITHIN SAID ALTA COMMITMENT SCHEDULE A (3.) ON PAGE 1. UNDER SCHEDULE B, PART II, LISTED IN ADDITION TO THE STANDARD EXCEPTIONS, CIRCLED ITEMS HAVE BEEN PLOTTED ON THIS SURVEY.

- Any defect, lien, encumbrance, adverse claim, or other matter that appears for the first time in the Public Records or is created, attaches, or is disclosed between the Commitment Date, as set forth on the Commitment for Title Insurance, and the Date of Policy, as set forth on the Policy. (NO OBSERVED FIELD EVIDENCE FOR PROPERTY)
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- Rights or claims of parties in possession not shown by the Public Records. (NO OBSERVED FIELD EVIDENCE FOR PROPERTY)
- Any encroachments, encumbrance, violation, variation, or adverse circumstance affecting Title that would be disclosed by an accurate and complete land survey of the Land. (NO OBSERVED FIELD EVIDENCE FOR PROPERTY)

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### FLOOD INFORMATION

SUBJECT PROPERTY IS LOCATED IN ZONE X PURSUANT TO NFIP (NATIONAL FLOOD INSURANCE PROGRAM) FIRM (FLOOD INSURANCE RATE MAP) FOR CHIPPEWA COUNTY, WISCONSIN, MAP NUMBER 55017C0655E EFFECTIVE MARCH 2, 2010.

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### ZONING INFORMATION

PARCEL IS ZONED I-1 INDUSTRIAL DISTRICT.

FOR ADDITIONAL INFORMATION ON I-1 ZONING SEE CHAPTER 13 - ZONING CODE, CITY OF STANLEY CODE OF ORDINANCES

### SURVEYOR'S CERTIFICATE

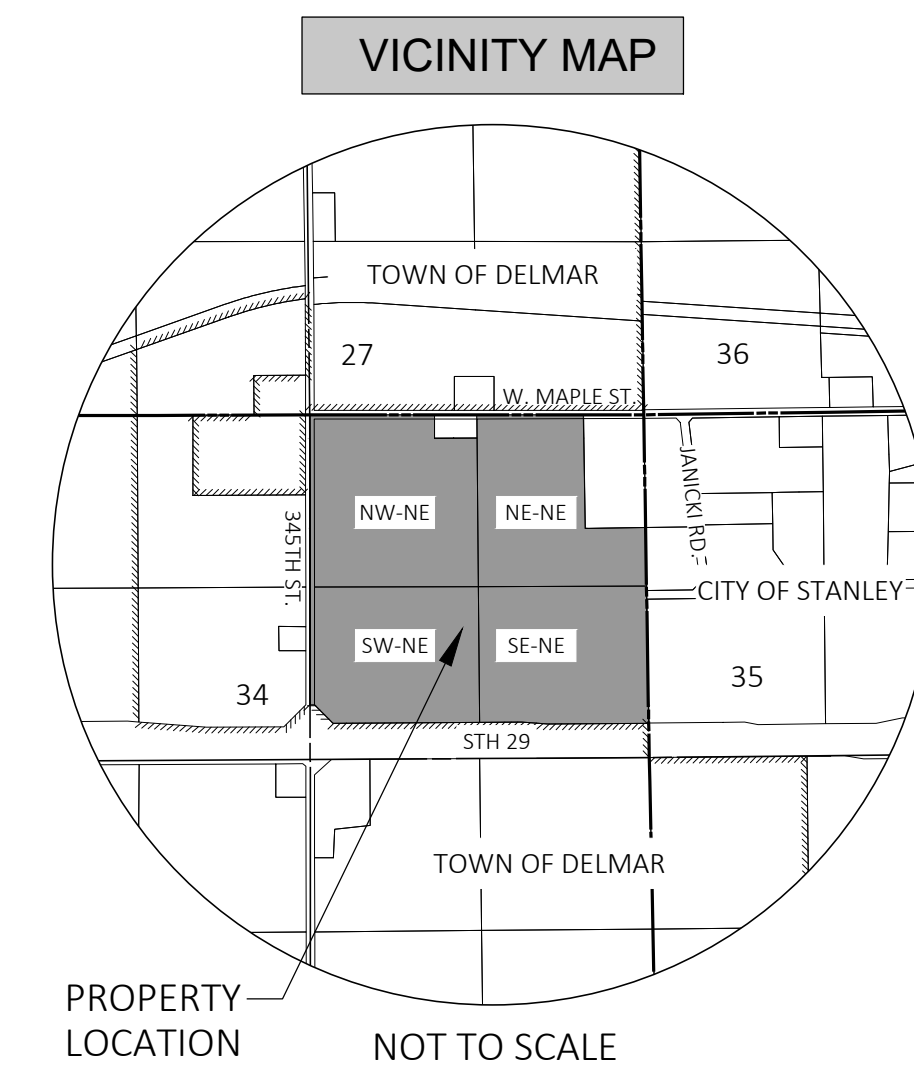
TO CITY OF STANLEY, IT'S SUCCESSORS AND ASSIGNS AS FOLLOWS:

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DATE OF PLAT OR MAP: 11/16/2022

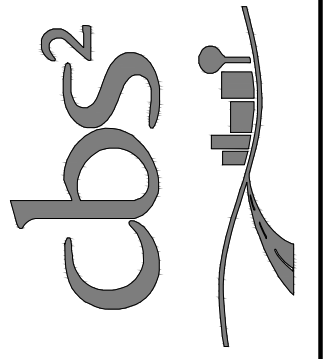
*Neil C. Bowe*  
 NEIL C. BOWE, PLS  
 PROFESSIONAL LAND SURVEYOR NO. 2827  
 WITHIN THE STATE OF WISCONSIN

SURVEY PREPARED BY:  
 CBS<sup>2</sup> INC.  
 770 TECHNOLOGY WAY  
 CHIPPEWA FALLS, WI 54729  
 PHONE: 715.861.5226  
 FAX: 715.861.5228  
 NBOWE@CBSQUAREDINC.COM



PROPERTY LOCATION NOT TO SCALE

ENGINEERS - SURVEYORS - ARCHITECTS  
 770 TECHNOLOGY WAY  
 CHIPPEWA FALLS, WI 54729  
 PHONE: 715.861.5226  
 www.cbsquaredinc.com



ALTA / NSPS  
 LAND TITLE SURVEY  
 STANLEY, WI

DATE:	11/16/2022	REVISION DATE:	
DRAWN BY:	BPS	CHECKED BY:	NCB
SCALE:		PROJECT NO.:	CCEDC



# ALTA / NSPS LAND TITLE SURVEY

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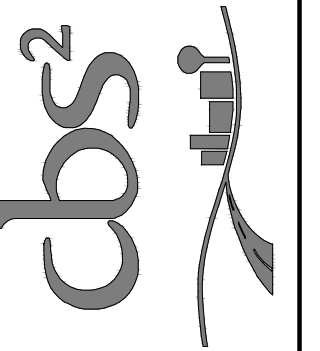
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## ALTA / NSPS LAND TITLE SURVEY

FOR  
CITY OF STANLEY

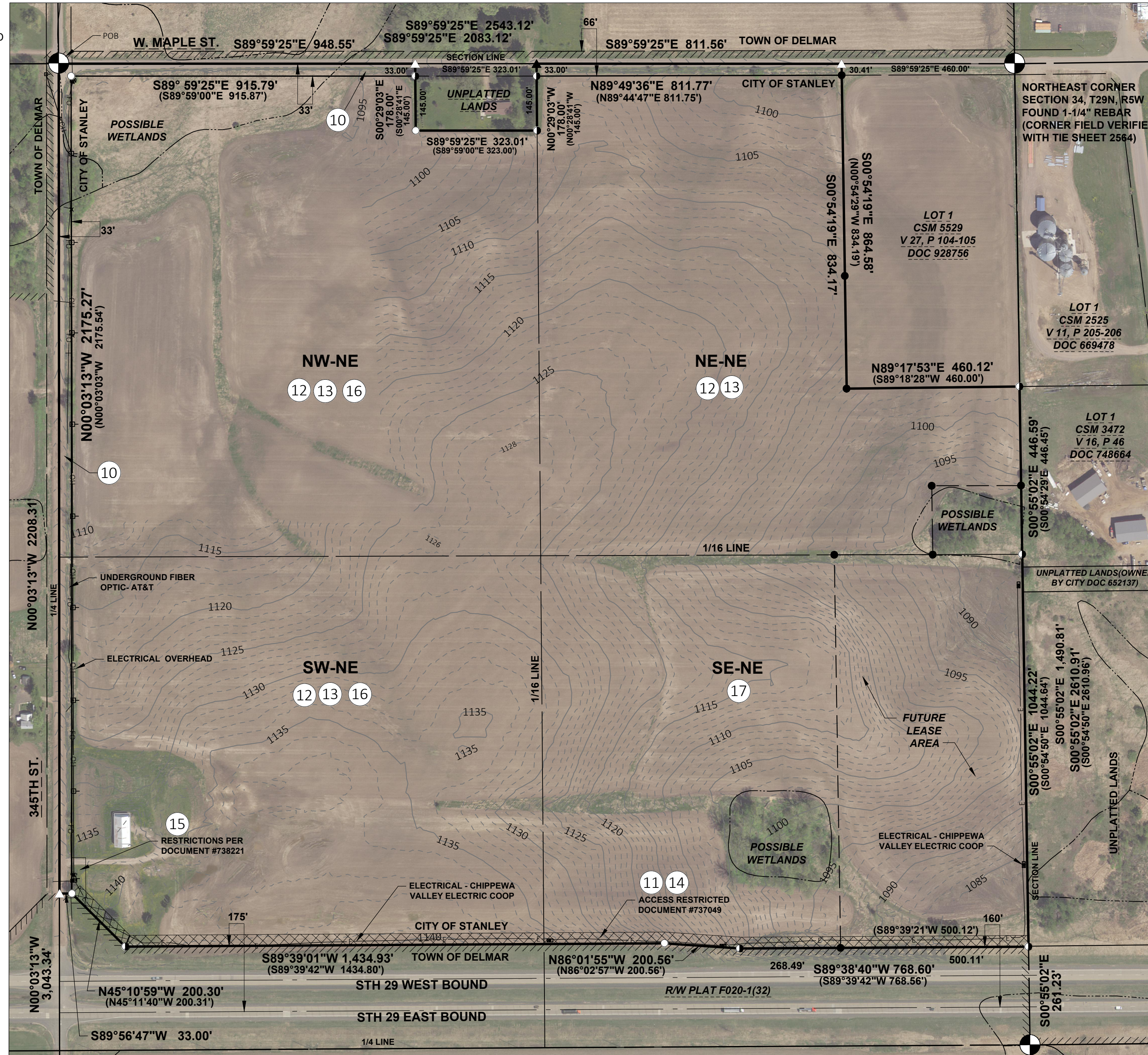
BASED ON TITLE COMMITMENT  
NO. 2182554  
KNIGHT BARRY TITLE UNITED LLC  
COMMITMENT FOR TITLE INSURANCE  
COMMITMENT DATE: OCTOBER 27, 2022 AT 8:00 AM

ENGINEERS - SURVEYORS - ARCHITECTS  
770 TECHNOLOGY WAY  
CHIPPEWA FALLS, WI 54729  
PHONE: 715.861.5226  
www.cbssquaredinc.com



ALTA / NSPS  
LAND TITLE SURVEY  
STANLEY, WI

NORTH 1/4 CORNER  
SECTION 34, T29N, R5W  
FOUND MAG NAIL  
(CORNER FIELD VERIFIED  
WITH TIE SHEET 2563)



### AREA SUMMARY

**PART OF NE-NE**  
29.21 ACRES  
1,272,294 SQ. FT.  
28.62 ACRES EXC. R/W  
1,246,562 SQ. FT. EXC R/W

**PART OF NW-NE**  
37.10 ACRES  
1,616,217 SQ. FT.  
35.41 ACRES EXC. R/W  
1,542,667 SQ. FT. EXC R/W

**PART OF SW-NE**  
30.21 ACRES  
1,315,885 SQ. FT.  
29.53 ACRES EXC. R/W  
1,286,344 SQ. FT. EXC R/W

**PART OF SE-NE**  
30.73 ACRES  
1,338,448 SQ. FT.

**TOTAL AREA**  
127.25 ACRES  
5,542,844 SQ. FT.  
124.29 ACRES EXC. R/W  
5,414,021 SQ.FT. EXC. R/W

### SURVEYOR'S NOTES:

ONE (1) BUILDING OBSERVED ON PROPERTY.

CHIPPEWA COUNTY PARCEL ID NO. 22905-3412-00020000A, 22905-3411-00020001, 22905-3413-00020000A, & 22905-3414-00020000A.

STH 29, ROAD RIGHT-OF-WAY BASED ON PLAT OF RIGHT-OF-WAY PROJECT F 020-1(32), DEC. 14, 1961. 345TH STREET AND WEST MAPLE STREET, ROAD RIGHT-OF-WAY BASED ON MOS 4147B, APRIL 24, 2002.

THE AERIAL PHOTOGRAPH WAS TAKEN IN 2021 AND IS SHOWN FOR INFORMATIONAL PURPOSES ONLY.

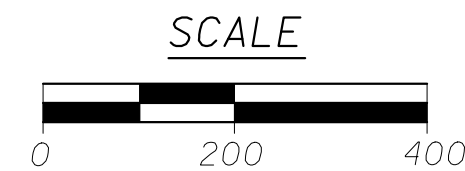
THE NATIONAL GEODETIC SURVEY (NGS) DELMAR C GPS, DL4366 WAS SURVEYED RESULTING IN A 0.03' HORIZONTAL AND 0.05' VERTICAL DIFFERENCE. THIS IS WITHIN THE MAXIMUM ALLOWABLE RELATIVE POSITION PRECISION FOR AN ALTA/NSPS LAND TITLE SURVEY OF 2 CM (0.07 FEET). SITE CONDITIONS AND TERRAIN WERE OPTIMAL FOR GLOBAL NAVIGATION SATELLITE SYSTEM (GNSS) SURVEYING REFERENCING THE WISCONSIN CONTINUOUSLY OPERATING REFERENCE STATIONS (WISCORS).

THE 66' RIGHT-OF-WAY WIDTH FOR WEST MAPLE STREET AND 345TH STREET WAS ESTABLISHED PER WISCONSIN STATUTE 82.31 (2)(a).

### LEGEND

- ...PUBLIC LAND CORNER MONUMENT
- ...FOUND 1 1/4" OD IRON PIPE
- ...FOUND 3/4" REBAR
- ▲ ...FOUND MAGNETIC NAIL
- ...SET 3/4" X 18" IRON REBAR WEIGHING 1.502 LBS/LF
- △ ...SET MAGNETIC NAIL
- ...RECORDED AS
- R/W ...RIGHT OF WAY
- REBAR ...REINFORCING BAR
- LF ...LINEAR FOOT
- DOC ...DOCUMENT
- V ...VOLUME
- P ...PAGE
- SEC ...SECTION
- T29N ...TOWNSHIP NORTH
- RSW ...RANGE WEST
- SF ...SQUARE FEET
- LBS ...POUNDS
- POB ...POINT OF BEGINNING
- ////// ...CORPORATE LIMITS
- ...1/16 LINE
- ...SECTION LINE
- ...PROPERTY LINE
- ...SETBACK LINE
- ...EASEMENT
- ...R/W LINE
- ...NO ACCESS
- ...DIMENSION LINE
- MH ...MANHOLE
- WV ...WATER VALVE
- INLET
- UTILITY PEDESTAL
- SIGN
- DRAIN
- ELECTRIC
- FO ...FIBER OPTIC
- OH ...OVERHEAD LINES
- SAN ...SANITARY SEWER
- W ...WATER
- ...POSSIBLE WETLANDS

BEARINGS REFERENCED TO THE EAST  
LINE OF THE NE 1/4, SECTION 34,  
BEARING S00°55'02"E



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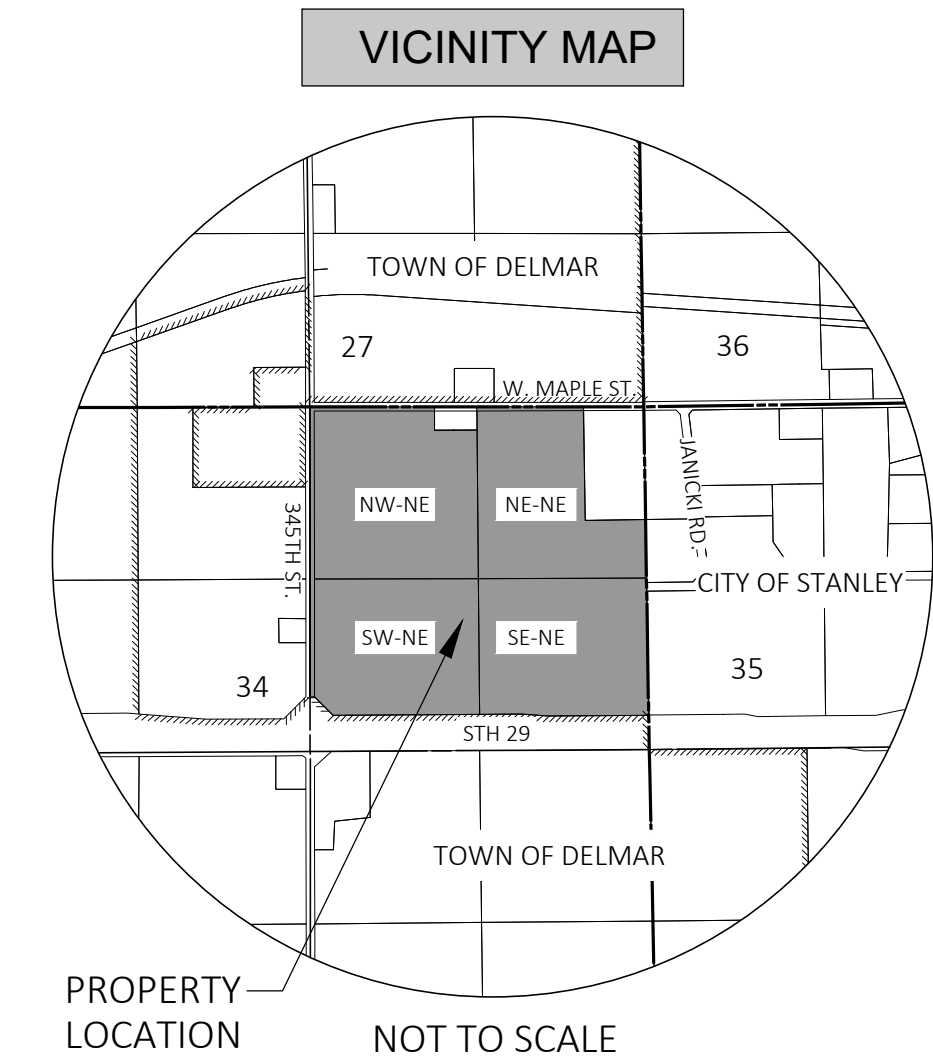
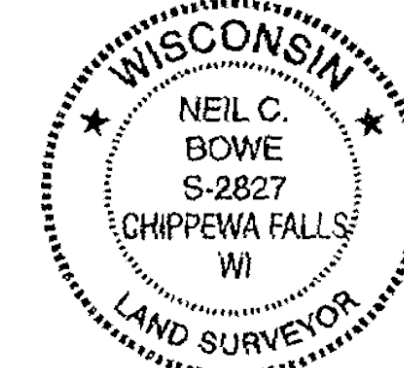
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DATE OF PLAT OR MAP: 11/16/2022

NEIL C. BOWE  
PROFESSIONAL LAND SURVEYOR NO. 2827  
WITHIN THE STATE OF WISCONSIN

SURVEY PREPARED BY:  
CBS² INC.  
770 TECHNOLOGY WAY  
CHIPPEWA FALLS, WI 54729  
PHONE: 715.861.5226  
FAX: 715.861.5228  
NBOWE@CBSSQUAREDINC.COM



SOUTH 1/4 CORNER  
SECTION 34, T29N, R5W  
FOUND PK NAIL  
(CORNER FIELD VERIFIED  
WITH TIE SHEET 2673)

### UTILITY INFORMATION



UTILITIES NOTIFIED: CITY OF STANLEY, CHARTER COMMUNICATIONS, WE ENERGIES, CHIPPEWA VALLEY ELECTRIC COOP, BRIGHTSPEED, AND XCEL ENERGY.

UTILITIES SHOWN ON THIS MAP ARE BASED ON LOCATES FROM: DIGGER'S HOTLINE TICKET NUMBER #20224206876 AND VISIBLE OBSERVATION ON (10/25/22).

THIS SITE MAY CONTAIN BURIED UTILITIES NOT IDENTIFIED ON THIS MAP.

REVISION DATE:

11/16/2022

DATE:

DRAWN BY:

BPS

CHECKED BY:

NCB

SCALE: 1" = 200'

PROJECT NO.

CCEDC

SHEET

1



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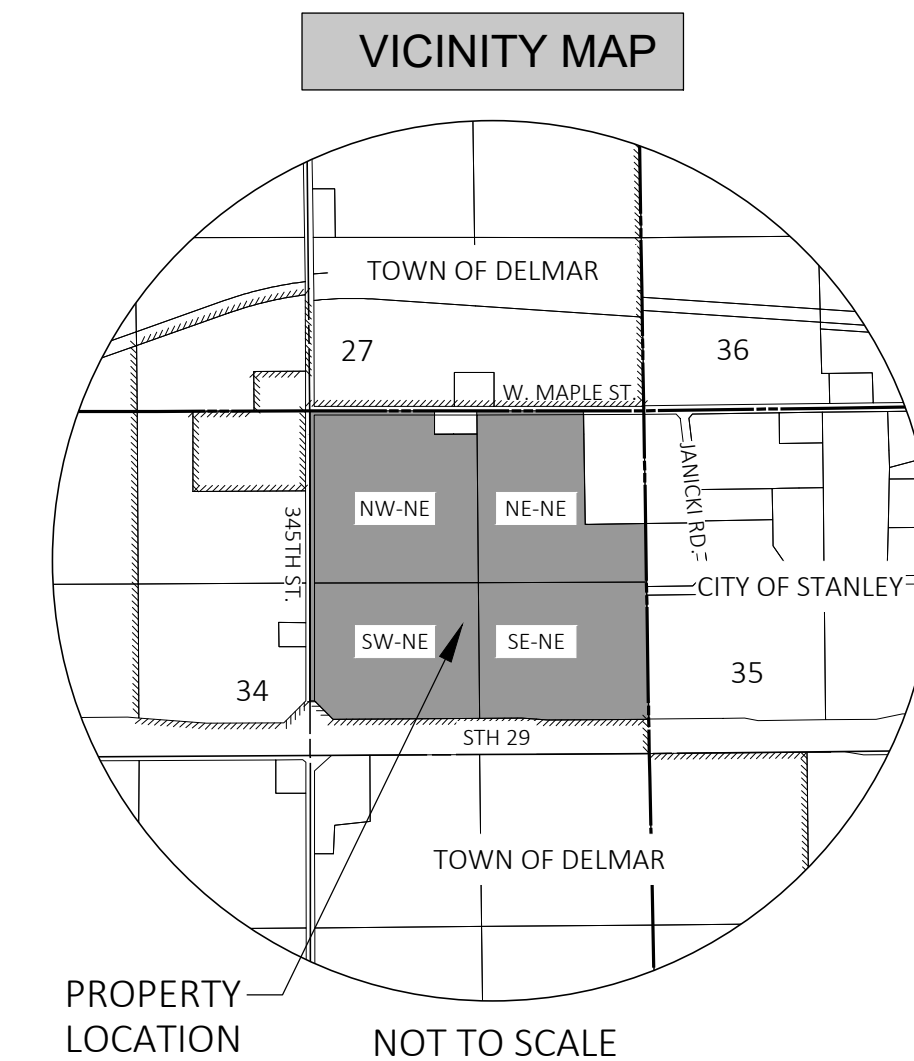
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DATE:	11/16/2022	REVISION DATE:	
DRAWN BY:	BPS	CHECKED BY:	NCB
SCALE:		PROJECT NO.:	CCEDC

**Public Protection Classification  
(PPC<sup>®</sup>)  
Summary Report**

**Stanley FPSA**

**WISCONSIN**

**Prepared by**

**Insurance Services Office, Inc.  
1000 Bishops Gate Blvd., Ste. 300  
P.O. Box 5404  
Mt. Laurel, New Jersey 08054-5404  
1-800-444-4554**

**Report Created July 2022  
Effective November 1, 2022**

## Background Information

### Introduction

ISO collects and evaluates information from communities in the United States on their structure fire suppression capabilities. The data is analyzed using our Fire Suppression Rating Schedule (FSRS) and then a Public Protection Classification (PPC®) grade is assigned to the community. The surveys are conducted whenever it appears that there is a possibility of a PPC change. As such, the PPC program provides important, up-to-date information about fire protection services throughout the country.

The FSRS recognizes fire protection features only as they relate to suppression of first alarm structure fires. In many communities, fire suppression may be only a small part of the fire department's overall responsibility. ISO recognizes the dynamic and comprehensive duties of a community's fire service, and understands the complex decisions a community must make in planning and delivering emergency services. However, in developing a community's PPC grade, only features related to reducing property losses from structural fires are evaluated. Multiple alarms, simultaneous incidents and life safety are not considered in this evaluation. The PPC program evaluates the fire protection for small to average size buildings. Specific properties with a Needed Fire Flow in excess of 3,500 gpm are evaluated separately and assigned an individual PPC grade.

A community's investment in fire mitigation is a proven and reliable predictor of future fire losses. Statistical data on insurance losses bears out the relationship between excellent fire protection – as measured by the PPC program – and low fire losses. So, insurance companies use PPC information for marketing, underwriting, and to help establish fair premiums for homeowners and commercial fire insurance. In general, the price of fire insurance in a community with a good PPC grade is substantially lower than in a community with a poor PPC grade, assuming all other factors are equal.

ISO is an independent company that serves insurance companies, communities, fire departments, insurance regulators, and others by providing information about risk. ISO's expert staff collects information about municipal fire suppression efforts in communities throughout the United States. In each of those communities, ISO analyzes the relevant data and assigns a PPC grade – a number from 1 to 10. Class 1 represents an exemplary fire suppression program, and Class 10 indicates that the area's fire suppression program does not meet ISO's minimum criteria.

ISO's PPC program evaluates communities according to a uniform set of criteria, incorporating nationally recognized standards developed by the National Fire Protection Association and the American Water Works Association. A community's PPC grade depends on:

- **Needed Fire Flows**, which are representative building locations used to determine the theoretical amount of water necessary for fire suppression purposes.
- **Emergency Communications**, including emergency reporting, telecommunicators, and dispatching systems.
- **Fire Department**, including equipment, staffing, training, geographic distribution of fire companies, operational considerations, and community risk reduction.
- **Water Supply**, including inspection and flow testing of hydrants, alternative water supply operations, and a careful evaluation of the amount of available water compared with the amount needed to suppress fires up to 3,500 gpm.

## Data Collection and Analysis

ISO has evaluated and classified over 39,000 fire protection areas across the United States using its FSRS. A combination of meetings between trained ISO field representatives and the dispatch center coordinator, community fire official, and water superintendent is used in conjunction with a comprehensive questionnaire to collect the data necessary to determine the PPC grade. In order for a community to obtain a grade better than a Class 9, three elements of fire suppression features are reviewed. These three elements are Emergency Communications, Fire Department, and Water Supply.

A review of the **Emergency Communications** accounts for 10% of the total classification. This section is weighted at **10 points**, as follows:

- Emergency Reporting 3 points
- Telecommunicators 4 points
- Dispatch Circuits 3 points

A review of the **Fire Department** accounts for 50% of the total classification. ISO focuses on a fire department's first alarm response and initial attack to minimize potential loss. The fire department section is weighted at **50 points**, as follows:

- Engine Companies 6 points
- Reserve Pumpers 0.5 points
- Pump Capacity 3 points
- Ladder/Service Companies 4 points
- Reserve Ladder/Service Trucks 0.5 points
- Deployment Analysis 10 points
- Company Personnel 15 points
- Training 9 points
- Operational considerations 2 points
- Community Risk Reduction 5.5 points (in addition to the 50 points above)

A review of the **Water Supply** system accounts for 40% of the total classification. ISO reviews the water supply a community uses to determine the adequacy for fire suppression purposes. The water supply system is weighted at **40 points**, as follows:

- Credit for Supply System 30 points
- Hydrant Size, Type & Installation 3 points
- Inspection & Flow Testing of Hydrants 7 points



There is one additional factor considered in calculating the final score – **Divergence**.

Even the best fire department will be less than fully effective if it has an inadequate water supply. Similarly, even a superior water supply will be less than fully effective if the fire department lacks the equipment or personnel to use the water. The FSRs score is subject to modification by a divergence factor, which recognizes disparity between the effectiveness of the fire department and the water supply.

The Divergence factor mathematically reduces the score based upon the relative difference between the fire department and water supply scores. The factor is introduced in the final equation.

### **PPC Grade**

The PPC grade assigned to the community will depend on the community's score on a 100-point scale:

<b>PPC</b>	<b>Points</b>
1	90.00 or more
2	80.00 to 89.99
3	70.00 to 79.99
4	60.00 to 69.99
5	50.00 to 59.99
6	40.00 to 49.99
7	30.00 to 39.99
8	20.00 to 29.99
9	10.00 to 19.99
10	0.00 to 9.99

The classification numbers are interpreted as follows:

- Class 1 through (and including) Class 8 represents a fire suppression system that includes an FSRs creditable dispatch center, fire department, and water supply.
- Class 8B is a special classification that recognizes a superior level of fire protection in otherwise Class 9 areas. It is designed to represent a fire protection delivery system that is superior except for a lack of a water supply system capable of the minimum FSRs fire flow criteria of 250 gpm for 2 hours.
- Class 9 is a fire suppression system that includes a creditable dispatch center, fire department but no FSRs creditable water supply.
- Class 10 does not meet minimum FSRs criteria for recognition, including areas that are beyond five road miles of a recognized fire station.

## New PPC program changes effective July 1, 2014

We have revised the PPC program to capture the effects of enhanced fire protection capabilities that reduce fire loss and fire severity in Split Class 9 and Split Class 8B areas (as outlined below). This new structure benefits the fire service, community, and property owner.

### New classifications

Through ongoing research and loss experience analysis, we identified additional differentiation in fire loss experience within our PPC program, which resulted in the revised classifications. We based the differing fire loss experience on the fire suppression capabilities of each community. The new PPC classes will improve the predictive value for insurers while benefiting both commercial and residential property owners. Here are the new classifications and what they mean.

### Split classifications

When we develop a split classification for a community — for example 5/9 — the first number is the class that applies to properties within 5 road miles of the responding fire station and 1,000 feet of a creditable water supply, such as a fire hydrant, suction point, or dry hydrant. The second number is the class that applies to properties within 5 road miles of a fire station but beyond 1,000 feet of a creditable water supply. We have revised the classification to reflect more precisely the risk of loss in a community, replacing Class 9 and 8B in the second part of a split classification with revised designations.

### What's changed with the new classifications?

We've published the new classifications as "X" and "Y" — formerly the "9" and "8B" portion of the split classification, respectively. For example:

- A community currently displayed as a split 6/9 classification will now be a split 6/6X classification; with the "6X" denoting what was formerly classified as "9".
- Similarly, a community currently graded as a split 6/8B classification will now be a split 6/6Y classification, the "6Y" denoting what was formerly classified as "8B".
- Communities graded with single "9" or "8B" classifications will remain intact.

Prior Classification	New Classification
1/9	1/1X
2/9	2/2X
3/9	3/3X
4/9	4/4X
5/9	5/5X
6/9	6/6X
7/9	7/7X
8/9	8/8X
9	9

Prior Classification	New Classification
1/8B	1/1Y
2/8B	2/2Y
3/8B	3/3Y
4/8B	4/4Y
5/8B	5/5Y
6/8B	6/6Y
7/8B	7/7Y
8/8B	8/8Y
8B	8B

### **What's changed?**

As you can see, we're still maintaining split classes, but it's how we represent them to insurers that's changed. The new designations reflect a reduction in fire severity and loss and have the potential to reduce property insurance premiums.

### **Benefits of the revised split class designations**

- To the fire service, the revised designations identify enhanced fire suppression capabilities used throughout the fire protection area
- To the community, the new classes reward a community's fire suppression efforts by showing a more reflective designation
- To the individual property owner, the revisions offer the potential for decreased property insurance premiums

### **New water class**

Our data also shows that risks located more than 5 but less than 7 road miles from a responding fire station with a creditable water source within 1,000 feet had better loss experience than those farther than 5 road miles from a responding fire station with no creditable water source. We've introduced a new classification — 10W — to recognize the reduced loss potential of such properties.

### **What's changed with Class 10W?**

Class 10W is property-specific. Not all properties in the 5-to-7-mile area around the responding fire station will qualify. The difference between Class 10 and 10W is that the 10W-graded risk or property is within 1,000 feet of a creditable water supply. Creditable water supplies include fire protection systems using hauled water in any of the split classification areas.

### **What's the benefit of Class 10W?**

10W gives credit to risks within 5 to 7 road miles of the responding fire station and within 1,000 feet of a creditable water supply. That's reflective of the potential for reduced property insurance premiums.

### **What does the fire chief have to do?**

Fire chiefs don't have to do anything at all. The revised classifications went in place automatically effective July 1, 2014 (July 1, 2015 for Texas).

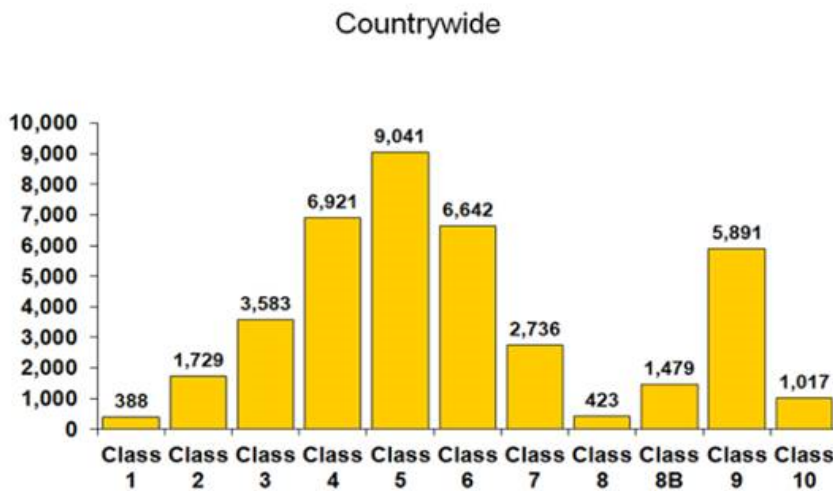
### **What if I have additional questions?**

Feel free to contact ISO at 800.444.4554 or email us at [PPC-Cust-Serv@iso.com](mailto:PPC-Cust-Serv@iso.com).



## Distribution of PPC Grades

The 2020 published countrywide distribution of communities by the PPC grade is as follows:



## Assistance

The PPC program offers help to communities, fire departments, and other public officials as they plan for, budget, and justify improvements. ISO is also available to assist in the understanding of the details of this evaluation.

The PPC program representatives can be reached by telephone at (800) 444-4554. The technical specialists at this telephone number have access to the details of this evaluation and can effectively speak with you about your questions regarding the PPC program. What's more, we can be reached via the internet at [www.isomitigation.com/talk/](http://www.isomitigation.com/talk/).

We also have a website dedicated to our Community Hazard Mitigation Classification programs at [www.isomitigation.com](http://www.isomitigation.com). Here, fire chiefs, building code officials, community leaders and other interested citizens can access a wealth of data describing the criteria used in evaluating how cities and towns are protecting residents from fire and other natural hazards. This website will allow you to learn more about the PPC program. The website provides important background information, insights about the PPC grading processes and technical documents. ISO is also pleased to offer Fire Chiefs Online — a special, secured website with information and features that can help improve your PPC grade, including a list of the Needed Fire Flows for all the commercial occupancies ISO has on file for your community. Visitors to the site can download information, see statistical results and also contact ISO for assistance.

In addition, on-line access to the FSRs and its commentaries is available to registered customers for a fee. However, fire chiefs and community chief administrative officials are given access privileges to this information without charge.

To become a registered fire chief or community chief administrative official, register at [www.isomitigation.com](http://www.isomitigation.com).

## PPC Review

ISO concluded its review of the fire suppression features being provided for Stanley FPSA. The resulting community classification is **Class 04**.

If the classification is a single class, the classification applies to properties with a Needed Fire Flow of 3,500 gpm or less in the community. If the classification is a split class (e.g., 6/XX):

- The first class (e.g., “6” in a 6/XX) applies to properties within 5 road miles of a recognized fire station and within 1,000 feet of a fire hydrant or alternate water supply.
- The second class (XX or XY) applies to properties beyond 1,000 feet of a fire hydrant but within 5 road miles of a recognized fire station.
- Alternative Water Supply: The first class (e.g., “6” in a 6/10) applies to properties within 5 road miles of a recognized fire station with no hydrant distance requirement.
- Class 10 applies to properties over 5 road miles of a recognized fire station.
- Class 10W applies to properties within 5 to 7 road miles of a recognized fire station with a recognized water supply within 1,000 feet.
- Specific properties with a Needed Fire Flow in excess of 3,500 gpm are evaluated separately and assigned an individual classification.

<b>FSRS Feature</b>	<b>Earned Credit</b>	<b>Credit Available</b>
<b>Emergency Communications</b>		
414. Credit for Emergency Reporting	<b>3.00</b>	<b>3</b>
422. Credit for Telecommunicators	<b>2.02</b>	<b>4</b>
432. Credit for Dispatch Circuits	<b>2.85</b>	<b>3</b>
<b>440. Credit for Emergency Communications</b>	<b>7.87</b>	<b>10</b>
<b>Fire Department</b>		
513. Credit for Engine Companies	<b>3.60</b>	<b>6</b>
523. Credit for Reserve Pumpers	<b>0.46</b>	<b>0.50</b>
532. Credit for Pump Capacity	<b>3.00</b>	<b>3</b>
549. Credit for Ladder Service	<b>2.31</b>	<b>4</b>
553. Credit for Reserve Ladder and Service Trucks	<b>0.00</b>	<b>0.50</b>
561. Credit for Deployment Analysis	<b>9.13</b>	<b>10</b>
571. Credit for Company Personnel	<b>3.01</b>	<b>15</b>
581. Credit for Training	<b>1.60</b>	<b>9</b>
730. Credit for Operational Considerations	<b>2.00</b>	<b>2</b>
<b>590. Credit for Fire Department</b>	<b>25.11</b>	<b>50</b>
<b>Water Supply</b>		
616. Credit for Supply System	<b>29.41</b>	<b>30</b>
621. Credit for Hydrants	<b>3.00</b>	<b>3</b>
631. Credit for Inspection and Flow Testing	<b>3.20</b>	<b>7</b>
<b>640. Credit for Water Supply</b>	<b>35.61</b>	<b>40</b>
<b>Divergence</b>	<b>-7.76</b>	<b>--</b>
<b>1050. Community Risk Reduction</b>	<b>3.27</b>	<b>5.50</b>
<b>Total Credit</b>	<b>64.10</b>	<b>105.50</b>

## **Emergency Communications**

Ten percent of a community's overall score is based on how well the communications center receives and dispatches fire alarms. Our field representative evaluated:

- Communications facilities provided for the general public to report structure fires
- Enhanced 9-1-1 Telephone Service including wireless
- Computer-aided dispatch (CAD) facilities
- Alarm receipt and processing at the communication center
- Training and certification of telecommunicators
- Facilities used to dispatch fire department companies to reported structure fires

	<b>Earned Credit</b>	<b>Credit Available</b>
414. Credit Emergency Reporting	<b>3.00</b>	3
422. Credit for Telecommunicators	<b>2.02</b>	4
432. Credit for Dispatch Circuits	<b>2.85</b>	3
<b>Item 440. Credit for Emergency Communications:</b>	<b>7.87</b>	<b>10</b>

### **Item 414 - Credit for Emergency Reporting (3 points)**

The first item reviewed is Item 414 "Credit for Emergency Reporting (CER)". This item reviews the emergency communication center facilities provided for the public to report fires including 911 systems (Basic or Enhanced), Wireless Phase I and Phase II, Voice over Internet Protocol, Computer Aided Dispatch and Geographic Information Systems for automatic vehicle location. ISO uses National Fire Protection Association (NFPA) 1221, *Standard for the Installation, Maintenance and Use of Emergency Services Communications Systems* as the reference for this section.



<b>Item 410. Emergency Reporting (CER)</b>	<b>Earned Credit</b>	<b>Credit Available</b>
<p><b>A./B. Basic 9-1-1, Enhanced 9-1-1 or No 9-1-1</b></p> <p>For maximum credit, there should be an Enhanced 9-1-1 system, Basic 9-1-1 and No 9-1-1 will receive partial credit.</p>	<b>20.00</b>	<b>20</b>
<p><b>1. E9-1-1 Wireless</b></p> <p>Wireless Phase I using Static ALI (automatic location identification) Functionality (10 points); Wireless Phase II using Dynamic ALI Functionality (15 points); Both available will be 25 points</p>	<b>25.00</b>	<b>25</b>
<p><b>2. E9-1-1 Voice over Internet Protocol (VoIP)</b></p> <p>Static VoIP using Static ALI Functionality (10 points); Nomadic VoIP using Dynamic ALI Functionality (15 points); Both available will be 25 points</p>	<b>25.00</b>	<b>25</b>
<p><b>3. Computer Aided Dispatch</b></p> <p>Basic CAD (5 points); CAD with Management Information System (5 points); CAD with Interoperability (5 points)</p>	<b>15.00</b>	<b>15</b>
<p><b>4. Geographic Information System (GIS/AVL)</b></p> <p>The PSAP uses a fully integrated CAD/GIS management system with automatic vehicle location (AVL) integrated with a CAD system providing dispatch assignments.</p> <p>The individual fire departments being dispatched <u>do not</u> need GIS/AVL capability to obtain this credit.</p>	<b>15.00</b>	<b>15</b>
<p><b>Review of Emergency Reporting total:</b></p>	<b>100.00</b>	<b>100</b>

**Item 422- Credit for Telecommunicators (4 points)**

The second item reviewed is Item 422 "Credit for Telecommunicators (TC)". This item reviews the number of Telecommunicators on duty at the center to handle fire calls and other emergencies. All emergency calls including those calls that do not require fire department action are reviewed to determine the proper staffing to answer emergency calls and dispatch the appropriate emergency response. The 2013 Edition of NFPA 1221, *Standard for the Installation, Maintenance and Use of Emergency Services Communications Systems*, recommends that ninety-five percent of emergency calls shall be answered within 15 seconds and ninety-nine percent of emergency calls shall be answered within 40 seconds. In addition, NFPA recommends that eighty percent of emergency alarm processing shall be completed within 60 seconds and ninety-five percent of alarm processing shall be completed within 106 seconds of answering the call.

To receive full credit for operators on duty, ISO must review documentation to show that the communication center meets NFPA 1221 call answering and dispatch time performance measurement standards. This documentation may be in the form of performance statistics or other performance measurements compiled by the 9-1-1 software or other software programs that are currently in use such as Computer Aided Dispatch (CAD) or Management Information System (MIS).

<b>Item 420. Telecommunicators (CTC)</b>	<b>Earned Credit</b>	<b>Credit Available</b>
<p><b>A1. Alarm Receipt (AR)</b></p> <p>Receipt of alarms shall meet the requirements in accordance with the criteria of NFPA 1221</p>	<b>19.99</b>	<b>20</b>
<p><b>A2. Alarm Processing (AP)</b></p> <p>Processing of alarms shall meet the requirements in accordance with the criteria of NFPA 1221</p>	<b>0.00</b>	<b>20</b>
<p><b>B. Emergency Dispatch Protocols (EDP)</b></p> <p>Telecommunicators have emergency dispatch protocols (EDP) containing questions and a decision-support process to facilitate correct call categorization and prioritization.</p>	<b>0.00</b>	<b>20</b>
<p><b>C. Telecommunicator Training and Certification (TTC)</b></p> <p>Telecommunicators meet the qualification requirements referenced in NFPA 1061, <i>Standard for Professional Qualifications for Public Safety Telecommunicator</i>, and/or the Association of Public-Safety Communications Officials - International (APCO) <i>Project 33</i>. Telecommunicators are certified in the knowledge, skills, and abilities corresponding to their job functions.</p>	<b>20.00</b>	<b>20</b>
<p><b>D. Telecommunicator Continuing Education and Quality Assurance (TQA)</b></p> <p>Telecommunicators participate in continuing education and/or in-service training and quality-assurance programs as appropriate for their positions</p>	<b>10.53</b>	<b>20</b>
<b>Review of Telecommunicators total:</b>	<b>50.52</b>	<b>100</b>

### **Item 432 - Credit for Dispatch Circuits (3 points)**

The third item reviewed is Item 432 “Credit for Dispatch Circuits (CDC)”. This item reviews the dispatch circuit facilities used to transmit alarms to fire department members. A “Dispatch Circuit” is defined in NFPA 1221 as “A circuit over which an alarm is transmitted from the communications center to an emergency response facility (ERF) or emergency response units (ERUs) to notify ERUs to respond to an emergency”. All fire departments (except single fire station departments with full-time firefighter personnel receiving alarms directly at the fire station) need adequate means of notifying all firefighter personnel of the location of reported structure fires. The dispatch circuit facilities should be in accordance with the general criteria of NFPA 1221. “Alarms” are defined in this Standard as “A signal or message from a person or device indicating the existence of an emergency or other situation that requires action by an emergency response agency”.

There are two different levels of dispatch circuit facilities provided for in the Standard – a primary dispatch circuit and a secondary dispatch circuit. In jurisdictions that receive 730 alarms or more per year (average of two alarms per 24-hour period), two separate and dedicated dispatch circuits, a primary and a secondary, are needed. In jurisdictions receiving fewer than 730 alarms per year, a second dedicated dispatch circuit is not needed. Dispatch circuit facilities installed but not used or tested (in accordance with the NFPA Standard) receive no credit.

The score for Credit for Dispatch Circuits (CDC) is influenced by monitoring for integrity of the primary dispatch circuit. There are up to 0.90 points available for this Item. Monitoring for integrity involves installing automatic systems that will detect faults and failures and send visual and audible indications to appropriate communications center (or dispatch center) personnel. ISO uses NFPA 1221 to guide the evaluation of this item. ISO's evaluation also includes a review of the communication system's emergency power supplies.

### **Item 432 “Credit for Dispatch Circuits (CDC)” = 2.85 points**



## **Fire Department**

Fifty percent of a community's overall score is based upon the fire department's structure fire suppression system. ISO's field representative evaluated:

- Engine and ladder/service vehicles including reserve apparatus
- Equipment carried
- Response to reported structure fires
- Deployment analysis of companies
- Available and/or responding firefighters
- Training

	<b>Earned Credit</b>	<b>Credit Available</b>
513. Credit for Engine Companies	<b>3.60</b>	6
523. Credit for Reserve Pumpers	<b>0.46</b>	0.5
532. Credit for Pumper Capacity	<b>3.00</b>	3
549. Credit for Ladder Service	<b>2.31</b>	4
553. Credit for Reserve Ladder and Service Trucks	<b>0.00</b>	0.5
561. Credit for Deployment Analysis	<b>9.13</b>	10
571. Credit for Company Personnel	<b>3.01</b>	15
581. Credit for Training	<b>1.60</b>	9
730. Credit for Operational Considerations	<b>2.00</b>	2
<b>Item 590. Credit for Fire Department:</b>	<b>25.11</b>	<b>50</b>

## **Basic Fire Flow**

The Basic Fire Flow for the community is determined by the review of the Needed Fire Flows for selected buildings in the community. The fifth largest Needed Fire Flow is determined to be the Basic Fire Flow. The Basic Fire Flow has been determined to be 3500 gpm.

### **Item 513 - Credit for Engine Companies (6 points)**

The first item reviewed is Item 513 "Credit for Engine Companies (CEC)". This item reviews the number of engine companies, their pump capacity, hose testing, pump testing and the equipment carried on the in-service pumpers. To be recognized, pumper apparatus must meet the general criteria of NFPA 1901, *Standard for Automotive Fire Apparatus* which include a minimum 250 gpm pump, an emergency warning system, a 300 gallon water tank, and hose. At least 1 apparatus must have a permanently mounted pump rated at 750 gpm or more at 150 psi.

The review of the number of needed pumpers considers the response distance to built-upon areas; the Basic Fire Flow; and the method of operation. Multiple alarms, simultaneous incidents, and life safety are not considered.

The greatest value of A, B, or C below is needed in the fire district to suppress fires in structures with a Needed Fire Flow of 3,500 gpm or less: **3 engine companies**

- a) **1 engine companies** to provide fire suppression services to areas to meet NFPA 1710 criteria or within 1½ miles.
- b) **3 engine companies** to support a Basic Fire Flow of 3500 gpm.
- c) **3 engine companies** based upon the fire department's method of operation to provide a minimum two engine response to all first alarm structure fires.

The FSRS recognizes that there are **2 engine companies** in service.

The FSRS also reviews Automatic Aid. Automatic Aid is considered in the review as assistance dispatched automatically by contractual agreement between two communities or fire districts. That differs from mutual aid or assistance arranged case by case. ISO will recognize an Automatic Aid plan under the following conditions:

- It must be prearranged for first alarm response according to a definite plan. It is preferable to have a written agreement, but ISO may recognize demonstrated performance.
- The aid must be dispatched to all reported structure fires on the initial alarm.
- The aid must be provided 24 hours a day, 365 days a year.

FSRS Item 512.D "Automatic Aid Engine Companies" responding on first alarm and meeting the needs of the city for basic fire flow and/or distribution of companies are factored based upon the value of the Automatic Aid plan (up to 1.00 can be used as the factor). The Automatic Aid factor is determined by a review of the Automatic Aid provider's communication facilities, how they receive alarms from the graded area, inter-department training between fire departments, and the fire ground communications capability between departments.

For each engine company, the credited Pump Capacity (PC), the Hose Carried (HC), the Equipment Carried (EC) all contribute to the calculation for the percent of credit the FSRS provides to that engine company.

**Item 513 "Credit for Engine Companies (CEC)" = 3.60 points**

### **Item 523 - Credit for Reserve Pumpers (0.50 points)**

The item is Item 523 “Credit for Reserve Pumpers (CRP)”. This item reviews the number and adequacy of the pumpers and their equipment. The number of needed reserve pumpers is 1 for each 8 needed engine companies determined in Item 513, or any fraction thereof.

**Item 523 “Credit for Reserve Pumpers (CRP)” = 0.46 points**

### **Item 532 – Credit for Pumper Capacity (3 points)**

The next item reviewed is Item 532 “Credit for Pumper Capacity (CPC)”. The total pump capacity available should be sufficient for the Basic Fire Flow of 3500 gpm. The maximum needed pump capacity credited is the Basic Fire Flow of the community.

**Item 532 “Credit for Pumper Capacity (CPC)” = 3.00 points**

### **Item 549 – Credit for Ladder Service (4 points)**

The next item reviewed is Item 549 “Credit for Ladder Service (CLS)”. This item reviews the number of response areas within the city with 5 buildings that are 3 or more stories or 35 feet or more in height, or with 5 buildings that have a Needed Fire Flow greater than 3,500 gpm, or any combination of these criteria. The height of all buildings in the city, including those protected by automatic sprinklers, is considered when determining the number of needed ladder companies. Response areas not needing a ladder company should have a service company. Ladders, tools and equipment normally carried on ladder trucks are needed not only for ladder operations but also for forcible entry, ventilation, salvage, overhaul, lighting and utility control.

The number of ladder or service companies, the height of the aerial ladder, aerial ladder testing and the equipment carried on the in-service ladder trucks and service trucks is compared with the number of needed ladder trucks and service trucks and an FSRS equipment list. Ladder trucks must meet the general criteria of NFPA 1901, *Standard for Automotive Fire Apparatus* to be recognized.

The number of needed ladder-service trucks is dependent upon the number of buildings 3 stories or 35 feet or more in height, buildings with a Needed Fire Flow greater than 3,500 gpm, and the method of operation.

The FSRS recognizes that there are **1 ladder companies** in service. These companies are needed to provide fire suppression services to areas to meet NFPA 1710 criteria or within 2½ miles and the number of buildings with a Needed Fire Flow over 3,500 gpm or 3 stories or more in height, or the method of operation.

The FSRS recognizes that there are **0 service companies** in service.

**Item 549 “Credit for Ladder Service (CLS)” = 2.31 points**



### **Item 553 – Credit for Reserve Ladder and Service Trucks (0.50 points)**

The next item reviewed is Item 553 “Credit for Reserve Ladder and Service Trucks (CRLS)”. This item considers the adequacy of ladder and service apparatus when one (or more in larger communities) of these apparatus are out of service. The number of needed reserve ladder and service trucks is 1 for each 8 needed ladder and service companies that were determined to be needed in Item 540, or any fraction thereof.

**Item 553 “Credit for Reserve Ladder and Service Trucks (CRLS)” = 0.00 points**

### **Item 561 – Deployment Analysis (10 points)**

Next, Item 561 “Deployment Analysis (DA)” is reviewed. This Item examines the number and adequacy of existing engine and ladder-service companies to cover built-upon areas of the city.

To determine the Credit for Distribution, first the Existing Engine Company (EC) points and the Existing Engine Companies (EE) determined in Item 513 are considered along with Ladder Company Equipment (LCE) points, Service Company Equipment (SCE) points, Engine-Ladder Company Equipment (ELCE) points, and Engine-Service Company Equipment (ESCE) points determined in Item 549.

Secondly, as an alternative to determining the number of needed engine and ladder/service companies through the road-mile analysis, a fire protection area may use the results of a systematic performance evaluation. This type of evaluation analyzes computer-aided dispatch (CAD) history to demonstrate that, with its current deployment of companies, the fire department meets the time constraints for initial arriving engine and initial full alarm assignment in accordance with the general criteria of in NFPA 1710, *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments*.

A determination is made of the percentage of built upon area within 1½ miles of a first-due engine company and within 2½ miles of a first-due ladder-service company.

**Item 561 “Credit Deployment Analysis (DA)” = 9.13 points**

### **Item 571 – Credit for Company Personnel (15 points)**

Item 571 “Credit for Company Personnel (CCP)” reviews the average number of existing firefighters and company officers available to respond to reported first alarm structure fires in the city.

The on-duty strength is determined by the yearly average of total firefighters and company officers on-duty considering vacations, sick leave, holidays, “Kelley” days and other absences. When a fire department operates under a minimum staffing policy, this may be used in lieu of determining the yearly average of on-duty company personnel.

Firefighters on apparatus not credited under Items 513 and 549 that regularly respond to reported first alarms to aid engine, ladder, and service companies are included in this item as increasing the total company strength.

Firefighters staffing ambulances or other units serving the general public are credited if they participate in fire-fighting operations, the number depending upon the extent to which they are available and are used for response to first alarms of fire.

On-Call members are credited on the basis of the average number staffing apparatus on first alarms. Off-shift career firefighters and company officers responding on first alarms are considered on the same basis as on-call personnel. For personnel not normally at the fire station, the number of responding firefighters and company officers is divided by 3 to reflect the time needed to assemble at the fire scene and the reduced ability to act as a team due to the various arrival times at the fire location when compared to the personnel on-duty at the fire station during the receipt of an alarm.

The number of Public Safety Officers who are positioned in emergency vehicles within the jurisdiction boundaries may be credited based on availability to respond to first alarm structure fires. In recognition of this increased response capability the number of responding Public Safety Officers is divided by 2.

The average number of firefighters and company officers responding with those companies credited as Automatic Aid under Items 513 and 549 are considered for either on-duty or on-call company personnel as is appropriate. The actual number is calculated as the average number of company personnel responding multiplied by the value of AA Plan determined in Item 512.D.

The maximum creditable response of on-duty and on-call firefighters is 12, including company officers, for each existing engine and ladder company and 6 for each existing service company.

Chief Officers are not creditable except when more than one chief officer responds to alarms; then extra chief officers may be credited as firefighters if they perform company duties.

The FSRS recognizes **0.00 on-duty personnel** and an average of **10.85 on-call personnel** responding on first alarm structure fires.

**Item 571 “Credit for Company Personnel (CCP)” = 3.01 points**

**Item 581 – Credit for Training (9 points)**

<b>Training</b>	<b>Earned Credit</b>	<b>Credit Available</b>
<p><b>A. Facilities, and Use</b></p> <p>For maximum credit, each firefighter should receive 18 hours per year in structure fire related subjects as outlined in NFPA 1001.</p>	<b>0.00</b>	<b>35</b>
<p><b>B. Company Training</b></p> <p>For maximum credit, each firefighter should receive 16 hours per month in structure fire related subjects as outlined in NFPA 1001.</p>	<b>1.94</b>	<b>25</b>
<p><b>C. Classes for Officers</b></p> <p>For maximum credit, each officer should be certified in accordance with the general criteria of NFPA 1021. Additionally, each officer should receive 12 hours of continuing education on or off site.</p>	<b>9.20</b>	<b>12</b>
<p><b>D. New Driver and Operator Training</b></p> <p>For maximum credit, each new driver and operator should receive 60 hours of driver/operator training per year in accordance with NFPA 1002 and NFPA 1451.</p>	<b>2.50</b>	<b>5</b>
<p><b>E. Existing Driver and Operator Training</b></p> <p>For maximum credit, each existing driver and operator should receive 12 hours of driver/operator training per year in accordance with NFPA 1002 and NFPA 1451.</p>	<b>2.10</b>	<b>5</b>
<p><b>F. Training on Hazardous Materials</b></p> <p>For maximum credit, each firefighter should receive 6 hours of training for incidents involving hazardous materials in accordance with NFPA 472.</p>	<b>0.21</b>	<b>1</b>
<p><b>G. Recruit Training</b></p> <p>For maximum credit, each firefighter should receive 240 hours of structure fire related training in accordance with NFPA 1001 within the first year of employment or tenure.</p>	<b>1.25</b>	<b>5</b>
<p><b>H. Pre-Fire Planning Inspections</b></p> <p>For maximum credit, pre-fire planning inspections of each commercial, industrial, institutional, and other similar type building (all buildings except 1-4 family dwellings) should be made annually by company members. Records of inspections should include up-to date notes and sketches.</p>	<b>0.60</b>	<b>12</b>

**Item 580 “Credit for Training (CT)” = 1.60 points**



**Item 730 – Operational Considerations (2 points)**

Item 730 “Credit for Operational Considerations (COC)” evaluates fire department standard operating procedures and incident management systems for emergency operations involving structure fires.

<b>Operational Considerations</b>	<b>Earned Credit</b>	<b>Credit Available</b>
<b>Standard Operating Procedures</b> The department should have established SOPs for fire department general emergency operations	<b>50</b>	<b>50</b>
<b>Incident Management Systems</b> The department should use an established incident management system (IMS)	<b>50</b>	<b>50</b>
<b>Operational Considerations total:</b>	<b>100</b>	<b>100</b>

**Item 730 “Credit for Operational Considerations (COC)” = 2.00 points**

**Water Supply**

Forty percent of a community's overall score is based on the adequacy of the water supply system. The ISO field representative evaluated:

- the capability of the water distribution system to meet the Needed Fire Flows at selected locations up to 3,500 gpm.
- size, type and installation of fire hydrants.
- inspection and flow testing of fire hydrants.

	<b>Earned Credit</b>	<b>Credit Available</b>
616. Credit for Supply System	<b>29.41</b>	30
621. Credit for Hydrants	<b>3.00</b>	3
631. Credit for Inspection and Flow Testing	<b>3.20</b>	7
<b>Item 640. Credit for Water Supply:</b>	<b>35.61</b>	<b>40</b>

### **Item 616 – Credit for Supply System (30 points)**

The first item reviewed is Item 616 “Credit for Supply System (CSS)”. This item reviews the rate of flow that can be credited at each of the Needed Fire Flow test locations considering the supply works capacity, the main capacity and the hydrant distribution. The lowest flow rate of these items is credited for each representative location. A water system capable of delivering 250 gpm or more for a period of two hours plus consumption at the maximum daily rate at the fire location is considered minimum in the ISO review.

Where there are 2 or more systems or services distributing water at the same location, credit is given on the basis of the joint protection provided by all systems and services available.

The supply works capacity is calculated for each representative Needed Fire Flow test location, considering a variety of water supply sources. These include public water supplies, emergency supplies (usually accessed from neighboring water systems), suction supplies (usually evidenced by dry hydrant installations near a river, lake or other body of water), and supplies developed by a fire department using large diameter hose or vehicles to shuttle water from a source of supply to a fire site. The result is expressed in gallons per minute (gpm).

The normal ability of the distribution system to deliver Needed Fire Flows at the selected building locations is reviewed. The results of a flow test at a representative test location will indicate the ability of the water mains (or fire department in the case of fire department supplies) to carry water to that location.

The hydrant distribution is reviewed within 1,000 feet of representative test locations measured as hose can be laid by apparatus.

For maximum credit, the Needed Fire Flows should be available at each location in the district. Needed Fire Flows of 2,500 gpm or less should be available for 2 hours; and Needed Fire Flows of 3,000 and 3,500 gpm should be obtainable for 3 hours.

**Item 616 “Credit for Supply System (CSS)” = 29.41 points**

### **Item 621 – Credit for Hydrants (3 points)**

The second item reviewed is Item 621 “Credit for Hydrants (CH)”. This item reviews the number of fire hydrants of each type compared with the total number of hydrants.

There are a total of 226 hydrants in the graded area.

620. Hydrants, - Size, Type and Installation	Number of Hydrants
A. With a 6 -inch or larger branch and a pumper outlet with or without 2½ - inch outlets	226
B. With a 6 -inch or larger branch and no pumper outlet but two or more 2½ -inch outlets, or with a small foot valve, or with a small barrel	0
C./D. With only a 2½ -inch outlet or with less than a 6 -inch branch	0
E./F. Flush Type, Cistern, or Suction Point	0

**Item 621 “Credit for Hydrants (CH)” = 3.00 points**

**Item 630 – Credit for Inspection and Flow Testing (7 points)**

The third item reviewed is Item 630 “Credit for Inspection and Flow Testing (CIT)”. This item reviews the fire hydrant inspection frequency, and the completeness of the inspections. Inspection of hydrants should be in accordance with AWWA M-17, *Installation, Field Testing and Maintenance of Fire Hydrants*.

**Frequency of Inspection (FI):** Average interval between the 3 most recent inspections.

Frequency	Points
1 year	30
2 years	20
3 years	10
4 years	5
5 years or more	No Credit

**Note:** The points for inspection frequency are reduced by 10 points if the inspections are incomplete or do not include a flushing program. An additional reduction of 10 points are made if hydrants are not subjected to full system pressure during inspections. If the inspection of cisterns or suction points does not include actual drafting with a pumper, or back-flushing for dry hydrants, 20 points are deducted.

**Total points for Inspections = 3.20 points**

**Frequency of Fire Flow Testing (FF):** Average interval between the 3 most recent inspections.



<b>Frequency</b>	<b>Points</b>
5 years	40
6 years	30
7 years	20
8 years	10
9 years	5
10 years or more	No Credit

**Total points for Fire Flow Testing = 0.00 points**

**Item 631 “Credit for Inspection and Fire Flow Testing (CIT)” = 3.20 points**

**Divergence = -7.76**

The Divergence factor mathematically reduces the score based upon the relative difference between the fire department and water supply scores. The factor is introduced in the final equation.

**Community Risk Reduction**

	<b>Earned Credit</b>	<b>Credit Available</b>
1025. Credit for Fire Prevention and Code Enforcement (CPCE)	<b>1.36</b>	2.2
1033. Credit for Public Fire Safety Education (CFSE)	<b>0.94</b>	2.2
1044. Credit for Fire Investigation Programs (CIP)	<b>0.97</b>	1.1
<b>Item 1050. Credit for Community Risk Reduction</b>	<b>3.27</b>	<b>5.50</b>

<b>Item 1025 – Credit for Fire Prevention Code Adoption and Enforcement (2.2 points)</b>	<b>Earned Credit</b>	<b>Credit Available</b>
<b>Fire Prevention Code Regulations (PCR)</b>	<b>2.76</b>	<b>10</b>

Evaluation of fire prevention code regulations in effect.		
<b>Fire Prevention Staffing (PS)</b> Evaluation of staffing for fire prevention activities.	<b>4.68</b>	<b>8</b>
<b>Fire Prevention Certification and Training (PCT)</b> Evaluation of the certification and training of fire prevention code enforcement personnel.	<b>3.00</b>	<b>6</b>
<b>Fire Prevention Programs (PCP)</b> Evaluation of fire prevention programs.	<b>14.35</b>	<b>16</b>
<b>Review of Fire Prevention Code and Enforcement (CPCE) subtotal:</b>	<b>24.79</b>	<b>40</b>

<b>Item 1033 – Credit for Public Fire Safety Education (2.2 points)</b>	<b>Earned Credit</b>	<b>Credit Available</b>
<b>Public Fire Safety Educators Qualifications and Training (FSQT)</b> Evaluation of public fire safety education personnel training and qualification as specified by the authority having jurisdiction.	<b>5.50</b>	<b>10</b>
<b>Public Fire Safety Education Programs (FSP)</b> Evaluation of programs for public fire safety education.	<b>11.55</b>	<b>30</b>
<b>Review of Public Safety Education Programs (CFSE) subtotal:</b>	<b>17.05</b>	<b>40</b>

<b>Item 1044 – Credit for Fire Investigation Programs (1.1 points)</b>	<b>Earned Credit</b>	<b>Credit Available</b>
<b>Fire Investigation Organization and Staffing (IOS)</b> Evaluation of organization and staffing for fire investigations.	<b>7.80</b>	<b>8</b>
<b>Fire Investigator Certification and Training (IQT)</b> Evaluation of fire investigator certification and training.	<b>3.75</b>	<b>6</b>
<b>Use of National Fire Incident Reporting System (IRS)</b> Evaluation of the use of the National Fire Incident Reporting System (NFIRS) for the 3 years before the evaluation.	<b>6.00</b>	<b>6</b>
<b>Review of Fire Investigation Programs (CIP) subtotal:</b>	<b>17.55</b>	<b>20</b>

**Summary of PPC Review**  
**for**  
**Stanley FPSA**

<b>FSRS Item</b>	<b>Earned Credit</b>	<b>Credit Available</b>
<b>Emergency Communications</b>		
414. Credit for Emergency Reporting	<b>3.00</b>	<b>3</b>
422. Credit for Telecommunicators	<b>2.02</b>	<b>4</b>
432. Credit for Dispatch Circuits	<b>2.85</b>	<b>3</b>
<b>440. Credit for Emergency Communications</b>	<b>7.87</b>	<b>10</b>
<b>Fire Department</b>		
513. Credit for Engine Companies	<b>3.60</b>	<b>6</b>
523. Credit for Reserve Pumpers	<b>0.46</b>	<b>0.5</b>
532. Credit for Pumper Capacity	<b>3.00</b>	<b>3</b>
549. Credit for Ladder Service	<b>2.31</b>	<b>4</b>
553. Credit for Reserve Ladder and Service Trucks	<b>0.00</b>	<b>0.5</b>
561. Credit for Deployment Analysis	<b>9.13</b>	<b>10</b>
571. Credit for Company Personnel	<b>3.01</b>	<b>15</b>
581. Credit for Training	<b>1.60</b>	<b>9</b>
730. Credit for Operational Considerations	<b>2.00</b>	<b>2</b>
<b>590. Credit for Fire Department</b>	<b>25.11</b>	<b>50</b>
<b>Water Supply</b>		
616. Credit for Supply System	<b>29.41</b>	<b>30</b>
621. Credit for Hydrants	<b>3.00</b>	<b>3</b>
631. Credit for Inspection and Flow Testing	<b>3.20</b>	<b>7</b>
<b>640. Credit for Water Supply</b>	<b>35.61</b>	<b>40</b>
<b>Divergence</b>	<b>-7.76</b>	<b>--</b>
<b>1050. Community Risk Reduction</b>	<b>3.27</b>	<b>5.50</b>
<b>Total Credit</b>	<b>64.10</b>	<b>105.5</b>

**Final Community Classification = 04**



**Public Protection Classification  
(PPC®)  
Summary Report**

**Stanley FDS**

**WISCONSIN**

**Prepared by**

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**Report Created July 2022  
Effective November 1, 2022**

## Background Information

### Introduction

ISO collects and evaluates information from communities in the United States on their structure fire suppression capabilities. The data is analyzed using our Fire Suppression Rating Schedule (FSRS) and then a Public Protection Classification (PPC®) grade is assigned to the community. The surveys are conducted whenever it appears that there is a possibility of a PPC change. As such, the PPC program provides important, up-to-date information about fire protection services throughout the country.

The FSRS recognizes fire protection features only as they relate to suppression of first alarm structure fires. In many communities, fire suppression may be only a small part of the fire department's overall responsibility. ISO recognizes the dynamic and comprehensive duties of a community's fire service, and understands the complex decisions a community must make in planning and delivering emergency services. However, in developing a community's PPC grade, only features related to reducing property losses from structural fires are evaluated. Multiple alarms, simultaneous incidents and life safety are not considered in this evaluation. The PPC program evaluates the fire protection for small to average size buildings. Specific properties with a Needed Fire Flow in excess of 3,500 gpm are evaluated separately and assigned an individual PPC grade.

A community's investment in fire mitigation is a proven and reliable predictor of future fire losses. Statistical data on insurance losses bears out the relationship between excellent fire protection – as measured by the PPC program – and low fire losses. So, insurance companies use PPC information for marketing, underwriting, and to help establish fair premiums for homeowners and commercial fire insurance. In general, the price of fire insurance in a community with a good PPC grade is substantially lower than in a community with a poor PPC grade, assuming all other factors are equal.

ISO is an independent company that serves insurance companies, communities, fire departments, insurance regulators, and others by providing information about risk. ISO's expert staff collects information about municipal fire suppression efforts in communities throughout the United States. In each of those communities, ISO analyzes the relevant data and assigns a PPC grade – a number from 1 to 10. Class 1 represents an exemplary fire suppression program, and Class 10 indicates that the area's fire suppression program does not meet ISO's minimum criteria.

ISO's PPC program evaluates communities according to a uniform set of criteria, incorporating nationally recognized standards developed by the National Fire Protection Association and the American Water Works Association. A community's PPC grade depends on:

- **Needed Fire Flows**, which are representative building locations used to determine the theoretical amount of water necessary for fire suppression purposes.
- **Emergency Communications**, including emergency reporting, telecommunicators, and dispatching systems.
- **Fire Department**, including equipment, staffing, training, geographic distribution of fire companies, operational considerations, and community risk reduction.
- **Water Supply**, including inspection and flow testing of hydrants, alternative water supply operations, and a careful evaluation of the amount of available water compared with the amount needed to suppress fires up to 3,500 gpm.

## Data Collection and Analysis

ISO has evaluated and classified over 39,000 fire protection areas across the United States using its FSRS. A combination of meetings between trained ISO field representatives and the dispatch center coordinator, community fire official, and water superintendent is used in conjunction with a comprehensive questionnaire to collect the data necessary to determine the PPC grade. In order for a community to obtain a grade better than a Class 9, three elements of fire suppression features are reviewed. These three elements are Emergency Communications, Fire Department, and Water Supply.

A review of the **Emergency Communications** accounts for 10% of the total classification. This section is weighted at **10 points**, as follows:

- Emergency Reporting 3 points
- Telecommunicators 4 points
- Dispatch Circuits 3 points

A review of the **Fire Department** accounts for 50% of the total classification. ISO focuses on a fire department's first alarm response and initial attack to minimize potential loss. The fire department section is weighted at **50 points**, as follows:

- Engine Companies 6 points
- Reserve Pumpers 0.5 points
- Pump Capacity 3 points
- Ladder/Service Companies 4 points
- Reserve Ladder/Service Trucks 0.5 points
- Deployment Analysis 10 points
- Company Personnel 15 points
- Training 9 points
- Operational considerations 2 points
- Community Risk Reduction 5.5 points (in addition to the 50 points above)

A review of the **Water Supply** system accounts for 40% of the total classification. ISO reviews the water supply a community uses to determine the adequacy for fire suppression purposes. The water supply system is weighted at **40 points**, as follows:

- Credit for Supply System 30 points
- Hydrant Size, Type & Installation 3 points
- Inspection & Flow Testing of Hydrants 7 points

There is one additional factor considered in calculating the final score – **Divergence**.

Even the best fire department will be less than fully effective if it has an inadequate water supply. Similarly, even a superior water supply will be less than fully effective if the fire department lacks the equipment or personnel to use the water. The FSRs score is subject to modification by a divergence factor, which recognizes disparity between the effectiveness of the fire department and the water supply.

The Divergence factor mathematically reduces the score based upon the relative difference between the fire department and water supply scores. The factor is introduced in the final equation.

### **PPC Grade**

The PPC grade assigned to the community will depend on the community's score on a 100-point scale:

<b>PPC</b>	<b>Points</b>
1	90.00 or more
2	80.00 to 89.99
3	70.00 to 79.99
4	60.00 to 69.99
5	50.00 to 59.99
6	40.00 to 49.99
7	30.00 to 39.99
8	20.00 to 29.99
9	10.00 to 19.99
10	0.00 to 9.99

The classification numbers are interpreted as follows:

- Class 1 through (and including) Class 8 represents a fire suppression system that includes an FSRs creditable dispatch center, fire department, and water supply.
- Class 8B is a special classification that recognizes a superior level of fire protection in otherwise Class 9 areas. It is designed to represent a fire protection delivery system that is superior except for a lack of a water supply system capable of the minimum FSRs fire flow criteria of 250 gpm for 2 hours.
- Class 9 is a fire suppression system that includes a creditable dispatch center, fire department but no FSRs creditable water supply.
- Class 10 does not meet minimum FSRs criteria for recognition, including areas that are beyond five road miles of a recognized fire station.



## New PPC program changes effective July 1, 2014

We have revised the PPC program to capture the effects of enhanced fire protection capabilities that reduce fire loss and fire severity in Split Class 9 and Split Class 8B areas (as outlined below). This new structure benefits the fire service, community, and property owner.

### New classifications

Through ongoing research and loss experience analysis, we identified additional differentiation in fire loss experience within our PPC program, which resulted in the revised classifications. We based the differing fire loss experience on the fire suppression capabilities of each community. The new PPC classes will improve the predictive value for insurers while benefiting both commercial and residential property owners. Here are the new classifications and what they mean.

### Split classifications

When we develop a split classification for a community — for example 5/9 — the first number is the class that applies to properties within 5 road miles of the responding fire station and 1,000 feet of a creditable water supply, such as a fire hydrant, suction point, or dry hydrant. The second number is the class that applies to properties within 5 road miles of a fire station but beyond 1,000 feet of a creditable water supply. We have revised the classification to reflect more precisely the risk of loss in a community, replacing Class 9 and 8B in the second part of a split classification with revised designations.

### What's changed with the new classifications?

We've published the new classifications as "X" and "Y" — formerly the "9" and "8B" portion of the split classification, respectively. For example:

- A community currently displayed as a split 6/9 classification will now be a split 6/6X classification; with the "6X" denoting what was formerly classified as "9".
- Similarly, a community currently graded as a split 6/8B classification will now be a split 6/6Y classification, the "6Y" denoting what was formerly classified as "8B".
- Communities graded with single "9" or "8B" classifications will remain intact.

Prior Classification	New Classification
1/9	1/1X
2/9	2/2X
3/9	3/3X
4/9	4/4X
5/9	5/5X
6/9	6/6X
7/9	7/7X
8/9	8/8X
9	9

Prior Classification	New Classification
1/8B	1/1Y
2/8B	2/2Y
3/8B	3/3Y
4/8B	4/4Y
5/8B	5/5Y
6/8B	6/6Y
7/8B	7/7Y
8/8B	8/8Y
8B	8B

### **What's changed?**

As you can see, we're still maintaining split classes, but it's how we represent them to insurers that's changed. The new designations reflect a reduction in fire severity and loss and have the potential to reduce property insurance premiums.

### **Benefits of the revised split class designations**

- To the fire service, the revised designations identify enhanced fire suppression capabilities used throughout the fire protection area
- To the community, the new classes reward a community's fire suppression efforts by showing a more reflective designation
- To the individual property owner, the revisions offer the potential for decreased property insurance premiums

### **New water class**

Our data also shows that risks located more than 5 but less than 7 road miles from a responding fire station with a creditable water source within 1,000 feet had better loss experience than those farther than 5 road miles from a responding fire station with no creditable water source. We've introduced a new classification — 10W — to recognize the reduced loss potential of such properties.

### **What's changed with Class 10W?**

Class 10W is property-specific. Not all properties in the 5-to-7-mile area around the responding fire station will qualify. The difference between Class 10 and 10W is that the 10W-graded risk or property is within 1,000 feet of a creditable water supply. Creditable water supplies include fire protection systems using hauled water in any of the split classification areas.

### **What's the benefit of Class 10W?**

10W gives credit to risks within 5 to 7 road miles of the responding fire station and within 1,000 feet of a creditable water supply. That's reflective of the potential for reduced property insurance premiums.

### **What does the fire chief have to do?**

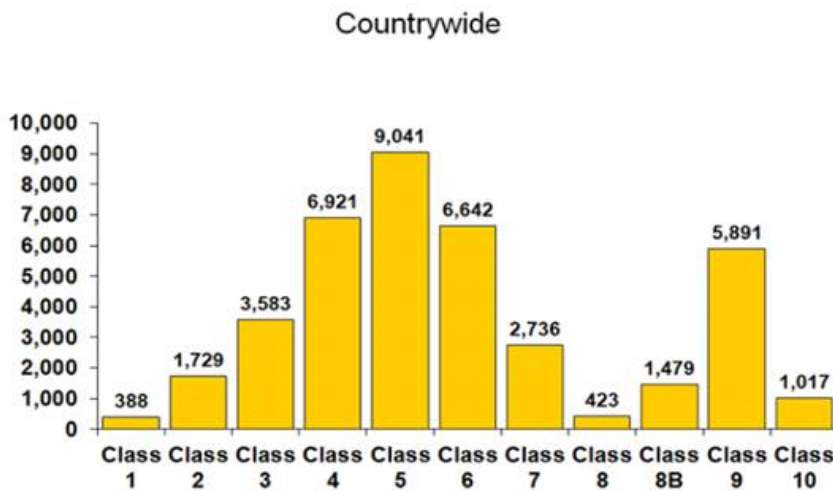
Fire chiefs don't have to do anything at all. The revised classifications went in place automatically effective July 1, 2014 (July 1, 2015 for Texas).

### **What if I have additional questions?**

Feel free to contact ISO at 800.444.4554 or email us at [PPC-Cust-Serv@iso.com](mailto:PPC-Cust-Serv@iso.com).

## Distribution of PPC Grades

The 2020 published countrywide distribution of communities by the PPC grade is as follows:



## Assistance

The PPC program offers help to communities, fire departments, and other public officials as they plan for, budget, and justify improvements. ISO is also available to assist in the understanding of the details of this evaluation.

The PPC program representatives can be reached by telephone at (800) 444-4554. The technical specialists at this telephone number have access to the details of this evaluation and can effectively speak with you about your questions regarding the PPC program. What's more, we can be reached via the internet at [www.isomitigation.com/talk/](http://www.isomitigation.com/talk/).

We also have a website dedicated to our Community Hazard Mitigation Classification programs at [www.isomitigation.com](http://www.isomitigation.com). Here, fire chiefs, building code officials, community leaders and other interested citizens can access a wealth of data describing the criteria used in evaluating how cities and towns are protecting residents from fire and other natural hazards. This website will allow you to learn more about the PPC program. The website provides important background information, insights about the PPC grading processes and technical documents. ISO is also pleased to offer Fire Chiefs Online — a special, secured website with information and features that can help improve your PPC grade, including a list of the Needed Fire Flows for all the commercial occupancies ISO has on file for your community. Visitors to the site can download information, see statistical results and also contact ISO for assistance.

In addition, on-line access to the FSRs and its commentaries is available to registered customers for a fee. However, fire chiefs and community chief administrative officials are given access privileges to this information without charge.

To become a registered fire chief or community chief administrative official, register at [www.isomitigation.com](http://www.isomitigation.com).

## PPC Review

ISO concluded its review of the fire suppression features being provided for Stanley FDS. The resulting community classification is **Class 06/10**.

If the classification is a single class, the classification applies to properties with a Needed Fire Flow of 3,500 gpm or less in the community. If the classification is a split class (e.g., 6/XX):

- The first class (e.g., “6” in a 6/XX) applies to properties within 5 road miles of a recognized fire station and within 1,000 feet of a fire hydrant or alternate water supply.
- The second class (XX or XY) applies to properties beyond 1,000 feet of a fire hydrant but within 5 road miles of a recognized fire station.
- Alternative Water Supply: The first class (e.g., “6” in a 6/10) applies to properties within 5 road miles of a recognized fire station with no hydrant distance requirement.
- Class 10 applies to properties over 5 road miles of a recognized fire station.
- Class 10W applies to properties within 5 to 7 road miles of a recognized fire station with a recognized water supply within 1,000 feet.
- Specific properties with a Needed Fire Flow in excess of 3,500 gpm are evaluated separately and assigned an individual classification.

<b>FSRS Feature</b>	<b>Earned Credit</b>	<b>Credit Available</b>
<b>Emergency Communications</b>		
414. Credit for Emergency Reporting	<b>3.00</b>	<b>3</b>
422. Credit for Telecommunicators	<b>2.02</b>	<b>4</b>
432. Credit for Dispatch Circuits	<b>2.85</b>	<b>3</b>
<b>440. Credit for Emergency Communications</b>	<b>7.87</b>	<b>10</b>
<b>Fire Department</b>		
513. Credit for Engine Companies	<b>5.40</b>	<b>6</b>
523. Credit for Reserve Pumpers	<b>0.46</b>	<b>0.50</b>
532. Credit for Pump Capacity	<b>3.00</b>	<b>3</b>
549. Credit for Ladder Service	<b>2.80</b>	<b>4</b>
553. Credit for Reserve Ladder and Service Trucks	<b>0.14</b>	<b>0.50</b>
561. Credit for Deployment Analysis	<b>7.20</b>	<b>10</b>
571. Credit for Company Personnel	<b>2.95</b>	<b>15</b>
581. Credit for Training	<b>1.60</b>	<b>9</b>
730. Credit for Operational Considerations	<b>2.00</b>	<b>2</b>
<b>590. Credit for Fire Department</b>	<b>25.55</b>	<b>50</b>
<b>Water Supply</b>		
616. Credit for Supply System	<b>9.39</b>	<b>30</b>
621. Credit for Hydrants	<b>3.00</b>	<b>3</b>
631. Credit for Inspection and Flow Testing	<b>3.20</b>	<b>7</b>
<b>640. Credit for Water Supply</b>	<b>15.59</b>	<b>40</b>
<b>Divergence</b>	<b>-2.43</b>	<b>--</b>
<b>1050. Community Risk Reduction</b>	<b>3.37</b>	<b>5.50</b>
<b>Total Credit</b>	<b>49.95</b>	<b>105.50</b>



## **Emergency Communications**

Ten percent of a community's overall score is based on how well the communications center receives and dispatches fire alarms. Our field representative evaluated:

- Communications facilities provided for the general public to report structure fires
- Enhanced 9-1-1 Telephone Service including wireless
- Computer-aided dispatch (CAD) facilities
- Alarm receipt and processing at the communication center
- Training and certification of telecommunicators
- Facilities used to dispatch fire department companies to reported structure fires

	<b>Earned Credit</b>	<b>Credit Available</b>
414. Credit Emergency Reporting	<b>3.00</b>	3
422. Credit for Telecommunicators	<b>2.02</b>	4
432. Credit for Dispatch Circuits	<b>2.85</b>	3
<b>Item 440. Credit for Emergency Communications:</b>	<b>7.87</b>	<b>10</b>

### **Item 414 - Credit for Emergency Reporting (3 points)**

The first item reviewed is Item 414 "Credit for Emergency Reporting (CER)". This item reviews the emergency communication center facilities provided for the public to report fires including 911 systems (Basic or Enhanced), Wireless Phase I and Phase II, Voice over Internet Protocol, Computer Aided Dispatch and Geographic Information Systems for automatic vehicle location. ISO uses National Fire Protection Association (NFPA) 1221, *Standard for the Installation, Maintenance and Use of Emergency Services Communications Systems* as the reference for this section.

<b>Item 410. Emergency Reporting (CER)</b>	<b>Earned Credit</b>	<b>Credit Available</b>
<p><b>A./B. Basic 9-1-1, Enhanced 9-1-1 or No 9-1-1</b></p> <p>For maximum credit, there should be an Enhanced 9-1-1 system, Basic 9-1-1 and No 9-1-1 will receive partial credit.</p>	<b>20.00</b>	<b>20</b>
<p><b>1. E9-1-1 Wireless</b></p> <p>Wireless Phase I using Static ALI (automatic location identification) Functionality (10 points); Wireless Phase II using Dynamic ALI Functionality (15 points); Both available will be 25 points</p>	<b>25.00</b>	<b>25</b>
<p><b>2. E9-1-1 Voice over Internet Protocol (VoIP)</b></p> <p>Static VoIP using Static ALI Functionality (10 points); Nomadic VoIP using Dynamic ALI Functionality (15 points); Both available will be 25 points</p>	<b>25.00</b>	<b>25</b>
<p><b>3. Computer Aided Dispatch</b></p> <p>Basic CAD (5 points); CAD with Management Information System (5 points); CAD with Interoperability (5 points)</p>	<b>15.00</b>	<b>15</b>
<p><b>4. Geographic Information System (GIS/AVL)</b></p> <p><u>The PSAP uses</u> a fully integrated CAD/GIS management system with automatic vehicle location (AVL) integrated with a CAD system providing dispatch assignments.</p> <p>The individual fire departments being dispatched <u>do not</u> need GIS/AVL capability to obtain this credit.</p>	<b>15.00</b>	<b>15</b>
<p><b>Review of Emergency Reporting total:</b></p>	<b>100.00</b>	<b>100</b>

**Item 422- Credit for Telecommunicators (4 points)**

The second item reviewed is Item 422 "Credit for Telecommunicators (TC)". This item reviews the number of Telecommunicators on duty at the center to handle fire calls and other emergencies. All emergency calls including those calls that do not require fire department action are reviewed to determine the proper staffing to answer emergency calls and dispatch the appropriate emergency response. The 2013 Edition of NFPA 1221, *Standard for the Installation, Maintenance and Use of Emergency Services Communications Systems*, recommends that ninety-five percent of emergency calls shall be answered within 15 seconds and ninety-nine percent of emergency calls shall be answered within 40 seconds. In addition, NFPA recommends that eighty percent of emergency alarm processing shall be completed within 60 seconds and ninety-five percent of alarm processing shall be completed within 106 seconds of answering the call.

To receive full credit for operators on duty, ISO must review documentation to show that the communication center meets NFPA 1221 call answering and dispatch time performance measurement standards. This documentation may be in the form of performance statistics or other performance measurements compiled by the 9-1-1 software or other software programs that are currently in use such as Computer Aided Dispatch (CAD) or Management Information System (MIS).

<b>Item 420. Telecommunicators (CTC)</b>	<b>Earned Credit</b>	<b>Credit Available</b>
<p><b>A1. Alarm Receipt (AR)</b></p> <p>Receipt of alarms shall meet the requirements in accordance with the criteria of NFPA 1221</p>	<b>19.99</b>	<b>20</b>
<p><b>A2. Alarm Processing (AP)</b></p> <p>Processing of alarms shall meet the requirements in accordance with the criteria of NFPA 1221</p>	<b>0.00</b>	<b>20</b>
<p><b>B. Emergency Dispatch Protocols (EDP)</b></p> <p>Telecommunicators have emergency dispatch protocols (EDP) containing questions and a decision-support process to facilitate correct call categorization and prioritization.</p>	<b>0.00</b>	<b>20</b>
<p><b>C. Telecommunicator Training and Certification (TTC)</b></p> <p>Telecommunicators meet the qualification requirements referenced in NFPA 1061, <i>Standard for Professional Qualifications for Public Safety Telecommunicator</i>, and/or the Association of Public-Safety Communications Officials - International (APCO) <i>Project 33</i>. Telecommunicators are certified in the knowledge, skills, and abilities corresponding to their job functions.</p>	<b>20.00</b>	<b>20</b>
<p><b>D. Telecommunicator Continuing Education and Quality Assurance (TQA)</b></p> <p>Telecommunicators participate in continuing education and/or in-service training and quality-assurance programs as appropriate for their positions</p>	<b>10.53</b>	<b>20</b>
<p><b>Review of Telecommunicators total:</b></p>	<b>50.52</b>	<b>100</b>

### **Item 432 - Credit for Dispatch Circuits (3 points)**

The third item reviewed is Item 432 “Credit for Dispatch Circuits (CDC)”. This item reviews the dispatch circuit facilities used to transmit alarms to fire department members. A “Dispatch Circuit” is defined in NFPA 1221 as “A circuit over which an alarm is transmitted from the communications center to an emergency response facility (ERF) or emergency response units (ERUs) to notify ERUs to respond to an emergency”. All fire departments (except single fire station departments with full-time firefighter personnel receiving alarms directly at the fire station) need adequate means of notifying all firefighter personnel of the location of reported structure fires. The dispatch circuit facilities should be in accordance with the general criteria of NFPA 1221. “Alarms” are defined in this Standard as “A signal or message from a person or device indicating the existence of an emergency or other situation that requires action by an emergency response agency”.

There are two different levels of dispatch circuit facilities provided for in the Standard – a primary dispatch circuit and a secondary dispatch circuit. In jurisdictions that receive 730 alarms or more per year (average of two alarms per 24-hour period), two separate and dedicated dispatch circuits, a primary and a secondary, are needed. In jurisdictions receiving fewer than 730 alarms per year, a second dedicated dispatch circuit is not needed. Dispatch circuit facilities installed but not used or tested (in accordance with the NFPA Standard) receive no credit.

The score for Credit for Dispatch Circuits (CDC) is influenced by monitoring for integrity of the primary dispatch circuit. There are up to 0.90 points available for this Item. Monitoring for integrity involves installing automatic systems that will detect faults and failures and send visual and audible indications to appropriate communications center (or dispatch center) personnel. ISO uses NFPA 1221 to guide the evaluation of this item. ISO's evaluation also includes a review of the communication system's emergency power supplies.

### **Item 432 “Credit for Dispatch Circuits (CDC)” = 2.85 points**



## **Fire Department**

Fifty percent of a community's overall score is based upon the fire department's structure fire suppression system. ISO's field representative evaluated:

- Engine and ladder/service vehicles including reserve apparatus
- Equipment carried
- Response to reported structure fires
- Deployment analysis of companies
- Available and/or responding firefighters
- Training

	<b>Earned Credit</b>	<b>Credit Available</b>
513. Credit for Engine Companies	<b>5.40</b>	6
523. Credit for Reserve Pumpers	<b>0.46</b>	0.5
532. Credit for Pumper Capacity	<b>3.00</b>	3
549. Credit for Ladder Service	<b>2.80</b>	4
553. Credit for Reserve Ladder and Service Trucks	<b>0.14</b>	0.5
561. Credit for Deployment Analysis	<b>7.20</b>	10
571. Credit for Company Personnel	<b>2.95</b>	15
581. Credit for Training	<b>1.60</b>	9
730. Credit for Operational Considerations	<b>2.00</b>	2
<b>Item 590. Credit for Fire Department:</b>	<b>25.55</b>	<b>50</b>

## **Basic Fire Flow**

The Basic Fire Flow for the community is determined by the review of the Needed Fire Flows for selected buildings in the community. The fifth largest Needed Fire Flow is determined to be the Basic Fire Flow. The Basic Fire Flow has been determined to be 2000 gpm.

### **Item 513 - Credit for Engine Companies (6 points)**

The first item reviewed is Item 513 "Credit for Engine Companies (CEC)". This item reviews the number of engine companies, their pump capacity, hose testing, pump testing and the equipment carried on the in-service pumpers. To be recognized, pumper apparatus must meet the general criteria of NFPA 1901, *Standard for Automotive Fire Apparatus* which include a minimum 250 gpm pump, an emergency warning system, a 300 gallon water tank, and hose. At least 1 apparatus must have a permanently mounted pump rated at 750 gpm or more at 150 psi.

The review of the number of needed pumpers considers the response distance to built-upon areas; the Basic Fire Flow; and the method of operation. Multiple alarms, simultaneous incidents, and life safety are not considered.

The greatest value of A, B, or C below is needed in the fire district to suppress fires in structures with a Needed Fire Flow of 3,500 gpm or less: **2 engine companies**

- a) **1 engine companies** to provide fire suppression services to areas to meet NFPA 1710 criteria or within 1½ miles.
- b) **2 engine companies** to support a Basic Fire Flow of 2000 gpm.
- c) **2 engine companies** based upon the fire department's method of operation to provide a minimum two engine response to all first alarm structure fires.

The FSRS recognizes that there are **2 engine companies** in service.

The FSRS also reviews Automatic Aid. Automatic Aid is considered in the review as assistance dispatched automatically by contractual agreement between two communities or fire districts. That differs from mutual aid or assistance arranged case by case. ISO will recognize an Automatic Aid plan under the following conditions:

- It must be prearranged for first alarm response according to a definite plan. It is preferable to have a written agreement, but ISO may recognize demonstrated performance.
- The aid must be dispatched to all reported structure fires on the initial alarm.
- The aid must be provided 24 hours a day, 365 days a year.

FSRS Item 512.D "Automatic Aid Engine Companies" responding on first alarm and meeting the needs of the city for basic fire flow and/or distribution of companies are factored based upon the value of the Automatic Aid plan (up to 1.00 can be used as the factor). The Automatic Aid factor is determined by a review of the Automatic Aid provider's communication facilities, how they receive alarms from the graded area, inter-department training between fire departments, and the fire ground communications capability between departments.

For each engine company, the credited Pump Capacity (PC), the Hose Carried (HC), the Equipment Carried (EC) all contribute to the calculation for the percent of credit the FSRS provides to that engine company.

**Item 513 "Credit for Engine Companies (CEC)" = 5.40 points**

### **Item 523 - Credit for Reserve Pumpers (0.50 points)**

The item is Item 523 “Credit for Reserve Pumpers (CRP)”. This item reviews the number and adequacy of the pumpers and their equipment. The number of needed reserve pumpers is 1 for each 8 needed engine companies determined in Item 513, or any fraction thereof.

**Item 523 “Credit for Reserve Pumpers (CRP)” = 0.46 points**

### **Item 532 – Credit for Pumper Capacity (3 points)**

The next item reviewed is Item 532 “Credit for Pumper Capacity (CPC)”. The total pump capacity available should be sufficient for the Basic Fire Flow of 2000 gpm. The maximum needed pump capacity credited is the Basic Fire Flow of the community.

**Item 532 “Credit for Pumper Capacity (CPC)” = 3.00 points**

### **Item 549 – Credit for Ladder Service (4 points)**

The next item reviewed is Item 549 “Credit for Ladder Service (CLS)”. This item reviews the number of response areas within the city with 5 buildings that are 3 or more stories or 35 feet or more in height, or with 5 buildings that have a Needed Fire Flow greater than 3,500 gpm, or any combination of these criteria. The height of all buildings in the city, including those protected by automatic sprinklers, is considered when determining the number of needed ladder companies. Response areas not needing a ladder company should have a service company. Ladders, tools and equipment normally carried on ladder trucks are needed not only for ladder operations but also for forcible entry, ventilation, salvage, overhaul, lighting and utility control.

The number of ladder or service companies, the height of the aerial ladder, aerial ladder testing and the equipment carried on the in-service ladder trucks and service trucks is compared with the number of needed ladder trucks and service trucks and an FSRS equipment list. Ladder trucks must meet the general criteria of NFPA 1901, *Standard for Automotive Fire Apparatus* to be recognized.

The number of needed ladder-service trucks is dependent upon the number of buildings 3 stories or 35 feet or more in height, buildings with a Needed Fire Flow greater than 3,500 gpm, and the method of operation.

The FSRS recognizes that there are **0 ladder companies** in service. These companies are needed to provide fire suppression services to areas to meet NFPA 1710 criteria or within 2½ miles and the number of buildings with a Needed Fire Flow over 3,500 gpm or 3 stories or more in height, or the method of operation.

The FSRS recognizes that there are **1 service companies** in service.

**Item 549 “Credit for Ladder Service (CLS)” = 2.80 points**

### **Item 553 – Credit for Reserve Ladder and Service Trucks (0.50 points)**

The next item reviewed is Item 553 “Credit for Reserve Ladder and Service Trucks (CRLS)”. This item considers the adequacy of ladder and service apparatus when one (or more in larger communities) of these apparatus are out of service. The number of needed reserve ladder and service trucks is 1 for each 8 needed ladder and service companies that were determined to be needed in Item 540, or any fraction thereof.

**Item 553 “Credit for Reserve Ladder and Service Trucks (CRLS)” = 0.14 points**

### **Item 561 – Deployment Analysis (10 points)**

Next, Item 561 “Deployment Analysis (DA)” is reviewed. This Item examines the number and adequacy of existing engine and ladder-service companies to cover built-upon areas of the city.

To determine the Credit for Distribution, first the Existing Engine Company (EC) points and the Existing Engine Companies (EE) determined in Item 513 are considered along with Ladder Company Equipment (LCE) points, Service Company Equipment (SCE) points, Engine-Ladder Company Equipment (ELCE) points, and Engine-Service Company Equipment (ESCE) points determined in Item 549.

Secondly, as an alternative to determining the number of needed engine and ladder/service companies through the road-mile analysis, a fire protection area may use the results of a systematic performance evaluation. This type of evaluation analyzes computer-aided dispatch (CAD) history to demonstrate that, with its current deployment of companies, the fire department meets the time constraints for initial arriving engine and initial full alarm assignment in accordance with the general criteria of in NFPA 1710, *Standard for the Organization and Deployment of Fire Suppression Operations, Emergency Medical Operations, and Special Operations to the Public by Career Fire Departments*.

A determination is made of the percentage of built upon area within 1½ miles of a first-due engine company and within 2½ miles of a first-due ladder-service company.

**Item 561 “Credit Deployment Analysis (DA)” = 7.20 points**



### **Item 571 – Credit for Company Personnel (15 points)**

Item 571 “Credit for Company Personnel (CCP)” reviews the average number of existing firefighters and company officers available to respond to reported first alarm structure fires in the city.

The on-duty strength is determined by the yearly average of total firefighters and company officers on-duty considering vacations, sick leave, holidays, “Kelley” days and other absences. When a fire department operates under a minimum staffing policy, this may be used in lieu of determining the yearly average of on-duty company personnel.

Firefighters on apparatus not credited under Items 513 and 549 that regularly respond to reported first alarms to aid engine, ladder, and service companies are included in this item as increasing the total company strength.

Firefighters staffing ambulances or other units serving the general public are credited if they participate in fire-fighting operations, the number depending upon the extent to which they are available and are used for response to first alarms of fire.

On-Call members are credited on the basis of the average number staffing apparatus on first alarms. Off-shift career firefighters and company officers responding on first alarms are considered on the same basis as on-call personnel. For personnel not normally at the fire station, the number of responding firefighters and company officers is divided by 3 to reflect the time needed to assemble at the fire scene and the reduced ability to act as a team due to the various arrival times at the fire location when compared to the personnel on-duty at the fire station during the receipt of an alarm.

The number of Public Safety Officers who are positioned in emergency vehicles within the jurisdiction boundaries may be credited based on availability to respond to first alarm structure fires. In recognition of this increased response capability the number of responding Public Safety Officers is divided by 2.

The average number of firefighters and company officers responding with those companies credited as Automatic Aid under Items 513 and 549 are considered for either on-duty or on-call company personnel as is appropriate. The actual number is calculated as the average number of company personnel responding multiplied by the value of AA Plan determined in Item 512.D.

The maximum creditable response of on-duty and on-call firefighters is 12, including company officers, for each existing engine and ladder company and 6 for each existing service company.

Chief Officers are not creditable except when more than one chief officer responds to alarms; then extra chief officers may be credited as firefighters if they perform company duties.

The FSRS recognizes **0.00 on-duty personnel** and an average of **8.85 on-call personnel** responding on first alarm structure fires.

**Item 571 “Credit for Company Personnel (CCP)” = 2.95 points**

**Item 581 – Credit for Training (9 points)**

<b>Training</b>	<b>Earned Credit</b>	<b>Credit Available</b>
<p><b>A. Facilities, and Use</b></p> <p>For maximum credit, each firefighter should receive 18 hours per year in structure fire related subjects as outlined in NFPA 1001.</p>	<b>0.00</b>	<b>35</b>
<p><b>B. Company Training</b></p> <p>For maximum credit, each firefighter should receive 16 hours per month in structure fire related subjects as outlined in NFPA 1001.</p>	<b>1.94</b>	<b>25</b>
<p><b>C. Classes for Officers</b></p> <p>For maximum credit, each officer should be certified in accordance with the general criteria of NFPA 1021. Additionally, each officer should receive 12 hours of continuing education on or off site.</p>	<b>9.20</b>	<b>12</b>
<p><b>D. New Driver and Operator Training</b></p> <p>For maximum credit, each new driver and operator should receive 60 hours of driver/operator training per year in accordance with NFPA 1002 and NFPA 1451.</p>	<b>2.50</b>	<b>5</b>
<p><b>E. Existing Driver and Operator Training</b></p> <p>For maximum credit, each existing driver and operator should receive 12 hours of driver/operator training per year in accordance with NFPA 1002 and NFPA 1451.</p>	<b>2.10</b>	<b>5</b>
<p><b>F. Training on Hazardous Materials</b></p> <p>For maximum credit, each firefighter should receive 6 hours of training for incidents involving hazardous materials in accordance with NFPA 472.</p>	<b>0.21</b>	<b>1</b>
<p><b>G. Recruit Training</b></p> <p>For maximum credit, each firefighter should receive 240 hours of structure fire related training in accordance with NFPA 1001 within the first year of employment or tenure.</p>	<b>1.25</b>	<b>5</b>
<p><b>H. Pre-Fire Planning Inspections</b></p> <p>For maximum credit, pre-fire planning inspections of each commercial, industrial, institutional, and other similar type building (all buildings except 1-4 family dwellings) should be made annually by company members. Records of inspections should include up-to date notes and sketches.</p>	<b>0.60</b>	<b>12</b>

**Item 580 “Credit for Training (CT)” = 1.60 points**

**Item 730 – Operational Considerations (2 points)**

Item 730 “Credit for Operational Considerations (COC)” evaluates fire department standard operating procedures and incident management systems for emergency operations involving structure fires.

<b>Operational Considerations</b>	<b>Earned Credit</b>	<b>Credit Available</b>
<b>Standard Operating Procedures</b> The department should have established SOPs for fire department general emergency operations	<b>50</b>	<b>50</b>
<b>Incident Management Systems</b> The department should use an established incident management system (IMS)	<b>50</b>	<b>50</b>
<b>Operational Considerations total:</b>	<b>100</b>	<b>100</b>

**Item 730 “Credit for Operational Considerations (COC)” = 2.00 points**

**Water Supply**

Forty percent of a community's overall score is based on the adequacy of the water supply system. The ISO field representative evaluated:

- the capability of the water distribution system to meet the Needed Fire Flows at selected locations up to 3,500 gpm.
- size, type and installation of fire hydrants.
- inspection and flow testing of fire hydrants.

	<b>Earned Credit</b>	<b>Credit Available</b>
616. Credit for Supply System	<b>9.39</b>	30
621. Credit for Hydrants	<b>3.00</b>	3
631. Credit for Inspection and Flow Testing	<b>3.20</b>	7
<b>Item 640. Credit for Water Supply:</b>	<b>15.59</b>	<b>40</b>

### **Item 616 – Credit for Supply System (30 points)**

The first item reviewed is Item 616 “Credit for Supply System (CSS)”. This item reviews the rate of flow that can be credited at each of the Needed Fire Flow test locations considering the supply works capacity, the main capacity and the hydrant distribution. The lowest flow rate of these items is credited for each representative location. A water system capable of delivering 250 gpm or more for a period of two hours plus consumption at the maximum daily rate at the fire location is considered minimum in the ISO review.

Where there are 2 or more systems or services distributing water at the same location, credit is given on the basis of the joint protection provided by all systems and services available.

The supply works capacity is calculated for each representative Needed Fire Flow test location, considering a variety of water supply sources. These include public water supplies, emergency supplies (usually accessed from neighboring water systems), suction supplies (usually evidenced by dry hydrant installations near a river, lake or other body of water), and supplies developed by a fire department using large diameter hose or vehicles to shuttle water from a source of supply to a fire site. The result is expressed in gallons per minute (gpm).

The normal ability of the distribution system to deliver Needed Fire Flows at the selected building locations is reviewed. The results of a flow test at a representative test location will indicate the ability of the water mains (or fire department in the case of fire department supplies) to carry water to that location.

The hydrant distribution is reviewed within 1,000 feet of representative test locations measured as hose can be laid by apparatus.

For maximum credit, the Needed Fire Flows should be available at each location in the district. Needed Fire Flows of 2,500 gpm or less should be available for 2 hours; and Needed Fire Flows of 3,000 and 3,500 gpm should be obtainable for 3 hours.

### **Item 616 “Credit for Supply System (CSS)” = 9.39 points**

### **Item 621 – Credit for Hydrants (3 points)**



The second item reviewed is Item 621 “Credit for Hydrants (CH)”. This item reviews the number of fire hydrants of each type compared with the total number of hydrants.

There are a total of 226 hydrants in the graded area.

620. Hydrants, - Size, Type and Installation	Number of Hydrants
A. With a 6 -inch or larger branch and a pumper outlet with or without 2½ - inch outlets	226
B. With a 6 -inch or larger branch and no pumper outlet but two or more 2½ -inch outlets, or with a small foot valve, or with a small barrel	0
C./D. With only a 2½ -inch outlet or with less than a 6 -inch branch	0
E./F. Flush Type, Cistern, or Suction Point	0

Item 621 “Credit for Hydrants (CH)” = 3.00 points

**Item 630 – Credit for Inspection and Flow Testing (7 points)**

The third item reviewed is Item 630 “Credit for Inspection and Flow Testing (CIT)”. This item reviews the fire hydrant inspection frequency, and the completeness of the inspections. Inspection of hydrants should be in accordance with AWWA M-17, *Installation, Field Testing and Maintenance of Fire Hydrants*.

**Frequency of Inspection (FI):** Average interval between the 3 most recent inspections.

Frequency	Points
1 year	30
2 years	20
3 years	10
4 years	5
5 years or more	No Credit

**Note:** The points for inspection frequency are reduced by 10 points if the inspections are incomplete or do not include a flushing program. An additional reduction of 10 points are made if hydrants are not subjected to full system pressure during inspections. If the inspection of cisterns or suction points does not include actual drafting with a pumper, or back-flushing for dry hydrants, 20 points are deducted.

**Total points for Inspections = 3.20 points**

**Frequency of Fire Flow Testing (FF):** Average interval between the 3 most recent inspections.

<b>Frequency</b>	<b>Points</b>
5 years	40
6 years	30
7 years	20
8 years	10
9 years	5
10 years or more	No Credit

**Total points for Fire Flow Testing = 0.00 points**

**Item 631 “Credit for Inspection and Fire Flow Testing (CIT)” = 3.20 points**

**Divergence = -2.43**

The Divergence factor mathematically reduces the score based upon the relative difference between the fire department and water supply scores. The factor is introduced in the final equation.

**Community Risk Reduction**

	<b>Earned Credit</b>	<b>Credit Available</b>
1025. Credit for Fire Prevention and Code Enforcement (CPCE)	<b>1.44</b>	2.2
1033. Credit for Public Fire Safety Education (CFSE)	<b>0.92</b>	2.2
1044. Credit for Fire Investigation Programs (CIP)	<b>1.01</b>	1.1
<b>Item 1050. Credit for Community Risk Reduction</b>	<b>3.37</b>	<b>5.50</b>

<b>Item 1025 – Credit for Fire Prevention Code Adoption and Enforcement (2.2 points)</b>	<b>Earned Credit</b>	<b>Credit Available</b>
<b>Fire Prevention Code Regulations (PCR)</b>	<b>2.76</b>	<b>10</b>

Evaluation of fire prevention code regulations in effect.		
<b>Fire Prevention Staffing (PS)</b> Evaluation of staffing for fire prevention activities.	<b>8.00</b>	<b>8</b>
<b>Fire Prevention Certification and Training (PCT)</b> Evaluation of the certification and training of fire prevention code enforcement personnel.	<b>3.00</b>	<b>6</b>
<b>Fire Prevention Programs (PCP)</b> Evaluation of fire prevention programs.	<b>12.45</b>	<b>16</b>
<b>Review of Fire Prevention Code and Enforcement (CPCE) subtotal:</b>	<b>26.21</b>	<b>40</b>

<b>Item 1033 – Credit for Public Fire Safety Education (2.2 points)</b>	<b>Earned Credit</b>	<b>Credit Available</b>
<b>Public Fire Safety Educators Qualifications and Training (FSQT)</b> Evaluation of public fire safety education personnel training and qualification as specified by the authority having jurisdiction.	<b>5.00</b>	<b>10</b>
<b>Public Fire Safety Education Programs (FSP)</b> Evaluation of programs for public fire safety education.	<b>11.75</b>	<b>30</b>
<b>Review of Public Safety Education Programs (CFSE) subtotal:</b>	<b>16.75</b>	<b>40</b>

<b>Item 1044 – Credit for Fire Investigation Programs (1.1 points)</b>	<b>Earned Credit</b>	<b>Credit Available</b>
<b>Fire Investigation Organization and Staffing (IOS)</b> Evaluation of organization and staffing for fire investigations.	<b>7.80</b>	<b>8</b>
<b>Fire Investigator Certification and Training (IQT)</b> Evaluation of fire investigator certification and training.	<b>4.50</b>	<b>6</b>
<b>Use of National Fire Incident Reporting System (IRS)</b> Evaluation of the use of the National Fire Incident Reporting System (NFIRS) for the 3 years before the evaluation.	<b>6.00</b>	<b>6</b>
<b>Review of Fire Investigation Programs (CIP) subtotal:</b>	<b>18.30</b>	<b>20</b>

**Summary of PPC Review**  
**for**  
**Stanley FDS**

FSRS Item	Earned Credit	Credit Available
<b>Emergency Communications</b>		
414. Credit for Emergency Reporting	3.00	3
422. Credit for Telecommunicators	2.02	4
432. Credit for Dispatch Circuits	2.85	3
<b>440. Credit for Emergency Communications</b>	<b>7.87</b>	<b>10</b>
<b>Fire Department</b>		
513. Credit for Engine Companies	5.40	6
523. Credit for Reserve Pumpers	0.46	0.5
532. Credit for Pumper Capacity	3.00	3
549. Credit for Ladder Service	2.80	4
553. Credit for Reserve Ladder and Service Trucks	0.14	0.5
561. Credit for Deployment Analysis	7.20	10
571. Credit for Company Personnel	2.95	15
581. Credit for Training	1.60	9
730. Credit for Operational Considerations	2.00	2
<b>590. Credit for Fire Department</b>	<b>25.55</b>	<b>50</b>
<b>Water Supply</b>		
616. Credit for Supply System	9.39	30
621. Credit for Hydrants	3.00	3
631. Credit for Inspection and Flow Testing	3.20	7
<b>640. Credit for Water Supply</b>	<b>15.59</b>	<b>40</b>
<b>Divergence</b>	<b>-2.43</b>	<b>--</b>
<b>1050. Community Risk Reduction</b>	<b>3.37</b>	<b>5.50</b>
<b>Total Credit</b>	<b>49.95</b>	<b>105.5</b>

**Final Community Classification = 06/10**