



AGENDA
PUBLIC WORKS COMMITTEE
REGULAR MEETING
THURSDAY, MAY 16, 2024 – 8:00 AM
HIGHWAY DEPARTMENT - MEETING ROOM
410 SOUTH SPRING STREET, PORT WASHINGTON, WI 53074

The public can access the meeting by viewing the live stream at the link which will be opened five minutes before the call to order:

[Public Works Committee Live Stream](#)

*The public can submit comments here: [Public Comment Form](#)
[Public Comment Policy](#) & [Instructions For Submitting Public Comments Online](#)*

- 1. CALL TO ORDER**
- 2. PROPER NOTICE**
- 3. STAFF AND COMMITTEE INTRODUCTIONS**
- 4. PUBLIC COMMENTS/CORRESPONDENCE/COMMUNICATIONS**
- 5. APPROVAL OF MINUTES**
 - a. March 21, 2024
- 6. FACILITIES MANAGEMENT**
 - a. *Management/Financial/Informational Reports*
 1. Facilities Financials - May 2024
- 7. TRANSIT SERVICES**
 - a. *Discussion Items:*
 1. Ridership Report - May 2024
 - b. *Management/Financial/Informational Reports*
 1. Transit Financials - May 2024
 2. Transit Update - May 2024
- 8. HIGHWAYS**
 - a. *Management/Financial/Informational Reports*
 1. Highway Financials - May 2024
 2. Highway Update - May 2024
- 9. NEXT MEETING DATE**

Set Meeting Day & Time
- 10. DEPART FOR TOUR OF SALT BRINE BUILDING, HIGHWAY SHOP & TRANSIT BUILDING**
- 11. ADJOURNMENT**

A quorum of members of committees or the full County Board of Ozaukee County may be in attendance at this meeting for purposes related to committee or board duties, however, no formal action will be taken by these committees or the board at this meeting.

Persons with disabilities requiring accommodations for attendance at this meeting should contact the County Clerk's Office at 262-284-8110, twenty-four (24) hours in advance of the meeting.

Public Works Committee**AGENDA INFORMATION SHEET**

AGENDA DATE:	May 16, 2024
DEPARTMENT:	County Clerk
DIRECTOR:	Karen Niemuth
PREPARER:	Lisa Henning

Agenda Summary March 21, 2024

[<https://www.co.ozaukee.wi.us/AgendaCenter/ViewFile/Minutes/ 03212024-3385>](https://www.co.ozaukee.wi.us/AgendaCenter/ViewFile/Minutes/03212024-3385)

PUBLIC WORKS COMMITTEE

Public Works Committee**AGENDA INFORMATION SHEET**

AGENDA DATE:	May 16, 2024
DEPARTMENT:	Facilities Management
DIRECTOR:	Jon Edgren
PREPARER:	Jon Edgren

Agenda Summary Facilities Financials - May 2024

ATTACHMENTS:

- Facilities Financials - May 2024 (PDF)

PUBLIC WORKS COMMITTEE

Ozaukee County Committee Report

General Fund Facilities Management

For the Four Months Ending Tuesday, April 30, 2024

Profit and Loss Statement ACTUAL TO AMENDED BUDGET

	Current Month Actual	2024 YTD Actual	2024 Amended Budget	Budget Balance	% Budget YTD
Revenues					
Interdepartmental Charges	\$6,074	\$24,295	\$74,386	\$50,091	32.66%
Total Revenues	\$6,074	\$24,295	\$74,386	\$50,091	32.66%
Expenditures					
Salaries	\$63,489	\$243,762	\$724,702	\$480,940	33.64%
Fringe Benefits	\$22,517	\$103,584	\$177,445	\$73,861	58.38%
Travel/Training	\$98	\$141	\$100	(\$41)	141.00%
Supplies	\$6,049	\$25,181	\$115,265	\$90,084	21.85%
Purchased Services	\$30,597	\$145,084	\$442,378	\$297,294	32.80%
Interdepartment Charges	\$1,791	\$19,215	\$41,116	\$21,901	46.73%
Other Expenses	-	\$195	\$2,270	\$2,075	8.59%
Total Operating Expenditures	\$124,541	\$537,162	\$1,503,276	\$966,114	35.73%
Capital Outlay					
Total Expenditures	\$124,541	\$537,162	\$1,503,276	\$966,114	35.73%
Net Increase (Decrease)	(\$118,467)	(\$512,867)	(\$1,428,890)	(\$916,023)	35.89%

Equity:

Attachment: Facilities Financials - May 2024 (Facilities Financials - May 2024)

Ozaukee County Committee Report

Special Revenue Fund Fair Grounds

For the Four Months Ending Tuesday, April 30, 2024

Profit and Loss Statement ACTUAL TO AMENDED BUDGET

	Current Month Actual	2024 YTD Actual	2024 Amended Budget	Budget Balance	% Budget YTD
Revenues					
Taxes	-	-	\$119,017	\$119,017	0.00%
Public Charges for Services	\$400	\$22,780	\$212,634	\$189,854	10.71%
Interest Revenue	-	-	\$10,000	\$10,000	0.00%
Other Revenue	-	-	\$3,000	\$3,000	0.00%
Total Revenues	\$400	\$22,780	\$344,651	\$321,871	6.61%
Expenditures					
Salaries	\$2,766	\$9,751	\$82,276	\$72,525	11.85%
Fringe Benefits	\$230	\$821	\$39,677	\$38,856	2.07%
Travel/Training	\$76	\$191	\$500	\$309	38.20%
Supplies	\$1,853	\$5,911	\$24,675	\$18,764	23.96%
Purchased Services	\$9,600	\$60,400	\$179,800	\$119,400	33.59%
Interdepartment Charges	\$298	\$11,447	\$11,473	\$26	99.77%
Other Expenses	-	-	\$6,250	\$6,250	0.00%
Total Operating Expenditures	\$14,823	\$88,521	\$344,651	\$256,130	25.68%
Capital Outlay					
Total Expenditures	\$14,823	\$88,521	\$344,651	\$256,130	25.68%
Net Increase (Decrease)	(\$14,423)	(\$65,741)	-	\$65,741	0.00%

Equity:

Attachment: Facilities Financials - May 2024 (Facilities Financials - May 2024)

Public Works Committee**AGENDA INFORMATION SHEET**

AGENDA DATE:	May 16, 2024
DEPARTMENT:	Transit
DIRECTOR:	Jon Edgren
PREPARER:	Jon Edgren

Agenda Summary Ridership Report - May 2024

ATTACHMENTS:

- PWC - Transit Ridership - APRIL 2024 (PDF)

PUBLIC WORKS COMMITTEE

2024 OZ CO EXPRESS BUS					Ave Riders/ Bus	Express Bus Ridership Report															
MONTH	SERVICE DAYS IN MONTH	PAX	COST/ TRIP	NET COST/ TRIP		Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Totals	Average	
January	22	803	\$58.25	\$53.52	5.2	2011	7,812	7,181	8,740	7,810	7,731	7,559	6,826	7,608	7,776	7,933	7,868	7,051	91,895	7,658	
February	21	797	\$56.02	\$51.89	5.4	2012	7,446	8,197	8,178	7,652	8,103	7,608	7,222	8,184	7,559	8,716	7,700	7,011	93,576	7,798	
March	21	676	\$66.05	\$59.89	4.6	2013	7,680	7,704	7,737	7,834	8,217	7,110	7,432	7,120	7,562	8,490	7,249	6,872	91,007	7,584	
April	22	704	\$66.44	\$62.84	4.6	2014	7,292	6,570	7,229	7,495	7,442	7,224	6,890	6,787	7,135	7,135	7,974	6,759	85,932	7,161	
May	22					2015	6,774	6,110	6,859	6,629	5,875	6,756	5,985	6,335	6,525	6,798	6,271	6,063	76,980	6,415	
June	20					2016	6,255	6,798	7,273	6,779	6,525	6,549	6,150	7,190	6,806	7,058	6,859	6,359	80,601	6,717	
July	22					2017	6,829	6,495	7,525	6,595	7,003	6,087	5,068	5,615	5,710	6,236	5,471	4,727	73,361	6,113	
August	22					2018	6,018	5,560	5,917	5,595	5,540	4,852	4,748	5,538	4,916	5,789	4,805	3,889	63,167	5,264	
September	20					2019	4,062	4,568	4,927	4,804	4,515	3,876	3,934	4,213	4,176	4,855	3,830	3,529	51,289	4,274	
October	23					2020	4,420	4,400	2,171										10,991	3,664	
November	20					2021								44	526	577	596	471	2,214	443	
December	21					2022	89		544	811	907	1,028	976	1,068	920	1,042	941	671	8,997	818	
						2023	631	529	634	553	542	517	486	519	449	833	730	713	7,136	595	
						2024	803	797	676	704									2,980	745	
						Same month 2024 vs 2023	27.3%	50.7%													
						Same month 2023 vs 2022	609.0%		16.5%	-31.8%	-40.2%	-49.7%	-50.2%	-51.4%	-51.2%	-20.1%	-22.4%	6.3%			
						Same month 2023 vs 2019	-84.5%	-88.4%	-87.1%	-88.5%	-88.0%	-86.7%	-87.6%	-87.7%	-89.2%	-82.8%	-80.9%	-79.8%			
2024 OZ CO SHARED RIDE TAXI					Shared Ride Taxi (SRT) Ridership Report																
MONTH	SERVICE DAYS IN MONTH	TOTAL TRIPS	COST/ TRIP	NET COST/ TRIP																	
January	30	7,447	\$21.78	\$16.82																	
February	29	7,748	\$20.06	\$19.84																	
March	31	7,387	\$21.51	\$22.43																	
April	30	7,921	\$20.48	\$18.83																	
May	30																				
June	30																				
July	30																				
August	31																				
September	29																				
October	31																				
November	29																				
December	30																				
					Shared Ride Taxi (SRT): Cross-County Trips																
						Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Totals	Average		
					2021	N/A	N/A	N/A	82	80	136	156	125	102	132	126	93	1,032	115		
					2022	149	140	191	201	201	179	159	211	198	208	165	182	2,184	182		
					2023	215	202	212	169	181	182	183	231	239	219	195	210	2438	203		
					2024	158	261											419	210		
					Same month 2023 vs 2024	-27%	29%	-100%	-100%	-100%	-100%	-100%	-100%	-100%	-100%	-100%	-100%	-100%			
MONTH	TOTAL TRIPS	HOURS	INVOICE	LESS FARES																	
January	7,447	4,930	\$162,197.00	\$125,276.50																	
February	7,748	4,725	\$155,452.50	\$153,686.25																	
March	7,387	4,830	\$158,907.00	\$165,707.25																	
April	7,921	4,930	\$162,197.00	\$149,155.15																	
May																					
June																					
July																					
August																					
September																					
October																					
November																					
December																					
TOTAL	30,503	19,415	\$638,753.50	\$593,825.15																	

Attachment: PWC - Transit Ridership - APRIL 2024 (Ridership Report - May 2024)

Attachment: PWC - Transit Ridership - APRIL 2024 (Ridership Report - May 2024)

Public Works Committee**AGENDA INFORMATION SHEET**

AGENDA DATE:	May 16, 2024
DEPARTMENT:	Transit
DIRECTOR:	Jon Edgren
PREPARER:	Jon Edgren

Agenda Summary Transit Financials - May 2024

ATTACHMENTS:

- Transit Financials - May 2024 (PDF)

PUBLIC WORKS COMMITTEE

Ozaukee County Committee Report
Special Revenue Fund Transit Services
 For the Four Months Ending Tuesday, April 30, 2024
 Profit and Loss Statement ACTUAL TO AMENDED BUDGET

	Current Month Actual	2024 YTD Actual	2024 Amended Budget	Budget Balance	% Budget YTD
Revenues					
Taxes	-	-	\$248,828	\$248,828	0.00%
Intergovernmental Revenues	-	\$363,292	\$2,262,417	\$1,899,125	16.06%
Public Charges for Services	\$26,275	\$113,116	\$524,500	\$411,384	21.57%
Intergovernmental Charges	-	\$1,721	-	(\$1,721)	0.00%
Fines/Forfeitures/Penalties	-	-	\$6,300	\$6,300	0.00%
Interest Revenue	\$762	\$3,572	-	(\$3,572)	0.00%
Other Revenue	\$10,050	\$10,050	\$883,086	\$873,036	1.14%
Total Revenues	\$37,087	\$491,751	\$3,925,131	\$3,433,380	12.53%
Expenditures					
Salaries	\$8,354	\$34,571	\$111,628	\$77,057	30.97%
Fringe Benefits	\$2,431	\$10,898	\$17,885	\$6,987	60.93%
Travel/Training	-	-	\$6,500	\$6,500	0.00%
Supplies	\$22,260	\$88,383	\$273,009	\$184,626	32.37%
Purchased Services	\$414,190	\$837,650	\$2,998,515	\$2,160,865	27.94%
Interdepartment Charges	\$4,733	\$56,988	\$184,980	\$127,992	30.81%
Other Expenses	\$6,580	\$6,580	\$39,364	\$32,784	16.72%
Total Operating Expenditures	\$458,548	\$1,035,070	\$3,631,881	\$2,596,811	28.50%
Capital Outlay					
Equipment & Furniture	\$35,718	\$65,574	\$293,250	\$227,676	22.36%
Total Capital Outlay	\$35,718	\$65,574	\$293,250	\$227,676	22.36%
Total Expenditures	\$494,266	\$1,100,644	\$3,925,131	\$2,824,487	28.04%
Net Increase (Decrease)	(\$457,179)	(\$608,893)	-	\$608,893	0.00%

Equity:

Attachment: Transit Financials - May 2024 (Transit Financials - May 2024)

Public Works Committee**AGENDA INFORMATION SHEET**

AGENDA DATE:	May 16, 2024
DEPARTMENT:	Transit
DIRECTOR:	Jon Edgren
PREPARER:	Jon Edgren

Agenda Summary Transit Update - May 2024

ATTACHMENTS:

- Transit - PWC Monthly Update - 5.16.24 - REV JEE (PDF)

PUBLIC WORKS COMMITTEE



Ozaukee County Transit Services

410 South Spring Street

P.O. Box 994

Port Washington, Wisconsin 53074-0994

Jon Edgren – Director of Public Works

Kara Ottum – Transit Superintendent

www.ozaukeetransit.com

Phone 262.284.8108

TO: Public Works Committee
 FROM: Kara Ottum, Transit Superintendent
 SUBJECT: Transit Monthly Update
 DATE: 16 March 2024

1) Ozaukee County Express Elimination

- o Notice posted on buses and published, as legally required, with more than the required 30-day notice.

2) Shared Ride Taxi Ridership

- o Prior to implementation of Ecolane Software a busy day peaked at 350 rides, but we are now averaging ~ 383 rides / weekday.
- o No Shows are trending down significantly since the announcement of the new No Show Policy with its May 1st implementation.

3) Trust Fund

- o Interfaith Vehicle funded by the Trust Fund has been delivered with a final invoice of \$34,718.
- o Blossom van is not yet in production.

4) Training

- o Attending Samsara training in Chicago 26-28 June.

Public Works Committee**AGENDA INFORMATION SHEET**

AGENDA DATE:	May 16, 2024
DEPARTMENT:	Highway
DIRECTOR:	Jon Edgren
PREPARER:	Jon Edgren

Agenda Summary Highway Financials - May 2024

ATTACHMENTS:

- Hwy Financials - May 2024 (PDF)

PUBLIC WORKS COMMITTEE

Ozaukee County Committee Report
Special Revenue Fund County Roads and Bridges
 For the Three Months Ending Sunday, March 31, 2024
 Profit and Loss Statement ACTUAL TO AMENDED BUDGET

	Current Month Actual	2024 YTD Actual	2024 Amended Budget	Budget Balance	% Budget YTD
Revenues					
Taxes	-	-	\$3,315,491	\$3,315,491	0.00%
Intergovernmental Revenues	-	\$437,783	\$1,751,975	\$1,314,192	24.99%
Total Revenues	-	\$437,783	\$5,067,466	\$4,629,683	8.64%
Expenditures					
Interdepartment Charges	\$262,967	\$1,026,225	\$5,612,552	\$4,586,327	18.28%
Total Operating Expenditures	\$262,967	\$1,026,225	\$5,612,552	\$4,586,327	18.28%
Capital Outlay					
Total Expenditures	\$262,967	\$1,026,225	\$5,612,552	\$4,586,327	18.28%
Other Finance (Sources)	-	-	(\$545,086)	(\$545,086)	0.00%
Net Other Financing Sources/Uses	-	-	(\$545,086)	(\$545,086)	0.00%
Net Increase (Decrease)	(\$262,967)	(\$588,442)	-	\$588,442	0.00%

E q u i t y:

Attachment: Hwy Financials - May 2024 (Highway Financials - May 2024)

Ozaukee County Committee Report

Internal Service Fund Highway Department

For the Three Months Ending Sunday, March 31, 2024

Profit and Loss Statement ACTUAL TO AMENDED BUDGET

	Current Month Actual	2024 YTD Actual	2024 Amended Budget	Budget Balance	% Budget YTD
Revenues					
Taxes	-	-	\$133,000	\$133,000	0.00%
Intergovernmental Revenues	-	-	\$87,610	\$87,610	0.00%
Intergovernmental Charges	\$433,380	\$1,929,168	\$7,006,355	\$5,077,187	27.53%
Interdepartmental Charges	\$78,738	\$210,565	\$2,932,021	\$2,721,456	7.18%
Licenses & Permits	\$9,040	\$41,970	\$394,022	\$352,052	10.65%
Other Revenue	\$4,617	\$32,436	\$107,376	\$74,940	30.21%
Total Revenues	\$525,775	\$2,214,139	\$10,660,384	\$8,446,245	20.77%
Expenditures					
Salaries	\$271,576	\$895,091	\$3,422,402	\$2,527,311	26.15%
Fringe Benefits	\$132,165	\$412,517	\$1,335,903	\$923,386	30.88%
Travel/Training	\$100	\$409	\$16,300	\$15,891	2.51%
Supplies	\$148,815	\$661,118	\$6,354,634	\$5,693,516	10.40%
Purchased Services	\$43,967	\$81,122	\$272,531	\$191,409	29.77%
Interdepartment Charges	(\$13,063)	(\$129,000)	(\$2,242,541)	(\$2,113,541)	5.75%
Depreciation	\$84,795	\$254,385	\$1,133,724	\$879,339	22.44%
Grants	\$7,874	\$34,019	\$133,000	\$98,981	25.58%
Other Expenses	\$27,849	\$62,833	\$194,531	\$131,698	32.30%
Total Operating Expenditures	\$704,078	\$2,272,494	\$10,620,484	\$8,347,990	21.40%
Capital Outlay					
Equipment & Furniture	(\$2,268)	\$167,753	\$39,900	(\$127,853)	420.43%
Total Capital Outlay	(\$2,268)	\$167,753	\$39,900	(\$127,853)	420.43%
Total Expenditures	\$701,810	\$2,440,247	\$10,660,384	\$8,220,137	22.89%
Net Increase (Decrease)	(\$176,035)	(\$226,108)	-	\$226,108	0.00%

Equity:

Attachment: Hwy Financials - May 2024 (Highway Financials - May 2024)

Public Works Committee**AGENDA INFORMATION SHEET**

AGENDA DATE:	May 16, 2024
DEPARTMENT:	Highway
DIRECTOR:	Jon Edgren
PREPARER:	Jon Edgren

Agenda Summary Highway Update - May 2024

ATTACHMENTS:

- PW Comm_JEE^PW Monthly Update - 5-16-24 (PDF)

PUBLIC WORKS COMMITTEE

**Ozaukee County Highway Department**

410 South Spring Street

Port Washington, Wisconsin 53074-0994

Jon E. Edgren, P.E. – Director of Public Works

Phone 262-238-8335

Fax 262-238-8343

TO: Public Works Committee
FROM: Jon E. Edgren, Director of Public Works
SUBJECT: Public Works Monthly Update
DATE: May 9, 2024

The following are status updates on various Highway Department items:

1) CTH W (Riverside Dr) from STH 33 to Schowalter St Project Update

The reconstruction has been moving slowly to allow the Planning & Parks Department to seek funding for purchasing some properties to serve as future wetlands and an oxbow construction on the east side of the highway. However, given our largest highway grants expire in mid-2027, we're beginning to move forward again, and anticipate a Winter 2025 Bid with real estate acquisitions occurring this Fall.

2) Salt Brine Building

The Highway Department's Salt Brine Building construction is nearing completion, and then later in Summer, we'll be moving the High Capacity Brine Maker (HCBM) from Building B to the Salt Brine Building.

3) CTH W (N. Port Washington Rd) & CTH C (Pioneer Rd) HSIP Application

Our Highway Safety Improvement Program (HSIP) application to the Wisconsin Department of Transportation (WisDOT) was submitted by Traffic Analysis & Design (TADI), and we've received a preliminary notice that the project will be approved. Once the grant is officially awarded, the PWC will approve the contract, and we'll start the process to hire a consulting engineer. Construction is likely scheduled for 2028.

4) CTH C (Pioneer Rd) & CTH Y (Granville Rd) Intersection

Following 4 accidents in 3 months and the PWC's discussion in January, we installed flashing "Cross Traffic Does Not Stop" signs for the Stop Signs located for Northbound & Southbound CTH Y/Granville Road in early March. Unfortunately, another accident occurred within a week, but there have been no reported accidents since.

[OVER]

5) WisDOT 6-ft to 20-ft Bridges & Culverts Inventory & Assessment

WisDOT has grant funds for bridge rehabilitation and reconstructions, but bridges are defined by having a minimum of a 20-ft span under a roadway. There have been complaints that funding should be available for smaller culverts that can still significantly impact municipal budgets. Therefore, WisDOT had funds appropriated to attempt to perform an Inventory and Assessment of any bridges/culverts that have a span from 6-ft to 20-ft under a roadway. Through a joint agreement between the Wisconsin Counties Association (WCA), Wisconsin County Highway Association (WCHA), WisDOT, League of Wisconsin Municipalities & Wisconsin Towns Association (WTA), Counties are being directed to facilitate the process. Ozaukee County staff is planning to handle the Inventory of structures on County or Town roadways, and any required Assessment will be done by a contracted Consulting Engineer through the WCA.

6) CTH D Angled Parking

In July of 2022, the PWC approved allowing Angled Parking along CTH D in front of 6098 Lake Church Rd, which had originally been a part of the St. Mary's Parish parking lot, as long as the property owner dedicated 4-ft of right-of-way (ROW) along the property and the Town of Belgium accepted maintenance responsibilities. The intent of the Angled Parking was for the benefit of the Lake Church Inn across the street.

In May of 2023, I followed up with Dave Maiman, owner of the Lake Church Inn, as the required ROW hadn't been dedicated. Unfortunately, the Lake Church Inn burned down in mid-May, so after discussions with Mr. Maiman in June, I told him that I'd give him some time to determine if he was still interested in seeking the Angled Parking.

Over Winter, I've been told that the Lake Church Inn isn't being rebuilt and the affected property (6098 Lake Church Rd) has been sold. Therefore, I reached out to the new owners (Stephen & Michelle Gilliland) to ask if they intended to dedicate the required ROW, and they've responded that they are willing to in order to keep the Angled Parking. Therefore, I've asked that they confirm the Town of Belgium's continued willingness to maintain the Angled Parking, and, if affirmed, then the Gilliland's will dedicate the ROW.

7) CTH LL & CTH KK Intersection Improvement

The reconstruction of the intersection to concrete was scheduled for 2020 as an alternative part of a larger project, but was removed as the entire project would've been overbudget. The County Highway Improvement (CHI) program grant, which funds 50% of the construction costs, expires in June of 2025, so we're planning to include the project as part of next year's budget.

8) SEWRPC 2023 County Surveyor Activities Report

The SouthEast Wisconsin Regional Planning Commission (SEWRPC) has served as Ozaukee County's County Surveyor since February of 2017, and is responsible for various duties including the replacement of broken, disturbed and missing U.S. Public Land Survey corner monuments and ancillary witness and bench marks, and the preparation of related records. Attached is their 2023 County Surveyor Activities report.



Ozaukee COUNTY SURVEYOR ACTIVITIES

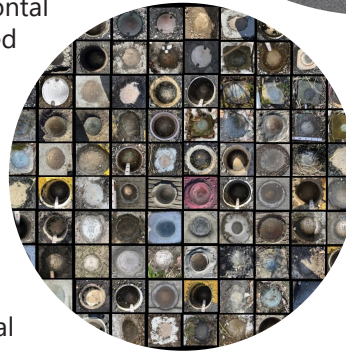
2023

Attachment: PW Comm_JEE^PW Monthly Update - 5-16-24 (Highway Update - May 2024)

REPORT

This report provides the Ozaukee Highway Department with a summary of the work carried out by the Commission staff in calendar year 2023. The office, duties, and functions of the County Surveyor are prescribed by Section 59.45 of the *Wisconsin Statutes*. An agreement between the County and the Commission governs the provision of the statutory County Surveyor services and provides for the appointment of a County Surveyor to perform those services. The County Surveyor activities report has also created a [web link](#) that allows a user access to the web version of this document and the ability to access interactive maps that contain specific attribute information about the type of services performed instead of traditional maps that can only document the location.

In Ozaukee County the U.S. Public Land Survey System (USPLSS) continues to be maintained to ensure the system corners have been properly perpetuated. The USPLSS corners are combined with the establishment of geodetic control to provide high-order horizontal and vertical survey networks required for the preparation of geospatial data layers, cadastral mapping, and the County's automated, parcel-based, land information system. This high-order horizontal system is based on State Plane Coordinates and referenced to the North American Datum of 1983 with the National readjustment of 2011 (NAD83/2011) after going through a Commission developed technique that readjusted the legacy measurements referenced to the North American Datum of 1927 (NAD27). Furthermore, the vertical network is referenced to the North American Vertical Datum of 1988 after it too was recomputed using a Commission developed modeling technique to determine the relationship between the current datum and the legacy National Geodetic Vertical Datum of 1929 (NGVD29). Today, Ozaukee County continues to provide dual high-order horizontal and vertical control survey coordinates referred to both the latest and legacy control datums. The work of the Ozaukee County Surveyor entails not only the maintenance of the USPLSS but also the maintenance of the attendant County horizontal and vertical control survey networks. The work of the County Surveyor requires expertise in geodetic as well as in plane surveying and in property boundary determination.





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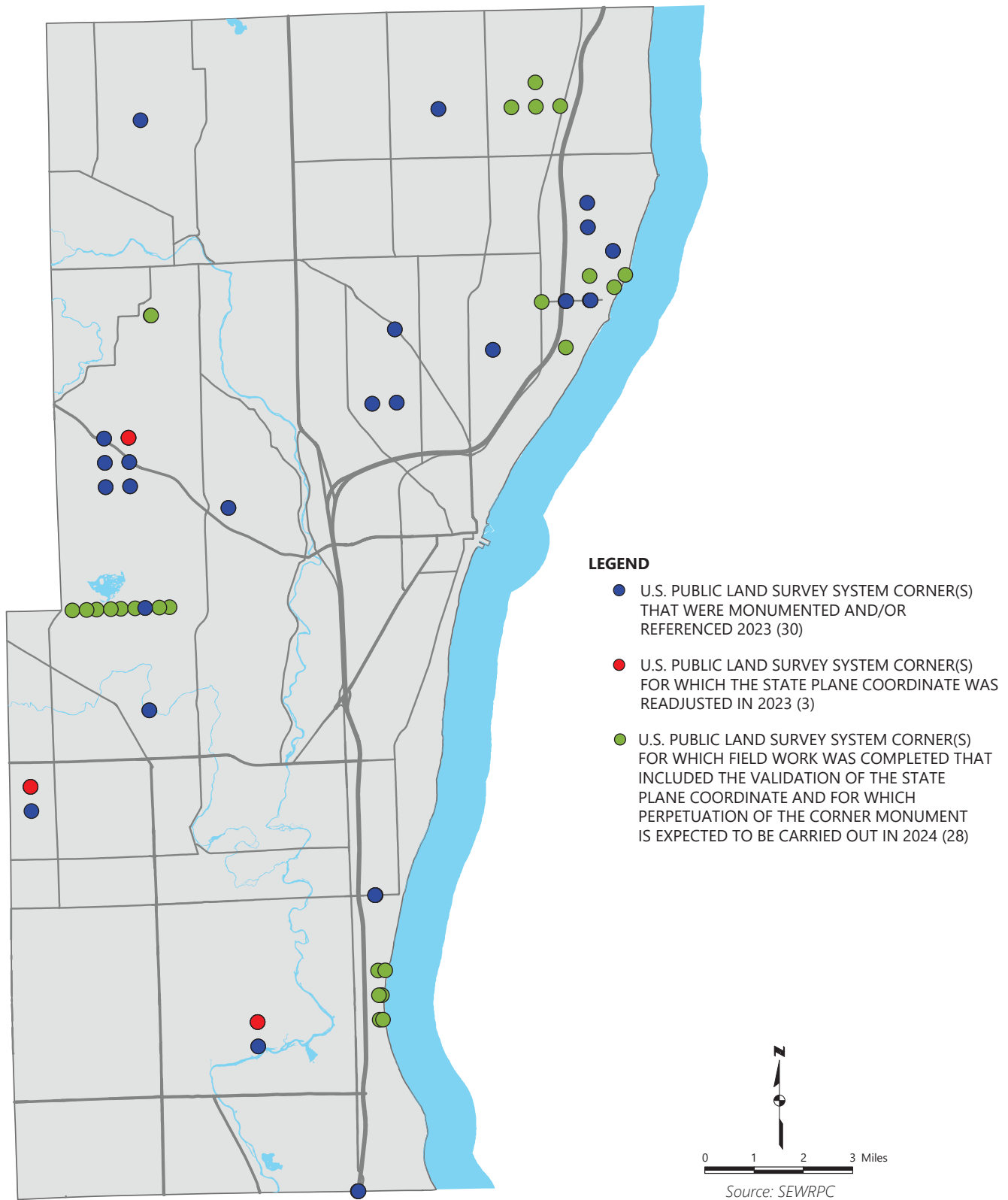
USPLSS corners were involved in the perpetuation work

The map in this report consists of the locations of the USPLSS corners for which various types of perpetuation activities were undertaken in 2023. A total of 30 USPLSS corners were involved in the perpetuation work. The work involves the replacement of monumentation marking section, quarter section, center of section, and witness and meander corners that were reported as damaged, disturbed, or destroyed by construction, or other activities or actions. The setting of new monuments and, as necessary, the following: the replacement of attendant witness marks and benchmarks; the measurement of needed tie distances to the witness marks and benchmarks; the determination of elevations for the monuments and benchmarks; the verification or establishment of new State Plane Coordinate values for corner monuments; and elevations for benchmarks. New "Records of U.S. Public Land Survey Control Station" sheets—so-called dossier sheets—were prepared for each corner shown as blue circles on the attached map. Also, each of these completed new dossier sheets can be found under the "2023 Activities Maps" tab of the web report with an interactive map selection of "Perpetuation" that contains a link to download the new dossiers, and a separate link to download all Ozaukee County USPLSS corners in geodatabase format. Please note that in the interactive map, users can click on individual corners and find additional attributes pertaining to the USPLSS corner perpetuation. A copy of each of the completed new dossier sheets are also provided as Attachment A to this report.

In 2019, the County Surveyor implemented a new procedure to validate the NAD83/2011 computed coordinates from the Commission developed horizontal technique. Every time a USPLSS corner is located for any reason a direct Global Positioning System (GPS) measurement is made on that corner. This GPS observed coordinate is compared against the published coordinate. If the coordinate exceeds 0.2 feet, the procedure also requires that the adjacent corners are then observed to investigate if the corner discrepancy is isolated to a given corner or if there might be a systematic error found from the Commission developed technique using the legacy inputted measurements. Adjacent observations continue to grow from the error source until the neighboring observations are within the expected 0.2 feet accuracy.

This implemented procedural step continues to provide a beneficial quality check on evaluating the network integrity and overall geodetic accuracy, which further improves the positional relationship found between adjacent USPLSS corners. This check has proven to be extremely beneficial with Ozaukee County having three (3) USPSS corner monuments being readjusted in 2023.

Summary of U.S. Public Land Survey System Corner and Control Survey Perpetuation



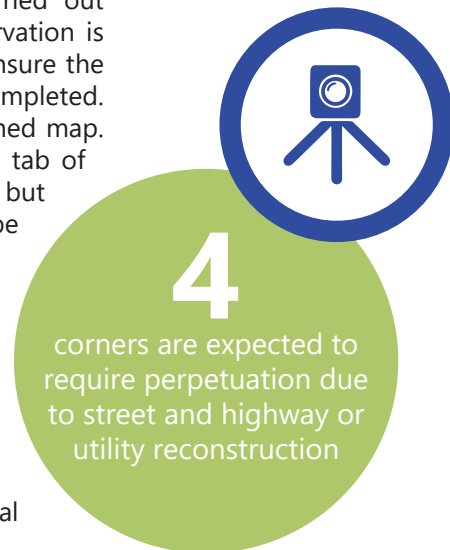
New "Records of U.S. Public Land Survey Control Station" sheets—so-called dossier sheets—were also prepared for each corner shown as red circles on the attached map that have updated State Plane Coordinates. The table below also provides the new NAD83/2011 coordinates and the resulting difference found between the originally published value. The table should help users to efficiently identify the USPLSS corners that have been changed so the user can go into the geospatial data sets, cadastral mapping layers, and the County's automated, parcel-based, land information system and update to the newly published positions. These readjusted USPLSS corner monuments can also be found under the "2023 Activities Map" with an interactive map selection of "Adjustment" that shows the location of the adjusted corners and provides the user the ability to click on the corner to find the reported difference found between the newly published and previously computed coordinate as an attribute interactively.

CornerID	Newly Adjusted NAD83/2011		Coordinate Change	
	Northing	Easting	Delta Northing	Delta Easting
09210760	459772.63	2510975.98	0.32	0.01
10210930	485332.41	2486293.89	0.34	-0.20
11210690	523265.99	2496942.3	0.00	0.25

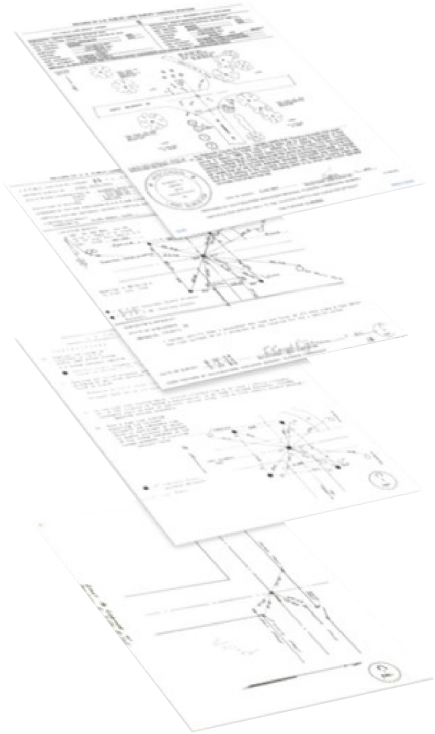
Next, a total of 53 USPLSS corners had routine maintenance performed and found the monument marking the section, quarter section, center of section, and witness and meander corners; the attendant witness marks and benchmarks; the measurements of the tie distances to the witness marks and benchmarks; the determination of elevations for the monument and reference benchmark(s); and the GPS validation of the computed State Plane Coordinate values for the corner monument to all be satisfactory and thus not requiring or updating the current dossier. No additional corner maintenance is required for these inspected USPLSS corners at this time. Additionally, we now have created new attributes in our database for the inspection date and corner condition in the USPLSS corner database to better understand the continue maintenance for each corner. These USPLSS corners are shown as green circles in the attached map. This can also be found under the "2023 Activities Map" tab of the web report with an interactive map selection of "Maintenance" showing these maintained corners and if one clicks on the corner will find the attribute "continue schedule" which indicates the corner does not require any additional maintenance at this time.

Next, a total of 4 USPLSS corners that involve field work completed this year in preparation for future perpetuation proposed to be carried out in 2024. Inspection of the corner monument and direct GPS observation is part of the validation along with any adjacent USPLSS corners to ensure the reestablishment of the USPLSS corner once the work has been completed. These USPLSS corners are also shown as green circles on the attached map. These corners can also be found under the "2023 Activities Maps" tab of the web report with an interactive map selection of "Maintenance" but will have a different corner symbol along with the attribute "to be addressed in 2024" to indicate additional field work to be performed next year.

Lastly, in conjunction with the horizontal and vertical conversion efforts, the Commission continues to assist the Ozaukee County Land Information Office with administration efforts of all existing geospatial base mapping services as they relate to the new Federal datums. The assistance includes both training and documenting the procedures supporting the conversion of the existing legacy geospatial data to the new datums.



USPLSS SEARCH ENGINE



As mentioned previously, the Commission developed a new PLSS Document Search Application that was brought online and made available to the public in Spring 2020. The search application can be directly accessed using the web address below and a hyperlink found in our web report under "Planning and GIS". This search application provides an efficient method for locating USPLSS Corners in the Region by accessing a comprehensive database to deliver built-on-demand reports that are consistent in appearance as the "Records of U.S. Public Land Survey Control Station" sheets—so-called dossier sheets.

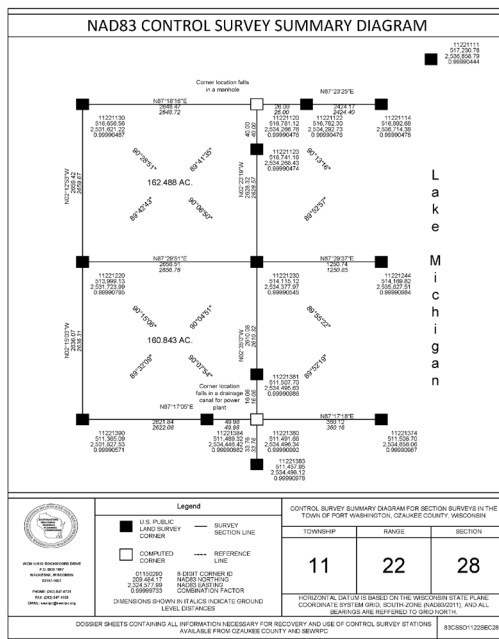
The application platform offers two methods for finding USPLSS corners and accessing report data. Users can browse and locate monumented USPLSS corners while interacting with the map or they can run a query using Township, Range, and Section to seek the corner location.

The application further provides three types of reported information available for each monumented PLSS corner: dossier corner sheet, control section summary diagram (CSSD), and available historical dossiers.

The CSSDs are Section based instead of 6 square mile areas. Furthermore, each corner uses the corners determined combination factor to further assist the surveyor and engineers a more accurate ground and acreage measurements for each corner calculation. Lastly, these CSSDs have been established in a database so instead of hand calculations as found with the legacy CSSDs the Commission can now complete this task programmatically so any change to a given USPLSS corner can be quickly updated like the readjusted corner mentioned above.

The Historical dossiers provide surveyors and engineers with an understanding of how each USPLSS corner in Ozaukee County has been effectively perpetuated.

Dossier reports can be found [here](#).



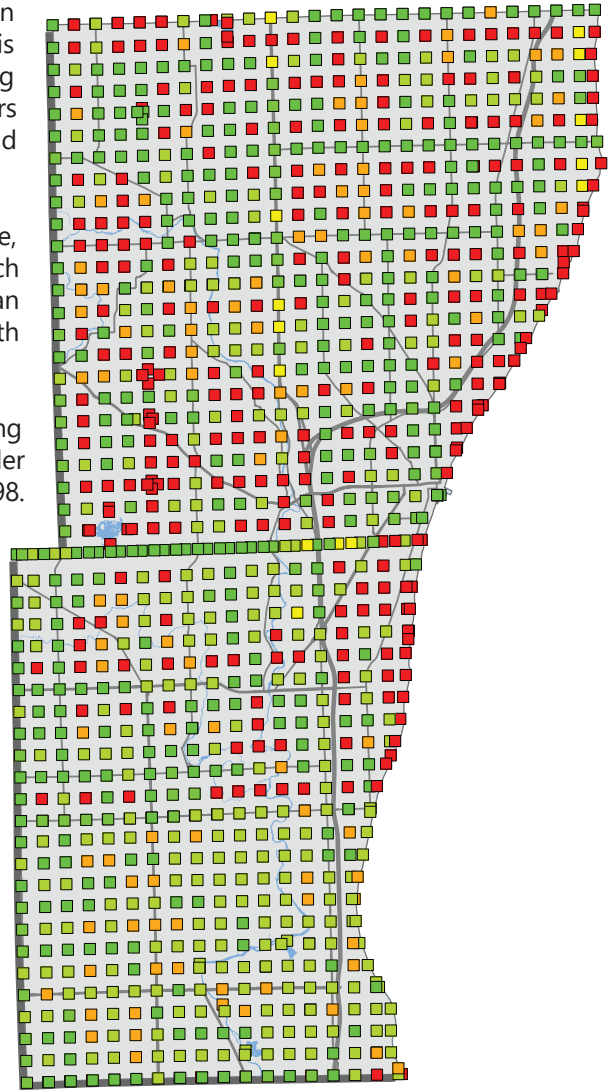
STATUS AND MAINTENANCE OF USPLSS CORNERS

How can the County Surveyor leverage Geographic Information System (GIS) technologies to better serve Ozaukee County? This year, the County Surveyor wanted to gain a better understanding of the condition and overall maintenance of all USPLSS corners within Ozaukee County. This was a significant step forward and could not be possible without GIS technologies.

USPLSS corners are continuously subject to damage, disturbance, and destruction through urban land use development which includes construction activities. In 2016, Commission staff began documenting all routine USPLSS maintenance activities along with GPS observations for each USPLSS corner visited.

Ozaukee County has 1,177 USPLSS corner monuments marking section, quarter section, center of section, and witness and meander corners. Today, the number of corners visited since 2016 is 898. Given the growing number of maintenance records captured, Commission staff determined this was a fantastic opportunity to analyze these records against our comprehensive database. Using GIS, the Commission determined that a bivariate relationship process could be used to help staff prioritize field operations to keep the USPLSS network on a regular maintenance cycle.

A casual inference could be drawn between the year the USPLSS corner monument was last established. However, this would be misleading since a concrete or Berntsen monument (i.e., USPLSS corner) may lay undisturbed below grade for decades with the infrastructure above it continuously changing. Making a map with just the year the corner monument was last established would produce misleading results since Ozaukee has numerous corners that have been protected for decades. The County Surveyor, however, found the USPLSS corner affidavit year to be slightly better but this would still produce misleading results if only used by itself, but if we couple both the affidavit year along with the maintenance activities logs to make a single map, we could use this to assist in how we perform our yearly maintenance operations. Utilizing this bivariate map Commission staff can better describe individual corner conditions. Consequently, the overall health of the County's PLSS inventory can be realized. This facilitates focused maintenance and recertification across Ozaukee County.



Attachment: PW Comm_JEE^PW Monthly Update - 5-16-24 (Highway Update - May 2024)