Common Council Chambers
8040 S. 6th Street
Oak Creek, WI 53154
(414) 766-7000

BOARD OF PUBLIC WORKS AND CAPITAL ASSETS

February 14, 2023
9:00 A.M.

The City's Vision

Oak Creek: A dynamic regional leader, connected to our community, driving the future of the south shore.

1. Call Meeting to Order.
2. Roll Call.
3. Approval of Minutes – 1/10/2023
4. **Informational**: Review of Common Council actions related to Public Works & Capital Assets.

GENERAL GOVERNMENT CAPITAL ASSETS

None

PUBLIC WORKS & UTILITIES

5. **Motion:** Consider a *motion* to enter into a contract with raSmith for the design and soil borings for the S. 6th Street and W. Marquette Avenue water relay in the amount not to exceed $162,500.
6. **Motion:** Consider a *motion* to approve Utility vouchers for payment for the remainder of 2022 in the amount of $939,533.50.
7. **Motion:** Consider a *motion* to approve Utility vouchers for payment for 2023 in the amount of $314,969.35.
8. **Informational:** Administrative and Operations reports.

CAPITAL ASSETS

9. **Motion:** Consider a motion to approve the purchase of crowd control equipment to outfit six (6) Police personnel as part of the Mobile Incident Response Team (MIRT) in the amount of $47,794.74.

TRAFFIC & SAFETY

10. **Motion:** Consider a *motion* to approve the installation of "No Stopping, No Standing, No Parking"

signs on E. Marquette Ave. across from Manor Marquette Park (1st Aldermanic District).

11. **Motion:** Consider a ***motion*** to recommend proceeding with a design of a preferred alternative for the reconstruction of the intersection of W. Puetz Rd., S. Liberty Ln., and S. Wood Creek Dr.

Dated this 9th day of February, 2023.

Public Notice

Upon reasonable notice, a good faith effort will be made to accommodate the needs of disabled individuals through sign language interpreters or other auxiliary aid at no cost to the individual to participate in public meetings. Due to the difficulty in finding interpreters, requests should be made as far in advance as possible preferably a minimum of 48 hours. For additional information or to request this service, contact the Oak Creek City Clerk at 414-766-7000, by fax at 414-766-7976, or by writing to 8040 S. 6th Street, Oak Creek, Wisconsin 53154.

It is possible that members of and possibly a quorum of members of other governmental bodies of the municipality may attend the above-stated meeting to gather information; no action will be taken by any governmental body at the above-stated meeting other than the governmental body specifically referred to above in this notice

Common Council Chambers
8040 S. 6th Street
Oak Creek, WI 53154
(414) 766-7000

Robert Cigale
Curtis Czarnecki
Kenneth Gehl
Chris Guzikowski
Fredrick Siepert- Alternate
Rich Duchniak

BOARD OF PUBLIC WORKS AND CAPITAL ASSETS

January 10, 2023
9:00 A.M.

The City's Vision

Oak Creek: A dynamic regional leader, connected to our community, driving the future of the south shore.

1. Call Meeting to Order.

   Alderman Guzikowski called the meeting to order at 9:02 a.m.

2. Roll Call.

   All Board Members were present.

   Also present: City Engineer Matt Sullivan, Utility General Manager Mike Sullivan, Management Assistant Carly Persson.

3. Approval of Minutes – 12/13/2022

   Alderman Gehl made a motion to approve the minutes of December 13, 2022, seconded by Alderman Duchniak. Board Member Cigale abstained. All aye, motion carried.

4. **Informational**: Review of Common Council actions related to Public Works & Capital Assets.

   Carly Persson noted the approval of a Department of Public Works pay progression plan at the December 20, 2023 Common Council Meeting.

GENERAL GOVERNMENT CAPITAL ASSETS

None

PUBLIC WORKS & UTILITIES

5. **Motion:** Consider a *motion* to enter into an agreement with Concrete and Masonry LLC to repair the wall cracks in filter beds seven and eight in the amount of $12,500.

   Utility General Manger Sullivan noted the flexible sealant would address the cracking and require less regular filter maintenance.

   Alderman Gehl made a motion to enter into an agreement with Concrete and Masonry LLC to repair the wall cracks in filter beds seven and eight in the amount of $12,500, seconded by Board Member Cigale. All aye, motion carried.

6. **Motion:** Consider a ***motion*** to enter into an agreement with Crane Engineering for the replacement of the tilted disk valve on pump four at the Raw Water Pump Station in the amount of $15,000.

   Utility General Manager Sullivan explained pump four had been leaking and shaking for some time, replacement disk valve should address both issues.

   Board Member Cigale made a motion to enter into an agreement with Crane Engineering for the replacement of the tilted disk valve on pump four at the Raw Water Pump Station in the amount of $15,000, seconded by Alderman Duchniak.

7. **Motion:** Consider a ***motion*** to enter into an agreement with Duraline Biosystems Inc. to replace the autoclave sterilizer in the amount of $16,000.

   Alderman Duchniak made a motion to enter into an agreement with Duraline Biosystems Inc. to replace the autoclave sterilizer in the amount of $16,000, seconded by Board Member Czarnecki.

8. **Motion:** Consider a ***motion*** to approve Utility vouchers for payment in the amount of $426,894.63.

   Alderman Gehl made a motion to approve Utility vouchers for payment in the amount of $426,894.63, seconded by Board Member Cigale.

9. **Informational:** Administrative and Operations reports.

   Utility General Manager Sullivan explained that vouchers were a bit higher than usual due to We Energies bill and Howell Ave. water main break.

CAPITAL ASSETS

None

TRAFFIC & SAFETY

None

10. Adjournment.

Alderman Gehl made a motion to adjourn at 9:14 a.m., seconded by Alderman Duchniak. All aye, motion carried.

Dated this 6th day of January, 2023.

Public Notice

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OAKCREEK
WISCONSIN

Meeting Date: February 14, 2023

Item No. 5

STAFF REPORT

Item: Design services contract for the S. 6th Street and W. Marquette Avenue water relay

Recommendation: That the Board considers a motion to enter into a contract with raSmith for the design and soil borings for the S. 6th Street and W. Marquette Avenue water relay in the amount not to exceed $162,500.

Fiscal Impact: This project was approved with the 2023 Capital Improvement Project budget.

Critical Success Factor(s):

- ☐ Vibrant and Diverse Cultural Opportunities
- ☐ Thoughtful Development and Prosperous Economy
- ☐ Safe, Welcoming, and Engaged Community
- ☐ Inspired, Aligned, and Proactive City Leadership
- ☐ Financial Stability
- ☐ Quality Infrastructure, Amenities, and Services
- ☐ Not Applicable

Background: The Board approved the 2023 Capital Improvement Project to design the relay of the water main along S. 6th Street and W. Marquette Avenue in Northbranch Industrial Park. The project consists of relaying the existing water main with 12-inch PVC water main, approximately 8,000 linear feet, reconnecting the existing water services at the proposed main, and replacing the existing mainline valves, hydrants, hydrant leads and valves. The existing 1960's ductile iron water main has had a history of breaks and is in need of replacement. This will impact 28 businesses. The main has had 65 breaks over the years. Engineering received 5 RFP's for the project and chose raSmith based on the project scope and approach. They had the most comprehensive approach and understanding of the proposals received. The 5 proposals broke out the costs differently between the firms. They were also reviewed for project cost based on the design portion of the project. Listed in order on the design costs as follows: Baxter & Woodman - $40,305, raSmith - $65,300, Graef - $87,900, Strand - $97,400, and Cedar - $107,700

Options/Alternatives:

Respectfully submitted:

Andrew J. Vickers, MPA
City Administrator

Prepared:

Brian L. Johnston, PE
Utility Engineer

Fiscal Review:

Kristina Strmsek
Assistant Comptroller

Approved:

Michael J. Sullivan, PE
General Manager

Attachments:

OAK CREEK WATER AND SEWER UTILITY
MMSD Treatment Charges

	2023	2022	2021	2020
Connection Charge	43.50 / yr	42.19	36.61	33.13
	10.88 / qtr	10.55	9.16	8.29
	3.63 / mo	3.52	3.06	2.77
Household Hazardous Waste Charge	5.08 / yr	5.03	5.11	5.03
Residential Only 43,286.00	1.27 / qtr	1.27	1.28	1.26
	0.42 / mo	0.42	0.43	0.42
Charges for certified customers				
Flow	1.65927 / 1,000 gal	1.48096	1.53935	1.41098
BOD	0.10918 / pound	0.10883	0.10607	0.12070
TSS	0.22058 / pound	0.21451	0.20235	0.19814
Domestic Strength Equivalent	2.622210 / 1,000 gal	2.424264	2.437993	2.334450
Adjustment to volumetric charge	-0.14390 / 1,000 gal	0.00	0.00	0.00
Average User Charge				
Residential occupancy factor	2.92 people	3.01	3.01	2.98
x				
Average domestic flow	49.00 gal/day	49.00	49.00	50.00
x				
Days per year	365.00	365.00	365.00	366.00
x				
Volumetric charge plus adjustment	2.478310 / 1,000 gal	2.424264	2.437993	2.334450
+				
Connection charge	48.58 / yr	47.22	41.72	38.16
Annual charge	**$178.01**	**$177.73**	**$172.97**	**$165.47**

OAK CREEK WATER AND SEWER UTILITY
MMSD Treatment Charges

Flat Rate Charge for Quarterly Residential Customers

	2023	2022	2021	2020
Annual Volume	52,224 gallons	53,834	53,834	54,534
Quarterly Volume	13,056 gallons	13,458	13,458	13,634
Monthly Volume	4,352 gallons	4,486	4,486	4,545
Local Rates - Volume	0.69 / 1,000 gal	0.69	0.69	0.69
- Fixed	18.00 / Qtr	18.00	18.00	18.00
Metro Rates - Volume	2.622210 / 1,000 gal	2.424264	2.437993	2.334450
- Fixed	12.15 / Qtr	11.82	10.44	9.55
One Month Charge				
Local	9.00	9.10	9.10	9.14
Metro	15.46	14.82	14.42	13.79
Total	$24.46	$23.92	$23.52	$22.93
Two Month Charge				
Local	18.00	18.20	18.20	18.28
Metro	30.92	29.64	28.84	27.58
Total	$48.92	$47.84	$47.04	$45.86
Quarterly Charge				
Local	27.00	27.30	27.30	27.42
Metro	46.38	44.46	43.26	41.37
Total	$73.38	$71.76	$70.56	$68.79

ACCOUNTS PAYABLE SUMMARY

February 14, 2023 - Accrued in 2022

Vendor	Description	Dollar Amount
CDM Smith	Water System Master Plan	$ 21,714.57
CH2M	PLC Replacement, Underground Facilities Rehab	13,621.31
City of Oak Creek	City Bill Covering Quarter 4	458,759.08
Godfrey & Kahn, S.C.	Utility Corridor Clean Up	4,766.00
Jim Jolly Sales	Janat Pump Flow Control Valve	14,879.23
Milwaukee Metropolitan Sewerage District	Metro Bills	346,099.12
R.A. Smith National	Rawson Water, Hydrant Relo, Lakeshore Commons, Broadacre, Drexel Lift St	26,450.00
Revspring, Inc.	Processing of December, 2022 Billing	3,010.70
Strand Associates, Inc.	Cell Tower Review	1,426.23
Wisconsin Electric Power Company	Electric/Gas Bills	45,464.39
Subtotal		936,190.63
Remaining Invoices		3,342.87
TOTAL OF ACCOUNTS PAYABLE INVOICES TO BE PAID		$ 939,533.50

INVOICES DUE ON/BEFORE 02/13/2023

INVOICE # / VENDOR #	INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	P.O. #	PROJECT	DUE DATE	ITEM AMT
07777 ANAYA, JUAN								
2022-CELL:SEPT-DEC	01/17/23	01	CELL PHONE:SEPT-DEC 2022	083292602			01/17/23	100.00
						INVOICE TOTAL:		100.00
						VENDOR TOTAL:		100.00
11250 BADGER METER MANUFACTURING								
1548118	01/26/23	01	METERS	080234600			01/26/23	324.54
						INVOICE TOTAL:		324.54
						VENDOR TOTAL:		324.54
12263 BEARINGS INC. SOUTH								
254108	01/17/23	01	TRASH PUMP PARTS	082866202			01/17/23	9.81
		02		092882702				4.20
						INVOICE TOTAL:		14.01
254113	01/17/23	01	TRASH PUMP PARTS	082866202			01/17/23	3.50
		02		092882702				1.50
						INVOICE TOTAL:		5.00
						VENDOR TOTAL:		19.01
12264 BECKER BOILER COMPANY								
15502	01/17/23	01	BOILER SERVICE CALL	082463102			01/17/23	370.00
		02		082665102				370.00
						INVOICE TOTAL:		740.00
						VENDOR TOTAL:		740.00
16439 CDM SMITH								
90169581	01/25/23	01	WATER SYSTEM MASTER PLAN	080119104			01/25/23	21,714.57
						INVOICE TOTAL:		21,714.57
						VENDOR TOTAL:		21,714.57
17640 CH2M								

INVOICES DUE ON/BEFORE 02/13/2023

INVOICE # / VENDOR #	INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	P.O. #	PROJECT	DUE DATE	ITEM AMT
17640 CH2M								
460402CH032	01/17/23	01	PLC REPLACEMENT	080121107			01/17/23	2,344.43
		02	UNDERGROUND FACILITIES REHAB	080122118				11,276.88
						INVOICE TOTAL:		13,621.31
						VENDOR TOTAL:		13,621.31
18750 CITY OF OAK CREEK								
2022-Q4	01/25/23	01	CITY BILL COVERING QUARTER 4	083293002			01/25/23	3.50
		02		093285602				1.50
		03		083292302				7,875.00
		04		093285202				3,375.00
		05		083292602				2,591.88
		06		093285402				647.97
		07		083292602				197.86
		08		093285402				84.80
		09		083292602				21,055.26
		10		093285402				5,263.81
		11		083292602				114,117.66
		12		093285402				28,529.42
		13		083292602				5,692.44
		14		093285402				1,423.11
		15		080122118				114.07
		16		080121101				143.45
		17		080122101				121.41
		18		080122101				245.09
		19		083292502				11,490.00
		20		093285302				2,872.50
		21		090121104				143.45
		22		083292302				70.90
		23		093285202				30.39
		24		083292302				8,712.60
		25		080122106				243,956.01
						INVOICE TOTAL:		458,759.08
						VENDOR TOTAL:		458,759.08

INVOICES DUE ON/BEFORE 02/13/2023

INVOICE # / VENDOR #	INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	P.O. #	PROJECT	DUE DATE	ITEM AMT
30000 DIGGERS HOTLINE INC.								
221261601	01/17/23	01	DIGGERS HOTLINE TICKETS-DEC	083841622			01/17/23	132.72
		02	EMAIL TICKETS 151 @ $1.74	092882022				66.36
		03	PHONE TICKETS 1 @ $2.70	082866222				66.36
						INVOICE TOTAL:		265.44
						VENDOR TOTAL:		265.44
43417 GALEWSKI, SALLY								
2022-CELL;SEPT-DEC	01/17/23	01	CELL PHONE:SEPT-DEC 2022	083292602			01/17/23	148.75
		02	MILEAGE-IT & SECURITY MEETING	093285402				63.75
						INVOICE TOTAL:		212.50
						VENDOR TOTAL:		212.50
43960 GODFREY & KAHN, S.C.								
885086	01/17/23	01	UTILITY CORRIDOR CLEAN UP	083292302			01/17/23	4,766.00
						INVOICE TOTAL:		4,766.00
						VENDOR TOTAL:		4,766.00
56202 JIM JOLLY SALES								
JJS30322	01/25/23	01	JANAT PUMP FLOW CONTROL VALVE	080122116			01/25/23	14,879.23
						INVOICE TOTAL:		14,879.23
						VENDOR TOTAL:		14,879.23
65611 MENARDS								
53870	01/25/23	01	SALT SPREADER, SNOW SHOVEL,	082462602			01/25/23	131.92
		02	BATTERIES	082664302				131.92
						INVOICE TOTAL:		263.84
						VENDOR TOTAL:		263.84
65625 MILWAUKEE METRO. SEWERAGE DIST								
301-22	01/17/23	01	METRO BILL	091023202			01/17/23	322,061.04
						INVOICE TOTAL:		322,061.04

INVOICES DUE ON/BEFORE 02/13/2023

INVOICE # / VENDOR #	INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	P.O. #	PROJECT	DUE DATE	ITEM AMT
65625 MILWAUKEE METRO. SEWERAGE DIST								
315-22	01/25/23	01	METRO BILL	091023202			01/25/23	24,038.08
						INVOICE TOTAL:		24,038.08
						VENDOR TOTAL:		346,099.12
66177 MILWAUKEE COUNTY ECONOMIC DEV								
2022-REIMB	01/17/23	01	REIMB-DOUBLE PMT	082046110			01/17/23	486.09
						INVOICE TOTAL:		486.09
						VENDOR TOTAL:		486.09
67270 MOSER, SANDRA								
2022-REIMB	01/17/23	01	REIMB-DOUBLE PMT	082046110			01/17/23	500.00
						INVOICE TOTAL:		500.00
						VENDOR TOTAL:		500.00
70020 NAPA AUTO PARTS								
438796	01/17/23	01	MISC. MATERIALS	083693302			01/17/23	18.49
						INVOICE TOTAL:		18.49
						VENDOR TOTAL:		18.49
79350 NIEMI, DAN								
2022-CELL:SEPT-DEC	01/17/23	01	CELL PHONE:SEPT-DEC 2022	083292602			01/17/23	70.00
		02		093285402				30.00
						INVOICE TOTAL:		100.00
						VENDOR TOTAL:		100.00
76575 R.A. SMITH NATIONAL								
170652	01/17/23	01	RAWSON AVE WATER RELAY 6-10 ST	080122108			01/17/23	10,089.50
						INVOICE TOTAL:		10,089.50
170653	01/17/23	01	13TH ST HYDRANT RELOCATION	080123113			01/17/23	3,281.50
						INVOICE TOTAL:		3,281.50

INVOICES DUE ON/BEFORE 02/13/2023

INVOICE # / VENDOR #	INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	P.O. #	PROJECT	DUE DATE	ITEM AMT
76575 R.A. SMITH NATIONAL								
170946	01/25/23	01	LAKESHORE COMMONS	090121086			01/25/23	1,479.00
						INVOICE TOTAL:		1,479.00
170949	01/25/23	01	BROADACRE	080122054			01/25/23	6,086.50
		02		090122054				5,334.50
						INVOICE TOTAL:		11,421.00
170976	01/30/23	01	DREXEL LIFT STATION	090421018			01/30/23	179.00
						INVOICE TOTAL:		179.00
						VENDOR TOTAL:		26,450.00
76862 REVSPRING INC.								
INV1322717	01/17/23	01	PROCESSING OF BILLING-DEC 2022	083090302			01/17/23	2,107.49
		02		093084002				903.21
						INVOICE TOTAL:		3,010.70
						VENDOR TOTAL:		3,010.70
76880 ROBE, MICHAEL								
2022-CELL:SEPT-DEC	01/17/23	01	CELL PHONE:SEPT-DEC 2022	083292602			01/17/23	100.00
						INVOICE TOTAL:		100.00
						VENDOR TOTAL:		100.00
82879 STAPLES BUSINESS ADVANTAGE								
3526456824	01/17/23	01	OFFICE SUPPLIES	083292102			01/17/23	59.47
		02		093285102				25.49
						INVOICE TOTAL:		84.96
						VENDOR TOTAL:		84.96
83010 STRAND ASSOCIATES, INC.								
192536	01/25/23	01	CELLULAR REVIEW	080414300			01/25/23	1,426.23
						INVOICE TOTAL:		1,426.23
						VENDOR TOTAL:		1,426.23

INVOICES DUE ON/BEFORE 02/13/2023

INVOICE # / VENDOR #	INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	P.O. #	PROJECT	DUE DATE	ITEM AMT
93593 WADE, MICHAEL								
2022-CELL:SEPT-DEC	01/17/23	01	CELL PHONE:SEPT-DEC 2022	083292602			01/17/23	70.00
		02		093285402				30.00
						INVOICE TOTAL:		100.00
						VENDOR TOTAL:		100.00
96250 WISCONSIN ELECTRIC POWER COMP.								
2023-01-05-E	01/17/23	01	ELECTRIC/GAS BILLS	082462302			01/17/23	5,673.29
		02		082462602				28.50
		03		082866102				43.23
		04		082866502				336.52
		05		083292102				336.51
		06		092482102				260.63
		07		092882702				336.51
		08		093285102				336.51
						INVOICE TOTAL:		7,351.70
2023-01-27-E	01/17/23	01	ELECTRIC/GAS BILLS	082462302			01/17/23	29,309.17
		02		082462602				3,122.93
		03		082664202				1,623.05
		04		082664302				4,057.54
						INVOICE TOTAL:		38,112.69
						VENDOR TOTAL:		45,464.39
97751 WI STATE LABORATORY OF HYGIENE								
732376	01/17/23	01	FLUORIDE SAMPLES	082664202			01/17/23	28.00
						INVOICE TOTAL:		28.00
						VENDOR TOTAL:		28.00
						TOTAL ALL INVOICES:		939,533.50

ACCOUNTS PAYABLE SUMMARY

February 14, 2023 - Accrued in 2023

Vendor	Description		Dollar Amount
American Bolt	Restocking Hardware, Hydrant Bolts	$	2,331.01
Badger Meter Manufacturing	2023 Meter Exchange		29,092.50
Chase Card Services	Charge Card Invoices		8,029.49
CH2M	PLC Replacement, Underground Facilities Rehab		6,239.32
Chemtrade Chemicals US, LLC.	Plant Coagulant		17,855.73
Cummins Sales and Service	VACCON Engine Repair		13,058.94
Duraline Biosystems, Inc.	Autoclave Replacement		15,625.48
Hydrite Chemical Co.	Plant Chlorine		9,109.10
Kwik Trip	Gas for Truck Fleet		1,851.41
Milwaukee Metropolitan Sewerage District	Metro Bills		146,872.30
Municipal Environmental Group	Annual Membership Dues		2,000.00
Oak Creek Utility	Utility's Metro Bill		8,015.97
R.A. Smith National	Residences at Oak View, Lakeshore Commons, Oakes at 8100, Broadacre		11,694.50
Schmitz Ready Mix, Inc.	Water Main Break Restoration		1,067.00
Star Promotions	Utility Issued Clothing		6,147.43
USA Blue Book	Lab Chemicals, Nanopure System Filter, Calibration Standards		2,677.50
Wisconsin Electric Power Company	Electric/Gas Bills		17,778.90
Subtotal			299,446.58
Remaining Invoices			15,522.77
TOTAL OF ACCOUNTS PAYABLE INVOICES TO BE PAID		$	314,969.35

INVOICES DUE ON/BEFORE 02/14/2023

INVOICE # / VENDOR #	INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	P.O. #	PROJECT	DUE DATE	ITEM AMT
01230 ACE HARDWARE-SOUTH MILWAUKEE								
67087	01/31/23	01	MISCELLANEOUS SUPPLIES	083693302			01/31/23	16.78
						INVOICE TOTAL:		16.78
67088	01/31/23	01	MISCELLANEOUS SUPPLIES	083693302			01/31/23	28.85
						INVOICE TOTAL:		28.85
67108	01/31/23	01	SAW BLADES, NUT DRIVER	082462602			01/31/23	9.98
		02		082664302				9.98
						INVOICE TOTAL:		19.96
67153	01/31/23	01	SHOP SUPPLIES	082866202			01/31/23	17.89
		02		092882702				7.66
						INVOICE TOTAL:		25.55
						VENDOR TOTAL:		91.14
06185 AMERICAN BOLT CORPORATION								
895529	02/06/23	01	RESTOCKING HARDWARE	082867702			02/06/23	2,272.40
						INVOICE TOTAL:		2,272.40
896691	02/07/23	01	HYDRANT BOLTS	082867702			02/07/23	58.61
						INVOICE TOTAL:		58.61
						VENDOR TOTAL:		2,331.01
06250 AMERICAN INDUSTRIAL								
2023-02	02/07/23	01	RUG/COVERALL CLEANING SERVICES	082462602			02/07/23	199.94
		02		082664302				199.93
		03		082866202				386.59
		04		092882702				96.64
						INVOICE TOTAL:		883.10
						VENDOR TOTAL:		883.10
07500 AMERICAN WATERWORKS ASSOC.								

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INVOICE # / VENDOR #	INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	P.O. #	PROJECT	DUE DATE	ITEM AMT
07500 AMERICAN WATERWORKS ASSOC.								
SO58523	01/31/23	01	PARTNERSHIP FOR SAFE WATER-PLT	083293002			01/31/23	310.00
						INVOICE TOTAL:		310.00
SO58563	01/31/23	01	PARTNERSHIP FOR SAFE WATER-	083293002			01/31/23	310.00
		02	DIST	** COMMENT **				
						INVOICE TOTAL:		310.00
						VENDOR TOTAL:		620.00
11250 BADGER METER MANUFACTURING								
1541869	01/31/23	01	2023 METER EXCHANGE	080123101			01/31/23	29,092.50
						INVOICE TOTAL:		29,092.50
						VENDOR TOTAL:		29,092.50
11640 CHASE CARD SERVICES								
2023-02-BJ	01/31/23	01	JOHNSTON-ENGINEERING & ETHICS	083292602			01/31/23	70.00
		02	SEMINAR, WIAWWA SEMINAR	093285402				297.00
						INVOICE TOTAL:		367.00
2023-02-DA	01/31/23	01	ALLARD-TRAILER SUPPLIES, SHOP	082866202			01/31/23	3,279.75
		02	SUPPLIES, WIAWWA SEMINAR	092882702				1,415.61
		03		093285402				50.00
						INVOICE TOTAL:		4,745.36
2023-02-DN	01/31/23	01	NIEMI-PLOTTER CARTRIGES,	083292102			01/31/23	323.90
		02	CAPACITORS, IPAD CASES,	093285102				138.81
		03	EAST SIDE FIBER OPTIC SUPPLIES	080122106				301.12
						INVOICE TOTAL:		763.83
2023-02-MR	02/06/23	01	ROBE-PAPER SUPPLIES, SIGNAL	082462602			02/06/23	86.66
		02	GENERATOR, TOWER SPACE HEATER,	082463302				121.92
		03	SHIPPING CHARGES, GLOVES, MWOE	082664202				77.64
		04	REGISTRATION-KRUEGER, OFFICE	082664302				86.65

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INVOICE # / VENDOR #	INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	P.O. #	PROJECT	DUE DATE	ITEM AMT
11640 CHASE CARD SERVICES								
2023-02-MR	02/06/23	05	CHAIR, QUICK DAMS, SAFETY	082665202			02/06/23	222.74
		06	SHOES-ROBE	082867202				29.98
		07		083292102				399.00
		08		083292602				154.99
						INVOICE TOTAL:		1,179.58
2023-02-NB	01/31/23	01	BUTLER-PHONE & INTERNET	082260302			01/31/23	15.00
		02	CHARGES	082462402				15.00
		03		082462602				160.53
		04		082664302				160.52
		05		082866202				25.00
		06		082866222				4.50
		07		083292102				310.32
		08		083292102				68.45
		09		083841622				9.00
		10		092882002				25.00
		11		092882022				4.50
		12		092882702				35.00
		13		093285102				140.90
						INVOICE TOTAL:		973.72
						VENDOR TOTAL:		8,029.49
12252 BATTERIES PLUS LLC								
P586631973	01/31/23	01	BATTERIES	082866202			01/31/23	70.53
		02		092882702				30.05
						INVOICE TOTAL:		100.58
						VENDOR TOTAL:		100.58
12263 BEARINGS INC. SOUTH								
254574	02/06/23	01	FIRE HYDRANT PARTS	082867702			02/06/23	96.40
						INVOICE TOTAL:		96.40
						VENDOR TOTAL:		96.40

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INVOICE # / VENDOR #	INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	P.O. #	PROJECT	DUE DATE	ITEM AMT
14525 BRAKE & EQUIPMENT								
728998	01/31/23	01	VEHICLE EQUIPMENT	083693302			01/31/23	1,150.00
						INVOICE TOTAL:		1,150.00
						VENDOR TOTAL:		1,150.00
17640 CH2M								
460402CH033	01/31/23	01	PLC REPLACEMENT, UNDERGROUND	080121107			01/31/23	2,853.81
		02	FACILITIES REHAB	080122118				3,385.51
						INVOICE TOTAL:		6,239.32
						VENDOR TOTAL:		6,239.32
17999 CHEMTRADE CHEMICALS US LLC								
93487524	02/06/23	01	H1050 COAGULANT-PLANT	080415400			02/06/23	17,855.73
						INVOICE TOTAL:		17,855.73
						VENDOR TOTAL:		17,855.73
18751 CITY OF OAK CREEK-STREET DEPT								
2300011627	01/31/23	01	TRUCK TIRES	083293002			01/31/23	3.50
		02		093285602				1.50
		03		083693302				472.24
						INVOICE TOTAL:		477.24
2300011802	02/06/23	01	VEHICLE REPAIR	083293002			02/06/23	3.50
		02		093285602				1.50
		03		083693302				376.34
						INVOICE TOTAL:		381.34
						VENDOR TOTAL:		858.58
27925 CUMMINS SALES AND SERVICE								
F6-47494	01/31/23	01	VACCON ENGINE REPAIR	092882702			01/31/23	9,513.13
		02		082866202				4,077.06
						INVOICE TOTAL:		13,590.19

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INVOICE # / VENDOR #	INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	P.O. #	PROJECT	DUE DATE	ITEM AMT
27925 CUMMINS SALES AND SERVICE								
F6-47692	01/31/23	01	CREDIT-VACCON ENGINE REPAIR	092882702			01/31/23	-371.88
		02		082866202				-159.37
						INVOICE TOTAL:		-531.25
						VENDOR TOTAL:		13,058.94
35603 DURALINE BIOSYSTEMS, INC.								
43319	01/31/23	01	AUTOCLAVE REPLACEMENT	080123110			01/31/23	15,625.48
						INVOICE TOTAL:		15,625.48
						VENDOR TOTAL:		15,625.48
42400 FEDERAL EXPRESS CORP.								
8-025-84309	02/07/23	01	SHIPPING-SEWER CAMERA	092882702			02/07/23	167.19
						INVOICE TOTAL:		167.19
						VENDOR TOTAL:		167.19
43075 FIRST SUPPLY LLC								
13540020-00	01/31/23	01	BREAK TRAILER TOOLS	082866202			01/31/23	85.74
						INVOICE TOTAL:		85.74
						VENDOR TOTAL:		85.74
46875 WW GRAINGER INC.								
9579005605	01/31/23	01	WATER SAMPLING	082866202			01/31/23	48.73
						INVOICE TOTAL:		48.73
						VENDOR TOTAL:		48.73
47375 HANNA TRAILER								
251596-1	02/06/23	01	PROPANE TANK REFILL	083693302			02/06/23	107.29
						INVOICE TOTAL:		107.29
						VENDOR TOTAL:		107.29

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INVOICE # / VENDOR #		INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	P.O. #	PROJECT	DUE DATE	ITEM AMT
55010	HYDRITE CHEMICAL CO.								
2643200		01/31/23	01	CHLORINE-PLANT USE	080415400			01/31/23	9,109.10
							INVOICE TOTAL:		9,109.10
							VENDOR TOTAL:		9,109.10
56180	JERRY WILLKOMM INC.								
415400		01/31/23	01	SHOP SUPPLIES	082866202			01/31/23	55.27
			02		092882702				23.69
							INVOICE TOTAL:		78.96
							VENDOR TOTAL:		78.96
56685	KAESTNER AUTO ELECTRIC								
419144		02/06/23	01	SHOP TOOLS	082866202			02/06/23	284.15
			02		092882702				121.78
							INVOICE TOTAL:		405.93
							VENDOR TOTAL:		405.93
57015	KRANZ INC.								
1777946-01		02/06/23	01	CLEANING SUPPLIES	082462602			02/06/23	56.38
			02		082664302				56.38
							INVOICE TOTAL:		112.76
							VENDOR TOTAL:		112.76
58150	KWIK TRIP EXTENDED NETWORK								
NP63714990		02/06/23	01	TRUCK FLEET GAS	083693302			02/06/23	1,851.41
							INVOICE TOTAL:		1,851.41
							VENDOR TOTAL:		1,851.41
65000	MEDIVAN, INC.								
24417		01/31/23	01	FIT & HEARING TESTS	083292302			01/31/23	1,250.00
							INVOICE TOTAL:		1,250.00

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INVOICE # / VENDOR #	INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	P.O. #	PROJECT	DUE DATE	ITEM AMT
65000 MEDIVAN, INC.								
24442	01/31/23	01	FIT & HEARING TESTS	083292302			01/31/23	100.00
						INVOICE TOTAL:		100.00
						VENDOR TOTAL:		1,350.00
65452 MATHESON TRI-GAS INC								
27020286	01/31/23	01	PORTABLE TORCH PARTS	082866202			01/31/23	166.04
		02		092882702				71.16
						INVOICE TOTAL:		237.20
						VENDOR TOTAL:		237.20
65599 MCMASTER-CARR								
90941130	01/31/23	01	PLUMBING SUPPLIES	082462602			01/31/23	401.57
		02		082664302				401.56
						INVOICE TOTAL:		803.13
91192790	01/31/23	01	FILTER INFLUENT CHANNEL	082664302			01/31/23	90.48
						INVOICE TOTAL:		90.48
91685753	02/06/23	01	RUBBER GASKET-FILTER CHANNEL	082665202			02/06/23	50.65
						INVOICE TOTAL:		50.65
91971645	02/06/23	01	FILTER ROOM THERMOSTAT	082665202			02/06/23	380.32
						INVOICE TOTAL:		380.32
92054930	02/06/23	01	B-100 THERMOSTAT	082665202			02/06/23	380.32
						INVOICE TOTAL:		380.32
						VENDOR TOTAL:		1,704.90
65611 MENARDS								
54958	01/31/23	01	SHOP SUPPLIES, CONCRETE TOOLS	082866202			01/31/23	72.56
		02		092882702				31.10
						INVOICE TOTAL:		103.66

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INVOICE # / VENDOR #	INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	P.O. #	PROJECT	DUE DATE	ITEM AMT
65611 MENARDS								
55026	01/31/23	01	TRUCK RACK ORGANIZATION	082866202			01/31/23	209.76
		02		092882702				89.89
						INVOICE TOTAL:		299.65
55218	01/31/23	01	OIL STORAGE TANK PARTS	083693302			01/31/23	332.85
						INVOICE TOTAL:		332.85
55220	01/31/23	01	FILTER INFLUENT CHANNEL	082664302			01/31/23	266.70
						INVOICE TOTAL:		266.70
55265	01/31/23	01	OIL STORAGE TANK PARTS	083693302			01/31/23	14.34
						INVOICE TOTAL:		14.34
55381	01/31/23	01	CONCRETE ANCHORS	082462602			01/31/23	9.02
		02		082664302				9.02
						INVOICE TOTAL:		18.04
55393	01/31/23	01	SHOP & TRUCK SUPPLIES	082866202			01/31/23	647.37
		02		092882702				277.44
						INVOICE TOTAL:		924.81
55394	01/31/23	01	SHOP & TRUCK SUPPLIES	082866202			01/31/23	62.64
		02		092882702				26.84
						INVOICE TOTAL:		89.48
55585	02/06/23	01	FILTER REPAIR PLYWOOD	082665202			02/06/23	156.12
						INVOICE TOTAL:		156.12
55668	02/06/23	01	FILTER CHANNEL EXTENSION CORD	082665202			02/06/23	154.94
						INVOICE TOTAL:		154.94
55673	01/31/23	01	TRUCK TOOLS & EQUIPMENT	082866202			01/31/23	499.66
		02		092882702				214.14
						INVOICE TOTAL:		713.80

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INVOICE # / VENDOR #	INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	P.O. #	PROJECT	DUE DATE	ITEM AMT
65611 MENARDS								
55682	02/06/23	01	JANAT SPACE HEATER	082463302			02/06/23	59.98
						INVOICE TOTAL:		59.98
55958	02/07/23	01	SHOP SUPPLIES	082866202			02/07/23	94.06
		02		092882702				94.05
						INVOICE TOTAL:		188.11
						VENDOR TOTAL:		3,322.48
65625 MILWAUKEE METRO. SEWERAGE DIST								
006-23	01/31/23	01	METRO BILL	091023202			01/31/23	25,693.69
						INVOICE TOTAL:		25,693.69
011-23	02/06/23	01	METRO BILL	091023202			02/06/23	42,335.98
						INVOICE TOTAL:		42,335.98
326-22	02/06/23	01	METRO BILL	091023202			02/06/23	78,842.63
						INVOICE TOTAL:		78,842.63
						VENDOR TOTAL:		146,872.30
67475 MUNICIPAL ENVIRONMENTAL GROUP								
2023	02/06/23	01	ANNUAL MEMBERSHIP DUES-2023	083293002			02/06/23	2,000.00
						INVOICE TOTAL:		2,000.00
						VENDOR TOTAL:		2,000.00
70020 NAPA AUTO PARTS								
447400	01/31/23	01	VEHICLE FILTERS	083693302			01/31/23	358.94
						INVOICE TOTAL:		358.94
451288	01/31/23	01	TRANSMISSION SERVICE	083693302			01/31/23	99.93
						INVOICE TOTAL:		99.93
451775	02/06/23	01	MISC. MATERIALS	083693302			02/06/23	66.44
						INVOICE TOTAL:		66.44

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70020 NAPA AUTO PARTS								
451871	02/06/23	01	MISC. MATERIALS	083693302			02/06/23	229.70
						INVOICE TOTAL:		229.70
						VENDOR TOTAL:		755.01
70557 NORTHERN LAKE SERVICE INC.								
2300721	02/06/23	01	WATER TESTS	082664202			02/06/23	104.20
						INVOICE TOTAL:		104.20
2300723	02/06/23	01	WATER TESTS	082664202			02/06/23	340.74
						INVOICE TOTAL:		340.74
						VENDOR TOTAL:		444.94
72570 OAK CREEK UTILITY								
2023-02	01/31/23	01	UTILITY'S METRO BILL	082664202			01/31/23	8,015.97
						INVOICE TOTAL:		8,015.97
						VENDOR TOTAL:		8,015.97
73790 WINDSTREAM ENTERPRISE								
75445975	02/06/23	01	LONG DISTANCE CHRGES: PLT/DIST	082462602			02/06/23	16.56
		02		082664302				16.56
		03		083292102				16.56
		04		093285102				16.56
						INVOICE TOTAL:		66.24
						VENDOR TOTAL:		66.24
74323 PARTS DISTRIBUTING, INC								
S1-2279596	01/31/23	01	TRUCK BATTERY	083693302			01/31/23	208.00
						INVOICE TOTAL:		208.00
S1-2280013	01/31/23	01	CORE RETURN	083693302			01/31/23	-18.00
						INVOICE TOTAL:		-18.00
						VENDOR TOTAL:		190.00

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75698 PREMIUM WATERS, INC.								
362388907	01/31/23	01	DISTILLED WATER-PLANT	082664202			01/31/23	32.96
						INVOICE TOTAL:		32.96
						VENDOR TOTAL:		32.96
76575 R.A. SMITH NATIONAL								
170393	02/06/23	01	RESIDENCES AT OAK VIEW	090120051			02/06/23	800.50
						INVOICE TOTAL:		800.50
170394	02/06/23	01	LAKESHORE COMMONS	090121086			02/06/23	1,681.00
						INVOICE TOTAL:		1,681.00
170395	02/06/23	01	OAKES AT 8100	090122050			02/06/23	1,058.50
						INVOICE TOTAL:		1,058.50
170396	02/06/23	01	BROADACRE	080122054			02/06/23	117.50
		02		090122054				8,037.00
						INVOICE TOTAL:		8,154.50
						VENDOR TOTAL:		11,694.50
76805 REDISHRED ACQUISITION INC.								
1104148	01/31/23	01	YEAR END SHREDDING	083292102			01/31/23	192.50
		02		093285102				82.50
						INVOICE TOTAL:		275.00
						VENDOR TOTAL:		275.00
76862 REVSPRING INC.								
INV1324151	02/07/23	01	PROCESSING OF BILLING-JAN 2023	083090302			02/07/23	397.23
		02		093084002				170.24
						INVOICE TOTAL:		567.47
						VENDOR TOTAL:		567.47
76880 ROBE, MICHAEL								

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76880 ROBE, MICHAEL								
2023-02	01/31/23	01	UTILITY ISSUED CLOTHING	083292602			01/31/23	10.11
						INVOICE TOTAL:		10.11
						VENDOR TOTAL:		10.11
77975 SCHMITZ READY MIX, INC.								
1028884-IN	01/31/23	01	WATER MAIN BREAK-RESTORATION	082867302			01/31/23	630.00
						INVOICE TOTAL:		630.00
1029571-IN	01/31/23	01	WATER MAIN BREAK-RESTORATION	082867302			01/31/23	437.00
						INVOICE TOTAL:		437.00
						VENDOR TOTAL:		1,067.00
82879 STAPLES BUSINESS ADVANTAGE								
3527658117	01/31/23	01	OFFICE SUPPLIES	083292102			01/31/23	43.16
		02		093285102				18.50
						INVOICE TOTAL:		61.66
3527881026	01/31/23	01	OFFICE SUPPLIES	083292102			01/31/23	51.00
		02		093285102				21.86
						INVOICE TOTAL:		72.86
						VENDOR TOTAL:		134.52
82880 STAR PROMOTIONS								
2023-02	02/06/23	01	UTILITY-ISSUED CLOTHING	083292602			02/06/23	4,303.20
		02		093285402				1,844.23
						INVOICE TOTAL:		6,147.43
						VENDOR TOTAL:		6,147.43
84000 SUPERIOR CHEMICAL								
317538	02/06/23	01	RETURN-HAND SOAP	083292102			02/06/23	-89.89

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INVOICE # / VENDOR #	INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	P.O. #	PROJECT	DUE DATE	ITEM AMT
84000 SUPERIOR CHEMICAL								
317538	02/06/23	02		093285102			02/06/23	-38.53
						INVOICE TOTAL:		-128.42
353107	01/31/23	01	CLEANING SUPPLIES	083292102			01/31/23	478.80
		02		093285102				205.20
						INVOICE TOTAL:		684.00
						VENDOR TOTAL:		555.58
93100 USA BLUE BOOK								
228783	01/31/23	01	LAB CHEMICALS	082664102			01/31/23	211.64
						INVOICE TOTAL:		211.64
230569	01/31/23	01	NANOPURE SYSTEM FILTER	082665202			01/31/23	660.34
						INVOICE TOTAL:		660.34
232286	02/06/23	01	LAB CHEMICALS	082664102			02/06/23	191.25
						INVOICE TOTAL:		191.25
232295	02/06/23	01	LAB CHEMICALS	082664102			02/06/23	139.70
						INVOICE TOTAL:		139.70
233932	02/06/23	01	LAB CHEMICALS	082664102			02/06/23	61.64
						INVOICE TOTAL:		61.64
249936	02/06/23	01	CALIBRATION STANDARDS	082665202			02/06/23	1,412.93
						INVOICE TOTAL:		1,412.93
						VENDOR TOTAL:		2,677.50
94003 WATER SPECIALTIES								
120856	02/06/23	01	BACKFLOW PREVENTER PARTS	082665202			02/06/23	115.13
						INVOICE TOTAL:		115.13
						VENDOR TOTAL:		115.13

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INVOICE # / VENDOR #	INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	P.O. #	PROJECT	DUE DATE	ITEM AMT
96250 WISCONSIN ELECTRIC POWER COMP.								
2023-02-07-E	01/31/23	01	ELECTRIC/GAS BILLS	082462302			01/31/23	6,572.61
		02		082462602				30.93
		03		082866102				49.67
		04		082866502				386.05
		05		083292102				386.05
		06		092482102				312.63
		07		092882702				386.06
		08		093285102				386.06
						INVOICE TOTAL:		8,510.06
2023-02-13-G	01/31/23	01	ELECTRIC/GAS BILLS	082462602			01/31/23	3,206.34
		02		082664302				4,138.31
		03		082866502				481.13
		04		083292102				481.12
		05		092882702				481.12
		06		093285102				481.12
						INVOICE TOTAL:		9,268.84
						VENDOR TOTAL:		17,778.90
97700 WISC RURAL WATER ASSOCIATION								
2023-02	01/31/23	01	TECHNICAL CONF REGISTRATION-	083293002			01/31/23	840.00
		02	JOHNSTON, ALLARD, MAUGHAN,	** COMMENT **				
		03	PROEBER	** COMMENT **				
						INVOICE TOTAL:		840.00
						VENDOR TOTAL:		840.00
97751 WI STATE LABORATORY OF HYGIENE								
734734	02/06/23	01	FLUORIDE SAMPLES	082664202			02/06/23	28.00
						INVOICE TOTAL:		28.00
						VENDOR TOTAL:		28.00
99997 ZUERN								

INVOICES DUE ON/BEFORE 02/14/2023

INVOICE # / VENDOR #	INVOICE DATE	ITEM #	DESCRIPTION	ACCOUNT #	P.O. #	PROJECT	DUE DATE	ITEM AMT
99997 ZUERN								
444933	02/07/23	01	FILTER INFLUENT CHANNEL	082664302			02/07/23	86.83
						INVOICE TOTAL:		86.83
						VENDOR TOTAL:		86.83
						TOTAL ALL INVOICES:		314,969.35

ADMINISTRATIVE OPERATIONS

January 2023

Workload:

Other administrative tasks included the following:

- Added 3 customer accounts for the month.
- Billed 940 water customers and 965 sewer customers.

Gallons Billed (in thousands):

	YTD 2023	YTD 2022	YTD 2021	YTD 2020	YTD 2019	Average
Residential	6,391	6,247	6,501	6,411	6,474	6,405
Commercial	37,748	35,793	32,314	33,570	33,167	34,518
Industrial	49,390	42,773	45,258	39,820	37,177	42,884
Public Authority	353	325	86	195	207	233
Wholesale	237,635	215,440	219,097	224,038	216,925	222,627
Total	331,517	300,578	303,256	304,034	293,950	306,667
% Change to Prior Year	10.3%	-0.9%	-0.3%	3.4%	N/A	
% Change to Average	8.1%	-2.0%	-1.1%	-0.9%	-4.1%	

New Customers:

	YTD 2023	YTD 2022	YTD 2021	YTD 2020	YTD 2019	Average
Residential	3	3	0	2	0	1.6
Commercial	0	0	0	0	5	1.0
Industrial	0	0	0	0	0	-
Public Authority	0	0	0	0	0	-
Wholesale	0	0	0	0	0	-
Total	3	3	0	2	5	2.6

ENGINEERING OPERATIONS

January 2023

PLC Replacement at the WTP

Next Electric is still working on the submittals for the PLC-C and PLC-C2 cabinet drawings. Once we have these in place, we will be able to start on the PLC replacements. The work is supposed to begin in February and continue through the spring.

6th and Marquette Water Relay Design

We received five proposals for the project from Graef, raSmith, Strand, Cedar, and Baxter & Woodman. We will evaluate the proposals and bring them to the Board for approval. This will be a design only project with plans complete in the Fall.

Drexel Lift Station

Engineering met with raSmith to discuss the status of the Drexel Lift Station project. The project should be designed by April. We would anticipate bidding the project out this summer.

American Sanitary Relay

Cedar submitted plans and we have the railroad approval for the project. We are working with the city on the storm water improvements with the project. We will be removing and replacing storm sewer with the sanitary relay project. We are evaluating options to improve the drainage along the west side of the railroad tracks. We should have plans completed and DNR approvals in March.

W. Rawson Water Relay and Hydrant Relocation

We have received 75% plans from raSmith for the water relay and hydrant relocation along W. Rawson Avenue. We are working with Milwaukee County on the needs to relocate the hydrants with the proposed road reconstruction. Plans should be completed in February.

S. 13th Street Puetz-Drexel Hydrant Relocation

We have received 60% plans from Milwaukee County for the proposed project. raSmith is working on the hydrant relocation design. We have coordinated with both teams to modify design so that the 20" water main will not need to be relocated with project. Plans should be completed in March.

Sanitary Rehabilitation

We held our kickoff meeting with raSmith for the sanitary rehabilitation project. We have reviewed our videos and current working list of defects in the sanitary system. We sent our list and video to raSmith to create our plan set. Plans should be competed in March.

Sanitary Model Update and System Plans

We held our kickoff meeting with Brown and Caldwell to discuss the sanitary model update and system plan project. We have submitted the requested information to BC to get started on the updated modeling. This project is to be completed by the end of 2023.

Developer projects

- Broadacre - water and sanitary construction complete and punch list items remain.
- Creek Two - plans were submitted and reviewed.

DISTRIBUTION & COLLECTION OPERATIONS

January 2023

Water Main Breaks:
On January 11th, crews responded to a main break at 280 E. Sunset Dr. This was a very small leak that Utility Worker Struebing was able to find with our electronic listening equipment. It was right next to two previous leaks. Being without our Vac Con made this job a lot more difficult due to the sandy ground that kept flowing in. The leak was repaired with a clamp.

Water Lateral Repairs:
There were no water lateral repairs in the month of January.

Hydrant Repairs/Maintenance:
A fire hydrant was struck on S. 22nd St. by Truck Country. It was about 60' away from its original location when found. It was put back in service the next day and we are waiting to hear if the OCPD took an accident report for it.

Valve Repairs:
On January 10th, crews excavated a valve that used to serve Reinhart Foods fire hydrants. It is located on the remote main off of Judith Dr. It was reported leaking by a resident walking their dog. Upon exposing the valve, we discovered that the valve had been previously abandoned and was no longer serving anyone. We removed the failed valve and plugged the tee.

Sewer Repairs/Maintenance:
We have begun sewer televising when the weather allowed. Several manhole cover seals were replaced and a few manhole rings that were hit by plows kept the crew busy.

Miscellaneous:
The Vac-Con went in for overheating issues on January 3rd. They discovered a bad head gasket and needed to replace it. This was the result of the water pump belt failing. The repair took three weeks and has been running great since.

Out of Service:
There is currently one fire hydrant out of service in need of repair. There are currently 42 valves jammed open in need of repair.

DISTRIBUTION GOALS 2022

JOB DESCRIPTION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTALS	GOALS
Meters														
Meter Exchanges	47												47	600
Cross Connection Inspections	6												6	300
Industrial Inspections	40												40	375
Water														
Annual Hydrant Flushing	-												-	2,259
Semi-annual Flushing	-												-	2x109 (218)
Quarterly Flushing	29												29	4x49 (196)
Flush Emergency Connections	-												-	3
Watermain Crossings	36												36	63
Operate Valves	-												-	1,000
Hydrant Painting	-												-	150
Cathodic Protection Tests	-												-	11
Check Remote Water Mains	-												-	40
Sewer														
Clean Sewers	-												-	165,000
Camera Sewers	11,217												11,217	165,000
Check Problem Sewers	-												-	308
Check Remote Sewer Mains	-												-	51
Admin														
Tier II Report	Done													
MMSD Annual CMOM Report						Due								
DNR eCMAR						Due								
DNR River Crossing Stations										Due				
Cross Connection Survey		Due												

Revised 1/4/21 JF T:\Distribution Goals.xlsx

PLANT OPERATIONS

January 2023

PUMPAGE REPORT	2023	2022	% Change	5 Year %
Monthly Pumpage	242,060,000	224,330,000	+7.9	+13.5
Monthly Average Day	7,808,387	7,236,452	+7.9	+13.5
Monthly Peak Day	(01/18) 9,820,000	(01/13) 9,580,000	+2.5	+11.5
Yearly Pumpage	242,060,000	224,330,000	+7.9	+13.5
Yearly Average Day	7,808,387	7,236,452	+7.9	+13.5
Yearly Peak Day	(01/18) 9,820,000	(01/13) 9,580,000	+2.5	+11.5
West Zone Pumpage	100,850,000	95,360,000	+5.8	+6.4

WATER QUALITY REPORT	Raw Water	Finished Water
Average Free Chlorine		1.58 mg/l
Total Chlorine		1.79 mg/l
Average Alkalinity	111.5 mg/l	113.4 mg/l
Average pH	8.3	8.1
Average Fluoride	0.15 mg/l	0.69 mg/l
Average Turbidity	5.36NTU	0.040 NTU
High Temperature	**High** 43.9 F **Low** 36.1 F	
Hardness	137 mg/l	137 mg/l

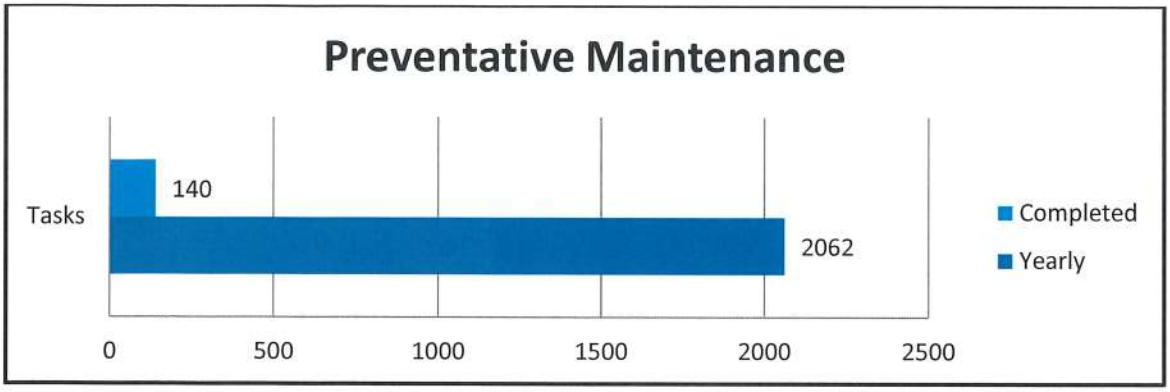
Preventative Maintenance Tasks: Staff completed 140 preventative maintenance tasks and 2 safety sessions during the month.

Work Orders: Staff completed 9 work orders. Some of the tasks include replacing the chlorine analyzer at 22nd St. booster station, replacing the electric heater at 22nd St. booster station, replacing thermostats, installing the new autoclave, and repairing leaks in chemical feed lines.

Operators: Medivan was onsite to perform annual hearing and respiratory testing. Plant Manager Robe has completed annual reports for MMSD, WIDNR, EPA, and Wisconsin Emergency Management.

Plant: Staff has been busy preparing for several large projects at the plant. Plant shutdowns were needed for these repairs and both went seamlessly. Staff is dealing with typical cold weather issues including snow and ice removal, heaters that stop working, and communication issues.


Safety
Tasks
2
24
0
5
10
15
20
25
30
Completed
Yearly


Preventative Maintenance
Tasks
140
2062
0
500
1000
1500
2000
2500
Completed
Yearly

ITEM NO. 8

DEPARTMENT OF PUBLIC WORKS – Matt Trebatoski

- Crews will be out plowing and salting sidewalks, streets and parking lots, as needed, performing off road tree removals along water channels, and dam removals (provided colder temperatures ensue). They will also continue nuisance beaver trapping within the storm water drainage system;
- Fleet staff will be working on fire apparatus maintenance and annual inspections reports, retrofitting five plow trucks with closed loop prewetting systems, and setting up the new forklift;
- In street lighting, we will be continuing to repair and/or replace old HPS light fixtures with LED, applying for grant funds from WISDOT to help lower greenhouse gases, and updating control cabinets with surge suppression devices to help limit damage to LED fixtures from power surges;
- Parks crews will be assisting with snow and ice control, as needed, trimming parks trees, attending landscaping workshops, cleaning pavilions for rentals, interior pavilions maintenance, making and repairing park signs, and organizing and preparing the shop for spring;
- Forestry staff will be conducting tree take downs, pruning, and cutting firewood.

ENGINEERING & INSPECTIONS – Matt Sullivan

- Developer Project Updates:
    - Lakeshore Commons continues with Single Family, Multi-Family and Townhome construction. The first two occupancies for Single-Family homes were approved in January and two more are anticipated to be granted in February. The site has been graded, topsoiled, and hydroseeded (except areas under construction). Lake Vista Boulevard and Breakwater Boulevard are open for public traffic;
    - The Oaks at 8100 (Multi-Family Development on S. 27th Street) continues to progress with vertical construction on a number of buildings and is still on schedule for occupancies starting in early spring 2023;
    - Broadacre development's (441 W. Ryan Road) has completed the footings/foundations for the clubhouse and three of the four apartment buildings. Vertical construction began on the northern most apartment building. Construction of the elevator shafts of the other apartment buildings

continue and the second building from the north is anticipated to be going vertical this month. Sanitary sewer and water main construction has been completed, with the exception of the installation of hydrant extensions;
    - Phase 2 of The Residence at Oak View continues to progress with the construction over 50% of the units under construction;
    - The final building in the Hub13 development received occupancy in December;
    - Oakview Business Park continues to be developed with multiple sites under construction. The building on 10551 S. Oakview Parkway received occupancy in December, and pavement repairs along S. Oakview Parkway will take place in spring 2023. The building on 10501 (Mygrant Glass) will have occupancy in January with final grading to be completed in the spring;
    - Avid Hotel (9293 S. 13th Street) started constructing the footing/foundation in January.
- Design/Construction Updates:
    - W. Rawson Avenue (S. 27th Street to S. 20th Street) (Milwaukee County) installation of the traffic signals at S 20th Street has begun and are anticipated to be operational in spring 2023;
    - Soil delivery to the North Bluff project site (Old Peter Cooper) from the MMSD Wilson Park Project has been completed. Bluff stabilization/revetment and building demolition (Peter Cooper Building) are scheduled to be let in late February;
    - The footings and concrete saddles for the diesel tank at the DPW were completed in December. The new diesel tank was installed in January along with the piping required to complete the project in the spring. The footings and saddles to raise the existing unleaded fuel tank were completed in December, and the existing unleaded fuel tank and dispensers were operational in January. The entire project is scheduled to be completed in the spring;
    - Engineering is continuing to work on the design for the 2023 Paving Project with anticipation of letting in March 2023;
    - Design of the Safe Routes to School project (TAP project) was completed in January with anticipation of a letting in March 2023;
    - Engineering has completed the scoping process with WDOT and Collins Engineers for the bridge design to replace the structure located at 8040 S. 6th Street. Engineering will be requesting Common Council approval of the Three-Party Design Contract in February;

    - The City received the State Municipal Agreement (SMA) from WDOT for the superstructure replacement of the bridge located at 7600 S. 6th Street. Engineering issued an RFP for the design work in January;
    - Puetz/Liberty Intersection evaluation has been completed and the selection of the preferred alternative will be on the BOPWACA February agenda.
- Employment Opportunities:
    - Engineering will be re-advertising for the Civil Engineer - Storm Water (Environmental Design Engineer) through mid-February. One applicant was interviewed in December, an offer was extended, but the applicant declined the offer;
    - Inspection advertised for the open Building Inspector position in January and will be interviewing potential candidates in late January into February until the position has been filled.

OAKCREEK
— WISCONSIN —

MEMO

To: Mayor and Common Council

From: Matthew J. Sullivan, PE, City Engineer

Subject: 2023 Lakefront Construction Activity and Common Council Approval Schedules

Date: February 6, 2023

Over the past decade, the City of Oak Creek expended significant energy and made strategic investments to ensure future public access to the Lake Michigan shoreline. This effort has provided a very successful park project (Lake Vista Park) and a mixed residential development (Lakeshore Commons) that is currently under construction. Most recently staff has been undergoing efforts to complete several projects on the area known as the "north bluff" that include bluff stabilization & revetment, demolition of the last standing industrial building, and planning for a ribbon park that will include a connection to Lake Vista Park to the south. A future goal of this multi-phased project could include connecting to Bender Park as well.

With the upcoming flurry of activity in 2023, staff wanted to provide the Common Council with a look ahead at certain project milestones and decision points to expect over the next 4-6 months.

February

- Consideration of Approval of a Plan of Finance on the 7th. ***(Common Council action). The City would receive funds in-hand from these debt issuances on or about May 1, 2023)***
- North Bluff Park Plan Survey closes on the 8th.
- North Bluff Park Plan Common Council presentation on the 20th. ***(no action required)***
- Bluff stabilization & revetment and building demolition (Peter Cooper) projects sent for public bids on the 22nd.

March

- Consideration of approval of North Bluff Park Plan on the 7th. ***(Common Council action)***
- Bids will be due for bluff stabilization & revetment and building demolition projects on the 24th.
- North Bluff Park Plan design to begin and continue through May/June.
- ***Public informational meeting on the 29th or 30th, more to come on this meeting.***

April

- Consideration of approving construction contracts for bluff stabilization & revetment and building demolition on the 3rd. ***(Common Council action)***
- Contract execution will occur of the entire month of April.

OAKCREEK
— WISCONSIN —

MEMO

- Pre-construction meetings to happened end of April.

May

- Building Demolition
  - Begin construction 1st week.
    - Removal of environmental materials (vat water/asbestos/misc. hazardous materials)
    - Building demolition to begin towards end of the month.
- Bluff Stabilization & Revetment
  - Begin construction 1st or 2nd week of May.
  - Revetment (work in lake bed and large armor stone) – anticipated completion will be in late 2023.

June

- North Bluff Park Plan
  - Anticipate completion of final design for the Phase 1 project.
- Building Demolition project continues.
- Bluff Stabilization & Revetment
  - Continue to construct revetment.

July

- Building Demolition
  - Concrete crushing of cinder block and concrete floor.
  - Completion of project anticipated in late July.
- Bluff Stabilization & Revetment
  - Continue to construct revetment and begin buttress fill.

If you have any questions, please feel free to reach out to me at by email msullivan@oakcreekwi.gov or phone (414) 766-7028.

Sincerely,

Matthew J. Sullivan, PE
City Engineer

Cc: Large Leadership Team (all)

OAK CREEK
WISCONSIN

Meeting Date: February 14, 2023

Item No. 9

STAFF REPORT

Item: Purchase Mobile Incident Response Team (MIRT) Equipment

Recommendation: The Board consider a motion to approve the purchase of crowd control equipment to outfit six (6) Police personnel as part of the MIRT team. This purchase is intended to equip Police personnel with the required equipment to perform MIRT related activities, respond rapidly for requests in the county, and allow our local team to call on countywide resources to assist with Suburban MIRT related events in the City of Oak Creek.

Fiscal Impact: This equipment was approved with the 2023 budget process as a CIP project of $32,682. The quoted price currently is $47,794.74. This leaves a balance of funds totaling $15,112.74. We have some DOA grant funds that we can use for the Body-worn Camera equipment, and intend to use $9,210.00 for that part. The remaining $5,902.74 will be covered by other sources through finance.

Critical Success Factor(s):

- ☐ Vibrant and Diverse Cultural Opportunities
- ☐ Thoughtful Development and Prosperous Economy
- ☒ Safe, Welcoming, and Engaged Community
- ☒ Inspired, Aligned, and Proactive City Leadership
- ☒ Financial Stability
- ☒ Quality Infrastructure, Amenities, and Services
- ☐ Not Applicable

Background: In 2020, coordinated and large-scale civil unrest events occurred for various reasons. It was apparent during this time, that if this were to occur in Milwaukee County the suburban municipalities were not properly equipped with gear or staffed with trained personnel to handle a coordinated civil unrest situation. This led to the development of MIRT teams at departments and then coordinating a regional team for Milwaukee County, known now as the Suburban Mobile Incident Response Team (SMIRT).

As members of the SMIRT, the Oak Creek Police Department needs to have our six (6) OCPD members assigned to the SMIRT unit, property equipped and trained. These assignments include crowd control situations such as emergency deployment, pre-planned events, civil unrest, blocking a highway/roadway, blocking access to any hospital or critical infrastructure, blocking access to any businesses, blocking access to any residential homes, reckless driving, people disrupting an establishment's normal course of business, crowd dispersal, lethal threats, riots, protests, demonstrations, and enforcement of any state or municipal violations.

To be effective at accomplishing those assignments, it is imperative that Oak Creek PD members deployed to those situations have the proper equipment. Some of the items needed we don't have, and others are needed to match the entire MIRT unit for the suburban team. The requested equipment has been developed through MIRT meetings, past crowd control events which displayed what equipment was needed to be safe and successful, as well as recommendations provided by the United States Department

of Homeland Security (DHS) Federal Emergency Management Agency (FEMA) Center for Domestic Preparedness Field Operations training. The training also highlighted the importance of the team matching in appearance and movement. Agitators during a crowd control situation will single out members of the team who look different than the rest to provoke a response from that specific Officer. This puts a significant burden on the Officer to remain professional and prevents the Officer from being effective in the Officer's assignment.

As recent events have shown, civil unrest demonstrations can grow at a rapid pace due to the ability of quick communication via currently available technology. The need to be part of the suburban MIRT, which requires the requested equipment, is important to protect the rights of Oak Creek's citizens and ensure the Police Department has the needed resources to deploy a team which can achieve an effective resolution to the situation.

Options/Alternatives: The decision could be made not to fund this; however, Officers would be deployed without the proper equipment. This is neither safe nor effective, leading to potential Officer injuries and/or an increased liability. This is due to the fact that an Officer could be instigated or singled by an agitator who might be in front of the Officer, harassing the Officer, for hours during long term deployment. The Police Department could choose not to participate in the suburban MIRT; however, that leaves the Oak Creek Police Department to fend for themselves if a situation were to occur where our city experiences civil unrest. This is a dangerous alternative as the Police Department by itself does not have the staffing or equipment resources to control a crowd that has mobilized from across the country if a situation were to occur that would draw national attention. I do not recommend this alternative.

Respectfully submitted:

Andrew J. Vickers, MPA
City Administrator

Prepared:

David R. Stecker
Chief of Police

Fiscal Review:
Maxwell Gagin

Maxwell Gagin, MPA
Assistant City Administrator / Comptroller

Approved:

Attachments:

2023 Crowd Control Equipment CIP

Current Purchase Quote for all equipment

Separate Baycom Quote on Body-cam equipment

2023 CAPITAL IMPROVEMENT/EQUIPMENT PROGRAM (CIP/CEP)

Department:	**Contact Person:**
Police	Chief David Stecker

Request Title:

Suburban Mobile Incident Response Team (MIRT) Equipment

General Description:

The Suburban Mobile Incident Response Team (MIRT) equipment will provide Oak Creek Police Officers with the items needed to deploy to their assignments safely and successfully.

Justification and Intent:

As members of the Suburban MIRT, the Oak Creek Police Department will need to have the six (6) Police Department members assigned to MIRT unit, deploy rapidly where needed within the Suburban memorandum of understanding (MOU) coverage. The assignments will include crowd control situations such as emergency deployment, pre-planned events, civil unrest, blocking a highway/roadway, blocking access to any hospital or critical infrastructure, blocking access to any business, blocking access to any residential home, reckless driving, people disrupting an establishment's normal course of business, crowd dispersal, lethal threats, riots, protests, demonstrations, and enforcement of any state or municipal violations.

To be effective at accomplishing those assignments, it is imperative that Oak Creek members deployed to those situations have the proper equipment. The Police Department can utilize some old equipment; however, some items must be purchased. Some of the items needed we don't have and others are needed to match the entire MIRT for the suburban team. The requested equipment has been developed through MIRT meetings, past crowd control events which displayed what equipment was needed to be safe and successful, and recommendations provided by the United States Department of Homeland Security (DHS) Federal Emergency Management Agency (FEMA) Center for Domestic Preparedness Field Operations training. The training also highlighted the importance of the team matching in appearance and movement. Agitators during a crowd control situation will single out members of the team who look different to provoke a response from that specific Officer. This puts a significant burden on the Officer to remain professional and prevents the Officer from being effective in the Officer's assignment.

As recent events have shown, civil unrest demonstrations can grow at a rapid pace due to the ability of quick communication via current technology. The need to be part of the suburban MIRT, which requires the requested equipment, is important to protect the rights of Oak Creek's citizens and also ensure the Police Department has the needed resources to deploy a team which can achieve an effective resolution to the situation.

Description of Alternatives:

1) We could fund this over two (2) years getting equipment for three (3) MIRT members in 2023 and three (3) MIRT members in 2024. However, we would be ineffective in the deployment of the MIRT team with only three members who could respond safely and effectively. I do not recommend this alternative. Or;

2) Officers could be deployed without the proper equipment; however, this is neither safe nor effective, leading to potential Officer injuries and/or an increased liability that an Officer could be instigated or singled by an agitator who might be in front of the Officer, harassing the Officer, for hours during long term deployment. The Police Department could choose not to participate in the suburban MIRT; however, that leaves the Oak Creek Police Department to fend for themselves if a situation were to occur where our City experiences civil unrest. This is a dangerous alternative as the Police Department by itself does not have the resources to control a crowd that has mobilized from across the country if a situation were to occur that would draw national attention. I also do not recommend this alternative.

Description of Disposal, if Applicable:

N/A

2023 CAPITAL IMPROVEMENT/EQUIPMENT PROGRAM (CIP/CEP)

Impact on other Projects: N/A
Cost Analysis: (Quotes, estimates, breakdown of potential cost and how you arrived here) The estimated costs were obtained through current pricing from retailers and is for six (6) Police Department MIRT members to be properly equipped. The total amount of money needed is $32,681.46 (spread sheet attached)
Annual Impact on Operating Budget: (Will we have an additional reoccurring operating cost?) Replacement of worn out gear, on occasion, throughout the years of use.

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2023 CAPITAL IMPROVEMENT/EQUIPMENT PROGRAM (CIP/CEP)

Description	Vendor	ITEM #	Cost
Delta 4 tactical ballistic IIIA (helmet)	Galls	TP079	$575.00
Paulson face shield 8 inch	Galls	DK-6	$127.50
Paulson protective face shield cover	Grainger	DK5/6COV SHORT	$23.24
36" hickory straight riot baton (unknown color)	Galls	BA043	$22.99
Blackhawk C/D light /baton holder	Galls	NP553	$9.99
Monadnock tapered rubber nightstick holder	Galls	ZC857	$5.99
Paulson riot shield 36 X 20 W/police decal	Galls	BS-2	$136.00
Paulson body shield covers	Botach	BS2036COV	$97.80
Galls upper body chest protection w/groin protector	Galls	TE316	$185.00
Galls Shin Guards	Galls	TE222	$43.99
DAMASCUS IMPERIAL THIGH/GROIN PROTECTOR w/ MOLLE SYSTEM	Galls	TE881 BLK	$110.99
Damascus FlexForce Style Hard Shell Forearm/Elbow Protector	Galls	FP10	$53.99
MSA G1 gas mask	5 Alarm	10194379	$340.00
MSA CBRN Canister 40 mm	5 Alarm	10046570	$85.00
KZ Gas Mask Pouch	BOTACH	KZ-900098	$38.00
Amor Express Body Armor	Armor Express		$900.00
Taser X26P	Taser		$800.00
Two Taser Carts	Taser		$160.00
Panasonic Body Worn Camera	Panasonic		$849.00
Klick Fast Shoulder Center Chest Harness BWC Mount	Panasonic	ARB-BWCKFSHOULD17K	$45.00
Damascus Riot Control Gear Bag	Streichers	DAM-DBX2	$64.99
Blk BDU's	5.11	TR336 BLK	$60.00
EMT Pouch MOLLE Ifak Pouch	Amazon		$12.99
North American Rescue CAT Tourniquet, GEN 7	Galls	FA240	$29.99
NAR Hyfin Vent Compact (2 pack front and back)	NA Rescue		$21.99
Compression Trauma Wound Dressing (2 pack)	Rhino Rescue		$15.98
Celox Z-Fold Gauze	Celox		$43.50
EMI EMS Shears 5.5"	Galls	FA247	$6.25
Safariland 6360 ALS/SLS Level III Mid-Ride Retention Holster	Galls	LP415 NRH 295	$228.00
Bianchi AccuMold Buckleless Trouser Belt	Galls	NP161	$27.50
Bianchi AccuMold Mark III Defense Spray Holder	Galls	NP169	$27.75
Bianchi AccuMold Belt Keepers (4 Pack)	Galls	NP168 BLK	$17.25
Bianchi AccuMold Double Magazine Case 7302	Galls	NP164	$41.25
Bianchi AccuMold Double Cuff Case	Galls	NP167	$29.25
BlackHawk SERPA Holster for Taser X26P	Galls	LP1864	$50.99
Bianchi AccuMold Universal Radio Case	Galls	RC031	$47.50
Bianchi AccuMold Open-Top Light Holder	Galls	ZS645	$21.25
Bianchi AccuMold Duty Belt	Galls	NP160	$66.00
Laser Protective Film	Kentek	RPG-F531TG	$25.00
Total for one person			$5,446.91
Cost for 6 Members			**$32,681.46**
Cost for half the team in 2023			$16,340.73
Cost for the rest of the team in 2024			$16,340.73

Description	Vendor	ITEM #	COST 01/04/2023
Delta 4 tactical ballistic IIIA (helmet)	Galls	TP079	**$799.99**
Paulson face shield 8 inch	Galls	TP335	**$139.70**
Paulson protective face shield cover	Grainger	DK5/6COV SHORT	**$31.24**
36" hickory straight riot baton (unknown color)	Galls	BA043	**$24.99**
Blackhawk C/D light /baton holder	Galls	NP553	**$10.95**
Monadnock tapered rubber nightstick holder	Galls	ZC857	**$8.99**
Paulson riot shield 36 X 20 W/police decal	Galls	BS-2	**$192.48**
Paulson body shield covers	Botach	BS2036COV	**$97.80**
Galls upper body chest protection w/groin protector	Galls	TE316	**$185.00**
Galls Shin Guards	Galls	TE222	**$50.99**
DAMASCUS IMPERIAL THIGH/GROIN PROTECTOR w/ MOLLE SYSTEM	Galls	TE881 BLK	**$135.00**
Damascus FlexForce Style Hard Shell Forearm/Elbow Protector	Galls	FP10	**$73.80**
MSA G1 gas mask	Grainger	10194379	**$1,025.03**
MSA CBRN Canister 40 mm	Grainger	10046570	**$136.45**
KZ Gas Mask Pouch	BOTACH	KZ-900098	**$39.98**
Amor Express Body Armor	Armor Express		**$950.00**
Taser X26P	Taser		**$1,599.00**
Two Taser Carts	Taser		**$75.70**
Panasonic Body Worn Camera	Panasonic		**$849.00**
3 year Software Device License for BWC	Panasonic		**$368.00**
Klick Fast Shoulder Center Chest Harness BWC Mount	Panasonic	ARB-BWCKFSHOULD17K	**$51.00**
Damascus Riot Control Gear Bag	Streichers	DAM-DBX2	**$64.99**
Blk BDU's	5.11	TR336 BLK	**$65.00**
EMT Pouch MOLLE Ifak Pouch	Amazon		**$14.77**
North American Rescue CAT Tourniquet, GEN 7	Galls	FA240	**$29.99**
NAR Hyfin Vent Compact (2 pack front and back)	Galls		**$15.99**
Compression Trauma Wound Dressing (2 pack)	Rhino Rescue		**$14.99**
Celox Z-Fold Gauze	Celox		**$45.98**
EMI EMS Shears 5.5"	Galls	FA247	**$6.25**
Safariland 6360 ALS/SLS Level III Mid-Ride Retention Holster	Galls	LP415 NRH 295	**$228.00**
Bianchi AccuMold Buckleless Trouser Belt	Galls	NP161	**$27.50**
Bianchi AccuMold Mark III Defense Spray Holder	Galls	NP169	**$27.75**
Bianchi AccuMold Belt Keepers (4 Pack)	Galls	NP168 BLK	**$17.25**
Bianchi AccuMold Double Magazine Case 7302	Galls	NP164	**$41.25**
Bianchi AccuMold Double Cuff Case	Galls	NP167	**$29.25**
BlackHawk SERPA Holster for Taser X26P	Galls	LP1864	**$50.99**
Bianchi AccuMold Universal Radio Case	Galls	RC031	**$47.50**
Bianchi AccuMold Open-Top Light Holder	Galls	ZS645	**$21.25**
Bianchi AccuMold Duty Belt	Galls	NP160	**$80.00**
Laser Protective Film	Kentek	RPG-F531TG	**$25.00**
8 Bay Offload Dock with Power	Panasonic		**$1,602.00**
Total for one person (Does not include Offload Dock)			$7,698.79
Cost for 6 Members			**$47,794.74**
Cost for half the team in 2023			$23,897.37
Cost for the rest of the team in 2024			$23,897.37
COST Increase 01/04/2023			$15,112.74

BAYCOM A Lifeline in the Moments that Matter

TIM COONEY
2040 RADISSON ST.
GREEN BAY, WI 54302
PHONE: 920-544-4282
FAX: 920-468-8615
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OAK CREEK POLICE DEPT.
ANDY SAGAN
301 W. RYAN RD.
OAK CREEK, WI 53154
1/3/2023
414-766-7610
asagan@oakcreekwi.gov

QUOTE NO. TC20230103M

PRICING AND FINANCIAL OPTIONS SPECIFIC TO THIS OFFERING:
EQUIPMENT DETAILS AND PRICING

QTY	MODEL AND DESCRIPTION	UNIT PRICE	TOTAL PRICE
	State Contract# 505ENT-O16-NASPOCOMPUT-02		
6	**BWC4000 Body Worn Camera**	$849.00	$5,094.00
6	**3 Year Software Device License**	$368.00	$2,208.00
6	**BWC4000 KF Shoulder Center Chest Harness**	$51.00	$306.00
1	**8 Bay Offload Dock with Power**	$1,602.00	$1,602.00

	EQUIPMENT COST:	$9,210.00
Payment Terms: Net 30 Days	**SHIPPING:**	Included
Quotation Good for 90 Days	**TAX:**	Exempt
We impose a surcharge of 2% on credit card purchases over $1,000.00 which is not greater than our cost of acceptance.	**TOTAL:**	**$9,210.00**

Your signature is an agreement to purchase and an acceptance of Baycom's Terms & Conditions (http://terms.baycominc.com)

Approved By: _____ /_____
AUTHORIZED CUSTOMER SIGNATURE DATE

All of the information listed on this proposal is confidential and proprietary information.
If You Have Any Questions, Please Contact Tim Cooney at 920-544-4282

OAKCREEK WISCONSIN

Meeting Date: February 14, 2023

Item No. 10

STAFF REPORT

Item: Traffic and Safety Request - No Parking, No Stopping, No Standing Anytime signs on E. Marquette Ave. across from Manor Marquette Park

Recommendation: That the Board of Public Works and Capital Assets considers a motion to approve the installation of "No Stopping, No Standing, No Parking" signs on E. Marquette Ave. across from Manor Marquette Park. (1st Aldermanic District)

Fiscal Impact: None

Critical Success Factor(s):

- ☐ Vibrant and Diverse Cultural Opportunities
- ☐ Thoughtful Development and Prosperous Economy
- ☒ Safe, Welcoming, and Engaged Community
- ☐ Inspired, Aligned, and Proactive City Leadership
- ☐ Financial Stability
- ☒ Quality Infrastructure, Amenities, and Services
- ☐ Not Applicable

Background: There is a request to install "No Parking, No Stopping, No Standing Anytime" signs on E. Marquette Ave across from Manor Marquette Park. A resident contacted Alderman Kurkowski with concerns related to parents parking on the grass in front of houses on the north side of the street during Oak Creek Youth Football practices and the available street width when cars are parked on the north side of the street and on the gravel on the south side of the street. The resident is concerned that the when cars are parked on both sides of the street it creates a safety concern by impeding fire truck access. Marquette Ave. narrows in this section with the pavement width ranging from 20' to 22' between S. Quincy Ave. and S. Shepard Ave. and 25' to 26' east of S. Shepard Ave. This is also the only section of Marquette Ave. in the Manor Marquette subdivision without curb and gutter. Restricting stopping, standing, and parking in this area would improve traffic flow through this area for emergency vehicles and other traffic.

A notification letter was sent to residents within 300' of the proposed No Stopping, No Standing, No Parking area. Four comments were received from residents. Two comments were in support of the proposed No Parking, No Stopping, No Standing area and two were not in favor. The two comments in favor were received from residents who live on Marquette Ave across from the park. Of the two comments not in favor, one was from a resident on Quincy Ave. and the other did not provide their address.

It is staff's recommendation that the Board approves the request for "No Parking, No Stopping, No Standing Anytime" Signs on E. Marquette Ave. across from Manor Marquette Park.

Options/Alternatives: The alternative is to not install the "No Parking, No Stopping, No Standing Anytime" signs on E. Marquette Ave. across from Manor Marquette Park.

Respectfully submitted:

Andrew J. Vickers, MPA
City Administrator

Prepared:

Andrew Ledger
Design Engineer

Fiscal Review:

Maxwell Gagin, MPA
Assistant City Administrator / Comptroller

Approved:

Matthew J. Sullivan, PE
City Engineer

Attachments: E. Marquette Ave - No Parking Stopping Standing Exhibit

OAKCREEK WISCONSIN

Meeting Date: February 14, 2023

Item No. 11

STAFF REPORT

Item: Traffic and Safety Request - Analysis of the Intersection of W. Puetz Rd., S. Liberty Ln., and S. Wood Creek Dr.

Recommendation: That the Board considers a motion to recommend proceeding with design of a preferred alternative for the reconstruction of the intersection of W. Puetz Rd., S. Liberty Ln., and S. Wood Creek Dr.

Fiscal Impact: There is $68,612 remaining in CIP Project# 22006 and an additional $30,000 allocated in the 2023 budget to fund design work. This brings the total funding available for engineering and design to $98,612. Design of a roundabout alternative would cost $89,580 and design of a signalized alternative would cost $38,480.

Critical Success Factor(s):

- ☐ Vibrant and Diverse Cultural Opportunities
- ☐ Thoughtful Development and Prosperous Economy
- ☐ Safe, Welcoming, and Engaged Community
- ☐ Inspired, Aligned, and Proactive City Leadership
- ☐ Financial Stability
- ☒ Quality Infrastructure, Amenities, and Services
- ☐ Not Applicable

Background: The City retained GRAEF in the fall of 2022 to study the intersection of W. Puetz Rd., S. Liberty Ln., and S. Wood Creek Dr. GRAEF evaluated the existing traffic conditions and intersection geometry and analyzed several intersection design alternatives for current and design year (2043) operations. Based on the study, it is recommended that the intersection be reconstructed as a full size roundabout to improve traffic operations and safety.

GRAEF collected intersection turning movements during the fall of 2022. Using this data GRAEF developed current year traffic volumes and design year (2043) traffic volumes. A growth rate of 1.5% was used to develop the design year traffic volumes. This is slightly higher than the standard growth rate to account for additional traffic that could occur as the City continues to grow and develop. A safety study was also completed utilizing data from the five-year period beginning January 1, 2017 and ending December 31, 2021. Following the data collection, GRAEF completed an alternatives analysis for the intersection.

GRAEF analyzed the following alternatives for current year traffic and design year traffic:

- Existing Two-Way Stop
- Traffic Signal
- Full-Size Roundabout
- Compact Roundabout (100-ft to 119-ft ICD)

- Compact Roundabout (80-ft to 99-ft ICD)

The existing two-way stop control configuration causes unacceptable delays during the peak hours on the north and south legs in the observed year 2023 and design year 2043. The Compact Roundabout alternates are not expected to provide acceptable traffic operations along east and west W. Puetz Rd. approaches in the design year 2043. Both the Traffic Signal and standard Roundabout alternates are expected to provide acceptable traffic operations through the design year 2043, but none of the MUTCD Signal Warrants are satisfied at the intersection, indicating that installing a traffic signal is not justified.

GRAEF also completed cost estimates for the traffic signal alternative and roundabout alternative. Construction for the traffic signal alternative would involve reconstructing the existing left turn lanes on Puetz Rd., reconstructing the westbound lanes of the west leg of the intersection, widening the north leg of the intersection and reconstructing the existing curb ramps. This work is shown on the Signal Alternative exhibit in Appendix D. The remaining pavement areas would not be reconstructed or resurfaced in this alternative. The estimated construction cost for the signal alternative is $766,814.40. Construction for the roundabout alternative would involve reconstructing the entire intersection and approaches as shown on the 140' ICD Roundabout Alternate exhibit in Appendix D. The estimated construction cost for the roundabout alternative is $1,237,921.20. It is estimated that an additional $25,000 would be needed to acquire right-of-way from the adjacent properties. Construction funding for the chosen alternative would be requested in a future budget.

Based on the results of the traffic analysis and signal warrants the Engineering Department recommendation is to install a standard roundabout at the intersection of W. Puetz Rd., S. Liberty Ln., and S. Wood Creek Dr. A standard roundabout provides improved traffic operations and safety during peak hours while also limiting the amount of delay experienced by users of the intersection during off-peak hours. A standard roundabout is also more effective countermeasure to address the the identified angle crash pattern and vulnerable user crashes.

Options/Alternatives: To not proceed with a preferred alternative and continue to have the intersection operate at unacceptable levels of service.

Respectfully submitted:

Andrew J. Vickers, MPA
City Administrator

Prepared:

Andrew Ledger
Design Engineer

Fiscal Review:

Maxwell Gagin, MPA
Assistant City Administrator / Comptroller

Approved:

Matthew J. Sullivan, PE
City Engineer

Attachments: 2023_0127 Puetz & Liberty Traffic Study_FINAL, 2023_0127 Puetz & Liberty Traffic Study_FINAL_Appendices, Liberty & Puetz Construction Cost Estimates

OAKCREEK
— WISCONSIN —

MEMO

To: Members of the Common Council and Board of Public Works and Capital Assets

From: Andrew Ledger, PE, Design Engineer

Subject: Analysis of the Intersection of W. Puetz Rd., S. Liberty Ln., and S. Wood Creek Dr.

Date: February 2, 2023

The Engineering Department will be presenting the results and recommendations of the Analysis of the Intersection of W. Puetz Rd., S. Liberty Ln., and S. Wood Creek Dr. completed by GRAEF to the Board of Public Works and Capital Assets (BoPWACA) on February 14th, 2023. The recommendation of BoPWACA and the report will be presented to the Common Council on February 21, 2023. I have attached a copy of the report and conceptual layouts for your review. The appendices are also available upon request. I have provided a summary of the report below. If you have any questions please feel free to reach out to me at by email aledger@oakcreekwi.gov or phone (414) 766-7029.

GRAEF collected intersection turning movements during the fall of 2022. Using this data GRAEF developed current year traffic volumes and design year (2043) traffic volumes. A growth rate of 1.5% was used to develop the design year traffic volumes. This is slightly higher than the standard growth rate to account for additional traffic that could occur as the City continues to grow and develop. A safety study was also completed utilizing data from the five-year period beginning January 1, 2017 and ending December 31, 2021. Following the data collection, GRAEF completed an alternatives analysis for the intersection.

GRAEF analyzed the following alternatives for current year traffic and design year traffic:

- Existing Two-Way Stop
- Traffic Signal
- Full-Size Roundabout
- Compact Roundabout (100-ft to 119-ft ICD)
- Compact Roundabout (80-ft to 99-ft ICD)

The existing two-way stop control configuration causes unacceptable delays during the peak hours on the north and south legs in the observed year 2023 and design year 2043. The Compact Roundabout alternates are not expected to provide acceptable traffic operations along east and west W. Puetz Rd. approaches in the design year 2043. Both the Traffic Signal and standard Roundabout alternates are expected to provide acceptable traffic operations through the design year 2043, but none of the MUTCD Signal Warrants are satisfied at the intersection, indicating that installing a traffic signal is not justified.

OAKCREEK
— WISCONSIN —

MEMO

Based on the results of the traffic analysis and signal warrants it is recommended to install a standard roundabout at the intersection of W. Puetz Rd., S. Liberty Ln., and S. Wood Creek Dr. A standard roundabout provides improved traffic operations and safety during peak hours while also limiting the amount of delay experienced by users of the intersection during off-peak hours.

Sincerely,

Andrew Ledger

Andrew Ledger, PE
Design Engineer

CC: Andrew Vickers, City Administrator

W Puetz Road & S Liberty Lane / S Wood Creek Drive Intersection Traffic Operations Study

City of Oak Creek

Milwaukee County, Wisconsin

Date Submitted: January 27, 2023

Prepared for:

City of Oak Creek, WI

8040 S 6th Street

Oak Creek, WI 53154

Contact: Andrew Ledger, PE

Phone: (414) 766-7029

Prepared by:

275 West Wisconsin Avenue, Suite 300

Milwaukee, WI 53203

W Puetz Road & S Liberty Lane / S Wood Creek Drive

Traffic Operations Study

Table of Contents

Exhibits (Included at back of report)

Tables (Included within report)

Appendices (Included at back of report)

1 INTRODUCTION AND EXECUTIVE SUMMARY

1.1 Introduction

The City of Oak Creek plans to redesign the intersection of W Puetz Road and S Liberty Lane/S Wood Creek Drive. The City is reviewing traffic signal and roundabout alternatives to address traffic operation conditions and safety concerns due to sight distance challenges. GRAEF prepared this traffic study to analyze and compare the proposed alternatives and review the intersection safety. This memo documents the procedures, findings, and recommendations of the study.

1.2 Executive Summary

This executive summary includes a description of the study area intersection, description of the proposed alternates, analysis results, and recommendations and conclusions based on the findings of the traffic study.

1.2.1 Project Intersection Study Area

The project intersection is located on the west side of the City, less than a mile east of the IH 94 / IH 41 overpass over W Puetz Road. A project location map is shown in Exhibit 1.

W Puetz Road transitions from a rural two-lane undivided roadway west of the study intersection to an urban four-lane divided roadway east of the study intersection. The intersection is of W Puetz Road & S Liberty Lane/S Wood Creek Drive is currently two-way stop controlled, with stop signs located on the north S Liberty Lane approach and the south S Wood Creek Drive approach. The existing intersection geometrics are shown on Exhibit 2.

1.2.2 Safety Assessment

During the five years study period from 2017 - 2021, 24 crashes were reported at the study intersection. Crash trends and safety countermeasures are explored within the Safety Assessment, Section 3, of this study. Right angle crashes were the primary collision pattern, suggesting that minor-street vehicles have difficulty determining when to enter the intersection. Another trend was unsafe lane changes on the east leg, where the outer shared through/right turn lane becomes a right turn only lane to accommodate the transition from a four-lane cross-section east of the intersection to a two-lane cross-section west of the intersection.

1.2.3 Proposed Alternates

For the project intersection, four traffic control and geometric alternates were analyzed under the observed Year 2023 and Design Year 2043 traffic volumes:

- Traffic Signal
- Full-Size Roundabout
- Compact Roundabout (100-ft to 119-ft ICD)
- Compact Roundabout (80-ft to 99-ft ICD)

1.2.4 Traffic Operations

Peak hour traffic operations were evaluated at the project intersection for the existing geometric configuration and proposed alternates under the Year 2023 and Design Year 2043 traffic volumes. The existing two-way stop control configuration causes unacceptable delays during the peak hours on the north and south legs in the observed Year 2023 and Design Year 2043. The Compact Roundabout alternates are not expected to provide acceptable traffic operations along the east and west W Puetz Road approaches in the Design Year 2043. Both the Traffic Signal and standard Roundabout alternates are expected to provide acceptable traffic operations through the Design Year 2043, but none of the MUTCD Traffic Signal Warrants are satisfied at the intersection, indicating that installing a traffic signal is not justified.

1.3 Recommendation and Conclusion

The installation of a standard Roundabout is recommended to address the safety and operational concerns at the intersection of W Puetz Road and S Liberty Lane/S Wood Creek Drive.

With the recommended improvement, the project intersection is expected to experience improved safety and traffic operations through the Design Year.

2 EXISTING CONDITIONS

2.1 Site Location Map & Study Area

The project intersection is located on the west side of the City, less than a mile east of the IH 94 / IH 41 overpass over W Puetz Road. A project location map is shown in Exhibit 1.

2.2 Existing Conditions

W Puetz Road is an east-west minor arterial running through the middle of the City with a posted speed limit of 35 miles per hour. The cross-section transitions from a rural two-lane undivided roadway with gravel shoulders west of the study intersection to an urban four-lane divided roadway with curb and gutter, raised medians, and left-turn lanes east of the study intersection. According to the Wisconsin Department of Transportation (WisDOT), the 2018 Average Annual Daily Traffic (AADT) along W Puetz Road was 11,100 vehicles per day (vpd) between the study intersection and S Howell Avenue. The Canadian Pacific Railroad crosses W Puetz Road approximately 600 feet west of the project intersection.

The intersection is currently two-way stop controlled, with stop signs located on the north S Liberty Lane approach and the south S Wood Creek Drive approach. The east and west W Puetz Road approaches are uncontrolled. S Liberty Lane and S Wood Creek Drive are both local residential streets with posted speed limits of 25 mph. The west approach includes a left turn lane and a shared through/right turn lane. The east approach includes a left turn lane, a through lane, and a right turn lane (the outside lane is a shared through/right turn lane east of the project area, but becomes a right turn only lane to accommodate the lane drop and cross-section reduction from four lanes to two lanes immediately west of the intersection). The north and south approaches do not provide any lane markings, but the approaches are wide enough to accommodate two vehicles and field observations show that they operate as a shared through/left turn lane and a right turn lane. The existing intersection geometrics are shown on Exhibit 2.

Sidewalk is located on both sides of all approaches, except for the west leg, which does not have any sidewalk. Crosswalks are located on the north, east and south approaches. The land uses in all four quadrants of the intersection are residential, but N Liberty Lane does provide access to the industrial businesses north of the neighborhoods and to the Drexel Town Square commercial area to the north. This is not the main entrance or a direct route, but it can be used to access the facilities. The City of Oak Creek houses the department of public works, resident drop-off recycling yard, and other municipal government uses west of the intersection at 800 W Puetz Road.

2.3 Traffic Volumes & Forecasting

On Tuesday, October 4, 2022, GRAEF conducted intersection turning movement counts during the weekday morning (6:00am to 9:00am) and weekday evening (3:00pm to 6:00pm) peak periods at the project intersection.

Based on the traffic counts, the weekday morning peak traffic hour was 7:00am to 8:00am and the weekday evening peak traffic hour was 4:30pm to 5:30pm. The traffic counts for the project intersection are included in Appendix A.

The study area intersection is evaluated under the existing (Year 2023) traffic volumes and Design Year 2043 traffic volumes. Year 2023 traffic volumes are comparable to the observed 2022 traffic volumes described above and shown on Exhibit 3. A growth rate of 1.5% per year was applied to the Year 2023 traffic volumes and projected 20 years into the future to develop the Design Year 2043 traffic volumes, which are also shown on Exhibit 3. The growth rate, which was determined based on WisDOT historical traffic volumes and observed growth near the project intersection, as well as future development potential in the area, is slightly higher than standard growth rates used for forecasting, but accounts for additional traffic that could occur as the City grows.

3 CRASH HISTORY AND SAFETY ASSESSMENT

3.1 Crash History

A safety study was completed for the most recent five-year period from January 1, 2017 to December 31, 2021. It should be noted that property damage crashes with less than $1,000 of damage are not required to be reported in Wisconsin.

During the five-year study period, 24 crashes were reported within the study area including two injury crashes. No fatalities occurred during the study period. The total crash rate for the study intersection during the study period is 0.93 crashes per Million Entering Vehicles (MEV). The total entering volume at the intersection was estimated to be 14,100 vehicles per day (vpd), based on the Year 2018 W Puetz Road AADT of 11,100 vpd and the S Liberty Lane and S Wood Creek Drive peak hour entering volumes. When considering only the fatal (Type K) and severe injury (Types A and B) crashes, the KAB crash rate is 0.04 crashes per MEV. Crash Severity (2017-2021) is summarized in Table 1 below.

Table 1: Crash Severity (2017-2021)

Crash Severity (2017-2021)	
Crash Severity	**W Puetz Road & S Liberty Lane/S Wood Creek Drive**
Property Damage Only	22
Injury C	1
Injury B	1
Injury A	0
Fatal	0
Total KAB Crashes	1
Total Crashes	24
KAB Crash Rate*	**0.04**
Total Crash Rate*	**0.93**

*Intersection crash rate based on Million Entering Vehicles (MEV)

Table 2 summarizes the collision patterns that occurred at the project intersection. The most common collision pattern was right-angle crashes, accounting for eight crashes, or one third of documented crashes, during the five-year study period. The second most common collision pattern was single-vehicle crashes with seven occurring during the study period. Of the remaining crashes, there were three sideswipe crashes, two rear-end crashes, two left-turn crashes, one collision with a pedestrian, and one collision with a bicyclist.

Table 2: Crash Patterns (2017-2021)

Crash Patterns (2017-2021)	
Type of Crash	**W Puetz Road & S Liberty Lane/S Wood Creek Drive**
Head-On	0
Rear-End	2
Right-Angle	8
Left-Turn	2
Sideswipe	3
Single Vehicle	7
Pedestrian	1
Bicycle	1
Total	**24**

3.2 Crash Analysis and Potential Countermeasures

Of the 24 crashes that occurred during the study period, eight were right-angle crashes. Right-angle crashes typically occur between a mainline vehicle and a cross-street vehicle. This could be due to sight distance concerns with the grade of the east leg, as minor-street traffic enters the intersection without a clear view of the mainline cross-traffic. Another trend that emerged was side swipe or single vehicle crashes as cars in the westbound outer lane tried to make unsafe lane changes as the outer lane becomes a right turn only lane at the intersection to accommodate the lane drop and change in cross-section west of the intersection. Modifying the traffic control to restrict when vehicles can enter the intersection and improving pavement marking and signing can address these issues. Additionally, modifying the traffic control could improve safety for vulnerable users such as pedestrians and bicyclists.

4 EXISTING AND PROPOSED TRAFFIC OPERATIONS ANALYSIS

4.1 Methodology and Level of Service Descriptions

Level of Service Definition

The project intersection was analyzed using Synchro Version 11 and HCS software following procedures set forth in the *Highway Capacity Manual (HCM), Sixth Edition*. Synchro was used to model the two-way stop and traffic signal alternates, while HCS was used to model roundabouts. HCS headway values were modified per WisDOT's TEOpS 16-15 Table 20.1. The study evaluates traffic operations for the various geometric alternatives during the morning and evening peak hours in the existing Year 2023 and Design Year 2043.

Level of Service is a quantitative measure that refers to the overall quality of flow at an intersection ranging from very good, represented by LOS 'A', to very poor, represented by LOS 'F'. For analysis and design purposes, Level of Service (LOS) 'D' was used to define acceptable peak hour operating conditions. Descriptions of the various levels of service for an intersection are summarized in below and in Table 3:

LOS A is the highest level of service that can be achieved. Under this condition, intersection approaches appear quite open, turning movements are easily made, and nearly all drivers find freedom of operation. At signalized intersections, average delays are less than 10 seconds. At unsignalized and roundabout controlled intersections, average delays are less than 10 seconds.

LOS B represents stable operation. At signalized intersections, average vehicle delays are 10 to 20 seconds. At unsignalized and roundabout controlled intersections, average delays are 10 to 15 seconds.

LOS C still represents stable operation, but periodic backups of a few vehicles may develop behind turning vehicles. Most drivers begin to feel restricted, but not objectionably so. At signalized intersections, average vehicle delays are 20 to 35 seconds. At unsignalized and roundabout controlled intersections, average delays are 15 to 25 seconds.

LOS D represents increasing traffic restrictions as the intersection approaches instability. Delays to approaching vehicles may be substantial during short peaks within the peak period, but periodic clearance of long lines occurs, thus preventing excessive backups. At signalized intersections, average vehicle delays are 35 to 55 seconds. At unsignalized and roundabout controlled intersections, average delays are 25 to 35 seconds.

LOS E represents the capacity of the intersection. At signalized intersections, average vehicle delays are 55 to 80 seconds. At unsignalized and roundabout controlled intersections, average delays are 35 to 50 seconds.

LOS F represents jammed conditions where the intersection is over capacity and acceptable gaps for stop-controlled intersections in the mainline traffic flow are minimal. At signalized intersections, average vehicle delays exceed 80 seconds. At unsignalized and roundabout controlled intersections, average delays exceed 50 seconds.

Table 3: Intersection Level of Service (LOS) Designation

Level of Service (LOS)	Traffic Signals Average Delay per Vehicle (sec/veh)	Stop-Controlled / Roundabout Average Delay per Vehicle (sec/veh)
A	<10.0	<10.0
B	10.1 – 20.0	10.1 – 15.0
C	20.1 – 35.0	15.1 – 25.0
D	35.1 – 55.0	25.1 – 35.0
E	55.1 – 80.0	35.1 – 50.0
F	>80.0	>50.0

4.2 Traffic Operational Analysis – Existing Configuration

Traffic operations in 2023 and the 2043 design year were analyzed under the existing traffic control and roadway geometrics

Year 2023 Existing Traffic Analysis with Existing Two Way Stop Control

The 2023 weekday peak hour traffic operation conditions under the existing two way stop control geometrics are shown on Exhibit 4. All movements at the project intersection are expected to operate at LOS D or better, with the following exceptions:

- The northbound shared through/left turn operates at LOS F during the morning and evening peak hour.
- The southbound shared through/left turn operates at LOS F during the evening peak hour.

Detailed Synchro performance reports are included in Appendix B.

Year 2043 Traffic Analysis with Existing Two Way Stop Control

The 2043 weekday peak hour traffic operation conditions under the existing two way stop control geometrics are shown on Exhibit 4. All movements at the project intersection are expected to operate at LOS D or better, with the following exceptions:

- The northbound shared through/left turn operates at LOS F during the morning and evening peak hour.
- The southbound shared through/left turn operates at LOS F during the morning and evening peak hour.

Detailed Synchro performance reports are included in Appendix C.

4.3 Description of Proposed Alternates

For the project intersection, four traffic control and geometric alternates were analyzed under the observed Year 2023 and Design Year 2043 traffic volumes:

- **Traffic Signal** In addition to installing a traffic signal the approaches would be restriped with new lane configurations. The west approach would include an extended left turn lane and the existing shared through/right turn lane would be converted to a through lane only. The approach would be widened to construct a new right turn only lane. A new pedestrian crossing on the west leg would also be included. The east approach would maintain a left turn lane, through lane, and right turn lane, with the left turn lane reconstructed to provide greater offset and visibility to left-turning vehicles. The north approach would include a through/left turn lane and a right turn lane with widening to the west and restriping. The south approach would include a left turn lane and a shared through/right turn lane with restriping. Traffic Signal Alternate geometrics are shown on Exhibit 5. A conceptual drawing of the traffic signal alternate is included in Appendix D.

- **Full-Size Roundabout** The roundabout alternate would require full reconstruction of the intersection. The full-size roundabout would include a 140-ft inscribed circle diameter (ICD). The north, south, and west approaches will accommodate a single approach and departure lane to and from the circulatory roadway. The east approach would accommodate two approach lanes including a single lane entering the circulatory roadway serving through and left turn lane movements, and a single yield-controlled right turn bypass lane. A single eastbound departure lane would widen into two eastbound lanes east of the roundabout. This east leg configuration would transition into the existing four-lane divided roadway to the east while providing a refined transition to the two-lane undivided roadway to the west. A wide shared-use path designed to accommodate both pedestrians and bicycles would encompass the exterior of the roundabout, connecting to sidewalks on the north, east, and south legs and facilitating crossings at all four legs within the splitter islands. Full-Size Roundabout Alternate geometrics are shown on Exhibit 6. A conceptual drawing of the full-size roundabout alternate is included in Appendix D.
- **Two Compact Roundabouts** Two compact roundabout alternatives were evaluated. WisDOT's FDM 11-26 considers a full-size roundabout to contain a non-traversable center island and an inscribed circle diameter (ICD) greater than 120-ft. A compact roundabout varies from a standard roundabout by having a smaller ICD varying from 80 feet to 120 feet and may have a traversable center island. Compact roundabouts are ideal for areas with geometric constraints such as limited right-of-way, but roundabouts with smaller ICDs have lower capacities and cannot typically accommodate high entering volumes. The two Compact Roundabout alternates would contain the same approach and departure lane geometry as the standard Roundabout alternate above, but one would be constructed with an ICD ranging from 100 feet and 119 feet and the other would be designed with an ICD between 80 feet to 99 feet. Per WisDOT's TEOpS 16-15 20.3, volume calibration factors (VCFs) must be applied to the peak hour volumes for compact roundabouts modeled in HCM to accurately account for the reduced capacity. For the 100-foot – 119-foot compact roundabout, the peak hour volumes were increased by a VCF of 19%. For the 80-ff – 99-ft compact roundabout, the peak hour volumes were increased by a VCF of 29%. Compact Roundabout Alternate geometrics are shown on Exhibits 7 and 8.

4.4 Traffic Operations Analysis – Proposed Alternates

Traffic operations in 2023 and the 2043 design year were analyzed under the proposed roadway alternates geometrics described above.

Year 2023 Existing Traffic Analysis with Traffic Signal

The 2023 weekday peak hour traffic operation conditions under the traffic signal geometrics are shown on Exhibit 5. All movements at the project intersection are expected to operate at LOS B or better.

Detailed Synchro performance reports are included in Appendix E.

Year 2023 Existing Traffic Analysis with Full-Size Roundabout

The 2023 weekday peak hour traffic operation conditions under the full-size roundabout geometrics are shown on Exhibit 6. All movements at the project intersection are expected to operate at LOS B or better.

Detailed HCS performance reports are included in Appendix F.

Year 2023 Existing Traffic Analysis with Compact Roundabout (100-ft to 119-ft ICD)

The 2023 weekday peak hour traffic operation conditions under the compact roundabout (100-ft to 119-ft ICD) geometrics are shown on Exhibit 7. All movements at the project intersection are expected to operate at LOS C or better.

Detailed HCS performance reports are included in Appendix G.

Year 2023 Existing Traffic Analysis with Compact Roundabout (80-ft to 99-ft ICD)

The 2023 weekday peak hour traffic operation conditions under the compact roundabout (80-ft to 99-ft ICD) geometrics are shown on Exhibit 8. All movements at the project intersection are expected to operate at LOS D or better.

Detailed HCS performance reports are included in Appendix H.

Year 2043 Traffic Analysis with Traffic Signal

The 2043 weekday peak hour traffic operation conditions under the traffic signal geometrics are shown on Exhibit 5. All movements at the project intersection are expected to operate at LOS C or better.

Detailed Synchro performance reports are included in Appendix I.

Year 2043 Traffic Analysis with Full-Size Roundabout

The 2043 weekday peak hour traffic operation conditions under the full-size roundabout geometrics are shown on Exhibit 6. All movements at the project intersection are expected to operate at LOS D or better.

Detailed HCS performance reports are included in Appendix J.

Year 2043 Traffic Analysis with Compact Roundabout (100-ft to 119-ft ICD)

The 2043 weekday peak hour traffic operation conditions under the compact roundabout (100-ft to 119-ft ICD) geometrics are shown on Exhibit 7. All movements at the project intersection are expected to operate at LOS D or better, with the following exceptions:

- The eastbound shared approach operates at LOS F during the evening peak hour.

Detailed HCS performance reports are included in Appendix K.

Year 2043 Traffic Analysis with Compact Roundabout (80-ft to 99-ft ICD)

The 2043 weekday peak hour traffic operation conditions under the compact roundabout (80-ft to 99-ft ICD) geometrics are shown on Exhibit 8. All movements at the project intersection are expected to operate at LOS D or better, with the following exceptions:

- The eastbound shared approach operates at LOS F during the evening peak hour.

Detailed HCS performance reports are included in Appendix L.

4.5 MUTCD Traffic Signal Warrants Analysis

The Manual on Uniform Traffic Control Devices (MUTCD) has developed nine traffic signal warrants to analyze whether converting the traffic control from stop control to signal control is warranted. Warrant 2: Four-Hour Volume, Warrant 3: Peak hour Volume, and Warrant 9: Intersection Near a Grade Crossing were evaluated at the project intersection. Warrants 2 and 3 analyze the turning movement volumes through the intersection to determine if the volumes exceed certain thresholds based on various intersection configuration parameters. MUTCD Warrant 2 requires four hours of traffic volumes and Warrant 3 evaluates the peak hour volumes. Warrant 9 analyzes the proximity of an at-grade rail crossing to determine if the peak-hour volumes exceed the configured threshold.

Warrant 2 (four-hour) and Warrant 3 (peak hour) were analyzed using the observed Year 2023 traffic volumes and neither of the warrants was satisfied. It should be noted that Warrant 1: Eight Hour Warrant was not analyzed as only six hours of traffic volume data were available. However, not all six hours of available data satisfied the Warrant 1 criteria, so the eight-hour warrant would not be met even if additional hours of data were available. Warrant 9 (at-grade rail crossing) did not satisfy the criteria to meet the warrant, as the crossing is on the major street, not the minor street. The warrant is intended to address any queueing from a stop-controlled approach that would back up onto the railroad tracks, but this crossing crosses a mainline approach, which is uncontrolled.

Traffic signal warrants are typically evaluated for the existing volumes. However, if the volumes are expected to change significantly in the near future, the warrants could be analyzed under the higher expected volumes. A sensitivity analysis was completed for the warrants, evaluating them with volumes projected out 5 years, to 2028,

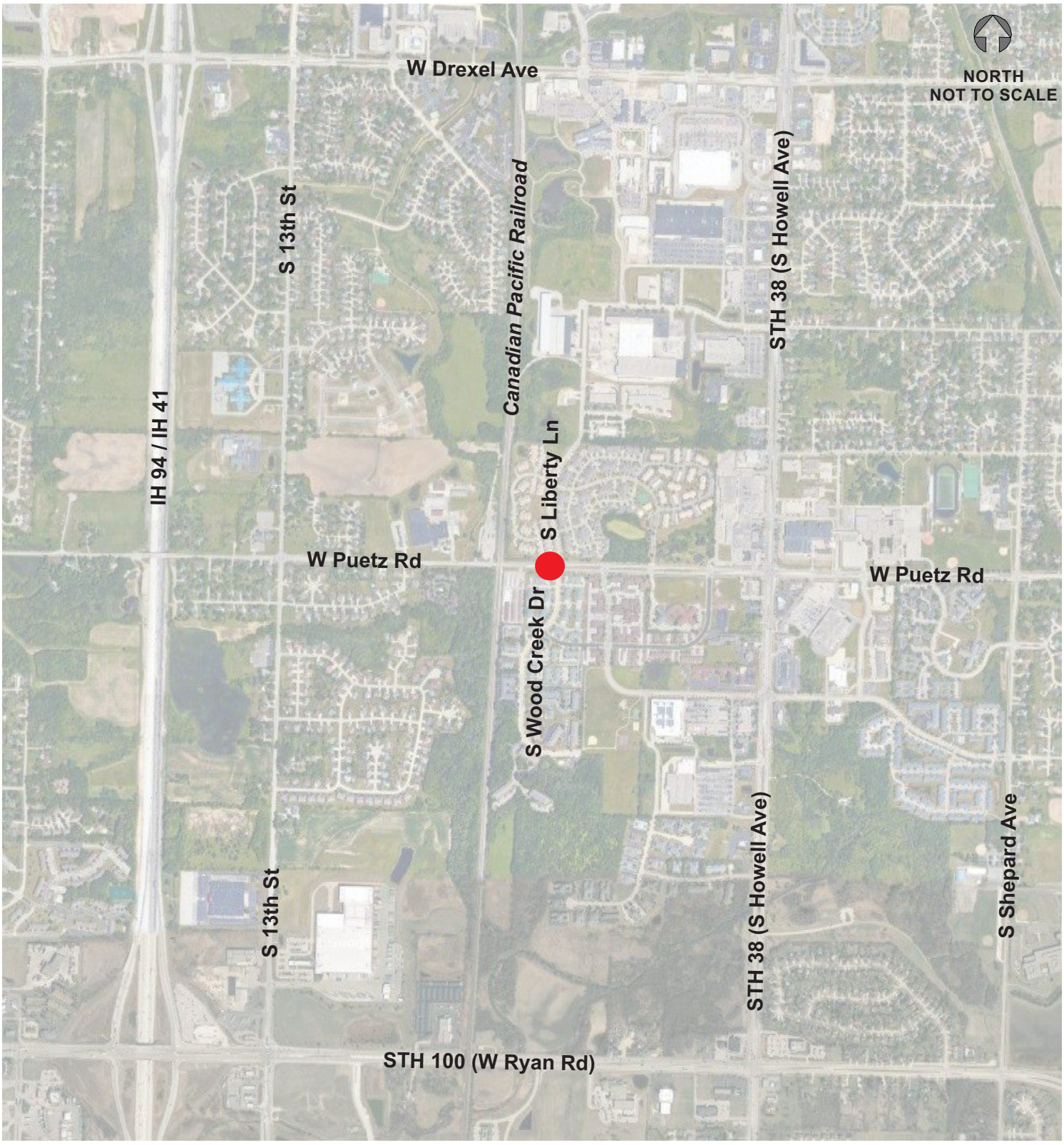
using the same 1.5% per year growth rate used to develop the design year volumes. Even with the forecasted volumes, the warrants were not satisfied.

Therefore, installing a signal at the intersection to improve side street operations is not warranted and may introduce new negative impacts to the mainline traffic that may outweigh the benefits to the S Liberty Lane/S Wood Creek Drive traffic. The Traffic Signal Warrant Analysis worksheets are included in Appendix M.

5 RECOMMENDATIONS AND CONCLUSION

The City of Oak Creek plans to redesign the intersection of W Puetz Road and S Liberty Lane/S Wood Creek Drive. The City is reviewing traffic signal and roundabout alternatives to address traffic operation conditions and safety concerns due to sight distance challenges. Safety and traffic operations were evaluated at the project intersection. The existing two-way stop control configuration causes unacceptable delays during the peak hours on the north and south legs in the observed Year 2023 and Design Year 2043 and has created safety concerns. The Compact Roundabout alternates are not expected to provide acceptable traffic operations along the east and west W Puetz Road approaches in the Design Year 2043. Both the Traffic Signal and standard Roundabout alternates are expected to provide acceptable traffic operations through the Design Year 2043. Signal warrants were evaluated, and traffic conditions do not satisfy signal warrants. Installing traffic signals where they are not warranted can create new safety and operational issues as users become impatient during perceived unnecessary delay and feel incentivized to disobey traffic control. Therefore, it is not recommended to install a traffic signal at the intersection.

Unlike traffic signals, roundabout operations do not facilitate the same perceived unnecessary delay during off-peak and low volume times, while still providing the same uniform traffic calming and safety improvements during peak hour operations. A standard roundabout is also a more effective safety countermeasure to address the identified angle crash pattern and history of vulnerable user crashes at the intersection. Roundabouts increase vulnerable user safety by moving and upsizing the crosswalks and paths to outside of the intersection to be within the splitter islands, where crosswalk lengths are much shorter. This crosswalk location of approximately 25-ft behind the yield line allows for one vehicle to queue at the roundabout yield line and provides pedestrians with a 2-stage crossing behind the vehicles. Additionally, the line of sight for drivers who are approached or departing the roundabout is pointed directly to where the pedestrians are crossing, unlike traditional signalized intersections. Therefore, the installation of a standard roundabout is recommended to address the safety and operational concerns at the intersection of W Puetz Road and S Liberty Lane/S Wood Creek Drive. With the recommended improvement, the project intersection is expected to experience improved safety and traffic operations through the Design Year.



LEGEND

● STUDY INTERSECTION

GRAEF

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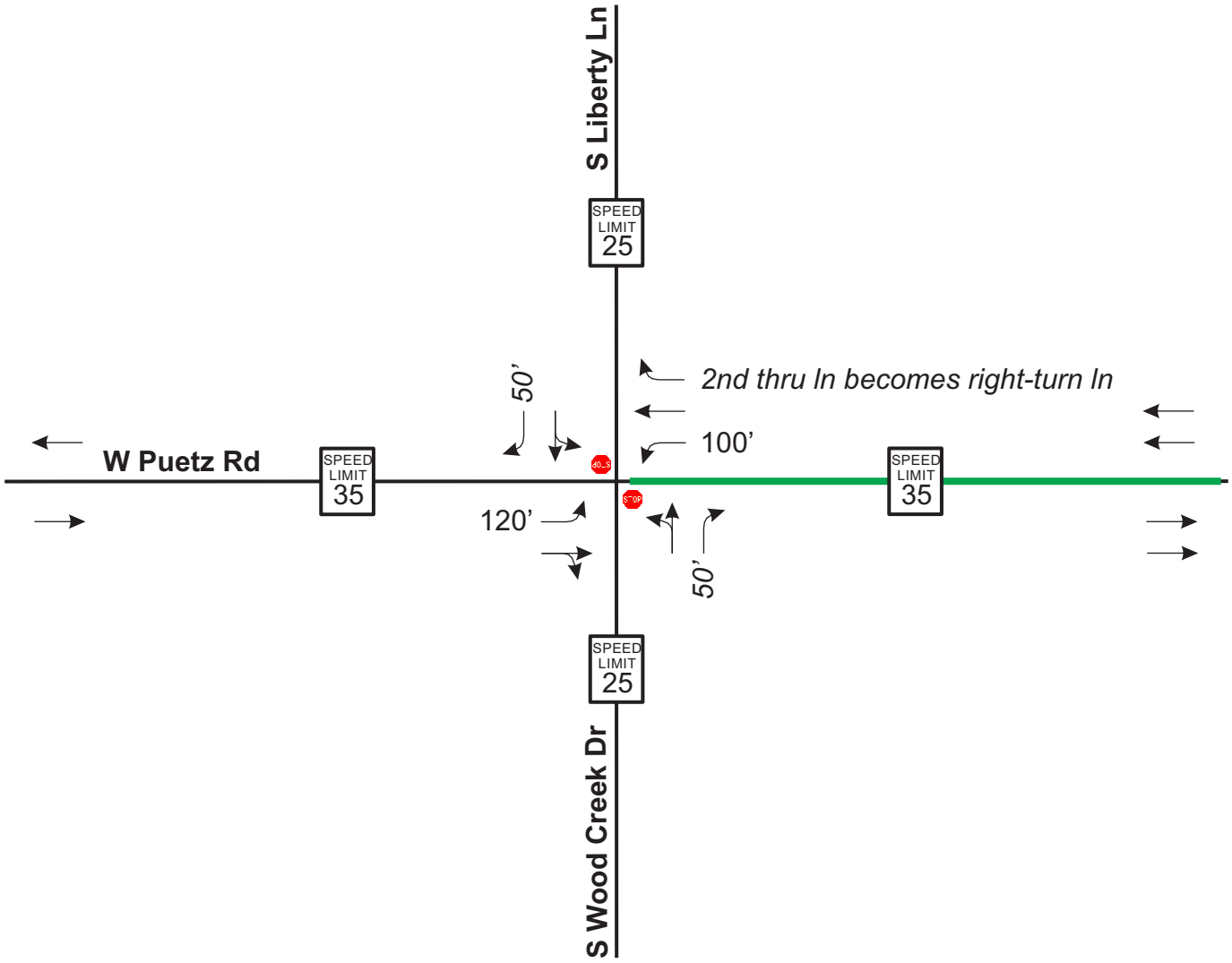
EXHIBIT 1
STUDY INTERSECTION LOCATION MAP
W PUETZ RD AND S LIBERTY LN/S WOOD CREEK DR
OAK CREEK, WISCONSIN

NORTH
NOT TO SCALE



LEGEND

STOP	STOP SIGN
→	EXISTING GEOMETRICS
▬	DIVIDED ROADWAY
XXX’	EXISTING STORAGE LENGTH
XXX’	EXISTING UNMARKED STORAGE LENGTH

GRAEF

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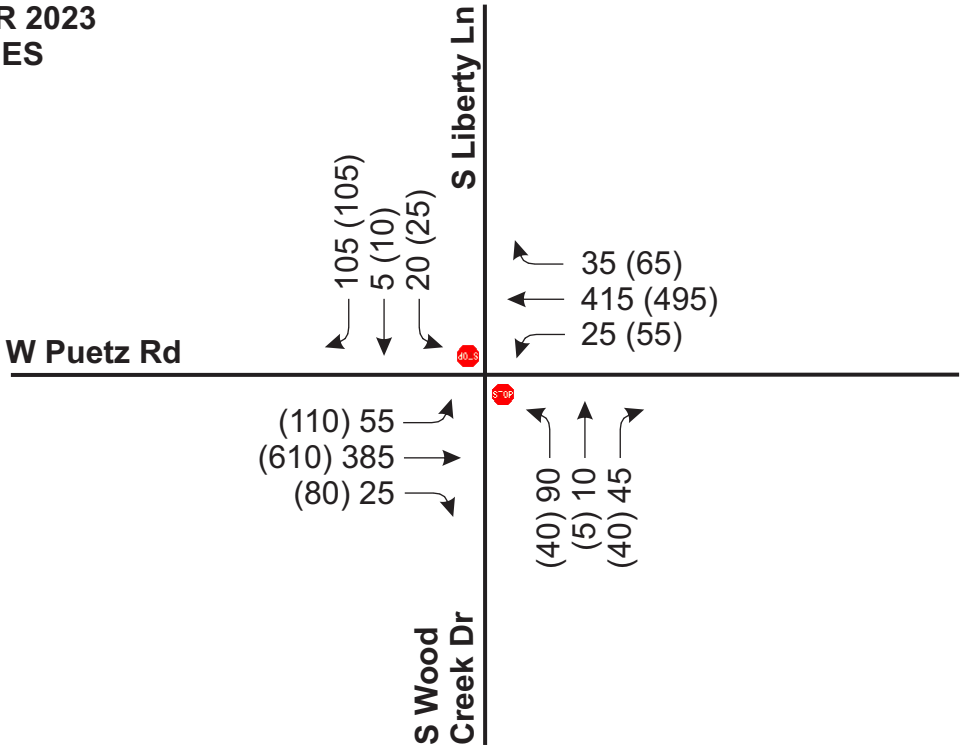
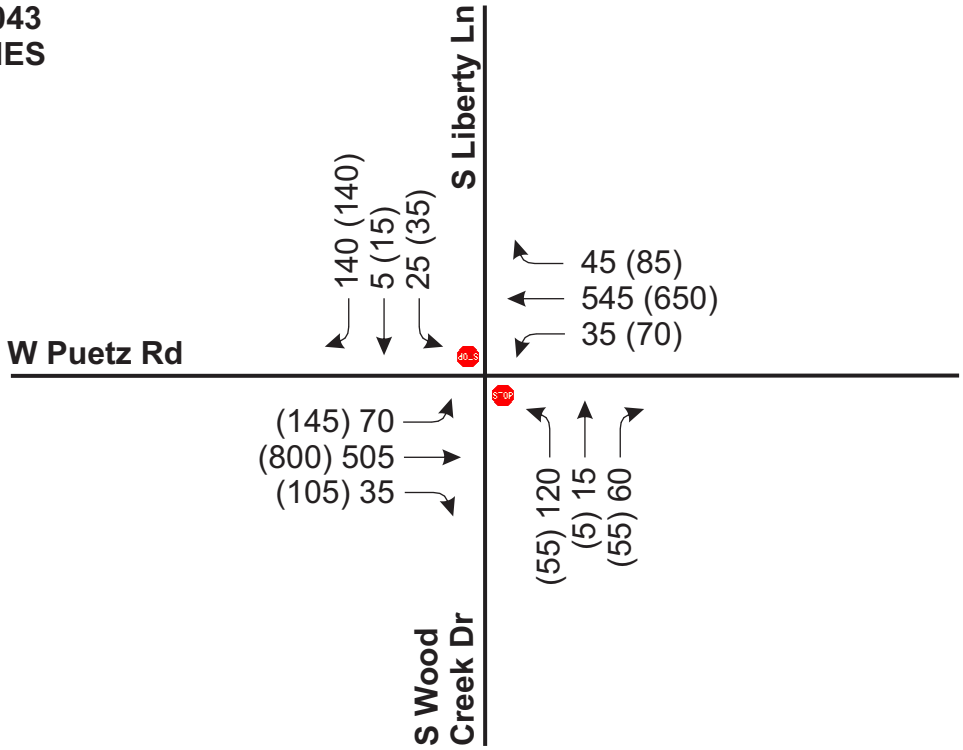
EXHIBIT 2
EXISTING GEOMETRICS
W PUETZ RD AND S LIBERTY LN/S WOOD CREEK DR
OAK CREEK, WISCONSIN

OBSERVED YEAR 2023 TRAFFIC VOLUMES



DESIGN YEAR 2043 TRAFFIC VOLUMES



LEGEND

STOP	STOP SIGN
XXX	WEEKDAY AM PEAK HOUR (7:00 - 8:00 AM) TRAFFIC VOLUMES
(XXX)	WEEKDAY PM PEAK HOUR (4:30 - 5:30 PM) TRAFFIC VOLUMES
NEG	NEGLIGIBLE TRAFFIC VOLUMES - LESS THAN 5 VEHICLES PER HOUR

GRAEF

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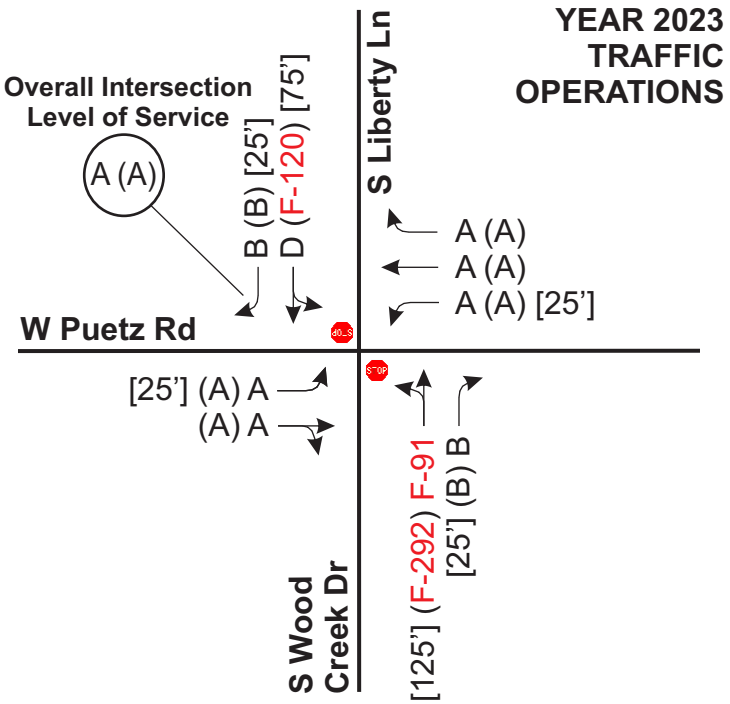
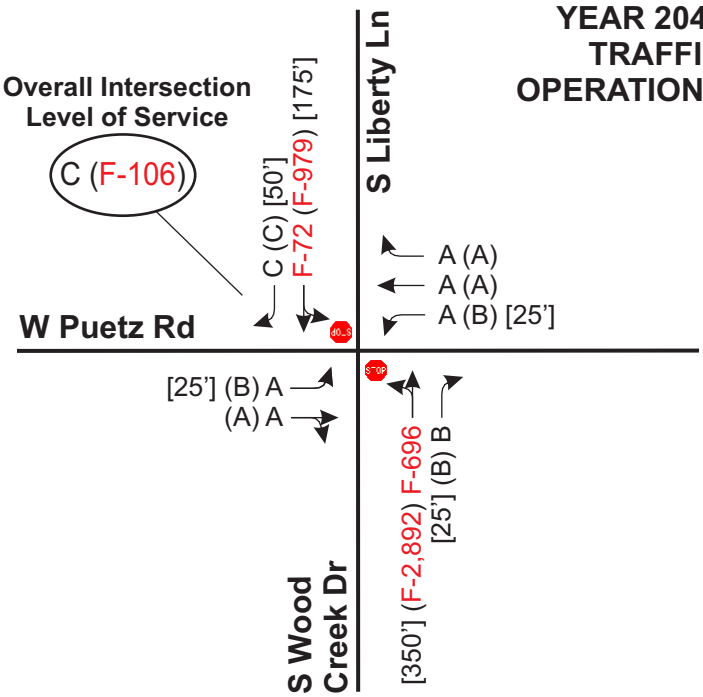
EXHIBIT 3
TRAFFIC VOLUMES
W PUETZ RD AND S LIBERTY LN/S WOOD CREEK DR
OAK CREEK, WISCONSIN





NORTH
NOT TO SCALE

LEGEND

STOP	STOP SIGN
X	WEEKDAY AM PEAK HOUR (7:00 - 8:00 AM) LEVEL OF SERVICE
(X)	WEEKDAY PM PEAK HOUR (4:30 - 5:30 PM) LEVEL OF SERVICE
[XXX']	MAXIMUM 95TH PERCENTILE TRAFFIC QUEUE PER LANE (IN FEET)

NOTE: FOR MOVEMENTS WITH LOS E OR F OPERATIONS,
THE AVERAGE DELAY PER VEHICLE (IN SECONDS) IS PROVIDED.

GRAEF

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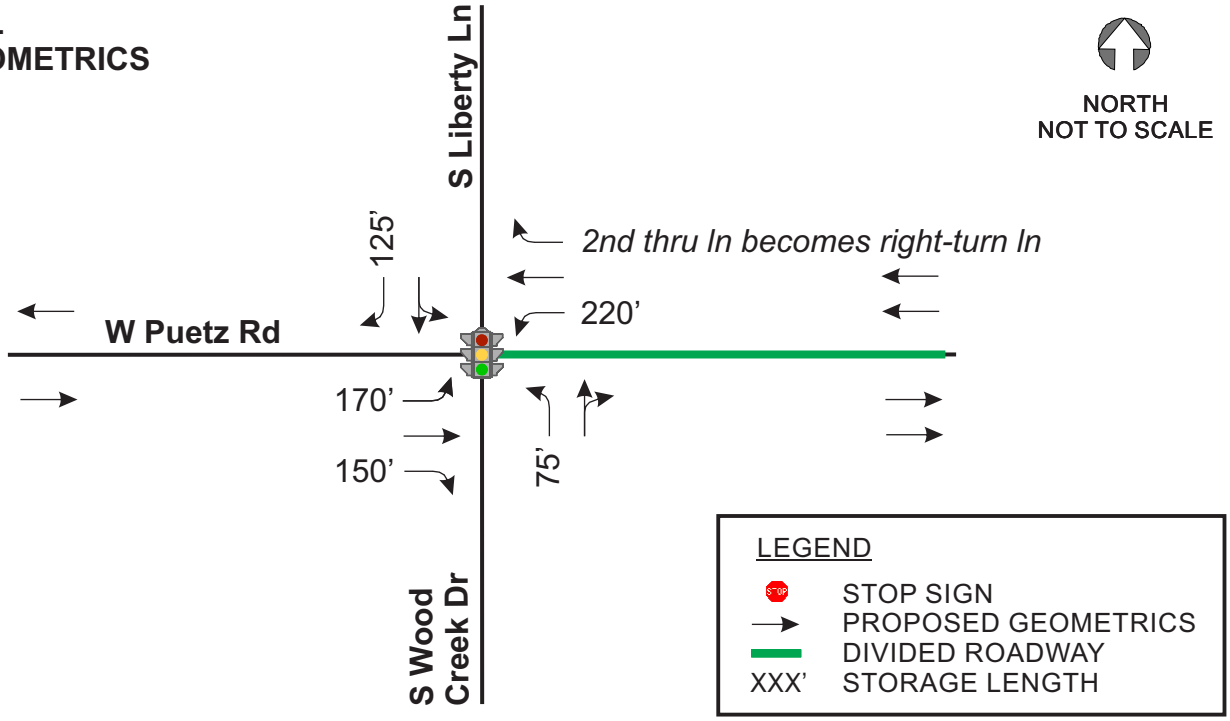
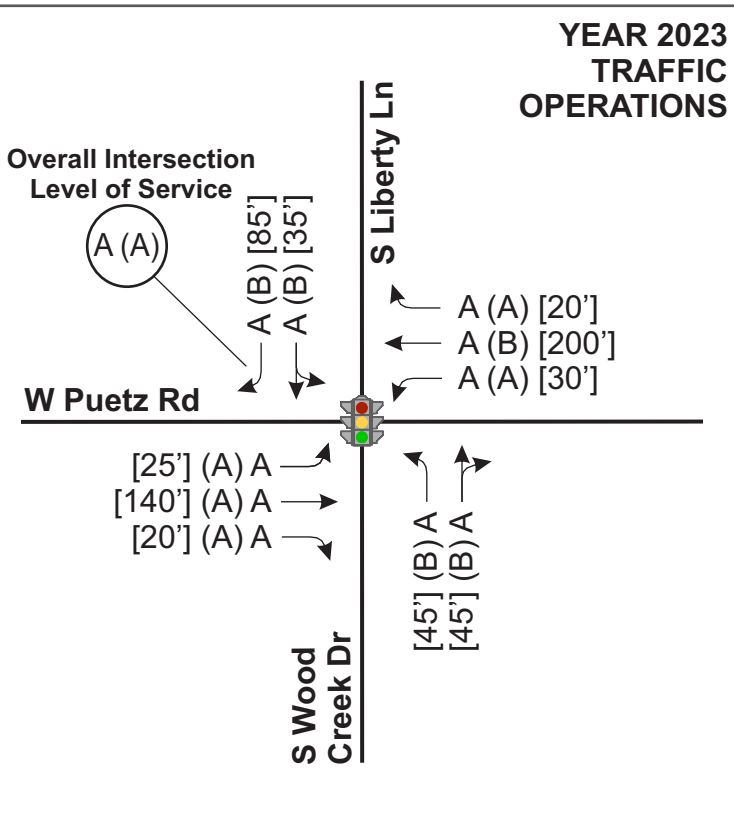
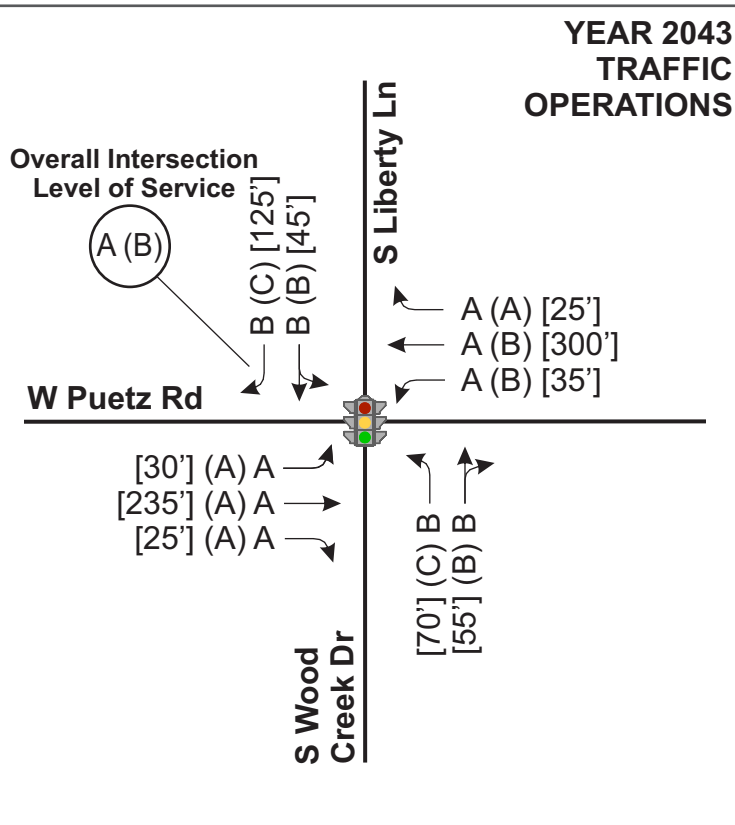
EXHIBIT 4
EXISTING TWO-WAY STOP CONTROL
W PUETZ RD AND S LIBERTY LN/S WOOD CREEK DR
OAK CREEK, WISCONSIN

TRAFFIC SIGNAL ALTERNATE GEOMETRICS







LEGEND

	TRAFFIC SIGNAL
X	WEEKDAY AM PEAK HOUR (7:00 - 8:00 AM) LEVEL OF SERVICE
(X)	WEEKDAY PM PEAK HOUR (4:30 - 5:30 PM) LEVEL OF SERVICE
[XXX']	MAXIMUM 95TH PERCENTILE TRAFFIC QUEUE PER LANE (IN FEET)

NOTE: FOR MOVEMENTS WITH LOS E OR F OPERATIONS,
THE AVERAGE DELAY PER VEHICLE (IN SECONDS) IS PROVIDED.

GRAEF

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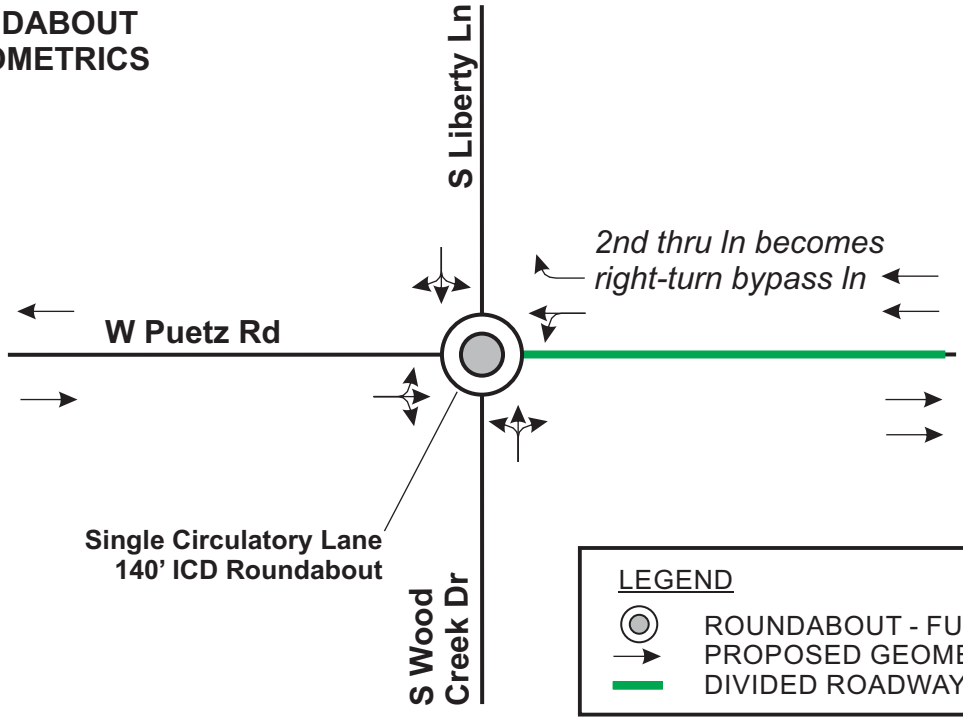
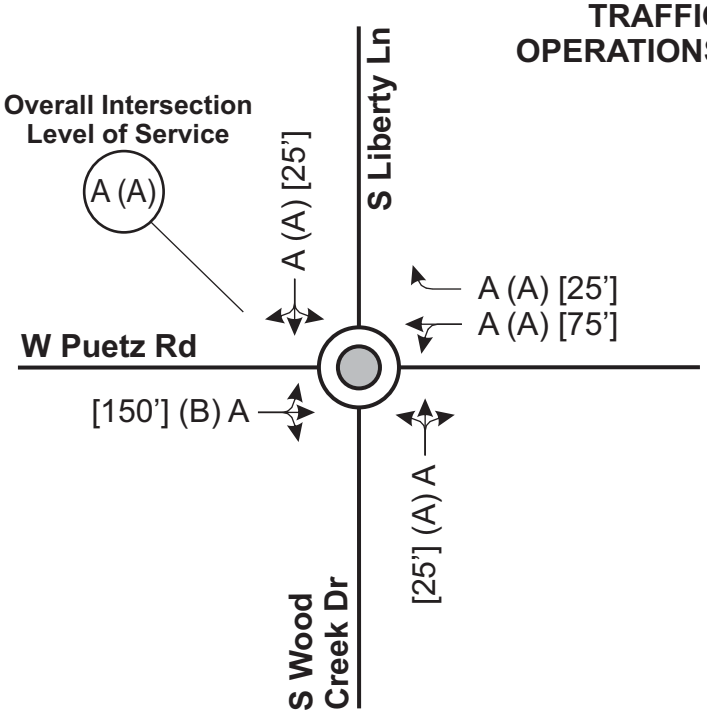
EXHIBIT 5
TRAFFIC SIGNAL ALTERNATE
W PUETZ RD AND S LIBERTY LN/S WOOD CREEK DR
OAK CREEK, WISCONSIN

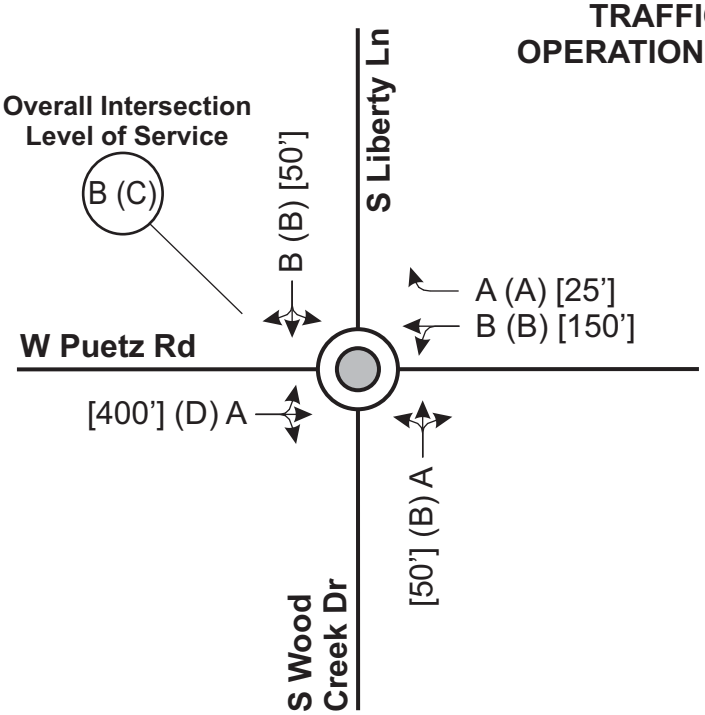
FULL SIZE ROUNDABOUT ALTERNATE GEOMETRICS



YEAR 2023 TRAFFIC OPERATIONS



YEAR 2043 TRAFFIC OPERATIONS



LEGEND

◎	ROUNDABOUT - FULL SIZE (140' ICD)
X	WEEKDAY AM PEAK HOUR (7:00 - 8:00 AM) LEVEL OF SERVICE
(X)	WEEKDAY PM PEAK HOUR (4:30 - 5:30 PM) LEVEL OF SERVICE
[XXX']	MAXIMUM 95TH PERCENTILE TRAFFIC QUEUE PER LANE (IN FEET)

NOTE: FOR MOVEMENTS WITH LOS E OR F OPERATIONS,
THE AVERAGE DELAY PER VEHICLE (IN SECONDS) IS PROVIDED.

GRAEF

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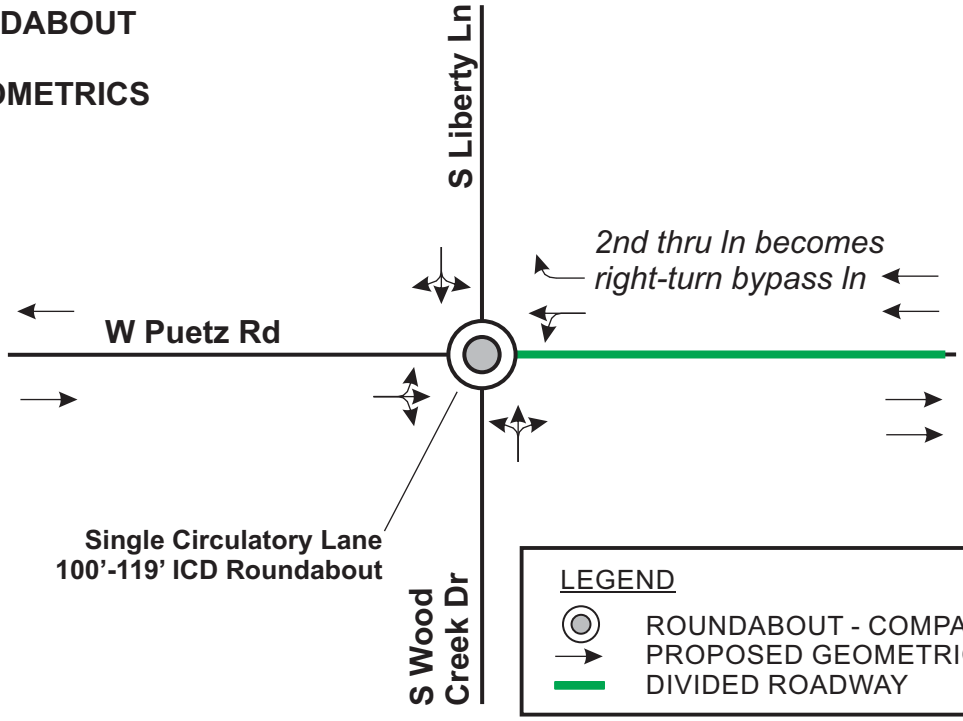
EXHIBIT 6
FULL SIZE ROUNDABOUT ALTERNATE
W PUETZ RD AND S LIBERTY LN/S WOOD CREEK DR
OAK CREEK, WISCONSIN

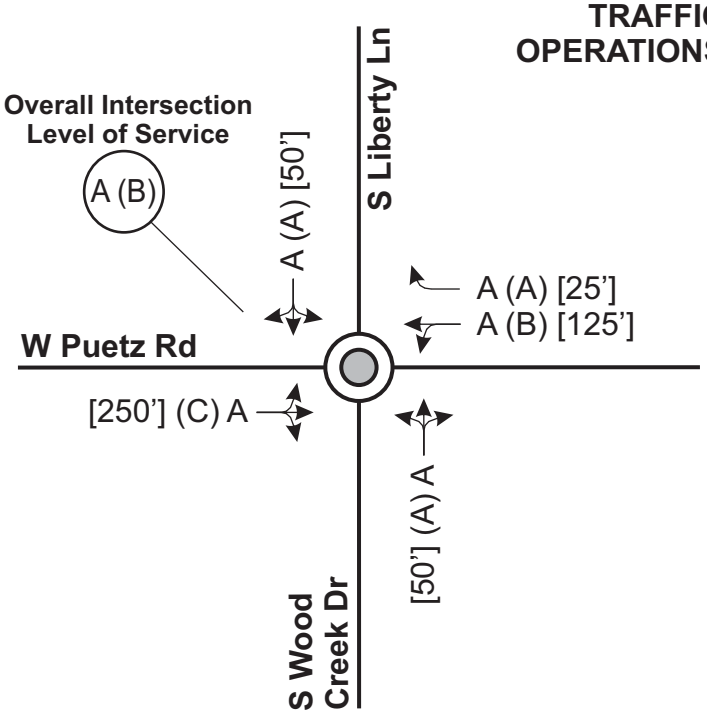
COMPACT ROUNDABOUT (100'-199' ICD) ALTERNATE GEOMETRICS



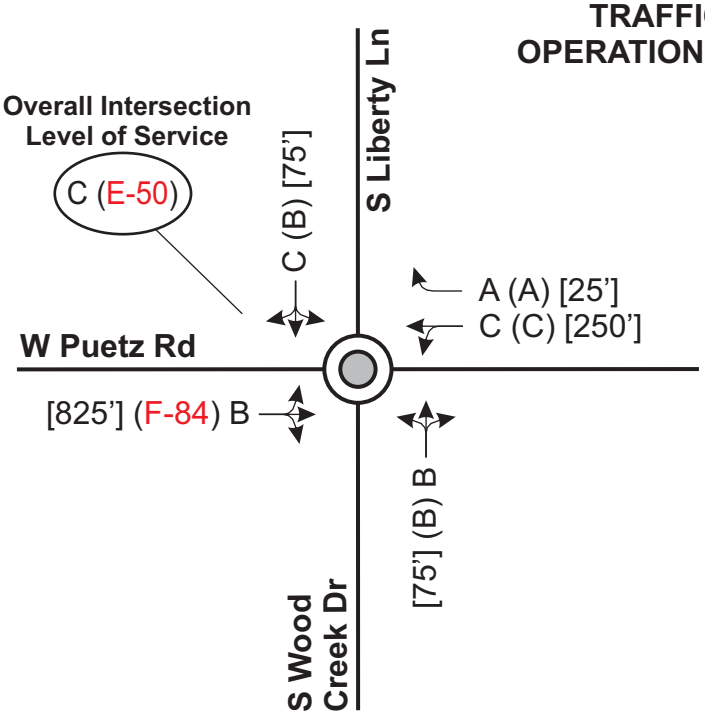
NORTH
NOT TO SCALE

LEGEND
- ROUNDABOUT - COMPACT (100'-119' ICD)
- PROPOSED GEOMETRICS
- DIVIDED ROADWAY

YEAR 2023 TRAFFIC OPERATIONS



YEAR 2043 TRAFFIC OPERATIONS



LEGEND
- ◎ ROUNDABOUT - COMPACT (100'-119' ICD)
- X WEEKDAY AM PEAK HOUR (7:00 - 8:00 AM) LEVEL OF SERVICE
- (X) WEEKDAY PM PEAK HOUR (4:30 - 5:30 PM) LEVEL OF SERVICE
- [XXX'] MAXIMUM 95TH PERCENTILE TRAFFIC QUEUE PER LANE (IN FEET)

NOTE: FOR MOVEMENTS WITH LOS E OR F OPERATIONS,
THE AVERAGE DELAY PER VEHICLE (IN SECONDS) IS PROVIDED.

GRAEF

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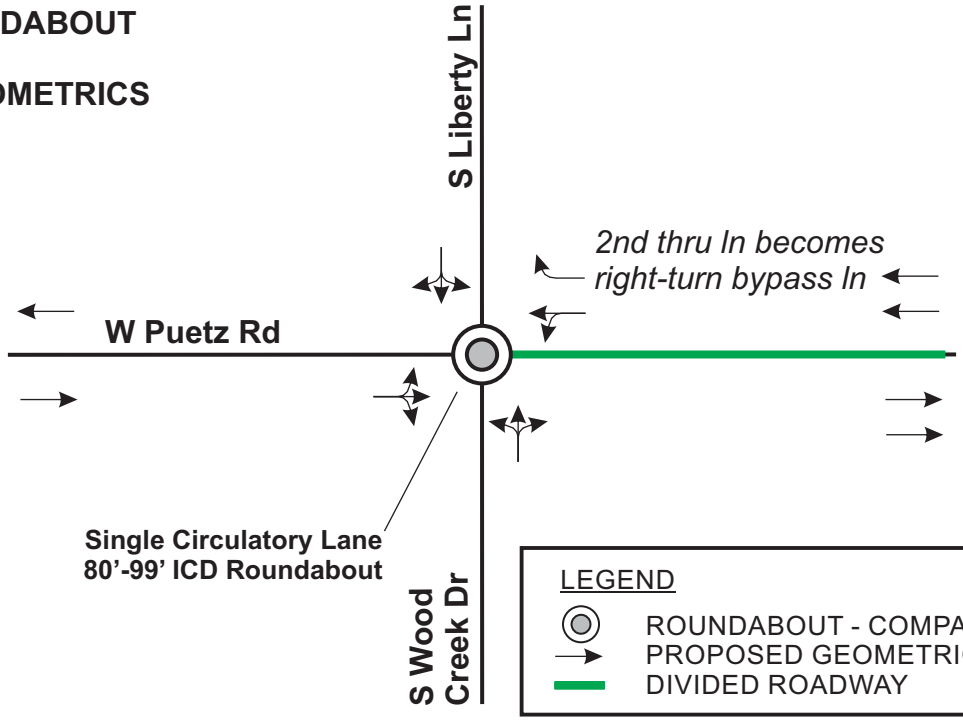
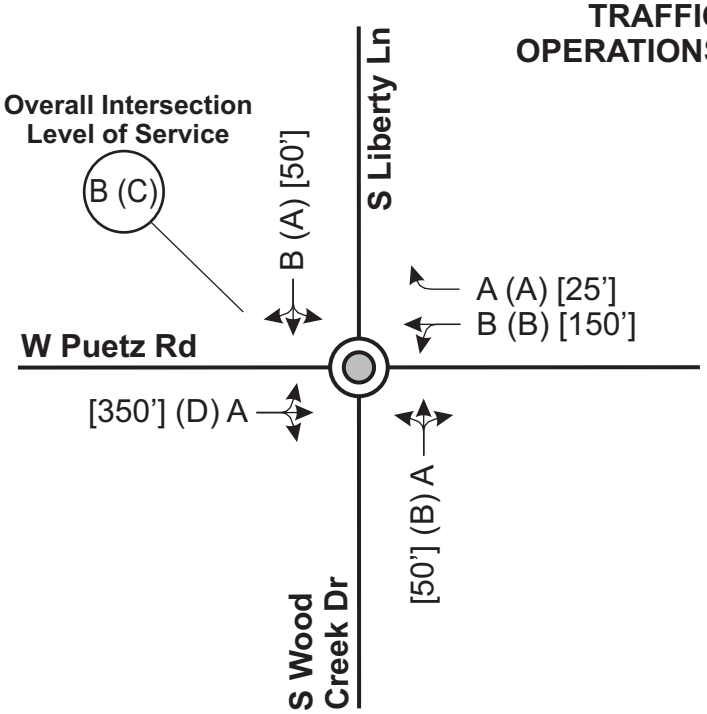
EXHIBIT 7
COMPACT ROUNDABOUT (100'-119' ICD) ALTERNATE
W PUETZ RD AND S LIBERTY LN/S WOOD CREEK DR
OAK CREEK, WISCONSIN

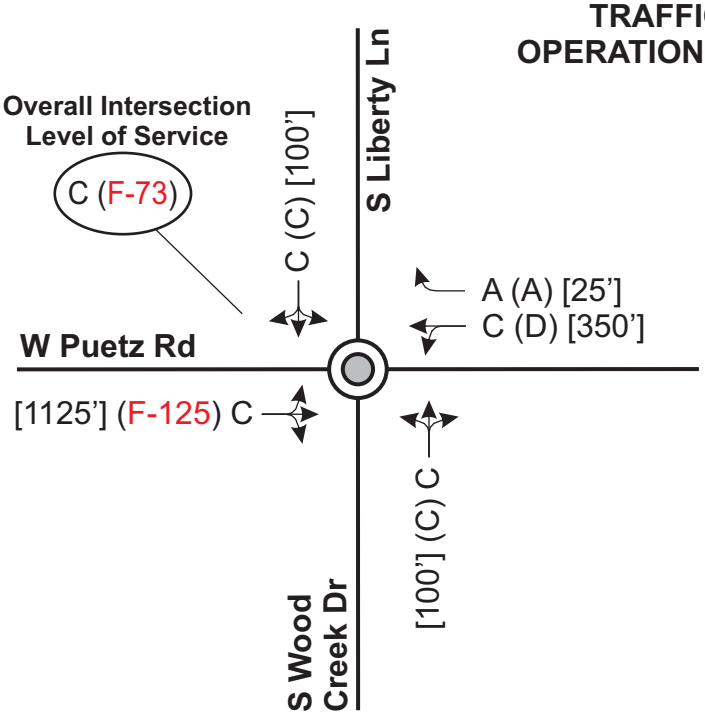
COMPACT ROUNDABOUT (80'-99' ICD) ALTERNATE GEOMETRICS



YEAR 2023 TRAFFIC OPERATIONS



YEAR 2043 TRAFFIC OPERATIONS



LEGEND

◎	ROUNDABOUT - COMPACT (80'-99' ICD)
X	WEEKDAY AM PEAK HOUR (7:00 - 8:00 AM) LEVEL OF SERVICE
(X)	WEEKDAY PM PEAK HOUR (4:30 - 5:30 PM) LEVEL OF SERVICE
[XXX']	MAXIMUM 95TH PERCENTILE TRAFFIC QUEUE PER LANE (IN FEET)

NOTE: FOR MOVEMENTS WITH LOS E OR F OPERATIONS, THE AVERAGE DELAY PER VEHICLE (IN SECONDS) IS PROVIDED.

GRAEF

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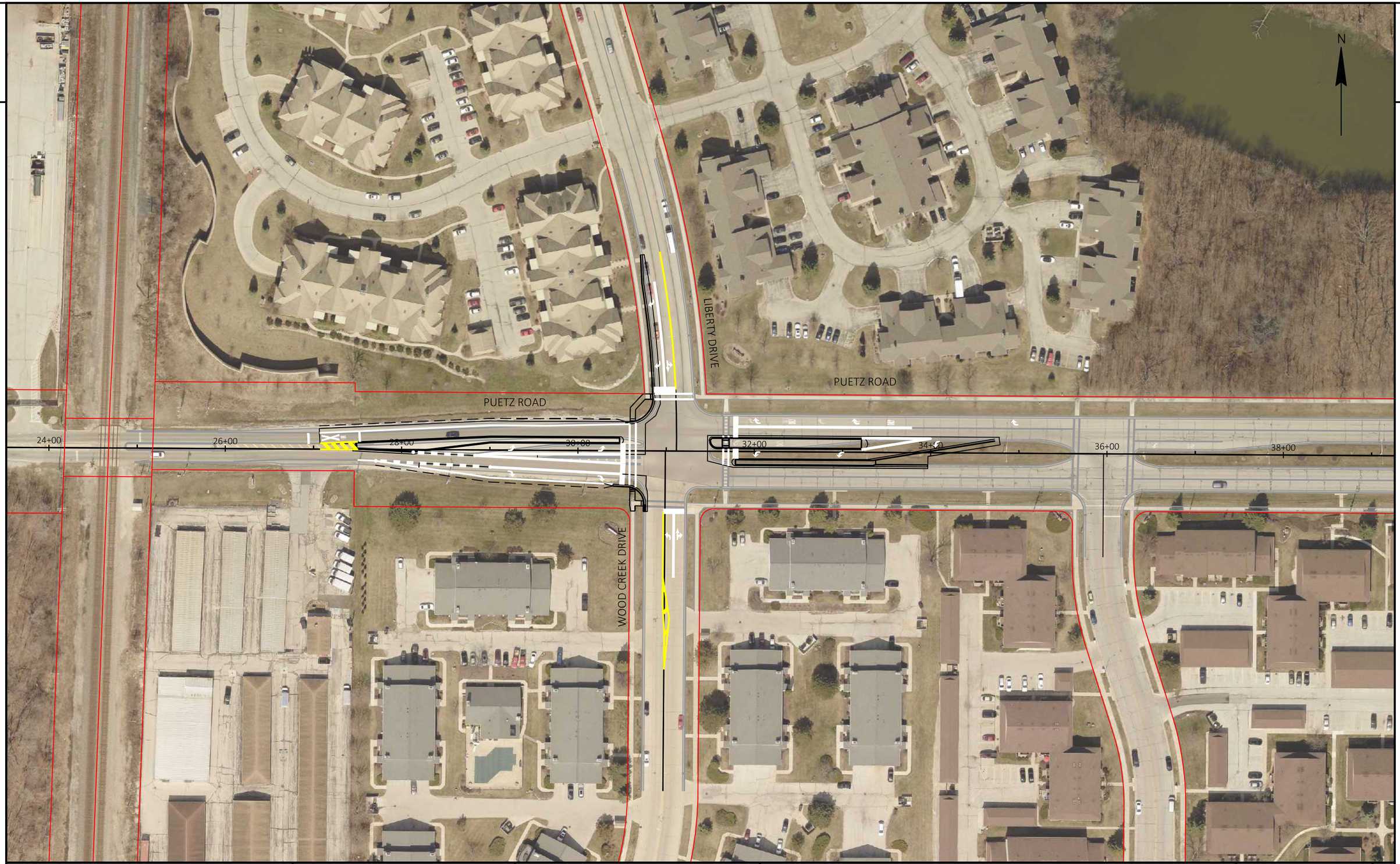
EXHIBIT 8
COMPACT ROUNDABOUT (80'-99' ICD) ALTERNATE
W PUETZ RD AND S LIBERTY LN/S WOOD CREEK DR
OAK CREEK, WISCONSIN

Appendix D

Proposed Alternates Conceptual Drawings – Traffic Signal and Full-Size Roundabout



PROJECT NO: 2022-0359	HWY: PUETZ RD	COUNTY: MILWAUKEE	SIGNAL ALTERNATE	SHEET E

FILE NAME : X:\ML\2022\20220359\DESIGN\TRANSPORTATION\SHEETSOTHER\SIGNAL ALTERNATE EXHIBIT_359.DWG
LAYOUT NAME - 100sc

PLOT DATE : 1/4/2023 1:11 PM PLOT BY : BIEBERITZ, BEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

PUETZ ROAD

PUETZ ROAD

LIBERTY DRIVE

WOOD CREEK DRIVE

AVOIDS POTENTIAL UTILITY POLE RELOCATIONS

24+00 26+00 28+00 30+00 32+00 34+00 36+00 38+00

PROJECT NO: 2022-0359	HWY: PUETZ RD	COUNTY: MILWAUKEE	140' ICD ROUNDABOUT ALTERNATE	SHEET	E

FILE NAME : X:\ML\2022\20220359\DESIGN\TRANSPORTATION\SHEETSOTHER\ROUNDABOUT ALTERNATE EXHIBIT_359.DWG
LAYOUT NAME - 100sc

PLOT DATE : 1/4/2023 1:11 PM PLOT BY : BIEBERITZ, BEN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42