



CITY OF MANITOWOC

WISCONSIN, USA

www.manitowoc.org

March 17, 2025

To: Mayor and Common Council

From: Adam Tegen, Community Development Director

Subject: PC 10-2025: City of Manitowoc / Tycore; Preliminary Subdivision Plat, Public Improvements Plan & Certified Survey Map. Former Mall Properties / Mariner Lux Development (Parcel #'s 330-008-152, 520-031-070 & 520-017-010)

At the March 17, 2025 special meeting of the Manitowoc City Plan Commission, the Commission unanimously recommended to the Common Council the following action:

Approve the Preliminary Plat with Conditions for the Mariner Lux Subdivision and Certified Survey Map.

Granicus #: 25-0155

Attachments: Maps, Conditions & Resolution

RESOLUTION

WHEREAS the Preliminary Plat of the Mariner Lux Subdivision has been reviewed by the City Plan Commission at its meeting held February 26, 2025, and

WHEREAS the City Plan Commission did recommend the acceptance of the Preliminary Plat with the following conditions:

- 1) That all development improvements prerequisite to approval of the final plat (Section 21.060) are fulfilled before final plat approval is sought.
- 2) That the final plat shall meet all requirements of the City of Manitowoc Subdivision Code and Chapter 236 of the Statutes of the State of Wisconsin.
- 3) That the final plat approval be sought within 36 months after preliminary plat approval by the Common Council.
- 4) That the subdivider's engineer certify that all improvements have been installed as per plans and specifications to the satisfaction of the City and the Director of Public Infrastructure.
- 5) That the subdivider comply with the Manitowoc Public Utilities requirements regarding water services. Also, provide all utility easements as necessary. Provide positive surface drainage and comply with the approved drainage plan. Provide minimum elevations at building setback and sidewalk locations on the final plat.
- 6) That the conditions of the City Plan Commission's report number 25-0155 (PC10-2025) be complied with as accepted by the Manitowoc Common Council.

NOW, THEREFORE, BE IT RESOLVED by the Mayor and Common Council that the Preliminary Plat of the Mariner Lux Subdivision be accepted, based upon compliance with the aforementioned conditions.

INTRODUCED _____

ADOPTED _____

Justin M. Nickels, Mayor

APPROVED _____

Fiscal Impact:
Funding Source:
Finance Director Approval:
Approved as to Form:

- A PRELIMINARY PLAT OF -
MARINER LUX SUBDIVISION PLAT

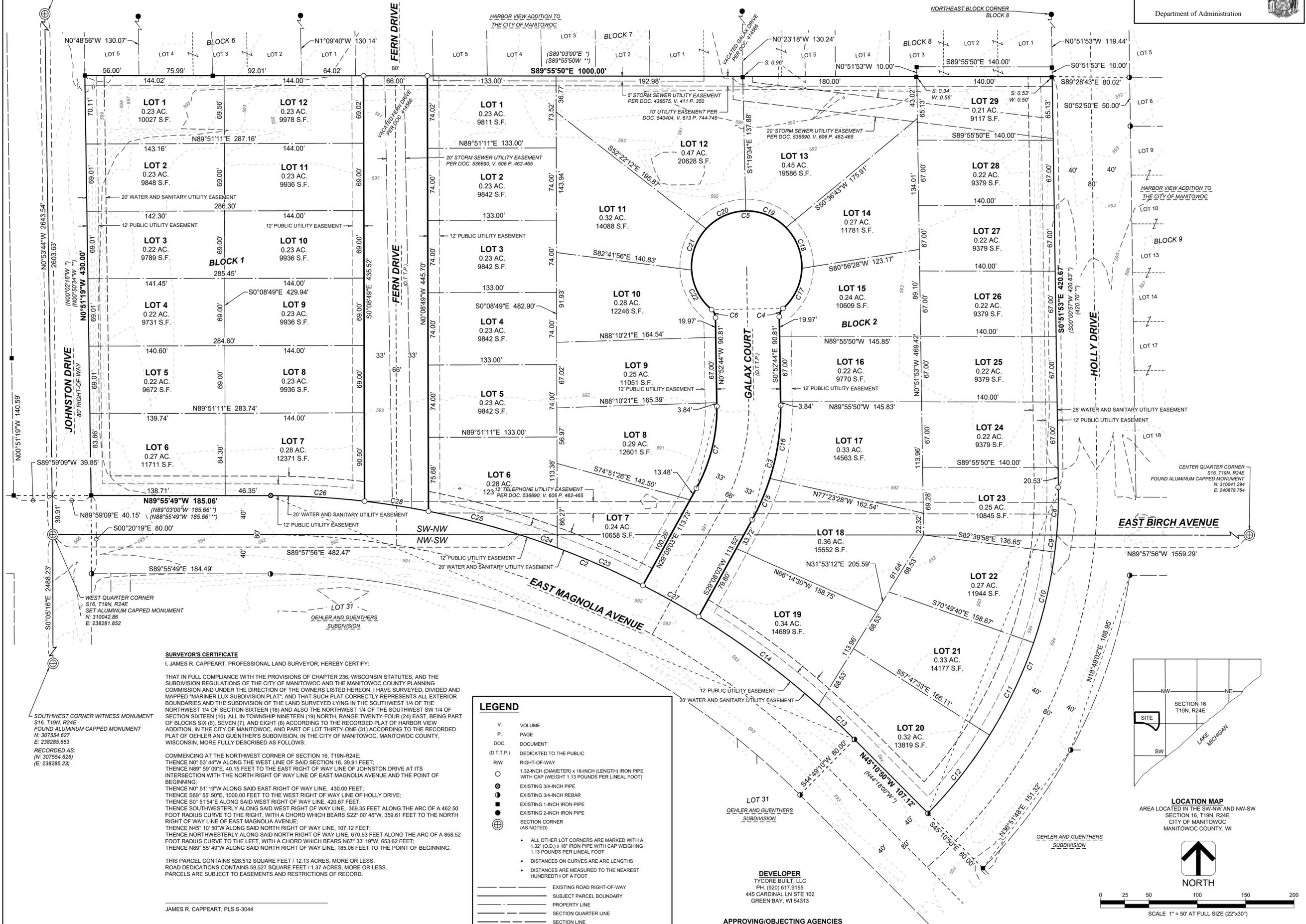
A PARCEL OF LAND LYING IN THE SOUTHWEST 1/4 OF SECTION SIXTEEN (16) AND ALSO THE NORTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION SIXTEEN (16), ALL IN TOWNSHIP NINETEEN (19) NORTH, RANGE TWENTY-FOUR (24) EAST, BEING PART OF BLOCKS SIX (6), SEVEN (7), AND EIGHT (8) ACCORDING TO THE RECORDED PLAT OF HARBOR VIEW ADDITION, IN THE CITY OF MANITOWOC, AND PART OF LOT THIRTY-ONE (31) ACCORDING TO THE RECORDED PLAT OF OEHLER AND GUENTHER'S SUBDIVISION, IN THE CITY OF MANITOWOC, MANITOWOC COUNTY, WISCONSIN.

There are no objects to this plat with respect to Secs. 236.15, 236.16, 236.20 and 236.21(1) and (2), Wis. Stats. as provided by s. 236.12, Wis. Stats.

Certified _____, 20__



Department of Administration



SURVEYOR'S CERTIFICATE

I, JAMES R. CAPPEART, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY:

THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF CHAPTER 236, WISCONSIN STATUTES, AND THE SUBDIVISION REGULATIONS OF THE CITY OF MANITOWOC AND THE MANITOWOC COUNTY PLANNING COMMISSION AND UNDER THE DIRECTION OF THE OWNERS LISTED HEREON, I HAVE SURVEYED, DIVIDED AND MAPPED "MARINER LUX SUBDIVISION PLAT", AND THAT SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES AND THE SUBDIVISION OF THE LAND SURVEYED LYING IN THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION SIXTEEN (16) AND ALSO THE NORTHWEST 1/4 OF THE SOUTHWEST SW 1/4 OF SECTION SIXTEEN (16), ALL IN TOWNSHIP NINETEEN (19) NORTH, RANGE TWENTY-FOUR (24) EAST, BEING PART OF BLOCKS SIX (6), SEVEN (7), AND EIGHT (8) ACCORDING TO THE RECORDED PLAT OF HARBOR VIEW ADDITION, IN THE CITY OF MANITOWOC, AND PART OF LOT THIRTY-ONE (31) ACCORDING TO THE RECORDED PLAT OF OEHLER AND GUENTHER'S SUBDIVISION, IN THE CITY OF MANITOWOC, MANITOWOC COUNTY, WISCONSIN, MORE FULLY DESCRIBED AS FOLLOWS:

COMMENCING AT THE NORTHWEST CORNER OF SECTION 16, T19N-R24E; THENCE N0° 53' 44"W ALONG THE WEST LINE OF SAID SECTION 16, 39.91 FEET; THENCE N89° 59' 09"E, 40.15 FEET TO THE EAST RIGHT OF WAY LINE OF JOHNSTON DRIVE AT ITS INTERSECTION WITH THE NORTH RIGHT OF WAY LINE OF EAST MAGNOLIA AVENUE AND THE POINT OF BEGINNING; THENCE N0° 51' 19"W ALONG SAID EAST RIGHT OF WAY LINE, 430.00 FEET; THENCE S89° 55' 50"E, 1000.00 FEET TO THE WEST RIGHT OF WAY LINE OF HOLLY DRIVE; THENCE S0° 51' 54"E ALONG SAID WEST RIGHT OF WAY LINE, 420.67 FEET; THENCE SOUTHWESTERLY ALONG SAID WEST RIGHT OF WAY LINE, 369.35 FEET ALONG THE ARC OF A 462.50 FOOT RADIUS CURVE TO THE RIGHT, WITH A CHORD WHICH BEARS S22° 00' 46"W, 359.61 FEET TO THE NORTH RIGHT OF WAY LINE OF EAST MAGNOLIA AVENUE; THENCE N45° 10' 50"W ALONG SAID NORTH RIGHT OF WAY LINE, 107.12 FEET; THENCE NORTHWESTERLY ALONG SAID NORTH RIGHT OF WAY LINE, 670.53 FEET ALONG THE ARC OF A 858.52 FOOT RADIUS CURVE TO THE LEFT, WITH A CHORD WHICH BEARS N67° 33' 19"W, 653.62 FEET; THENCE N89° 55' 49"W ALONG SAID NORTH RIGHT OF WAY LINE, 185.06 FEET TO THE POINT OF BEGINNING.

THIS PARCEL CONTAINS 528,512 SQUARE FEET / 12.13 ACRES, MORE OR LESS. ROAD DEDICATIONS CONTAINS 59,527 SQUARE FEET / 1.37 ACRES, MORE OR LESS. PARCELS ARE SUBJECT TO EASEMENTS AND RESTRICTIONS OF RECORD.

JAMES R. CAPPEART, PLS S-3044

DATED THIS _____ DAY OF _____, 20__

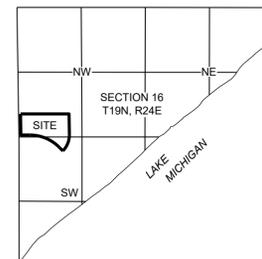
LEGEND

- V. VOLUME
- P. PAGE
- DOC. DOCUMENT
- (D.T.T.P.) DEDICATED TO THE PUBLIC
- R/W RIGHT-OF-WAY
- 1.32" (DIAMETER) x 18-INCH (LENGTH) IRON PIPE WITH CAP (WEIGHT 1.13 POUNDS PER LINEAL FOOT)
- EXISTING 3/4-INCH PIPE
- EXISTING 3/4-INCH REBAR
- EXISTING 1-INCH IRON PIPE
- EXISTING 2-INCH IRON PIPE
- SECTION CORNER (AS NOTED)
- ALL OTHER LOT CORNERS ARE MARKED WITH A 1.32" (O.D.) x 18" IRON PIPE WITH CAP WEIGHING 1.13 POUNDS PER LINEAL FOOT
- DISTANCES ON CURVES ARE ARC LENGTHS
- DISTANCES ARE MEASURED TO THE NEAREST HUNDRETH OF A FOOT
- EXISTING ROAD RIGHT-OF-WAY
- EXISTING PARCEL BOUNDARY
- PROPERTY LINE
- SECTION QUARTER LINE
- SECTION LINE
- - - PROPOSED UTILITY EASEMENT (AS DESCRIBED)
- - - 12" (OR AS DIMENSIONED)

DEVELOPER
 TYCORE BUILT, LLC
 PH. (920) 617-9155
 445 CARDINAL LN STE 102
 GREEN BAY, WI 54313

APPROVING/OBJECTING AGENCIES
 CITY OF MANITOWOC
 COUNTY OF MANITOWOC
 DEPARTMENT OF ADMINISTRATION

STEINBRECHER & MENEAU INC. ALTA JUNE 2007
 CORNER POINT PLAT OF SURVEY AUGUST 2024



LOCATION MAP
 AREA LOCATED IN THE SW-NW AND NW-SW SECTION 16, T19N, R24E CITY OF MANITOWOC, MANITOWOC COUNTY, WI



THIS MAP IS BASED ON THE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS, MANITOWOC COUNTY), WITH THE WEST LINE OF THE NORTHWEST QUARTER MEASURED TO BEAR N0°53'44"W

SURVEY PREPARED BY:

TYCORE BUILT
 REAL-TRUSTED-PROVEN
 1077 CENTENNIAL CENTRE BLVD
 HOBART, WI 54155

- A PRELIMINARY PLAT OF -
MARINER LUX SUBDIVISION PLAT
 TYCORE BUILT

SURVEY PREPARED FOR:

TYCORE BUILT
 BUILDING A BETTER WORLD, YOURS.
 TYCORE BUILT
 445 CARDINAL LN, STE. 102
 GREEN BAY, WI 54313

DRAWN BY: SMR
 CHECKED BY: JRC
 JT NUMBER: 240134
 DATE: FEBRUARY 14, 2025

SHEET: **1** OF 2

- A PRELIMINARY PLAT OF -
MARINER LUX SUBDIVISION PLAT

A PARCEL OF LAND LYING IN THE SOUTHWEST QUARTER (SW 1/4) OF THE NORTHWEST QUARTER (NW 1/4) OF SECTION SIXTEEN (16) AND ALSO THE NORTHWEST QUARTER (NW 1/4) OF THE SOUTHWEST QUARTER (SW 1/4) OF SECTION SIXTEEN (16), ALL IN TOWNSHIP NINETEEN (19) NORTH, RANGE TWENTY-FOUR (24) EAST, BEING PART OF BLOCKS SIX (6), SEVEN (7), AND EIGHT (8) ACCORDING TO THE RECORDED PLAT OF HARBOR VIEW ADDITION, IN THE CITY OF MANITOWOC, AND PART OF LOT THIRTY-ONE (31) ACCORDING TO THE RECORDED PLAT OF OEHLER AND GUENTHER'S SUBDIVISION, IN THE CITY OF MANITOWOC, MANITOWOC COUNTY, WISCONSIN.

There are no objects to this plat with respect to Secs. 236.15, 236.16, 236.20 and 236.21(1) and (2), Wis. Stats. as provided by s. 236.12, Wis. Stats.
 Certified _____, 20____
 Department of Administration 

CURVE TABLE					
CURVE NO.	CENTRAL ANGLE	RADIUS	ARC LENGTH	CHORD LENGTH	CHORD BEARING
C1	45° 45' 20"	462.50'	369.35'	359.61'	S22° 00' 46"W
	45° 44' 29" **		369.23'	359.49'	S22° 53' 12"W *
	45° 45' 03" **		369.31'	359.57'	S22° 00' 39"W **
C2	44° 44' 59"	858.52'	670.53'	653.62'	N67° 33' 19"W
	44° 42' 59" **		670.03'	653.16'	N67° 32' 20"W *
	44° 42' 59" **		670.60'	653.16'	N67° 33' 19"W **
C3	30° 00' 48"	233.00'	122.05'	120.66'	N14° 07' 39"E
C4	49° 40' 47"	11.00'	9.54'	9.24'	N23° 57' 39"E
C5	279° 21' 35"	57.00'	277.92'	73.77'	S89° 07' 16"W
C6	49° 40' 47"	11.00'	9.54'	9.24'	S25° 43' 08"E
C7	30° 00' 48"	167.00'	87.48'	86.48'	S14° 07' 39"W
C8	06° 02' 06"	462.50'	48.72'	48.69'	S02° 09' 08"W
C9	02° 09' 49"	462.50'	17.47'	17.46'	S06° 15' 06"W
C10	11° 50' 19"	462.50'	95.58'	95.39'	S13° 15' 11"W
C11	13° 02' 07"	462.50'	105.22'	105.00'	S25° 41' 24"W
C12	12° 40' 58"	462.50'	102.38'	102.17'	S38° 32' 57"W
C13	3° 23' 33"	858.52'	50.84'	50.83'	N46° 52' 36"W
C14	10° 16' 34"	858.52'	153.98'	153.77'	N53° 42' 40"W
C15	11° 19' 58"	233.00'	46.09'	46.01'	N23° 28' 04"E
C16	18° 40' 50"	233.00'	75.97'	75.63'	N08° 27' 41"E
C17	47° 00' 47"	57.00'	46.77'	45.47'	N25° 17' 39"E
C18	46° 20' 00"	57.00'	46.09'	44.85'	N21° 22' 44"W
C19	46° 20' 00"	57.00'	46.09'	44.85'	N67° 42' 44"W
C20	46° 20' 00"	57.00'	46.09'	44.85'	S65° 57' 16"W
C21	46° 20' 00"	57.00'	46.09'	44.85'	S19° 37' 16"W
C22	47° 00' 47"	57.00'	46.77'	45.47'	S27° 03' 08"E
C23	6° 26' 47"	858.52'	96.59'	96.54'	N66° 28' 41"W
C24	2° 40' 39"	858.52'	41.12'	41.12'	N71° 04' 24"W
C25	6° 29' 30"	858.52'	97.27'	97.22'	N75° 41' 29"W
C26	6° 31' 57"	858.52'	97.88'	97.83'	N86° 39' 50"W
C27	4° 24' 21"	858.52'	66.02'	66.00'	N61° 03' 08"W
C28	4° 27' 38"	858.52'	66.84'	66.82'	N81° 10' 03"W

OWNER'S CERTIFICATE

AS OWNER, I HEREBY CERTIFY THAT I CAUSED THE LAND DESCRIBED ON "MARINER LUX SUBDIVISION" TO BE SURVEYED, DIVIDED, MAPPED AND DEDICATED AS REPRESENTED HEREON. I ALSO CERTIFY THAT THIS PLAT IS REQUIRED BY S236.10 OR S236.12 TO BE SUBMITTED TO THE FOLLOWING FOR APPROVAL OR OBJECTION:

CITY OF MANITOWOC, COUNTY OF MANITOWOC, AND THE DEPARTMENT OF ADMINISTRATION

TYCORE BUILT, LLC
 WADE T. MICOLEY - PRESIDENT

PERSONALLY CAME BEFORE ME THIS _____ DAY OF _____, 20____ THE ABOVE NAMED OWNER, TO ME KNOWN TO BE THE PERSON WHO EXECUTED THE FOREGOING INSTRUMENT AND ACKNOWLEDGED THE SAME.

NOTARY PUBLIC

MY COMMISSION EXPIRES _____

_____ COUNTY, _____

STATE OF WISCONSIN]
 COUNTY OF _____) SS

CITY OF MANITOWOC PLANNING COMMISSION

APPROVED FOR THE CITY OF MANITOWOC PLANNING COMMISSION THIS _____ DAY OF _____, 20____.

PAUL BRAUN
 CITY PLANNER

CITY OF MANITOWOC TREASURER'S CERTIFICATE

A PLAT KNOWN AS "MARINER LUX SUBDIVISION" WHICH HAS BEEN DULY FILED FOR APPROVAL OF THE CITY OF MANITOWOC, MANITOWOC COUNTY, WISCONSIN, AND IS HEREBY APPROVED AS REQUIRED BY CHAPTER 236, WISCONSIN STATUTES. APPROVED FOR THE CITY OF MANITOWOC PLANNING BOARD ON THIS _____ DAY OF _____, 20____.

MACKENZIE REED
 CITY CLERK / DEPUTY TREASURER

MANITOWOC COUNTY TREASURER'S CERTIFICATE

AS APPOINTED MANITOWOC COUNTY TREASURER, I HEREBY CERTIFY THAT THE RECORDS IN OUR OFFICE SHOW NO UNREDEEMED TAXES AND NO UNPAID OR SPECIAL ASSESSMENT'S AFFECTING ANY OF THE LANDS INCLUDED IN THIS PLAT AS OF THE DATE LISTED BELOW.

KATHY REISSMANN
 MANITOWOC COUNTY TREASURY - DEPARTMENT DIRECTOR

DATE _____

NOTES:

12' PUBLIC UTILITY EASEMENT

A NON-EXCLUSIVE EASEMENT GRANTED TO PUBLIC UTILITIES INCLUDING BUT NOT LIMITED TO ELECTRIC, NATURAL GAS, COMMUNICATIONS, WATER DISTRIBUTION, SEWER COLLECTION, DRAINAGE, ETC., IS HEREBY GRANTED BY

TYCORE BUILT, LLC, GRANTOR.

GRANTED TO THE CITY OF MANITOWOC, GRANTEE, AND TO THEIR RESPECTIVE HEIRS, AGENTS, AND ASSIGNS.

TO CONSTRUCT, INSTALL, OPERATE, REPAIR, MAINTAIN, AND REPLACE FROM TIME TO TIME, FACILITIES USED IN CONNECTION WITH UNDERGROUND PUBLIC UTILITIES FOR SUCH PURPOSES AS IS THE SAME IS NOW OR MAY HEREAFTER BE USED, ALL IN, UNDER, ACROSS, ALONG, AND UPON THE PROPERTY SHOWN WITHIN THOSE AREAS DESIGNATED ON THE PLAT, TOGETHER WITH THE RIGHT TO INSTALL SERVICE CONNECTIONS UPON, ACROSS, WITHIN, AND BENEATH THE SURFACE OF EACH LOT TO SERVE IMPROVEMENTS, THEREON, OR ON ADJACENT LOTS.

ALSO THE RIGHT TO TRIM OR CUT DOWN TREES, BRUSH, AND/OR ROOTS AS MAY BE REASONABLY REQUIRED INCIDENT TO THE RIGHTS HEREIN GIVEN, AND THE RIGHT TO ENTER UPON THE SUBDIVIDED PROPERTY FOR ALL SUCH PURPOSES. THE GRANTEE AGREES TO RESTORE OR CAUSE TO HAVE RESTORED, THE PROPERTY, AS NEARLY AS IS REASONABLY POSSIBLE, TO THE CONDITION EXISTING PRIOR TO SUCH ENTRY BY THE GRANTEE OR THEIR AGENTS.

THE GRANT OF EASEMENT SHALL BE BINDING UPON AND INURE TO THE BENEFIT OF THE HEIRS, SUCCESSORS, AND ASSIGNS OF ALL PARTIES HERETO.

WATER AND SANITARY UTILITY EASEMENT

AN EXCLUSIVE EASEMENT GRANTED TO THE CITY OF MANITOWOC, MANITOWOC, WISCONSIN (GRANTEE) AND ITS SUCCESSORS AND ASSIGNS, A PERPETUAL EASEMENT OVER, UNDER AND THROUGH THE PROPERTY, BY THE UNDER SIGNED OWNERS OF THE PROPERTY AND GRANTORS HEREIN:

THIS PERPETUAL DEED OF EASEMENT, WHICH SHALL RUN WITH THE LAND, IS GRANTED UPON THE FOLLOWING CONDITIONS:

- TO CONSTRUCT, INSTALL, OPERATE, REPAIR, MAINTAIN, AND REPLACE FROM TIME TO TIME, FACILITIES USED IN CONNECTION WITH UNDERGROUND PUBLIC UTILITIES FOR SUCH PURPOSES AS IS THE SAME IS NOW OR MAY HEREAFTER BE USED, ALL IN, UNDER, ACROSS, ALONG, AND UPON THE PROPERTY SHOWN WITHIN THOSE AREAS DESIGNATED ON THE PLAT, TOGETHER WITH THE RIGHT TO INSTALL SERVICE CONNECTIONS UPON, ACROSS, WITHIN, AND BENEATH THE SURFACE OF EACH LOT TO SERVE IMPROVEMENTS, THEREON, OR ON ADJACENT LOTS.
- THE GRANTORS, ITS SUCCESSORS OR ASSIGNS, SHALL HAVE THE RIGHT TO USE AND OCCUPY THE ABOVE DESCRIBED REAL ESTATE, PROVIDING THAT SUCH USE AND OCCUPATION WILL NOT IN ANY MANNER DISTURB, DAMAGE, DESTROY OR OBSTRUCT SAID PUBLIC UTILITIES. NO BUILDINGS, FENCES OR OTHER IMPROVEMENTS SHALL BE CONSTRUCTED ON OR OVER THE EASEMENT.
- THE GRANTEE SHALL HAVE THE RIGHT TO ACCESS SAID EASEMENT, AND THE RIGHT TO USE SAID PREMISES AND THE LAND ADJACENT THERETO FOR THE TRANSPORTATION AND LAYING DOWN OF STORAGE MATERIALS, TOOLS, AND EQUIPMENT, THE DEPOSITING AND REMOVAL OF MATERIALS, THE REMOVAL OF TREES AND OTHER VEGETATION, THE REMOVAL OF ANY ITEMS CONSTRUCTED ON OR OVER THE EASEMENT, AND FOR OTHER PURPOSES INCIDENTAL TO CONSTRUCTION AND MAINTENANCE. THE GRANTEE AGREES TO RESTORE AFTER COMPLETION OF CONSTRUCTION, MAINTENANCE, OR OTHER ACTIVITY, THE EASEMENT WITH 4" OF TOPSOIL, SEED, FERTILIZER AND MULCH, AND FURTHER PROVIDES THAT IN THE EVENT ANY DAMAGE IS CAUSED TO THE LAND OR REAL ESTATE ADJACENT TO THE EASEMENT, BY REASON OF ANY NEGLIGENCE OF THE GRANTEE IN ENTERING THEREON AND USING THE ABOVE DESCRIBED PROPERTY, SAID GRANTEE SHALL COMPENSATE THE GRANTORS FOR SUCH DAMAGE.

SURVEY PREPARED BY:

 1077 CENTENNIAL CENTRE BLVD
 HOBART, WI 54155

- A PRELIMINARY PLAT OF -
MARINER LUX SUBDIVISION PLAT
 TYCORE BUILT

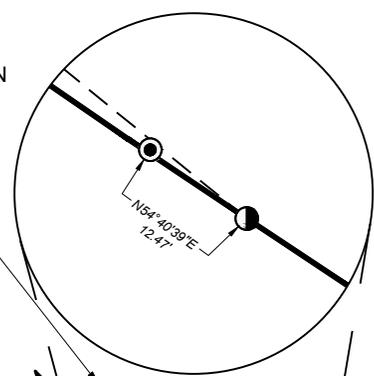
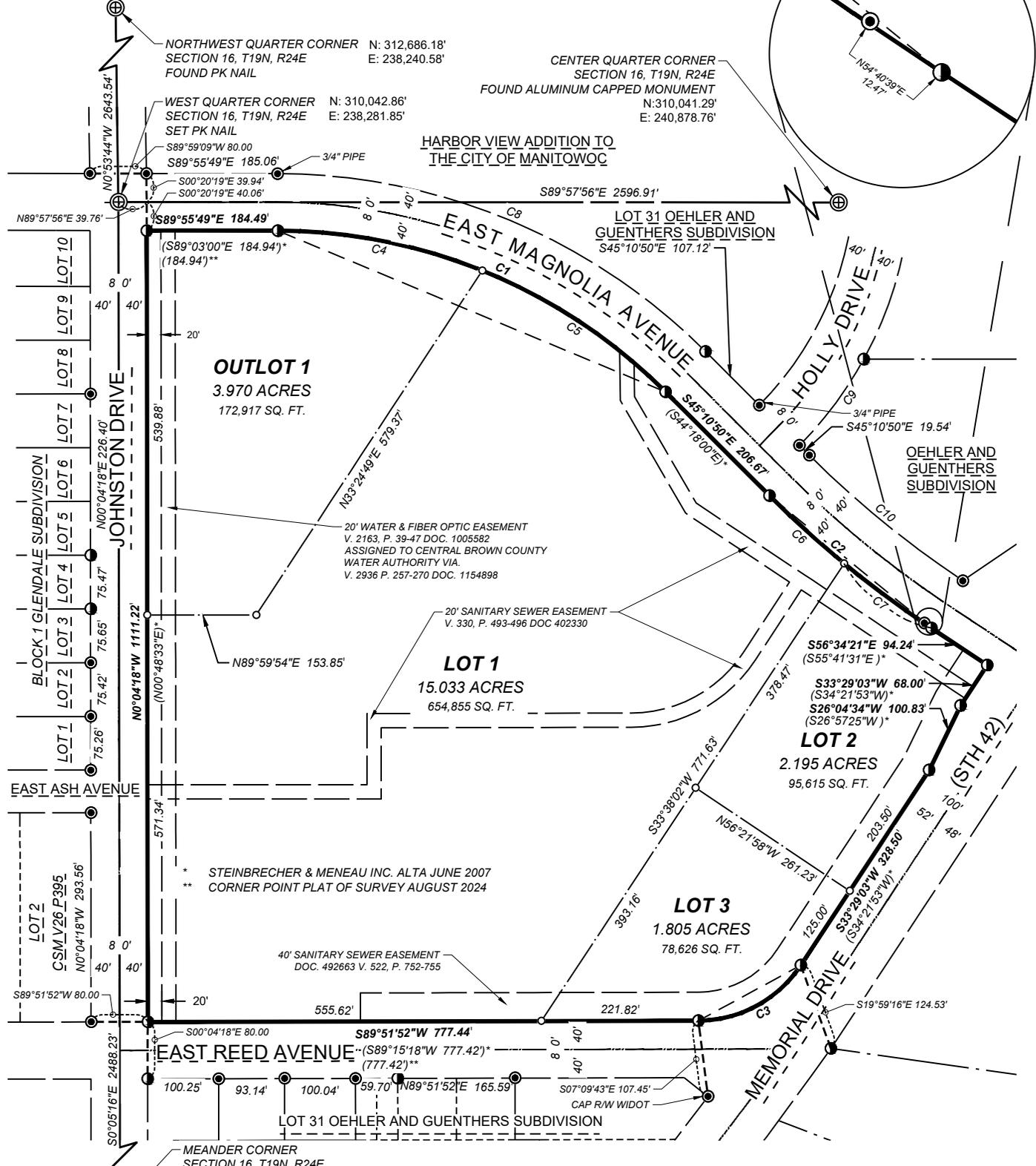
SURVEY PREPARED FOR:

 TYCORE BUILT
 445 CARDINAL LN, STE. 102
 GREEN BAY, WI 54313

DRAWN BY: SMR
 CHECKED BY: JRC
 JT NUMBER: 240134
 DATE: FEBRUARY 14, 2025

MANITOWOC COUNTY CERTIFIED SURVEY MAP NO. _____

A PARCEL OF LAND LYING IN THE NORTHWEST 1/4 OF THE SOUTHWEST 1/4, SECTION SIXTEEN (16), TOWNSHIP NINETEEN (19) NORTH, RANGE TWENTY-FOUR (24) EAST, BEING PART OF LOTS SIXTEEN (16), SEVENTEEN (17), AND THIRTY-ONE (31) OF OEHLER AND GUENTHER'S SUBDIVISION IN THE CITY OF MANITOWOC, MANITOWOC COUNTY, WISCONSIN.



OUTLOT 1
3.970 ACRES
172,917 SQ. FT.

LOT 1
15.033 ACRES
654,855 SQ. FT.

LOT 2
2.195 ACRES
95,615 SQ. FT.

LOT 3
1.805 ACRES
78,626 SQ. FT.

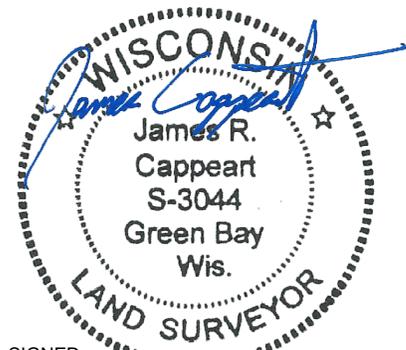
* STEINBRECHER & MENEAU INC. ALTA JUNE 2007
** CORNER POINT PLAT OF SURVEY AUGUST 2024

ALL UTILITY AND DRAINAGE EASEMENT AREAS SHALL COMPLY WITH: "STANDARD UTILITY EASEMENT CONDITIONS" ADOPTED BY THE COMMON COUNCIL ON NOVEMBER 3, 1997, AND RECORDED AT THE MANITOWOC COUNTY REGISTER OF DEEDS ON NOVEMBER 7, 1997 AT VOLUME 1252, PAGE 498 OF RECORDS, AS DOCUMENT #798738.



BEARINGS ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, MANITOWOC COUNTY ZONE, GRID NORTH, WITH THE WEST LINE OF THE SOUTHWEST 1/4 OF SECTION 16 MEASURED TO BEAR S00°05'16\"/>

LEGEND	
⊕	FOUND PLSS MONUMENT AS NOTED
●	FOUND 3/4" REBAR
○	FOUND 1" ID PIPE (UNLESS NOTED)
○	SET 3/4" REBAR (1.502 LBS/FT)
CSM	CERTIFIED SURVEY MAP
(100.00)	RECORD BEARING OR DISTANCE



SIGNED:
02/14/2025



281 W Netherwood Road
Suite 1
Oregon, WI 53575
www.JT-Engineering.com

SURVEY PREPARED FOR:
CITY OF MANITOWOC
900 QUAY STREET
MANITOWOC, WI 54220

FIELD WORK DATE: JANUARY 22, 2025
DRAFTED BY: SMR
CHECKED BY: JRC
PROJECT NO: 240134

VOL. _____ PAGE _____
DOC. NO. _____
C.S.M. NO. _____

MANITOWOC COUNTY CERTIFIED SURVEY MAP NO. _____

A PARCEL OF LAND LYING IN THE NORTHWEST 1/4 OF THE SOUTHWEST 1/4 , SECTION SIXTEEN (16), TOWNSHIP NINETEEN (19) NORTH, RANGE TWENTY-FOUR (24) EAST, BEING PART OF LOTS SIXTEEN (16), SEVENTEEN (17), AND THIRTY-ONE (31) OF OEHLER AND GUENTHER'S SUBDIVISION IN THE CITY OF MANITOWOC, MANITOWOC COUNTY, WISCONSIN.

SURVEYOR'S CERTIFICATE

I, **JAMES R. CAPPEART**, PROFESSIONAL LAND SURVEYOR, DO HEREBY CERTIFY THAT BY THE ORDER OF **CITY OF MANITOWOC**, OWNER, AND IN FULL COMPLIANCE WITH THE PROVISIONS OF CHAPTER 236.34, WISCONSIN STATUTES AND THE SUBDIVISION REGULATIONS OF THE CITY OF MANITOWOC, I HAVE SURVEYED, MONUMENTED, MAPPED AND DIVIDED THIS PROPERTY AND THAT SUCH CERTIFIED SURVEY MAP CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES AND SUBDIVISIONS OF THE LAND SURVEYED, AND IS DESCRIBED AS:

A PARCEL OF LAND LYING IN THE NORTHWEST 1/4 OF THE SOUTHWEST 1/4 , SECTION SIXTEEN (16), TOWNSHIP NINETEEN (19) NORTH, RANGE TWENTY-FOUR (24) EAST, BEING PART OF LOTS SIXTEEN (16), SEVENTEEN (17), AND THIRTY-ONE (31) OF OEHLER AND GUENTHER'S SUBDIVISION IN THE CITY OF MANITOWOC, MANITOWOC COUNTY, WISCONSIN, MORE PARTICULARLY DESCRIBED AS:

COMMENCING AT THE WEST QUARTER CORNER OF SECTION 16;
 THENCE N89°57'56"E, 39.76 FEET ALONG THE NORTH LINE OF THE SOUTHWEST 1/4 OF SAID SECTION 16;
 THENCE S00°20'19"E, 40.06 FEET TO THE INTERSECTION OF THE EAST RIGHT OF WAY LINE OF JOHNSTON DRIVE AND THE NORTH RIGHT OF WAY LINE OF MAGNOLIA DRIVE AND THE POINT OF BEGINNING;
 THENCE S89°55'49"E, 184.49 FEET ALONG SAID NORTH RIGHT OF WAY LINE;
 THENCE SOUTHEASTERLY, 608.05 FEET ALONG SAID NORTH RIGHT OF WAY LINE ON THE ARC OF A 778.52 FOOT RADIUS TANGENT CURVE TO THE RIGHT, WITH A CHORD WHICH BEARS S67°33'19"E, 592.71 FEET;
 THENCE S45°10'50"E, 206.67 FEET SAID NORTH RIGHT OF WAY LINE;
 THENCE SOUTHEASTERLY, 295.47 FEET ALONG SAID NORTH RIGHT OF WAY LINE ON THE ARC OF A 1486.06 FOOT RADIUS TANGENT CURVE TO THE LEFT, WITH A CHORD WHICH BEARS S50°52'35"E, 294.98 FEET;
 THENCE S56°34'21"E, 94.24 FEET ALONG SAID NORTH RIGHT OF WAY LINE TO THE WEST RIGHT OF WAY LINE FOR MEMORIAL DRIVE (AKA STH 42);
 THENCE S33°29'03"W, 68.00 FEET ALONG SAID WEST RIGHT OF WAY LINE;
 THENCE S26°04'34"W, 100.83 FEET ALONG SAID WEST RIGHT OF WAY LINE;
 THENCE S33°29'03"W, 328.50 FEET ALONG SAID WEST RIGHT OF WAY LINE;
 THENCE SOUTHWESTERLY, 170.94 FEET ALONG SAID WEST RIGHT OF WAY LINE ON THE ARC OF A 173.72 FOOT RADIUS TANGENT CURVE TO THE RIGHT, WITH A CHORD WHICH BEARS S61°40'28"W, 164.10 FEET TO THE POINT OF TANGENCY OF THE NORTH RIGHT OF WAY LINE OF EAST REED AVENUE;
 THENCE S89°51'52"W, 777.44 FEET ALONG SAID NORTH RIGHT OF WAY LINE OF EAST REED AVENUE TO THE EAST RIGHT OF WAY LINE OF JOHNSTON DRIVE;
 THENCE N00°04'18"W, 1111.22 FEET ALONG SAID EAST RIGHT OF WAY LINE OF JOHNSTON DRIVE TO THE POINT OF BEGINNING.

THE PARCEL BEING DESCRIBED WITH THIS CERTIFIED SURVEY MAP CONTAINS 1,002,013 SQUARE FEET OR 23.003 ACRES AND IS SUBJECT TO ANY AND ALL EASEMENTS OR AGREEMENTS, RECORDED OR UNRECORDED.



JAMES R. CAPPEART
 PROFESSIONAL LAND SURVEYOR, NO. S-3044
 DATED FEBRUARY 14, 2025
 FILE NO. 240134



CURVE TABLE					
CURVE NO.	ARC LENGTH	RADIUS	CENTRAL ANGLE	CHORD BEARING	CHORD LENGTH
C1	608.05' (607.60') * (607.60') **	778.52'	44° 44' 59" (44° 42' 59") * (44° 42' 59") **	S67° 33' 19"E (S66° 39' 30"E) * (S67° 32' 20"E) **	592.71' (592.29') * (592.29') **
C2	295.47'	1486.06'	11° 23' 31" (11° 23' 30") *	S50° 52' 35"E (S50° 52' 36"E) * (S49° 49' 45"E) **	294.98'
C3	170.94'	173.72'	56° 22' 49"	S61° 40' 28"W (S62° 35' 17"W) * (S61° 40' 27"W) **	164.10' (164.13') * (164.13') **
C4	296.25'	778.52'	21° 48' 10"	S79° 01' 44"E	294.47'
C5	311.80'	778.52'	22° 56' 49"	S56° 39' 14"E	309.72'
C6	142.21'	1486.06'	5° 28' 58"	S47° 55' 19"E	142.15'
C7	153.26'	1486.06'	5° 54' 33"	S53° 37' 04"E	153.19'
C8	670.53'	858.52'	45° 15' 01"	S67° 33' 19"E	653.62'
C9	151.81'	542.50'	16° 02' 02"	N36° 51' 48"E	151.32'
C10	279.56'	1406.06'	11° 23' 30"	S50° 52' 35"E	279.10'



281 W Netherwood Road
 Suite 1
 Oregon, WI 53575
 www.JT-Engineering.com

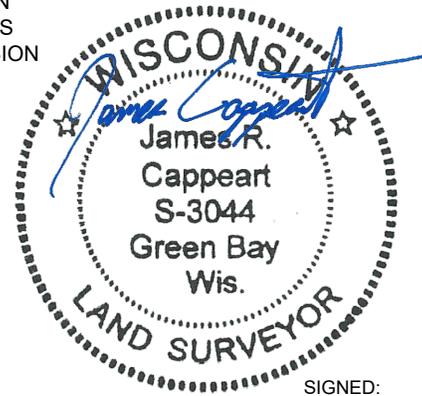
SURVEY PREPARED FOR:
 CITY OF MANITOWOC
 900 QUAY STREET
 MANITOWOC, WI 54220

FIELD WORK DATE: JANUARY 22, 2025
 DRAFTED BY: SMR
 CHECKED BY: JRC
 PROJECT NO: 240134

VOL. _____ PAGE _____
 DOC. NO. _____
 C.S.M. NO. _____

MANITOWOC COUNTY CERTIFIED SURVEY MAP NO. _____

A PARCEL OF LAND LYING IN THE NORTHWEST 1/4 OF THE SOUTHWEST 1/4 , SECTION SIXTEEN (16), TOWNSHIP NINETEEN (19) NORTH, RANGE TWENTY-FOUR (24) EAST, BEING PART OF LOTS SIXTEEN (16), SEVENTEEN (17), AND THIRTY-ONE (31) OF OEHLER AND GUENTHER'S SUBDIVISION IN THE CITY OF MANITOWOC, MANITOWOC COUNTY, WISCONSIN.



SIGNED:
02/14/2025

CITY OF MANITOWOC
MANITOWOC COUNTY, WISCONSIN

APPROVED FOR RECORDING PER THE SECRETARY OF THE CITY OF MANITOWOC PLAN COMMISSION.

BY: _____ FOR _____ DATE: _____
PAUL BRAUN, SECRETARY OF THE PLAN COMMISSION

BY APPROVAL OF THIS CERTIFIED SURVEY MAP, THE CITY OF MANITOWOC HEREBY RELEASES ITS RIGHT TO THE SANITARY EASEMENT AS DESCRIBED IN V. 330, P. 493-496, DOC. 402330 AND AS SHOWN ON THIS CERTIFIED SURVEY MAP.

IN WITNESS WHEREOF, THE SAID CITY OF MANITOWOC HAS CAUSED THESE PRESENTS TO BE SIGNED BY JUSTIN NICKLES, ITS MAYOR, AND MACKENZIE REED, ITS CITY CLERK, AT MANITOWOC, WISCONSIN ON THIS _____ DAY OF _____, 2025.

JUSTIN NICKLES, MAYOR

MACKENZIE REED, CITY CLERK

OWNERS CERTIFICATE

CITY OF MANITOWOC, A CORPORATION DUTY ORGANIZED AND EXISTING UNDER AND BY VIRTUE OF THE LAWS OF WISCONSIN, AS OWNER, DOES HEREBY CERTIFY THAT SAID CORPORATION CAUSED THE LAND DESCRIBED ON THIS CERTIFIED SURVEY MAP TO BE SURVEYED, DIVIDED, COMBINED, MAPPED AND DEDICATED AS REPRESENTED ON THIS CERTIFIED SURVEY MAP. .

IN WITNESS WHEREOF SAID CITY OF MANITOWOC, HAS CAUSED THESE PRESENTS TO BE SIGNED BY JUSTIN NICKLES, ITS MAYOR, AND COUNTERSIGNED BY MACKENZIE REED, ITS CITY CLERK, AT MANITOWOC, WISCONSIN, AND ITS CORPORATE SEAL TO BE HEREUNTO AFFIXED THIS _____ DAY OF _____, 2025.

JUSTIN NICKLES, MAYOR

MACKENZIE REED, CITY CLERK

STATE OF WISCONSIN)
MANITOWOC COUNTY) SS

PERSONALLY CAME BEFORE ME THIS _____ DAY OF _____, 2025, JUSTIN NICKLES, MAYOR, AND MACKENZIE REED, CITY CLERK OF THE ABOVE NAMED CORPORATION, TO ME KNOWN TO BE THE PERSONS WHO EXECUTED THE FOREGOING INSTRUMENT AND TO ME KNOWN TO BE SUCH PRESIDENT AND SECRETARY OF SAID CORPORATION, AND ACKNOWLEDGE THAT THEY EXECUTED THE FOREGOING INSTRUMENT AS SUCH OFFICERS AS THE DEED OF SAID CORPORATION, BY ITS AUTHORITY.

NOTARY PUBLIC

MY COMMISSION EXPIRES: _____

OFFICE OF THE REGISTER OF DEEDS
MANITOWOC COUNTY, WISCONSIN

RECEIVED FOR RECORDING ON _____, 20____ AT _____ O'CLOCK ____ M,
AND RECORDED IN VOLUME _____ OF CSMS ON PAGE(S) _____, DOCUMENT NO. _____.

KRISTI TUESBURG, REGISTER OF DEEDS



CITY OF MANITOWOC

WISCONSIN, USA

www.manitowoc.org

PRELIMINARY PLAT CONDITIONS

Mariner Lux / Tycore

PC 10-2025

3/13/2025

NOTE: The conditions are based on the February 14, 2025 dated plans from JT Engineering which were received by the City on February 24, 2025.

Zoning: R-4 Single and Two Family Residential and R-6 Multiple Family

Lots: 41

CONDITIONS FOR APPROVAL OF THE PRELIMINARY PLAT:

ENGINEERING ATTACH ALL OF ENGINEERINGS DRAWINGS.

- a. See drawings provided by City Engineering.
- b. All work within the Right-of-Way (ROW) of Fern Dr., Galax Ct., Holly Dr., E. Magnolia Ave. and Johnston Dr. shall be constructed in accordance with the City of Manitowoc Standard Specifications for Public Works Construction and the Engineering Design Manual. Both of these documents can be found on the City of Manitowoc's website at www.manitowoc.org.
- c. A preconstruction meeting shall take place with the contractor and the city prior to any road or sewer construction located within the City ROW. The Engineering Department shall be notified a minimum of 24 hours prior to the start of any construction work.
- d. The City of Manitowoc shall inspect all of the construction work within the ROW of City streets and all easements. The City shall charge Inspection Fees to the developer for all sewer and road construction work located within the Right-of-Way (ROW) or Easement Areas (Johnston Drive, E. Magnolia Ave., Fern Dr., Galax Court, and Holly Drive). The current maximum inspection fee is \$5.00 per lineal foot of roadway or easement area.
- e. An Erosion Control Permit and Plan shall be required for this site. All temporary erosion control measures shall be placed prior to any land disturbing activities and maintained until final restoration with 70 percent growth of all vegetative areas. A Notice of Termination shall be submitted to the Engineering Department when final restoration has been completed.
- f. A Stormwater Management Plan and Permit shall be required for this site/project.
- g. The owner/applicant is required to submit a certificate of completion (as-built plans for the stormwater pond), stating the completion of the permitted work is in accordance with the plans, City, Federal, State and local laws and regulations for the stormwater facility. The



CITY OF MANITOWOC

WISCONSIN, USA

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owner/developer, contractor, and the design engineer shall sign the certificate of completion per the Manitowoc Municipal Code (MMC) Section 28.070(d).

- h. The City will take ownership of the stormwater detention pond and parcel when it is complete. We will require plan and profile drawings of the pond at a 1" = 20' scale with structure details and pond cross sections. Final pond as-builts will also be required when the pond is complete and grass growth is sufficient to prevent erosion.
- i. The pond shall be planted with native prairie or no mow grass with E-mat. Longer grasses are preferred since they provide vision screening and deter the geese.
- j. The outfall structure shall be approved by the City, but it should be designed to limit/minimize clogging from garbage, woody debris, leaves or other floatable debris. Preferably the structure shall collect water from a submerged pipe. However, the City will review any suggested structures.
- k. Additional landscaping/beautification features, if desired by the developer, shall also be reviewed by the City.
- l. Galax Court should be constructed 32 feet wide with a 60-foot-wide ROW. The Cul-de-sac shall be built per the City of Manitowoc's Standard Specification Form #518. The Subdivision Plat shall also reflect the Right-of-Way as it pertains to this form.
- m. No fly ash shall be allowed in the concrete pavement on public owned streets.
- n. Since, the concrete paving is planned to be completed later this year, the City has significant concerns about potential compaction/settlement issues where new utilities will be installed. Trench backfill and/or compaction testing shall be required to be completed throughout all sanitary, storm, and watermain trenches that will be below future pavement in the Right-of-Way.
- o. The slope of the terrace area between the curb and sidewalk shall be at 1/3" per foot. The new sidewalk cross-slope shall be less than 2% to accommodate ADA requirements.
- p. All new concrete pavement shall be constructed with integral curb on both Fern Dr. and Galax Ct. as per 511.12 of Manitowoc Standard Specifications for Public Works Construction.
- q. The abandoned sanitary main located in the center of E. Magnolia Avenue shall serve Fern Drive and Galax Ct. It was only bulkheaded in Manhole #18-57 and the manholes are present and look to be in good shape. The City televised this line and determined that the old pipe is in good condition. The City will look to have this pipe relined in the future.
- r. Since, the old sanitary sewer under E. Magnolia Ave. is still active and in good condition, we feel that the sanitary sewer should just be extended under the pavement to Johnston Drive and then continue to the north up Johnston Drive along the current sewer alignment near the centerline of



CITY OF MANITOWOC

WISCONSIN, USA

www.manitowoc.org

the road. That way the City of Manitowoc does not have to maintain 2 sewers on the same street.

- s. Since Johnston Drive is planned for reconstruction in 2027, we would allow a 4-Inch HMA Pavement in lieu of replacing the concrete pavement. However, the pavement replacement on E. Magnolia Ave. and Holly Dr. shall be completed with concrete pavement (8" thick).
- t. The Holly Drive sanitary main is 17'-18' deep making lateral connections difficult, expensive and a big concern for compaction/settlement issues. The developer will be allowed to serve 3 lots with one 6" lateral connected to the existing main in the center of Holly Dr. if that is preferred. Otherwise, the developer would be allowed to construct a new sanitary main behind the back of walk on an easement.
- u. We will require this project to use the same type of castings and structures that the City normally uses. See forms for the sewer work located in the City of Manitowoc Standard Specifications for Public Works Construction. (Form #401, 403, 405, 406, 407, 409, 410).
- v. Sanitary and Storm Manhole & Inlet numbers that are consistent with the City's district numbering system should be added to the plans. The City will work with you to get the structures numbered correctly.
- w. The City of Manitowoc shall furnish and install all street name signs, stop signs and any other regulatory or warning signs within the ROW of Fern Drive and Galax Court.
- x. The plans for the sanitary and storm sewers shall show flow direction arrows for all pipes.
- y. Low Pressure Air Testing of all sanitary main and laterals shall be required to ensure proper construction and prevent infiltration of ground water. Televising & Deflection Testing shall also be required for the public portion of sewer main. The City shall be given copies of the television inspection reports and video as well as the reports for the Air Test and Deflection Test.
- z. Plan and Profile drawings of the sewer and paving work shall be given to the City of Manitowoc for review prior to construction of work in the right of way. The City will red-line the plans and verify that they meet the City of Manitowoc Standard Specifications for Public Works Construction and Engineering Design Manual.
- aa. The City of Manitowoc will require the submittal of MicroStation Drawings or drawings compatible with MicroStation V8i for the plan and profile drawings of Fern Drive and Galax Ct.



CITY OF MANITOWOC

WISCONSIN, USA

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COMMUNITY DEVELOPMENT

- a. A Payment in Lieu of Parkland Dedication will be due by the developer prior to final plat approval.
- b. Add Certificate of Finance Director and Common Council Resolution to the plat.

WATER / ELECTRIC / GAS / PHONE / CABLE

- a. TDS would be very interested in going joint trench with MPU. TDS and will need to coordinate during construction.
- b. AT&T has an active copper cable in an existing AT&T private easement that will conflict with construction. Contact 1-888-901-2779 to initiate the relocation process. AT&T Engineering can be reached at 920-433-4112
- c. WPS: Utility easement will be needed to serve natural gas to the development
- d. Developer will need to contact the WPS call center (877-444-0888, newserviceinstallation@wisconsinpublicservice.com) to request the natural gas facilities be extended through the proposed development.
- e. MPU Water: C200 plan drawing, proposed apartment complexes look to be too close to existing CBCWA watermain easement. Show easement on plan drawings. Contact MPU water to discuss 920-683-4600.
- f. MPU Water is proposing watermain connection to existing stub-out at E Linden Ave and Fern Drive since Fern will be converted to a through street. Corner lots on Fern Drive, 1538 Fern Drive and 703 E Linden Ave will be assessed for new watermain.
- g. Existing watermain(s) are not shown properly on utility plans, particularly existing 16" watermain on E Magnolia Ave.
- h. Parallel watermains are not acceptable. Proposed watermain on Fern Drive should connect to existing stubout at Fern/E Linden intersection. 6" watermains are not acceptable. For MPU to consider 6" watermains, a hydraulic model is required to ensure adequate fire flow protection. 6' bury depth of watermains is typical. Hydrant on Galax Court should be on lot line.
- i. See map provided by MPU
- j. Watermain plans are not approved by MPU.
- k. Contact MPU regarding electric service requirements, potential street lighting, and cost estimates for electrical installation. MPU will send B-Forms to other utilities that would like to utilize joint-trench where applicable. Contact Justin Hoffmann (920)686-4347.



CITY OF MANITOWOC

WISCONSIN, USA

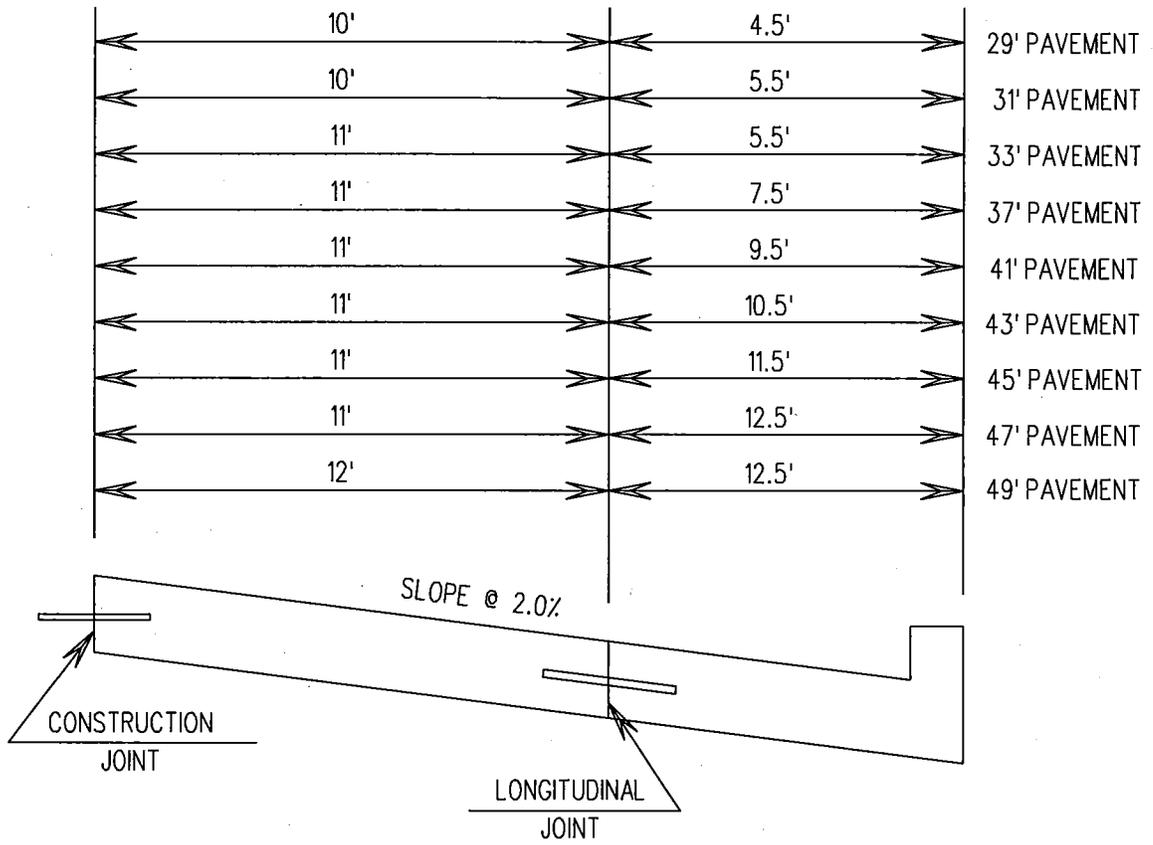
www.manitowoc.org

BUILDING INSPECTION / LIFE SAFETY

- a. We don't think the Galax Court is the proper name for the road, as it is disconnected from Galax Street. We feel this may cause problems for rescue service and delivery services. To be consistent with other street name themes in this part of the City the City is suggesting Galax Court be renamed to Juniper Court.

MANITOWOC COUNTY

- a. No issues with the proposed subdivision.



NO SCALE

CONCRETE PAVEMENT
JOINT DETAIL
(INTEGRAL CURB)

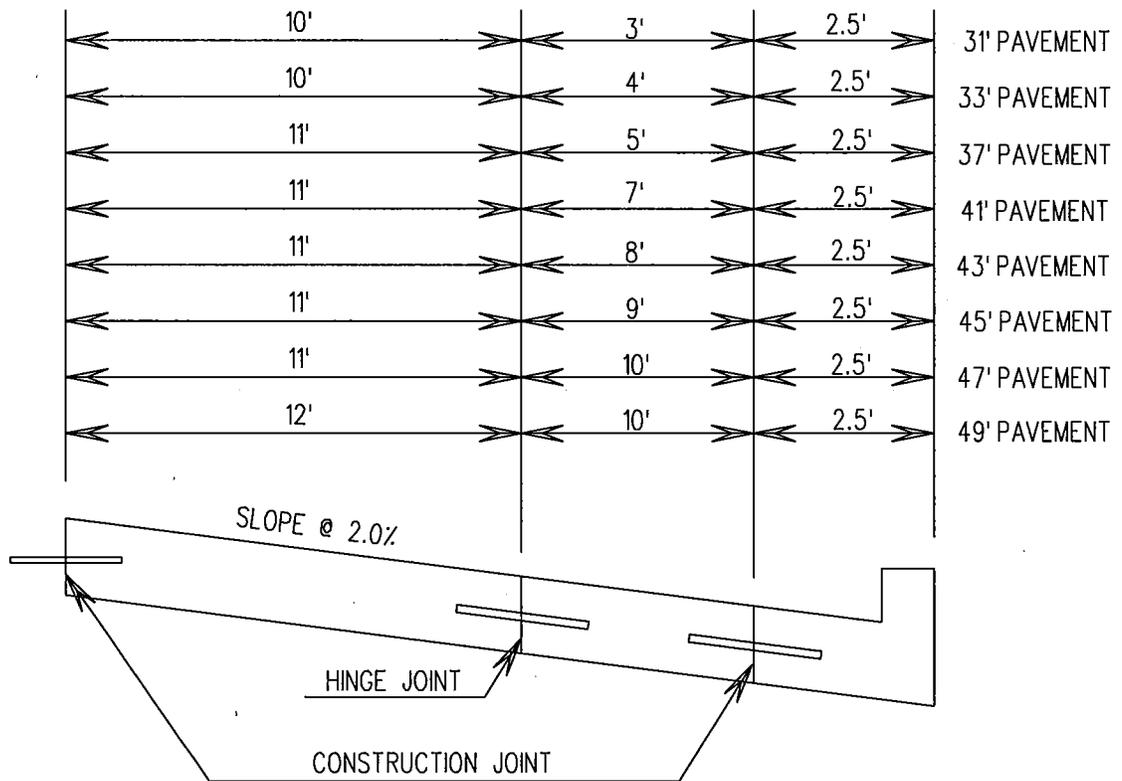
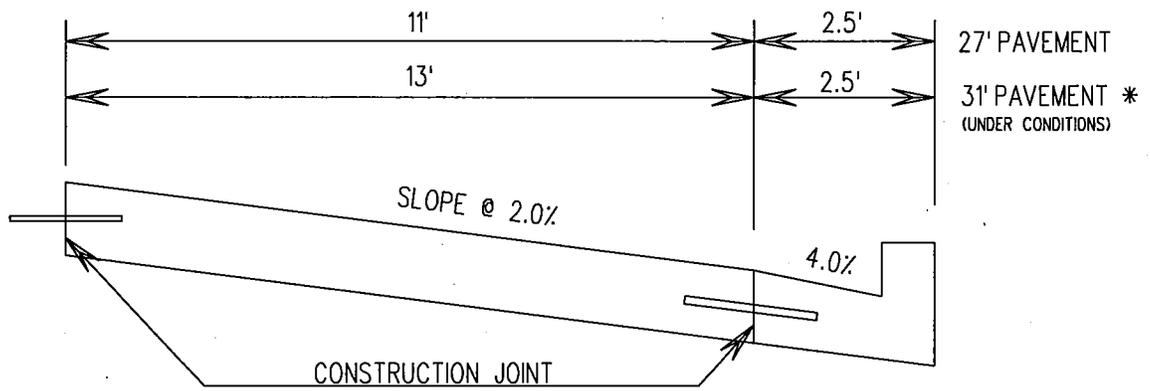


City of Manitowoc
ENGINEERING DEPARTMENT

Rev. 4/05

FORM NO.

511



NO SCALE

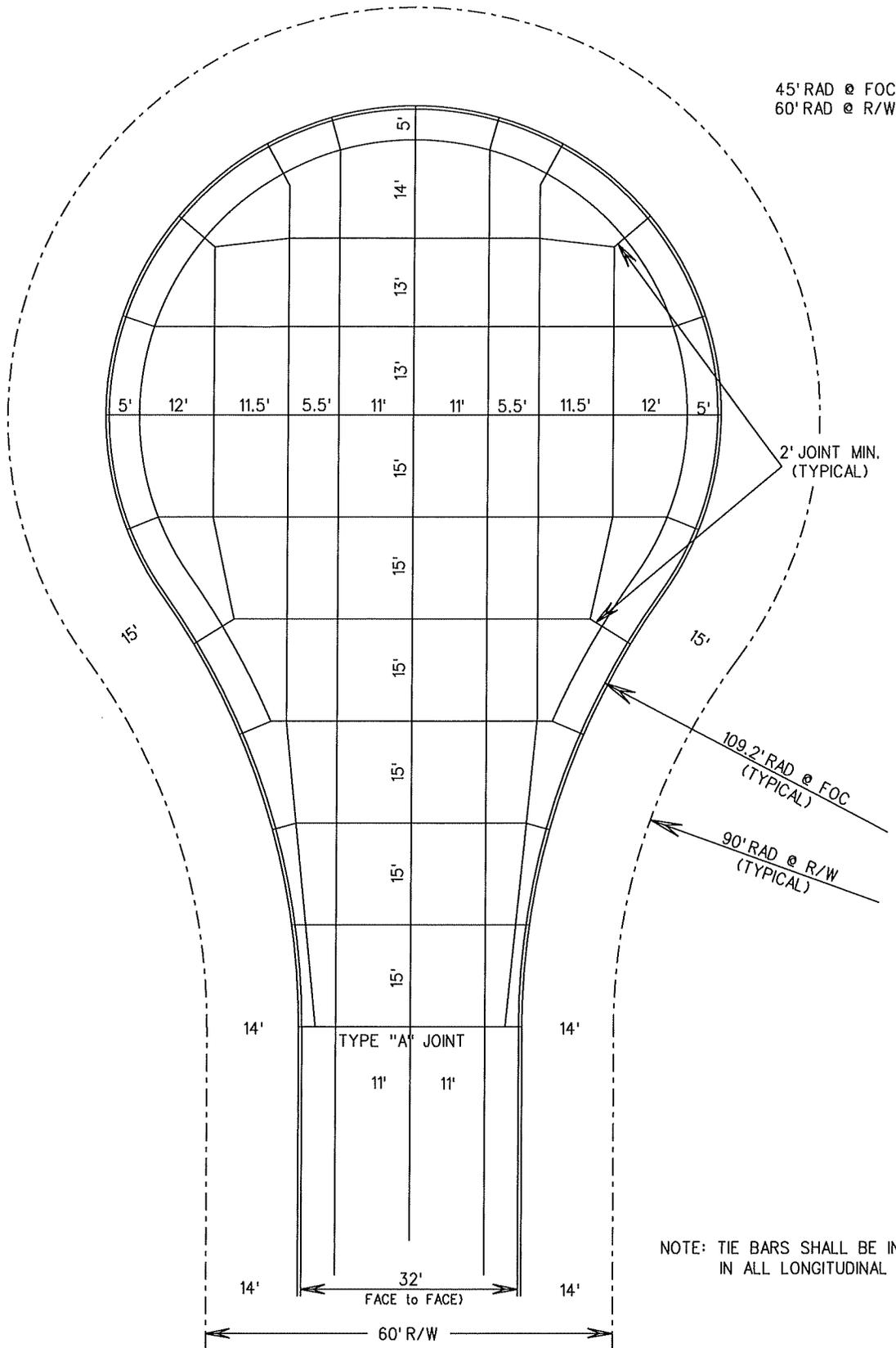
CONCRETE PAVEMENT
JOINT DETAIL
CURB & GUTTER SECTION



City of Manitowoc
ENGINEERING DEPARTMENT

Rev. 4/05

FORM NO.
512



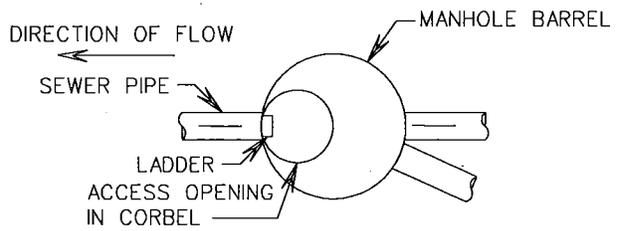
NO SCALE

STANDARD CUL-DE-SAC
JOINT DETAIL
(32' FACE TO FACE)

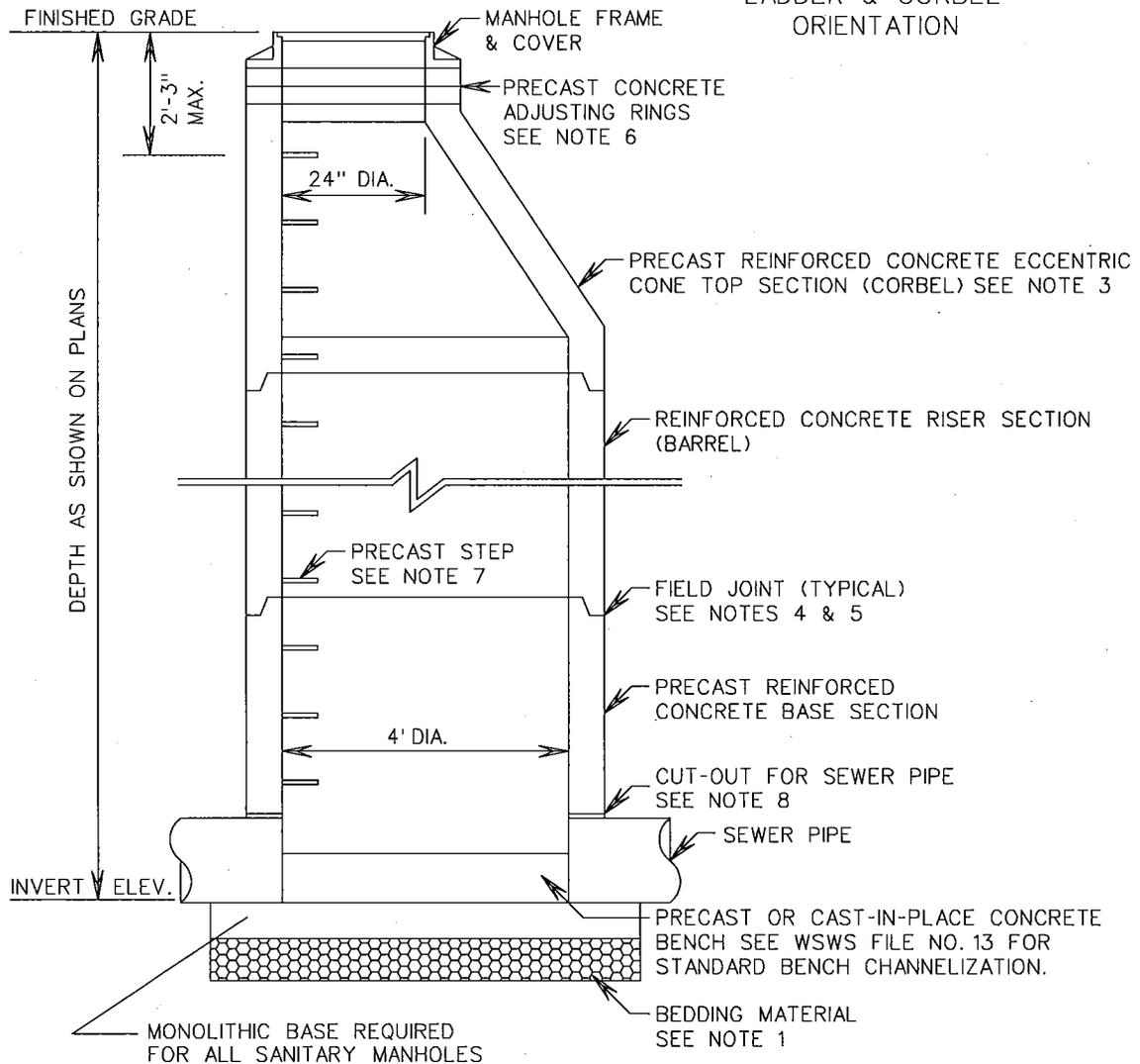
City of Manitowoc
ENGINEERING DEPARTMENT

Rev. 12/09 skk

FORM NO.
518



LADDER & CORBEL ORIENTATION



NO SCALE

TYPE 1
 STANDARD PRECAST MANHOLE
 FOR SANITARY OR STORM SEWERS



Rev. 11/08

FORM NO.
 401

(1 of 2)

NOTES

1. MANHOLE BASE SECTIONS SHALL BE PLACED ON AT LEAST 8" OF BEDDING MATERIAL CONFORMING TO WSWs 8.43.2 FOR DRY SUBGRADE AND WSWs 8.43.6 FOR WET SUBGRADE.

2. CONCRETE AND STEEL REINFORCEMENT SHALL CONFORM TO ASTM C-478 REQUIREMENTS.

3. PRECAST REINFORCED CONCRETE ECCENTRIC CONE TOPS (OFFSET CORBELS) MUST BE USED FOR MANHOLES OF DEPTHS GREATER THAN FIVE (5) FEET.

IF THE MANHOLE DEPTH, AS MEASURED FROM THE TOP OF THE CASTING FRAME TO THE TOP OF THE MANHOLE BASE SLAB, IS LESS THAN 5 FEET, A FLAT PRECAST REINFORCED CONCRETE MANHOLE TOP SHALL BE USED INSTEAD OF A CORBEL SECTION. THE FLAT MANHOLE TOP SHALL BE PROVIDED WITH AN ECCENTRIC 24" DIAMETER OPENING FOR THE MANHOLE CASTING.

4. PRECAST REINFORCED CONCRETE RISER SECTIONS (BARRELS) MAY BE PLACED WITH TONGUE OR "D" JOINT ENDS EITHER UP OR DOWN.

5. ALL FIELD JOINTS AT MANHOLE PIECES SHALL BE WATERTIGHT AND SHALL BE MADE IN ACCORDANCE WITH WSWs 3.5.4(i).

6. PRECAST REINFORCED CONCRETE ADJUSTING RINGS SHALL BE USED TO ADJUST THE FRAME TO THE REQUIRED GRADE. A MINIMUM OF 4" AND A MAXIMUM OF 10" OF ADJUSTING RINGS AND MORTAR SHALL BE USED FOR THE ADJUSTMENT. MORTAR OR FLEXIBLE SEAL SHALL BE $\frac{3}{8}$ " MINIMUM THICKNESS BETWEEN EACH RING, RING AND STRUCTURE, AND RING AND FRAME. THE THICKNESS OF EACH GRADE RING SHALL RANGE FROM 2" MINIMUM TO 6" MAXIMUM. GRADE RINGS SHALL BE REINFORCED WITH AT LEAST ONE RING OF STEEL REBAR CENTERED WITHIN THE RING.

7. STEPS SHALL BE PRECAST INTO THE MANHOLE SECTIONS BY THE MANUFACTURER. THE STEPS SHALL MEET THE REQUIREMENTS OF WSWs 6.40.0. THE TOP STEP SHALL BE SET NO LESS THAN THREE (3) INCHES AND NO MORE THAN SIX (6) INCHES BELOW THE TOP OF THE CORBEL. THE STEPS SHALL BE EQUALLY SPACED VERTICALLY AT SIXTEEN (16) INCHES ON CENTER.

8. THE ENTIRE SPACE BETWEEN THE PIPE LEADS AND THE PRECAST MANHOLE WALL SHALL BE MORTARED OR CONCRETED IN PLACE BY THE CONTRACTOR. SOLID CONCRETE BRICKS MORTARED IN PLACE MAY BE USED AS A FILLER FOR STORM MANHOLES.

9. FOR DETAILS OF OUTSIDE DROP TYPE CONNECTIONS OF SEWER PIPE TO SANITARY MANHOLES SEE DETAIL WSWs FILE NO.19

10. ALL SANITARY MANHOLES SHALL HAVE A MONOLITHIC BASE.

TYPE 1
STANDARD PRECAST MANHOLE
FOR SANITARY OR STORM SEWERS

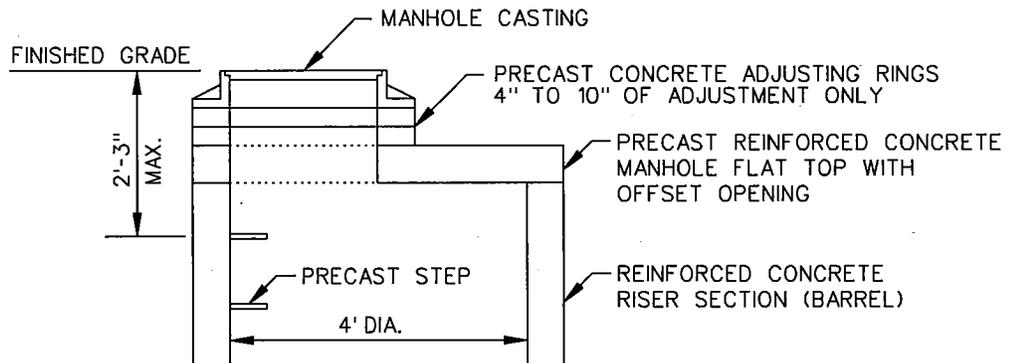
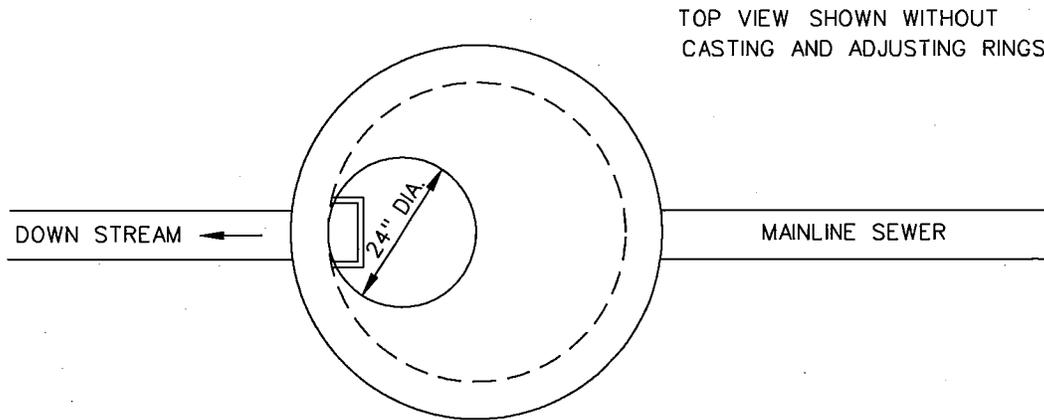


City of Manitowoc
ENGINEERING DEPARTMENT

Rev. 12/07

FORM NO.
401

(2 of 2)



SEE DETAIL 401 & 402 FOR ORIENTATION OF
MANHOLE OPENING AND ADDITIONAL INFORMATION

NO SCALE

FLAT TOP DETAIL FOR
TYPE 1
SANITARY & STORM MANHOLES

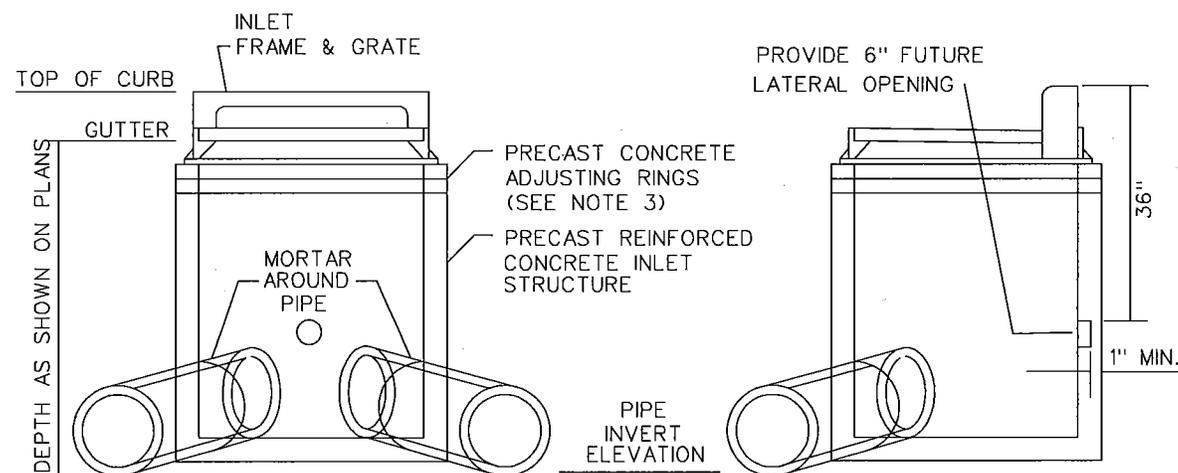
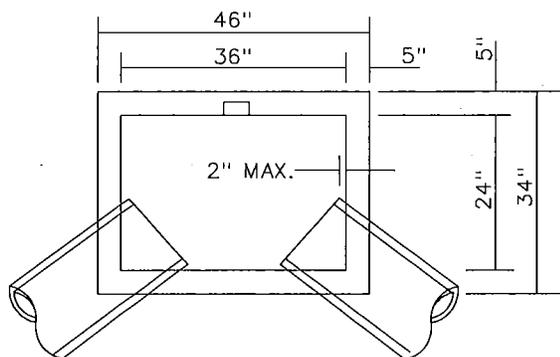


City of Manitowoc
ENGINEERING DEPARTMENT

Rev. 4/05

FORM NO.
403

TOP VIEW SHOWN WITHOUT
GRADE RINGS, FRAME & GRATE



NOTES

1. CATCH BASIN AND INLET STRUCTURES SHALL BE PLACED ON AT LEAST 8" OF BEDDING MATERIAL CONFORMING TO WSW.S.8.43.2 FOR DRY SUBGRADE AND WSW.S. 8.43.6 FOR WET SUBGRADE.
2. CONCRETE AND STEEL REINFORCEMENT SHALL CONFORM TO ASTM C-478 REQUIREMENTS.
3. PRECAST REINFORCED CONCRETE ADJUSTING RINGS SHALL BE USED TO ADJUST THE FRAME TO THE REQUIRED GRADE. A MINIMUM OF 4" A MAXIMUM OF 10" OF ADJUSTING RINGS AND MORTAR SHALL BE USED FOR THE ADJUSTMENT. MORTAR OR FLEXIBLE SEAL SHALL BE 3/8" MINIMUM THICKNESS BETWEEN EACH RING, RING AND STRUCTURE, AND RING AND FRAME. THE THICKNESS OF EACH GRADE RING SHALL RANGE FROM 2" MINIMUM TO 6" MAXIMUM. USE NO MORE THAN TWO (2) OF THE 2" SIZE OF GRADE RINGS PER STRUCTURE. GRADE RINGS SHALL BE REINFORCED WITH AT LEAST ONE RING OF STEEL REBAR CENTERED WITHIN THE RING. SPLIT RINGS ARE NOT ALLOWED.
4. THE HEIGHT OF INDIVIDUAL RISER SECTIONS SHALL BE SELECTED TO MINIMIZE THE NUMBER OF RISER JOINTS LOCATED BETWEEN THE TOP OF THE STRUCTURE AND THE BOTTOM OF THE COLUMN OF GRADE RINGS.
5. THE ENTIRE SPACE BETWEEN THE PIPE LEADS AND THE PRECAST CATCH BASIN OR INLET SHALL BE MORTARED OR CONCRETED IN PLACE BY THE CONTRACTOR. SOLID CONCRETE BRICKS MAY BE USED AS A FILLER.
6. THE FRAME OF THE CATCH BASIN (OR INLET) SHALL NOT EXTEND MORE THAN 1 1/2" BEYOND THE INNER OR OUTER EDGES OF THE CATCH BASIN (OR INLET) STRUCTURE.

NO SCALE

TYPE 3
STANDARD PRECAST INLET



City of Manitowoc
ENGINEERING DEPARTMENT

Rev. 3/10

FORM NO.
405

STANDARD TRENCH SECTION

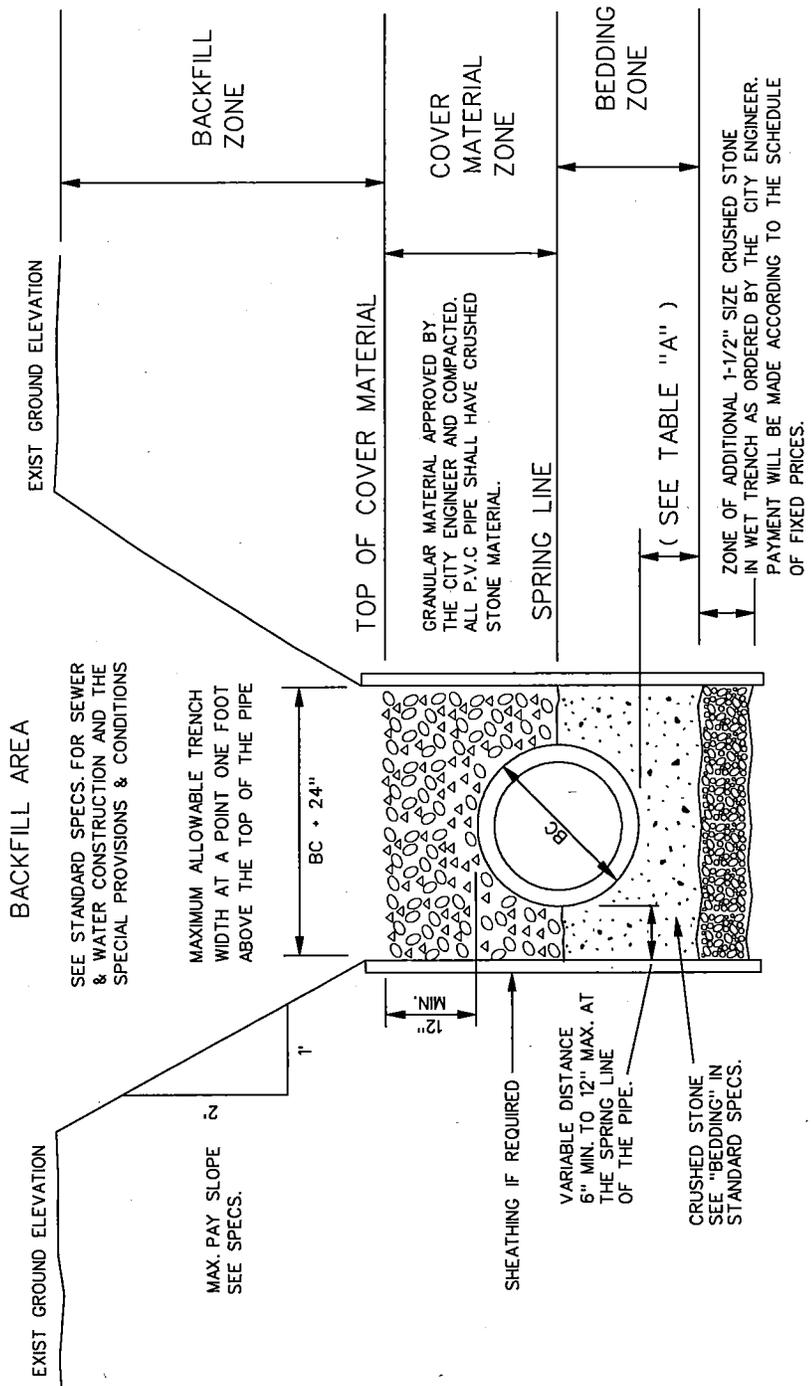


TABLE "A"

PIPE DIAMETER	STONE THICKNESS
24" & OVER	8"
21"	7"
18"	6"
15"	5"
12" & UNDER	4"

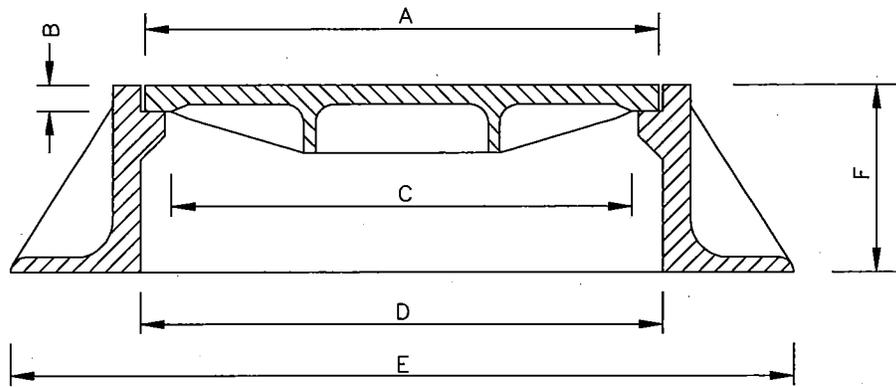
TYPICAL SECTION SHOWING BEDDING AND BACKFILL REQUIREMENTS FOR SANITARY AND STORM SEWER

NO SCALE

City of Manitowoc
ENGINEERING DEPARTMENT

Rev. 4/05

FORM NO.
406



FRAME	COVER	A	B	C	D	E	F
R-1550-A	TYPE "B"	23"	1/2"	21"	25 1/2"	36"	9"
R-2050	OPEN GRATE TYPE "C"	23"	1/2"	21"	25 1/2"	36"	9"
R-2560-E	BEE-HIVE GRATE	23"	1/2"	21"	25 1/2"	36"	9"

STANDARD MANHOLE CASTINGS
R-1550-A

NEENAH FOUNDRY CATALOG "R" 12TH EDITION (1999) OR APPROVED EQUAL.

SANITARY SEWER-MACHINED TO RECEIVE A 1/4" T-GASKET. DETAIL PER NEENAH FOUNDRY DRAWING *45512.

TYPE "B" COVER WITH TWO CONCEALED PICK HOLES.

STORM SEWER

NON ROCKING DESIGN TYPE "B" COVER WITH TWO OPEN PICK HOLES.

OPEN GRATE DESIGN R-2050 SHALL BE A TYPE "C" COVER.

BEE-HIVE CASTING & GRATE SHALL BE R-2560-E.

A STANDARD CASTING SHALL BE USED FOR MANHOLES LARGER THAN FOUR FEET IN DIAMETER.

NO SCALE

STANDARD MANHOLE
FRAME AND COVER

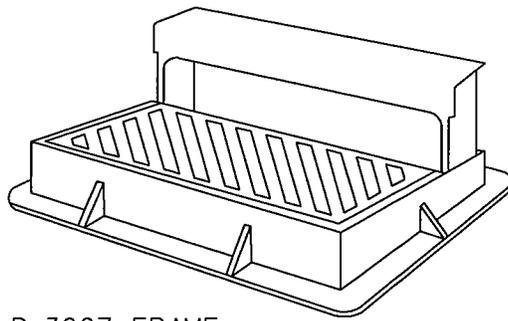


City of Manitowoc
ENGINEERING DEPARTMENT

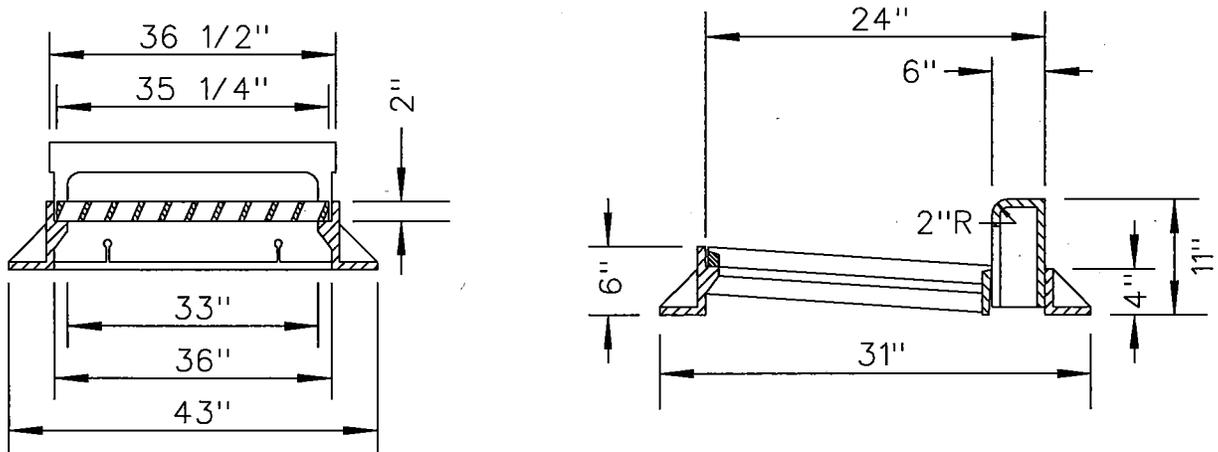
Rev. 4/05

FORM NO.

407



R-3067 FRAME
WITH "R" GRATE



1. NEENAH FRAME & GRATE R-3067-R (DIAGONAL) DIMENSIONED ABOVE SHALL BE USED UNLESS INDICATED OTHERWISE IN THE CONTRACT DOCUMENTS.

NO SCALE

STANDARD FRAME & GRATE FOR
CATCH BASINS & INLETS



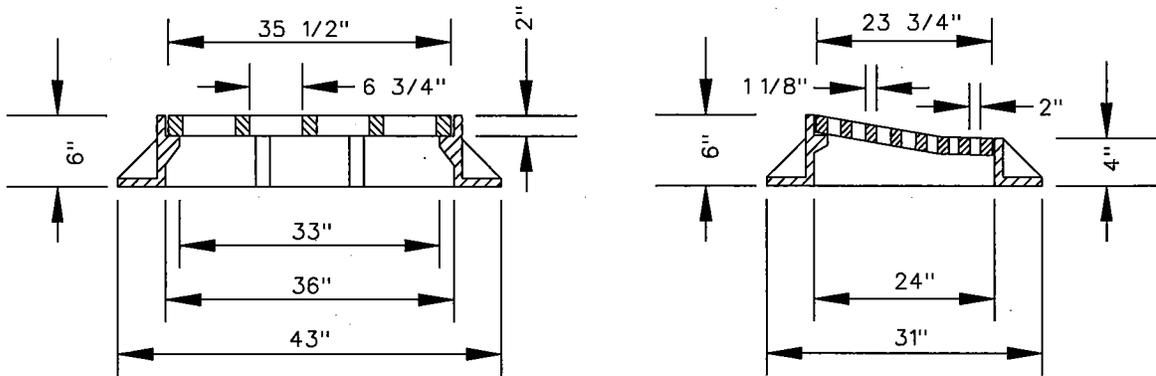
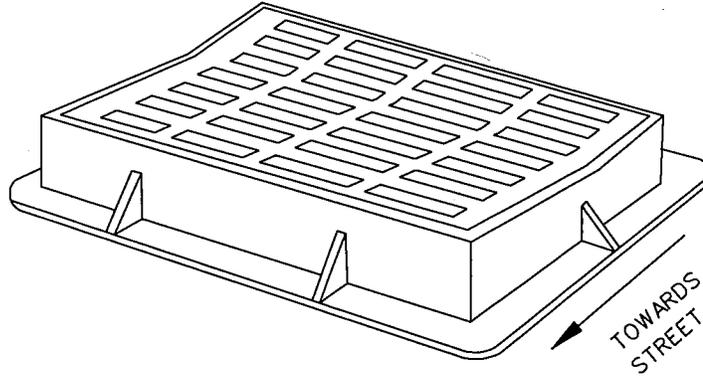
City of Manitowoc
ENGINEERING DEPARTMENT

Rev. 4/05

FORM NO.

409

NEENAH R-3290-A FRAME & GRATE SHALL BE USED AT
CATCH BASINS LOCATED WITHIN DRIVEWAY OPENINGS



NO SCALE

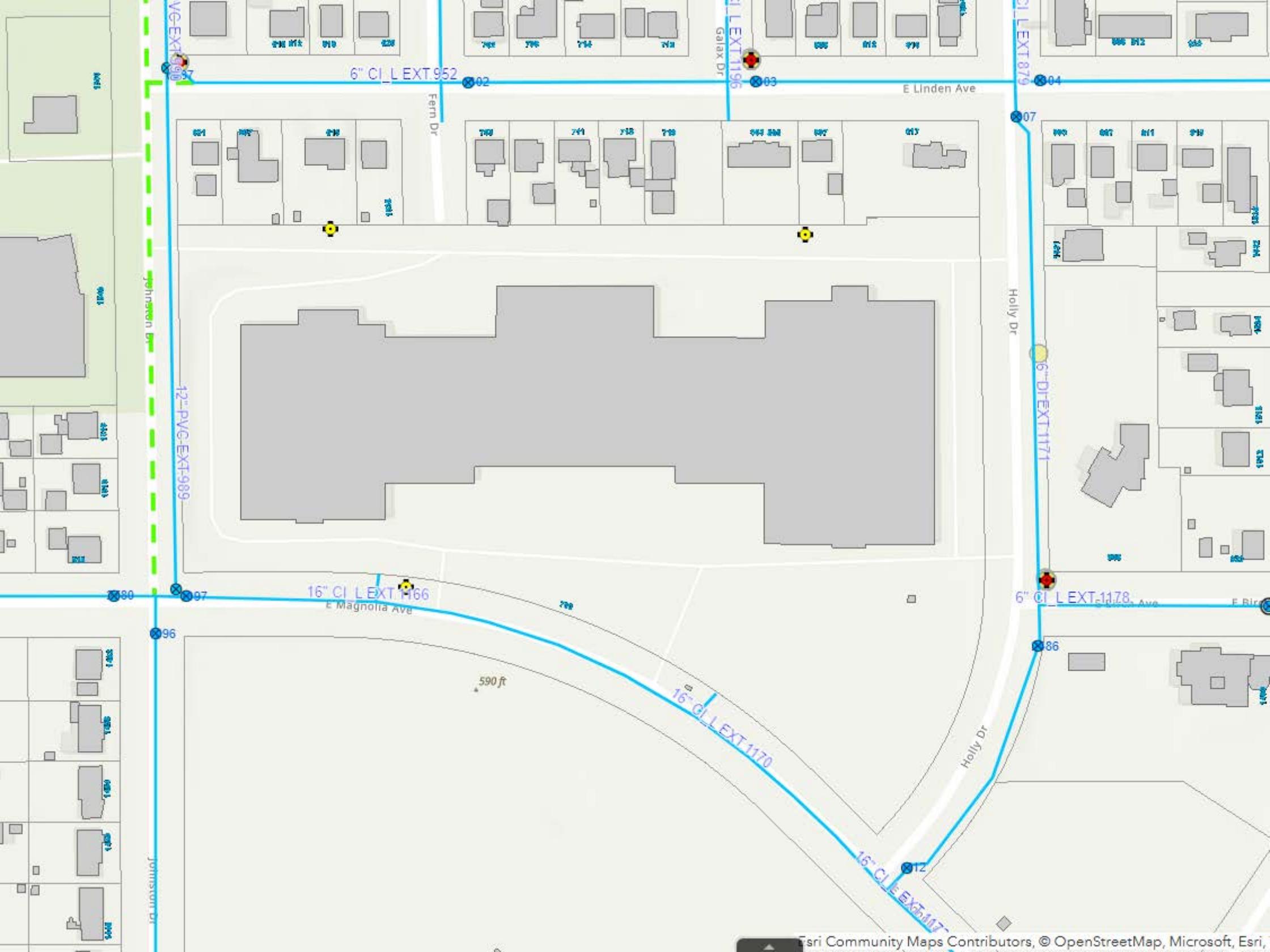
STANDARD FRAME & GRATE FOR
DRIVEWAY CATCH BASINS & INLETS



City of Manitowoc
ENGINEERING DEPARTMENT

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FORM NO.
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PVC-EXT-990

6" CI L EXT 952

CI L EXT 1196

CI L EXT 879

Johnson Dr

12" PVC-EXT-989

Fern Dr

Galax Dr

E Linden Ave

Holly Dr

6" DI-EXT-1171

16" CI L EXT 1166
E Magnolia Ave

6" CI L EXT-1178
E Birch Ave

Johnson Dr

Holly Dr

16" CI L EXT 1170

16" CI L EXT 1177

590 ft