

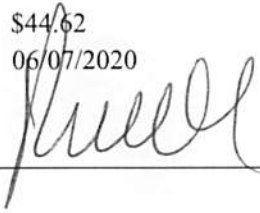
**STATE OF WISCONSIN  
BROWN COUNTY**

CITY OF MANITOWOC  
City Clerk  
900 QUAY ST

MANITOWOC WI 542204543

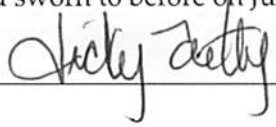
I, being duly sworn, doth depose and say I am an authorized representative of the Herald Times Reporter, a newspaper at Manitowoc Wisconsin and that an advertisement of which the annexed is a true copy, taken from said paper, which published therein on:

Account Number: GWM-306675  
Order Number: 0004220550  
Total Ad Cost: \$44.62  
Published Dates: 06/07/2020

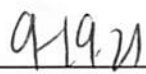


Legal Clerk

State of Wisconsin  
County of Brown  
Subscribed and sworn to before on June 7, 2020



Notary Public State of Wisconsin, County of Brown



My Commission Expires

# of Affidavits 1  
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**NOTICE OF PUBLIC HEARING ON SPECIAL ASSESSMENTS FOR PUBLIC IMPROVEMENTS IN MANITOWOC, WISCONSIN**

PLEASE TAKE NOTICE that the governing body of Manitowoc, Wisconsin, has declared its intention to exercise its police power in accordance with Section 66.0703, Stats., to levy special assessments for concrete paving of Roneta Lane upon property within the following described assessment district for benefits conferred upon the property by the improvements of Roneta Lane, including fine grading and concrete paving with integral curb thereon.

**ASSESSMENT DISTRICT:** All property fronting upon both sides of Roneta Lane from 540 Feet West of Cappaert Road to 680 Feet West of Cappaert Road, including the full width of the street within the project limits.

A report showing proposed plans and specifications, estimated cost of improvements and proposed assessments is on file in the City Clerk's Office and may be inspected there during any business day between the hours of 7:30 a.m. and 4:30 p.m.

You are further notified that the City of Manitowoc's Board of Public Works will hear all interested persons, or their agents or attorneys, concerning matters contained in the preliminary resolution authorizing the assessments and in the above described report at 4:15 p.m. on the 17th day of June, 2020, at City Hall, 900 Quay St., Manitowoc, Wisconsin in the Council Chambers. All objections will be considered at this hearing and thereafter the amount of the assessments will be finally determined.

Published: June 7, 2020  
BOARD OF PUBLIC WORKS  
(Signed) Justin M. Nickels, President  
(Signed) Deborah Neuser, Secretary  
Run: June 7, 2020 WNAXLP



CITY OF MANITOWOC

## Deborah Neuser

---

**From:** Greg Minikel  
**Sent:** Tuesday, June 9, 2020 2:40 PM  
**To:** Deborah Neuser  
**Cc:** Sonja Birr; Dan Koski  
**Subject:** RE: Roneta

Only the resolution was on the agenda for June 3<sup>rd</sup>.

We will have to put an item on the July 1<sup>st</sup> PI Committee meeting to discuss the rates further.

---

**From:** Deborah Neuser  
**Sent:** Tuesday, June 09, 2020 1:51 PM  
**To:** Greg Minikel  
**Subject:** Roneta

Did Public Infrastructure decide on a price for Roneta Lane assessments?



*Deborah A. Neuser*

City Clerk, WCMC, City of Manitowoc  
900 Quay St., Manitowoc, WI 54220  
(Ph) 920-686-6951; (Fax) 920-686-6959  
E-Mail: [dneuser@manitowoc.org](mailto:dneuser@manitowoc.org)  
Population: 33,692  
City Website: [www.manitowoc.org](http://www.manitowoc.org)



CITY OF MANITOWOC  
MANITOWOC, WI  
SPECIAL ASSESSMENT ENGINEERING REPORT  
NEW CONSTRUCTION OF RONETA LANE  
FROM 540 FT. WEST OF CAPPAERT RD. TO 680  
FT. WEST OF CAPPAERT RD.

Prepared By: Dan Koski, P.E.

Date: June 2, 2020

**SPECIAL ASSESSMENT ENGINEERING REPORT  
FOR  
RONETA LANE – 540 FT. WEST OF CAPPAERT RD. TO 680 FT. WEST  
NEW STREET CONSTRUCTION PROJECT**

**INTRODUCTION**

The City of Manitowoc plans to install concrete pavement on Roneta Lane from 540 feet west of Cappaert Rd. to 680 feet west of Cappaert Rd. in 2020. The work is planned to take place sometime between June 1<sup>st</sup>, 2020 and October 1<sup>st</sup>, 2020. The construction work includes fine grading, concrete pavement with integral curb, driveway approaches, and all other incidentals required to complete the work. A copy of the final plans and specifications are attached to this report as Schedule A. The extent of the improvement and estimated costs are included in the Appendix.

Roneta Lane is functionally classified by the Wisconsin Department of Transportation (DOT) as a local street. The street was originally graded and graveled in 2015. There are newer homes on 3 out of the 4 lots.

The roadway will be constructed with the same typical section that is currently in place. The street width between curbs is 36 feet. Roneta Lane consists of two 11 foot wide driving lanes and two 7 foot wide parking lanes.

**BACKGROUND**

The City opened bids for the Project on March 25, 2020. The bids were tabulated and forwarded to the Common Council for approval and a contract for the work will be entered into with the contractor, Vinton Construction. A Preliminary Resolution to assess this work will be placed on the June 15, 2020 Common Council Agenda. A copy of this Resolution is also included in the Appendix. The Board of Public Works will conduct a Public Hearing for these special assessments on June 17, 2020 at 4:15 P.M.

**BENEFITS TO PROPERTIES**

The proposed new construction will improve the existing gravel street with concrete pavement including integral concrete curb and gutter.

## **ATTACHMENTS**

This report is submitted in accordance with the requirements of Wis. Stats. §66.0705, and the preliminary resolution of the City Common Council of Manitowoc, Wisconsin, dated June 15, 2020, determining to levy special assessments on benefitted properties for public improvements described in Schedule B of this report to be made in the assessment district described in Schedule C of this report.

This report consists of the following schedules attached hereto:

- Schedule A – Final plans and specifications;
- Schedule B – Estimate of entire cost of proposed improvements;
- Schedule C – Schedule of proposed assessments against each benefitted parcel;

Attachments:

Schedule A – Plans and Specifications for the new construction of Roneta Lane from 540 ft. west of Cappaert Road to 680 ft. west of Cappaert Road.

Schedule B – Estimate of entire cost of proposed improvements.

The estimated total cost of improving the following named street and portions thereof in accordance with the plans and specifications in Schedule A is: **\$ 74,977.**

This cost is determined as follows:

For fine grading and concrete paving, including integral curb, on Roneta Lane from 540 ft. west of Cappaert Rd. to 680 ft. west - **\$ 65,197.**

Administrative Assistance, Engineering & Overhead (15%) - **\$ 9,780.**

Total estimated cost of street improvement - **\$ 74,977.**

Schedule C. Proposed Assessments.

The following properties against which the proposed assessments are to be made are benefitted by the proposed construction of Roneta Lane because it will include the installation of a permanent concrete pavement.

Schedule D. Preliminary Resolution.

# APPENDIX

# SCHEDULE "A"

Y:\Projects\Streets\2020\2020 Concrete Paving I (WS-20-1)\WS-20-1 SP&C.doc  
2/7/20 M.Z. Revised 3/9/20

WS-20-1

## SPECIAL PROVISIONS AND CONDITIONS

### INTENT AND SCOPE OF WORK

This Contract consists of two different types of concrete paving projects as follows:

1. Complete Reconstruction of Maritime Drive from North 6<sup>th</sup> Street to Buffalo Street.
2. Concrete paving of the pre-graded and graveled Roneta Lane from 540' west of Cappaert Road to 680' west of Cappaert Road.

The reconstruction work on Maritime Drive includes pavement removal, grading, graveling, fine grading, doweled concrete pavement with integral curb, concrete driveway, replacement of concrete sidewalks and obliterating of roadways. The project also includes replacing some storm sewer manholes, inlets and inlet leads, installing underdrains, replacing some sanitary manhole structures, relaying some sanitary sewer, lawn restoration, pavement markings and tree removal.

**The Contractor shall not be permitted to start any construction work on Maritime Drive prior to July 6, 2020 due to the events during the Fourth of July Holiday celebrations. The Completion Date shall not be later than September 11, 2020 due to the Ryder Cup Golf Tournament at Whistling Straits in Kohler from September 22, 2020 through September 27, 2020.**

The concrete paving work on Roneta Lane includes fine grading, concrete pavement with integral curb, new concrete driveways/sidewalks and new asphalt cul-de-sac.

The Contractor shall furnish all of the necessary labor, materials, equipment, and supplies for completing all work included in this contract.

Work included in this Contract shall be performed according to the plans and specifications, and to the satisfaction of the Engineer.

The City of Manitowoc reserves the right to delete any portion of this Contract.

## COMPLETION DATE

All work included in Contract WS-20-1 shall be completed on or before the Completion Date or within the allowed Contract Time, as listed below, whichever comes first.

<u>Location</u>	<u>Contract Time</u>	<u>Completion Date</u>
Maritime Drive Roneta Lane	N/A 30 Calendar Days	September 11, 2020 October 1, 2020

Failure to meet any of the Completion Dates or Contract Times listed above may result in the assessment of Liquidated Damages and Inspection Fees for Late Work.

The time limit for filing the executed contract and performance bond is **Fourteen (14) days** from the time the Bidder is notified in writing from the City that they are the successful bidder.

The City of Manitowoc intends to have construction begin immediately upon receipt of the "Notice to Proceed". The work shall progress in a neat and orderly manner.

## LIQUIDATED DAMAGES

For every calendar day of delay in the completion of the work beyond the time specified, unless extended by written agreement, there shall be deducted from the amount due under this Contract as fixed, agreed and liquidated damages, the sum of **Five-Hundred Dollars (\$500)**.

This sum shall be considered and treated not as a penalty but as fixed, agreed and liquidated damages due the Owner from the Contractor by reason of inconvenience to the public and other items which have caused an expenditure of public funds resulting from the failure to complete the work within the time specified in the contract.

## INSPECTION FEES FOR LATE WORK

The Contractor shall be liable for extra inspection charges the City incurs due to the Contractor's failure to meet the specified completion date(s).

For every working day of delay in completion of the work beyond the time specified, unless extended by written agreement, there shall be deducted from any monies due the contractor the sum of **Two-Hundred Fifty Dollars (\$250)** for inspection fees incurred as a result of the late work.

## CONSTRUCTION NOISE ABATEMENT

Motorized construction equipment shall not be operated within 500 feet of residential units between the hours of **10:00 P.M. and 7:00 A.M.** daily, without the prior written approval of the Engineer.

Each item of motorized construction equipment shall be equipped with a muffler constructed according to the equipment manufacturer's specifications. Mufflers of equivalent noise reducing capacity may be



substituted. Mufflers and exhaust systems shall be maintained in good operating conditions, free from leaks and holes.

### **NOTIFICATION OF PROPERTY OWNERS**

In accordance with Section 201 of the City's Standard Specifications for Public Works Construction, the Contractor shall be responsible for all notifications to abutting property owners regarding construction activities and closures. The Contractor shall write a letter/notice and hand deliver or mail the construction notice to all affected property owners prior to starting the work. *The Contractor shall send the City of Manitowoc a copy of the notice prior to sending them out to the property owners.*

#### **The City of Manitowoc will not deliver construction notices to the property owners.**

The City will forward all calls regarding construction scheduling and access problems, etc. to the Contractor. All costs for preparing and delivering these construction notices shall be classified as incidental.

### **PRE-CONSTRUCTION CONFERENCE**

In accordance with Section 202 of the City's Standard Specifications for Public Works Construction, a pre-construction conference shall be held with the Contractor and the Engineer prior to starting construction. The Contractor shall be prepared to discuss the construction schedule in detail, including access to abutting properties, especially the businesses.

### **WORK BY OTHERS**

#### **MANITOWOC DEPARTMENT OF PUBLIC INFRASTRUCTURE (DPI)**

The City of Manitowoc Department of Public Infrastructure (DPI) shall be responsible to remove and replace any regulatory signage and posts that interfere with the Contractor's work. **The City will install/modify all the new signage and posts prior to opening up the street at the new intersection of Buffalo, North 5<sup>th</sup> and Maritime.** The Contractor shall call DPI's Billy Hutterer at (920) 686-6550 or (920) 323-7842 to coordinate any signage issues.

The Contractor shall notify the City Electrician three (3) days prior to any construction at the intersection of Buffalo and Maritime. The City Electrician will remove the two solar powered RRFB's for the pedestrian crossing at Buffalo Street. The RRFB's are located on the east and west sides of Maritime Drive. The Contractor shall notify the City Electrician prior to opening up the Maritime Drive and Buffalo Street

Intersection to install the RRFB's at the new location of the pedestrian crossing. The Contractor shall contact Mark DeZeeuw at (920) 686-6517 or (920) 374-0034.

#### **MANITOWOC PUBLIC UTILITIES (MPU) – WATER DEPARTMENT**

Manitowoc Public Utilities Water Department intends to replace portions of their water main under Maritime Drive under a Separate Contract. The water main construction may or may not be concurrent with this contract. The Paving Contractor shall coordinate their work with the MPU's watermain Contractor.

## **MANITOWOC PUBLIC UTILITIES (MPU) – ELECTRICAL DEPARTMENT**

No work is anticipated at this time.

## **MANITOWOC PUBLIC UTILITIES (MPU) – FIBER OPTICS**

No work is anticipated at this time.

## **WISCONSIN PUBLIC SERVICE (WPS) – NATURAL GAS DIVISION**

Wisconsin Public Service has a 2” plastic gas-main on Maritime Drive located under the sidewalk on the north side of York Street. It is anticipated the gas-main will be below the 12” storm sewer crossing at Station 5+18/22’ W. Wisconsin Public Service will install a rock shield between said crossing if the vertical separation is less than twelve (12”) inches. The same 2” plastic gas main running east and west across Maritime Drive is at an approximate depth of 2’-7” below the existing East concrete flowline. The Contractor shall exercise caution when excavating for the placement of the breaker run and crushed aggregate base course. WPS will install a rock shield between the sub-base elevation gas-main crossing if the vertical separation is less than twelve (12”) inches.

Wisconsin Public Service has a 2” plastic gas-main located between the back of curb and the sidewalk along the north side of Buffalo Street at North 5<sup>th</sup> Street. It is anticipated the gas-main will be above the 12” storm sewer crossing at Station 7+80/118’ W. Wisconsin Public Service will install a rock shield between said crossing if the vertical separation is less than twelve (12”) inches.

The Contractor shall contact Joel Sawicki at (920) 657-1862 or (920) 680-3181 or [joel.sawicki@wisconsinpublicservice.com](mailto:joel.sawicki@wisconsinpublicservice.com) two (2) days in advance for any issues with the gas-main crossings.

## **AT&T (TELEPHONE & FIBER OPTIC)**

No work is anticipated at this time.

The Contractor shall contact Joe Kassab at (920) 202-4002 or [jk572k@att.com](mailto:jk572k@att.com) for any location issues.

## **COMCAST (CABLE TELEVISION)**

No work is anticipated at this time.

## **PRE-GRADED AND GRAVELED STREETS**

On Roneta Lane the gravel elevation was held down from the proposed finished concrete grade by three (3) inches for the seven (7) inch concrete pavement.

Actual gravel grades may vary significantly.

## **TERRACE PREPARATION/RESTORATION**

The Contractor shall backfill the terrace area on Roneta Lane (the area between the curb and the Right-of-Way or the slope intercept) as shown on the plans and cross sections with suitable material. The suitable material shall be earth material, free of vegetation and organic matter and 90% free of stone and rubble by

volume. Any stone or rubble shall not be larger than 1-1/2 inches and shall be placed 3 inches or more below the finished grade. All concrete shall be removed from behind the curb. The tree lawn/terrace area shall be constructed at a uniform slope of 1/3 inch per foot, unless directed otherwise by the Engineer.

The Contractor shall place a minimum of 3 inches of pulverized topsoil material to the proper cross section and compact in place. The pulverized topsoil material shall consist of a rich loam, humus bearing soil suitable for growing grass, placed to a depth of 3 inches with no clods of earth larger than 1 inch in diameter and shall not contain any stones or rocks larger than 3/4 inch in diameter. Topsoil shall be placed using appropriate equipment to provide a uniformly textured soil suitable for vegetative growth. All costs to furnish, install and compact the topsoil shall be included in the unit price bid per square yard of "3-Inch Pulverized Topsoil."

On pre-graded and graveled streets where fine grading is called for, the terrace areas shall be cut or filled to proper grade in accordance with the typical cross section and then restored as described above. Costs for cutting or filling material within the terrace area shall be included in the unit bid price per square yard of "Terrace Preparation/Restoration."

The pay measurement for the item of Terrace Preparation/Restoration shall be measured from the back of the new curb to the Right-of-Way or the slope intercept line. The measurement will exclude all sidewalk and driveway areas. (i.e. the area measured for Terrace Preparation/Restoration will be equal to the quantity measured for Topsoil and Seeding or Sod as the case may be).

## **TRAFFIC CONTROL**

No construction signage shall be installed on existing utility poles.

The guidance of traffic through and around the work zones shall be carried forth in accordance with the latest revision of the "Manual on Uniform Traffic Control Devices for Streets and Highways" (MUTCD) and as the Engineer directs. Conformance with the detailed signage specifications below shall not excuse the Contractor from further traffic control that may be required for public safety or to comply with the MUTCD requirements.

All traffic control items shall be maintained in good operating condition. Signs, barricades, barrels, lights, barricades and tubular markers, etc. shall be cleaned as necessary, in order to maintain reflective tape visible for its intended illumination. All barrels shall be properly set with the rubber base and the barrels shall be undamaged. Any severely damaged barrels shall be removed and replaced. The contractor shall be responsible for reviewing all traffic signs, detour signs and traffic control devices furnished and erected for location, position, visibility, adequacy and manner of use under specific job conditions immediately after each setup and at least once every 24 hours and more frequently as necessary, to ensure all signs and traffic control devices are in compliance with this Traffic Control section. All costs for furnishing, installing, cleaning, maintenance and replacement and removal of traffic control items shall be included in the lump sum price bid for "Traffic Control."

## **MARITIME DRIVE**

Traffic Control Plan for Maritime Drive (TC-1) has been included in this contract as a "GUIDE ONLY" to show the Detour and Traffic Control locations. It is anticipated additional traffic control items will be required due to the construction phasing and sequence of the work by the Contractor. Any additional signage required shall be at the expense of the Contractor.

**Maritime Drive shall remain open at all times. The Contractor may have to phase or stage construction to provide continuous access. The Contractor shall notify the businesses, property owners/residents a minimum of 24 hours in advance of any driveways that are being closed.**

**The Contractor shall maintain ONE -WAY traffic for NORTHBOUND Maritime Drive at all times.**

**The Contractor shall maintain all vehicular traffic (semi-trucks and employees, etc.) at all times to the parking lot at North 6<sup>th</sup> and Maritime Drive to have access to the Baymont Inn & Suites and the Wisconsin Maritime Museum. The Contractor shall not park any construction equipment or personal vehicles in this parking lot.**

**The Contractor shall provide the Engineer with a traffic control plan 2 weeks prior to the preconstruction meeting for approval. The plan should show any phasing operations throughout the entire project that the Contractor is proposing to use. The Contractor shall maintain access for emergency vehicles at all times.**

### **RONETA LANE**

Contractor shall furnish, install and maintain "Road Work Ahead" signs on barricades at the following locations:

1. On Cappaert Road, just north of Roneta Lane for southbound traffic.
2. On Cappaert Road, just south of Roneta Lane for northbound traffic.

Contractor shall furnish, install and maintain "Road Closed Ahead" signs on barricades at the following locations:

1. On Roneta Lane, just west of Cappaert Road for westbound traffic.

Contractor shall furnish install and maintain "Road Closed" signs on Type III barricades at the following location:

1. On Roneta Lane, at the end of the existing concrete street, which is on the east side of the project limits.

### **MAILBOXES**

#### **MARITIME DRIVE**

There are no mailboxes along Maritime Drive from North 6<sup>th</sup> to Buffalo Street.

#### **RONETA LANE**

All work for mailboxes and temporary mailboxes shall be in accordance with Section 201 of the City of Manitowoc Standard Specifications for Public Works Construction.

1. **One bank of mailboxes shall be placed on Roneta Lane at approximately 500 feet west of Cappaert Road on the north side of the street. There are currently three (3) property owners on the gravel portion of Roneta Lane.**

It is the responsibility of the Contractor to notify the owners of all mailboxes that will interfere with construction. The Contractor shall carefully remove the existing curbside posts and mailboxes associated

with them, along Roneta Lane in the gravel portion. The Contractor shall set the post and mailbox in a safe place on each respective property beyond the grading limits.

The Contractor shall furnish and install temporary mailboxes at an accessible location for mail delivery and pickup. The Contractor shall contact Postmaster Gerald Brylski at the Manitowoc Post Office at (920) 682-6166 or [gerald.m.brylski@usps.gov](mailto:gerald.m.brylski@usps.gov) to coordinate delivery of the temporary mailboxes and for installation requirements. At this time the Manitowoc Post Office is willing to furnish the Contractor with temporary mailboxes. The temporary mailboxes come in a bank of boxes, each bank of boxes have 15 individual mailboxes in said bank. The Contractor and/or Post Office shall affix the property owner's address on each individual mailbox as directed by the Post Office.

**After completion of the project, The Contractor shall reinstall the original mailboxes and posts at their original location in accordance with the U.S. Postal Service guidelines.**

The Contractor shall remove the temporary mailboxes at the completion of the project and shall restore all disturbed areas with topsoil, seed and e-mat.

Each complete mailbox unit may consist of 1 or multiple individual mailboxes and/or 1 or multiple posts. Costs associated with removing the existing post and/or posts and mailbox in front of each property and reinstalling the post and/or posts and original mailbox, shall be included in "Remove and Replace Mailbox" for **each** complete unit in place.

The costs associated for furnishing, installing and removal of temporary bank of mailboxes, shall be included in the unit price bid for each, installing and anchoring each temporary bank of mailboxes including the concrete slab, removal of the temporary bank of mailboxes, the removal of the concrete slab and all lawn restoration, shall be included in the unit price bid for **each bank of** "Temporary Mailboxes".

## **CONCRETE PAVEMENT JOINTS**

Concrete Pavement joints in addition to those required to meet the spacing requirements of the Standard Detail Drawing for urban doweled concrete pavement shall be considered incidental to each of the respective concrete pavement bid items. This includes all additional joints required at intersections, manholes, inlets, valves and other appurtenances located within the pavement limits.

## **SEALING JOINTS**

The Contractor shall seal all concrete pavement joints and asphalt transition joints on all streets included in this contract. Contractor shall seal these pavement joints with a hot poured elastic joint sealer. **Joint sealing shall be completed before traffic of any kind including construction traffic is allowed on the new pavement.** Costs for cleaning and sealing all concrete and asphalt pavement joints shall be included in the unit price bid per square yard for each of the respective pavement bid items.

## **SIDEWALK AND DRIVEWAY ACCESS**

Driveways within the project limits that are permitted to be closed shall be closed off with Type I barricades or drums/barrels placed at the top of the approach. Any sidewalk removed at a street intersection shall be

protected with Type I barricades or drums/barrels placed to warn pedestrian traffic of the construction. The Contractor shall keep the mainline sidewalk clean and free of any construction materials or equipment for the safety of pedestrians.

## **GEOGRID**

If geogrid is required for any part of the project, geogrid shall be placed as directed by the Engineer. The geogrid shall be installed in accordance with the installation guidelines provided by the manufacturer.

The Contractor shall provide the Engineer with a copy of the manufacturers specifications prior to placing the geogrid.

The geogrid shall meet the following specifications:

<b>Index Properties</b>	<b>Units</b>	<b>MD Values</b>	<b>XMD Values</b>
Aperture Dimensions	Mm (in)	25 (1.0)	33 (1.3)
Minimum Rib Thickness	Mm (in)	1.27 (0.05)	1.27 (0.05)
Tensile Strength @ 2% Strain	KN/m (lb. /ft.)	6.0 (410)	9.0 (620)
Tensile Strength @ 5% Strain	kN/m (lb. /ft.)	11.8 (810)	19.6 (1,340)
Ultimate Tensile Strength	kN/m (lb. /ft.)	19.2 (1,310)	28.8 (1,970)
<b>Structural Integrity</b>			
Flexural Stiffness	mg-cm	750,000	
Aperture Stability	m-N/deg	0.65	

Payment for the geogrid shall be by the square yard and shall be based upon the in-place area covered by the geogrid. The overlaps shall not be included in the pay measurement.

## **SAWING OF DRIVEWAYS AND SIDEWALKS**

The City shall pay the Contractor for sidewalk and driveway sawing when indicated on the plans or when marked in the field. When sidewalk and driveways are being removed to an existing construction or expansion joint, the City shall not pay for any sawing by the Contractor to remove those sections.

## **TRACER WIRE**

The Contractor shall furnish and install tracer wire on the new 6-Inch perforated storm pipe and the relayed sanitary laterals from the mainline sewer to a point where a reconnection to the existing lateral is made or where a lateral end terminates and also for all water services. The Contractor shall refer to Forms 424 or 425 of the City of Manitowoc Standard Specifications.

The tracer wire shall be 12 gauge solid copper with a corrosion protective coating and color coded as follows, blue is for water, green for sanitary and brown for storm. The wire shall be placed along the top of the entire length of the pipe and secured at 14-foot intervals and at pipe bends. The tracer wire shall daylight through a 1-inch PVC Schedule 40 conduit with a removable threaded galvanized metal cap. Waterproof wire nuts or splice kits are required when splicing of tracer wire is performed and on the ends of the terminating tracer wire.

The Contractor shall perform a continuity test after all the tracer wire has been installed and prior to permanent pavement replacement. Continuity testing shall be in the presence of a representative of the Engineer. The Contractor may elect to test completed segments of the sewer systems prior to the final completion of all sewer. The Engineer shall make the determination of final acceptance.

Costs to furnish, install, and test the tracer wire, including but not limited to conduits, waterproof splicing kits and wire nuts, galvanized metal caps and all other work and materials required in accordance with Forms 423, 424 and 425 shall be included in the unit price bid per lineal foot of each of the respective bid items.

### **MANHOLE CASTINGS & INLET CASTINGS**

The Contractor shall furnish and install new complete manhole and inlet castings (frame and cover), as required on the plans or as directed by the Engineer. Costs for furnishing, installing, and adjusting new manhole and inlet castings shall be included in the unit price bid per each type of casting as specified in the bid quantities.

The old castings shall be stockpiled at a designated location on the project and the City of Manitowoc DPI will pick up these old castings.

### **MANHOLE AND INLET CLEANING**

The Contractor and the City's Inspector shall inspect every manhole and inlet together after the project is completed to assure that there are no construction materials within them. The Contractor shall clean any manholes and inlets that are dirty from construction related activities. All manhole and inlet cleaning work shall be completed prior to the final payment. Costs for inspecting and cleaning manholes and inlets shall be considered incidental.

### **ADJUSTING 5-INCH WATER VALVE BOXES**

All water valve boxes shall be adjusted to match final grades as shown on the plans, except for those on vacant lands or outside the grading limits. The Contractor shall use cast iron three piece screw-types if required.

Payment is full compensation for adjusting the water valve boxes, and for furnishing all labor, tools, equipment, and incidentals necessary for adjusting each valve in accordance with the requirements of the plans and contract. If the Contractor has any questions regarding the water valves, they shall contact the Manitowoc Public Utilities Water Department at 920-686-4244.

### **REPLACEMENT OF LAWNS**

All work shall be in accordance with **Section 700** of the **"City of Manitowoc Standard Specifications for Public Works Construction"** and as directed by the Engineer.

## **MARITIME DRIVE:**

The payment for lawn restoration shall be limited to four (4) feet behind the back of curb, along Maritime Drive, except at the intersection of North 5th Street and Buffalo Street where we are obliterating the roadway, see Erosion Control Plan (EC-1&2).

### **1. Businesses, Commercial Properties and Vacant Lots**

The Contractor shall restore disturbed lawn areas, as shown on the Erosion Control Plan (EC-1&2). The area along Maritime Drive between the new back of curb line to four (4') feet behind the back of curb, shall be restored with 3 inches of Pulverized Topsoil, Fertilizer, Sod, and Water. The Contractor shall be responsible to water the sod for a period of not less than 28 days.

### **2. Obliterating Roadway**

The Contractor shall restore disturbed lawn areas, as shown on the Erosion Control Plan (EC-2). The area between the new curb line and the sidewalk and/or the slope intercept line, shall be restored with 3 inches of Pulverized Topsoil, Fertilizer, Seed (WisDOT Type 40), Erosion Mat and Water. Seed and fertilizer shall be applied at a rate of seven (7) pounds per 1,000 square feet. The Contractor shall be responsible to water the seed for a period of not less than 28 days.

## **RONETA LANE:**

### **1. Residential, Vacant Lots and Cul-De-Sac**

The Contractor shall restore disturbed lawn areas, between the curb and the right-of-way line, with 3 inches of Pulverized Topsoil, Fertilizer, Seed (WisDOT Type 40), Mulch and Water. Seed and fertilizer shall be applied at a rate of seven (7) pounds per 1,000 square feet. The Contractor shall be responsible to water the seed for a period of not less than 28 days.

## **EPOXY PAVEMENT MARKINGS**

### **GENERAL**

The construction methods shall be in accordance with Section 646.3 of the Wisconsin Department of Transportation Standard Specifications for Highway and Structure Construction, unless noted otherwise.

Pavement markings shall be epoxy paint. The epoxy paint shall be applied in accordance with the rates listed in the Standard WisDOT Specifications.

Permanent pavement markings shall be placed at the locations and to the dimensions shown on the plans and WisDOT Standard Detail Drawings or as directed by the Engineer.

Markings shall contain reflective glass beads, which shall be applied at a rate of not less than 25 pounds per gallon of epoxy paint.



## **STREET PREPARATION**

The Contractor shall be responsible for all cleaning and preparation work on the street prior to the epoxy painting. All costs for cleaning and preparation work shall be included in the unit price bid for each of the specified bid items.

The Contractor will be permitted to use a grinder for the surface preparation on streets with existing pavement markings providing that the grinding does not excessively deface the pavement as determined by the Engineer. Otherwise, the Contractor will have to remove old pavement markings by blast cleaning (shot or sand blasting).

If the Contractor elects and is permitted to use a grinding method, in lieu of shot or sand blasting for removal of existing pavement markings, then the Contractor shall be required to grind a square or rectangular box that is a minimum of 1 foot wider than the arrow or words that are going to be painted. This requirement does not apply to centerlines, lane lines, channelizing lines, stop bars and crosswalks. It is intended only for arrows, words and railroad crossing pavement markings.

Work shall be done in accordance with Section 646.3.4 of WisDOT Specifications, which require a minimum of 85 percent of pavement to be exposed prior to receiving new markings. The shot or sand blast cleaning equipment shall be equipped with a vacuum attachment to immediately remove dust and residue from the street surface.

The cost for grinding and/or blast cleaning (shot or sand blasting) shall be considered incidental and shall be included in the cost of the epoxy pavement marking for each of the specified bid items.

## **PAVEMENT MARKINGS AND MEASUREMENT FOR PAYMENT**

**SOLID LINE** – Solid lines shall be yellow or white and four (4”) inches in width. The solid lines shall be paid for by the lineal foot measured from end to end of the line.

**BROKEN LINE (Dashed)** – The Contractor shall mark the line 12.5 feet long with spacing of 37.5 feet and a width of four (4”) inches. Measurement and payment for dashed lines will be based on lineal feet of four-inch pavement marking and will include only the lineal feet of line painted, not the gaps.

**DOUBLE SOLID LINE** – Double solid lines will be treated as two solid lines being four (4”) inches in width each, separated by a space. Payment for a double solid line will be treated as two solid lines.

**PEDESTRIAN CROSSING** – Pedestrian crossings (crosswalks) shall be two parallel white lines, six (6”) inches wide each, with a minimum of six feet of separation.

The pedestrian crossing shall be measured and paid for by the lineal feet of crosswalk between the opposing curb lines. Measurement shall begin and end at the beginning and ending of the painted lines. Payment shall be based on lineal feet of crosswalk, which shall include two parallel white lines, six (6”) inches wide.

Alternate 12” crosswalk markings shall installed per Form # 905 of the City’s Standard Specifications and measured and paid for by the lineal feet.

STOP LINES/BARS – Stop bars shall be solid white lines, eighteen (18”) inches in width and shall be placed where an existing stop bar exists or where indicated by the Engineer. Measurement and payment shall be based on lineal feet of eighteen (18”) inches white line stop bar.

RAILROAD CROSSING – Railroad crossing symbols shall consist of an “R X R” symbol and three (3) transverse stripes, measured and paid for as a complete unit per each.

ARROWS, SYMBOLS, and WORDS – These items shall be measured and paid for per each unit.

## **TREE AND STUMP REMOVALS**

All work shall be completed in accordance with Section 700 of the City of Manitowoc’s Standard Specifications for Public Works Construction.

The Contractor and their employees shall be certified or trained to remove trees and branches where utility and communication lines run through or in close vicinity of a tree being removed. All work shall be performed in accordance with OSHA Standards 1910.269, particularly for electric line-clearance.

The trees to be removed are of various diameters and located in the terrace areas of the City’s Public Right-Of-Way. The tree’s diameter at breast height (DBH) measurement will be made at 4.5 feet above grade.

Stump removal will include grinding the tree stump and buttress roots to a point 18 inches below grade. Additionally, the contractor shall remove all surface and adjacent subsurface roots as may be necessary to eliminate mounds in the terrace area adjacent to the stump.

The Contractor shall be permitted to utilize the sidewalk area as necessary. Any damage to sidewalks, curbing and street surface shall be repaired by the Contractor and at their expense. Any trees or plantings on public or private property that are damaged shall be repaired or replaced at the Contractor’s expense.

## **CONSTRUCTION STAKING**

The City Engineer or his representative shall perform all staking requirements for all work under this contract. The Contractor shall notify the City Engineer three (3) weeks in advance of the starting date for each street involved. Once the Contractor starts and additional staking is requested (intersection, centerline grades) the Contractor shall be required to give a 24 hour notice.

There will be a cost to replace stakes damaged by the contractor if needed on the project, see City Standard Specifications Section 203.2.

## **FINAL MEASUREMENTS AND PAYMENTS**

The Engineer or his representative shall take the final measurements for all work under this contract. The Contractor may elect to have a representative present during the final measurements. If the Contractor does not have a representative present for the final measurements, then the Engineer’s measurements will stand as the final pay measurement.

The Contractor shall submit the Final Quantities and the Final Pay Request to the City Engineer within 30 calendar days after the Engineer has accepted the project.

## **CONSTRUCTION NOTES**

### **GENERAL NOTES**

1. All work shall be in accordance with the plans and shall be executed under the requirements of the Standard Specifications for Public Works Construction City of Manitowoc, Wisconsin and the State of Wisconsin Department of Transportation, Standard Specifications for Highway and Structure Construction (2016 Edition).
2. The Contractor shall maintain on site, at all times during sewer and water construction, all equipment and materials required for dewatering trenches. The Contractor shall comply with Wisconsin Department of Natural Resources Technical Standard 1061, Dewatering.
3. All erosion control measures shall be in place prior to any land disturbing activities begin. The Contractor shall comply with the Erosion Control Plan, Storm water Management Plan and the Wisconsin Department of Natural Resources (WDNR) Water Resources Application for Project Permits (WRAPP) as they exist for each project. The Contractor shall furnish, install, and maintain all erosion control measures shown on the erosion control plan in accordance with the WDNR Technical Standards for Construction Site Erosion and Sediment Control. Once final stabilization of disturbed areas is complete, the Contractor shall remove erosion control measures, as directed by the Engineer. Costs for furnishing, installing, maintaining, and removing erosion control items shall be included in the unit price bid for each specified erosion control item.
4. The Contractor shall furnish and install a detectable warning field on all curb ramps, as shown on the plans and as directed by the Engineer. The detectable warning fields shall be furnished and installed by the Contractor in accordance with Section 507.6 and Detail No. 506 of the City of Manitowoc Standard Specifications for Public Works Construction. The Contractor shall furnish and install Neenah Detectable Warning Plates (Yellow).
5. The Contractor shall follow designated truck routes to the maximum extent possible for the hauling of material to and from the work sites.
6. The concrete pavement mix design shall not contain any fly ash or any other admixtures, except for water reducer and air entrainment. The mixture shall be a standard 6-bag cement mix or a H.E.S. 8-bag cement mix as directed by the City Engineer. Course aggregate (1-1/2 max.) for concrete pavement shall conform to Size Requirements No. 1 of the City's Standard Specifications, Section 500. The maximum amount of allowable chert is 1.5% by weight. The Contractor shall submit for approval by the Engineer, the visual chert test results for the course aggregate being used on this project. The Contractor shall submit for approval by the Engineer, all concrete mix designs that are being considered for use on this project.
7. The coarse aggregate (3/4") being used in the concrete mix for sidewalks and driveway approaches shall be clean hard crushed limestone, in accordance with Section 502.3.2 of the City of Manitowoc Standard Specifications for Public Works Construction.
8. All concrete sidewalks at pedestrian crosswalks (intersections) shall be constructed at a thickness of six (6") inches.

9. All concrete pavement, curb and gutter, concrete islands, sidewalk, and driveway approaches shall be treated with a white pigmented curing compound that contains the linseed oil in accordance with Section 505.3 of the City of Manitowoc Standard Specifications for Public Works Construction, regardless of the date the concrete was placed.
10. The Contractor shall be responsible for removing all tracking from the construction area onto adjacent streets. The City of Manitowoc will not provide any street sweeping service for this contract.
11. The Contractor shall be paid for Inlet Protection placed on existing structures and on newly installed structures. If a structure is being replaced, reconstructed or just a casting being replaced, the Contractor shall use the previously placed Inlet Protection.

#### **MARITIME DRIVE**

1. **The Contractor shall prepare and present a traffic control and project phasing plan to the Director of Public Infrastructure a minimum of fourteen (14) calendar days prior to the pre-construction meeting for review and approval. Vehicle access shall be maintained at all times within the project limits for the duration of this project.**
2. Plan Page TC-1 & 2 may be used by the Contractor to present to the City his phasing, access routes, and signage for City approval.
3. Unclassified Excavation shall include removal of all concrete pavement, islands and curb and gutter material removed for placement of new breaker run and crushed aggregate base course as shown in the **Typical Sections** on the plans. Unclassified Excavation shall also include removal of concrete pavement, concrete curb and gutter removal at each intersection extending to the west at York Street, Buffalo Street and to the north of North 5<sup>th</sup> Street to the project limits. The Unclassified Excavation quantity was computed by using the total area of all street surface involved, with a cut line of twenty four (24") inches behind curbs and a cut depth of seventeen (24") inches per stations on each **Typical Section**. There are no cross sections drawn up for this project.
4. The Contractor shall furnish and install Geotextile Fabric, Type SAS, Non-Woven material at the locations specified on the typical section. All work shall be in accordance with Section 645 of the DOT Standard Specifications. The non-woven geotextile fabric shall be a TerraTex N08 manufactured by Hanes Geo Components, or Geotex 801 manufactured by Propex, or Mirafi 180N manufactured by Tencate or an approved equal as determined by the Engineer.
5. Any EBS required on this project shall be determined at the time the required Proof Roll Test is conducted. If required, this work shall consist of excavating below the subgrade elevation and backfilling with breaker run or base aggregate dense 1-1/4 inch to the limits determined by the Engineer in the field at the time of construction. The cost of all excavation, hauling and disposal of EBS material shall be included in the unit price per cubic yard of "Unclassified Excavation". This item will be measured and paid for as provided above regardless of when the EBS is identified by the Engineer. If breaker run or base aggregate is required, costs for furnishing and installing shall be included in the appropriate bid item.
6. There are sections of sidewalk being replaced the intersections at York Street and Buffalo Street. The Contractor shall place "Sidewalk Closed" signs at each of the street corners as advanced warning signage. The Contractor shall also place the proper barricades or barrels at each section of sidewalk being replaced.

7. There is a bid item for "Utility Line Opening" (ULO) as part of this project. This item is to uncover utilities (gas main) for the purpose of determining the elevation of the utilities with the proposed storm sewer work under this project and for sub-base cut. The Contractor shall perform the Utility Line Opening as soon as possible and at least three (3) days in advance of the proposed utility or street construction to allow conflicts to be resolved with minimum interruption. The Contractor shall make sure all Utility Line Openings have been approved by the City of Manitowoc prior to starting the work. This item is intended for the new storm inlet lead installation at the northwest corner of Buffalo Street and North 5<sup>th</sup> Street and at the gas crossing at York Street for sub-base cut.
8. Mainline sidewalk sections and crosswalk sidewalk being replaced shall be included in the unit price bid per square foot of 6" Concrete Sidewalk (Removed & Replaced).
9. New sidewalk and crosswalk as shown on the plan ("New 5'-4" wide 6" concrete sidewalk with 4" CABC), located at the north side of Buffalo Street and east side of North 5<sup>th</sup> Street, shall be included in the unit price bid per square foot of 6" Concrete Sidewalk w/ 4" CABC.
10. The Contractor shall construct a four (4') foot wide "Temporary Sidewalk" from the NE corner of North 5<sup>th</sup> Street and Buffalo Street to west side of Maritime Drive. The length of the temporary sidewalk is approximately 140' long, as shown on the Erosion Control Plan (EC-2). This temporary access is for pedestrians to enter and exit to the YMCA. The Contractor shall construct the "Temporary Sidewalk" with compacted limestone screenings for wheel chair use. Costs associated with constructing the "Temporary Sidewalk" furnishing, placing, compaction and removal of the limestone screenings material shall be included in the unit price bid per lump sum of "Temporary Sidewalk (Access from North 5<sup>th</sup>/Buffalo to YMCA).
11. The Contractor shall not use the side streets located outside the work zone for equipment and material storage or for parking of employees of the Contractor or any subcontractors.
12. Any excavated material from the sewer trenches that is considered unsuitable by the Engineer, shall be removed from the site by the Contractor. The Contractor shall replace this unsuitable material with a granular backfill material conforming to the gradation requirements found in the Standard Specifications for Sewer & Water Construction in Wisconsin (WSWS) Sixth Edition Section 8.43.4 or pit run material conforming to the gradation requirements found in Section 313 of the WDOT Standard Specification 2016 Edition, EXCEPT that the maximum size of individual stone pieces shall not exceed six (6") inches. Costs associated with removal and disposal of existing material, furnishing, placing, and compaction of the granular backfill material shall be included in the unit price bid per ton of "Furnish and Install Trench Backfill". **The Contractor shall provide the City of Manitowoc's construction inspector with weight slips (by the ton) for all trench backfill placed onsite on a daily basis. The City shall not pay for any missing or late weight slips.**
13. The Contractor shall backfill around all new sanitary/storm manholes and inlets with trench backfill material. Costs for furnishing, installing and compacting the backfill material shall be included in the unit price bid per Ton of "Furnish and Install Trench Backfill." **Weight tickets for the trench backfill material shall be submitted to the Engineer on a daily basis.** The City reserves the right to require the Contractor to water jet around any sewer structures if it appears that compaction is insufficient. If the City elects to have the contractor water jet, the costs for water jetting shall be included in the cost of the storm structures.

14. Where existing pipes have to be reconnected into new structures, the costs associated with this work shall be incidental to the new structure.
15. The Contractor shall be required to televise all sanitary main from manhole to manhole. The Contractor shall be required to televise segments of sanitary main from manhole to manhole where there may be no laterals relayed in these segments.
16. There is one sanitary manhole being replaced that is in the flowline of the curb where the Contractor will have to rotate the new cone section to stay out of the head of the new curb. This manhole (M.H. #14-239) is located in the flowline of the east curb line of Maritime Drive at the centerline extended of York Street.
17. There is one storm manhole that is close to the existing back of curb where the Contractor may need to remove the casting and adjusting rings, and then plate the opening in order for a slip form paver to have clearance. This manhole (MH # R1-4) is located in the tree lawn area on the east side of Maritime Drive at Station 4+40/27.9' east. If the removal of the casting is needed, the Contractor shall replace the existing casting and provide adjusting rings as needed. The Contractor will be required to use the thickest rings possible to minimize the use of smaller 2" thick rings. There is a bid item of Manhole Adjust if this work is needed.
18. There will be two areas where an underdrain/drain tile system shall be installed under the street and will discharge into inlet structures. These locations are shown on the plans at the intersection of Maritime Drive and North 6<sup>th</sup> Street. The underdrains shall be installed in accordance with Detail Drawings (Form #413-A & 413-B) which are included in these construction documents. The proposed underdrain shall be perforated PVC gasket pipe (SDR-35) conforming to ASTM D-2729. The pipe shall be encased in a filter sock. At the ends of the underdrain lines, the Contractor shall install a clean out with a cap.
19. There are numerous castings being replaced as part of this project. These will be a combination of sanitary and storm manhole castings and inlet castings. Most of these will fall in the actual concrete pavement being replaced and will have adjustments of less than 12". Costs for furnishing, installing, and adjusting new manhole and inlet castings shall be included in the unit price bid per each type of casting as specified in the bid proposal.
20. There appears to be a broken sanitary lateral or a capped wye that needs to be dye tested to verify if it is active or not. The location of the lateral is at the intersection of Buffalo Street and North 5<sup>th</sup> Street, which is 14' north out of MH #14-240. The Contractor shall relay 22'-12" sanitary sewer to the north of MH. #14-240, past said lateral.
21. The Contractor shall construct a small (12" high) berm at the intersection of Buffalo Street and North 5<sup>th</sup> Street and as shown on paving plan page #3. The berm shall be located at the centerline extended of North 5<sup>th</sup> Street, approximately 40' south of the centerline of Buffalo Street and where the existing road is being obliterated. The City plans to have a separate planting program in the fall of 2020 to plant bushes and trees in the obliterated road area. The Contractor shall construct the berm with ground material suitable for plantings and then place 3" of pulverized topsoil and then place erosion matting on top of the berm. The cost to construct the berm shall be included in the bid item of Obliterating Roadway. The cost to install 3" of topsoil and install erosion mat shall be paid under the bid items of 3" Pulverized Topsoil and Erosion Mat, Urban Class 1, Type A.

22. The Contractor shall have all exposed sub-grade and disturbed areas covered or restored as soon as practicable after construction, but in no case shall it be longer than 90 calendar days per the DNR (WRAPP) Permit that the City was required to obtain for this construction.
23. At the beginning of concrete at Station 0+31.5 (Maritime Drive) and at the end of concrete at Station 9+01.1 (Maritime Drive), the Contractor shall furnish and install 1-1/4" epoxy coated dowel bars placed at fifteen (15) inches on centers. Costs associated with furnishing and installing 1-1/4" epoxy coated dowel bars, including drilling, shall be included in the unit price bid for Each "1-1/4 Inch Epoxy Coated Dowel Bars (Includes Drilling)".

#### **RONETA LANE**

24. There are two hydrant blow-off valves contended within 5-inch valve box covers that will require adjustment. These are located at the end of concrete and new asphalt cul-de-sac in terrace areas on the north side of Roneta Lane as shown on the plans. Cost associated with adjusting existing water valve box covers shall be included in the unit price bid per each "Adjusting 5" Valve Box Covers".
25. There is one (1) existing storm clean-out they may be in the way of the paving track on Roneta Lane. There may not be vertical or horizontal clearance. The Contractor may have to cut and remove the clean-out pipe/cap and tracer stack/cap. Then, reinstall the pipe and cleanout cap after the paving machine goes through. The clean-out is located @ Station 4+46/21' south. Costs associated with removing and reinstalling the cleanouts and caps shall be incidental to the "7-Inch Concrete Pavement".
26. The Contractor shall furnish and install a twelve (12") inch wide crushed limestone screening shoulder along the outer perimeter of the finished asphalt cul-de-sac. Costs for furnishing and installing a 12" wide shoulder shall be incidental to "Furnish and Install Aggregate Shoulder (Crushed Limestone).

SCHEDULE C

2020 RONETA LANE PAVING

PAR_NUM	OWNR_NM	ADDR	STA	CITY	ZIP	ST_ADDR	Frontage _Feet_1	Assessable _Frontage	Corner_Lot_ Adjustment	COMMERCIAL/ RESIDENTIAL	RATE	TOTAL
814201092	ZEDDIES, JASON & NICHOLE	5024 RONETA LN	WI	MANITOWOC	54220	5024 RONETA LN	70.00	70.00		RESIDENTIAL	117.56	\$8,229.20
814201091	BROCKERT, JOHN & CHRISTINE	5018 RONETA LN	WI	MANITOWOC	54220	5018 RONETA LN	70.00	70.00		RESIDENTIAL	117.56	\$8,229.20
814201094	OAK PARK DEVELOPERS LLC	PO BOX 1985	WI	MANITOWOC	54220	VACANT LOT - RONE	70.00	70.00		RESIDENTIAL	117.56	\$8,229.20
814201083	PAULUS, DAVID & KAREN	5017 RONETA LN	WI	MANITOWOC	54220	5017 RONETA LN	70.00	70.00		RESIDENTIAL	117.56	\$8,229.20

Total \$32,916.80



Item #	Item Description	UoFm	Quantity	Unit Price	Extension
<b>Concrete Paving - Maritime Drive</b>					
1	Mobilization	LS	1	\$28,500.00	\$28,500.00
2	Traffic Control	LS	1	\$7,700.00	\$7,700.00
3	Traffic Control Detour	LS	1	\$900.00	\$900.00
4	Inlet Protection Type "D"	EA	16	\$95.00	\$1,520.00
5	Clearing	ID	23	\$20.00	\$460.00
6	Grubbing	ID	23	\$20.00	\$460.00
7	Unclassified Excavation (Includes Pavement, Curb, Topsoil)	CY	4104	\$18.82	\$77,237.28
8	8" Concrete Pavement w/Integral Curb (Doweled)	SY	5716	\$46.44	\$265,451.04
9	8" Crushed Aggregate Base Course	SY	6156	\$5.95	\$36,628.20
10	8" Breaker Run Stone Material (6" and down)	SY	6156	\$5.95	\$36,628.20
11	Geotextile Fabric Type SAS (Non-woven)	SY	3053	\$1.50	\$4,579.50
12	3/4" Epoxy Coated Tie Bars (Includes Drilling)	EA	54	\$10.00	\$540.00
13	1-1/4" Epoxy Coated Dowel Bars (Includes Drilling)	EA	81	\$14.00	\$1,134.00
14	Sawing Concrete Sidewalk & Driveway	LF	163	\$3.00	\$489.00
15	Sawing Asphalt Pavement	LF	40	\$3.00	\$120.00
16	Sawing Concrete Pavement, Full Depth	LF	234	\$3.00	\$702.00
17	6" Concrete Sidewalk (Removed & Replaced)	SF	2025	\$7.95	\$16,098.75
18	6" Concrete Sidewalk w/4" CABG	SF	295	\$7.95	\$2,345.25
19	Detectable Warning Fields	SF	96	\$40.00	\$3,840.00
20	Temporary Sidewalk (Access from N 5th/Buffalo to YMCA)	LS	1	\$4,000.00	\$4,000.00
21	3" Pulverized Topsoil	SY	2409	\$7.50	\$18,067.50
22	Sod, Fertilizer & Water	SY	681	\$10.50	\$7,150.50
23	Erosion Mat, Urban Class 1, Type A	SY	1047	\$2.75	\$2,879.25
24	Obliterating Roadway	LS	1	\$8,900.00	\$8,900.00
25	Pavement Marking, Epoxy, 4-Inch	LF	1938	\$2.25	\$4,360.50
26	Pavement Marking, Stop Line, Epoxy, 18-Inch	LF	75	\$16.75	\$1,256.25
27	Pavement Marking, Crosswalk, Epoxy, 6-Inch	LF	459	\$8.50	\$3,901.50
28	Pavement Marking, Crosswalk, Epoxy, 12-Inch Bars, Alt. (Form #905B)	LF	198	\$12.25	\$2,425.50
29	Pavement Marking, Bike Sharrow Symbol, Epoxy, White	EA	7	\$225.00	\$1,575.00
<b>Storm Sewer - Maritime Drive</b>					
30	Utility Line Opening	EA	1	\$1,935.00	\$1,935.00
31	Removing Existing Storm Sewer Pipe	LF	326	\$19.25	\$6,275.50
32	Removing Storm Manholes	EA	3	\$550.00	\$1,650.00
33	Removing Storm Inlets	EA	10	\$265.00	\$2,650.00
34	Adjust Manhole Cover	EA	1	\$400.00	\$400.00
35	Furnish & Install 6" PVC Underdrain Pipe W/Sock(SDR-35), Storm Sewer	LF	20	\$30.00	\$600.00
36	Furnish & Install 12" PVC SDR-35, Storm Sewer	LF	247	\$71.85	\$17,746.95
37	Furnish & Install Standard Manhole, Type 1, Storm	VF	4.33	\$694.00	\$3,005.02
38	Furnish & Install Standard Manhole, Type 7, Storm	VF	4.92	\$674.00	\$3,316.08
39	Furnish & Install Type 3 Inlet (2' X 3')	EA	9	\$1,820.00	\$16,380.00
40	Furnish & Install Type "J" Casting (R-1550-A), Storm	EA	4	\$415.00	\$1,660.00
41	Furnish & Install Type "H" Casting (R-3067-R), Diagonal, Storm	EA	13	\$595.00	\$7,735.00
42	Furnish & Install Trench Backfill	TON	36	\$17.50	\$630.00
<b>Sanitary Sewer - Maritime Drive</b>					
43	Removing Sanitary Manholes	EA	2	\$560.00	\$1,120.00
44	Furnish & Relay 8" PVC SDR-35, Sanitary Sewer	LF	49	\$114.00	\$5,586.00
45	Furnish & Relay 12" PVC SDR-35, Sanitary Sewer	LF	22	\$147.00	\$3,234.00
46	Furnish & Install Standard Manhole, Type 1, Sanitary	VF	16.07	\$571.00	\$9,175.97
47	Furnish & Install Type "J" Casting (R-1550-A), with "T" Gasket	EA	2	\$416.00	\$832.00
48	Furnish & Install Trench Backfill	TON	104	\$17.50	\$1,820.00
49	Telesive Sanitary Sewer Pipe	LF	605	\$3.30	\$1,996.50
<b>Water Main - Maritime Drive</b>					
50	Adjusting 5" Water Valve Box Covers	EA	6	\$350.00	\$2,100.00
<b>Concrete Paving - Roneta Lane</b>					
51	Mobilization	LS	1	\$5,000.00	\$5,000.00
52	Traffic Control	LS	1	\$700.00	\$700.00
53	Sediment Log	LF	20	\$15.00	\$300.00
54	Borrow Excavation	CY	15	\$1.00	\$15.00
55	Fine Grading (for Concrete Pavement)	SY	638	\$3.00	\$1,914.00
56	7" Concrete Pavement w/Integral Curb	SY	576	\$49.00	\$28,224.00
57	3/4" Epoxy Coated Tie Bars (Includes Drilling)	EA	14	\$10.00	\$140.00
58	Sawing Concrete Pavement, Full Depth	LF	5	\$10.00	\$50.00
59	6" Concrete Sidewalk/Driveway	SF	655	\$7.95	\$5,207.25
60	Fine Grading (for Asphalt Cul-De-Sac)	SY	571	\$5.66	\$3,231.86
61	3" H.M.A., Type 4LT 58-285	SY	547	\$24.60	\$13,456.20
62	Tack Coat	GAL	27	\$3.89	\$105.03
63	Furnish & Install Aggregate Shoulder (Crushed Limestone Screenings)	LF	224	\$9.00	\$2,016.00
64	Terrace Preparation/Restoration	SY	276	\$3.00	\$828.00
65	3" Pulverized Topsoil	SY	276	\$7.50	\$2,070.00
66	Seed (#40), Fertilizer, Mulch & Water	SY	276	\$2.50	\$690.00
67	Temporary Mailboxes	EA	1	\$500.00	\$500.00
68	Remove and Replace Mailboxes (Complete Unit)	EA	3	\$250.00	\$750.00
<b>Sanitary Sewer - Roneta Lane</b>					
69	Adjust Manhole Covers (Sanitary )	EA	1	\$400.00	\$400.00
<b>Water Main - Roneta Lane</b>					
70	Adjusting 5" Water Valve Box Covers	EA	2	\$350.00	\$700.00
<b>BASE BID TOTAL:</b>				<b>\$695,994.58</b>	<b>\$700.00</b>

BASE BID TOTAL:

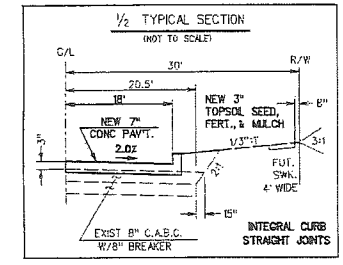
\$695,994.58

**LATERAL SCHEDULE**

STATION	LOT#	SANITARY DIST. M.H.	SANITARY	WATER	STORM	STORM DIST. M.H.
3+51	1	179' 528'	45' 4" - 4" PVC	24' - 1" PE	64' 65' - 6" PVC	142'
3+65	4	161' 164'	45' 4" - 4" PVC	64' - 1" PE	25' 25' - 6" PVC	164'
4+21	2	110' 406'	45' 4" - 4" PVC	24' - 1" PE	65' 65' - 6" PVC	213'
4+35	3	84'	15' 4" - 4" PVC	64' - 1" PE	25' 25' - 6" PVC	232'

**SANITARY MANHOLE SCHEDULE**

MANHOLE#	LOCATION	CONST.	TYPE	CASTING
25-63	3+28/CL	EXIST.	1 - J	R - 1550
25-76	3+45/CL	NEW	1 - J	R - 1550



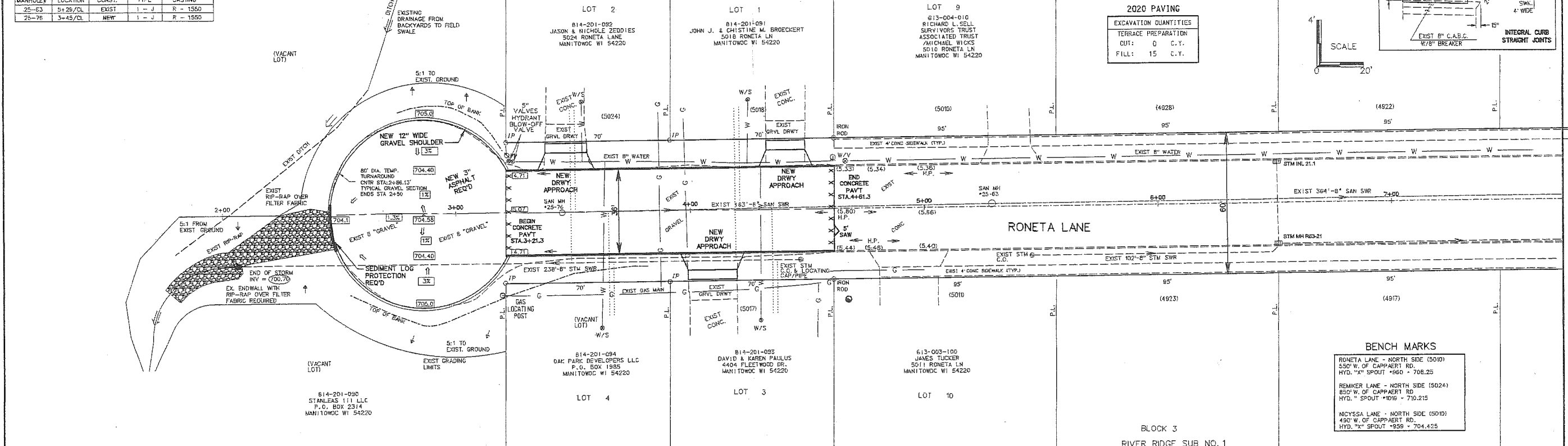
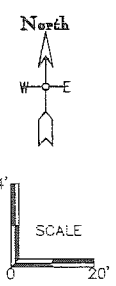
**2020 PAVING**

EXCAVATION QUANTITIES

TERRACE PREPARATION

CUT: 0 C.Y.

FILL: 15 C.Y.

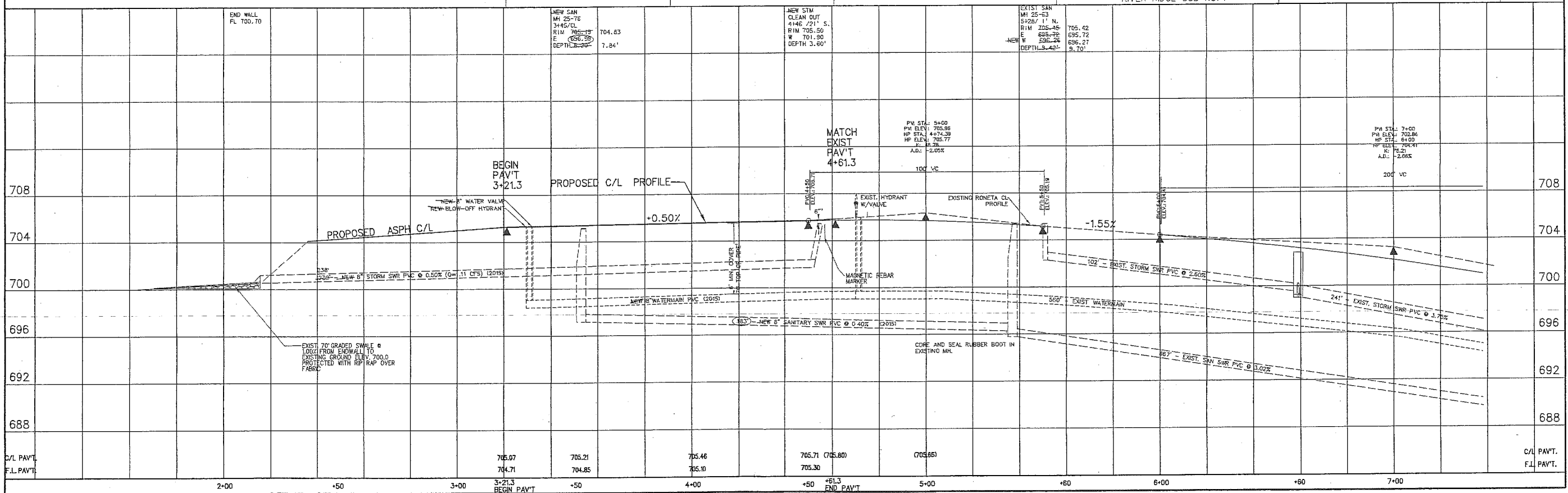


**BENCH MARKS**

RONETA LANE - NORTH SIDE (5010)  
550' W. OF CAPPAERT RD.  
HYD. "X" SPOUT +960 + 708.25

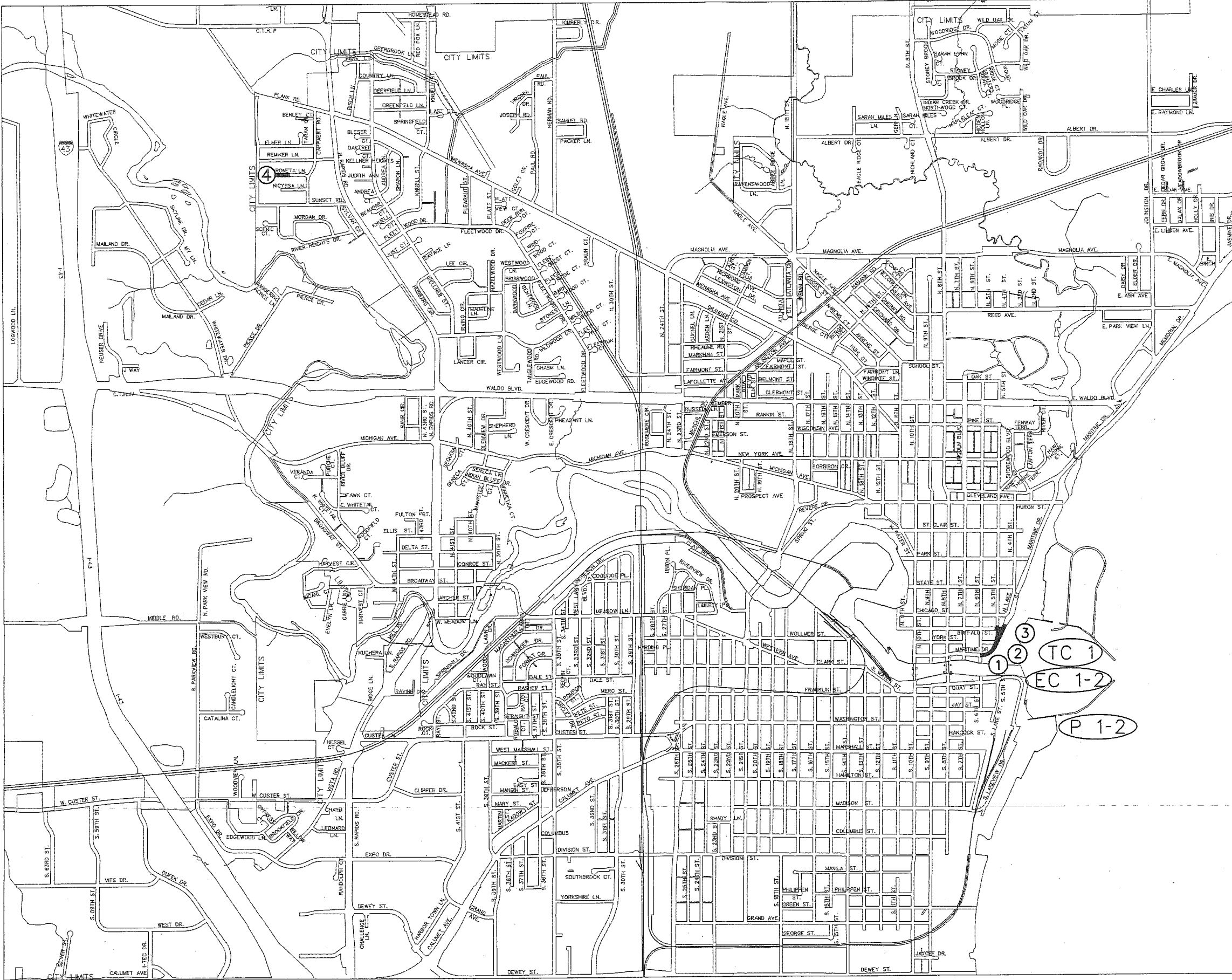
REMIKER LANE - NORTH SIDE (5024)  
850' W. OF CAPPAERT RD.  
HYD. "X" SPOUT +1016 + 710.215

NOYSSA LANE - NORTH SIDE (5010)  
480' W. OF CAPPAERT RD.  
HYD. "X" SPOUT +959 + 704.425



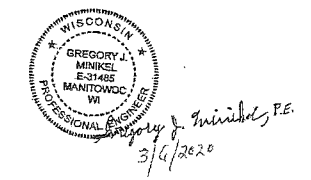
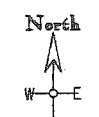
DRAWN BY / DATE: 05/27/2015 MJS  
 APPROVED BY: [Signature] 02/24/2016 MZ  
 REVISIONS: [Signature] X-SEC BOOK  
 LEVELS ON: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63

# Schedule A



## City of Manitowoc

ENGINEERING DEPARTMENT  
 Director of Public Infrastructure DAN KOSKI, P.E.  
 PROJECT ENGINEER GREGORY MINIKEL, P.E.



### 2020 CONCRETE PAVING PROGRAM I

Contract No. WS-20-1

- CONCRETE PAVING & SANITARY/STORM SEWERS (#)
- TRAFFIC CONTROL (TC)
- EROSION CONTROL (EC)
- PAVEMENT MARKING (P)

TYPE 'D' INLET PROTECTION

LEGEND	
	HYDRANT
	POLE LIGHT POLE
	EXISTING STORM INLET
	PROPOSED STORM INLET
	TREE (Deciduous)
	TREE (Coniferous)
	STUMP
	EXISTING SEWER & M.H.
	PROPOSED SEWER & M.H.
	WATERMAIN MANHOLE
	WATER/GAS MAIN VALVE
	TELEPHONE MANHOLE
	PROPOSED INTEGRAL CURB
	PROPOSED CONC. CURB & GUTTER
	EXISTING CURB TO REMAIN
	EXISTING CURB REPLACE
	FUTURE CURB

\* INFORMATION BELIEVED ACCURATE BUT NOT WARRANTED