

CITY OF DE PERE

PROJECT

21-01

SEWER AND WATER RELAY AND STREET RESURFACING

**BID DATE:
MARCH 18, 2021
@ 1:00 PM**

Bid documents, including plans and specifications, are available for download at www.QuestCDN.com. The QuestCDN website can also be accessed through the City website at www.deperewi.gov/projects or by pressing the *Projects* icon at the bottom of any City website page. Download cost is \$15 for each contract. Bidding documents may be viewed on the QuestCDN website or at the Municipal Service Center, 925 S. Sixth Street, De Pere, WI 54115.

Bid Tabs must be verified by staff prior to posting and will be available for viewing on the website within 7 days following the bid opening. Award information will be pending until approved by the Common Council.

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FEBRUARY 25, 2021 – MARCH 4, 2021

CITY OF DE PERE

ADVERTISEMENT TO BID

PROJECT 21-01

SEWER AND WATER RELAY AND STREET RESURFACING

Sealed proposals will be received by the Board of Public Works of the City of De Pere at the Municipal Service Center, 925 South Sixth Street, De Pere, Wisconsin 54115, until 1:00 PM. Thursday, March 18, 2021, at which time they will be publicly opened and read aloud. The bid opening will occur virtually. See section 00 21 13, Instructions to Bidders, for additional information.

Project 21-01 for which proposals are being sought includes the following approximate quantities:

- 500 LF New and Relay Storm Sewer (8-inch to 18-inch) and Associated Appurtenances
- 560 LF Relay Sanitary Sewer (8-inch) and Associated Appurtenances
- 2,700 LF Relay Water Main (8-inch to 16-inch) and Associated Appurtenances
- 2,000 LF Directional Drill Water Main (1-inch, 8-inch & 16-Inch) and Associated Appurtenances
- New Storm Lateral Installation (6-inch), Relay Sanitary Sewer Laterals (4-inch and 6-inch) and Relay Water Services (1-inch to 8-inch).
- 1,175 Tons Asphaltic Concrete Pavement Placement
- 2,350 SY Asphaltic Concrete Pavement Milling
- 2,300 SY Asphaltic Concrete Pavement Pulverizing
- New & Replacement Concrete Pavement, Stamped Colored Concrete Pavement, Sidewalk, Driveway, Curb and Gutter
- Restoration
- Pavement Marking Lines and Symbols
- 2 Rectangular Rapid Flashing Beacons (RRFBs)

Complete digital project bidding documents are available for viewing and/or downloading at www.QuestCDN.com or may be examined at the office of the Director of Public Works. Digital plan documents may be downloaded for \$15 by inputting Quest project #7407773 on Quest's Project Search page. The QuestCDN website can also be accessed through the City website at www.deperewi.gov/projects or by pressing the *Projects* icon at the bottom of any City website page.

Each proposal shall be accompanied by a certified check or bid bond in an amount equal to five percent (5%) of the bid, payable to the City of De Pere, as a guarantee that if the bid is accepted, the bidder will execute a contract and furnish a contract bond as set forth in the General Conditions of the City of De Pere. In case the bidder fails to file such contract and bond, the amount of the check or bid bond shall be forfeited to the City of De Pere as liquidated damages.

**Project 21-01
Sewer and Water Relay and Street Resurfacing**

City of De Pere

The letting of the contract is subject to the provisions of the following Wisconsin Statutes:

Section 62.15 regarding Public Works.

Section 66.0901(3) regarding Prequalification of Contractor.

Each bidder shall pre-qualify by submitting proof of responsibility on forms furnished by the Director of Public Works. Such forms shall be filed with the Director of Public Works no later than 4:00 P.M., Monday, March 15, 2021. Prospective bidders who have previously submitted such forms subsequent to January 1, 2021 will not be required to separately submit such form for this project.

The City of De Pere reserves the right to reject any or all bids, to waive any informalities in bidding and to accept any proposal which the Common Council deems most favorable to the interest of the City of De Pere.

Dated this 25th day of February 2021.

Board of Public Works
City of De Pere
Eric Rakers, P.E.
City Engineer

Project 21-01

SECTION 00 21 13

INSTRUCTIONS TO BIDDERS

ARTICLE 1 – DEFINED TERMS

- 1.1 Terms used in these Instructions to Bidders have the meanings indicated in the General Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below:
None

ARTICLE 2 – COPIES OF BIDDING DOCUMENTS

- 2.1 Complete sets of the Bidding documents in the number and for the deposit sum, if any, stated in the Advertisement to Bid may be obtained as stated in the Advertisement for bids.
- 2.2 Complete sets of Bidding Documents shall be used in preparing Bids; Owner does not assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.
- 2.3 Owner, in providing the Bidding Documents on the terms stated in the Advertisement for Bids, does so only for the purpose of obtaining Bids for the Work and does not confer a license or grant for any other use.

ARTICLE 3 – QUALIFICATIONS OF BIDDERS

- 3.1 In accordance with Section 66.0901(3), each bidder shall pre-qualify by submitting proof of responsibility on forms furnished by the Director of Public Works. Such forms shall be filed with the Director of Public Works as stated in the Advertisement for Bids. Prospective bidders who have previously submitted such forms after January 1st of this year will not be required to separately submit such form for this project.

ARTICLE 4 – EXAMINATION OF BIDDING DOCUMENTS, OTHER RELATED DATA AND SITE

- 4.1 Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with Underground Facilities, and possible changes in the Bidding Documents due to differing or unanticipated conditions appear in the General Conditions.
- 4.2 Underground Facilities
- A. Information and data shown or indicated in the Bidding Documents with respect to existing Underground Facilities at or contiguous to the Site is based upon information and data furnished to Owner and Engineer by owners of such Underground Facilities, including Owner, or others.

4.3 Subsurface and Physical Conditions

A. The technical data includes:

1. Those reports known to Owner of explorations and tests of subsurface conditions at or contiguous to the Site; and
2. Those drawings known to Owner of physical conditions relating to existing surface or subsurface structures at the Site (except underground Facilities).
3. No reports of explorations or tests of subsurface conditions at or contiguous to the Site, or drawings of physical conditions relating to existing surface or subsurface structures at the Site, are known to Owner.

B. Limited Reliance by Contractor on Technical Data Authorized: Contractor may rely upon the accuracy of the “technical data” contained in such reports and drawings, but such reports and drawings are not Contract Documents. Contractor may not rely upon or make any claim against Owner, or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors with respect to:

1. the completeness of such reports and drawings for Contractor’s purposes, including but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by Contractor, and safety precautions and programs incident thereto; or
2. Other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
3. Any Contractor interpretation of or conclusion drawn from any “technical data” or any such other data, interpretations, opinions, or information.

4.4 On request, Owner will provide Bidder access to the Site to conduct such examinations, investigations, explorations, tests, and studies as Bidder deems necessary for submission of a Bid. Bidder shall fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies. Bidder shall comply with all applicable Laws and Regulations relative to excavation and utility locates.

4.5 Reference is made to Section 01 10 00: Summary of Work, for work that will be completed and for the identification of the general nature of other work that is to be performed at the Site by Owner or others (such as utilities and other prime contractors) that relates to the Work contemplated by these Bidding Documents. On request, Owner will provide to each Bidder for examination access to or copies of Contract Documents (other portions thereof related to price) for such other work.

4.6 It is the responsibility of each Bidder before submitting a Bid to:

- A. Examine and carefully study the Bidding Documents, the other related data identified in the Bidding Documents, and any Addenda;**
- B. Visit the Site and become familiar with and satisfy Bidder as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work;**

- C. Become familiar with and satisfy Bidder as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work;
 - D. Obtain and carefully study (or accept consequences of not doing so) all examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents, and safety precautions and programs incident thereto;
 - E. Agree at the time of submitting its Bid that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its Bid for performance of the Work at the price(s) bid and within the times and in accordance with the other terms and conditions of the Bidding Documents;
 - F. Become aware of the general nature of the work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents;
 - G. Correlate the information known to Bidder, information and observations obtained from visits to the Site, reports and drawings identified in the Bidding Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents;
 - H. Promptly give Engineer written notice of all conflicts, errors, ambiguities, or discrepancies, that bidder discovers in the Bidding Documents and confirm that the written resolution thereof by Engineer is acceptable to Bidder; and
 - I. Determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work.
- 4.7 The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article 4, that without exception the Bid is premised upon performing and furnishing the Work required by the Bidding Documents and applying any specific means, methods, techniques, sequences, and, procedures of construction that may be shown or indicated or expressly required by the Bidding Documents, that Bidder has given Engineer written notice of all conflicts, errors, ambiguities, and discrepancies that Bidder has discovered in the Bidding Documents and the written resolutions thereof by Engineer are acceptable to Bidder, and that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performing and furnishing the Work.

ARTICLE 5 – SITE AND OTHER AREAS

- 5.1 The Site is identified in the Bidding Documents. Easements for permanent structures or permanent changes in existing facilities are to be obtained and paid for by Owner unless otherwise provided in the Bidding Documents. All additional lands and access thereto required for temporary

construction facilities, construction equipment, or storage of materials and equipment to be incorporated in the Work are to be obtained and paid for by Contractor.

ARTICLE 6 – INTERPRETATIONS AND ADDENDA

- 6.1 All questions about the meaning or intent of the Bidding Documents are to be submitted to Engineer in writing. Interpretations or clarifications considered necessary by Engineer in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by Engineer as having received the Bidding Documents. Questions received less than ten days prior to the date for opening of Bids may not be answered. Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.
- 6.2 Addenda may be issued to clarify, correct, or change the Bidding Documents as deemed advisable by Owner and Engineer.

ARTICLE 7 – BID SECURITY

- 7.1 A Bid shall be accompanied by Bid security made payable to Owner in an amount of five percent (5%) of Bidder's maximum Bid price and in the form of a certified check or bank money order or Bid bond (on the form attached) issued by a surety meeting the requirements of the General Conditions. Submittal of a Bid Bond on a form other than the Bid Bond form included in the Bidding Documents may be cause for rejection of Bid.
- 7.2 The Bid security of the Successful Bidder will be retained until such Bidder has executed the Contract documents, furnished the required contract security and met the other conditions of the Notice of Award, whereupon the Bid security will be returned. If the Successful Bidder fails to execute and deliver the Contract Documents and furnish the required contract security within fifteen (15) days after the Notice of Award, Owner may annul the Notice of Award and the Bid security of that Bidder will be forfeited. The Bid security of other Bidders whom Owner believes to have a reasonable chance of receiving the award may be retained by Owner per the General Conditions.
- 7.3 Bid security of other Bidders whom Owner believes do not have a reasonable chance of receiving the award will be returned within seven days after the Bid opening.

ARTICLE 8 – CONTRACT TIMES

- 8.1 The number of days within which, or the dates by which, Milestones are to be achieved and the Work is to be substantially completed and ready for final payment are set forth in the Bid Form and Summary of Work.

ARTICLE 9 – LIQUIDATED DAMAGES

9.1 Provisions for liquidated damages are set forth in the General Conditions.

ARTICLE 10 – SUBSTITUTE AND “OR-EQUAL” ITEMS

10.1 The Contract, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents without consideration of possible substitute or “or-equal” items. Whenever it is specified or described in the Bidding Documents that a substitute or “or-equal” item of material or equipment may be furnished or used by Contractor if acceptable to Engineer, application for such acceptance will not be considered by Engineer until after the Effective Date of the Bid Form and Summary of Work.

ARTICLE 11 – SUBCONTRACTORS, SUPPLIERS, AND OTHERS

11.1 The Bidder shall submit with the Bid to Owner a list of all such Subcontractors, Suppliers, individuals, or entities proposed for those portions of the Work for which such identification is required. Such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, individual, or entity, Owner may, before the Notice of Award is given, request apparent Successful Bidder to submit a substitute, in which case apparent Successful Bidder shall submit an acceptable substitute, Bidder’s Bid price will be increased (or decreased) by the difference in cost occasioned by such substitution, and Owner may consider such price adjustment in evaluating Bids and making the Contract award.

11.2 If apparent Successful Bidder declines to make any such substitution, Owner may award the Contract to the next lowest Bidder that proposed to use acceptable Subcontractors, Suppliers, individuals, or entities. Declining to make requested substitutions will not constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor, Supplier, individual, or entity so listed and against which Owner makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to Owner subject to revocation of such acceptance after the Effective Date of the Agreement.

11.3 Contractor shall not be required to employ any Subcontractor, Supplier, individual, or entity against whom Contractor has reasonable objection.

ARTICLE 12 – PREPARATION OF BID

12.1 The Bid form is included with the Bidding documents.

12.2 All blanks on the Bid Form shall be completed by printing in ink or by typewrite and the Bid signed in ink. Erasures or alterations shall be initialed in ink by the person signing the Bid Form. A Bid price shall be indicated for each alternative, and unit price item listed therein, or the words “No Bid,” “No Change,” or “Not Applicable” entered.

- 12.3 A Bid by a corporation shall be executed in the corporate name by the president or a vice-president or other corporate officer accompanied by evidence of authority to sign. The corporate seal shall be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporations shall be shown below the seal.
- 12.4 A Bid by a partnership shall be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The official address of the partnership shall be shown below the signature.
- 12.5 A Bid by a limited liability company shall be executed in the name of the firm by a member and accompanied by evidence of authority to sign. The state of formation of the firm and the official address of the firm shall be shown below the signature.
- 12.6 A Bid by an individual shall show the Bidder's name and official address.
- 12.7 A Bid by a joint venture shall be executed by each joint venture in the manner indicated on the Bid Form. The official address of the joint venture shall be shown below the signature.
- 12.8 All names shall be typed or printed in ink below the signatures.
- 12.9 The Bid shall contain an acknowledgement of receipt of all Addenda, the numbers of which shall be filled in on the Bid Form.
- 12.10 The address and telephone number for communications regarding the Bid shall be shown.
- 12.11 The Bid shall contain evidence of Bidder's authority and qualification to do business in the state where the Project is located or covenant to obtain such qualification prior to award of the Contract. Bidder's state contractor license number, if any, shall also be shown on the Bid Form.

ARTICLE 13 – BASIS OF BID; COMPARISON OF BIDS

- 13.1 Unit Price
 - A. Bidders shall submit a Bid on a unit price basis for each item of Work listed in the Bid Schedule.
 - B. The total of all estimated prices will be the sum of the products of the estimated quantity of each item and the corresponding unit price. The final quantities and Contract Price will be determined in accord with the General Conditions.
 - C. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between words and figures will be resolved in favor of the words.

ARTICLE 14 – SUBMITTAL OF BID

- 14.1 A Bid shall be submitted no later than date and time prescribed and at place indicated in Advertisement for Bids and shall be enclosed in a plainly marked package with the Project title (and, if applicable, designated portion of the Project for which the Bid is submitted), name and address of Bidder, and shall be accompanied by the Bid security and other required documents. If a Bid is sent by mail or other delivery system, sealed envelope containing the Bid shall be enclosed in a separate package plainly marked on outside with the notation "BID ENCLOSED." A mailed Bid shall be addressed to City of De Pere, Municipal Service Center, 925 South Sixth Street, De Pere, WI 54115. Electronically transmitted Bids will not be accepted.
- 14.2 See Bid Form for a list of documents typically required to be submitted with the Bid.
- 14.3 With the current COVID-19 restrictions, the Municipal Service Center is closed for access. In addition to mailing bids per Article 14.1, bids can be submitted via the following processes:
- A. Drop off between 12:30 PM and 12:55 PM, March 18, 2021 at the Municipal Service Center.
 - B. For other drop off dates and times, contact 920-339-4060 to schedule an appointment.

ARTICLE 15 – MODIFICATION AND WITHDRAWAL OF BID

- 15.1 A Bid may be modified or withdrawn by an appropriate document duly executed in the manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids.
- 15.2 If within 24 hours after Bids are opened, any Bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid, and the Bid security will be returned. Thereafter, if the Work is rebid, that Bidder will be disqualified from further bidding on the Work.

ARTICLE 16 – OPENING BIDS

- 16.1 Bids will be opened at the time and place indicated in the Advertisement to Bid. The bid opening can be viewed live via the GoToMeeting information shown below. With the current COVID-19 restrictions, the Municipal Service Center is closed for access. An abstract of the amounts of the base bids and major alternates, if any, will be made available to bidders after opening the bids.

The bid opening can be viewed live via GoToMeeting as follows:
Please join my meeting from your computer, tablet or smartphone.

<https://global.gotomeeting.com/join/702570621>

You can also dial in using your phone.
(For supported devices, tap a one-touch number below to join instantly.)

United States (Toll Free): 1 877 309 2073
- One-touch: <tel:+18773092073,,702570621#>

Access Code: 702-570-621

New to GoToMeeting? Get the app now and be ready when your first meeting starts:
<https://global.gotomeeting.com/install/702570621>

ARTICLE 17 – BIDS REMAIN SUBJECT TO ACCEPTANCE

- 17.1 All bids will remain subject to acceptance for the period of time stated in the General Conditions, but Owner may, in its sole discretion, release any Bid and return the Bid security prior to the end of this period.

ARTICLE 18 – EVALUATION OF BIDS AND AWARD OF CONTRACT

- 18.1 Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. Owner further reserves the right to reject the Bid of any Bidder whom it finds, after reasonable inquiry and evaluation, to not be responsible. Owner may also reject the Bid of any Bidder if Owner believes that it would not be in the best interest of the Project to make an award to that Bidder. Owner also reserves the right to waive all informalities not involving price, time, or changes in the Work and to negotiate contract terms with the Successful Bidder.
- 18.2 More than one Bid for the same Work from an individual or entity under the same or different names will not be considered. Reasonable grounds for believing that any Bidder has an interest in more than one Bid for the Work may be cause for disqualification of that Bidder and the rejection of all Bids in which that Bidder has an interest.
- 18.3 In evaluating Bids, Owner will consider whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices and other data, as may be requested in the Bid Form or prior to the Notice of Award.
- 18.4 In evaluating Bidders, Owner will consider the qualifications of Bidders and may consider the qualifications and experience of Subcontractors, Supplier, and other individuals or entities proposed for those portions of the Work for which the identify of Subcontractors, Suppliers, and other individuals or entities must be submitted as provided in the Supplementary Conditions.
- 18.5 Owner may conduct such investigations as Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders, proposed Subcontractors, Suppliers, individuals, or entities to perform the Work in accordance with the Contract Documents.

- 18.6 Bidder agrees to waive any claim it has or may have against the Owner and the respective employees arising out of or in connection with the administration, evaluation or recommendation of any Bid.
- 18.7 If the Contract is to be awarded, Owner will award the Contract to the lowest responsible responsive Bidder whose Bid is in the best interests of the Project.

ARTICLE 19 – CONTRACT SECURITY AND INSURANCE

- 19.1 The General Conditions set forth Owner’s requirements as to performance and payment bonds and insurance. When the Successful Bidder delivers the executed Agreement to Owner, it shall be accompanied by such bonds and a certificate of insurance.

ARTICLE 20 – SIGNING OF AGREEMENT

- 20.1 When Owner gives a Notice of Award to the Successful Bidder, it shall be accompanied by the required number of unsigned counterparts of the Agreement with the other Contract Documents which are identified in the Agreement as attached thereto. Within ten (10) days thereafter, Successful Bidder shall sign and deliver the required number of counterparts of the Agreement and attached documents to Owner. Within ten (10) days thereafter, Owner shall deliver one fully signed counterpart to Successful Bidder with a complete set of Drawings with appropriate identification.

END OF SECTION

SECTION 00 41 13

CITY OF DE PERE

BID FORM

PROJECT 21-01

This bid, submitted by the undersigned Bidder to the City of De Pere, in accordance with the Advertisement to Bid, which will be received until 1:00 PM, Thursday, March 18, 2021 is to furnish and deliver all materials, and to perform and do all work on the project designated by September 15, 2021.

Bidder has examined and carefully prepared the bid from the plans and specifications and has checked the same in detail before submitting said proposal or bid; and that said bidder or bidder's agents, officer or employees have not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with this proposal or bid.

Bidder has examined and carefully studied the Bidding Documents, other related data identified in the Bidding Documents, and the following Addenda, receipt of which is hereby acknowledged:

Addendum No.

Addendum Date

BASIS OF BID:

Bidder will complete the Work in accordance with the Contract documents for the following price(s):

As stated in the attached Unit Price Bid Schedule.

Unit Prices have been computed in accordance with the General Conditions.

Bidder acknowledges that estimated quantities are not guaranteed, and are solely for the purpose of comparison of Bids, and final payment for all Unit Price Bid items will be based on actual quantities, determined as provided in the Contract Documents.

TOTAL BID PRICE: \$_____

**Project 21-01
Sewer and Water Relay and Street Resurfacing**

City of De Pere

ATTACHMENTS TO THIS BID

The following documents are submitted with and made a condition of this Bid:

- A. Required Bid Security
- B. Unit Price Bid Schedule (Section 00 41 43)
- C. Proposed Products Form (Section 00 43 33)
- D. Tabulation of Subcontractors (Section 00 43 36)

BID SUBMITTAL

This Bid is submitted by _____ of _____,

The Bidder, being duly sworn, does dispose that they are an authorized representative of

Bidder, if Bidder is:

An Individual

Name (typed or printed): _____

By: _____
(Individual's signature)

Doing business as: _____

A Partnership

Partnership Name: _____

By: _____
(Signature of general partner – attach evidence of authority to sign)

Name (typed or printed): _____

A Corporation

Corporation Name: _____

State of Incorporation: _____

Type (General Business, Professional, Service, Limited Liability): _____

By: _____
(Signature – attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

(CORPORATE SEAL)

Attest _____

Date of Qualification to do business in Wisconsin is ___/___/___.

Joint Venture

Name of Joint Venture: _____

First Joint Venturer Name: _____ (SEAL)

By: _____

(Signature of first joint venture partner – attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

Second Joint Venturer Name: _____ (SEAL)

By: _____

(Signature of second joint venture partner – attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

(Each joint venturer must sign. Manner of signing for each individual, partnership, and corporation that is a party to joint venture should be in manner indicated above.)

Bidder's Business Address _____

Phone No. _____ Fax No. _____

E-mail _____

SUBMITTED on _____, 20__.

State Contractor License No. _____ (if applicable)

SECTION 00 41 43

CITY OF DE PERE

PROJECT 21-01

BID SCHEDULE – UNIT PRICE

ITEM	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT BID
SANITARY SEWER CONSTRUCTION					
SS-01	Remove and Relay 8" PVC Sanitary Sewer	LF	560	\$	\$
SS-02	Remove and Relay 6" or 4" PVC Sanitary Lateral	LF	410	\$	\$
SS-03	Provide 8"x6" or 8"x4" Sanitary Wye	EA	15	\$	\$
SS-04	Remove and Replace 4' Diameter Sanitary Sewer Manhole	VF	8	\$	\$
SS-05	Provide 4' Diameter Sanitary Sewer Manhole	VF	8	\$	\$
SS-06	Dig Down and Repair Offset Joint (5-foot)	EA	4	\$	\$
SS-07	Dig Down and Verify Active Sanitary Sewer Lateral	EA	2	\$	\$
SS-08	Connect to Existing Sanitary Sewer Manhole	EA	2	\$	\$
SS-09	Abandon/Remove Sanitary Sewer and Appurtenances	LS	1	\$	\$
STORM SEWER CONSTRUCTION					
ST-01	Remove and Relay 18" PVC, PP or RCP (Class III) Storm Sewer	LF	20	\$	\$
ST-02	Remove and Relay 12" PVC or RCP (Class III) Storm Sewer	LF	120	\$	\$
ST-03	Provide 8" PVC Storm Sewer	LF	360	\$	\$
ST-04	Provide 6" PVC Storm Sewer Lateral	LF	275	\$	\$

Project 21-01
Sewer and Water Relay and Street Resurfacing

City of De Pere

ITEM	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT BID
STORM SEWER CONSTRUCTION (CONTINUED...)					
ST-05	Provide 36x6" Storm Branch or Inserta Tee	EA	1	\$	\$
ST-06	Provide 12x6" Storm Branch or Inserta Tee	EA	1	\$	\$
ST-07	Provide 8x6" Storm Branch or Inserta Tee	EA	6	\$	\$
ST-08	Remove and Replace 5' Diameter Storm Manhole	VF	5	\$	\$
ST-09	Remove and Replace 4' Diameter Storm Manhole	VF	10	\$	\$
ST-10	Provide 4' Diameter Storm Manhole	VF	4	\$	\$
ST-11	Remove and Replace Type B Inlet	EA	6	\$	\$
ST-12	Connect to Structure and/or Existing Pipe	EA	1	\$	\$
ST-13	24"x10' Spot Repair	EA	1	\$	\$
WATER MAIN CONSTRUCTION					
W-01	Provide 16" PVC Water Main - Directional Drill	LF	600	\$	\$
W-02	Provide 16" PVC Water Main - Open Cut (Granular Backfill)	LF	300	\$	\$
W-03	Provide 12" PVC Water Main - Open Cut (Natural Backfill)	LF	100	\$	\$
W-04	Provide 12" PVC Water Main - Open Cut (Granular Backfill)	LF	950	\$	\$
W-05	Provide 8" PVC Water Main - Open Cut (Granular Backfill)	LF	1,300	\$	\$
W-06	Provide 8" PVC Water Main - Directional Drill	LF	900	\$	\$
W-07	Provide 6" PVC Water Main & Hydrant Lead - Open Cut	LF	200	\$	\$

Project 21-01
Sewer and Water Relay and Street Resurfacing

City of De Pere

ITEM	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT BID
WATER MAIN CONSTRUCTION (CONTINUED...)					
W-08	Provide 8" PVC Service Lateral	LF	50	\$	\$
W-09	Provide 6" PVC Service Lateral	LF	110	\$	\$
W-10	Provide 4" PVC Service Lateral	LF	50	\$	\$
W-11	Provide 2" HDPE Water Service - Open Cut	LF	50	\$	\$
W-12	Provide 1" HDPE Water Service – Open Cut	LF	700	\$	\$
W-13	Provide 1" HDPE Water Service - Directional Drill	LF	500	\$	\$
W-14	Provide 2" Corporation with Plug/Saddle with 2" Galvanized	EA	4	\$	\$
W-15	Provide 2" Corporation and Curb Stop	EA	1	\$	\$
W-16	Provide 1" Corporation and Curb Stop	EA	35	\$	\$
W-17	Provide 16" Butterfly Valve	EA	4	\$	\$
W-18	Provide 12" Gate Valve	EA	3	\$	\$
W-19	Provide 8" Gate Valve	EA	11	\$	\$
W-20	Provide 6" Gate Valve	EA	6	\$	\$
W-21	Provide 4" Gate Valve	EA	1	\$	\$
W-22	Provide Connection to Existing Water Main	EA	12	\$	\$
W-23	Provide Connection to Existing Asbestos Cement Water Main	EA	1	\$	\$
W-24	Provide Connection to Existing Water Main 16"x8" Tapping Tee and Valve	EA	2	\$	\$

Project 21-01
Sewer and Water Relay and Street Resurfacing

City of De Pere

ITEM	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT BID
WATER MAIN CONSTRUCTION (CONTINUED...)					
W-25	Provide Connection to Existing Water Main 16"x6" Tapping Tee and Valve	EA	2	\$	\$
W-26	Provide Connection to Existing Water Main 8"x8" Tapping Tee and Valve	EA	2	\$	\$
W-27	Provide Hydrant (8.0' Bury)	EA	1	\$	\$
W-28	Provide Hydrant (7.5' Bury)	EA	2	\$	\$
W-29	Provide Hydrant (7.0' Bury)	EA	2	\$	\$
W-30	Provide Hydrant (6.5' Bury)	EA	1	\$	\$
W-31	Provide Hydrant (5.5' Bury)	EA	1	\$	\$
W-32	Provide 16" Water Offset	EA	2	\$	\$
W-33	Provide 12" Water Main 1/2 Offset	EA	2	\$	\$
W-34	Provide 8" Water Main Offset	EA	1	\$	\$
W-35	Provide 8" Water Main 1/2 Offset	EA	2	\$	\$
W-36	Provide 8" Water Service Offset	EA	2	\$	\$
W-37	Provide 6" Water Service Offset	EA	3	\$	\$
W-38	Provide 4" Water Service Offset	EA	1	\$	\$
W-39	Abandon/Remove Water Main and Appurtenances	LS	1	\$	\$
W-40	Remove and Replace 6' Diameter Water Valve Manhole and 12" Gate Valve	LS	1	\$	\$

Project 21-01
Sewer and Water Relay and Street Resurfacing

City of De Pere

ITEM	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT BID
STREET AND DRAINAGE CONSTRUCTION					
SD-01	Unclassified Excavation	CY	50	\$	\$
SD-02	Mill Asphaltic Concrete Pavement	SY	2,350	\$	\$
SD-03	Pulverize Asphaltic Concrete Pavement and Aggregate	SY	2,300	\$	\$
SD-04	Provide 1 1/4" Crushed Aggregate Base Course	TON	40	\$	\$
SD-05	Provide Asphaltic Concrete Pavement Type 4 LT 58-28 S, 1 3/4" Overlay or Upper Layer	TON	300	\$	\$
SD-06	Provide Asphaltic Concrete Pavement Type 4 LT 58-28 S, 2" Overlay or Upper Layer	TON	325	\$	\$
SD-07	Provide Asphaltic Concrete Pavement Type 3 LT 58-28 S, 2 1/4" Lower Layer	TON	600	\$	\$
SD-08	Provide Full-Depth Asphaltic Concrete Pavement Patch (4")	SY	240	\$	\$
SD-09	Remove and Replace 24" Concrete Curb and Gutter	LF	900	\$	\$
SD-10	Remove and Replace 24" Concrete Curb and Gutter (Integral)	LF	350	\$	\$
SD-11	Remove and Replace 24" Temp. Asphaltic Concrete Curb and Gutter	LF	50	\$	\$
SD-12	Remove and Replace 8" Doweled Concrete Pavement w/ Integral Curb (HES-3DAY)	SY	10	\$	\$
SD-13	Remove and Replace 8" Doweled Concrete Pavement w/ Integral Curb	SY	820	\$	\$
SD-14	Remove and Replace 8" Doweled, Stamped & Colored Concrete Pavement	SY	25	\$	\$
SD-15	Remove and Replace 6" Concrete Sidewalk, Driveway and Ramp	SY	150	\$	\$
SD-16	Remove and Replace 4" Concrete Sidewalk	SY	325	\$	\$

Project 21-01
Sewer and Water Relay and Street Resurfacing

City of De Pere

ITEM	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT BID
STREET AND DRAINAGE CONSTRUCTION (CONTINUED...)					
SD-17	Provide #4 Reinforcement Bars for Curb and Sidewalk	LF	2,000	\$	\$
SD-18	Drilled Tie Bars (Existing Sidewalk, Driveway, and Curb and Gutter)	EA	500	\$	\$
SD-19	Drilled Dowel Bars	EA	1,000	\$	\$
SD-20	Drilled Tie Bars (Concrete Pavement)	EA	125	\$	\$
SD-21	Provide Detectable Warning Field (Natural)	EA	7	\$	\$
SD-22	Pavement Marking Epoxy 12-Inch White	LF	200	\$	\$
SD-23	Pavement Marking Epoxy 8-Inch White	LF	325	\$	\$
SD-24	Pavement Marking Epoxy 4-Inch Yellow (Double)	LF	200	\$	\$
SD-25	Pavement Marking Arrows Epoxy Type-2	EA	2	\$	\$
SD-26	New Bump-out Landscaping – Topsoil, Seed, Fertilizer and Mulch	SY	100	\$	\$
STREET AND DRAINAGE CONSTRUCTION - GRANT STREET BUMP-OUT					
SD-27	Unclassified Excavation	CY	50	\$	\$
SD-28	Provide 1 1/4" Crushed Aggregate Base Course	TON	60	\$	\$
SD-29	Mill Asphaltic Concrete Pavement	SY	200	\$	\$
SD-30	Remove Asphaltic Concrete Pavement	SY	500	\$	\$
SD-31	Remove 24" Concrete Curb and Gutter	LF	500	\$	\$
SD-32	Provide Asphaltic Concrete Pavement Type 4 LT 58-28 S, 2" Overlay or Upper Layer	TON	65	\$	\$

Project 21-01
Sewer and Water Relay and Street Resurfacing

City of De Pere

ITEM	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT BID
STREET AND DRAINAGE CONSTRUCTION - GRANT STREET BUMP-OUT (CONTINUED...)					
SD-33	Provide Asphaltic Concrete Pavement Type 3 LT 58-28 S, 2 1/4" Lower Layer	TON	55	\$	\$
SD-34	Remove and Replace 8" Concrete Sidewalk, Driveway and Ramp	SY	35	\$	\$
SD-35	Provide 6" Concrete Sidewalk, Driveway and Ramp	SY	20	\$	\$
SD-36	Remove and Replace 4" Concrete Sidewalk	SY	40	\$	\$
SD-37	Provide 24" Concrete Curb and Gutter	LF	380	\$	\$
SD-38	Drilled Tie Bars	EA	30	\$	\$
SD-39	Provide Detectable Warning Field (Natural)	EA	2	\$	\$
SD-40	Rectangular Rapid Flash Beacon	EA	2	\$	\$
SD-41	Pavement Marking Epoxy 12" Crosswalk	LF	125	\$	\$
SD-42	New Bump-out Landscaping – Topsoil, Seed, Fertilizer and Mulch	SY	200	\$	\$
SPECIAL CONSTRUCTION					
SC-01	Pipe Foundation Stabilization	CY	100	\$	\$
SC-02	Provide Polystyrene Insulation Board (4' Wide)	LF	250	\$	\$
SC-03	Tree and Stump Removal	ID	200	\$	\$
SC-04	Inlet Protection Type D	EA	11	\$	\$
SC-05	Erosion Control Silt Fence	LF	50	\$	\$
SC-06	Adjust Inlet	EA	3	\$	\$

Project 21-01
Sewer and Water Relay and Street Resurfacing

City of De Pere

ITEM	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT BID
SPECIAL CONSTRUCTION (CONTINUED...)					
SC-07	Adjust Manhole	EA	2	\$	\$
SC-08	Reconstruct Manhole	VF	4	\$	\$
SC-09	Traffic Control (Ridgeway Boulevard)	LS	1	\$	\$
SC-10	Traffic Control (Third Street)	LS	1	\$	\$
TOTAL AMOUNT BID					\$

SECTION 00 43 13

CITY OF DE PERE

BID BOND

KNOW ALL MEN BY THESE PRESENTS: That _____,

as Principal, hereinafter called Principal, and _____,

as Surety, hereinafter called Surety, are held and firmly bound unto the City of De Pere, a municipal corporation of the State of Wisconsin, as Obligee, hereinafter called City, in the amount of _____ dollars (\$_____) for the payment whereof Principal and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presence.

WHEREAS, Principal has made a proposal to the City for furnishing all materials, labor, tools, equipment and incidentals necessary to complete the work of Project 21-01 in accordance with drawings and specifications prepared by the Director of Public Works of said City, which proposal is by reference made a part hereof, and is hereinafter referred to as the BID.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if Principal shall be awarded the contract for said project and Principal shall enter into a contract in accordance with the BID, then this obligation shall be null and void; otherwise it shall remain in full force and effect, provided that:

1. The liability of Surety shall in no event exceed the penalty of this bond.
2. Any suits at law or proceedings, in equity brought or to be brought against Surety to recover any claim hereunder shall be executed within six (6) months from the date of this instrument.

Signed and sealed this _____ day of _____, 20_____.

In the presence of:

WITNESS

PRINCIPAL (SEAL)

WITNESS

SURETY (SEAL)

SECTION 00 43 33

PROPOSED PRODUCTS FORM

The following is a list of material, type or model numbers and manufacturers used in the preparation of this proposal and to be used on this project:

ITEM	MATERIAL	SUPPLIER
Water Main (PVC)	_____	_____
Valves	_____	_____
Hydrants	_____	_____
Manholes	_____	_____
Inlets	_____	_____
Storm Sewer (PVC) <i>(if used)</i>	_____	_____
Storm Sewer (RCP) <i>(if used)</i>	_____	_____
Storm Sewer (PP) <i>(if used)</i>	_____	_____
Sanitary Sewer (PVC)	_____	_____
Concrete	_____	_____
Concrete Sealant	_____	_____
Dowel Bars	Not Applicable	_____
Tie Bars Rectangular Rapid Flash Beacons	Not Applicable	_____
	Not Applicable	_____

SECTION 00 51 00

NOTICE OF AWARD

(Contractor)
(Contractor Name)
(Address)
(Address)

Project Description: 21-01 Sewer and Water Relay and Street Resurfacing

The City has considered the proposal submitted by you dated (BID DATE) for the above-described project in response to its Advertisement for Bids dated February 25, 2021 and March 4, 2021.

You are hereby notified that the Common Council of the City of De Pere has accepted your bid of (Contract Amount \$_____.00).

You are required to execute the Contract and furnish the required Performance Bond, Payment Bond and Certificates of Insurance within ten (10) calendar days from the date of this notice to you.

If you fail to execute said Agreement and to furnish said bonds within ten (10) days from the date of this notice, said City will be entitled to consider all your rights arising out of the City's acceptance of your bid as abandoned and as a forfeiture of your Bid Bond. The City will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this NOTICE OF AWARD to the City.

Dated this ___th day of _____ 2021.

DEPARTMENT OF PUBLIC WORKS

BY: Eric P. Rakers, P.E.
City Engineer

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE OF AWARD is hereby acknowledged by:

_____, this the _____ day of _____, 20__

By: _____

Title: _____

SECTION 00 52 13

CONTRACT

This Contract, made and entered into this day _____ (date to be affixed by City), by and between (Contractor Name), hereinafter called Contractor, and the City of De Pere, a municipal corporation of the State of Wisconsin, hereinafter called City.

WITNESSETH: That, in consideration of the covenants and agreements herein contained, to be performed by the parties hereto, and of the payments hereinafter agreed to be made, it is mutually agreed as follows:

ARTICLE I - SCOPE OF WORK

The Contractor shall furnish all materials and all equipment and labor necessary, and perform all work shown on the drawings and described in the specifications for the project entitled 21-01 Sewer and Water Relay and Street Resurfacing, all in accordance with the requirements and provisions of the following documents, which are hereby made a part of this Contract:

- (a) Advertisement for Bids, dated February 25, 2021 and March 4, 2021.
- (b) Drawings designated for Project 21-01 Sewer and Water Relay and Street Resurfacing dated February 25, 2021.
- (c) City of De Pere 2020 Construction Specifications.
- (d) Special Provisions dated February 25, 2021.
- (e) Proposal submitted by (Contractor Name) dated Bid Date.
- (f) Addenda No. _____ dated _____

ARTICLE II - TIME OF COMPLETION

- (a) The work to be performed under the Contract shall be commenced within (number spelled out) (__) calendar days after receipt of written notice to proceed. The work shall be completed within (Number spelled out) (__) calendar days) or (specific calendar dates) after receipt of Notice to Proceed.
- (b) Time is of the essence with respect to the date of completion herein above stated. Failure to complete the work within the number of calendar days stated in this Article, or interim dates included in the work sequence in Section 01 10 00, Summary of Work, including any extensions granted thereto, shall entitle the City to deduct from the monies due the Contractor an amount equal to Update based on 00 70 00 - General Conditions (Page 27)(\$) per day for each calendar day of delay in the completion of the work. Such amount shall be considered and treated not as a penalty but as liquidated damages, which the City will sustain, by failure of the Contractor to complete the work within the time stated.

ARTICLE III - PAYMENT

- (a) The Contract Sum. The City shall pay to the Contractor for the performance of the Contract the amounts determined for the total number of each of the following units of work completed at the unit price stated thereafter. The number of units contained in this schedule is approximate only, and the final payment shall be made for the actual number of units that are incorporated in or made necessary by the work covered by the Contract.
- (b) Progress Payments. The City shall make payments on account of the Contract as follows:
1. On not later than the fourth Friday of every month the Contractor shall present to the City an invoice covering an estimate of the amount and proportionate value of the work done as verified by the City under each item of work that has been completed from the start of the job up to and including the fourth Friday of the preceding month, and the value of the work so completed determined in accordance with the schedule of unit prices for such items, together with such supporting evidence as may be required. This invoice shall also include an allowance for the cost of such materials and equipment required in the permanent work as have been delivered to the site but not as yet incorporated in the work.
 2. On not later than the third week of the following month, the City shall, after deducting previous payments made, pay to the Contractor 95% of the amount of the approved invoice, retaining 5% of the estimate of work done until 50% of the work has been completed. At 50% completion of the work, the previous retainage shall not yet be paid, but further partial payments shall be made in full to the contractor without additional retainage being taken unless the engineer certifies that the work is not proceeding satisfactorily. If the work is not proceeding satisfactorily, additional amounts may be retained. After substantial completion, an amount retained may be paid to the contractor, keeping retained only such amount as is needed for the remaining work.
 3. The Contractor shall notify the City in writing when all work under this Contract has been completed. Upon receipt of such notice the City shall, within a reasonable time, make the final inspection and issue a final certificate stating that the work provided for in this Contract has been completed and is accepted under the terms and conditions thereof, and that the entire balance due the Contractor as noted in said final certificate is due and payable. Before issuance of the final certificate the Contractor shall submit evidence satisfactory to the City that payrolls, material bills, and other indebtedness connected with the work under this Contract have been paid. The City shall make final payment as soon after issuance of the final certificate as practicable.

ARTICLE IV – CONTRACT DOCUMENTS

(a) Contents

1. The Contract documents consist of the following:
 - a. This Contract (pages 00 52 13-1 to 0052-13-3, inclusive).
 - b. Payment bond (pages 00 61 13-1 to 00 61 13-2, inclusive).
 - c. Performance bond (page 00 61 16-1).
 - d. General Conditions (pages 00 70 00-1 to 00 70 00-27, inclusive).
 - e. Specifications as listed in the table of contents of the Project Manual.

- f. Drawings consisting of ___ sheets with each sheet bearing the following general title: ___ [or] the Drawings listed on attached sheet index.
- g. Addenda (numbers ___ to ___ inclusive), dated _____.
- h. Exhibits to this Agreement (enumerated as follows):
 - 1) Contractor’s Bid (pages 00 41 13-1 to 00 41 13-3, inclusive).
 - 2) Bid Schedule – Unit Prices (Pages 00 41 43-1 to 00 41 43- , inclusive).
 - 3) Proposed Products Form (Page 00 43 33-1).
 - 4) Tabulation of Subcontractors (page 00 43 36-1).
 - 5) Documentation submitted by Contractor prior to Notice of Award (00 51 00-1).
- i. The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:
 - 1) Notice to Proceed (Page 00 55 00-1).
 - 2) Change Orders.

2. The documents listed in Paragraph (a) Contents, are attached to this Agreement (except as expressly noted otherwise above).

3. There are no Contract Documents other than those listed above in this Article IV.

IN WITNESS WHEREOF, the parties hereto have executed this Contract, the day and year first written above.

(WITNESS)

(CONTRACTOR) (SEAL)

(WITNESS)

BY: _____

(TITLE)

BY: _____

(TITLE)

CITY OF DE PERE (SEAL)

Approved as to Form By: _____ (City Attorney)

Sufficient funds are available to provide for the payment of this obligation.

(COMPTROLLER)

BY: _____
(MAYOR)

BY: _____
(CITY CLERK)

SECTION 00 55 00

NOTICE TO PROCEED

Date: _____

(CONTRACTOR NAME)
(ADDRESS)
(ADDRESS)

PROJECT: 21-01 Sewer and Water Relay and Street Resurfacing

You are hereby notified to commence work in accordance with the CONTRACT dated _____, within ten (10) days of this Notice. All work under this contract shall be completed within _____ (NUMBER IN WORDS) (#) consecutive days from the start of construction or _____ (DATE) whichever comes first.

Department of Public Works

By: Eric P. Rakers, P.E.
Title: City Engineer

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE TO PROCEED is hereby acknowledged by

_____, this ____ day of _____, 20__.
Company Name

Signature

BY: _____
Printed Name

TITLE: _____

SECTION 00 61 13

CITY OF DE PERE

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS: That **(CONTRACTOR NAME)**, as Principal, hereinafter called Contractor, and _____, as Surety, hereinafter called Surety, are held and firmly bound unto the City of De Pere, a municipal corporation of the State of Wisconsin, as Obligee, hereinafter called the City, for the use and benefit of claimants as herein below defined in the **amount _____ (CONTRACT AMT. SPELLED OUT) (\$_____)** for the payment whereof Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, Contractor has by written agreement dated _____ (date to be affixed by City) entered into a contract with City for Project 21-01, in accordance with drawings and specifications prepared by the Director of Public Works of said City, which contract is by reference made a part hereof, and is hereinafter referred to as the CONTRACT.

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if Contractor shall promptly make payments to all claimants as hereinafter defined, for all labor and material used or reasonably required for use in the performance of the CONTRACT, then this obligation shall be null and void; otherwise it shall remain in full force and effect, subject, however, to the following conditions.

1. A claimant is defined as one having a direct contract with Contractor or with a subcontractor of Contractor for labor, material, or both, used or reasonably required for use in the performance of the contract, labor and material being construed to include that part of water, gas, power, lights, heat, oil, gasoline, telephone service, or rental of equipment directly applicable to the contract.
2. The above named Contractor and Surety hereby jointly and severally agree with the City that every claimant as herein defined, who has not been paid in full before the expiration of a period of ninety (90) days after the date on which the last of such claimant's work or labor was done or performed, or materials were furnished by such claimant may sue on this bond for the use of such claimant in the name of the City, prosecute the suit to final judgment for such sum or sums as may be justly due claimant, and have execution thereon, provided, however, that the City shall not be liable for the payment of any costs or expenses of any such suit.
3. No suit or action shall be commenced hereunder by any claimant:
 - a. Unless claimant shall have given written notice to any two of the following: The Contractor, the City, or the Surety above named, within ninety (90) days after such claimant did or performed the last of the work or labor, or furnished the last of the materials for which said claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were furnished, or for whom the work or labor was done or performed. Such notice shall be served by mailing the same by registered mail, postage prepaid, in an envelope addressed to the Contractor, City, or Surety, at any place where an office is regularly maintained for the transaction of business, or served in any manner in which legal process may be served in the State of Wisconsin, save that such service need not be made by a public officer.
 - b. After the expiration of one (1) year following the date on which Contractor ceased work on said CONTRACT.

**Project 21-01
Sewer and Water Relay and Street Resurfacing**

City of De Pere

- c. Other than in a state court of competent jurisdiction in and for the County or other political subdivision of the state in which the project, or any part thereof, is situated, or in the United States District Court for the district in which the project, or any part thereof, is situated, and not elsewhere.

- 4. The amount of this bond shall be reduced by and to the extent of any payment or payments made in good faith hereunder, inclusive of the payment by Surety of mechanics' liens, which may be filed or recorded against said improvement, whether or not claim for the amount of such lien be presented under and against this bond.

SIGNED AND SEALED THIS _____ DAY OF _____, 20__.

In Presence of:

_____	_____
(WITNESS)	(CONTRACTOR)
_____	_____
(WITNESS)	(SURETY)

SECTION 00 61 16

CITY OF DE PERE

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: That **(CONTRACTOR'S NAME)**, as Principal, hereinafter called Contractor, and _____, as Surety, hereinafter called Surety, are held and firmly bound unto the City of De Pere, a municipal corporation of the State of Wisconsin, as Obligee, hereinafter called City, in the amount of **(AMOUNT WRITTEN OUT)** (\$_____) for the payment whereof Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assign, jointly and severally, firmly by these presents.

WHEREAS, Contractor has by written agreement dated _____ (date to be affixed by City), entered into a contract with the City for Project 21-01, in accordance with drawings and specifications prepared by the Director of Public Works of said City, which contract is by reference made a part hereof, and is hereinafter referred to as the CONTRACT.

NOW THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if the Contractor shall promptly and faithfully perform said CONTRACT, then this obligation shall be null and void; otherwise it shall remain in full force and effect.

Whenever Contractor shall be, and declared by the City to be in default under the CONTRACT, the City having performed City's obligations there under, the Surety may promptly remedy the default, or shall promptly

1. Complete the CONTRACT in accordance with its terms and conditions or
2. Obtain a bid or bids for submission to City for completing the CONTRACT in accordance with its terms and conditions, and upon determination by the City and Surety of the lowest responsible bidder, arrange for a contract between such bidder and City make available as work progresses (even though there should be a default or succession of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the contract price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term "balance of the contract price" as used in this paragraph shall mean the total amount payable by City to Contractor under the CONTRACT and any amendments thereto, less the amount properly paid by City to Contractor.

Any suit under this bond must be instituted before the expiration of two (2) years from the date on which final payment under the CONTRACT falls due. No right of action shall accrue on this bond to or for the use of any person or corporation other than the owner named herein or the heirs, executors, administrators or successors of City.

SIGNED AND SEALED THIS _____ DAY OF _____, 20_____.

In the Presence of:

_____	_____	_____
(WITNESS)	(CONTRACTOR)	(SEAL)
_____	_____	_____
(WITNESS)	(SURETY)	(SEAL)

SECTION 00 62 76

APPLICATION FOR PAYMENT

Contractor's Application for Payment No.

Application Period:	Application Date:
Owner: City of De Pere	Contractor:
	Contractor's Project No.:

APPLICATION FOR PAYMENT

Change Order Summary

Approved Change Orders			1. ORIGINAL CONTRACT PRICE:.....	
Number	Additions	Deductions	2. Net change by Change Orders and Written Amendments (+ or -):.....	\$0.00
			3. CURRENT CONTRACT PRICE (Line 1 plus Line 2):.....	\$0.00
			4. Total completed and stored to date Column H on Progress Estimate:.....	\$0.00
			5. Retainage (per Agreement):	
			a. Work Completed - Column H (95% up to 50% of Contract or 2.5% of 100% of Contract)	\$0.00
Total	\$0.00	\$0.00	6. AMOUNT ELIGIBLE TO DATE (Line 4 minus 5).....	\$0.00
NET CHANGE BY CHANGE ORDERS: \$0.00			7. LESS PREVIOUS PAYMENTS (Line 6 from prior Application).....	\$0.00
			8. AMOUNT DUE THIS APPLICATION (Line 6 minus Line 7).....	\$0.00

CONTRACTOR'S CERTIFICATION

The undersigned Contractor certifies that:(1) all previous progress payments received from Owner on account of Work done under Contract have been applied on account to discharge Contractor's legitimate obligations incurred in connection with Work covered by prior Applications for Payment; (2) title of all Work, materials and equipment incorporated in said Work or otherwise listed in or covered by this Application for Payment will pass to Owner at time of payment free and clear of all Liens, security interests and encumbrances (except such as are covered by a Bond acceptable to Owner indemnifying Owner against any such Liens, security interest or encumbrances); and (3) all Work covered by the Application for Payment is in accordance with the Contract Documents and is not defective.

By: _____ Date: _____

Payment of: \$ _____
(Line 8 or other - attach explanation of other amount)

is recommended by: _____ (Contractor) _____ (Date)

Payment of: \$ _____
(Line 8 or other - attach explanation of other amount)

is recommended by: _____ (Owner) _____ (Date)

SECTION 00 65 16

CERTIFICATE OF SUBSTANTIAL COMPLETION

Project:	
Owner:	Owner's Contract No.:
Contractor:	

This [tentative] [definitive] Certificate of Substantial Completion applies to:

All Work under the Contract Documents: The following specified portions of the Work:

Date of Substantial Completion

The Work to which this Certificate applies has been inspected by authorized representatives of Contractor and Engineer, and found to be substantially complete. The Date of Substantial completion of the Project or portion thereof designated above is hereby declared and is also the date of commencement of applicable warranties required by the Contract Documents, except as stated below.

A [tentative] [definitive] list of items to be completed or corrected is attached hereto. This list may not be all-inclusive, and the failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

The responsibilities between Owner and Contractor for security, operation, safety, maintenance, heat, utilities, insurance and warranties shall be as provided in the Contract Documents except as amended as follows:

Amended Responsibilities Not Amended

Owner's Amended Responsibilities:

Contractor's Amended Responsibilities:

The following documents are attached to and made part of this Certificate:

This Certificate does not constitute an acceptance of Work not in accordance with the Contract Documents nor is it a release of Contractor's obligation to complete the Work in accordance with the Contract Documents.

Executed by Engineer

Date

Accepted by Contractor

Date

SECTION 01 10 00

SUMMARY OF WORK

PART 1 – GENERAL

1.1 SUMMARY

- A. Section Includes
 - 1. References
 - 2. Work Covered by the Contract Documents
 - 3. Work Sequence
 - 4. Use of Premises
 - 5. Warranty
 - 6. Work by Others
 - 7. Project Utility Sources
 - 8. Miscellaneous Provisions

1.2 REFERENCES

- A. General Specifications. The work under this contract shall be in accordance with the City of De Pere, 2020 Construction Specifications and these Special Provisions and plans, and the latest edition of the Wisconsin Department of Transportation Standards Specifications for Highway and Structure Construction, where referenced in the City Specifications.
- B. Definitions. Any reference to the “state” or the “department” in said Standard Specifications shall mean the “City of De Pere” for the purposes of this contract.
- C. Industry Standards
 - 1. Unless the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect as if bound or copied directly into the Contract Documents to the extent referenced. Such standards are made a part of the Contract Documents by reference.
 - 2. Comply with standards in effect as of date of the Contract Documents, unless otherwise indicated.
 - 3. If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement.
 - 4. The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements.
 - 5. Each section of the specifications generally includes a list of reference standards normally referred to in that respective section. The purpose of this list is to furnish the Contractor

with a list of standards normally used for outlining the quality control desired on the project. The lists are not intended to be complete or all inclusive, but only a general reference of standards that are regularly referred to.

6. Each entity engaged in construction on the Project shall be familiar with industry standards applicable to its construction activity. Copies of applicable standards are not bound with the Contract Documents. Where copies of standards are needed to perform a required construction activity, obtain copies directly from the publication source and make them available on request.

1.3 WORK COVERED BY THE CONTRACT DOCUMENTS

A. Project Identification

1. Project Location

- a. Reid Street from Third Street to First Street (Kunkel Way)
 - b. N. Winnebago Street from Fulton Street to Ridgeway Boulevard
 - c. Ridgeway Boulevard from Lawton Place to W St. Francis Road
 - d. Grant Street pedestrian crossing bump-out construction
 - e. City Wide spot sewer repairs
2. Work will be performed under the following prime contract:
 - a. Project 21-01 Sewer and Water Relay and Street Resurfacing

B. The Work includes:

1. Water main and associated appurtenance relay.
2. Storm sewer and associated appurtenance relay and new. Spot storm sewer, inlet lead and inlet repair and replacement.
3. Sanitary sewer and associated appurtenance relay and new and lateral replacement.
4. Manhole adjustment and repair.
5. Remove and replace concrete pavement.
6. Spot concrete curb and gutter repair and replacement.
7. Driveway and sidewalk removal and replacement.
8. Mill asphaltic concrete pavement.
9. Pulverize asphaltic concrete pavement
10. Unclassified excavation.
11. Asphaltic concrete paving.
12. Terrace restoration.
13. Tree and stump removal.
14. Erosion control.
15. Traffic control.
16. Pavement marking.
17. Installation of Rectangular Rapid Flash Beacons, associated footings and appurtenances.

1.4 WORK SEQUENCE

- A. Conduct construction activities to maintain access to businesses and residences throughout construction.

- B. Topsoil, seed, and mulch shall be completed prior to asphaltic concrete pavement placement.
- C. All water main tracer wire is to be tested prior to paving.
- D. Neither work nor the running of equipment or machinery is permitted between the hours of 10:00 PM and 7:00 AM pursuant to the City of De Pere Municipal Code.
- E. Location specific work sequence details:
 - 1. Reid Street from Third Street to First Street (Kunkel Way)
 - a. Work will need to be completed when St. Norbert College is not in session. The anticipated work start date is Monday, May 24, 2021. All work must be completed by Friday, August 20, 2021.
 - 2. N. Winnebago Street from Fulton Street to Ridgeway Boulevard
 - a. Relay the water main on Ridgeway Boulevard in advance of the utility work on N. Winnebago Street. The new water main on Ridgeway Boulevard will be used to fill the new water main on N. Winnebago Street.
 - b. Daily sanitary sewer mainline relay on Winnebago Street will need to terminate with a connection to the existing sanitary sewer main to maintain service to connected properties. The two connection locations are at STA 2+97 at Sanitary Manhole 2 or at STA 6+10 where the new sanitary sewer main crosses the existing sanitary sewer main. Abandoned sanitary sewer mains shall be capped on the downstream end to prevent sewage from leaking into the trench.
 - c. The sanitary sewer on Winnebago Street from Fulton Street to approximately 300 feet north of Fulton Street will be lined under City Project 21-03. This work is to be completed by June 1, 2021. Stage work accordingly to work concurrently with the sewer lining contractor and maintain traffic.
 - 3. Ridgeway Boulevard from Lawton Place to W St. Francis Road
 - a. None.
 - 4. Grant Street Bump-Out Construction
 - a. The VFW Pool's grand opening is scheduled for June 12, 2021. Bump-out construction on Grant Street shall be completed in advance with the Pool's grand opening. Coordinate work with the City's Park Department, and the Pool's General Contractor, Immel.
 - b. Any obstructions into traffic shall be limited to between the hours of 9:00 AM and 3:00 PM while West De Pere School District is still in session. Work can be staged in the parking lanes to avoid traffic obstructions.
 - 5. Lewis Street Spot Sewer Repairs
 - a. Complete spot sanitary sewer repairs on Lewis Street by June 1, 2021 in advance of City Project 21-03 Sewer Lining.

- F. The calendar days listed below are the allowed durations for each location from the beginning of construction of the street or site to the substantial completion of the area. The start and end dates for each location are also listed below to better illustrate the window to complete work.

Location	Start Date	End Date	Calendar Days
Reid Street	5-24-2021	8-20-2021	60
N. Winnebago Street	N/A	9-15-2021	60
Ridgeway Boulevard	N/A	9-15-2021	90
Grant Street Bump-Outs	N/A	6-4-2021	40

Please note that the allowed contract calendar days shown in the table above may exceed the total project duration between the Notice to Proceed date and the completion date of September 15, 2021. It is expected that the contractor work on multiple streets concurrently to ensure the satisfactory completion of the project within the project duration. Failure to meet the interim contract dates listed above warrants the enforcement of liquidated damages outlined in the City of De Pere Standard Specifications.

1.5 USE OF PREMISES

- A. Contractor shall have full use of the premises for construction operations, including use of the Project Site, as allowed by law, ordinances, permits, easement agreements and the Contract documents.
- B. Contractor’s use of premises is limited only by Owner’s right to perform work or to retain other contractors on portions of the Project.
- C. The Project Site is limited to property boundaries, rights-of-way, easements, and other areas designated in the Contract Documents.
- D. Provide protection and safekeeping of material and products stored on or off the premises.
- E. Move any stored material or products which interfere with operations of Owner or other Contractors.

1.6 WARRANTY

- A. The Contractor warrants and guarantees to the City that all work shall be in accordance with the Contract Documents and will not be defective. Prompt notice of all defects will be given to the Contractor. All defective work, whether or not in place, may be rejected, corrected or accepted as provided in this proposal.

- B. If within one (1) year after the date of contract work completion or such longer period of time as may be prescribed by law or by the terms of any applicable special guarantee required by the Contract Documents or by a special provision of the Contract Documents, any work is found to be defective, the Contractor shall comply in accordance with the City's written instructions. These written instructions will include either correcting such defective work or, if it has been rejected by the City, removing it from the site and replacing it with non-defective work. If the Contractor does not promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk or loss or damage, the City may have the defective work corrected or the rejected work removed and replaced. All direct and indirect costs of correction or removal and replacement of defective work, including compensation for additional professional services, shall be paid by the Contractor.

1.7 WORK BY OTHERS

- A. The City of De Pere Park Department will trim trees in conflict with construction if the City receives advanced notification. Questions regarding trees or landscaping that is bid as part of this contract can be directed to the Engineer.
- B. Owner has awarded a separate contract for performance of certain construction operations which will be conducted at the Project Site simultaneously with work under this Contract. These Contracts include the following:
1. Project 21-02 – N. Erie Street Reconstruction and Utility Relay
 - a. Street reconstruction and utility relay of N. Erie Street from George Street to Ridgeway Boulevard.
 2. Project 21-03 – Sewer Lining
 - a. N. Winnebago Street from Fulton Street north approximately 300 feet.
 - b. Lewis Street from S. Ontario Street to S. Superior Street
 3. Project 21-05 – Sidewalk and Curb Repairs
 - a. The sidewalk repair area falls on the west side of the Fox River, east of the railroad tracks, north of Scheuring Road.
 4. VFW Pool Construction
 - a. The pool opening at VFW Park is tentatively scheduled for Early June 2021. Bump-out construction may need to be scheduled to work around grand opening dates.
- C. Wisconsin Public Service will be removing the street lights along Reid Street between Third Street and First Street (Kunkel Way) in conjunction with this project.
- D. St. Norbert College will be reconstructing and relocating First Street (Kunkel Way) in a future project.
- E. Cooperate fully with separate contractors and/or Owner so work by others may be carried out smoothly, without interfering with or delaying work under this Contract.

1.8 PROJECT UTILITY SOURCES

- A. Green Bay Metropolitan Sewer District (NEW Water), Lisa Sarau, (lsarau@newwater.us) (920-438-1039)
- B. AT&T, Shea Gorzelanczyk, (sg2528@att.com) (920-433-4250)
- C. Wisconsin Public Service, Bob Laskowski, (rtlaskowski@wisconsinpublicservice.com) (920-617-2775)
- D. Charter, Vince Albin, (vince.albin@charter.com) (920-378-0444)
- E. Nsight, Rick Vincent, (rick.vincent@nsight.com) (920-617-7316)
- F. TDS Metrocom, Steve Jakubiec, (steve.jakubiec@tdstelecom.com) (920-882-4166)
- G. Net-Lec (Mi-Tech Services), Dennis Lafave, (dlafave@mi-tech.us) (920-619-9774)
- H. CenturyLink, Relocation Team, (relocations@lumen.com) (318-388-9000)
- I. Central Brown County Water Authority, Rob Michaelson, (rmichaelson@mpu.org) (920-686-4354)

1.9 MISCELLANEOUS PROVISIONS

- A. Notification to Residents –notify individually all residents and businesses 2-weeks prior to the start of operations, giving an estimated time that vehicle movement will be limited or prohibited. Property owners shall be notified 24-hours prior to closing a drive.
- B. Maintain access to properties during construction, excluding time when utility work is occurring in front of a driveway or when the driveway, curb and gutter are replaced.
- C. Maintain garbage pickup and mail service throughout construction.
- D. No work is to occur on the following dates in observance of national holidays:
 - 1. Memorial Day – Monday, May 31, 2021
 - 2. Independence Day – Monday, July 5, 2021
 - 3. Labor Day – Monday, September 6, 2021
- E. Miscellaneous provisions by location:
 - 1. Reid Street
 - a. Hard surface restoration at the intersection of Reid Street and First Street shall be completed with a single 2-inch surface course lift of asphalt. Base aggregate shall be placed and compacted through the existing asphalt binder layer to accommodate this temporary asphalt surface. Temporary asphalt will be placed and maintained until the St. Norbert College First Street relocation project starts. Temporary asphalt curb and gutter shall also be installed where indicated on the plans.

- 2. N. Winnebago Street
 - a. None.
- 3. Ridgeway Boulevard
 - a. Stage concrete repairs on Ridgeway Boulevard such that one lane of traffic in either direction is always in operation. Provide additional traffic control plans for staging and traffic shifting to accommodate this work.
 - b. Valve boxes will be abandoned by removing the valve box cap and filling the box with concrete.
 - c. At the intersection with N. Superior Street, the water main will need to connect to an existing 6-inch asbestos cement water main. All state and federal guidelines shall be followed during the cutting, handling, removal and disposal of the existing asbestos cement water main.

F. Ingress and egress to the site of work for delivery of materials, hauling of excavation, daily construction activities and all vehicular traffic shall be as follows:

Location	Route
Reid Street	Reid Street (STH 32)
N. Winnebago Street	Ridgeway Boulevard via the routes listed below or N. Winnebago Street via George Street (CTH G)
Ridgeway Boulevard	N. Broadway Street (STH 57) or N. Webster Avenue (CTH X)

To view the City of De Pere Designated Heavy Truck Route Map please go to:
www.deperewi.gov/egov/documents/1476890395_45864.pdf

G. The City has included traffic control details in the project plan set for use as part of this project. The following table outlines when the traffic control details are to be used:

Sheet #	WisDOT SDD #	Description	Project Locations
C512	15C02-a	Barricades and Signs for Mainline Closures	N. Winnebago Street & Reid Street
C513	15C02-b	Barricades and Signs for Various Closures	N. Winnebago Street & Reid Street
C514	15C03	Barricades and Signs for Sideroad Closures	N. Winnebago Street & Reid Street
C515	15C11-b	Channelizing Devices, Drums, Cones, Barricades and Vertical Panels	Job Wide
C516	15C12	Traffic Control for Lane Closure with Flagging Operation	Outside Single Lane Spot Repair with travel way encroachment
C517	15D12-a	Traffic Control, Lane Closure	Outside Single Lane Spot Repair
C518	15D28	Traffic Control, Work on Shoulder or Parking Lane	Grant Street Bump-Out Construction

Project 21-01
Sewer and Water Relay and Street Resurfacing

City of De Pere

PART 2 – PRODUCTS

PART 3 – EXECUTION

END OF SECTION

SECTION 01 22 01

MEASUREMENT AND PAYMENT SANITARY SEWER

PART 1 – GENERAL

1.1 SUMMARY

A. Section includes:	<u>Bid Item No.</u>
1. Sanitary Sewer Mains (Granular Backfill)	SS-01
2. Sanitary Sewer Laterals	SS-02
3. Sanitary Sewer Service Branches	SS-03
4. Sanitary Sewer Manholes	SS-04 & SS-05
5. Sanitary Sewer Dig Down and Repair Offset Joint – 5 Feet	SS-06
6. Dig Down and Verify Active Sanitary Lateral	SS-07
7. Connect to Existing Sanitary Manhole	SS-08
8. Abandon/Remove Sanitary Sewer & Appurtenances	SS-09

B. Unit Prices include:

1. Defined work for each Unit Price Item which will provide a functionally complete Project when combined with all unit price items. If there are specific work items which the Contractor believes are not identified in any Unit Price Item, but is required to provide a functionally complete Project, then the identified specific work items shall be included in the appropriate Unit Price Item.
2. The method of measurement for payment.
3. The price per unit for payment.

1.2 GENERAL WORK ITEMS

- A. Include with the appropriate Unit Price Item the following work items which are common to the Unit Price Items for sanitary sewer systems.
- B. If there is a specific Unit Price Item for any of the following items, then the work item shall be included with that specific unit price item.
 1. Traffic Control.
 2. Sawcutting asphalt and/or concrete.
 3. Removal, hauling and disposal of surface materials including road pavement, curb and gutter, sidewalk, driveways and other pavement surfaces in the trench area and as shown on the drawings.
 4. Dewatering.
 5. Bypass pumping.
 6. Excavation.
 7. Open Trench installation method (unless bid item specifies other method).
 8. Pipe Bedding.
 9. Backfilling and compacting native obtained from the excavation.

10. Supplying, hauling, backfilling and compacting granular material.
11. Loading, hauling and disposing of surplus excavated material.
12. Landscaping – turf establishment surface restoration and trees and bushes damaged during construction.
13. Maintenance, protection, replacement and/or repair of facilities not designated for alteration on the Site beyond the limits identified.
14. Site access requirements including temporary aggregate material as required for local traffic access.
15. Bulkhead and abandoned existing sanitary sewer with flowable fill as shown on Drawings.
16. If crossing or undermining of existing public or private utility, then include:
 - a. Maintaining the utility in service.
 - b. Replacing of existing utilities, if damaged.
 - c. Providing support and bedding material.
17. Dust control.
18. Remove and replace existing mailboxes and traffic signs.
19. Restroom facilities.
20. Easement and right-of-way requirements.
21. Construction staking and other survey work not provided by the Engineer.
22. Regulatory requirements.
23. Preconstruction videotaping and video equipment.
24. Quality assurance and quality control testing and inspections.
25. Shop drawings and other submittals.

1.3 SANITARY SEWER MAINS (GRANULAR BACKFILL)

- A. The unit price for Sanitary Sewer Main (Granular Backfill) work includes:
 1. General Work Items of Article 1.2.
 2. Sanitary sewer pipe and fittings of material stated in the Unit Price Bid Schedule and installed using the open trench method.
 3. Excavation, breakdown and removal of abandoned piping inside the trench area, including plugging of existing connections.
 4. Excavation, breakdown and removal of abandoned pipeline structures inside the trench area, including plugging of existing connections.
- B. Measurement of payment will be the actual horizontal length along the centerline of the installed sewer from centerline of the manhole to centerline of manhole with no deductions for manholes, sewer services branches and other fittings.
- C. The unit of measurement for payment is linear feet.

1.4 SANITARY SEWER LATERALS

- A. The unit price for Sanitary Sewer Laterals work includes:
 1. General Work Items of Article 1.2.

2. Sanitary sewer lateral pipe and fittings of the material stated in the Unit Price Bid Schedule and installed using the open trench method.
 3. Watertight plug in the end of the sewer service lateral or connection including transition coupling to the existing building sewer lateral.
 4. Tracer wire.
 5. Install an 8' – 4" X 4" board at the end of the lateral.
- B. Measurement of payment will be the actual horizontal length along the centerline of the installed sewer service lateral pipe (excluding risers) from centerline of the service branch to the end of the pipe at the right of way, easement or existing sewer service lateral with no deductions for fittings.
- C. The unit of measurement for payment is linear feet.

1.5 SANITARY SEWER SERVICE BRANCHES

- A. The unit price for Sanitary Sewer Service Branches work includes:
1. General Work Items of Article 1.2.
 2. Sanitary sewer service branches of same material strength or better than sanitary sewer main pipe.
 3. Installation along with the sanitary sewer main pipe installation.
 4. Plug (where required).
- B. Measurement for payment will be the actual number installed.
- C. The unit of measurement for payment is each.

1.6 SANITARY SEWER MANHOLES

- A. The unit price for Sanitary Sewer Manholes work includes:
1. General Work Items of Article 1.2.
 2. Precast reinforced concrete components.
 3. Joint flexible gasket material.
 4. Resilient flexible connector between the manhole structure and the sewer pipe.
 5. Adjusting rings and bituminous plastic cement sealant at chimney.
 6. Manhole steps.
 7. Manhole frame and cover (Neevah Foundry R-1500 Manhole Cover with Non-Rocking Lid or equal). Sanitary Sewer manhole covers shall have gaskets and concealed pick holes.
 8. Bedding material.
 9. Sewer pipe stub with connections and watertight plug (where required).
 10. Final casting adjustment.
- B. Measurement for payment will be the distance from the invert of the lowest sewer to the top of the frame and cover as set.

C. The unit of measurement for payment is vertical feet.

1.7 SANITARY SEWER DIG DOWN AND REPAIR OFFSET JOINT

A. The unit price for Sanitary Dig Down and Repair Offset Joint work includes:

1. General Work Items of Article 1.2.
2. Excavation.
3. Exposing sanitary sewer line for repairs to offset joint.
4. Sawing existing sanitary sewer.
5. Remove and replace pipe (if applicable).
6. Connection to existing sanitary sewer (if applicable).
7. Repairing offset joints where present.

B. Measurement for payment will be the actual number completed.

C. The unit of measurement for payment is each.

1.8 DIG DOWN AND VERIFY ACTIVE SANITARY LATERAL

A. The unit price for Dig Down and Verify Active Sanitary Lateral work includes:

1. General work items of Article 1.2.
2. Televiser or excavate down to existing sanitary sewer lateral to expose the existing lateral to verify if the lateral is active.
3. City staff will dye test the lateral if needed.
4. Backfilling and compacting.

B. Measurement for payment will be the actual number completed.

C. The unit of measurement for payment is each.

1.9 CONNECT TO EXISTING SANITARY MANHOLE

A. The unit price for Connect to Existing Sanitary Manhole work includes:

1. General Work Items of Article 1.2.
2. Core drilling into existing sanitary sewer manhole (where required).
3. Install A-Lok boot.
4. Reform flow line in existing sanitary manhole.

B. Measurement for payment will be the actual number complete.

C. The unit of measurement for payment is each.

1.10 ABANDON/REMOVE SANITARY SEWER AND APPURTENANCES

- A. The unit price for Abandon/Remove Sanitary Sewer and Appurtenances work includes:
1. General Work Items of Article 1.2.
 2. Excavating.
 3. Install bulkheads and abandon sewer line.
 4. Removing existing sanitary sewer where in conflict with other utilities.
 5. Providing and placing flowable fill.
 6. Backfilling and compacting.
 7. Removal and disposal of appurtenances as shown on the Drawings.
- B. Measurement for payment will not be made. This includes all of the project area.
- C. The unit of measurement for payment is lump sum.

END OF SECTION

SECTION 01 22 02

MEASUREMENT AND PAYMENT STORM SEWER

PART 1 – GENERAL

1.1 SUMMARY

- | A. Section includes: | <u>Bid Item No.</u> |
|--|-----------------------|
| 1. Storm Sewer Mains (Granular Backfill) | ST-01, ST-02 & ST-03 |
| 2. Storm Sewer Laterals | ST-04 |
| 3. Storm Sewer Service Branches | ST-05, ST-06 & ST-07 |
| 4. Storm Sewer Manholes | ST-08, ST-09, & ST-10 |
| 5. Catch Basin/Inlets | ST-11 |
| 6. Connect to Existing Storm Sewer Pipe or Structure | ST-12 |
| 7. Storm Sewer Dig Down Spot Repair – 10 Feet | ST-13 |
- B. Unit Prices include:
1. Defined work for each Unit Price Item which will provide a functionally complete Project when combined with all unit price items. If there are specific work items which the Contractor believes are not identified in any Unit Price Item, but is required to provide a functionally complete Project, then the identified specific work items shall be included in the appropriate Unit Price Item.
 2. The method of measurement for payment.
 3. The price per unit for payment.

1.2 GENERAL WORK ITEMS

- A. Include with the appropriate Unit Price Item the following work items which are common to the Unit Price Items for storm sewer systems.
- B. If there is a specific Unit Price Item for any of the following items, then the work item shall be included with that specific unit price item.
1. Traffic Control.
 2. Sawcutting asphalt and/or concrete.
 3. Removal, hauling and disposal of surface materials including road pavement, curb and gutter, sidewalk, driveways and other pavement surfaces in the trench area and as shown on the drawings.
 4. Dewatering.
 5. Excavation.
 6. Open trench installation method (unless bid item specifies other method).
 7. Pipe bedding.
 8. Backfilling and compacting native obtained from the excavation.
 9. Supplying, hauling, backfilling and compacting granular material.
 10. Loading, hauling and disposing of surplus excavated material.

11. Landscaping – turf establishment surface restoration and trees and bushes damaged during construction.
12. Maintenance, protection, replacement and/or repair of facilities not designated for alteration on the Site beyond the limits identified.
13. Site access requirements including temporary aggregate material as required for local traffic access.
14. Bulkhead and abandon existing storm sewer with flowable fill as shown on drawings.
15. If crossing or undermining of existing public or private utility, then include:
 - a. Maintaining the utility in service.
 - b. Replacing of existing utilities, if damaged.
 - c. Providing support and bedding material.
16. Dust control.
17. Remove and replace existing mailboxes and traffic signs.
18. Restroom facilities.
19. Easement and right-of-way requirements.
20. Construction staking and other survey work not provided by the Engineer.
21. Regulatory requirements.
22. Preconstruction videotaping and video equipment.
23. Quality assurance and quality control testing and inspections.
24. Shop drawings and other submittals.

1.3 STORM SEWER MAINS (GRANULAR BACKFILL)

- A. The unit price for Storm Sewer Main (Granular Backfill) work includes:
1. General Work Items of Article 1.2.
 2. Storm sewer pipe and fittings of material stated in the Unit Price Bid Schedule and installed using the open trench method.
 3. Excavation, breakdown and removal of abandoned piping inside the trench area, including plugging of existing connections.
 4. Excavation, breakdown and removal of abandoned pipeline structures inside the trench area, including plugging of existing connections.
- B. Measurement of payment will be the actual horizontal length along the centerline of the installed sewer from centerline of the manhole to centerline of manhole with no deductions for manholes, sewer services branches and other fittings.
- C. The unit of measurement for payment is linear feet.

1.4 STORM SEWER LATERALS

- A. The unit price for Storm Sewer Laterals work includes:
1. General Work Items of Article 1.2.
 2. Storm sewer lateral pipe and fittings of the material stated in the Unit Price Bid Schedule and installed using the open trench method.

3. Watertight plug in the end of the sewer service lateral or connection including transition coupling to the existing building sewer lateral.
4. Tracer wire.
5. Install an 8' – 4" X 4" board at the end of the lateral.

B. Measurement of payment will be the actual horizontal length along the centerline of the installed sewer service lateral pipe from centerline of the service branch to the end of the pipe at the right of way, easement or existing sewer service lateral with no deductions for fittings.

C. The unit of measurement for payment is linear feet.

1.5 STORM SEWER SERVICE BRANCHES/INSERTA TEES

A. The unit price for Storm Sewer Service Branches/Inserta Tees work includes:

1. General Work Items of Article 1.2.
2. Storm sewer service branches of same material strength or better than storm sewer main pipe (where required).
3. Core drilling into concrete storm sewer main (where required).
4. Installation along with the storm sewer main pipe installation.
5. Plug (where required).

B. Measurement for payment will be the actual number installed.

C. The unit of measurement for payment is each.

1.6 STORM SEWER MANHOLES

A. The unit price for Storm Sewer Manholes work includes:

1. General Work Items of Article 1.2.
2. Precast reinforced concrete components.
3. Joint flexible gasket material.
4. Grout seal between the manhole and structure and the sewer pipe.
5. Adjusting rings and bituminous plastic cement sealant at chimney.
6. Manhole steps.
7. Manhole frame and cover.
8. Bedding material.
9. Sewer pipe stub with connections and watertight plug (where required).
10. Final casting adjustment.

B. Measurement for payment will be the distance from the invert of the lowest sewer to the top of the frame and cover as set.

C. The unit of measurement for payment is vertical feet.

1.7 CATCH BASIN/INLETS

- A. The unit price for Catch Basin/Inlets work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Precast reinforced concrete components.
 - 3. Joint flexible gasket material.
 - 4. Grout seal between the catch basin/inlet structure and the sewer pipe.
 - 5. Adjusting rings grouted in place.
 - 6. Casting frame and grate.
 - 7. Bedding material.
 - 8. Supply and install 6 to 10 feet of 4 inch flexible perforated plastic pipe with geotextile wrap subgrade drain.
 - 9. Sand fill and Class "B" concrete floor and flow line.
 - 10. Temporary cover over catch basin/inlet to prevent eroded materials from entering.
 - 11. Final casting adjustment.
- B. Measurement for payment will be the actual number installed.
- C. The unit of measurement for payment is each.

1.8 CONNECT TO EXISTING STORM SEWER PIPE OR STRUCTURE

- A. The unit price work for Connect to Existing Storm Sewer Pipe or Structure work includes:
 - 1. General Work items of Article 1.2.
 - 2. Sawing or coring into existing storm sewer pipe or structure (where required).
 - 3. Install block and mortar.
 - 4. Reform flowline in existing storm structure.
- B. Measurement for payment will be the actual number completed.
- C. The unit of measurement for payment is each.

1.9 STORM SEWER DIG DOWN SPOT REPAIR – 10 FEET

- A. The unit price work for Storm Sewer Dig Down Spot Repair – 10 Feet work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Excavation.
 - 3. Exposing storm sewer line for repairs.
 - 4. Sawing existing storm sewer.
 - 5. Remove and replace pipe.
 - 6. Connection to existing storm sewer.
 - 7. Repairing offset joints where present.

- B. Measurement for payment will be the actual number completed.
- C. The unit of measurement for payment is each.

END OF SECTION

SECTION 01 22 03

MEASUREMENT AND PAYMENT WATER SYSTEM

PART 1 – GENERAL

1.1 SUMMARY

- A. Section includes:
- | | <u>Bid Item No.</u> |
|---|---|
| 1. Water Mains (Directional Drill) | W-01 & W-06 |
| 2. Water Mains (Granular Backfill) | W-02, W-04 & W-05 |
| 3. Water Mains (Natural Backfill) | W-03 |
| 4. 6-Inch Hydrant Leads | W-07 |
| 5. Water Services | W-08, W-09, W-10, W-11 & W-12 |
| 6. Water Services (Directional Drill) | W-13 |
| 7. 2-Inch Corporation w/ Plug or Saddle and Galvanized Pipe | W-14 |
| 8. Corporation and Curb Stop | W-15 & W-16 |
| 9. Valves | W-17, W-18, W-19, W-20 & W-21 |
| 10. Connection to Existing Water Mains | W-22, W-23, W-24, W-25 & W-26 |
| 11. Fire Hydrants | W-27, W-28, W-29, W-30 & W-31 |
| 12. Water Main Offset | W-32, W-33, W-34, W-35, W-36, W-37 & W-38 |
| 13. Abandon/Remove Water Main and Appurtenances | W-39 |
| 14. Water Valve Manholes | W-40 |
- B. Unit Prices include:
1. Defined work for each Unit Price Item which will provide a functionally complete Project when combined with all unit price items. If there are specific work items which the Contractor believes are not identified in any Unit Price Item, but is required to provide a functionally complete Project, then the identified specific work items shall be included in the appropriate Unit Price Item.
 2. The method of measurement for payment.
 3. The price per unit for payment.

1.2 GENERAL WORK ITEMS

- A. Include with the appropriate Unit Price Item the following work items which are common to the Unit Price Items for water systems.
- B. If there is a specific Unit Price Item for any of the following items, then the work item shall be included with that specific unit price item.
1. Traffic Control.
 2. Sawcutting asphalt and/or concrete.
 3. Removal, hauling and disposal of surface materials including road pavement, curb and gutter, sidewalk, driveways and other pavement surfaces in the trench area and as shown on the drawings.

4. Dewatering.
5. Excavation.
6. Open Trench installation method (unless bid item specifies other method).
7. Pipe Bedding.
8. Backfilling and compacting native obtained from the excavation.
9. Supplying, hauling, backfilling and compacting granular material.
10. Loading, hauling and disposing of surplus excavated material.
11. Landscaping – turf establishment surface restoration and trees and bushes damaged during construction.
12. Maintenance, protection, replacement and/or repair of facilities not designated for alteration on the Site beyond the limits identified.
13. Site access requirements including temporary aggregate material as required for local traffic access.
14. Bulkhead and abandoned existing water main with flowable fill as shown on Drawings.
15. If crossing or undermining of existing public or private utility, then include:
 - a. Maintaining the utility in service.
 - b. Replacing of existing utilities, if damaged.
 - c. Providing support and bedding material.
16. Dust control.
17. Remove and replace existing mailboxes and traffic signs.
18. Restroom facilities.
19. Easement and right-of-way requirements.
20. Construction staking and other survey work not provided by the Engineer.
21. Regulatory requirements.
22. Preconstruction videotaping and video equipment.
23. Quality assurance and quality control testing and inspections.
24. Shop drawings and other submittals.

1.3 WATER MAINS (DIRECTIONAL DRILL)

- A. The unit price for Water Main (Directional Drill) work includes:
 1. General Work Items of Article 1.2.
 2. Field verification of location and elevation of existing utilities before and/or during directional drilling.
 3. Boring pit and receiving pit excavation.
 4. PVC pipe and materials (Fusible PVC or PVC or Certa-Lok Restraint).
 5. Tracer Wire.
 6. Installation of the PVC pipe by directional drilling.
 7. Backfilling and compacting the boring and receiving pits.
 8. Loading, hauling and disposing of surplus excavated material.
- B. Measurement of payment will be the actual horizontal length along the centerline of the installed water main with no deductions for fittings and valves.
- C. The unit of measurement for payment is linear feet.

1.4 WATER MAINS (GRANULAR BACKFILL)

- A. The unit price for Water Main (Granular Backfill) work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Water pipe and fittings of material stated in the Unit Price Bid Schedule and installed using the open trench method.
 - 3. Ductile or cast iron fittings.
 - 4. Tracer wire.
 - 5. Polyethylene encasement of ductile iron or cast iron pipe and fittings.
 - 6. Blocking and joint restraints.
 - 7. Disinfection of pipelines.
- B. Measurement of payment will be the actual horizontal length along the centerline of the installed water main with no deductions for fittings and valves.
- C. The unit of measurement for payment is linear feet.

1.5 WATER MAINS (NATURAL BACKFILL)

- A. The unit price for Water Main (Natural Backfill) work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Water pipe and fittings of material stated in the Unit Price Bid Schedule and installed using the open trench method.
 - 3. Ductile or cast iron fittings.
 - 4. Tracer wire.
 - 5. Polyethylene encasement of ductile iron or cast iron pipe and fittings.
 - 6. Blocking and joint restraint.
 - 7. Disinfection of pipelines.
- B. Measurement of payment will be the actual horizontal length along the centerline of the installed water main with no deductions for fittings and valves.
- C. The unit of measurement for payment is linear feet.

1.6 6-INCH HYDRANT LEADS

- A. The unit price for 6-Inch Hydrant Leads work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Pipe and fittings of material stated in the Unit Price Bid Schedule.
 - 3. Blocking and joint restraints.
 - 4. Tracer wire.
 - 5. Disinfection of pipeline.

B. Measurement for payment will be the actual horizontal length along the centerline of the installed from the centerline of the water main to the centerline of the hydrant with no deductions for fittings and valves.

C. The unit of measurement for payment is linear feet.

1.7 WATER SERVICES

A. The unit price for Water Services work includes:

1. General Work Items of Article 1.2.
2. Pipe and fittings of material stated in the Unit Price Bid Schedule.
3. Tracer wire.
4. Disinfection of pipelines.
5. Install an 8'- 4"x4" board at the end of the lateral.

B. Measurement of payment will be the actual horizontal length along the centerline of the installed water service with no deductions for fittings and curb stops.

C. The unit of measurement for payment is linear feet.

1.8 WATER SERVICES (DIRECTIONAL DRILL)

A. The unit price for Water Services (Directional Drill) work includes:

1. General Work Items of Article 1.2.
2. Pipe and fittings of material stated in the Unit Price Bid Schedule.
3. Field verifies location and elevation of existing utilities before and/or during directional drilling.
4. Boring pit and receiving pit excavation.
5. Tracer wire.
6. Installation of the pipe by directional drilling.
7. Backfilling and compacting the boring and receiving pits.
8. Connection to the existing water service.
9. Loading, hauling and disposing of surplus excavated material.

B. Measurement of payment will be the actual horizontal length along the centerline of the installed water service with no deductions for fittings and curb stops.

C. The unit of measurement for payment is linear feet.

1.9 2-INCH CORPORATION WITH PLUG OR SADDLE AND GALVANIZED PIPE

A. The unit price for 2-Inch Corporation with Plug or Saddle and Galvanized Pipe work includes:

1. General Work Items of Article 1.2.
2. Provide and install 2-inch corporation with plug or saddle (where required) with 2-inch galvanized pipe.

3. Remove 2-inch corporation with plug/saddle and repair water main.

B. Measurement for payment will be the actual number installed.

C. The unit of measurement for payment is each.

1.10 CORPORATION AND CURB STOPS

A. The unit price for Corporation and Curb Stops work includes:

1. General Work Items of Article 1.2.
2. Supply curb stops and curb boxes.
3. Connection to existing water service (where required).
4. Installation of curb stops and curb boxes.
5. Tracer wire.

B. Measurement for payment will be the actual number installed.

C. The unit of measurement for payment is each.

1.11 VALVES

A. The unit price for Valves work includes:

1. General Work Items of Article 1.2.
2. Valve.
3. Valve box.
4. Polyethylene encasement.
5. Stem.
6. Bedding material.

B. Measurement for payment will be the actual number installed.

C. The unit of measurement for payment is each.

1.12 CONNECTIONS TO EXISTING WATER MAINS

A. The unit price for Connection to Existing Water Mains work includes:

1. General Work Items of Article 1.2.
2. Locating existing water main.
3. Connection to the end of existing pipe.
 - a. Remove existing plug.
 - b. Direct connection to end of existing pipe.
 - c. Transition fittings, if required.
4. Tapping tee and valve (if required).
5. Removal, handling and disposal of hazardous asbestos materials per state and federal guidelines (where applicable).

- B. Measurement for payment will be the actual number installed.
- C. The unit of measurement for payment is each.

1.13 FIRE HYDRANTS

- A. The unit price for Fire Hydrants work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Fire hydrant complete of the specified bury depth.
 - 3. Blocking and joint restraints.
 - 4. Hydrant wrenches.
 - 5. Hydrant markers.
 - 6. Polyethylene encasement.
 - 7. Drainage pit.
 - 8. Disinfection of hydrant.
 - 9. Tracer wire.
 - 10. Tracer wire access box.
- B. Measurement for payment will be the actual number installed.
- C. The unit of measurement for payment is each.

1.14 WATER MAIN OFFSET

- A. The unit price for Water Main Offset work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Ductile iron fittings and PVC pipe.
 - 3. Tracer wire.
 - 4. Polyethylene encasement of ductile iron pipe and fittings.
 - 5. Blocking and joint restraints.
- B. Measurement for payment will be the actual number installed.
- C. The unit of measurement for payment is each.

1.15 ABANDON / REMOVE WATER MAIN AND APPURTENANCES

- A. The unit price for Abandon/Remove Water Main and Appurtenances work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Excavating
 - 3. Install bulkheads and abandon water line.
 - 4. Removing existing water main where in conflict with other utilities.
 - 5. Providing and placing flowable fill.
 - 6. Backfilling and compacting.
 - 7. Removal and disposal of appurtenances as shown on the Drawings.

B. Measurement for payment will not be made. This includes all of the project area.

C. The unit of measurement for payment is lump sum.

1.16 WATER VALVE MANHOLE

A. The unit price for Water Valve Manhole work includes:

1. General Work Items of Article 1.2.
2. Precast reinforced concrete components.
3. Joint flexible gasket material.
4. Resilient flexible connector between the manhole structure and the water main.
5. Adjusting rings and bituminous plastic cement sealant at chimney.
6. Manhole steps.
7. Manhole frame and cover (Neenah Foundry R-1500 Cover with Non-Rocking lid or equal).
Water valve manhole covers shall have gaskets and concealed pick holes.
8. Bedding material.
9. Final casting adjustment.
10. Water pipe and fittings of material stated in the Unit Price Bid Schedule and installed.
11. Ductile or cast iron fittings.
12. Blocking and joint restraint.
13. Disinfection of pipelines.
14. Supply and installation of corporations.
15. Valve
16. Valve nut extension (where required).
17. Stem.

B. Measurement for payment will not be made.

C. The unit of measurement for payment is lump sum.

END OF SECTION

SECTION 01 22 04

MEASUREMENT AND PAYMENT STREET AND DRAINAGE CONSTRUCTION

PART 1 – GENERAL

1.1 SUMMARY

A. Section includes:	<u>Bid Item No.</u>
1. Topsoil and Unclassified Excavation	SD-01 & SD-27
2. Mill Asphaltic Concrete Pavement	SD-02 & SD-29
3. Pulverize Asphaltic Concrete Pavement	SD-03
4. Crushed Aggregate Base and Surface Course	SD-04 & SD-28
5. Asphaltic Concrete Pavement	SD-05, SD-06, SD-07, SD-32 & SD-33
6. Asphaltic Concrete Pavement Patch	SD-08
7. Portland Cement Concrete Curb and Gutter	SD-09, SD-10 & SD-37
8. Asphaltic Concrete Curb and Gutter	SD-11
9. Portland Cement Concrete Pavement	SD-12, SD-13, SD-14
10. Portland Cement Concrete Driveway and Sidewalk	SD-15, SD-16, SD-34, SD-35 & SD-36
11. Deformed Reinforcement Bars	SD-17
12. Drilling Tie Bars and Dowel Bars	SD-18, SD-19, SD-20 & SD-38
13. Detectable Warning Field Natural	SD-21 & SD-39
14. Pavement Marking Epoxy Lines	SD-22, D-23, SD-24 & SD-41
15. Pavement Marking Epoxy Symbols	SD-25
16. Landscaping – Topsoil, Seed, Fertilize, and Mulch	SD-26 & SD-42
17. Remove Asphaltic Concrete Pavement	SD-30
18. Curb and Gutter Removal	SD-31
19. Rectangular Rapid Flash Beacon Installation	SD-40

B. Unit Prices include:

1. Defined work for each Unit Price Item which will provide a functionally complete Project when combined with all unit price items. If there are specific work items which the Contractor believes are not identified in any Unit Price Item, but is required to provide a functionally complete Project, then the identified specific work items shall be included in the appropriate Unit Price Item.
2. The method of measurement for payment.
3. The price per unit for payment.

1.2 GENERAL WORK ITEMS

- A. Include with the appropriate Unit Price Item the following work items which are common to the Unit Price Items for street and drainage systems.
- B. If there is a specific Unit Price Item for any of the following items, then the work item shall be included with that specific unit price item.

1. Traffic Control.
2. Sawcutting asphalt and/or concrete.
3. Removal, hauling and disposal of surface materials including road pavement, curb and gutter, sidewalk, driveways and other pavement surfaces in the trench area and as shown on the drawings.
4. Maintenance, protection, replacement and/or repair of facilities not designated for alteration on the Site.
5. Site access requirements including temporary aggregate material as required for local traffic access.
6. Dust control.
7. Remove and replace existing mailboxes and traffic signs.
8. Restroom facilities.
9. Construction staking and other survey work not provided by the Engineer.
10. Regulatory requirements.
11. Quality assurance and quality control testing and inspections.
12. Final casting and valve box adjustment.
13. Shop drawings and other submittals.

1.3 TOPSOIL AND UNCLASSIFIED EXCAVATION

- A. The unit price for Topsoil and Unclassified Excavation work includes:
1. General Work Items of Article 1.2.
 2. Removal of topsoil to depth available.
 3. Hauling and stockpiling topsoil.
 4. Excavation to subgrades shown on the Drawings.
 5. Hauling of unclassified material.
 6. Placing unclassified material in fill areas to subgrades shown on the Drawings and the subgrade required for placement of topsoil.
 7. Compaction of subgrade and fill areas.
 8. Test rolling subgrade.
 9. Excavation of undercut areas for placing topsoil.
 10. Respreading topsoil to final grades shown on the Drawings.
 11. Disposal of surplus topsoil, unclassified material and unsuitable material.
 12. Preparation of disposal site and transportation of material over an Engineer approved haul route from the site including all loading and dumping of material.
 13. Finish grading.
- B. Measurement of payment will not be made unless there is a change in project scope. The estimated quantity represents the computed volume by comparing the triangulated surfaces and will be the basis for payment.
- C. The unit of measurement for payment is cubic yards.

1.4 MILL ASPHALTIC CONCRETE PAVEMENT

- A. The unit price for Mill Asphaltic Concrete Pavement work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Milling to length, width and depth as shown on Drawings or specified elsewhere.
 - 3. Hauling and disposing of millings.
 - 4. Cleaning of area milled.
- B. Measurement for payment will be the average horizontal length and width of roadway.
- C. The unit of measurement for payment is square yards.

1.5 PULVERIZE ASPHALTIC CONCRETE PAVEMENT

- A. The unit price for Pulverize Asphaltic Concrete Pavement work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Pulverizing asphaltic concrete pavement with crushed aggregate base course to a depth of 8-inches.
 - 3. Compacting and fine grading of pulverized material.
 - 4. Removal of excess material to established grade elevations.
- B. Measurement for payment will be the average horizontal length and width of roadway.
- C. The unit of measurement for payment is square yards.

1.6 CRUSHED AGGREGATE BASE AND SURFACE COURSE

- A. The unit price for Crushed Aggregate Base and Surface Course work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Aggregate material.
 - 3. Preparation of foundation.
 - 4. Placing and compacting to thickness and width shown on the Drawings or specified elsewhere.
 - 5. Maintenance until surface pavement is constructed.
 - 6. Preparation of crushed aggregate base for paving.
 - 7. Adjustment of manholes and valve boxes to proposed finish road grade.
- B. Measurement of payment will be the actual amount of material required and incorporated in the work verified by submitting to the Engineer delivery tickets provided with each load showing the weight measured on a certified scale, type of material, the date delivered and the project name. Aggregates in excess of seven percent (7%) total moisture determined based on the dry mass of the aggregates will have moisture content in excess of seven percent (7%) deducted from the measured weight.
- C. The unit of measurement for payment is tons.

1.7 ASPHALTIC CONCRETE PAVEMENT

- A. The unit price for Asphaltic Concrete Pavement work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Asphaltic concrete mixture, tack coat and other required materials
 - 3. Surface preparation.
 - 4. Provide tack coat on base material.
 - 5. Saw cutting and/or mill adjacent and abutting pavement surfaces.
 - 6. Asphaltic concrete placement and compaction to thickness and width shown on the drawings or specified elsewhere.
 - 7. Tack coat between asphaltic concrete courses and abutting pavements.

- B. Measurement for payment will be the actual amount of material required and incorporated in the work verified by submitting to the Engineer delivery tickets provided with each load showing the weight measured on a certified scale, type of material, the date delivered and the project name.

- C. The Unit Price shall be adjusted for deficiencies for less than minimum density represented by the average lot density of five nuclear density tests of 750 tons of asphaltic concrete placed as shown in the following table:

Density Deficiency-Percent of Unit Price for Payment	
%Lot Density Below Specified Minimum	WisDOT Mixes
From 0.5-1.0 inclusive	98%
From 1.1-1.5 inclusive	95%
From 1.6-2.0 inclusive	91%
From 2.1-2.5 inclusive	85%
From 2.6-3.0 inclusive	70%
More than 3.0	0%

- D. The unit of measurement for payment is tons.

1.8 ASPHALTIC CONCRETE PAVEMENT PATCH

- A. The unit price for Asphaltic Concrete Pavement Patch work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Sawcutting.
 - 3. Removal of asphalt.
 - 4. Asphaltic concrete mixture, tack coat and other required materials.
 - 5. Surface preparation.
 - 6. Grading subgrade.
 - 7. Asphaltic concrete placement and compaction to thickness matching surrounding pavements.
 - 8. Tack coat between asphaltic courses and abutting pavement.

- B. Measurement for payment will be the average horizontal length and width of roadway.
- C. The unit of measurement for payment is square yards.

1.9 PORTLAND CEMENT CONCRETE CURB AND GUTTER

- A. The unit price for Portland Cement Concrete Curb and Gutter work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Providing Portland cement concrete mixture of size shown in the drawings or specified elsewhere.
 - 3. Providing expansion joints.
 - 4. Providing curing.
 - 5. Existing curb and gutter removal.
 - 6. Subgrade preparation.
 - 7. Provide crushed aggregate base.
 - 8. Fine grading of subgrade.
 - 9. Providing contraction joints.
 - 10. Driveway entrances and handicap ramp entrances.
 - 11. Adjustment of catch basin/inlets.
 - 12. Finishing.
 - 13. Protection.
 - 14. Restoration behind the curb.
- B. Measurement for payment will be along the flow line of the gutter and through inlets/catch basins.
- C. The unit of measurement for payment is linear feet.

1.10 ASPHALTIC CONCRETE CURB AND GUTTER

- A. The unit price for Asphaltic Concrete Curb and Gutter work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Existing curb and gutter removal.
 - 3. Provide crushed aggregate base.
 - 4. Fine grading of subgrade.
 - 5. Asphaltic concrete mixture, tack coat and other required materials.
 - 6. Surface preparation.
 - 7. Grading subgrade.
 - 8. Asphaltic concrete placement and compaction to thickness matching surrounding pavements.
 - 9. Tack coat between asphaltic courses and abutting pavement.
- B. Measurement for payment will be along the flow line of the gutter and through inlets/catch basins.

C. The unit of measurement for payment is linear feet.

1.11 PORTLAND CEMENT CONCRETE PAVEMENT

A. The unit price for Portland Cement Concrete Pavement work includes:

1. General Work Items of Article 1.2.
2. Furnish all labor, tools, equipment and services.
3. Providing Portland cement concrete mixture of thickness shown in the drawings or specified elsewhere.
4. Surface preparation.
5. Providing reinforcement including tie bars and dowel bars.
6. Drilling tie bars and dowel bars into existing pavement.
7. Joint sealing.
8. Providing curing.
9. Concrete sealing with linseed oil.
10. Fine grading of subgrade.
11. Providing expansion joints and contraction joints.
12. Adjustment of manholes, water valves, inlets/catch basin and other structures to finish grade.
13. Finishing.
14. Protection.

B. Measurement for payment will be length and width of areas paved. Concrete curb and gutter will be measured separately, regardless if the curb is installed with integral curb. Curb and gutter will be paid per linear foot for twenty-four (24) inch width. The width and length will be subtracted from the concrete pavement area if integral curb is constructed.

C. The unit of measurement for payment is square yard.

1.12 PORTLAND CEMENT CONCRETE DRIVEWAY AND SIDEWALK

A. The unit price for Portland Cement Concrete Sidewalk and Driveway work includes:

1. General Work Items of Article 1.2.
2. Providing Portland cement concrete mixture of thickness shown in the drawings or specified elsewhere.
3. Providing reinforcement.
4. Providing expansion joint.
5. Providing curing.
6. Existing pavement removal.
7. Subgrade preparation.
8. Providing contraction joints.
9. Handicap ramps.
10. Sidewalk steps.
11. Saw cutting adjacent surfaces.
12. Finishing.

- 13. Protection.
- 14. Restoration.

- B. Measurement for payment will be the average horizontal length and width of the concrete placed.
- C. The unit of measurement for payment is square yards.

1.13 DEFORMED REINFORCEMENT BARS

- A. The unit price for Deformed Reinforcement Bars work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Supply and install two - #4 deformed reinforcement bars over all trenches that fall under any portion of the concrete curb and gutter, sidewalk, and driveway being constructed.
- B. Measurement for payment will be the horizontal length of each bar installed.
 - 1. This item applies to concrete curb and gutter, sidewalk, and driveway.
 - 2. This item does not apply to concrete pavement and patches.
- C. The unit of measurement for payment is linear feet.

1.14 DRILLING TIE BARS & DOWEL BARS

- A. The unit price for Drilling Tie Bars & Dowel Bars work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Providing and installing tie bars and dowel bars, including coating.
 - 3. For drilling holes in concrete not placed under the contract.
 - 4. For epoxying or driving.
- B. Measurement for payment will be the actual number of bars installed.
- C. The unit of measurement for payment is each.

1.15 DETECTABLE WARNING FIELD NATURAL

- A. The unit price for Detectable Warning Field Natural work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Providing and installing Detectable Warning Field per ADA requirements.
 - 3. Each detectable warning field shall be two (2) feet by four (4) feet.
- B. Measurement for payment will be the actual number of detectable warning field installed.
- C. The unit of measurement for payment is each.

1.16 PAVEMENT MARKING EPOXY LINES

- A. The unit price for Pavement Marking Epoxy Lines includes:
 - 1. General Work Items of Article 1.2.
 - 2. Providing and installing the Pavement Marking Epoxy Lines includes preparing the surface, including brush-off blasting of concrete, for providing all marking, including reflectorization with glass beads, for protecting marking until dry or cured, and for replacing marking improperly constructed or that fails during the warranty period.
 - 3. For remarking if initially applies at less than 90% of the specified rate.

- B. Measurement of payment will be by the linear foot, calculates as follows:
 - 1. For solid lines; by adding the linear feet of solid line measured end to end.
 - 2. For intermittent lines; by multiplying the specified length of the individual marking of the line by the number of markings in the intermittent line end to end.

- C. The unit of measurement for payment is linear feet.

1.17 PAVEMENT MARKING EPOXY SYMBOLS

- A. The unit price for Pavement Marking Epoxy Symbols includes:
 - 1. General Work Items of Article 1.2.
 - 2. Providing and installing the Pavement Marking Epoxy Words & Arrows includes preparing the surface, including brush-off blasting of concrete, for providing all marking, including reflectorization with glass beads, for protecting marking until dry or cured, and for replacing marking improperly constructed or that fails during the warranty period.
 - 3. For remarking if initially applies at less than 90% of the specified rate.

- B. Measurement for payment will be by each individual unit.

- C. The unit of measurement for payment is each.

1.18 LANDSCAPING- TOPSOIL, SEED, FERTILIZE AND MULCH

- A. The unit price for Landscaping- Topsoil, Seed, Fertilize, and Mulch work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Provide 4" topsoil or salvaged topsoil.
 - 3. Provide seed.
 - 4. Provide fertilizer.
 - 5. Provide mulch.
 - 6. Provide maintenance.

- B. Measurement for payment will be the width and length not greater than the road right-of-way, not greater than the easement and not greater than fifteen (15) feet beyond the top of either side of ditches outside the right-of-way.

C. The unit of measurement for payment is square yard.

1.19 REMOVE ASPHALTIC CONCRETE PAVEMENT

A. The unit price for Remove Asphaltic Concrete Pavement work includes:

1. General Work Items of Article 1.2.
2. Removing existing asphalt surface to length, width and depth as shown on Drawings or specified elsewhere.
3. Hauling and disposing of removed asphaltic surface.
4. Cleaning of area removed.
5. Fine grading existing base to plan elevations.

B. Measurement of payment will be the average horizontal length and width of asphalt surface removed.

C. The unit of measurement for payment is square yards.

1.20 CURB AND GUTTER REMOVAL

A. The unit price for Curb and Gutter Removal work includes:

1. General Work Items of Article 1.2.
2. Existing curb and gutter removal.

B. Measurement for payment will be along the flow line of the gutter and through inlets/catch basins.

C. The unit of measurement for payment is linear feet.

1.21 RECTANGULAR RAPID FLASH BEACON INSTALLATION

A. The unit price for Rectangular Rapid-Flash Beacon Installation work includes:

1. General Work Items of Article 1.2.
2. Provide footings and appurtenances.
3. Providing and installing all sign posts, sign bases and associated appurtenances.
4. Providing and installing the rectangular rapid-flash sign assembly including reflective signs, flashing beacons, pedestrian push buttons, solar panels, communications, wiring, and associated appurtenances as recommended by the manufacturer.
5. Restoration

B. Measurement for payment will be each rectangular rapid-flash beacon installed.

C. The unit of measurement for payment is each.

END OF SECTION

SECTION 01 22 05

MEASUREMENT AND PAYMENT SPECIAL CONSTRUCTION

PART 1 – GENERAL

1.1 SUMMARY

	<u>Bid Item No.</u>
A. Section includes:	
1. Pipe Foundation Stabilization	SC-01
2. Polystyrene Insulation Board	SC-02
3. Tree and Stump Removal	SC-03
4. Inlet Protection Erosion Control	SC-04
5. Erosion Control Silt Fence	SC-05
6. Adjusting Existing Structure Frame and Casting	SC-06 & SC-07
7. Manhole Reconstruct	SC-08
8. Traffic Control	SC-09 & SC-10

B. Unit Prices include:

1. Defined work for each Unit Price Item which will provide a functionally complete Project when combined with all unit price items. If there are specific work items which the Contractor believes are not identified in any Unit Price Item, but is required to provide a functionally complete Project, then the identified specific work items shall be included in the appropriate Unit Price Item.
2. The method of measurement for payment.
3. The price per unit for payment.

1.2 GENERAL WORK ITEMS

- A. Include with the appropriate Unit Price Item the following work items which are common to the Unit Price Items for special construction.
- B. If there is a specific Unit Price Item for any of the following items, then the work item shall be included with that specific unit price item.
 1. Traffic Control.
 2. Loading, hauling and disposing of surplus material.
 3. Maintenance, protection, replacement and/or repair of facilities not designated for alteration on the Site beyond the limits identified.
 4. Dust control.
 5. Restroom facilities.
 6. Construction staking and other survey work not provided by the Engineer.
 7. Regulatory requirements.
 8. Quality assurance and quality control testing and inspections.
 9. Shop drawings and other submittals.

1.3 PIPE FOUNDATION STABILIZATION

- A. The unit price for Pipe Foundation Stabilization work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Excavation below the limits of the pipe bedding with the bottom of the excavation wider than the top with 1:1 side slopes.
 - 3. Dewatering.
 - 4. Soil Class A-7 or A-8 aggregate material.
 - 5. Loading, hauling and disposing of surplus excavated material.

- B. Measurement of payment will be the volume calculated based on:
 - 1. The actual depth from four (4) inches below the bottom of pipe to the bottom of the aggregate material placed.
 - 2. The bottom width is the actual width not to exceed the pipe outside diameter plus twenty-four (24) inches plus 1:1 side slopes.
 - 3. The top width is the pipe outside diameter plus twenty-four (24) inches.

- C. The unit of measurement for payment is cubic yards.

1.4 POLYSTYRENE INSULATION BOARDS

- A. The unit price for Polystyrene Insulation Boards work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Supply and install a 2-inch thick insulation board per the Standard Specifications along the top of the water main and/or service and 6-inch above the water main and/or service with pipe bedding in between the polystyrene board and pipe.

- B. Measurement and payment will be the horizontal length installed.

- C. The unit of measurement for payment is linear feet.

1.5 REMOVE TREE AND GRIND STUMP

- A. The unit price for Remove Tree and Grind Stump work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Cutting and disposing of tree.
 - 3. Grinding down of tree stump to a depth of one (1') foot.
 - 4. Removing and disposing of roots and stump grindings.

- B. Measurement and payment will be by the tree diameter in inches. The tree diameter will be determined by measuring the tree's trunk diameter approximately 4-1/2 feet above the existing ground level, but above the ground swell, and dividing by three. Diameters will be rounded to the nearest inch.

C. The unit of measurement for payment is inch diameter.

1.6 INLET PROTECTION EROSION CONTROL

A. The unit price for Inlet Protection Erosion Control work includes:

1. General Work Items of Article 1.2.
2. Provide geotextile and wood materials for type shown on the Drawings.
3. Placing inlet protection system.
4. Inspection and maintenance of the installed inlet protection.
5. Removal of the inlet protection.
6. Cleaning debris buildup around inlet.

B. Measurement for payment will be actual number of inlet protection erosion control installed.

C. The unit of measurement for payment is each.

1.7 EROSION CONTROL SILT FENCE

A. The unit price for Erosion Control Silt Fence work includes:

1. General Work Items of Article 1.2.
2. Provide fabric and post.
3. Excavate to anchor fabric and compact soil or provide soil class C-3 to anchor the fabric.
4. Inspection and maintenance of the installed silt fence.
5. Removal of the silt fence.
6. Finish grading.
7. Topsoil, seeding, fertilizing, and mulching area in the vicinity of the removed silt fence which does not have established turf.

B. Measurement of payment will be the actual horizontal length installed.

C. The unit of measurement for payment is linear feet.

1.8 ADJUST EXISTING STRUCTURE FRAME CASTING

A. The unit price for Adjusting Existing Structure Frame Casting work includes:

1. General Work Items of Article 1.2.
2. Provide new frame and casting for each adjustment.
3. Removal of the casting and existing adjusting rings from the structure as required.
4. Providing concrete adjusting rings and a 2 inch rubber riser ring from the WisDOT approved product list.
5. Bituminous plastic cement sealing the exterior of the adjusting rings and casting.
6. The ring will be secured to the precast section with a 3 ½ inch wide Kent Seal or equal.
7. Above the concrete ring attach ¼ inch thru 3 inch thick ring using two $\frac{5}{16}$ inch bead above and below the ring of sealant type as recommended by the rubber manufacturer.

8. Initial and final adjustment.
9. Backfilling and compacting.

B. Measurement for payment will be the actual number of structure frame casting adjusted.

C. The unit of measurement for payment is each.

1.9 MANHOLE RECONSTRUCT

A. The unit price for Manhole Reconstruct work includes:

1. General Work Items of Article 1.2.
2. Provide new frame and casting for each manhole reconstruct.
3. Removal of the casting, existing adjusting rings and sections of structure.
4. Providing precast cone section for manholes.
5. Providing concrete adjusting rings and a 2 inch rubber riser ring from the WisDOT approved product list.
6. Bituminous plastic cement sealing the exterior of the adjusting rings and casting.
7. The ring will be secured to the precast section with a 3 ½ inch wide Kent Seal or equal.
8. Above the concrete ring attach ¼ inch thru 3 inch thick ring using two $\frac{5}{16}$ inch bead above and below the ring of sealant type as recommended by the rubber manufacturer.
9. Initial and final adjustment.
10. Backfilling and compacting.

B. Measurement for payment will be the vertical footage of manhole reconstructed.

C. The unit of measurement for payment is vertical foot.

1.10 TRAFFIC CONTROL

A. The unit price for Traffic Control Work includes:

1. General Work Items of Article 1.2.
2. Providing, installing, maintaining, and removing the traffic control signing and barricades as shown on the plan sand per the MUTCD.
3. Traffic detour including covering signs when not in use.
4. Flaggers per the MUTCD.
5. Sidewalk closure.

B. Measurement for payment will not be made. This item applies to the specific bid item lists. All other traffic control is incidental to other items bid.

C. The unit of measurement for payment is for each location as a lump sum.

END OF SECTION

SECTION 01 29 00

PAYMENT PROCEDURES

PART 1 – GENERAL

1.1 SUMMARY

A. This section includes:

1. Administrative and procedural requirements necessary to prepare and process Applications for Payment.

1.2 SCHEDULE OF VALUES

- A. Unit Price work will be the Schedule of Values used as the basis for reviewing Applications for Payment.**

1.3 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment shall be consistent with previous applications and payments as recommended by the Engineer and approved by Owner.**
- B. The date for each progress payment should be the 3rd Wednesday of each month. The period covered by each Application for Payment starts on the day following the end of the preceding period and ends the 4th Friday of the Month.**
- C. Use forms provided by Engineer for Applications for Payment. Sample copy of the Application for Payment and Continuation Sheet is included in Section 00 62 76.**
- D. Application Preparation Procedures**
1. When requested by the Contractor, the Engineer will determine the actual quantities and classifications of Unit Price Work performed.
 - a. Preliminary determinations will be reviewed with the Contractor before completing Application for Payment.
 - b. Engineer will complete the Application for Payment based on Engineer's decision on actual quantities and classifications.
 - c. Engineer will submit three original copies of Application for Payment to Contractor for certification of all three original copies.
 - d. Contractor shall submit signed Application for payment to Owner for approval within time frame agreed to at the Preconstruction Conference.
 2. If payment is requested for materials and equipment not incorporated in the Work, then the following shall be submitted with the Application for Payment:
 - a. Evidence that materials and equipment are suitably stored at the site or at another location agreed to in writing.

- b. A bill of sale, invoice, or other documentation warranting that the materials and equipment are free and clear of all liens.
 - c. Evidence that the materials and equipment are covered by property insurance.
 3. Complete every entry on form. Execute by a person authorized to sign legal documents on behalf of Contractor.
- E. With each Application for Payment, submit waivers of liens from subcontractors and suppliers for the construction period covered by the previous application.
 1. Submit partial waivers on each item for amount requested before deduction for retainage on each item.
 2. When an application shows completion for an item, submit final or full waivers.
 3. Owner reserves the right to designate which entities involved in the Work shall submit waivers.
 4. Submit final Application for Payment with or preceded by final waivers from every entity involved with performance of the Work covered by the application.
 5. Submit waivers of lien on forms executed in a manner acceptable to Owner.
- F. The following administrative actions and submittals shall precede or coincide with submittal of first Application for Payment:
 1. List of subcontractors.
 2. Schedule of Values (For Lump Sum Work).
 3. Contractor's construction schedule.
- G. Submit final Application for Payment with releases and supporting documentation not previously submitted and accepted including, but not limited, to the following:
 1. Evidence of completion of Project closeout requirements.
 2. Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
 3. Updated final statement, accounting for final changes to the Contract Sum.
 4. Consent of Surety to Final Payment.
 5. Final lien waivers as evidence that claims have been settled.
 6. Final liquidated damages settlement statement.

PART 2 – PRODUCTS

PART 3 – EXECUTION

END OF SECTION

SECTION 01 32 33

CONSTRUCTION PHOTOGRAPHS

PART 1 – GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Photographs for utility construction sites.

1.2 SUBMITTALS

- A. Submit electronic files of each photographic view within seven (7) days of taking photographs.

1.3 QUALITY ASSURANCE

- A. Photographs are to be submitted to the Engineer for approval prior to the start of construction.

PART 2 – PRODUCTS

PART 3 – EXECUTION

3.1 UTILITY AND STREET CONSTRUCTION SITES

- A. Prior to start of construction provide sufficient photographs to adequately show the existing facilities and conditions within and adjacent to the construction Site to serve as a guide for final restoration including:
 - 1. Roads including shoulders and/or curb and gutter.
 - 2. Sidewalks, parking areas, and driveways.
 - 3. Utility structures.
 - 4. Landscaping including signs, plantings, walls, fences, trees, shrubbery, etc.
 - 5. Mailboxes.
 - 6. Drainage facilities including culverts, inlets, ditches.
 - 7. Building structures.
- B. During construction provide sufficient photographs (a minimum of one per 100 feet of installed utility) to adequately show construction means, methods, and Site conditions including:
 - 1. Crossings of other utilities.
 - 2. Exposure of existing structures.
 - 3. Soil conditions.

END OF SECTION

SECTION 01 33 00

SUBMITTALS

PART 1 – GENERAL

1.1 SUMMARY

- A. Section includes administrative and procedural requirements for submittals:
 - 1. Progress Schedule.
 - 2. Schedule of Shop Drawings and Sample Submittals.
 - 3. Shop Drawings.
- B. Failure to meet Submittal requirements to the satisfaction of the Engineer will constitute unsatisfactory performance of the work in accordance with the Contract Documents, therefore, the Engineer may recommend to the Owner that all or a portion of payments requested during the corresponding pay period be withheld until these requirements are met.

1.2 SUBMITTAL PROCEDURES

- A. Coordination: Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.
 - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
 - 2. Coordinate transmittal of different types of submittals for related elements of the work so processing will not be delayed by the need to review submittals concurrently for coordination.
 - a. The Engineer reserves the right to withhold action on a submittal requiring coordination with other submittals until all related submittals are received.
 - 3. To avoid the need to delay installation as a result of the time required to process submittals, allow sufficient time for submittal review, including time for re-submittals.
 - a. Allow two weeks for initial submittal.
 - b. Allow two weeks for reprocessing each submittal.
 - c. No extension of Contract Time will be authorized because of failure to transmit submittals to the Engineer sufficiently in advance of the work to permit processing.
- B. Submittal Preparation: Place a permanent label or title block on each submittal for identification. Indicate the name of the entity that prepared each submittal on the label or title block.
 - 1. Assign a reference number to each submittal and re-submittal.
 - 2. Provide a space approximately four (4) by five (5) inches (100 by 125 mm) on the label or beside the title block on Shop Drawings to record the Contractor's review and approval markings and the action taken.
 - 3. Include the following information on the label for processing and recording action taken.
 - a. Project name.

- b. Date.
 - c. Name and address of the Engineer.
 - d. Name and address of the Contractor.
 - e. Name and address of the subcontractor.
 - f. Name and address of the supplier.
 - g. Name of the manufacturer.
 - h. Number and title of appropriate Specification Section.
 - i. Drawing number and detail references, as appropriate.
4. Each submittal shall be stamped by the Contractor indicating that submittal was reviewed for conformance with the Contract Documents. The Engineer will not accept unstamped submittals.
- C. Submittal Transmittal: Package each submittal appropriately for transmittal and handling. Transmit each submittal to the Engineer. The Engineer will not accept submittals received from sources other than the Contractor.
1. On the transmittal, record relevant information and requests for Engineer action. On a form, or separate sheet, record deviations from Contract Document requirements, including variations, limitations, and justifications. Include Contractor's certification that information complies with Contract Document requirements.

1.3 CONTRACTOR'S PROGRESS SCHEDULE

- A. Prepare and submit to the Engineer within 10 (ten) days after the Effective Date of the Agreement, four copies of a preliminary progress schedule of the work activities from Notice to Proceed until Substantial Completion.
1. Provide sufficient detail of the work activities comprising the schedule to assure adequate planning and execution of the work, such that in the judgment of the Engineer, it provides an appropriate basis for monitoring and evaluation of the progress of the work. A work activity is defined as an activity which requires substantial time and resources (manpower, equipment, and/or material) to complete and must be performed before the contract is considered complete.
 2. The schedule shall indicate the sequence of work activities. Identify each activity with a description, start date, completion date and duration. Include, but do not limit to the following items, as appropriate to this contract:
 - a. Shop drawing review by the Engineer.
 - b. Excavation and grading.
 - c. Asphalt and concrete placement sequence.
 - d. Restoration.
 - e. Construction of various segments of utilities.
 - f. Subcontractor's items of work.
 - g. Allowance for inclement weather.
 - h. Contract interfaces, date of Substantial Completion.
 - i. Interfacing and sequencing with existing facilities and utilities.
 - j. Sequencing of major construction activities.
 - k. Milestones and completion dates.

- B. Distribution: Following response to the initial submittal, print and distribute copies of the revised construction schedule to the Engineer, Subcontractors, and other parties required to comply with scheduled dates. When revisions are made, distribute to the same parties. Delete parties from distribution when they have completed their assigned portion of the work and are no longer involved in construction activities.
- C. Schedule Updating: Revise the schedule after each meeting, event, or activity where revisions have been recognized or made. Issue the updated schedule concurrently with the report of each meeting.
- D. Punch List: Prepare and submit to the Engineer within ten (10) days after substantial completion a detailed progress schedule for outstanding work and punch list items.

1.4 SCHEDULE OF SHOP DRAWINGS AND SAMPLE SUBMITTALS

- A. Submit four (4) hard copies or electronic copies of preliminary submittal schedule in accordance with the General Conditions of the Contract and as follows:
 - 1. Coordinate submittal schedule with the subcontractors, Schedule of Values, and of products as well as the Contractor's Progress Schedule.
 - 2. Prepare the schedule in chronological order. Provide the following information:
 - a. Scheduled date for the first submittal.
 - b. Related Section number.
 - c. Submittal category (Shop Drawings, Product Data, or Samples).
 - d. Name of the subcontractor.
 - e. Description of the part of the work covered.
 - f. Scheduled date for the Engineer's final release or approval.
- B. Distribution: Following response to the initial submittal, print and distribute copies of the revised construction schedule to the Engineer, Subcontractors, and other parties required to comply with scheduled dates. Post copies in the field office. When revisions are made, distribute to the same parties. Delete parties from distribution when they have completed their assigned portion of the work and are no longer involved in construction activities.
- C. Schedule Updating: Revise the schedule after each meeting or activity where revisions have been recognized or made. Issue the updated schedule concurrently with the report of each meeting.

1.5 SHOP DRAWINGS

- A. Submit newly prepared information drawn accurately to scale. Highlight, encircle, or otherwise indicate deviations from the Contract Documents. Do not reproduce Contract Documents or copy standard information as the basis of Shop Drawings. Standard information prepared without specific reference to the Project is not a Shop Drawing.

- B. Collect product data into a single submittal for each element of construction of system. Product data includes printed information, such as manufacturer's installation instructions, catalog cuts, standard color charts, roughing-in diagrams and templates, standard wiring diagrams, and performance curves.
 - 1. Mark each copy to show actual product to be provided. Where printed Product Data includes information on several products that are not required, mark copies to indicate the applicable information. Include the following information:
 - a. Manufacturer's printed recommendations.
 - b. Compliance with trade association standards.
 - c. Compliance with recognized testing agency standards.
 - d. Application of testing agency labels and seals.
 - e. Notation of dimensions verified by field measurement.
 - f. Notation of coordination requirements.
- C. Do not use shop drawings without an appropriate final stamp indicating action taken.
- D. Submittals: Submit four (4) copies of each required submittal. The Engineer will retain two (2) copies, and return the others to the Contractor marked with action taken and corrections or modifications required.
- E. Distribution: Furnish copies of reviewed submittal to installers, subcontractors, suppliers, manufacturers, fabricators, and others required for performance of construction activities. Show distribution on transmittal forms. Maintain one copy at the project site for reference.
 - 1. Do not proceed with installation until a copy of the Shop drawing is in the Installer's possession.
 - 2. Do not permit use of unmarked copies of the Shop Drawing in connection with construction.

1.6 ENGINEER'S ACTION

- A. Except for submittals for the record or information, where action and return is required, the Engineer will review each submittal, mark to indicate action taken, and return promptly. The Engineer will stamp each submittal with a uniform action stamp. The Engineer will mark the stamp appropriately to indicate the action taken, as follows:
 - 1. "No Exceptions Taken": The work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the Contract Documents.
 - 2. "Make Corrections Noted": The work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the Contract Documents.
 - 3. "Amend and Resubmit": Do not proceed with work covered by the submittal. Resubmit without delay. Do not use, or allow others to use, submittals marked "Amend and Resubmit" at the Project Site or elsewhere where work is in progress.
 - 4. "Rejected – See Remarks": Do not proceed with work covered by the submittal. Resubmit without delay. Do not use, or allow others to use, submittals marked "Rejected and Resubmit" at the Project Site or elsewhere where work is in progress.

- B. Unsolicited Submittals: The Engineer will return unsolicited submittals to the sender without action.

PART 2 – PRODUCTS

PART 3 – EXECUTION

END OF SECTION

SECTION 01 41 00

REGULATORY REQUIREMENTS

PART 1 – GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Underground Utilities.
 - 2. Property Monuments.
 - 3. Traffic Control.
 - 4. Permits for Project.

1.2 UNDERGROUND UTILITIES

- A. Under the provisions of Wisconsin Statutes, Section 182.0175, all contractors, subcontractors, and any firm or individual intending to do work on this Contract shall contact all utility firms in the affected area of construction a minimum of three (3) working days prior to beginning construction so that affected utilities will be located and marked.

1.3 PROPERTY MONUMENTS

- A. Protect iron pipe monuments from movement.
- B. The cost of replacement of any monuments moved or destroyed during construction shall be the Contractor's responsibility.
- C. Perpetuation of destroyed or moved monuments shall be performed in accordance with state statutes by a registered land surveyor.

1.4 TRAFFIC CONTROL

- A. Provide traffic control facilities including barricades, signs, lights, warning devices, pavement markings, flaggers, etc.
- B. Construct and use traffic control facilities in accordance with the U.S. D. O. T. Federal Highway Administration's Manual on Uniform Traffic Control Devices for Streets and Highways.
- C. Maintain traffic control devices as required to properly safeguard the public travel through final completion, including during periods of suspension of work.

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1.5 PERMITS FOR PROJECT

- A. The following permits are being obtained by the Owner:
1. WDNR – Water Main Extension
 2. WDNR – Sanitary Sewer Extension
 3. Brown County Lane Closure Permit (Grant Street Bump-Outs)

PART 2 – PRODUCTS (Not used)

PART 3 – EXECUTION (Not used)

END OF SECTION

SECTION 01 71 23

FIELD ENGINEERING

PART 1 – GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Engineering Surveys Provided by the Engineer.
 - 2. Engineering Surveys Provided by the Contractor.

1.2 SUBMITTALS

- A. None

PART 2 – PRODUCTS (Not Used)

PART 3 – EXECUTION

3.1 PREPARATION

- A. Investigate and verify the existence and location of site improvements, utilities, and other existing facilities.
- B. Before construction, verify the location of invert elevations at points of connection of sanitary sewer, storm sewer, water piping and underground electrical services.
- C. Furnish information to the Engineer and the appropriate utility regarding conflicts that are necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction.
- D. Provide the Engineer two (2) working days advance notification when ready for engineering surveys for construction to be provided by the Engineer.

3.2 ENGINEERING SURVEYS TO BE PROVIDE BY THE ENGINEER

- A. General
 - 1. Establish benchmarks for construction as shown on the drawings.
 - 2. Establish control points as shown on the drawings.
- B. Gravity Sewer Systems and Water Distribution Systems
 - 1. Provide construction reference stakes set for pipe construction location at critical changes in horizontal and vertical alignment.
 - 2. Provide construction stakes for location of pipe at connections.

C. New Road Construction

1. Provide construction slope intercept stakes for horizontal and vertical alignment on each side of the road base on each cross section in the cross section sheets for requests received at least seventy-two (72) hours before the related work begins.
2. Provide construction reference stakes for subgrade at a minimum of fifty (50) foot intervals and maximum of one-hundred (100) foot intervals on tangents. Provide construction reference stakes for subgrade at twenty-five (25) foot intervals within vertical and horizontal curves. Provide a reference line stake at each location.
3. Provide construction reference stakes for top of crushed aggregate at a minimum of fifty (50) foot intervals and maximum of one-hundred (100) foot intervals on tangents. Provide construction reference stakes for top of crushed aggregate at twenty-five (25) foot intervals within vertical and horizontal curves. Provide a reference or centerline stake.

3.3 ENGINEERING SURVEYS TO BE PROVIDED BY THE CONTRACTOR

A. General

1. Locate, preserve and protect established construction reference stakes, benchmarks and control points.
2. Locate, preserve and protect property corners and section corner monuments. If moved or destroyed due to Contractor negligence, then replace in accordance with state requirements; some of which are referenced in the "Regulatory Requirements".
3. Provide additional construction staking as necessary to complete construction based on the construction reference stakes provided by the Engineer and the Drawings.
4. Before beginning with necessary construction staking, verify the information shown on the Drawings, in relation to the established construction reference stakes, bench marks, control points and property corners. Notify the Engineer of any discrepancies.
5. Remove construction reference stakes when directed by the Engineer.

B. Gravity Sewer Systems and Water Distribution Systems

1. Provide any intermediate construction reference points as required to verify installation at the line and grade established and locate appurtenant structures.
2. Check the line and grade with construction reference stakes at each pipe length.

C. New Road Construction

1. Provide additional construction reference stakes necessary to establish location and grade in accordance with the plans.

END OF SECTION

SECTION 10 14 53

RECTANGULAR RAPID-FLASH BEACONS

PART 1 – GENERAL

1.1 SUMMARY

A. Section Includes:

1. Vendors
2. Installation

1.2 REFERENCES

- A. State of Wisconsin, Department of Transportation, Standard Specifications for Highway and Structure Construction, current edition, and all supplemental and interim supplemental specifications, as they may pertain, except the items: method of measurement and basis of payment shall not apply.
- B. Wisconsin Manual on Uniform Traffic Control Devices Chapter 4L

1.3 SUBMITTALS

- A. Submit manufacturer's certification for each product stated that products delivered comply with the requirements of this section and the referenced standard.
- B. Product warranty information.

PART 2 – PRODUCTS

2.1 VENDORS

- A. Rectangular Rapid-Flash Beacons (RRFBs)
 1. RRFB Pedestrian Crosswalk Systems shall be purchased from Traffic & Parking Control Co., Inc. or Engineer approved equal.
 2. Systems shall include the following:
 - a. Side of pole control cabinet.
 - b. 55 watt solar panel.
 - c. 48Ah battery
 - d. Stainless steel pole mounting hardware.
 - e. Bulldog push button
 - f. Blinkerbeam wireless communication
 - g. LED units with wig-wag and simultaneous flash pattern.
 - h. 15-foot 4-1/2 OD round aluminum pole
 - i. 24"x24", fluorescent yellow, W11-2 pedestrian crossing sign(s).

- j. 24"x12", fluorescent yellow, W-16-7pL/R plaques.
- k. Pole base shall be breakaway.

PART 3 – EXECUTION

3.1 INSTALLATION

- A. Furnish and install RRFBs and all necessary miscellaneous accessories and hardware to complete the installation of the beacons.
- B. Signs facing one-way traffic will only require single sided RRFB lights and pedestrian crossing signs/plaques. Signs abutting two-way traffic will require back-to-back RRFB lights and pedestrian crossing signs/plaques.
- C. Signs shall be mounted on Type 1 concrete base per WisDOT SDD 9c2.
- D. Follow the manufacturer's instructions regarding the RRFB system installation.

END OF SECTION

SECTION 32 11 26.16

PULVERIZED ASPHALT AND AGGREGATE BASE COURSE

PART 1 – GENERAL

1.1 SUMMARY

A. Section Includes

1. Material testing.
2. Foundation preparation.
3. Pulverize asphalt and aggregate base course installation.

1.2 REFERENCES

- A. Wisconsin Department of Transportation Section 325

1.3 QUALITY ASSURANCE

- A. The Engineer will obtain an independent testing laboratory to provide quality control testing.

1.4 DELIVERY, STORAGE AND HANDLING

A. Stockpiling of Aggregates

1. Store aggregates to prevent contamination by foreign matter or by aggregates of different sizes.

B. Delivery of Aggregates

1. Vehicles used to transport aggregates shall be of a type to minimize loss of materials and excessive segregation of particles.

PART 2 – PRODUCTS

2.1 MATERIALS

2.2 SOURCE QUALITY CONTROL

PART 3 – EXECUTION

3.1 PREPARATION OF FOUNDATION

- A. Pulverize the full depth (shown on plans or elsewhere) of the existing asphaltic pavement and aggregate until 97 percent or more will pass the 2-inch sieve. Windrow material as construction operations dictate.
- B. Preparation of foundation for pulverized asphalt and aggregate base course shall be in accordance with requirements of Section "Excavation and Fill".
- C. Do not place the base course on a foundation that is soft or spongy or one that is covered by ice or snow.
- D. Do not place base material on a dry or dusty foundation when existing condition would cause rapid dissipation of moisture from base material and hinder or preclude its proper compaction.
 - 1. Apply water to such dry foundations and rework or re-compact as necessary.

3.2 PULVERIZE ASPHALT AND AGGREGATE BASE COURSE INSTALLATION

- A. Construct surface base course to the width, thickness, section, and location shown on the drawings.
 - 1. Maximum compacted thickness of any one layer shall not exceed 8 inches.
- B. Spreading Base Material
 - 1. Proceed with the work such that the hauling equipment will travel over previously placed material.
 - 2. Route hauling equipment as uniformly as possible over all portions of the previously constructed layers of the base course.
 - 3. Deposit the material on the foundation or previously placed layer in such a manner as to minimize segregation and to facilitate spreading to a uniform layer of the required dimensions.
- C. Compaction
 - 1. After a layer of aggregate has been placed and spread to the required thickness, width, and section, it shall be compacted.
 - 2. Compact the re-laid material first with either a rubber tired roller or 12.5-ton or heavier vibratory padfoot roller and second with an 8-ton or heavier vibratory steel roller. Add water, as required, both before and during compaction.

3. Each layer or course placed shall be compacted to at least 95 percent of the maximum dry density as determined by the Modified Proctor Test (ASTMD1557).
 4. Areas where proper compaction is not obtainable due to segregation of materials, excess fines or other deficiencies shall be reworked or removed and replaced with material that will that will yield the desired results.
 5. Prior to and during compaction operations, shape and maintain the material to the proper dimensions.
- D. Maintenance
1. Provide maintenance of the base course until surface paving is complete or until the base is otherwise accepted.
- E. Dust Abatement
1. Minimize the dispersion of dust from the base course by the application of water or other approved dust control materials.

END OF SECTION

SECTION 33 00 02.1

FUSIBLE POLYVINYL CHLORIDE (PVC) PIPE

1.1 SUMMARY

- A. Section Includes:
 - 1. PVC pipe for water main
- B. The products described are not installed under this Section.
- C. This specification section is a supplemental to the City of De Pere 2020 Standard Specifications and Section 33 00 02 Polyvinyl Pipe (PVC) Pipe and Fittings.
- D. This material specification covers the requirements of fusible polyvinylchloride pipe, including Fusible C-900 and Fusible C-905.

1.2 REFERENCES

- A. American Society for Testing and Materials (ASTM):
 - 1. D1784 Specification for Rigid Poly (Vinyl Chloride) (PVC) Compounds and Chlorinated Poly (Vinyl Chloride)(CPVC) Compounds
 - 2. D1785 Specifications for Poly (Vinyl Chloride) (PVC) Plastic Pipe Schedules 40, 80, and 120
 - 3. D2152 Test Method for Degree of Fusion of Extruded Poly(Vinyl Chloride)(PVC) Pipe and Molded Fittings by Acetone Immersion.
 - 4. D2241 Standard Specification for Poly (Vinyl Chloride) (PVC) Pressure-Rated Pipe (SDR Series)
- B. American Water Works Association (AWWA)
 - 1. C900 Standard for Polyvinyl Chloride (PVC) Pressure Pipe, 4-inch through 12-inch for water
 - 2. C905 Standard for Polyvinyl Chloride (PVC) Water Transmission Pipe, Nominal Diameters 14-inch through 36-inch
 - 3. M23 Manual of Supply Practices PVC Pipe-Design and Installation, Second Edition
- C. National Sanitation Foundation (NSF)
 - 1. NSF-14 Plastic Piping System Components and Related Materials
 - 2. NSF-61 Drinking Water Components-Health Effects
- D. PPI
 - 1. TR-2 PVC Range Composition Listing Qualified Ingredients

1.3 SUBMITTALS

A. Submit the following:

1. Certification of production date of all materials.
2. Manufacturer's certification that the materials delivered were manufactured, sampled, tested, and inspected in accordance with this specifications and appropriate referenced standards.
3. Product data sheet.
4. Manufacturer's recommendations for assembly.

1.4 QUALITY ASSURANCE

A. Make pipe available to the Engineer's Representative for inspection.

B. Pipe shall be considered defective and will be rejected when:

1. Pitted or cratered.
2. Flaking.
3. Straightness varies more than ½ inch in 10 feet.
4. Any defect which prevents assembly according to manufacturer's recommendations.
5. Not utilized within six months of date of production.
6. Pipe is not properly marked.

C. Material brands and/or pipe classes shall not be mixed.

D. Pipe Marking – pipe and fittings shall be marked as follows:

1. Manufacturer's name, trademark or logo.
2. Nominal size.
3. PVC cell classification.
4. Pipe stiffness designation, dimension ration, or schedule size and pressure class.
5. ASTM or AWWA specification designation.
6. National Sanitation Foundation approval (pipe for potable water).
7. Production date.

E. MANUFACTURER REQUIREMENTS

1. All piping shall be made from PVC compound conforming to cell classification 12454 per ASTM D1784.

F. FUSION TECHNICIAN REQUIREMENTS

1. Fusion Technician shall be qualified by the pipe supplier to install fusible PVC pipe. Qualification shall be current as of the actual date of the fusion performance on the project.

G. SPECIFIED PIPE SUPPLIERS

1. Fusible polyvinylchloride pipe shall be used as manufactured under the trade names Fusible C-900, or Fusible C-905 for Underground Solutions, Inc. or Engineer approved equal.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Inspect the pipe shipment to identify shifted loads, broken packaging or rough treatment, which could be an indication of damage.
- B. Unload the pipe in a manner which will not put stress on the pipe or strike anything causing damage.
- C. Place and store the pipe package units on level ground stacked no more than 8 feet high. Do not store close to heat sources.
- D. Store gaskets away from excessive exposure to heat, direct sunlight, ozone, oil or grease.
- E. Store Solvent cement in tightly sealed containers away from excessive heat.
- F. Handle pipe in a manner to prevent impact blows, abrasion damage, gouging or cutting.
- G. When handling pipe in cold weather, provide additional care to prevent damage due to impact. Impact strength is reduced in cold weather.

PART 2 – PRODUCTS

2.1 WATER MAIN

- A. Fusible polyvinylchloride pipe for potable water shall conform to AWWA C900, ASSA C905, or ASTM D2241, as applicable. Testing shall be in accordance with the referenced AWWA standards for all pipe types. Pipe shall be marked verifying suitability for potable water service per NSF-61
- B. Fusible polyvinylchloride pipe shall be extruded with plain ends. The ends shall be square to the pipe and free of any bevel or chamfer. There shall be no bell or gasket of any kind incorporated into the pipe.
- C. The pipe shall be manufactured in a standard 40 foot nominal length or custom lengths, unless otherwise approved by the Engineer.
- D. Pipe shall be blue in color for potable water use.

2.2 FUSION JOINTS

- A. Unless otherwise specified, fusible polyvinylchloride pipe lengths shall be assembled in the field with butt-fused joints.

2.3 FUSIBLE POLYVINYLCHLORIDE SWEEPS OR BENDS

- A. Sweeps or bends shall conform to the same sizing convention, diameter, dimensional tolerances and pressure class of the pipe being joined by the sweep or bend.
- B. Sweeps or bends shall be manufactured from the same fusible polyvinyl chloride pipe being used for the installation, and shall have at least two feet of straight section on either end of the sweep or bend to allow for fusion of the sweep to the pipe installation.
- C. Angles shall not be greater than 22.5 degrees, and shall be used in nominal diameters ranging from 4-inch through 16-inch.

PART 3 – EXECUTION

3.1 FUSION PROCESS

- A. Pipe shall be handled in a safe and non-destructive manner before, during, and after the fusion process and in accordance with this specification and the pipe supplier's guidelines.
- B. Pipe shall be fused by a qualified fusion technician.
- C. Pipe supplier's procedures shall be followed at all times during fusion procedures.
- D. Each fusion shall be recorded and logged by an approved electronic monitoring device (data logger) connected to the fusion machine, which utilizes a current version of the pipe suppliers recommended and compatible software.
- E. Only appropriately sized and outfitted fusion machines that have been approved by the pipe supplier shall be used for the fusion process.

3.3 GENERAL INSTALLATION

- A. Installation guidelines from the pipe supplier shall be followed for all installations.
- B. The Pipe shall be installed in a manner so as not to exceed the recommended bending radius guidelines.
- C. Where pipe is installed by pulling in tension, the recommended maximum safe pulling force, established by the pipe supplier, shall not be exceeded.

END OF SECTION

EXHIBIT A

LEWIS STREET SPOT SANITARY SEWER REPAIRS

220

**PROJECT 21-01
SANITARY SEWER
SPOT REPAIR
EXHIBIT A-1**

221

J8-2M4AUP

227

8 inch Clay

703

621
& Unit 1

715

LEWIS ST

12 inch PVC

J8-1H49C3

12 inch Concrete

J8-2LD9BK

12 inch PVC

REPAIR OFFSET JOINT
IN SANITARY SEWER
ON EAST SIDE OF MANHOLE
ON 12" SANITARY SEWER

620

302

706

308

SUPERIOR ST

309

8 inch Clay

314

315

1 inch = 40 feet



Utility Relay
and Street
Resurfacing

Engineering Division
925 S. 6th St.
De Pere, WI 54115
Office: 920-339-4061
Fax: 920-339-4071

Project:
21-01

01-2021
By: MAL

PROJECT 21-01 SANITARY SEWER SPOT REPAIR EXHIBIT A-2

224

227

SUPERIOR ST

703

8 inch Clay

715

719

REPAIR OFFSET JOINT
IN SANITARY SEWER
ON EAST SIDE OF MANHOLE
ON 12" SANITARY SEWER

J8-1H49C3

12 inch Concrete

8-2LD9BK

12 inch PVC

J8-3U89B7

LEWIS ST

706

722

309

8 inch Clay

308

HURON ST

315

314

1 inch = 40 feet

DE PERE
Engineering Division
925 S. 6th St.
De Pere, WI 54115
Office: 920-339-4061
Fax: 920-339-4071

Utility Relay
and Street
Resurfacing

Project:
21-01

01-2021
By: MAL

224

PROJECT 21-01
SANITARY SEWER
SPOT REPAIR
EXHIBIT A-3

221

715

719

803

Unit 1

REPAIR OFFSET JOINT
IN SANITARY SEWER
ON BOTH SIDE OF MANHOLE
ON 12" SANITARY SEWER

LEWIS ST

12 inch PVC

J8-3U89B7

12 inch Clay

J8-50F9B0

8 inch Clay

722

303

J8-5188UQ

308

309

8 inch Clay

314

HURON ST

31



Utility Relay
and Street
Resurfacing

Project:
21-01

Engineering Division
925 S. 6th St.
De Pere, WI 54115
Office: 920-339-4061
Fax: 920-339-4071

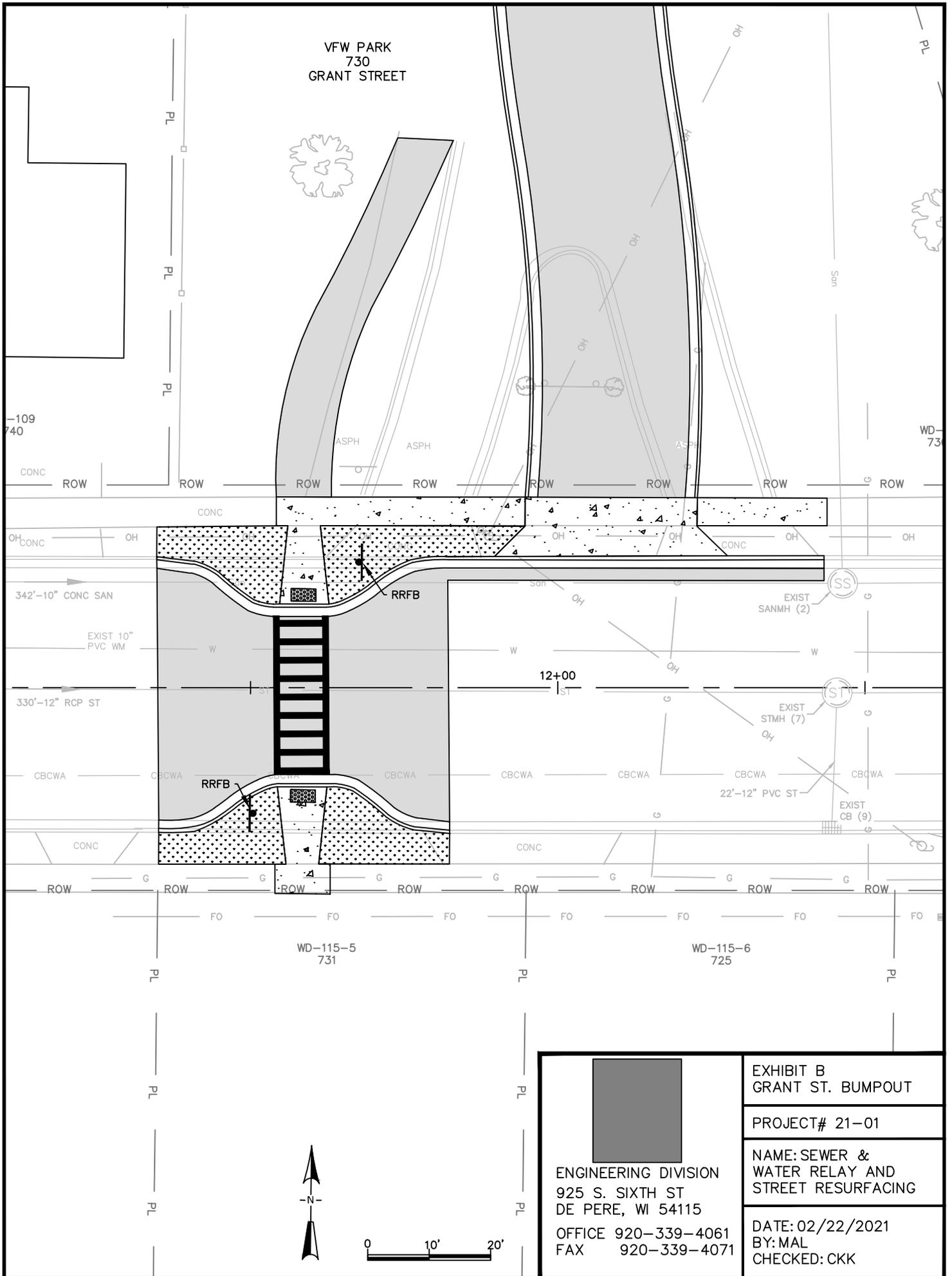
01-2021
By: MAL

1 inch = 40 feet

EXHIBIT B

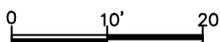
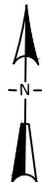
GRANT STREET PEDESTRIAN BUMP-OUT PLAN

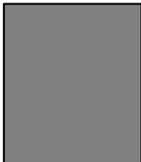
VFW PARK
730
GRANT STREET



WD-115-5
731

WD-115-6
725



	EXHIBIT B GRANT ST. BUMPOUT
	PROJECT# 21-01
	NAME: SEWER & WATER RELAY AND STREET RESURFACING
ENGINEERING DIVISION 925 S. SIXTH ST DE PERE, WI 54115 OFFICE 920-339-4061 FAX 920-339-4071	DATE: 02/22/2021 BY: MAL CHECKED: CKK

PROJECT# 21-01 SEWER & WATER RELAY AND STREET RESURFACING

CITY OF DE PERE



ENGINEER DIVISION
925 S. SIXTH ST
DE PERE, WI 54115



SITE LOCATION MAP
N.T.S.

SHEET NO.	DESCRIPTION
G001	TITLE SHEET
G002	STANDARD ABBREVIATION & SYMBOLS
G003	TYPICAL SECTION
C101 - C104	N WINNEBAGO STREET PLAN AND PROFILE SHEETS
C105 - C106	REID STREET PLAN AND PROFILE SHEETS
C107 - C109	RIDGEWAY BOULEVARD PLAN AND PROFILE SHEETS
C110 - C112	RIDGEWAY BOULEVARD INTERSECTION DETAILS
C401 - C404	BENCHMARK AND CONTROL POINT SHEETS
C405 - C406	REID STREET DETAILS
C407 - C408	RIDGEWAY BOULEVARD TRAFFIC CONTROL DETAILS
C501 - C512	CONSTRUCTION DETAILS
C513 - C518	TRAFFIC CONTROL DETAILS

CITY OF DE PERE
BOARD OF PUBLIC WORKS

3/3/2021 DATE *E.P. Rakers* CITY ENGINEER
3/3/21 DATE *Thomas M. Boyd* CITY ADMINISTRATOR
3/3/21 DATE *J.J. Boyd* MAYOR

STAMPS:



LIST OF STANDARD ABBREVIATIONS

ADT	AVERAGE DAILY TRAFFIC	N	NORTH
AGGR	AGGREGATE	NB	NORTHBOUND
AH	AHEAD	NC	NORMAL CROWN
ASPH	ASPHALT	NE	NORTHEAST
B/B	BACK TO BACK	NO	NUMBER
BARR	BARRICADE	NTS	NOT TO SCALE
BC	BACK OF CURB	NW	NORTHWEST
BK	BACK	O	OIL
BL	BASELINE	O&C	OIL AND CHIP
BLDG	BUILDING	OBLIT	OBLITERATE
BM	BENCHMARK	OD	OUTSIDE DIAMETER
BOW	BACK OF SIDEWALK	PC	POINT OF CURVATURE
BSMT	BASEMENT	PCC	POINT OF COMPOUND CURVE
C	CUT	PCC	PORTLAND CEMENT CONCRETE
C&G	CURB AND GUTTER	PED	PEDESTAL
C/C	CENTER TO CENTER	PLE	PERMANENT LIMITED EASEMENT
CABC	CRUSHED AGGREGATE BASE COURSE	PVMT	PAVEMENT
CB	CATCH BASIN	PE	PRIVATE ENTRANCE
CE	CONSTRUCTION ENTRANCE	PI	POINT OF INTERSECTION
CI	CAST IRON PIPE	PJF	PRE-FORMED JOINT FILLER
CL	CENTERLINE	PL	PROPERTY LINE
CMP	CORRUGATED METAL PIPE	POC	POINT OF CURVE
CNTY	COUNTY	POT	POINT ON TANGENT
CO	CLEANOUT	PP	POLYETHYLENE
CONC	CONCRETE	PRC	POINT OF REVERSE CURVATURE
CONSTR	CONSTRUCTION	PROJ	PROJECT
CONSTR JT	CONSTRUCTION JOINT	PROP	PROPOSED
CP	CONTROL POINT	PSI	POUND PER SQUARE INCH
CTH	COUNTY TRUNK HIGHWAY	PT	POINT OF TANGENCY
CTRL JT	CONTROL JOINT	PVC	POLYVINYL CHLORIDE
CTV	CABLE TV	R	RANGE OR RADIUS
CY	CUBIC YARD	RCP	REINFORCED CONCRETE PIPE
D	DEPTH	REBAR	REINFORCEMENT BAR
DIA	DIAMETER	REL	RELOCATE
DI	DUCTILE IRON PIPE	REM	REMAINING
DISCH	DISCHARGE	REQD	REQUIRED
DW	DRIVEWAY	RL	REFERENCE LINE
E	EAST (SEE ELEC BELOW)	ROW	RIGHT OF WAY
EA	EACH	RP	REFERENCE POINT
EB	EASTBOUND	RR	RAILROAD
EBS	EXCAVATION BELOW SUBGRADE	RT	RIGHT
ECS	EXTERNAL CHIMNEY SEAL	RW	RETAINING WALL
EL	ELEVATION	S	SOUTH
ELEC	ELECTRIC (E WHEN USED IN LINE STYLE)	SALV	SALVAGE
EMB	EMBANKMENT	SAN	SANITARY
ENTR	ENTRANCE	SB	SOUTHBOUND
EP	EDGE OF PAVEMENT	SDWK	SIDEWALK
EW	ENDWALL	SE	SOUTHEAST
EXC	EXCAVATION	SF	SQUARE FEET
EXIST	EXISTING	SHLDR	SHOULDER
F	FILL	SY	SQUARE YARD
F/F	FACE TO FACE	SS	STORM SEWER
FDN	FOUNDATION	SSD	STOPPING SIGHT DISTANCE
FE	FIELD ENTRANCE	STA	STATION
FERT	FERTILIZER	STD	STANDARD
FIN GR	FINISHED GRADE	STH	STATE HIGHWAY TRUNK
FL	FLOWLINE	STM	STORM
FO	FIBER OPTIC	STP	SEWAGE TREATMENT PLANT
FOW	FRONT OF SIDEWALK	STRUCT	STRUCTURE OR STRUCTURAL
FT	FOOT	SW	SOUTHWEST
FTG	FOOTING	TAN	TANGENT
G	GAS	T	TOWN (T WHEN USED FOR TELEPHONE LINE)
GV	GAS VALVE	TEL	TELEPHONE
GW	GUY WIRE	TEMP	TEMPORARY
HDPE	HIGH DENSITY POLYETHYLENE	TLE	TEMPORARY LIMITED EASEMENT
HR	HANDICAP RAMP	TOC	TOP OF CURB
HSE	HOUSE	TOW	TOP OF WATER
HT	HEIGHT	TRANS	TRANSITION
HYD	HYDRANT	TYP	TYPICAL
I	INTERSECTION ANGLE	UG	UNDERGROUND
ICS	INTERNAL CHIMNEY SEAL	USH	US HIGHWAY
ID	INSIDE DIAMETER	VC	VERTICAL CURVE
IN	INCH	VERT	VERTICAL
INL	INLET	VOL	VOLUME
INTERS	INTERSECTION	VPC	VERTICAL POINT OF CURVATURE
INV	INVERT	VPI	VERTICAL POINT OF INTERSECTION
IP	IRON PIPE OR PIN	VPRC	VERTICAL POINT OF REVERSE CURVE
JCT	JUNCTION	VPT	VERTICAL POINT OF TANGENCY
L	LENGTH (OF CURVE)	W	WEST
LC	LONG CHORD OF CURVE	WB	WESTBOUND
LP	LIGHTPOLE	WM	WATERMAIN
LS	LIFT STATION OR LUMP SUM	WSO	WATER SHUTOFF VALVE
LT	LEFT	WTP	WATER TREATMENT PLANT
MAINT	MAINTENANCE	WV	WATER VALVE
MATL	MATERIAL	WWTP	WASTE WATER TREATMENT PLANT
MB	MAILBOX	YD	YARD
MH	MANHOLE		
MP	MARKER POST		

MAPPING & TOPOGRAPHY SYMBOLOLOGY

DESCRIPTION	SYMBOL	
	EXISTING	PROPOSED
BENCHMARK		
BUSH		
CATCH BASIN		
CABLE TV BOX		
CONTROL POINT		
ELECTRICAL BOX		
EROSION CONTROL - INELT		
FIELD INLET		
GAS VALVE		
HEDGE		
HYDRANT		
IRON PIPE		
LIGHTPOLE		
MAILBOX		
MANHOLE ELECTRIC		
MANHOLE SANITARY		
MANHOLE STORM		
MONITORING WELL		
POWER POLE		
LIGHT POLE		
SIGN		
SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE		
SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE		
STUMP		
TELEPHONE MANHOLE		
TELEPHONE PEDESTAL		
TREE		
WELL		
WATER SERVICE VALVE		
BUTTERFLY WATER VALVE		
WATER VALVE		

GENERAL CONSTRUCTION NOTES:

- ALL ELEVATIONS ARE REFERENCED TO NAVD 88.
- THE WORK UNDER THIS CONTRACT SHALL BE IN ACCORDANCE WITH THE CITY OF DE PERE, CURRENT CONSTRUCTION SPECIFICATIONS AND THESE SPECIAL PROVISIONS AND PLANS, AND THE LATEST ADDITION OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARDS SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION SPECIFICATIONS, LATEST EDITION, WHERE REFERENCED IN THE CITY SPECIFICATIONS.
- ALL EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO CONSTRUCTION AND SHALL CONFIRM TO THE WISCONSIN DEPARTMENT OF NATURAL RESOURCES CONSTRUCTION SITE EROSION CONTROL AND TECHNICAL STANDARDS.
- EXISTING UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING EXACT LOCATIONS AND ELEVATIONS OF ALL UTILITIES. WHETHER SHOWN OR NOT, FROM THE OWNERS OF THE RESPECTIVE UTILITIES. ALL UTILITIES OWNERS SHALL BE NOTIFIED BY THE CONTRACTOR 72 HOURS PRIOR TO EXCAVATION.

MAPPING & TOPOGRAPHY SYMBOLOLOGY

DESCRIPTION	SYMBOL	
	PLAN	PROFILE
EXISTING SANITARY SEWER LINE		(SIZE AND MATERIAL) San
PROPOSED SANITARY SEWER LINE		100'-8" PVC SAN San
EXISTING STORM SEWER LINE		(SIZE AND MATERIAL) ST
PROPOSED STORM SEWER LINE		100'-8" PVC STM ST
EXISTING WATER MAIN LINE		(SIZE AND MATERIAL) W
PROPOSED WATER MAIN LINE		100'-8" PVC WM (TEE-BEND) W
EXISTING ELECTRICAL LINE		E
EXISTING GAS MAIN LINE		G
EXISTING TELEPHONE LINE		T
EXISTING CABLE TV LINE		TV
EXISTING SANITARY LATERAL		San
EXISTING WATER SERVICE		W
RIGHT OF WAY		ROW
PROPERTY LINE		PL
EASEMENT		Esm
SILT FENCE EROSION CONTROL		
EXISTING FIBER OPTIC		FO
EXISTING MAJOR CONTOUR		615
EXISTING MINOR CONTOUR		612
PROPOSED MAJOR CONTOUR		615
PROPOSED MINOR CONTOUR		612
EXISTING SANITARY SEWER LINE		(SIZE AND MATERIAL)
PROPOSED SANITARY SEWER LINE		100'-8" PVC SAN @ 0.40%
EXISTING STORM SEWER LINE		(SIZE AND MATERIAL)
PROPOSED STORM SEWER LINE		100'-8" PVC STM @ 1.0%
EXISTING WATER MAIN LINE		(SIZE AND MATERIAL)
PROPOSED WATER MAIN LINE		PROPOSE 8" PVC WM

PATCH SYMBOLS

ASPHALTIC CONCRETE PAVEMENT		CRUSHED AGGREGATE	
PORTLAND CEMENT CONCRETE		BASE COURSE	
		TOPSOIL, SEED, & MULCH	

CITY OF DE PERE

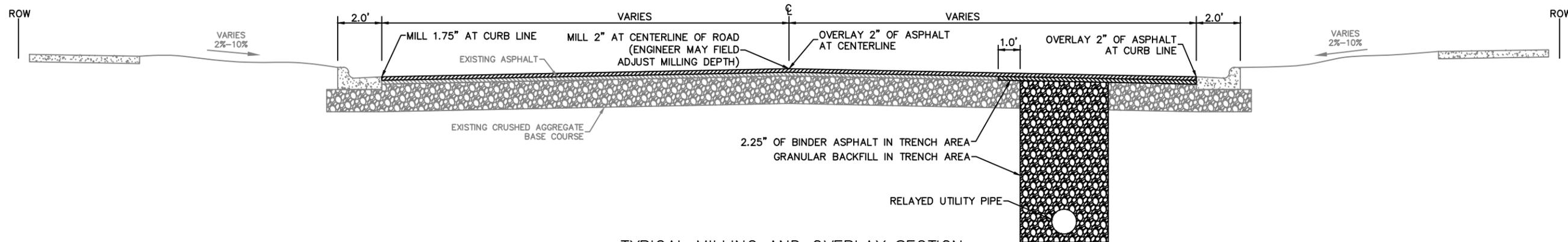
ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115
OFFICE 920-339-4060 FAX 920-339-4071

STANDARD ABBREVIATIONS AND SYMBOLS

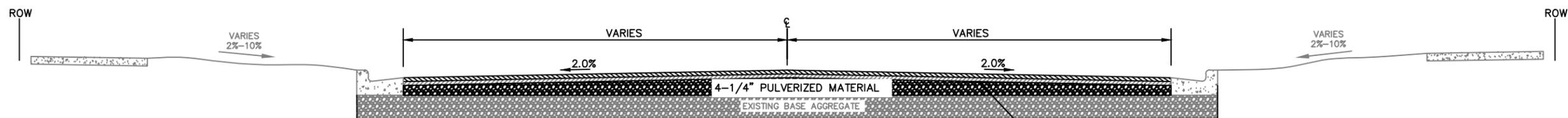
NAME: SEWER & WATER RELAY AND STREET RESURFACING
PROJECT # 21-01

SURVEYED	BY	DATE	REVISIONS / ISSUES		
			NO.	DATE	REMARKS
DRAWN	MAL	10-2020			
DESIGNED					
CHECKED					

PAGE NO.
G002



TYPICAL MILLING AND OVERLAY SECTION WITH CURB AND GUTTER



TYPICAL PULVERIZE AND OVERLAY SECTION WITH CURB AND GUTTER

PULVERIZE EXISTING ASPHALTIC PAVEMENT TO A DEPTH OF 8"
 REMOVE 3-3/4" PULVERIZED MATERIAL
 AND RELAY 2 1/4" OF ASPHALTIC CONCRETE PAVEMENT BINDER 3LT 58-28S
 AND 1 3/4" OF ASPHALTIC CONCRETE PAVEMENT SURFACE 4LT 58-28S



CITY OF DE PERE

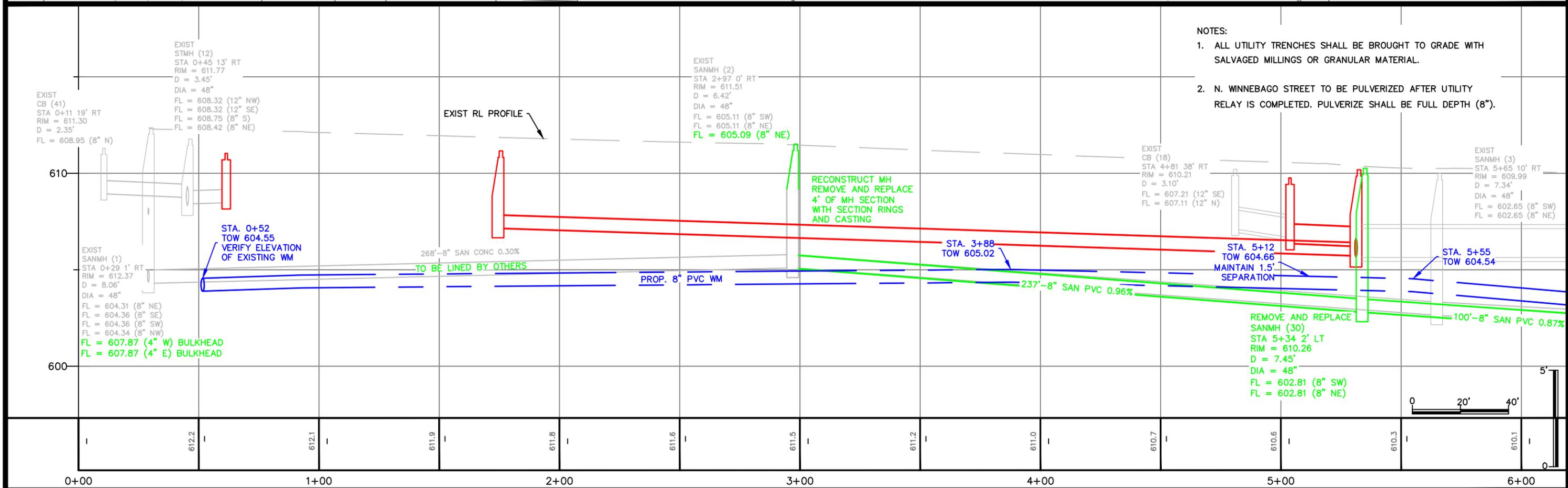
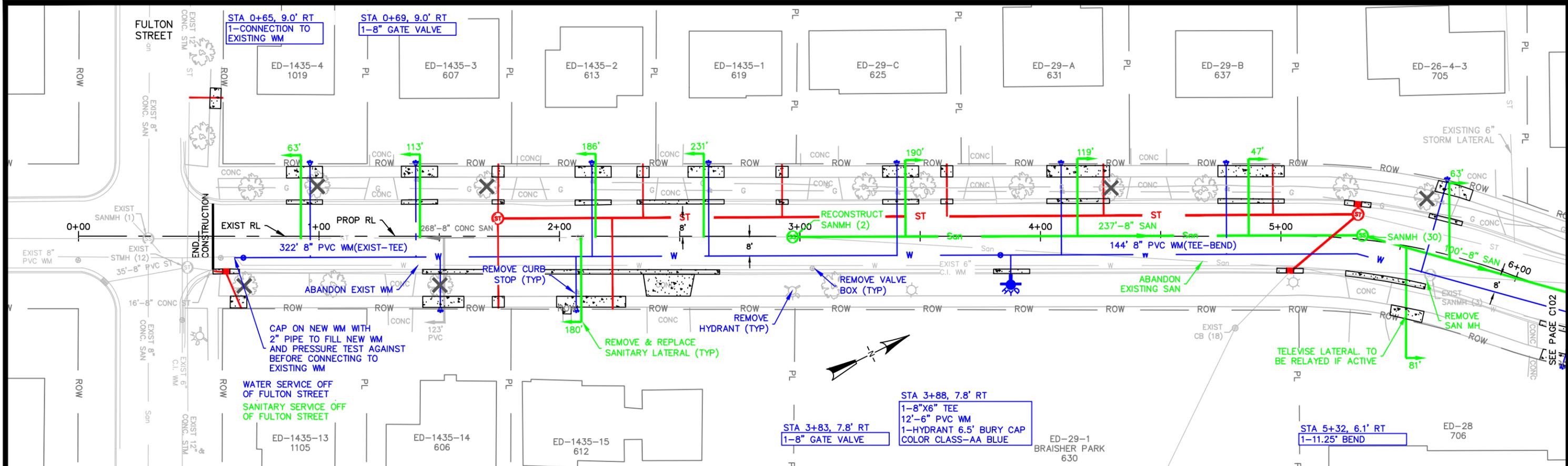
ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115
 OFFICE 920-339-4061 FAX 920-339-4071

CITY OF DE PERE
TYPICAL SECTION

NAME:
 SEWER & WATER RELAY AND
 STREET RESURFACING
 PROJECT # 21-01

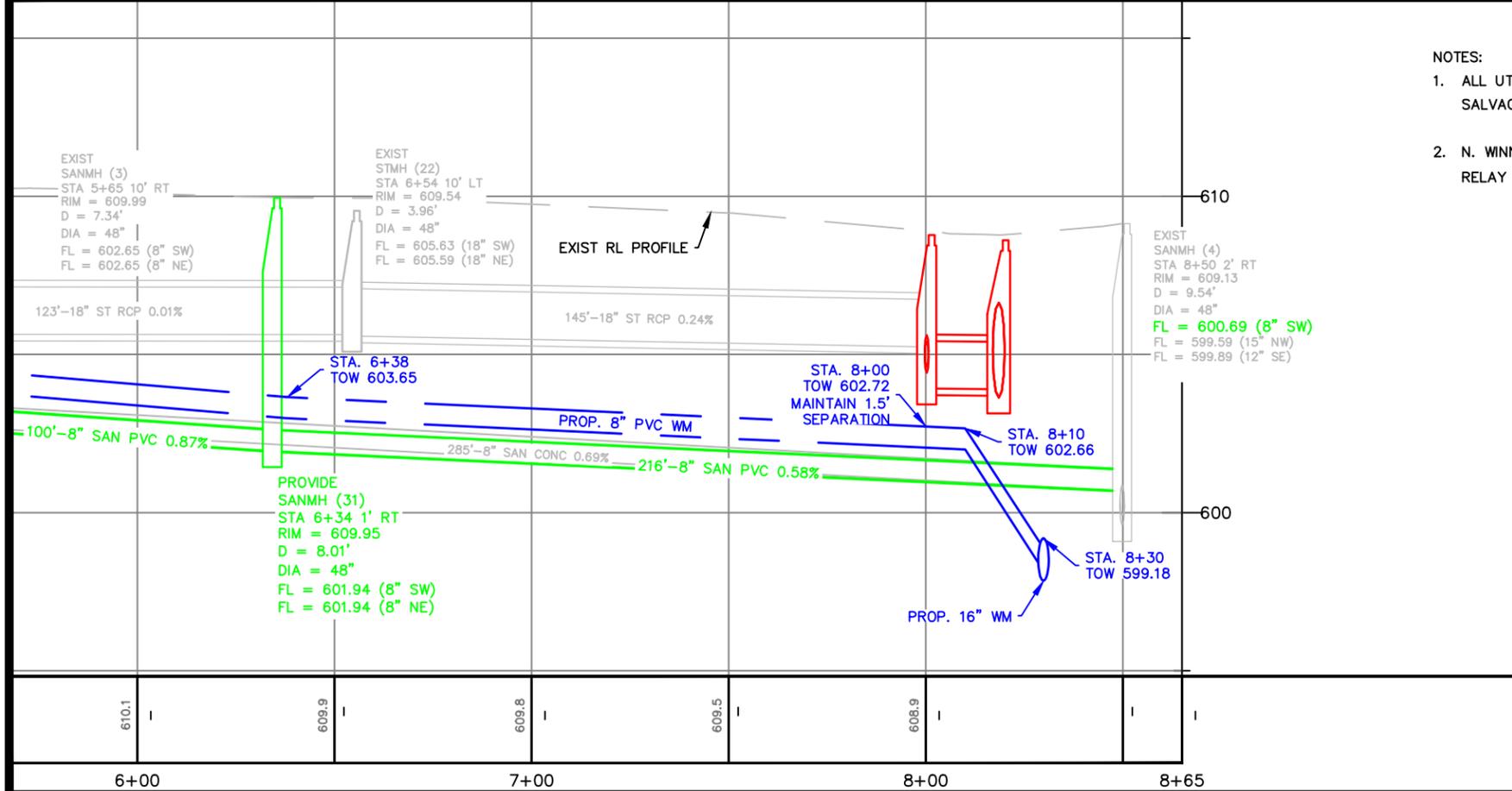
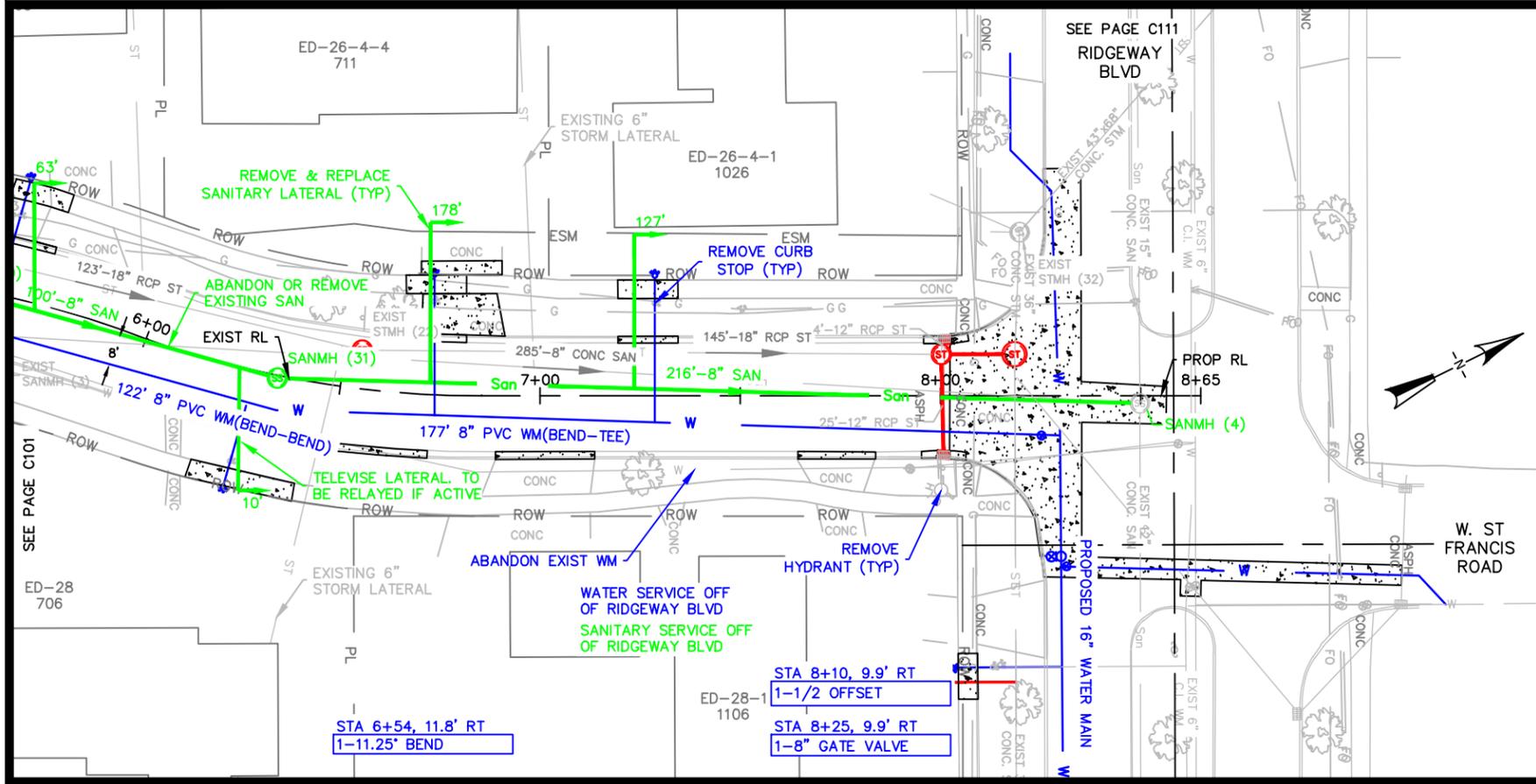
BY	DATE
SURVEYED	
DRAWN MAL	10-2020
DESIGNED MAL	10-2020
CHECKED CKK	10-2020

REVISIONS / ISSUES			
NO.	DATE	BY	REMARKS



- NOTES:
1. ALL UTILITY TRENCHES SHALL BE BROUGHT TO GRADE WITH SALVAGED MILLINGS OR GRANULAR MATERIAL.
 2. N. WINNEBAGO STREET TO BE PULVERIZED AFTER UTILITY RELAY IS COMPLETED. PULVERIZE SHALL BE FULL DEPTH (8").

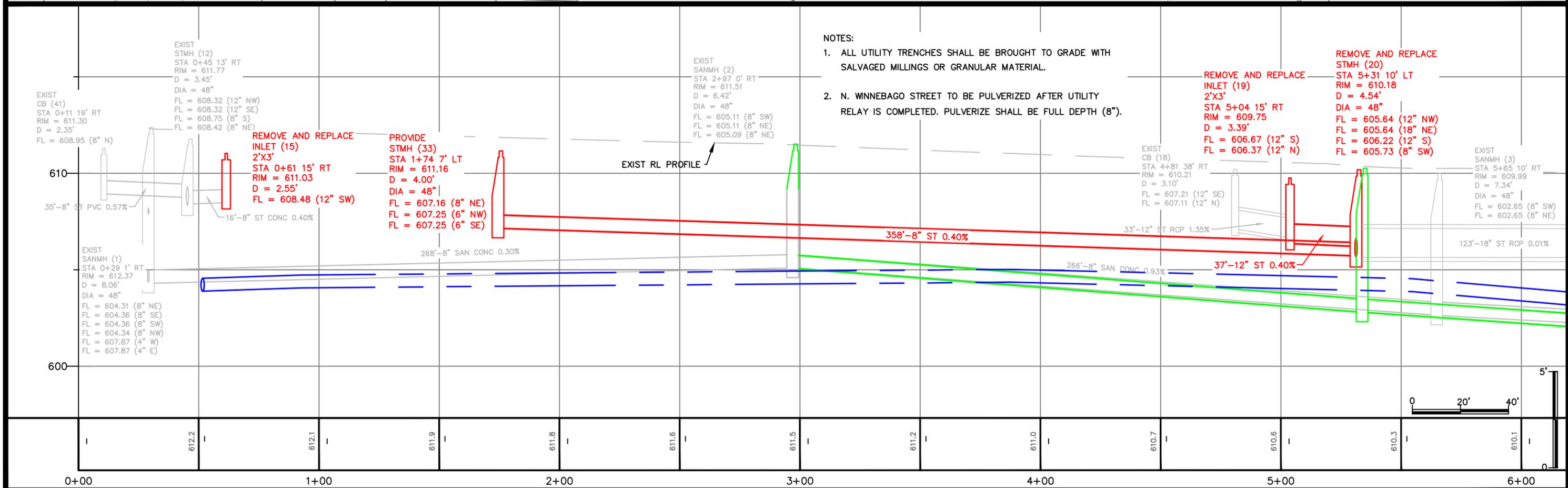
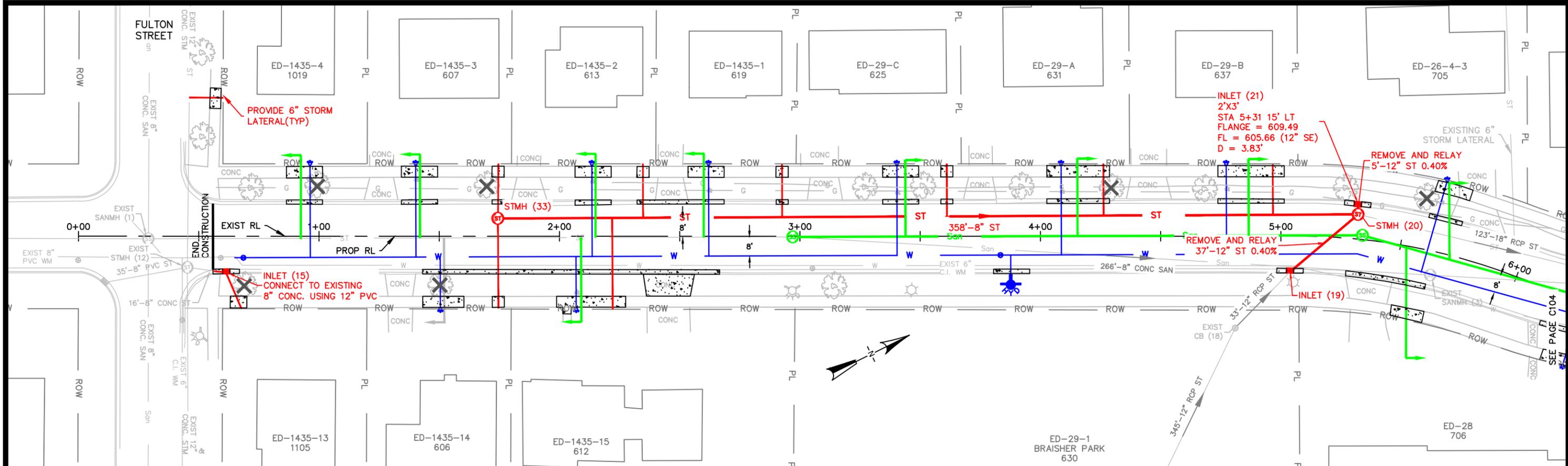
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- NOTES:
- ALL UTILITY TRENCHES SHALL BE BROUGHT TO GRADE WITH SALVAGED MILLINGS OR GRANULAR MATERIAL.
 - N. WINNEBAGO STREET TO BE PULVERIZED AFTER UTILITY RELAY IS COMPLETED. PULVERIZE SHALL BE FULL DEPTH (8").

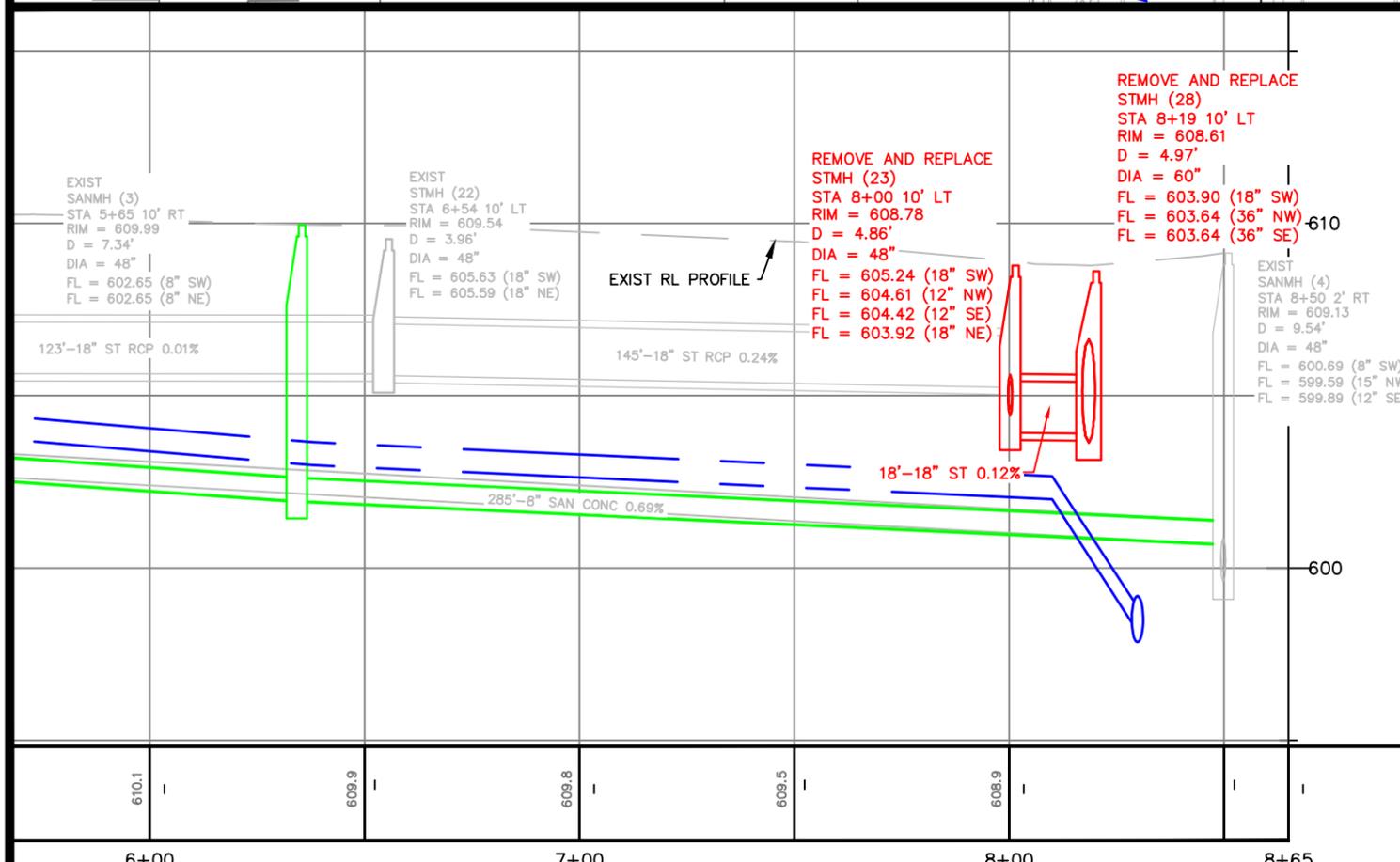
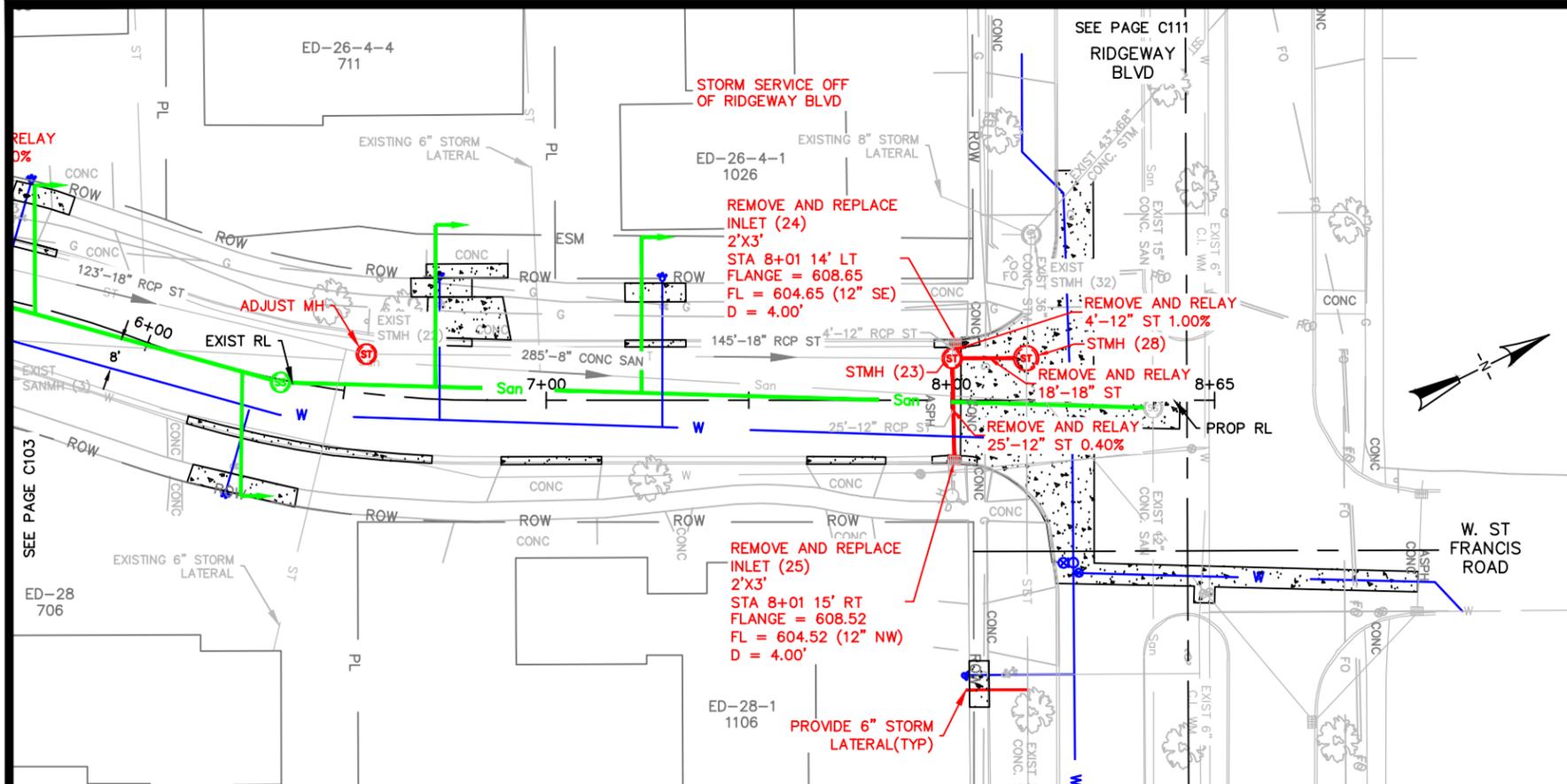
NAME: SEWER & WATER RELAY AND STREET RESURFACING		BY: MAL/BKK	DATE: 03-2020	REVISIONS / ISSUES		PAGE NO. C102
PROJECT #: 21-01		DRAWN: MAL	DATE: 09-2020	NO.	DATE	
		DESIGNED: MAL	DATE: 09-2020	BY	REMARKS	
		CHECKED: CKK	DATE: 09-2020			

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- NOTES:
- ALL UTILITY TRENCHES SHALL BE BROUGHT TO GRADE WITH SALVAGED MILLINGS OR GRANULAR MATERIAL.
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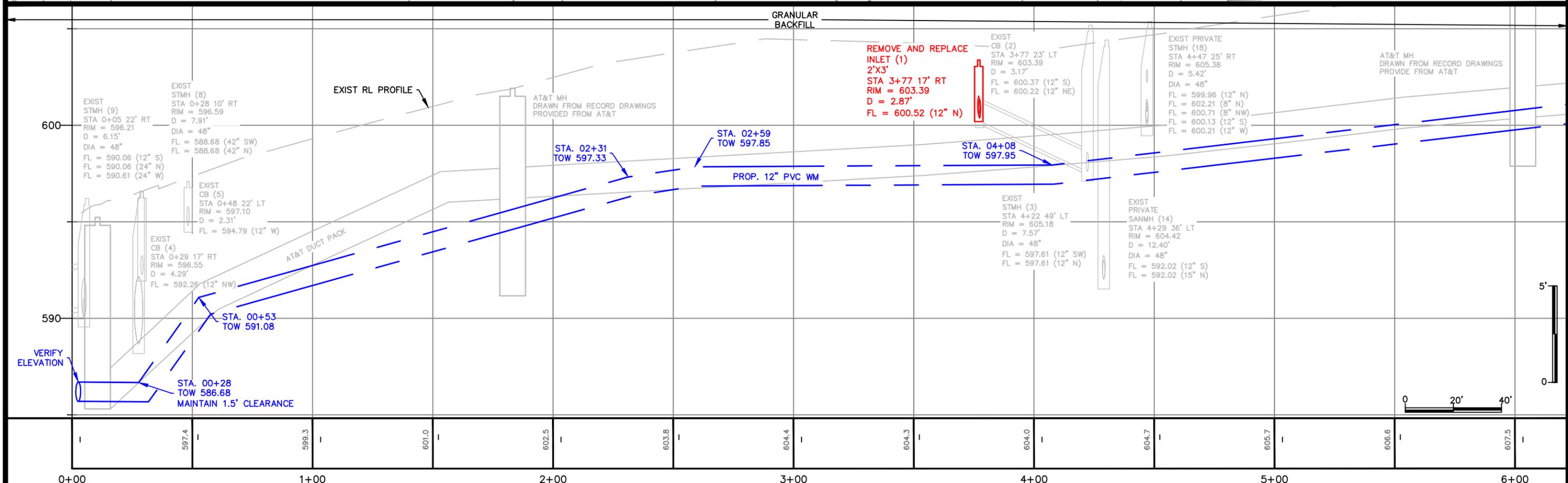
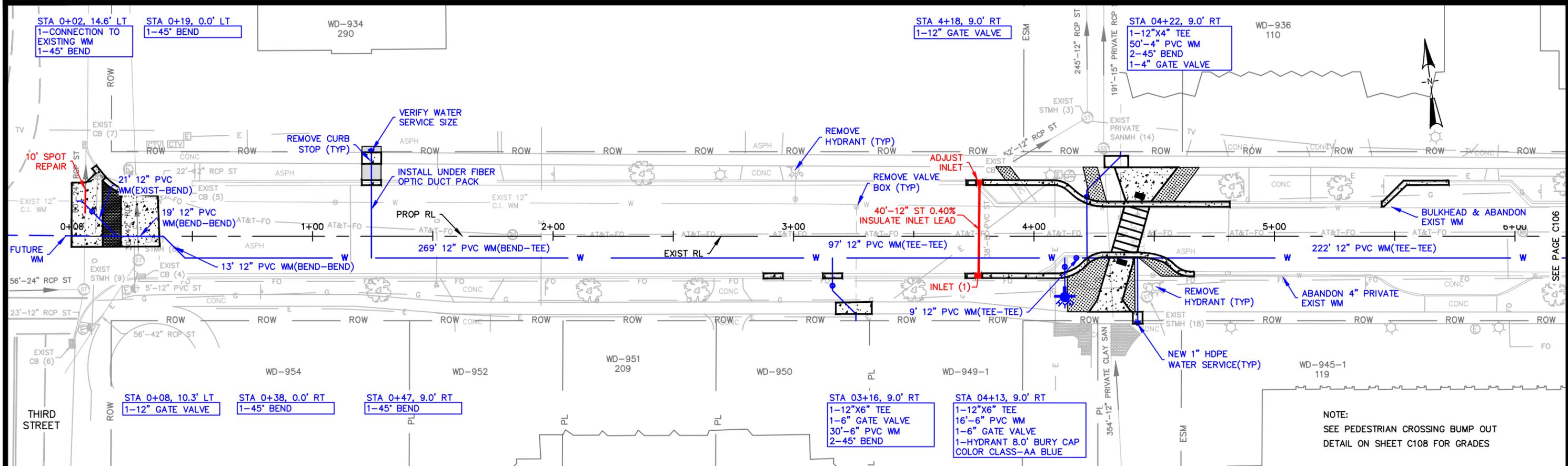
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- NOTES:
1. ALL UTILITY TRENCHES SHALL BE BROUGHT TO GRADE WITH SALVAGED MILLINGS OR GRANULAR MATERIAL.
 2. N. WINNEBAGO STREET TO BE PULVERIZED AFTER UTILITY RELAY IS COMPLETED. PULVERIZE SHALL BE FULL DEPTH (8").

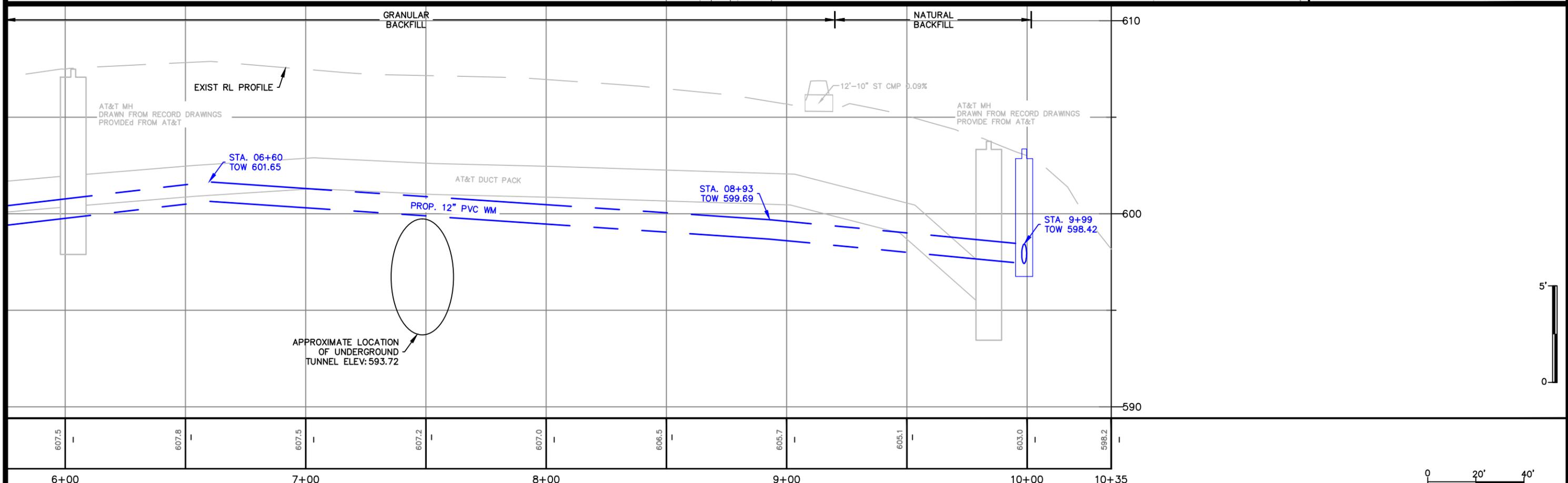
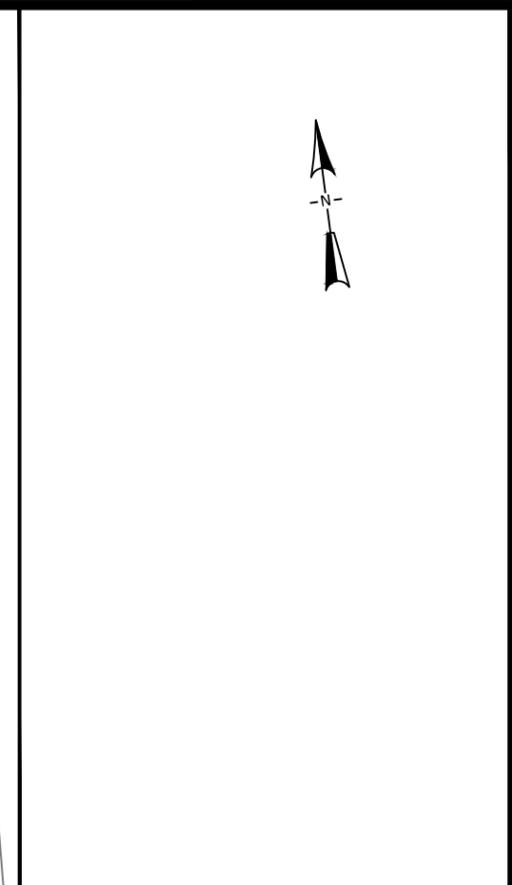
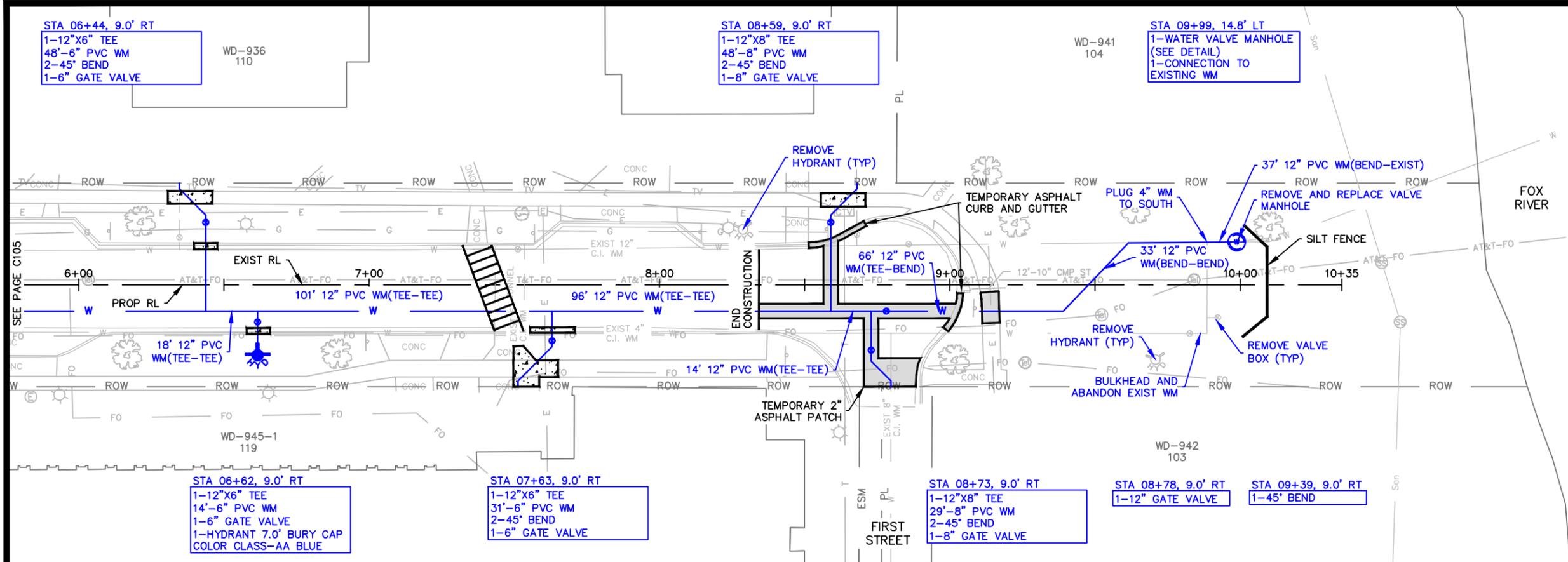
	CITY OF DE PERE	N. WINNEBAGO STREET 600' N/O FULTON ST. TO RIDGEWAY BLVD STORM SEWER	NAME: SEWER & WATER RELAY AND STREET RESURFACING PROJECT #	BY MAL/BKK	DATE 03-2020	REVISIONS / ISSUES		PAGE NO. C104
	ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115 OFFICE 920-339-4061 FAX 920-339-4071		21-01	MAL	09-2020	NO.	DATE	

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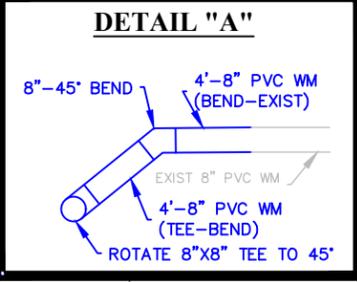
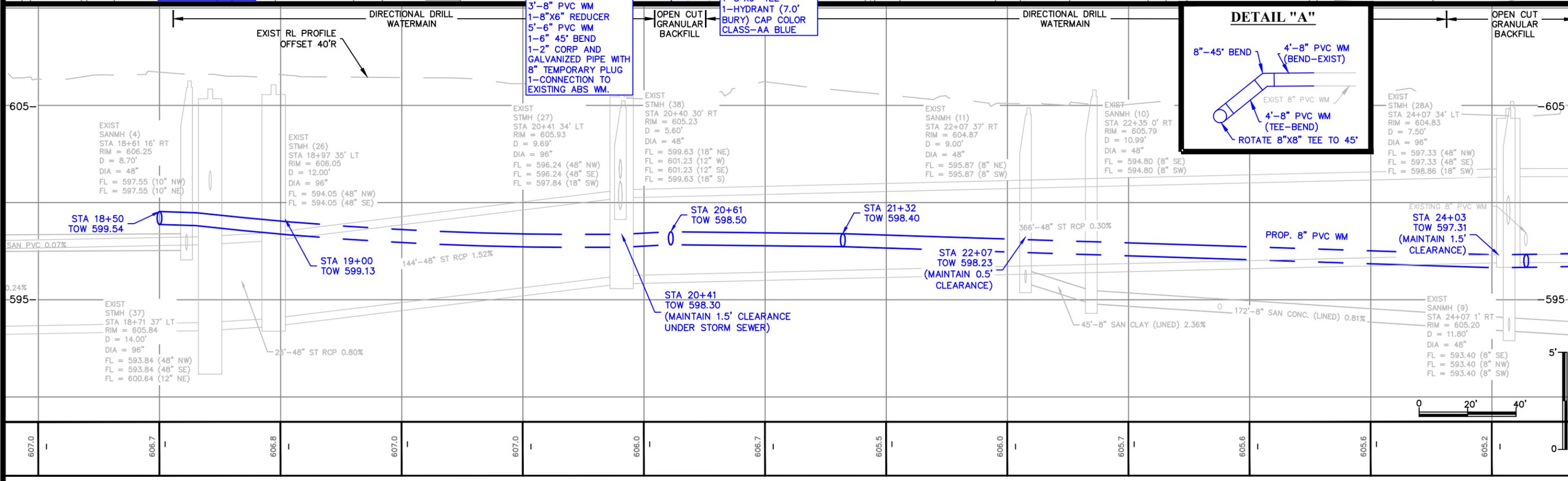
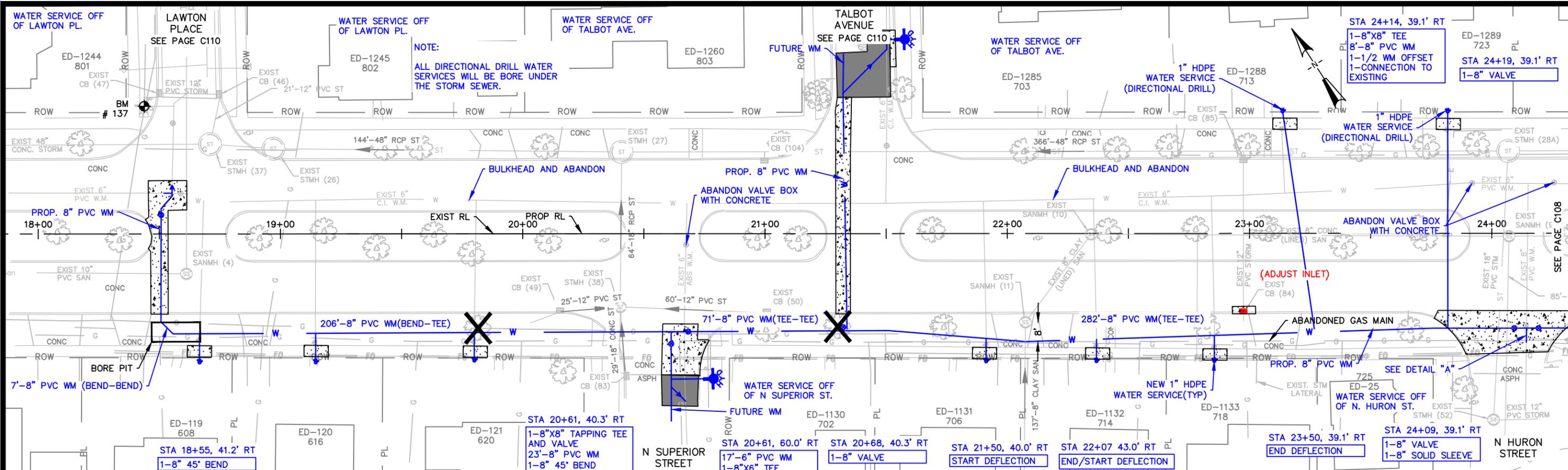
NOTE:
SEE PEDESTRIAN CROSSING BUMP OUT
DETAIL ON SHEET C108 FOR GRADES

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	CITY OF DE PERE		REID STREET		NAME: SEWER AND WATER RELAY AND STREET RESURFACING		BY: MAL		DATE: 03-2020		NO.:		REVISIONS / ISSUES		PAGE NO. C106		
	ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115				600' E/O THIRD STREET TO FIRST STREET				PROJECT # 21-01		DRAWN: MAL		DATE: 03-2020			REMARKS	
	OFFICE 920-339-4061 FAX 920-339-4071								CHECKED: CKK		DATE: 03-2020						

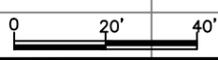
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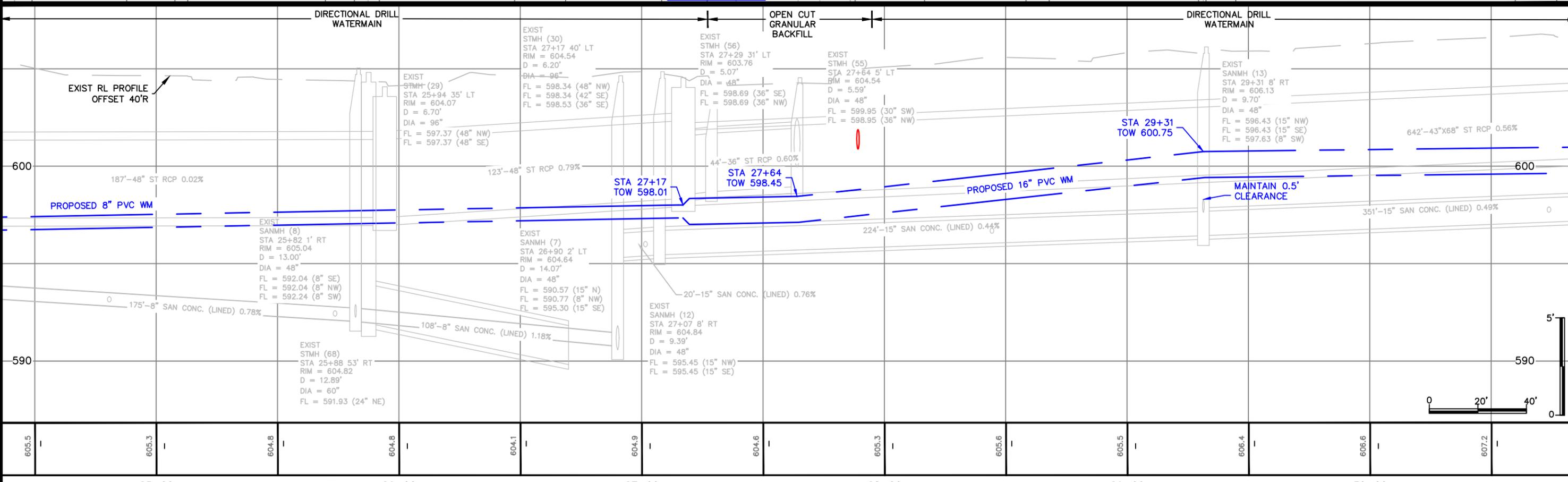
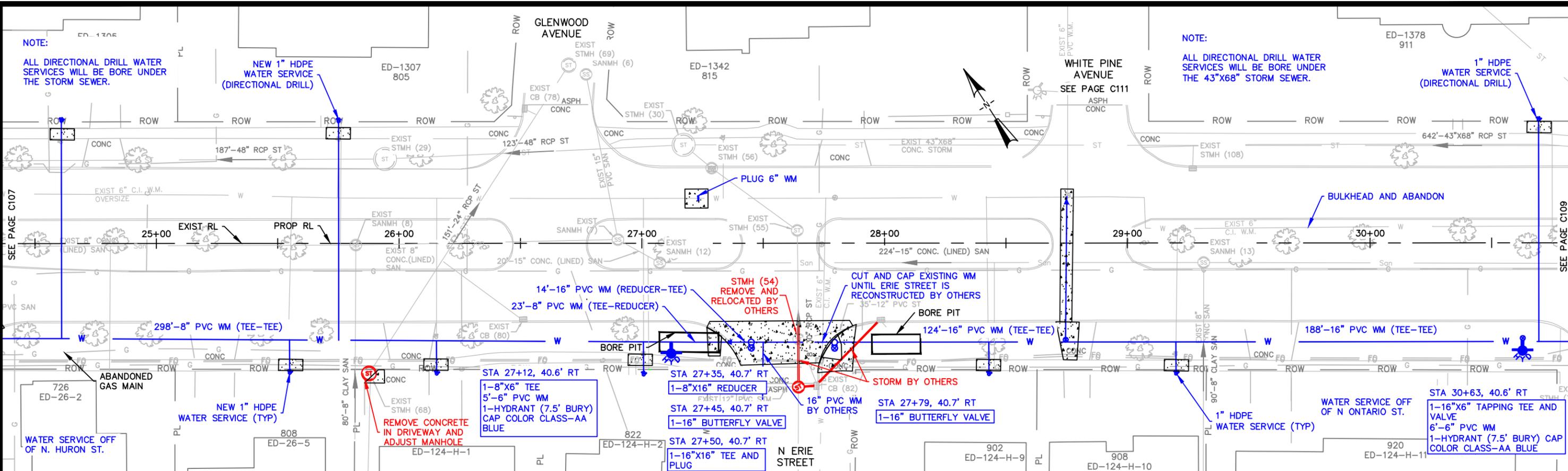
STA 20+61, 40.3' RT
 1-8"X8" TAPPING TEE AND VALVE
 23'-8" PVC WM
 1-8" 45° BEND
 3'-8" PVC WM
 1-8"X6" REDUCER
 5'-6" PVC WM
 1-6" 45° BEND
 1-2" CORP AND GALVANIZED PIPE WITH 8" TEMPORARY PLUG
 1-CONNECTION TO EXISTING ABS WM.

STA 20+61, 60.0' RT
 17'-6" PVC WM
 1-8"X6" TEE
 1-HYDRANT (7.0' BURY) CAP COLOR CLASS-AA BLUE

STA 24+09, 39.1' RT
 1-8" VALVE
 1-8" SOLID SLEEVE

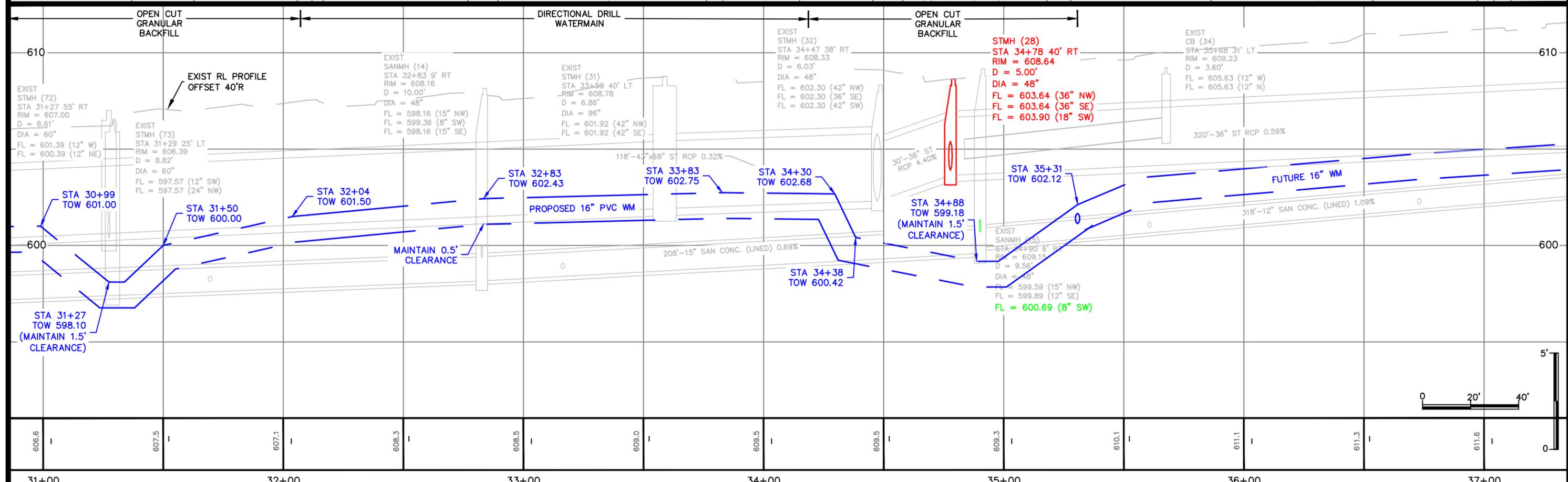
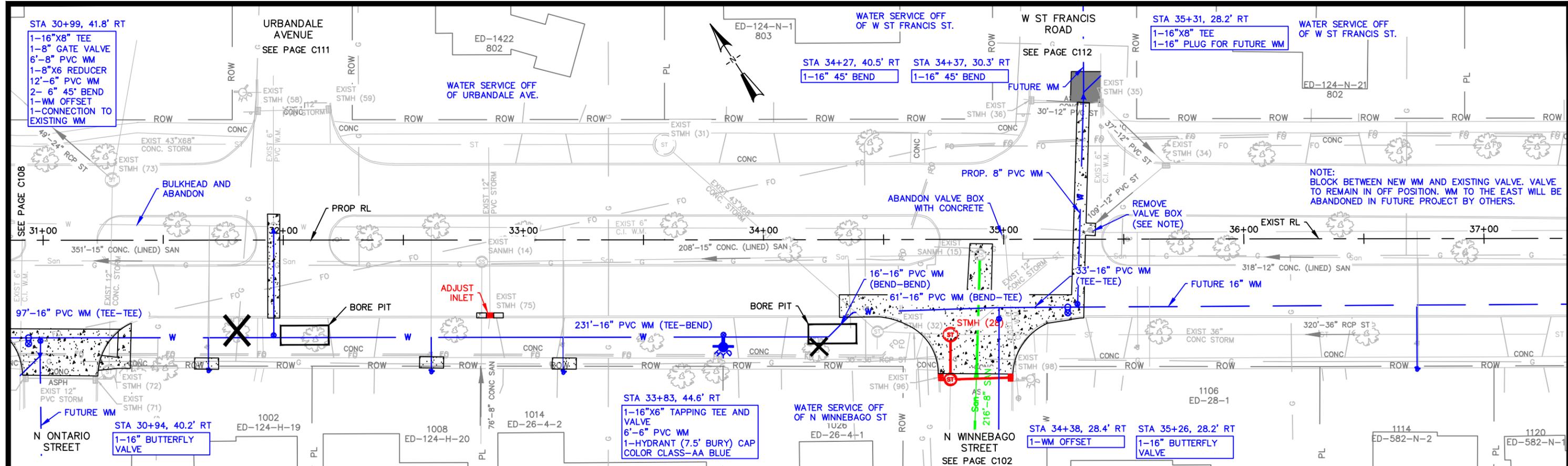


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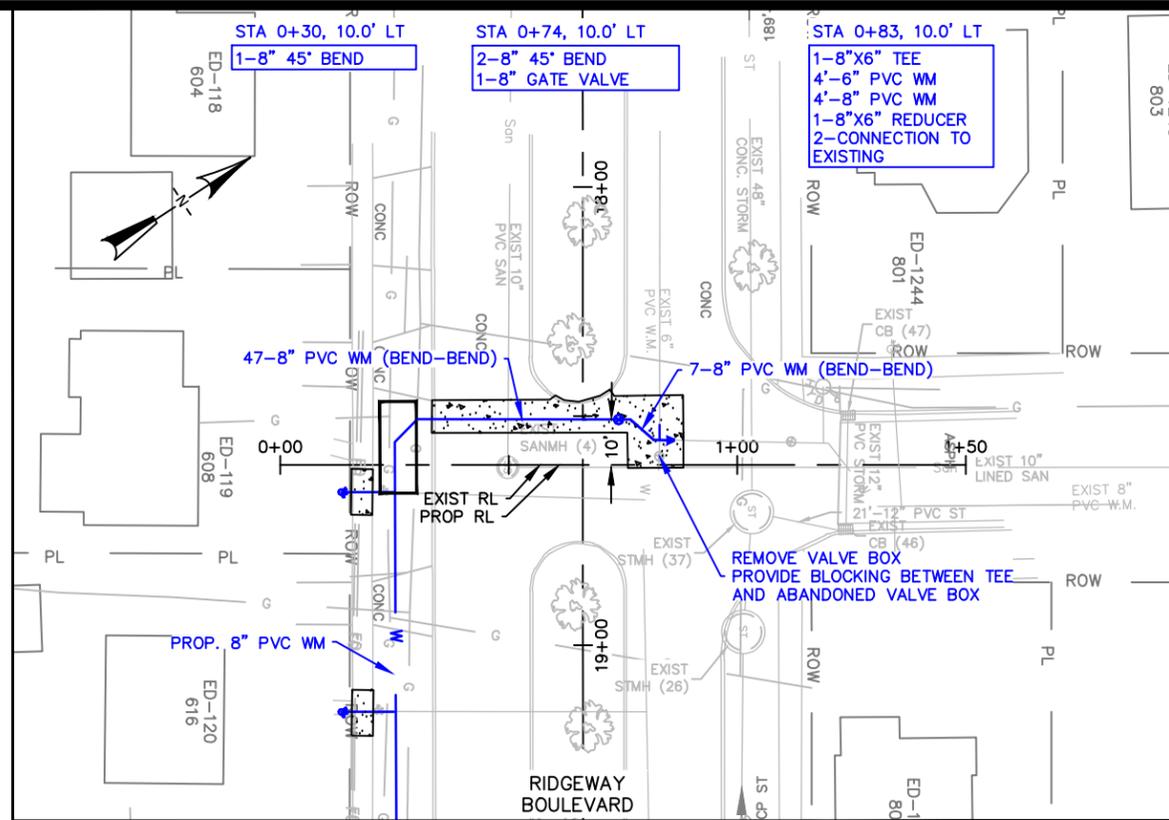


	CITY OF DE PERE	RIDGEWAY BLVD	NAME: SEWER & WATER RELAY AND STREET RESURFACING PROJECT # 21-01	BY	DATE	REVISIONS / ISSUES		PAGE NO. C108																		
	ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115 OFFICE 920-339-4061 FAX 920-339-4071	N HURON STREET TO N ONTARIO STREET		<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th>NO.</th> <th>DATE</th> <th>BY</th> <th>REMARKS</th> </tr> <tr> <td>SURVEYED</td> <td>JML</td> <td>08-2019</td> <td></td> </tr> <tr> <td>DRAWN</td> <td>JML</td> <td>11-2019</td> <td></td> </tr> <tr> <td>DESIGNED</td> <td>SRL</td> <td>02-2020</td> <td></td> </tr> <tr> <td>CHECKED</td> <td>EPR</td> <td>02-2020</td> <td></td> </tr> </table>	NO.	DATE	BY		REMARKS	SURVEYED	JML	08-2019		DRAWN	JML	11-2019		DESIGNED	SRL	02-2020		CHECKED	EPR	02-2020		
NO.	DATE	BY	REMARKS																							
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DRAWN	JML	11-2019																								
DESIGNED	SRL	02-2020																								
CHECKED	EPR	02-2020																								

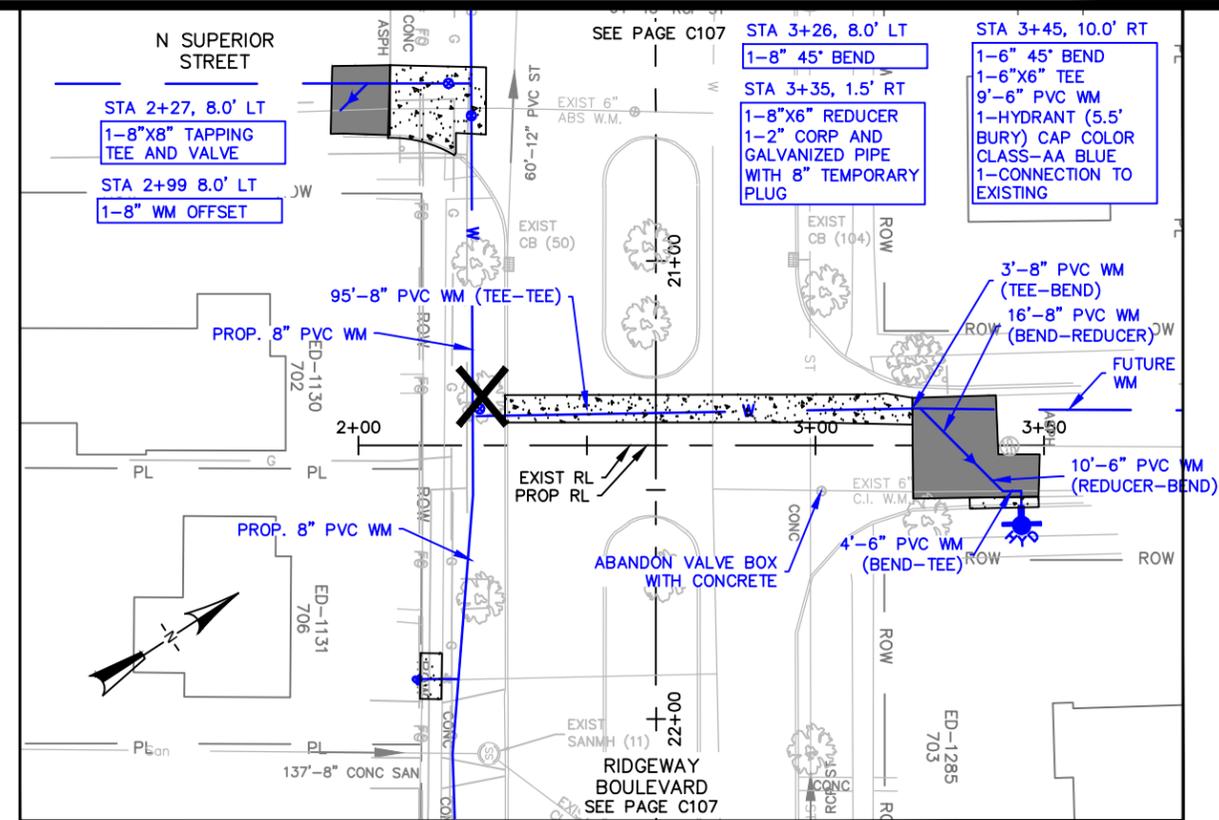
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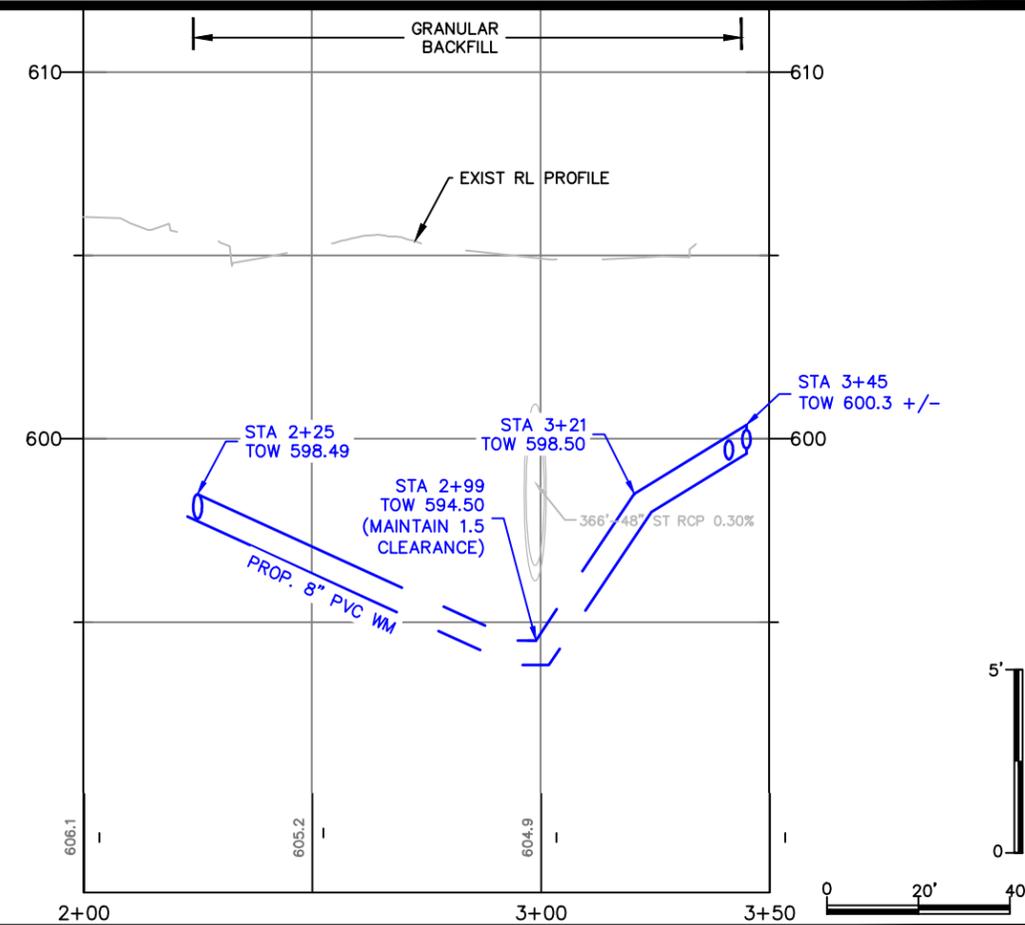
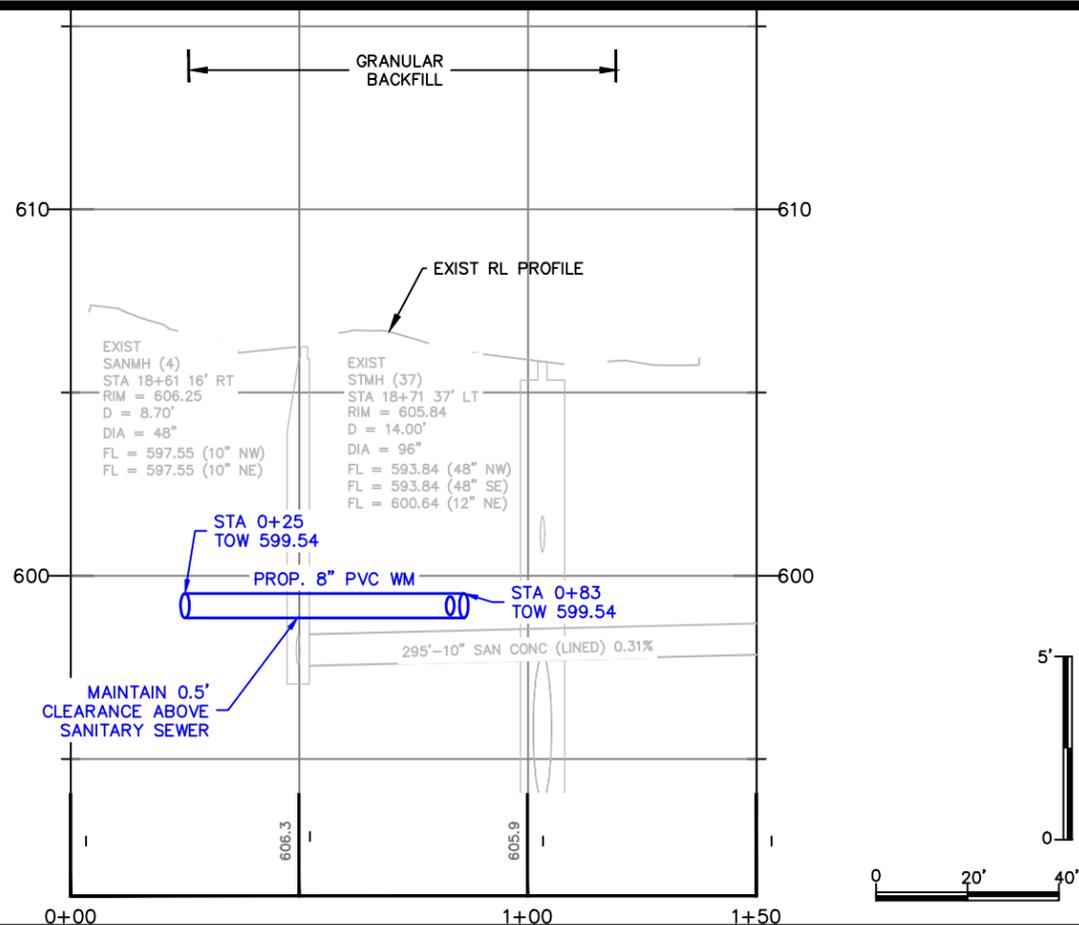
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LAWTON PLACE WATER MAIN



TALBOT AVENUE WATER MAIN



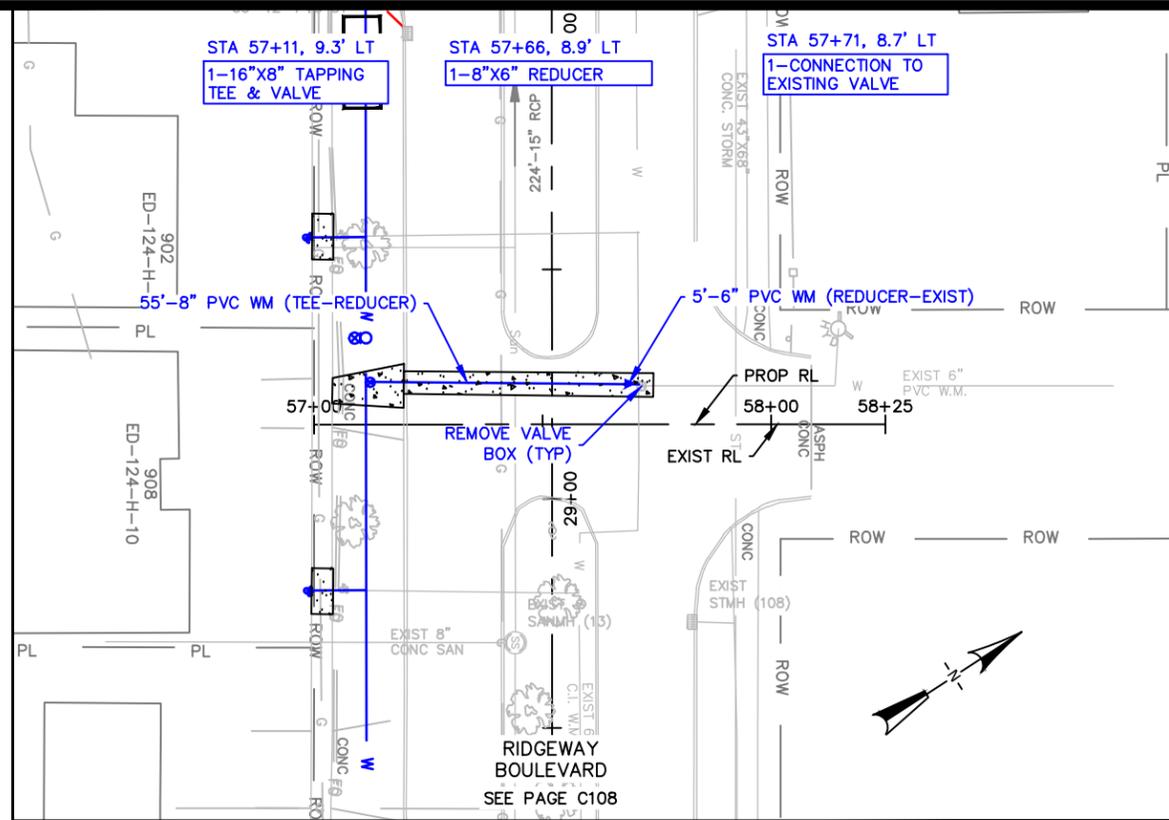
CITY OF DE PERE

ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115
OFFICE 920-339-4061 FAX 920-339-4071

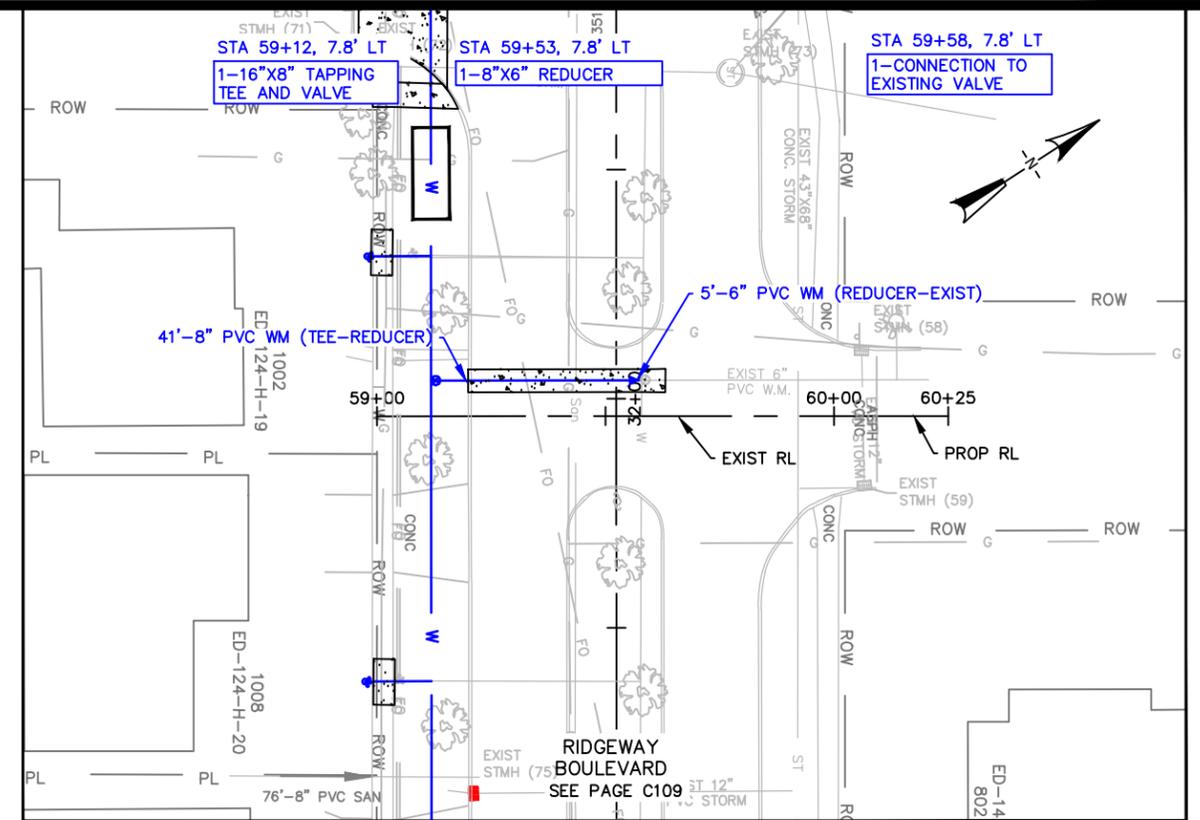
**LAWTON PLACE/TALBOT AVENUE
AT RIDGEWAY BOULEVARD**

NAME: SEWER & WATER RELAY AND STREET RESURFACING
PROJECT # 21-01

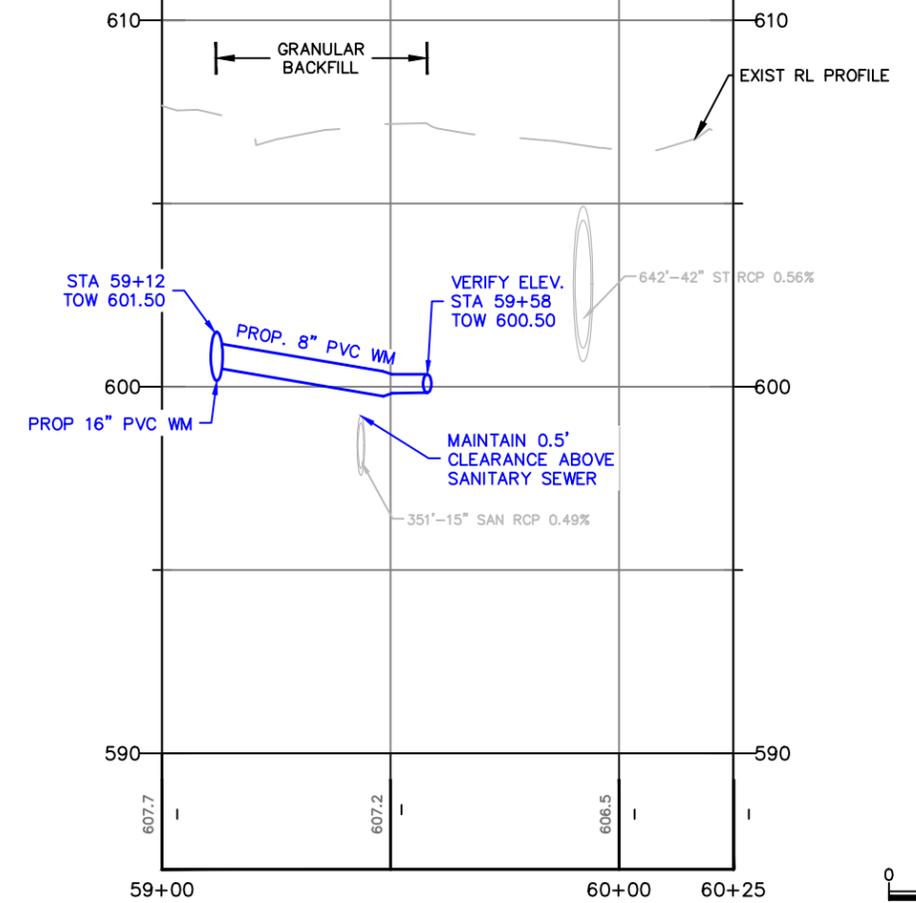
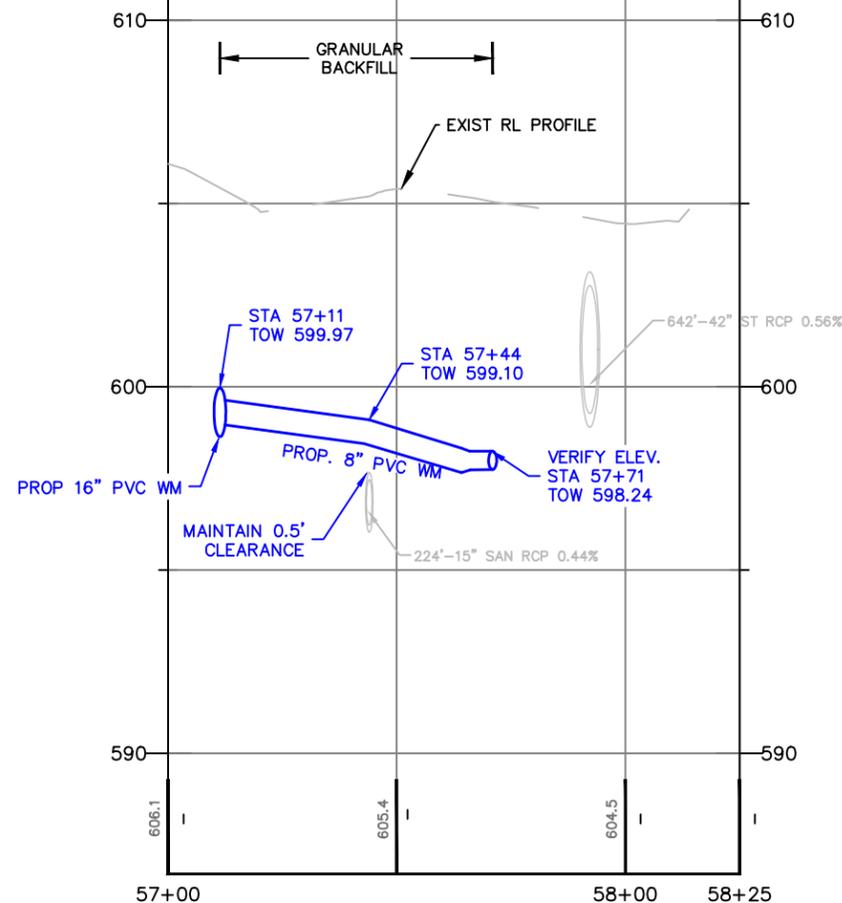
NO.	REVISIONS / ISSUES		PAGE NO.
	DATE	REMARKS	
1	08-2019		C110
2	11-2019		
3	02-2020		
4	02-2020		



WHITE PINE AVENUE WATER MAIN



URBANDALE AVENUE WATER MAIN



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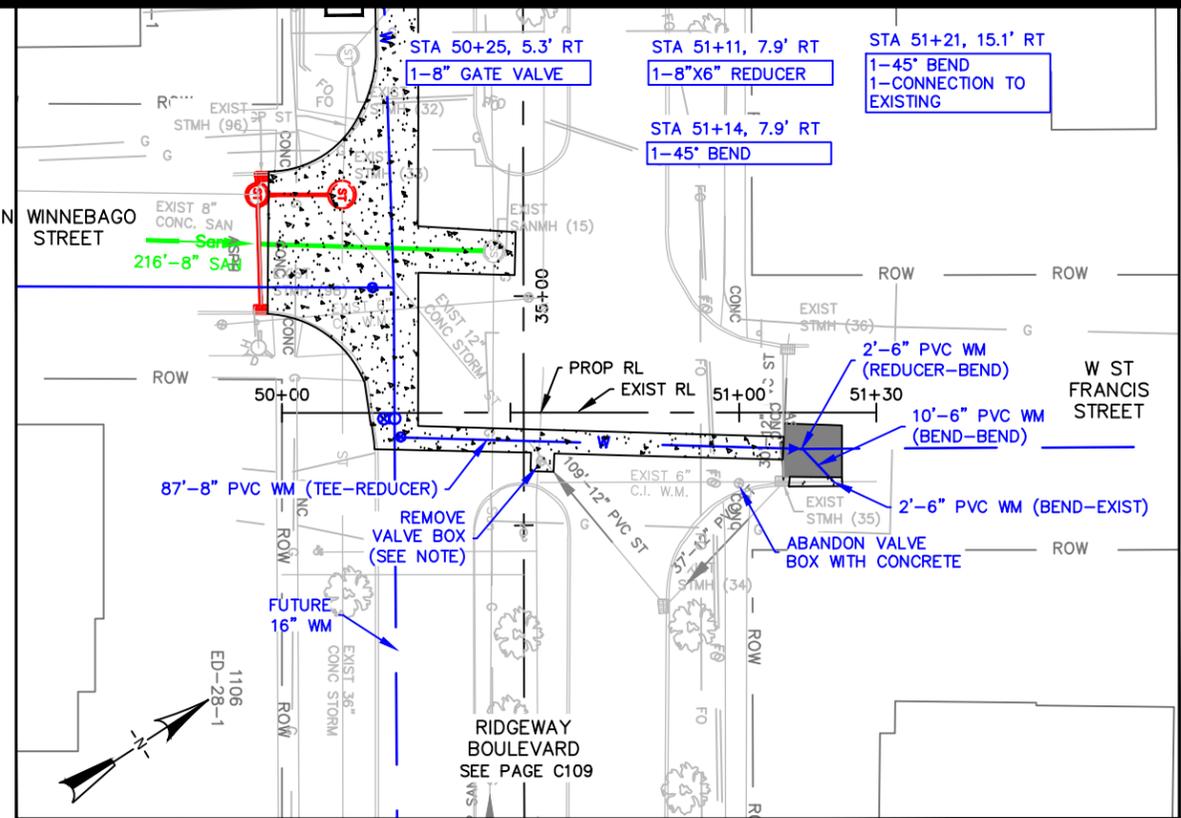
**WHITE PINE AVENUE/URBANDALE AVENUE
AT RIDGEWAY BOULEVARD**

NAME: SEWER & WATER RELAY AND STREET RESURFACING
PROJECT # 21-01

NO.	DATE	BY
SURVEYED	08-2019	JML
DRAWN	01-2021	MAL
DESIGNED	01-2021	MAL
CHECKED	02-2020	EPR

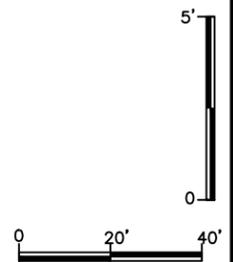
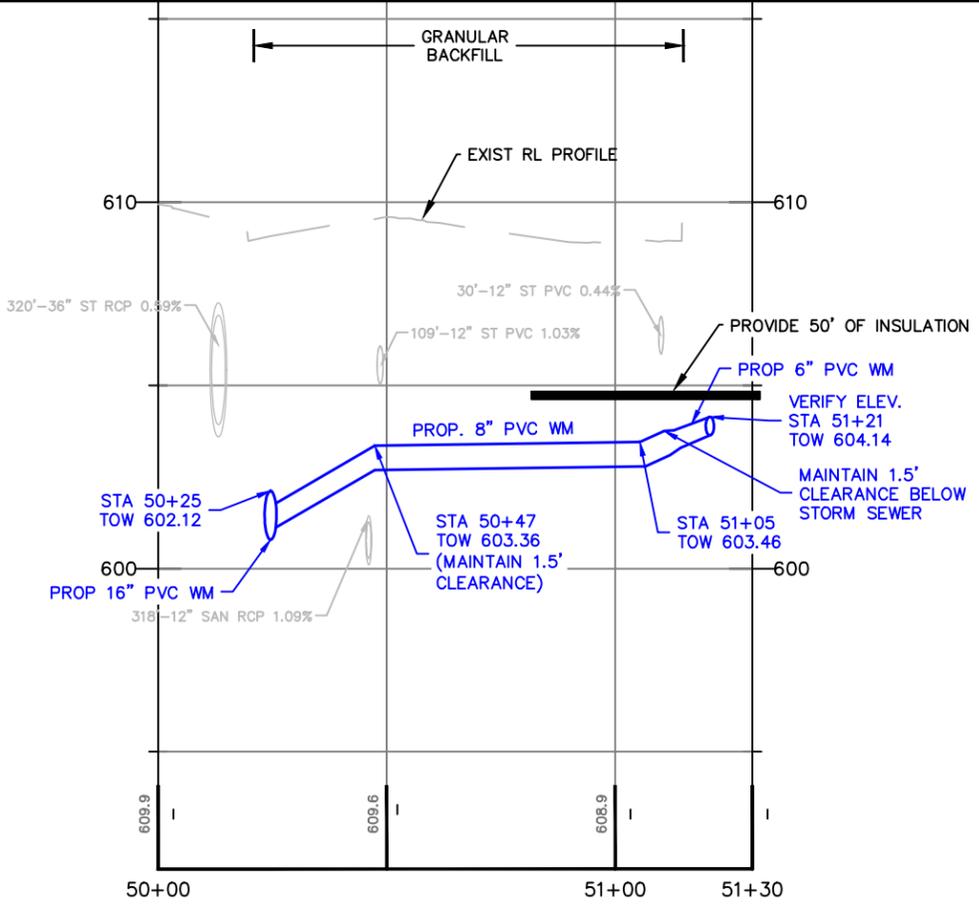
REVISIONS / ISSUES		
NO.	DATE	REMARKS

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NOTE:
BLOCK BETWEEN NEW WM AND EXISTING VALVE. VALVE TO REMAIN IN OFF POSITION. WM TO THE EAST WILL BE ABANDONED IN FUTURE PROJECT BY OTHERS.

W ST FRANCIS STREET WATER MAIN



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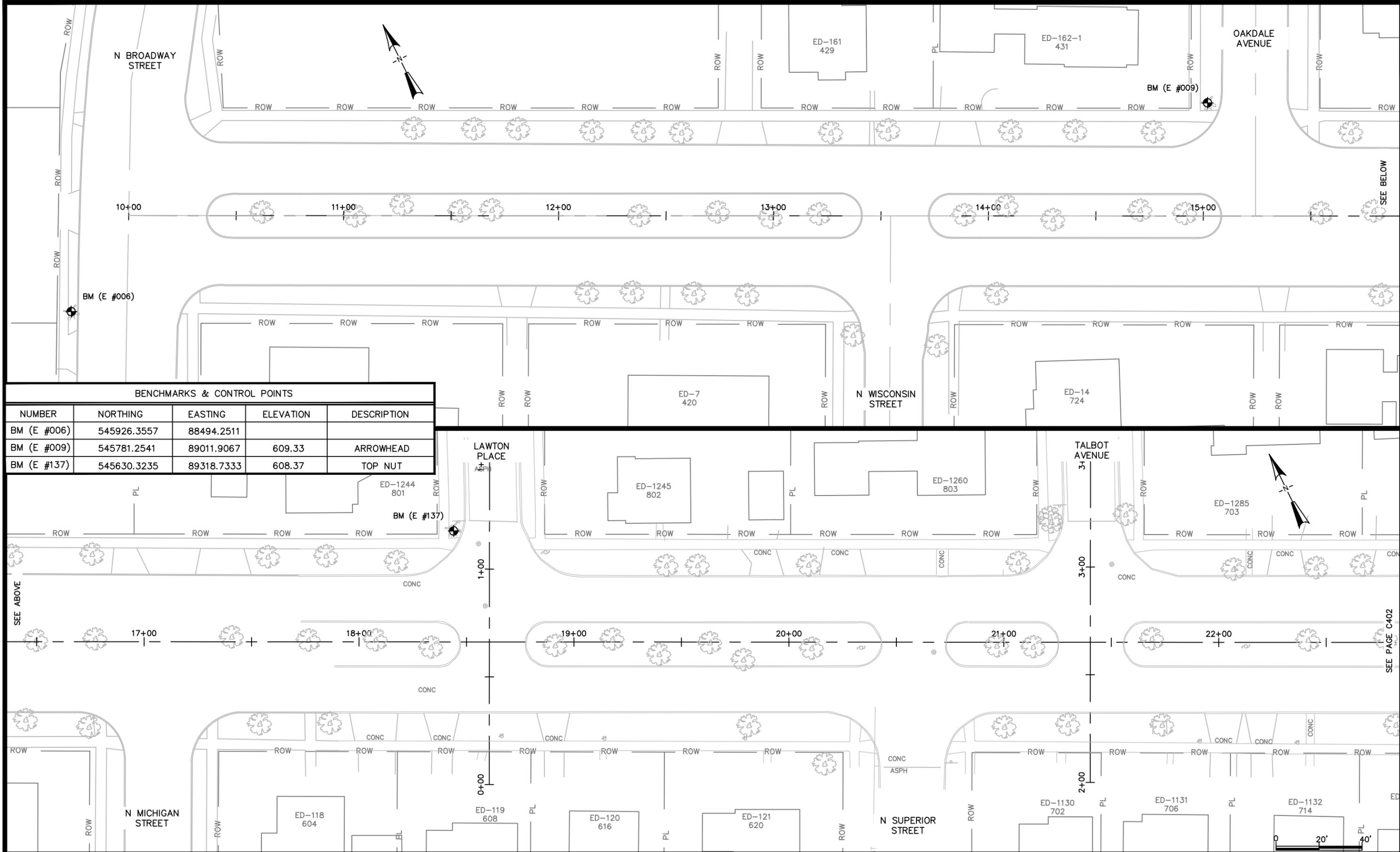
ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115
OFFICE 920-339-4061 FAX 920-339-4071

**EAST/WEST ST FRANCIS STREET
AT RIDGEWAY BOULEVARD**

NAME: SEWER & WATER RELAY AND STREET RESURFACING
PROJECT # 21-01

	BY	DATE	REVISIONS / ISSUES		
			NO.	DATE	REMARKS
SURVEYED	JML	08-2019			
DRAWN	MAL	12-2020			
DESIGNED	MAL	12-2020			
CHECKED	CKK	12-2020			

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BENCHMARKS & CONTROL POINTS

NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
BM (E #006)	545926.3557	88494.2511		
BM (E #009)	545781.2541	89011.9067	609.33	ARROWHEAD
BM (E #137)	545630.3235	89318.7333	608.37	TOP NUT

SEE ABOVE

SEE PAGE C402



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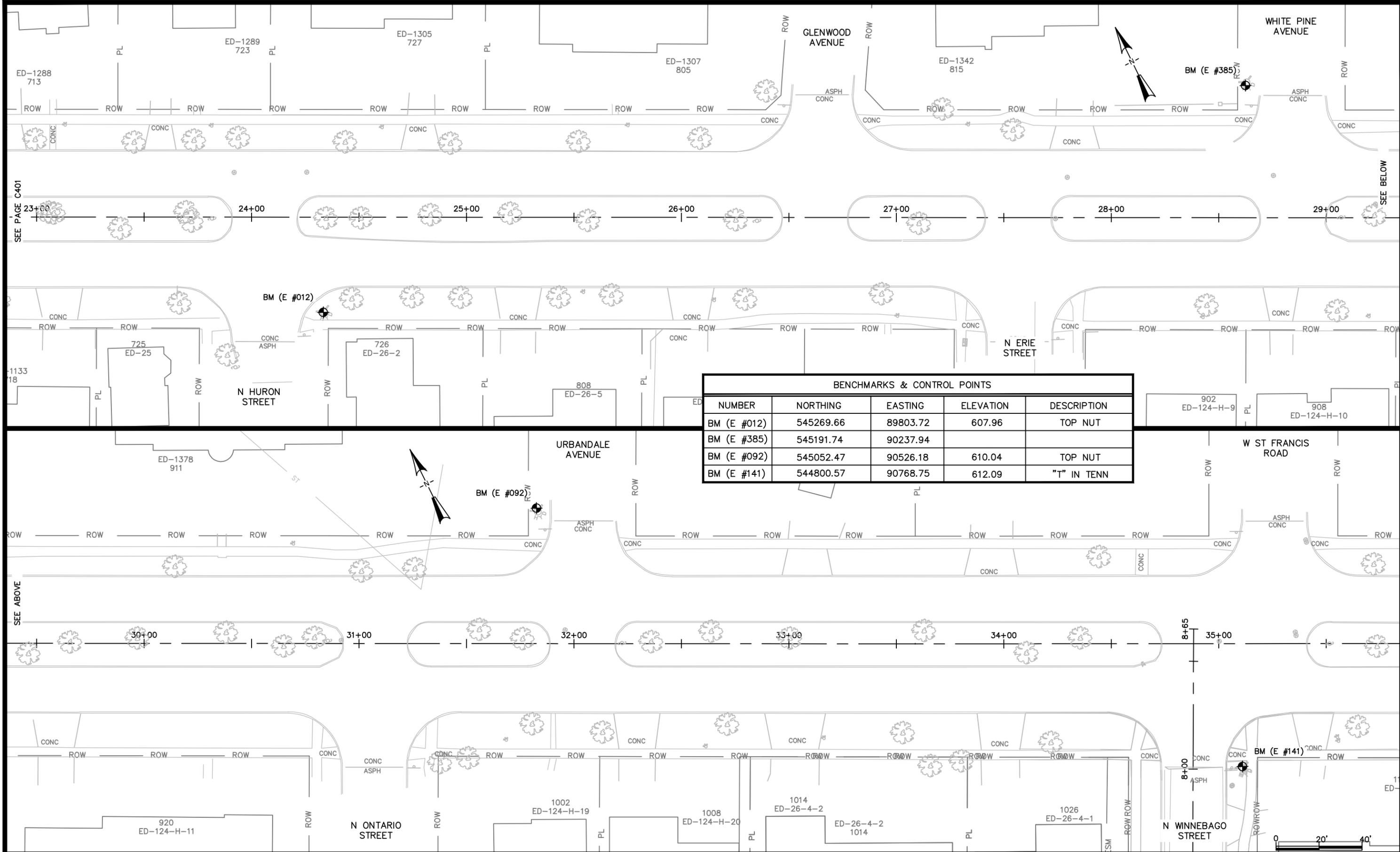
**RIDGEWAY BOULEVARD
N BROADWAY STREET TO TALBOT AVENUE**

NAME: SEWER & WATER RELAY AND STREET RESURFACING
PROJECT # 21-01

	BY	DATE
SURVEYED		
DRAWN	MAL	12-2020
DESIGNED	MAL	12-2020
CHECKED	CKK	12-2020

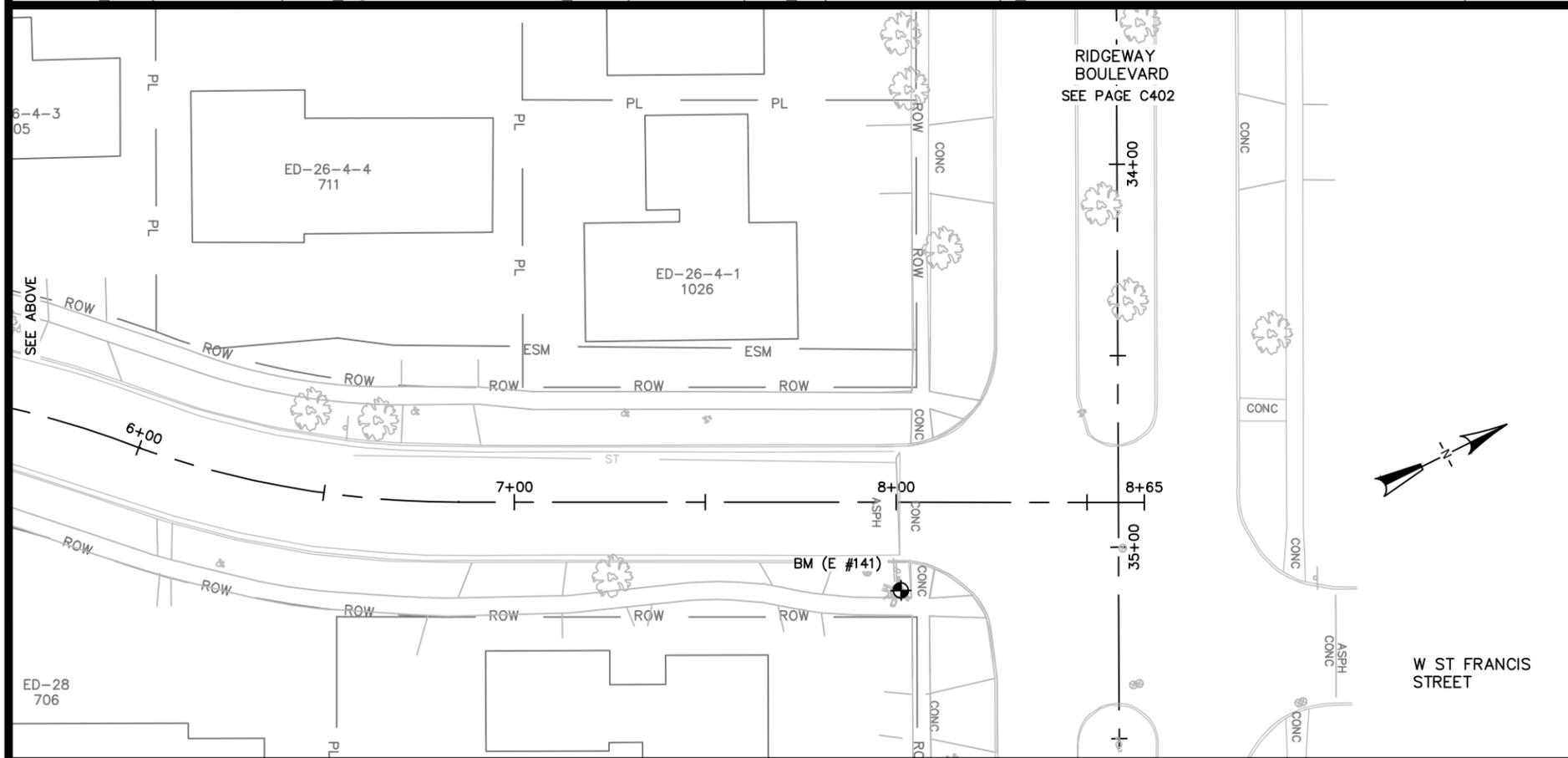
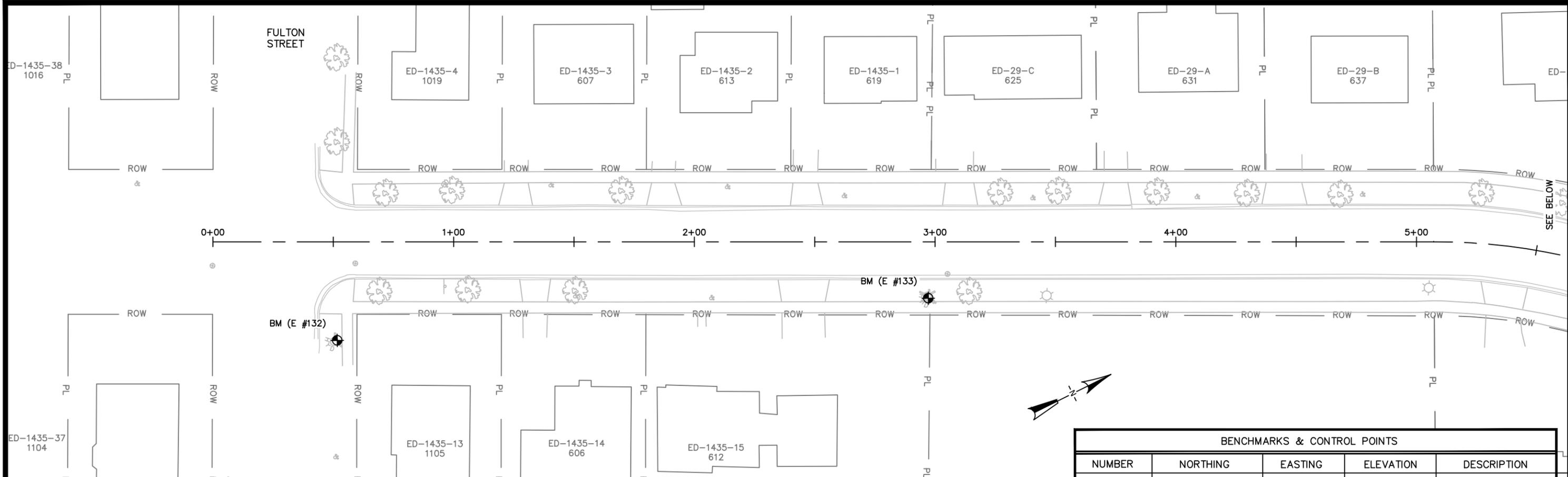
REVISIONS / ISSUES		
NO.	DATE	REMARKS

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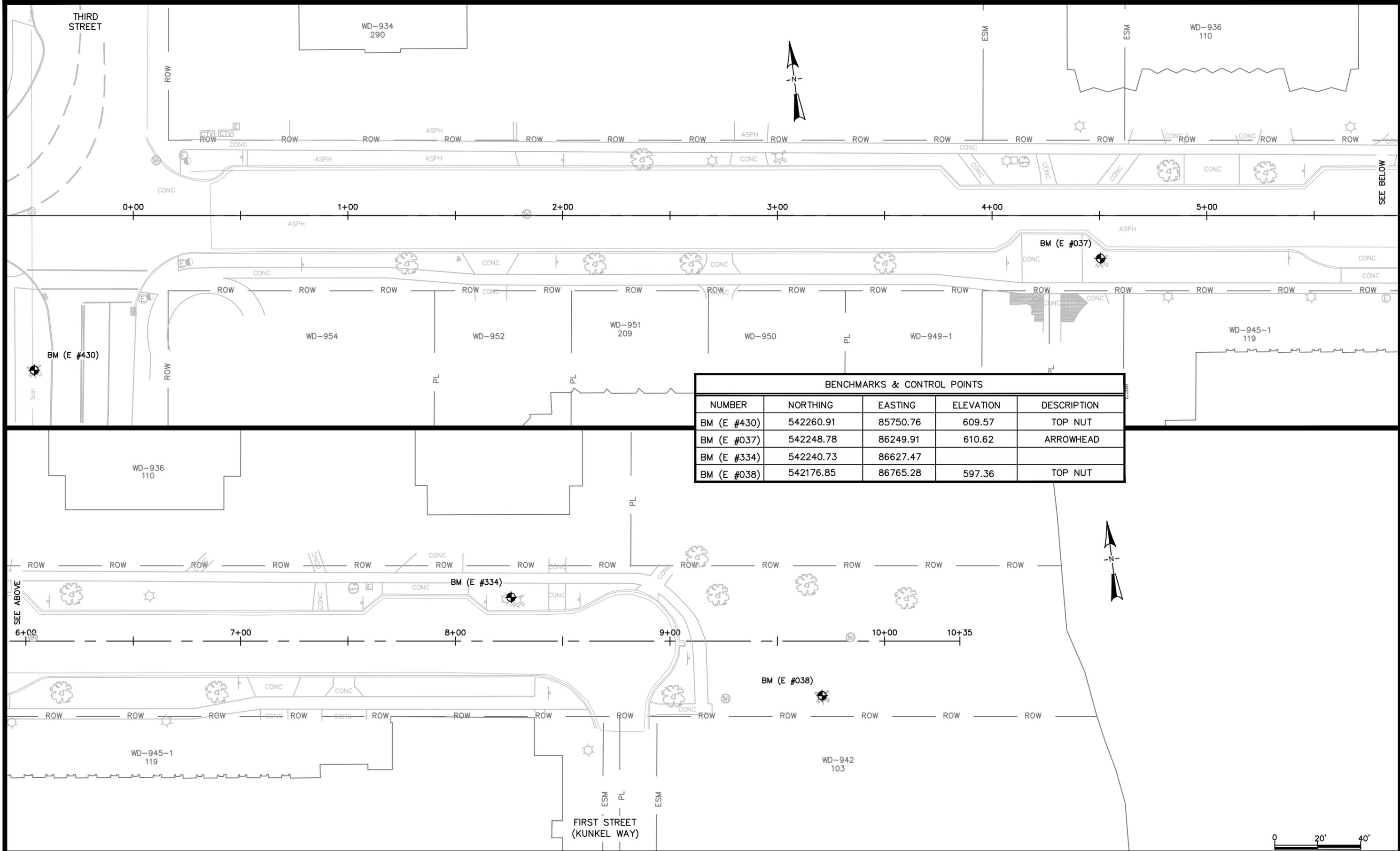
BENCHMARKS & CONTROL POINTS				
NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
BM (E #012)	545269.66	89803.72	607.96	TOP NUT
BM (E #385)	545191.74	90237.94		
BM (E #092)	545052.47	90526.18	610.04	TOP NUT
BM (E #141)	544800.57	90768.75	612.09	"T" IN TENN

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BENCHMARKS & CONTROL POINTS				
NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
BM (E #132)	544137.27	90427.34	615.10	ARROWHEAD
BM (E #133)	544365.31	90520.16		
BM (E #141)	544800.57	90768.75	612.09	"T" IN TENN

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BENCHMARKS & CONTROL POINTS				
NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
BM (E #430)	542260.91	85750.76	609.57	TOP NUT
BM (E #037)	542248.78	86249.91	610.62	ARROWHEAD
BM (E #334)	542240.73	86627.47		
BM (E #038)	542176.85	86765.28	597.36	TOP NUT



CITY OF DE PERE

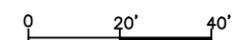
ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115
OFFICE 920-339-4061 FAX 920-339-4071

**REID STREET
THIRD STREET TO FIRST STREET**

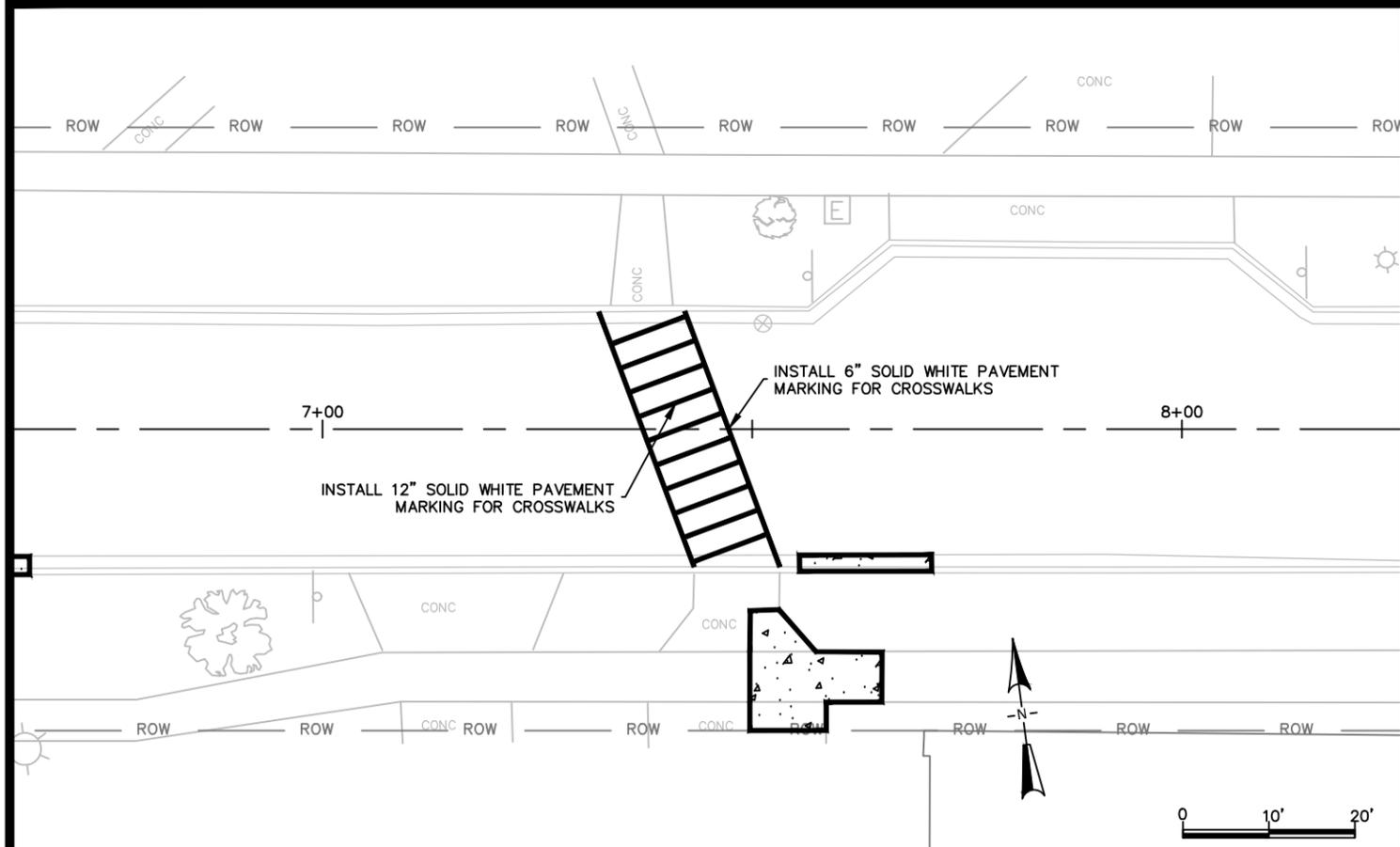
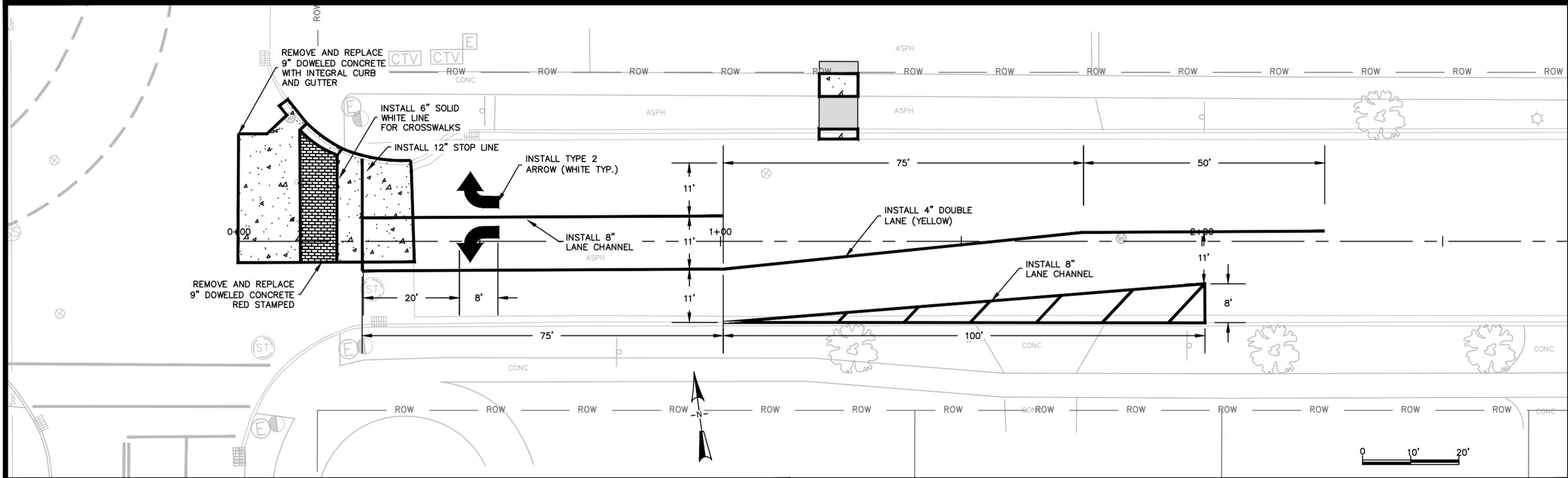
NAME: SEWER & WATER RELAY AND STREET RESURFACING
PROJECT # 21-01

	BY	DATE
SURVEYED		
DRAWN	MAL	12-2020
DESIGNED	MAL	12-2020
CHECKED	CKK	12-2020

REVISIONS / ISSUES		
NO.	DATE	REMARKS



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PAVEMENT MARKING QUANTITIES		
MARKING TYPE	0+00 - 2+25	7+30 - 7+50
12" STOP BAR/CROSSWALK (WHITE)	23 LF	93 LF
8" LANE CHANNEL/TAPER (WHITE)	325 LF	
6" SOLID CROSS WALK (WHITE)	50 LF	64 LF
4" DOUBLE (YELLOW)	200 LF	
TYPE 2 TURN ARROW (WHITE)	2 EACH	



CITY OF DE PERE

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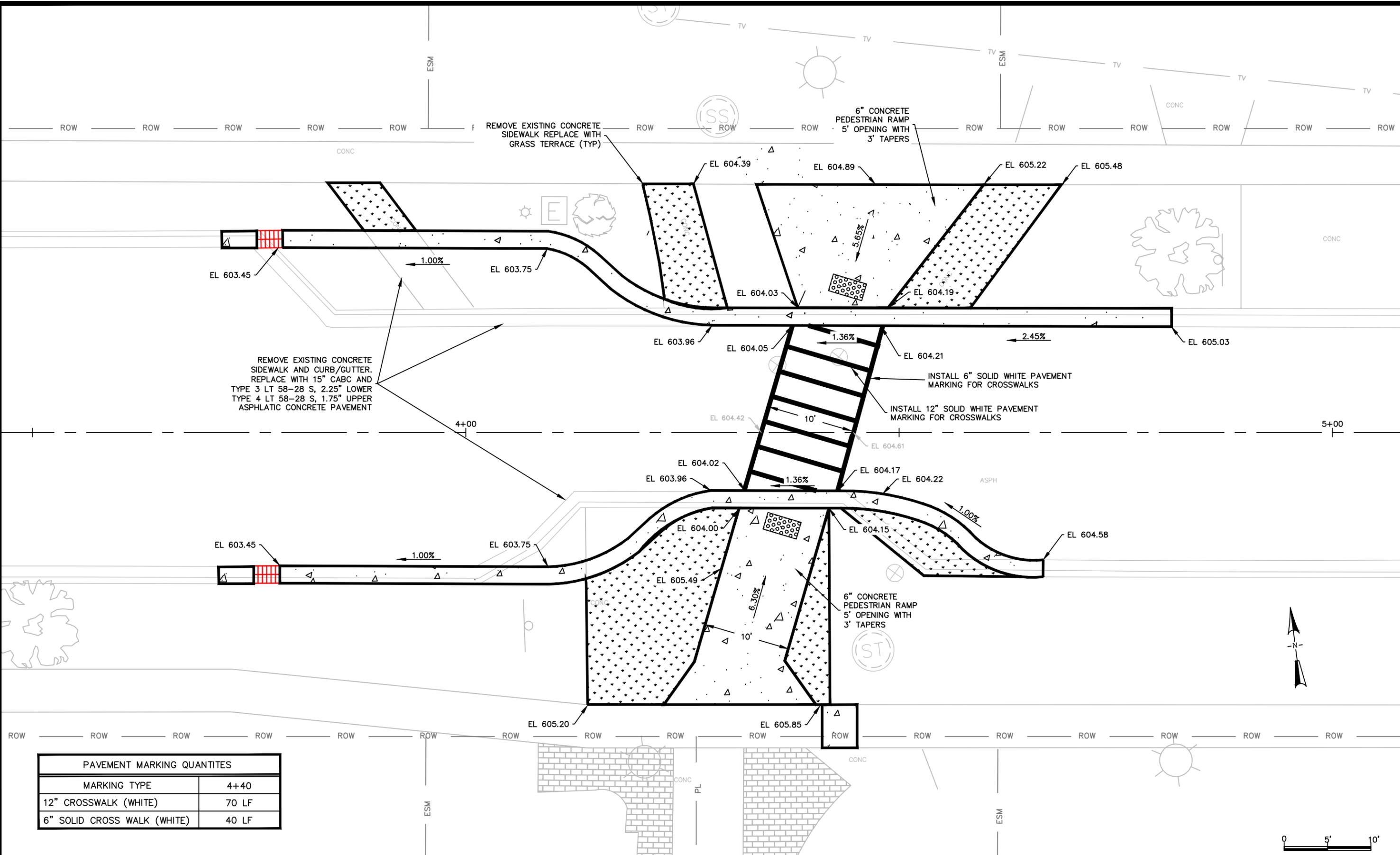
REID STREET

PEDESTRIAN BUMPOUT & PAVEMENT MARKINGS

NAME: SEWER AND WATER RELAY AND STREET RESURFACING
PROJECT # 21-01

	BY	DATE
SURVEYED	MAL	03-2020
DRAWN	MAL	12-2020
DESIGNED	MAL	12-2020
CHECKED	CKK	03-2020

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NO.	DATE	BY	REMARKS



REMOVE EXISTING CONCRETE SIDEWALK AND CURB/GUTTER. REPLACE WITH 15" CABC AND TYPE 3 LT 58-28 S, 2.25" LOWER TYPE 4 LT 58-28 S, 1.75" UPPER ASPHLATIC CONCRETE PAVEMENT

REMOVE EXISTING CONCRETE SIDEWALK REPLACE WITH GRASS TERRACE (TYP)

6" CONCRETE PEDESTRIAN RAMP 5' OPENING WITH 3' TAPERS

INSTALL 6" SOLID WHITE PAVEMENT MARKING FOR CROSSWALKS

INSTALL 12" SOLID WHITE PAVEMENT MARKING FOR CROSSWALKS

6" CONCRETE PEDESTRIAN RAMP 5' OPENING WITH 3' TAPERS

PAVEMENT MARKING QUANTITIES	
MARKING TYPE	4+40
12" CROSSWALK (WHITE)	70 LF
6" SOLID CROSS WALK (WHITE)	40 LF



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LEGEND

- ⇐ TYPE 3 BARRICADE
- 28" TUBULAR MARKER
- 28" TUBULAR MARKER WITH LIGHTS

NOTE:

PLAN SHOWN WITH TRAFFIC SHIFTED TO THE NORTH. A SECOND PHASE WITH TRAFFIC SHIFTED TO THE SOUTH WILL BE REQUIRED.



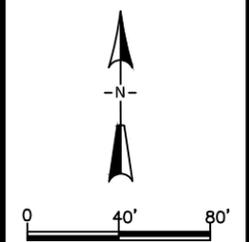
CITY OF DE PERE

ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115
OFFICE 920-339-4061 FAX 920-339-4071

**RIDGEWAY BOULEVARD
LAWTON PLACE AND N. ERIE STREET
TRAFFIC CONTROL**

NAME: SEWER & WATER RELAY AND STREET RESURFACING
PROJECT # 21-01

	BY	DATE	REVISIONS / ISSUES	
			NO.	DATE
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DRAWN	MAL	03-2021		
DESIGNED	MAL	03-2021		
CHECKED	CKK	03-2021		



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LEGEND

- ← TYPE 3 BARRICADE
- 28" TUBULAR MARKER
- 28" TUBULAR MARKER WITH LIGHTS

NOTE:

PLAN SHOWN WITH TRAFFIC SHIFTED TO THE NORTH. A SECOND PHASE WITH TRAFFIC SHIFTED TO THE SOUTH WILL BE REQUIRED.



CITY OF DE PERE

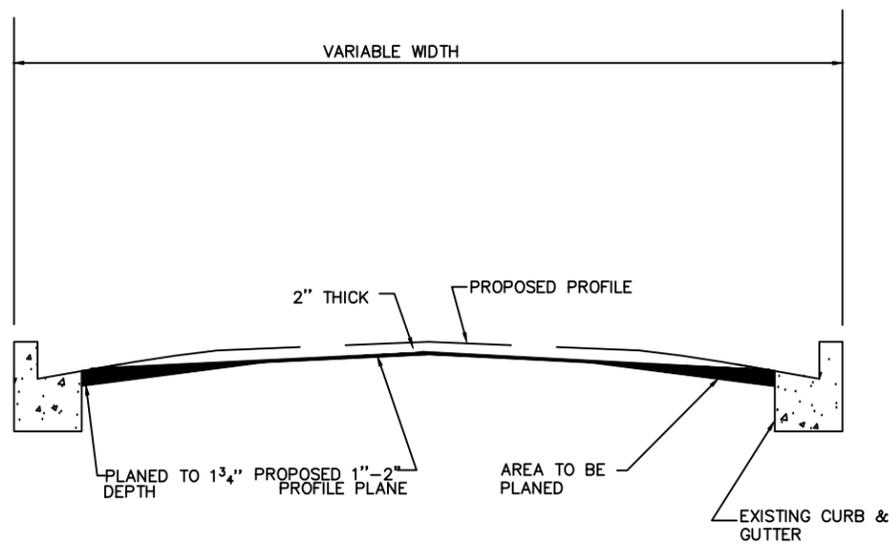
ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115
OFFICE 920-339-4061 FAX 920-339-4071

**RIDGEWAY BOULEVARD
N. ERIE STREET AND W ST FRANCIS STREET
TRAFFIC CONTROL**

NAME: SEWER & WATER RELAY AND STREET RESURFACING
PROJECT # 21-01

	BY	DATE
SURVEYED		
DRAWN	MAL	03-2021
DESIGNED	MAL	03-2021
CHECKED	CKK	03-2021

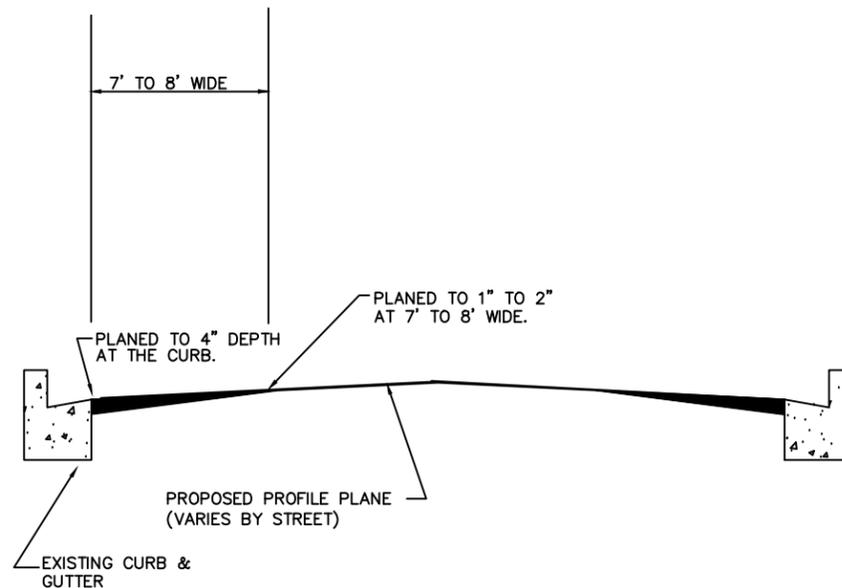
REVISIONS / ISSUES		
NO.	DATE	REMARKS



NOTES

1. EXISTING ASPHALT AT EDGE OF GUTTER SHALL BE PLANED TO A DEPTH OF 1 3/4" AND PLANED TO A DEPTH OF 1" FOR THE DESIRED CROSS-SLOPE. IN MOST CASES THE PROFILE PLANE WILL BE 1" UNIFORM DEPTH AS SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER.
2. MINIMUM THICKNESS OF OVERLAY SHALL BE 2" + 0.1" PLUS THE THICKNESS OF THE LEVELING COURSES.
3. LEVELING COURSES (SCRATCH COAT) OF ASPHALT TO A DEPTH AS REQUIRED SHALL BE PROVIDED IN AREAS OF LOCALIZED SETTLEMENT.
4. BITUMINOUS CONCRETE AGGREGATES USED IN OVERLAY WORK SHALL CONFORM TO GRADATION NO. 2, SURFACE COURSE.

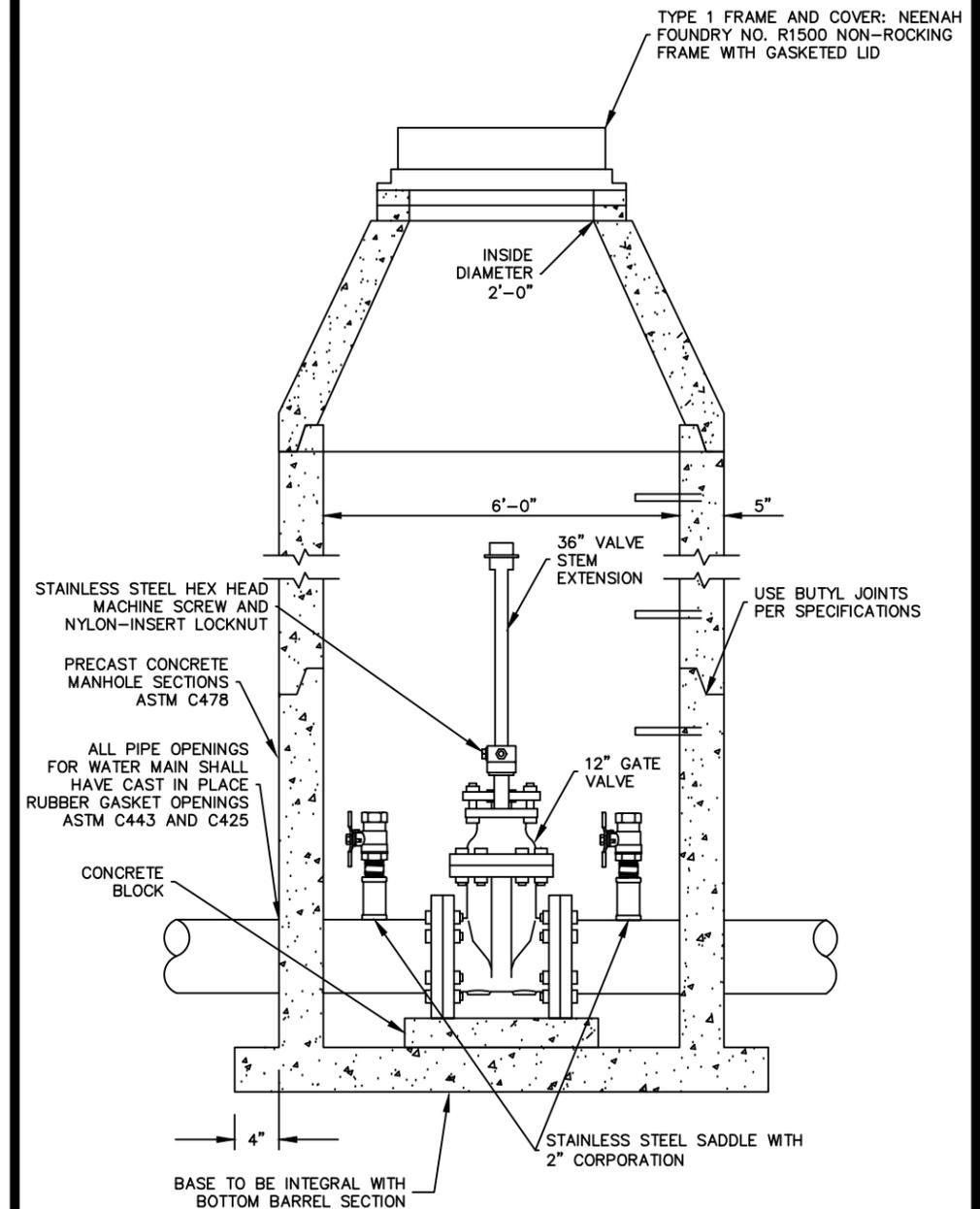
MILLING AND RESURFACING DETAIL



NOTES

1. EXISTING ASPHALT AT EDGE OF GUTTER SHALL BE PLANED TO A DEPTH OF 4" AND PLANED TO A DEPTH OF 1" TO 2" FOR THE DESIRED CROSS-SLOPE. IN MOST CASES THE PROFILE PLANE WILL BE 1" UNIFORM DEPTH AS SHOWN ON THE PLANS OR DIRECTED BY THE ENGINEER.
2. MINIMUM THICKNESS OF OVERLAY SHALL BE 2" + 0.1" PLUS THE THICKNESS OF THE LEVELING COURSES.
3. LEVELING COURSES (SCRATCH COAT) OF ASPHALT TO A DEPTH AS REQUIRED SHALL BE PROVIDED IN AREAS OF LOCALIZED SETTLEMENT.
4. BITUMINOUS CONCRETE AGGREGATES USED IN OVERLAY WORK SHALL CONFORM TO GRADATION NO. 2, SURFACE COURSE.

4" MILLING DETAIL



WATER VALVE MANHOLE EXHIBIT A



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OFFICE 920-339-4061 FAX 920-339-4071

**CITY OF DE PERE
STANDARD DETAIL**

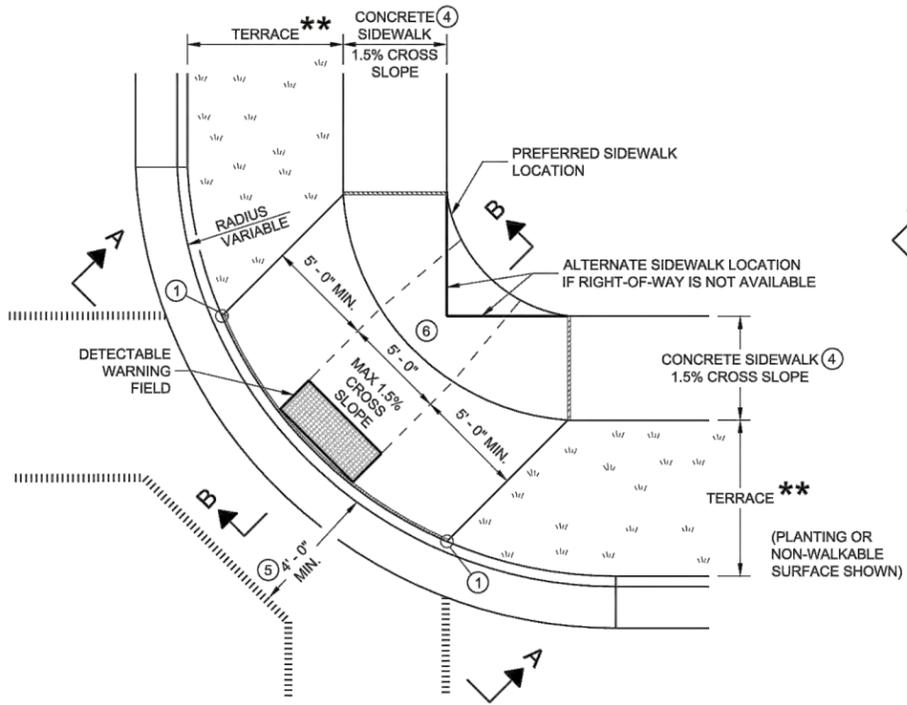
NAME:
SEWER & WATER RELAY AND
STREET RESURFACING
PROJECT # 21-01

	BY	DATE
SURVEYED		
DRAWN	MAL	10-2020
DESIGNED	MAL	10-2020
CHECKED	CKK	10-2020

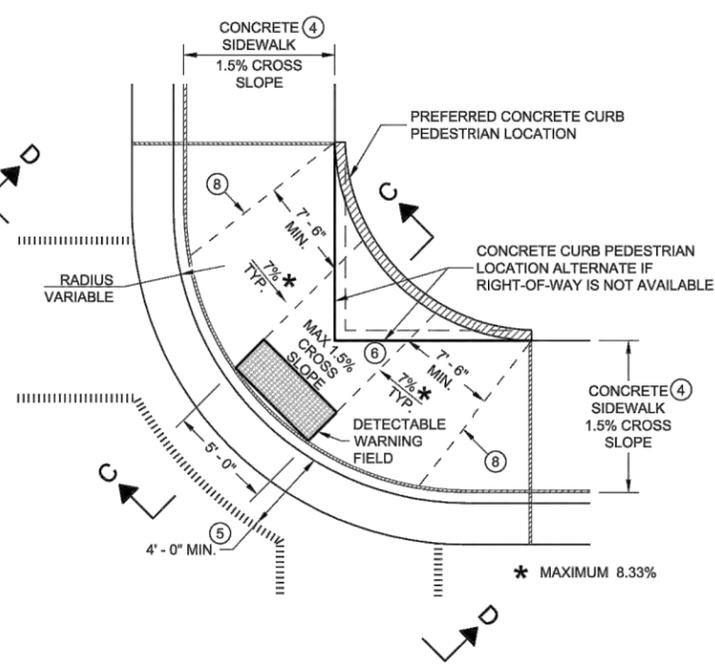
REVISIONS / ISSUES			
NO.	DATE	BY	REMARKS



SDD 08D05-a: Curb Ramps Types 1 and 1-A



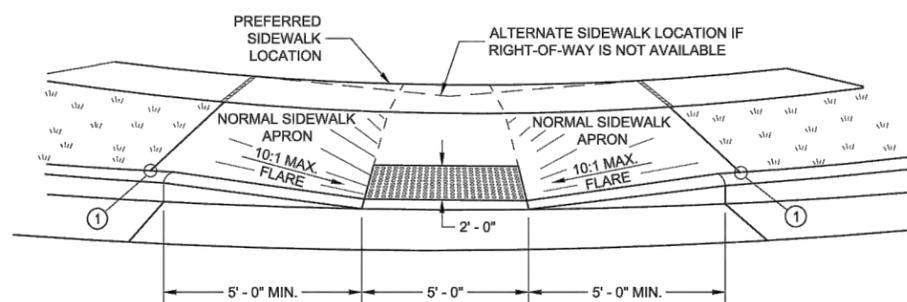
**PLAN VIEW
CURB RAMP TYPE 1
(CENTER OF CORNER RADIUS)**



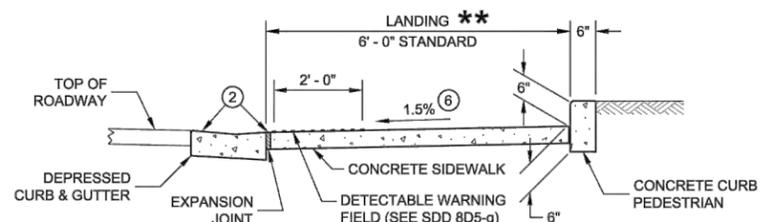
**PLAN VIEW
CURB RAMP TYPE 1 - A
(NO TERRACE)**

GENERAL NOTES

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.
- TYPE 1 CURB RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.
- DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAR FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.
- SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD"
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.
- ① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4" INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ MAXIMUM 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑤ PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.



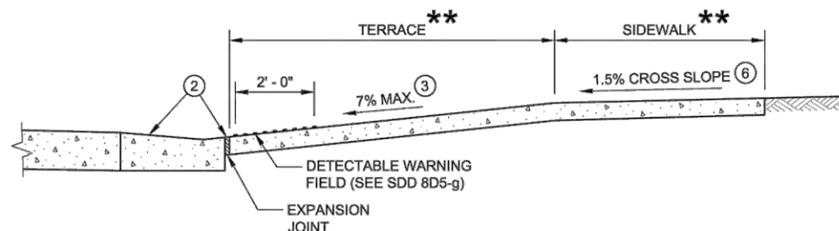
VIEW A - A FOR TYPE 1



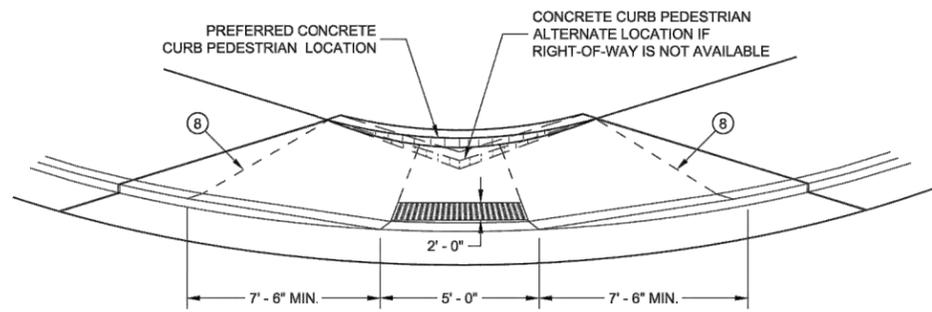
SECTION C - C FOR TYPE 1 - A

LEGEND

- 1/2" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)



SECTION B - B FOR TYPE 1



VIEW D - D FOR TYPE 1 - A

** WIDTH SHOWN ELSEWHERE IN THE PLANS

**CURB RAMPS
TYPE 1 AND 1-A**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D05 - 20a

SDD 08D05 - 20a



CITY OF DE PERE

ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115
OFFICE 920-339-4061 FAX 920-339-4071

CONSTRUCTION DETAILS CURB RAMPS

NAME: SEWER AND WATER RELAY AND STREET RESURFACING
PROJECT # 21-01

	BY	DATE
SURVEYED		
DRAWN	MAL	01-2021
DESIGNED	MAL	01-2021
CHECKED	CKK	01-2021

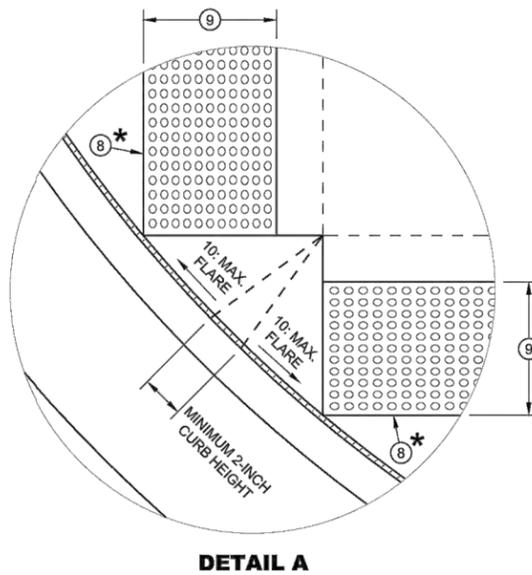
REVISIONS / ISSUES		
NO.	DATE	REMARKS

PAGE NO.
C502

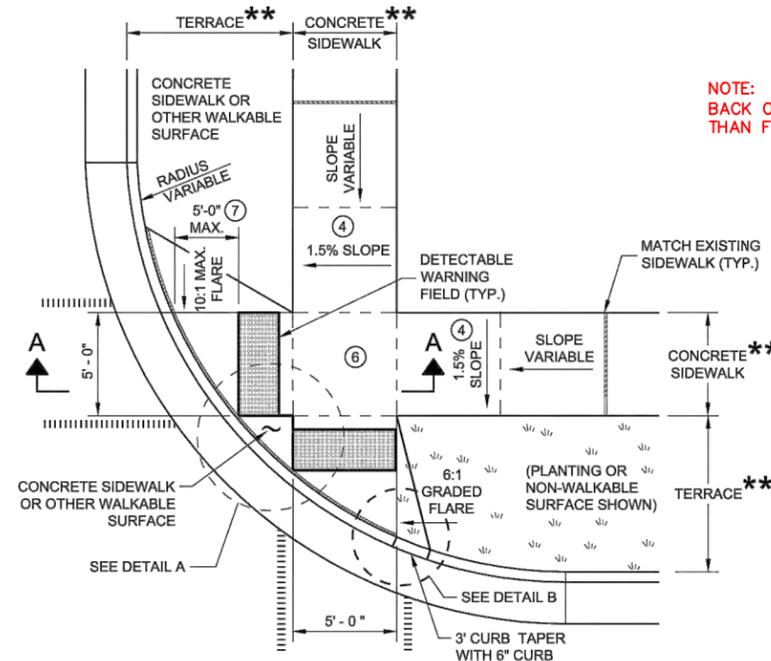
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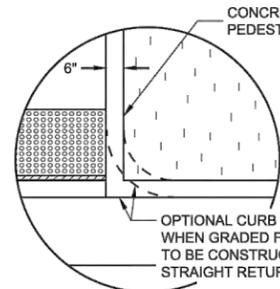
SDD 08D05-b Curb Ramps Types 2 and 3



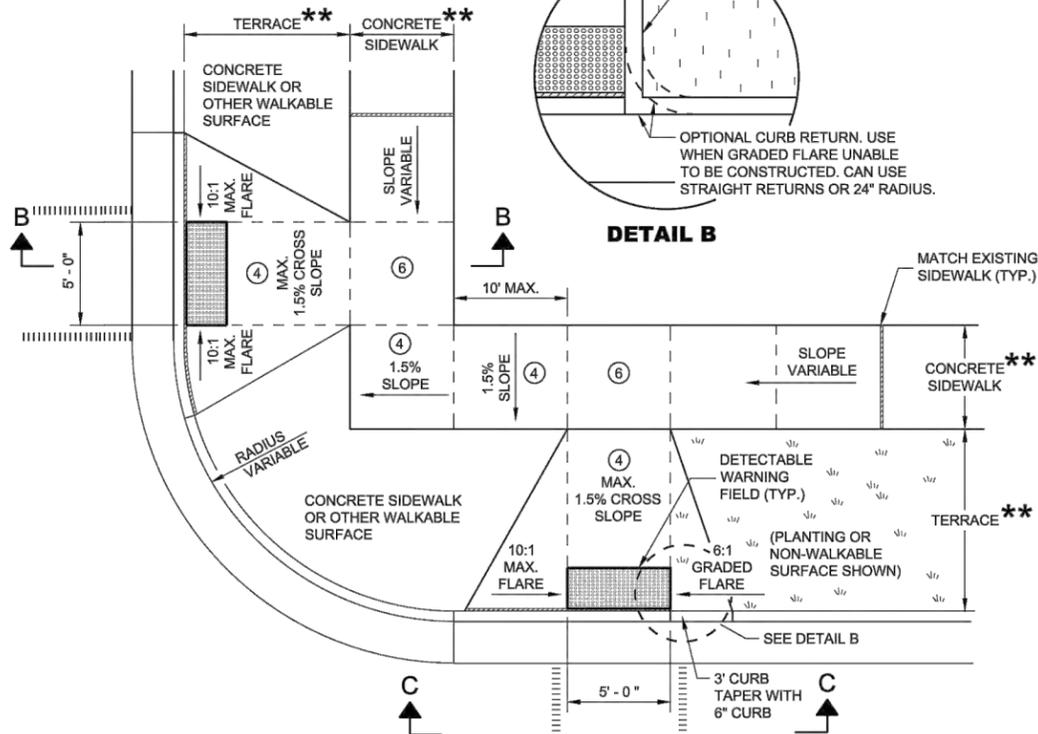
DETAIL A



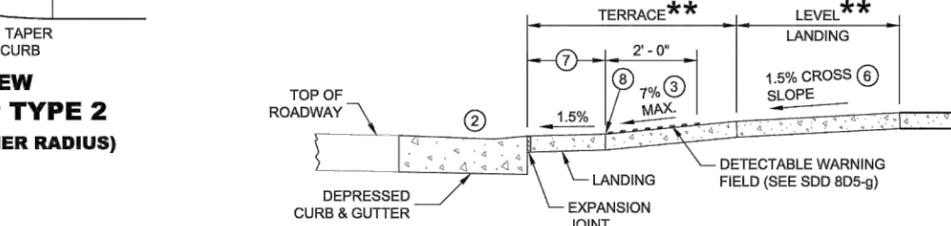
**PLAN VIEW
CURB RAMP TYPE 2
(CENTER OF CORNER RADIUS)**



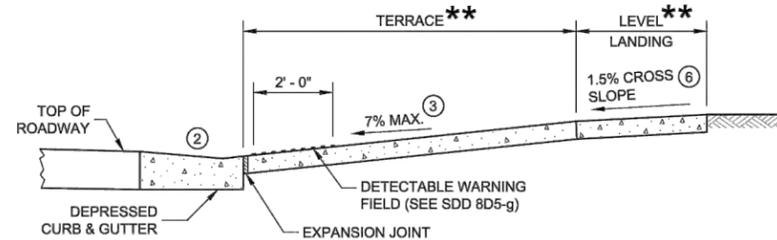
DETAIL B



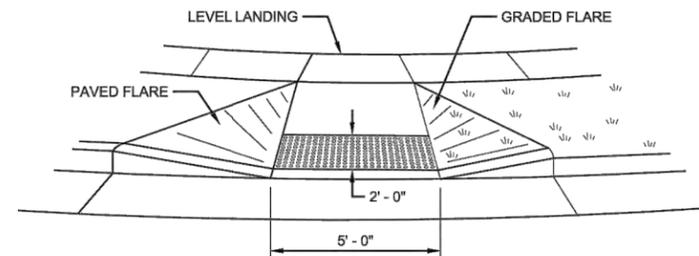
**PLAN VIEW
CURB RAMP TYPE 3
(OUTSIDE OF CROSSWALK AREA)**



SECTION A - A FOR TYPE 2



SECTION B - B FOR TYPE 3



VIEW C - C FOR TYPE 3

GENERAL NOTES

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF RAMP ACCESS AREAS.
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE SHALL BE FROM THE SAME MANUFACTURER.
- ② GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN 1/4" INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) AND NOT TO EXCEED 11% GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET X 5 FEET.
- ⑦ WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑨ WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.

NOTE:
BACK OF CURB IS 0.07' LOWER THAN FLANGE AT CURB RAMP

- * MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK
- ** WIDTH SHOWN ELSEWHERE IN THE PLANS

LEGEND

- 1/2" EXPANSION JOINT SIDEWALK
- - - CONTRACTION JOINT SIDEWALK
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)

STANDARD DETAIL MODIFIED

**CURB RAMPS
TYPE 2 AND 3**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D05 - 20b

SDD 08D05 - 20b



CITY OF DE PERE

ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115
OFFICE 920-339-4061 FAX 920-339-4071

**CONSTRUCTION DETAILS
CURB RAMPS**

NAME: SEWER AND WATER RELAY AND STREET RESURFACING
PROJECT # 21-01

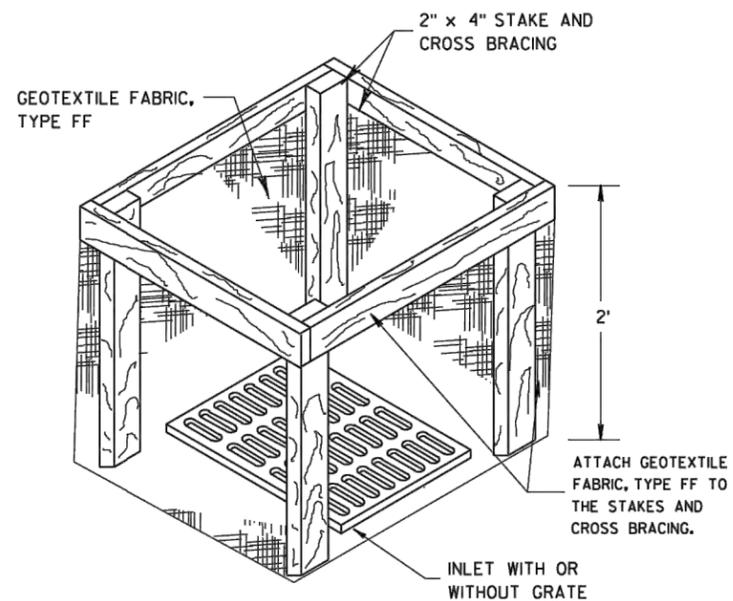
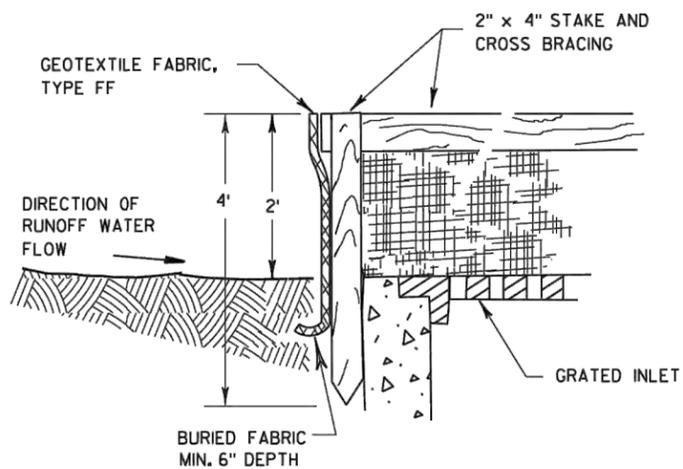
NO.	DATE	BY	REVISIONS / ISSUES
SURVEYED			
DRAWN	MAL	01-2021	
DESIGNED	MAL	01-2021	
CHECKED	CKK	01-2021	

NO.	DATE	BY	REVISIONS / ISSUES

PAGE NO. **C503**

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SDD 8e10 Inlet Protection Type A, B, C and D



INLET PROTECTION, TYPE A

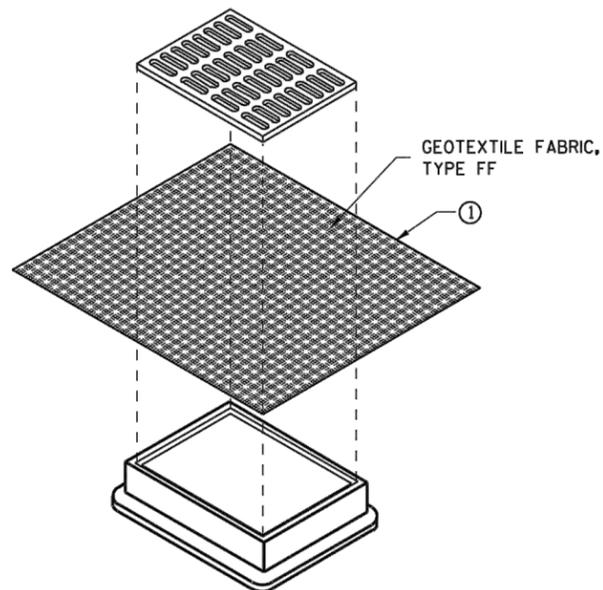
GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

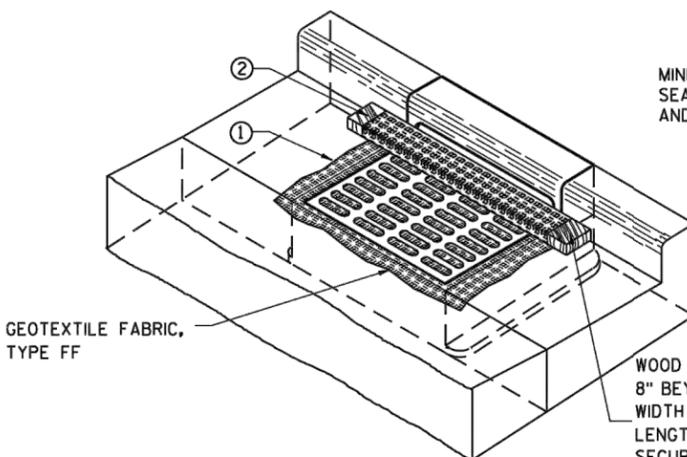
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- ① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- ② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
- ③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.



INLET PROTECTION, TYPE B (WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

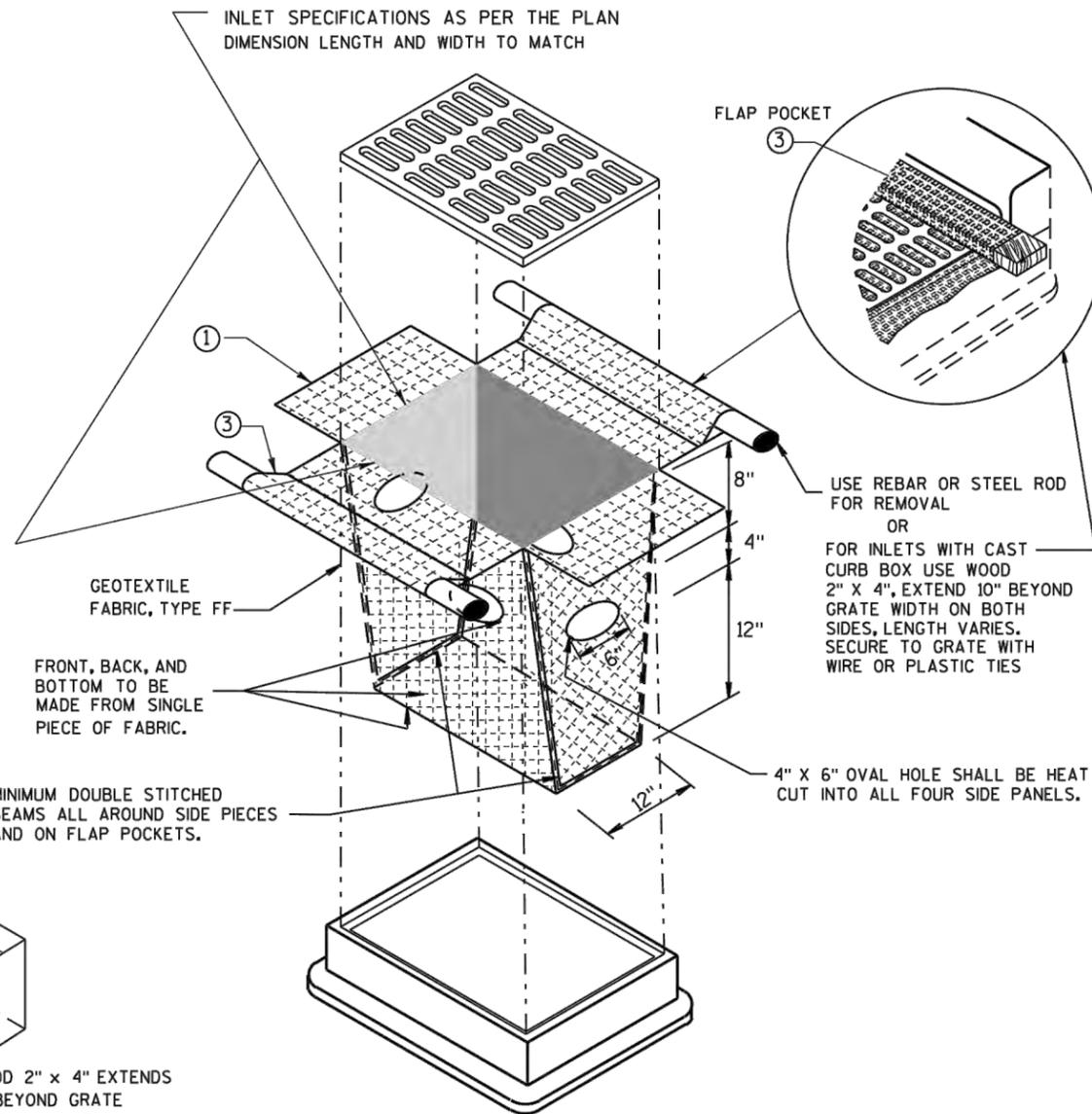
TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE. THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH OR WITHOUT A CURB BOX AS PER NOTE ②)

INLET PROTECTION TYPE A, B, C, AND D	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 10-16-02 DATE	/S/ Beth Connestra CHIEF ROADWAY DEVELOPMENT ENGINEER FHWA

6

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S.D.D. 8 E 10-2

S.D.D. 8 E 10-2



CITY OF DE PERE

ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115
OFFICE 920-339-4061 FAX 920-339-4071

**CONSTRUCTION DETAILS
INLET PROTECTION**

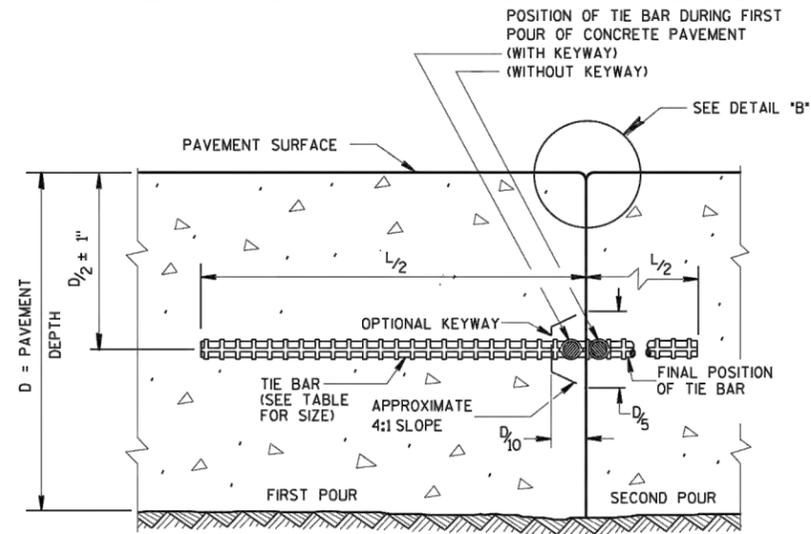
NAME: SEWER AND WATER RELAY AND STREET RESURFACING
PROJECT # 21-01

BY	DATE
SURVEYED	
DRAWN	MAL 01-2021
DESIGNED	MAL 01-2021
CHECKED	CKK 01-2021

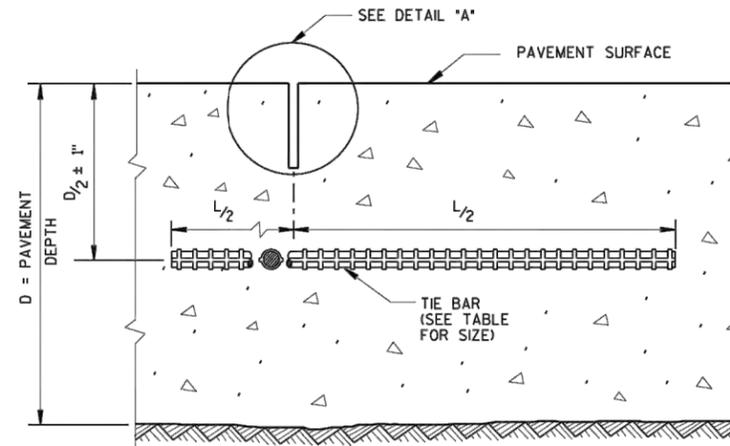
REVISIONS / ISSUES	
NO.	DATE BY REMARKS

PAGE NO. **C505**

SDD 13c1 Concrete Pavement Longitudinal Joints and Ties



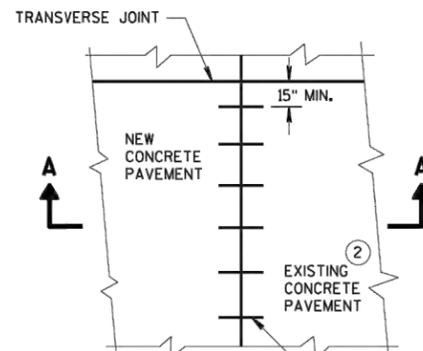
CONSTRUCTION JOINT



SAWED JOINT

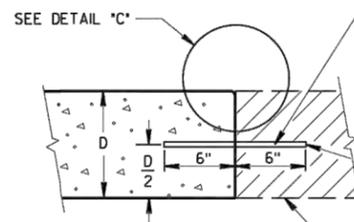
GENERAL NOTES

- CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.
- CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.
- ① ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.
- ② PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.



PLAN VIEW

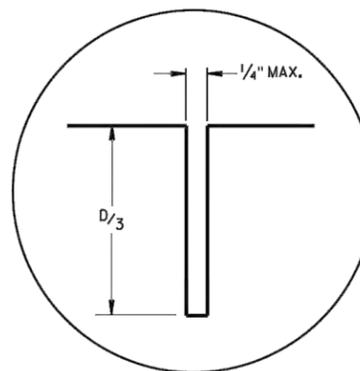
NO. 6 TIE BARS SPACED 30" C-C, INSTALLED PERPENDICULAR TO THE LONGITUDINAL JOINT. ①



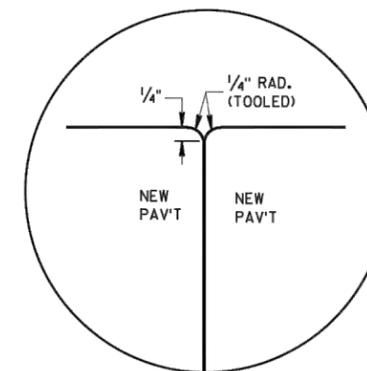
**SECTION A-A
LONGITUDINAL CONSTRUCTION JOINT
TIE BARS ANCHORED
INTO EXISTING PAVEMENT**

MAXIMUM DRILL HOLE SIZE IS 1/8" GREATER THAN TIE BAR DIAMETER

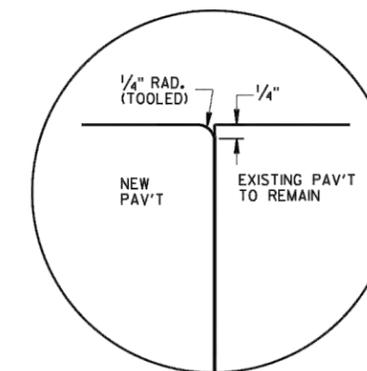
EXISTING CONCRETE PAVEMENT



DETAIL "A"



DETAIL "B"



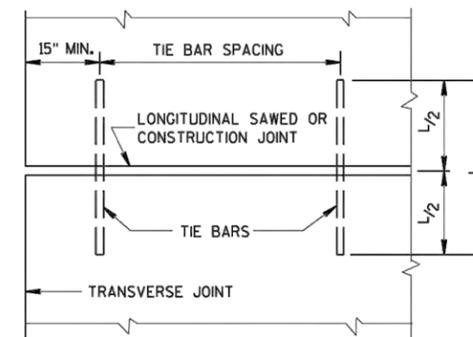
DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4*	30"	24"***

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

*** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



**PLAN VIEW
SHOWING LOCATION OF TIE BARS**

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED March 2018 DATE	/s/ Peter Kemp, P.E. PAVEMENT SUPERVISOR
FHWA	

6

6

S.D.D. 13 C 1-19

S.D.D. 13 C 1-19



CITY OF DE PERE

ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115
OFFICE 920-339-4061 FAX 920-339-4071

**CONSTRUCTION DETAILS
CONCRETE PAVEMENT**

NAME:
SEWER AND WATER RELAY
AND STREET RESURFACING
PROJECT # 21-01

BY	DATE
SURVEYED	
DRAWN	MAL 01-2021
DESIGNED	MAL 01-2021
CHECKED	CKK 01-2021

REVISIONS / ISSUES		
NO.	DATE	BY

PAGE NO.
C506

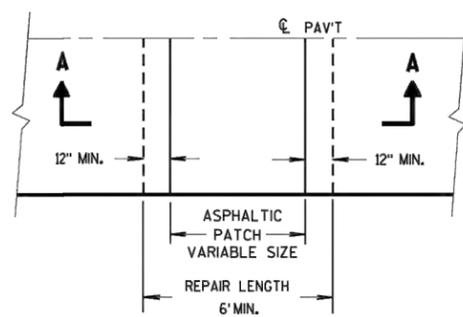
GENERAL NOTES

SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES.

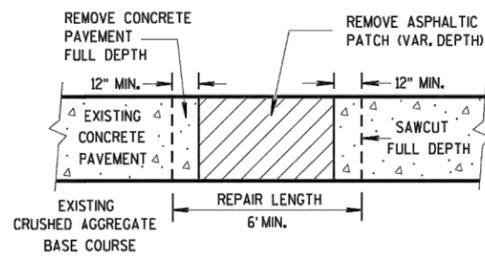
PROVIDE A 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK IN THE SAME LANE.

THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NONDOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

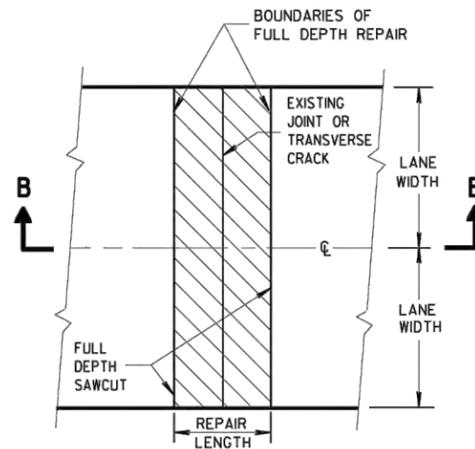
① DOWEL BARS MIGHT NOT EXIST.



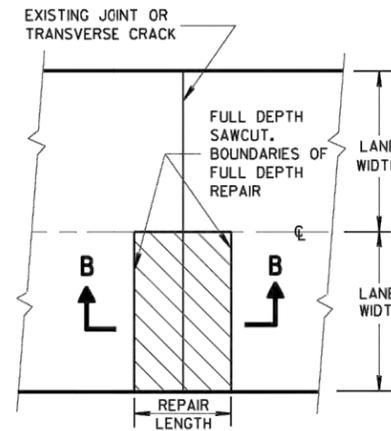
PLAN VIEW



**SECTION A-A
HMA PATCH REMOVAL**

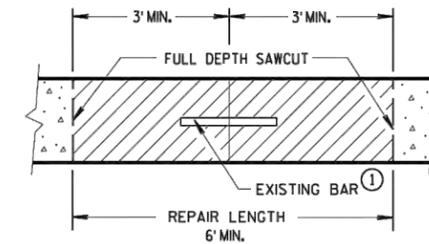


**PLAN VIEW
(DOUBLE LANE REPAIR)**



**PLAN VIEW
(SINGLE LANE REPAIR)**

FULL DEPTH CONCRETE PAVEMENT REMOVAL



**SECTION B-B
CONCRETE REMOVAL**

6

6

S.D.D. 13 C 9-15a

S.D.D. 13 C 9-15a

**CONCRETE PAVEMENT REPAIR
AND REPLACEMENT**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CITY OF DE PERE

ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115
OFFICE 920-339-4061 FAX 920-339-4071

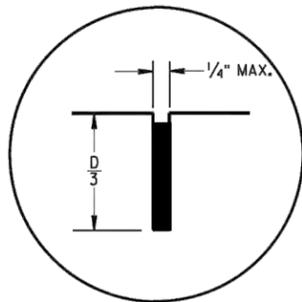
**CONSTRUCTION DETAILS
CONCRETE PAVEMENT**

NAME:
SEWER AND WATER RELAY
AND STREET RESURFACING
PROJECT # 21-01

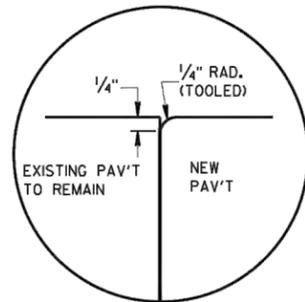
	BY	DATE	REVISIONS / ISSUES	
			NO.	DATE
SURVEYED				
DRAWN	MAL	01-2021		
DESIGNED	MAL	01-2021		
CHECKED	CKK	01-2021		

PAGE NO.
C507

SDD 13c9-b Concrete Pavement Repair and Replacement



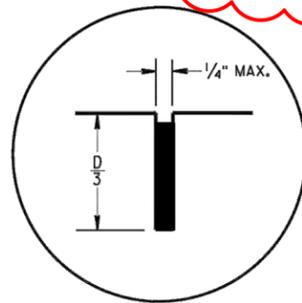
C1



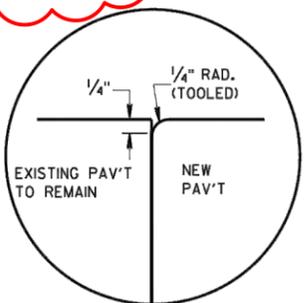
C2

TRANSVERSE JOINTS

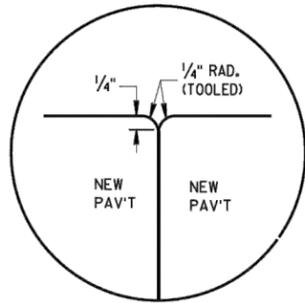
HOT POURED ELASTIC JOINT SEALER



L1



L2



L3

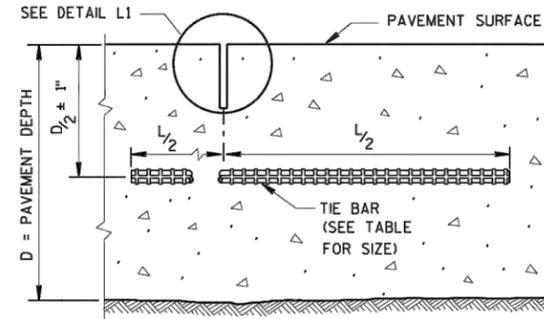
LONGITUDINAL JOINTS

HOT POURED ELASTIC JOINT SEALER

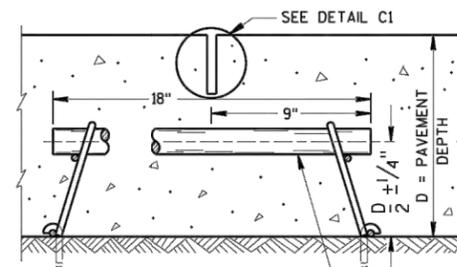
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4*	30"	24"**

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.



SECTION C-C
SAWED LONGITUDINAL JOINT



SECTION F-F
CONTRACTION JOINT

GENERAL NOTES

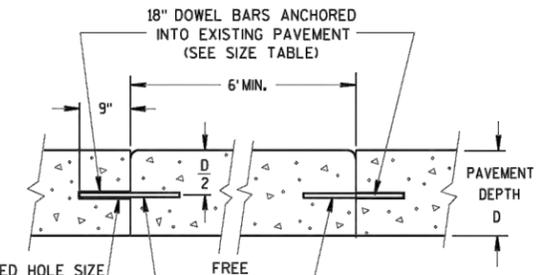
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

CONCRETE PAVEMENT REPAIRS OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

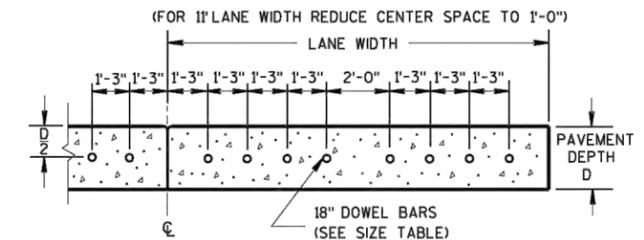
FOR MULTI-LANE CONCRETE PAVEMENT REPLACEMENTS, PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM ALL TRANSVERSE JOINTS OR EDGES OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

① APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.



MAXIMUM DRILLED HOLE SIZE IS 1/8" GREATER THAN DOWEL BAR DIAMETER

SECTION D-D



SECTION E-E
DRILLED DOWEL BAR CONSTRUCTION JOINT

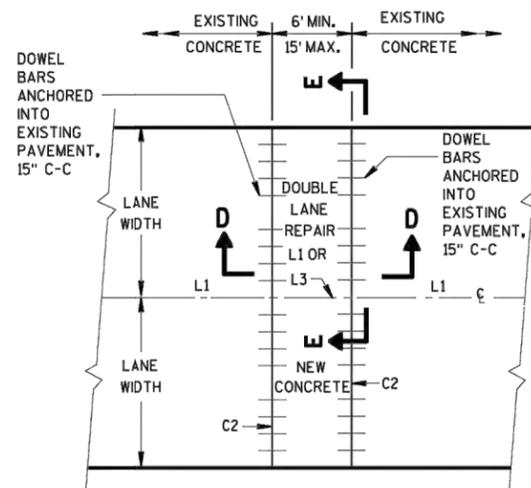
PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	DRILLED DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 1/2", 6", 6 1/2"	NONE	NONE	12'
7", 7 1/2"	1"	1"	14'
8", 8 1/2"	1 1/4"	1 1/4"	15'
9", 9 1/2"	1 1/4"	1 1/4"	15'
10" & ABOVE	1 1/2"	1 1/4"	15'

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

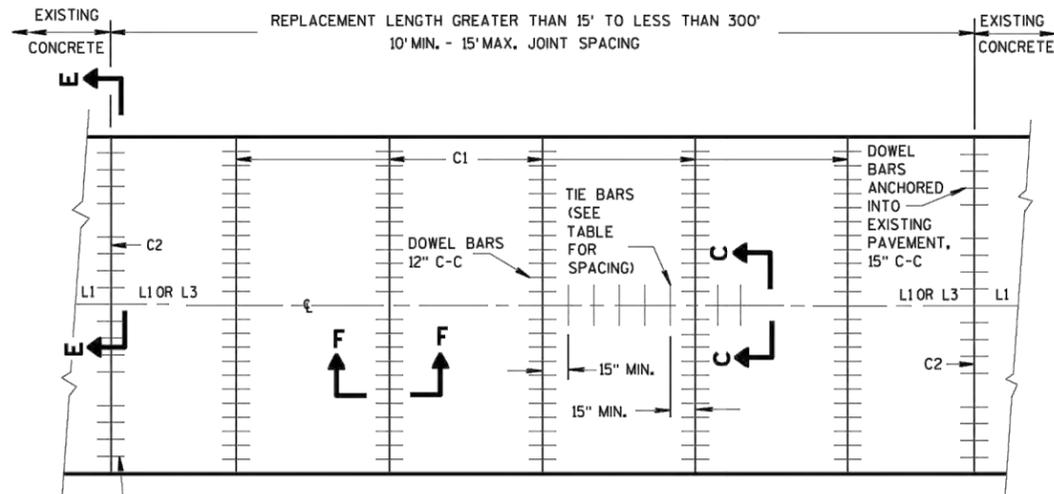
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STANDARD DETAIL MODIFIED



PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPLACEMENT

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S.D.D. 13 C 9-15b

S.D.D. 13 C 9-15b



CITY OF DE PERE

ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115
OFFICE 920-339-4061 FAX 920-339-4071

CONSTRUCTION DETAILS CONCRETE PAVEMENT

NAME:
SEWER AND WATER RELAY
AND STREET RESURFACING
PROJECT # 21-01

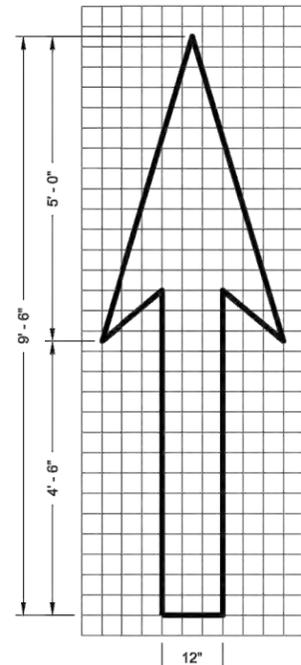
BY	DATE	NO.	DATE	REVISIONS / ISSUES
SURVEYED				
DRAWN	MAL	01-2021		
DESIGNED	MAL	01-2021		
CHECKED	CKK	01-2021		

REVISIONS / ISSUES	REMARKS

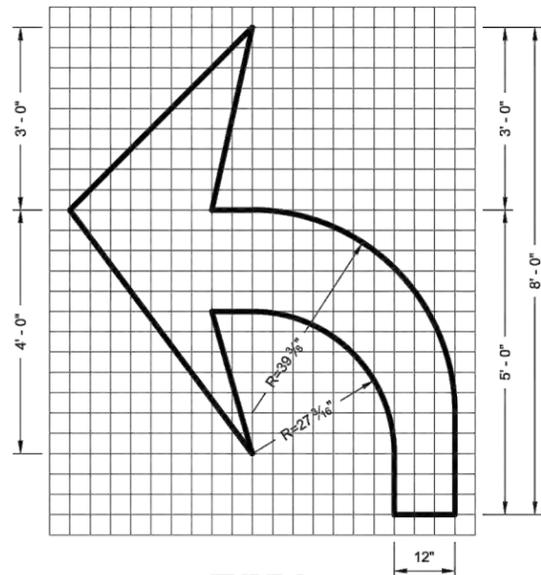
PAGE NO.
C508



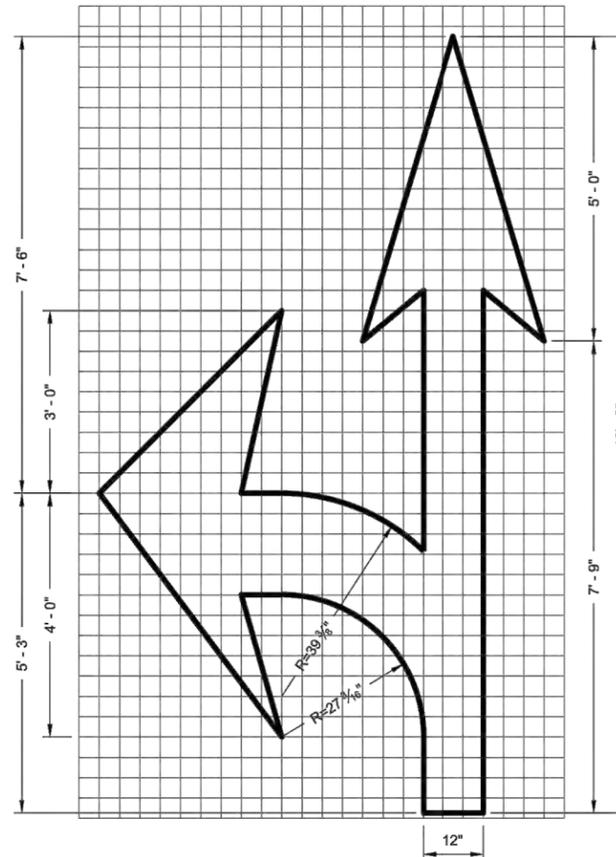
SDD 15C7-c Pavement Marking Arrows



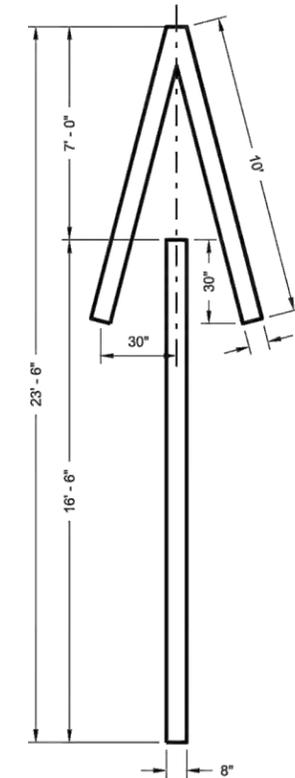
TYPE 1



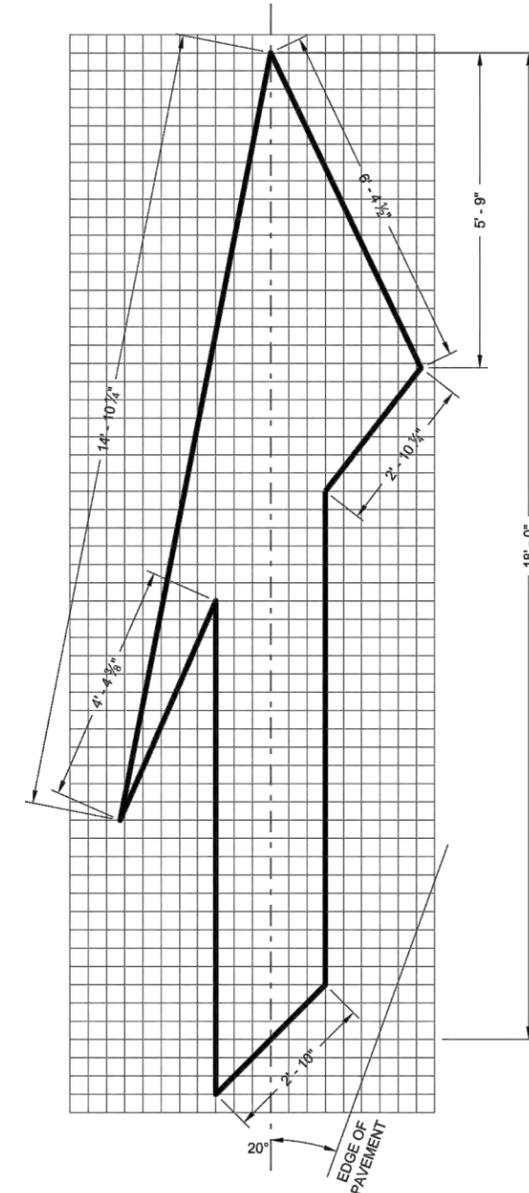
TYPE 2



TYPE 3



TYPE 4



TYPE 5 LANE DROP ARROW

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 /S/ Matthew Rauch
DATE STATE SIGNING AND MARKING
ENGINEER

FHWA

SDD 15C07 - 15C

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SDD 15C07 - 15C



CITY OF DE PERE

ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115
OFFICE 920-339-4061 FAX 920-339-4071

CONSTRUCTION DETAILS PAVEMENT MARKINGS

NAME:
SEWER AND WATER RELAY
AND STREET RESURFACING
PROJECT #
21-01

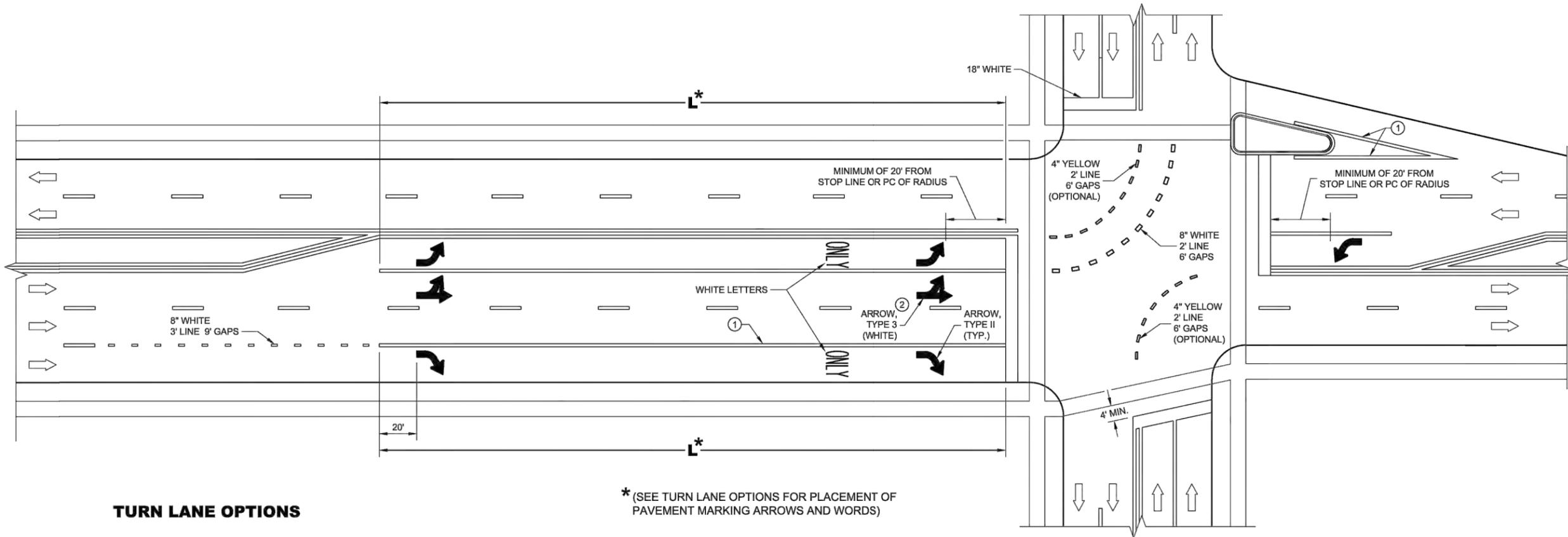
BY	DATE
SURVEYED	
DRAWN	MAL 01-2021
DESIGNED	MAL 01-2021
CHECKED	CKK 01-2021

REVISIONS / ISSUES	
NO.	DATE BY REMARKS

PAGE NO.
C509

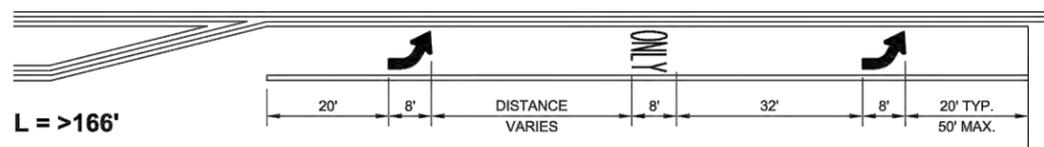
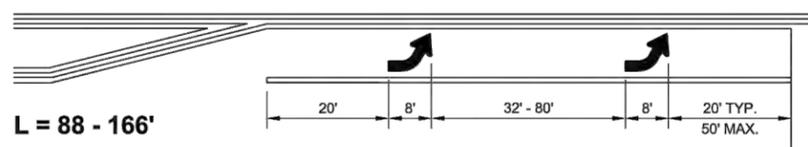
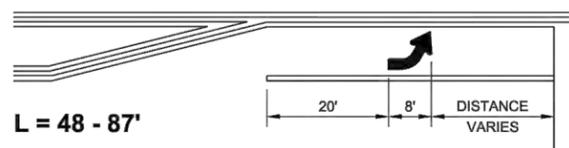


SDD 15C08-c Pavement Marking (Turn Lanes)



TURN LANE OPTIONS

LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



* (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

GENERAL NOTES

- ① 8" WHITE
- ② QUANTITY AND LOCATION OF TYPE 3 ARROWS ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION IN THE SAME DIRECTION OF TRAVEL, THE ARROWS AND "ONLY" MARKING MAY BE ELIMINATED.

→ DIRECTION OF TRAFFIC

L = LENGTH OF TURN BAY

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 15C08 - 20c

SDD 15C08 - 20c



CITY OF DE PERE

ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115
OFFICE 920-339-4061 FAX 920-339-4071

CONSTRUCTION DETAILS PAVEMENT MARKINGS

NAME:
SEWER AND WATER RELAY
AND STREET RESURFACING
PROJECT # 21-01

	BY	DATE
SURVEYED		
DRAWN	MAL	01-2021
DESIGNED	MAL	01-2021
CHECKED	CKK	01-2021

REVISIONS / ISSUES		
NO.	DATE	BY

PAGE NO.
C510

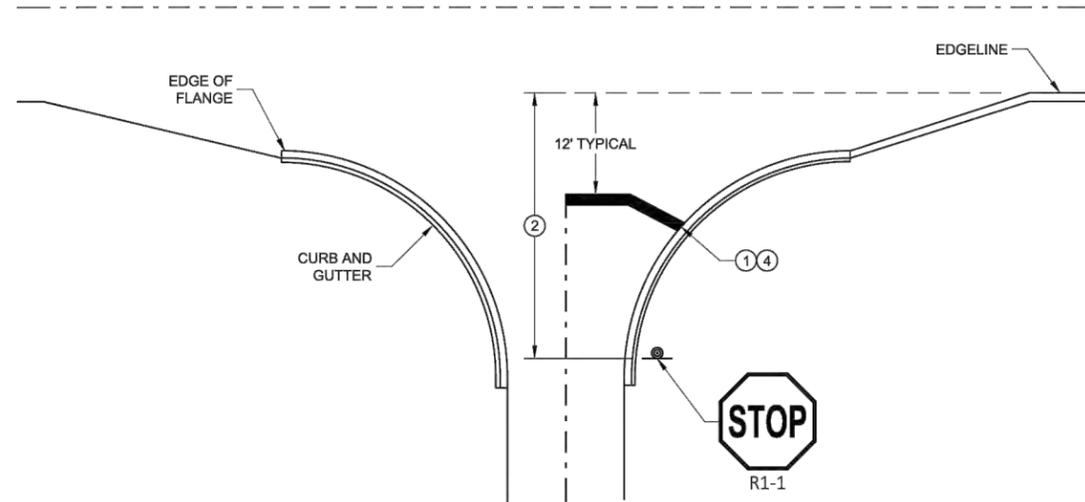


SDD 15C33 Stop Line and Crosswalk Pavement Marking

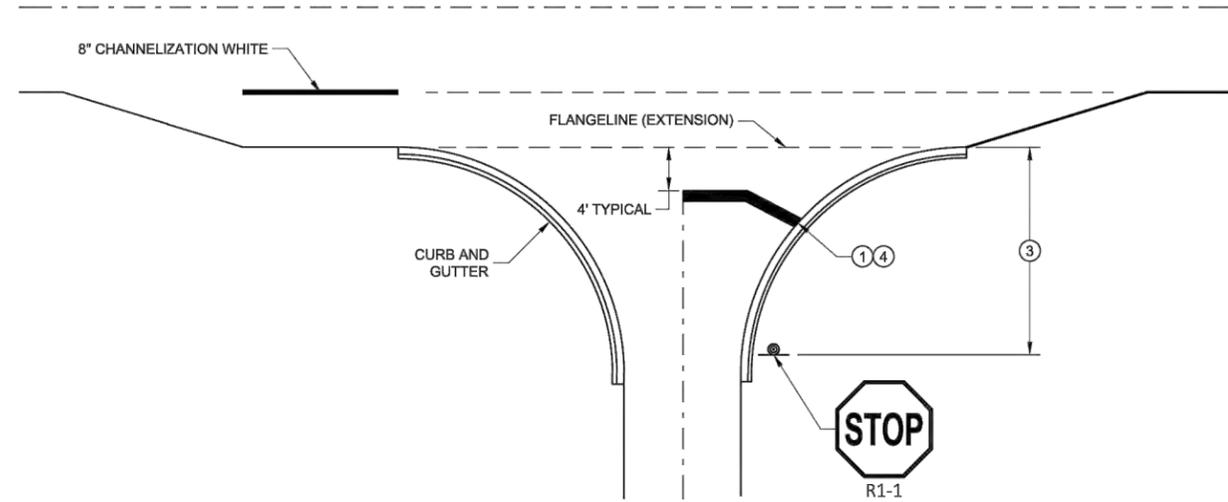
GENERAL NOTES

STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

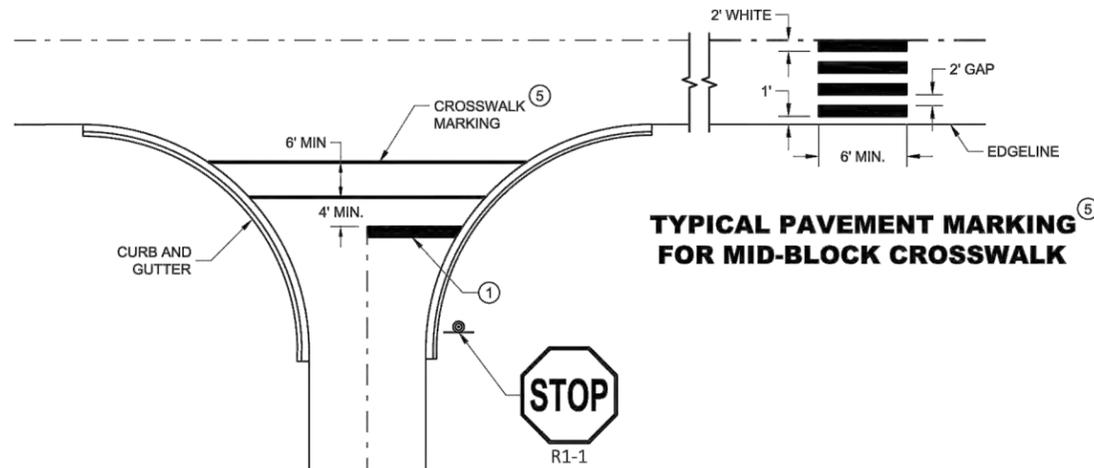
- ① 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- ② NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
- ③ NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGE LINE EXTENSION.
- ④ MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
- ⑤ LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES INSTEAD.



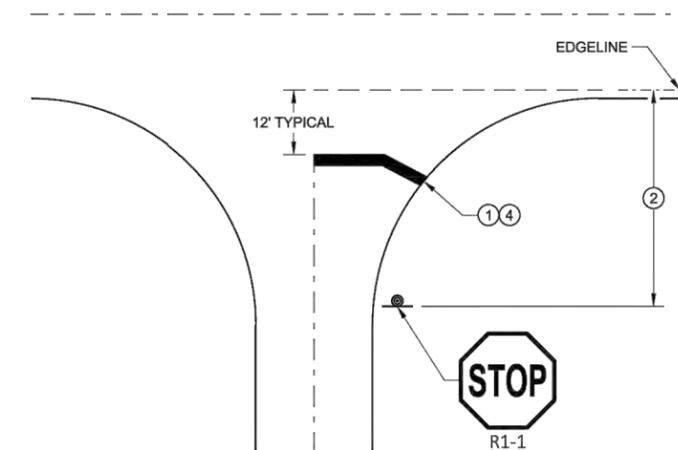
TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 DATE /S/ Matthew Rauch
STATE SIGNING AND MARKING ENGINEER

PHWA

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SDD 15C33 - 04

SDD 15C33 - 04



CITY OF DE PERE

ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115
OFFICE 920-339-4061 FAX 920-339-4071

CONSTRUCTION DETAILS PAVEMENT MARKINGS

NAME:
SEWER AND WATER RELAY
AND STREET RESURFACING
PROJECT #
21-01

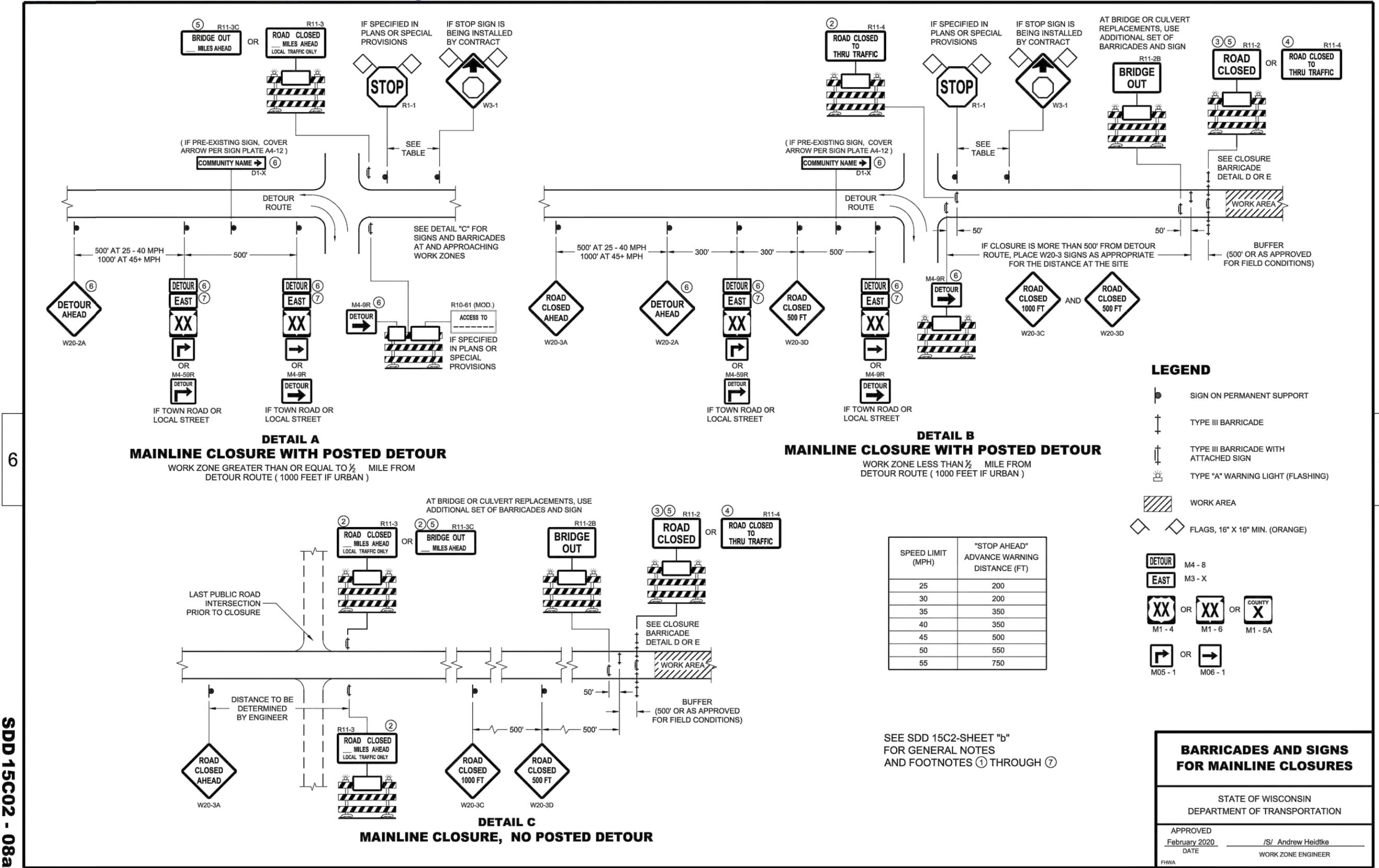
	BY	DATE
SURVEYED		
DRAWN	MAL	01-2021
DESIGNED	MAL	01-2021
CHECKED	CKK	01-2021

REVISIONS / ISSUES		
NO.	DATE	REMARKS

PAGE NO.
C511



SDD 15C02-a Barricades and Signs for Mainline Closures



LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

- M4 - 8
- M3 - X
- M1 - 4 OR M1 - 6 OR M1 - 5A
- COUNTY X
- M05 - 1
- M06 - 1

SEE SDD 15C2-SHEET "b"
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦

**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA

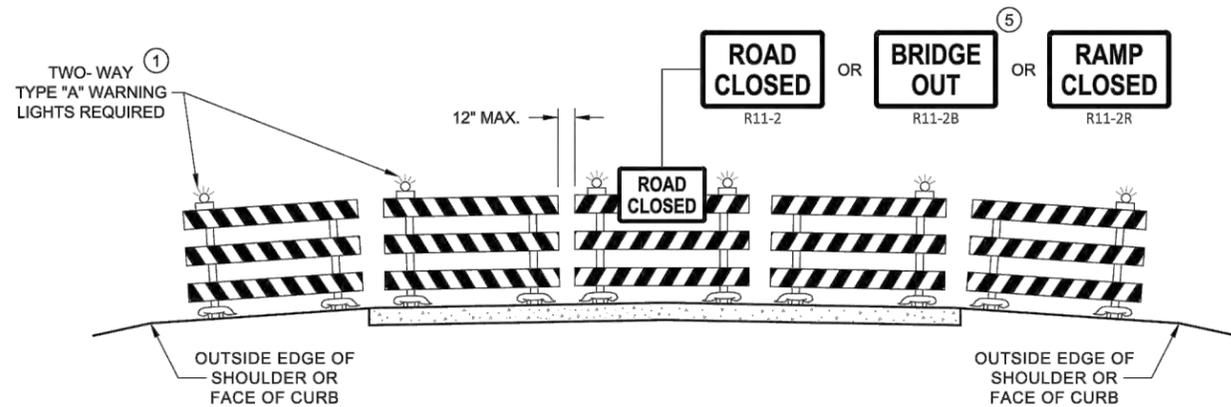
SDD 15C02 - 08a

SDD 15C02 - 08a

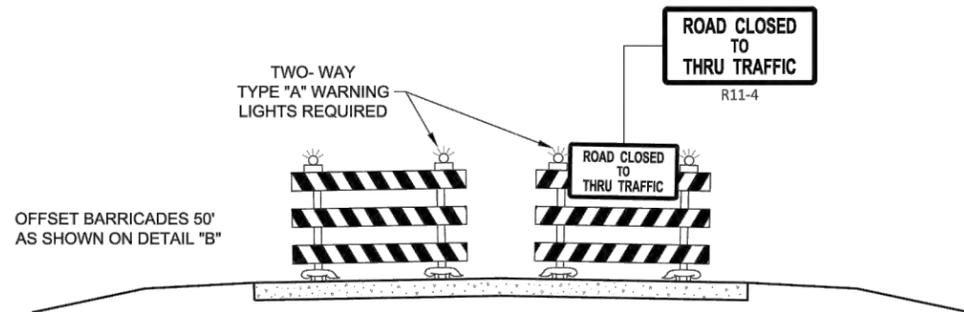
X:\ENG\Projects\City Projects\2021\Project 21-01 Utility Relay and Street Resurfacing\1200-CAD\DOT Traffic Details.dwg



SDD 15C02-b Barricades and Sign for Various Closures



**DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW**



**DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW**

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE", SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW - INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11 - 2, R11 - 3, M4 - 9, R11 - 4, AND R10 - 61 SIGNS PLACED ON THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL OR BOTTOM RAILS.

"WO" AND "MO" SIGNS ARE THE SAME AS "W" AND "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60" X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

- ① TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING).
- ② THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.
- ③ FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".
- ④ FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".
- ⑤ FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.
- ⑥ INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.
- ⑦ "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

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SDD 15C02 - 08b

SDD 15C02 - 08b

BARRICADES AND SIGNS FOR VARIOUS CLOSURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED February 2020 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	



CITY OF DE PERE

ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115
OFFICE 920-339-4061 FAX 920-339-4071

TRAFFIC CONTROL DETAILS BARRICADES AND SIGNS

NAME:
SEWER AND WATER RELAY
AND STREET RESURFACING
PROJECT #
21-01

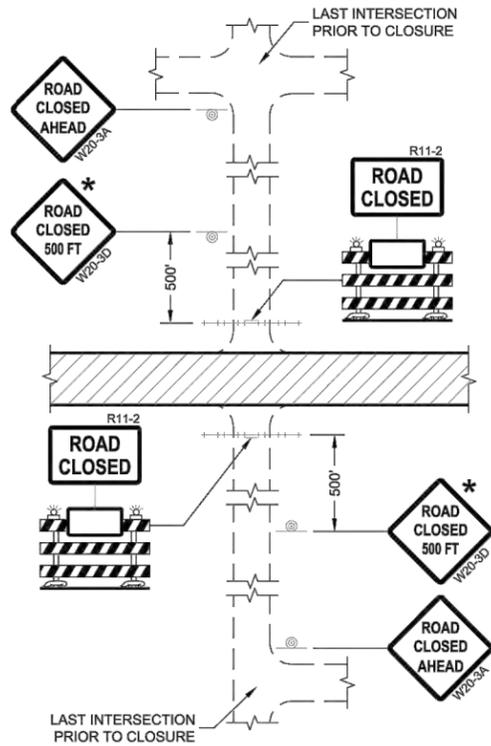
BY	DATE
SURVEYED	
DRAWN	MAL 01-2021
DESIGNED	MAL 01-2021
CHECKED	CKK 01-2021

REVISIONS / ISSUES		
NO.	DATE	BY

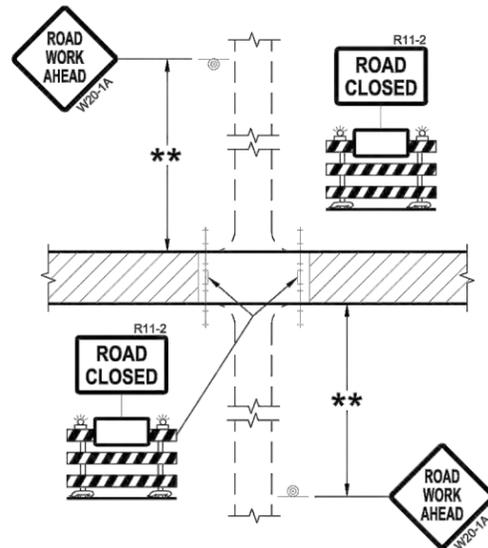
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C513



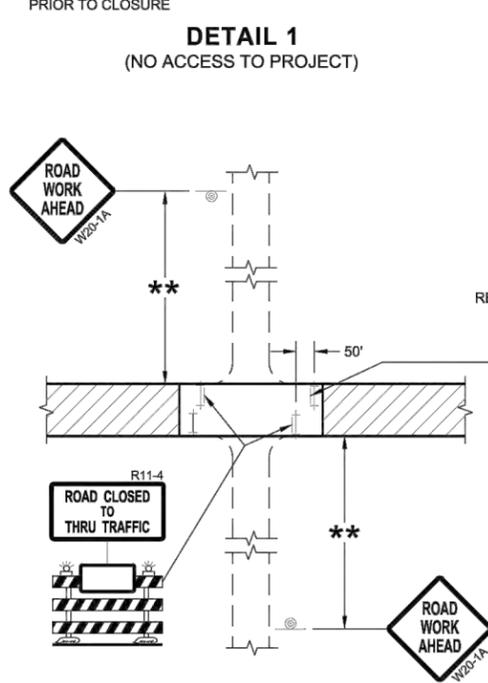
SDD 15C03 Barricades and Signs for Sideroad Closures



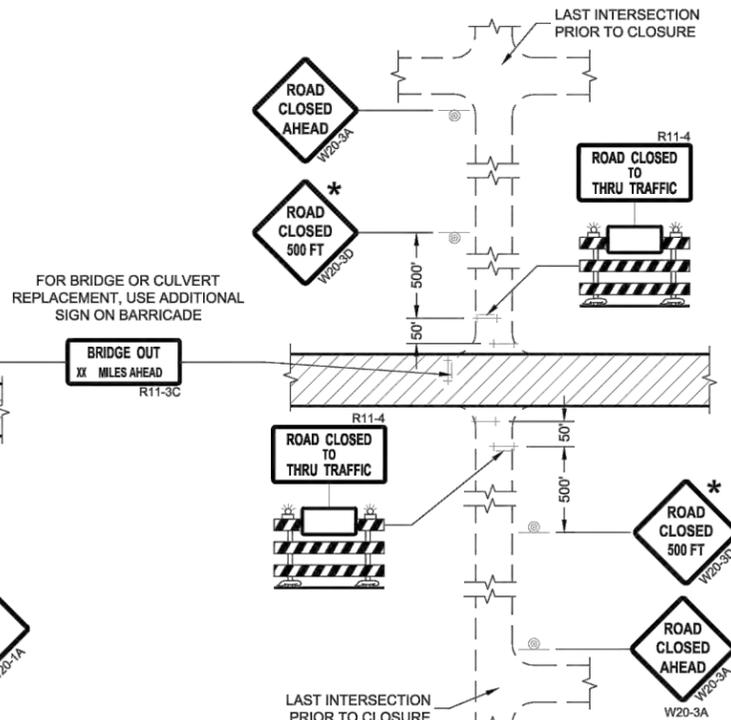
DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT)



DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED.
CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)



DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A DESIRABLE MINIMUM OF 200 FEET CLEARANCE (500 FEET DESIRABLE) TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

IF A "STOP" SIGN MUST BE REMOVED FOR A WORK OPERATION, A TEMPORARY "STOP" SIGN SHALL BE PLACED PRIOR TO THE SIGN REMOVAL, OR A FLAGGER SHALL BE PROVIDED UNTIL THE SIGN IS REESTABLISHED.

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL "D" FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3, AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

* OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.

** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA

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SDD 15C03 - 05

SDD 15C03 - 05



CITY OF DE PERE

ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115
OFFICE 920-339-4061 FAX 920-339-4071

TRAFFIC CONTROL DETAILS BARRICADES AND SIGNS

NAME:
SEWER AND WATER RELAY
AND STREET RESURFACING
PROJECT # 21-01

	BY	DATE
SURVEYED		
DRAWN	MAL	01-2021
DESIGNED	MAL	01-2021
CHECKED	CKK	01-2021

REVISIONS / ISSUES		
NO.	DATE	BY

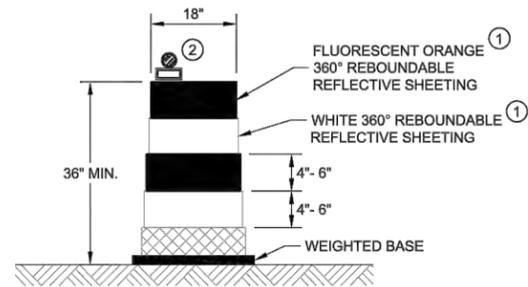
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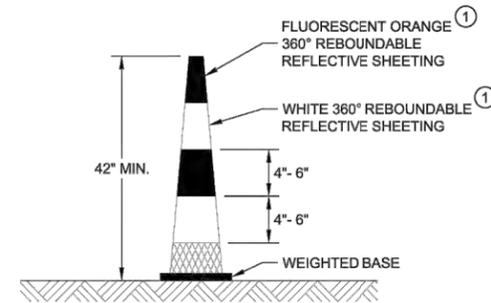
SDD 15C11-b Channelizing Devices, Drums, Cones, Barricades and Vertical Panels

GENERAL NOTES

- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.

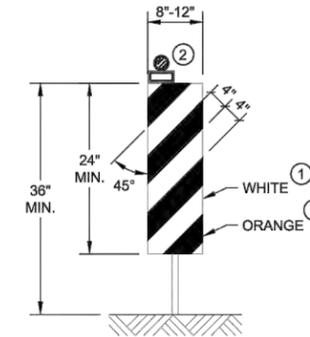


DRUM



42" CONE

DO NOT USE IN TAPERS
1/2 SPACING OF DRUMS

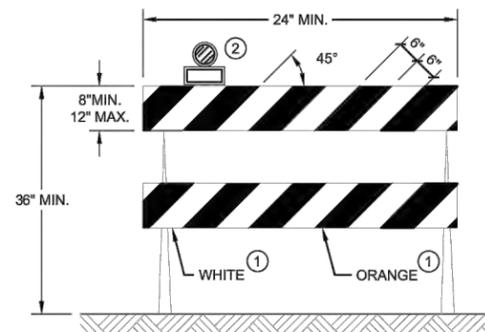


VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.

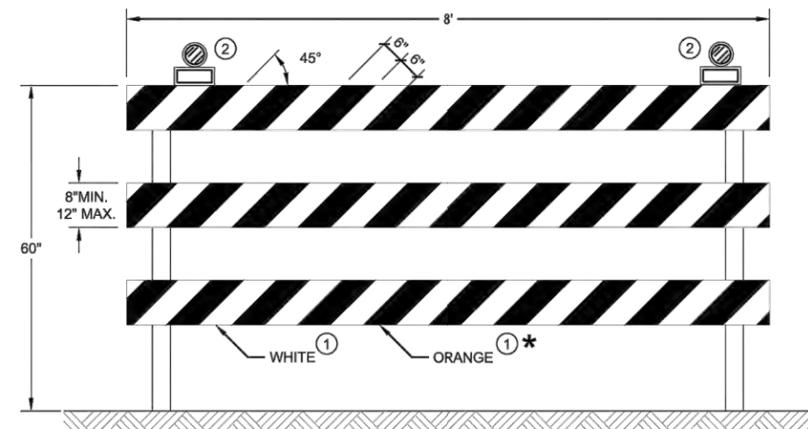
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TYPE II BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES MAY BE USED. ALL STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE III BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

SDD 15C11 - 08b

SDD 15C11 - 08b

**CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA



CITY OF DE PERE

ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115
OFFICE 920-339-4061 FAX 920-339-4071

**TRAFFIC CONTROL DETAILS
BARRICADES AND SIGNS**

NAME: SEWER AND WATER RELAY AND STREET RESURFACING
PROJECT # 21-01

	BY	DATE	REVISIONS / ISSUES	
			NO.	DATE
SURVEYED				
DRAWN	MAL	01-2021		
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SDD 15C12 Traffic Control for Lane Closure With Flagging Operation

LEGEND

- SIGN ON PORTABLE OR PERMANENT SUPPORT
- TEMPORARY PORTABLE RUMBLE STRIP ARRAY
- DIRECTION OF TRAFFIC
- WORK AREA
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS, DEVICES, AND LOCATION OF ALL FLAGGERS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE FIRST ADVANCE WARNING SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

WHEN A SIDE ROAD OR RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

FLAGGING

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

- FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
- SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.

TEMPORARY PORTABLE RUMBLE STRIPS

UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

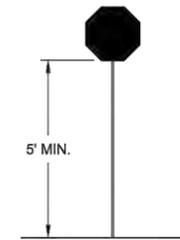
- EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FOR THE APPROVED PRODUCTS LIST.

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.



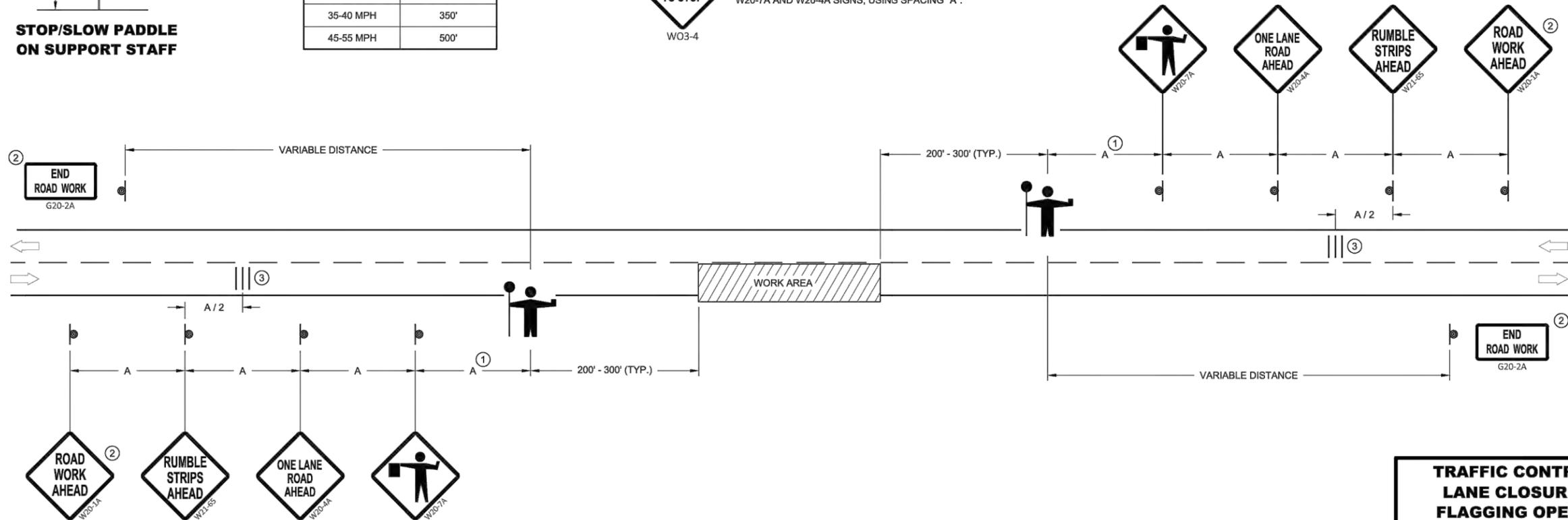
STOP/SLOW PADDLE ON SUPPORT STAFF

SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING "A"
25-30 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



USE OF W03-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER
FHWA

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SDD 15C12 - 07

SDD 15C12 - 07



CITY OF DE PERE

ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115
OFFICE 920-339-4061 FAX 920-339-4071

TRAFFIC CONTROL DETAILS LANE CLOSURE

NAME: SEWER AND WATER RELAY AND STREET RESURFACING
PROJECT # 21-01

	BY	DATE
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SDD 15D12-a Traffic Control, Lane Closure

GENERAL NOTES

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48" x 48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED OR AS APPROVED BY THE ENGINEER.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

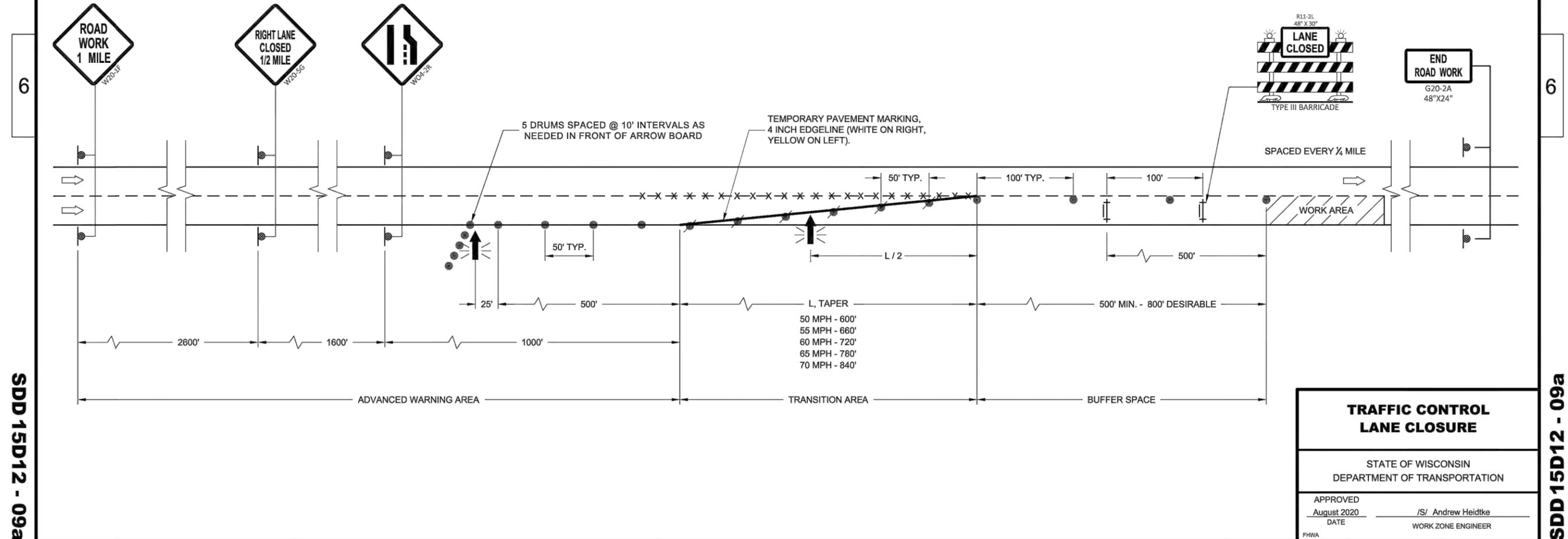
ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS

NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE ONE HALF THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD



**TRAFFIC CONTROL
LANE CLOSURE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA

SDD 15D12 - 09a

SDD 15D12 - 09a



CITY OF DE PERE

ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115
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TRAFFIC CONTROL DETAILS LANE CLOSURE

NAME: SEWER AND WATER RELAY AND STREET RESURFACING
PROJECT # 21-01

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SDD 15D28 Traffic Control, Work on Shoulder or Parking Lane, Undivided Roadway

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- DIRECTION OF TRAFFIC
- WORK ZONE

GENERAL NOTES

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY THE REGIONAL TRAFFIC UNIT.

"WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.

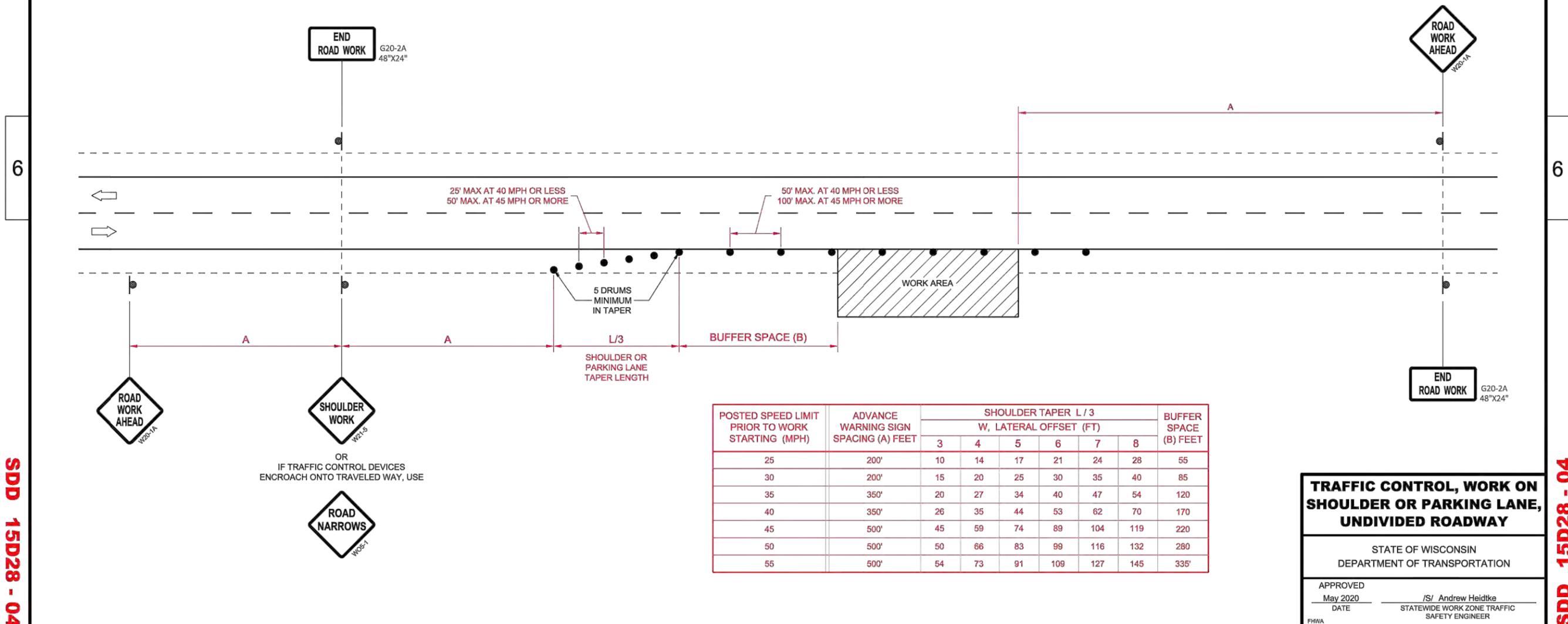
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHOULDER TAPER L / 3 W, LATERAL OFFSET (FT)						BUFFER SPACE (B) FEET
		3	4	5	6	7	8	
25	200'	10	14	17	21	24	28	55
30	200'	15	20	25	30	35	40	85
35	350'	20	27	34	40	47	54	120
40	350'	26	35	44	53	62	70	170
45	500'	45	59	74	89	104	119	220
50	500'	50	66	83	99	116	132	280
55	500'	54	73	91	109	127	145	335'

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020
DATE

/s/ Andrew Heidtke
STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER

FHWA

SDD 15D28 - 04

SDD 15D28 - 04



CITY OF DE PERE

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TRAFFIC CONTROL DETAILS SHOULDER CLOSURE

NAME: SEWER AND WATER RELAY AND STREET RESURFACING
PROJECT # 21-01

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