

CITY OF DE PERE

PROJECT 20-01B

EAST SEWER AND WATER AND STREET RESURFACING

**BID DATE:
FEBRUARY 20, 2020
@ 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. On the homepage, click on the Projects Icon in the middle of the 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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JANUARY 30, 2020 – February 6, 2020

CITY OF DE PERE

ADVERTISEMENT TO BID

PROJECT 20-01B

EAST 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, February 20, 2020, at which time they will be publicly opened and read aloud.

Project 20-01B for which proposals are being sought includes the following approximate quantities:

- 4,700 LF New and Relay Storm Sewer (8-inch to 24-inch) and Associated Appurtenances
- 3,700 LF New and Relay Water Main (8-inch to 12-inch) and Associated Appurtenances
- New Storm Lateral Installation (6-inch), New and Relay Sanitary Sewer Laterals (4-inch and 6-inch) and New and Relay Water Services (1-inch)
- 2,300 Tons Asphaltic Concrete Pavement Placement
- 15,000 SY Asphaltic Concrete Pavement Milling
- Concrete Curb and Gutter, Sidewalk, Driveway and Concrete Pavement Replacement
- Restoration

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 #6645911 on Quest's Project Search page. The QuestCDN website can also be accessed through the City website at www.deperewi.gov. On the homepage, click on the Projects icon in the center of the 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.

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.

Project 20-01B
East Sewer and Water Relay and Street Resurfacing

City of De Pere

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 PM, Monday, February 17, 2020. Prospective bidders who have previously submitted such forms subsequent to January 1, 2020 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 30th day of January, 2020.

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

Project 20-01B

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.

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 and, unless obviously non-responsive, read aloud publicly. An abstract of the amounts of the base bids and major alternates, if any, will be made available to Bidders after the opening of Bids.

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 20-01B

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, February 20, 2020 is to furnish and deliver all materials, and to perform and do all work on the project designated, by September 25, 2020.

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 20-01B
East 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)
- B. 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)

**Project 20-01B
East Sewer and Water Relay and Street Resurfacing**

City of De Pere

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 20-01B

BID SCHEDULE – UNIT PRICE

ITEM	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT BID
SANITARY SEWER					
SS-01	Remove and Relay 6-inch or 4-inch PVC Sanitary Lateral	LF	2,050	\$	\$
SS-02	Provide 4-inch PVC Sanitary Lateral	LF	35	\$	\$
SS-03	Provide 6-inch or 4-inch Saddle to Existing 18-inch Sanitary Sewer	EA	3	\$	\$
SS-04	Provide 6-inch or 4-inch Saddle to Existing 8-inch Sanitary Sewer	EA	60	\$	\$
SS-05	Remove and Replace 4-foot Diameter Sanitary Sewer Manhole	VF	12	\$	\$
SS-06	Provide 4-foot Diameter Sanitary Sewer Manhole (Morris Street & Adjacent Easement)	VF	20	\$	\$
SS-07	Remove and Relay 6-inch or 4-inch PVC Sanitary Lateral Riser	LF	10	\$	\$
STORM SEWER					
ST-01	Remove and Relay 24-inch PVC, RCP (Class III) or PP Storm Sewer (Granular Backfill)	LF	1,420	\$	\$
ST-02	Remove and Relay 24-inch PVC, RCP (Class III) or PP Storm Sewer (Natural Backfill)	LF	300	\$	\$
ST-03	Remove and Relay 21-inch PVC,RCP (Class III) or PP Storm Sewer	LF	230	\$	\$

Project 20-01B
East Sewer and Water Relay and Street Resurfacing

City of De Pere

ITEM	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT BID
STORM SEWER					
ST-04	Remove and Relay 15-inch PVC, RCP (Class III) or PP Storm Sewer	LF	450	\$	\$
ST-05	Remove and Relay 12-inch PVC or RCP (Class III) Storm Sewer	LF	50	\$	\$
ST-06	Provide 12-inch PVC or RCP (Class III) Storm Sewer	LF	280	\$	\$
ST-07	Provide 10-inch PVC Storm Sewer	LF	25	\$	\$
ST-08	Provide 8-inch PVC Storm Sewer	LF	1,720	\$	\$
ST-09	Remove and Relay 10-inch PVC Storm Sewer Lateral	LF	20	\$	\$
ST-10	Provide 6-inch PVC Storm Sewer Lateral	LF	2,300	\$	\$
ST-11	Remove and Relay 6-inch PVC Storm Sewer Lateral	LF	70	\$	\$
ST-12	Provide 30-inch x 10-inch Storm Branch or Inserta Tee	EA	1	\$	\$
ST-13	Provide 30-inch x 6-inch Storm Branch or Inserta Tee	EA	5	\$	\$
ST-14	Provide 24-inch x 6-inch Storm Branch or Inserta Tee	EA	15	\$	\$
ST-15	Provide 21-inch x 6-inch Storm Branch or Inserta Tee	EA	3	\$	\$
ST-16	Provide 15-inch x 6-inch Storm Branch or Inserta Tee	EA	5	\$	\$
ST-17	Provide 8-inch x 6-inch Storm Branch or Inserta Tee	EA	40	\$	\$
ST-18	Remove and Replace 6-foot Diameter Storm Manhole	VF	7	\$	\$
ST-19	Remove and Replace 5-foot Diameter Storm Manhole	VF	10	\$	\$

Project 20-01B
East Sewer and Water Relay and Street Resurfacing

City of De Pere

ITEM	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT BID
STORM SEWER					
ST-20	Remove and Replace 4-foot Diameter Storm Manhole	VF	60	\$	\$
ST-21	Provide 4-foot Diameter Storm Manhole	VF	40	\$	\$
ST-22	Remove and Replace Type B Inlet	EA	12	\$	\$
ST-23	Provide Type B Inlet	EA	5	\$	\$
ST-24	Core Drill Existing Structure	EA	4	\$	\$
ST-25	Pour Bench into Existing Storm Manhole	EA	1	\$	\$
ST-26	Abandon/Remove Existing Storm Sewer Appurtenances	LS	1	\$	\$
WATER MAIN					
W-01	Provide 12-inch PVC Water Main	LF	1,350	\$	\$
W-02	Provide 10-inch PVC Water Main	LF	40	\$	\$
W-03	Provide 8-inch PVC Water Main	LF	2,600	\$	\$
W-04	Provide 8-inch PVC Water Main (Directional Drill)	LF	900	\$	\$
W-05	Provide 6-inch PVC Water Main or Hydrant Lead	LF	150	\$	\$
W-06	Provide 1-inch HDPE Water Service (Open Cut)	LF	2,150	\$	\$
W-07	Provide 1-inch HDPE Water Service (Directional Drill)	LF	400	\$	\$
W-08	Provide 2-inch Corporation with Plug/Saddle with 2-inch HDPE	EA	6	\$	\$
W-09	Provide 1-inch Corporation and Curb Stop	EA	75	\$	\$

Project 20-01B
East Sewer and Water Relay and Street Resurfacing

City of De Pere

ITEM	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT BID
WATER MAIN					
W-10	Provide 12-inch Gate Valve	EA	7	\$	\$
W-11	Provide 8-inch Gate Valve	EA	10	\$	\$
W-12	Provide 6-inch Gate Valve	EA	3	\$	\$
W-13	Provide Connection to Existing Water Main	EA	13	\$	\$
W-14	Provide Connection to Existing Asbestos Cement Water Main	EA	1	\$	\$
W-15	Provide Connection to Existing Water Main 12-inch x 12-inch Tapping Tee and Valve	EA	1	\$	\$
W-16	Provide Connection to Existing Water Main 12-inch x 8-inch Tapping Tee and Valve	EA	2	\$	\$
W-17	Provide Connection to Existing Water Main 8-inch x 8-inch Tapping Tee and Valve	EA	1	\$	\$
W-18	Provide Connection to Existing Water Main 8-inch x 6-inch Tapping Tee and Valve	EA	1	\$	\$
W-19	Provide Hydrant (7.5-foot Bury)	EA	1	\$	\$
W-20	Provide Hydrant (7.0-foot Bury)	EA	2	\$	\$
W-21	Provide Hydrant (6.5-foot Bury)	EA	6	\$	\$
W-22	Salvage and Reinstall Existing Hydrant (Ridgeway Blvd)	EA	1	\$	\$
W-23	Abandon/Remove Water Main and Appurtenances	LS	1	\$	\$

Project 20-01B
East Sewer and Water Relay and Street Resurfacing

City of De Pere

ITEM	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT BID
STREET AND DRAINAGE					
SD-01	Mill Asphaltic Concrete Pavement	SY	15,350	\$	\$
SD-02	Provide Asphaltic Concrete Pavement Type 4 LT 58-28 S, 2-inch Overlay or Upper Layer	TON	900	\$	\$
SD-03	Provide Asphaltic Concrete Pavement Type 3 LT 58-28 S, 2 1/4-inch Lower Layer	TON	1,450	\$	\$
SD-04	Provide Full-Depth Asphaltic Concrete Pavement Patch (4-inch)	SY	60	\$	\$
SD-05	Remove and Replace Doweled 8-inch Concrete Pavement with Integral Curb and Gutter	SY	500	\$	\$
SD-06	Remove and Replace 24-inch Concrete Curb and Gutter	LF	2,000	\$	\$
SD-07	Remove and Replace 24-inch Concrete Curb and Gutter (Integral)	LF	200	\$	\$
SD-08	Remove and Replace 6-inch Concrete Sidewalk, Ramp, and Driveway	SY	350	\$	\$
SD-09	Remove and Replace 4-inch Concrete Sidewalk	SY	950	\$	\$
SD-10	Provide #4 Reinforcement Bars for Curb and Sidewalk	LF	6,200	\$	\$
SD-11	Drilled Tie Bars (Existing Sidewalk, Driveway, and Curb and Gutter)	EA	1,000	\$	\$
SD-12	Drilled Tie Bars (Pavement)	EA	50	\$	\$
SD-13	Drilled Dowel Bars	EA	200	\$	\$
SD-14	Provide Detectable Warning Field (Natural)	EA	2	\$	\$
SD-15	Provide 24-inch Epoxy Pavement Marking	LF	220	\$	\$

Project 20-01B
East Sewer and Water Relay and Street Resurfacing

City of De Pere

ITEM	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT BID
STREET AND DRAINAGE					
SD-16	Provide 12-inch Epoxy Pavement Marking	LF	60	\$	\$
SD-17	Provide 6-inch Epoxy Pavement Marking	LF	510	\$	\$
SPECIAL CONSTRUCTION					
SC-01	Pipe Foundation Stabilization	CY	100	\$	\$
SC-02	Provide Polystyrene Insulation Board (4-foot wide)	LF	70	\$	\$
SC-03	Clearing and Grubbing (Easement Merrill Street to Quinnette Lane)	LS	1	\$	\$
SC-04	Tree and Stump Removal	ID	150	\$	\$
SC-05	Inlet Protection Type D	EA	50	\$	\$
SC-06	Adjust Inlet	EA	4	\$	\$
SC-07	Adjust Manhole	EA	4	\$	\$
SC-08	Adjust Manhole Plus 1 Foot	EA	3	\$	\$
SC-09	Reconstruct Manhole	VF	20	\$	\$
SC-10	Provide Traffic Control (Merrill Street)	LS	1	\$	\$
SC-11	Provide Traffic Control (Ridgeway Boulevard)	LS	1	\$	\$
SC-12	Remove and Reinstall Fence (Easement Merrill Street to Quinnette Lane)	LS	1	\$	\$
TOTAL					\$

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 20-01B 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>	_____	_____

SECTION 00 51 00

NOTICE OF AWARD

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

Project Description: 20-01B East 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 January 30, 2020 and February 6, 2020.

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 _____ 2020.

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 Project 20-01B East 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 January 30, 2020 and February 6, 2020.
- (b) Drawings designated for Project 20-01B East Sewer and Water Relay and Street Resurfacing dated January 30, 2020.
- (c) City of De Pere 2020 Construction Specifications.
- (d) Special Provisions dated January 30, 2020.
- (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 22)(\$) 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.

**Project 20-01B
East Sewer and Water Relay and Street Resurfacing**

City of De Pere

- 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)

(WITNESS)

(CONTRACTOR) (SEAL)

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: _____ BY: _____
(MAYOR) (CITY CLERK)

SECTION 00 55 00

NOTICE TO PROCEED

Date: _____

(CONTRACTOR NAME)
(ADDRESS)
(ADDRESS)

PROJECT: 20-01B East 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 20-01B 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 20-01B
East 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 20-01B, 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		
Number	Additions	Deductions
Total	\$0.00	\$0.00
NET CHANGE BY CHANGE ORDERS:		\$0.00

1. ORIGINAL CONTRACT PRICE:.....	
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
6. AMOUNT ELIGIBLE TO DATE (Line 4 minus 5):.....	\$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:

**Project 20-01B
East Sewer & Water Relay and Street Resurfacing**

City of De Pere

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. Merrill Street from S. Erie Street to Knoll Terrace
 - b. Quinnette Lane from Jordan Road to Knoll Terrace
 - c. Easement between Merrill Street and Quinnette Lane
 - d. Ridgeway Boulevard from Lawton Street to N. Erie Street
 - e. Voelker Drive from Ridgeway Drive to Lebrun Street
2. Work will be performed under the following prime contract:
 - a. 20-01B East Sewer and Water Relay and Street Resurfacing

B. The Work includes:

1. Water main and associated appurtenance relay and new.
2. Directional drill water main.
3. Storm sewer and associated appurtenances relay and new, spot storm sewer, inlet lead and inlet repair and replacement.
4. Sanitary sewer and associated appurtenances relay and new and lateral replacement.
5. Manhole adjustment and repair.
6. Concrete curb and gutter repair and replacement.
7. Concrete pavement, driveway aprons, and sidewalk removal and repairs.
8. Mill asphaltic concrete pavement.
9. Unclassified excavation.
10. Asphaltic concrete paving.
11. Terrace restoration.
12. Tree and stump removal.
13. Pavement marking.
14. Erosion control.
15. Traffic control.

1.4 WORK SEQUENCE

- A. The City anticipates taking this contract to the Board of Public Works on Monday, March 9, 2020 and Common Council on Tuesday, March 17 for consideration of award of Contract 20-01B East Sewer and Water Relay and Street Resurfacing.
- B. All work under this contract is to be completed by September 25, 2020.
- C. Conduct construction activities to maintain access to businesses and residences throughout construction.
- D. Topsoil, seed, and mulch shall be completed prior to asphaltic concrete pavement placement.

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- E. All water main tracer wire is to be tested prior to paving.
- F. 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.
- G. Location Specific Work Sequence Details:
 - 1. Merrill Street
 - a. Work on Merrill Street cannot start until June 10, 2020 to accommodate the De Pere School District. The last day of school for De Pere High School and Dickinson Elementary School is Tuesday, June 9, 2020.
 - b. Work shall be completed by August 21, 2020 to accommodate the De Pere School District.
 - 2. Quinnette Lane
 - a. None.
 - 3. Easement between Merrill Street and Quinnette Lane
 - a. Work on the easement between Merrill Street and Quinnette Lane cannot start until June 10, 2020 to accommodate the De Pere School District. The last day of school for De Pere High School and Dickinson Elementary School is Tuesday, June 9, 2020.
 - b. Work shall be completed by August 21, 2020 to accommodate the De Pere School District.
 - c. The City is working towards finalizing new easements to accommodate this storm sewer relay work. Any further sequence details outside of what is listed above will be provided after the Notice to Proceed is signed.
 - 4. Ridgeway Boulevard
 - a. None.
 - 5. Voelker Drive
 - a. None.
- H. 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
Merrill Street	6-10-2020	8-21-2020	56
Quinnette Lane	N/A	9-25-2020	50
Ridgeway Boulevard	N/A	9-25-2020	50
Voelker Drive	N/A	9-25-2020	42

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 25, 2020. 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. This Contract includes the following:
 - 1. Project 19-05 Sidewalk, Curb, and Concrete Pavement Repair
 - a. The sidewalk repair area falls between the Fox River and Webster Avenue from Charles Street north to the northern City Limits.

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East Sewer & Water Relay and Street Resurfacing**

City of De Pere

2. Project 20-03 Sewer Lining
 - a. Quinnette Lane from Jordan Road to Knoll Terrace
 - b. Ridgeway Boulevard from N. Superior Street to N. Erie Street
3. Project 20-05 Sidewalk and Curb Repair
 - a. The sidewalk Repair Area fall between Webster Avenue and the eastern City Limits from Charles Street north to the northern City Limits.
4. Project 20-07 Curb Repair and Street Resurfacing
 - a. The final surface layer of asphaltic concrete pavement on Merrill Street from S. Erie Street to Knoll Terrace in conjunction with a Wisconsin Department of Transportation Local Roads Improvement Program Grant.
 - b. Merrill Street from Knoll Terrace to Lone Oak Road

C. 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. Level3 (Mi-Tech Services), Chris Kraus, (ckraus@mi-tech.us) (414-550-6201)
- 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 the driveway or when the driveway, curb and gutter are replaced.
- C. Maintain garbage pickup and mail service throughout construction.

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City of De Pere

- D. Saw cut or mill all utility trenches. If utility trenches are milled, salvage millings and place on trenches with a roller.
- E. No work is to occur on the following dates in observance of national holidays:
 - 1. Memorial Day - Monday, May 25, 2020
 - 2. Independence Day – Friday, July 3, 2020
 - 3. Labor Day – Monday, September 7, 2020
- F. Miscellaneous Provisions by Location:
 - 1. Merrill Street
 - a. Work at the intersections of S. Erie Street and Jordan Road shall be staged such that one lane of traffic is in operation for the duration of work. If less than one lane of traffic is needed during construction, flaggers must be made available pursuant to MUTCD standards.
 - b. Merrill Street will not have the final surface layer of asphaltic concrete pavement paved under this project. Only the lower layer of binder course will be paved under this project to seal up trenches.
 - 2. Quinnette Lane
 - a. Coordinate sanitary lateral relay with the Contractor for Project 20-03 – Sewer Lining. If laterals are re-laid prior to lining, provide a PVC wye.
 - 3. Easement between Merrill Street and Quinnette Lane
 - a. All landscaping and fencing will need to be salvaged and safely stored for the duration of work. Once work is completed, all salvaged landscaping and fencing shall be reinstalled to their original condition.
 - 4. 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 environmental and personal protection measures shall be in place while working on this water connection.
 - 5. Voelker Drive
 - a. None.
 - 6. 227 S. Webster Avenue (Exhibit #1)
 - a. Provide a traffic control plan for the lane closure required to dig down and repair the damaged storm sewer lead. The City will submit the traffic control plan as part of a Brown County Lane Closure permit once the construction dates are finalized.

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G. 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
Merrill Street	Merrill Street via S. Broadway Street
Quinnette Lane	Jordan Road or Knoll Terrace via Merrill Street
Easement from Merrill Street to Quinnette Lane	Merrill Street or Quinnette Lane
Ridgeway Boulevard	N. Broadway Street or N. Webster Avenue
Voelker Street	Ridgeway Drive or Lebrun Street via N. Webster Avenue.

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

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 Laterals | SS-01 & SS-02 |
| 2. Sanitary Sewer Service Branches | SS-03 & SS-04 |
| 3. Sanitary Sewer Manholes | SS-05 & SS-06 |
| 4. Sanitary Sewer Risers | SS-07 |
- 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 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.

1.4 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.

1.5 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 (Neenah 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.

1.6 SANITARY SEWER RISERS

- A. The unit price for Sanitary Sewer Risers work includes:
1. General Work Items of Article 1.2.
 2. Sanitary sewer riser pipe and fittings of material stated in the Unit Price Bid Schedule and installed using the open trench method.
 3. Risers to be installed at the right-of-way line.
 4. Tracer wire.
- B. Measurement for payment will be the actual length of pipe along the centerline of the installed sewer service riser pipe from centerline of fitting to centerline of fitting having a vertical rise of 45 degrees or greater with no deductions for fittings.
- C. The unit of measurement for payment is linear feet.

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-03, ST-04, ST-05, ST-06, ST-07 & ST-08
2. Storm Sewer Mains (Natural Backfill)	ST-02
3. Storm Sewer Laterals	ST-09, ST-10 & ST-11
4. Storm Sewer Service Branches	ST-12, ST-13, ST-14, ST-15, ST-16 & ST-17
5. Storm Sewer Manholes	ST-18, ST-19, ST-20 & ST-21
6. Catch Basin/Inlets	ST-22 & ST-23
7. Core Drill Existing Structure	ST-24
8. Pour Bench into Existing Manhole	ST-25
9. Abandon/Remove Existing Storm Sewer Appurtenances	ST-26

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 MAINS (NATURAL BACKFILL)

- A. The unit price for Storm Sewer Main (Natural 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.

1.5 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.

1.6 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.

1.7 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.

1.8 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. Sewer pipe stub with connections and watertight plug (where required).
9. Supply and install 6 to 10 feet of 4 inch flexible perforated plastic pipe with geotextile wrap subgrade drain.
10. Sand fill and Class "B" concrete floor and flow line.
11. Temporary cover over catch basin/inlet to prevent eroded materials from entering.
12. Final casting adjustment.

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

C. The unit of measurement for payment is each.

1.9 CORE DRILL EXISTING STRUCTURE

A. The unit price for Core Drill Existing Structure work includes:

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

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

C. The unit of measurement for payment is each.

1.10 POUR BENCH INTO EXISTING MANHOLE

A. The unit price for Pour Bench Into Existing Manhole work includes:

1. General Work Items of Article 1.2.
2. Pouring concrete bottom into existing storm sewer manhole where indicated.
3. Forming manhole flowline and grouting at inlet and outlet pipes.
4. Hand finishing of manhole concrete for smooth finish.

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

1.11 ABANDON/REMOVE EXISTING STORM SEWER APPURTENANCES

- A. The unit price for Abandon/Remove Existing Storm Sewer Appurtenances work includes:
 - 1. General Work Items of Article 1.2.
 - 2. Excavation.
 - 3. Installing bulkheads and abandon sewer.
 - 4. Provide and placing flowable fill.
 - 5. Backfilling and compacting.
- B. Measurement for payment will not be made.
- C. The unit of measurement for payment is lump sum.

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 (Granular Backfill)		W-01, W-02 & W-03
2. Water Mains (Directional Drill)		W-04
3. Water Mains 6-Inch Service or Hydrant Lead		W-05
4. Water Services		W-06
5. Water Services (Directional Drill)		W-07
6. 2-inch Corporation w/ Plug or Saddle and HDPE Pipe		W-08
7. Corporation and Curb Stop		W-09
8. Valves		W-10, W-11 & W-12
9. Connection to Existing Water Mains	W-13, W-14, W-15, W-16, W-17 & W-18	
10. Fire Hydrants		W-19, W-20 & W-21
11. Salvage and Reinstall Existing Hydrant		W-22
12. Abandon/Remove Water Main and Appurtenances		W-23

- 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, gutter, sidewalk, driveways and other pavement surfaces in the work area and as shown on the plans.
 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 (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.

1.4 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 verifies location and elevation of existing utilities before or during directional drilling.
 3. Boring pit and receiving pit excavation.
 4. PVC pipe and materials (Fusible PVC or PVC and 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.

1.5 WATER MAINS 6-INCH WATER MAIN SERVICE OR HYDRANT LEADS

A. The unit price for Water Mains 6-Inch Water Main Service or Hydrant Lead work includes:

1. General Work Items of Article 1.2.
2. Water pipe and fitting of material stated in the Unit Price Bid Schedule and installed using the open trench method.
3. Ductile or cast iron fittings.
4. Blocking and joint restraints.
5. Tracer wire.
6. Disinfection of the pipeline.
7. Polyethylene encasement of ductile iron or cast iron pipe and fittings.

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

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

1.6 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.

1.7 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 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.

1.8 2-INCH CORPORATION WITH PLUG OR SADDLE AND HDPE PIPE

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

1. General Work Items of Article 1.2.
2. Provide and install 2-inch corporation with plug (where required) with 2-inch HDPE pipe.
3. Provide and install 2-inch corporation with saddle (where required) with 2-inch HDPE pipe.
4. 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.

1.9 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.

1.9 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.

1.10 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. Environmental and personal protective measures (Asbestos Cement Connections).
4. Connection to the end of existing pipe.
 - a. Remove existing plug.
 - b. Direct connection to end of existing pipe.
 - c. Transition fittings, if required.

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

C. The unit of measurement for payment is each.

1.11 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.

1.12 SALVAGE AND REINSTALL EXISTING HYDRANT

A. The unit price for Salvage and Reinstall Existing Hydrant work includes:

1. General Work Items of Article 1.2.
2. Removal and salvaging of existing hydrant on site.
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.

1.13 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.

END OF SECTION

SECTION 01 22 04

MEASUREMENT AND PAYMENT STREET AND DRAINAGE CONSTRUCTION

PART 1 – GENERAL

1.1 SUMMARY

	<u>Bid Item No.</u>
A. Section includes:	
1. Mill Asphaltic Concrete Pavement	SD-01
2. Asphaltic Concrete Pavement	SD-02 & SD-03
3. Asphaltic Concrete Pavement Patch	SD-04
4. Portland Cement Concrete Pavement	SD-05
5. Portland Cement Concrete Curb and Gutter	SD-06 & SD-07
6. Portland Cement Concrete Driveway and Sidewalk	SD-08 & SD-09
7. Deformed Reinforcement Bars	SD-10
8. Drilling Tie Bars and Dowel Bars	SD-11, SD-12 & SD-13
9. Detectable Warning Field Natural	SD-14
10. Pavement Marking Epoxy Lines	SD-15, SD-16 & SD-17

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 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.

1.4 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.

1.5 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 (where required).
7. Asphaltic concrete placement and compaction to thickness matching surrounding pavements.
8. Tack coat between asphaltic courses and abutting pavements.

B. Measurement for payment will be the area of roadway patched.

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

1.6 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.

1.7 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.

1.8 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.

1.9 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.

1.10 DRILLING TIE BARS AND DOWEL BARS

A. The unit price for Drilling Tie Bars and Dowel Bars work includes:

1. General Work Items of Article 1.2.
2. Providing and installing tie 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.

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 each.

1.11 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.

1.12 PAVEMENT MARKING EPOXY LINES

A. The unit price for Pavement Marking Epoxy Lines includes:

1. General Work Items of Article 1.2.

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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.

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. Provide Insulation Board	SC-02
3. Clearing and Grubbing	SC-03
4. Remove Tree and Grind Stump	SC-04
5. Inlet Protection Erosion Control	SC-05
6. Adjusting Existing Structure Frame and Casting	SC-06, SC-07 & SC-08
7. Manhole Reconstruct	SC-09
8. Traffic Control	SC-10 & SC-11
9. Remove and Reinstall Fence	SC-12

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 by 4-foot wide 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 CLEARING AND GRUBBING

- A. The unit price for Clearing and Grubbing work includes:
1. General Work Items of Article 1.2.
 2. Cutting and disposing of trees, brush, windfalls, logs and other vegetation.
 3. Removing and disposing of roots, stumps, stubs, logs and other timber.
 4. Stripping and stockpiling topsoil.
- B. Measurement of payment will not be made.
- C. The unit of measurement for payment is lump sum.

1.6 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.

1.7 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.

1.8 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. Removal of the casting and existing adjusting rings from the structure as required.
3. Providing concrete adjusting rings and a 2 inch rubber riser ring from the WisDOT approved product list.
4. Bituminous plastic cement sealing the exterior of the adjusting rings and casting.
5. The ring will be secured to the precast section with a 3 1/2 inch wide Kent Seal or equal.
6. Above the concrete ring attach 1/4 inch thru 3 inch thick ring using two 5/16 inch bead above and below the ring of sealant type as recommended by the rubber manufacturer.
7. Initial and final adjustment.
8. 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. City of De Pere will provide structure castings. Contractor will pick up castings at 925 South Sixth Street.
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 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 reconstructed manhole.

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

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 and 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 intersection lump sum.

1.11 REMOVE AND REINSTALL FENCE

A. The unit price for Remove and Reinstall Fence work includes:

1. General Work Items of Article 1.2.
2. Protection, removal, and storage of existing fence onsite.
3. Removal and replacement of fence footing once localized work is completed.
4. Reinstallation of fence to match pre-existing conditions.

B. Measurement for payment will not be made.

C. The unit of measurement for payment is 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.

1.5 PERMITS FOR PROJECT

- A. The following permits are being obtained by the Owner:
1. Wisconsin Department of Natural Resources – Water Main Extension
 2. Wisconsin Department of Natural Resources – WRAPP (Storm Water Notice of Intent)
 3. Brown County Lane Closure Permit for the inlet lead repair shown in Exhibit #1. The City will prepare and submit this permit once the construction dates are finalized.

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City of De Pere

- B. Any costs associated with violations pertaining to the NOI permit will be the responsibility of the Contractor.

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 PROVIDED 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 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 2012 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

1.2 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 these 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 1/2 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 ratio, 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 polyvinylchloride 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

SECTION 33 00 05

DOUBLE AND TRIPLE WALLED POLYPROPYLENE PIPE

PART 1 – GENERAL

1.1 SUMMARY

A. Section Includes:

1. Double walled polypropylene pipe for mainline gravity storm sewer.
2. Triple walled polypropylene pipe for mainline gravity storm sewer.

B. The products described are not installed under this Section.

1.2 REFERENCES

A. American Society for Testing and Materials (ASTM):

1. D3212 Standard Specification for Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals
2. F477 Standard Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe
3. F2736 Standard Specification for 6 to 27 in. (152 To 762 mm) Polypropylene (PP) Corrugated Single Wall Pipe And Double Wall Pipe
4. F2764 Standard Specification for 30 to 60 in. [750 to 1500 mm] Polypropylene (PP) Triple Wall Pipe and Fittings for Non-Pressure Sanitary Sewer Applications

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 these 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 1/2 inch in 10 feet.
4. Any defect which prevents assembly according to manufacturer's recommendations.
5. Not utilized within twelve 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. Pipe stiffness designation, dimension ration, or schedule size and pressure class.
 - 4. ASTM specification designation.
 - 5. Production date.

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. For onsite gasket installation on pipe, store gaskets away from excessive exposure to heat, direct sunlight, ozone, oil or grease.
- E. For gaskets installed on the pipe offsite, keep the protective wrap on gaskets until installation.
- 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.

PART 2 – PRODUCTS

2.1 NON-PRESSURE RATED PIPE

- A. Mainline Gravity Sewer and Sewer Services
 - 1. Pipe fittings and repair couplings shall be manufactured and tested in accordance with the following standards:
 - a. Sizes 8 inch through 27 inch and depths up to 20 feet: ASTM F2736, PSM SDR-35 PVC
 - b. Sizes 30 inch through 60 inch and depths up to 20 feet: ASTM F2764, PS46 PVC, T-1 minimum cell classification
 - 2. Pipe shall have a minimum pipe stiffness of 46 PSI.
 - 3. Minimum height of cover to the top of pipe to the existing elevation or proposed finished elevation (whichever is less) shall be two feet.
 - 4. Elastomeric Gaskets: Conform with ASTM F477
 - 5. Elastomeric Joints: Conform with ASTM D3212

6. Solvent Weld Joints: Not permitted.

B. Sewer Services

1. 4” and 6” pipe shall be Schedule 40 PVC and conform to section 33 00 02, Polyvinyl Chloride (PVC) Pipe and Fittings.
2. Branch laterals shall be designed to accept SDR 35.

2.2 DEFLECTION TEST REQUIREMENTS

A. Deflection testing procedures shall conform to Section 01 45 23 10, Testing and Inspection of Pipeline and Appurtenances.

B. The following table shall be used for the mandrel setting for Polypropylene Pipe:

Table 1
SaniTite HP Recommended Mandrel Settings

Pipe Type	Pipe Diameter (Inches)	Minimum Inside Diameter (Inches)	Inside Diameter With 5% Deflection (Inches)
Dual Wall	12	11.90	11.31
	15	14.85	14.11
	18	17.93	17.03
	21	20.79	19.75
	24	23.90	22.71
	30	29.79	28.30
Triple Wall	30	29.62	28.14
	36	35.40	33.63
	42	41.31	39.24
	48	47.31	44.94
	60	59.30	56.34

END OF SECTION

EXHIBITS

TABLE OF CONTENTS

Exhibit 1	-	227 S. WEBSTER AVENUE INLET LEAD REPAIR
Exhibit 2	-	1301 FRANKLIN STREET INLET REPAIR
Exhibit 3	-	509 S. HURON STREET INLET REPAIR
Exhibit 4	-	SANITARY SEWER MANHOLE INSTALLATION ON SEWER SOUTH OF MORRIS STREET BETWEEN N. BROADWAY STREET AND N. WISCONSIN STREET
Exhibit 5	-	1819 RIDGEWAY DRIVE INLET REPAIR

20-01B
227 S WEBSTER AVE
INLET LEAD REPAIR
EXHIBIT #1

S WEBSTER AV

**REMOVE AND REPLACE
 40'-12" CONC WITH EITHER
 PVC OR CONC**

12 inch Concrete

24 inch Other

J8-JW0AY5

J8-JV5AIC

J8-KQNAC6

145

1402

211

219

227

220

235

228

243

236

251

244

306

257

Legend	
	Storm Manhole
	Storm End Wall
	Storm Catch Basin
	Collectors
	Culvert
	Open Channel

DE PERE

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

**Sewer & Water
 Relay**

Project:
20-01B

01-2020
 By: MAL

1 inch = 80 feet

20-01B
 1301 FRANKLIN ST
 INLET REPAIR
 EXHIBIT #2

1301 FRANKLIN ST
 ADJUST INLET WITH NEW RINGS
 REUSE CASTING

WASHINGTON ST

N WASHINGTON ST

N ADAMS ST

IRWIN AV

GEORGE ST

S ADAMS ST

ARM

1 inch = 120 feet

Legend

- Storm Manhole
- ◐ Storm End Wall
- + Storm Catch Basin
- ▶— Collectors
- |— Culvert
- - - Open Channel

DE PERE

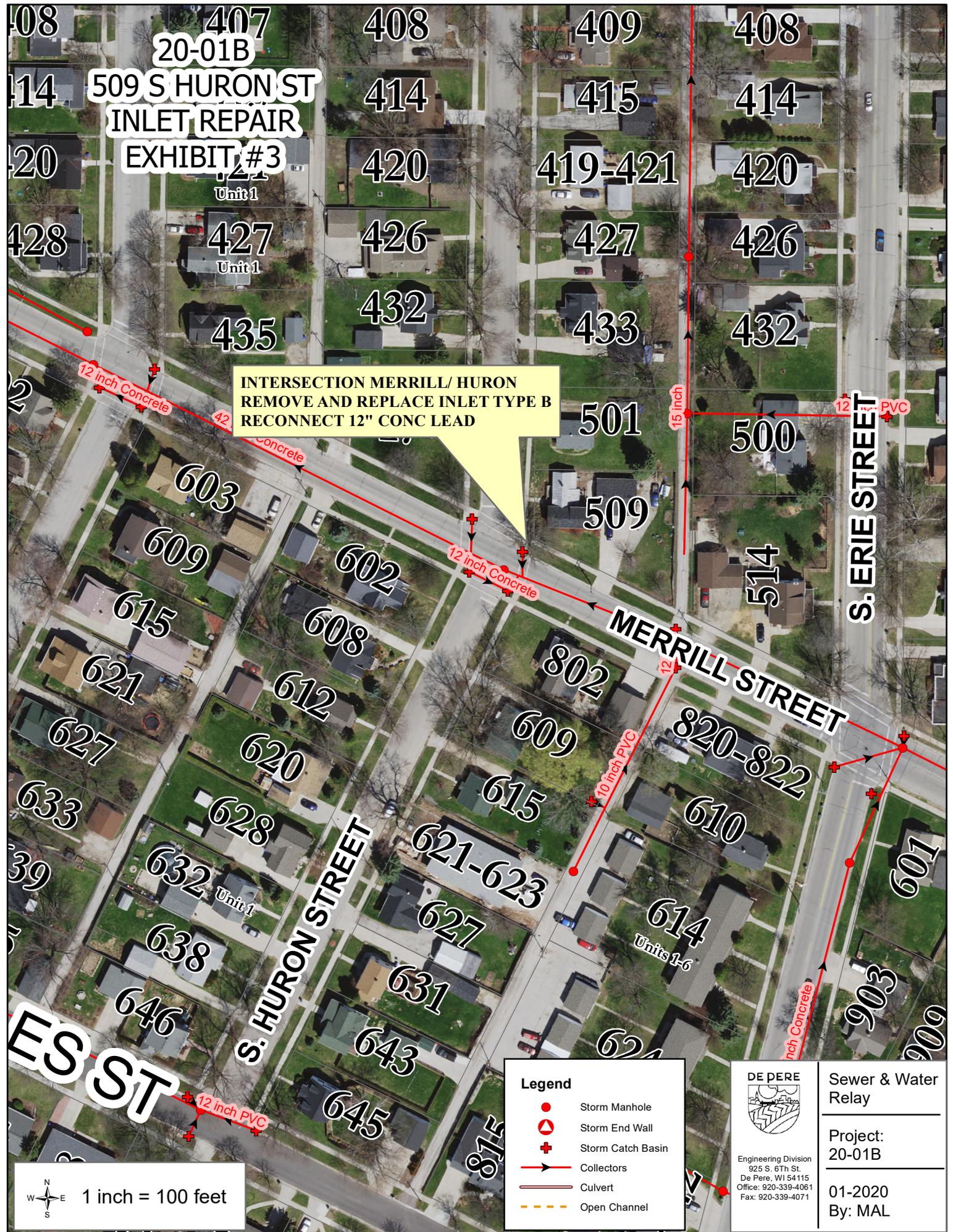


Engineering Division
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 Fax: 920-339-4071

Sewer & Water Relay

Project:
 20-01B

01-2020
 By: MAL



20-01B
 509 S HURON ST
 INLET REPAIR
 EXHIBIT #3

INTERSECTION MERRILL/ HURON
 REMOVE AND REPLACE INLET TYPE B
 RECONNECT 12" CONC LEAD

Legend	
	Storm Manhole
	Storm End Wall
	Storm Catch Basin
	Collectors
	Culvert
	Open Channel

DE PERE

 Engineering Division
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 Fax: 920-339-4071

Sewer & Water Relay

Project:
 20-01B

01-2020
 By: MAL

N
 W E S
 1 inch = 100 feet

20-01B
**SANITARY SEWER
 EXHIBIT #4**



LOCATE AND EXPOSE 8" SANITARY. INSTALL SANITARY MH. BULKHEAD AND ABANDON SEWER TO SOUTH.

EXPOSE AND INSTALL SANITARY MH AT END OF EXISTING 8" SANITARY SEWER FROM THE NORTH. CONNECT 6" SANITARY SEWER IF ABLE TO LOCATE.

N
 W E S
 1 inch = 80 feet

Legend	
●	Sanitary Manhole
■	Sanitary Pump
→	Sanitary Gravity Main
→	Sanitary Pressurized Main

DE PERE

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

Sewer & Water Relay
Project: 20-01B
01-2020 By: MAL

20-01B
1819 RIDGEWAY DRIVE
INLET REPAIR
EXHIBIT #5



1819 RIDGEWAY DRIVE
ADJUST INLET AND FILL
VOID IN ASPHALT

Legend

- Storm Manhole
- ◀▶ Storm End Wall
- + Storm Catch Basin
- Collectors
- Culvert
- - - Open Channel

DE PERE

 Engineering Division
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 De Pere, WI 54115
 Office: 920-339-4061
 Fax: 920-339-4071

Sewer & Water
Relay

Project:
 20-01B

01-2020
By: MAL

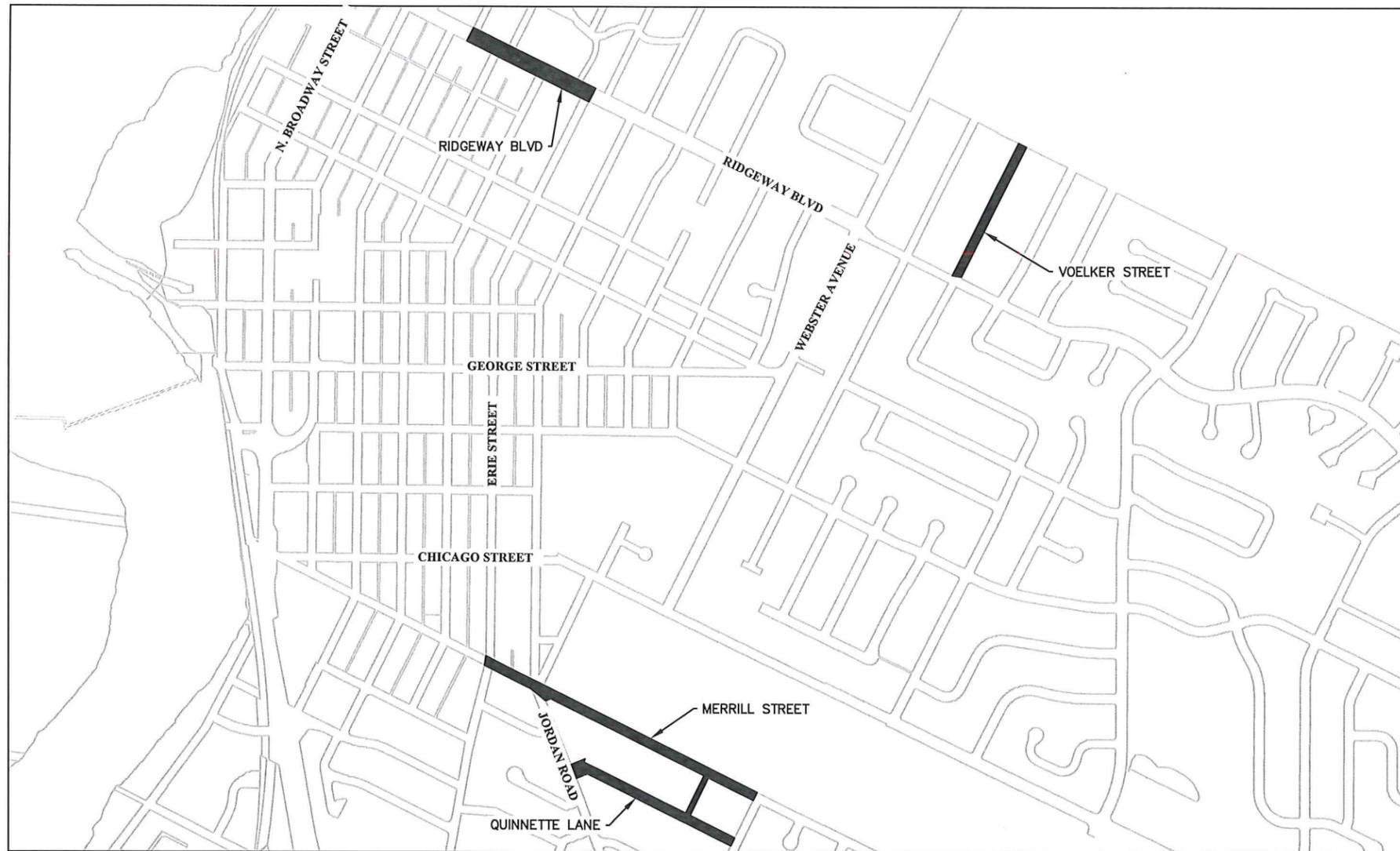
 1 inch = 120 feet

PROJECT# 20-01B EAST SEWER AND WATER RELAY AND STREET RESURFACING

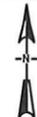
CITY OF DE PERE



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 SECTIONS
C101 – C102	VOELKER STREET PLAN AND PROFILE SHEETS
C103 – C106	MERRILL STREET WATER AND SANITARY SHEETS
C107 – C109	QUINNETTE LANE WATER AND SANITARY SHEETS
C110 – C112	RIDGEWAY BLVD WATER AND SANITARY SHEETS
C113 – C116	MERRILL STREET STORM SEWER SHEETS
C117	QUINNETTE/MERRILL EASEMENT STORM SEWER SHEET
C118 – C120	QUINNETTE LANE STORM SEWER SHEETS
C401 – C405	BENCHMARKS AND CONTROL POINTS SHEETS
C406	PAVEMENT MARKING ON MERRILL STREET
C407	TRAFFIC CONTROL ON MERRILL STREET
C408	TRAFFIC CONTROL ON RIDGEWAY BLVD
C501 – C508	CONSTRUCTION DETAILS

**CITY OF DE PERE
BOARD OF PUBLIC WORKS**

2/6/2020
DATE

E.P. Rakus
CITY ENGINEER

2/6/2020
DATE

Thomas M. ...
CITY ADMINISTRATOR

2/6/2020
DATE

Michael J. Walsh
MAYOR

STAMP:



LIST OF STANDARD ABBREVIATIONS

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

MAPPING & TOPOGRAPHY SYMBOLOGY

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:

1. ALL ELEVATIONS ARE REFERENCED TO NAVD 88.
2. 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.
3. 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.
4. 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 SYMBOLOGY

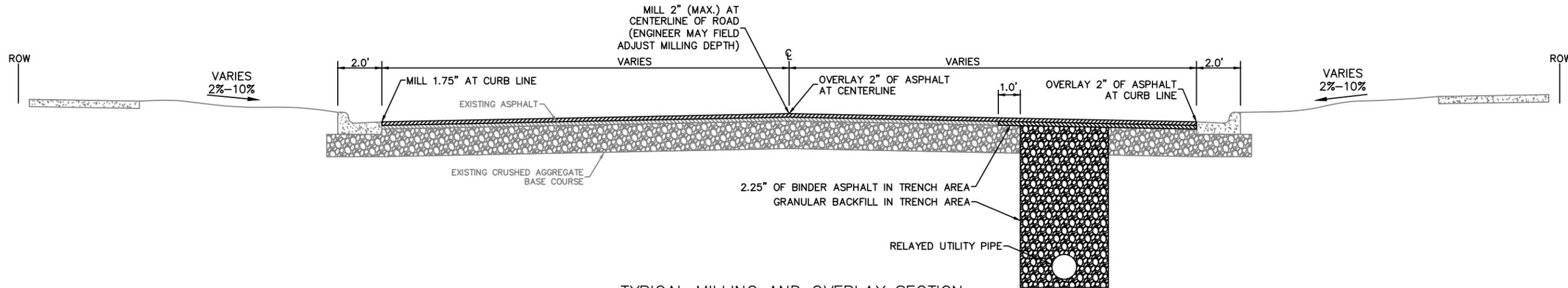
DESCRIPTION	SYMBOL
PLAN	
EXISTING SANITARY SEWER LINE	(SIZE AND MATERIAL) San
PROPOSED SANITARY SEWER LINE	100'-8" PVC SAN San
EXISTING STORM SEWER LINE	(SIZE AND MATERIAL) ST
PROPOSED STORM SEWER LINE	100'-8" PVC STM ST
EXISTING WATER MAIN LINE	(SIZE AND MATERIAL) W
PROPOSED WATER MAIN LINE	100'-8" 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

PROFILE

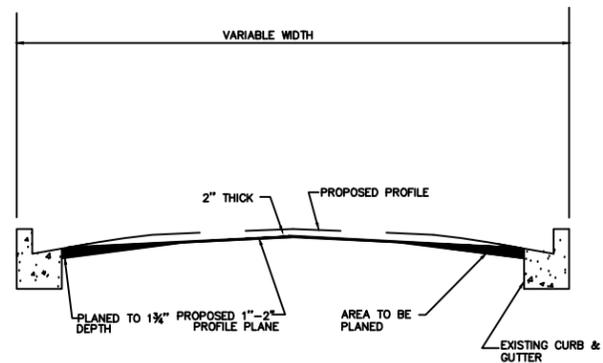
EXISTING SANITARY SEWER LINE	(SIZE AND MATERIAL)
PROPOSED SANITARY SEWER LINE	100'-8" PVC SAN @ 0.40%
EXISTING STORM SEWER LINE	(SIZE AND MATERIAL)
PROPOSED STORM SEWER LINE	100'-8" PVC STM @ 1.0%
EXISTING WATER MAIN LINE	(SIZE AND MATERIAL)
PROPOSED WATER MAIN LINE	PROPOSE 8" PVC WM

PATCH SYMBOLS

ASPHALTIC CONCRETE PAVEMENT		CRUSHED AGGREGATE BASE COURSE	
PORTLAND CEMENT CONCRETE			

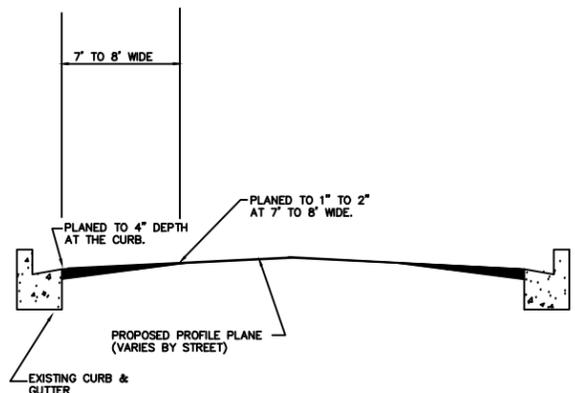


TYPICAL MILLING AND OVERLAY SECTION WITH CURB AND GUTTER



- NOTES**
- 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.
 - MINIMUM THICKNESS OF OVERLAY SHALL BE 2" + 0.1" PLUS THE THICKNESS OF THE LEVELING COURSES.
 - LEVELING COURSES (SCRATCH COAT) OF ASPHALT TO A DEPTH AS REQUIRED SHALL BE PROVIDED IN AREAS OF LOCALIZED SETTLEMENT.
 - BITUMINOUS CONCRETE AGGREGATES USED IN OVERLAY WORK SHALL CONFORM TO GRADATION NO. 2, SURFACE COURSE.

MILLING AND RESURFACING DETAIL
(TRIPLE PASS PAVED STREET)



- NOTES**
- 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.
 - MINIMUM THICKNESS OF OVERLAY SHALL BE 2" + 0.1" PLUS THE THICKNESS OF THE LEVELING COURSES.
 - LEVELING COURSES (SCRATCH COAT) OF ASPHALT TO A DEPTH AS REQUIRED SHALL BE PROVIDED IN AREAS OF LOCALIZED SETTLEMENT.
 - BITUMINOUS CONCRETE AGGREGATES USED IN OVERLAY WORK SHALL CONFORM TO GRADATION NO. 2, SURFACE COURSE.

4" MILLING DETAIL
(LOCATIONS DETERMINED BY ENGINEER)



CITY OF DE PERE

ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115
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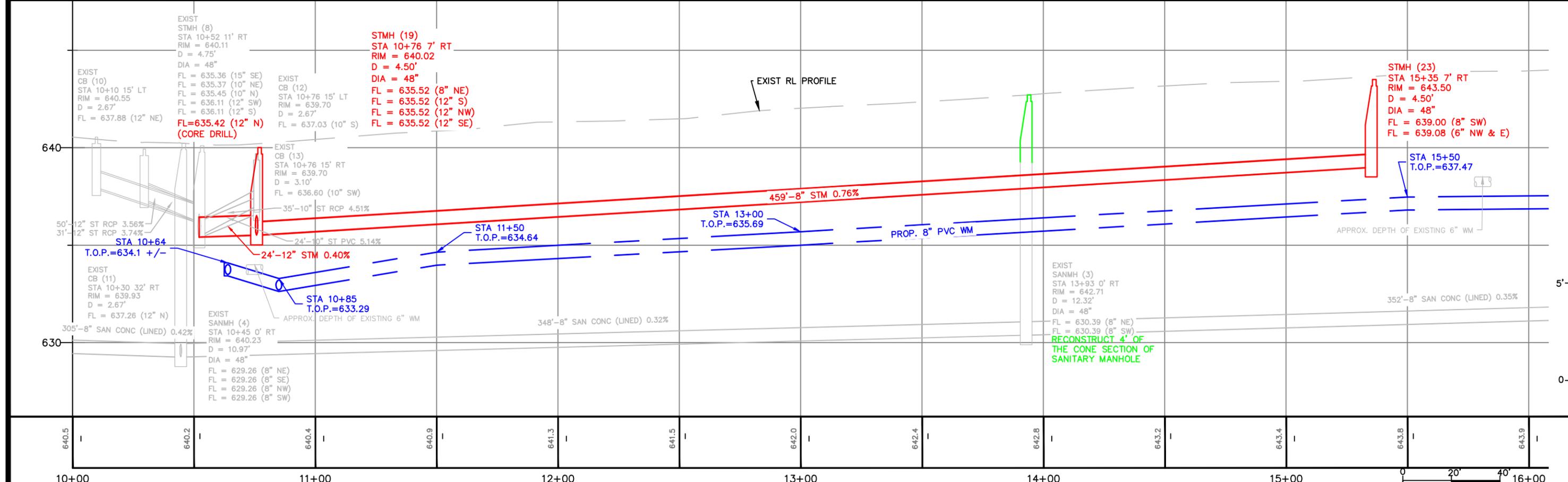
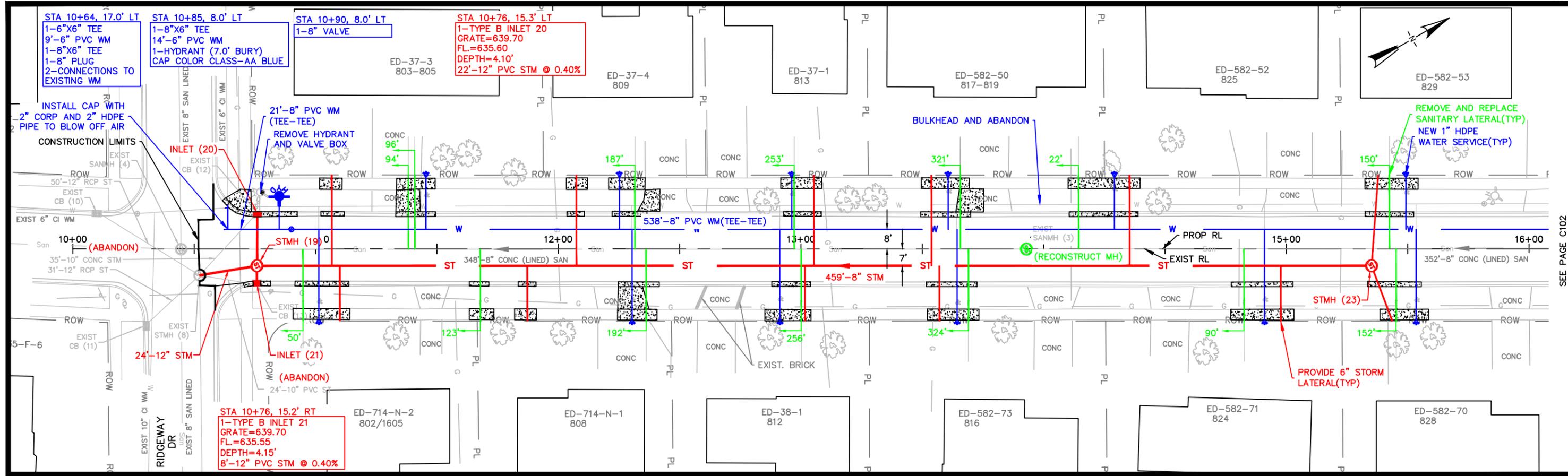
**CITY OF DE PERE
TYPICAL SECTION**

NAME: EAST SEWER & WATER RELAY AND STREET RESURFACING
PROJECT # 20-01B

	BY	DATE
SURVEYED		
DRAWN	SRL	01-2020
DESIGNED	SRL	01-2020
CHECKED	CKK	01-2020

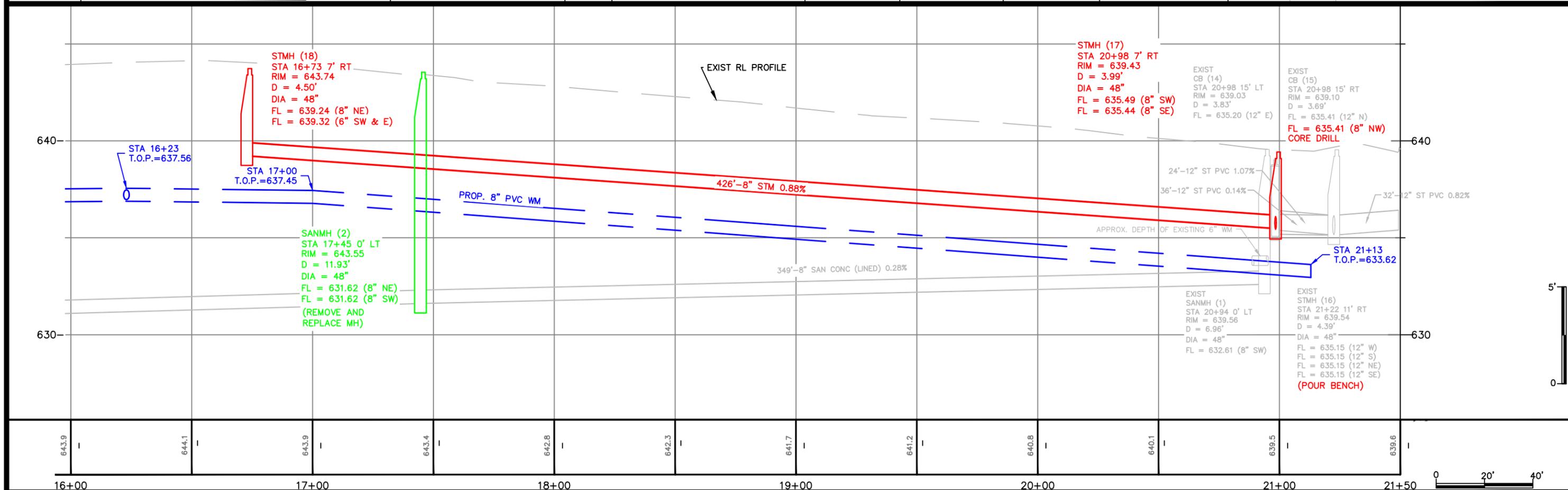
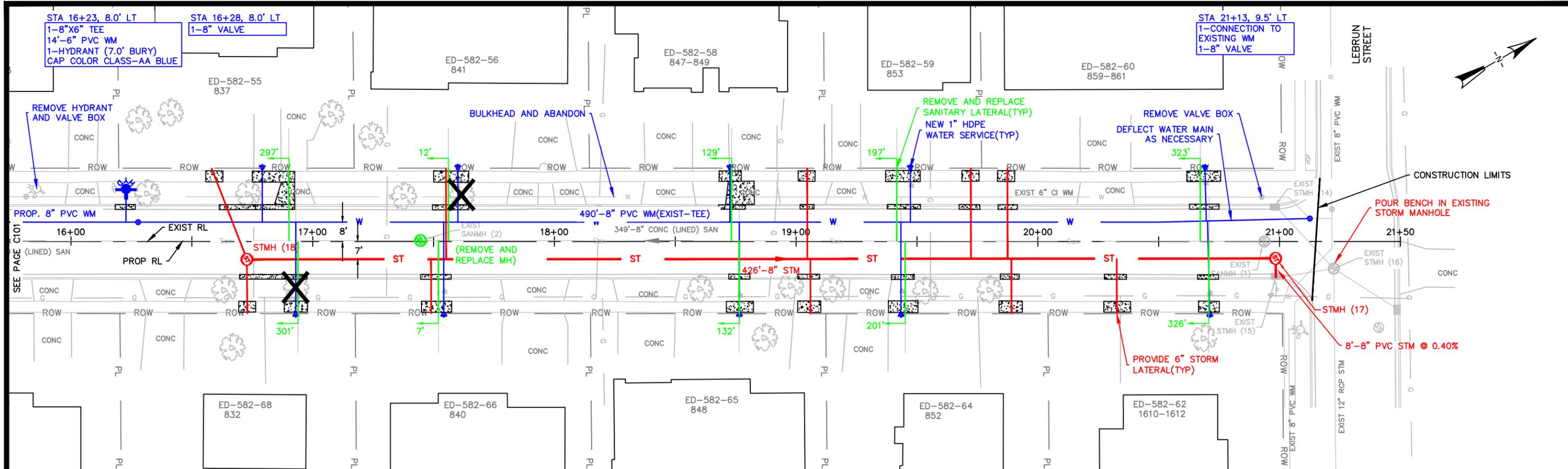
REVISIONS / ISSUES			
NO.	DATE	BY	REMARKS

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SEE PAGE C102

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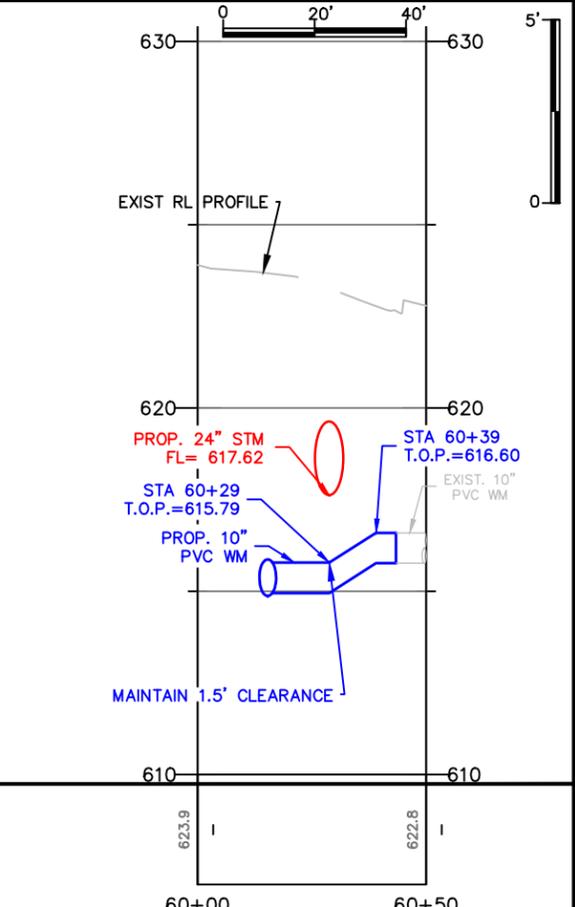
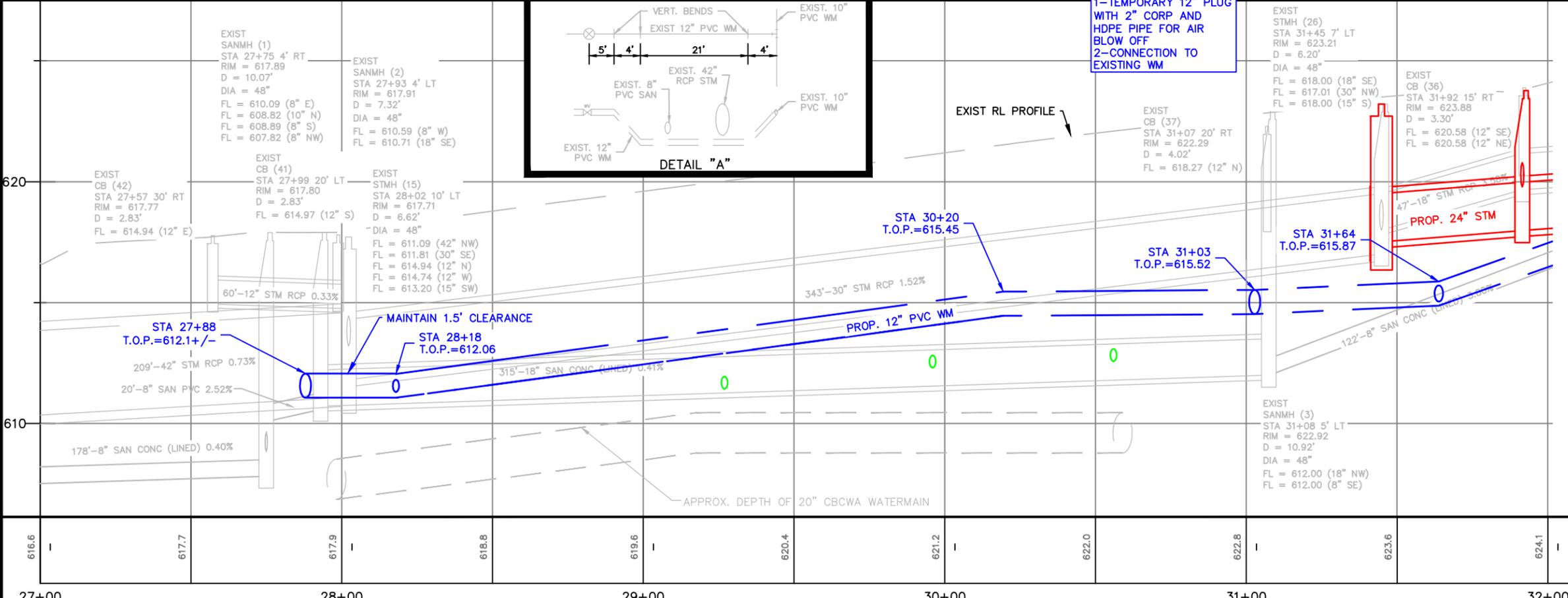
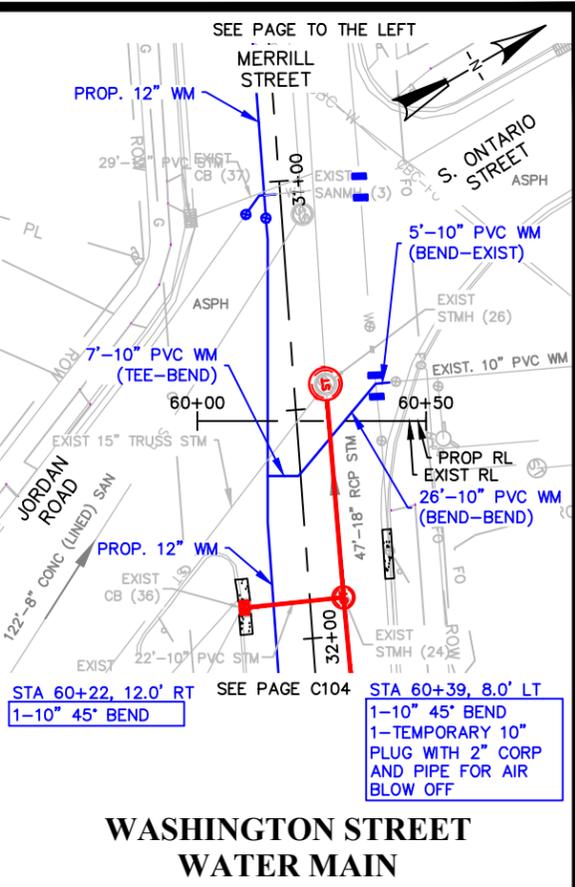
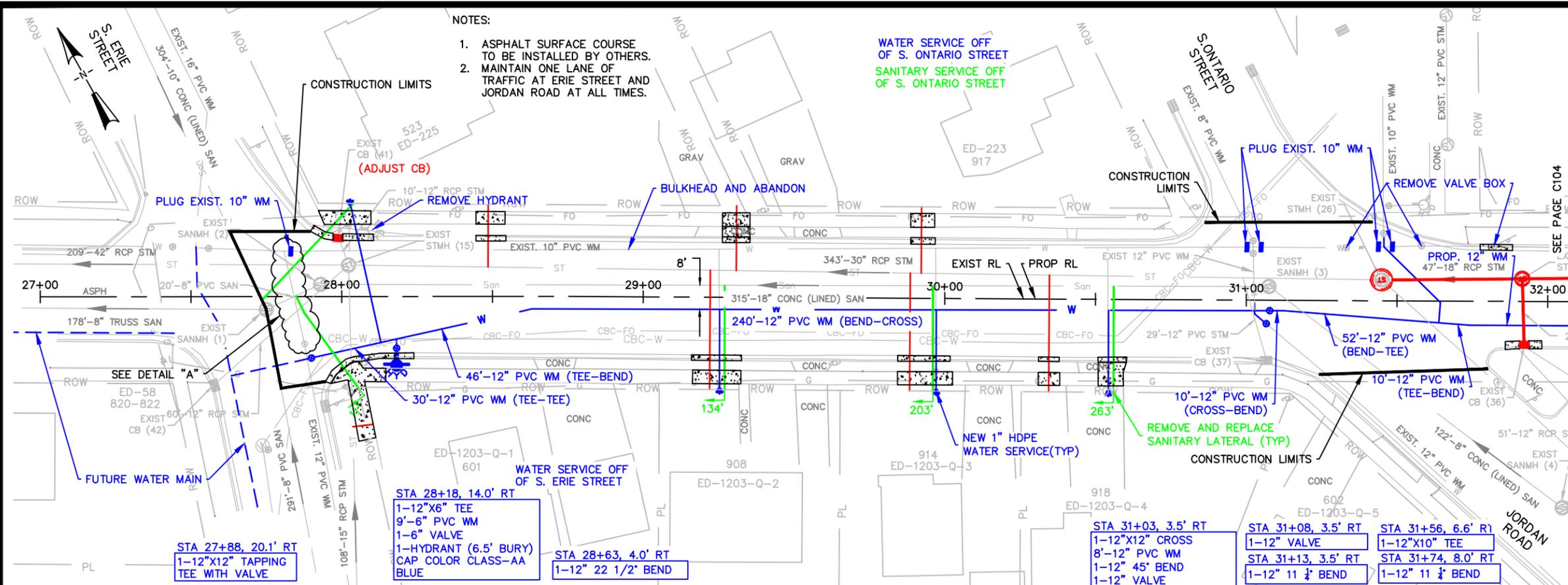


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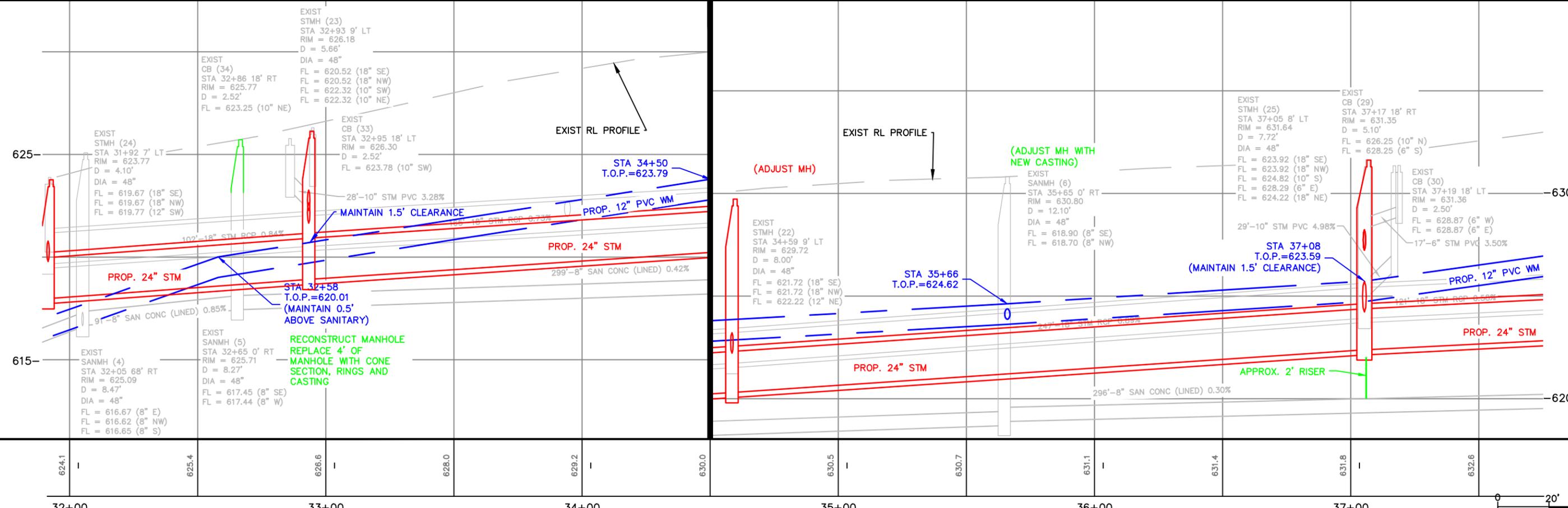
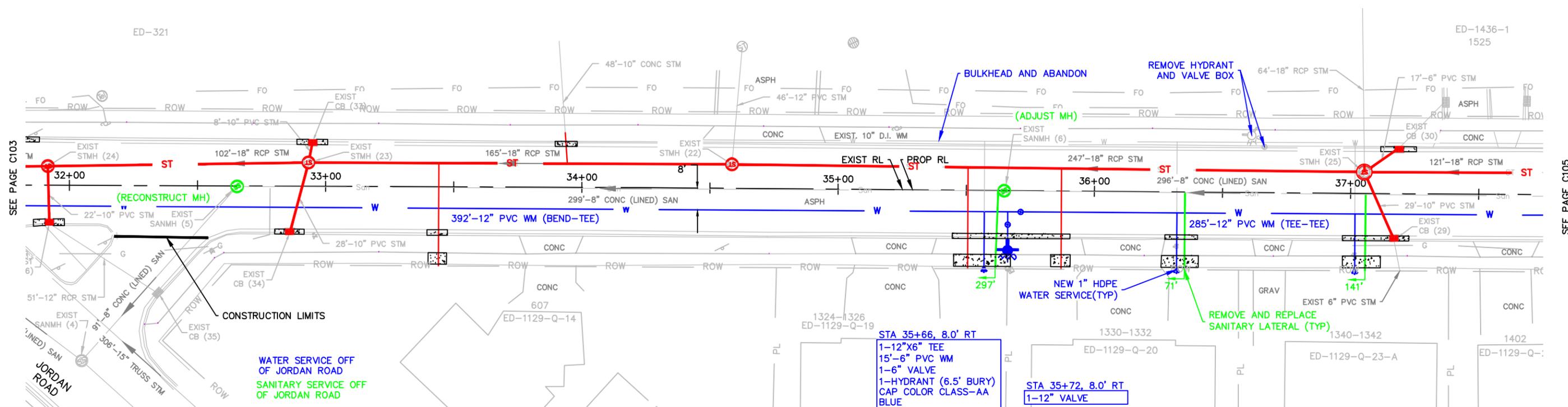
1. ASPHALT SURFACE COURSE TO BE INSTALLED BY OTHERS.
2. MAINTAIN ONE LANE OF TRAFFIC AT ERIE STREET AND JORDAN ROAD AT ALL TIMES.

WATER SERVICE OFF OF S. ONTARIO STREET
 SANITARY SERVICE OFF OF S. ONTARIO STREET



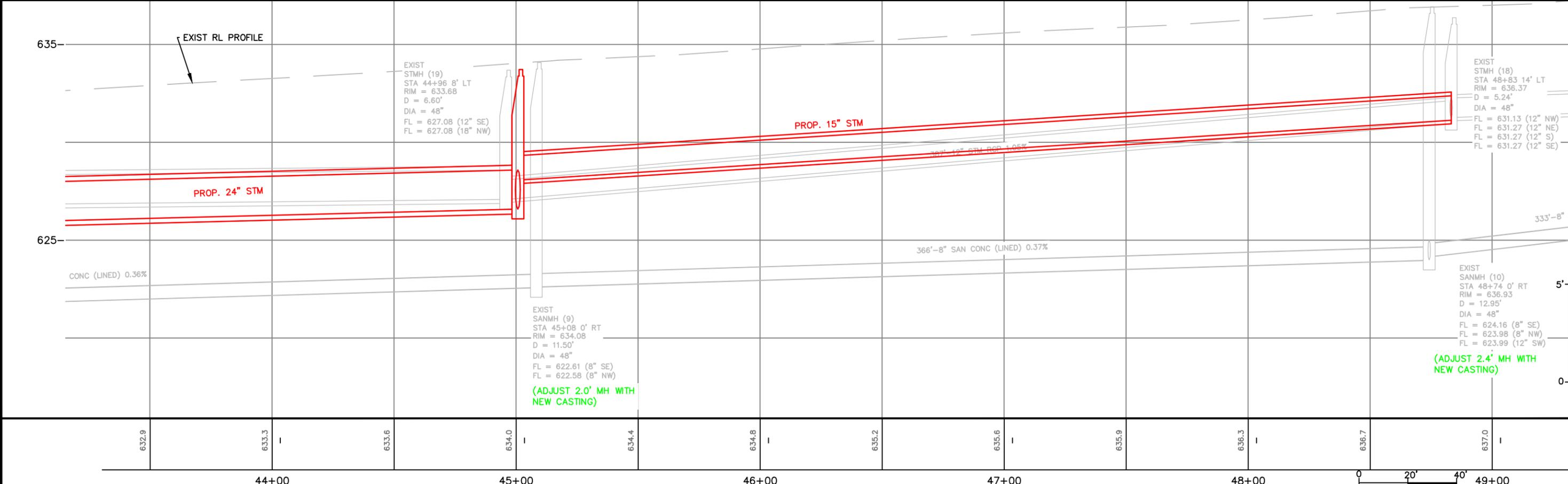
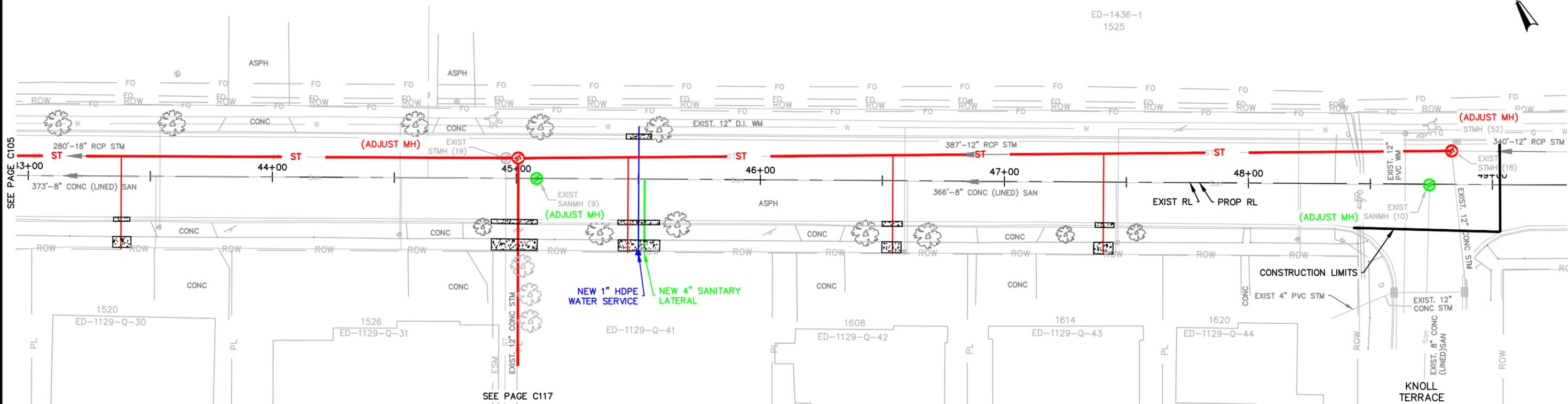
WATER SERVICE OFF
OF S. WASHINGTON STREET
SANITARY SERVICE OFF
OF S. WASHINGTON STREET

NOTE:
ASPHALT SURFACE COURSE TO
BE INSTALLED BY OTHERS.

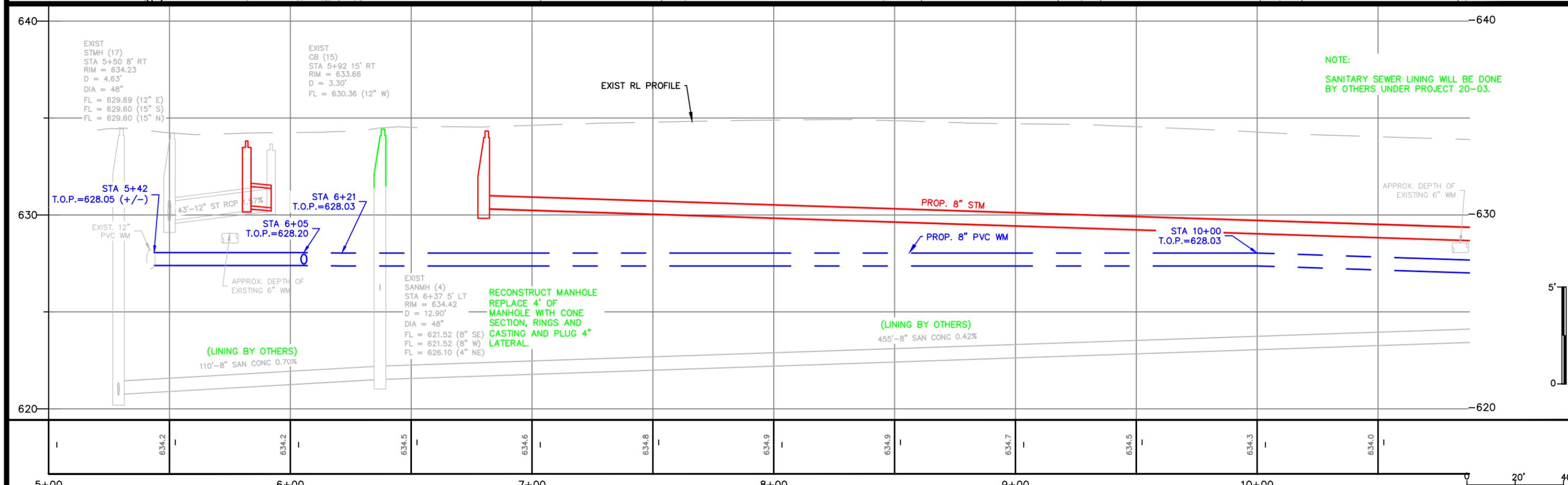
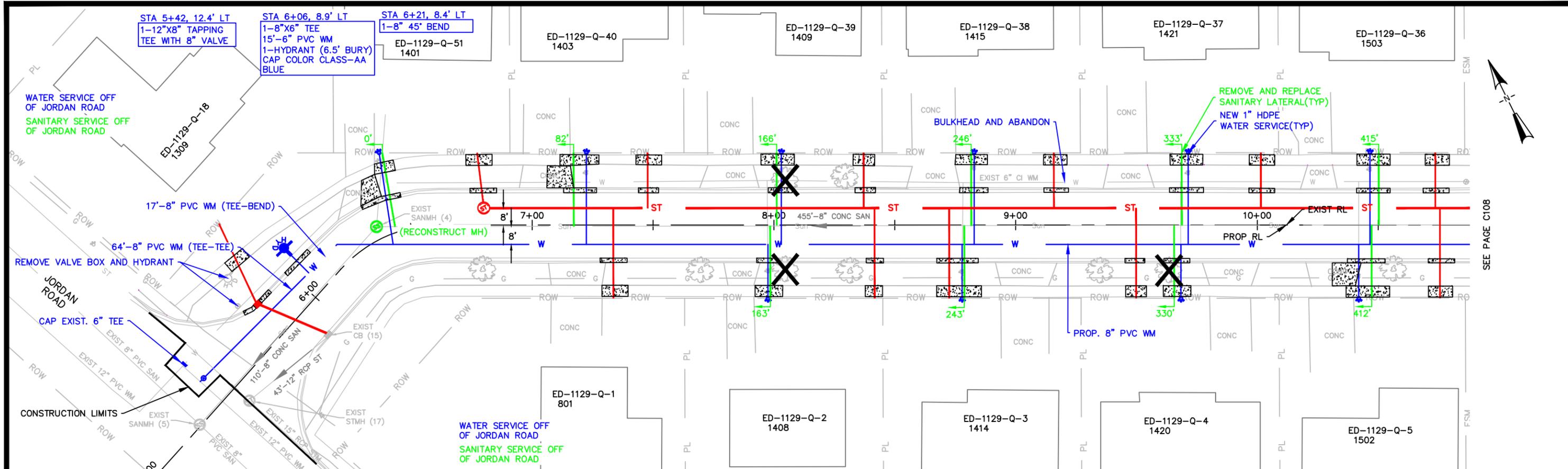


NOTE:
 ASPHALT SURFACE COURSE TO
 BE INSTALLED BY OTHERS.

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 1525



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CITY OF DE PERE
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QUINETTE LANE
JORDAN ROAD TO 550' SE OF JORDAN RD
WATER MAIN AND SANITARY SEWER

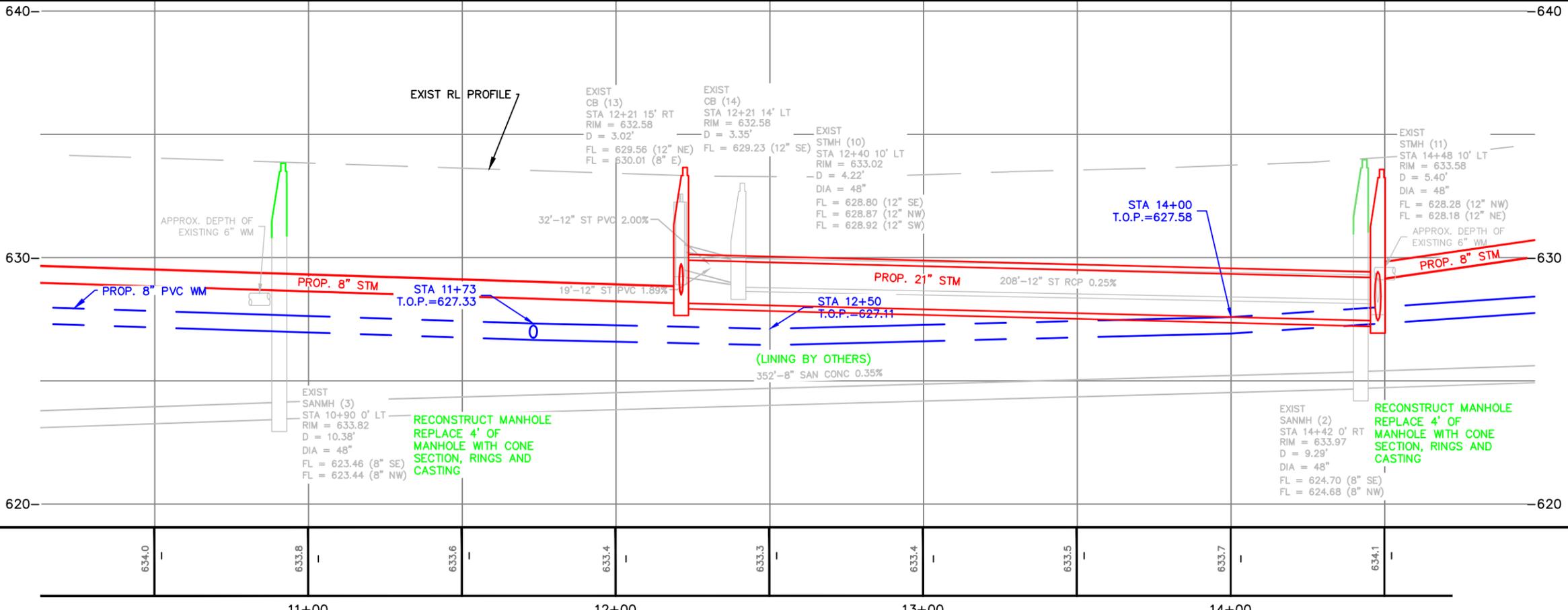
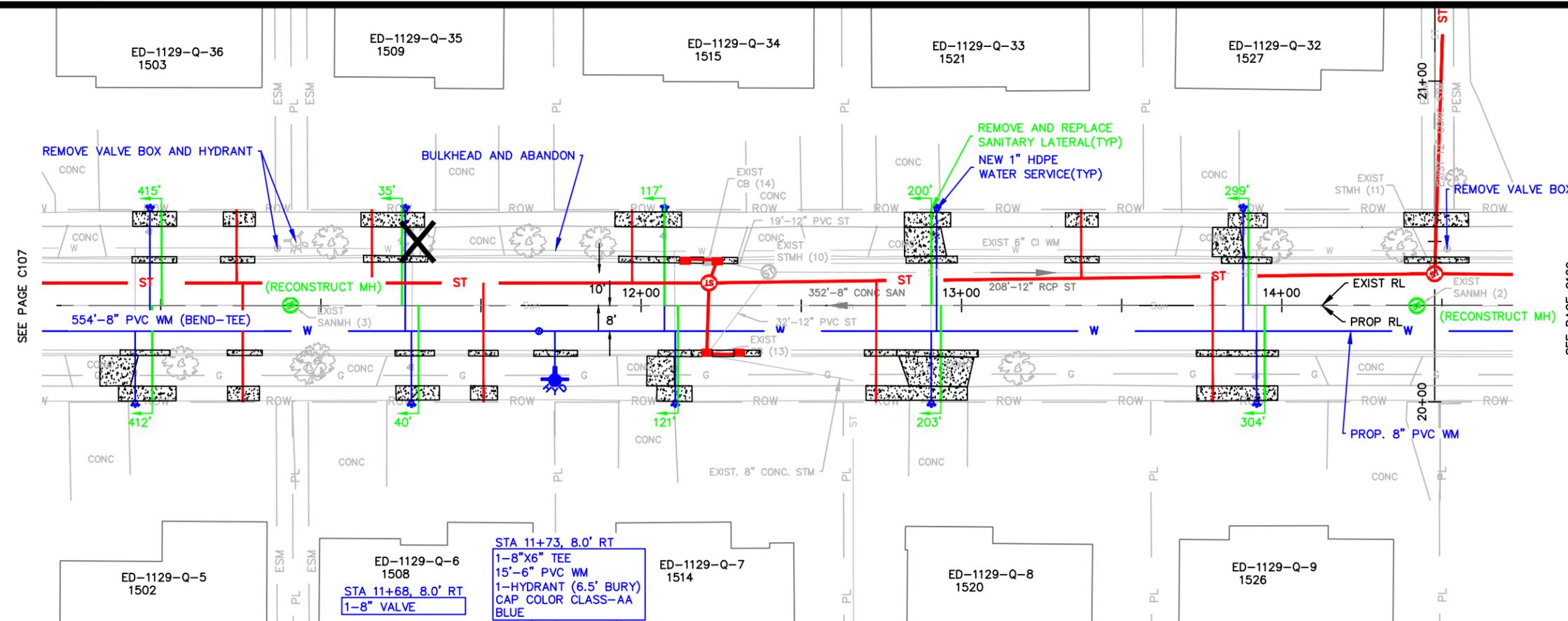
NAME: EAST SEWER & WATER RELAY AND STREET RESURFACING
 PROJECT # 20-01B

BY	DATE
SURVEYED BK	10-2019
DRAWN SRL	11-2019
DESIGNED SRL	11-2019
CHECKED EPR	12-2019

REVISIONS / ISSUES	
NO.	DATE BY REMARKS

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NOTE:
SANITARY SEWER LINING WILL BE DONE BY OTHERS UNDER PROJECT 20-03.



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

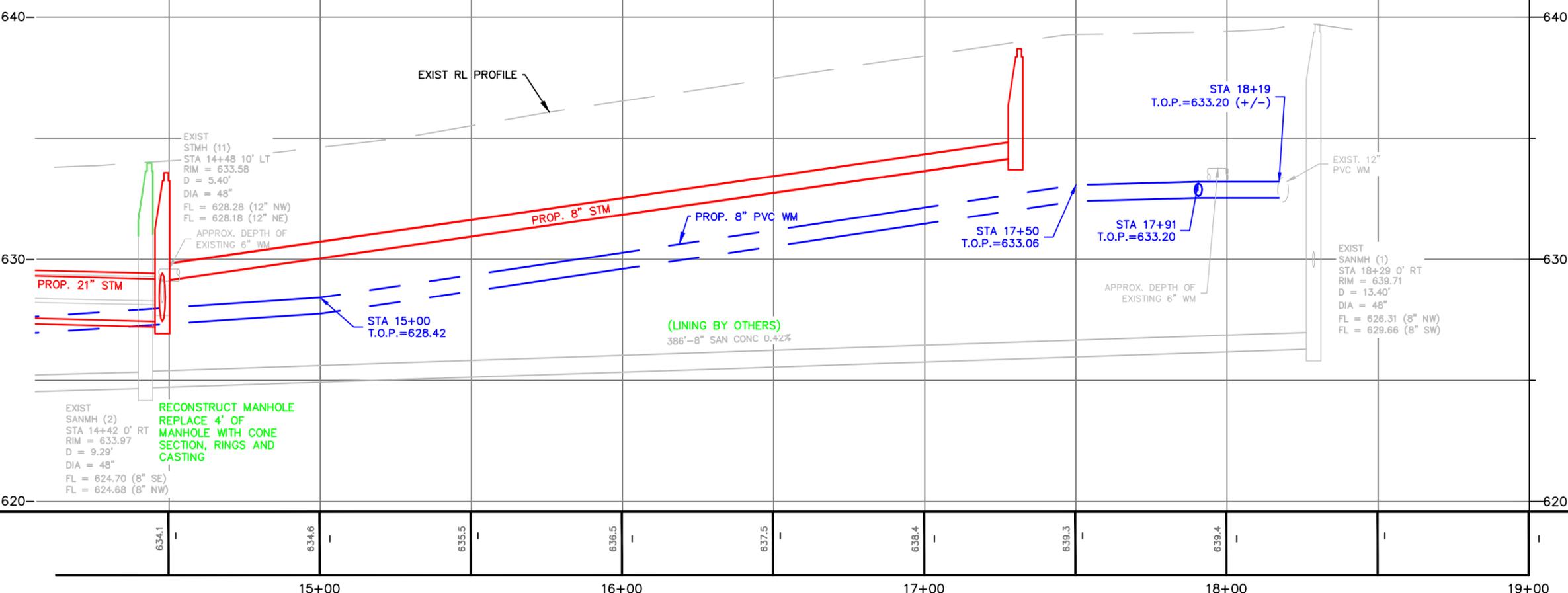
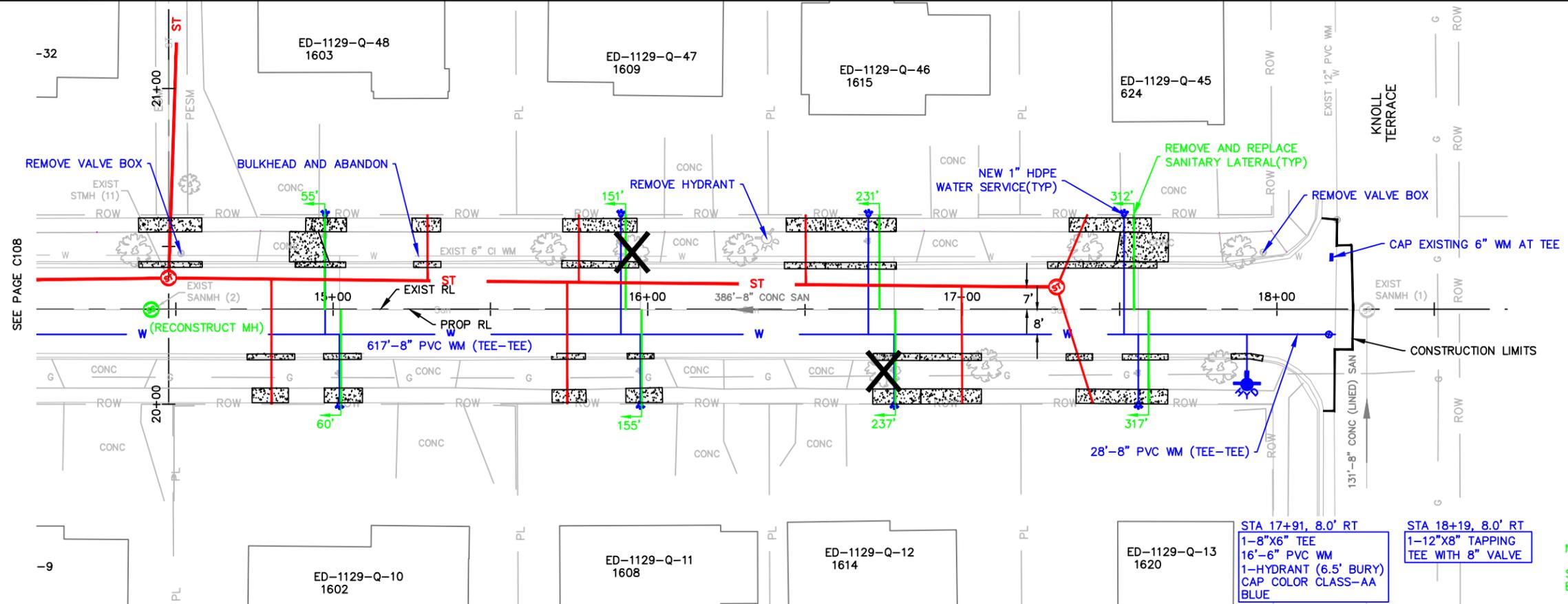
QUINNETTE LANE
550' SE OF JORDAN RD TO 400' NW OF KNOLL TER
WATER MAIN AND SANITARY SEWER

NAME:
EAST SEWER & WATER RELAY
AND STREET RESURFACING
PROJECT # 20-01B

NO.	DATE	REVISIONS / ISSUES	
		BY	REMARKS
SURVEYED	10-2019	BK	
DRAWN	11-2019	SRL	
DESIGNED	11-2019	SRL	
CHECKED	12-2019	EPR	

PAGE NO.
C108

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NOTE:
SANITARY SEWER LINING WILL BE DONE BY OTHERS UNDER PROJECT 20-03.



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

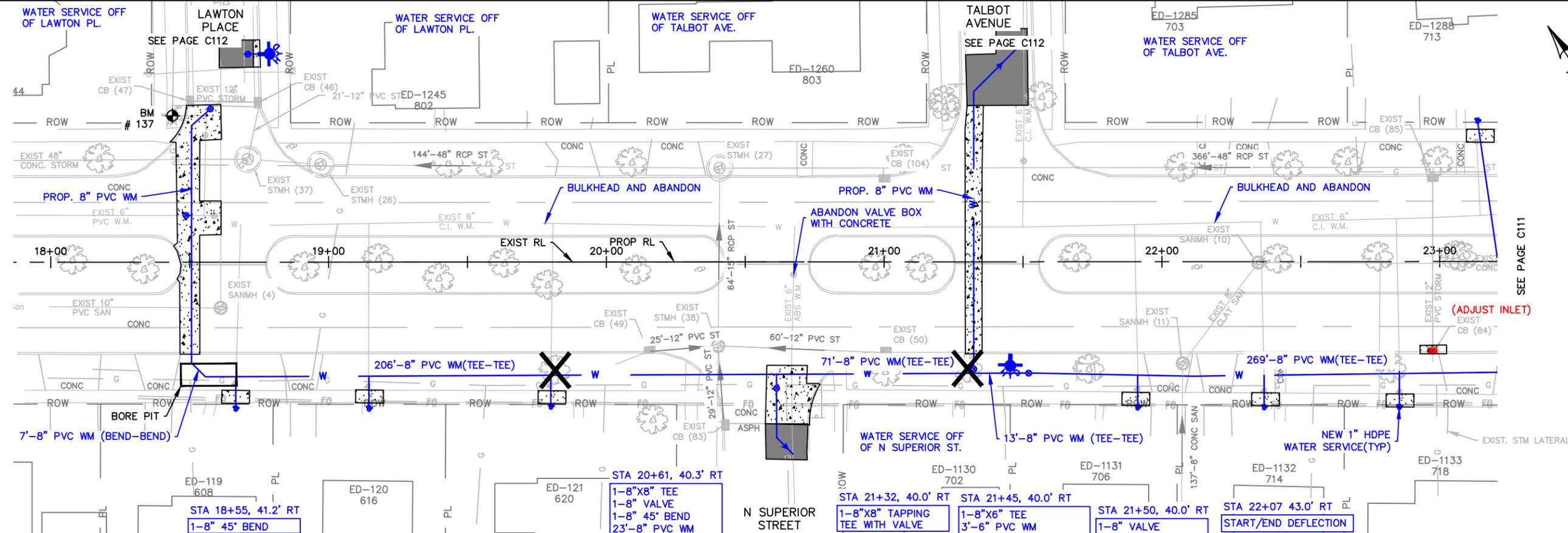
QUINNETTE LANE
400' NW OF KNOLL TER TO KNOLL TERRACE
WATER MAIN AND SANITARY SEWER

NAME:
EAST SEWER & WATER RELAY
AND STREET RESURFACING
PROJECT # 20-01B

SURVEYED	BK	10-2019
DRAWN	SRL	11-2019
DESIGNED	SRL	11-2019
CHECKED	EPR	12-2019

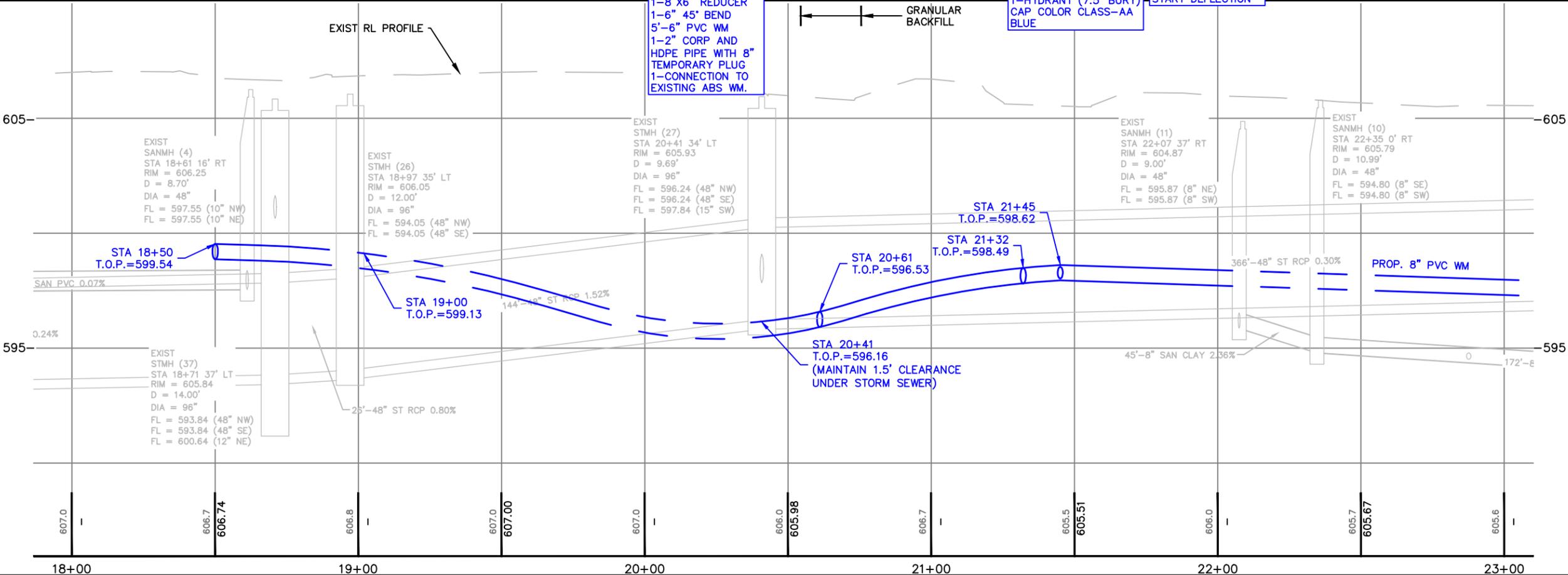
REVISIONS / ISSUES		
NO.	DATE	REMARKS

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SEE PAGE C111

(ADJUST INLET)



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

- STA 21+32, 40.0' RT
- 1-8"X8" TAPPING TEE WITH VALVE

- STA 21+45, 40.0' RT
- 1-8"X6" TEE
 - 3'-6" PVC WM
 - 1-HYDRANT (7.5' BURY) CAP COLOR CLASS-AA BLUE

- STA 21+50, 40.0' RT
- 1-8" VALVE
 - START DEFLECTION

- STA 22+07 43.0' RT
- START/END DEFLECTION



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**RIDGEWAY BLVD
LAWTON PLACE TO N 250' E/O TALBOT AVENUE**

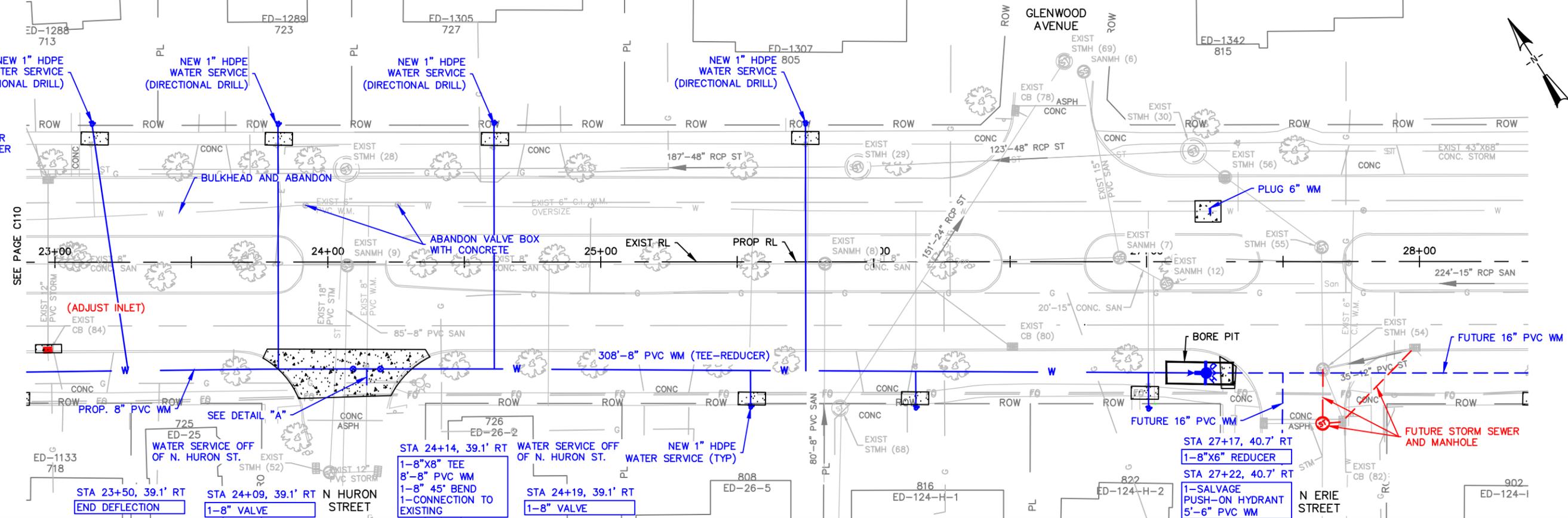
NAME: EAST SEWER & WATER RELAY AND STREET RESURFACING
PROJECT # 20-01B

BY	DATE
SURVEYED JML	08-2019
DRAWN JML	11-2019
DESIGNED SRL	02-2020
CHECKED EPR	02-2020

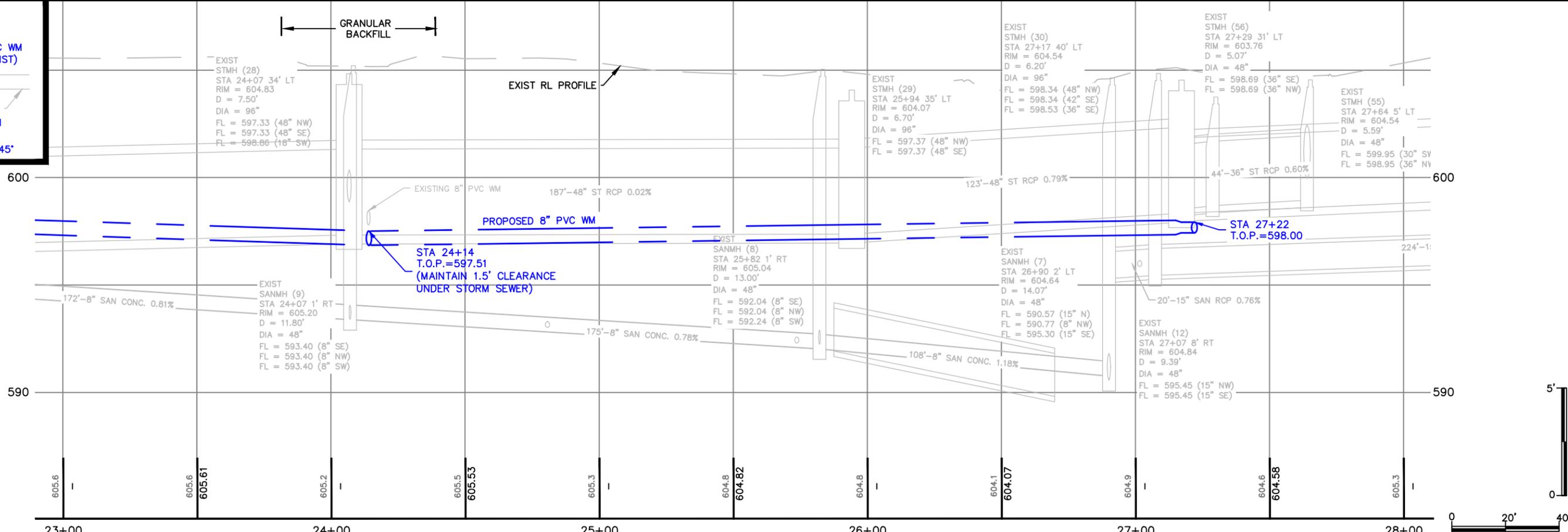
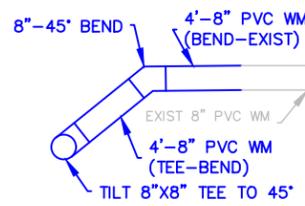
REVISIONS / ISSUES		
NO.	DATE	REMARKS

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NOTE:
ALL DIRECTIONAL DRILL WATER SERVICES WILL BE BORE UNDER THE 48" STORM SEWER.



DETAIL "A"



CITY OF DE PERE
ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115
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RIDGEWAY BLVD
250' E/O TALBOT AVENUE TO N. ERIE STREET

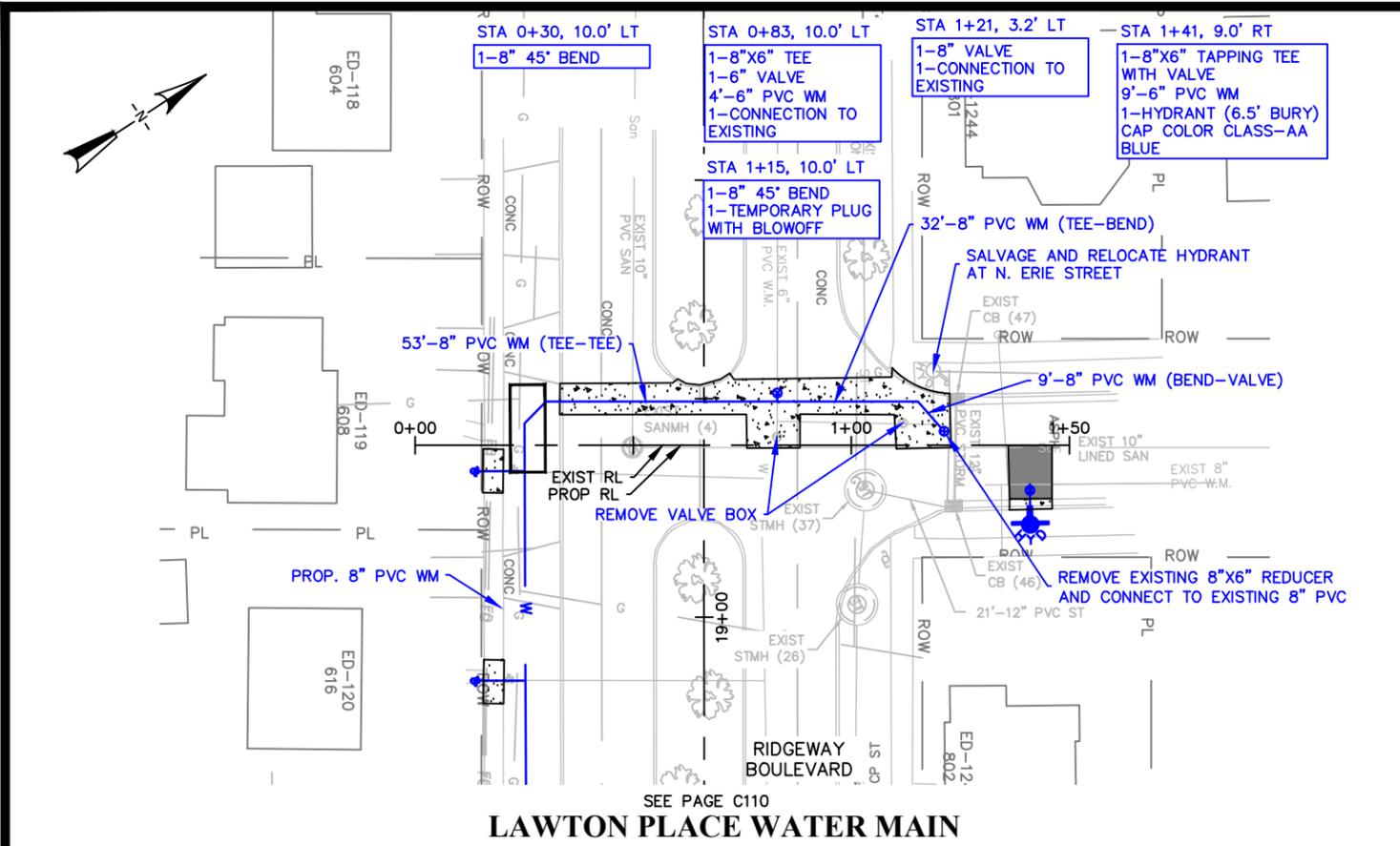
NAME:
EAST SEWER & WATER RELAY
AND STREET RESURFACING
PROJECT # 20-01B

BY	DATE
SURVEYED JML	08-2019
DRAWN JML	11-2019
DESIGNED SRL	02-2020
CHECKED EPR	02-2020

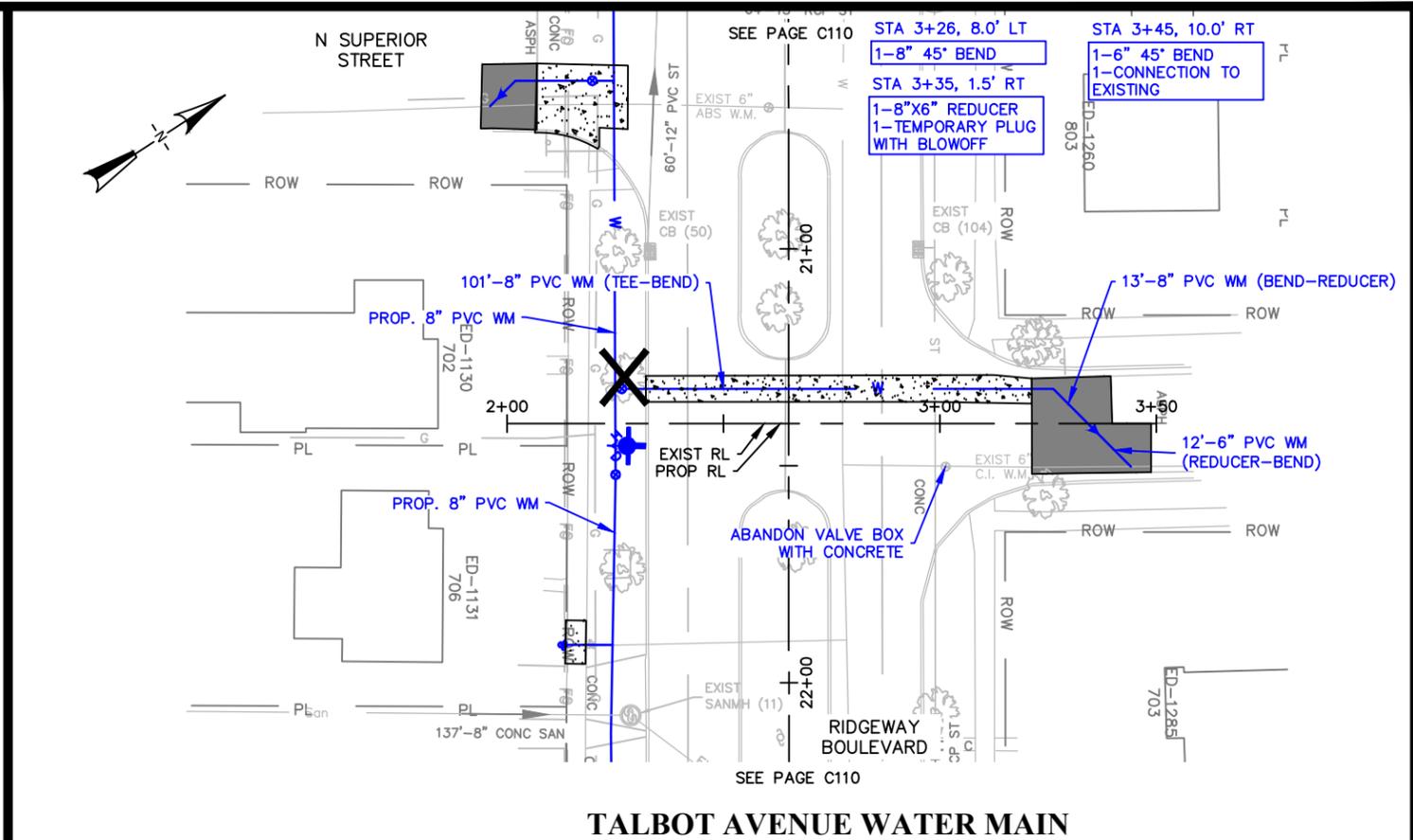
REVISIONS / ISSUES			
NO.	DATE	BY	REMARKS

PAGE NO.
C111

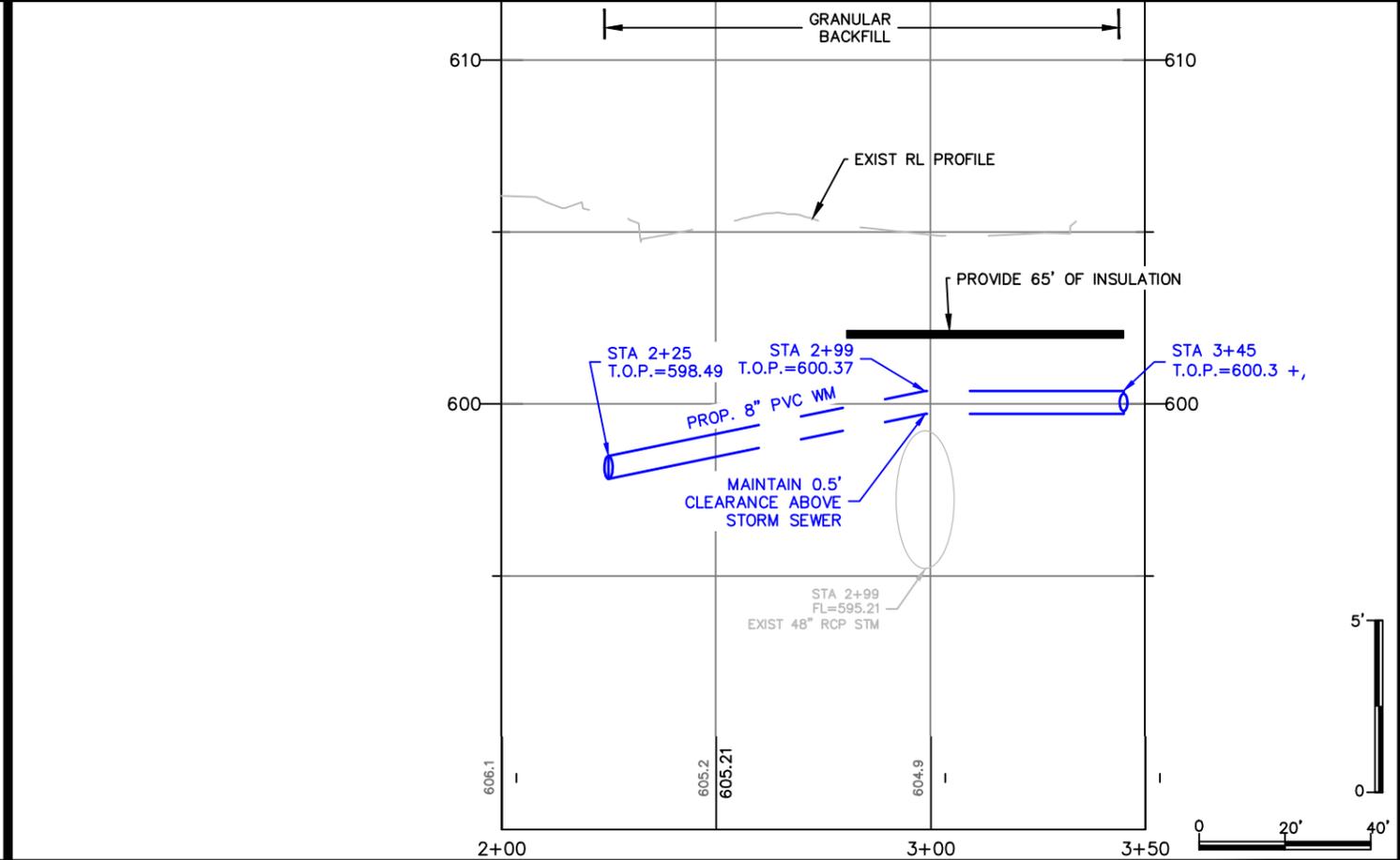
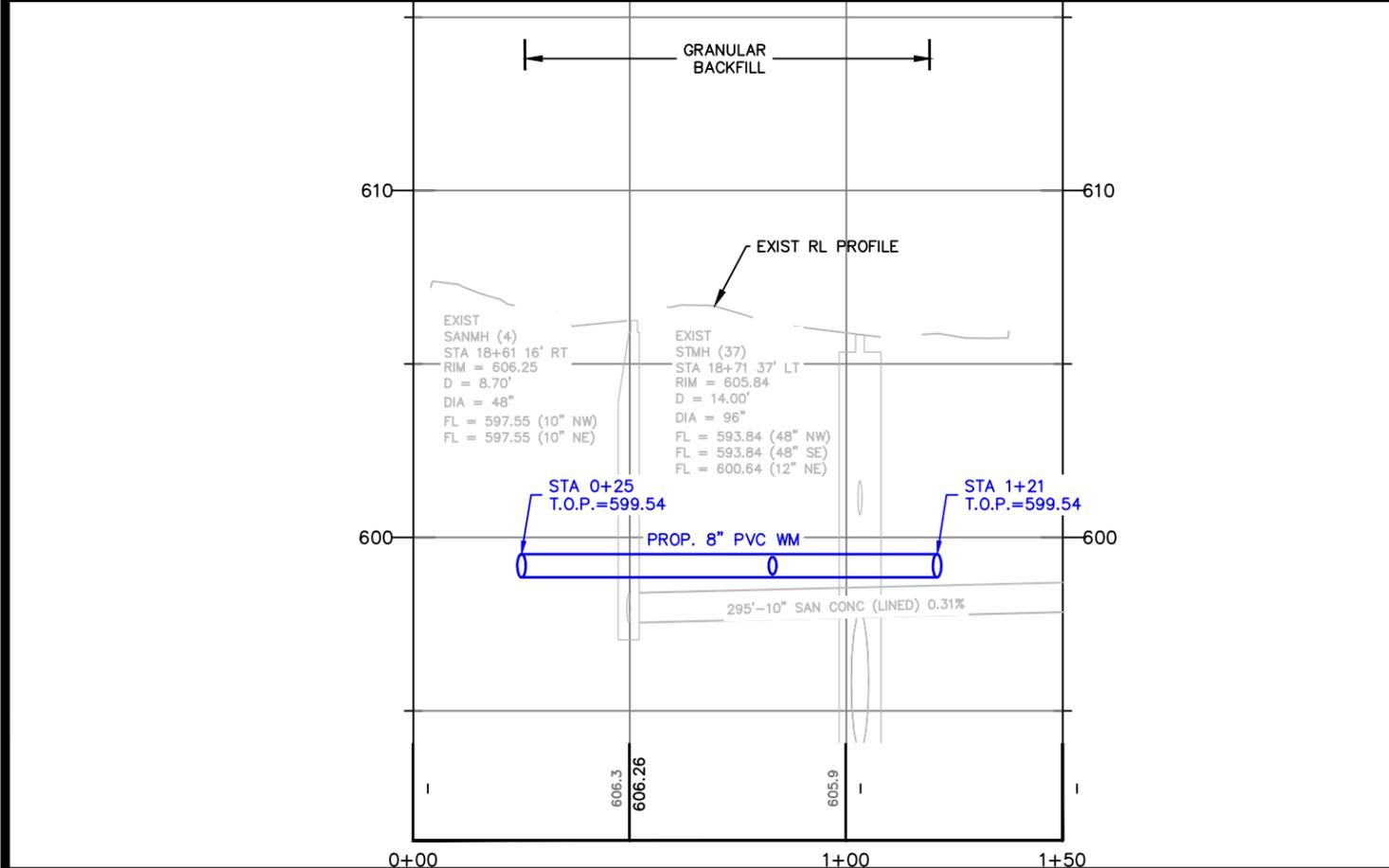
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LAWTON PLACE WATER MAIN



TALBOT AVENUE WATER MAIN



CITY OF DE PERE

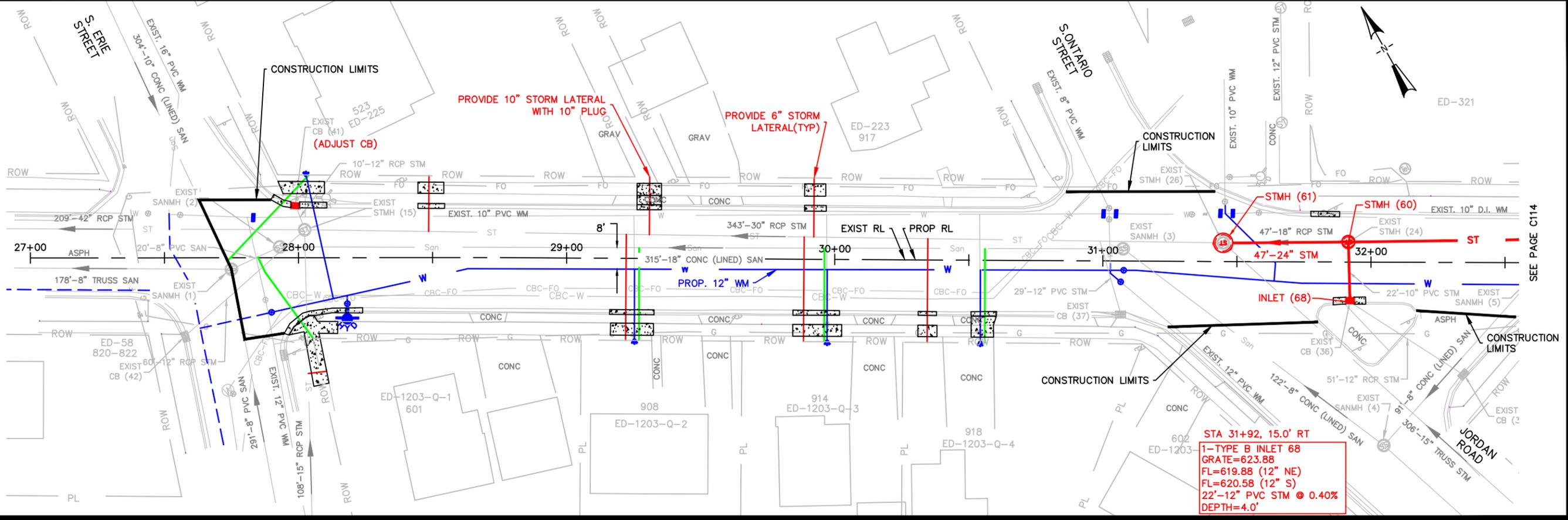
ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115
OFFICE 920-339-4061 FAX 920-339-4071

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

NAME: EAST SEWER & WATER RELAY AND STREET RESURFACING
PROJECT # 20-01B

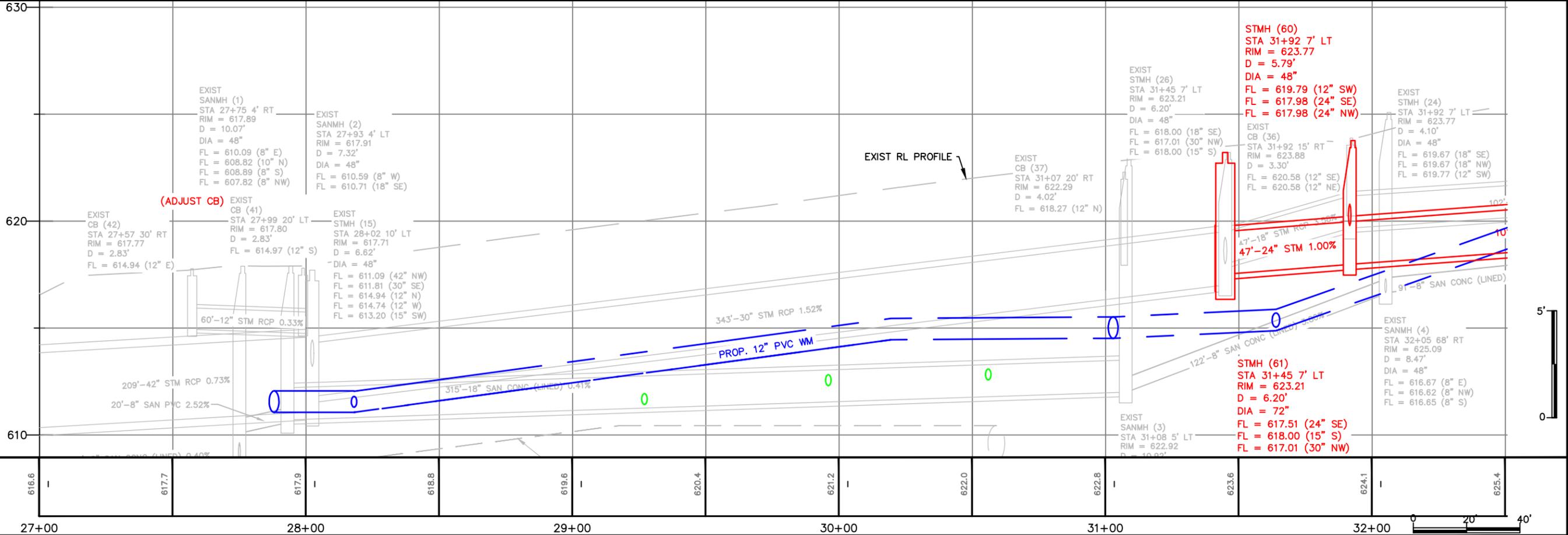
NO.	DATE	REVISIONS / ISSUES	
		BY	REMARKS
SURVEYED	08-2019	JML	
DRAWN	11-2019	JML	
DESIGNED	02-2020	SRL	
CHECKED	02-2020	EPR	

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NOTE:
ASPHALT SURFACE COURSE TO BE INSTALLED BY OTHERS.

SEE PAGE C114



	CITY OF DE PERE	MERRILL STREET	NAME: EAST SEWER & WATER RELAY AND STREET RESURFACING PROJECT # 20-01B	BY SURVEYED BK DRAWN SRL DESIGNED SRL CHECKED EPR	DATE 10-2019 12-2019 12-2019 12-2019	REVISIONS / ISSUES		PAGE NO. C113											
	ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115 OFFICE 920-339-4061 FAX 920-339-4071	S. ERIE ST TO JORDAN ROAD STORM SEWER				<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th>NO.</th> <th>DATE</th> <th>BY</th> <th>REMARKS</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>			NO.	DATE	BY	REMARKS							
NO.	DATE	BY	REMARKS																

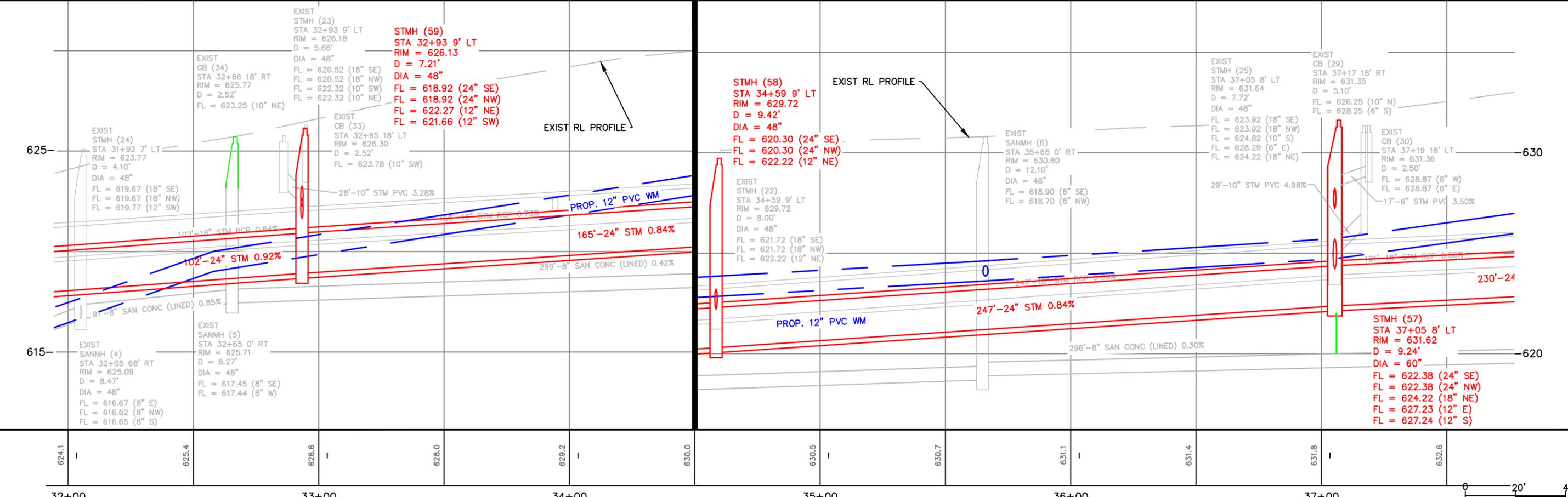
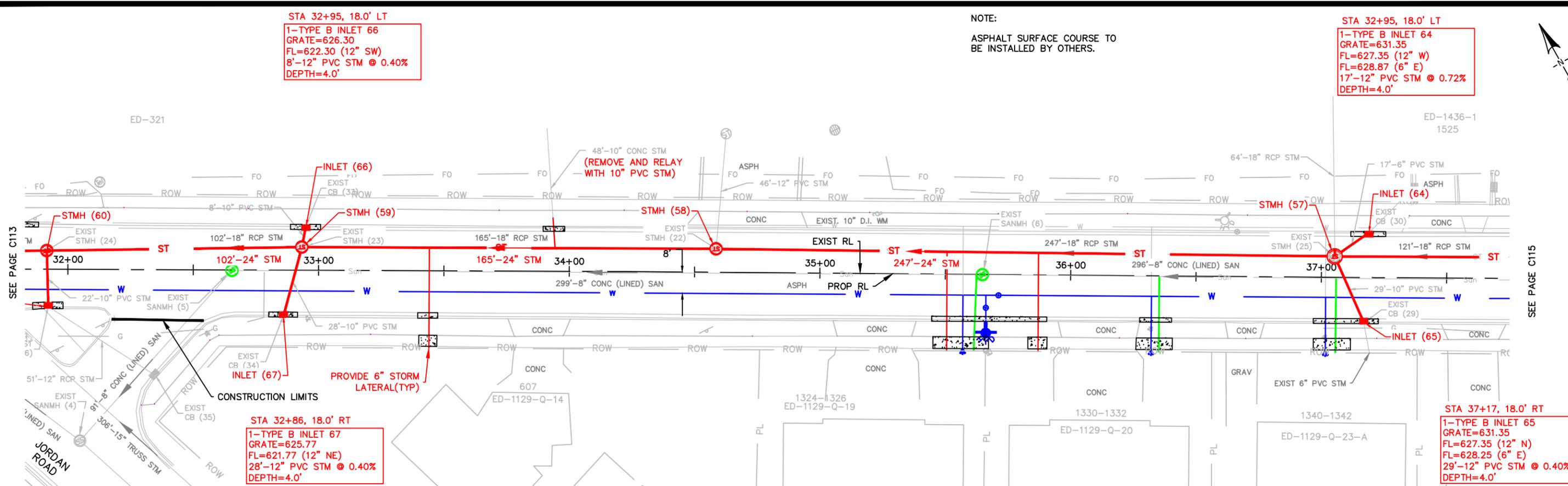
STA 32+95, 18.0' LT
 1-TYPE B INLET 66
 GRATE=626.30
 FL=622.30 (12" SW)
 8'-12" PVC STM @ 0.40%
 DEPTH=4.0'

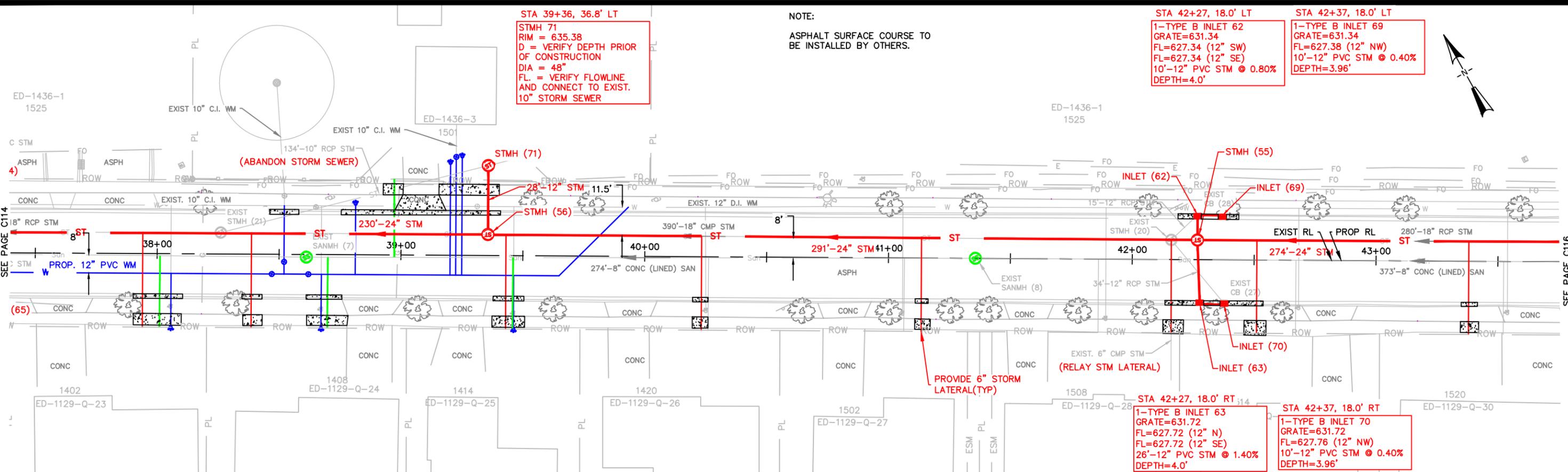
NOTE:
 ASPHALT SURFACE COURSE TO
 BE INSTALLED BY OTHERS.

STA 32+95, 18.0' LT
 1-TYPE B INLET 64
 GRATE=631.35
 FL=627.35 (12" W)
 FL=628.87 (6" E)
 17'-12" PVC STM @ 0.72%
 DEPTH=4.0'

STA 32+86, 18.0' RT
 1-TYPE B INLET 67
 GRATE=625.77
 FL=621.77 (12" NE)
 28'-12" PVC STM @ 0.40%
 DEPTH=4.0'

STA 37+17, 18.0' RT
 1-TYPE B INLET 65
 GRATE=631.35
 FL=627.35 (12" N)
 FL=628.25 (6" E)
 29'-12" PVC STM @ 0.40%
 DEPTH=4.0'





STA 39+36, 36.8' LT
 STMH 71
 RIM = 635.38
 D = VERIFY DEPTH PRIOR OF CONSTRUCTION
 DIA = 48"
 FL = VERIFY FLOWLINE AND CONNECT TO EXIST.
 10" STORM SEWER

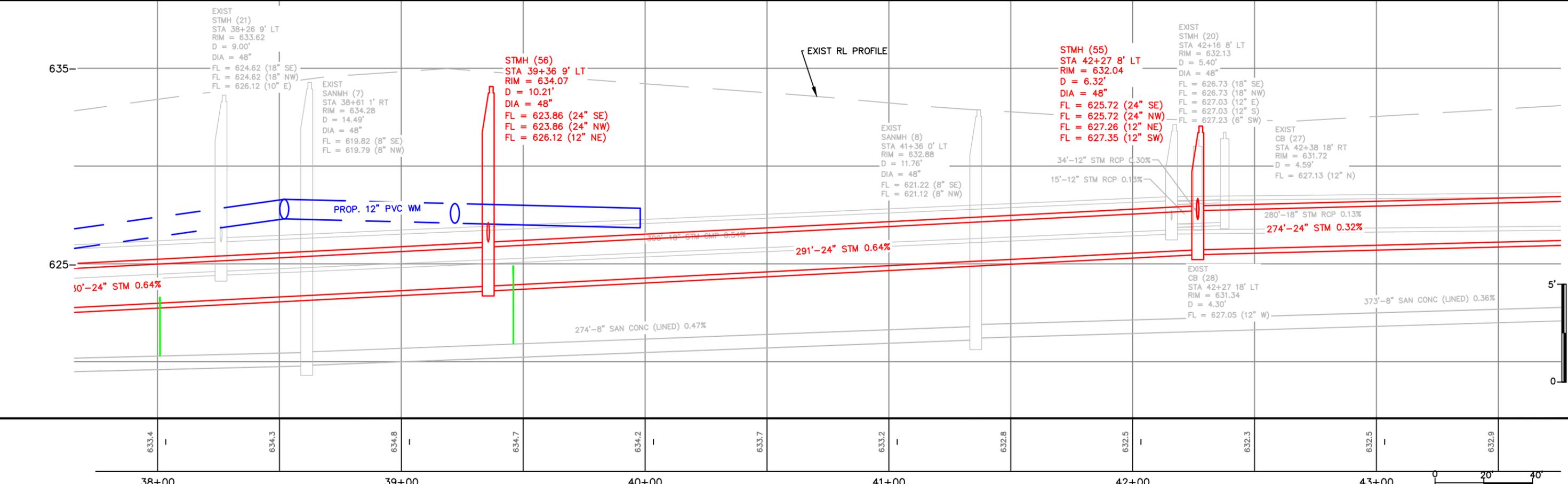
NOTE:
 ASPHALT SURFACE COURSE TO BE INSTALLED BY OTHERS.

STA 42+27, 18.0' LT
 1-TYPE B INLET 62
 GRATE=631.34
 FL=627.34 (12" SW)
 FL=627.34 (12" SE)
 10'-12" PVC STM @ 0.80%
 DEPTH=4.0'

STA 42+37, 18.0' LT
 1-TYPE B INLET 69
 GRATE=631.34
 FL=627.38 (12" NW)
 10'-12" PVC STM @ 0.40%
 DEPTH=3.96'

STA 42+27, 18.0' RT
 1-TYPE B INLET 63
 GRATE=631.72
 FL=627.72 (12" N)
 FL=627.72 (12" SE)
 26'-12" PVC STM @ 1.40%
 DEPTH=4.0'

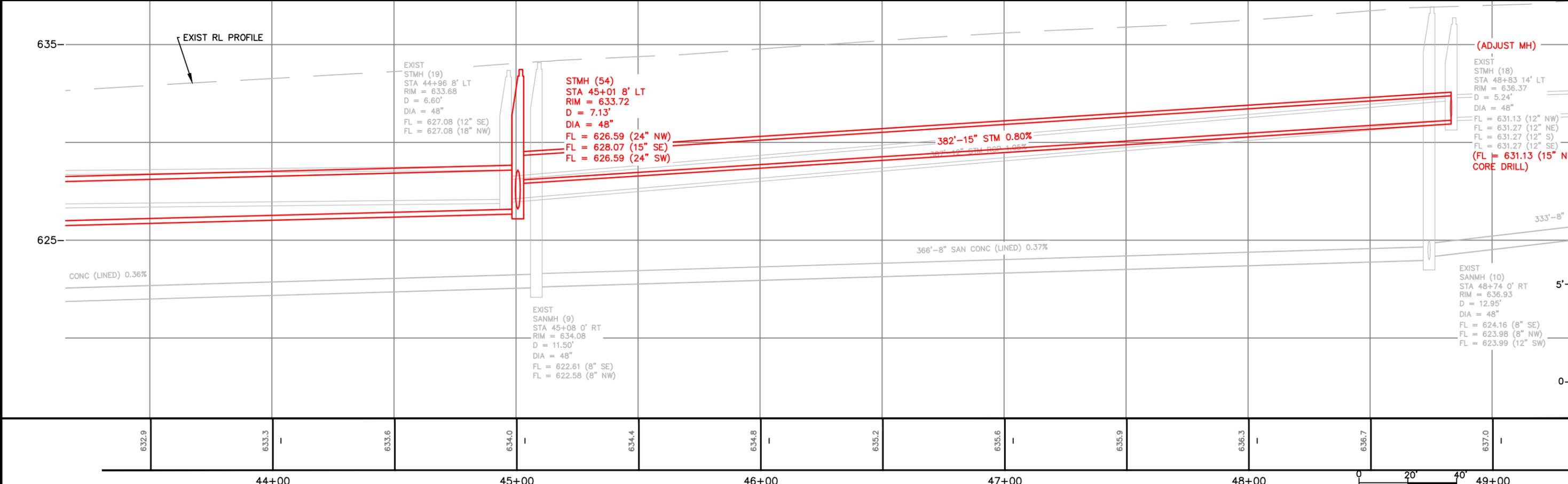
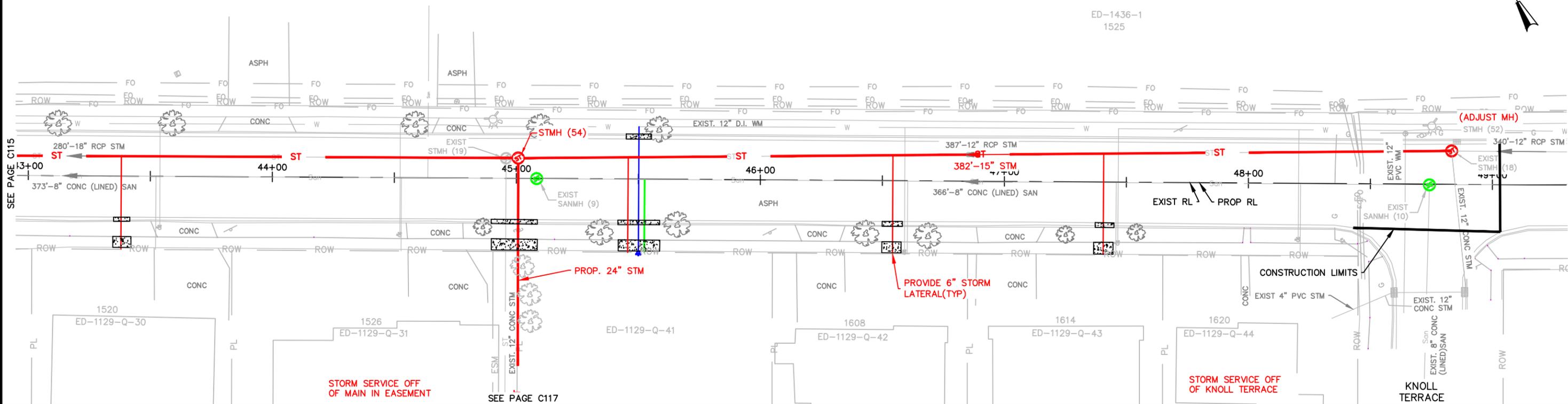
STA 42+37, 18.0' RT
 1-TYPE B INLET 70
 GRATE=631.72
 FL=627.76 (12" NW)
 10'-12" PVC STM @ 0.40%
 DEPTH=3.96'



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NOTE:
 ASPHALT SURFACE COURSE TO
 BE INSTALLED BY OTHERS.

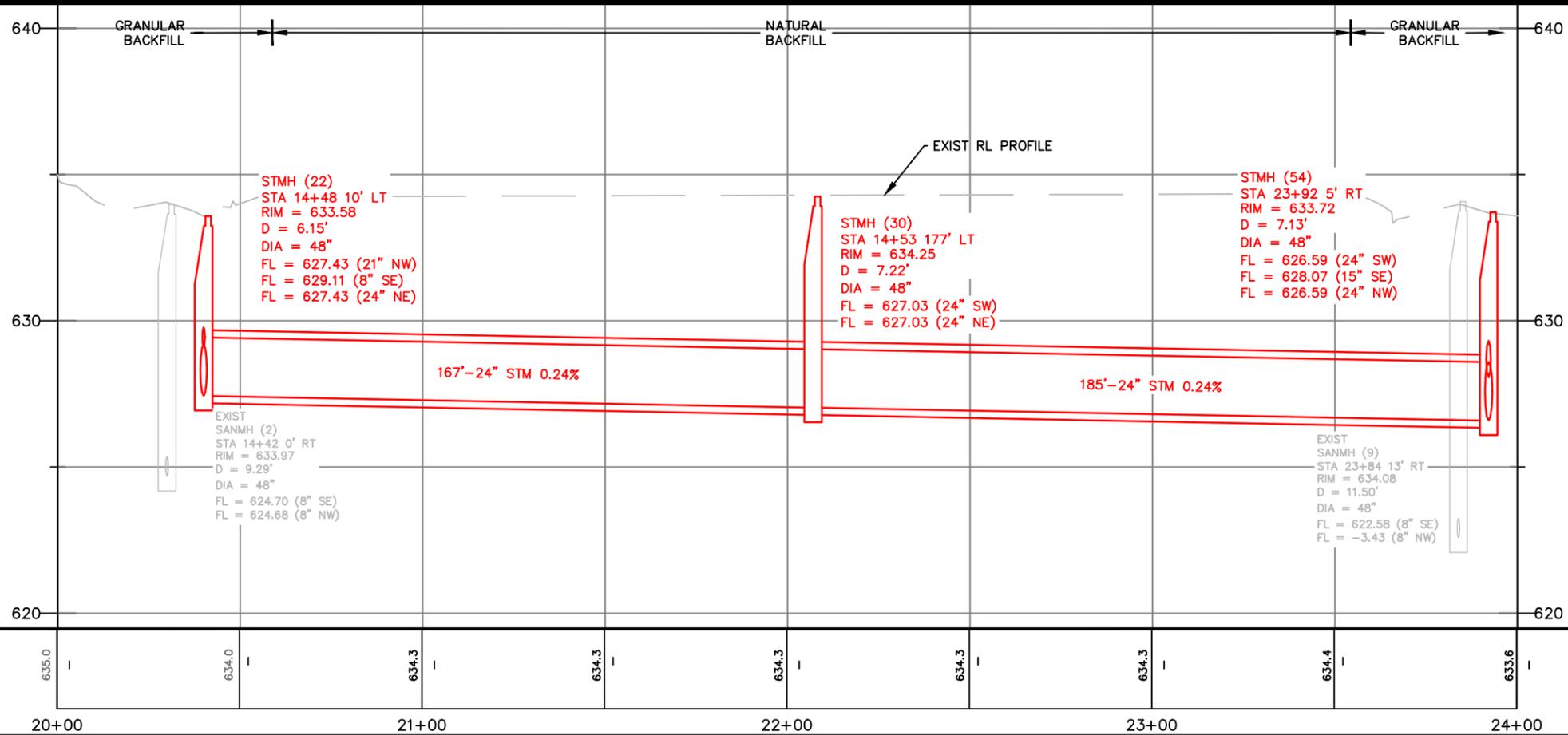
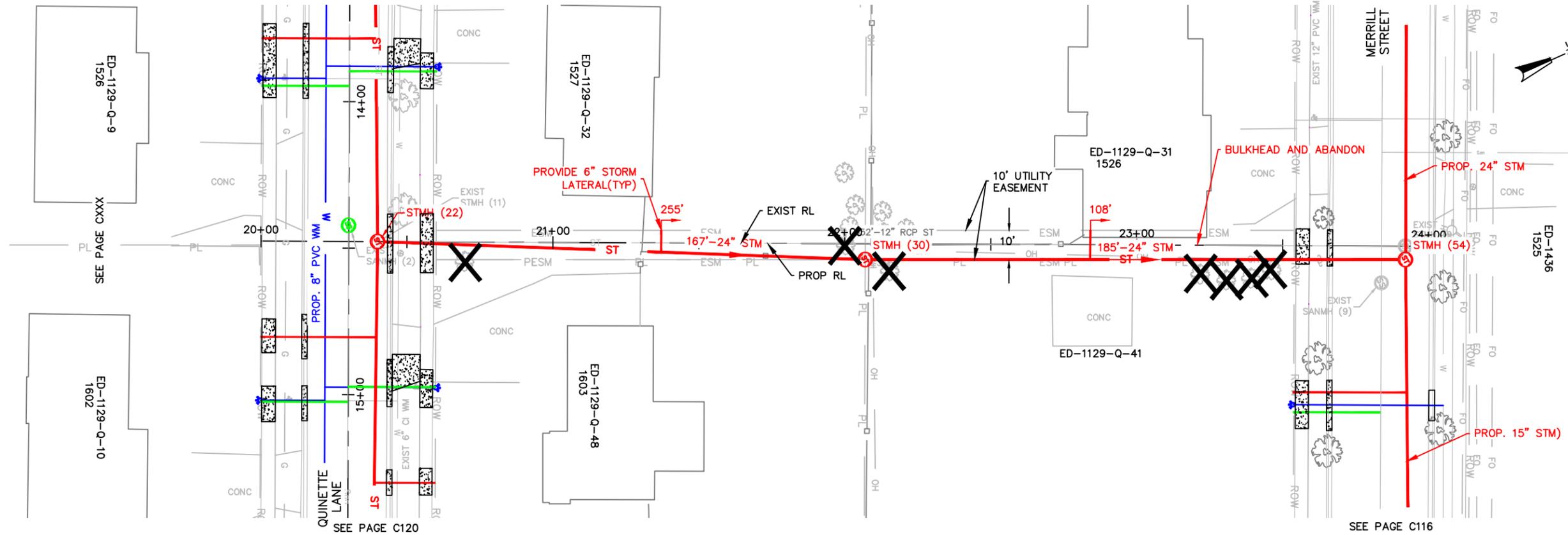
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SEE PAGE C119

SEE PAGE C116



CITY OF DE PERE

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

**QUINETTE/MERRILL EASEMENT
 QUINETTE LANE TO KNOLL TERRACE
 STORM SEWER**

NAME: EAST SEWER & WATER RELAY AND STREET RESURFACING
 PROJECT # 20-01B

NO.	DATE	BY
SURVEYED	10-2019	BK
DRAWN	11-2019	SRL
DESIGNED	11-2019	SRL
CHECKED	12-2019	EPR

REVISIONS / ISSUES

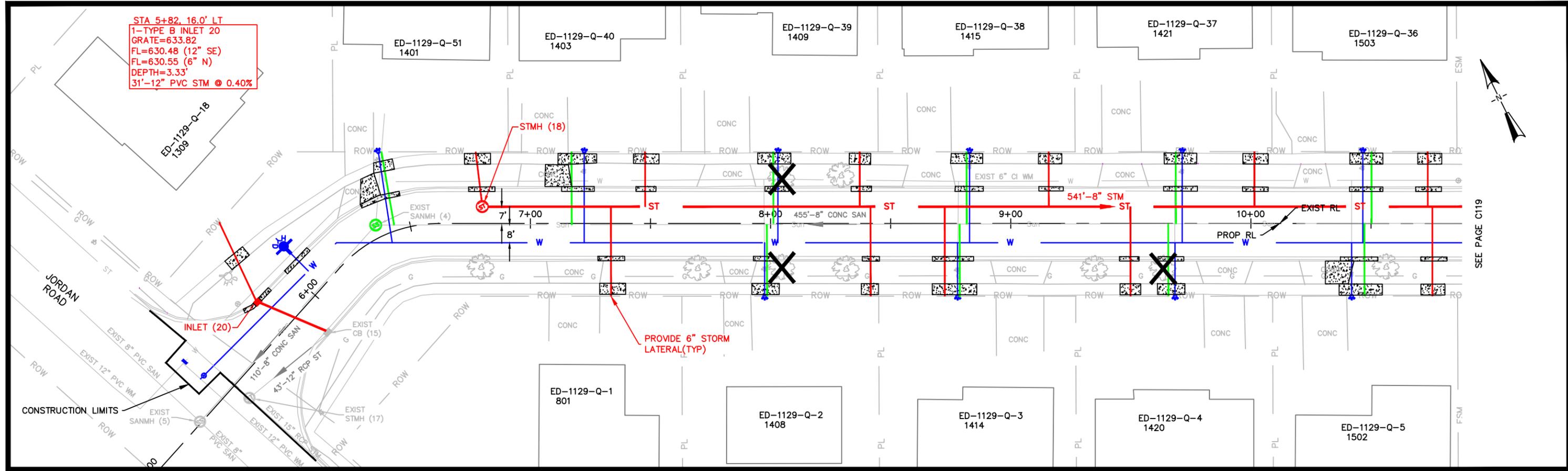
NO.	DATE	BY	REMARKS

PAGE NO.

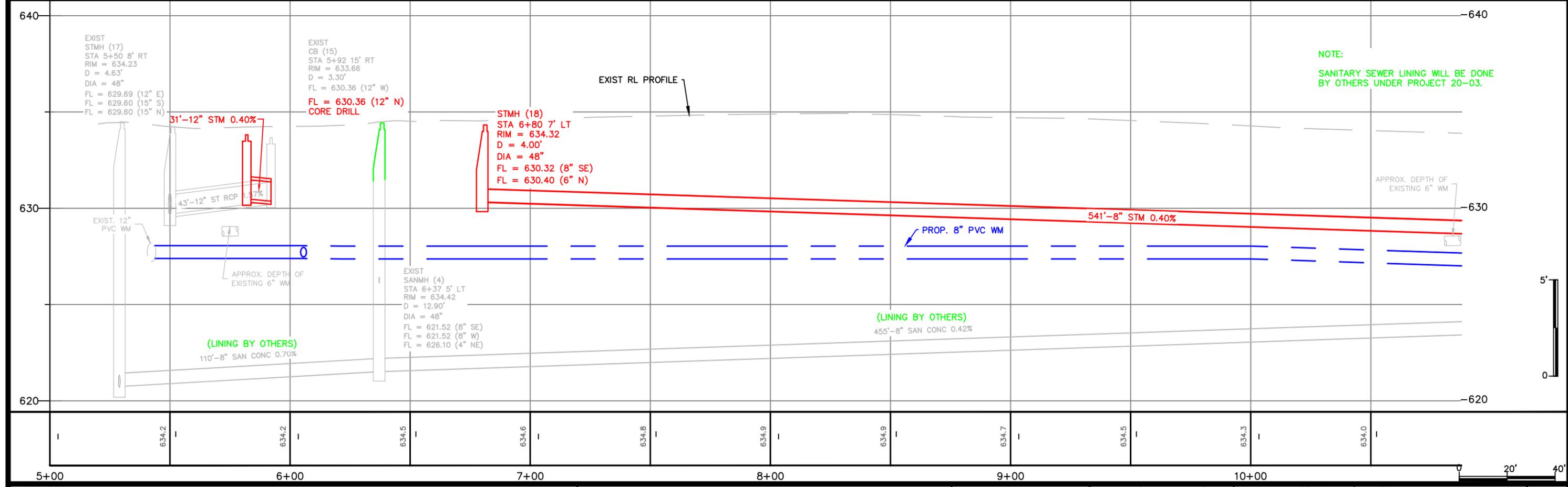
C117

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STA 5+82.16.0' LT
 1-TYPE B INLET 20
 GRATE=633.82
 FL=630.48 (12" SE)
 FL=630.55 (6" N)
 DEPTH=3.33'
 31'-12" PVC STM @ 0.40%

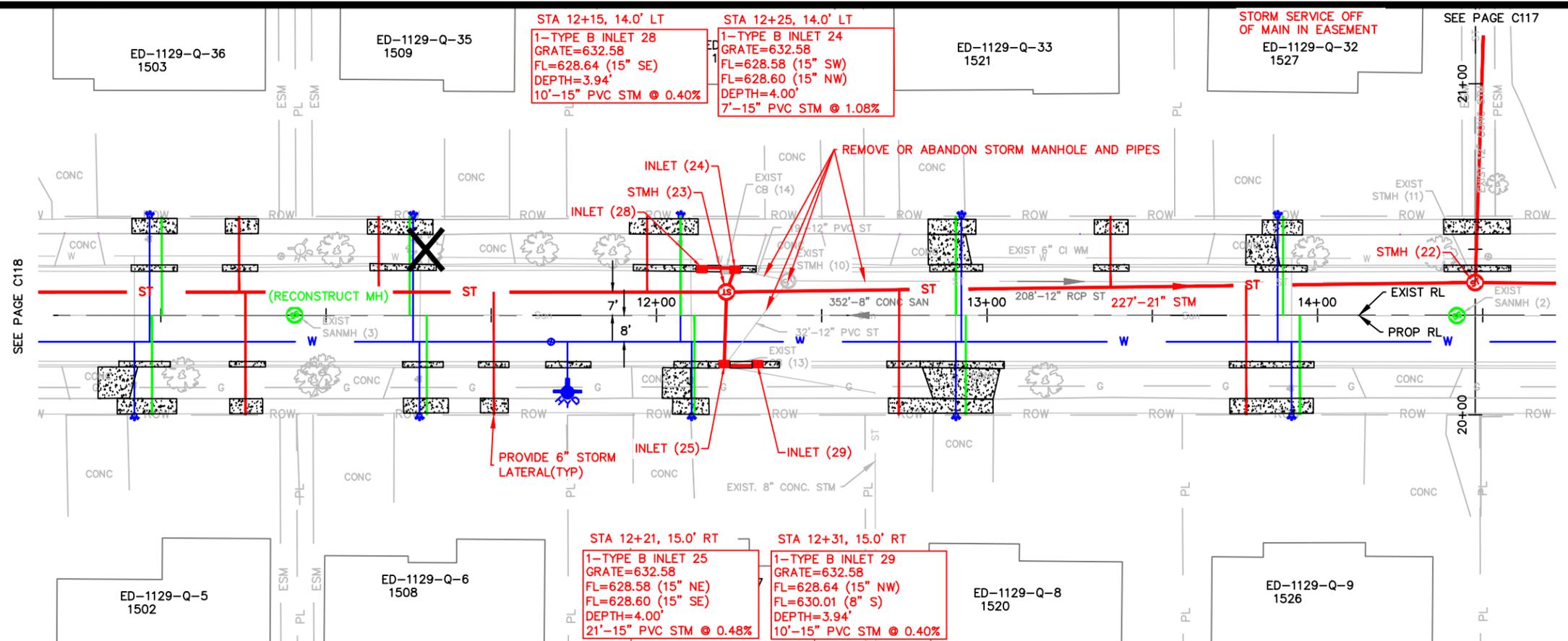


SEE PAGE C119



NOTE:
 SANITARY SEWER LINING WILL BE DONE
 BY OTHERS UNDER PROJECT 20-03.

	CITY OF DE PERE ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115 OFFICE 920-339-4061 FAX 920-339-4071	QUINETTE LANE JORDAN ROAD TO 550' SE OF JORDAN RD STORM SEWER		NAME: EAST SEWER & WATER RELAY AND STREET RESURFACING PROJECT # 20-01B		BY BK	DATE 10-2019	REVISIONS / ISSUES		PAGE NO. C118	
				SURVEYED	SRL	11-2019	NO.	DATE	BY		REMARKS
				DRAWN	SRL	11-2019					
				CHECKED	EPR	12-2019					



STA 12+15, 14.0' LT
 1-TYPE B INLET 28
 GRATE=632.58
 FL=628.64 (15" SE)
 DEPTH=3.94'
 10'-15" PVC STM @ 0.40%

STA 12+25, 14.0' LT
 1-TYPE B INLET 24
 GRATE=632.58
 FL=628.58 (15" SW)
 FL=628.60 (15" NW)
 DEPTH=4.00'
 7'-15" PVC STM @ 1.08%

STA 12+21, 15.0' RT
 1-TYPE B INLET 25
 GRATE=632.58
 FL=628.58 (15" NE)
 FL=628.60 (15" SE)
 DEPTH=4.00'
 21'-15" PVC STM @ 0.48%

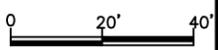
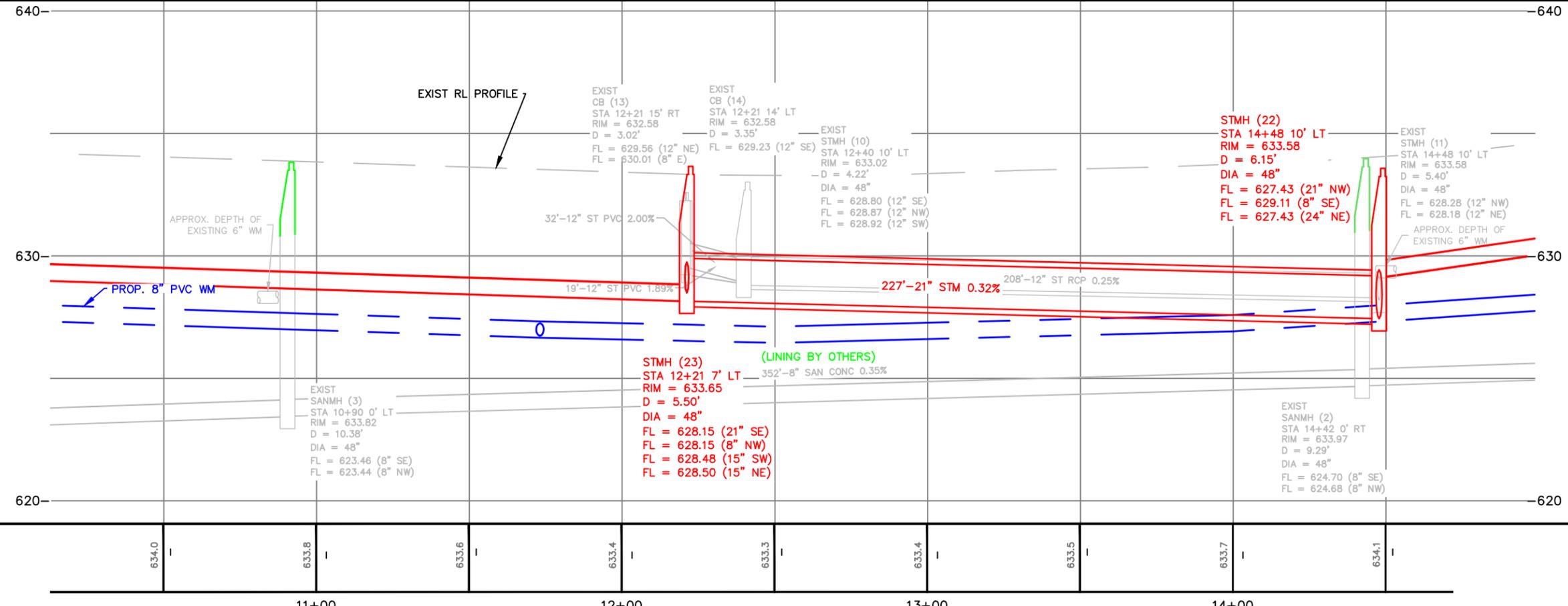
STA 12+31, 15.0' RT
 1-TYPE B INLET 29
 GRATE=632.58
 FL=628.64 (15" NW)
 FL=630.01 (8" S)
 DEPTH=3.94'
 10'-15" PVC STM @ 0.40%



SEE PAGE C118

SEE PAGE C120

NOTE:
 SANITARY SEWER LINING WILL BE DONE BY OTHERS UNDER PROJECT 20-03.



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

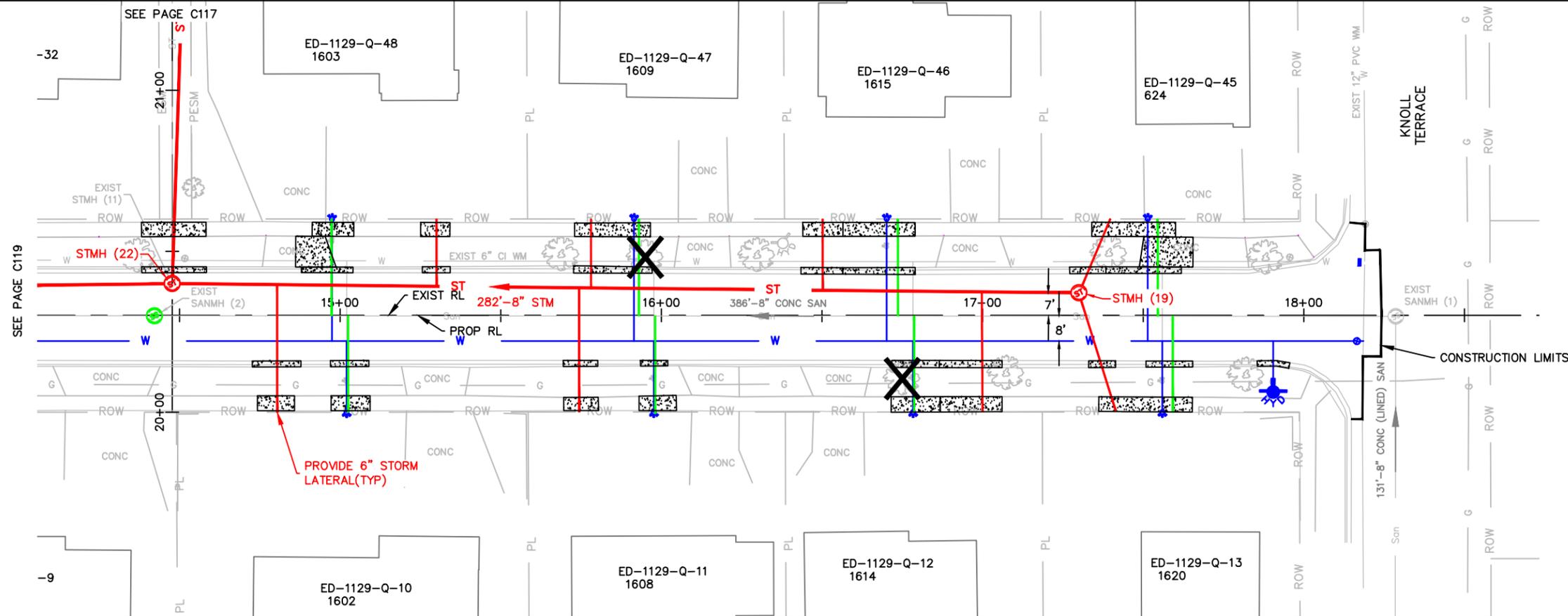
QUINNETTE LANE
 550' SE OF JORDAN RD TO 400' NW OF KNOLL TER
STORM SEWER

NAME:
 EAST SEWER & WATER RELAY
 AND STREET RESURFACING
 PROJECT # 20-01B

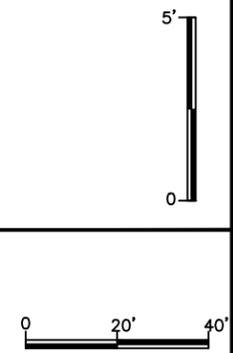
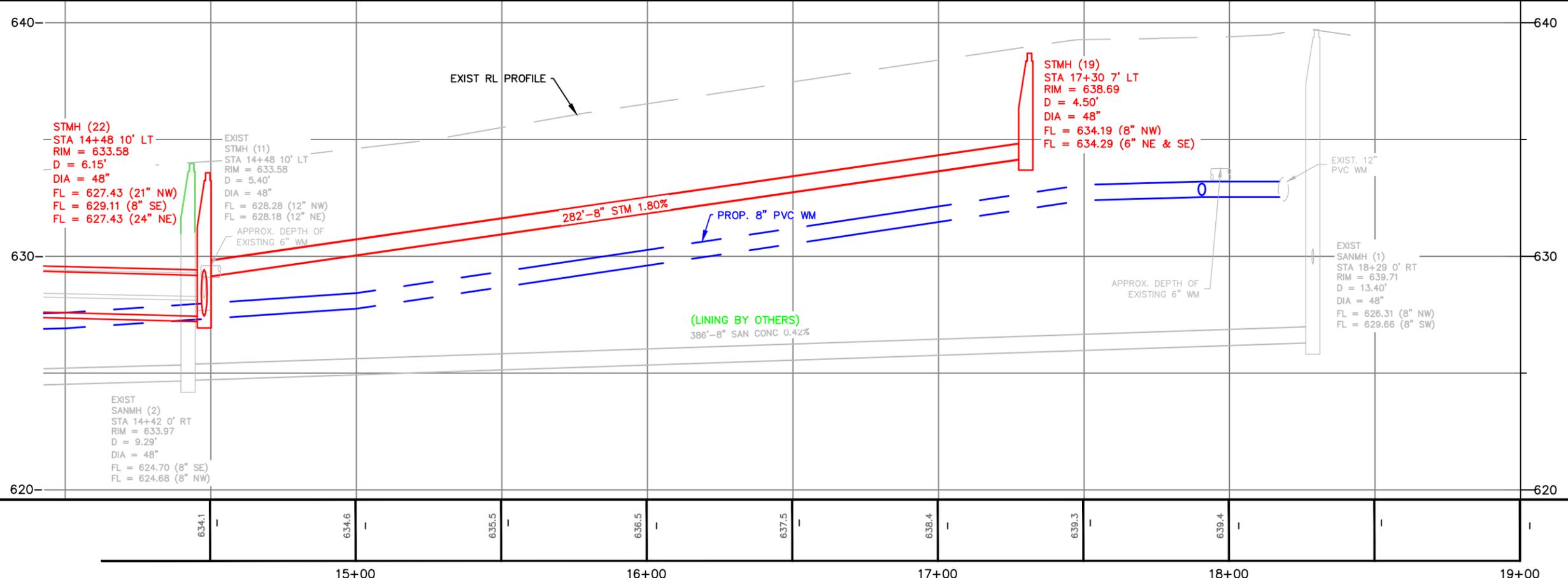
BY		DATE		REVISIONS / ISSUES	
NO.	DATE	BY	REMARKS	NO.	DATE
SURVEYED	BK	10-2019			
DRAWN	SRL	11-2019			
DESIGNED	SRL	11-2019			
CHECKED	EPR	12-2019			

PAGE NO.
C119

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NOTE:
SANITARY SEWER LINING WILL BE DONE BY OTHERS UNDER PROJECT 20-03.



CITY OF DE PERE
ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115
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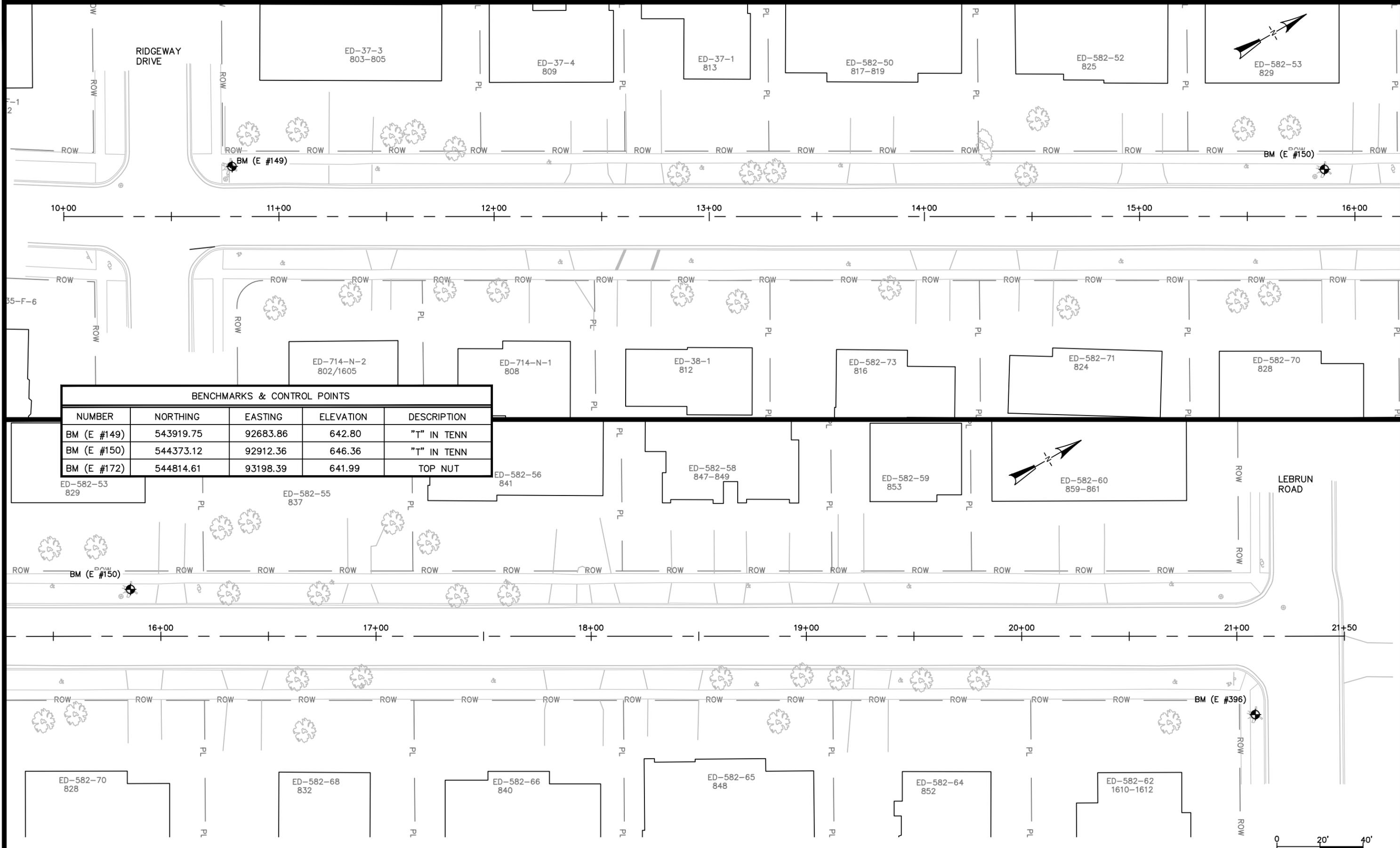
QUINNETTE LANE
400' NW OF KNOLL TER TO KNOLL TERRACE
STORM SEWER

NAME:
EAST SEWER & WATER RELAY
AND STREET RESURFACING
PROJECT # 20-01B

		BY		DATE		REVISIONS / ISSUES	
				NO.	DATE	BY	REMARKS
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DRAWN	SRL				11-2019		
DESIGNED	SRL				11-2019		
CHECKED	EPR				12-2019		

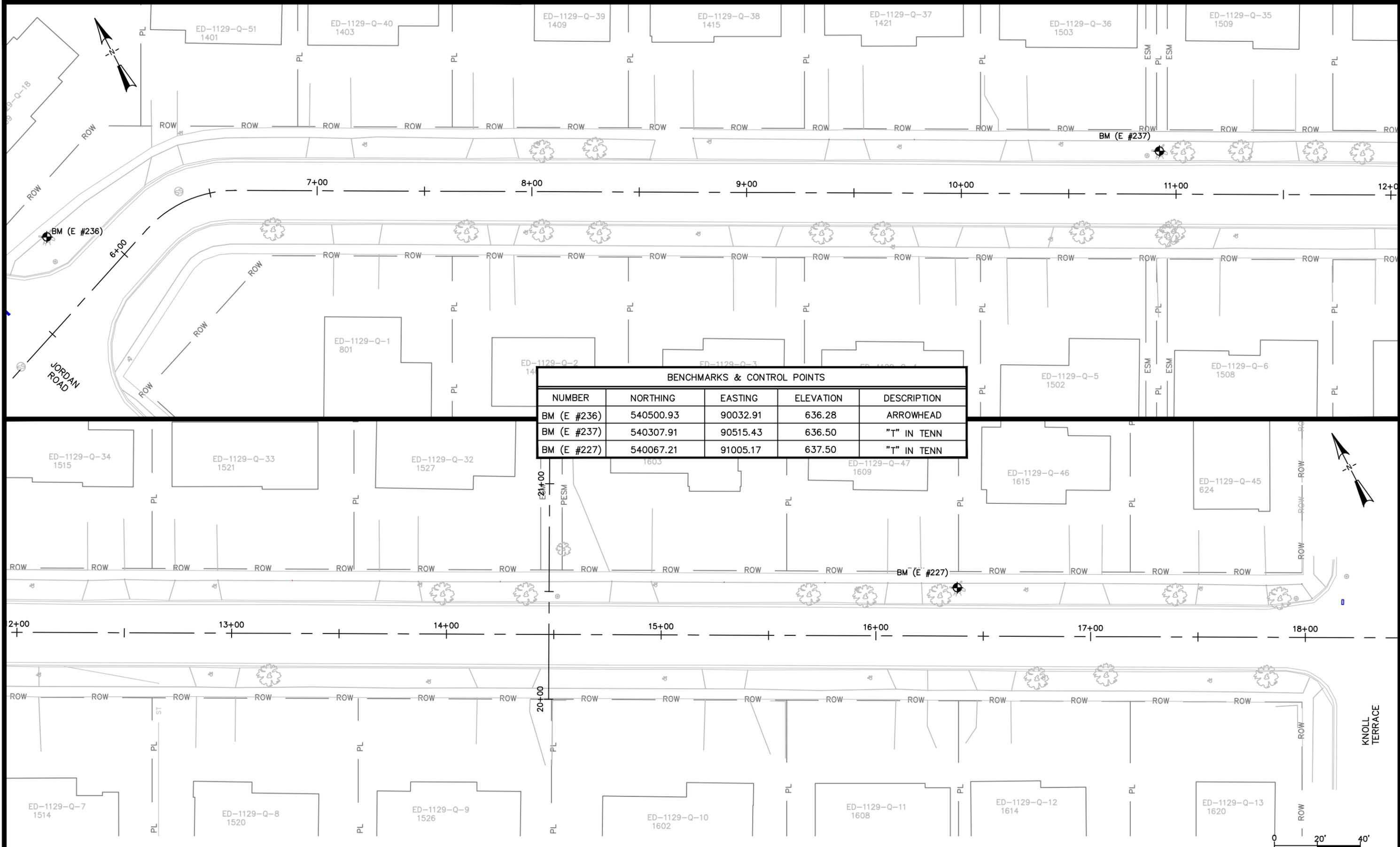
PAGE NO.
C120

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BENCHMARKS & CONTROL POINTS				
NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
BM (E #149)	543919.75	92683.86	642.80	"T" IN TENN
BM (E #150)	544373.12	92912.36	646.36	"T" IN TENN
BM (E #172)	544814.61	93198.39	641.99	TOP NUT

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BENCHMARKS & CONTROL POINTS				
NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
BM (E #236)	540500.93	90032.91	636.28	ARROWHEAD
BM (E #237)	540307.91	90515.43	636.50	"T" IN TENN
BM (E #227)	540067.21	91005.17	637.50	"T" IN TENN



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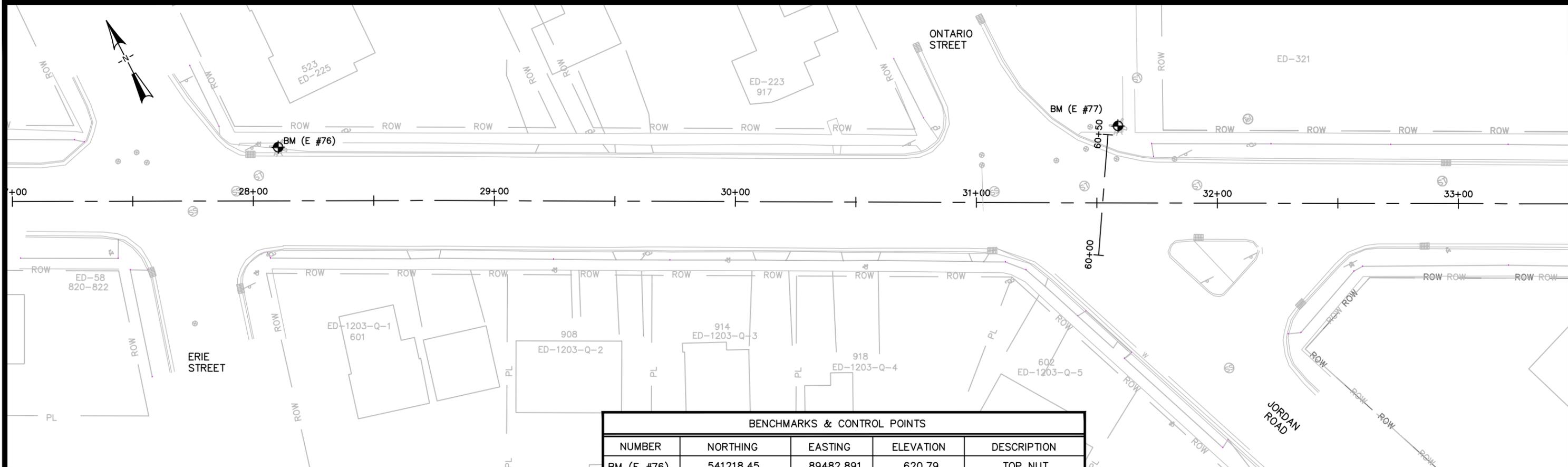
**BENCHMARKS AND CONTROL POINTS
QUINETTE LANE**

NAME: EAST SEWER & WATER RELAY AND STREET RESURFACING
PROJECT # 20-01B

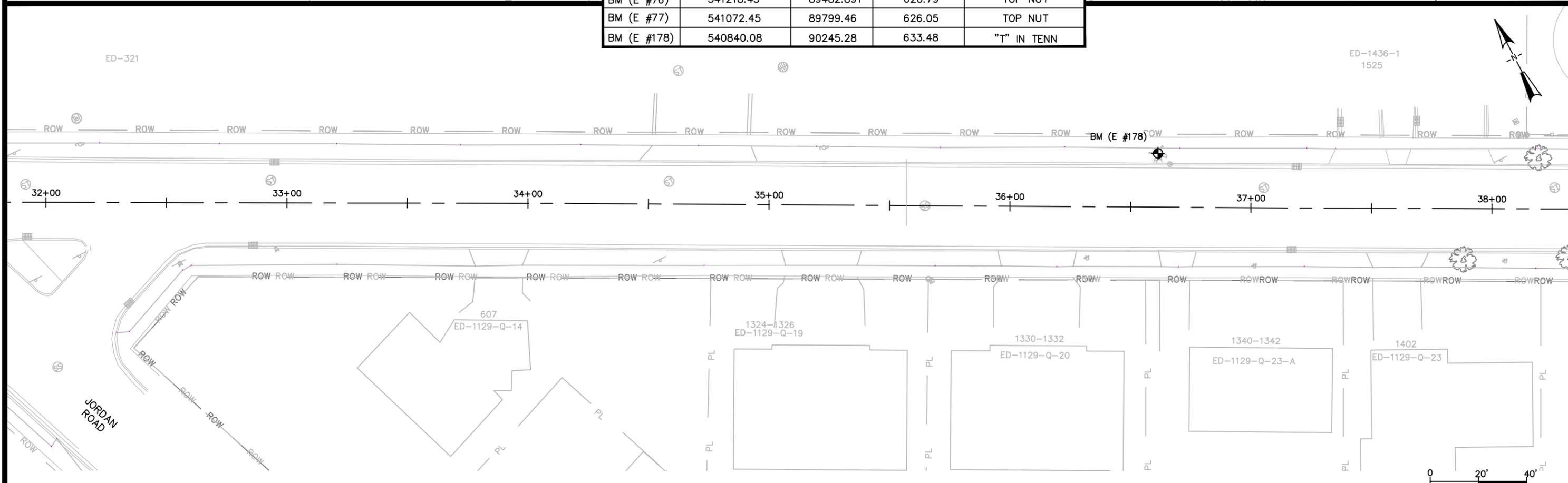
	BY	DATE
SURVEYED	SRL	01-2020
DRAWN	SRL	01-2020
DESIGNED	SRL	01-2020
CHECKED	EPR	01-2020

REVISIONS / ISSUES		
NO.	DATE	REMARKS

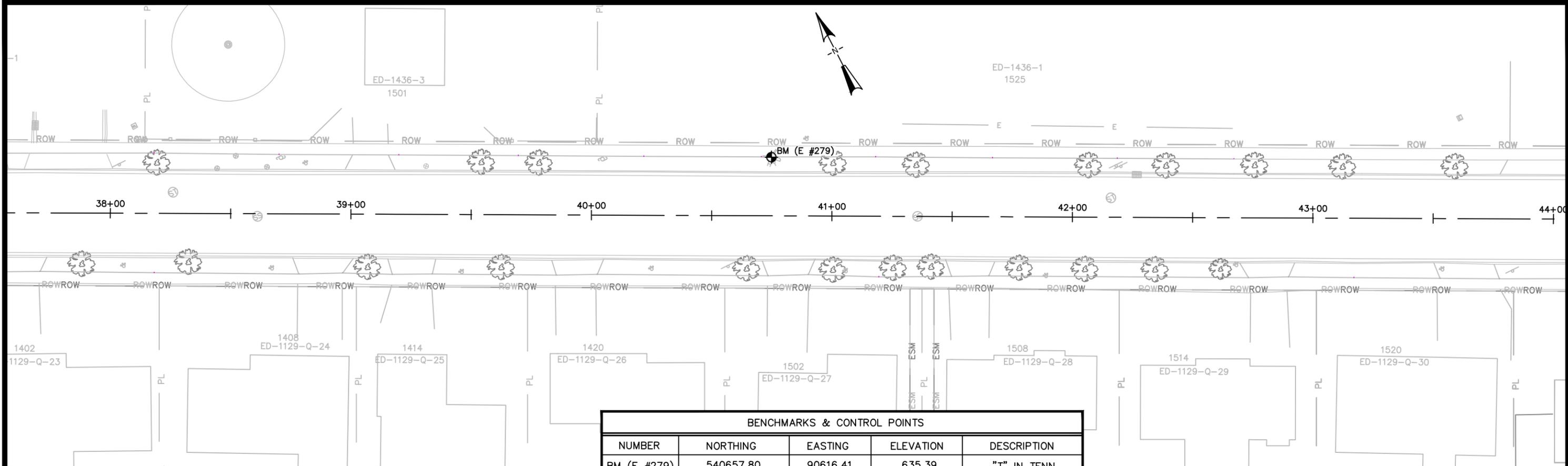
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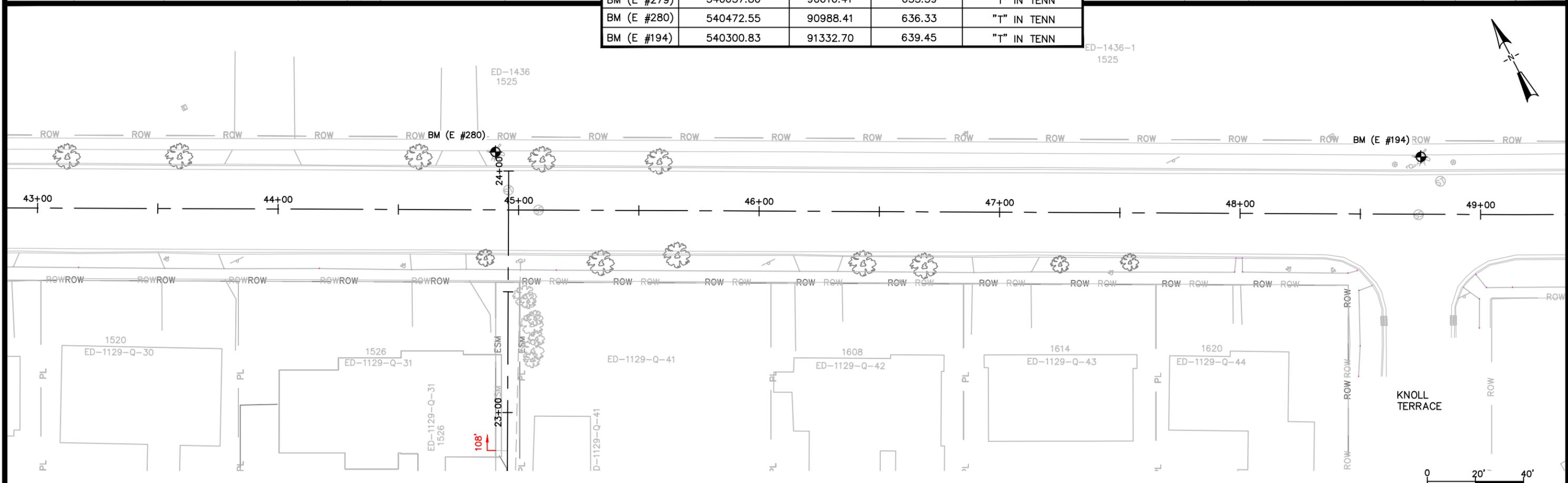
BENCHMARKS & CONTROL POINTS				
NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
BM (E #76)	541218.45	89482.891	620.79	TOP NUT
BM (E #77)	541072.45	89799.46	626.05	TOP NUT
BM (E #178)	540840.08	90245.28	633.48	"T" IN TENN



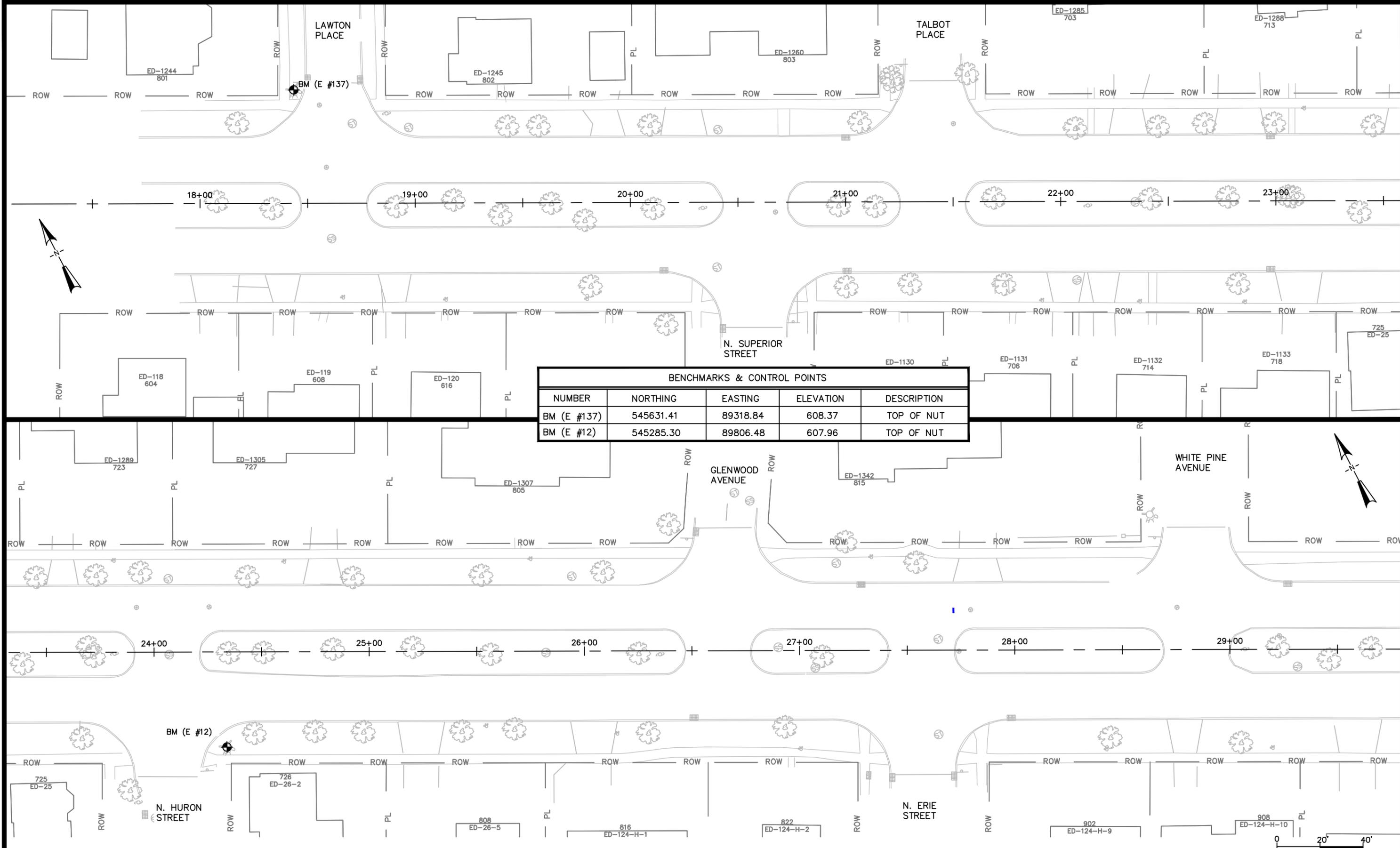
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BENCHMARKS & CONTROL POINTS				
NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
BM (E #279)	540657.80	90616.41	635.39	"T" IN TENN
BM (E #280)	540472.55	90988.41	636.33	"T" IN TENN
BM (E #194)	540300.83	91332.70	639.45	"T" IN TENN



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BENCHMARKS & CONTROL POINTS				
NUMBER	NORTHING	EASTING	ELEVATION	DESCRIPTION
BM (E #137)	545631.41	89318.84	608.37	TOP OF NUT
BM (E #12)	545285.30	89806.48	607.96	TOP OF NUT



CITY OF DE PERE

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

**BENCHMARKS AND CONTROL POINTS
 RIDGEWAY BOULEVARD**

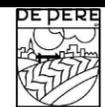
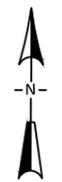
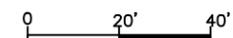
NAME: EAST SEWER & WATER RELAY AND STREET RESURFACING
 PROJECT # 20-01B

NO.	DATE	REVISIONS / ISSUES	
		BY	REMARKS
SURVEYED	01-2020	SRL	
DRAWN	01-2020	SRL	
DESIGNED	01-2020	SRL	
CHECKED	01-2020	EPR	

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QUANTITIES:
 2' WIDE SOLID WHITE CROSSWALK BARS - 210 LF
 12" WIDE SOLID WHITE STOP LINE - 53 LF
 6" WIDE SOLID WHITE CROSSWALK LINE - 504 LF



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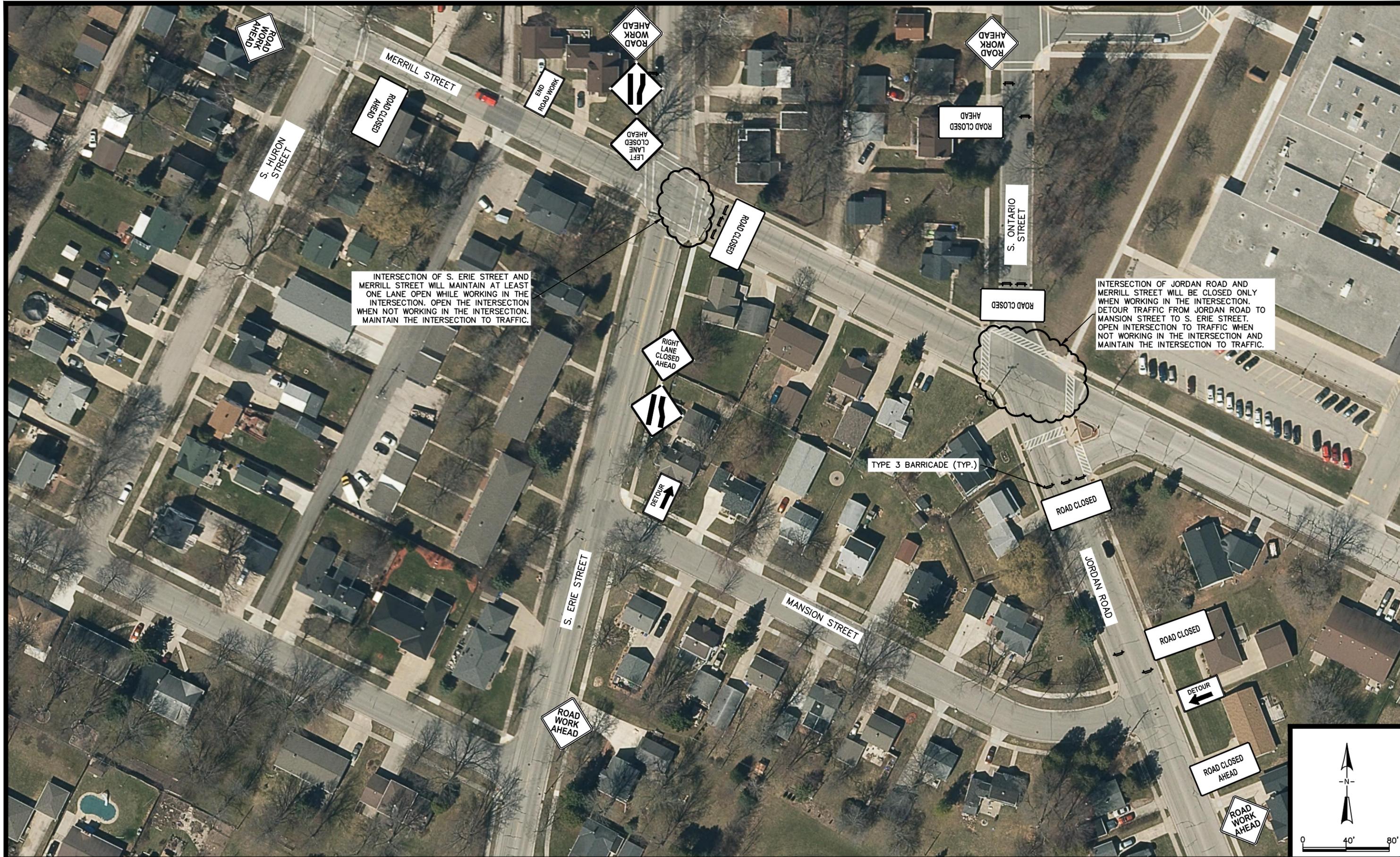
**MERRILL STREET
PAVEMENT MARKINGS**

NAME:
 EAST SEWER & WATER RELAY
 AND STREET RESURFACING
 PROJECT # 20-01B

	BY	DATE
SURVEYED	SRL	02-2020
DRAWN	SRL	02-2020
DESIGNED	SRL	02-2020
CHECKED	EPR	02-2020

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NO.	DATE	REMARKS

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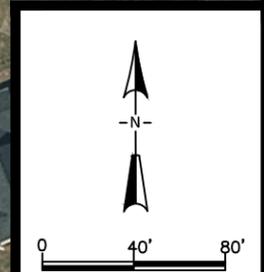
**MERRILL STREET
 S. ERIE STREET AND JORDAN ROAD
 TRAFFIC CONTROL**

NAME: EAST SEWER & WATER RELAY AND STREET RESURFACING
 PROJECT # 20-01B

BY	DATE
SURVEYED	
DRAWN	SRL 01-2020
DESIGNED	SRL 01-2020
CHECKED	EPR 01-2020

REVISIONS / ISSUES	
NO.	DATE

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LEGEND

- ← TYPE 3 BARRICADE
- 28" TUBULAR MARKER

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

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

NAME: EAST SEWER & WATER RELAY AND STREET RESURFACING
 PROJECT # 20-01B

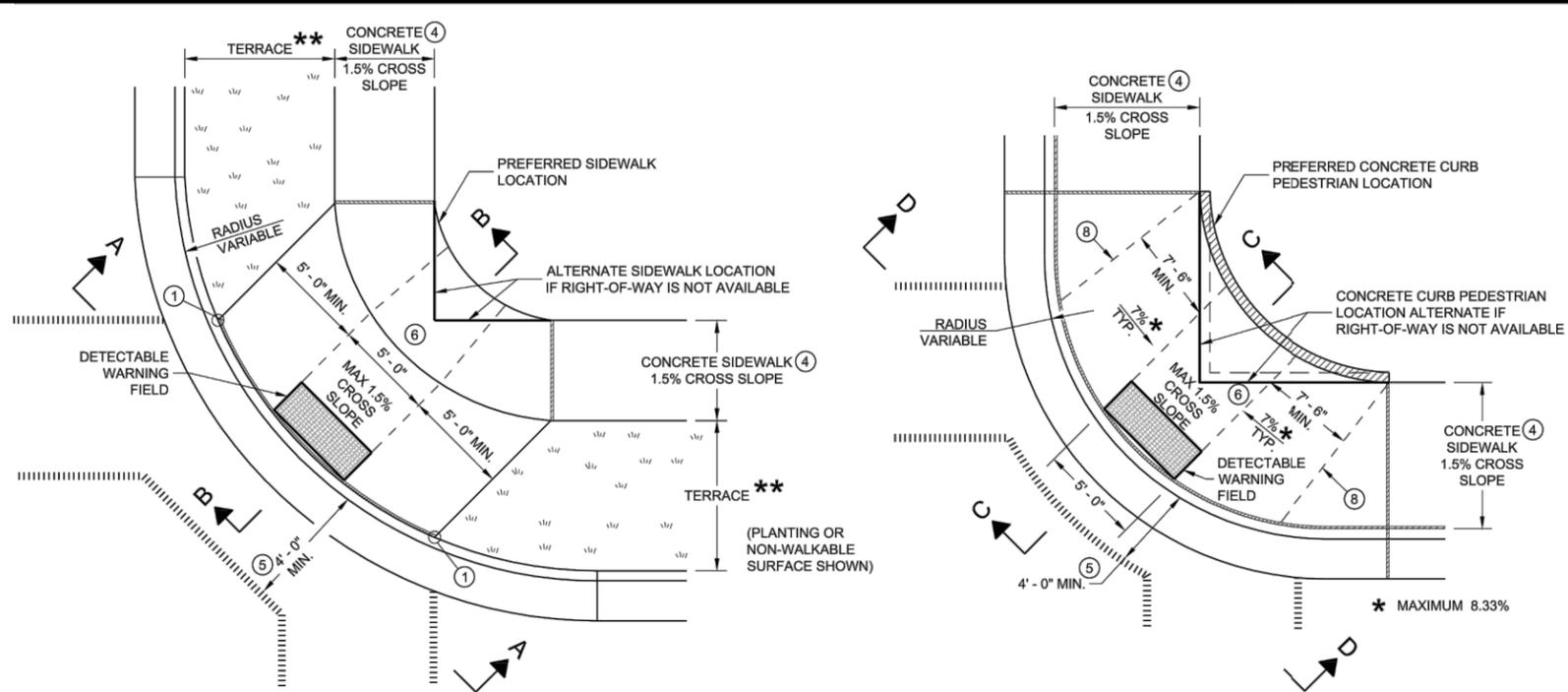
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DRAWN	SRL	01-2020
DESIGNED	SRL	01-2020
CHECKED	EPR	01-2020

REVISIONS / ISSUES		
NO.	DATE	REMARKS

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

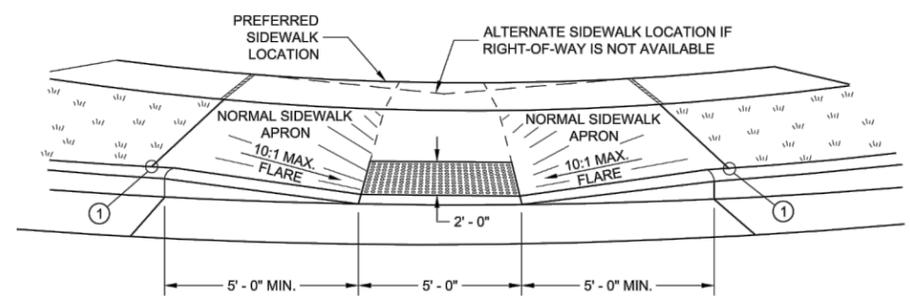


**PLAN VIEW
CURB RAMP TYPE 1
(CENTER OF CORNER RADIUS)**

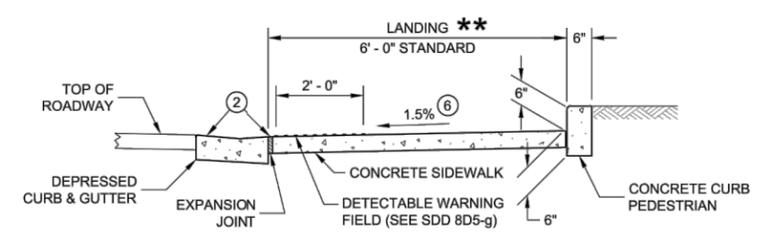
**PLAN VIEW
CURB RAMP TYPE 1 - A
(NO TERRACE)**

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.
- 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.
 - 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 1/8" 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.
 - MAXIMUM 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.
 - ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
 - 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.
 - PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.
 - PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.



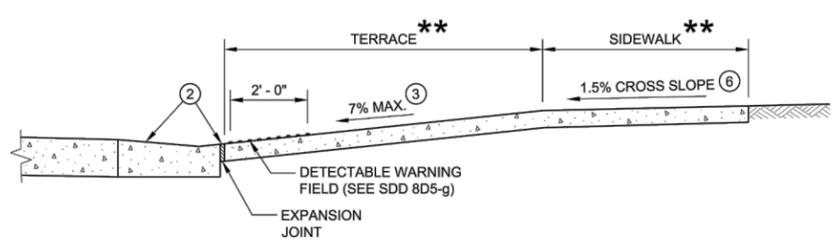
VIEW A - A FOR TYPE 1



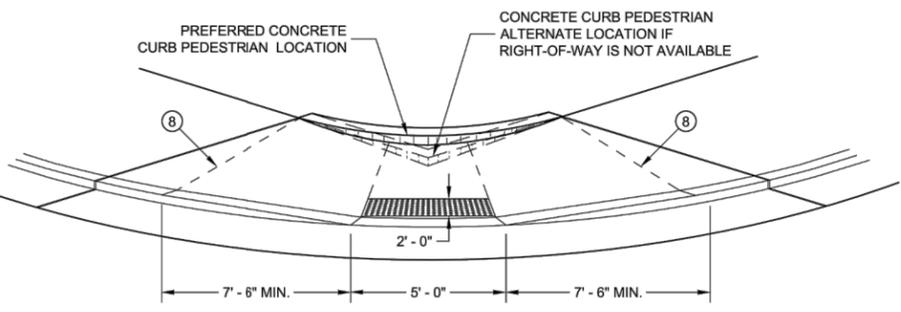
SECTION C - C FOR TYPE 1 - A

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



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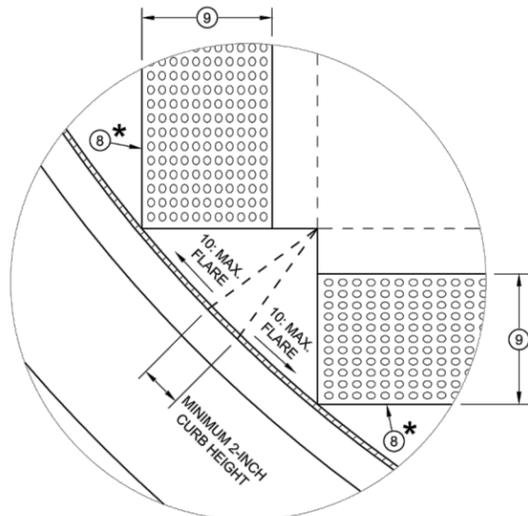
CONSTRUCTION DETAILS CURB RAMPS

NAME: EAST SEWER & WATER RELAY AND STREET RESURFACING PROJECT # 20-01B	BY	DATE	REVISIONS / ISSUES		PAGE NO. C501		
	SURVEYED		NO.	DATE		BY	REMARKS
	DRAWN	SRL	01-2020				
	DESIGNED	SRL	01-2020				
CHECKED	CKK	01-2020					

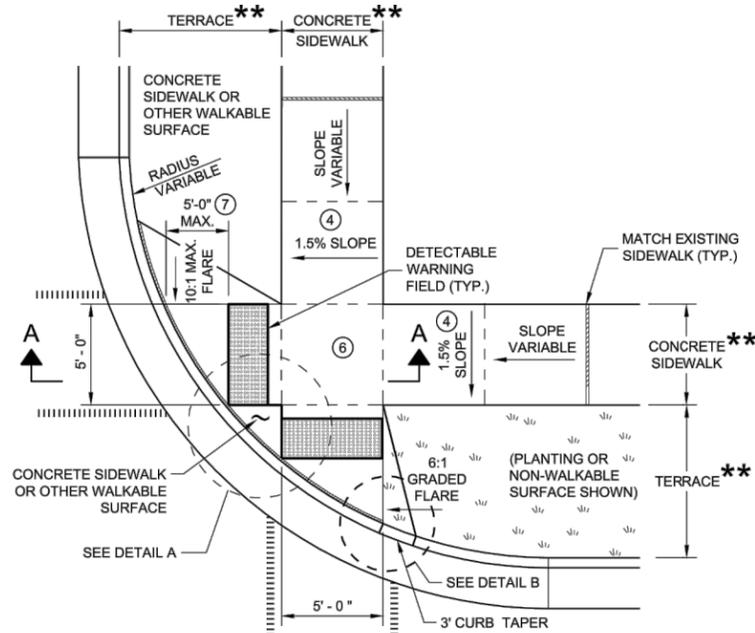
x:\eng\Projects\City Projects\2020\Project 20-01B East Sewer and Water Relay and Street Resurfacing\1200-CAD\20-01B Construction Details.dwg



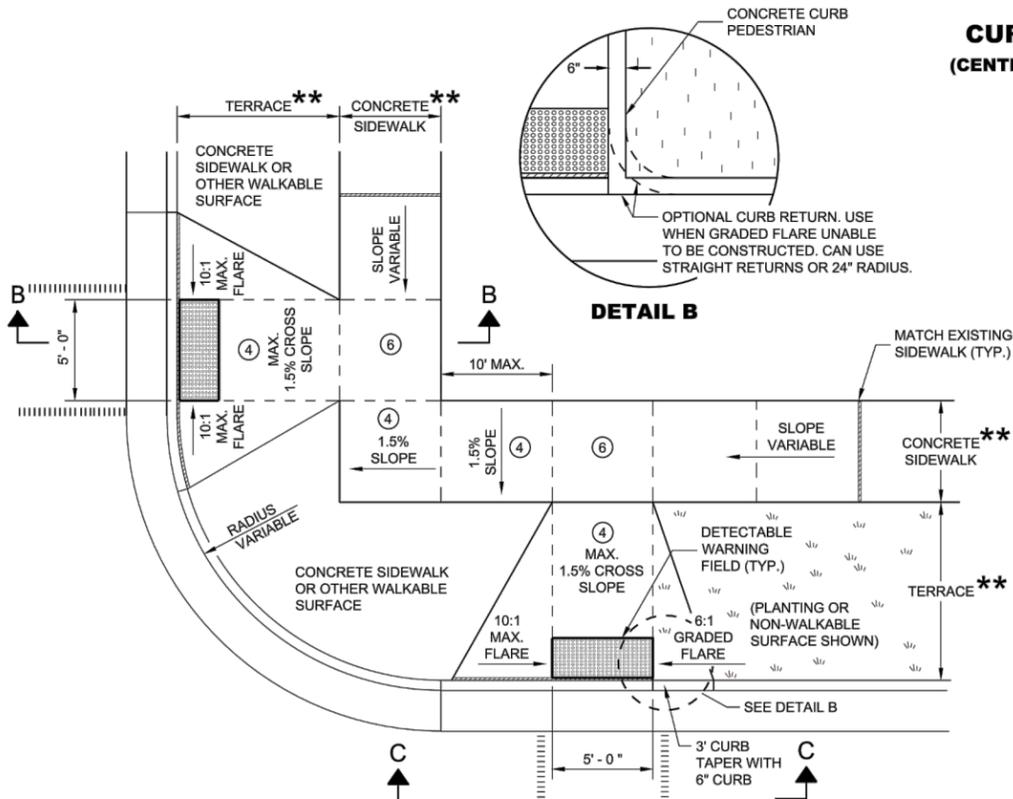
SDD 08D05-b Curb Ramps Types 2 and 3



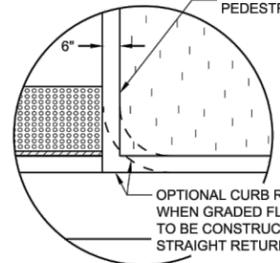
DETAIL A



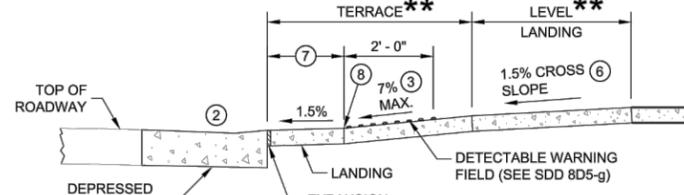
**PLAN VIEW
CURB RAMP TYPE 2
(CENTER OF CORNER RADIUS)**



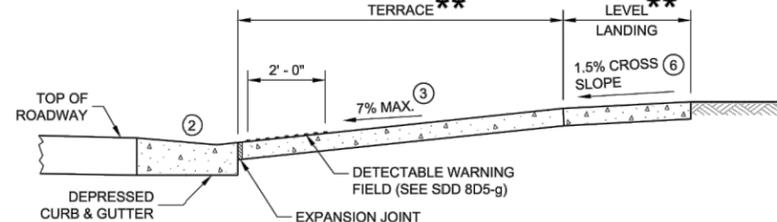
**PLAN VIEW
CURB RAMP TYPE 3
(OUTSIDE OF CROSSWALK AREA)**



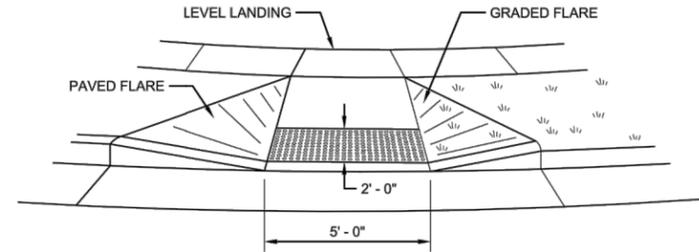
DETAIL B



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.

- * 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)

**CURB RAMPS
TYPE 2 AND 3**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

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SDD 08D05 - 20b

SDD 08D05 - 20b



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**CONSTRUCTION DETAILS
CURB RAMPS**

NAME: EAST SEWER & WATER RELAY AND STREET RESURFACING
PROJECT # 20-01B

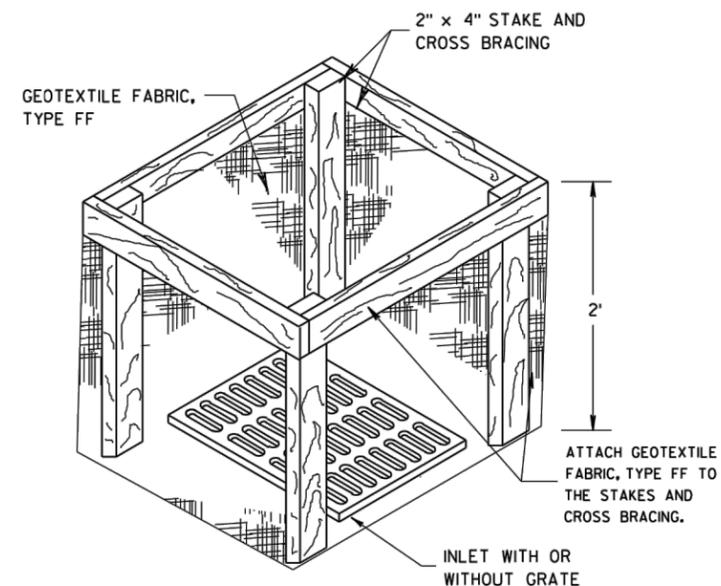
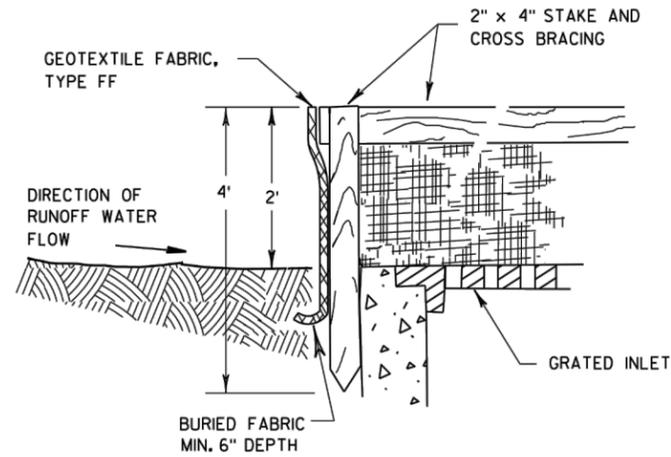
BY	DATE
SURVEYED	
DRAWN	SRL 01-2020
DESIGNED	SRL 01-2020
CHECKED	CKK 01-2020

REVISIONS / ISSUES			
NO.	DATE	BY	REMARKS

PAGE NO. **C502**

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



INLET PROTECTION, TYPE A

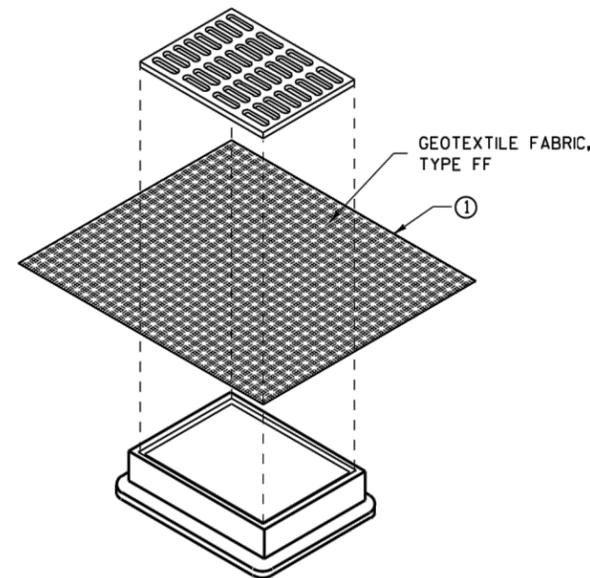
GENERAL NOTES

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

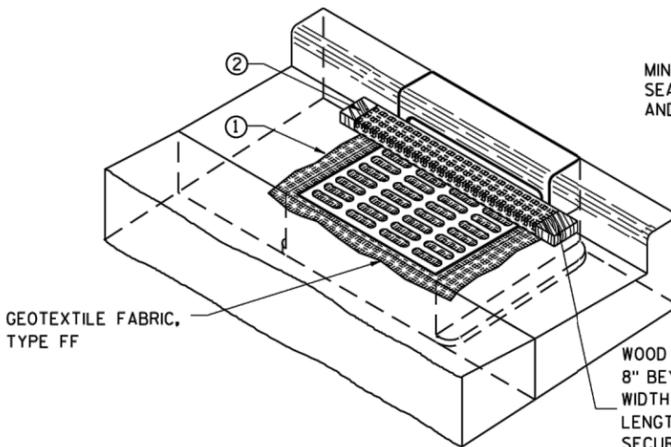
MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

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)

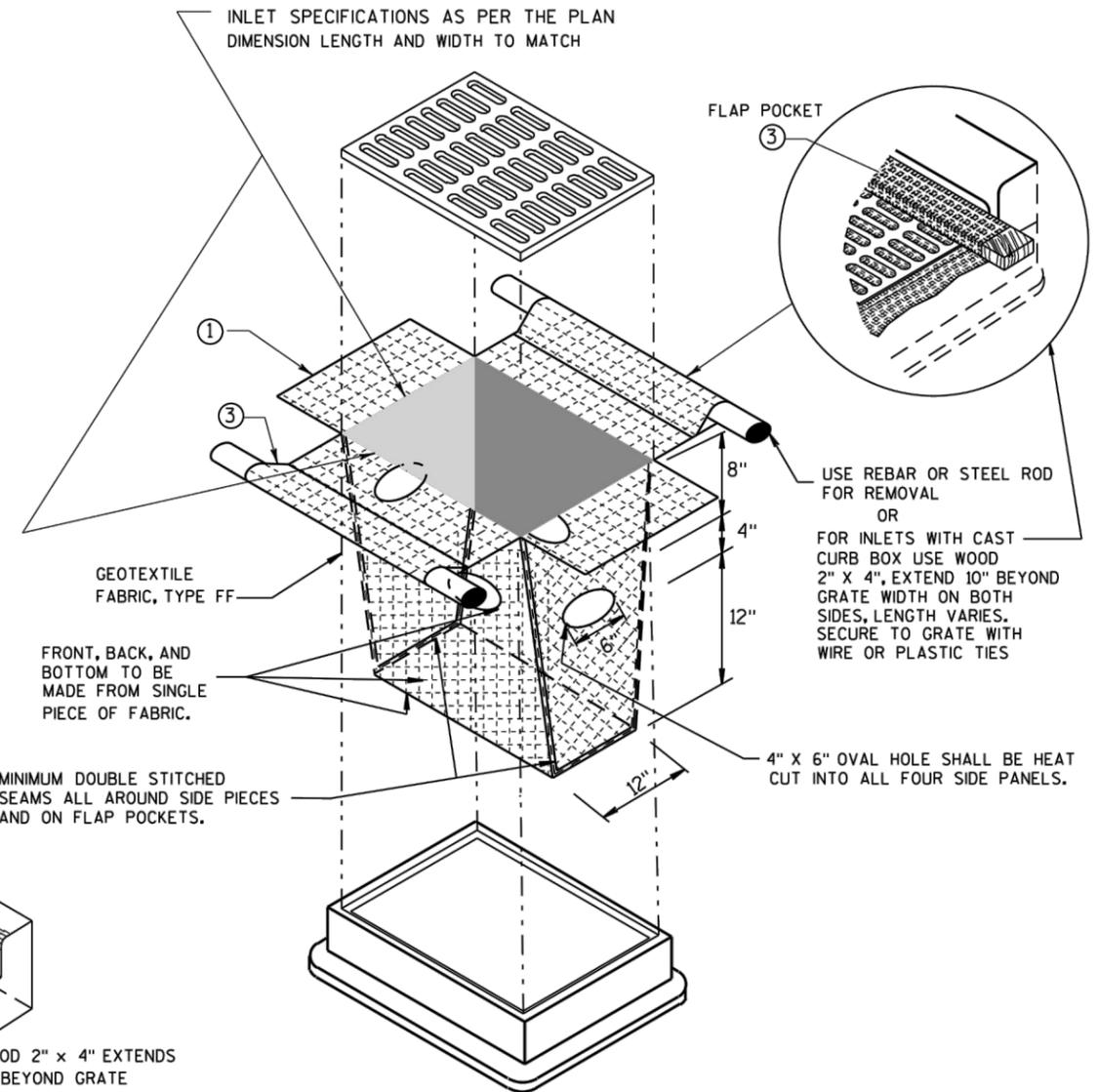
INSTALLATION NOTES

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)

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S.D.D. 8 E 10-2

S.D.D. 8 E 10-2

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



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CONSTRUCTION DETAILS
INLET PROTECTION

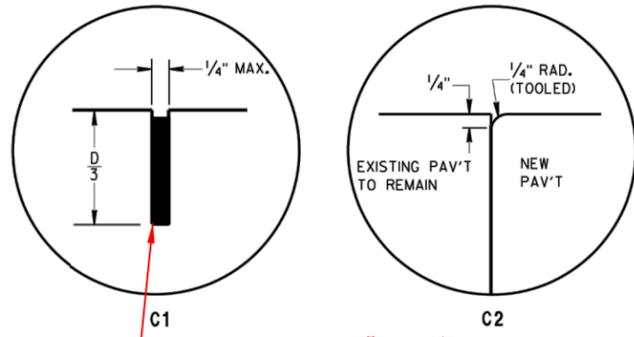
NAME: EAST SEWER & WATER RELAY AND STREET RESURFACING
PROJECT # 20-01B

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DRAWN	SRL 01-2020
DESIGNED	SRL 01-2020
CHECKED	CKK 01-2020

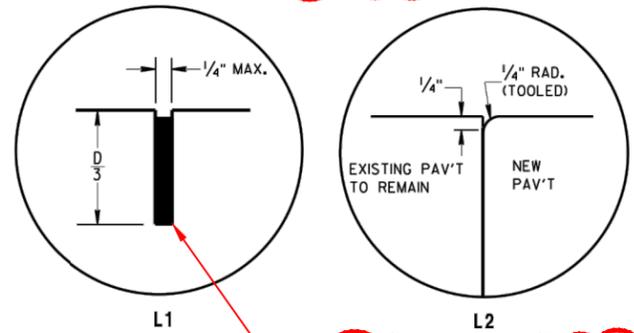
REVISIONS / ISSUES			
NO.	DATE	BY	REMARKS

PAGE NO. **C503**

SDD 13c9-b Concrete Pavement Repair and Replacement



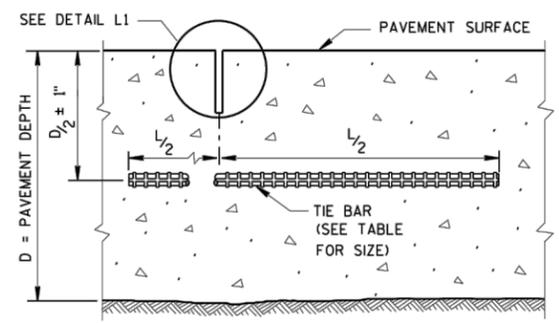
TRANSVERSE JOINTS
HOT POURED ELASTIC JOINT SEALER



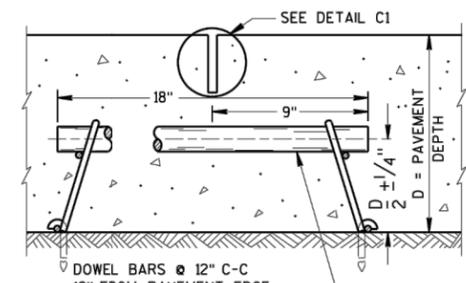
LONGITUDINAL JOINTS
HOT POURED ELASTIC JOINT SEALER

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.



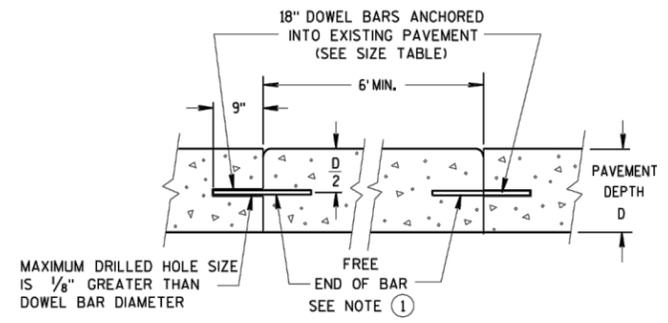
SECTION C-C
SAWED LONGITUDINAL JOINT



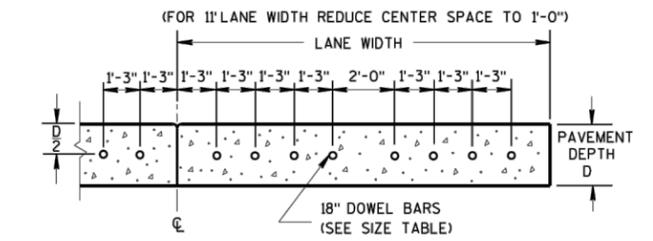
SECTION F-F
CONTRACTION JOINT

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

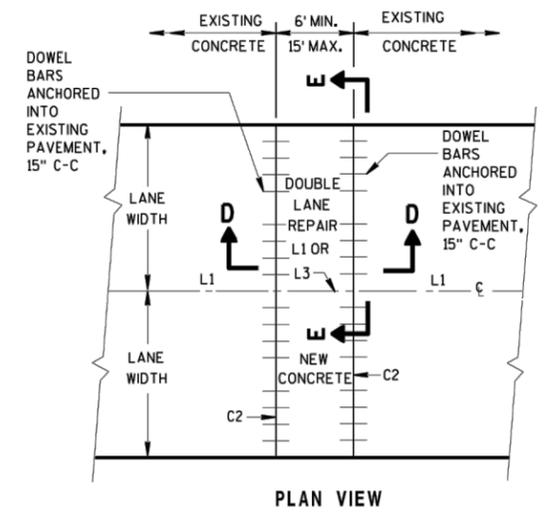


SECTION D-D
DRILLED DOWEL BAR CONSTRUCTION JOINT

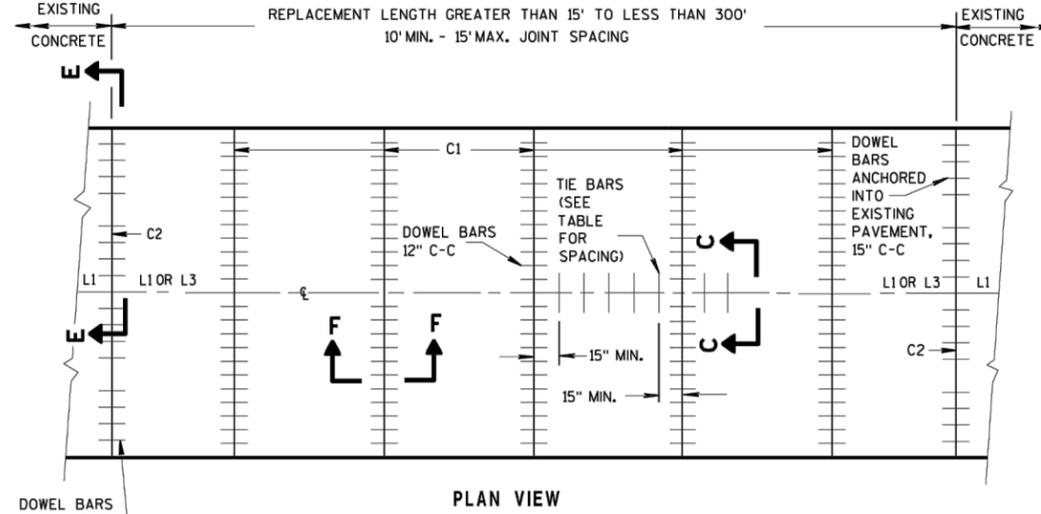


SECTION E-E
DRILLED DOWEL BAR CONSTRUCTION JOINT

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'



PLAN VIEW
MULTI-LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW
MULTI-LANE CONCRETE PAVEMENT REPLACEMENT

STANDARD DETAIL MODIFIED

CONCRETE PAVEMENT REPAIR AND REPLACEMENT
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

6

6

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

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



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CONSTRUCTION DETAILS CONCRETE PAVEMENT

NAME: EAST SEWER & WATER RELAY AND STREET RESURFACING
PROJECT # 20-01B

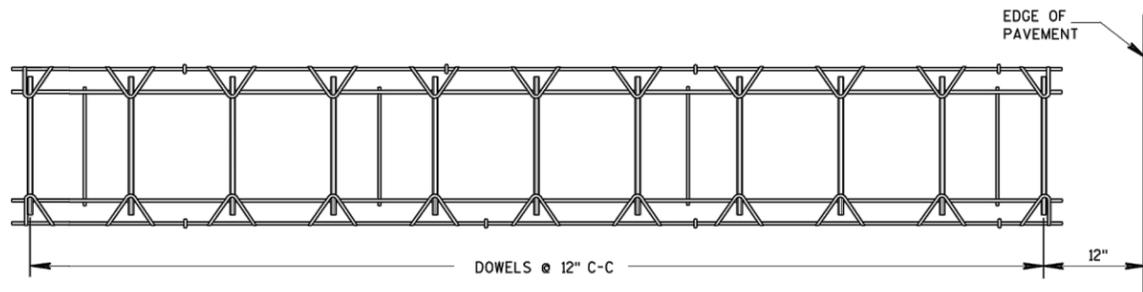
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DRAWN SRL	01-2020
DESIGNED SRL	01-2020
CHECKED CKK	01-2020

REVISIONS / ISSUES			
NO.	DATE	BY	REMARKS

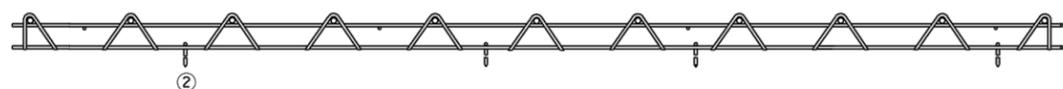
PAGE NO. C504

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SDD 13c13 Urban Doweled Concrete Pavement



PLAN VIEW



SIDE VIEW
CONTRACTION JOINT DOWEL ASSEMBLY

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

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

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

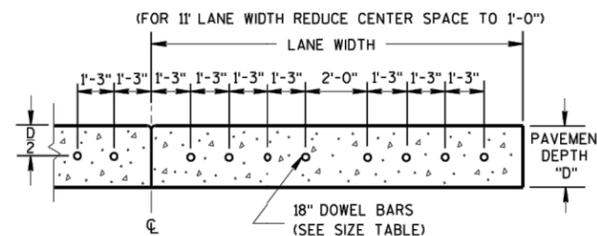
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES AND A MAXIMUM OF 18 INCHES FROM THE LONGITUDINAL JOINT AND THE FREE EDGE OF PAVEMENT.

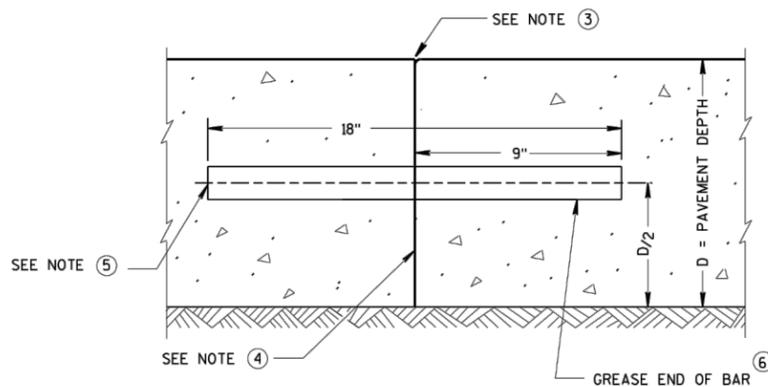
CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.

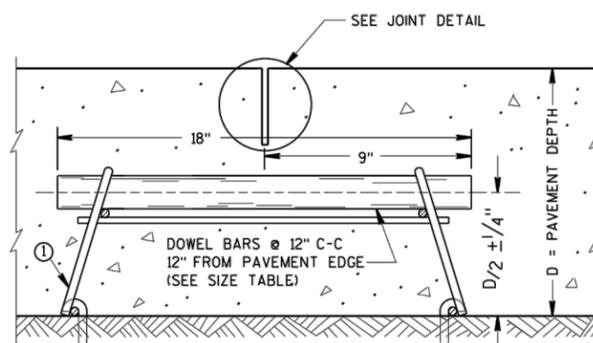
- OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTING CONTRACTION JOINTS.
- SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.
- FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A 1/4-INCH RADIUS AT FORMED JOINTS.
- PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.
- INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C-C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO *DRILLED DOWEL BAR CONSTRUCTION JOINT* DETAIL.
- APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.
- ANCHOR DOWEL BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS 1/8-INCH GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



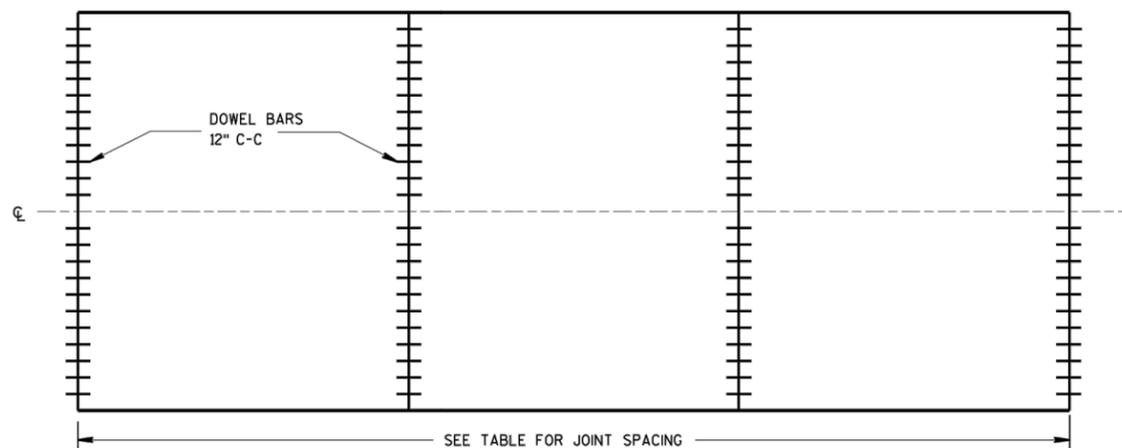
DRILLED DOWEL BAR CONSTRUCTION JOINT



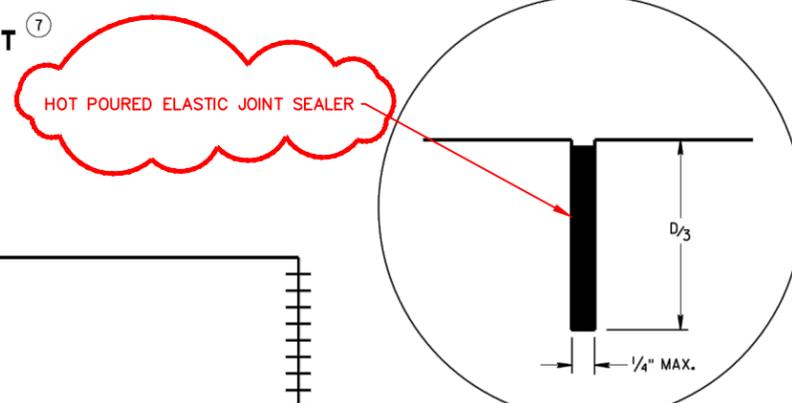
TRANSVERSE CONSTRUCTION JOINT



DOWELED CONTRACTION JOINT



CONTRACTION JOINT LOCATIONS



JOINT DETAIL
STANDARD DETAIL MODIFIED

**URBAN DOWELED
CONCRETE PAVEMENT**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 /S/ Peter Kemp, P.E.
DATE PAVEMENT SUPERVISOR

FHWA

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S.D.D. 13 C 13-9

S.D.D. 13 C 13-9



CITY OF DE PERE

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**CONSTRUCTION DETAILS
CONCRETE PAVEMENT**

NAME: EAST SEWER & WATER RELAY AND STREET RESURFACING
PROJECT # 20-01B

	BY	DATE
SURVEYED		
DRAWN	SRL	01-2020
DESIGNED	SRL	01-2020
CHECKED	CKK	01-2020

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NO.	DATE	BY	REMARKS

PAGE NO. C505

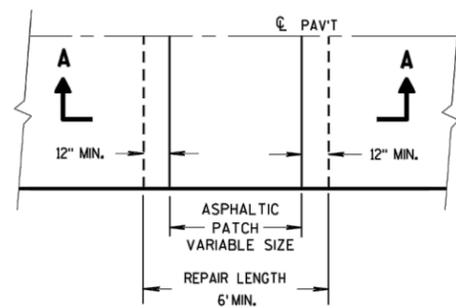
GENERAL NOTES

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.

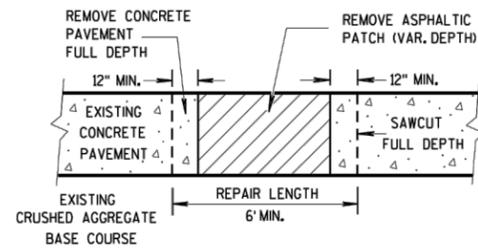
PROVIDE A 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK IN THE SAME LANE.

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.

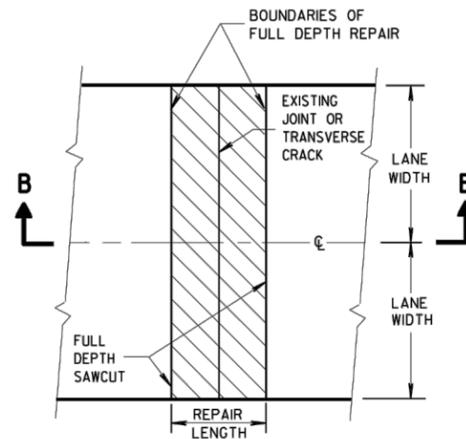
① DOWEL BARS MIGHT NOT EXIST.



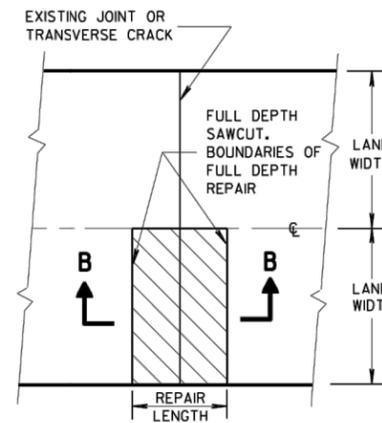
PLAN VIEW



**SECTION A-A
HMA PATCH REMOVAL**

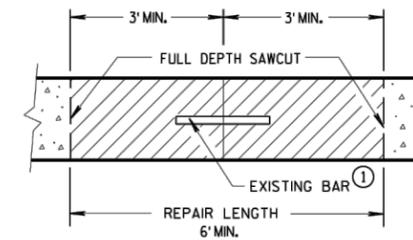


**PLAN VIEW
(DOUBLE LANE REPAIR)**



**PLAN VIEW
(SINGLE LANE REPAIR)**

FULL DEPTH CONCRETE PAVEMENT REMOVAL



**SECTION B-B
CONCRETE REMOVAL**

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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:
EAST SEWER & WATER RELAY
AND STREET RESURFACING
PROJECT # 20-01B

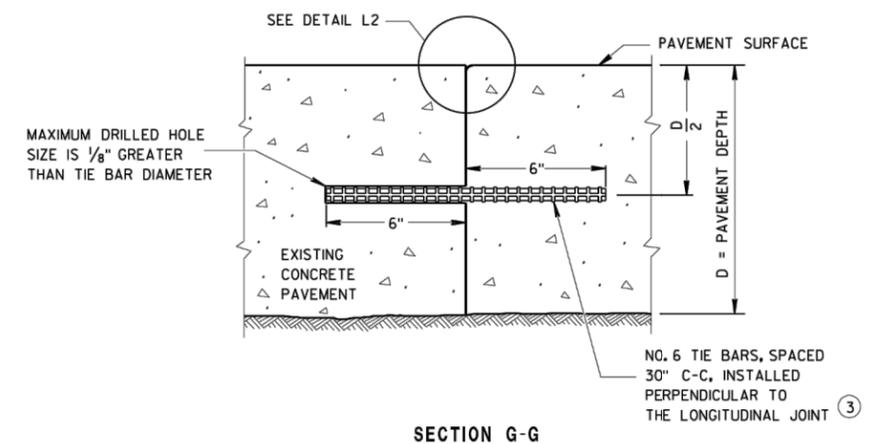
BY	DATE
SURVEYED	
DRAWN SRL	01-2020
DESIGNED SRL	01-2020
CHECKED CKK	01-2020

REVISIONS / ISSUES			
NO.	DATE	BY	REMARKS

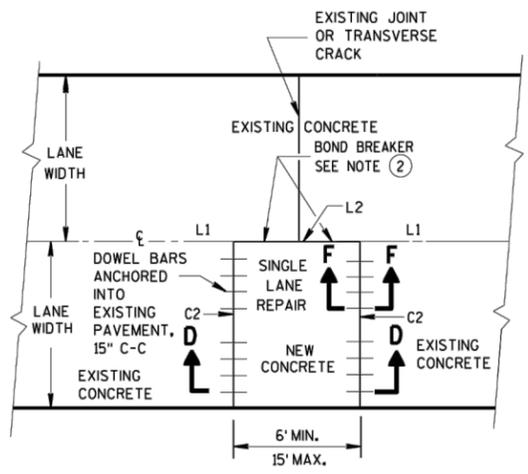
PAGE NO.
C506

GENERAL NOTES

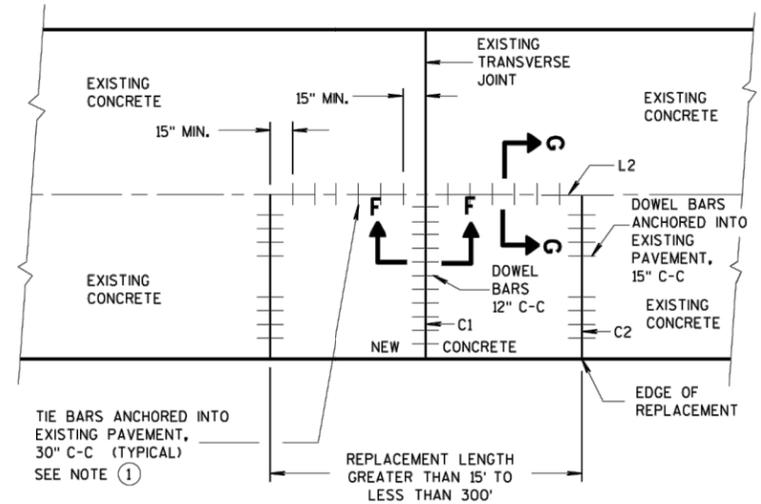
- ① WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, THE CONTRACTOR MAY INSTALL DRILLED TIE BARS ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES IN A HOLE OF SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.
- ② USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE REPAIRS UP TO 15 FEET IN LENGTH.
- ③ ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



SECTION G-G
TIE BARS ANCHORED INTO EXISTING PAVEMENT



PLAN VIEW
SINGLE LANE
CONCRETE PAVEMENT REPAIR



PLAN VIEW
SINGLE LANE
CONCRETE PAVEMENT REPLACEMENT

6

6

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

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

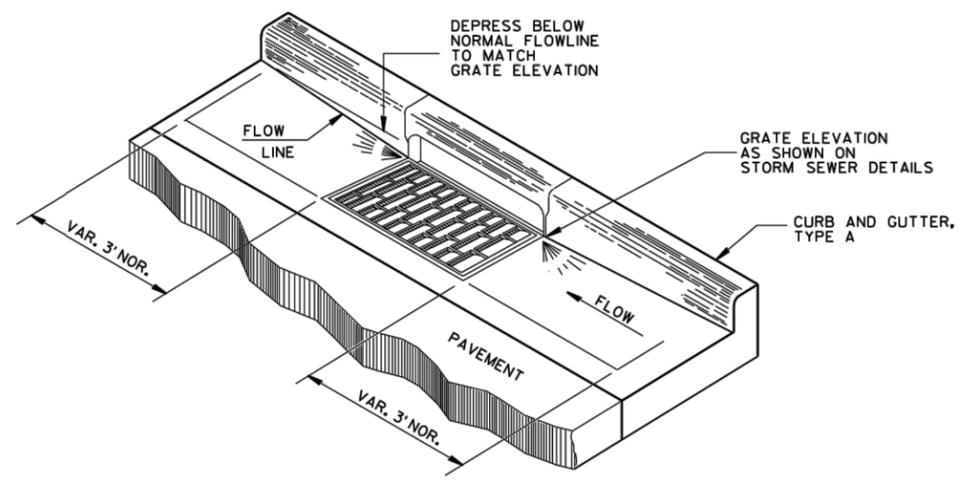
CONCRETE PAVEMENT REPAIR AND REPLACEMENT	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED March 2018 DATE	/s/ Peter Kemp, P.E. PAVEMENT SUPERVISOR
FHWA	



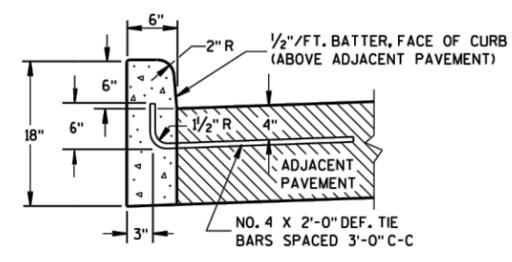
NAME: EAST SEWER & WATER RELAY AND STREET RESURFACING	BY	DATE	REVISIONS / ISSUES	
PROJECT # 20-01B	SURVEYED	01-2020	NO.	DATE
	DRAWN	01-2020	BY	REMARKS
	DESIGNED	01-2020		
	CHECKED	01-2020		

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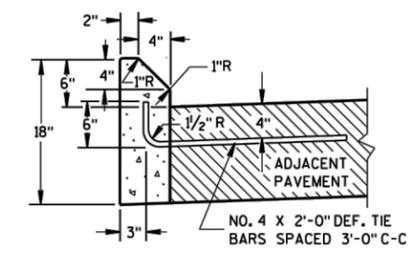
SDD 8d1-b Concrete Curb Ties and Curb & Gutter Applications



DETAIL OF CURB AND GUTTER AT INLETS
(TYPE H INLET COVER SHOWN)



TYPES A^① & D

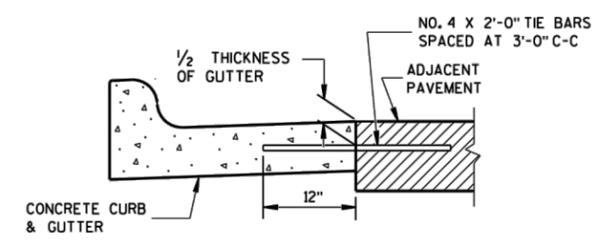


TYPES G^① & J

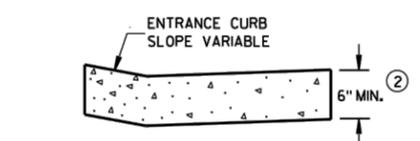
GENERAL NOTES

- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.
- PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.
- UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2'-0" BEHIND THE BACK OF CURBS.
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K, R AND TBTT.
 - ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
 - ③ REFER TO SDD 8D18 AND SDD 8D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.

CONCRETE CURB



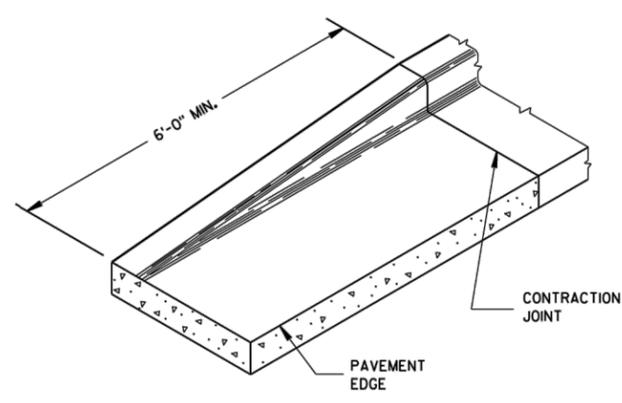
TYPICAL TIE BAR LOCATION^①



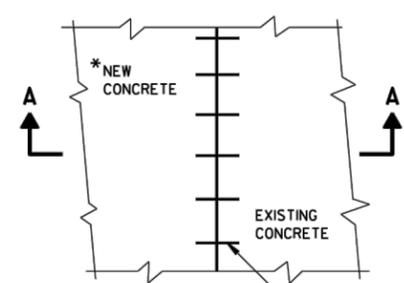
DRIVEWAY ENTRANCE CURB^②
(WHEN DIRECTED BY THE ENGINEER)

6

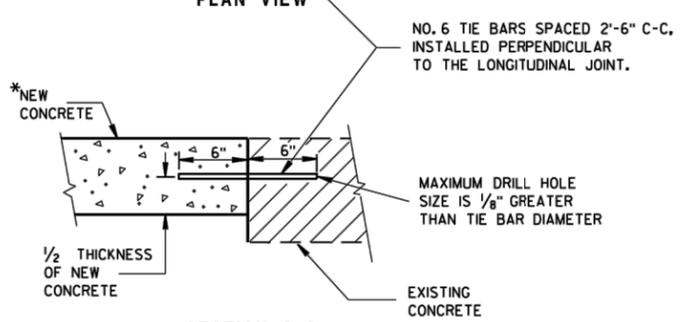
S.D.D. 8 D 1-20b



END SECTION CURB & GUTTER



*NEW CURB & GUTTER, SURFACE DRAINS, CONCRETE PAVEMENT OR OTHER NEW CONCRETE.



SECTION A-A
TIE BARS DRILLED INTO EXISTING PAVEMENT

6

S.D.D. 8 D 1-20b



CITY OF DE PERE

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

CONSTRUCTION DETAILS CONCRETE PAVEMENT

NAME: EAST SEWER & WATER RELAY AND STREET RESURFACING
PROJECT # 20-01B

BY	DATE
SURVEYED	
DRAWN	SRL 01-2020
DESIGNED	SRL 01-2020
CHECKED	CKK 01-2020

REVISIONS / ISSUES			
NO.	DATE	BY	REMARKS

PAGE NO. **C508**

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