

# **CITY OF DE PERE**

## **PROJECT**

**22-14**

## **COMMERCE DRIVE UTILITY AND STREET EXTENSION**

**BID DATE:  
FEBRUARY 17, 2022  
@ 1:00 PM**

Bid documents, including plans and specifications, are available for download at [www.QuestCDN.com](http://www.QuestCDN.com). The QuestCDN website can also be accessed through the City website at [www.deperewi.gov/projects](http://www.deperewi.gov/projects) or by pressing the *Projects* icon at the bottom of any City website page. Download cost is \$15 for each contract. Bidders will be charged an additional fee of \$30 to submit a bid electronically. 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 28, 2022 – FEBRUARY 4, 2022**

**CITY OF DE PERE**

**ADVERTISEMENT TO BID**

**PROJECT 22-14**

**COMMERCE DRIVE UTILITY AND STREET EXTENSION**

Online bids will be received and accepted for Project 22-14 Commerce Drive Utility and Street Extension via the online electronic bidding service through QuestCDN.com, until 1:00 PM, Thursday, February 17, 2022, at which time they will be publicly accepted, displayed and read aloud.

Project 22-14 for which proposals are being sought includes the following approximate quantities:

- 1,900 LF new sanitary sewer (10-inch) and associated appurtenances
- 2,500 LF new storm sewer (12-inch to 60-inch) and associated appurtenances
- 1,900 LF new water main (16-inch) and associated appurtenances
- 9,000 CY unclassified excavation
- 6,000 TON crushed aggregate base course
- 33,500 SY restoration

Complete digital project bidding documents are available for viewing and/or downloading at [www.QuestCDN.com](http://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 #7520428 on Quest's Project Search page. Project documents must be downloaded from QuestCDN which will add your company to the Planholder List and allow access to vBid online bidding for the submittal of your bid. Bidders will be charged an additional fee of \$30 to submit a bid electronically. The QuestCDN website can also be accessed through the City website at [www.deperewi.gov/projects](http://www.deperewi.gov/projects) or by pressing the *Projects* icon at the bottom of any City website page. Contact QuestCDN Customer Support at 952-233-1632 or [info@questcdn.com](mailto:info@questcdn.com) for assistance in membership registration, downloading digital project information and vBid online bid submittal questions.

Each proposal shall be accompanied by a 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 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.



**Project 22-14**  
**Commerce Drive Utility and Street Extension**

**City of De Pere**

Section 66.0901(3) regarding Prequalification of Contractor.

Each bidder shall pre-qualify by submitting proof of responsibility on forms furnished by the Director of Public Works. Such forms shall be filed with the Director of Public Works no later than 4:00 PM, Monday, February 14, 2022. Prospective bidders who have previously submitted such forms subsequent to January 1, 2022 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 28<sup>th</sup> day of January, 2022.

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

Project 22-14

**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 1<sup>st</sup> 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. In preparation of the Plans and Specifications, Engineer relied upon the following reports of explorations and tests of subsurface conditions at the Site:
    - a. Subsurface Exploration and Infiltration Evaluation, Proposed Stormwater Management by PSI
- 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. The fully executed bid bond must be uploaded into QuestCDN. If the bidder elects to furnish bid security other than a bid bond, the bid security must be submitted in a sealed envelope enclosed in a separate package plainly marked on the outside with the notation "BID SECURITY" along with the project number and name and addressed to the Board of Public Works of the City of De Pere, Municipal Service Center, 925 S. Sixth Street, De Pere, WI 54115 **prior to the deadline for submission of bids.**
- 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 submitted electronically using the QuestCDN online bidding vBid platform. No paper bids will 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 as indicated in the Advertisement to Bid. The bid opening can be viewed live via the GoToMeeting information shown below. An abstract of the amounts of the base bids and major alternatives, if any, will be made available to bidders after opening the bids.

The bid opening can be viewed live via GoToMeeting as follows:  
Please join my meeting from your computer, tablet or smartphone.  
<https://global.gotomeeting.com/join/923962301>

You can also dial in using your phone.  
United States (Toll Free): 1 877 309 2073  
- One-touch: <tel:+18773092073,,923962301#>  
Access Code: 923-962-301



New to GoToMeeting? Get the app now and be ready when your first meeting starts:

<https://global.gotomeeting.com/install/923962301>

**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 22-14

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 17, 2022 is to furnish and deliver all materials, and to perform and do all work on the project designated per Section 01 10 00 Summary of Work.

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 22-14**  
**Commerce Drive Utility and Street Extension**

**City of De Pere**

**ATTACHMENTS TO THIS BID**

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

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

**BID SUBMITTAL**

This Bid is submitted by \_\_\_\_\_ of \_\_\_\_\_,

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

Bidder, if Bidder is:

An Individual

Name (typed or printed): \_\_\_\_\_

By: \_\_\_\_\_  
(Individual's signature)

Doing business as: \_\_\_\_\_

A Partnership

Partnership Name: \_\_\_\_\_

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

Name (typed or printed): \_\_\_\_\_

A Corporation

Corporation Name: \_\_\_\_\_

State of Incorporation: \_\_\_\_\_

Type (General Business, Professional, Service, Limited Liability): \_\_\_\_\_

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

**Project 22-14**  
**Commerce Drive Utility and Street Extension**

**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 22-14**

**BID SCHEDULE – UNIT PRICE**

ITEM	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT BID
<b>SANITARY SEWER</b>					
SS-01	Provide 10" PVC Sanitary Sewer (Granular Backfill)	LF	100	\$ _____	\$ _____
SS-02	Provide 10" PVC Sanitary Sewer (Natural Backfill)	LF	1,900	\$ _____	\$ _____
SS-03	Provide 6" PVC Sanitary Sewer Lateral	LF	250	\$ _____	\$ _____
SS-04	Provide Sanitary Sewer Risers	LF	30	\$ _____	\$ _____
SS-05	Provide 10"x6" Sanitary Wye	EA	3	\$ _____	\$ _____
SS-06	Provide 4' Diameter Sanitary Sewer Manhole	VF	140	\$ _____	\$ _____
<b>STORM SEWER</b>					
ST-01	Provide 60" PVC, RCP Class III, or PP Storm Sewer Natural Backfill	LF	515	\$ _____	\$ _____
ST-02	Provide 48" PVC, RCP Class III, or PP Storm Sewer Granular Backfill	LF	510	\$ _____	\$ _____
ST-03	Provide 42" PVC, RCP Class III, or PP Storm Sewer Granular Backfill	LF	450	\$ _____	\$ _____
ST-04	Provide 36" PVC, RCP Class III, or PP Storm Sewer Natural Backfill	LF	30	\$ _____	\$ _____
ST-05	Provide 36" PVC, RCP Class III, or PP Storm Sewer Granular Backfill	LF	210	\$ _____	\$ _____
ST-06	Provide 30" PVC, RCP Class III, or PP Storm Sewer Natural Backfill	LF	30	\$ _____	\$ _____
ST-07	Provide 30" PVC, RCP Class III, or PP Storm Sewer Granular Backfill	LF	20	\$ _____	\$ _____

**Project 22-14**  
**Commerce Drive Utility and Street Extension**

**City of De Pere**

ITEM	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT BID
<b>STORM SEWER CONTINUED</b>					
ST-08	Provide 24" PVC, RCP Class III, or PP Storm Sewer Natural Backfill	LF	35	\$ _____	\$ _____
ST-09	Provide 24" PVC, RCP Class III, or PP Storm Sewer Granular Backfill	LF	350	\$ _____	\$ _____
ST-10	Provide 18" PVC, RCP Class III, or PP Storm Sewer Natural Backfill	LF	110	\$ _____	\$ _____
ST-11	Provide 18" PVC, RCP Class III, or PP Storm Sewer Granular Backfill	LF	30	\$ _____	\$ _____
ST-12	Provide 15" PVC, RCP Class III, or PP Storm Sewer Natural Backfill	LF	30	\$ _____	\$ _____
ST-13	Provide 15" PVC, RCP Class III, or PP Storm Sewer Granular Backfill	LF	220	\$ _____	\$ _____
ST-14	Provide 6" PVC, Storm Sewer Natural Backfill	LF	150	\$ _____	\$ _____
ST-15	Provide 6" PVC, Storm Sewer Granular Backfill	LF	50	\$ _____	\$ _____
ST-16	Provide Storm Sewer Riser	VF	25	\$ _____	\$ _____
ST-17	Provide 6" Storm Branch	EA	2	\$ _____	\$ _____
ST-18	Provide 9' Diameter Storm Manhole	VF	9	\$ _____	\$ _____
ST-19	Provide 8' Diameter Storm Manhole	VF	9	\$ _____	\$ _____
ST-20	Provide 7' Diameter Storm Manhole	VF	30	\$ _____	\$ _____
ST-21	Provide 6' Diameter Storm Manhole	VF	20	\$ _____	\$ _____
ST-22	Provide 5' Diameter Storm Manhole	VF	30	\$ _____	\$ _____
ST-23	Provide 4' Diameter Storm Manhole	VF	20	\$ _____	\$ _____

**Project 22-14**  
**Commerce Drive Utility and Street Extension**

**City of De Pere**

ITEM	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT BID
<b>STORM SEWER CONTINUED</b>					
ST-24	Provide Type B Inlet	EA	7	\$ _____	\$ _____
ST-25	Connect to Structure and/or Existing Pipe	EA	2	\$ _____	\$ _____
ST-26	Provide 60" RCP Endwall	EA	1	\$ _____	\$ _____
ST-27	Provide 18" RCP Endwall	EA	1	\$ _____	\$ _____
ST-28	Provide 15" RCP Endwall	EA	1	\$ _____	\$ _____
<b>WATER MAIN</b>					
W-01	Provide 16" PVC Water Main (Natural Backfill)	LF	2,000	\$ _____	\$ _____
W-02	Remove and Replace 16" PVC Water Main (Granular Backfill)	LF	50	\$ _____	\$ _____
W-03	Provide 6" PVC Hydrant Lead	LF	25	\$ _____	\$ _____
W-04	Provide 2" Corporation with Plug/Saddle with 2" Galvanized Pipe	EA	1	\$ _____	\$ _____
W-05	Provide 6" Gate Valve	EA	4	\$ _____	\$ _____
W-06	Provide 16" Butterfly Valve	EA	4	\$ _____	\$ _____
W-07	Provide Connection to Existing Water Main	EA	3	\$ _____	\$ _____
W-08	Provide Hydrant 8.0' Bury	EA	1	\$ _____	\$ _____
W-09	Provide Hydrant 7.0' Bury	EA	3	\$ _____	\$ _____
W-10	Provide 16" Water Main Offset	EA	2	\$ _____	\$ _____
W-11	Provide 1/2 -16" Water Main Offset	EA	1	\$ _____	\$ _____



**Project 22-14**  
**Commerce Drive Utility and Street Extension**

**City of De Pere**

ITEM	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT BID
<b>WATER MAIN CONTINUED</b>					
W-12	Provide Cut-In 16"x6" Tee or 16"x6" Tapping Tee	EA	1	\$ _____	\$ _____
W-13	Remove Hydrant and appurtenance	EA	1	\$ _____	\$ _____
<b>STREET AND DRAINAGE</b>					
SD-01	Unclassified Excavation	CY	5,250	\$ _____	\$ _____
SD-02	Unclassified Excavation (Dirt Pile off Commerce Drive)	CY	2,800	\$ _____	\$ _____
SD-03	Topsoil Stripping at Profit Place and Below Berm	SY	6,000	\$ _____	\$ _____
SD-04	Topsoil Stripping Behind Curb	SY	8,410	\$ _____	\$ _____
SD-05	Topsoil Stripping and Fill Below Subgrade	SY	2,610	\$ _____	\$ _____
SD-06	Rockland Ditching	SY	650	\$ _____	\$ _____
SD-07	Swale Ditching	SY	115	\$ _____	\$ _____
SD-08	Provide 1 1/4" Crushed Aggregate Base Course	TON	6,100	\$ _____	\$ _____
SD-09	Provide Landscaping – Topsoil, Seed, Fertilizer and Mulch	SY	30,100	\$ _____	\$ _____
SD-10	Provide Landscaping – Topsoil, Seed, Fertilizer, and Erosion Control Mat Class I-Urban	SY	2,400	\$ _____	\$ _____
<b>SPECIAL CONSTRUCTION</b>					
SC-01	Pipe Foundation Stabilization	CY	100	\$ _____	\$ _____
SC-02	Provide Silt Fence	LF	1,550	\$ _____	\$ _____
SC-03	Erosion Bale Ditch Checks	EA	50	\$ _____	\$ _____

**Project 22-14**  
**Commerce Drive Utility and Street Extension**

**City of De Pere**

ITEM	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT BID
<b>SPECIAL CONSTRUCTION CONTINUED</b>					
SC-04	Inlet Protection Type A	EA	11	\$ _____	\$ _____
SC-05	Inlet Protection Type D	EA	4	\$ _____	\$ _____
SC-06	Provide Heavy Rip Rap w/ Geotextile Fabric	SY	60	\$ _____	\$ _____
SC-07	Tracking Pad	EA	2	\$ _____	\$ _____
<b>TOTAL AMOUNT BID</b>					\$ _____

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 22-14 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:

<u>ITEM</u>	<u>MATERIAL</u>	<u>SUPPLIER</u>
Valves	N/A	
Hydrants	N/A	
Manholes	Concrete	
Sanitary Sewer	PVC	
Water Main	PVC	
Storm Sewer (RCP) (List Proposed Size)	RCP	
Storm Sewer (PVC) (List Proposed Size)	PVC	
Storm Sewer (PP) (List Proposed Size)	PP	
Aggregate	N/A	

SECTION 00 43 36

TABULATION OF SUBCONTRACTORS

The following information is submitted which gives the name, business address, and portion of work for each subcontractor that will be used in the work if the bidder is awarded the contract, and no subcontractor doing work in excess of one-half of one percent of the total amount of the bid and who is not listed will be used without the written approval of the Engineer. Additional numbered pages outlining this portion of the proposal may be attached to this page.

<u>PORTION OF WORK</u>	<u>BUSINESS NAME</u>	<u>BUSINESS ADDRESS</u>
Utility Work		
Street Excavation		
Aggregate Base Course Placement		
Restoration/Landscaping		

SECTION 00 51 00

NOTICE OF AWARD

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

Project Description: 22-14 Commerce Drive Utility and Street Extension

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 28, 2022 and February 4, 2022.

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 \_\_\_\_\_ day of \_\_\_\_\_ 2022.

\_\_\_\_\_  
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 22-14 Commerce Drive Utility and Street Extension, 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 28, 2022 and February 4, 2022.
- (b) Drawings designated for Project 22-14 Commerce Drive Utility and Street Extension dated January 28, 2022.
- (c) City of De Pere 2022 Construction Specifications.
- (d) Special Provisions dated January 28, 2022.
- (e) Proposal submitted by (Contractor Name) dated Bid Date.
- (f) Addenda No.       dated

ARTICLE II - TIME OF COMPLETION

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

**ARTICLE III - PAYMENT**

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

**ARTICLE IV – CONTRACT DOCUMENTS**

**(a) Contents**

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



- e. Specifications as listed in the table of contents of the Project Manual.
  - f. Drawings consisting of \_\_\_\_ sheets with each sheet bearing the following general title: \_\_\_\_ [or] the Drawings listed on attached sheet index.
  - g. Addenda (numbers \_\_\_\_ to \_\_\_\_ inclusive), dated \_\_\_\_.
  - h. Exhibits to this Agreement (enumerated as follows):
    - 1) Contractor's Bid (pages 00 41 13-1 to 00 41 13-3, inclusive).
    - 2) Bid Schedule – Unit Prices (Pages 00 41 43-1 to 00 41 43-, inclusive).
    - 3) Proposed Products Form (Page 00 43 33-1).
    - 4) Tabulation of Subcontractors (page 00 43 36-1).
    - 5) Documentation submitted by Contractor prior to Notice of Award (00 51 00-1).
  - i. The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:
    - 1) Notice to Proceed (Page 00 55 00-1).
    - 2) Change Orders.
2. The documents listed in Paragraph (a) Contents, are attached to this Agreement (except as expressly noted otherwise above).
3. There are no Contract Documents other than those listed above in this Article IV.

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

\_\_\_\_\_  
(WITNESS)                      \_\_\_\_\_ (CONTRACTOR)                      (SEAL)

\_\_\_\_\_  
(WITNESS)                      BY: \_\_\_\_\_

\_\_\_\_\_  
(TITLE)

BY: \_\_\_\_\_

\_\_\_\_\_  
(TITLE)

CITY OF DE PERE                      (SEAL)

Approved as to Form By: \_\_\_\_\_ (City Attorney)

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

\_\_\_\_\_  
(COMPTROLLER)

BY: \_\_\_\_\_  
(MAYOR)

BY: \_\_\_\_\_  
(CITY CLERK)

SECTION 00 55 00

NOTICE TO PROCEED

Date: \_\_\_\_\_

(CONTRACTOR NAME)

(ADDRESS)

(ADDRESS)

PROJECT: 22-14 Commerce Drive Utility and Street Extension

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 22-14, 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.

**Project 22-14**  
**Commerce Drive Utility and Street Extension**

**City of De Pere**

- b. After the expiration of one (1) year following the date on which Contractor ceased work on said CONTRACT.
  - 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 22-14, in accordance with drawings and specifications prepared by the Director of Public Works of said City, which contract is by reference made a part hereof, and is hereinafter referred to as the CONTRACT.

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

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

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

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

SIGNED AND SEALED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 20\_\_\_\_\_.

In the Presence of:

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

**SECTION 00 62 76**

**APPLICATION FOR PAYMENT**

**Contractor's Application for Payment No.**

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

**APPLICATION FOR PAYMENT**

Change Order Summary

Approved Change Orders			1. ORIGINAL CONTRACT PRICE:.....	
Number	Additions	Deductions	2. Net change by Change Orders and Written Amendments (+ or -):.....	\$0.00
			3. CURRENT CONTRACT PRICE (Line 1 plus Line 2):.....	\$0.00
			4. Total completed and stored to date Column H on Progress Estimate:.....	\$0.00
			5. Retainage (per Agreement):	
			a. Work Completed - Column H (95% up to 50% of Contract or 2.5% of 100% of Contract)	\$0.00
Total	\$0.00	\$0.00	6. AMOUNT ELIGIBLE TO DATE (Line 4 minus 5).....	\$0.00
NET CHANGE BY CHANGE ORDERS:			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:		(Date)
	(Contractor)	
Payment of:	\$	
	(Line 8 or other - attach explanation of other amount)	
is recommended by:		(Date)
	(Owner)	

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:

---

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\_\_\_\_\_  
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:

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Contractor's Amended Responsibilities:

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

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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/Schedule
  - 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, 2022 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. Commerce Drive – Rockland Road to 2100 feet north of Rockland Road
  - b. Easement – Rockland Road to Pond
  - c. Rockland Road at Commerce Drive
  - d. Profit Place lot grading
2. Work will be performed under the following prime contract:
  - a. Project 21-14 Commerce Drive Utility and Street Extension

#### **B. The Work includes:**

1. Sanitary sewer and associated appurtenances.
2. Water main and associated appurtenances.
3. Storm sewer and associated appurtenances.
4. Unclassified excavation (existing dirt pile and street construction).
5. Crushed aggregate base course placement.
6. Erosion control.
7. Landscape restoration.

### **1.4 WORK SEQUENCE/SCHEDULE**

- A. Project shall be completed by July 20, 2022.
- B. Conduct construction activities to maintain access to businesses and residences throughout construction.
- C. Topsoil, seed, and mulch shall be completed prior to asphaltic concrete pavement placement.
- D. The anticipated start date for construction is May 2<sup>nd</sup>. If construction is delayed due to utility permits, the completion date will be modified accordingly.

**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. 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 22-20 American Boulevard and Commerce Drive Concrete Paving
- B. Private site construction will be occurring immediately west of Commerce Drive.

- C. Utility companies may be installing utilities within the utility easement adjacent to the right of way during construction.
- D. 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](mailto:lsarau@newwater.us)) (920-438-1039)
- B. AT&T, Victoria Kassab, ([yk352k@att.com](mailto:yk352k@att.com)) (920-202-4002)
- C. Wisconsin Public Service, Bob Laskowski, ([rtlaskowski@wisconsinpublicservice.com](mailto:rtlaskowski@wisconsinpublicservice.com)) (920-617-2775)
- D. Charter, Vince Albin, ([vince.albin@charter.com](mailto:vince.albin@charter.com)) (920-378-0444)
- E. Nsight, Rick Vincent, ([rick.vincent@nsight.com](mailto:rick.vincent@nsight.com)) (920-617-7316)
- F. TDS Metrocom, Steve Jakubiec, ([steve.jakubiec@tdstelecom.com](mailto:steve.jakubiec@tdstelecom.com)) (920-882-4166)
- G. Net-Lec (Mi-Tech Services), Dennis Lafave, ([dlafave@mi-tech.us](mailto:dlafave@mi-tech.us)) (920-619-9774)
- H. CenturyLink, Relocation Team, ([relocations@lumen.com](mailto:relocations@lumen.com)) (800-871-9244)
- I. Central Brown County Water Authority, Rob Michaelson, ([rmichaelson@mpu.org](mailto: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. Access for loaded trucks to or from the site shall be Commerce Drive. Empty trucks will be allowed to access onto Rockland Road.
- C. The existing dirt pile shall be moved prior to crushed aggregate base course placement.
- D. All unclassified excavation and trench spoils can be placed on-site. Approximately 1,400 CY of material is required for lot grading on Profit Place. This shall be completed as part of the project. The remainder of the excess material may be placed at the berm along Rockland Road.

**Project 22-14**  
**Commerce Drive Utility and Street Extension**

**City of De Pere**

PART 2 – PRODUCTS

PART 3 – EXECUTION

END OF SECTION

SECTION 01 22 01

MEASUREMENT AND PAYMENT SANITARY SEWER

PART 1 – GENERAL

1.1 SUMMARY

- |   |                     |
|---|---------------------|
| A. Section includes:                        | <u>Bid Item No.</u> |
| 1. Sanitary Sewer Mains (Granular Backfill) | SS-01               |
| 2. Sanitary Sewer Mains (Natural Backfill)  | SS-02               |
| 3. Sanitary Sewer Laterals                  | SS-03               |
| 4. Sanitary Sewer Risers                    | SS-04               |
| 5. Sanitary Sewer Service Branches          | SS-05               |
| 6. Sanitary Sewer Manholes                  | SS-06               |
- B. Unit Prices include:
1. Defined work for each Unit Price Item which will provide a functionally complete Project when combined with all unit price items. If there are specific work items which the Contractor believes are not identified in any Unit Price Item, but is required to provide a functionally complete Project, then the identified specific work items shall be included in the appropriate Unit Price Item.
  2. The method of measurement for payment.
  3. The price per unit for payment.

1.2 GENERAL WORK ITEMS

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

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

**1.3 SANITARY SEWER MAINS (GRANULAR BACKFILL)**

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

**1.4 SANITARY SEWER MAINS (NATURAL BACKFILL)**

- A. The unit price for Sanitary Sewer Main (Natural Backfill) work includes:
  1. General Work Items of Article 1.2.

2. Sanitary sewer pipe and fittings of material stated in the Unit Price Bid Schedule and installed using the open trench method.
  3. Excavation, breakdown and removal of abandoned piping inside the trench area, including plugging of existing connections.
  4. Excavation, breakdown and removal of abandoned pipeline structures inside the trench area, including plugging of existing connections
- B. Measurement of payment will be the actual horizontal length along the centerline of the installed sewer from centerline of the manhole to centerline of manhole with no deductions for manholes, sewer services branches and other fittings.
- C. The unit of measurement for payment is linear feet.

**1.5 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.

**1.6 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 main or at the right of way as shown on the plans.
  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.

**1.7 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.

**1.8 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.

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-02, ST-03, ST-05, ST-07,<br>ST-09, ST-11, ST-13, ST-15 |
| 2. Storm Sewer Mains (Natural Backfill)  | ST-01, ST-04, ST-06, ST-08,<br>ST-10, ST-12, ST-14        |
| 3. Storm Sewer Risers                    | ST-16   |
| 4. Storm Sewer Service Branches          | ST-17   |
| 5. Storm Sewer Manholes                  | ST-18, ST-19, ST-20, ST-21,<br>ST-22, ST-23               |
| 6. Catch Basin/Inlets                    | ST-24   |
| 7. Connect to Existing Structure         | ST-25   |
| 8. Flared End Section                    | ST-26, ST-27, ST-28                                       |
- 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 RISERS**

- A. The unit price for Storm Sewer Risers work includes:
  - 1. General Work Items of Article 1.2.
  - 2. Storm 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 as shown on the plans.
  - 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 with no deductions for fittings.
- C. The unit of measurement for payment is vertical 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. Supply and install 6 to 10 feet of 4 inch flexible perforated plastic pipe with geotextile wrap subgrade drain.
  - 9. Sand fill and Class "B" concrete floor and flow line.
  - 10. Temporary cover over catch basin/inlet to prevent eroded materials from entering.
  - 11. Final casting adjustment.
- B. Measurement for payment will be the actual number installed.
- C. The unit of measurement for payment is each.

#### **1.9 CONNECT TO STORM MANHOLE**

- A. The unit price for Connect to Storm Manhole work includes:

1. General Work Items of Article 1.2.
2. Modify/sawcut existing storm sewer manhole opening (where required).
3. Provide concrete/block around the pipe, gasket, and manhole opening to form a sediment tight seal.
4. Reform flow line in existing storm manhole.

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

C. The unit of measurement for payment is each.

**1.10 FLARED END SECTION**

A. The unit price for Flared End Section includes:

1. General Work Items of Article 1.2.
2. Precast concrete components.
3. Anchors to storm sewer pipe.

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

C. The unit of measurement for payment is each.

**END OF SECTION**

SECTION 01 22 03

MEASUREMENT AND PAYMENT WATER SYSTEM

PART 1 – GENERAL

1.1 SUMMARY

- |  |                     |
|--|---------------------|
| A. Section includes:   | <u>Bid Item No.</u> |
| 1. Water Mains (Granular Backfill)                             | W-02                |
| 2. Water Mains (Natural Backfill)                              | W-01                |
| 3. 2" Corporation with Plug or Saddle and Galvanized Pipe      | W-04                |
| 4. Fire Hydrants   | W-08, W-09          |
| 5. Hydrant Leads   | W-03                |
| 6. Valves  | W-05, W-06          |
| 7. Connection to Existing Water Mains                          | W-07                |
| 8. Water Main Offset   | W-10, W-11          |
| 9. Connection to Existing Water Main by Cut-in Tee/Tapping Tee | W-12                |
| 10. Remove Hydrant and Associated Appurtenances                | W-13                |
- B. Unit Prices include:
1. Defined work for each Unit Price Item which will provide a functionally complete Project when combined with all unit price items. If there are specific work items which the Contractor believes are not identified in any Unit Price Item, but is required to provide a functionally complete Project, then the identified specific work items shall be included in the appropriate Unit Price Item.
  2. The method of measurement for payment.
  3. The price per unit for payment.

1.2 GENERAL WORK ITEMS

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

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

**1.3 WATER MAINS (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.
  8. Remove existing water main.
- 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 (NATURAL BACKFILL)**

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

**1.5 2-INCH CORPORATION WITH PLUG OR SADDLE AND GALVANIZED PIPE**

- A. The unit price for 2-Inch Corporation with Plug or Saddle and Galvanized Pipe work includes:
  - 1. General Work Items of Article 1.2.
  - 2. Provide and install 2-inch corporation with plug or saddle (where required) with 2-inch galvanized pipe.
  - 3. Remove 2-inch corporation with plug/saddle and repair water main.
- B. Measurement for payment will be the actual number installed.
- C. The unit of measurement for payment is each.

**1.6 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.

**1.7 HYDRANTS LEADS**

- A. The unit price for Hydrants Leads work includes:
  - 1. General Work Items of Article 1.2.
  - 2. Pipe and fittings of material stated in the Unit Price Bid Schedule.
  - 3. Blocking and joint restraints.
  - 4. Tracer wire.
  - 5. Disinfection of pipeline.
- B. Measurement for payment will be the actual horizontal length along the centerline of the installed from the centerline of the water main to the centerline of the hydrant with no deductions for fittings and valves.
- C. The unit of measurement for payment is linear feet.

**1.8 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.

**1.9 CONNECTIONS TO EXISTING WATER MAINS**

- A. The unit price for Connection to Existing Water Mains work includes:
  - 1. General Work Items of Article 1.2.
  - 2. Locating existing water main.
  - 3. Connection to the end of existing pipe.
    - a. Remove existing plug.
    - b. Direct connection to end of existing pipe.
    - c. Transition fittings, if required.
- B. Measurement for payment will be the actual number installed.
- C. The unit of measurement for payment is each.

**1.10 WATER MAIN OFFSET**

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

**1.11 CONNECTION TO EXISTING WATER MAIN BY CUT-IN TEE/TAPPING TEE**

- A. The unit price for Connection to Existing Water Main by Cut-In Tee/Tapping Tee Work includes:
  - 1. General Work Items of Article 1.2.
  - 2. Locating existing water main.
  - 3. Supply and install ductile or cast iron pipe fittings.
  - 4. Supply equipment for tapping tee installation.
  - 5. Installation of tapping tee.
  - 6. Polyethylene encasement of ductile or cast iron pipe fittings.
  - 7. Tracer wire.
  - 8. Blocking and joint restraints.
  - 9. Disinfection of pipeline.
- B. Measurement for payment will be the actual number installed.
- C. The unit of measurement for payment is each.

**1.12 REMOVE HYDRANT AND APPURTENANCES**

- A. The unit price for Remove Hydrant and Appurtenances work includes:
  - 1. General Work Items of Article 1.2.
  - 2. Excavating
  - 3. Removing existing hydrant and appurtenances as identified on the plans.
  - 4. Take care not to damage hydrant.
  - 5. City of De Pere Water Department will pick up onsite.
- 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**

- |  |                     |
|--|---------------------|
| A. Section includes:   | <u>Bid Item No.</u> |
| 1. Topsoil and Unclassified Excavation   | SD-01, SD-02        |
| 2. Crushed Aggregate Base and Surface Course                                       | SD-08               |
| 3. Topsoil Stripping   | SD-03, SD-04, SD-05 |
| 4. Ditching  | SD-06, SD-07        |
| 5. Landscaping – Topsoil, Seed, Fertilize, and Mulch                               | SD-09               |
| 6. Landscaping – Topsoil, Seed, Fertilize, and Erosion<br>Control Revegetation Mat | SD-10               |
- B. Unit Prices include:
1. Defined work for each Unit Price Item which will provide a functionally complete Project when combined with all unit price items. If there are specific work items which the Contractor believes are not identified in any Unit Price Item, but is required to provide a functionally complete Project, then the identified specific work items shall be included in the appropriate Unit Price Item.
  2. The method of measurement for payment.
  3. The price per unit for payment.

**1.2 GENERAL WORK ITEMS**

- A. Include with the appropriate Unit Price Item the following work items which are common to the Unit Price Items for street and drainage systems.
- B. If there is a specific Unit Price Item for any of the following items, then the work item shall be included with that specific unit price item.
1. Traffic Control.
  2. Sawcutting asphalt and/or concrete.
  3. Removal, hauling and disposal of surface materials including road pavement, curb and gutter, sidewalk, driveways and other pavement surfaces in the trench area and as shown on the drawings.
  4. Maintenance, protection, replacement and/or repair of facilities not designated for alteration on the Site.
  5. Site access requirements including temporary aggregate material as required for local traffic access.
  6. Dust control.
  7. Remove and replace existing mailboxes and traffic signs.

8. Restroom facilities.
9. Construction staking and other survey work not provided by the Engineer.
10. Regulatory requirements.
11. Quality assurance and quality control testing and inspections.
12. Final casting and valve box adjustment.
13. Shop drawings and other submittals.

### **1.3 TOPSOIL AND UNCLASSIFIED EXCAVATION**

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

### **1.4 CRUSHED AGGREGATE BASE AND SURFACE COURSE**

- A. The unit price for Crushed Aggregate Base and Surface Course work includes:
  1. General Work Items of Article 1.2.
  2. Aggregate material.
  3. Preparation of foundation.
  4. Placing and compacting to thickness and width shown on the Drawings or specified elsewhere.
  5. Maintenance until surface pavement is constructed.
  6. Preparation of crushed aggregate base for paving.
  7. Adjustment of manholes and valve boxes to proposed finish road grade.

- B. Measurement of payment will be the actual amount of material required and incorporated in the work verified by submitting to the Engineer delivery tickets provided with each load showing the weight measured on a certified scale, type of material, the date delivered and the project name. Aggregates in excess of seven percent (7%) total moisture determined based on the dry mass of the aggregates will have moisture content in excess of seven percent (7%) deducted from the measured weight.
- C. The unit of measurement for payment is tons.

**1.5 TOPSOIL STRIPPING**

- A. The unit price for Topsoil Stripping work includes:
  - 1. General Work Items of Article 1.2.
  - 2. Removal of topsoil in fill areas.
  - 3. Hauling and stockpiling topsoil.
  - 4. Placing unclassified material in stripped areas to subgrades shown on the Drawings.
  - 5. Compaction of subgrade and fill areas.
  - 6. Respreading topsoil to final grades shown on the Drawings.
  - 7. Finish grading.
- B. Measurement for payment will be the area of topsoil stripped in the fill areas.
- C. The unit of measurement for payment is square yards.

**1.6 DITCHING**

- A. The unit price for Ditching work includes:
  - 1. General Work Items of Article 1.2.
  - 2. Removal of topsoil to depth available.
  - 3. Hauling and stockpiling topsoil.
  - 4. Excavation to subgrades shown on the drawings.
  - 5. Hauling of unclassified material.
  - 6. Placing unclassified material in fill areas to subgrades shown on the Drawings and the subgrade required for placement of topsoil.
  - 7. Compaction of subgrade and fill areas.
  - 8. Excavation of undercut areas for placing topsoil.
  - 9. Respreading topsoil to final grades shown on the Drawings.
  - 10. Disposal of surplus topsoil, unclassified material and unsuitable material.
  - 11. Preparation of disposal site and transportation of material over an Engineer approved haul route from the site including all loading and dumping of material
  - 12. Finish Grading.
  - 13. Place seed and erosion control revegetation mat, Class I, Urban.

- B. Measurement of payment will be the length and width of the area to be ditched for swales.
- C. The unit of measurement for payment is square yards.

**1.7 LANDSCAPING- TOPSOIL, SEED, FERTILIZE AND MULCH**

- A. The unit price for Landscaping- Topsoil, Seed, Fertilize, and Mulch work includes:
  - 1. General Work Items of Article 1.2.
  - 2. Provide 4" topsoil or salvaged topsoil.
  - 3. Provide seed.
  - 4. Provide fertilizer.
  - 5. Provide mulch.
  - 6. Provide maintenance.
- B. Measurement for payment will be the width and length not greater than limits shown on the plans.
- C. The unit of measurement for payment is square yard.

**1.8 LANDSCAPING – TOPSOIL, SEED, FERTILIZE, AND EROSION CONTROL REVEGETATION MAT**

- A. The unit price for Landscaping – Topsoil, Seed, Fertilize, and Erosion Control Revegetation Mat work includes:
  - 1. General Work Items of Article 1.2.
  - 2. Provide erosion mat material as stated in the Drawings or specified elsewhere.
  - 3. Place erosion mat material.
- B. Measurement for payment will be the actual area installed.
- C. The unit of measurement for payment is square yards.

**END OF SECTION**

SECTION 01 22 05

MEASUREMENT AND PAYMENT SPECIAL CONSTRUCTION

PART 1 – GENERAL

1.1 SUMMARY

- |                                     |                     |
|-------------------------------------|---------------------|
| A. Section includes:                | <u>Bid Item No.</u> |
| 1. Pipe Foundation Stabilization    | SC-01               |
| 2. Silt Fence Erosion Control       | SC-02               |
| 3. Erosion Bales                    | SC-03               |
| 4. Inlet Protection Erosion Control | SC-04, SC-05        |
| 5. Rip Rap Erosion Control          | SC-06               |
| 6. Tracking Pad                     | SC-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 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 SILT FENCE EROSION CONTROL**

- A. The unit price for Silt Fence Erosion Control work includes:
  - 1. General Work Items of Article 1.2.
  - 2. Provide fabric and post.
  - 3. Excavate to anchor fabric and compact soil or provide soil class C-3 to anchor the fabric.
  - 4. Inspection and maintenance of the installed silt fence.
  - 5. Removal of the silt fence.
  - 6. Finish grading.
  - 7. Topsoil, seeding, fertilizing, and mulching area in the vicinity of the removed silt fence which does not have established turf.
- B. Measurement of payment will be the actual horizontal length installed.
- C. The unit of measurement for payment is linear feet.

**1.5 EROSION BALES**

- A. The unit price for Erosion Bales work includes:
  - 1. General Work Items of Article 1.2.
  - 2. Provide straw bales and anchor stakes.
  - 3. Excavate and embed the straw bales.
  - 4. Inspection and maintenance of the installed straw bales.
  - 5. Removal of the straw bales.
  - 6. Finish grading.

7. Topsoil, seeding, fertilizing, and mulching area in the vicinity of the removed erosion bales which does not have established turf.

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

C. The unit of measurement for payment is each.

#### **1.6 INLET PROTECTION EROSION CONTROL**

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

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

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

C. The unit of measurement for payment is each.

#### **1.7 RIP RAP EROSION CONTROL**

A. The unit price for Rip Rap Erosion Control work includes:

1. General Work Items of Article 1.2.
2. Provide rip rap material and geotextile fabric.
3. Excavate and place rip rap material.

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

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

#### **1.8 TRACKING PAD**

A. The unit price for Tracking Pad work includes:

1. General Work Items of Article 1.2.
2. Install to the dimensions as shown on the drawing or specified elsewhere.
3. Providing filter fabric.
4. Providing crushed aggregate base course (3 inch clear stone).
5. Daily maintenance of aggregate.
6. Removal of aggregate and restore with topsoil, seed, fertilizer and mulch.

B. Measurement for payment will be the actual number of tracking pads installed.

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

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 4<sup>th</sup> 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:

**Project 22-14**  
**Commerce Drive Utility and Street Extension**

**City of De Pere**

1. WDNR – Sanitary Sewer
2. WDNR – Water Main
3. WDNR - WRAPP

- 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 PROVIDE BY THE ENGINEER**

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

2. Provide construction stakes for location of pipe at connections.

**C. New Road Construction**

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

**3.3 ENGINEERING SURVEYS TO BE PROVIDED BY THE CONTRACTOR**

**A. General**

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

**B. Gravity Sewer Systems and Water Distribution Systems**

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

**C. New Road Construction**

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

**END OF SECTION**

**SECTION 31 23 00.1**

**EARTHWORK**

**PART 1 – GENERAL**

**1.1 SUMMARY**

- A. Work in this section shall include but not be limited to the following:
  - 1. Excavation.
  - 2. Test rolling.
  - 3. Filling and compacting.
  - 4. Backfilling around structures.
  - 5. Disposal of surplus materials.
  - 6. Finish grading.

**1.2 REFERENCE STANDARDS**

- A. American Society for Testing and Materials (ASTM)
  - 1. D4318 Test Method for Liquid Limit, Plastic Limit, and Plasticity Index of Soils.
  - 2. D1140 Test for Amount of Material in Soils Finer than the No. 200 Sieve
  - 3. D1556 Test for Density of Soil in Place by the Sand-Cone Method
  - 4. D1557 Test Methods for Moisture-Density Relations of Soils and Soil-Aggregate Mixtures Using 10-Lb (4.54 kg) Rammer and 18 in. (457 mm) Drop
  - 5. D2216 Laboratory Determination of Water (Moisture) Content of Soil, Rock, and Soil-Aggregate Mixtures
  - 6. D2922 Test for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth)
  - 7. D3017 Test for Moisture Content of Soil and Soil-Aggregate by Nuclear Method (Shallow Depth)

**1.3 SUBMITTALS**

- A. Submit the following in accordance with Section 01 33 00, Submittals:
  - 1. Two (2) copies of testing data of laboratory tests to the owner's representative if material is brought from off site.

**1.4 DENSITY TESTING**

- A. The Engineer will provide an independent testing laboratory to provide testing services.



B. Anticipated testing schedule as follows:

<u>Fill Utilized For:</u>	<u>Number of Acceptable Tests for Each Class or Fill:</u>
Embankments, dikes or berms	1 test per 600 cubic yards
Structural or controlled fills	1 test per 1,500 square feet, minimum of 1 test per lift
Trench backfill under paved or surfaced areas greater than 15' depth	1 test per 100 feet of trench or any portion thereof, in the lower 1/4, each middle 1/4, and upper 1/4 of backfill
Trench backfill under paved or surfaced areas less than 15' depth	1 test per 100 feet of trench or any portion thereof, in the lower 1/3, middle 1/3, and upper 1/3 of backfill
Lateral trench backfill	1 test per 100 feet of trench with a minimum of 1 test location per trench in the lower 1/3, middle 1/3, and upper 1/3.
Non-structural fills	1 test per 2,000 cubic yards

**PART 2 – PRODUCTS**

**2.1 SOIL MATERIALS**

- A. Soil used for borrow, fill, and backfilling shall meet the requirements of soil class as called for on plans or in specifications.
- B. As a minimum, all soil shall meet the requirements of Soil Class G-1.
- C. All soil classes shall be as per Section 31 05 10, Soils and Aggregates for Earthwork.

**PART 3 – EXECUTION**

**3.1 EXCAVATION**

- A. Excavation to Correct Grade
  - 1. Excavate site of structures and pavements as follows:
    - a. To elevation shown on the plans.
    - b. To such additional width as necessary for erection and removal of forms, shoring or sheeting, and finishing of walls.
  - 2. Excavation of unsuitable materials.
    - a. Excavate unsuitable soil materials under a proposed structure.
    - b. Excavation shall extend lateral a minimum of 5 feet beyond the building limits plus 1 foot for each foot of cut below the foundation.
    - c. Notify the Owner's project representative prior to proceeding with their removal of unsuitable material.
- B. Borrow Excavation
  - 1. Clear site in accordance with Section, 31 10 00, Site Clearing.
  - 2. Strip and stockpile topsoil.

3. Excavate, haul, place, and compact borrow soil material.
4. Regrade borrow areas as shown on the plans or in an acceptable manner to facilitate proper site drainage.
5. Replace stockpiled topsoil.
6. Surplus topsoil may be utilized in borrow area regarding.
7. Seed and mulch in accordance with Section 32 92 00, Turf and Grasses.

**C. Excavation Precautions**

1. Excavation slope stability.
  - a. Maintain excavation slope to ensure a stable excavation and prevent caving.
  - b. Provide and erect all timber work, shoring, sheeting, bracing, etc. necessary to prevent caving and displacement of adjacent property.
    - 1) Shoring shall be placed so as not to interfere with building work.
    - 2) Shoring shall be independent of footings.
2. Underpinning existing structures.
  - a. Underpin as necessary to protect existing structures and foundations.
  - b. Furnish all material, labor, and equipment necessary to complete underpinning operations.
3. Dewatering of excavations.
  - a. Contractor shall provide and maintain all equipment necessary to keep excavated areas free of all groundwater, surface water, or precipitation.
  - b. Soil which becomes soft, yielding, or loses support due to inadequate dewatering efforts shall be dealt with as follows:
    - i. Excavate disturbed soil materials for their entire depth.
    - ii. Replace excavated materials with an approved fill material.
4. Protect excavation from freezing.
  - a. Take precautions necessary to prevent frost from entering subgrade soils.
  - b. If subgrade becomes frozen, remove snow, ice, and frozen soil prior to placement of additional fill or finish surfacings.

**3.2 FILLING AND COMPACTING**

- A. Layer thickness for fill soil shall be as follows:
  1. Layer thickness shall be dependent on the soil classification type, weight, and soil contact pressure of compaction equipment being used.
  2. Layer thickness shall not exceed 8 inches.
- B. Compaction
  1. Compaction method for fill soils shall be appropriate for soil material being compacted and provide sufficient soil contact pressure to thoroughly compact entire lift thickness.
- C. Proper soil moisture contents for compaction shall be maintained in all soils.
  1. Optimum moisture content as determined by Modified (ASTM D1557) Proctor shall be used to determine acceptance moisture contents for soil compaction.

2. Contractor shall scarify and compact existing ground prior to placing fill material.

D. Compaction requirements for all fill soils unless specified elsewhere shall be as follows:

Class 1    -Fills supporting structures.  
              - Subgrade under pavements or floors.  
              - Backfill under piping and conduits.

Class 2    - Fills which do not support structures.

**COMPACTION REQUIREMENTS FOR  
VARIOUS SOIL CLASSES**

Soil Class	Required Compaction (%) of Modified Proctor Density	
	Class 1	Class 2
B-3 through B-4	95	90
C-1 through C-6	95	90
D-1 through D-3, and G-1 and G-2	95	90
E-1	95	90

**3.3    TEST ROLLING**

A. The following testing services shall be provided:

1. The subgrade condition and elevation shall be checked by the Engineer prior to placement of fill material. The subgrade will be proof rolled using a tandem axle dump truck fully loaded with fill material to the maximum legal weight limit. The fill condition and elevation shall be checked by the Engineer prior to placement of subsequent courses.

B. Treat areas showing yielding or rutting under test rolling as follows:

1. Replace and/or recompact as necessary to stabilize the area.
2. Retest soil areas replaced or recompact.

**3.4    BACKFILLING AROUND STRUCTURES**

A. Do not backfill any foundation, wall, or structure prior to inspection by the Engineer.

B. Backfilling under pipes or conduits in areas excavated due to construction.

1. Contractor shall furnish and compact Soil Class A-7 under all piping or conduits.
  - a. Compact fill shall extend from undisturbed earth to grade.
  - b. Place and compact fill in all areas disturbed by construction.

**3.5 DISPOSAL OF SURPLUS MATERIALS**

- A. The Owner shall have prior claim to all surplus excavated material. If such claim is exercised by the Owner, the material shall be deposited at such points as may be directed by the Engineer at the expense of the Contractor, the haul not to exceed two (2) miles. If Owner does not desire to claim surplus excavated material, the Contractor shall be totally responsible for obtaining a disposal site. No material shall be disposed of in a floodplain, wetland or waterway.

After delivery to any designated location, such material shall be leveled off by the Contractor.

**3.6 FINISH GRADING**

- A. Grade, trim, and shape subgrade to required grade and section.
1. Adjust slopes by grading so that transition is smooth and gradual.
  2. The crests of cut banks shall be rounded and shaped.
  3. Washouts and ruts shall be refilled, regarded, and properly compacted.
  4. Remove all stones 3 inches or larger from grading limits.
- B. Vertical Grading Tolerances
1. Rough grading tolerance.
    - a. Areas to be topsoiled – rough grade to within 0.2 foot of finish grades.
  2. Areas having paved surfaces (i.e., concrete, asphalt, etc.).
    - a. Maximum allowable variation from correct profile and section shall not be more than ¼-inch in 10 feet.

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

**1.4 QUALITY ASSURANCE**

- A. Make pipe available to the Engineer's Representative for inspection.
- B. Pipe shall be considered defective and will be rejected when:
  - 1. Pitted or cratered.
  - 2. Flaking.

3. Straightness varies more than ½ inch in 10 feet.
4. Any defect which prevents assembly according to manufacturer's recommendations.
5. Not utilized within 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 40 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
	36	35.64	33.86
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

**APPENDIX A**

**SUBSURFACE EXPLORATION AND INFILTRATION EVALUATION,  
PROPOSED STORMWATER MANAGEMENT BASIN BY PSI**



August 14, 2014

Mr. Eric Rakers, P.E.  
City of De Pere  
925 South Sixth Street  
De Pere, Wisconsin 54115

Subject: Subsurface Exploration and Infiltration Evaluation  
Proposed Stormwater Management Basin  
De Pere, Wisconsin  
PSI Project No. 0093129

Dear Mr. Rakers,

In accordance with your request, Professional Service Industries, Inc. (PSI) performed a subsurface exploration to provide an evaluation of the soil and groundwater conditions with regard to the proposed stormwater management basin planned at the above referenced site.

## **INTRODUCTION**

This report presents the results of the subsurface exploration and infiltration evaluation performed for the proposed stormwater management basin located approximately 550 feet south of Ravine Road in De Pere, Wisconsin. An electronic copy of this report is being provided. Hard copies will be provided upon request. The scope of services was performed in accordance with a signed agreement (MES Proposal No. 14-4003, dated February 18, 2014), between MES/PSI and the City of De Pere. The general conditions for the performance of the work were referenced in the proposal. This report, summarizing the subsurface exploration and infiltration evaluation, has been prepared on behalf of, and exclusively for the use of the City of De Pere. The information contained in this report may not be relied upon by any other parties without the written consent of PSI, and acceptance by such parties of MES' General Conditions.

## **PURPOSE**

The purpose of the subsurface exploration was to evaluate the soil and groundwater conditions encountered at three borings on the subject site, and to provide subsurface information for preliminary design planning for the stormwater management basin.

## **SCOPE**

The scope of services included a site reconnaissance, the subsurface exploration, a determination of soil characteristics by field and laboratory testing, and an evaluation and analysis of the data obtained. The number, depth, and locations of the borings were determined by the City of De Pere.

The field work for classification of the subgrade soils in accordance with the WDNR Technical Standard 1002 "Site Evaluation for Stormwater Infiltration" guidelines was performed to provide information for use by the basin design personnel when considering requirements of Chapter NR151 of the Wisconsin Administrative Code. The design of the proposed management area was beyond the scope of services for this project. Additionally, field infiltration testing of the subsurface soils was not requested or performed at this time.

## **SITE AND PROJECT DESCRIPTION**

The center of the subject site was located approximately 950 feet east of the intersection between Beau Rivage Court and S.T.H. 57 or approximately 550 south of Ravine Road in the north end of an agricultural field in De Pere, Wisconsin. At the time of exploration, the subject site consisted of a vacant, undeveloped field covered with grass. The surface of the site was firm and the drill rig experienced no difficulty in moving about the site.

The topography of the general area and the project site was relatively sloping. The project site has an elevation difference of approximately 7 feet between the borings, generally sloping down towards the west. Surrounding properties consisted of residential properties and Ravine Road to the north; agricultural properties and the Fox River Trail to the east; S.T.H. 57, residential properties, and the Fox River beyond to the west; and a farm field with Rockland Road to the south.

From the information provided by the client, it is understood that the bottom of the proposed stormwater management basin is planned to be at EL. 628.5 (with depths ranging between about 7 to 14± feet beneath the existing grade). Based on the map that was provided by the City of De Pere's Engineering Division, the dimensions of the pond are approximately 950 by 200 feet. No additional basin design information was provided for this report.

## **SOIL SURVEY MAP REVIEW**

The USDA Natural Resources Conservation Service – Web Soil Survey for De Pere, Wisconsin, indicated that the near surface soils in the vicinity of the subject site primarily consist of Oshkosh silt loam (OnA and OnB). A small area of Manawa silty clay loam (McA) is

present towards the east end of the site near the drainage ditch and in a small area towards the middle of the pond. These soils are generally classified to be of relatively low permeability. According to the survey, the typical profile of the Oshkosh silt loam soils generally consists of approximately 7 inches of silt loam, overlying silty clay soils. The typical profile for the Manawa silty clay loam consists of approximately 9 inches of silty clay loam, overlying silty clay soils. The depth of the groundwater table within the Oshkosh silt loam soils is typically at a depth ranging between 5 and 6.5 feet below existing grade and between 7 and 24 inches below existing grade within the Manawa silty clay loam.

## **FIELD EXPLORATION AND LABORATORY TESTING**

Three (3) soil borings were drilled within the proposed stormwater management basin. More specifically, one (1) soil boring was drilled to a depth of 12 feet below ground surface, one (1) boring was drilled to a depth of 18 feet below ground surface, and one (1) boring was drilled to a depth of 20 feet below ground surface. The boring locations were staked in the field by the client's representative. The surface elevations shown on the logs were obtained using information that was provided to PSI by the City of De Pere. The approximate locations of the borings are indicated on the Boring Location Plan (Figure 1) enclosed with this report.

The soil borings were performed with a truck-mounted rotary drilling rig, utilizing continuous flight hollow stem augers to advance the holes. Representative soil samples were obtained by the Standard Penetration Test (SPT) method in general accordance with ASTM D-1586 procedures. Sampling was performed continuously at 2-foot intervals. The SPT provides a means of determining the relative density of granular soils and comparative consistency of cohesive soils, thereby providing a method of evaluating the relative strength and compressibility characteristics of the subsoils.

The SPT soil samples were transferred into clean glass jars immediately after retrieval, and returned to the laboratory upon completion of the field operations. Samples will be discarded unless other instructions are received. The soil samples were visually classified by a certified soil tester in general accordance with USDA National Resources Conservation Service textural soil classification procedures.

A description of the subsurface conditions encountered at each of these boring locations is shown on the Soil Boring Logs, which have been attached to this report. The soil stratification shown on the logs represents the approximate soil conditions in the actual boring locations at the time of the exploration. The terms and symbols used on the logs are described in the General Notes found in the Appendix. A summary of the major soil profile components at the boring locations is described in the following paragraphs. Upon completion of drilling operations, the borings were backfilled to ground surface with bentonite chips, as necessary.

## **DESCRIPTION OF SUBSURFACE CONDITIONS**

### General

A description of the subsurface conditions encountered at the test boring locations is shown on the Soil Boring Logs. The lines of demarcation shown on the logs represent approximate boundaries between the various soil classifications. It must be recognized that the soil descriptions are considered representative for the specific test hole location, but that variations may occur between and beyond the sampling intervals and boring locations. Soil depths, topsoil and layer thicknesses, and demarcation lines utilized for preconstruction planning should not be expected to yield exact and final quantities. A summary of the major soil profile components is described in the following paragraphs.

### Soil Conditions

The surficial soils consisted of about 3 to 6± inches of dark brown sandy clay loam topsoil in borings B-2 and B-3, and 4± inches of dark brown silty clay topsoil in boring B-1. The underlying soils generally consisted of intermixed strata of brown silty clay and sandy clay loam to the maximum depths explored by the borings. As exceptions, a dark gray silt loam layer was encountered in boring B-2 at depths of 17 feet to the maximum depth explored (EL. 623.5), and a dark gray silty clay loam layer was encountered in boring B-3 at depths of 16 feet to the maximum depths explored (EL. 626.5).

### Groundwater Observations

Groundwater was not encountered in the borings during auger advancement or upon completion and removal of the augers within the open boreholes above the caved depths. Caved depths at the borings were at about 3, 9, and 11.5± feet (EL. 632.5, EL. 631.5, and EL. 631.0) at borings B-1, B-2, and B-3 respectively.

On the basis of the field observations, the groundwater level is judged to be below the depth of the borings at the time of the exploration. However, longer term monitoring would be required to better evaluate groundwater levels on this site. It must be recognized that groundwater levels fluctuate with time due to variations in seasonal precipitation, lateral drainage conditions, and soil permeability characteristics.

## **INFILTRATION CONSIDERATIONS**

The subgrade soils encountered in the borings have been classified in general accordance with the USDA textural soil classification system. Estimated infiltration rates for various soil types are provided in Table 2 of the Site Evaluation for Stormwater Infiltration (1002)

document, which is published by the Wisconsin Department of Natural Resources Conservation Practice Standards. A copy of Table 2 is shown below.

Soil Texture <sup>1</sup>	Design Infiltration Rate Without Measurement Inches/hour
Coarse sand or coarser (COS)	3.60
Loamy coarse sand (LCOS)	3.60
Sand (S)	3.60
Loamy sand (LS)	1.63
Sandy loam (SL)	0.50
Loam (L)	0.24
Silt loam (Si, L)	0.13
Sandy clay loam (SCL)	0.11
Clay loam (CL)	0.03
Silty Clay loam (Si, CL)	0.04
Sandy clay (SC)	0.04
Silty clay (Si, C)	0.07
Clay (C)	0.07

<sup>1</sup>Use sandy loam design infiltration for fine sand, very fine sand, and loamy fine sand soil textures.

NR-151 guidelines indicate infiltration rates shall be based on the least permeable soil horizon within 5 feet of the bottom elevation of the proposed infiltration system.

As indicated by the client, the bottom of the proposed basin is estimated to be at about EL. 628.5. The soils encountered at, and below the bottom of pond elevation consisted predominantly of silty clay, silt loam, and silty clay loam.

The silty clay, silt loam, and silty clay loam soils encountered in the borings, have estimated infiltration rates of 0.04 to 0.13 inches per hour, based on Table 2 above. These infiltration rates are less than 0.6 inches per hour. Due to the soil classification of these soils, they are therefore exempt from the infiltration requirements of NR151.124 under NR151.124(4)(c)2.

Although groundwater was not encountered on site, it should be noted that perched water may be present in some areas. It is recommended that in-situ testing be performed on this site as part of design planning, for use in proper evaluation with respect to the type, size, bottom elevations, intended use and other factors related to the various stormwater management devices. It must be recognized that areas of the site may also be exempt or excluded from the infiltration requirements of NR151.124 under other provisions (dependent upon the final bottom elevation), such as NR151.124(4)(b), due to insufficient separation distance between the bottom of the basin and the groundwater/bedrock, or due to the lack of a layer of sufficient thickness containing soils with sufficient fines content between the bottom of the basin and the groundwater/bedrock. This layer of sufficient thickness containing soils with sufficient fines

content is denoted by NR151.124(4)(b) as a “filtering layer”. As indicated in NR151.002(14r), a “filtering layer” is defined as a layer at least 3 feet thick, with at least 20 percent fines; or at least 5 feet thick, with at least 10 percent fines.

The preceding infiltration rate estimates are intended only for use in preliminary planning. In-situ testing, such as with a double ring infiltrometer, along with test pits in other areas of the basin are recommended to allow more detailed evaluation of subsurface conditions, including groundwater levels, and to provide more representative infiltration rates to be used in the final basin design. It is recommended that the bottom of the stormwater management area be observed by qualified geotechnical personnel at the time of construction to verify the soil types.

It must be recognized that actual infiltration rates will be somewhat variable depending upon the uniformity, in-place density, and/or grading of the subsoils below the individual basin or trench footprint. It should also be recognized that the performance of the basin could be affected by other factors such as densification by construction equipment and sedimentation. A maintenance program must be developed to address the removal of sedimentation and or organic materials should they develop. Additionally, it is recommended that the basin design be performed by an experienced civil engineering firm, and that thorough review of applicable codes (especially NR151) and regulations be performed. Proper design and construction of sidewalls and berms will also be essential for proper basin performance.

## **LINER CONSIDERATIONS**

If the basin is utilized as a wet pond, the silty clay, silt loam, and silty clay loam soils encountered in the borings are generally considered to be of low permeability, and therefore likely to be suitable for a wet pond. However, zones of more permeable granular soils may be present within upper portions of the basin sidewalls. It may therefore be necessary to install a properly designed clay or synthetic liner along at least portions of the basin side walls. This must be of adequate thickness and low permeability. The liner and natural soils used for the basin perimeter must be sufficient to resist lateral earth and water pressure, as well as outward migration that may occur, possibly through tension or shrinkage type cracks. Where it is necessary to raise grades around the basin, the fill soils must consist of clay soils that have relatively low permeabilities when properly placed and compacted. The on-site non-organic silty clay soils are expected to be suitable for liner and embankment construction purposes when properly placed and compacted to at least 95% of the maximum dry density, as determined by Standard Proctor Method.

The liner must be of adequate thickness and low permeability. Clay liner materials along the bottom and sidewalls of the basin are generally recommended to have a hydraulic conductivity of  $1 \times 10^{-7}$  cm/sec or less. Past experience has shown that soils which have a grain size distribution of at least 50 to 75 percent passing the No. 200 sieve, a clay content of 25 to 50 percent, a liquid limit of 25 or more, and a plasticity index of 12 or more, have the potential to

exhibit a hydraulic conductivity of  $1 \times 10^{-7}$  cm/sec when properly compacted. However, the above properties are general guidelines. The permeability of the liner material can vary significantly depending upon its consistency, density, compaction level, as well as other factors. It is recommended that the liner design be performed by an experienced engineer, in accordance with applicable regulations and guidelines, and that proper testing of the clay soils be performed both as part of design planning and during construction to verify estimated properties.

The permeability of a liner material can vary significantly depending upon its density/compaction level, actual gradation, as well as other factors. The clay liner should typically be placed in maximum 9 inch lifts compacted to at least 95% of the maximum dry density as determined by Standard Proctor Method. It is recommended that in-situ infiltration/permeability testing be performed as part of the design and that the final liner design be performed by an experienced stormwater engineer, in accordance with applicable regulations and guidelines, and with regard to required water levels, retention times, inflow/outflow volumes, and other applicable factors.

Upon excavation to the design grades, it is recommended that the basin bottom and side slopes be evaluated by PSI. In addition, field density and laboratory testing, in general accordance with the testing requirements outlined in NRCS Wisconsin Construction Specification 300 (Clay Liners), is recommended during liner construction. PSI can provide such services.

It should be noted that the portions of the proposed basin footprint may encroach upon wooded areas. Therefore, it is recommended that trees and their roots within relatively close proximity to the proposed basin be completely removed to prevent future root growth through the liner materials. If inlet and outlet structures are installed, they should be provided with splash blocks or other energy dissipation devices to prevent scouring. It is further recommended that side slopes be vegetated (if permissible and applicable when considering other design factors) or provided with other appropriate protection to prevent erosion and raveling of liner materials.

## **GROUNDWATER AND EXCAVATION CONSIDERATIONS**

Based on the borings, the long term groundwater level was below the depth of the borings at the time of the exploration. Therefore, no major difficulty during excavation and construction of the proposed stormwater management basin is anticipated. A gravity drainage system and filtered sump pumps or other conventional dewatering procedures, should be adequate to control perched water if encountered.

While no groundwater was encountered at the time the borings were drilled, seasonal variations in precipitation and site drainage conditions can cause groundwater to be present in

the upper soils.

Some difficulty with subgrade softening and sidewall sloughing/caving may be experienced in at least isolated areas, dependent upon weather conditions. All excavation work must be conducted in accordance with OSHA and other applicable requirements to protect life and property.

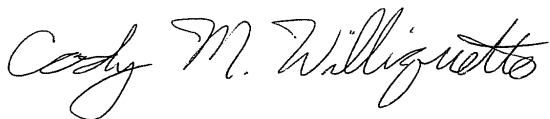
## GENERAL COMMENTS

This evaluation has been prepared on the basis of the subsurface conditions encountered in the soil borings discussed above. Preliminary recommendations presented herein are based on available soil information and test data collected. This study has been conducted in the manner consistent with that level of care ordinarily exercised by members of the profession currently practicing in the same locality under similar conditions. The findings and opinions contained herein have been promulgated in accordance with general accepted practices in the fields of soil mechanics and engineering geology. No other representations, expressed or applied, and no warranty or guarantee is included or intended in this report.

After you have had the opportunity of reading this report, please call at any time with any questions or comments you may have. PSI appreciates the opportunity to be of service on this project, and we look forward to working with you during the construction phase.

Sincerely yours,

PROFESSIONAL SERVICE INDUSTRIES, INC.



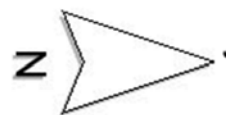
Cody M. Williquette  
Staff Engineer



Matthew Henderson, P.E.  
Vice President

Enclosures:      Figure 1 - Boring Location Plan  
                         Soil Boring Logs (3)  
                         Storm Form – SBD - 10793  
                         General Notes





## SOIL BORING LOG: B - 1

**Project:** Profit Place Stormwater Pond

**Project No.:** 0093129

**Location:** DePere, Wisconsin

**Drill Date:** July 11, 2014

**Drilled by:** KD

**Logged by:** MB

DEPTH/EL. (feet)	VISUAL SOIL CLASSIFICATION GROUND SURFACE ELEVATION: 635.5	SAMPLE NO.	N (bpf)	Qp (tsf)	Qu (tsf)	MC (%)	REMARKS
1 634.5	0-4": 7.5 YR 3/2 Dark Brown SILTY CLAY, with roots (1,vf) 1, abk, f, mfi-moist (TOPSOIL)	1-SS	4			22	
2 633.5	7.5 YR 4/4 Brown SILTY CLAY, 1, abk, f, mvfi-moist					33	
3 632.5		2-SS	16			15	
4 631.5	7.5 YR 4/4 Brown SANDY CLAY LOAM, 1, sbk, f, mfr-very moist						
5 630.5	7.5 YR 5/4 Brown SILTY CLAY, with 7.5 YR 6/2 pinkish gray (f,2,d) bands, 1, abk, f, mfi-moist	3-SS	12			19	
6 629.5	7.5 YR 4/3 Brown SILTY CLAY, 1, abk, f, mvfi-moist						
7 628.5		4-SS	17			20	
8 627.5							
9 626.5		5-SS	16			20	
10 625.5							
11 624.5		6-SS	20			21	
12 623.5	END OF BORING @ 12± FEET						
13 622.5							
14 621.5							
15 620.5							
16 619.5							
17 618.5							
18 617.5							
19 616.5							
20 615.5							
<b>FIELD OBSERVATIONS</b> Water Level during drilling: Not encountered Water Level upon completion: Dry Caved at upon completion: 3± feet below existing grade (EL. 632.5±) Delay Time: N/A Water Level delayed: N/A Caved at delayed: N/A		<b>ADDITIONAL COMMENTS:</b>					

**Note:** Lines of stratification represent an **approximate** boundary between soil types. Variations may occur between sampling intervals and/or boring locations. Transitions may also be gradual.

## SOIL BORING LOG: B - 2

**Project:** Profit Place Stormwater Pond

**Project No.:** 0093129

**Location:** DePere, Wisconsin

**Drill Date:** July 11, 2014

**Drilled by:** KD

**Logged by:** MB

DEPTH/EL. (feet)	VISUAL SOIL CLASSIFICATION GROUND SURFACE ELEVATION: 640.5	SAMPLE NO.	N (bpf)	Qp (tsf)	Qu (tsf)	MC (%)	REMARKS
1 639.5	0-6": 7.5 YR 3/3 Dark brown SANDY CLAY LOAM, 1, sbk, f, mfr-moist (TOPSOIL)	1-SS	7			14	
2 638.5	7.5 YR 4/4 Brown SILTY CLAY, 1, abk, f, mvfi-moist					16	
3 637.5		2-SS	22			14	
4 636.5							
5 635.5		3-SS	22			15	
6 634.5							
7 633.5		4-SS	21			19	
8 632.5							
9 631.5		5-SS	21			19	
10 630.5							
11 629.5		6-SS	23			20	
12 628.5							
13 627.5	7.5 YR 4/4 Brown SILTY CLAY, with 5/3 brown silt loam seams, 1, sbk, f, mfr-moist	7-SS	13			21	
14 626.5							
15 625.5	7.5 YR 4/2 Brown SILTY CLAY, 1, abk, f, mfi-moist	8-SS	13			26	
16 624.5							
17 623.5		9-SS	23			41	
18 622.5	7.5 YR 4/1 Dark gray SILT LOAM, 1, sbk, f, mvfr-moist						
19 621.5	END OF BORING @ 18± FEET						
20 620.5							
<b>FIELD OBSERVATIONS</b> Water Level during drilling: Not encountered Water Level upon completion: Dry Caved at upon completion: 9± feet below existing grade (EL. 631.5±) Delay Time: N/A Water Level delayed: N/A Caved at delayed: N/A		<b>ADDITIONAL COMMENTS:</b>					

**Note:** Lines of stratification represent an approximate boundary between soil types. Variations may occur between sampling intervals and/or boring locations. Transitions may also be gradual.

## SOIL BORING LOG: B - 3

**Project:** Profit Place Stormwater Pond

**Project No.:** 0093129

**Location:** DePere, Wisconsin

**Drill Date:** July 11, 2014

**Drilled by:** KD

**Logged by:** MB

DEPTH/EL. (feet)	VISUAL SOIL CLASSIFICATION GROUND SURFACE ELEVATION: 642.5	SAMPLE NO.	N (bpf)	Qp (tsf)	Qu (tsf)	MC (%)	REMARKS
1 641.5	0-3": 7.5 YR 3/4 Dark brown SANDY CLAY LOAM, with roots (1, vf), 1, sbk, f, mvfr-moist (TOPSOIL) 7.5 YR 4/4 Brown SILTY CLAY, 1, abk, f, mvfr-moist	1-SS	4			17	
2 640.5							
3 639.5		2-SS	22			16	
4 638.5							
5 637.5		3-SS	23			18	
6 636.5							
7 635.5		4-SS	24			20	
8 634.5							
9 633.5		5-SS	25			20	
10 632.5							
11 631.5		6-SS	16			21	
12 630.5							
13 629.5		7-SS	20			20	
14 628.5							
15 627.5	7.5 YR 4/2 Brown SILTY CLAY, 1, abk, f, mvfr-moist	8-SS	18			23	
16 626.5							
17 625.5	7.5 YR 4/1 Dark gray SILTY CLAY LOAM, 1, sbk, f, mfr-moist	9-SS	20			14	
18 624.5							
19 623.5		10-SS				15	
20 622.5	END OF BORING @ 20± FEET						
<b>FIELD OBSERVATIONS</b> Water Level during drilling: Not encountered Water Level upon completion: Dry Caved at upon completion: 11.5± feet below existing grade (EL. 631.0±) Delay Time: N/A Water Level delayed: N/A Caved at delayed: N/A		<b>ADDITIONAL COMMENTS:</b>					

**Note:** Lines of stratification represent an approximate boundary between soil types. Variations may occur between sampling intervals and/or boring locations. Transitions may also be gradual.



# SOIL EVALUATION - STORM

in accordance with SPS 382.365 and 385, Wis. Adm. Code

Attach complete site plan on paper not less than 8 1/2 x 11 inches in size. Plan must include, but not limited to: vertical and horizontal reference point (BM), direction and percent slope, scale, or dimensions, north arrow, and BM referenced to nearest road.

**Please print all information.**

Personal information you provide may be used for secondary purposes (Privacy Law, s. 15.04 (1) (m)).

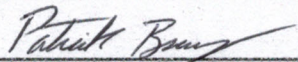
County	Brown
Parcel I.D.	ED - F0080
Reviewed by	Cody Williquette
Date	8/14/14

Property Owner	DE PERE CITY OF	Property Location	Govt. Lot NE 1/4 SE 1/4 S 33 T 23 N R 20 E
Property Owner's Mailing Address	335 S Broadway	Lot #	Block # Subd. Name or CSM#
City	De Pere	State	WI
Zip Code	54115	Phone Number	
		<input checked="" type="checkbox"/> City	<input type="checkbox"/> Village <input type="checkbox"/> Town
		De Pere	Nearest Road Profit Place

Drainage area	<input type="checkbox"/> sq. ft. <input type="checkbox"/> acres	Hydraulic Application Test Method:
Optional:		<input checked="" type="checkbox"/> Morphological Evaluation
Test Site Suitable for (check all that apply)		<input type="checkbox"/> Double-Ring Infiltrometer
<input type="checkbox"/> Irrigation	<input type="checkbox"/> Bioretention trench	<input type="checkbox"/> Other (specify) _____
<input type="checkbox"/> Rain Garden	<input type="checkbox"/> Grassed swale	
<input type="checkbox"/> Infiltration Trench	<input type="checkbox"/> SDS (> 15' wide)	
<input type="checkbox"/> Trench(es)	<input type="checkbox"/> Reuse	
<input type="checkbox"/> Other		

B-1	Obs. #	<input checked="" type="checkbox"/> Boring	<input type="checkbox"/> Pit	Ground surface elev.	635.5	ft.	Depth to limiting factor	60	in.	Hydraulic App. Rate
Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Roots Qu. Sz.	%Rock Frag.	Inches/Hr	
	0-4	7.5 YR 3/2		sic	1, abk, f	mfi	1, vf	<15	0.07	
	4-48	7.5 YR 4/4		sic	1, abk, f	mvfi		<15	0.07	
	48-60	7.5 YR 4/4		scl	1, sbk, f	mfr		<15	0.11	
	60-72	7.5 YR 5/4	f, 2, d 7.5 YR 6/2 bands	sic	1, abk, f	mfi		<15	0.07	
	72-144	7.5 YR 3/4		sic	1, abk, f	mvfi		<15	0.07	

B-2	Obs. #	<input checked="" type="checkbox"/> Boring	<input type="checkbox"/> Pit	Ground surface elev.	640.5	ft.	Depth to limiting factor	>216	in.	Hydraulic App. Rate
Horizon	Depth in.	Dominant Color Munsell	Redox Description Qu. Sz. Cont. Color	Texture	Structure Gr. Sz. Sh.	Consistence	Roots Qu. Sz.	%Rock Frag.	Inches/Hr	
	0-6	7.5 YR 3/3		scl	1, sbk, f	mfr		<15	0.11	
	6-144	7.5 YR 4/4		sic	1, abk, f	mvfi		<15	0.07	
	144-168	7.5 YR 4/4; 5/3		sic	1, sbk, f	mfr		<15	0.07	
	168-204	7.5 YR 4/2		sic	1, abk, f	mfi		<15	0.07	
	204-216	7.5 YR 4/1		sil	1, sbk, f	mvfr		<15	0.13	

CST/PSS Name (Please Print)	Signature	CST/PSS Number
Patrick Bray		1278824
Address	Date Evaluation Conducted	Telephone Number
1125B W. Tuckaway Lane, Menasha, WI 54952	7/22/2014	920-735-1200



Property Owner DE PERE CITY OF

Parcel ID # ED - F0080

Page 2 of 2

B-3

Obs. #

☒

Boring

☐

Pit

Ground surface elev. 642.5 ft. Depth to limiting factor >240 in.

[illegible]

Obs. #

☐

Boring

☐

Pit

Ground surface elev.                      ft.                      Depth to limiting factor                      in.

[illegible]

Test Results and/or Summary Comments

This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

## GENERAL NOTES

### SAMPLE IDENTIFICATION

Visual soil classifications are made in general accordance with the USDA National Resources Conservation Service textural soil classification, and are provided in general accordance with the descriptive procedures outlined in the NRCS Field Book for Describing and Sampling Soils (2002). Visual classifications should be substantiated by appropriate laboratory testing when a more exact soil identification is required to satisfy specific project applications criteria.

#### USDA PARTICLE SIZE CLASSES

Boulders:	> 25 inches	Gravel:	2 mm to 3 inches	Fine Sand:	0.05 to 0.25 mm
Stones:	10 to 25 inches	Coarse Sand:	0.5 to 2 mm	Silt:	0.002 to 0.05 mm
Cobbles:	3 to 10 inches	Medium Sand:	0.25 to 0.5 mm	Clay:	< 0.002 mm

### DRILLING & SAMPLING SYMBOLS

SS:	Split-spoon, 2" O.D. by 1 3/8" I.D.	RB:	Roller Bit
ST:	Shelby Tube, 2" O.D. or 3" O.D., as noted in text	WS:	Wash Sample
AU:	Auger Sample	BS:	Bag Sample
DB:	Diamond Bit	HA:	Hand Auger
CB:	Carbide Bit		

### SOIL PROPERTY SYMBOLS

N:	Standard penetration count, indicating number of blows of a 140 lb. hammer with a 30 inch drop, required to advance a split-spoon sampler one foot.		
Qu:	Unconfined compressive strength, tons per square foot (tsf)		
Qp:	Calibrated hand penetrometer resistance, tsf		
MC:	Moisture content, %		
LL:	Liquid Limit	PL: Plastic Limit	PI: Plasticity Index
Dd:	Dry Density, pounds per cubic foot (pcf)		
%P200:	Percent of material finer than the No. 200 sieve		

### SOIL RELATIVE DENSITY AND CONSISTENCY CLASSIFICATION

NON-COHESIVE SOILS		COHESIVE SOILS		
Classifier	N-Value Range	Classifier	Qu Range (tsf)	N-Value Range
very loose	0-3	very soft	0-0.25	0-2
loose	3-7	soft	0.25-0.5	2-5
medium dense	7-15	medium stiff	0.5-1.0	5-10
dense	15-38	stiff	1.0-2.0	10-14
very dense	38+	very stiff	2.0-4.0	14-32
		hard	4.0+	32+

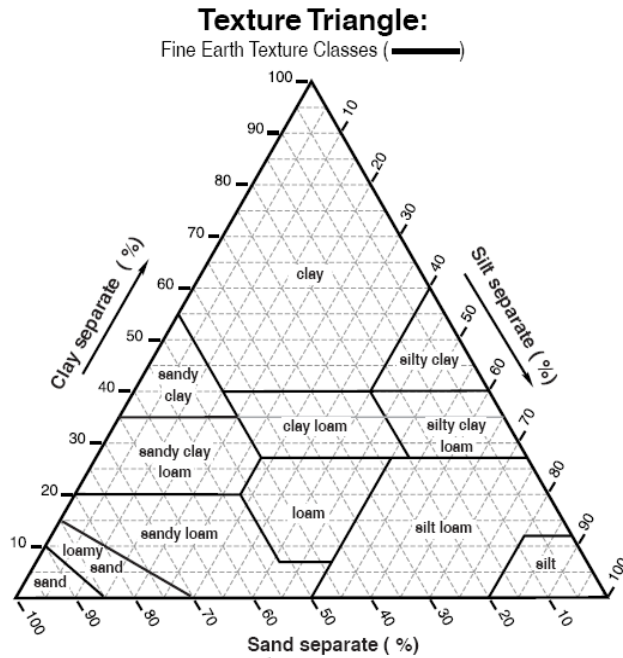
### GROUNDWATER



Approximate groundwater level at time noted on soil boring log, measured in open borehole, unless otherwise noted. Groundwater levels often vary with time, and are affected by soil permeability characteristics, weather conditions, & lateral drainage conditions.



# USDA SOIL CLASSIFICATION SYSTEM\*



**NOTE:** Soil Texture encompasses only the fine earth fraction ( $\leq 2$  mm).

**Particle Size Distribution (PSD)** encompasses the whole soil, including both the fine earth fraction ( $\leq 2$  mm; weight %) and rock fragments ( $> 2$  mm; volume %).

## TEXTURE CLASS

Texture Class or Subclass	Code	
	Conv.	NASIS
Coarse Sand	cos	COS
Sand	s	S
Fine Sand	fs	FS
Very Fine Sand	vfs	VFS
Loamy Coarse Sand	lcos	LCOS
Loamy Sand	ls	LS
Loamy Fine Sand	lfs	LFS
Loamy Very Fine Sand	lvfs	LVFS
Coarse Sandy Loam	cosl	COSL
Sandy Loam	sl	SL
Fine Sandy Loam	fsl	FSL
Very Fine Sandy Loam	vfsl	VFSL
Loam	l	L
Silt Loam	sil	SIL
Silt	si	SI
Sandy Clay Loam	scl	SCL
Clay Loam	cl	CL
Silty Clay Loam	sicl	SICL
Sandy Clay	sc	SC
Silty Clay	sic	SIC
Clay	c	C

**TEXTURE MODIFIERS** - Conventions for using "Rock Fragment Texture Modifiers" and for using textural adjectives that convey the "% volume" ranges for **Rock Fragments - Size and Quantity**.

Fragment Content % By Volume	Rock Fragment Modifier Usage
< 15	No texture adjective is used (noun only; e.g., <i>loam</i> ).
15 to < 35	Use adjective for appropriate size; e.g., <i>gravelly</i> .
35 to < 60	Use "very" with the appropriate size adjective; e.g., <i>very gravelly</i> .
60 to < 90	Use "extremely" with the appropriate size adjective; e.g., <i>extremely gravelly</i> .
$\geq 90$	No adjective or modifier. If $\leq 10\%$ fine earth, use the appropriate noun for the dominant size class; e.g., <i>gravel</i> . Use <b>Terms in Lieu of Texture</b> .

## TEXTURE MODIFIERS - (adjectives)

ROCK FRAGMENTS: Size & Quantity <sup>1</sup>	Code		Criteria: Percent (By Volume) of Total Rock Fragments and Dominated By (name size): <sup>1</sup>
	Conv.	PDP/ NASIS	
<b>ROCK FRAGMENTS (&gt; 2 mm; ≥ Strongly Cemented)</b>			
Gravelly	GR	GR	≥ 15% but < 35% gravel
Fine Gravelly	FGR	GRF	≥ 15% but < 35% fine gravel
Medium Gravelly	MGR	GRM	≥ 15% but < 35% med. gravel
Coarse Gravelly	CGR	GRC	≥ 15% but < 35% coarse gravel
Very Gravelly	VGR	GRV	≥ 35% but < 60% gravel
Extremely Gravelly	XGR	GRX	≥ 60% but < 90% gravel
Cobbly	CB	CB	≥ 15% but < 35% cobbles
Very Cobbly	VCB	CBV	≥ 35% but < 60% cobbles
Extremely Cobbly	XCB	CBX	≥ 60% but < 90% cobbles
Stony	ST	ST	≥ 15% but < 35% stones
Very Stony	VST	STV	≥ 35% but < 60% stones
Extremely Stony	XST	STX	≥ 60% but < 90% stones
Bouldery	BY	BY	≥ 15% but < 35% boulders
Very Bouldery	VBY	BYV	≥ 35% but < 60% boulders
Extremely Bouldery	XBY	BYX	≥ 60% but < 90% boulders
Channery	CN	CN	≥ 15% but < 35% channers
Very Channery	VCN	CNV	≥ 35% but < 60% channers
Extremely Channery	XCN	CNX	≥ 60% but < 90% channers
Flaggy	FL	FL	≥ 15% but < 35% flagstones
Very Flaggy	VFL	FLV	≥ 35% but < 60% flagstones
Extremely Flaggy	XFL	FLX	≥ 60% but < 90% flagstones

\* As outlined in the NRCS Field Book for Describing and Sampling Soils, Version 2.0 (2002).



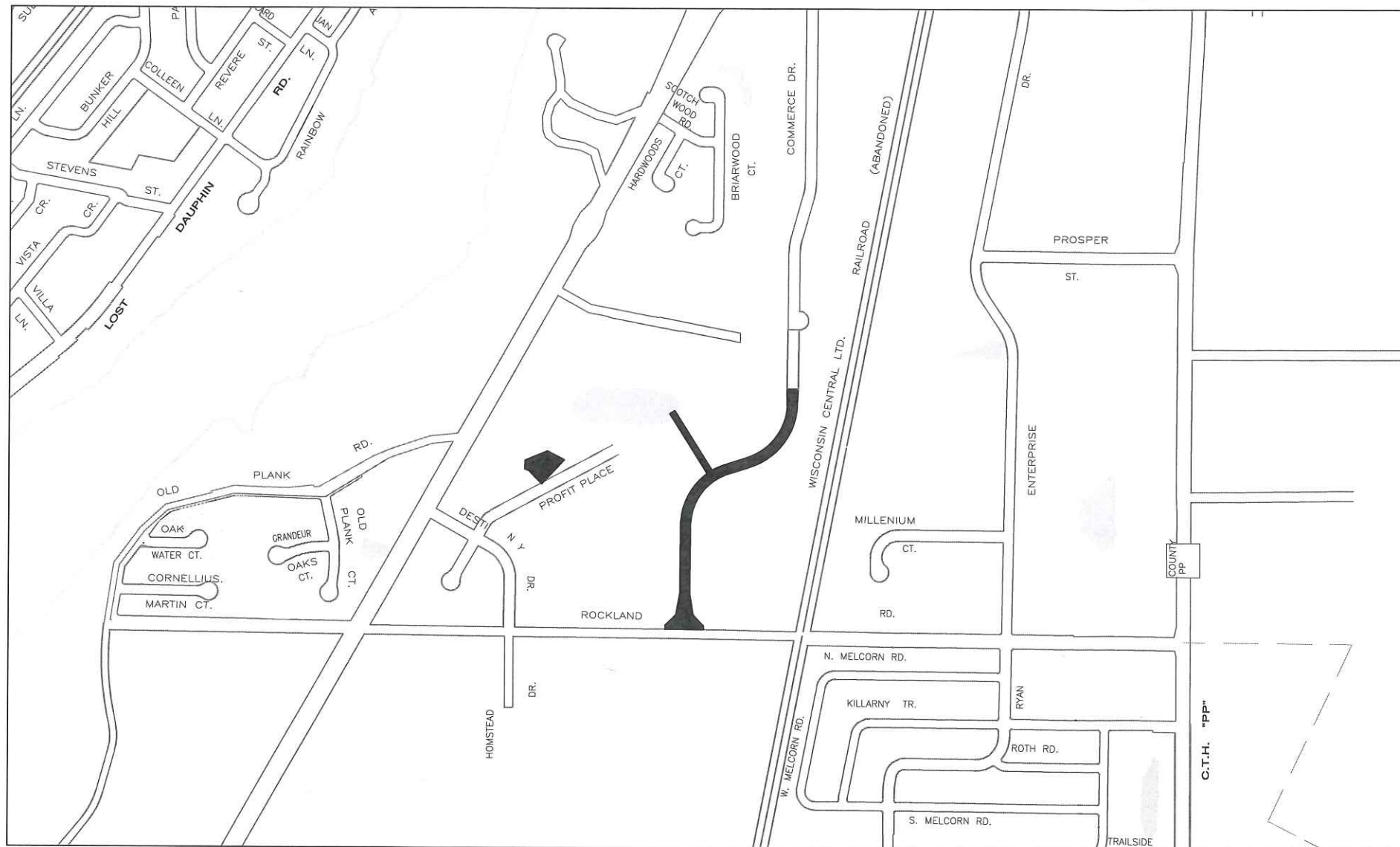
# PROJECT# 22-14

## COMMERCE DRIVE UTILITY AND STREET EXTENSION

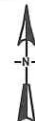
CITY OF DE PERE



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 - C104	COMMERCE DRIVE SANITARY AND WATER P&P SHEETS
C105 - C108	COMMERCE DRIVE STORM AND STREET P&P SHEETS
C109 - C110	COMMERCE DRIVE STORM SEWER P&P SHEETS
C111	ROCKLAND ROAD UTILITY AND DITCHING P&P SHEETS
C301 - C315	COMMERCE DRIVE CROSS SECTIONS
C316	COMMERCE DRIVE CUT/FILL QUANTITIES
C401	ALIGNMENTS & BENCHMARKS PLAN
C402 - C407	EROSION CONTROL, GRADING, AND RESTORATION PLAN
C501 - C502	CONSTRUCTION DETAILS

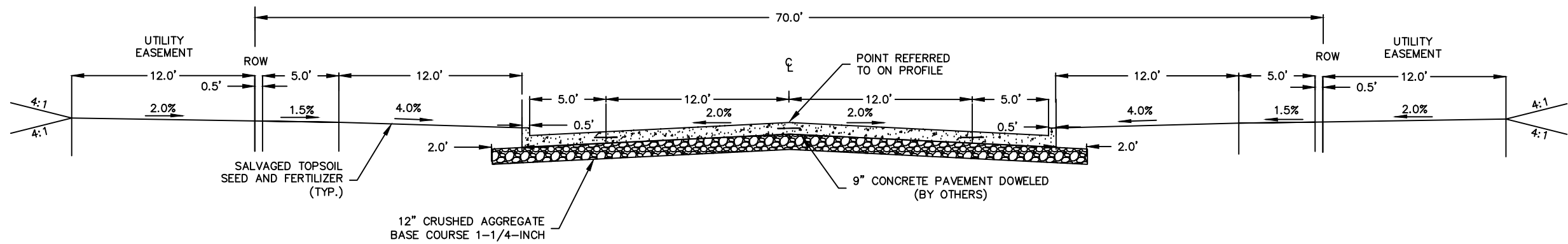
CITY OF DE PERE  
BOARD OF PUBLIC WORKS

2/2/2022	<i>Eric P. Rakers</i>
DATE	CITY ENGINEER
2/2/22	<i>James M. Doherty</i>
DATE	CITY ADMINISTRATOR
2/2/22	<i>John Boyd</i>
DATE	MAYOR

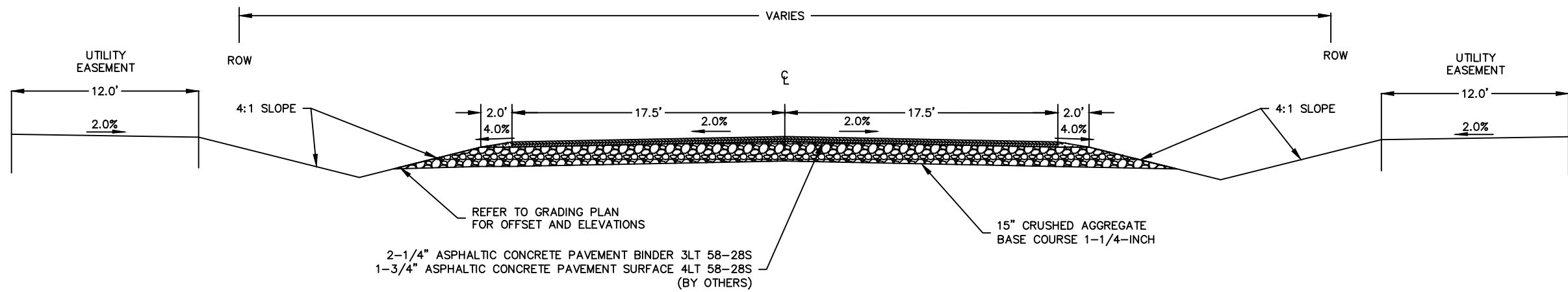
STAMPS:



LIST OF STANDARD ABBREVIATIONS				MAPPING & TOPOGRAPHY SYMBOLOGY			MAPPING & TOPOGRAPHY SYMBOLOGY				
				DESCRIPTION		SYMBOL		DESCRIPTION		SYMBOL	
								PLAN			
										(SIZE AND MATERIAL)	
								EXISTING SANITARY SEWER LINE		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 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			
										(SIZE AND MATERIAL)	
								EXISTING 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			
								NAME: COMMERCE DRIVE UTILITY AND STREET EXTENSION			
								PROJECT # 22-14			
								BY DATE		REVISIONS / ISSUES	
								SURVEYED		NO. DATE BY REMARKS	
								DRAWN MAL 04-2021			
								DESIGNED MAL 04-2021			
								CHECKED CKK 04-2021			
										PAGE NO. G002	



COMMERCE DRIVE  
TYPICAL STREET SECTION  
(STA 3+18 TO STA 21+14)



COMMERCE DRIVE  
TYPICAL STREET SECTION  
(STA 0+44 TO STA 3+18)



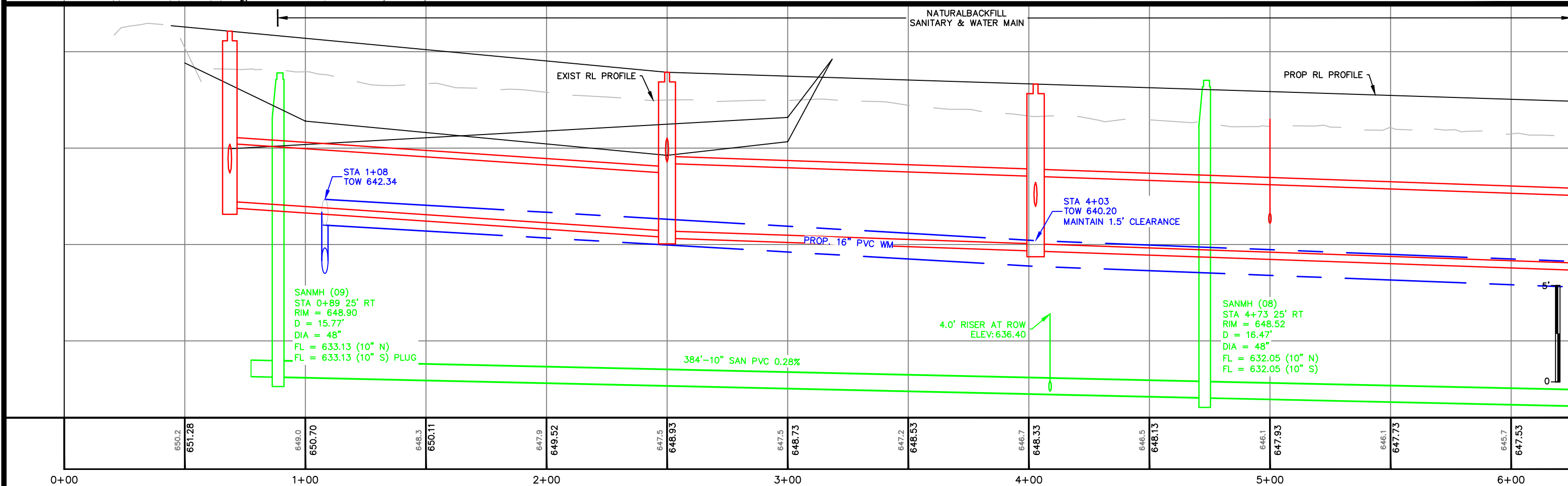
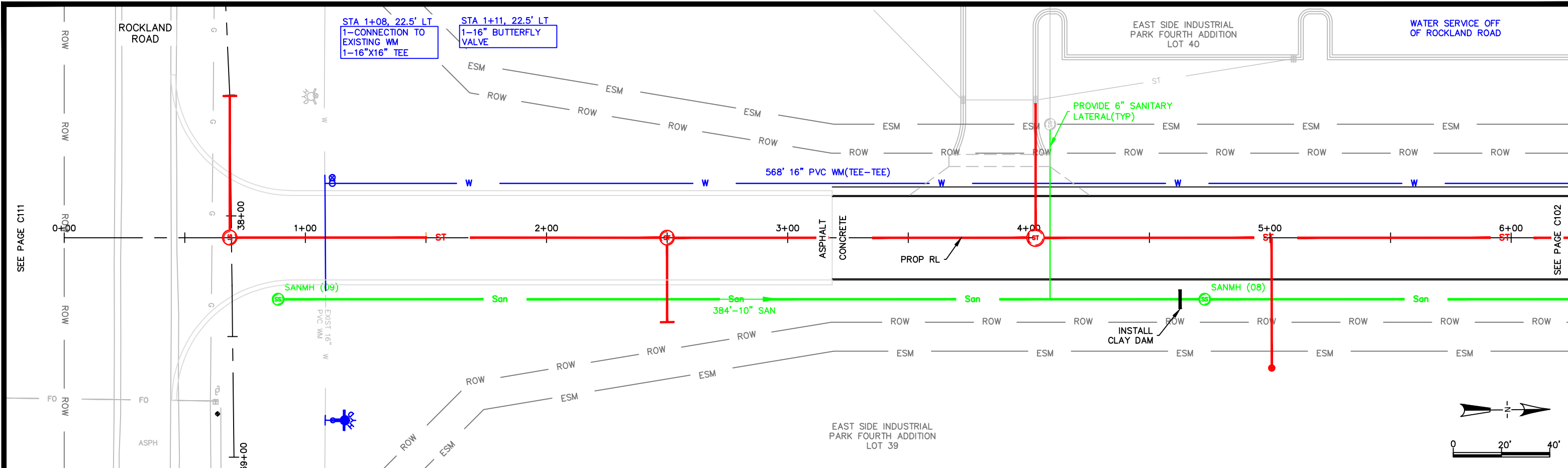
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COMMERCE DRIVE  
TYPICAL SECTION

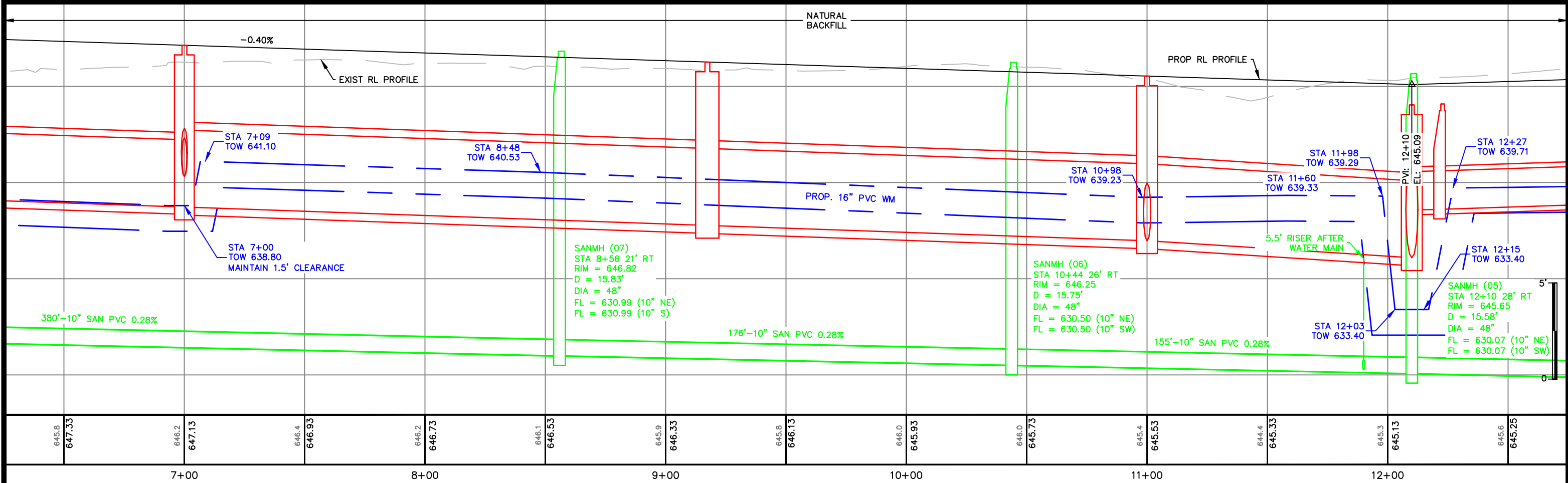
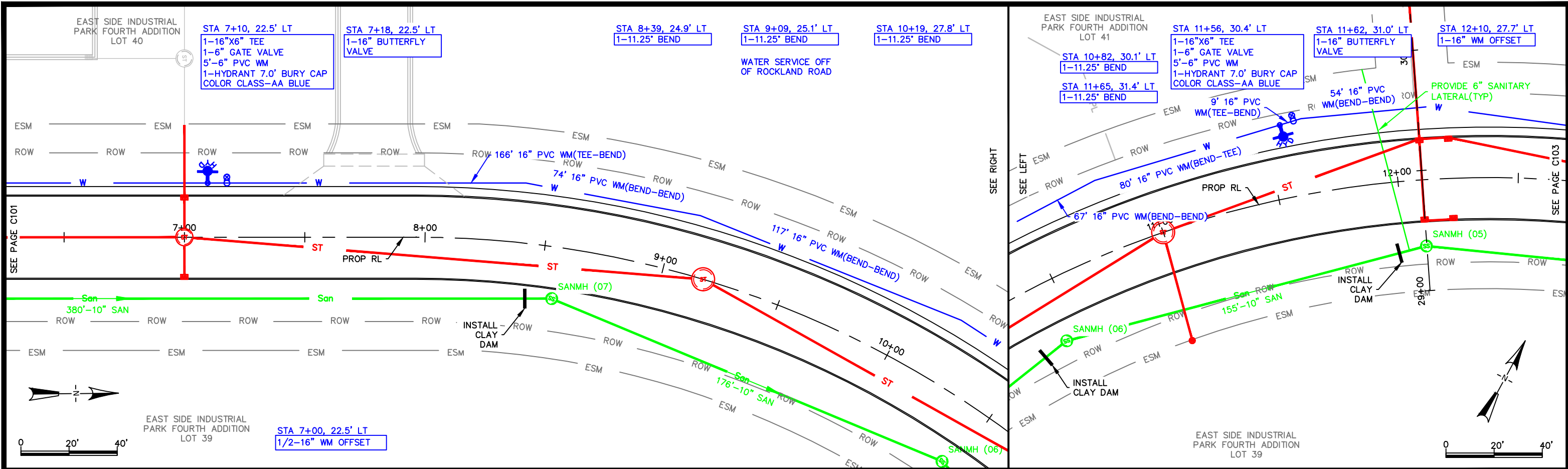
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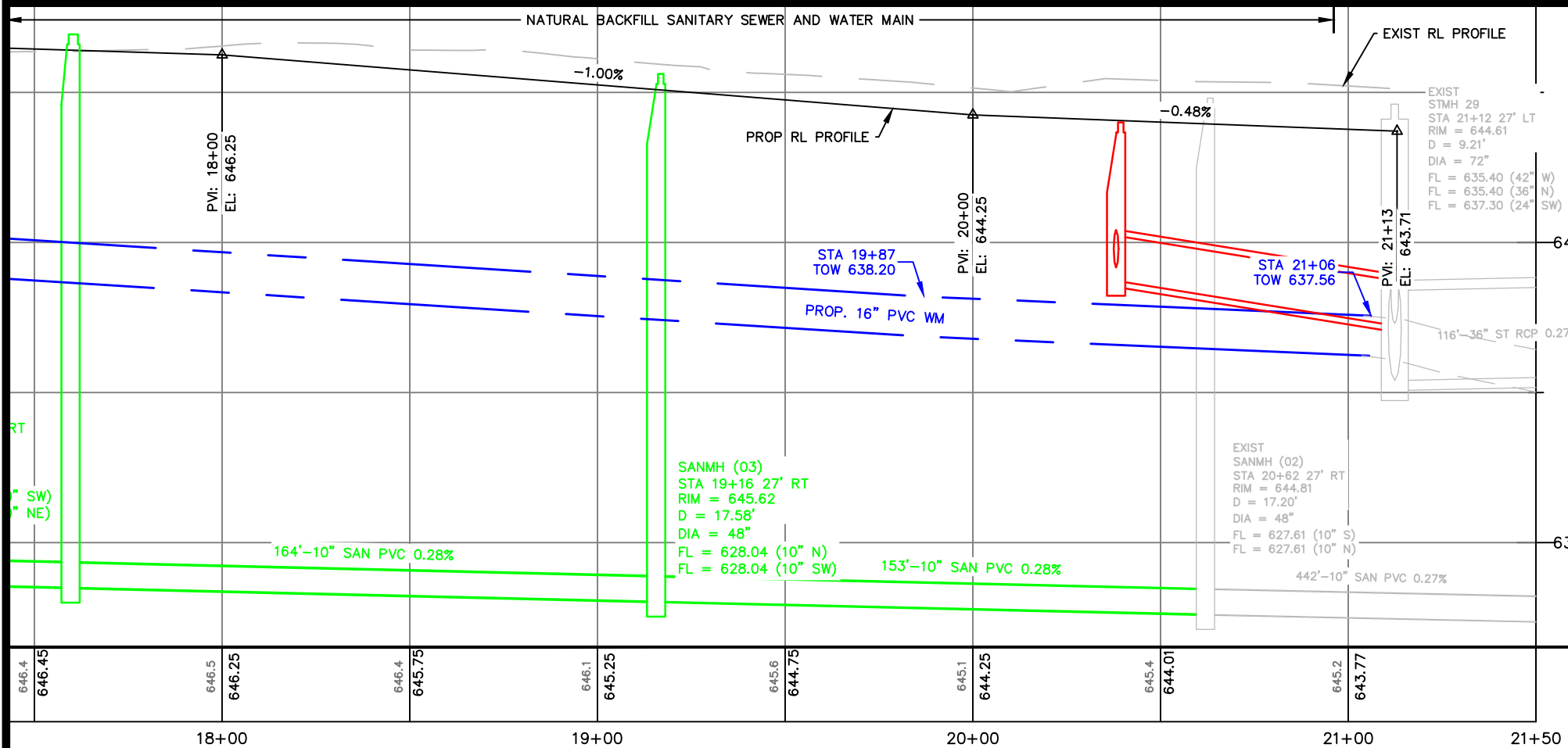
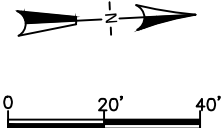
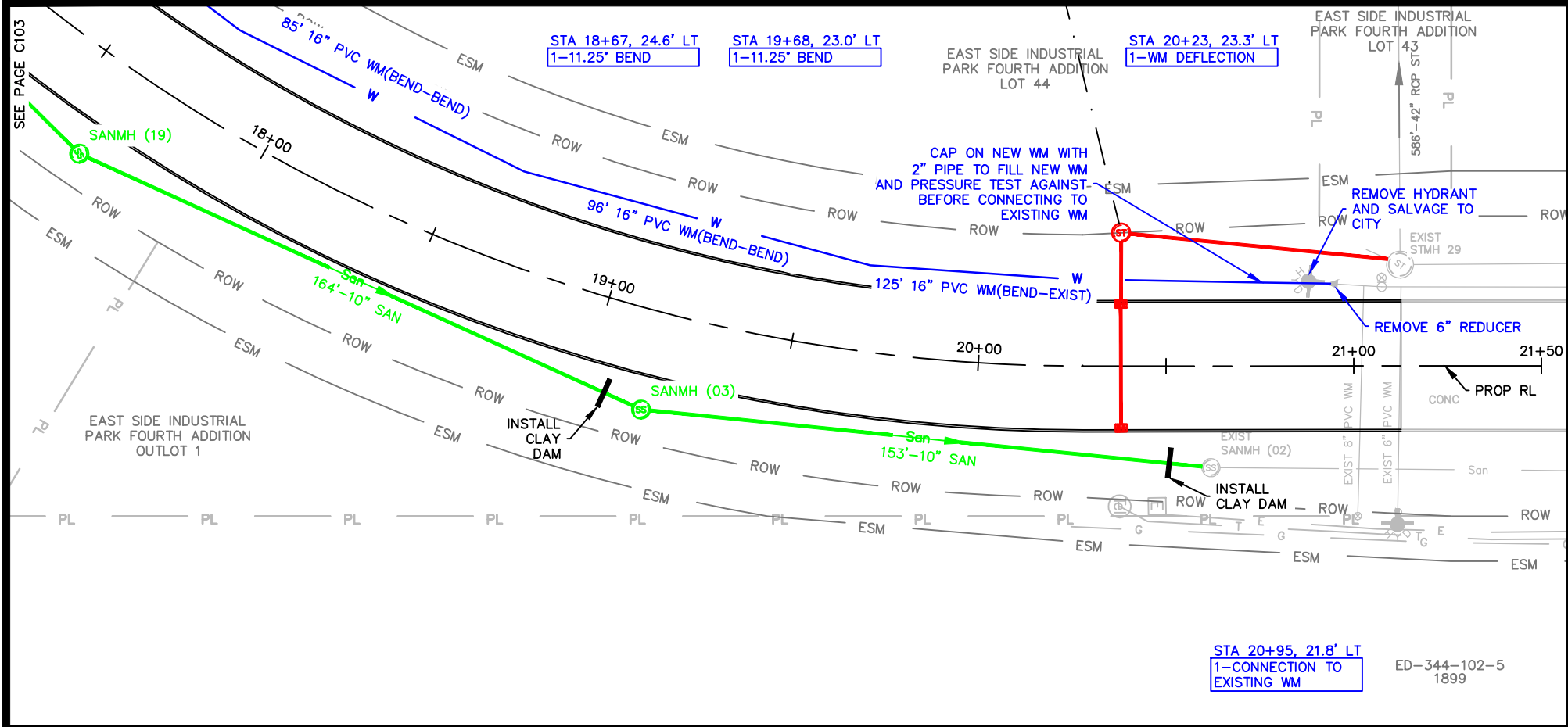


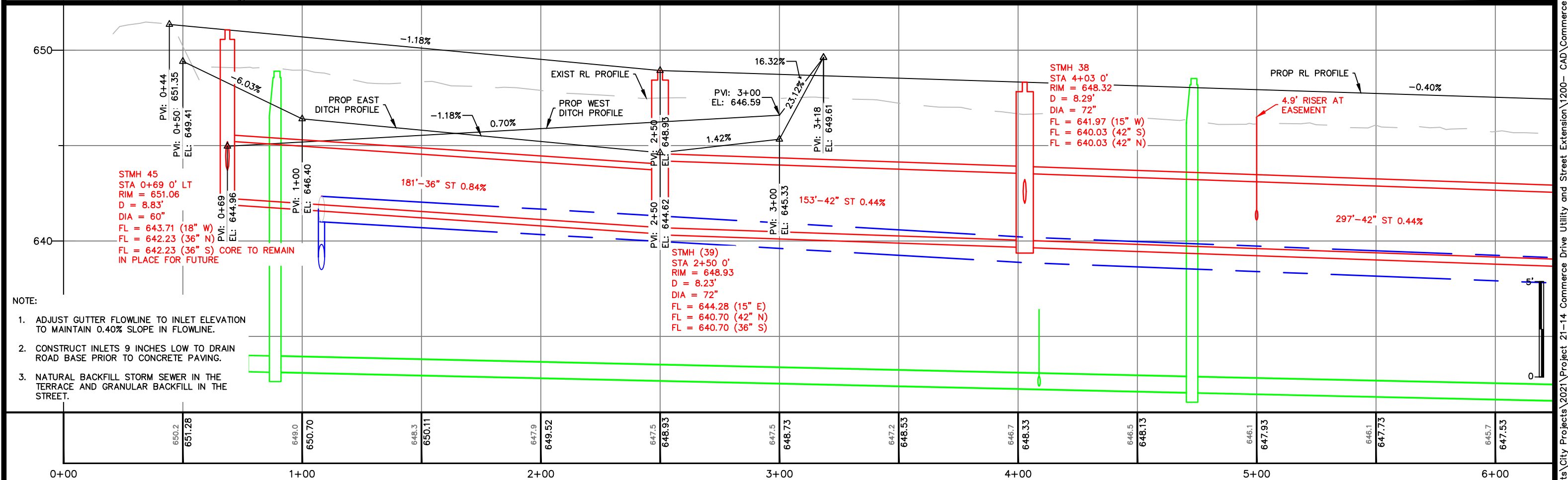
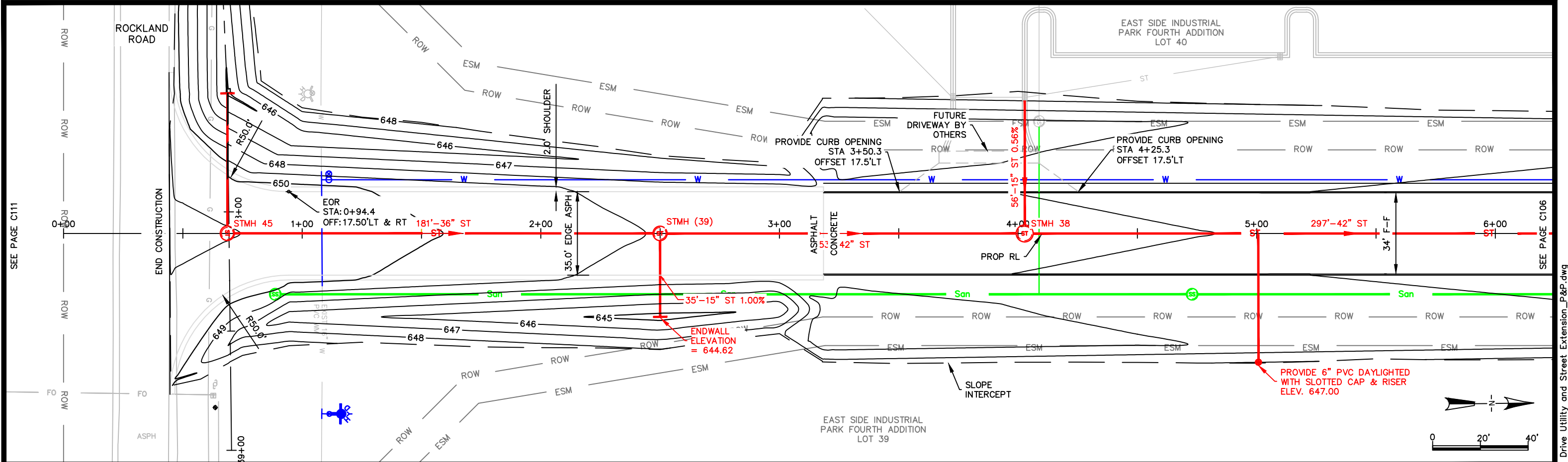
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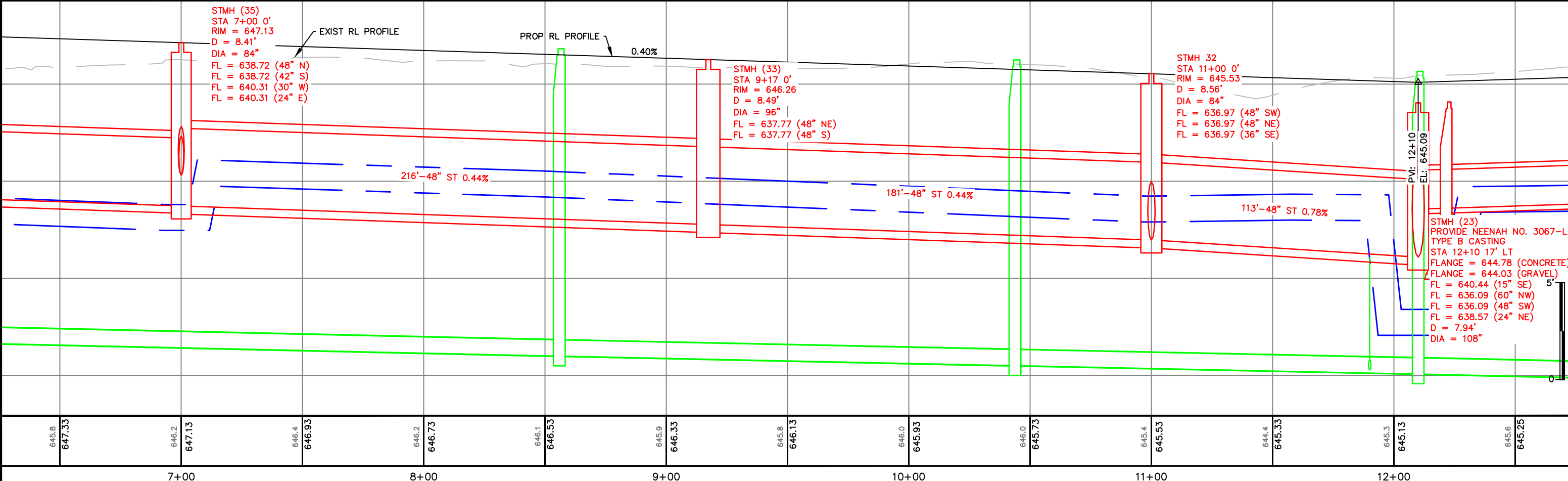
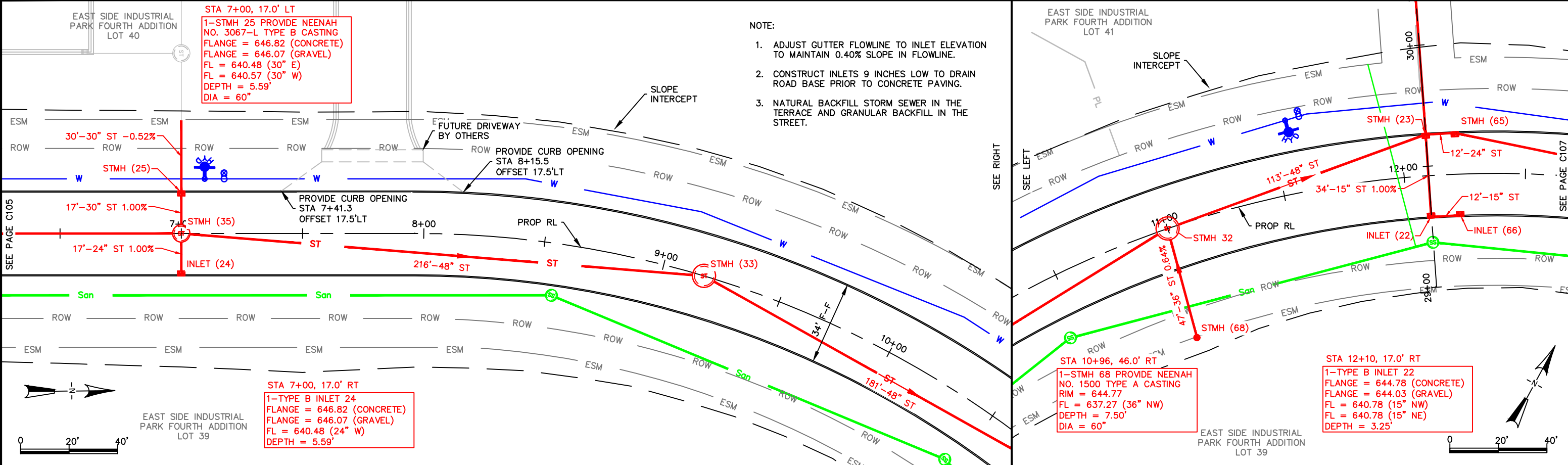


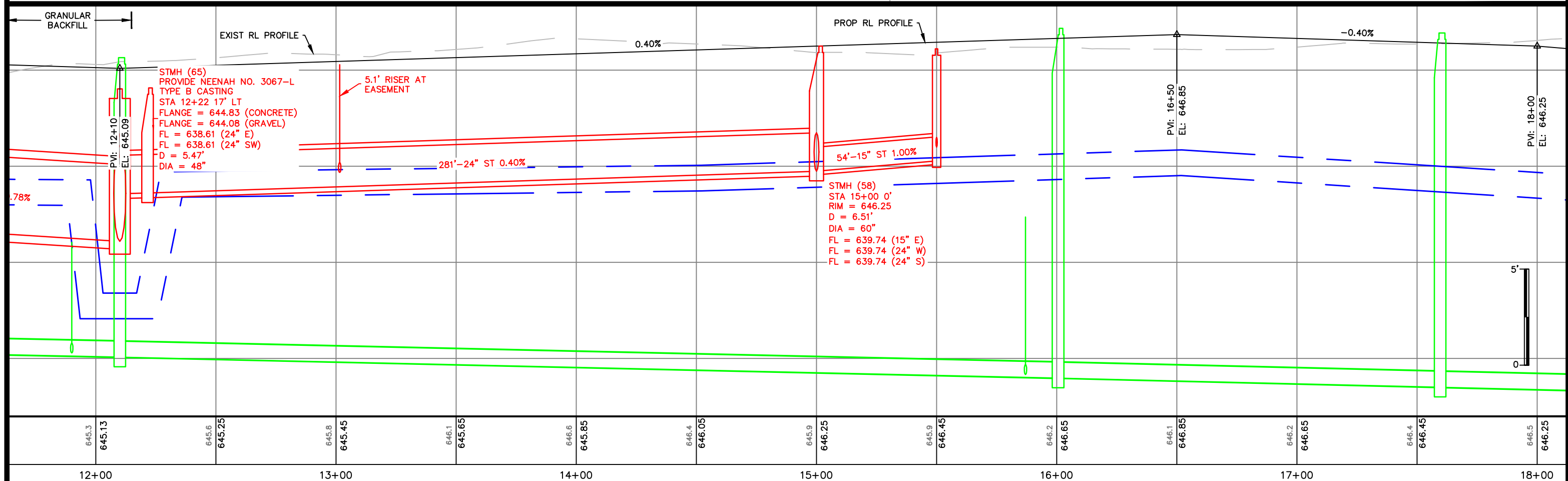
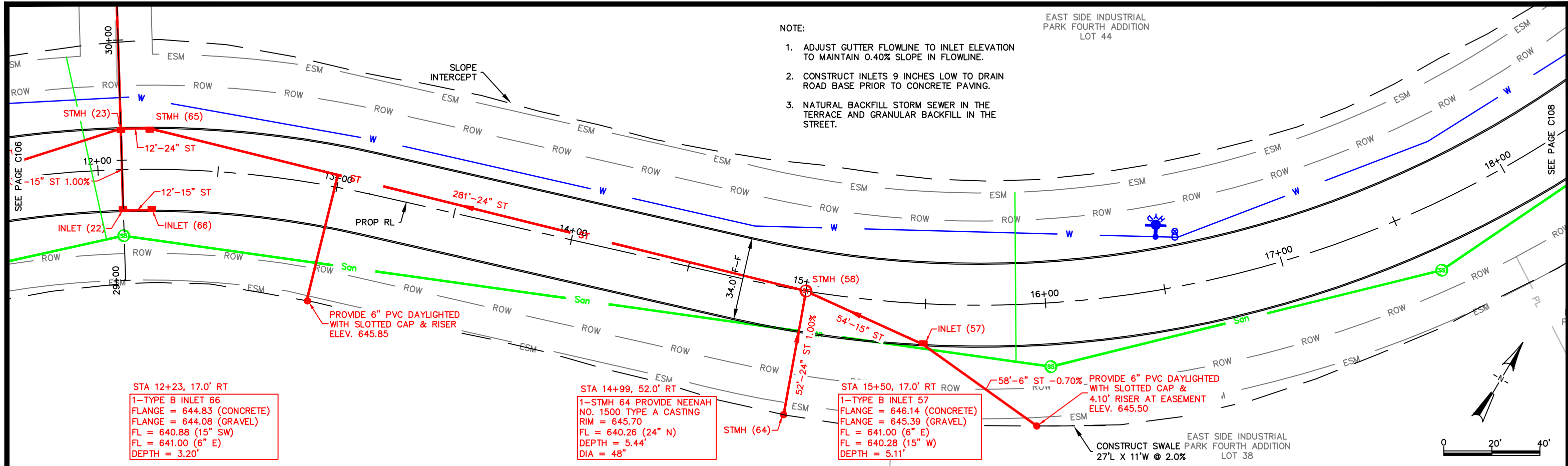


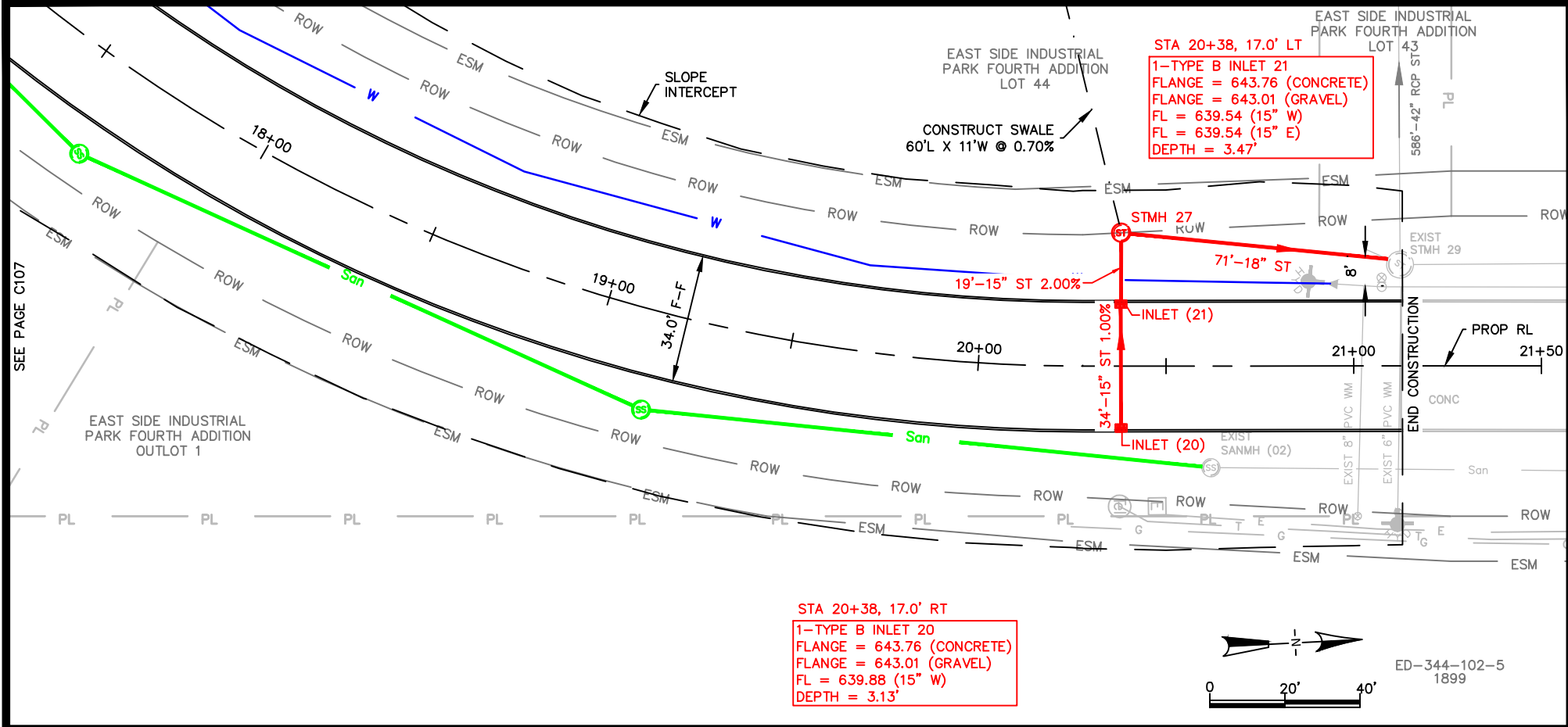


- NOTE:
1. ADJUST GUTTER FLOWLINE TO INLET ELEVATION TO MAINTAIN 0.40% SLOPE IN FLOWLINE.
  2. CONSTRUCT INLETS 9 INCHES LOW TO DRAIN ROAD BASE PRIOR TO CONCRETE PAVING.
  3. NATURAL BACKFILL STORM SEWER IN THE TERRACE AND GRANULAR BACKFILL IN THE STREET.

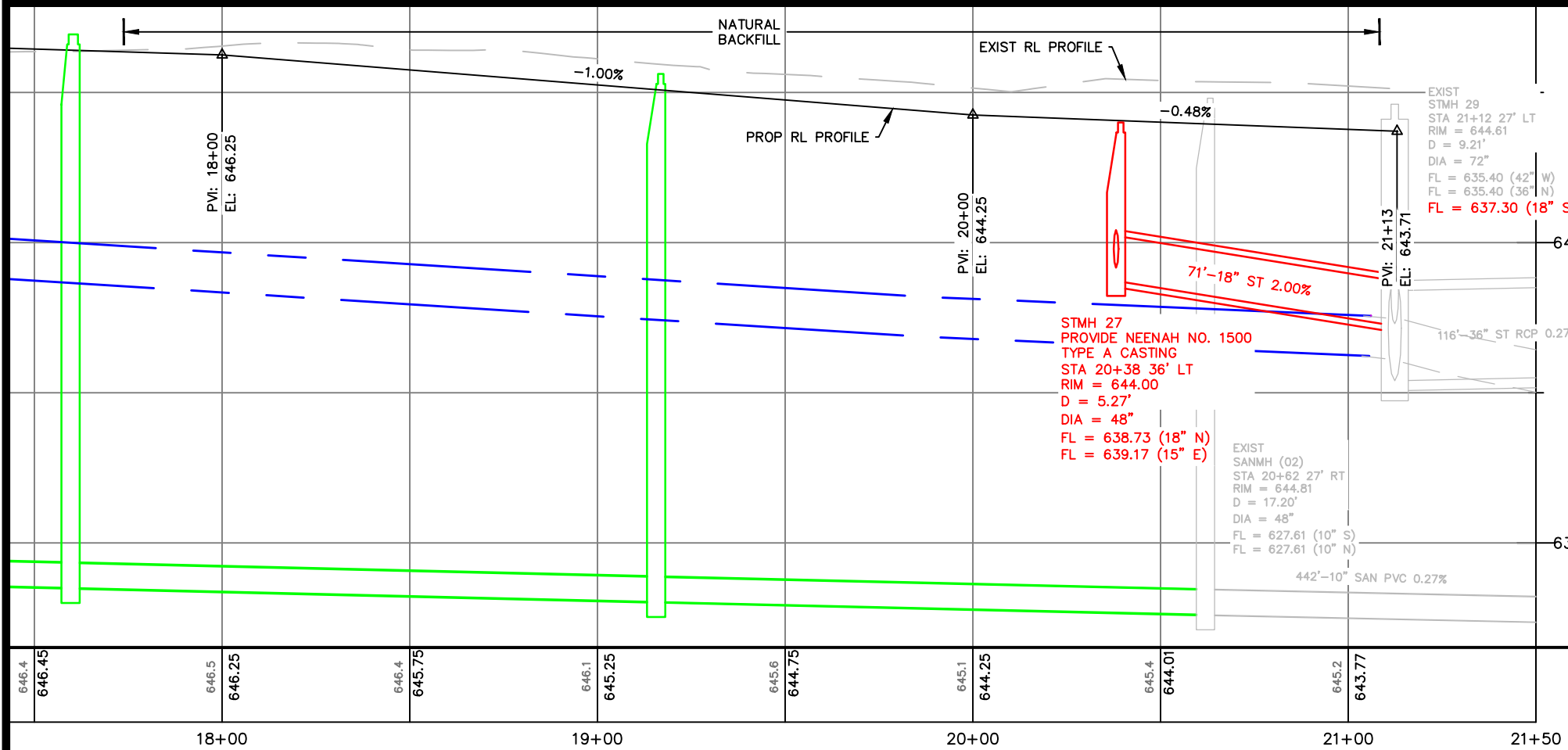


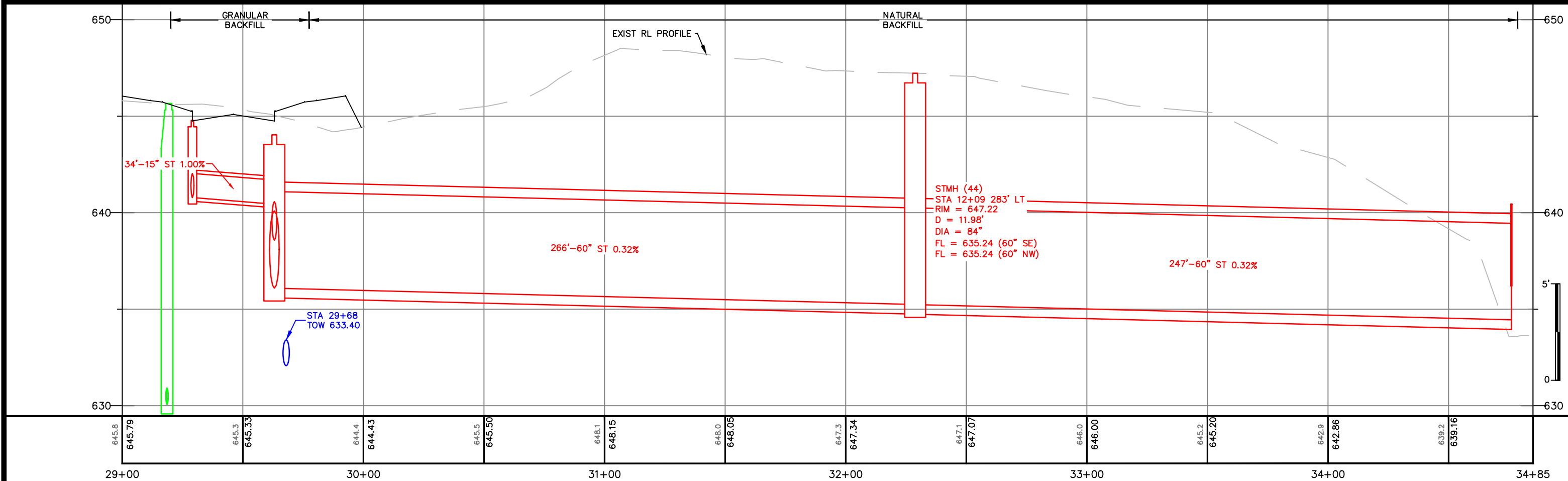
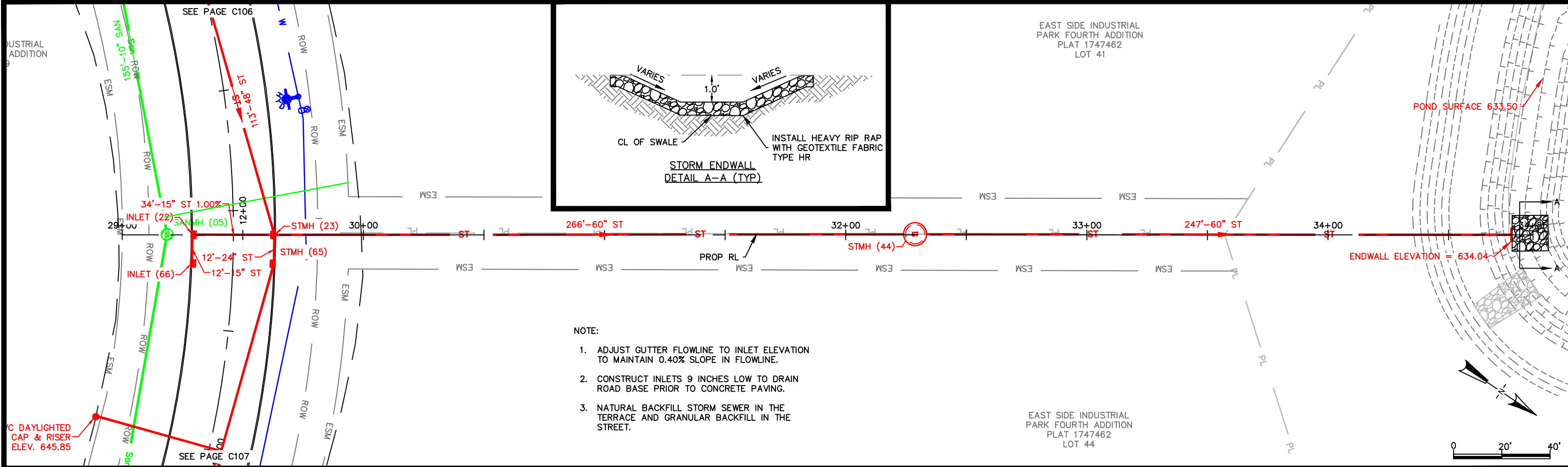




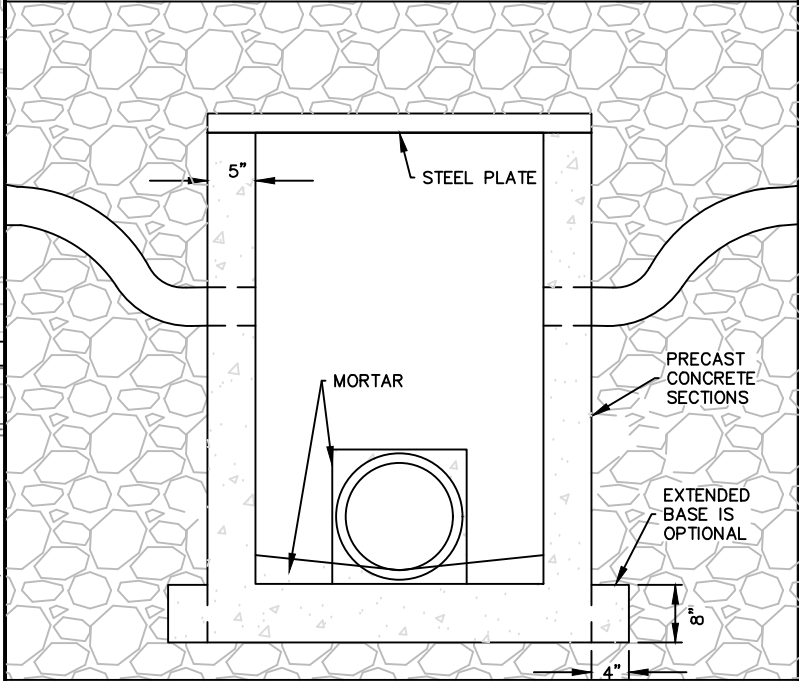
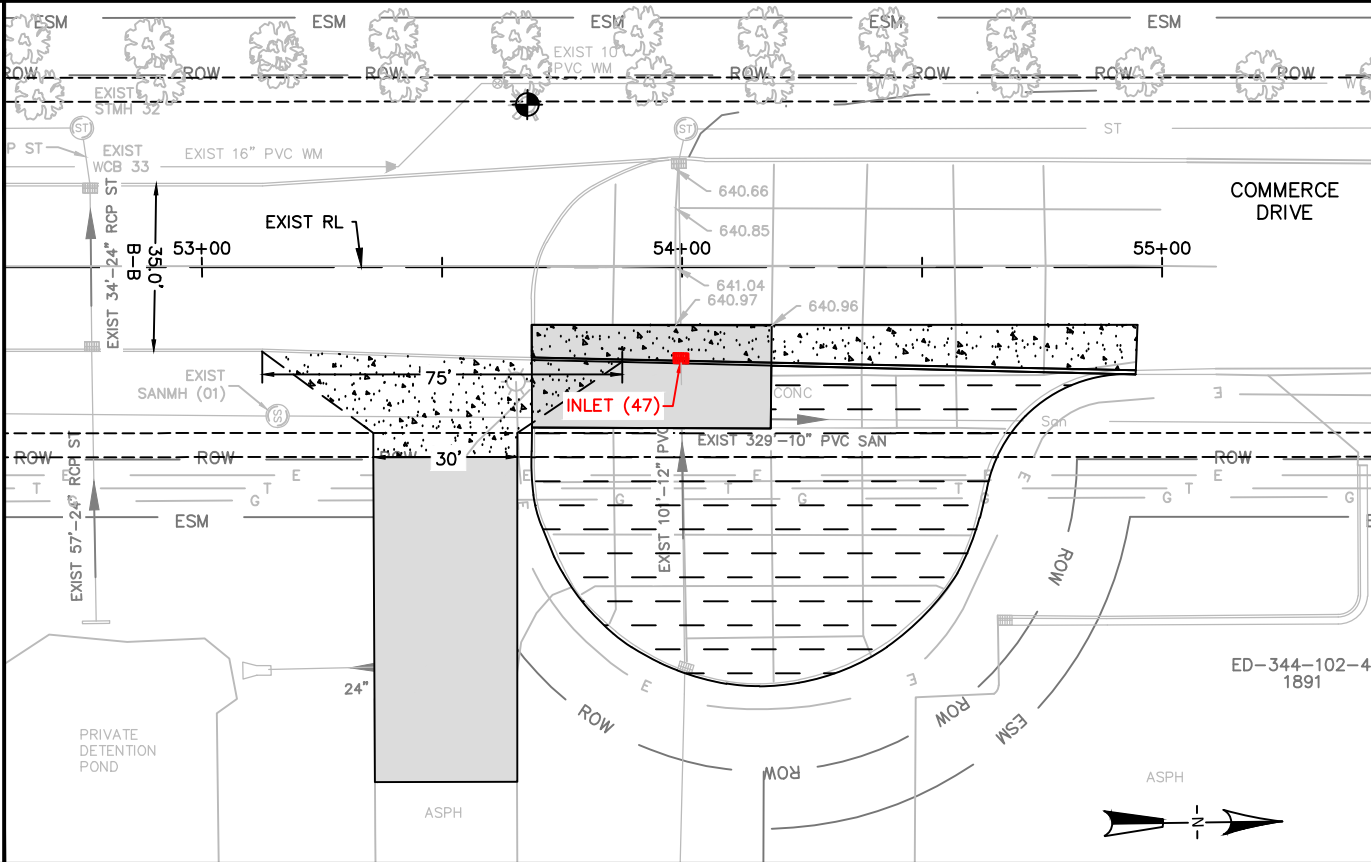


- NOTE:
1. ADJUST GUTTER FLOWLINE TO INLET ELEVATION TO MAINTAIN 0.40% SLOPE IN FLOWLINE.
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  3. NATURAL BACKFILL STORM SEWER IN THE TERRACE AND GRANULAR BACKFILL IN THE STREET.

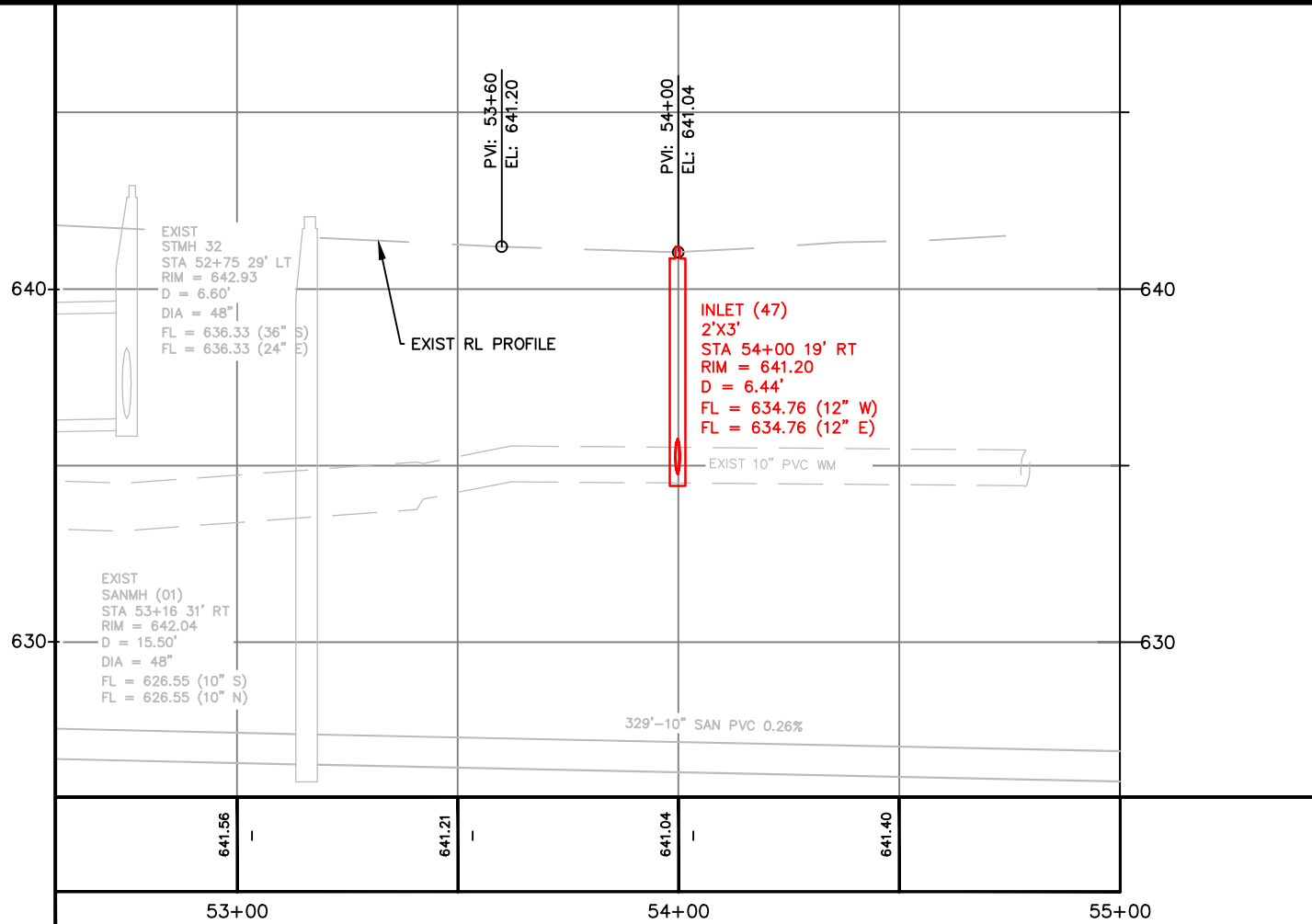




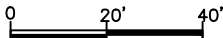
- NOTE:
- REMOVE ASPHALT AND EXCAVATE DOWN TO EXISTING INLET LEAD.
  - CUT INLET LEAD AND INSTALL INLET 47
  - NO ADJUSTMENT OR CASTING NEEDED
  - PLATE STRUCTURE AND BURY WITH CABC TO EXISTING ROAD SURFACE
  - PROJECT 22-20 WILL ADJUST AND RESTORE PAVEMENT. AT THAT TIME, PLATE WILL BE EXCAVATED, SALVAGED AND RETURNED TO CONTRACTOR



INLET 47  
DETAIL



- NOTE:
- CONCRETE REMOVAL OF THE CUL-DE-SAC TO BE COMPLETED BY OTHERS. REMOVE CONCRETE FOR THE INLET INSTALLATION ONLY.



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COMMERCE DRIVE  
2400' S/O HERITAGE TO 2200' S/O HERITAGE  
STORM SEWER

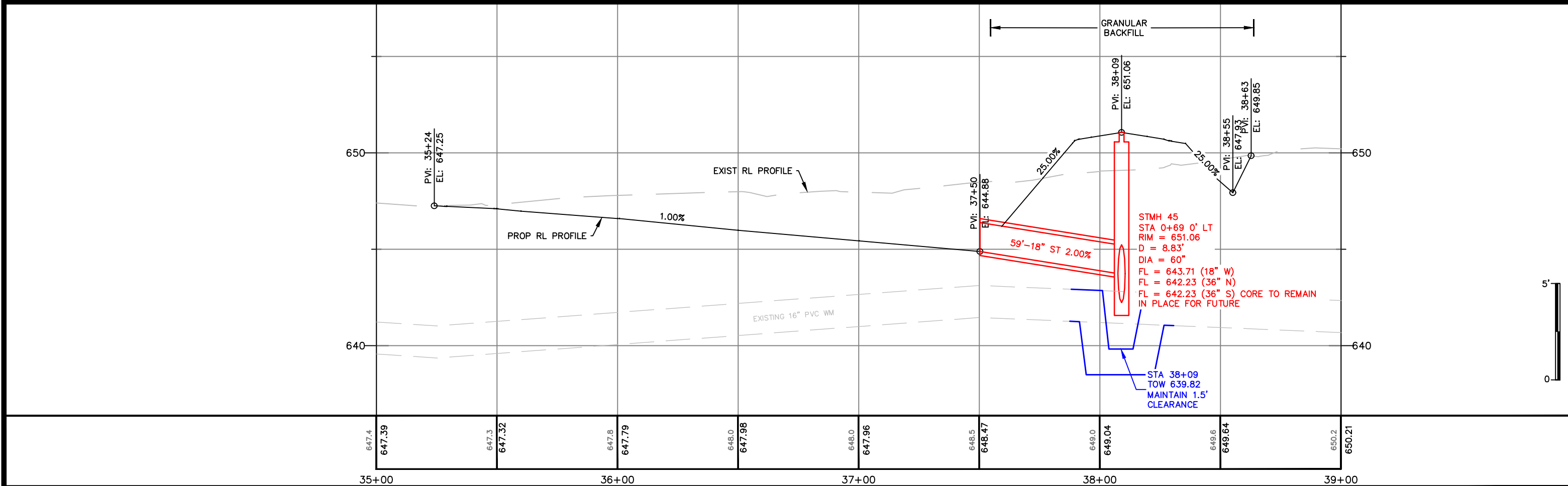
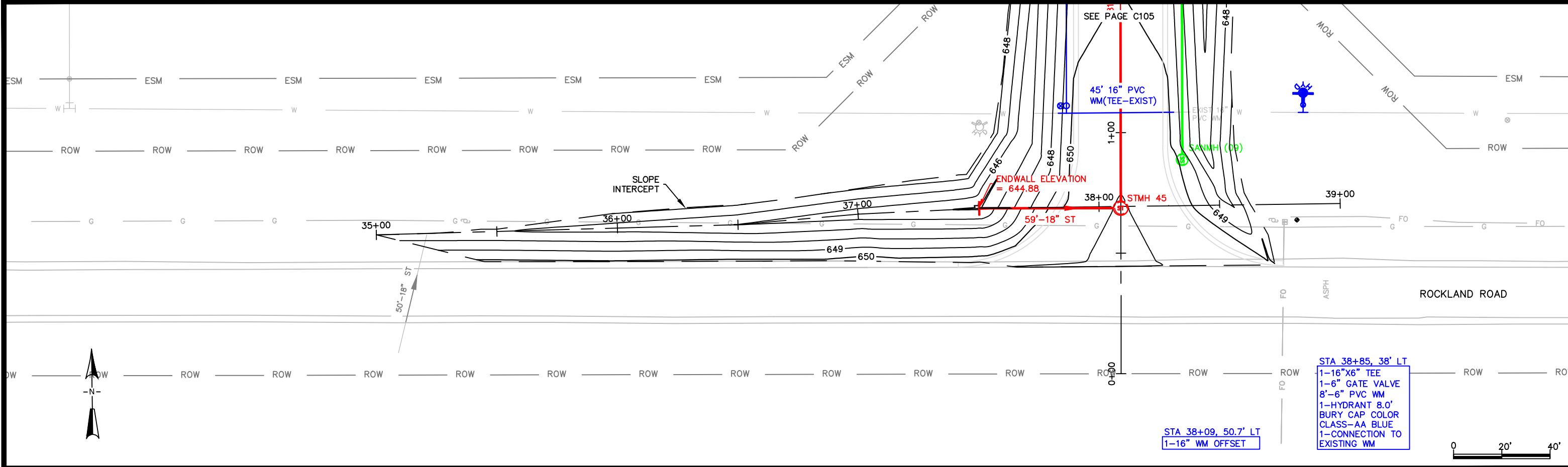
NAME: COMMERCE DRIVE  
UTILITY AND  
STREET EXTENSION  
PROJECT # 22-14

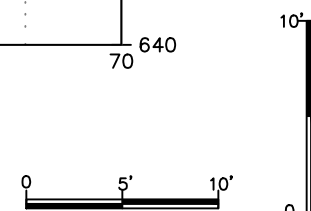
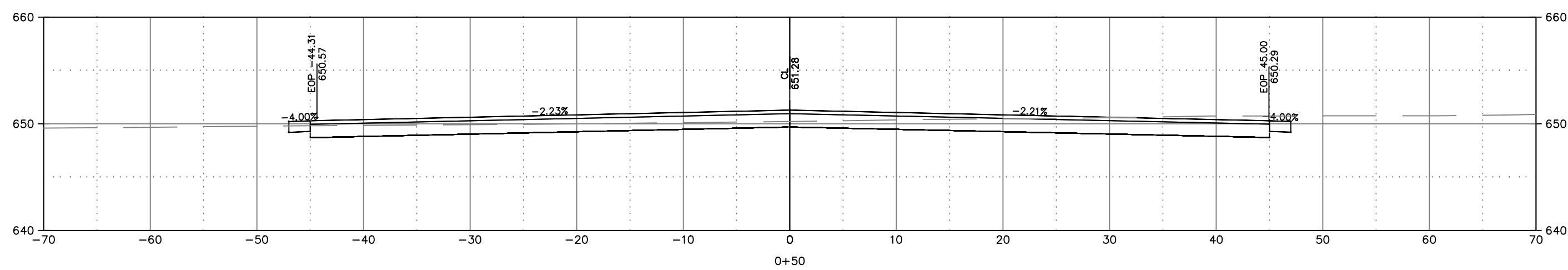
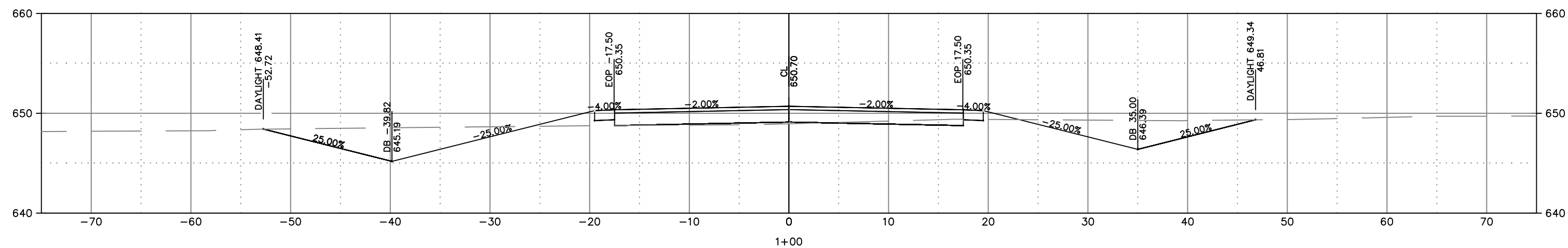
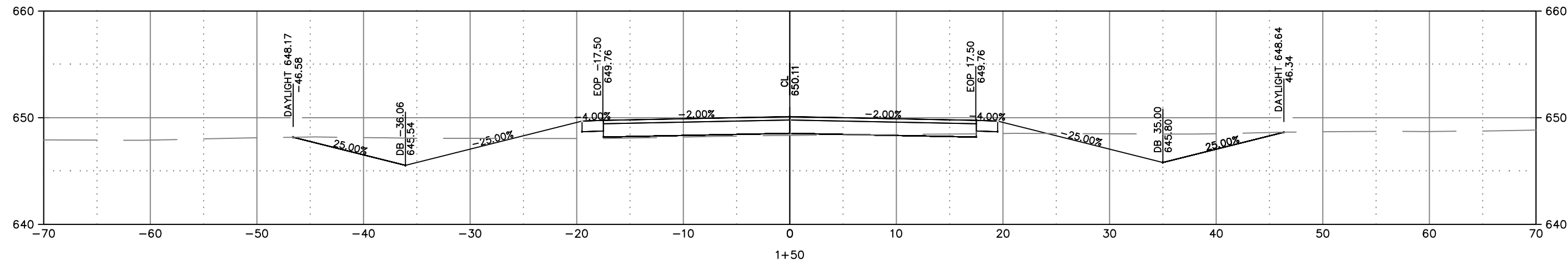
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NO.	DATE	BY	REMARKS

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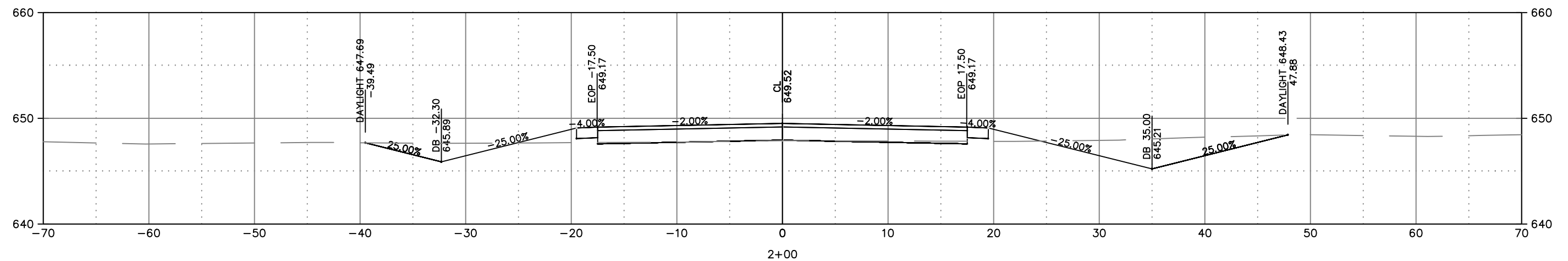
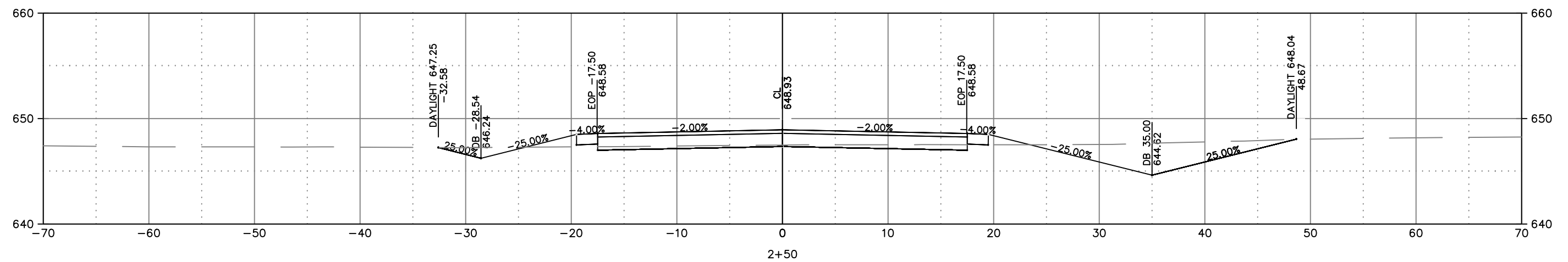
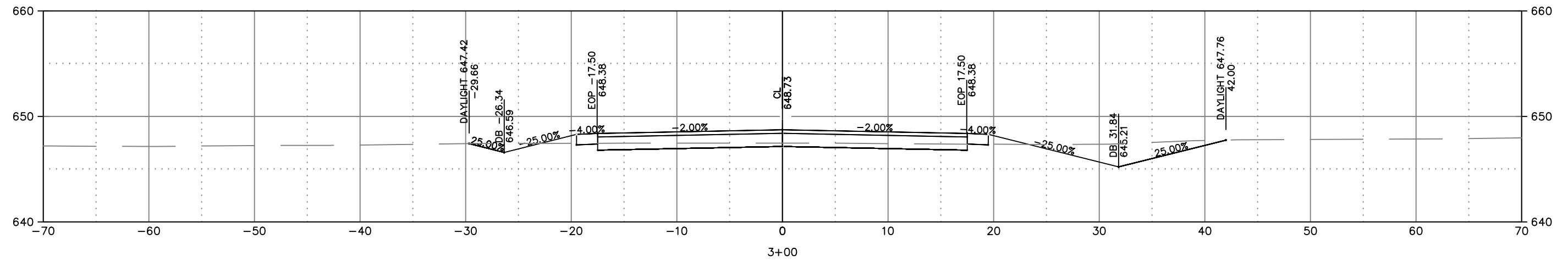


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**COMMERCE EXTENSION**  
**CROSS SECTIONS**

NAME: COMMERCE DRIVE UTILITY AND STREET EXTENSION		BY		DATE		REVISIONS / ISSUES			
PROJECT #		SURVEYED		MAL		NO.	DATE	BY	REMARKS
22-14		DRAWN		MAL					
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## COMMERCE EXTENSION

### CROSS SECTIONS

NAME:	COMMERCE DRIVE UTILITY AND STREET EXTENSION
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PROJECT #	22-14
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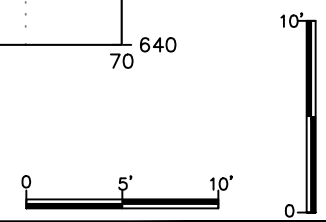
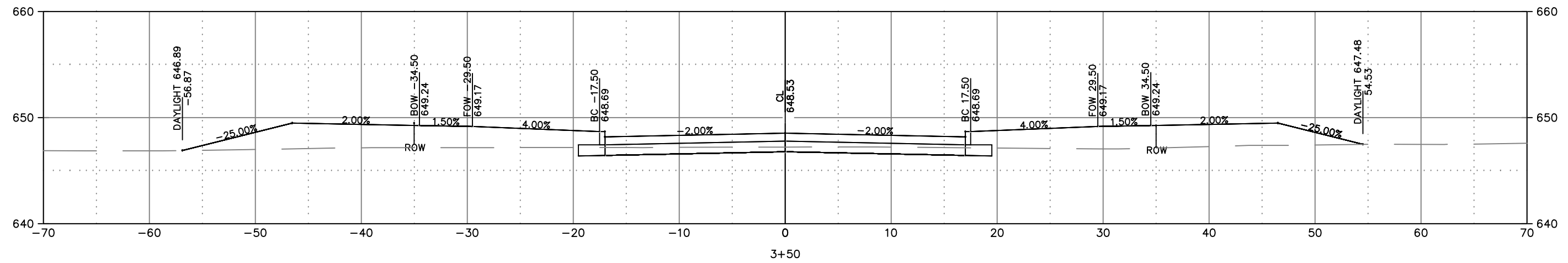
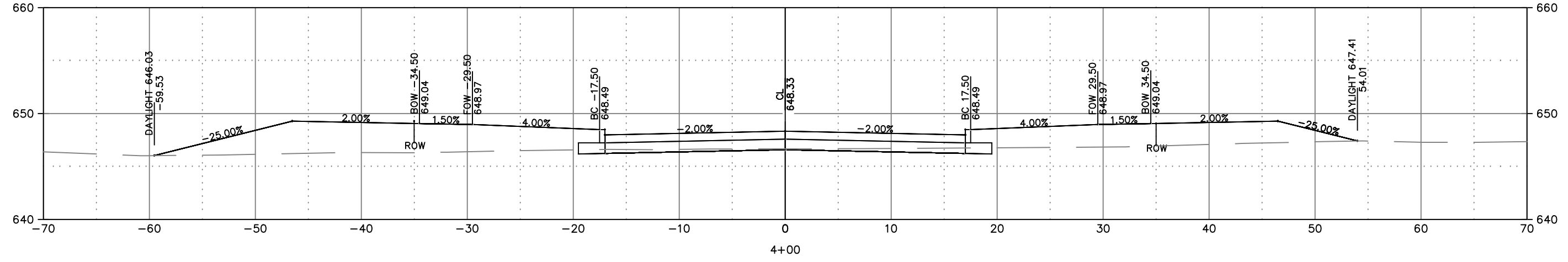
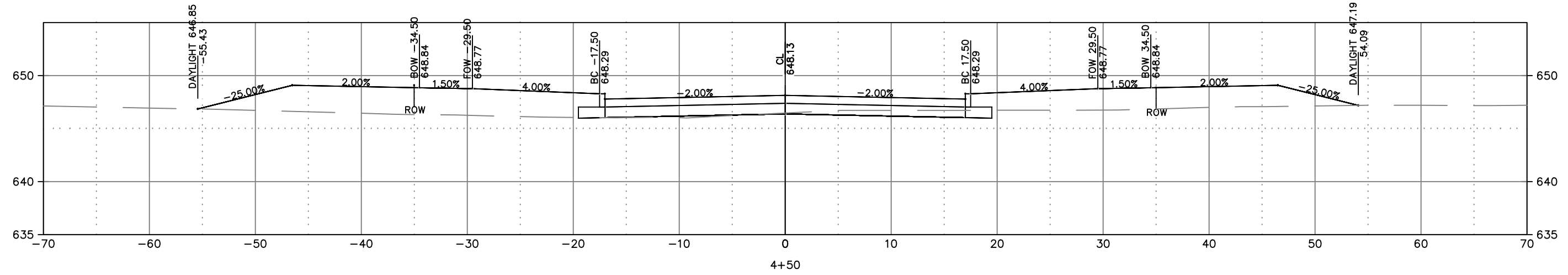
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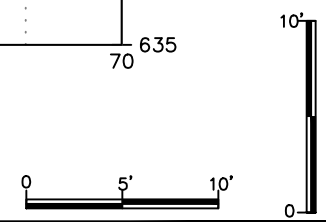
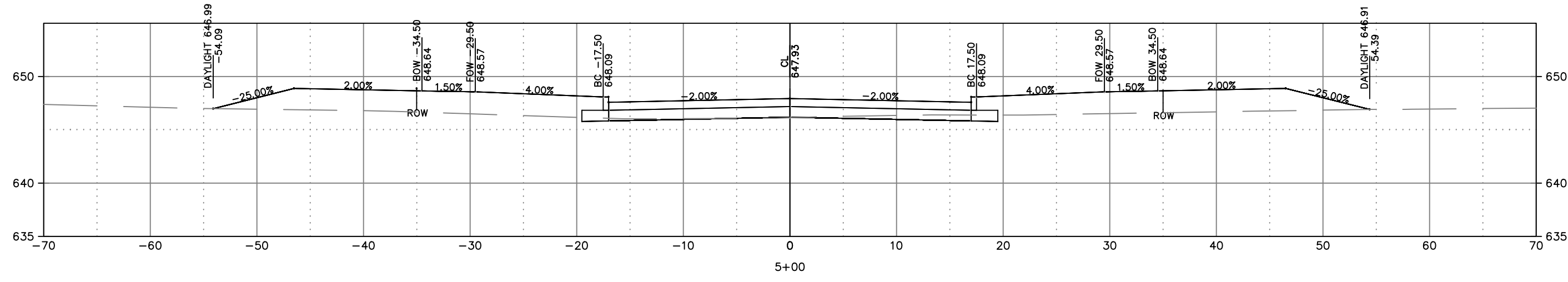
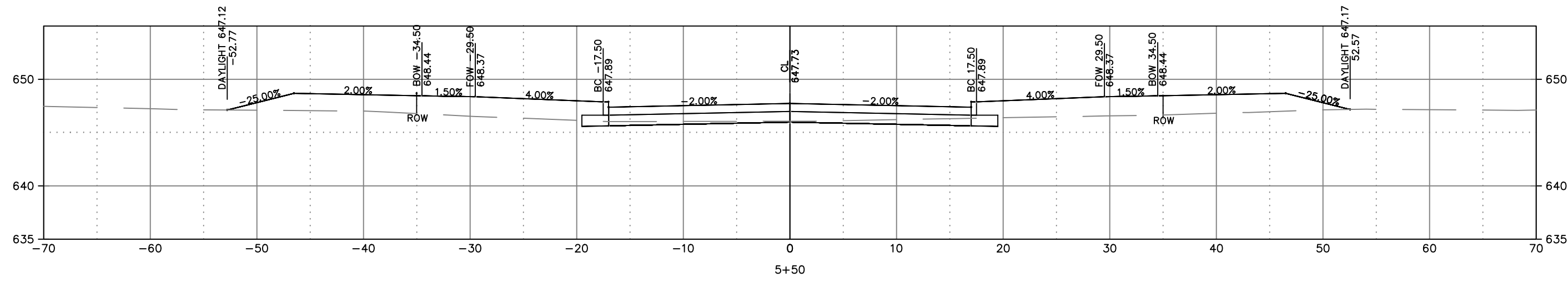
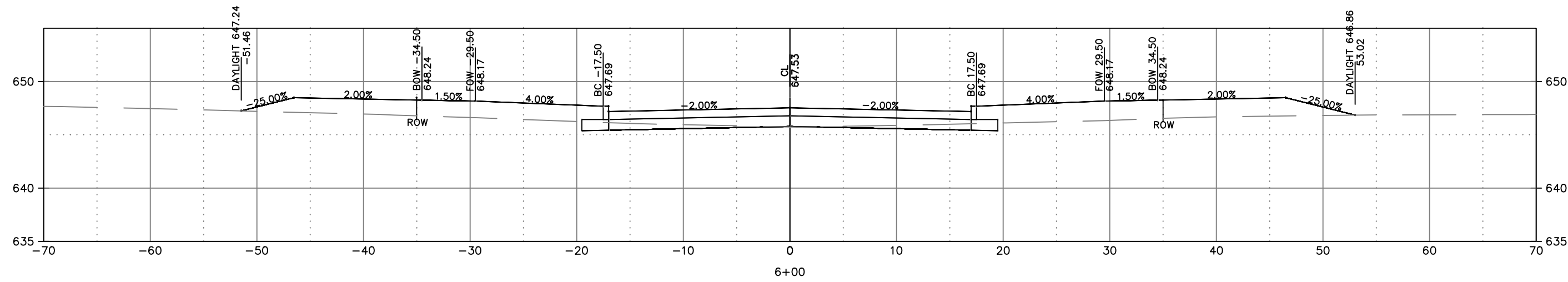
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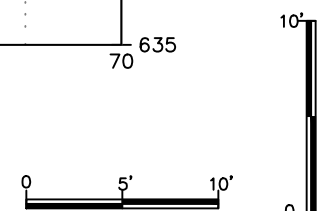
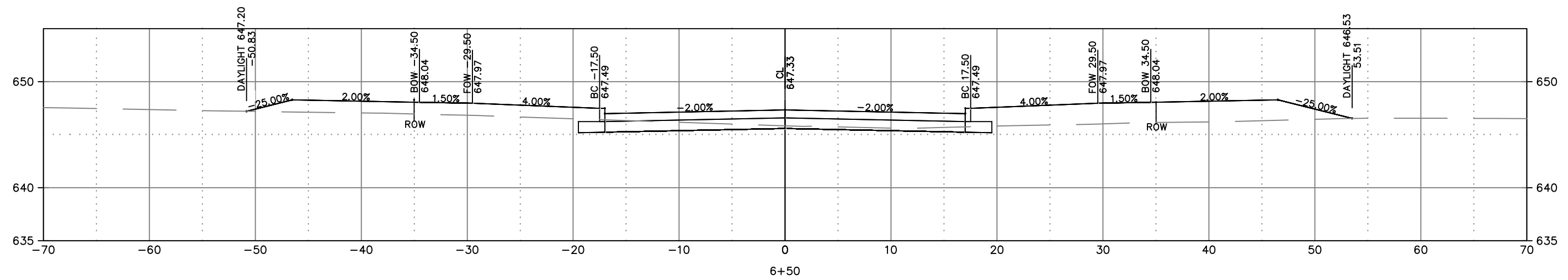
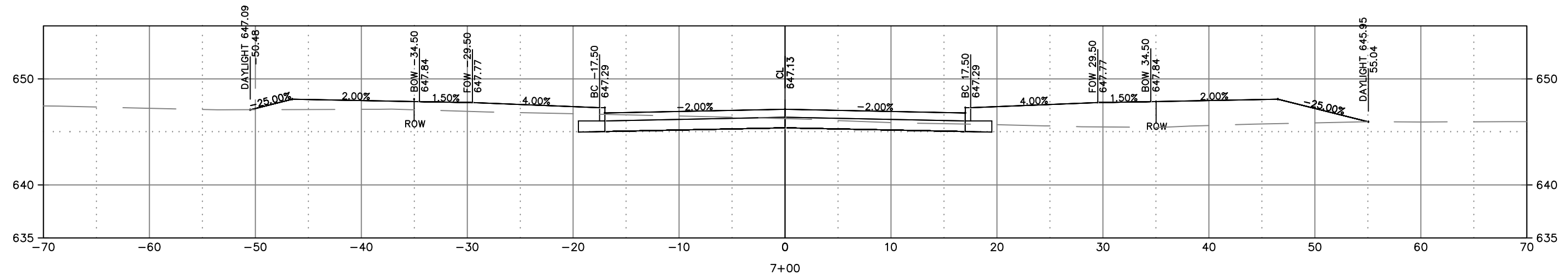
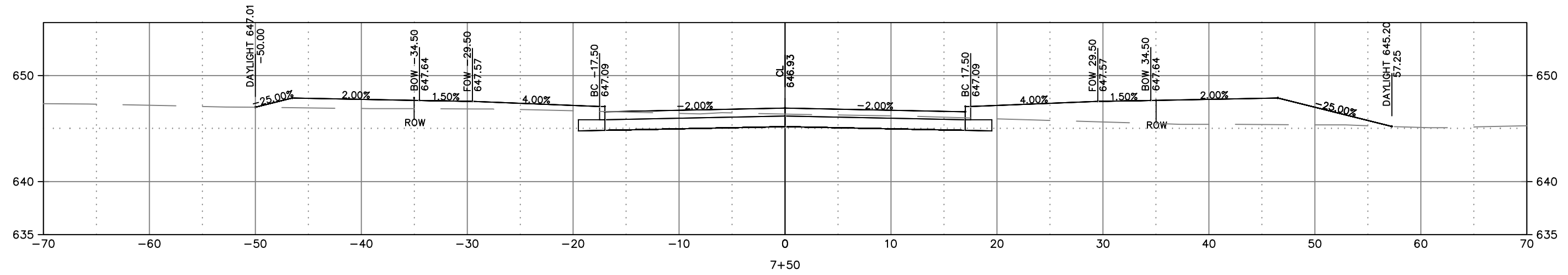
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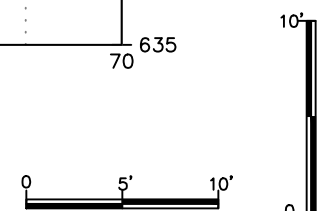
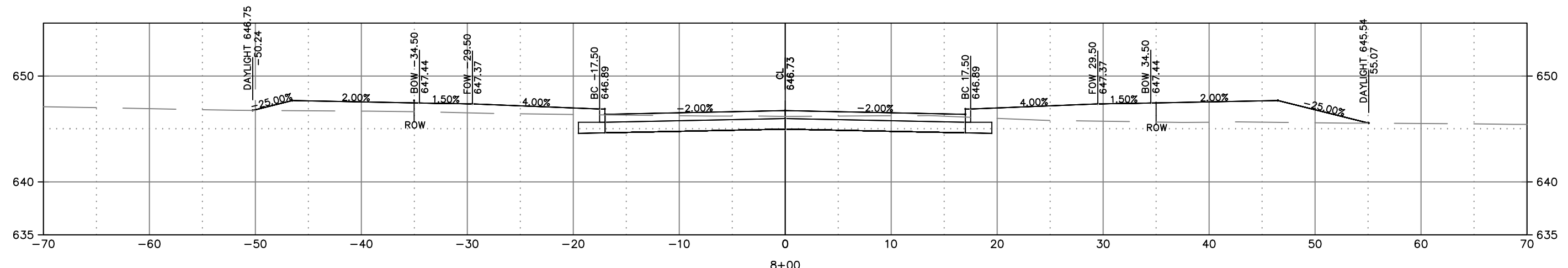
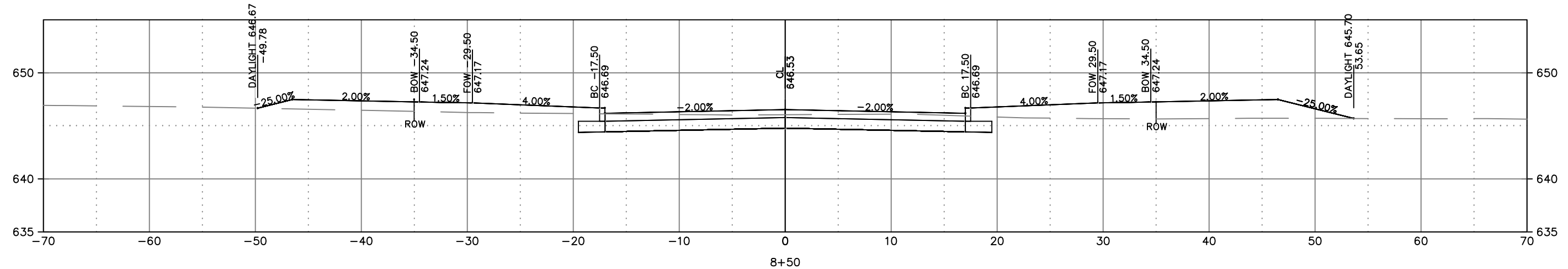
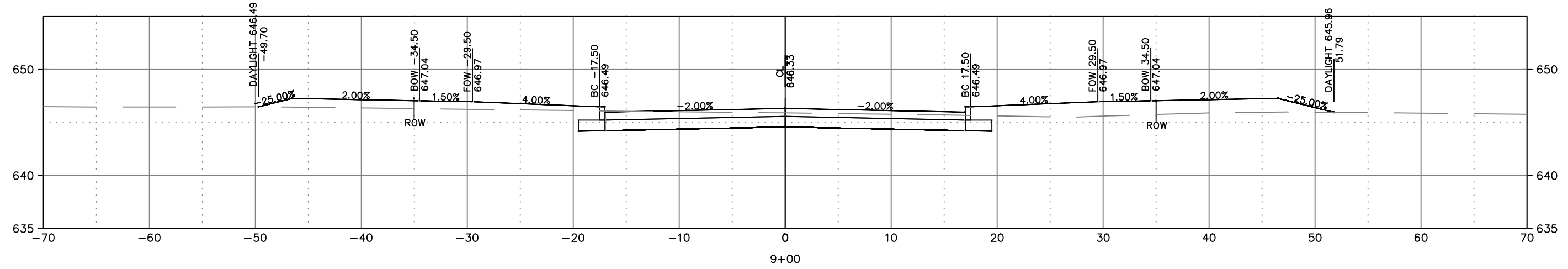




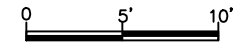
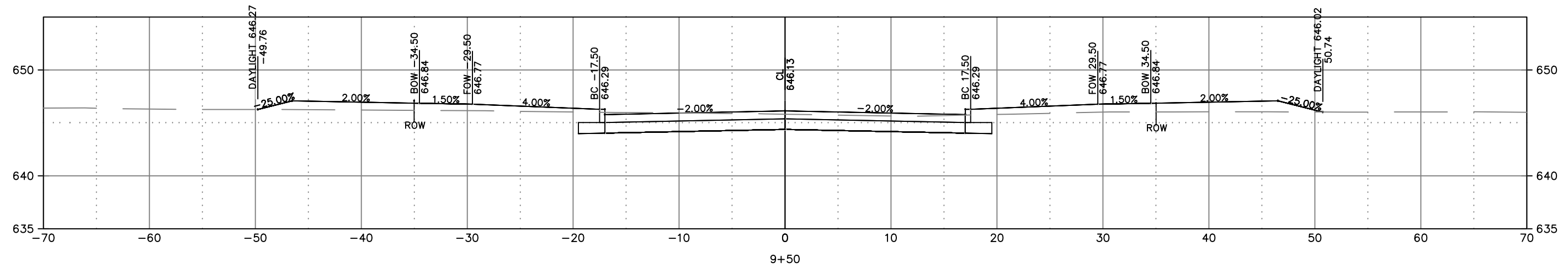
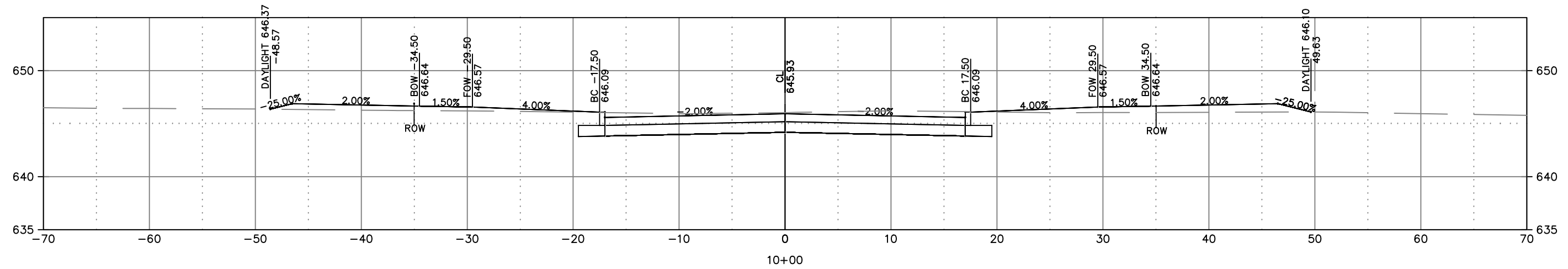
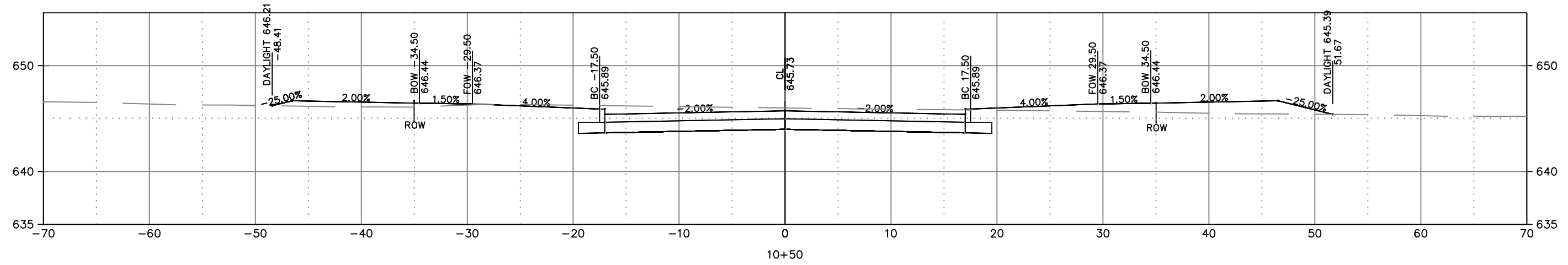
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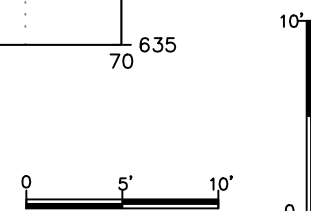
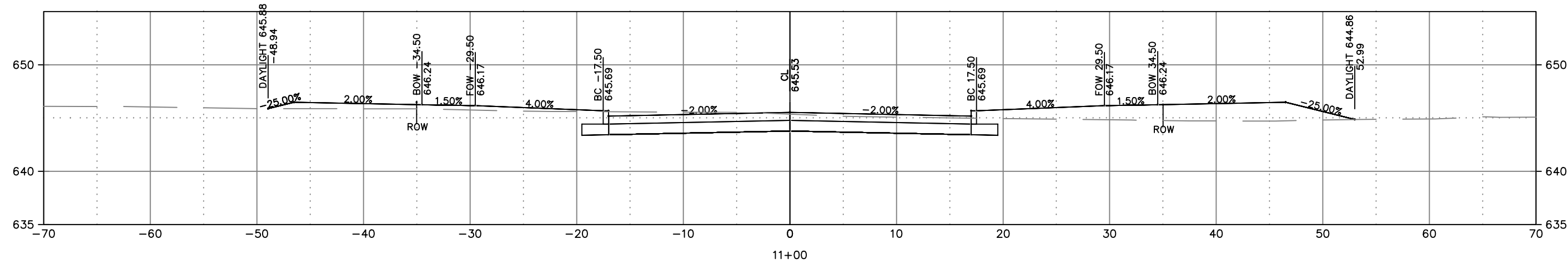
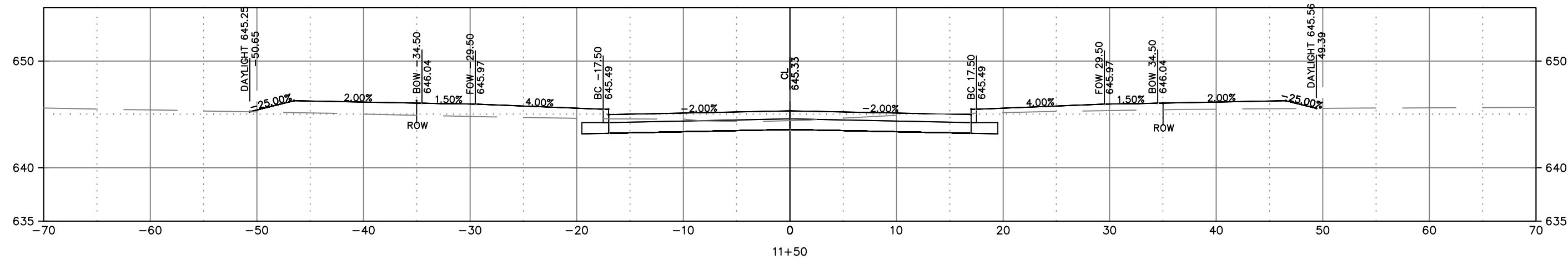
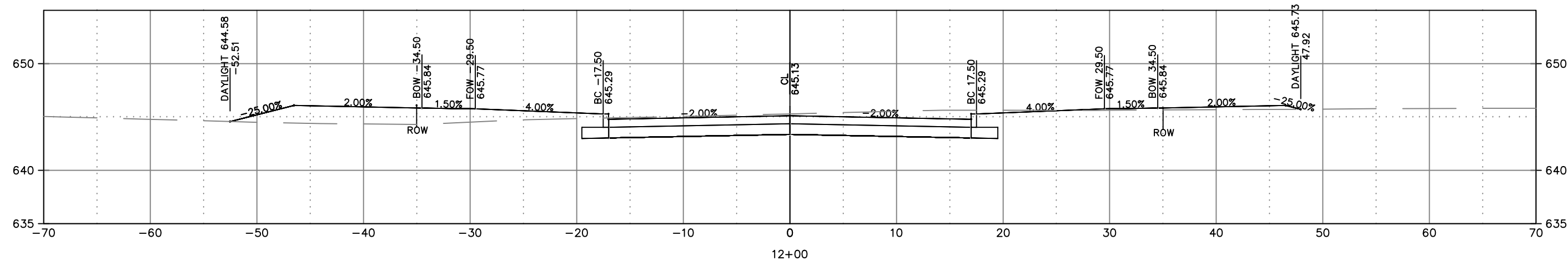


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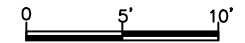
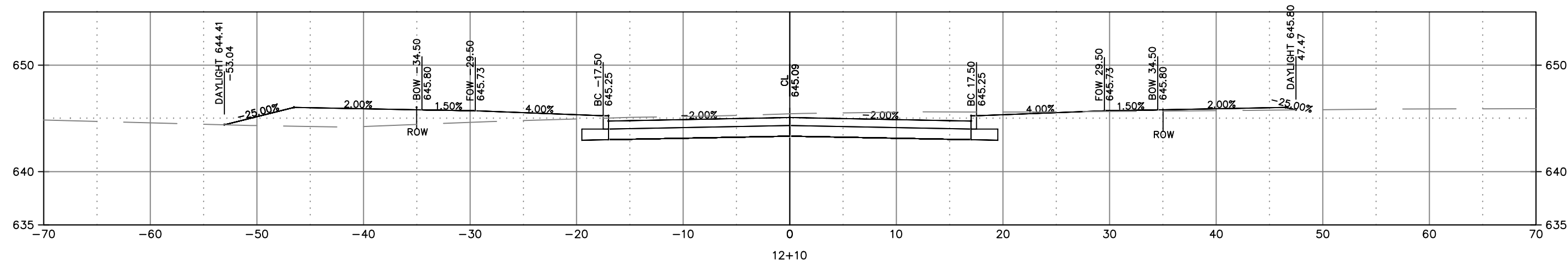
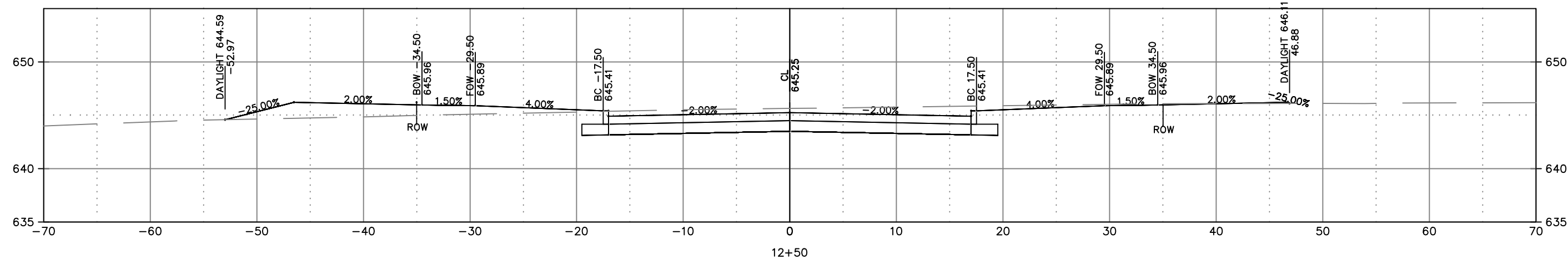
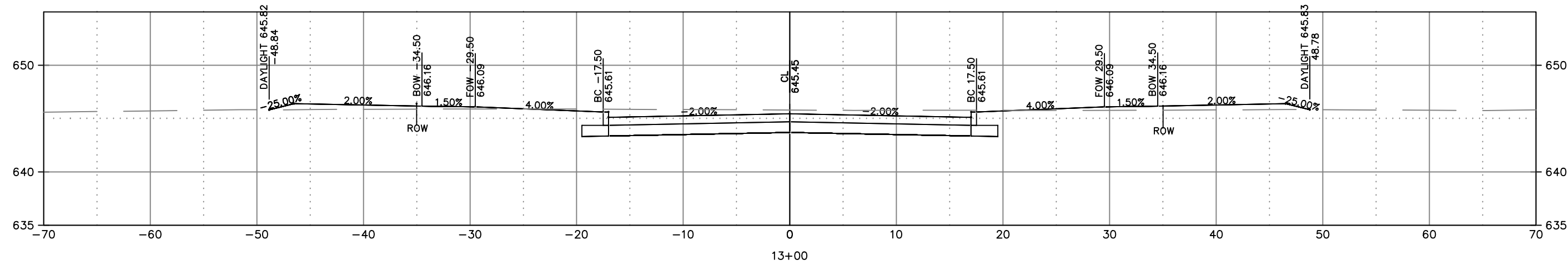
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COMMERCE EXTENSION  
CROSS SECTIONS

NAME: COMMERCE DRIVE UTILITY AND STREET EXTENSION	REVISIONS / ISSUES				PAGE NO.
	NO.	DATE	BY	REMARKS	
PROJECT # 22-14	SURVEYED	MAL	03-2020		C307
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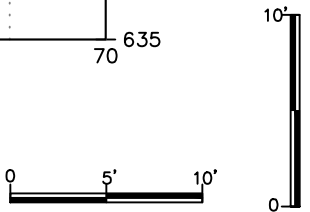
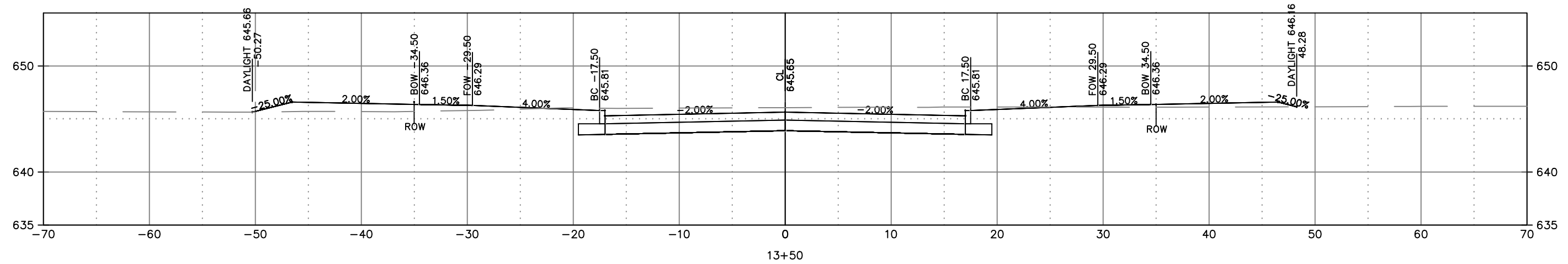
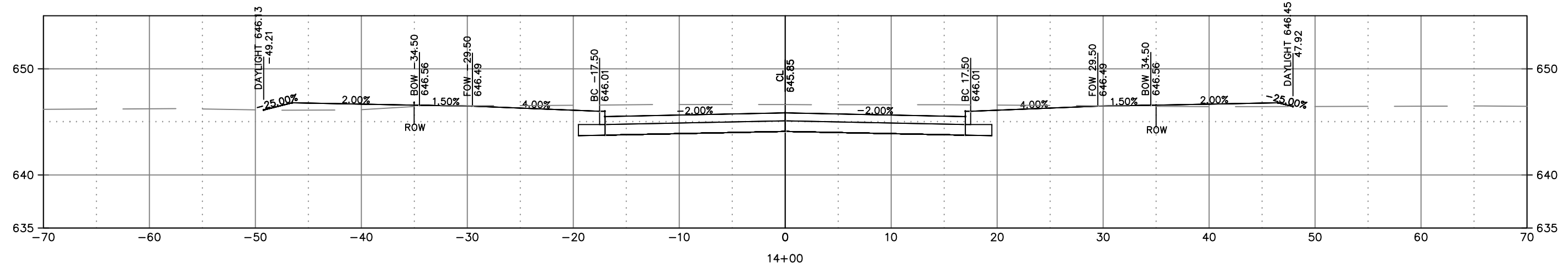
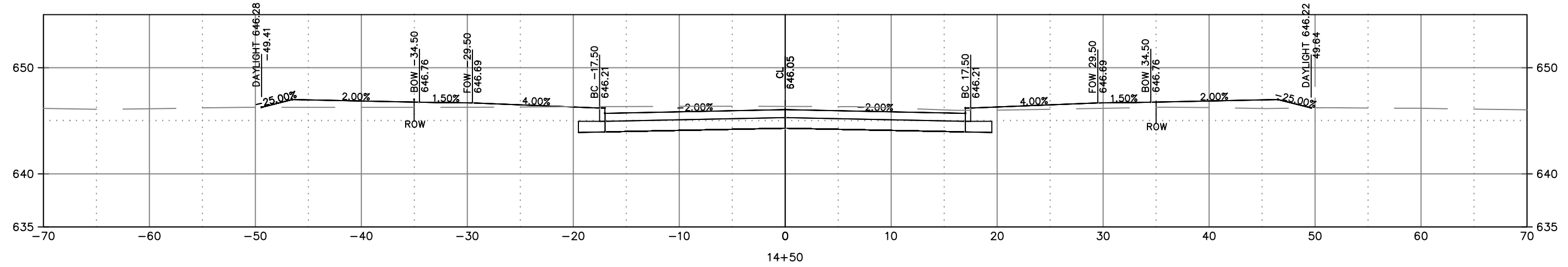
COMMERCE EXTENSION  
CROSS SECTIONS

NAME: COMMERCE DRIVE  
UTILITY AND  
STREET EXTENSION

PROJECT # 22-14

NO.	DATE	BY	REMARKS
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2	03-2020	MAL	DRAWN
3	03-2020	MAL	DESIGNED
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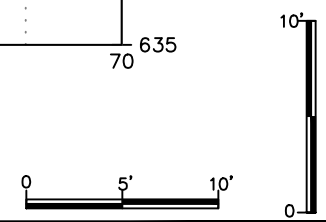
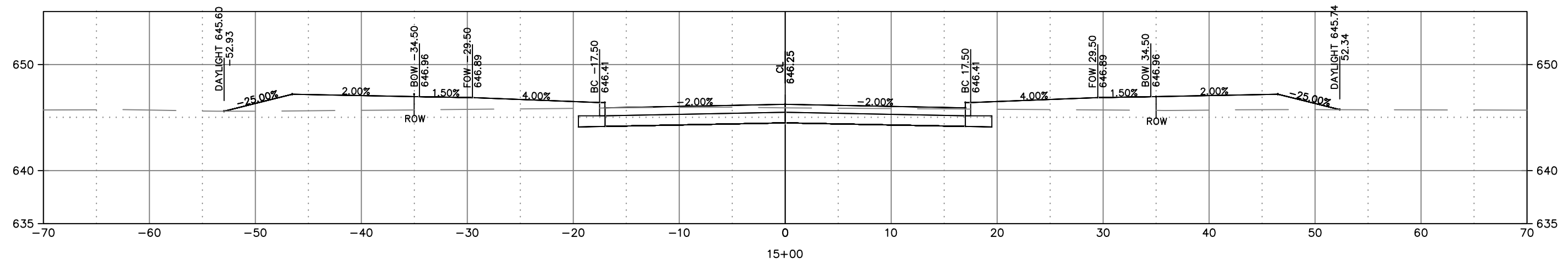
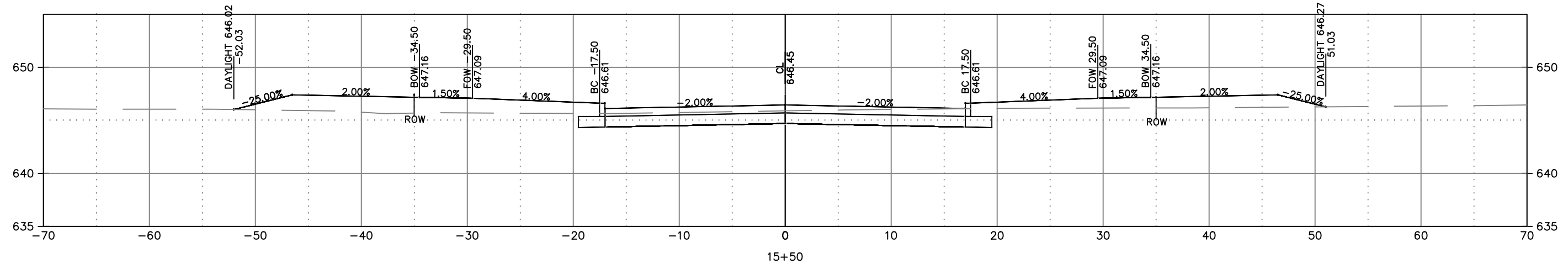
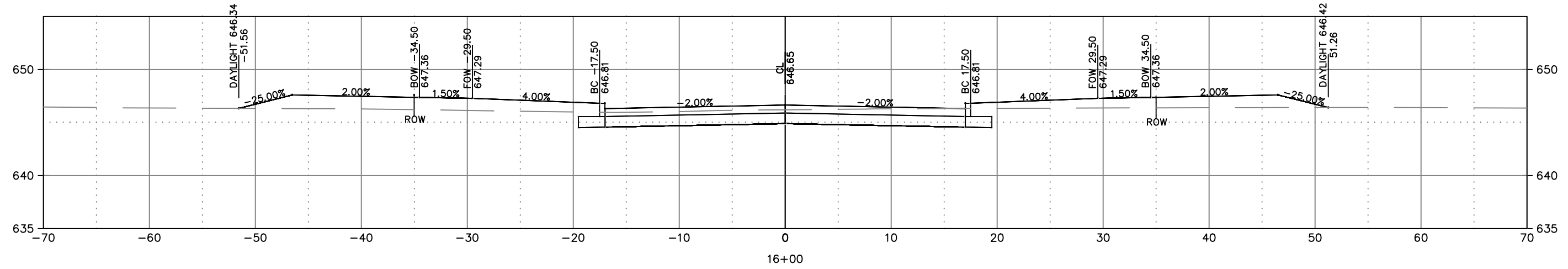
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OFFICE 920-339-4061 FAX 920-339-4071

COMMERCE EXTENSION  
CROSS SECTIONS

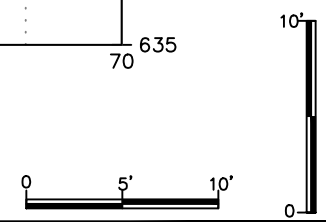
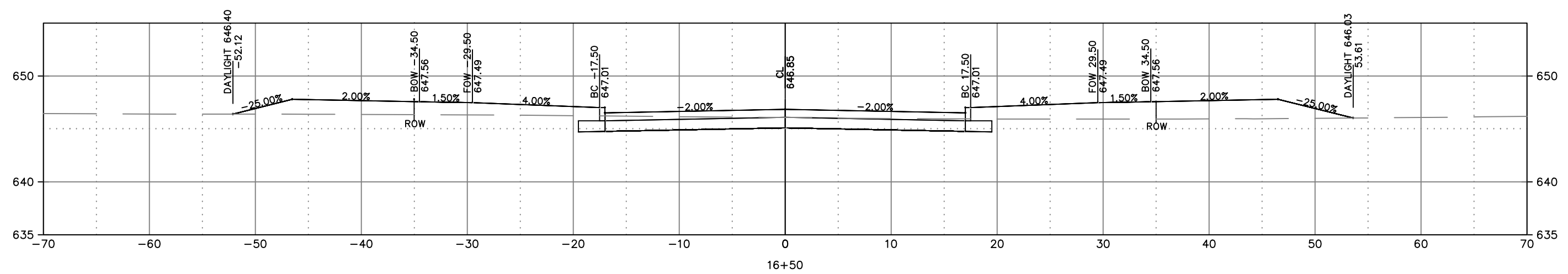
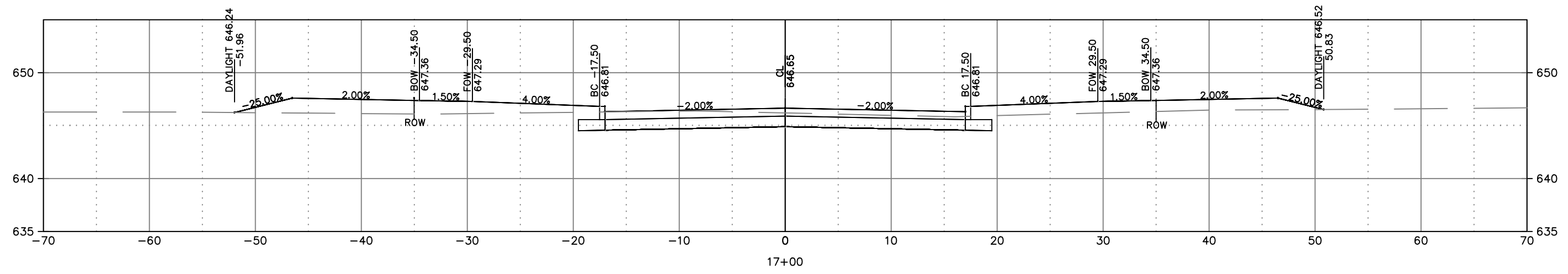
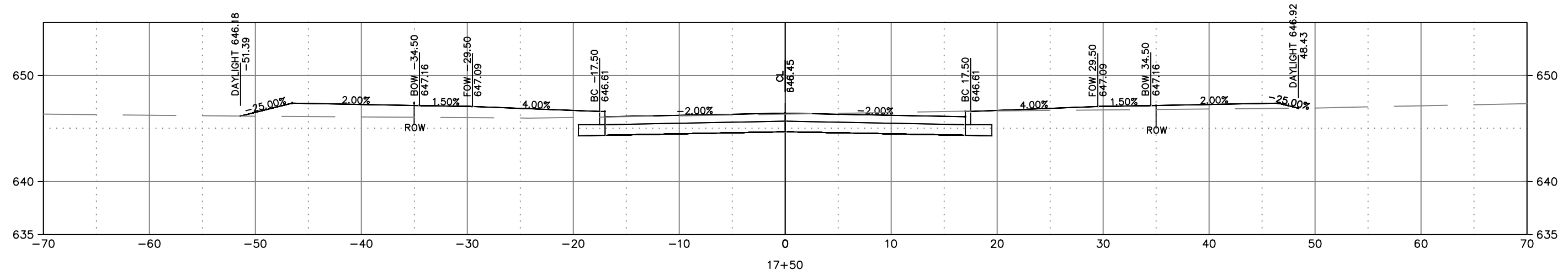
NAME: COMMERCE DRIVE  
UTILITY AND  
STREET EXTENSION  
PROJECT # 22-14

	NO.	DATE	BY	REMARKS
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DRAWN		03-2020		
DESIGNED		03-2020		
CHECKED		03-2020		

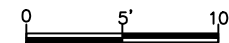
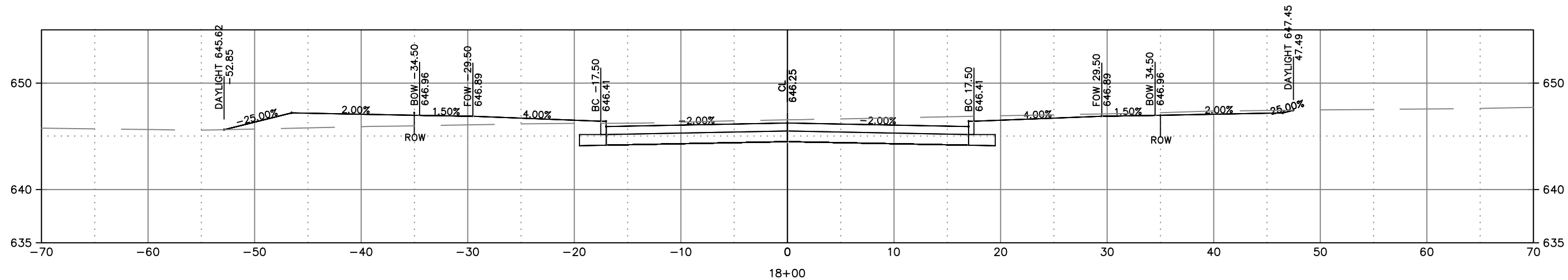
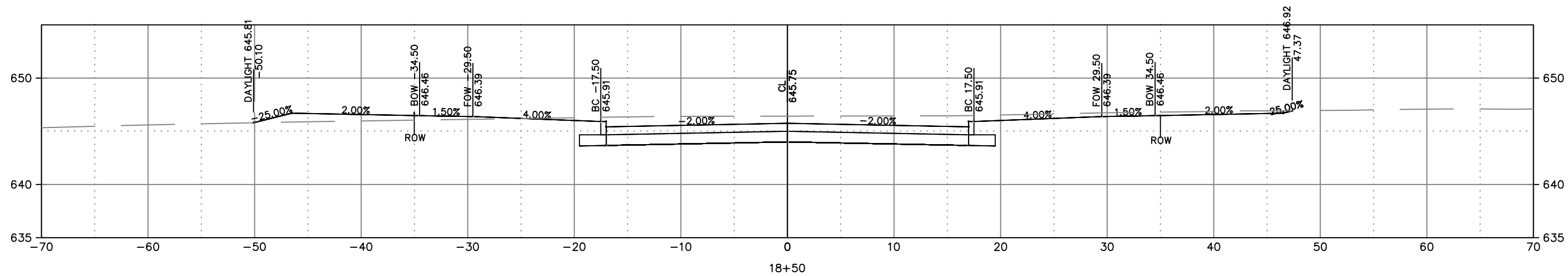
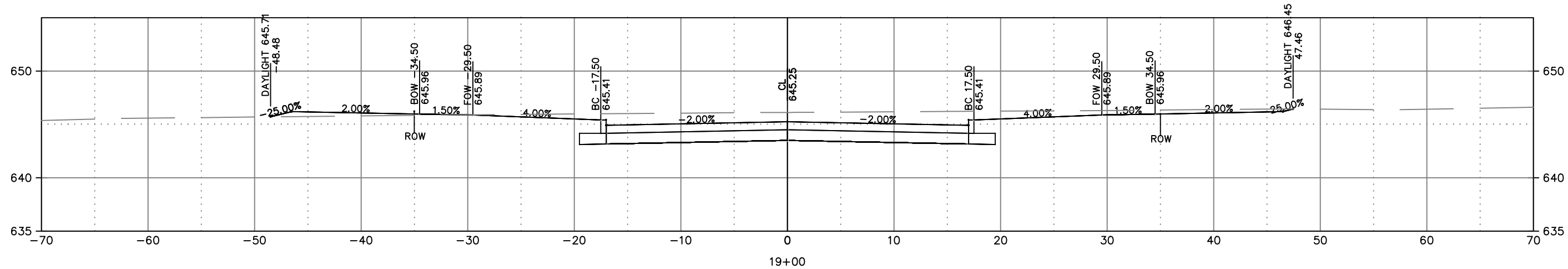




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CITY OF DE PERE

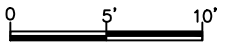
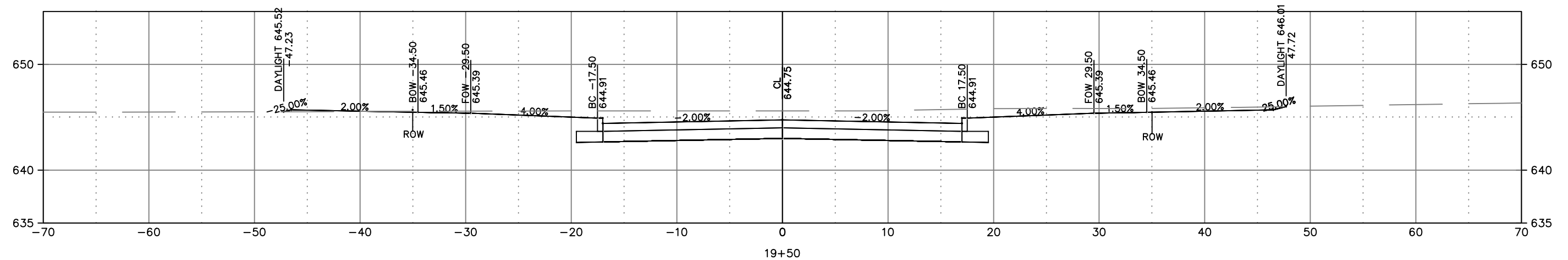
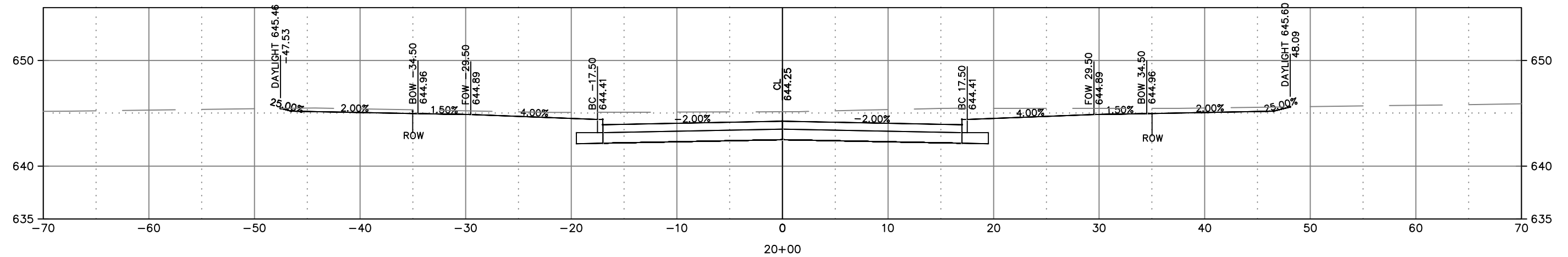
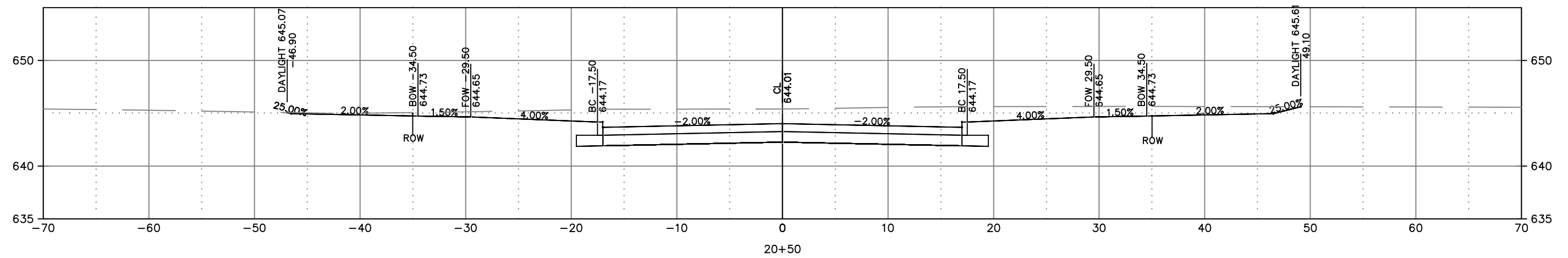
ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115  
OFFICE 920-339-4061 FAX 920-339-4071

COMMERCE EXTENSION  
CROSS SECTIONS

NAME: COMMERCE DRIVE  
UTILITY AND  
STREET EXTENSION  
PROJECT # 22-14

NO.	DATE	BY	REVISIONS / ISSUES	
			REMARKS	

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**CITY OF DE PERE**

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## COMMERCE EXTENSION CROSS SECTIONS

NAME:	COMMERCE DRIVE UTILITY AND STREET EXTENSION
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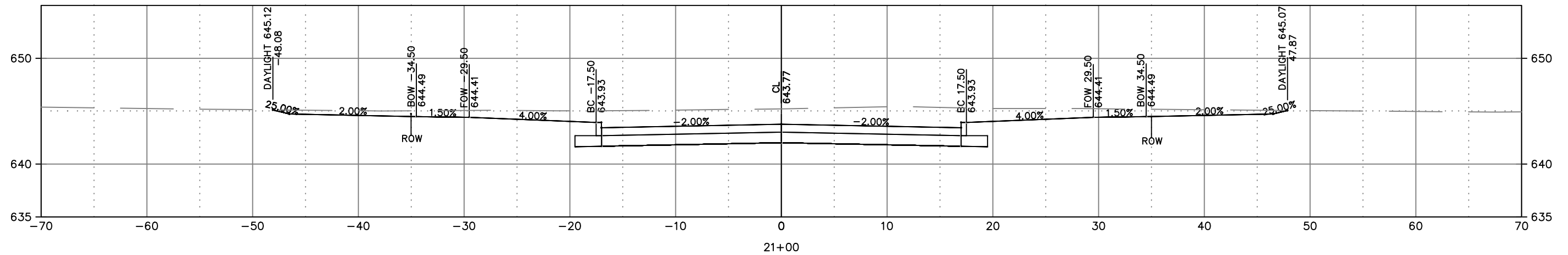
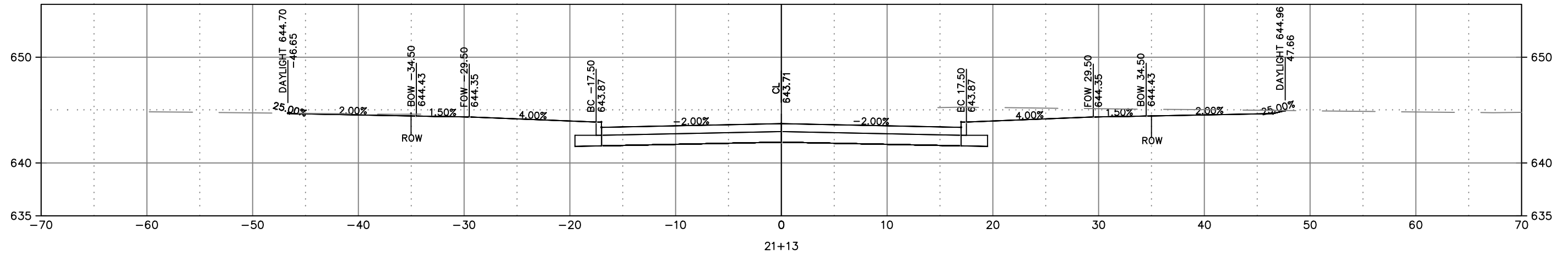
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DRAWN	MAL	03-2020				
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CHECKED	CKK	03-2020				

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COMMERCE EXTENSION  
CROSS SECTIONS

NAME: COMMERCE DRIVE  
UTILITY AND  
STREET EXTENSION  
PROJECT # 22-14

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

REVISIONS / ISSUES			
NO.	DATE	BY	REMARKS

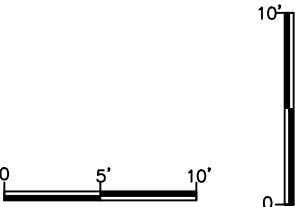
Total Volume Table						
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol
0+44.38	0.00	0.00	0.00	0.00	0.00	0.00
0+50.00	0.00	97.94	0.00	10.20	0.00	10.20
0+75.00	10.16	112.11	4.70	97.24	4.70	107.44
1+00.00	4.03	96.09	6.57	96.39	11.27	203.83
1+15.00	8.15	75.12	3.38	47.56	14.65	251.39
1+50.00	6.06	66.53	9.22	91.81	23.87	343.20
2+00.00	2.35	55.27	7.79	112.78	31.66	455.98
2+25.00	1.12	56.68	1.61	51.83	33.27	507.81
2+50.00	0.60	59.57	0.79	53.82	34.06	561.63
2+75.00	0.23	49.99	0.38	50.72	34.44	612.35
3+00.00	0.00	46.51	0.11	44.68	34.55	657.02
3+02.00	1.40	37.13	0.05	3.10	34.60	660.12
3+18.46	121.13	23.73	37.35	18.55	71.95	678.67
3+50.00	130.67	24.10	147.07	27.94	219.03	706.61
3+75.00	140.64	19.74	125.60	20.30	344.63	726.91
4+00.00	153.51	10.93	136.18	14.20	480.81	741.10
4+25.00	151.81	7.92	141.35	8.72	622.16	749.83
4+50.00	138.95	9.94	134.61	8.27	756.77	758.10
4+75.00	132.55	7.62	125.69	8.13	882.46	766.23
5+00.00	124.94	8.40	119.21	7.41	1001.67	773.64

Total Volume Table						
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol
5+25.00	117.73	11.71	112.35	9.31	1114.02	782.95
5+50.00	103.37	13.51	102.36	11.68	1216.39	794.63
5+75.00	98.18	14.61	93.31	13.02	1309.70	807.65
6+00.00	95.93	13.33	89.86	12.94	1399.56	820.58
6+25.00	94.68	16.89	88.24	13.99	1487.80	834.58
6+50.00	90.90	21.30	85.91	17.68	1573.72	852.26
6+75.00	89.50	28.07	83.52	22.86	1657.23	875.12
7+00.00	93.59	39.94	84.76	31.49	1742.00	906.60
7+25.00	94.77	45.97	87.20	39.77	1829.20	946.38
7+50.00	91.54	51.81	86.26	45.27	1915.45	991.64
7+75.00	89.01	55.72	83.59	49.78	1999.04	1041.43
7+96.28	84.10	52.73	68.23	42.75	2067.27	1084.17
8+00.00	83.08	54.51	11.51	7.38	2078.78	1091.56
8+25.00	76.52	56.58	71.81	51.46	2150.59	1143.02
8+50.00	75.82	55.66	68.78	51.99	2219.36	1195.01
8+75.00	66.63	54.53	64.54	51.07	2283.90	1246.07
9+00.00	62.70	57.20	58.74	51.82	2342.65	1297.90
9+25.00	56.11	62.10	54.33	55.33	2396.98	1353.23
9+50.00	47.45	62.08	47.71	57.58	2444.69	1410.80
9+75.00	36.28	70.92	38.77	61.58	2483.46	1472.38

Total Volume Table						
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol
10+00.00	31.02	79.45	31.17	69.53	2514.63	1541.92
10+25.00	30.02	85.07	28.05	76.10	2542.69	1618.02
10+50.00	35.08	84.86	29.40	78.71	2572.09	1696.73
10+75.00	43.56	79.09	34.91	75.97	2606.99	1772.70
11+00.00	59.78	65.95	45.81	67.25	2652.80	1839.96
11+25.00	53.69	49.28	51.11	53.47	2703.92	1893.43
11+50.00	54.59	48.03	50.55	44.97	2754.46	1938.40
11+75.00	53.39	68.96	52.11	53.88	2806.57	1992.28
12+00.00	49.64	81.34	50.70	69.25	2857.27	2061.52
12+10.00	47.38	86.34	19.32	30.92	2876.60	2092.44
12+50.00	34.90	92.68	66.06	132.02	2942.66	2224.47
12+75.00	27.94	94.33	31.30	86.27	2973.96	2310.74
13+00.00	21.32	88.12	23.67	84.36	2997.63	2395.09
13+13.79	24.55	83.92	11.91	43.92	3009.54	2439.01
13+25.00	28.91	86.55	11.09	35.37	3020.63	2474.38
13+50.00	24.98	91.91	24.95	82.62	3045.58	2557.00
13+75.00	11.71	103.39	16.98	90.42	3062.57	2647.42
14+00.00	11.61	109.48	10.80	98.55	3073.36	2745.97
14+25.00	15.52	96.69	12.56	95.45	3085.92	2841.42
14+50.00	32.10	83.50	22.05	83.42	3107.97	2924.84

Total Volume Table						
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol
14+73.19	50.12	76.34	35.31	68.63	3143.28	2993.47
14+75.00	51.70	75.24	3.42	5.09	3146.69	2998.56
15+00.00	78.50	60.10	60.81	62.56	3207.50	3061.12
15+25.00	84.88	53.56	76.18	52.55	3283.68	3113.67
15+50.00	74.82	51.96	74.03	48.87	3357.71	3162.54
15+75.00	61.18	58.86	62.31	51.39	3420.02	3213.94
16+00.00	67.16	55.42	59.05	52.98	3479.06	3266.92
16+25.00	80.19	49.20	68.73	48.43	3547.79	3315.35
16+50.00	90.50	43.78	80.25	42.94	3628.04	3358.29
16+75.00	75.63	50.44	77.84	43.49	3705.88	3401.78
17+00.00	70.81	54.57	67.97	48.45	3773.85	3450.23
17+25.00	49.54	67.93	55.22	56.66	3829.07	3506.89
17+50.00	45.61	70.70	42.95	64.29	3872.02	3571.18
17+75.00	35.45	77.08	35.80	68.53	3907.82	3639.71
18+00.00	28.71	88.35	27.48	76.82	3935.31	3716.53
18+25.00	18.84	99.11	20.17	87.08	3955.47	3803.61
18+50.00	11.31	105.35	12.77	94.90	3968.24	3898.51
18+75.00	3.63	124.21	6.28	106.36	3974.52	4004.88
19+00.00	4.18	117.43	3.27	111.99	3977.79	4116.86
19+25.00	0.58	120.85	2.00	110.52	3979.79	4227.39

Total Volume Table						
Station	Fill Area	Cut Area	Fill Volume	Cut Volume	Cumulative Fill Vol	Cumulative Cut Vol
19+50.00	0.75	120.93	0.55	112.08	3980.34	4339.46
19+75.00	0.00	128.21	0.31	115.41	3980.65	4454.87
20+00.00	0.00	133.53	0.00	121.19	3980.65	4576.06
20+25.00	0.02	136.10	0.01	125.22	3980.66	4701.28
20+27.85	0.25	139.21	0.01	14.52	3980.68	4715.80
20+50.00	0.00	166.22	0.10	125.29	3980.78	4841.09
20+75.00	0.00	177.53	0.00	159.14	3980.78	5000.23
21+00.00	0.00	168.42	0.00	160.16	3980.78	5160.39
21+12.64	0.00	38.27	0.00	48.37	3980.78	5208.76
21+25.00	0.00	0.00	0.00	8.76	3980.78	5217.53

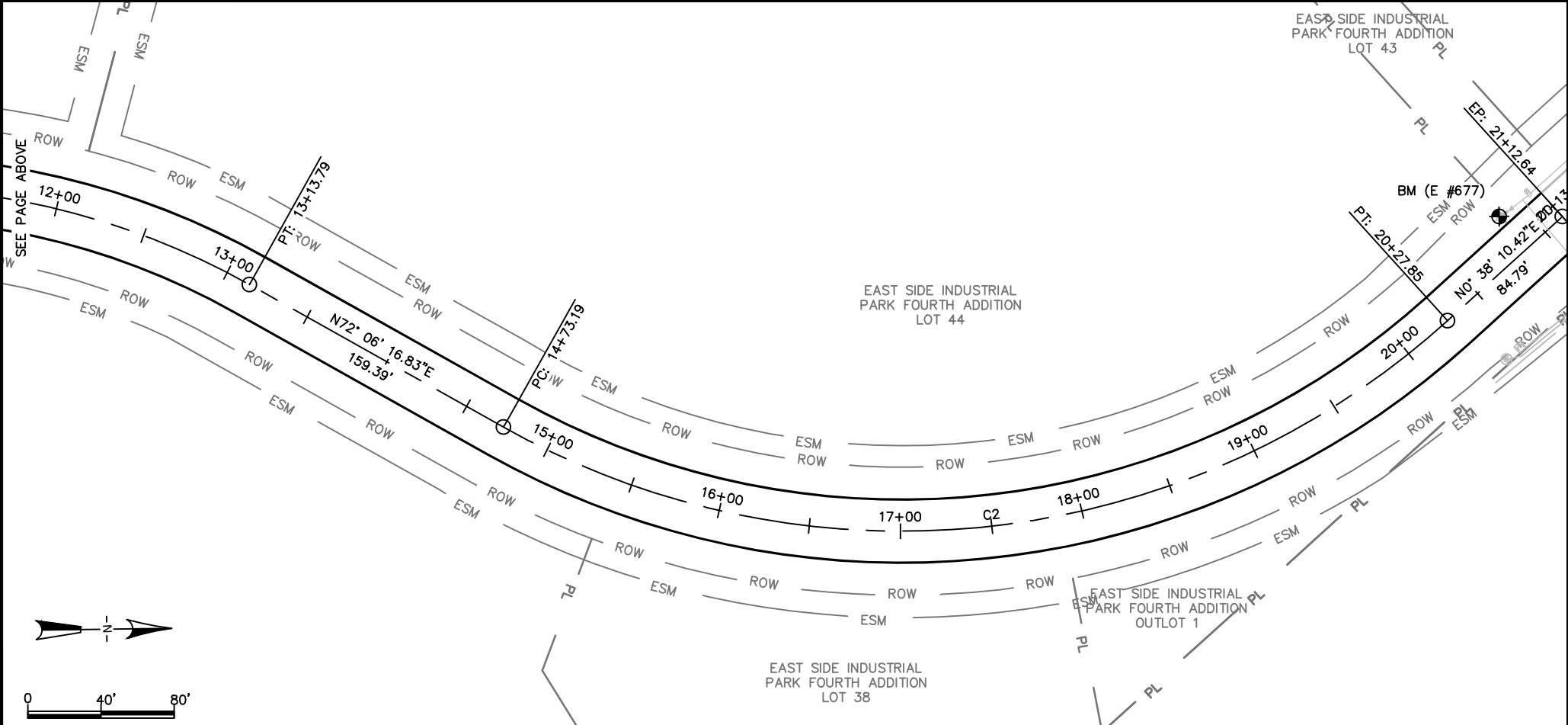
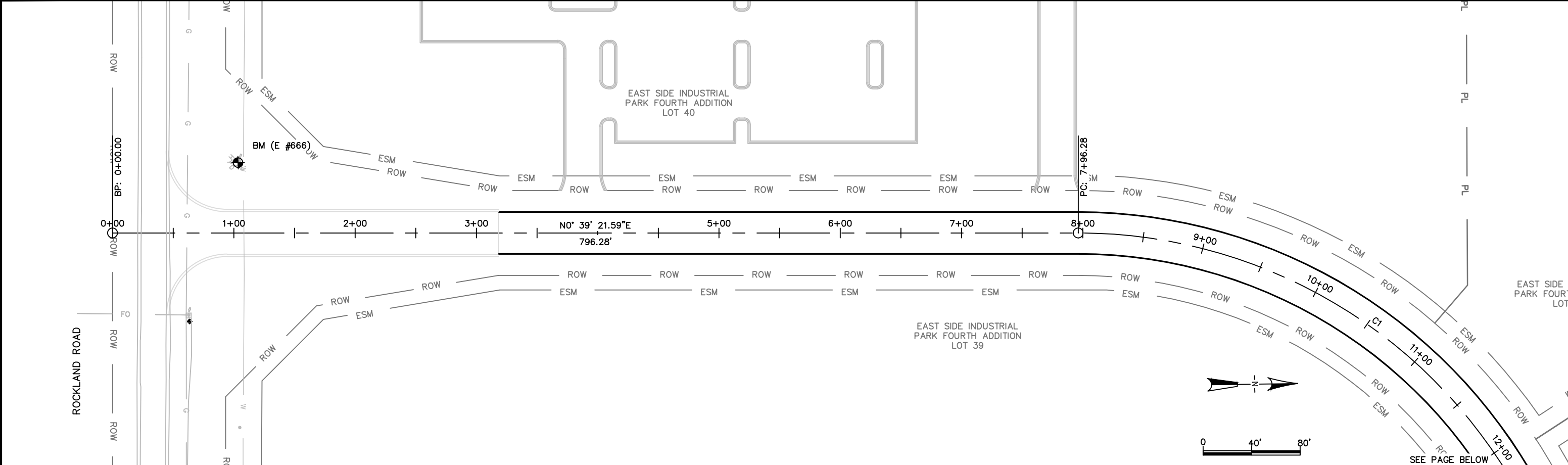


COMMERCE EXTENSION

CUT FILL QUANTITES

REVISIONS / ISSUES			
NO.	DATE	BY	REMARKS

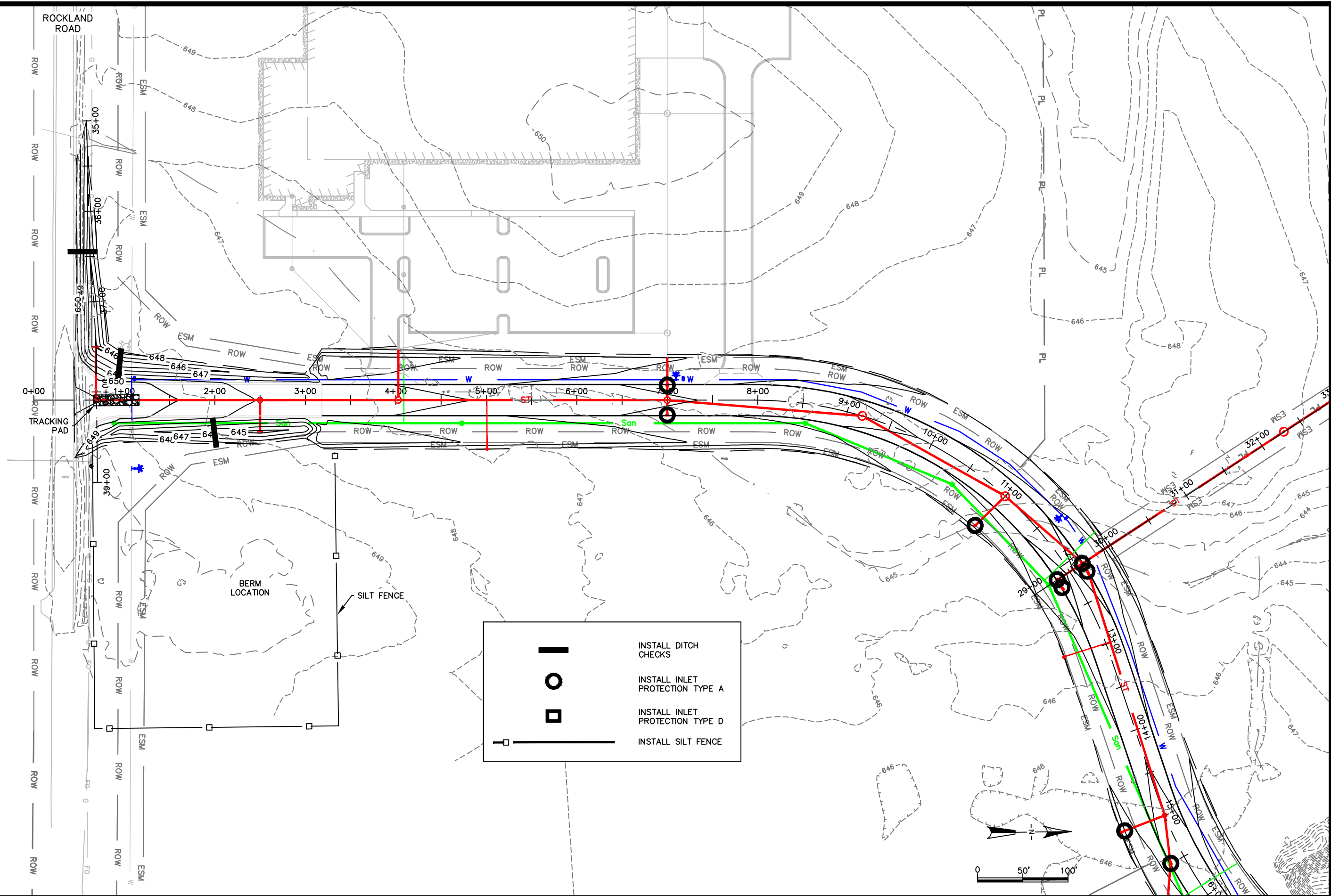
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Curve Table: Alignments						
Curve #	Radius	Delta	Chord Direction	Length	Start Point	End Point
C1	415.00	71.4487	N36° 22' 49.22"E	517.51	(E 85316.66, N 531956.97)	(E 85604.11, N 532347.14)
C2	445.00	71.4150	N36° 23' 49.75"E	554.66	(E 85755.79, N 532396.12)	(E 86064.02, N 532814.23)

BENCHMARKS & CONTROL POINTS			
NUMBER	LOCATION	ELEVATION	DESCRIPTION
BM (E #665)	ROCKLAND RD. COMPOST SITE	649.05	TOP NUT
BM (E #666)	5TH HYDRANT WEST OF ENTERPRISE ON ROCKLAND RD.	651.20	TOP NUT
BM (E #667)	6TH HYDRANT WEST OF ENTERPRISE ON ROCKLAND RD.	651.94	TOP NUT
BM (E #676)	7TH HYDRANT SOUTH OF HERITAGE RD ON COMMERCE DR.	646.89	TOP NUT
BM (E #677)	8TH HYDRANT SOUTH OF HERITAGE RD ON COMMERCE DR.	645.97	TOP NUT

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**COMMERCE DRIVE  
EROSION CONTROL**

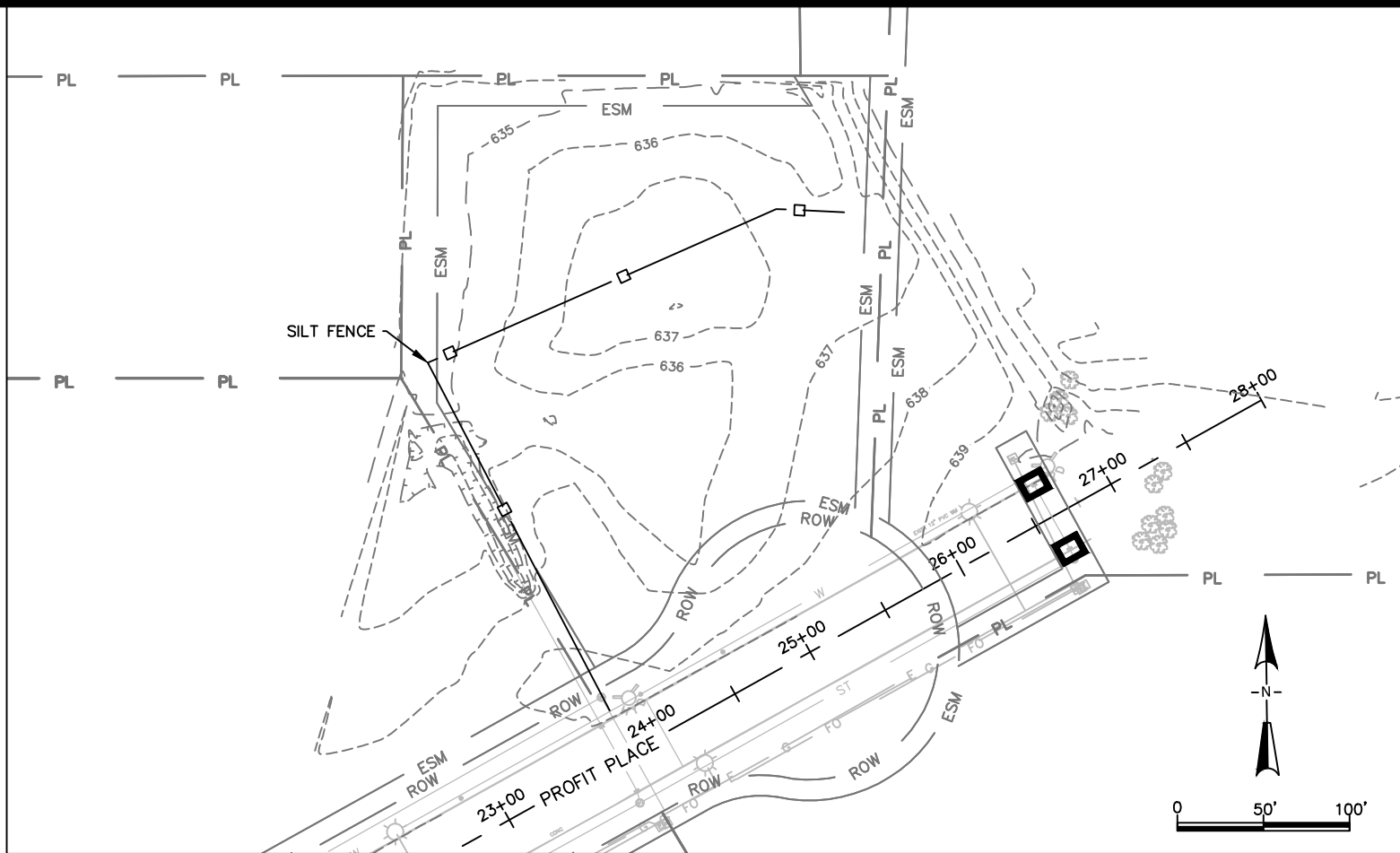
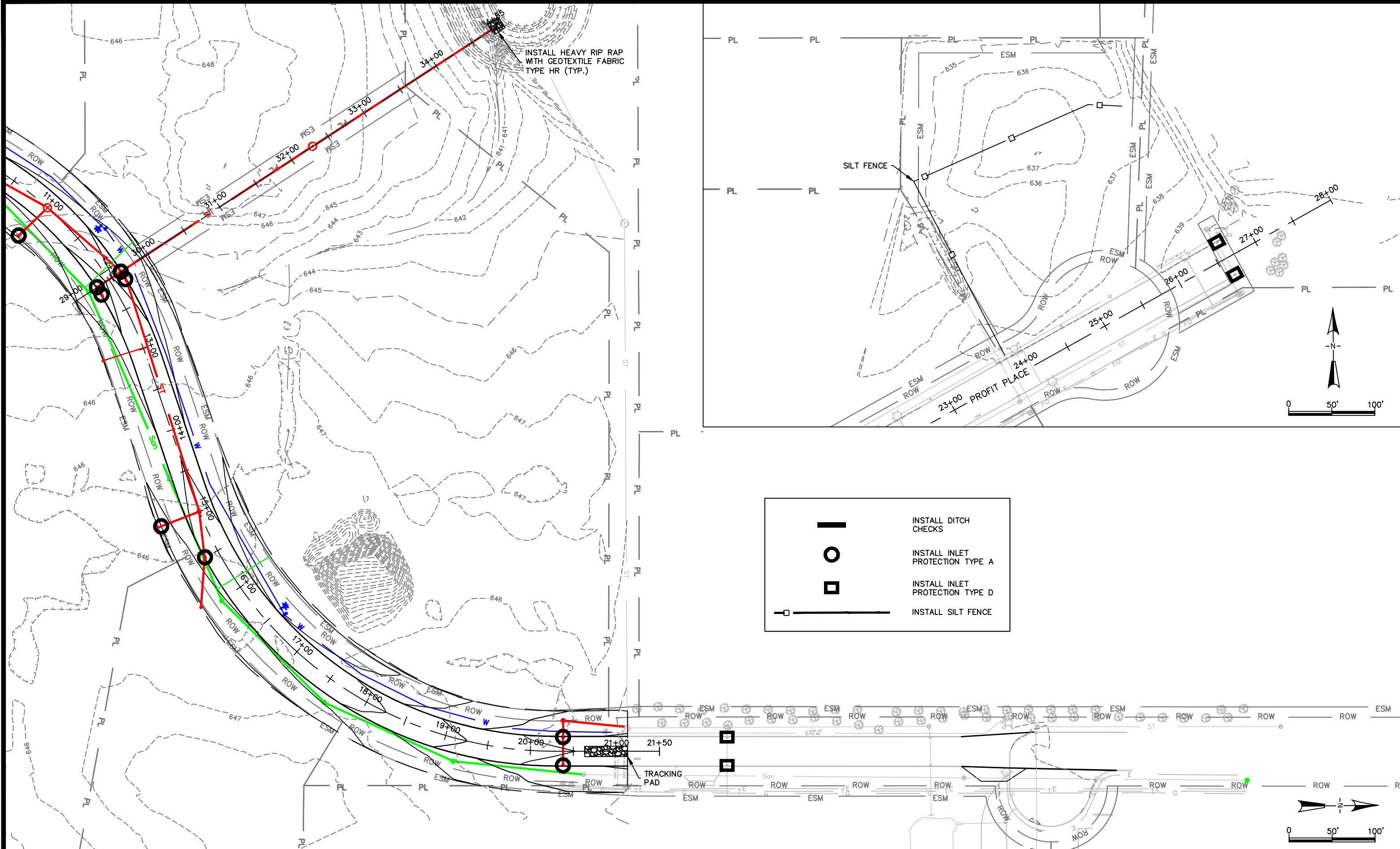
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UTILITY AND  
STREET EXTENSION  
PROJECT # 22-14

	BY	DATE
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DRAWN	MAL	04-2021
DESIGNED	MAL	04-2021
CHECKED	CKK	04-2021

REVISIONS / ISSUES				
NO.	DATE	BY	REMARKS	

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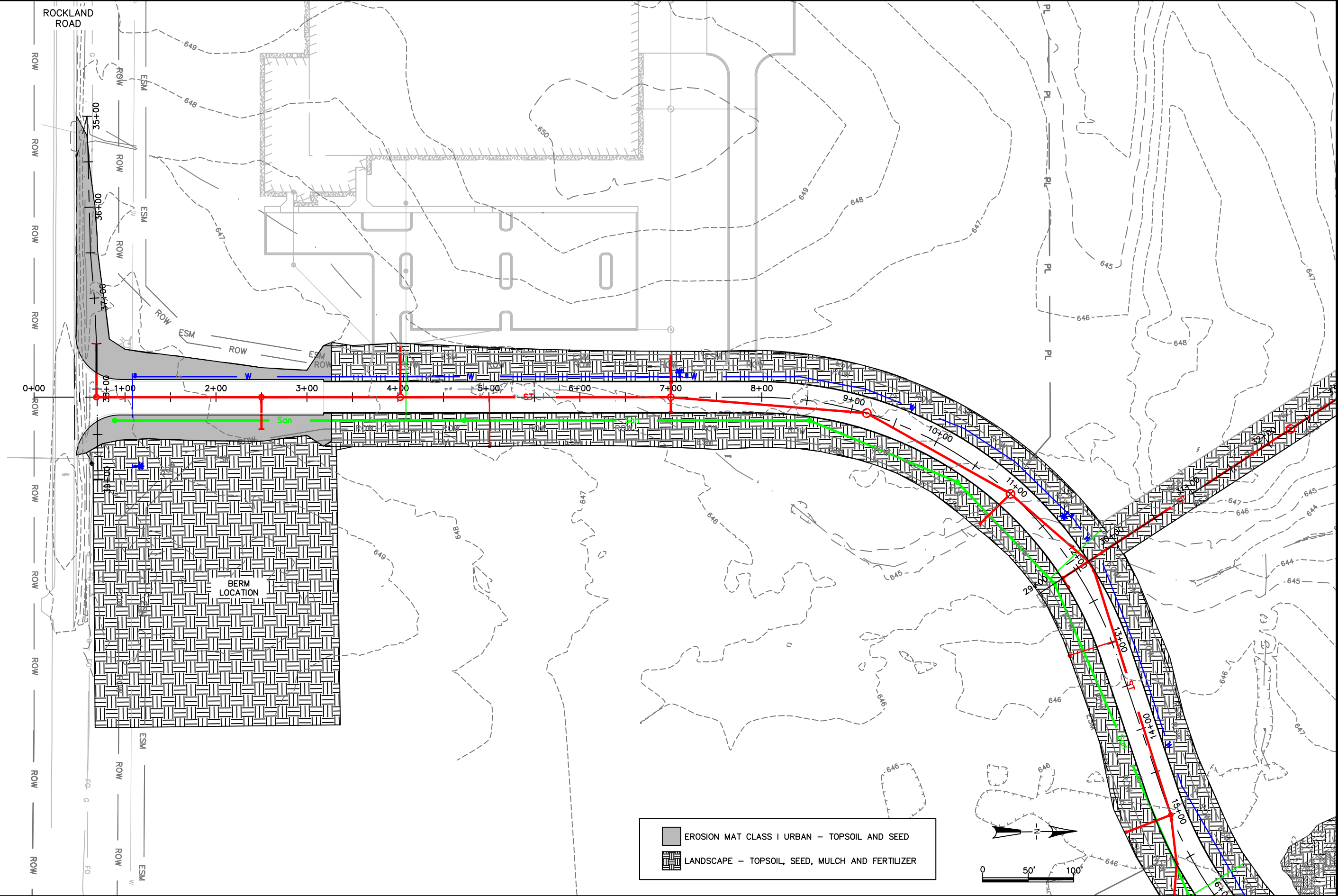


INSTALL DITCH CHECKS

INSTALL INLET PROTECTION TYPE A

INSTALL INLET PROTECTION TYPE D

INSTALL SILT FENCE



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**COMMERCE DRIVE  
RESTORATION**

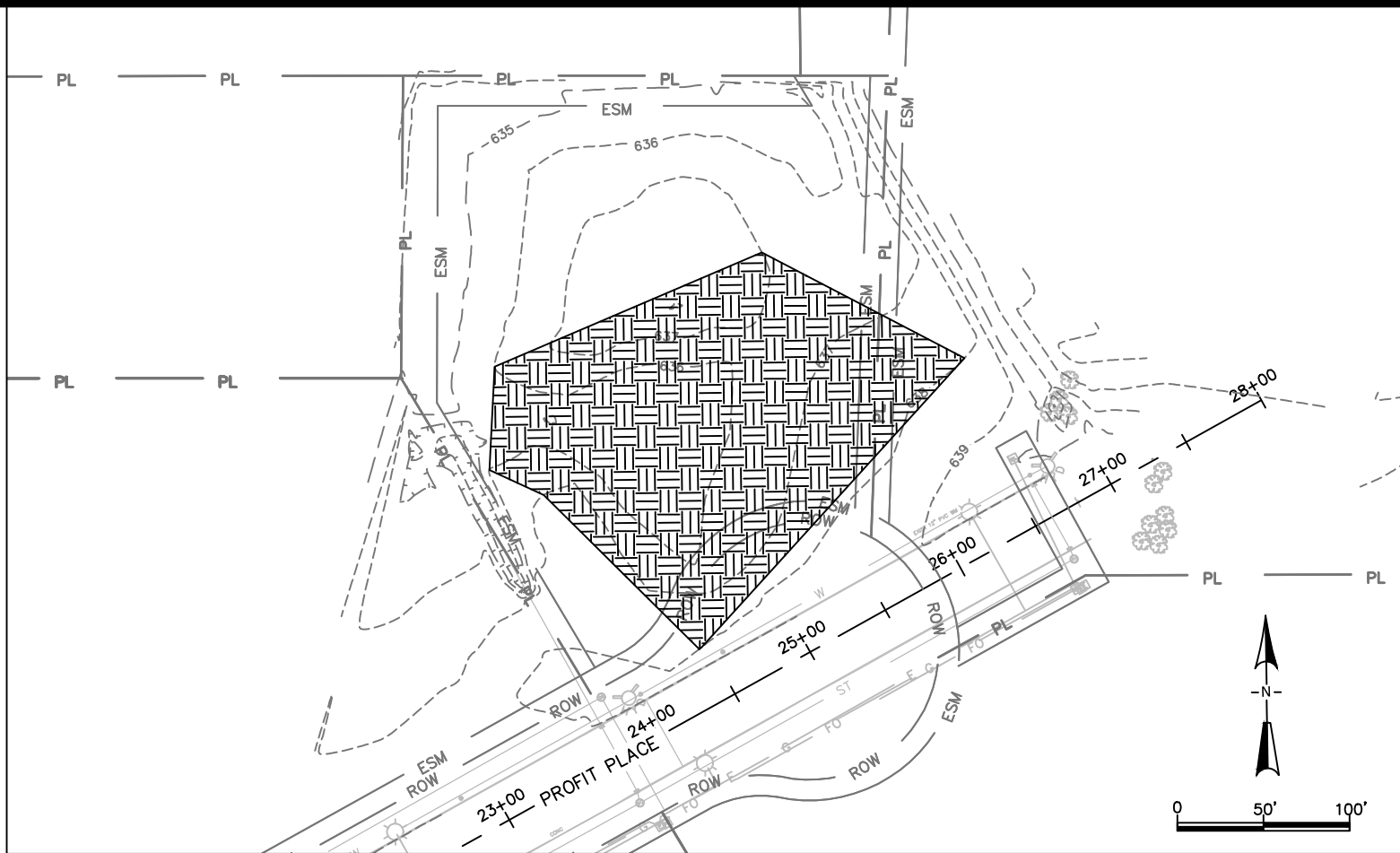
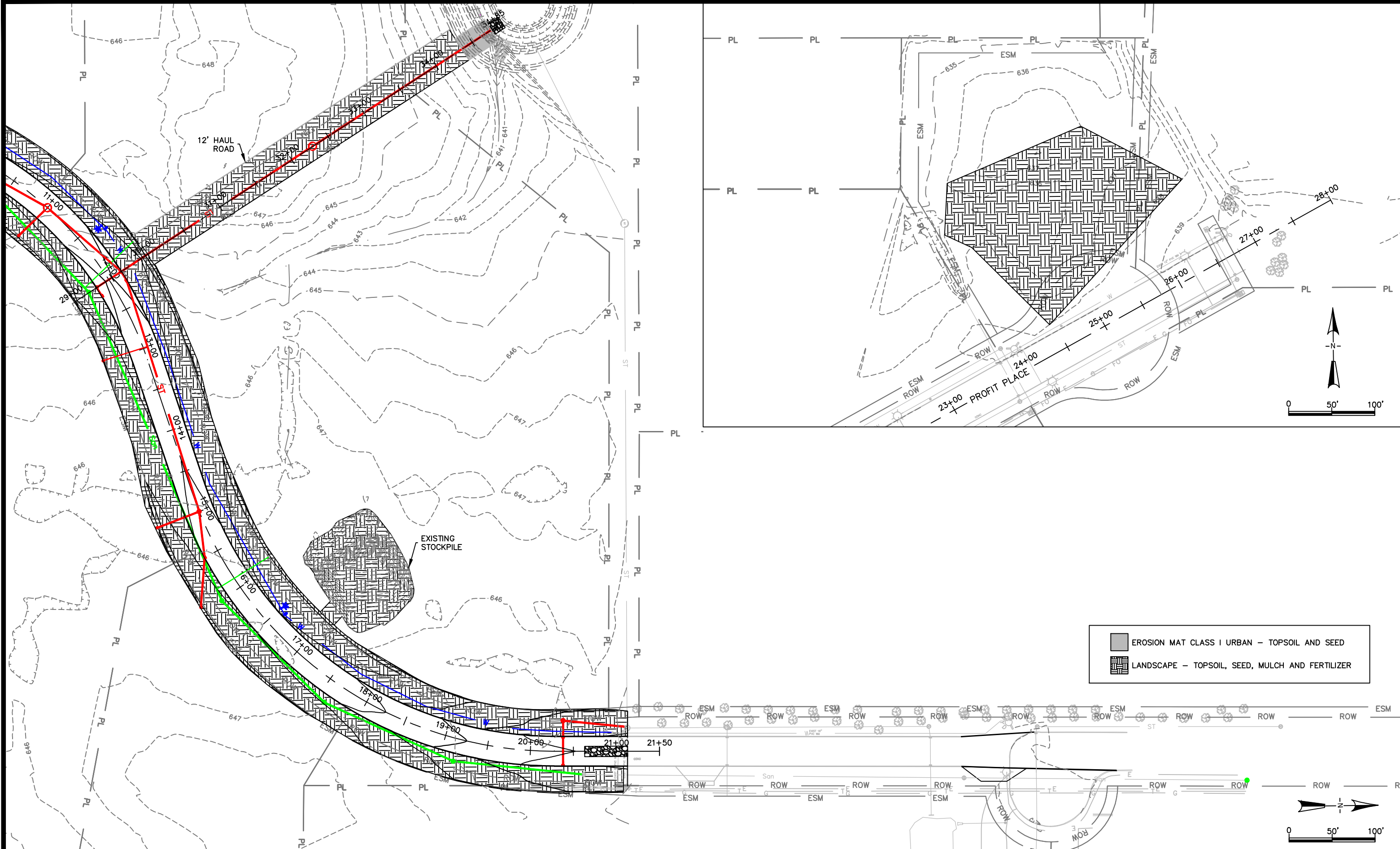
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UTILITY AND  
STREET EXTENSION  
PROJECT # 22-14

	BY	DATE
SURVEYED	MAL	04-2021
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REVISIONS / ISSUES			
NO.	DATE	BY	REMARKS

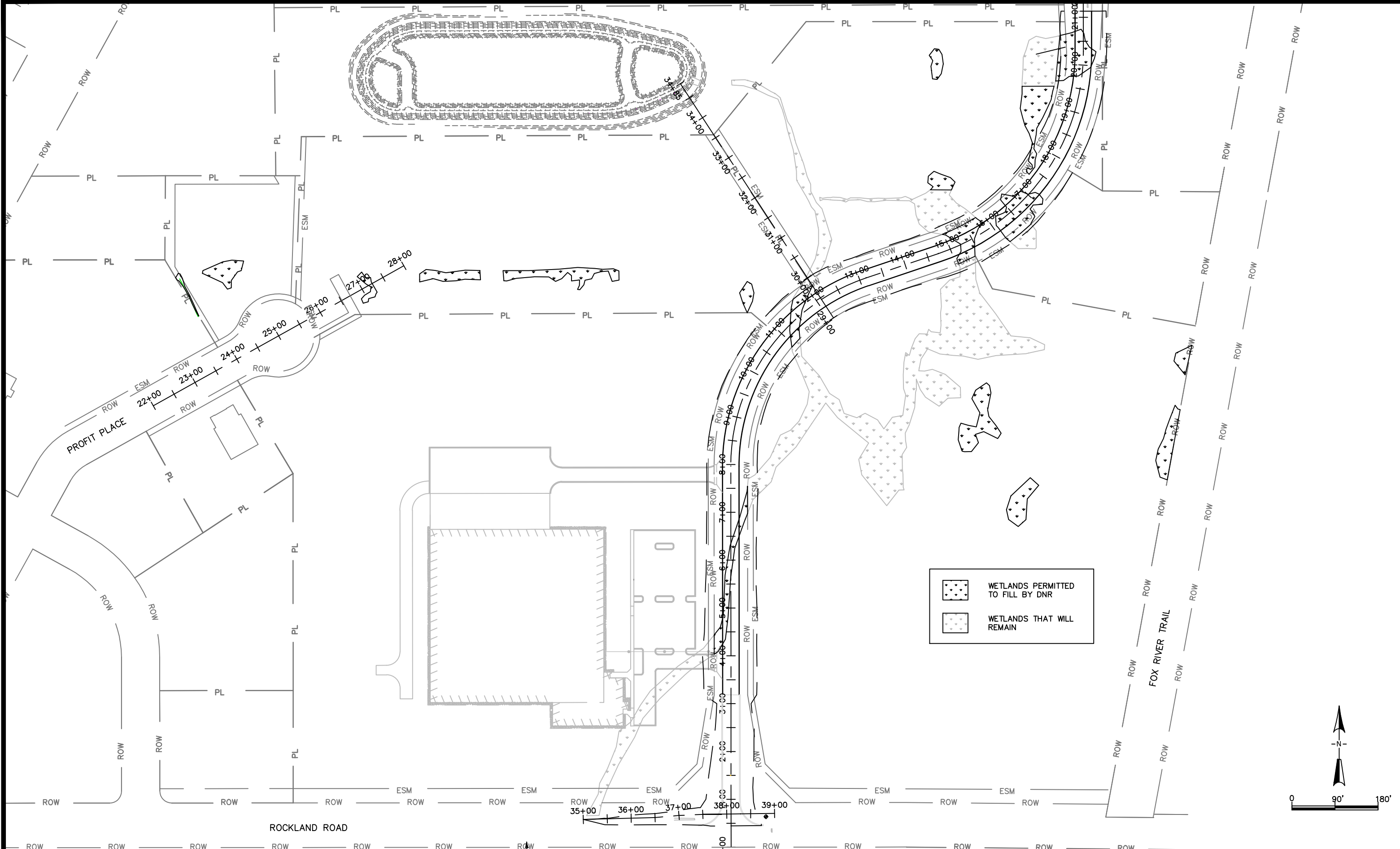
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- EROSION MAT CLASS I URBAN - TOPSOIL AND SEED
- LANDSCAPE - TOPSOIL, SEED, MULCH AND FERTILIZER

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CITY OF DE PERE

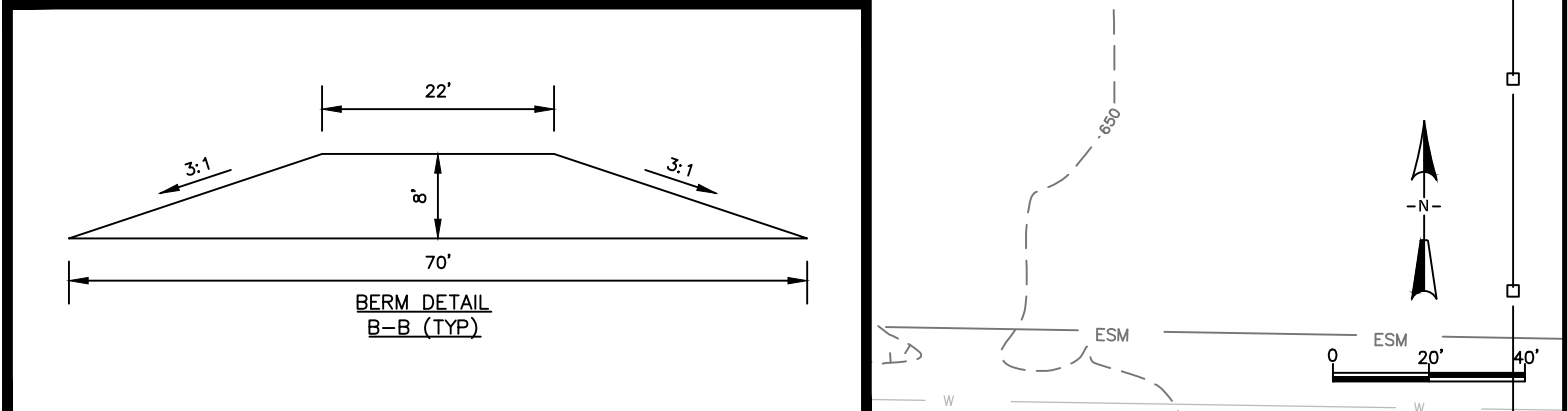
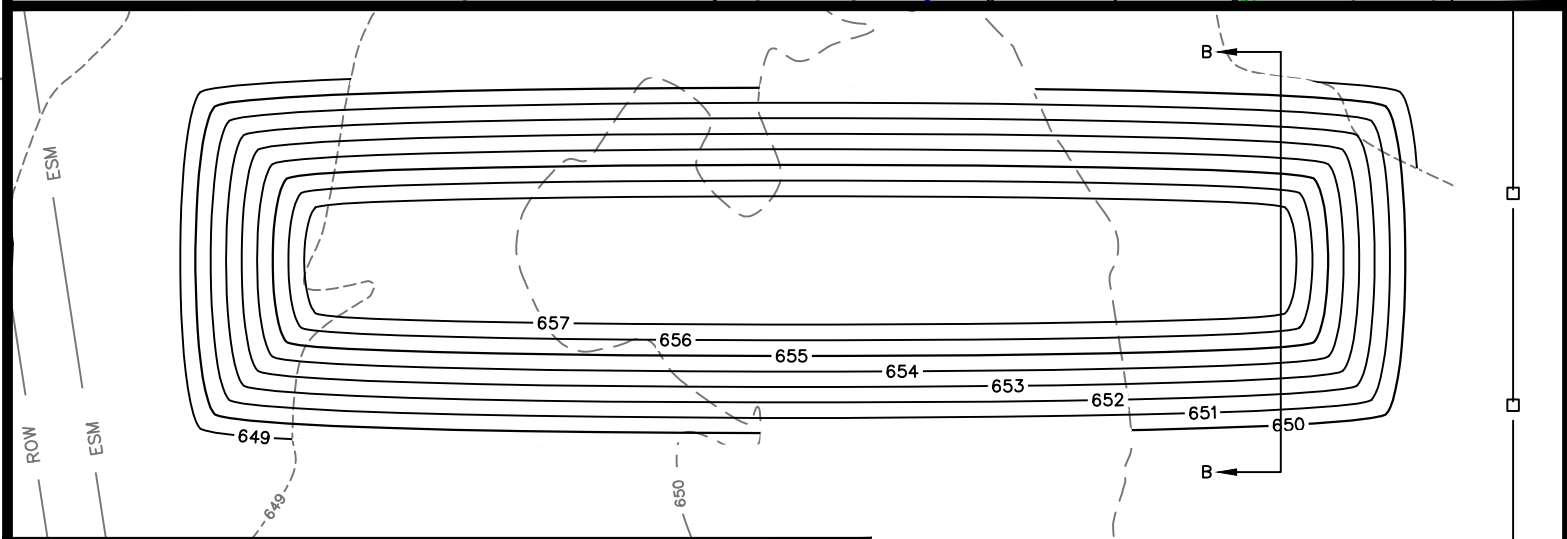
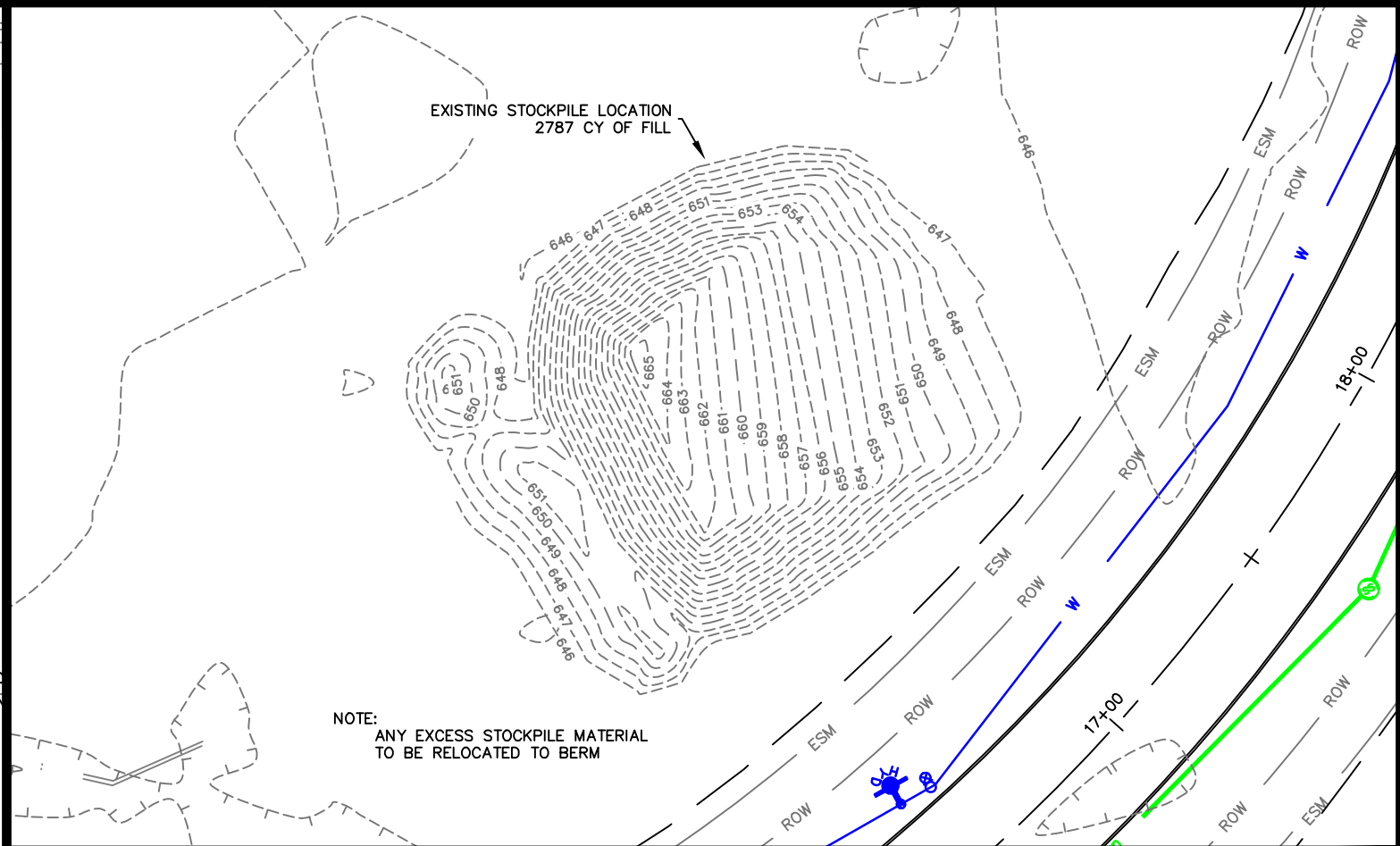
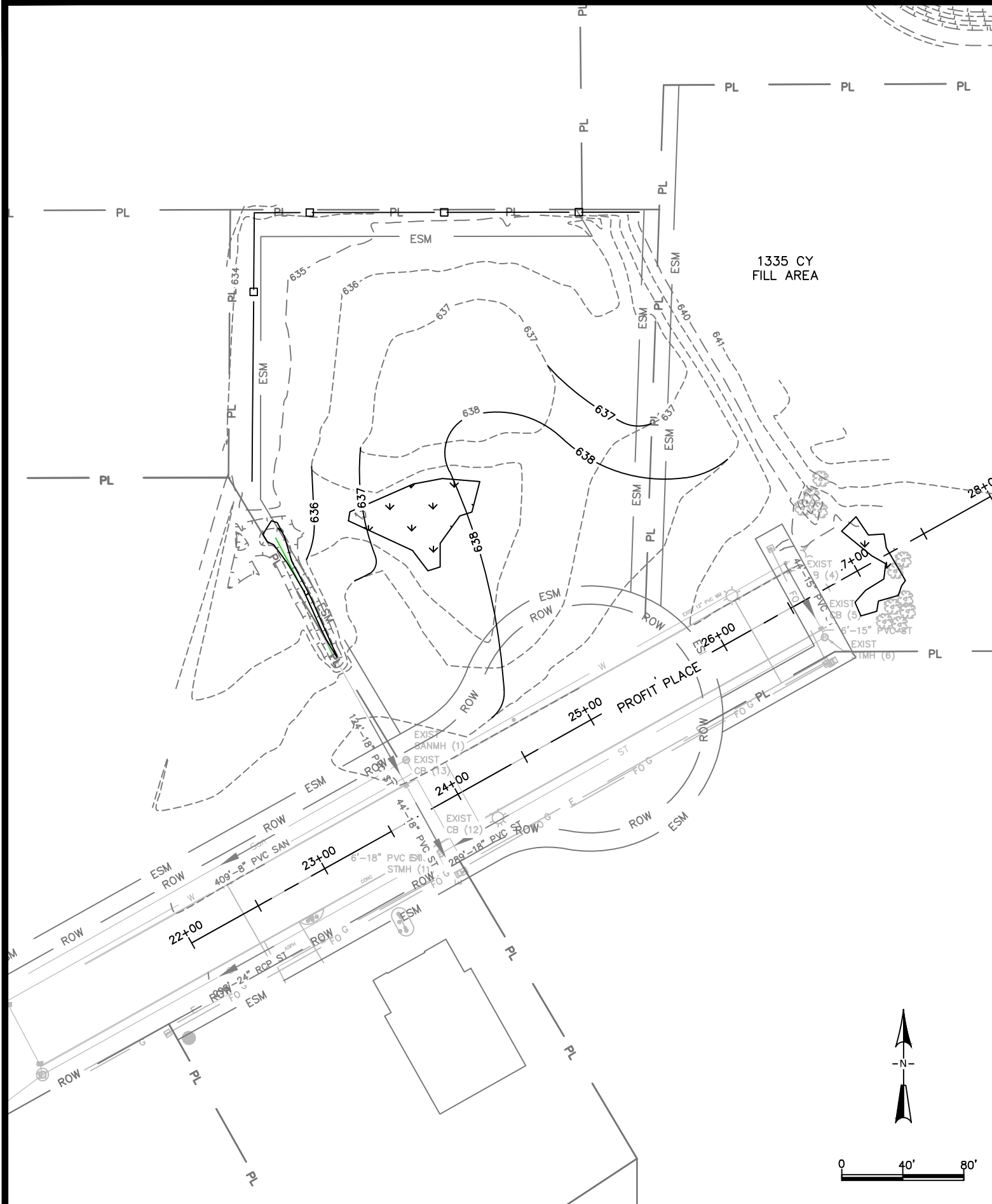
ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115  
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COMMERCE DRIVE / PROFIT PLACE  
EXISTING WETLAND

NAME: COMMERCE DRIVE  
UTILITY AND  
STREET EXTENSION  
PROJECT # 22-14

	BY	DATE
SURVEYED	MAL	04-2021
DRAWN	MAL	04-2021
DESIGNED	MAL	04-2021
CHECKED	CKK	04-2021

REVISIONS / ISSUES				
NO.	DATE	BY	REMARKS	



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CITY OF DE PERE

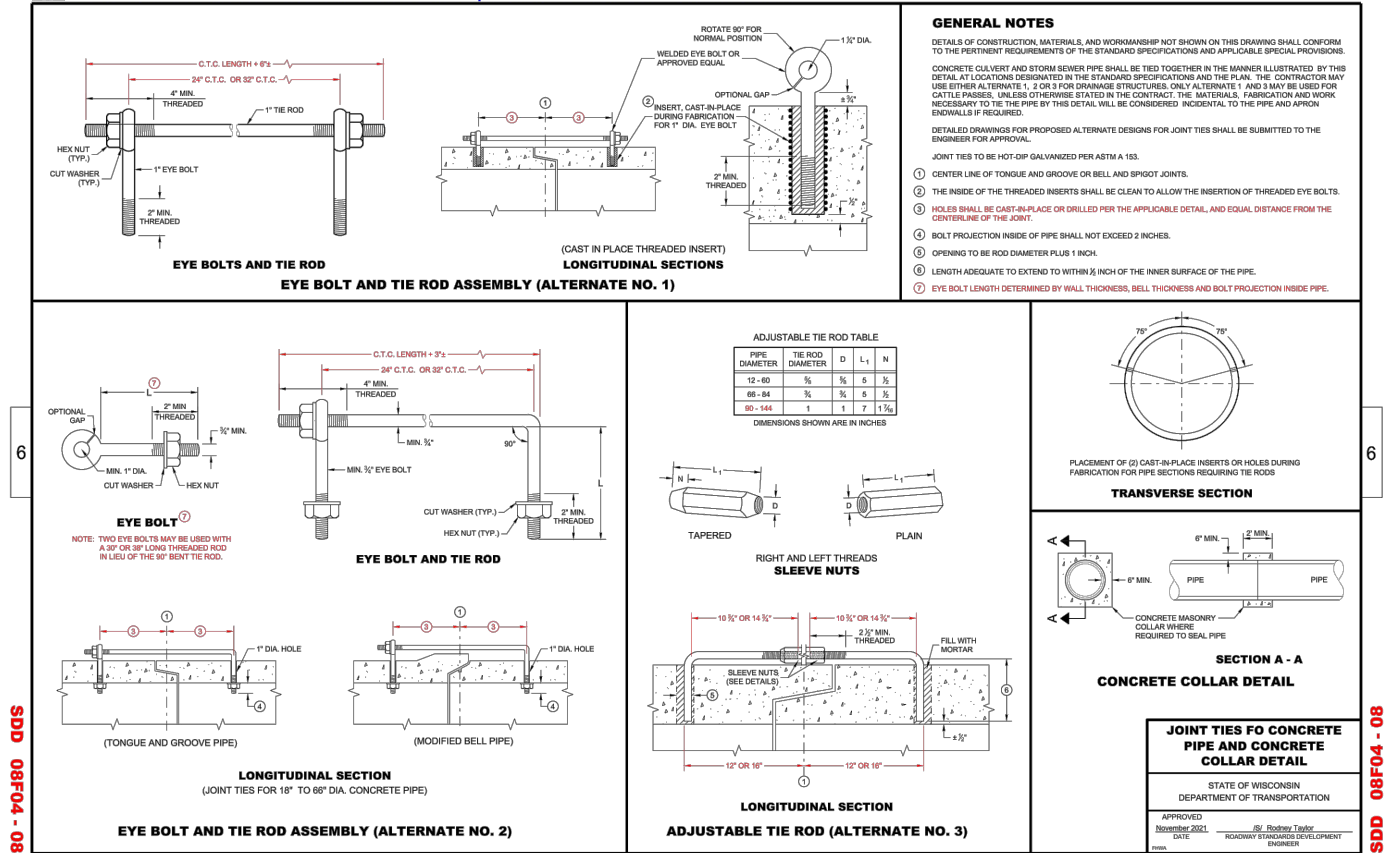
ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115  
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## COMMERCE DRIVE CONSTRUCTION DETAILS

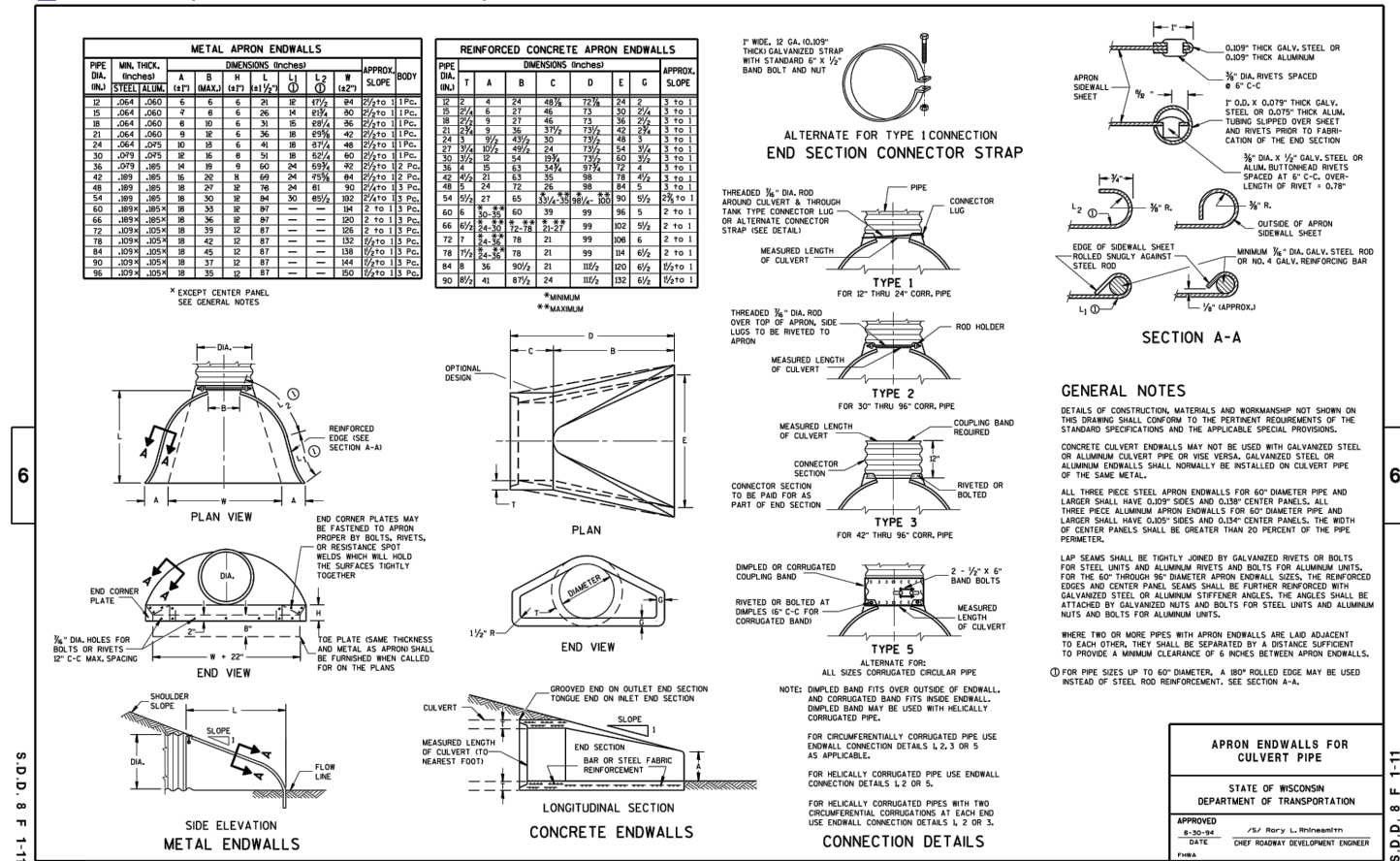
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	SURVEYED			NO.	DATE	BY	REMARKS
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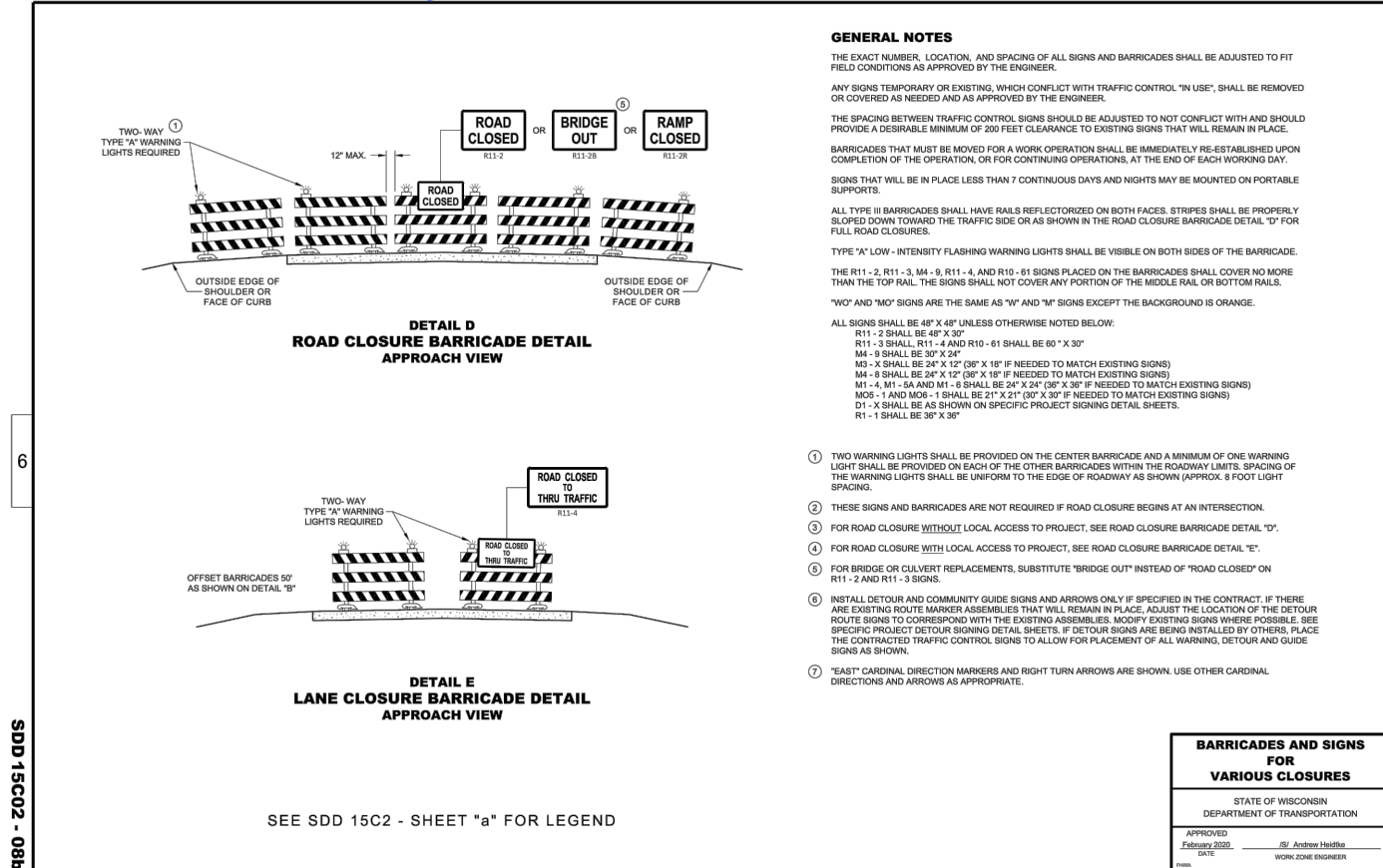
## SDD 08F04 Joint Ties for Concrete Pipe and Concrete Collar Detail



## SDD 8F1 Apron Endwalls for Culvert Pipe



## SDD 15C02-b Barricades and Sign for Various Closures



### CITY OF DE PERE

ENGINEERING DIVISION 925 S. SIXTH ST DE PERE WI 54115  
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### COMMERCE DRIVE CONSTRUCTION DETAILS

NAME:	COMMERCE DRIVE UTILITY AND STREET EXTENSION	BY	DATE	REVISIONS / ISSUES			PAGE NO.
				NO.	DATE	REMARKS	
PROJECT #	22-14	SURVEYED					C502
		DRAWN	04-2021				
		CHECKED	04-2021				