

HIGHWAY WORK PROPOSAL

Wisconsin Department of Transportation
DT1502 01/2020 s.66.0901(7) Wis. Stats

Proposal Number: **013**

<u>COUNTY</u>	<u>STATE PROJECT</u>	<u>FEDERAL</u>	<u>PROJECT DESCRIPTION</u>	<u>HIGHWAY</u>
Racine	2340-00-79	N/A	East Troy - Racine; Honey Creek Road To Buena Park Road	STH 020
Walworth Racine	2698-03-70	N/A	East Troy - Racine; Thomas Drive To Honey Creek Road	STH 020
Walworth Racine	2698-03-73	N/A	East Troy - Racine; Thomas Drive To Honey Creek Road	STH 020

ADDENDUM REQUIRED ATTACHED AT BACK

This proposal, submitted by the undersigned bidder to the Wisconsin Department of Transportation, is in accordance with the advertised request for proposals. The bidder is to furnish and deliver all materials, and to perform all work for the improvement of the designated project in the time specified, in accordance with the appended Proposal Requirements and Conditions.

Proposal Guaranty Required: \$340,000.00 Payable to: Wisconsin Department of Transportation	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Date: May 9, 2023 Time (Local Time): 9:00 am 11:00 am	Firm Name, Address, City, State, Zip Code <h3 style="margin: 0;">SAMPLE</h3> <h3 style="margin: 0;">NOT FOR BIDDING PURPOSES</h3>
Contract Completion Time October 25, 2024	This contract is exempt from federal oversight.
Assigned Disadvantaged Business Enterprise Goal 0%	

This certifies that the undersigned bidder, duly sworn, is an authorized representative of the firm named above; that the bidder has examined and carefully prepared the bid from the plans, Highway Work Proposal, and all addenda, and has checked the same in detail before submitting this proposal or bid; and that the bidder or 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 bid.

Do not sign, notarize, or submit this Highway Work Proposal when submitting an electronic bid on the Internet.

Subscribed and sworn to before me this date _____

(Signature, Notary Public, State of Wisconsin)

(Bidder Signature)

(Print or Type Name, Notary Public, State Wisconsin)

(Print or Type Bidder Name)

(Date Commission Expires)

(Bidder Title)

Notary Seal

Type of Work: Grading, Base, Milling, Asphalt Pavement, Culvert Pipe, Storm Sewer, Curb and Gutter, Sidewalk, Guardrail, Signs, Sign Structures, Pavement Markings, Traffic Signals, Street Lighting, Water Main, Modular Block Wall.	For Department Use Only
Notice of Award Dated	Date Guaranty Returned

**PLEASE ATTACH
PROPOSAL GUARANTY HERE**

PROPOSAL REQUIREMENTS AND CONDITIONS

The bidder, signing and submitting this proposal, agrees and declares as a condition thereof, to be bound by the following conditions and requirements.

If the bidder has a corporate relationship with the proposal design engineering company, the bidder declares that it did not obtain any facts, data, or other information related to this proposal from the design engineering company that was not available to all bidders.

The bidder declares that they have carefully examined the site of, and the proposal, plans, specifications and contract forms for the work contemplated, and it is assumed that the bidder has investigated and is satisfied as to the conditions to be encountered, as to the character, quality, and quantities of work to be performed and materials to be furnished, and as to the requirements of the specifications, special provisions and contract. It is mutually agreed that submission of a proposal shall be considered conclusive evidence that the bidder has made such examination.

The bidder submits herewith a proposal guaranty in proper form and amount payable to the party as designated in the advertisement inviting proposals, to be retained by and become the property of the owner of the work in the event the undersigned shall fail to execute the contract and contract bond and return the same to the office of the engineer within fourteen (14) days after having been notified in writing to do so; otherwise to be returned.

The bidder declares that they understand that the estimate of quantities in the attached schedule is approximate only and that the attached quantities may be greater or less in accordance with the specifications.

The bidder agrees to perform the said work, for and in consideration of the payment of the amount becoming due on account of work performed, according to the unit prices bid in the following schedule, and to accept such amounts in full payment of said work.

The bidder declares that all of the said work will be performed at their own proper cost and expense, that they will furnish all necessary materials, labor, tools, machinery, apparatus, and other means of construction in the manner provided in the applicable specifications and the approved plans for the work together with all standard and special designs that may be designed on such plans, and the special provisions in the contract of which this proposal will become a part, if and when accepted. The bidder further agrees that the applicable specifications and all plans and working drawings are made a part hereof, as fully and completely as if attached hereto.

The bidder, if awarded the contract, agrees to begin the work not later than ten (10) days after the date of written notification from the engineer to do so, unless otherwise stipulated in the special provisions.

The bidder declares that if they are awarded the contract, they will execute the contract agreement and begin and complete the work within the time named herein, and they will file a good and sufficient surety bond for the amount of the contract for performance and also for the full amount of the contract for payment.

The bidder, if awarded the contract, shall pay all claims as required by Section 779.14, Statutes of Wisconsin, and shall be subject to and discharge all liabilities for injuries pursuant to Chapter 102 of the Statutes of Wisconsin, and all acts amendatory thereto. They shall further be responsible for any damages to property or injury to persons occurring through their own negligence or that of their employees or agents, incident to the performance of work under this contract, pursuant to the Standard Specifications for Road and Bridge Construction applicable to this contract.

In connection with the performance of work under this contract, the contractor agrees to comply with all applicable state and federal statutes relating to non-discrimination in employment. No otherwise qualified person shall be excluded from employment or otherwise be subject to discrimination in employment in any manner on the basis of age, race, religion, color, gender, national origin or ancestry, disability, arrest or conviction record (in keeping with s.111.32), sexual orientation, marital status, membership in the military reserve, honesty testing, genetic testing, and outside use of lawful products. This provision shall include, but not be limited to the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation, and selection for training, including apprenticeship. The contractor further agrees to ensure equal opportunity in employment to all applicants and employees and to take affirmative action to attain a representative workforce.

The contractor agrees to post notices and posters setting forth the provisions of the nondiscrimination clause, in a conspicuous and easily accessible place, available for employees and applicants for employment.

If a state public official (section 19.42, Stats.) or an organization in which a state public official holds at least a 10% interest is a party to this agreement, this contract is voidable by the state unless appropriate disclosure is made to the State of Wisconsin Ethics Board.

BID PREPARATION

Preparing the Proposal Schedule of Items

A. General

- (1) Obtain bidding proposals as specified in section 102 of the standard specifications prior to 11:45 AM of the last business day preceding the letting. Submit bidding proposals using one of the following methods:
 1. Electronic bid on the internet.
 2. Electronic bid on a printout with accompanying diskette or CD ROM.
 3. Paper bid under a waiver of the electronic submittal requirements.
- (2) Bids submitted on a printout with accompanying diskette or CD ROM or paper bids submitted under a waiver of the electronic submittal requirements govern over bids submitted on the internet.
- (3) The department will provide bidding information through the department's web site at:

<https://wisconsin.gov/Pages/doing-bus/contractors/hcci/bid-let.aspx>

The contractor is responsible for reviewing this web site for general notices as well as information regarding proposals in each letting. The department will also post special notices of all addenda to each proposal through this web site no later than 4:00 PM local time on the Thursday before the letting. Check the department's web site after 5:00 PM local time on the Thursday before the letting to ensure all addenda have been accounted for before preparing the bid. When bidding using methods 1 and 2 above, check the Bid Express™ on-line bidding exchange at <http://www.bidx.com/> after 5:00 PM local time on the Thursday before the letting to ensure that the latest schedule of items Expedite file (*.ebs or *.00x) is used to submit the final bid.

- (4) Interested parties can subscribe to the Bid Express™ on-line bidding exchange by following the instructions provided at the www.bidx.com web site or by contacting:

Info Tech Inc.
5700 SW 34th Street, Suite 1235
Gainesville, FL 32608-5371
email: <mailto:customer.support@bidx.com>

- (5) The department will address equipment and process failures, if the bidder can demonstrate that those failures were beyond their control.
- (6) Contractors are responsible for checking on the issuance of addenda and for obtaining the addenda. Notice of issuance of addenda is posted on the department's web site at:

<https://wisconsin.gov/Pages/doing-bus/contractors/hcci/bid-let.aspx>

or by calling the department at (608) 266-1631. Addenda can ONLY be obtained from the department's web site listed above or by picking up the addenda at the Bureau of Highway Construction, 4th floor, 4822 Madison Yards Way, Madison, WI, during regular business hours.

- (7) Addenda posted after 5:00 PM on the Thursday before the letting will be emailed to the eligible bidders for that proposal. All eligible bidders shall acknowledge receipt of the addenda whether they are bidding on the proposal or not. Not acknowledging receipt may jeopardize the awarding of the project.

B. Submitting Electronic Bids

B.1 On the Internet

- (1) Do the following before submitting the bid:
 4. Have a properly executed annual bid bond on file with the department.
 5. Have a digital ID on file with and enabled by Info Tech Inc. Using this digital ID will constitute the bidder's signature for proper execution of the bidding proposal.
- (2) In lieu of preparing, delivering, and submitting the proposal as specified in 102.6 and 102.9 of the standard specifications, submit the proposal on the internet as follows:
 1. Download the latest schedule of items reflecting all addenda from the Bid Express™ web site.
 2. Use Expedite™ software to enter a unit price for every item in the schedule of items.
 3. Submit the bid according to the requirements of Expedite™ software and the Bid Express™ web site. Do not submit a bid on a printout with accompanying diskette or CD ROM or a paper bid. If the bidder does submit a bid on a printout with accompanying diskette or a paper bid in addition to the internet submittal, the department will disregard the internet bid.
 4. Submit the bid before the hour and date the Notice to Contractors designates.
 5. Do not sign, notarize, and return the bidding proposal described in 102.2 of the standard specifications.
- (3) The department will not consider the bid accepted until the hour and date the Notice to Contractors designates.

B.2 On a Printout with Accompanying Diskette or CD ROM

- (1) Download the latest schedule of items from the Wisconsin pages of the Bid Express web site reflecting the latest addenda posted on the department's web site at:
<https://wisconsin.gov/Pages/doing-bus/contractors/hcci/bid-let.aspx>
 Use Expedite™ software to prepare and print the schedule of items. Provide a valid amount for all price fields. Follow instructions and review the help screens provided on the Bid Express™ web site to assure that the schedule of items is prepared properly.

- (2) Staple an 8 1/2 by 11 inch printout of the Expedite™ generated schedule of items to the other proposal documents submitted to the department as a part of the bidder's sealed bid. As a separate submittal, not in the sealed bid envelope but due at the same time and place as the sealed bid, also provide the Expedite™ generated schedule of items on a 3 1/2 inch computer diskette or CD ROM. Label each diskette or CD ROM with the bidder's name, the 4 character department-assigned bidder identification code from the top of the bidding proposal, and a list of the proposal numbers included on that diskette or CD ROM as indicated in the following example:

Bidder Name

BN00

Proposals: 1, 12, 14, & 22

- (3) If bidding on more than one proposal in the letting, the bidder may include all proposals for that letting on one diskette or CD ROM. Include only submitted proposals with no incomplete or other files on the diskette or CD ROM.
- (4) The bidder-submitted printout of the Expedite™ generated schedule of items is the governing contract document and must conform to the requirements of section 102 of the standard specifications. If a printout needs to be altered, cross out the printed information with ink or typewriter and enter the new information and initial it in ink. If there is a discrepancy between the printout and the diskette or CD ROM, the department will analyze the bid using the printout information.

- (5) In addition to the reasons specified in section 102 of the standard specifications, proposals are irregular and the department may reject them for one or more of the following:
1. The check code printed on the bottom of the printout of the Expedite™ generated schedule of items is not the same on each page.
 2. The check code printed on the printout of the Expedite™ generated schedule of items is not the same as the check code for that proposal provided on the diskette or CD ROM.
 3. The diskette or CD ROM is not submitted at the time and place the department designates.

B Waiver of Electronic Submittal

- (1) The bidder may request a waiver of the electronic submittal requirements. Submit a written request for a waiver in lieu of bids submitted on the internet or on a printout with accompanying diskette or CD ROM. Use the waiver that was included with the paper bid document sent to the bidder or type up a waiver on the bidder's letterhead. The department will waive the electronic submittal requirements for a bidding entity (individual, partnership, joint venture, corporation, or limited liability company) for up to 4 individual proposals in a calendar year. The department may allow additional waivers for equipment malfunctions.
- (2) Submit a schedule of items on paper conforming to section 102 of the standard specifications. The department charges the bidder a \$75 administrative fee per proposal, payable at the time and place the department designates for receiving bids, to cover the costs of data entry. The department will accept a check or money order payable to: "Wisconsin, Dept. of Transportation."
- (3) In addition to the reasons specified in section 102 of the standard specifications, proposals are irregular and the department may reject them for one or more of the following:
 1. The bidder fails to provide the written request for waiver of the electronic submittal requirements.
 2. The bidder fails to pay the \$75 administrative fee before the time the department designates for the opening of bids unless the bidder requests on the waiver that they be billed for the \$75.
 3. The bidder exceeds 4 waivers of electronic submittal requirements within a calendar year.
- (4) In addition to the reasons specified in section 102 of the standard specifications, the department may refuse to issue bidding proposals for future contracts to a bidding entity that owes the department administrative fees for a waiver of electronic submittal requirements.

PROPOSAL BID BOND

DT1303 1/2006

Wisconsin Department of Transportation

Proposal Number	Project Number	Letting Date
Name of Principal		
Name of Surety	State in Which Surety is Organized	

We, the above-named Principal and the above-named Surety, are held and firmly bound unto the State of Wisconsin in the sum equal to the Proposal Guaranty for the total bid submitted for the payment to be made; we jointly and severally bind ourselves, our heirs, executors, administrators, successors and assigns. The condition of this obligation is that the Principal has submitted a bid proposal to the State of Wisconsin acting through the Department of Transportation for the improvement designated by the Proposal Number and Letting Date indicated above.

If the Principal is awarded the contract and, within the time and manner required by law after the prescribed forms are presented for signature, enters into a written contract in accordance with the bid, and files the bond with the Department of Transportation to guarantee faithful performance and payment for labor and materials, as required by law, or if the Department of Transportation shall reject all bids for the work described, then this obligation shall be null and void; otherwise, it shall be and remain in full force and effect. In the event of failure of the Principal to enter into the contract or give the specified bond, the Principal shall pay to the Department of Transportation **within 10 business days of demand** a total equal to the Proposal Guaranty as liquidated damages; the liability of the Surety continues for the full amount of the obligation as stated until the obligation is paid in full.

The Surety, for value received, agrees that the obligations of it and its bond shall not be impaired or affected by any extension of time within which the Department of Transportation may accept the bid; and the Surety does waive notice of any such extension.

IN WITNESS, the Principal and Surety have agreed and have signed by their proper officers and have caused their corporate seals to be affixed this date: **(DATE MUST BE ENTERED)**

PRINCIPAL

(Company Name) **(Affix Corporate Seal)**

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

(Name of Surety) **(Affix Seal)**

(Signature of Attorney-in-Fact)

NOTARY FOR PRINCIPAL

(Date)

State of Wisconsin)
) ss.
_____ County)

On the above date, this instrument was acknowledged before me by the named person(s).

(Signature, Notary Public, State of Wisconsin)

(Print or Type Name, Notary Public, State of Wisconsin)

(Date Commission Expires)

Notary Seal

NOTARY FOR SURETY

(Date)

State of Wisconsin)
) ss.
_____ County)

On the above date, this instrument was acknowledged before me by the named person(s).

(Signature, Notary Public, State of Wisconsin)

(Print or Type Name, Notary Public, State of Wisconsin)

(Date Commission Expires)

Notary Seal

IMPORTANT: A certified copy of Power of Attorney of the signatory agent must be attached to the bid bond.

CERTIFICATE OF ANNUAL BID BOND

DT1305 8/2003

Wisconsin Department of Transportation

Time Period Valid (From/To)
Name of Surety
Name of Contractor
Certificate Holder Wisconsin Department of Transportation

This is to certify that an annual bid bond issued by the above-named Surety is currently on file with the Wisconsin Department of Transportation.

This certificate is issued as a matter of information and conveys no rights upon the certificate holder and does not amend, extend or alter the coverage of the annual bid bond.

Cancellation: Should the above policy be cancelled before the expiration date, the issuing surety will give thirty (30) days written notice to the certificate holder indicated above.

(Signature of Authorized Contractor Representative)

(Date)

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, AND OTHER RESPONSIBILITY MATTERS - PRIMARY COVERED TRANSACTIONS

Instructions for Certification

1. By signing and submitting this proposal, the prospective contractor is providing the certification set out below.
2. The inability of a person to provide the certification required below will not necessarily result in denial of participation in this covered transaction. The prospective contractor shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective contractor to furnish a certification or an explanation shall disqualify such person from participation in this transaction.
3. The certification in this clause is a material representation of fact upon which reliance was placed when the department determined to enter into this transaction. If it is later determined that the contractor knowingly rendered an erroneous certification in addition to other remedies available to the Federal Government the department may terminate this transaction for cause or default.
4. The prospective contractor shall provide immediate written notice to the department to whom this proposal is submitted if at any time the prospective contractor learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
5. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the department to which this proposal is being submitted for assistance in obtaining a copy of those regulations.
6. The prospective contractor agrees by submitting this proposal that, should this contract be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department entering into this transaction.
7. The prospective contractor further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," which is included as an addendum to PR- 1273 - "Required Contract Provisions Federal Aid Construction Contracts," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
8. The contractor may rely upon a certification of a prospective subcontractor/materials supplier that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A contractor may decide the method and frequency by which it determines the eligibility of its principals. Each contractor may, but is not required to, check the Disapproval List (telephone # 608/266/1631).

9. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a contractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
10. Except for transactions authorized under paragraph 6 of these instructions, if a contractor in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department may terminate this transaction for cause or default.

Certification Regarding Debarment, Suspension, and Other Responsibility Matters - Primary Covered Transactions

1. The prospective contractor certifies to the best of its knowledge and belief, that it and its principals:
 - (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;
 - (b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements or receiving stolen property;
 - (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offense enumerated in paragraph (1)(b) of this certification; and
 - (d) Have not within a three-year period preceding this proposal had one or more public transactions (Federal, State or local) terminated for cause or default.
2. Where the prospective contractor is unable to certify to any of the statements in this certification, such prospective contractor shall attach an explanation to this proposal.

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STSP'S Revised January 13, 2023

SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for Projects 2340-00-79, East Troy – Racine, Honey Creek Road to Buena Park Road, STH 20, Racine County, Wisconsin; 2698-03-70 and 2698-03-73, East Troy – Racine, Thomas Drive to Honey Creek Road, STH 20, Walworth and Racine Counties, Wisconsin as the plans show and execute the work as specified in the State of Wisconsin, Department of Transportation, Standard Specifications for Highway and Structure Construction, 2023 Edition, as published by the department, and these special provisions.

If all or a portion of the plans and special provisions are developed in the SI metric system and the schedule of prices is developed in the US standard measure system, the department will pay for the work as bid in the US standard system.

100-005 (20230113)

2. Scope of Work.

The work under this contract shall consist of removals, excavation common, base aggregate, HMA pavement, pipe culverts, concrete curb and gutter, concrete sidewalk, concrete barrier wall, storm sewer, sanitary sewer, water main, erosion control, traffic control, restoration, pavement marking, traffic signals, beam guard, retaining wall, permanent signing, and all incidental items necessary to complete the work as shown on the plans and included in the proposal and contract.

104-005 (20090901)

3. Prosecution and Progress.

Begin work within 10 calendar days after the engineer issues a written notice to do so.

Provide the start date to the engineer in writing within a month after executing the contract but at least 14 calendar days before the preconstruction conference. Upon approval, the engineer will issue the notice to proceed within 10 calendar days before the approved start date.

To revise the start date, submit a written request to the engineer at least two weeks before the intended start date. The engineer will approve or deny that request based on the conditions cited in the request and its effect on the department's scheduled resources.

The contract time for completion is based on an expedited work schedule and may require extraordinary forces and equipment.

Attend weekly scheduling meetings to discuss the near-term schedule activities, address any long-term schedule issues, and discuss any relevant technical issues. Develop a rolling three-week schedule identifying the previous week worked and a two-week "look ahead". Provide sufficient detail to include actual and planned activities and all the subcontractors for offsite and construction activities, addressing all activities inclining ramp and lane closures schedules to be performed and identifying issues requiring engineering action or input. Subcontractors shall attend the weekly progress meetings if identified on the two week "look ahead".

Conform to the construction staging as described herein:

- Stage 1
 - CTH ES Temporary signals
 - Water Main and Sanitary Sewer – STH 20
 - Roadway Construction Station 884+75 and 913+00
 - Temporary Crossover (Construction detail – Temporary Crossover – Stage 2 and 3)
 - Stage 2 temporary pavement widening Station 910+45 to 916+50 (Construction Detail Temporary Pavement Widening – Stage 2)
 - Traffic Control over winter (Traffic Control – Over Winter – Between Stage 1 and 2)

- Stage 2
 - Stage 2 temporary pavement widening Station 916+50 to 954+50 (Construction Detail Temporary Pavement Widening – Stage 2)
 - Clearing and Grubbing Station 942+00 to 1365+50 STH 20 (See NLEB clearing restrictions)
 - Water Main – CTH ES
 - Roadway Construction Station 913+00 to 942+00 STH 20 EB, CTH ES south leg, and STH 83
 - Stage 3 temporary pavement widening (Construction Detail – Temporary Pavement Widening – Stage 3)
 - CTH ES Traffic Signals
- Stage 3
 - Roadway Construction Station 913+00 to 942+00 STH 20 WB, 942+00 to 1365+50 STH 20, CTH ES north leg and CTH L
 - Temporary Cross Over and Temporary pavement removal and restoration
 - CTH ES Traffic Signals

Enhanced Final Liquidated Damages

Replace standard spec 108.11 paragraph (3) as follows:

The department will assess \$7,500 in daily liquidated damages. These liquidated damages reflect the cost of engineering, supervision, and a portion of road user costs.

Winter Shutdown

Winter shutdown will commence with the completion of Stage 1 in the Fall of 2023. Do not resume work until March 1, 2024, unless approved by the engineer. Provide a start date in writing at least 14 days prior to the planned recommencement of work in 2024. Upon approval the engineer will issue the notice to proceed within 10 days of the approved start date.

If construction is allowed before March 1, 2024, by the engineer, the contractor is responsible for any additional costs related to the early start.

Interim Completion and Liquidated Damages – CTH ES South Leg: 21 Calendar Days

During Stage 2, close CTH ES South Leg to through traffic for a maximum of 21 calendar days. Do not reopen until completing the following work: excavation, base aggregate, HMA pavement, concrete curb and gutter, storm sewer, culverts, permanent pavement markings, concrete sidewalk, and final restoration on CTH ES South Leg within the limits shown on the "Traffic Control – Stage 2 CTH ES South Leg Open on New Pavement" plans.

If the contractor fails to complete the work necessary to reopen CTH ES South Leg to traffic within 21 calendar days, the department will assess the contractor \$5000 in interim liquidated damages for each calendar day the contract work remains incomplete beyond 21 calendar days. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

If contract time expires prior to completing all work specified in the contract, additional liquidated damages will be affixed according to standard spec 108.11.

Interim Completion and Liquidated Damages – STH 83: 14 Calendar Days, and by May 31, 2024

During Stage 2, utilize flagging operation on STH 83 for a maximum of 14 calendar days, and be complete by May 31, 2024. Complete the following work: asphaltic milling, HMA pavement, apron end wall replacement, permanent pavement markings, permanent signing, and final restoration on STH 83.

If the contractor fails to complete the work on STH 83 within 14 calendar days, the department will assess the contractor \$2000 in interim liquidated damages for each calendar day the contract work remains incomplete beyond 14 calendar days. An entire calendar day will be charged for any period of time within a calendar day that the work remains incomplete beyond 12:01 AM.

If the contractor fails to complete the work on STH 83 by May 31, 2024, the department will assess the contractor \$2000 in interim liquidated damages for each calendar day the contract work remains incomplete beyond 12:01 AM on June 1, 2024. An entire calendar day will be charged for any period of time within a calendar day that the work remains incomplete beyond 12:01 AM.

If contract time expires prior to completing all work specified in the contract, additional liquidated damages will be affixed according to standard spec 108.11.

Interim Completion and Liquidated Damages – Stage 2: June 30, 2024

Complete construction operations in Stage 2 to the stage necessary to switch to Stage 3 by June 30, 2024. Do not switch to Stage 3 until completing the following work: Stage 2 excavation, base aggregate, HMA pavement, concrete curb and gutter, storm sewer, culverts, temporary pavement markings, concrete sidewalk, beam guard, final restoration, and Stage 3 traffic control.

If the contractor fails to complete the work necessary to switch to Stage 3 by June 30, 2024, the department will assess the contractor \$7500 in interim liquidated damages for each calendar day the contract work remains incomplete beyond 12:01 AM on July 1, 2024. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

If contract time expires prior to completing all work specified in the contract, additional liquidated damages will be affixed according to standard spec 108.11.

Interim Completion and Liquidated Damages – CTH ES North Leg: 21 Calendar Days

At the beginning of Stage 3, close CTH ES North Leg to through traffic for a maximum of 21 calendar days. Do not reopen until completing the following work: excavation, base aggregate, HMA pavement, concrete curb and gutter, storm sewer, culverts, permanent pavement markings, concrete sidewalk, and final restoration on CTH ES North Leg within the limits shown on the "Traffic Control – Stage 3 CHE ES North Leg Open" plans.

If the contractor fails to complete the work necessary to reopen CTH ES North Leg to traffic within 21 calendar days, the department will assess the contractor \$3000 in interim liquidated damages for each calendar day the contract work remains incomplete beyond 21 calendar days. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

If contract time expires prior to completing all work specified in the contract, additional liquidated damages will be affixed according to standard spec 108.11.

Interim Completion and Liquidated Damages – CTH L: 14 Calendar Days

During Stage 3, close CTH L to through traffic for a maximum of 14 calendar days. Do not reopen until completing the following work: excavation, base aggregate, HMA pavement, concrete curb and gutter, permanent pavement markings, permanent signing, concrete sidewalk, and final restoration on CTH L and Station 939+50 to 941+00 STH 20 WB.

If the contractor fails to complete the work necessary to reopen CTH L to traffic within 14 calendar days, the department will assess the contractor \$1500 in interim liquidated damages for each calendar day the contract work remains incomplete beyond 14 calendar days. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

Operations

Perform storm sewer, culvert, sanitary sewer, and water main removals and installations prior to subgrade construction and placement of breaker run and base aggregate.

Perform earthwork operations, placement of breaker run and an initial lift of base course as a continuous operation to prevent the subgrade from obtaining moisture and becoming unstable. Within 96 hours of removing the existing pavement structure and base course from any location along the roadway, construct that portion of the roadway by cutting / filling the final subgrade, placing breaker run and the first lift of base course. If the weather forecast predicts rain within 48 hours, complete all earthwork, placement of breaker run, and first lift of base course on any areas where the existing pavement and base course have been removed.

Upon completion of the work by East Troy Railroad Museum, Inc at Station 904+00, place and maintain HMA pavement or base aggregate as necessary to ramp for local and construction traffic crossing, as directed by the engineer. Coordinate with East Troy Railroad Museum, Inc consistent with the Article Railroad Insurance and Coordination – East Troy Railroad Museum, Inc.

Upon completion of the work by Wisconsin Central LTD (CN) at Station 1181+50, place and maintain HMA pavement or base aggregate as necessary to ramp for local and construction traffic crossing, as directed by the engineer. Coordinate with Wisconsin Central LTD (CN) consistent with the Article Railroad Insurance and Coordination – Wisconsin Central LTD (CN).

Restore roadway pavements as shown in the plan at culvert crossings within 96 hours of beginning culvert installation at a given location. Culvert installations across STH 20 in resurfacing segments shall take place prior to the milling of the adjacent asphalt pavement. Roadway pavements at culvert crossings in reconstruction segments are not required to be restored if the adjacent roadway surface has already been removed.

Perform removal and installation of guardrail at each location in one continuous operation. Complete removal and installation of guardrail, type 2 terminals, three beam, and energy absorbing terminal within 96 hours or before a weekend or holiday whichever comes first. Appropriate traffic control must be in place during the removal and installation as approved by the engineer. Guard rail locations within “closed to all traffic” sections, Station 1150+00 to 1169+00 and Miller Road to Honey Creek Road South, are exempt from 96-hour time requirement.

Backfill holes created from Removing Guardrail with Backfill Slurry before grading operations or installing new Guardrail in each area.

Complete Asphaltic Base Patching before performing Removing Asphaltic Surface Milling. There may be additional base patches to be completed after the Asphaltic Surface Milling is complete as identified by the engineer. Complete full roadway width asphaltic base patches half at a time or as approved by the engineer. The contractor is responsible for preserving and reestablishing the centerline profile if the engineer allows full width patches.

Complete shoulder widening (excavation and base aggregate) prior to Removing Asphaltic Surface Milling of the existing pavement.

Complete Asphaltic Repair after Removing Asphaltic Surface Milling of the existing pavement.

Place HMA pavement on milled surface within 96 hours of milling operation.

For STH 83 resurfacing: Place temporary pavement markings on any milled pavement that will not be covered with HMA Pavement by the end of the workday.

Complete all Stage 1 HMA paving by October 1, 2023.

Complete all other HMA paving, besides Stage 1 HMA pavement by October 1, 2024.

Both the East Troy Railroad Museum, Inc and Wisconsin Central Ltd (CN) railroad crossings require a complete closure of STH 20. Schedule and coordinate with both railroads and provide a 3 week schedule allowance for their crossing work to be completed. East Troy Railroad Museum, Inc work will be in Stage 1. Wisconsin Central Ltd (CN) work will be in Stage 3.

Northern Long-eared Bat (*Myotis septentrionalis*) Station 918+00 to 1203+10 and Project 2340-00-79

Northern long-eared bats (NLEB) have the potential to inhabit the project limits because they roost in trees, bridges and culverts. Roosts may not have been observed on this project, but conditions to support the species exist. The species and all active roosts are protected by the federal Endangered Species Act. If an individual bat or active roost is encountered during construction operations, stop work and notify the engineer and the WisDOT Regional Environmental Coordinator (REC).

Ensure all operators, employees, and subcontractors working in areas of known or presumed bat habitat are aware of environmental commitments and avoidance and minimization measures (AMMs) to protect both bats and their habitat.

Direct temporary lighting, if used, away from wooded areas during the bat active season April 1 to October 31, both dates inclusive.

To avoid adverse impacts upon the NLEBs, no tree clearing is allowed between April 1 and October 31, both dates inclusive. If the required tree clearing is not completed by March 31, the department will suspend all tree clearing and associated work directly impacted by clearing.

Tree clearing is limited to that which is specified in the plans. Contractor means and methods to remove additional trees will not be allowed. If it is determined that additional trees with a 3-inch or greater diameter at breast height (dbh) need to be removed beyond contractor means and methods, notify the engineer to coordinate with the WisDOT REC to determine if consultation with United States Fish and Wildlife Service (USFWS) is required. The contractor must be aware that the WisDOT REC and/or USFWS may not permit modifications.

Submit a schedule and description of clearing operations with the ECIP 14 days prior to any clearing operations. The department will determine, based on schedule and scope of work, what additional erosion control measures shall be implemented prior to the start of clearing operations, and list those additional measures in the ECIP.

Northern Long-eared Bat (*Myotis septentrionalis*) Station 884+75 to 918+00

Northern long-eared bats (NLEB) have the potential to inhabit the project limits because they roost in trees, bridges and culverts. Tree clearing areas specified in plans are not considered suitable summer habitat for NLEB and no tree clearing restrictions apply to those locations. Roosts may not have been observed on this project, but conditions to support the species exist. The species and all active roosts are protected by the federal Endangered Species Act. If an individual bat or active roost is encountered during construction operations, stop work and notify the engineer and the WisDOT Regional Environmental Coordinator (REC).

Ensure all operators, employees, and subcontractors working in areas of known or presumed bat habitat are aware of environmental commitments and avoidance and minimization measures (AMMs) to protect both bats and their habitat.

Direct temporary lighting, if used, away from wooded areas during the bat active season April 1 to October 31, both dates inclusive.

Tree clearing is limited to that which is specified in the plans. Contractor means and methods to remove additional trees will not be allowed. If it is determined that additional trees with a 3-inch or greater diameter at breast height (dbh) need to be removed beyond contractor means and methods, notify the engineer to coordinate with the WisDOT REC to determine if consultation with United States Fish and Wildlife Service (USFWS) is required. The contractor must be aware that the WisDOT REC and/or USFWS may not permit modifications.

Submit a schedule and description of clearing operations with the ECIP 14 days prior to any clearing operations. The department will determine, based on schedule and scope of work, what additional erosion control measures shall be implemented prior to the start of clearing operations, and list those additional measures in the ECIP.

Clearing Operations: Median trees are not subject to the NLEB restrictions. Stage 1 clearing for trees has been cleared by County forces. Stage 2 and Stage 3 trees are to be cleared during the non-prohibited timeframe between November 1, 2023 and March 31, 2024.

4. Traffic.

Provide the Walworth County Sheriff's Department, the Racine County Sheriff's Department, the Wisconsin State Patrol, East Troy Police Department, Waterford Police Department and the engineer a current telephone number with which the contractor or his representative can be contacted during non-working hours in the event a safety hazard develops.

Yield to all through traffic at all locations. Equip all vehicles or equipment operating in the live traffic lanes with a hazard identification beam (flashing yellow signal light) that is visible from 360 degrees. Operate the flashing yellow beam only when merging or exiting live traffic lanes or when parked or operating on shoulders, except when parked behind barrier wall.

Obtain prior approval from the engineer for the locations of egress or ingress for construction vehicles to prosecute the work.

Provide minimum 24-hour advance notification to the engineer for any LCS cancellations (not related to weather).

Do not disturb, remove, or obliterate any traffic control signs, advisory signs, sand barrel array, shoulder delineators or beam guard in place along the traveled roadways without the approval of the engineer.

Replace standard spec 643.3.1.(7) with the following:

Provide equipment, forces, and materials to promptly restore any traffic control devices or pavement markings damaged or disturbed within 2 hours of being contacted.

Construct the project using the construction staging and traffic control shown in the plans, standard details, and as described in these special provisions. Obtain approval from the engineer for all variations from the traffic control plans.

Weekday Peak hours:

6:00 AM – 9:00 AM

3:00 PM – 6:00 PM

Weekend Peak hours:

None

Perform all traffic control stage changes and road closures outside of peak hours.

Post all entrance and exit ramp closures three business days in advance of their closure with dates and time of closure.

Use Standard Detail Drawing “Traffic Control for Lane Closure with Flagging Operation” for work operations within the road closed to through traffic from Station 942+00 to 1365+75 STH 20.

Use traffic control drums spaced at 50’ to delineate the paved shoulders on STH 83 after placement on HMA pavement and prior to placement of grooved edgeline pavement markings.

Traffic signal retiming may be needed at the STH 83 and IH-43 interchange intersection for Stage 2 and 3 detours. Notify the department’s Electrical Field Unit at (414) 266-1170 7 days prior to implementing detours to coordinate signal retiming.

Access

Maintain emergency and local vehicular access through the construction period, including during underground operations, removals, grading, and paving operations. Provide access via existing pavement, temporary placement of base course, new base course, the new pavement, plating, or a combination thereof at least 15-foot wide. Provide adequate turning provisions at driveways and intersections for emergency and local vehicular traffic. At no time is it acceptable to require emergency or local traffic to traverse breaker run, base material containing loose reinforcement bar / wire, or crushed concrete or broken concrete.

Construct driveway approaches in stages or provide temporary access such that each access point is always provided during the life of the project.

Within the asphalt resurfacing section, maintain access to driveways other than during milling and paving operations. Short term closures of driveways will be allowed for milling and paving operations. The duration of these closures shall be as short as possible to complete the work in front of the driveway.

Inform property owners two working days before beginning construction activities in front of driveway or on driveway approaches on their properties.

Maintain pedestrian access through the construction period as shown in the Traffic Control plans.

Department Notifications

The department will notify local emergency services, garbage pickup, and school districts two weeks prior to construction or traffic control changes to discuss access, garbage pickup, and bus routes.

The department will notify Coach USA 10 days prior to beginning each stage or traffic control change to allow for rerouting their bus routes along STH 20.

Local Events

Modifications to the traffic control plan may be required by the engineer to be safe and consistent with the following Village of East Troy Events:

1. East Troy Cycling Classic: Friday June 16, 2023 and early June 2024
2. East Troy Bluegrass Festival: September 9 and 10, 2023 and early September 2024

Traffic Control Signs Portable Changeable Message

Place Traffic Control Signs Portable Changeable Message Sign (PCMS) in advance of the work area for 10 calendar days prior to each stage.

- Stage 1:
 - STH 20 EB /WB, "WIS 20, Road Work" "Begins, xx-xx"
- Stage 2:
 - STH 20 EB and WB, "WIS 20, Road Work" "Begins, xx-xx"
 - CTH ES NB and SB, "County ES, Closed" "Begins, xx-xx"
- Stage 3:
 - STH 20 WB, "WIS 20, Road Work" "Begins, xx-xx"
 - CTH ES NB and SB, "County ES, Closed" "Begins, xx-xx"
 - CTH L NB and SB, "County L, Closed" "Begins, xx-xx"

Place PCMS in advance of the work area for STH 20 EB for 3 calendar days after switching to Stage 3 with the message, "New, Traffic, Pattern" "Ahead".

Wisconsin Lane Closure System Advance Notification

Provide the following advance notification to the engineer for incorporation into the Wisconsin Lane Closure System (LCS).

TABLE 108-1 CLOSURE TYPE AND REQUIRED MINIMUM ADVANCE NOTIFICATION

Closure type with height, weight, or width restrictions (available width, all lanes in one direction < 16 feet)	MINIMUM NOTIFICATION
Lane and shoulder closures	7 calendar days
Full roadway closures	7 calendar days
Ramp closures	7 calendar days
Detours	7 calendar days
Closure type without height, weight, or width restrictions (available width, all lanes in one direction ≥ 16 feet)	MINIMUM NOTIFICATION
Lane and shoulder closures	3 business days
Ramp closures	3 business days
Modifying all closure types	3 business days

Discuss LCS completion dates and provide changes in the schedule to the engineer at weekly project meetings in order to manage closures nearing their completion date.

5. Holiday and Special Event Work Restrictions.

Do not perform work on, nor haul materials of any kind along or across any portion of the highway carrying STH 20 traffic, and entirely clear the traveled way and shoulders of such portions of the highway of equipment, barricades, signs, lights, and any other material that might impede the free flow of traffic during the following holiday and special event periods:

- From noon Friday, May 26, 2023 to 6:00 AM Tuesday, May 30, 2023 for Memorial Day;
- From noon Friday, June 30, 2023 to 6:00 AM Wednesday, July 5, 2023 for Independence Day;
- From noon Friday, September 1, 2023 to 6:00 AM Tuesday, September 5, 2023 for Labor Day;
- From noon Wednesday, November 22, 2023 to 6:00 AM Monday, November 27, 2023 for Thanksgiving;
- From noon Friday, May 24, 2024 to 6:00 AM Tuesday, May 28, 2024 for Memorial Day;
- From noon Wednesday, July 3, 2024 to 6:00 AM Monday, July 8, 2024 for Independence Day;
- From noon Friday, August 30, 2024 to 6:00 AM Tuesday, September 3, 2024 for Labor Day.
- From noon Wednesday, November 27, 2024 to 6:00 AM Monday, December 2, 2024 for Thanksgiving.

stp-107-005 (20210113)

6. Utilities.

This contract comes under the provision of Administrative Rule Trans 220.

Some of the utility work described below is dependent on prior work being performed by the contractor at a specific site. In such situations, provide the engineer and the affected utility a good faith notice of when the utility is to start work at the site. Provide this notice 14 to 16 calendar days in advance of when the prior work will be completed, and the site will be available to the utility owner. Follow-up with a confirmation notice to the engineer and the utility owner not less than three working days before the site will be ready for the utility owner to begin its work.

Coordinate construction activities with a call to Diggers Hotline or a direct call to the utilities that have facilities in the area as required per statutes. Use caution to ensure the integrity of underground facilities, and maintain code clearances from overhead facilities at all times.

Contact each utility company listed in the plans prior to preparing bids to obtain current information on the status of existing and any newly relocated utility facilities within the project limits.

ID 2340-00-79:

The following utility companies have facilities within the project area that need adjustments:

Spectrum – Communications has facilities within the project limits. The following will be relocated prior to construction:

Discontinue in place 48ct fiber in 2" duct from pole at Station 1357+77, 40' RT to pole at Station 296+09, 96' RT - fiber average offset is 35' RT along STH 20.

Spectrum to bore two new 2" duct 42" deep from pole at Station 1357+77, 40' RT to pole at Station 296+09, 96' RT. Duct package offset is 12' RT along STH 20.

Relocation and adjustment of Spectrum aerial facilities and risers will be constructed per We Energies work requests 4720131.

The highway contractor must contact Spectrum before removing or adjusting any coax or fiber optic facility to verify that the facility has been discontinued. The contractor must not assume that any unmarked facility has been discontinued.

TDS Telecom - Communications has facilities within the project limits. The following will be relocated prior to construction:

Station 1291+40, 32' LT to Station 1293+55, 32' LT– Discontinue existing TDS cable, replace cable with new BFC200-24. From Station 1291+55 to Station 1291+75 cable will be placed 37' LT from Stationing within the utility easement (Doc No 4440666).

Station 1293+55, 32' LT – Place new pedestal P4-3A at right-of-way.

WE Energies – Electric has facilities within the project limits. The following will be relocated prior to construction:

Two poles 07-04164 and 99-03884 located at Station 1364+68, 58' RT and Station 1364+72, 65' RT will be removed and not replaced. The cable feeding the service at 31430 High Dr. will be restrung to pole

99-03884 at Station 296+16, 108' RT to avoid the new culvert. Pole 99-03883 at Station 1363+35, 29' RT will be removed and not replaced to avoid the new culvert. The cable that risered up that pole will be spliced into at Station 1361+64, 27' RT and cross under HWY 20 to the north side where it will continue east to the corner at Station 1364+40, 27' LT and go north. A new pole will be set at Station 294+10, 41' RT where the DB cable will riser back into the system.

At Station 1348+90, 32' RT Pole 70-26781 will be replaced with a new pole directly to the east for the purpose moving a piece of equipment. There are no conflicts with this location and the paving project.

Any facilities not explicitly identified as being relocated and/or adjusted have been deemed to be not in conflict and will remain in place as is. We Energies has determined that the project is constructible with these facilities left within the work-zone.

It is imperative that the highway contractor contact We Energies before removing any electrical underground cables, to verify that they have been discontinued and carry no electrical current. The contractor must not assume that unmarked facilities have been discontinued. At no time is it acceptable to push, pull, cut or drill an unmarked facility without explicit consent from We Energies. Contractor must call the We Energies 24 hour Dispatch lines to arrange for this verification.

WE Energies – Gas has facilities within the project limits. The following will be relocated prior to construction:

We Gas will discontinue 2" PE pipe at the following location:

- Station 1361+40, 19' RT to Station 1362+40, 19' RT
- Station 1362+40, 19' RT to Station 1363+50, 29' RT
- Station 1363+50, 29' RT to Station 1364+15, 37' RT
- Station 1364+15, 37' RT to Station 1364+55, 49' RT
- Station 1364+55, 49' RT to Station 1364+65, 75' RT
- Station 1364+65, 75' RT to Station 1365+10, 134' RT

Install new 2" PE gas main at a minimum of 72":

- Station 1361+50, 22' RT to Station 1364+26, 35' RT
- Offset main Station 1364+26, 35' RT to 33' RT
- Station 1364+26, 33' RT to Station 1365+10, 101 RT
- Offset and tie into existing main Station 1365+10, 134' RT

Any facilities not explicitly identified as being relocated and/or adjusted have been deemed to be not in conflict and will remain in place as is. We Energies has determined that the project is constructible with these facilities left within the work-zone.

It is imperative that the highway contractor contact We Energies before removing any gas facilities to verify that they have been discontinued and carry no natural gas. The contractor must not assume that unmarked facilities have been discontinued. At no time is it acceptable to push, pull, cut or drill an unmarked facility without explicit consent from We Energies. Contractor must call the We Energies 24-hour Dispatch lines to arrange for this verification.

The following utility companies have facilities within the project area; however, no adjustments are anticipated:

TDS Metrocom LLC – Communications

Village of Waterford DPW – Sewer

ID 2698-03-70:

The following utility companies have facilities within the project area that need adjustments:

Brightspeed has facilities within the project limits. The following will be relocated prior to construction:

Pedestal to be Removed:

- Station 893+00 LT
- Station 895+87 LT

- Station 896+25 RT
- Station 15+50 LT CTH ES
- Station 910+25 RT
- Station 912+70 RT
- Station 915+25 RT

Handhole to be Removed:

- Station 915+25 RT

Discontinued in Place:

- Station 888+85 to 893+00 LT, 900 Pair
- Station 888+80 to 893+80 LT/RT to 896+25 RT, 96 Fiber
- Station 889+40, 300 pair under roadway
- Station 893+00 to 899+00 LT, 900 pair
- Station 895+87 to 898+90 LT, 100 pair
- Station 896+25 to 902+00 RT, 900 pair, 1800 pair, 24 fiber, 96 fiber
- Station 896+25 to 899+40 RT, 6 pair
- Station 904+90 to 915+25, 48 fiber, 900 pair, 900 pair
- Station 904+90 to 911+35, 100 pair
- Station 14+70 LT CTH ES to 915+25 RT, 1200 pair
- Station 15+50 LT CTH ES to 915+25 RT, 48 fiber
- Station 915+25 RT to 20+25 LT CTH ES, (16, 48, 96 fibers), (200, 200, 900 copper) under STH 20
- Station 20+25 LT CTH ES to 918+50 LT, 900 pair and 48 fiber

New Pedestal:

- Station 893+00 LT, 7' north of existing pedestal, route existing 25 pair (north) to new pedestal location
- Station 889+40 RT, at RW, route existing 300 pair (south) to new pedestal location
- Station 895+87 LT, 9' north of existing pedestal
- Station 899+00 LT, 8' south of RW, swing existing 900 and 100 pair into new pedestal
- Station 896+15 RT, 10' southwest of existing pedestal, swing 1800 and 900 pairs (east) into new pedestal
- Station 904+95 RT, 5' north of RW, swing existing 900 and 900 pair into pedestal
- Station 911+37 RT, at RW, swing existing 100 pair into new pedestal
- Station 913+45 RT, at new REW
- Station 15+50 LT CTH ES
- Station 918+65 LT, at RW corner, swing existing copper and fiber into pedestal

New Handhole:

- Station 880+80 LT, 49' from existing RW, route existing 96 Fiber (west) to location
- Station 893+80 LT, 48' from existing RW
- Station 896+05 RT, 7' north of existing RW, Swing existing 24 fiber into new pedestal
- Station 904+90 RT, 6' north of RW
- Station 913+45 RT, at new RW
- Station 918+65 LT, at RW corner, swing existing copper and fiber into pedestal

Trench:

- Station 888+85 to 893+00 LT, 900 pair 46' south of RW at a depth of 4'
- Station 888+80 to 893+80 LT, 96 Fiber 46' south of RW at a depth of 4'
- Station 888+85 to 889+46 LT, 300 pair 57' east from pedestal at 888+85 at a depth of 3'

- Station 893+00 to 893+60 LT, 900 pair at a depth of 5'
- Station 894+75 to 895+87 LT, 900 pair 112' at new pedestal
- Station 895+87 to 899+00 LT, 900 and 100 pair 2' south of RW from new pedestal to new pedestal at a depth of 3'
- Station 896+15 to 902+00 RT, 1800 and 900 pair at RW from new pedestal to existing pedestal at a depth of 3'
- Station 896+15 to 899+40 RT, 6 pair at RW from new pedestal to existing building at a depth of 3'
- Station 896+05 to 902+00 RT, 96 and 25 fiber at RW from new handhole to existing handhole at a depth of 3'
- Station 913+45 RT to 14+75 LT CTH ES, 900 pair along RW to existing pedestal at a 5' depth
- Station 913+45 RT to 15+50 LT CTH ES, 96 fiber along RW to existing fiber pedestal at a 5' depth
- Station 913+45 LT to 20+25 LT CTH ES, 900 pair along fence to RW follow RW to existing pedestal at 5' depth
- Station 913+45 LT to 20+40 LT CTH ES, 96 fiber along fence to RW follow RW to existing handhole at 5' depth, connect existing 16 fiber into existing handhole
- Station 20+25 to 21+53 LT, 900 copper and 48 fiber, at RW at a 5' depth

Bore:

- Station 889+46 LT/RT, 300 pair to new pedestal, 11' beneath existing grade
- Station 893+80 to 896+10, 96 Fiber from proposed handhole LT to existing RW RT, Turn directly east and continue bore to new handhole at Station 896+10 RT. Bore beneath STH 20 at a depth of 10' from existing grade. Bore beneath Byrnes St at a depth of 9' from existing grade
- Station 893+60 to 894+75 LT, 900 pair under East Drive for 115' at a depth of 7' beneath existing grade.
- Station 904+95 to 913+45 RT, 900 pair 2' north of RW to existing pedestal at Station 907+30 RT, 5' beneath existing grade, 900 pair at RW from Station 907+30 to 913+45, 7' beneath existing grade
- Station 904+90 to 913+45 RT, 48 fiber at RW from new handhole to new handhole, 7' beneath existing grade
- Station 911+40 to 913+45 RT, 100 pair at RW from new pedestal to new pedestal, 7' beneath existing grade
- 913+45 RT/LT, 900 pair and 96 fiber from new pedestal and handhole RT to edge of fence, 16' south of RW, 6.5' beneath existing grade
- Station 21+53 LT CTH ES to 918+65 LT, 900 copper and 48 fiber, existing RW to new handhole and pedestal, 5' beneath existing grade

Spectrum Communications has facilities within the project limits. The following will be relocated prior to construction:

Bore:

- Station 897+85 LT/RT, 0.625 Coax CIC from pole LT to existing handhole, see bore profile for depth
- Station 900+25 to 901+45 LT, 0.875 Coax CIC from pole to bore pit, min depth of 36"
- Station 50+50 LT to 51+00 29' LT Sterling Circle, 0.875 Coax CIC from bore pit to new pad mounted power supply, min depth of 36"
- Station 902+30 LT/RT, 0.625 Coax CIC, from pole LT to bore pit RT, see bore profile for depth
- Station 901+55 RT to 902+30 RT, 0.625 Coax CIC, from bore pit RT to new pedestal RT, min depth of 36"
- Station 915+63 59' LT to 23+00 LT CTH ES, 0.625 Coax CIC, 2' from Existing RW, min 36" depth
- Station 945+76 92' LT to 945+76 129' RT, 0.625 Coax CIC, min depth of 60"
- Station 945+66 129' RT to 945+76 129' RT, 0.625 Coax CIC, min depth of 32"

New Pedestal:

- Station 901+55 RT
- Station 915+63 59' LT
- Station 945+66 129' RT
- Station 945+76 129' RT

Remove Pedestal:

- Station 915+63 LT

Discontinue:

- Station 885+80 LT/RT
- Station 897+85 LT/RT
- Station 900+25 LT to 51+00 LT Sterling Circle
- Station 915+63 LT to 23+00 LT CTH ES
- Station 940+75 RT/LT to 945+75 LT

Relocation and adjustment of Charter's aerial facilities and risers will be constructed per We Energies Work Request 4733974.

The highway contractor must contact Charter before removing or adjusting any coax or fiber optic facility to verify that the facility has been discontinued. The contractor must not assume that any unmarked facility has been discontinued.

TDS Telecom – Communication Line has facilities within the project limits. The following will be relocated prior to construction:

1187+50 LT-1191+25 LT – TDS to dig and expose 481 linear feet of existing copper cable and lower to 54" depth. This cable not in direct conflict with proposed construction but is within 24" in spots.

While exposed TDS will place new 1.25" duct along side existing cable and loop up new duct in peds at each end. Please take caution in these areas.

Village of East Troy – Sewer has facilities within the project limits. The following will be relocated prior to construction:

The sanitary sewer is not in conflict with the design. However, manholes within the project limits will be reconstructed prior to the start of the construction project. The following locations will have new cones, castings and chimney seals installed:

1. San MH Station 882+86.3, 40.5' RT
2. San MH Station 884+83.1, 30.7' RT
3. San MH Station 887+59.82, 40.2' RT
4. San MH Station 887+58.56, 37.2' LT
5. San MH Station 889+44.77, 44.7' RT
6. San MH Station 894+59.78, 52.7' RT
7. San MH Station 897+86.49, 38.8' RT

All disturbed areas in turf will be restored with seed, fertilizer, and mulch. Those in paved areas will be restored with asphalt

Lining of the existing sanitary main between manholes 3 and 4 listed above will require bypass pumping. This work will also be completed prior to the start of the construction project.

Village of East Troy - Water has facilities within the project limits.

The re-laying and or extension of the watermain within the project limits will be completed as part of the DOT project.

We Energies Electric has facilities within the project limits. The following will be relocated prior to construction:

Remove Pole:

- Station 885+09 30' LT
- Station 885+69 27' LT
- Station 887+32 23' LT
- Station 889+26 22' LT
- Station 891+66 18' LT
- Station 892+60 45' RT
- Station 892+89 18' LT
- Station 893+81 19' LT
- Station 894+69 22' LT
- Station 895+84 23' LT
- Station 896+19 41' RT
- Station 898+03 28' LT
- Station 900+17 34' LT
- Station 901+37 40' LT
- Station 910+32 113' RT
- Station 1144+60 36' RT
- Station 1188+16 48' LT
- Station 1190+76 36' LT

New Pole:

- Station 884+75 34' LT
- Station 886+39 32' LT
- Station 887+83 30' LT
- Station 889+56 34' LT
- Station 891+65 32' LT
- Station 892+60 48' LT
- Station 892+85 32' LT
- Station 893+93 34' LT
- Station 895+07 32' LT
- Station 895+80 32' LT
- Station 895+82 46' RT
- Station 897+97 31' LT
- Station 900+21 38' LT
- Station 901+26 34' LT
- Station 910+38 113' RT
- Station 1144+65 42' RT
- Station 1188+00 50' LT
- Station 1190+79 36' LT

Discontinue Underground Cable:

- Station 885+69 27' LT
- Station 910+32 113' RT

New Underground Cable:

- Station 884+75 34' LT to 884+75 55' RT
- Station 910+38 113' RT to 910+41 125' RT ending at 911+43 125' RT

The following will be removed during to construction:

Remove Pole:

- Station 18+01 66' LT CTH ES, Remove Pole 5 days after new Street Lighting is Installed
- Station 18+60 55' RT CTH ES, Remove Pole 5 days after new Street Lighting is Installed
- Station 20+23 55' LT CTH ES, Remove Pole 5 days after new Street Lighting is Installed
- Station 20+91 62' RT CTH ES, Remove Pole 5 days after new Street Lighting is Installed

Any facilities not explicitly identified as being relocated and/or adjusted have been deemed to be not in conflict and will remain in place as is. We Energies has determined that the project is constructible with these facilities left within the work-zone.

It is imperative that the highway contractor contact We Energies before removing any electrical underground cables, to verify that they have been discontinued and carry no electrical current. The contractor must not assume that unmarked facilities have been discontinued. At no time is it acceptable to push, pull, cut or drill an unmarked facility without explicit consent from We Energies. Contractor must call the We Energies 24 hour Dispatch lines to arrange for this verification.

We Energies Gas has facilities within the project limits. The following will be relocated prior to construction:

Discontinue 12" pipe high pressure:

- Station 894+30 to 899+45 LT
- Station 899+45 LT/RT in 16" casing
- Station 904+00 RT to 913+00 RT

Bore 12" pipe high pressure:

- Station 894+30 to 899+45 LT
- Station 899+45 LT/RT
- Station 904+00 RT to 913+00 RT, 1' north of existing 12" pipe, 5' north of existing RW

Discontinue 8" pipe high pressure:

- Station 1153+70 to 1163+50 RT

Bore 8" pipe high pressure:

- Station 1153+70 to 1163+50 RT, 10' inside existing RW

Discontinue 2" pipe:

- Station 891+25 to 898+65 RT
- Station 894+30 to 899+00 LT

Bore 2" Pipe:

- Station 894+30 to 899+00 LT, 1' inside RW

Discontinue 4" pipe:

- Station 905+50 to 914+75 RT

Bore 8" pipe:

- Station 891+25 to 914+75 RT

Bore 4" pipe:

- Station 29+25 RT to 21+15 RT CTH L to 941+60 LT to 968+50, 33' west of RW on CTH L, 3' – 6' south of RW on STH 20
- Station 941+60 LT/RT
- Station 934+00 RT to 941+60 RT

Contact Nick Wagner at (414) 944-5662 to provide watchdog for guard rail installation at Station 1180+30 RT.

Contact 1 (800) 261-5325 for gas emergencies, to identify if gas facilities are live, and gas valve box adjustments between Station 914+00 and 915+00 RT.

We Energies will collect samples and test for hazardous material during construction in the following areas:

- Station 1154+00 to 1162+00 RT

We Energies will excavate and collect the samples once the project traffic staging allows and the pavement has been removed.

For each station range listed above, We Energies will require a separate 14 to 16 calendar day notice before the collection of sample(s) is expected to occur. We Energies will also require a separate follow up notice, for each station range listed above, no less than 3 working days before the collection of the sample(s) is expected to occur.

We Energies will remove and dispose of facilities where hazardous materials are found; We Energies will also remove and dispose of said hazardous materials.

The testing, removal, and disposal process will require 20 working days to complete for each station range listed above.

Any facilities not explicitly identified as being relocated and/or adjusted have been deemed to be not in conflict and will remain in place as is. We Energies has determined that the project is constructible with these facilities left within the work-zone.

It is imperative that the highway contractor contact We Energies before removing any gas facilities to verify that they have been discontinued and carry no natural gas. The contractor must not assume that unmarked facilities have been discontinued. At no time is it acceptable to push, pull, cut or drill an unmarked facility without explicit consent from We Energies. Contractor must call the We Energies 24-hour Dispatch lines to arrange for this verification.

The following utility companies have facilities within the project area; however, no adjustments are anticipated:

AT&T Legacy Communication Line

Town of East Troy – Sewer

Town of East Troy – Water

ID 2698-03-73:

All utilities within the construction limits of Project ID 2698-03-73 were coordinated under project ID 2698-03-70. There are no other known conflicts within the construction limits.

7. Other Contracts.

Modifications to the traffic control plan may be required by the engineer to be safe and consistent with the adjacent work by others.

The following projects may be under construction concurrently with the work under this contract:

Projects 3120-10-70, 3120-12-70, 3120-13-70

USH 12, STH 20 to USH 12/STH 67 Split

WisDOT Contact: Jon Engerson; (262) 548-8807; jonathan.engerson@dot.wi.gov

Coordinate placement of Stage 3 detour signs and STH 11 detour signs at the STH 20 and IH-43 interchange.

Project 2810-08-70

STH 164, Henneberry Ave to Denoon Rd

WisDOT Contact: Nguyen Ly, (262) 548-8739; nguyen.ly@dot.wi.gov

Project 3694-00-71

STH 120, STH 36 to O'Leary Ln

WisDOT Contact: Gary Metzger; (262) 548-5685; gary.metzger@dot.wi

2340-00-79, 2698-03-70, 2698-03-73

Project 1300-09-70/71

STH 83, STH 20 to IH 43

WisDOT Contact: Ryan Schnurer; (262) 548-8730; ryan.schnurer@dot.wi.gov

Coordinate placement of Stage 1 detour signs and STH 83 detour signs at the STH 20 and IH-43 interchange.

For all projects, coordinate activities, detours, work zone traffic control, roadway, erosion control and lane closures, and other work items as required with other contracts.

8. Railroad Insurance and Coordination - East Troy Railroad Museum, Inc.

A Description

Comply with standard spec 107.17 for all work affecting East Troy Railroad Museum, Inc property and any existing tracks.

A.1 Railroad Insurance Requirements

In addition to standard spec 107.26, provide railroad protective liability insurance coverage as specified in standard spec 107.17.3. Insurance is filed in the name of East Troy Railroad Museum, Inc.

Notify evidence of the required coverage, and duration to Ryan Jonas, President, East Troy Railroad Museum; PO Box 943, East Troy, WI 53120; Telephone (414) 534-7175; E-mail ryan@easttroyrr.org.

Also send a copy to the following: Jason Kazmierski, SE Region Railroad Coordinator, 141 N. Barstow Street, Waukesha, WI 53188; Telephone (262) 548-6700; E-mail jason.kazmierski@dot.wi.gov.

Include the following information on the insurance document:

- Project ID: 2340-00-79, 2698-03-70, 2698-03-73
- Project Location: East Troy, Wisconsin
- Route Name: STH 20 (North Street)
- Crossing ID: 310167S
- Railroad Subdivision: Electric
- Railroad Milepost: 5.60
- Work Performed on or within 50' of RR right-of-way: Remove concrete pavement, new asphaltic pavement, replace curb and gutter, overhead sign support, storm sewer work, bore and jack watermain line

A.2 Train Operation

Approximately 16 passenger trains and no through freight trains operate daily through the construction site. Passenger trains operate at up to 15 mph. There are no switching movement.

A.3 Names and Addresses of Railroad Representatives for Consultation and Coordination

Construction Contact

Ryan Jonas, President, East Troy Railroad Museum, Inc.; PO Box 943, East Troy, WI 53120; Telephone (414) 534-7175; E-mail ryan@easttroyrr.org for consultation on railroad requirements during construction.

Amend standard spec 108.4 to include the railroad in the distribution of the initial bar chart, and monthly schedule updates. The bar chart shall specifically show work involving coordination with the railroad.

Flagging Contact

See Construction Contact. Reference the Crossing ID, Wisconsin Milepost and Subdivision found in A.1.

Cable Locate Contact

Call "Diggers Hotline" to determine if fiber optic or other type of cable is buried in the general work location. This railroad does not have a Call Before You Dig number.

A.4 Work by Railroad

The railroad will perform the work described in this section, except for work described in other special provisions, and will be accomplished without cost to the contractor. Removal and installation of railroad crossing surface and signals at DOT crossing ID #310167S

A.5 Temporary Grade Crossing

If a temporary grade crossing is desired, submit a written request to the railroad representative named in A.3 at least 40 days prior to the time needed. Approval is subject to the discretion of the railroad. The department has made no arrangements for a temporary grade crossing.

stp-107-026 (20230113)

9. Railroad Insurance and Coordination - Wisconsin Central Ltd (CN).

A Description

Comply with standard spec 107.17 for all work affecting Wisconsin Central Ltd (CN) property and any existing tracks.

A.1 Railroad Insurance Requirements

In addition to standard spec 107.26, provide railroad protective liability insurance coverage as specified in standard spec 107.17.3. Insurance is filed in the name of Wisconsin Central Ltd and Its Parents (CN).

Notify evidence of the required coverage, and duration to Jackie Sapp, Manager Public Works; 3912 S. Pokegama Road, Superior, WI 54880; Telephone (715) 345-2503; E-mail: Jackie.sapp@cn.ca.

Also send a copy to the following: Jason Kazmierski, SE Region Railroad Coordinator, 141 N. Barstow Street, Waukesha, WI 53188; Telephone (262) 548-6700; E-mail jason.kazmierski@dot.wi.gov.

Include the following information on the insurance document:

- Project ID: 2340-00-79, 2698-03-73
- Work Performed on or within 50' of RR right-of-way: Mill and pave operations, traffic control

#	Route Name	City/County	Crossing ID	RR Subdivision	RR Milepost
1	STH 20	Burlington/Racine	689874J	Waukesha Sub	79.15
2	Honey Creek Road	Burlington/Racine	689872V	Waukesha Sub	78.79
3	IH 43 / Rock Freeway	Mukwonago/Waukesha	689882B	Waukesha Sub	84.53

A.2 Train Operation

Approximately 34 through freight trains operate daily at up to 60 mph. There are no switching movements.

A.3 Names and Addresses of Railroad Representatives for Consultation and Coordination

Construction Contact

Jackie Sapp, Manager Public Works; 3192 S. Pokegama Road, Superior, WI 54880; Telephone (715) 345-2503; E-mail jackie.sapp@cn.ca for consultation on railroad requirements during construction.

Amend standard spec 108.4 to include the railroad in the distribution of the initial bar chart, and monthly schedule updates. The bar chart shall specifically show work involving coordination with the railroad.

Flagging Contact

Submit by US Mail a "Request for Flagging Services and Cable Location" form with prepayment to: Flagging-US, 17641 South Ashland Avenue, Homewood, IL 60430; Flagging_US@CN.CA. The form can be obtained at:

<https://www.cn.ca/en/safety/utility-installations/>

Requests for flagging and cable locates can take up to five business days after the railroad receives the paperwork. Reference the Wisconsin Milepost and Subdivision located in A.1. Advise Wisconsin Central Ltd (CN) that the flagging services are to be billed at the rate for a public highway project.

Cable Locate Contact

In addition to contacting Diggers Hotline, follow the procedure listed under Flagging Contact.

Wisconsin Central Ltd (CN) will only locate railroad owned facilities buried in the railroad right-of-way. The railroad does not locate any other utilities.

A.4 Work by Railroad

The railroad will perform the work described in this section, except for work described in other special provisions, and will be accomplished without cost to the contractor. Removal and installation of railroad crossing surface and signals at DOT crossing # 689874J

A.5 Temporary Grade Crossing

If a temporary grade crossing is desired, submit a written request to the railroad representative named in A.3 at least 40 days prior to the time needed. Approval is subject to the discretion of the railroad. The department has made no arrangements for a temporary grade crossing.

A.7 Contractor Right of Entry

The contractor will be required to obtain a Right of Entry from Wisconsin Central Ltd (CN) prior to working on railroad right-of-way. Contact the person in A.1 Railroad Insurance Requirements at least 30 days prior to start of work. The Right of Entry will be issued at no cost to the contractor. If the contractor pays for the Right of Entry, it will not be reimbursed by the project. The Project ID will serve as the ROE permit number unless otherwise stated.

stp-107-026 (20230113)

10. Municipality Acceptance of Sanitary Sewer and Water Main Construction.

Both the department and Village of East Troy personnel will inspect construction of sanitary sewer and water main under this contract. However acceptance of the sanitary sewer and water main construction will be by the Village of East Troy.

11. Referenced Construction Specifications.

Construct the work enumerated below conforming to the Village of East Troy Standard Construction Specification as approved by ordinance dated January 4, 2021. [Village of East Troy Standard Construction Specification Link](#)

If there is a discrepancy or conflict between the referenced specification and the standard specifications regarding contract administration, part 1 of the standard specifications governs.

Conform to the referenced construction specifications for the following:

Water Main Items

Sanitary Sewer Items

stp-105-002 (20130615)

12. Timely Decision Making Manual.

Use the Timely Decision Making Manual (TDM) on this contract. Coordinate with the department to modify the various published tools as necessary to meet the particular project needs and determine how to implement those tools under the contract. Ensure the full participation of the contractor and its principal subcontractors throughout the term of the contract.

Forms and associated guidance are published in the TDM available at the department's Highway Construction Contract Information (HCCI) web site at:

<https://wisconsindot.gov/rdwy/admin/tdm.doc>

stp-105-005 (20151210)

13. Information to Bidders, U.S. Army Corps of Engineers Section 404 Permit.

The department has assumed coverage under the U.S. Army Corps of Engineers Section 404 Transportation Regional General Permit (TRGP). The department has determined that a pre-construction notification (permit application) to U.S. Army Corps of Engineers and their written verification of TRGP coverage is not necessary for this project.

A copy of the Section 404 Transportation Regional General Permit can be obtained on USACE's website:

https://www.mvp.usace.army.mil/Portals/57/docs/regulatory/RGP/Transportation_RGP.pdf?ver=2018-02-22-093530-183

If the contractor requires work outside the proposed slope intercepts, based on their method of operation to construct the project, it is the contractor's responsibility to determine whether a pre-construction notification (permit application) and written verification from U.S. Army Corps of Engineers under the Section 404 Transportation Regional General permit is required. If written verification under the TRGP is necessary, submit a pre-construction notification to U.S. Army Corps of Engineers and obtain written verification of permit coverage prior to beginning construction operations requiring the permit. No time extensions as discussed in standard spec 108.10 will be granted for the time required to apply for and obtain the written verification of permit coverage. The contractor must be aware that the U.S. Army Corps of Engineers may not grant the permit request.

stp-107-054 (20230113)

14. Information to Bidders, WPDES General Construction Storm Water Discharge Permit.

The department has obtained coverage through the Wisconsin Department of Natural Resources to discharge storm water associated with land disturbing construction activities of this contract under the Wisconsin Pollutant Discharge Elimination System General Construction Storm Water Discharge Permit (WPDES Permit No. WI-S066796-1). A certificate of permit coverage is available from the regional office by contacting Julie Jenks at (262) 548-6462. Post the permit in a conspicuous place at the construction site.

stp-107-056 (20180628)

15. Notice to Contractor – Airport Operating Restrictions

Fill out the FAA Notice Criteria tool for all permanent structure (bridge, light pole, etc.) or equipment (crane, etc.) used during construction.

<https://oeaaa.faa.gov/oeaaa/external/portal.jsp>

If required by the Notice Criteria tool, and for all crane or construction equipment higher than 200 feet above the ground, submit completed form 7460-1 (Notice of Proposed Construction or Alteration) to The Federal Aviation Administration (FAA) at least 45 days before starting construction.

Contact Levi Eastlick, (608) 267-5018, WisBOA Airspace/Tall Structure Manager, for assistance submitting forms.

sef-107-020 (20171004)

16. Notice to Contractor – Saw Cut Slurry.

Collect and actively manage saw cut slurry that may be generated as part of this contract. Remove from the pavement surface and prevent deposition of saw cut slurry into wetland, drainage courses, culverts, inlets, storm sewer, and onto private property. Remove saw cut slurry from the project area. Do not advance to the next saw cut location until slurry has been collected and properly managed.

17. Notice to Contractor – Material Stockpile.

Material stockpiles on STH 20 or CTH ES west of the I-43 SB ramps is not allowed unless the engineer approves otherwise in writing.

18. Notice to Contractor – Concrete Washout Containment.

All concrete trucks shall wash out into a containment system located sufficiently away from the work area to prevent runoff into wetland, drainage courses, culverts, inlets, storm sewer and private property. The

contractor shall provide a construction detail and location of the containment system with the ECIP and reviewed by the engineer prior to use.

19. Notice to Contractor – Asphaltic Base Patching and Asphaltic Repair.

Locations shown in the plan are approximate. The engineer may adjust the location and quantity in the field.

20. Notice to Contractor – Traffic Signal Bases.

Traffic signal bases in close proximity to underground utilities may require hydro excavation to excavate for the traffic signal base. The cost of hydro excavation is incidental to the cost of the traffic signal base.

21. Notice to Contractor – Traffic Signal Equipment Lead Time.

Order traffic signal equipment as soon as possible to assure the equipment is procured in a timely fashion and, therefore, installed, inspected, and ready for turn-on at the required date.

22. Erosion Control.

Supplement standard spec 107.20 with the following:

Erosion control best management practices (BMP's) shown on the plans are at suggested locations. The actual locations will be determined by the contractor's ECIP and by the engineer. Include dust control and each dewatering or by-pass (mechanical pumping) operation in the ECIP submittal. The ECIP will supplement information shown on the plans and not reproduce it. The ECIP will identify how to implement the project's erosion control plan. ECIP will demonstrate timely and diligently staged operations, continuing all construction operations methodically from the initial removals and topsoil stripping operations through the subsequent grading, paving, re-application of top soil, and restoration of permanent vegetation to minimize the period of exposure to possible erosion.

Provide the ECIP 14 days prior to the pre-construction meeting. Provide 1 copy of the ECIP to the department and 1 copy of the ECIP to the WDNR Liaison Craig Webster, (262) 574-2141, craig.webster@wisconsin.gov. Do not implement the ECIP without department approval and perform all work conforming to the approved ECIP.

Maintain Erosion Control BMP's until permanent vegetation is established or until the engineer determines that the BMP is no longer required.

Stockpile excess materials or spoils on upland areas away from wetlands, floodplains, and waterways. Immediately install perimeter silt fence protection around stockpiles. If stockpiled materials will be left for more than 14 days, install temporary seed or other temporary erosion control measures the engineer orders.

Timely Restoration

Re-apply topsoil on graded areas, as the engineer directs, immediately after the grading is completed within those areas. Seed, fertilize, and mulch/erosion mat top-soiled areas, as the engineer directs, within 5 days after placement of topsoil. If graded areas are left not completed and exposed for more than 14 days, seed those areas with temporary seed and mulch within 3-5 days of initial disturbance.

Complete final restoration for Station 918+00 to 954+30 EB and WB outside shoulder grading areas within 14 days of initial disturbance.

Honey Creek Concrete Barrier and Retaining Wall

Construction of single slope concrete barrier and retaining wall from Station 1177+25 to 1178+55 LT will utilize a "bathtub" as erosion control in this area. Excavate the work area in a manner to contain any sediment laden runoff within the excavated area between the roadway and the existing boulders on the

slope. If excavated area does not provided sufficient runoff storage, dewater the area by mechanical pumping to prevent sediment laden water from entering Honey Creek.

Heavy Duty Silt Fence

Place heavy duty silt fence as shown in the plans between Station 1150+00 and 1169+05 using non-mechanical placement methods. Mechanical placement is prohibited in this area due to existing slope, trees, and proximity to Honey Creek.

Dewatering (Mechanical Pumping) for Bypass Water (sediment-free) Operations

If dewatering bypass operations are required from one pipe structure to another downstream pipe structure or from the upstream to downstream end of a culvert and the bypass flow is not transporting sediments (sand, silt, and clay particles) from a tributary work site area, bypass pumping operations will be allowed provided that the department has been made aware of and approves operation. When pumping bypass flows, the discharge location will need to be stable and not produce any erosion from the discharge velocity that would cause release of sediment downstream. Dewatering is considered incidental to the contract.

Dewatering (Mechanical Pumping) for Treatment Water (sediment-laden) Operations

If dewatering operations require pumping of water containing sediments (sand, silt, and clay particles), the discharge will not be allowed to leave the work site or discharge to a storm water conveyance system without sediment removal treatment. Do not allow any excavation for; structures, utilities, grading, maintaining drainage that requires dewatering (mechanical pumping) of water containing sediments (sand, silt, and clay particles) to leave the work site or discharge to a storm water conveyance system without sediment removal treatment.

Prior to each dewatering operation, submit to the department a separate ECIP amendment for sediment removal. Guidance on dewatering can be found on the Wisconsin DNR website located in the Storm Water Construction Technical Standards, Dewatering Code #1061,

http://dnr.wi.gov/topic/stormwater/standards/const_standards.html.

Include reasoning, location, and schedule duration proposed for each operation. Per Code 1061, include all selection criteria: site assessment, dewatering practice selection, calculations, plans, specifications, operations, maintenance, and location of proposed treated water discharge. Provide a stabilized discharge area. If directing discharge towards or into an inlet structure, provide additional inlet protection for back-up protection. Dewatering is considered incidental to the contract.

Maintaining Drainage

Maintain drainage at and through worksite during construction conforming to standard spec 107.20, 204.3.2.1(3), 205.3.3 and 520.3.1(2). Use existing storm sewers, existing culvert pipes, existing drainage channels, temporary culvert pipes, or temporary drainage channels to maintain existing surface and pipe drainage. Pumps may be required to drain the surface, pipe, and structure discharges during construction. Costs for furnishing, operating, and maintaining the pumps is considered incidental to the contract.

~~SER-107-003-(20161220)~~

23. Health and Safety Requirements for Workers Remediating Petroleum Contamination.

Add the following to standard spec 107.1(2):

Soil contamination with gasoline, diesel fuel, fuel oil, or other petroleum related products may be encountered during excavation activities. Prepare a site-specific Health and Safety Plan complying with the Occupational Safety and Health Administration (OSHA) standard for Hazardous Waste Operation and Emergency Response (HAZWOPER), 29 CFR 1910.120.

All site workers taking part in remediation activities or who will have the reasonable probability of exposure of safety or health hazards associated with the hazardous material shall have completed Health and Safety training that meets OSHA requirements. Before the start of remediation work, submit to the

engineer a site-specific Health and Safety Plan, and written verification that workers will have completed up-to-date OSHA training.

Develop, delineate, and enforce the health and safety exclusions zones for each contaminated site location pursuant to 29 CFR 1910.120.

stp-107-115 (20150630)

24. Archaeological Site.

Oak Ridge Cemetery (BWL-0021) burial site is located approximately Station 905+25 to 914+00 LT within the limits shown on the plans.

Notify the Bureau of Technical Services – Environmental Process and Document Section (BTS-EPDS) at (608) 266-0099 at least two weeks before commencement of any ground disturbing activities. BTS-EPDS will determine if a qualified archaeologist will need to be on site during construction of this area.

Do not use the site for borrow or waste disposal. Do not use the site area not currently capped by asphalt/concrete for the staging of personnel, equipment and/or supplies.

Archaeological sites Schaub Farmstead (47WL350), Train Whistle (47RA313), and Koetterhagen (47RA311) are located approximately as listed below, within the limits shown on the plans.

Schaub Farmstead (47WL350) – Station 1006+35 to 1010+00 LT of the reference line

Train Whistle (47RA313) – Station 1165+25 to 1166+25 LT of the reference line

Koetterhagen (47RA311) – Station 1212+25 to 1215+50 LT of the reference line

Install Fence Safety at the edge of the area of potential effect at the Schaub Farmstead (47WL350), Train Whistle (47RA313), and Koetterhagen (47RA311) sites to prevent inadvertent disturbances to those portions of the sites. The areas beyond the Fence Safety and other sites listed above should not be used as a staging area for equipment personnel, source of borrow, or the location for the placement of waste or batch plants.

25. Coordination with Businesses and Residents.

The department will arrange and conduct a meeting between the contractor, the department, affected residents, local officials and business people to discuss the project schedule of operations including vehicular and pedestrian access during construction operations. Hold the first meeting at least one week before the start of work under this contract and hold one meeting per month thereafter. The department will arrange for a suitable location for meetings that provides reasonable accommodation for public involvement. The department will prepare and coordinate publication of the meeting notices and mailings for meetings. The contractor shall schedule meetings with at least two weeks' prior notice to the engineer to allow for these notifications.

stp-108-060 (20141107)

26. Pavement Breaking Equipment.

Do not use guillotine, drop hammer, falling weight, gravity impact breakers or equivalent equipment within 300 feet of any structure. A multi-head hydraulic hammer is allowed unless a structure is within 50 feet of the roadway.

SER-204-001 (20161123)

27. Removing Corrugated Steel Culvert Pipe and Restoring Cut End, Item 204.9060.S.01.

A Description

This special provision describes removing a portion of a corrugated steel culvert pipe and restoring the cut end conforming to standard spec 204.

B (Vacant)

C Construction

Repair damaged zinc coating on cut end according to AASHTO M36.

D Measurement

The department will measure Removing Corrugated Steel Culvert Pipe and Restoring Cut End as each individual culvert end, acceptably completed.

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.01 stp-204-025 (20150630)	Removing Corrugated Steel Culvert Pipe and Restoring Cut End	EACH

28. Removing Inlet Cover, Item 204.9060.S.02.

A Description

This special provision describes Removing Inlet Cover conforming to standard spec 204.

B (Vacant)

C (Vacant)

D Measurement

The department will measure Removing Inlet Cover as each individual inlet cover, acceptably completed.

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.02 stp-204-025 (20150630)	Removing Inlet Cover	EACH

29. Removing Traffic Signals STH 20 & CTH ES, Item 204.9060.S.03.

A Description

This special provision describes removing existing traffic signals as shown on the plans, according to the pertinent provisions of standard spec 204, and as hereinafter provided. Specific removal items are noted in the plans.

B (Vacant)

C Construction

Notify the department's Electrical Field Unit at (414) 266-1170 at least five working days prior to the removal of the traffic signals. Complete the removal work as soon as possible following shut down of this equipment.

The department assumes that all equipment is in good condition and in working order prior to the contractor's removal operation. Prior to removal, inspect and provide a list of any damaged or non-working traffic signal equipment to the engineer. Any equipment not identified as damaged or not working, prior to removal, will be replaced by the contractor at no cost to the department.

Remove all standards and poles per plan from their concrete footings and disassemble out of traffic. Remove the transformer bases from each pole. Remove the signal heads, emergency vehicle preemption heads (evp), mast arms, luminaires, wiring/cablings, and traffic signal mounting devices from each signal standard, arm or pole. Ensure that all access hand-hole doors and all associated hardware remain intact. Dispose of the underground signal cable, internal wires and street lighting cable off the state right-of-way. Deliver the remaining materials, except for Traffic signal LED and luminaire lamp, switch, and ballasts to the West Allis Electrical Service Facility at 935 South 60th Street, West Allis, Milwaukee County. Contact the department's Electrical Field Unit at (414) 266-1170 at least five working days prior to delivery to make arrangements.

DOT forces shall remove the signal cabinet from the footing. The signal cabinet and associated signal cabinet equipment will be removed from the site by DOT forces and will remain the property of the department.

D Measurement

The department will measure Removing Traffic Signals STH 20 & CTH ES as a single unit, acceptably completed.

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.03	Removing Traffic Signals STH 20 & CTH ES	EACH

The department will pay separately for traffic signal LED and luminaire lamp, switch, and ballast disposal.
stp-204-025 (20150630)

30. Removing Loop Detector Wire and Lead-In Cable STH 20 & CTH ES, Item 204.9060.S.04.

A Description

This special provision describes removing loop detector wire and lead-in cable as shown on the plans, according to the pertinent provisions of standard spec 204, and as hereinafter provided.

B (Vacant)

C Construction

Notify the department's Electrical Field Unit at (414) 266-1170 at least five working days prior to the removal of the loop detector wire and lead-in cable.

Remove and dispose of detector lead-in cable including loop wire for abandoned loops off the project site.

D Measurement

The department will measure Removing Loop Detector and Lead-In Cable STH 20 & CTH ES as a single unit, acceptably completed.

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.04	Removing Loop Detector Wire and Lead-In Cable STH 20 & CTH ES	EACH

stp-204-025 (20150630)

31. Removing Steel Plate Beam Guard Retaining Wall, Item 204.9090.S.01.

A Description

This special provision describes removing steel plate beam guard retaining wall conforming to standard spec 204.

B (Vacant)

C (Vacant)

D Measurement

The department will measure Removing Steel Plate Beam Guard Retaining Wall in linear feet, acceptably completed.

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9090.S.01	Removing Steel Plate Beam Guard Retaining Wall	LF

Payment for removing steel plate beam guard retaining wall is full compensation for removing posts, rail, fasteners, steel cable, and concrete deadman as shown in the plans.

stp-204-025 (20150630)

32. Excavation, Hauling, and Disposal of Petroleum Contaminated Soil, Item 205.0501.S.

A Description

A.1 General

This special provision describes excavating, loading, hauling, and disposing of petroleum contaminated soil at a WDNR-approved bioremediation facility. The closest WDNR-approved bioremediation facilities are:

Green For Life (GFL) Emerald Park Landfill
W124S10629 South 124th Street
Muskego, WI 53132
(414) 529-1360

Waste Management Metro Landfill
10712 S. 124th St.
Franklin, WI 53051
(866) 909-4458

Perform this work according to standard spec 205 and with pertinent parts of Chapters NR 700-754 of the Wisconsin Administrative Code, as supplemented herein. Per NR 718.07, a solid waste collection and transportation service-operating license is required under NR 502.06 for each vehicle used to transport contaminated soil.

A.2 Notice to the Contractor – Contaminated Soil Locations

The department completed testing for soil contamination at locations within this project where excavation is required.

Testing indicated that petroleum-contaminated soil is present at the following locations as shown on the plans:

- Station 903+45 to 903+95, from 25 feet left of reference line to 10 feet right of reference line, from 4 to 8+ feet below grade. The estimated volume of contaminated soil to be excavated at this location is 20 CY (approximately 34 tons using a conversion factor of 1.7 tons per cubic yard).

Directly load soil excavated by the project at the above location into trucks that will transport the soil to a WDNR-licensed bioremediation facility.

If contaminated soils are encountered elsewhere on the project, terminate excavation activities in the area and notify the engineer.

No active groundwater monitoring wells were observed within the construction limits. If active groundwater monitoring wells are encountered during construction, notify the engineer and protect them to maintain their integrity. The environmental consultant will determine if monitoring wells need to be maintained. For monitoring wells that do need to be maintained, adjust the wells that do not conflict with structures or curb and gutter to be flush with the final grade. For wells that conflict with the previously mentioned items or if monitoring wells are not required to be maintained, they will be abandoned by others.

A.3 Excavation Management Plan

The excavation management plan for this project has been designed to minimize the offsite disposal of contaminated material. The excavation management plan, including these special provisions, has been developed in cooperation with the WDNR. The WDNR concurrence letter is on file at the Wisconsin Department of Transportation. For further information regarding previous investigations, remediation activities and waste characterization within the project limits, contact:

Name: Andrew Malsom
Address: 141 NW Barstow Street, PO Box 798, Waukesha, WI 53187-0798
Phone: (262) 548-6705
Fax: (262) 548-6891
E-mail: andrew.malsom@dot.wi.gov

A.4 Coordination

Coordinate work under this contract with the environment consultant:

Consultant: TRC Environmental Corporation
Address: 6737 W. Washington St., Suite 2100, West Allis, WI 53214
Contact: Bryan Bergmann
Phone: (262) 901-2126 office, (262) 227-9210 cell
Fax: (262) 879-1220
E-mail: bbergmann@trccompanies.com

The role of the environmental consultant will be limited to:

1. Determining the location and limits of contaminated soil to be excavated based on soil analytical results from previous investigations, visual observations, and field screening of soil that is excavated;
2. Identifying contaminated soils to be hauled to the bioremediation facility;
3. Documenting that activities associated with management of contaminated soil are in conformance with the contaminated soil management methods for this project as specified herein; and
4. Obtaining the necessary approvals for disposal of contaminated soil from the bioremediation facility.

Provide at least a 14-calendar day notice of the preconstruction conference date to the environmental consultant. At the preconstruction conference, provide a schedule for all excavation activities in the areas of contamination to the environmental consultant. Also notify the environmental consultant at least three calendar days prior to commencement of excavation activities in the contaminated area.

Coordinate with the environmental consultant to ensure that the environmental consultant is present during excavation activities in the contaminated area. Perform excavation work in the contaminated area on a continuous basis until excavation work is completed.

Identify the DNR approved bioremediation facility that will be used for disposal of contaminated soil and provide this information to the environmental consultant no later than 30 calendar days prior to commencement of excavation activities in the contaminated areas or at the preconstruction conference, whichever comes first. The environmental consultant will be responsible for obtaining the necessary approvals for disposal of contaminated soil from the bioremediation facility. Do not transport contaminated soil offsite without prior approval from the environmental consultant.

A.5 Health and Safety Requirements

Add the following to standard spec 107.1:

During excavation activities, expect to encounter soil contaminated with gasoline, diesel fuel, fuel oil, or other petroleum related products and metals. Site workers taking part in activities that will result in the reasonable probability of exposure to safety and health hazards associated with hazardous materials shall have completed health and safety training that meets the Occupational Safety and Health Administration (OSHA) requirements for Hazardous Waste Operations and Emergency Response (HAZWOPER), as provided in 29 CFR 1910.120.

Prepare a site-specific Health and Safety Plan, and develop, delineate and enforce the health and safety exclusion zones for each contaminated site location as required by 29 CFR 1910.120. Submit the site-specific health and safety plan and written documentation of up-to-date OSHA training to the engineer prior to the start of work.

B (Vacant)

C Construction

Add the following to standard spec 205.3:

Control operations in the contaminated areas to minimize the quantity of contaminated soil excavated.

The environmental consultant will periodically evaluate soil excavated from the contaminated area to determine if the soil will require offsite bioremediation. The environmental consultant will evaluate excavated soil based on field screening results, visual observations, and soil analytical results from previous environmental investigations. Assist the environmental consultant in collecting soil samples for evaluation using excavation equipment. The sampling frequency shall be a maximum of one sample for every 20 cubic yards excavated.

Directly load and haul soil designated by the environmental consultant for offsite bioremediation to the DNR approved bioremediation facility. Use loading and hauling practices that are appropriate to prevent any spills or releases of petroleum-contaminated soil or residues. Prior to transport, sufficiently dewater soil designated for off-site bioremediation so as not to contain free liquids.

If dewatering is required in an area of known contamination, water generated from dewatering activities may contain contaminants and require testing, special handling, temporary storage, and disposal. Contaminated groundwater may be discharged to the sanitary sewer with prior approval from the Village of East Troy as follows:

1. Meet all applicable requirements of the Village of East Troy including the control of suspended solids. Perform all necessary monitoring to document compliance with the Village of East Troy requirements. Furnish, install, operate, maintain, disassemble, and remove treatment equipment necessary to comply with the Village of East Troy requirements.
2. Ensure continuous dewatering and excavation safety at all times. Provide, operate, and maintain adequate pumping equipment and drainage and disposal facilities.

If contaminated groundwater cannot be discharged to the Village of East Troy sanitary sewer, the water shall be pumped into a holding tank or tanker truck for off-site testing and disposal.

Groundwater with a petroleum sheen cannot be discharged to the sanitary sewer. If dewatering is necessary where the groundwater has a sheen on the surface, the water shall be pumped into a holding tank or tanker truck for off-site testing and disposal.

Notify the engineer of any dewatering activities and obtain any permits necessary to discharge water. Provide copies of such permits to the engineer. Meet any requirements and pay any costs for obtaining and complying with such permit use. Follow all applicable legislative statutes, judiciary decisions, and regulations of the State of Wisconsin.

Contractor shall ensure continuous dewatering and excavation safety at all times. Provide, install, operate, maintain adequate pumping equipment, disassemble, and remove pumping equipment.

Limit excavation in the location described in A.2 to minimize the handling of groundwater. Notify the engineer of any dewatering activities and obtain any permits necessary to discharge or dispose of contaminated water. Provide copies of such Permit to the engineer. Meet any requirements and pay any costs for obtaining and complying with such permit use. Follow all applicable legislative statutes, judiciary decisions, and regulations of the State of Wisconsin.

Costs associated with excavation dewatering in contaminated areas are considered incidental to this pay item. The Wisconsin Department of Transportation will be the generator of regulated solid waste from this construction project.

D Measurement

The department will measure Excavation, Hauling, and Disposal of Petroleum Contaminated Soil in tons of contaminated soil, accepted by the bioremediation facility as documented by weight tickets generated by the bioremediation facility.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
205.0501.S	Excavation, Hauling, and Disposal of Petroleum Contaminated Soil	TON

Payment is full compensation for excavating, segregating, loading, hauling, and treatment via bioremediation of contaminated soil; obtaining solid waste collection and transportation service operating licenses; assisting in the collection soil samples for field evaluation; and dewatering of soils prior to transport, if necessary.

33. QMP Base Aggregate Dense 1 1/4-Inch Compaction, Item 371.2000.S.

A Description

- (1) This special provision describes modifying the compaction and density testing and documentation requirements of work done under the Base Aggregate Dense 1 1/4-Inch bid items. Conform to standard spec 305 as modified in this special provision and to the contract QMP Base Aggregate article.
- (2) Provide and maintain a quality management program. A quality management program is defined as all activities, including process control, inspection, sampling and testing, and necessary adjustments in the process related to construction of dense graded base which meets all the requirements of this provision.
- (3) Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes sampling and testing procedures.

<https://wisconsindot.gov/rdwy/cmm/cm-08-00toc.pdf>

- (4) This special provision applies to Base Aggregate Dense 1 1/4-Inch material placed: above at least 16 inches of subgrade improvement, 12 inches of subgrade improvement and geogrid or QMP subgrade provisions, between shoulder hinge points and lower than mainline pavement. Unless otherwise specified by the contract, all Base Aggregate Dense 1 1/4-Inch material placed on side roads, private and public entrances, individual ramps less than 1500 feet, passing lanes less than 1500 feet, tapers, turn lanes, and other undefined locations are exempt from the compaction and density requirement modifications and testing contained within this special provision.

B (Vacant)

C Construction

C.1 General

- (1) The engineer shall approve the grade before placement of the base. Approval of the grade shall be according to applicable provisions of the standard specifications.

Add the following to standard spec 305.3.2.2:

- (3) For 1 1/4-Inch dense graded base composed of < or = 20% reclaimed asphaltic pavement (RAP) or crushed concrete (RCA), as determined by classification of material (aggregate or RAP and/or RCA) and percentage by weight of each material type retained on the No. 4 Sieve, the contractor must determine the material target density according to:

Method 1: Maximum dry density according to AASHTO T-180, Method D, with correction for coarse particles and modified to require determination of Bulk Specific Gravity (G_m) according to AASHTO T 85. Bulk Specific Gravities determined according to standard spec 106.3.4.2.2 for aggregate source approval may be utilized.

- (4) For 1 1/4-Inch dense graded base composed of >20% RAP or RCA, as determined by classification of material (aggregate or RAP and/or RCA) and percentage by weight of each material type retained on the No. 4 Sieve, the contractor may choose from the following options to determine the material target density:

Method 2: Maximum dry density as determined by AASHTO T-180, Method D, with correction for coarse particles, and modified to require determination of Bulk Specific Gravity (G_m) according to AASHTO T 85.

Method 3: Maximum wet density as determined by AASHTO T-180, Method D, modified to define *Maximum Density* as the wet density in pounds per cubic foot of soil at optimum moisture content using Method D specified compaction, with correction for coarse particles, and modified to require determination of Bulk Specific Gravity (G_m) according to AASHTO T 85.

Method 4: Average of 10 random control strip wet density measurements as described in section C.2.5.1.

- (5) Compact the 1 1/4-Inch dense graded base to a minimum of 93.0% of the material target density for methods 1, 2 and 3. Compact 1 1/4-inch dense graded base to a minimum of 96% of the material target density for method 4. Ensure that adequate moisture is present during placement and compaction operations to prevent segregation and to help achieve compaction.
- (6) Base Aggregate Dense 1 1/4-Inch will be accepted for compaction on a lot basis.
- (7) Field density tests on materials using contractor elected target density methods 3 or 4 will not be considered for lot acceptance on the basis of compaction under the requirements of this provision until the moisture content of the in-place material is less than 2.0 percentage points above the maximum wet density optimum moisture or 2.0 percentage points of the average moisture content of the 10 density

tests representing a control strip, respectively. Determine moisture content using AASHTO T255 as modified in CMM chapter 8 or a nuclear density gauge. If conducting AASHTO T255, sample materials after watering but before compaction.

C.2 Quality Management Program

C.2.1 Quality Control Plan

- (1) Submit a comprehensive written quality control plan to the engineer no later than 10 business days before placement of material. Do not place any dense graded base before the engineer reviews and accepts the plan. Construct the project as the plan provides.
- (2) Do not change the quality control plan without the engineer's review and acceptance. Update the plan with changes as they become effective. Provide a current copy of the plan to the engineer and post in the contractor's laboratory as changes are adopted. Ensure that the plan provides the following elements:
 1. An organizational chart with names, telephone numbers, current certifications and/or titles, and roles and responsibilities of QC personnel.
 2. The process used to disseminate QC information and corrective action efforts to the appropriate persons. Include a list of recipients, the communication process that will be used, and action time frames.
 3. A list of source locations, section and quarter descriptions, for all aggregate materials requiring QC testing.
 4. Descriptions of stockpiling and hauling methods.
 5. An outline for resolving a process control problem. Include responsible personnel, required documentation, and appropriate communication steps.
 6. Location of the QC laboratory, retained sample storage, and other documentation.
 7. Lot layout and random test location plan.
 8. A description of placement methods and operations. Including, but not limited to: staging, construction of an initial working platform, lift thicknesses, and equipment.

C.2.1 Pre-Placement Meeting

A minimum of two weeks before placement of Base Aggregate Dense 1 1/4-Inch material, hold a pre-placement meeting at a mutually agreed upon time and location. Present the Quality Control Plan at the meeting. Attendance at the pre-placement meeting is mandatory for the project superintendent, quality control manager, project inspection and testing staff, all appropriate contractor personnel involved in the sampling, testing, and quality control including subcontractors, and the engineer or designated representatives.

C.2.2 Personnel

- (1) Perform the quality control sampling, testing, and documentation required under this provision using technicians certified by the department's Highway Technician Certification Program (HTCP). Have a HTCP Nuclear Density Technician I, or ACT certified technician, perform field density and field moisture content testing. Adhere to the minimum required certifications for aggregate testing per part 7 of the standard specification. AASHTO T180 proctor testing requires a minimum certification level of AGGTEC-1.
- (2) If an ACT is performing sampling or testing, a certified technician must coordinate and take responsibility for the work an ACT performs. Have a certified technician ensure that all sampling and testing is performed correctly, analyze test results, and post resulting data. No more than one ACT can work under a single certified technician.

C.2.3 Equipment

- (1) Furnish the necessary equipment and supplies for performing quality control testing. Ensure that all testing equipment conforms to the equipment specifications applicable to the required testing methods. The engineer may inspect the measuring and testing devices to confirm both calibration and condition. Calibrate all testing equipment according to the CMM and maintain a calibration record at the laboratory.
- (2) Furnish nuclear gauges from the department's approved product list at:
<https://wisconsin.gov/Pages/doing-bus/eng-consultants/cnslt-rsrcs/tools/appr-prod/default.aspx>
- (3) Ensure that the nuclear gauge manufacturer or an approved calibration service calibrates the gauge the same calendar year it is used on the project. Retain a copy of the calibration certificate with the gauge.
- (4) For all target density methods, conform to AASHTO T310 and CMM 8-15 for wet density testing and gauge monitoring methods.

- (5) For the specified target density determined using method 1 in section C.1, compute the dry densities for the compacted dense graded base, composed of < or = 20% RAP or RCA, according to AASHTO T310.
- (6) For contractor elected target density method 2 in section C.1, compute dry densities of dense graded base composed of >20% RAP or RCA using a moisture correction factor and the nuclear wet density value. Determine the moisture correction value, for each Proctor produced under the requirements of C.2.5, using the moisture bias as shown in CMM 8.15.12.1 and 8.15.12.2, except the one-point Proctor tests of the 5 random tests is not required. Conduct a moisture bias test for every 7500 feet of Base Aggregate Dense 1 1/4-Inch placed. Determine natural moistures in the laboratory.
- (7) Perform nuclear gauge measurements using gamma radiation in the backscatter or direct transmission position. Backscatter may be used only if the material being tested cannot reliably maintain an undistorted direct transmission test hole. Direct transmission tests must be performed at the greatest possible probe depth of 2 inches, 4 inches, or 6 inches, but not to exceed the depth of the compacted layer being tested. Perform each test for at least one minute of nuclear gauge count time.

C.2.5 Contractor Testing

- (1) Perform compaction testing on the mainline dense graded base material, as defined by A.(4). Perform the quality control sampling, testing, and documentation required under this provision using HTCP certified technicians as required in C.2.3. Conform to CMM 8-15 for testing and gauge monitoring methods.
- (2) Select test sites randomly using ASTM Method D3665. Random numbers may be determined using an electronic random number generator. Guidance for determining test locations can be found in section 8-30.9 of the Construction and Materials Manual (CMM). Test locations must be kept a minimum of 3 feet from the unsupported edge of dense graded base layers.
- (3) When a density target is determined in accordance methods 3 or 4 in section C.1, conduct density testing on same date of final compaction.

C.2.5.1 Contractor Required Quality Control (QC) Testing

- (1) Conduct testing at a minimum frequency of one test per lot. A lot is 1500 feet for each layer with a maximum width of 18 feet, minimum width of 6 feet, and minimum lift thickness of 2" of Base Aggregate Dense 1 1/4-Inch material placed. Each lot of compacted Base Aggregate Dense 1 1/4-Inch material, as defined by A.(4), will be accepted when the lot field density meets the required minimum density. Lots that don't achieve density requirements must be addressed and approved according to C.2.7.
- (2) Add separate lots for passing lanes and individual ramps greater than 1500 feet.
- (3) Combine partial lots less than 750 feet with the previous lot. Partial lots greater than or equal to 750 feet are standalone lots.
- (4) Notify the engineer, if a lot field density test falls below the required minimum value. Document and perform corrective actions according to C.2.7. Deliver documentation of all compaction testing results to the engineer at the time of testing.

C.2.5.1.1 Target Density Determination

C.2.4.1.1.1 Maximum Wet and/or Dry Density Methods

- (1) For contractor elected target density methods 2 and 3 in section C.1, and contractually specified target density method 1 in section C.1; perform one gradation and 5-point Proctor test before placement of 1 1/4-Inch dense graded base. Perform additional gradations every 3000 tons according to standard spec 305 and 730. If sampling requirements are identical, samples/testing performed for the QMP Base Aggregate specification may be used to fulfill the gradation testing requirements of this specification.
- (2) Perform additional 5-point Proctor tests, at a minimum, when:
 1. The four point moving average gradation on any one sieve differs from the original gradation test result for that sieve, by more than 10 percentage points. The original gradation test is defined as the gradation of the material used to create a 5-point Proctor. Each 5-point Proctor test will remain valid for any material with gradation for all sieves within 10.0 percentage points of that Proctor's original gradation test.
 2. The source of base aggregate changes.
 3. Percent target density exceeds 103.0% on two consecutive density tests.
- (3) Provide Proctor test results to the engineer within two business days of sampling. Provide gradation test results to the engineer within one business day of sampling.
- (4) Split each contractor QC Proctor sample and identify it according to CMM 8-30. Deliver the split to the engineer within one business day for department QV Proctor testing.

- (5) Split each non-Proctor contractor QC sample and identify it according to CMM 8-30. Retain the split for 7 calendar days in a dry, protected location. If requested for department comparison testing, deliver the split to the engineer within one business day.

C.2.5.1.1.2 Density Control Strip Method

- (1) For contractor elected target density method 4 in section C.1, construct a control strip for each layer of placement to identify the target wet density for the base aggregate dense material. The control strip construction and density testing will occur under the direct observation and/or assistance of the department QV personnel. For blended material, reprocessed material and crushed concrete, perform additional gradations every 3000 tons according to standard spec 305 and 730. If sampling frequencies are identical, samples/testing performed for the QMP Base Aggregate specification may be used to fulfill the gradation testing requirements of this specification.
- (2) Unless the engineer approves otherwise, construct control strips to a minimum dimension of 300 feet long and one full lane width.
- (3) Completed control strips may remain in-place to be incorporated into the final roadway cross-section.
- (4) Construct additional control strips, at a minimum, when:
 1. The source of base aggregate changes.
 2. The four point moving average percentage of blended recycled materials, from classification of material retained on the No. 4 sieve in the original gradation test, differs by more than 10 percentage points. The original gradation test is defined as the gradation of the material used to construct the control strip.
 3. The layer thickness changes more than 2.0 inches.
 4. The percent target density exceeds 103.0% on two consecutive density measurements.
- (5) Construct control strips using equipment and methods representative of the operations to be used to place and compact the remaining 1 1/4-Inch Base Aggregate Dense material. Wet the base, as mutually agreed upon by the contractor and engineer, to obtain and/or maintain adequate moisture content to ensure proper compaction. Discontinue water placement if the base begins to exhibit signs of saturation or instability.
- (6) After compacting the control strip with a minimum of 2 passes, mark and take density measurements at 3 random locations. Subsequent density measurements will be taken at the same 3 locations. Test locations must be kept a minimum of 3 feet from the unsupported edge of dense graded base layers.
- (7) After each subsequent pass of compaction equipment over the entirety of the control strip, take wet density measurements at the 3 marked locations. Continue compacting and testing until the increase in wet density measurements are less than 2.0 lb/ft³, or the density measurements begin to decrease.
- (8) Upon completion of control strip compaction, take 10 randomly located wet density measurements within the limits of the control strip. The final measurements recorded at the 3 locations under article C.2.4.1.1.2 may be included as 3 of the 10 measurements. Average the ten measurements to obtain the control strip target density and target moisture for use in contractor elected method 4 in section C.1. Test locations must be kept a minimum of 3 feet from the unsupported edge of dense graded base layers.

C.2.6 Department Testing

C.2.6.1 General

- (1) The department will conduct verification testing to validate the quality of the product and independent assurance testing to evaluate the sampling and testing. The department will provide the contractor with a listing of names and telephone numbers of all QV and IA personnel for the project and provide test results to the contractor within two business days after the department obtains the sample.
- (2) When a density target is determined in accordance methods 3 and 4 in section C.1, conduct density testing on same date of final compaction.

C.2.6.2 Quality Verification (QV) Testing

- (1) The department will have an HTCP technician, or ACT working under a certified technician, perform QV sampling and testing. Department verification testing personnel must meet the same certification level requirements specified in C.2.3 for contractor testing personnel for each test result being verified. The department will notify the contractor before sampling so the contractor can observe QV sampling.
- (2) The department will conduct QV tests at the minimum frequency of 20% of the required gradation, density and Proctor contractor tests.

- (3) The department will utilize contractor's QC Proctor results for determination of the material target density. The department will verify QC Proctor values by testing QC Proctor split sample. The department will use QC Proctor value as a target density if the QC and QV Proctor test results meet the tolerance requirements specified in section C.2.6.2(7).
- (4) The department will locate gradation and nuclear density test samples, at locations independent of the contractor's QC work, collecting one sample at each QV location. Sampling for gradation may be done independently of nuclear density tests, before watering and before compacting. The department will split each QV sample, test half for QV, and retain the remaining half for 10 calendar days.
- (5) The department will conduct QV tests in a separate laboratory and with separate equipment from the contractor's QC tests. The department will use the same methods specified for QC testing.
- (6) The department will utilize control strip target density testing results in lieu of QV Proctor sampling and testing when the contractor elected target density method 4 in section C.1 is used.
- (7) The department will assess QV results by comparing to the appropriate specification limits. If QV test results conform to this special provision, the department will take no further action. If QV test results are nonconforming, take corrective actions according to C.2.7 until the requirements of this special provision are met. Differing QC and QV nuclear density values of more than 2.0 pcf will be investigated and resolved. Differing QC and QV Proctor values of more than 3.0 pcf will be investigated and resolved.

C.2.6.3 Independent Assurance (IA)

- (1) Independent assurance is unbiased testing the department performs to evaluate the department's QV and the contractor's QC sampling and testing, including personnel qualifications, procedures, and equipment. The department will perform an IA review according to the department's independent assurance program. That review may include one or more of the following:
 1. Split sample testing.
 2. Proficiency sample testing.
 3. Witnessing sampling and testing.
 4. Test equipment calibration checks.
 5. Requesting that testing personnel perform additional sampling and testing.
- (2) If the department identifies a deficiency, and after further investigation confirms it, correct that deficiency. If the contractor does not correct or fails to cooperate in resolving identified deficiencies, the engineer may suspend placement until action is taken. Resolve disputes as specified in C.2.6.4.

C.2.6.4 Dispute Resolution

- (1) The engineer and contractor should make every effort to avoid conflict. If a dispute between some aspect of the contractor's and the engineer's testing program does occur, seek a solution mutually agreeable to the project personnel. The department and contractor shall review the data, examine data reduction and analysis methods, evaluate sampling and testing methods/procedures, and perform additional testing. Use ASTM E 178 to evaluate potential statistically outlying data.
- (2) Production test results, and results from other process control testing, may be considered when resolving a dispute.
- (3) If project personnel cannot resolve a dispute, and the dispute affects payment or could result in incorporating non-conforming product or work, the department will use third party testing to resolve the dispute. The department's central office laboratory, or a mutually agreed on independent testing laboratory, will provide this testing. The engineer and contractor will abide by the results of the third party tests. The party in error will pay service charges incurred for testing by an independent laboratory. The department may use third party test results to evaluate the quality of questionable materials and determine the appropriate payment. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

C.2.7 Corrective Action

- (1) Lots not achieving the minimum density requirements may be addressed and accepted for compaction according to the requirements of this section. Unless directed by the engineer, corrective actions taken to address an unacceptable lot must be applied to the entire lot corresponding to the non-conforming test.
- (2) Investigate the moisture content of material in an unacceptable lot. Moisture content testing/samples collected under the QC and/or QV testing articles of this specification may be used to complete this

investigation. Obtain moisture content readings according to ASTM D 6938. For material composed of >20% RAP or RCA, correct the moisture content with the moisture correction value using the moisture bias, as shown in CMM 8.15.12.1 and 8.15.12.2, except the one-point Proctor tests of the 5 random tests is not required.

- (3) Lots with moisture contents within 2.0 percentage points of optimum moisture for target density methods 1, 2 and 3 in section C.1, or within 2.0 percentage points of the target moisture content for target density method 4 in section C.1, and exhibiting no signs of deflection when subjected to loading by the heaviest roller used in the placement and compaction operations, shall be compacted a minimum of one more pass using equipment and methods representative of the operations used to place and compact the Base Aggregate Dense 1 1/4-Inch, and density tested at the same location (station and offset) as the failing QC and/or QV density tests. If the change in density exceeds 2.0 lb/ft³ continue subsequent compactive efforts and density testing on that lot, at no additional cost to the department. If the change in density is less than or equal to 2.0 lb/ft³, the lot is accepted as satisfying the compaction requirements of this provision.
- (4) Lots with moisture contents within 2.0 percentage points of optimum moisture for target density methods 1, 2, or 3 in section C.1, or within 2.0 percentage points of the target moisture content for target density method 4 in section C.1 and exhibiting signs of deflection when subjected to loading by the heaviest roller used in the placement and compaction operations, will be reviewed by the engineer. The engineer may request subgrade improvement methods, such as excavation below subgrade (EBS), installation of geotextile fabrics, installation of breaker run material, or others to be completed, or may request an additional pass of compactive effort using equipment and methods representative of the operations used to place and compact the base aggregate dense and density test.
 1. If, after an additional pass, the change in density at the same location (station and offset) as the failing QC and/or QV density tests exceeds 2.0 lb/ft³ in a lot continue subsequent compactive efforts and density testing on that lot. If the change in density at the same location (station and offset) as the failing QC and/or QV density tests is less than or equal to 2.0 lb/ft³, and subgrade improvement methods are not requested by the engineer, the lot is accepted as satisfying the compaction requirements of this provision.
 2. If subgrade improvement methods are requested by the engineer, upon completion, including compaction of the restored base material, conduct a density test within the improved subgrade limits. This density test result will replace the prior field density value. If the lot field density equals or exceeds the minimum density requirement defined in section C.1, the lot is accepted as satisfying the compaction requirements of this provision. If the lot field density fails to achieve the minimum density requirement defined in section C.1, compact the lot a minimum of one more pass using equipment and methods representative of the operations used to place and compact the base aggregate dense; and density test at the same location (station and offset) as the failing QC and/or QV density tests. If the change in density exceeds 2.0 lb/ft³ continue subsequent compactive efforts and density testing on that lot, at no additional cost to the department. If the change in density is less than or equal to 2.0 lb/ft³, the lot is accepted as satisfying the compaction requirements of this provision.
- (5) Unacceptable lots, with moisture contents in excess of 2.0 percentage points above or below optimum moisture for target density methods 1, 2 or 3 in section C.1; or in excess of 2.0 percentage points above or below the target moisture content for target density method 4 in section C.1; shall receive contractor performed and documented corrective action; including additional density testing.
- (6) Density tests completed subsequent to any corrective action will replace previous field density test results for that lot. Continue corrective actions until the minimum density requirement is achieved or an alternate compaction acceptance criteria is met according to this section.
- (7) Field moisture contents of materials tested using contractor elected target density methods 3 or 4 in section C.1 cannot exceed 2.0 percentage points of the optimum moisture content or 2.0 percentage points of the target moisture content, respectively. Density tests on materials using contractor elected target density methods 3 or 4 in section C.1 will not be considered for lot compaction acceptance until the moisture content of the corresponding density test of the in-place material is less than 2.0 percentage points above of the optimum moisture content or 2.0 percentage points of the target moisture content, respectively.

D Measurement

- (1) The department will measure the QMP Base Aggregate Dense 1 1/4-Inch Compaction bid item by each lot, acceptably completed per C.2.5.1.

E Payment

- (1) The department will pay for the measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
371.2000.S	QMP Base Aggregate Dense 1 1/4-Inch Compaction	EACH

- (2) Payment is full compensation for performing compaction testing; for sampling and laboratory testing; and for developing, completing, and documenting the compaction quality management program. The department will pay separately for providing aggregate under the Base Aggregate Dense 1 1/4-Inch bid item.
- (3) The department will pay for additional tests directed by the engineer. One engineer directed test is equal to one acceptably completed lot of the QMP Base Aggregate Dense 1 1/4 -Inch Compaction bid item. The department will not pay for additional corrective action tests required due to unacceptable material.

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34. HMA Percent Within Limits (PWL) Test Strip Volumetrics, Item 460.0105.S; HMA Percent Within Limits (PWL) Test Strip Density, Item 460.0110.S.

A Description

This special provision describes the Hot Mix Asphalt (HMA) density and volumetric testing tolerances required for an HMA test strip. An HMA test strip is required for contracts constructed under HMA Percent Within Limits (PWL) QMP. A density test strip is required for each pavement layer placed over a specific, uniform underlying material, unless specified otherwise in the plans. Each contract is restricted to a single mix design per mix type per layer (e.g., upper layer and lower layer may have different mix type specified or may have the same mix type with different mix designs). Each mix design requires a separate test strip. Density and volumetrics testing will be conducted on the same test strip whenever possible.

Perform work according to standard spec 460 and as follows.

B Materials

Use materials conforming to HMA Pavement Percent Within Limits (PWL) QMP special provision.

C Construction

C.1 Test Strip

Submit the test strip start time and date to the department in writing at least 5 calendar days in advance of construction of the test strip. If the contractor fails to begin paving within 2 hours of the submitted start time, the test strip is delayed, and the department will assess the contractor \$2,000 for each instance according to Section E of this document. Alterations to the start time and date must be submitted to the department in writing a minimum of 24 hours prior to the start time. The contractor will not be liable for changes in start time related to adverse weather days as defined by standard spec 101.3 or equipment breakdown verified by the department.

On the first day of production for a test strip, produce approximately 750 tons of HMA. (Note: adjust tonnage to accommodate natural break points in the project.) Locate test strips in a section of the roadway to allow a representative rolling pattern (i.e., not a ramp or shoulder, etc.).

C.1.1 Sampling and Testing Intervals

C.1.1.1 Volumetrics

Laboratory testing will be conducted from a split sample yielding three components, with portions designated for QC (quality control), QV (quality verification), and retained.

During production for the test strip, obtain sufficient HMA mixture for three-part split samples from trucks prior to departure from the plant. Collect three split samples during the production of test strip material. Perform sampling from the truck box and three-part splitting of HMA according to CMM 836. These three samples will be randomly selected by the engineer from each *third* of the test strip tonnage (T), excluding the first 50 tons:

<u>Sample Number</u>	<u>Production Interval (tons)</u>
1	50 to 1/3 T
2	1/3 T to 2/3 T
3	2/3 T to T

C.1.1.2 Density

Required field tests include contractor QC and department QV nuclear density gauge tests and pavement coring at ten individual locations (five in each half of the test strip length) according to Appendix A: *Test Methods and Sampling for HMA PWL QMP Projects*. Both QV and QC teams shall have two nuclear density gauges present for correlation at the time the test strip is constructed. QC and QV teams may wish to scan with additional gauges at the locations detailed in Appendix A, as only gauges used during the test strip correlation phase will be allowed.

C.1.2 Field Tests

C.1.2.1 Density

For contracts that include STSP 460-020 QMP Density in addition to PWL, a gauge comparison according to CMM 815.7 shall be completed prior to the day of test strip construction. Daily standardization of gauges on reference blocks and a project reference site shall be performed according to CMM 815.8. A standard count shall be performed for each gauge on the material placed for the test strip, prior to any additional data collection. Nuclear gauge readings and pavement cores shall be used to determine nuclear gauge correlation according to Appendix A. The two to three readings for the five locations across the mat for each of two zones shall be provided to the engineer. The engineer will analyze the readings of each gauge relative to the densities of the cores taken at each location. The engineer will determine the average difference between the nuclear gauge density readings and the measured core densities to be used as a constant offset value. This offset will be used to adjust raw density readings of the specific gauge and shall appear on the density data sheet along with gauge and project identification. An offset is specific to the mix and layer; therefore, a separate value shall be determined for each layer of each mix placed over a differing underlying material for the contract. This constitutes correlation of that individual gauge for the given layer. Two gauges per team are not required to be onsite daily after completion of the test strip. Any data collected without a correlated gauge will not be accepted.

The contractor is responsible for coring the pavement from the footprint of the density tests and filling core holes according to Appendix A. Coring and filling of pavement core holes must be approved by the engineer. The QV team is responsible for the labeling and safe transport of the cores from the field to the QC laboratory. Testing of cores shall be conducted by the contractor and witnessed by department personnel. The contractor is responsible for drying the cores following testing. The department will take possession of cores following laboratory testing and will be responsible for any verification testing at the discretion of the engineer.

The target maximum density to be used in determining core density is the average of the three volumetric/mix Gmm values from the test strip multiplied by 62.24 lb/ft³. In the event mix and density portions of the test strip procedure are separated, or if an additional density test strip is required, the mix portion must be conducted prior to density determination. The target maximum density to determine core densities shall then be the Gmm four-test running average (or three-test average from a PWL volumetric-only test strip) from the end of the previous day's production multiplied by 62.24 lb/ft³. If no PWL production QV volumetric test is to be taken in a density-only test strip, a non-random QV test will be taken according to 460.2.8.3.1.4 as modified in HMA Pavement Percent Within Limits (PWL) QMP and if non-conforming to C.2.1 herein, follow corrective action outlined in 460.2.8.2.1.7(4) as modified in HMA Pavement Percent Within Limits (PWL) QMP.

Exclusions such as shoulders and appurtenances shall be tested and reported according to CMM 815. However, all acceptance testing of shoulders and appurtenances will be conducted by the department, and average lot (daily) densities must conform to standard spec Table 460-3. No density incentive or disincentive will be applied to shoulders or appurtenances. However, unacceptable shoulder material will be handled according to standard spec 460.3.3.1 and CMM 815.11.

C.1.3 Laboratory Tests

C.1.3.1 Volumetrics

Obtain random samples according to C.1.1.1 and Appendix A. Perform tests the same day as taking the sample.

Theoretical maximum specific gravities of each mixture sample will be obtained. Bulk specific gravities of both gyratory compacted samples and field cores shall be determined. The bulk specific gravity values determined from field cores shall be used to calculate a correction factor (i.e., offset) for each QC and QV nuclear density gauge. The correction factor will be used throughout the remainder of the layer.

C.2 Acceptance

C.2.1 Volumetrics

Produce mix conforming to the following limits based on individual QC and QV test results (tolerances based on most recent JMF):

ITEM	ACCEPTANCE LIMITS
Percent passing given sieve:	
37.5-mm	+/- 8.0
25.0-mm	+/- 8.0
19.0-mm	+/- 7.5
12.5-mm	+/- 7.5
9.5-mm	+/- 7.5
2.36-mm	+/- 7.0
75-µm	+/- 3.0
Asphaltic content in percent ^[1]	- 0.5
Air Voids	-1.5 & +2.0
VMA in percent ^[2]	- 1.0
Maximum specific gravity	+/- 0.024

^[1] Asphalt content more than -0.5% below the JMF will be referee tested by the department's AASHTO accredited laboratory and HTCP certified personnel using automated extraction.

^[2] VMA limits based on minimum requirement for mix design nominal maximum aggregate size in [table 460-1](#).

QV samples will be tested for Gmm, Gmb, and AC. Air voids and VMA will then be calculated using these test results.

Calculation of air voids shall use either the QC, QV, or retained split sample test results, as identified by conducting the paired t-test with the WisDOT PWL Test Strip Spreadsheet.

If QC and QV test results do not correlate as determined by the split sample comparison, the retained split sample will be tested by the department's AASHTO accredited laboratory and HTCP certified personnel as a referee test. Additional investigation shall be conducted to identify the source of the difference between QC and QV data. Referee data will be used to determine material conformance and pay.

C.2.2 Density

Compact all layers of test strip HMA mixture according to Table 460-3.

Nuclear density gauges are acceptable for use on the project only if correlation is completed for that gauge during the time of the test strip and the department issues documentation of acceptance stating the correlation offset value specific to the gauge and mix design. The offset is not to be entered into any nuclear density gauge as it will be applied by the department-furnished Field Density Worksheet.

C.2.3 Test Strip Approval and Material Conformance

All applicable laboratory and field testing associated with a test strip shall be completed prior to any additional mainline placement of the mix. All test reports shall be submitted to the department upon completion and approved before paving resumes. The department will notify the contractor within 24 hours from start of test strip regarding approval to proceed with paving unless an alternate time frame

is agreed upon in writing with the department. The 24-hour approval time includes only working days as defined in standard spec 101.3.

The department will evaluate material conformance and make pay adjustments based on the PWL value of air voids and density for the test strip. The QC core densities and QC and QV mix results will be used to determine the PWL values as calculated according to Appendix A.

The PWL values for air voids and density shall be calculated after determining core densities. An approved test strip is defined as the individual PWL values for air voids and density both being equal to or greater than 75, mixture volumetric properties conforming to the limits specified in C.2.1, and an acceptable gauge-to-core correlation. Further clarification on PWL test strip approval and appropriate post-test strip actions are shown in the following table:

PWL TEST STRIP APPROVAL AND MATERIAL CONFORMANCE CRITERIA

PWL VALUE FOR AIR VOIDS AND DENSITY	TEST STRIP APPROVAL	MATERIAL CONFORMANCE	POST-TEST STRIP ACTION
Both PWL \geq 75	Approved ¹	Material paid for according to Section E	Proceed with Production
50 \leq Either PWL < 75	Not Approved	Material paid for according to Section E	Consult BTS to determine need for additional test strip
Either PWL < 50	Not Approved	Unacceptable material removed and replaced or paid for at 50% of the contract unit price according to Section E	Construct additional Volumetrics or Density test strip as necessary

¹ In addition to these PWL criteria, mixture volumetric properties must conform to the limits specified in C.2.1, split sample comparison must have a passing result and an acceptable gauge-to-core correlation must be completed.

A maximum of two test strips will be allowed to remain in place per pavement layer per contract. If material is removed, a new test strip shall replace the previous one at no additional cost to the department. If the contractor changes the mix design for a given mix type during a contract, no additional compensation will be paid by the department for the required additional test strip and the department will assess the contractor \$2,000 for the additional test strip according to Section E of this special provision. For simultaneously conducted density and volumetric test strip components, the following must be achieved:

- i. Passing/Resolution of Split Sample Comparison
- ii. Volumetrics/mix PWL value \geq 75
- iii. Density PWL value \geq 75
- iv. Acceptable correlation

If not conducted simultaneously, the mix portion of a test strip must accomplish (i) and (ii), while density must accomplish (iii) and (iv). If any applicable criteria are not achieved for a given test strip, the engineer, with authorization from the department's Bureau of Technical Services, will direct an additional test strip (or alternate plan approved by the department) be conducted to prove the criteria can be met prior to additional paving of that mix. For a density-only test strip, determination of mix conformance will be according to main production, i.e., HMA Pavement Percent Within Limits (PWL) QMP special provision.

D Measurement

The department will measure HMA Percent Within Limits (PWL) Test Strip as each unit of work, acceptably completed as passing the required air void, VMA, asphalt content, gradation, and density correlation for a Test Strip. Material quantities shall be determined according to standard spec 450.4 and detailed here within.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH
460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH

These items are intended to compensate the contractor for the construction of the test strip for contracts paved under the HMA Pavement Percent Within Limits QMP article.

Payment for HMA Percent Within Limits (PWL) Test Strip Volumetrics is full compensation for volumetric sampling, splitting, and testing, and for the proper labeling, handling, and retention of the split samples.

Payment for HMA Percent Within Limits (PWL) Test Strip Density is full compensation for collecting and measuring of pavement cores, acceptably filling core holes, providing of nuclear gauges and operator(s), and all other work associated with completion of a core-to-gauge correlation, as directed by the engineer.

Acceptable HMA mixture placed on the project as part of a volumetric or density test strip will be compensated by the appropriate HMA Pavement bid item with any applicable pay adjustments. If a test strip is delayed as defined in C.1 of this document, the department will assess the contractor \$2,000 for each instance, under the HMA Delayed Test Strip administrative item. If an additional test strip is required because the initial test strip is not approved by the department or the mix design is changed by the contractor, the department will assess the contractor \$2,000 for each additional test strip (i.e., \$2,000 for each individual volumetrics or density test strip) under the HMA Additional Test Strip administrative item.

Pay adjustment will be calculated using 65 dollars per ton of HMA pavement. The department will pay for measured quantities of mix based on \$65/ton multiplied by the following pay adjustment:

PAY ADJUSTMENT FOR HMA PAVEMENT AIR VOIDS & DENSITY

<i>PERCENT WITHIN LIMITS</i> (PWL)	<i>PAYMENT FACTOR, PF</i> (percent of \$65/ton)
≥ 90 to 100	PF = ((PWL – 90) * 0.4) + 100
≥ 50 to < 90	(PWL * 0.5) + 55
<50	50% ^[1]

where, PF is calculated per air voids and density, denoted PF_{air voids} & PF_{density}

^[1]Material resulting in PWL value less than 50 shall be removed and replaced, unless the engineer allows for such material to remain in place. In the event the material remains in place, it will be paid at 50% of the contract unit price of HMA pavement.

For air voids, PWL values will be calculated using lower and upper specification limits of 2.0 and 4.3 percent, respectively. Lower specification limits for density will be according to Table 460-3. Pay adjustment will be determined for an acceptably completed test strip and will be computed as shown in the following equation:

$$\text{Pay Adjustment} = (\text{PF}-100)/100 \times (\text{WP}) \times (\text{tonnage}) \times (\$65/\text{ton})^*$$

*Note: If Pay Factor = 50, the contract unit price will be used in lieu of \$65/ton and the weighted percentage (WP) will equal 1.0.

The following weighted percentage (WP) values will be used for the corresponding parameter:

<u>Parameter</u>	<u>WP</u>
Air Voids	0.5
Density	0.5

Individual Pay Factors for each air voids (PF_{air voids}) and density (PF_{density}) will be determined. PF_{air voids} will be multiplied by the total tonnage produced (i.e., from truck tickets), and PF_{density} will be multiplied by the calculated tonnage used to pave the mainline only (i.e., traffic lane excluding shoulder) as determined according to Appendix A.

The department will pay incentive for air voids under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
460.2005	Incentive Density PWL HMA Pavement	DOL
460.2010	Incentive Air Voids HMA Pavement	DOL

The department will administer disincentives under the Disincentive Density HMA Pavement and the Disincentive Air Voids HMA Pavement administrative items.

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35. HMA Pavement Percent Within Limits (PWL) QMP.

A Description

This special provision describes percent within limits (PWL) pay determination, providing and maintaining a contractor Quality Control (QC) Program, department Quality Verification (QV) Program, required sampling and testing, dispute resolution, corrective action, pavement density, and payment for HMA pavements. Pay is determined by statistical analysis performed on contractor and department test results conducted according to the Quality Management Program (QMP) as specified in standard spec 460, except as modified below.

B Materials

Conform to the requirements of standard spec 450, 455, and 460 except where superseded by this special provision. The department will allow only one mix design for each HMA mixture type per layer required for the contract, unless approved by the engineer. The use of more than one mix design for each HMA pavement layer will require the contractor to construct a new test strip according to HMA Pavement Percent Within Limits (PWL) QMP Test Strip Volumetrics and HMA Pavement Percent Within Limits (PWL) QMP Test Strip Density articles at no additional cost to the department.

Replace standard spec 460.2.8.2.1.3.1 Contracts with 5000 Tons of Mixture or Greater with the following:

460.2.8.2.1.3.1 Contracts under Percent within Limits

(1) Furnish and maintain a laboratory at the plant site fully equipped for performing contractor QC testing. Have the laboratory on-site and operational before beginning mixture production.

(2) Obtain random samples and perform tests according to this special provision and further defined in Appendix A: *Test Methods & Sampling for HMA PWL QMP Projects*. Obtain HMA mixture samples from trucks at the plant. For the subplot in which a QV sample is collected, discard the QC sample and test a split of the QV sample.

(3) Perform sampling from the truck box and three-part splitting of HMA samples according to CMM 836. Sample size must be adequate to run the appropriate required tests in addition to one set of duplicate tests that may be required for dispute resolution (i.e., retained). This requires sample sizes which yield three splits for all random sampling per subplot. All QC samples shall provide the following: QC, QV, and Retained. The contractor shall take possession and test the QC portions. The department will observe the splitting and take possession of the samples intended for QV testing (i.e., QV portion from each sample) and the Retained portions. Additional sampling details are found in Appendix A. Label samples according to CMM 836. Additional handling instructions for retained samples are found in CMM 836.

(4) Use the test methods identified below to perform the following tests at a frequency greater than or equal to that indicated:

- Blended aggregate gradations according to AASHTO T 30.
- Asphalt content (AC) in percent.

Determine AC using one of the following methods:

- AC by ignition oven according to AASHTO T 308 as modified in [CMM 836.6.3.6](#). If the department is using an ignition oven to determine AC, conform to [CMM 836.6.3.7](#). If the department is not using an ignition oven to determine AC, IOCFs must still be reverified for any of the reasons listed in [CMM 836.6.3.7.2 Table 836-2](#) and conform to [CMM 836.6.3.7.3](#).
- AC by chemical extraction according to AASHTO T 164 Method A or B.
- AC by automated extraction according to ASTM D8159 as modified in CMM 836.6.3.1.
- Bulk specific gravity (G_{mb}) of the compacted mixture according to AASHTO T 166 as modified in CMM 836.6.5.
- Maximum specific gravity (G_{mm}) according to AASHTO T 209 as modified in CMM 836.6.6.
- Air voids (V_a) by calculation according to AASHTO T 269.
- Voids in Mineral Aggregate (VMA) by calculation according to AASHTO R35.

(5) Lot size shall consist of 3750 tons with sublots of 750 tons. Test each design mixture at a frequency of 1 test per 750 tons of mixture type produced and placed as part of the contract. Add a random sample for

any fraction of 750 tons at the end of production for a specific mixture design. Partial lots with less than three subplot tests will be included into the previous lot for data analysis and pay adjustment. Volumetric lots will include all tonnage of mixture type under specified bid item unless otherwise specified in the plan.

(6) Conduct field tensile strength ratio tests, without freeze-thaw conditioning cycles, on each qualifying mixture according to CMM 836.6.14. Test each full 50,000-ton production increment, or fraction of an increment, after the first 5,000 tons of production. Perform required increment testing in the first week of production of that increment. If field tensile strength ratio values are below the spec limit, notify the engineer. The engineer and contractor will jointly determine a corrective action.

Delete standard spec 460.2.8.2.1.5 and 460.2.8.2.1.6.

Replace standard spec 460.2.8.2.1.7 Corrective Action with the following:

460.2.8.2.1.7 Corrective Action

(1) Material must conform to the following action and acceptance limits based on individual QC and QV test results (tolerances relative to the JMF used on the PWL Test Strip):

ITEM	ACTION LIMITS	ACCEPTANCE LIMITS
Percent passing given sieve:		
37.5-mm	+/- 8.0	
25.0-mm	+/- 8.0	
19.0-mm	+/- 7.5	
12.5-mm	+/- 7.5	
9.5-mm	+/- 7.5	
2.36-mm	+/- 7.0	
75-µm	+/- 3.0	
AC in percent	-0.3	-0.5
Va		- 1.5 & +2.0
VMA in percent ^[1]	- 0.5	-1.0

^[1] VMA limits based on minimum requirement for mix design nominal maximum aggregate size in table 460-1.

(2) QV samples will be tested for Gmm, Gmb, and AC. Air voids and VMA will then be calculated using these test results.

(3) Notify the engineer if any individual test result falls outside the action limits, investigate the cause and take corrective action to return to within action limits. If two consecutive test results fall outside the action limits, stop production. Production may not resume until approved by the engineer. Additional QV samples may be collected upon resuming production, at the discretion of the engineer.

(4) For any additional non-random tests outside the random number testing conducted for volumetrics, the data collected will not be entered into PWL calculations. Additional QV tests must meet acceptance limits or be subject to production stop. If the department’s non-random test does not conform to the acceptance limits, the retained sample will be tested by the BTS lab. If the BTS results also do not meet the acceptance limits, the material will be considered unacceptable as described in (5) below.

(5) Remove and replace unacceptable material at no additional expense to the department. Unacceptable material is defined as any individual QC or QV tests results outside the acceptance limits or a PWL value < 50. For AC in percent, unacceptable material is defined as any individual QV test result outside of the acceptance limit. The engineer may allow such material to remain in place with a price reduction. The department will pay for such HMA Pavement allowed to remain in place at 50 percent of the contract unit price.

Replace standard spec 460.2.8.3.1.2 Personnel Requirements with the following:

460.2.8.3.1.2 Personnel Requirements

(1) The department will provide at least one HTCP-certified Transportation Materials Sampling (TMS) Technician, to observe QV sampling of HMA mixtures.

(2) Under departmental observation, a contractor TMS technician shall collect and split samples.

(3) A department HTCP-certified Hot Mix Asphalt, Technician I, Production Tester (HMA-IPT) technician will ensure that all sampling is performed correctly and conduct testing, analyze test results, and report resulting data.

(4) The department will make an organizational chart available to the contractor before mixture production begins. The organizational chart will include names, telephone numbers, and current certifications of all QV testing personnel. The department will update the chart with appropriate changes, as they become effective.

Replace standard spec 460.2.8.3.1.4 Department Verification Testing Requirements with the following:

460.2.8.3.1.4 Department Verification Testing Requirements

(1) HTCP-certified department personnel will obtain QV random samples by directly supervising HTCP-certified contractor personnel sampling from trucks at the plant. Sample size must be adequate to run the appropriate required tests in addition to one set of duplicate tests that may be required for dispute resolution (i.e., retained). This requires sample sizes which yield three splits for all random sampling per subplot. All QV samples shall furnish the following: QC, QV, and Retained. The department will observe the splitting and take possession of the samples intended for QV testing (i.e., QV portion from each sample) and the Retained portions. The department will take possession of retained samples accumulated to date each day QV samples are collected. The department will retain samples until surpassing the analysis window of up to 5 lots, as defined in standard spec 460.2.8.3.1.7(2) of this special provision. Additional sampling details are found in Appendix A.

(2) The department will verify product quality using the test methods specified here in standard spec 460.2.8.3.1.4(3). The department will identify test methods before construction starts and use only those methods during production of that material unless the engineer and contractor mutually agree otherwise.

(3) The department will perform all testing conforming to the following standards:

- Bulk specific gravity (Gmb) of the compacted mixture according to AASHTO T 166 as modified in CMM 836.6.5.
- Maximum specific gravity (Gmm) according to AASHTO T 209 as modified in CMM 836.6.6.
- Air voids (Va) by calculation according to AASHTO T 269.
- Voids in Mineral Aggregate (VMA) by calculation according to AASHTO R 35.
- Asphalt Content (AC) in percent determined by ignition oven method according to AASHTO T308 as modified in CMM 836.6.3.6 and conforming to CMM 836.6.3.7, chemical extraction according to AASHTO T 164 Method A or B, or automated extraction according to ASTM D8159 as modified in CMM 836.6.3.1.

(4) The department will randomly test each design mixture at the minimum frequency of one test for each lot.

Delete standard spec 460.2.8.3.1.6.

Replace standard spec 460.2.8.3.1.7 Dispute Resolution with the following:

460.2.8.3.1.7 Data Analysis for Volumetrics

(1) Analysis of test data for pay determination will be contingent upon QC and QV test results. Statistical analysis will be conducted on Gmm and Gmb test results for calculation of Va. If either Gmm or Gmb analysis results in non-comparable data as described in 460.2.8.3.1.7(2), subsequent testing will be performed for both parameters as detailed in the following paragraph.

(2) The engineer, upon completion of the first 3 lots, will compare the variances (F-test) and the means (t-test) of the QV test results with the QC test results. Additional comparisons incorporating the first 3 lots of data will be performed following completion of the 4th and 5th lots (i.e., lots 1-3, 1-4, and 1-5). A rolling window of 5 lots will be used to conduct F & t comparison for the remainder of the contract (i.e., lots 2-6, then lots 3-7, etc.), reporting comparison results for each individual lot. Analysis will use a set alpha value of 0.025. If the F- and t-tests report comparable data, the QC and QV data sets are determined to be statistically similar and QC data will be used to calculate the Va used in PWL and pay adjustment calculations. If the F- and t-tests result in non-comparable data, proceed to the *dispute resolution* steps found below. Note: if both QC and QV Va PWL result in a pay adjustment of 102% or greater, dispute resolution testing will not be conducted. Dispute resolution via further investigation is as follows:

^[1] The Retained portion of the split from the lot in the analysis window with a QV test result furthest from the QV mean (not necessarily the subplot identifying that variances or means do not compare) will be referee tested for Gmm, Gmb, and Asphalt Content by the bureau's AASHTO accredited laboratory and certified personnel. All previous lots within the analysis window are subject to referee testing and regional lab testing as deemed necessary. Referee test results will replace the QV data of the subplot(s).

^[2] Statistical analysis will be conducted with referee test results replacing QV results.

- i. If the F- and t-tests indicate variances and means compare, no further testing is required for the lot and QC data will be used for PWL and pay factor/adjustment calculations.
- ii. If the F- and t-tests indicate non-comparable variances or means, the Retained portion of the random QC sample will be tested for Gmm, Gmb, and Asphalt Content by the department's regional lab for the remaining 4 sublots of the lot which the F- and t-tests indicate non-comparable datasets. The department's regional lab and the referee test results will be used for PWL and pay factor/adjustment calculations. Upon the second instance of non-comparable variance or means and for every instance thereafter, the department will assess a pay reduction for the additional testing of the remaining 4 sublots at \$2,000/lot under the HMA Regional Lab Testing administrative item.

^[3] The contractor may choose to dispute the regional test results on a lot basis within 7 days after receiving the results from the region. In this event, the retained portion of each subplot will be referee tested by the department's AASHTO accredited laboratory and certified personnel. The referee Gmm and Gmb test results will supersede the regional lab results for the disputed lot.

- i. If referee testing results in an increased calculated pay factor, the department will pay for the cost of the additional referee testing.
- ii. If referee testing of a disputed lot results in an equal or lower calculated pay factor, the department will assess a pay reduction for the additional referee testing at \$2,000/lot under the Referee Testing administrative item.

⁽³⁾ The department will notify the contractor of the referee test results within 3 working days after receipt of the samples by the department's AASHTO accredited laboratory. The intent is to provide referee test results within 7 calendar days from completion of the lot.

⁽⁴⁾ The department will determine mixture conformance and acceptability by analyzing referee test results, reviewing mixture data, and inspecting the completed pavement according to the standard spec, this special provision, and accompanying Appendix A.

⁽⁵⁾ Unacceptable material (i.e., resulting in a PWL value less than 50 or individual QC or QV test results not meeting the Acceptance Requirements of 460.2.8.2.1.7 as modified herein) will be referee tested by the bureau's AASHTO accredited laboratory and certified personnel and those test results used for analysis. Such material may be subject to remove and replace, at the discretion of the engineer. If the engineer allows the material to remain in place, it will be paid at 50% of the HMA Pavement contract unit price. Replacement or pay adjustment will be conducted on a subplot basis. If an entire PWL subplot is removed and replaced, the test results of the newly placed material will replace the original data for the subplot. Any remove and replace shall be performed at no additional cost to the department. Testing of replaced material must include a minimum of one QV result. [Note: If the removed and replaced material does not result in replacement of original QV data, an additional QV test will be conducted and under such circumstances will be entered into the HMA PWL Production spreadsheet for data analysis and pay determination.] The quantity of material paid at 50% the contract unit price will be deducted from PWL pay adjustments, along with accompanying data of this material.

Delete standard spec 460.2.8.3.1.8 Corrective Action.

C Construction

Replace standard spec 460.3.3.2 Pavement Density Determination with the following:

460.3.3.2 Pavement Density Determination

⁽¹⁾ The engineer will determine the target maximum density using department procedures described in CMM 815. The engineer will determine density as soon as practicable after compaction and before placement of subsequent layers or before opening to traffic.

- (2) Do not re-roll compacted mixtures with deficient density test results. Do not operate continuously below the specified minimum density. Stop production, identify the source of the problem, and make corrections to produce work meeting the specification requirements.
- (3) A lot is defined as 7500 lane feet with sublots of 1500 lane feet (excluding shoulder, even if paved integrally) and placed within a single layer for each location and target maximum density category indicated in table 460-3. The contractor is required to complete three tests randomly per subplot and the department will randomly conduct one QV test per subplot. A partial quantity less than 750 lane feet will be included with the previous subplot. Partial lots with less than three sublots will be included in the previous lot for data analysis/acceptance and pay, by the engineer. If density lots/sublots are determined prior to construction of the test strip, any random locations within the test strip shall be omitted. Exclusions such as shoulders and appurtenances shall be tested and recorded according to CMM 815. However, all acceptance testing of shoulders and appurtenances will be conducted by the department, and average lot (daily) densities must conform to standard spec Table 460-3 or else be subject to disincentives according to 460.5.2.2(5) herein. No density incentive will be applied to shoulders or appurtenances. Offsets will not be applied to nuclear density gauge readings for shoulders or appurtenances. Unacceptable shoulder material will be handled according to standard spec 460.3.3.1 and CMM 815.11.
- (4) The three QC locations per subplot represent the outside, middle, and inside of the paving lane. The QC density testing procedures are detailed in Appendix A.
- (5) QV nuclear testing will consist of one randomly selected location per subplot. The QV density testing procedures will be the same as the QC procedure at each testing location and are also detailed in Appendix A.
- (6) An HTCP-certified nuclear density technician (NUCDENSITYTEC-I) shall identify random locations and perform the testing for both the contractor and department. The responsible certified technician shall ensure that sample location and testing is performed correctly, analyze test results, and provide density results to the contractor weekly, or at the completion of each lot.
- (7) For any additional tests outside the random number testing conducted for density, the data collected will not be entered into PWL calculations. However, additional QV testing must meet the tolerances for material conformance as specified in the standard specification and this special provision. If additional density data identifies unacceptable material, proceed as specified in CMM 815.11.

Replace standard spec 460.3.3.3 Waiving Density Testing with Acceptance of Density Data with the following:

460.3.3.3 Analysis of Density Data

- (1) Analysis of test data for pay determination will be contingent upon test results from both the contractor (QC) and the department (QV).
- (2) As random density locations are paved, the data will be recorded in the HMA PWL Production Spreadsheet for analysis in chronological order. The engineer, upon completion of the first 3 lots, will compare the variances (F-test) and the means (t-test) of the QV test results with the QC test results. A rolling window of 3 lots will be used to conduct F & t comparison for the remainder of the contract (i.e., lots 2-4, then lots 3-5, etc.), reporting comparison results for each individual lot. Analysis will use a set alpha value of 0.025.
- i. If the F- and t-tests indicate variances and means compare, the QC and QV data sets are determined to be statistically similar and QC data will be used for PWL and pay adjustment calculations.
 - ii. If the F- and t-tests indicate variances or means do not compare, the QV data will be used for subsequent calculations.
- (3) The department will determine mixture density conformance and acceptability by analyzing test results, reviewing mixture data, and inspecting the completed pavement according to standard spec, this special provision, and accompanying Appendix A.
- (4) Density resulting in a PWL value less than 50 or not meeting the requirements of 460.3.3.1 (any individual density test result falling more than 3.0 percent below the minimum required target maximum density as specified in standard spec Table 460-3) is unacceptable and may be subject to remove and replace at no additional cost to the department, at the discretion of the engineer.

- i. Replacement may be conducted on a subplot basis. If an entire PWL subplot is removed and replaced, the test results of the newly placed material will replace the original data for the subplot.
- ii. Testing of replaced material must include a minimum of one QV result. [Note: If the removed and replaced material does not result in replacement of original QV data, an additional QV test must be conducted and under such circumstances will be entered into the data analysis and pay determination.]
- iii. If the engineer allows such material to remain in place, it will be paid for at 50% of the HMA Pavement contract unit price. The extent of unacceptable material will be addressed as specified in CMM 815.11. The quantity of material paid at 50% the contract unit price will be deducted from PWL pay adjustments, along with accompanying data of this material.

D Measurement

The department will measure the HMA Pavement bid items acceptably completed by the ton as specified in standard spec 450.4 and as follows in standard spec 460.5 as modified in this special provision.

E Payment

Replace standard spec 460.5.2 HMA Pavement with the following:

460.5.2 HMA Pavement

460.5.2.1 General

(1) Payment for HMA Pavement Type LT, MT, and HT mixes is full compensation for providing HMA mixture designs; for preparing foundation; for furnishing, preparing, hauling, mixing, placing, and compacting mixture; for HMA PWL QMP testing and aggregate source testing; for warm mix asphalt additives or processes; for stabilizer, hydrated lime and liquid antistripping agent, if required; and for all materials including asphaltic materials.

(2) If provided for in the plan quantities, the department will pay for a leveling layer, placed to correct irregularities in an existing paved surface before overlaying, under the pertinent paving bid item. Absent a plan quantity, the department will pay for a leveling layer as extra work.

460.5.2.2 Calculation of Pay Adjustment for HMA Pavement using PWL

(1) Pay adjustments will be calculated using 65 dollars per ton of HMA pavement. The HMA PWL Production Spreadsheet, including data, will be made available to the contractor by the department as soon as practicable upon completion of each lot. The department will pay for measured quantities of mix based on this price multiplied by the following pay adjustment calculated according to the HMA PWL Production Spreadsheet:

PAY FACTOR FOR HMA PAVEMENT AIR VOIDS & DENSITY	
<i>PERCENT WITHIN LIMITS</i>	<i>PAYMENT FACTOR, PF</i>
<i>(PWL)</i>	<i>(percent of \$65/ton)</i>
≥ 90 to 100	$PF = ((PWL - 90) * 0.4) + 100$
≥ 50 to < 90	$(PWL * 0.5) + 55$
<50	50% ^[1]

where PF is calculated per air voids and density, denoted PF_{air voids} & PF_{density}.

^[1] Any material resulting in PWL value less than 50 shall be removed and replaced unless the engineer allows such material to remain in place. In the event the material remains in place, it will be paid at 50% of the contract unit price of HMA pavement.

(2) For air voids, PWL values will be calculated using lower and upper specification limits of 2.0 and 4.3 percent, respectively. Lower specification limits for density shall be according to standard spec Table 460-3.

(3) Pay adjustment will be determined on a lot basis and will be computed as shown in the following equation:

$$\text{Pay Adjustment} = (\text{PF}-100)/100 \times (\text{WP}) \times (\text{tonnage}) \times (\$65/\text{ton})^*$$

*Note: If Pay Factor = 50, the contract unit price will be used in lieu of \$65/ton and the weighted percentage (WP) will equal 1.0.

The following weighted percentage (WP) values will be used for the corresponding parameter:

<u>Parameter</u>	<u>WP</u>
Air Voids	0.5
Density	0.5

(4) Individual Pay Factors for each air voids (PF_{air voids}) and density (PF_{density}) will be determined. PF_{air voids} will be multiplied by the total tonnage placed (i.e., from truck tickets), and PF_{density} will be multiplied by the calculated tonnage used to pave the mainline only (i.e., travel lane excluding shoulder) as determined according to Appendix A.

(5) Pay adjustment for shoulders and appurtenances accepted by department testing will be determined on a lot basis. If the lot density is less than the specified minimum in table 460-3, the department will reduce pay based on the contract unit price for the HMA pavement bid item for that lot as follows:

DISINCENTIVE PAY REDUCTION FOR HMA PAVEMENT DENSITY

PERCENT LOT DENSITY	PAYMENT FACTOR
BELOW SPECIFIED MINIMUM	(percent of contract price)
From 0.5 to 1.0 inclusive	98
From 1.1 to 1.5 inclusive	95
From 1.6 to 2.0 inclusive	91
From 2.1 to 2.5 inclusive	85
From 2.6 to 3.0 inclusive	70
More than 3.0 ^[1]	—

^[1] Remove and replace the lot with a mixture at the specified density. When acceptably replaced, the department will pay for the replaced work at the contract unit price. Alternatively, the engineer may allow the nonconforming material to remain in place with a 50 percent payment factor.

(6) The department will pay incentive for air voids and density under the following bid items:

ITEM NUMBER	DESCRIPTION	UNIT
460.2005	Incentive Density PWL HMA Pavement	DOL
460.2010	Incentive Air Voids HMA Pavement	DOL

The department will administer disincentives under the Disincentive Density HMA Pavement and the Disincentive Air Voids HMA Pavement administrative items.

The department will administer a disincentive under the Disincentive HMA Binder Content administrative item for each individual QV test result indicating asphalt binder content below the Action Limit in 460.2.8.2.1.7 presented herein. The department will adjust pay per subplot of mix at 65 dollars per ton of HMA pavement multiplied by the following pay adjustment calculated according to the HMA PWL Production Spreadsheet:

<u>AC Binder Relative to JMF</u>	<u>Pay Adjustment / Subplot</u>
-0.4% to -0.5%	75% ^[1]
More than -0.5%	50% ^[1] ^[2]

^[1] Any material resulting in an asphalt binder content more than 0.3% below the JMF AC content will be referee tested by the department's AASHTO accredited laboratory and HTCP certified personnel using automated extraction according to ASTM D8159 as modified in CMM 836.6.3.1.

^[2] Any material resulting in an asphalt binder content more than 0.5% below the JMF AC content shall be removed and replaced unless the engineer allows such material to remain in place. In the event the material remains in place, it will be paid at 50% of the contract unit price of HMA pavement.

Note: PWL value determination is further detailed in the PWL Production Spreadsheet Instructions located in the *Project Info & Instructions* tab of the HMA PWL Production spreadsheet.

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36. Appendix A.

Test Methods & Sampling for HMA PWL QMP Projects.

The following procedures are included with the HMA Pavement Percent Within Limits (PWL) Quality Management Program (QMP) special provision:

- WisDOT Procedure for Nuclear Gauge/Core Correlation – Test Strip
- WisDOT Test Method for HMA PWL QMP Density Measurements for Main Production
- Sampling for WisDOT HMA PWL QMP
- Calculation of PWL Mainline Tonnage Example

WisDOT Procedure for Nuclear Gauge/Core Correlation – Test Strip

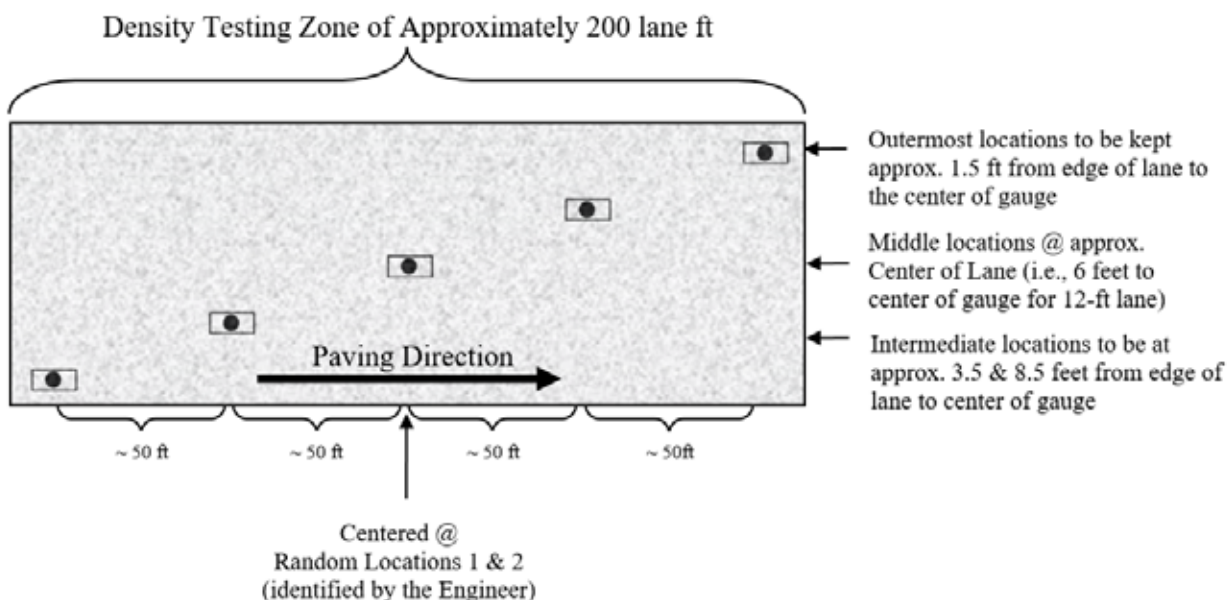


Figure 1: Nuclear/Core Correlation Location Layout


The engineer will identify two zones in which gauge/core correlation is to be performed. These two zones will be randomly selected within each *half* of the test strip length. (Note: Density zones shall not overlap and must have a minimum of 100 feet between the two zones; therefore, random numbers may be shifted (evenly) in order to meet these criteria.) Each zone shall consist of five locations across the mat as identified in Figure 1. The following shall be determined at each of the five locations within both zones:

- two one-minute nuclear density gauge readings for QC team*
- two one-minute nuclear density gauge readings for QV team*
- pavement core sample

*If the two readings exceed 1.0 pcf of one another, a third reading is conducted in the same orientation as the first reading. In this event, all three readings are averaged, the individual test reading of the three which falls farthest from the average value is discarded, and the average of the remaining two values is used to represent the location for the gauge.

The zones are supposed to be undisclosed to the contractor/roller operators. The engineer will not lay out density/core test sites until rolling is completed and the cold/finish roller is beyond the entirety of the zone. Sites are staggered across the 12-foot travel lane, and do not include shoulders. The outermost locations should be 1.5-feet from the center of the gauge to the edge of lane. [NOTE: This staggered layout is only applicable to the test strip. All mainline density locations after test strip should have a longitudinal- as well

as transverse-random number to determine location as detailed in the *WisDOT Test Method for HMA PWL QMP Density Measurements for Main Production* section of this document.]

Individual locations are represented by the  symbol as seen in Figure 1 above. The symbol is two-part, comprised of the nuclear test locations and the location for coring the pavement, as distinguished here:



The nuclear site is the same for QC and QV readings for the test strip, i.e., the QC and QV teams are to take nuclear density gauge readings in the same footprint. Each of the QC and QV teams are to take a minimum of two one-minute readings per nuclear site, with the gauge rotated 180 degrees between readings, as seen here:



Figure 2: Nuclear gauge orientation for (a) 1st one-minute reading and (b) 2nd one-minute reading

Photos should be taken of each of the 10 core/gauge locations of the test strip. This should include gauge readings (pcf) and a labelled core within the gauge footprint. If a third reading is needed, all three readings should be recorded and documented. Only raw readings in pcf should be written on the pavement during the test strip, with a corresponding gauge ID/SN (generalized as QC-1 through QV-2 in the following Figure) in the following format:



Figure 3: Layout of raw gauge readings as recorded on pavement

Each core will then be taken from the center of the gauge footprint and will be used to correlate each gauge with laboratory-measured bulk specific gravities of the pavement cores. One core in good condition must be obtained from each of the 10 locations. If a core is damaged at the time of extracting from the pavement, a replacement core should be taken immediately adjacent to the damaged core, i.e., from the same footprint. If a core is damaged during transport, it should be recorded as damaged and excluded from the correlation. Coring after traffic is on the pavement should be avoided. The contractor is responsible for coring of the pavement. Coring and filling of core holes must be approved by the engineer. The QV team is responsible for the labeling and safe transport of the cores from the field to the QC laboratory. Core density testing will be conducted by the contractor and witnessed by department personnel. The contractor is responsible for drying the cores following testing. The department will take possession of cores following initial testing and is responsible for any verification testing.

Each core 100 or 150 mm (4 or 6 inches) in diameter will be taken at locations as identified in Figure 1. Each random core will be full thickness of the layer being placed. The contractor is responsible for

thoroughly drying cores obtained from the mat according to AASHTO R79 as modified by CMM 836.6.10 prior to using specimens for in-place density determination according to AASHTO T 166 as modified by CMM 836.6.5.

Cores must be taken before the pavement is open to traffic. Cores are cut under department/project staff observation. Relabel each core immediately after extruding or ensure that labels applied to pavement prior to cutting remain legible. The layer interface should also be marked immediately following extrusion. Cores should be cut at this interface, using a wet saw, to allow for density measurement of only the most recently placed layer. Cores should be protected from excessive temperatures such as direct sunlight. Also, there should be department custody (both in transport and storage) for the cores until they are tested, whether that be immediately after the test strip or subsequent day if agreed upon between department and contractor. Use of concrete cylinder molds works well to transport cores. Cores should be placed upside down (flat surface to bottom of cylinder mold) in the molds, one core per mold, cylinder molds stored upright, and ideally transported in a cooler. Avoid any stacking of pavement cores.

Fill all core holes with non-shrink rapid-hardening grout, mortar, or concrete, or with HMA. When using grout, mortar, or concrete, remove all water from the core holes prior to filling. Mix the mortar or concrete in a separate container prior to placement in the hole. If HMA is used, fill all core holes with hot-mix matching the same day's production mix type at same day compaction temperature +/- 20 F. The core holes shall be dry and coated with tack before filling, filled with a top layer no thicker than 2.25 inches, lower layers not to exceed 4 inches, and compacted with a Marshall hammer or similar tamping device using approximately 50 blows per layer. The finished surface shall be flush with the pavement surface. Any deviation in the surface of the filled core holes greater than 1/4 inch at the time of final inspection will require removal of the fill material to the depth of the layer thickness and replacement.

WisDOT Test Method for HMA PWL QMP Density Measurements for Main Production

For nuclear density testing of the pavement beyond the test strip, QC tests will be completed at three locations per subplot, with a subplot defined as 1500 lane feet. The three locations will represent the outside, middle, and inside of the paving lane (i.e., the lane width will be divided into thirds as shown by the dashed longitudinal lines in Figure 3 and random numbers will be used to identify the specific transverse location within each third according to CMM 815). Longitudinal locations within each subplot shall be determined with 3 independent random numbers. The PWL Density measurements do not include the shoulder and other appurtenances. Such areas are tested by the department and are not eligible for density incentive but are subject to disincentive according to 460.5.2.2(5) of the HMA PWL QMP article. Each location will be measured with two one-minute gauge readings oriented 180 degrees from one another, in the same footprint as detailed in Figure 2 above. Each location requires a minimum of two readings per gauge. The density gauge orientation for the first test will be with the source rod towards the direction of paving. QV nuclear testing will consist of one randomly selected location per subplot. The QV is also comprised of two one-minute readings oriented 180 degrees from one another. For both QC and QV test locations, if the two readings exceed 1.0 pcf of one another, a third reading is conducted in the same orientation as the first reading. In this event, all three readings are averaged, the individual test reading of the three which falls farthest from the average value is discarded, and the average of the remaining two values is used to represent the location for the gauge. The subplot density testing layout is depicted in Figure 4, with QC test locations shown as solid lines and QV as dashed.

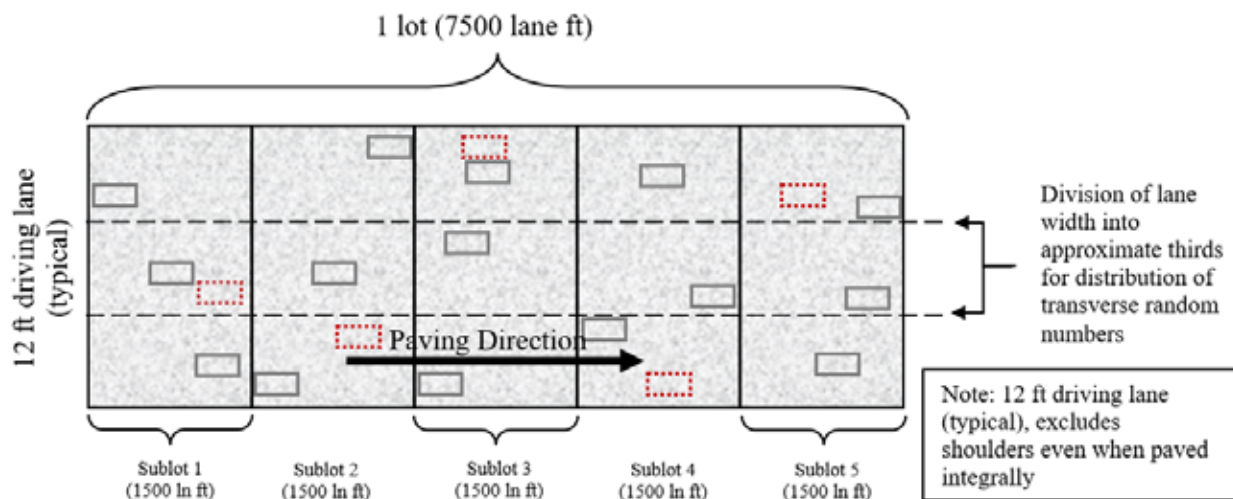


Figure 4: Locations of main lane HMA density testing (QC=solid lines, QV=dashed)

Raw nuclear density data must be shared by both parties at the end of each shift. Paving may be delayed if the raw data is not shared in a timely manner. QC and QV nuclear density gauge readings will be statistically analyzed according to Section 460.3.3.3 of the HMA PWL QMP article. (Note: For density data, if F- and t-tests compare, QC data will be used for the subsequent calculations of PWL value and pay determination. However, if an F- or t-test does not compare, the QV data will be used in subsequent calculations.)

Investigative cores will be allowed on the approaching side of traffic outside of the footprint locations. Results must be shared with the department.

The QV density technician is expected to be onsite within 1 hour of the start of paving operations and should remain on-site until all paving is completed. Perform footprint testing as soon as both the QC and QV nuclear density technician are onsite and a minimum of once per day to ensure the gauges are not drifting apart during a project. Footprint testing compares the density readings of two gauges at the same testing location and can be done at any randomly selected location on the project. Both teams are encouraged to conduct footprint testing as often as they feel necessary. Footprint testing does not need to be performed at the same time. At project start-up, the QV should footprint the first 10 QC locations. Individual density tests less than 0.5% above the lower limit should be communicated to the other party and be footprint tested. Each gauge conducts 2 to 3 1-minute tests according to CMM 815 and the final results from each gauge are compared for the location. If the difference between the QC and QV gauges exceeds 1.0 pcf (0.7 percent) for an average of 10 locations, investigate the cause, check gauge moisture and density standards and perform additional footprint testing. If the cause of the difference between gauge readings cannot be identified, the regional HMA Coordinator will consult the RSO, the regional PWL representative and the BTS HMA unit to determine necessary actions. If it is agreed that there is a gauge comparison issue, perform one of the following 2 options:

New Gauge Combination

- All 4 gauges used on the test strip must footprint 10 locations on the pavement. Pavement placed on a previous day may be used.
- The results of the footprint testing will be analyzed to see if a better combination of acceptable gauges is available.
- If a better combination is found, those gauges should be used moving forward.
- If a better combination cannot be found, a new gauge correlation must be performed. (see below)

Re-correlation of Gauges

- Follow all test strip procedures regarding correlating gauges except the following:
 - The 10 locations can be QC or QV random locations.
 - The locations used may have been paved on a previous day.
- Retesting with gauges must be done immediately prior to coring.
- New gauge offsets will be used for that day's paving and subsequent paving days. New gauge offsets will not be used to recalculate density results from prior days.

Density Dispute Resolution Procedure

Density results may be disputed by the contractor on a lot by lot basis if one of the following criteria is met:

- The lot average for either QC or QV is below the lower specification limit.
- The lot average for QC is different from the lot average for QV by more than 0.5%.

In lieu of using density gauges for acceptance of the lot, the lot will be cored in the QV locations. The results of the cores from the entire lot will be entered in the spreadsheet and used for payment. If the pay factor increases, the contractor will only receive the additional difference in payment for the disputed lot. If the pay factor does not increase, the department will assess the contractor \$2,000 for the costs of additional testing.

Notify the engineer in writing before dispute resolution coring. Immediately prior to coring, QC and QV will test the locations with nuclear density gauges.

Under the direct observation of the engineer, cut 100 or 150 mm (4 or 6 inch) diameter cores. Cores will be cut by the next day after completion of the lot, except if the next day is not a working day, then they shall be cut within 48 hours of placement. Prepare cores and determine density according to AASHTO T166 as modified in CMM 836.6.5. Dry cores after testing. Fill core holes according to Appendix A and obtain engineer approval before opening to traffic. The department will maintain custody of cores throughout the entire sampling and testing process. The department will label cores, transport cores to testing facilities, witness testing, store dried cores, and provide subsequent verification testing. If a core is damaged at the time of coring, immediately take a replacement core 1 foot ahead of the existing testing location in the direction of traffic at the same offset as the damaged core. If a core is damaged during transport, record it as damaged and notify the engineer immediately.

Sampling for WisDOT HMA PWL QMP Production

Sampling of HMA mix for QC, QV and Retained samples shall conform to CMM 836 except as modified here.

Delete CMM 836.4 Sampling Hot Mix Asphalt and replace with the following to update subplot tonnages:

Sampling Hot Mix Asphalt

At the beginning of the contract, the contractor determines the anticipated tonnage to be produced. The frequency of sampling is 1 per 750 tons (subplot) for QC and Retained Samples and 1 per 3750 tons (lot or 5 sublots) for QV as defined by the HMA PWL QMP article. A test sample is obtained randomly from each subplot. Each random sample shall be collected at the plant according to CMM 836.4.1 and 836.4.2. The contractor must submit the random numbers for all mix sampling to the department before production begins.

Example 1

Expected production for a contract is 12,400 tons. The number of required samples is determined based on this expected production (per HMA PWL QMP SPV) and is determined by the random sample calculation.

- Sample 1 – from 50 to 750 tons
- Sample 2 – from 751 to 1500 tons
- Sample 3 – from 1501 to 2250 tons
- Sample 4 – from 2251 to 3000 tons
- Sample X –
- Sample 16 – from 11,251 to 12,000 tons
- Sample 17 – from 12,001 to 12,400 tons

The approximate location of each sample within the prescribed sublots is determined by selecting random numbers using ASTM Method D-3665 or by using a calculator or computerized spreadsheet that has a random number generator. The random numbers selected are used in determining when a sample is to be taken and will be multiplied by the subplot tonnage. This number will then be added to the final tonnage of the previous subplot to yield the approximate cumulative tonnage of when each sample is to be taken.

To allow for plant start-up variability, the procedure calls for the first random sample to be taken at 50 tons or greater per production day (not intended to be taken in the first two truckloads). Random samples calculated for 0-50 ton should be taken in the next truck (51-75 ton).

This procedure is to be used for any number of samples per contract.

If the production is less than the final randomly generated sample tonnage, then the random sample is to be collected from the remaining portion of that subplot of production. If the randomly generated sample is calculated to be within the first 0-50 tons of the subsequent day of production, it should be taken in the

next truck. Add a random sample for any fraction of 750 tons at the end of the contract. Lot size will consist of 3750 tons with sublots of 750 tons. Partial lots with less than three subplot tests will be included into the previous lot, by the engineer.

It is intended that the plant operator not be advised ahead of time when samples are to be taken.

If belt samples are used during troubleshooting, the blended aggregate will be obtained when the mixture production tonnage reaches approximately the sample tonnage. For plants with storage silos, this could be up to 60 minutes in advance of the mixture sample that's taken when the required tonnage is shipped from the plant.

QC, QV, and retained samples shall be collected for all test strip and production mixture testing using a three-part splitting procedure according to CMM 836.5.2.

Calculation of PWL Mainline Tonnage Example

A mill and overlay project is being constructed with a 12-foot travel lane and an integrally paved 3-foot shoulder. The layer thickness is 2 inches for the full width of paving. Calculate the tonnage in each subplot eligible for density incentive or disincentive.

Solution:

$$\frac{1500 \text{ ft} \times 12 \text{ ft}}{9 \text{ sf/sy}} \times \frac{2 \text{ in} \times 112 \text{ lb/sy/in}}{2000 \text{ lb/ton}} = 224 \text{ tons}$$

stp-460-055 (20230113)

37. HMA Pavement Longitudinal Joint Density.

A Description

This special provision incorporates longitudinal joint density requirements into the contract and describes the data collection, acceptance, and procedure used for determination of pay adjustments for HMA pavement longitudinal joint density. Pay adjustments will be made on a linear foot basis, as applicable per pavement layer and paving lane. Applicable longitudinal joints are defined as those between any two or more traffic lanes including full-width passing lanes, turn lanes, or auxiliary lanes more than 1,500 lane feet, and those lanes must also include the 460.2005 Incentive Density PWL HMA Pavement bid item. This excludes any joint with one side defined as a shoulder and ramp lanes of any length. If echelon paving is required in the contract, the longitudinal joint density specification shall not apply for those joints. Longitudinal joints placed during a test strip will be tested for information only to help ensure the roller pattern will provide adequate longitudinal joint density during production. Longitudinal joint density test results collected during a test strip are not eligible for pay adjustment.

Pay is determined according to standard spec 460, HMA Pavement Percent Within Limits QMP special provisions, and as modified within.

B Materials

Compact all applicable HMA longitudinal joints to the appropriate density based on the layer, confinement, and mixture type shown in Table B-1.

TABLE B-1 MINIMUM REQUIRED LONGITUDINAL JOINT DENSITY

Layer	Percent of Target Maximum Density			
	Unconfined		Confined	
	LT and MT	HT	LT and MT	HT
Lower (on crushed/recycled base)	88	89	89.5	90.5
Lower (on Concrete/HMA)	90 ^[1]	90 ^[1]	91.5 ^[1]	91.5 ^[1]
Upper	90	90	91.5	91.5

^[1] Minimum reduced by 1.0 percent for a 1.25-inch-thick No. 5 mix lower layer constructed on a paved or milled surface.

C Construction

Add the following to standard spec 460.3.3.2:

- (5) Establish companion density locations at each applicable joint. Each companion location shares longitudinal stationing with a QC or QV density location within each subplot and is located transversely with the center of the gauge 6-inches from the final joint edge of the paving area. Sublot and lot numbering remains the same as mainline densities, however, in addition to conventional naming, joint identification must clearly indicate “M” for inside/median side of lane or “O” for outside shoulder side of lane, as well as “U” for an unconfined joint or “C” for a confined joint (e.g., XXXXX-MC or XXXXX-OU).
- (6) Each joint will be measured, reported, and accepted under methods, testing times, and procedures consistent with the program employed for mainline density, i.e., PWL.
- (7) For single nuclear density test results greater than 3.0% below specified minimums per Table B-1 herein, perform the following:
 - a) Testing at 50-foot increments both ahead and behind the unacceptable site
 - b) Continued 50-foot incremental testing until test values indicate higher than or equal to -3.0 percent from target joint density.
 - c) Materials within the incremental testing indicating lower than -3.0 percent from target joint density are defined as unacceptable and will be handled with remedial action as defined in the payment section of this document.
 - d) The remaining subplot average (exclusive of unacceptable material) will be determined by the first forward and backward 50-foot incremental tests that reach the criteria of higher than or equal to -3.0 percent from target joint density.

Note: If the 50-foot testing extends into a previously accepted subplot, remedial action is required up to and inclusive of such material; however, the results of remedial action must not be used to recalculate the previously accepted subplot density. When this occurs, the lane feet of any unacceptable material will be deducted from the subplot in which it is located, and the previously accepted subplot density will be used to calculate pay for the remainder of the subplot.

- (8) Joint density measurements will be kept separate from all other density measurements and entered as an individual data set into Atwood Systems.
- (9) Placement and removal of excess material outside of the final joint edge, to increase joint density at the longitudinal joint nuclear testing location, will be done at the contractor’s discretion and cost. This excess material and related labor will be considered waste and will not be paid for by the department. Joints with excess material placed outside of the final joint edge to increase joint density or where a notched wedge is used will be considered unconfined joints.
- (10) When not required by the contract, echelon paving may be performed at the contractor’s discretion to increase longitudinal joint density and still remain eligible to earn incentive. The additional costs incurred related to echelon paving will not be paid for by the department. If lanes are paved in echelon, the contractor may choose to use a longitudinal vertical joint or notched wedge longitudinal joint as described in [SDD 13c19](#). Lanes paved in echelon shall be considered confined on both sides of the joint regardless of the selected joint design. The joint between echelon paved lanes shall be placed at the centerline or along lane lines.

(11) When performing inlay paving below the elevation of the adjacent lane, the longitudinal joint along the adjacent lane to be paved shall be considered unconfined.

D Measurement

(1) The department will measure each side of applicable longitudinal joints, as defined in Section A of this special provision, by the linear foot of pavement, acceptably placed. Measurement will be conducted independently for the inside or median side and for the outside or shoulder side of paving lanes with two applicable longitudinal joints. Each paving layer will be measured independently at the time the mat is placed.

E Payment

Add the following as 460.5.2.4 Pay Adjustment for HMA Pavement Longitudinal Joint Density:

(1) The department will administer longitudinal joint density adjustments under the Incentive Density HMA Pavement Longitudinal Joints and Disincentive Density HMA Pavement Longitudinal Joints items. The department will adjust pay based on density relative to the specified targets in Section B of this special provision, and linear foot of the HMA Pavement bid item for that subplot as follows:

PAY ADJUSTMENT FOR HMA PAVEMENT LONGITUDINAL JOINT DENSITY

PERCENT SUBLOT DENSITY ABOVE/BELOW SPECIFIED MINIMUM	PAY ADJUSTMENT PER LINEAR FOOT
Equal to or greater than +1.0 confined, +2.0 unconfined	\$0.20
From 0.0 to +0.9 confined, 0.0 to +1.9 unconfined	\$0
From -0.1 to -1.0	\$(0.20)
From -1.1 to -2.0	\$(0.40)
From -2.1 to -3.0	\$(0.80)
More than -3.0	<i>REMEDIAL ACTION^[1]</i>

^[1] Remedial action must be approved by the engineer and agreed upon at the time of the pre-pave meeting and may include partial sublots as determined and defined in 460.3.3.2(7) of this document. If unacceptable material is removed and replaced per guidance by the engineer, the removal and replacement will be for the full lane width of the side of which the joint was constructed with unacceptable material.

- (2) The department will not assess joint density disincentives for pavement placed in cold weather because of a department-caused delay as specified in [standard spec 450.5.2\(3\)](#).
- (3) The department will not pay incentive on the longitudinal joint density if the traffic lane is in disincentive A disincentive may be applied for each mainline lane and all joint densities if both qualify for a pay reduction.
- (4) Inlay paving operations will limit payment for additional material to 2 inches wider than the final paving lane width at the centerline.

The department will pay incentive for longitudinal joint density under the following bid items:

ITEM NUMBER	DESCRIPTION	UNIT
460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL

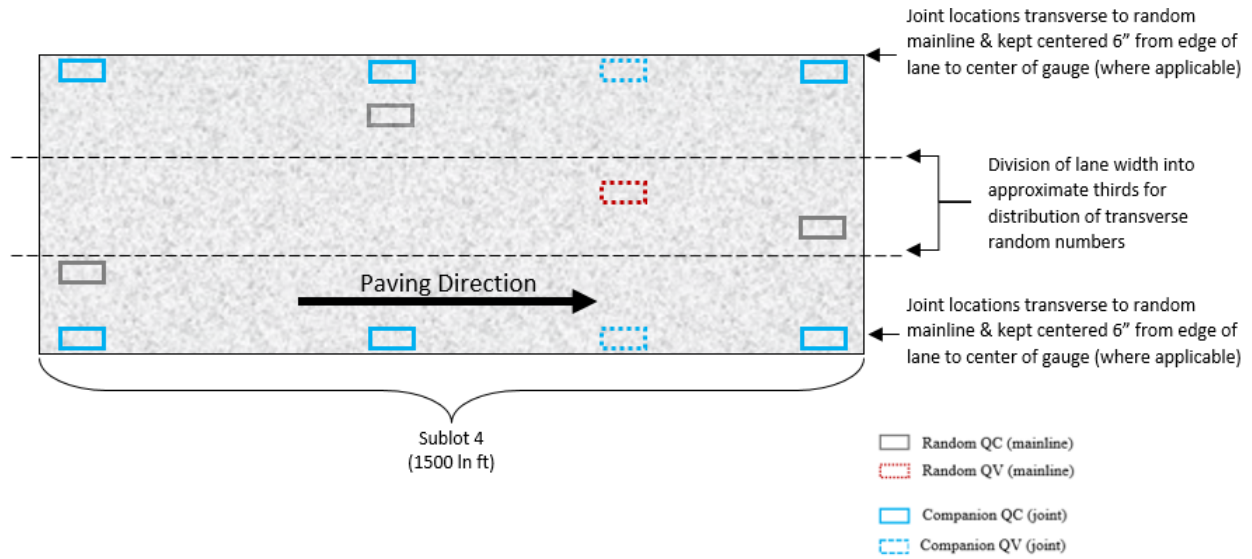
The department will administer disincentives under the Disincentive Density HMA Pavement Longitudinal Joints administrative item.

Appendix

WisDOT Longitudinal Joint – Nuclear Gauge Density Layout

Each QC and QV density location must have a companion density location at any applicable joint. This companion location must share longitudinal stationing with each QC or QV density location and be located transversely with the center of the gauge 6-inches from the edge of the paving area.

For HMA Pavement Percent Within Limits QMP projects, this appears as follows:



Further Explanation of **PAY ADJUSTMENT FOR HMA PAVEMENT LONGITUDINAL JOINT DENSITY** Table

	Confined				Pay Adjust
	Lower Layer (On Base)		Upper Layer		
	LT/MT	HT	LT/MT	HT	
Mainline Target (SS 460-3)	91.0	92.0	93.0	93.0	-
Confined Target (mainline - 1.5)	89.5	90.5	91.5	91.5	-
Equal to or greater than +1.0	≥ 90.5	≥ 91.5	≥ 92.5	≥ 92.5	\$0.20
From 0.0 to +0.9	90.4 - 89.5	91.4 - 90.5	92.4 - 91.5	92.4 - 91.5	\$0
From -0.1 to -1.0	89.4 - 88.5	90.4 - 89.5	91.4 - 90.5	91.4 - 90.5	(\$0.20)
From -1.1 to -2.0	88.4 - 87.5	89.4 - 88.5	90.4 - 89.5	90.4 - 89.5	(\$0.40)
From -2.1 to -3.0	87.4 - 86.5	88.4 - 87.5	89.4 - 88.5	89.4 - 88.5	(\$0.80)
More than -3.0	< 86.5	< 87.5	< 88.5	< 88.5	REMEDIAL ACTION

	Unconfined				Pay Adjust
	Lower Layer (On Base)		Upper Layer		
	LT/MT	HT	LT/MT	HT	
Mainline Target (SS 460-3)	91.0	92.0	93.0	93.0	-
Unconfined Target (Mainline -3.0)	88.0	89.0	90.0	90.0	-
Equal to or greater than +2.0	≥ 90.0	≥ 91.0	≥ 92.0	≥ 92.0	\$0.20
From 0.0 to +1.9	89.9 - 88.0	90.9 - 89.0	91.9 - 90.0	91.9 - 90.0	\$0
From -0.1 to -1.0	87.9 - 87.0	88.9 - 88.0	89.9 - 89.0	89.9 - 89.0	(\$0.20)
From -1.1 to -2.0	86.9 - 86.0	87.9 - 87.0	88.9 - 88.0	88.9 - 88.0	(\$0.40)
From -2.1 to -3.0	85.9 - 85.0	86.9 - 86.0	87.9 - 87.0	87.9 - 87.0	(\$0.80)
More than -3.0	< 85.0	< 86.0	< 87.0	< 87.0	REMEDIAL ACTION

38. Cold Patch, Item 495.1000.S.

A Description

This special provision describes furnishing cold patch and filling potholes and other voids in existing pavement surfaces as the engineer directs.

B Materials

Furnish a mixture of course aggregate, natural sand, and MC-250 bituminous material designed to have a workability range of 15-100° F without heating. Ensure that the mixture:

- Adheres to wet surfaces.
- Resists damage from water, salt, and deicing products.
- Requires no mixing or special handling before use.
- Supports traffic immediately after placement and compaction.

Conform to the following gradation:

SIEVE SIZE	PERCENT PASSING (by weight)
1/2-inch (12.5 mm)	100
3/8-inch (9.5 mm)	90 - 100
No. 4 (4.75 mm)	90 max
No. 8 (2.38 mm)	20 - 65
No. 200 (0.074 mm)	2 - 10
Bitumen	4.8 - 5.4

The department will accept cold patch based primarily on the engineer's visual inspection. The department may also test for gradation.

C Construction

Stockpile cold patch on site on a smooth, firm, well-drained area cleared of vegetation and foreign material. Cover the stockpile and ensure that it is easily accessible. Replenish the stockpile throughout the project duration but limit the size at any given time to 10 tons on site unless the engineer approves otherwise. Dispose of unused material at project completion unless the engineer directs otherwise.

Place cold patch by hand. Remove ponded water and loose debris before placement. Compact flush with a tamper, roller, or vehicle tire after placement.

Refill patched areas as necessary to maintain a flush pavement surface until project completion.

D Measurement

The department will measure Cold Patch by the ton, acceptably stockpiled on site.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
495.1000.S	Cold Patch	TON

Payment for Cold Patch is full compensation for providing and maintaining patches; for furnishing and replenishing stockpiled material on-site; and for disposing of excess material at project completion.

stp-495-010 (20160607)

39. Cover Plates Temporary, Item 611.8120.S.

A Description

This special provision describes providing and removing steel plates to cover and support asphaltic pavement and traffic loading at manholes, inlets and similar structures during milling and paving operations.

B Materials

Provide a 0.25 inch minimum thickness steel plate that extends to the outside edge of the existing masonry for mill and paving operations and a 0.5 inch minimum thickness steel plate for temporary cross over.

C (Vacant)

D Measurement

The department will measure Cover Plates Temporary as each individual unit, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
611.8120.S	Cover Plates Temporary	EACH

Payment is full compensation for furnishing, installing, and removing the cover plates.

The steel plates shall become the property of the contractor when no longer needed in the contract work.

40. Fence Safety, Item 616.0700.S.

A Description

This special provision describes providing plastic fence at locations the plans show.

B Materials

Furnish notched conventional metal "T" or "U" shaped fence posts.

Furnish fence fabric meeting the following requirements.

- Color:** International orange (UV stabilized)
- Roll Height:** 4 feet
- Mesh Opening:** 1 inch min to 3 inch max
- Resin/Construction:** High density polyethylene mesh
- Tensile Yield:** Avg. 2000 lb per 4 ft. width (ASTM D638)
- Ultimate Tensile Strength:** Avg. 3000 lb per 4 ft. width (ASTM D638)
- Elongation at Break (%):** Greater than 100% (ASTM D638)
- Chemical Resistance:** Inert to most chemicals and acids

C Construction

Drive posts into the ground 12 to 18 inches. Space posts at 7 feet.

Use a minimum of three wire ties to secure the fence at each post. Weave tension wire through the top row of strands to provide a top stringer that prevents sagging.

Overlap two rolls at a post and secure with wire ties.

D Measurement

The department will measure Fence Safety by the linear foot along the base of the fence, center-to-center of posts, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
616.0700.S	Fence Safety	LF

Payment is full compensation for furnishing and installing fence and posts; maintaining the fence and posts in satisfactory condition; and for removing and disposing of fence and posts at project completion.

stp-616-030 (20160607)

41. Topsoil and Salvaged Topsoil.

Replace standard spec 625.2 (1) with the following:

- (1) Topsoil consists of loam, sandy loam, silt loam, silty clay loam, or clay loam humus-bearing soils adapted to sustain plant life, and ensure the topsoil consists of the following:

Topsoil Requirements	Minimum Range	Maximum Range
pH	6.0	8.0
Organic Matter*	5%	20%
Clay	5%	30%
Silt	10%	70%
Sand	10%	70%

*Organic matter determined by loss on ignition test of samples oven dried to constant weight at 212 F (100 C).

Add the following to standard spec 625.2:

- (3) Furnish material that is free from large roots, sticks, weeds, brush, stones, litter, and waste products.
(4) Do not furnish surface soils from ditch bottoms, drained ponds, and eroded areas, or soils which are supporting growth of NR 40 listed plants and noxious weeds or other undesirable vegetation.

Replace standard spec 625.3.3 (3) with the following:

- (3) Ensure that for the upper 2 inches, 100 percent of the material passes a one-inch sieve and at least 90 percent passes the No. 10 sieve.

SER-625-001 (20221007)

42. Silt Fence Heavy Duty, Item 628.1530.S; Silt Fence Heavy Duty Maintenance, Item 628.1535.S.

A Description

This special provision describes furnishing, installing, maintaining, repairing, and removing heavy duty silt fence as the plans show, as directed by the engineer, and as hereinafter described.

B Materials

Provide Silt Fence Heavy Duty consisting of a composite of fence posts, fence fabric, geotextile fabric, sand bags or rock bags, and fasteners to be assembled by the contractor.

Furnish new or salvaged notched conventional metal "T" or "U" shaped fence posts with a length of 8 feet and minimum weight of 1.25 lb/ft.

Furnish new fence fabric, or salvaged fence fabric that is free of rust or other structural defects, conforming to standard spec 616.2.2.1 or 616.2.3.2, or one of the following alternatives:

- Woven wire fence - Standard field fence type, minimum 14-½ gauge wire, maximum mesh spacing of 6 inches, and a height of 4 feet.
- Chain link fence – minimum 12-½ gauge, maximum 2.5-inch diamond pattern, and a height of 4 feet.
- Welded wire fence – minimum 14 gauge, maximum mesh spacing of 4 inches, and a height of 4 feet.

Furnish Geotextile Fabric Type HR according to standard spec 645.2.2.7.

Furnish sand bags according to standard spec 628.2.8 or rock bags according to standard spec 628.2.13.

Furnish wire ties, nylon zip ties, or other engineer approved materials.

C Construction

Complete the installation prior to any ground disturbing activities within the drainage area adjacent to the required location. Construct according to the plan details and as described below.

Install posts with a minimum embedment of two feet and as necessary to provide a stable fence system.

Attach fence fabric to posts with at least three ties on each post (top, middle, bottom).

Attach geotextile fabric to fence fabric and/or posts at a maximum spacing of every 2 feet along the top and additionally as necessary to prevent displacement or damage by wind and wave actions. Overlap joints in the geotextile fabric by a minimum of 12 inches. Excess geotextile fabric may be cut or draped over the backside of the fence system.

Secure the bottom of the geotextile fabric by either of the following methods:

- For installation in wet conditions, anchor the lower flap of the geotextile fabric to the ground using a continuous line of sand bags or rock bags. The lower flap shall be a minimum width of 1 foot.
- For installation in dry conditions, bury the bottom edge in a trench that is a minimum of 4 inches wide and 6 inches deep. Fold material to fit trench and backfill and compact trench with excavated soil.

Maintain the fence throughout construction and until removal. Repair or replace fence materials as necessary. Remove sediment whenever it accumulates to approximately one-half the original fence height and as directed by the engineer. Remove all sediment prior to final stabilization.

Keep system in place until the site is permanently vegetated and is ordered for removal by the engineer. Clean up and restore the surface after removal.

D Measurement

The department will measure Silt Fence Heavy Duty by the linear foot, acceptably completed, measured along the base of the fence, center-to-center of end post, for each section of fence.

The department will measure Silt Fence Heavy Duty Maintenance by the linear foot, acceptably completed, measured along the base of the fence, end-to-end of the section maintained, for each time a section of fence is cleaned and repaired.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
628.1530.S	Silt Fence Heavy Duty	LF
628.1535.S	Silt Fence Heavy Duty Maintenance	LF

Payment for Silt Fence Heavy Duty is full compensation for erecting fence, including excavating or trenching, posts, geotextile fabric, sand bags or rock bags, backfilling, removal, restoration, and disposal.

Payment for Silt Fence Heavy Duty Maintenance is full compensation for required cleaning and repairing; for removing and disposing sediment or spreading accumulated sediment to form a surface suitable for seeding; and for replacing fence and damages caused by overloading sediment material or ponding water adjacent to fence.

stp-628-005 (20220628)

43. Fertilizer Type B

Replace standard spec 629.2.1.3 with the following:

(1) Fertilizer Type B Special will conform to the following requirements:

Nitrogen, not less than 24% with 6% percent of the nitrogen being slow release.

Phosphorus, not less than 15%

Potash, not less than 9%

(2) The total nitrogen, phosphorus, and potash shall equal at least 48 percent.

Replace standard spec 629.3.1.3 with the following:

Apply fertilizer containing at least 48 percent total nitrogen, phosphorus, and potash at 5 pounds per 1,000 square feet unless otherwise directed by the engineer. For Fertilizer Type B Special that contains a different percentage of components, determine the new application rate by multiplying the specified rate by a dimensionless conversion factor determined as follows:

$$\text{Conversion Factor} = 48 / \text{New Percentage of Components}$$

Replace standard spec 629.4.1 with the following:

⁽¹⁾ The department will measure Fertilizer Type B by the hundred pounds (CWT) acceptably completed, measured based on the application rate of 5 pounds per 1,000 feet. The department will not measure fertilizer used for the bid items under 632. The measured quantity equals the number of hundred-weight (CWT) of material determined by multiplying the actual number of cwt. of material incorporated by the ratio of the actual percentage of fertilizer components used to 48 percent for Fertilizer Type B.

44. Seeding.

Replace standard spec 630.3.5 (1) with the following:

⁽¹⁾ Use the following sowing rate for seeds in pounds per 1000 square feet:

- No. 10 at 3 pounds
- No. 20 at 5 pounds
- No. 30 at 5 pounds
- No. 40 at 5 pounds
- No. 60 at an equivalent seeding rate of 1.5 pounds^[1]
- No. 70 or 70A at 0.4 pounds
- No. 75 at an equivalent seeding rate of 0.7 pounds^[1]
- No. 80 at an equivalent seeding rate of 0.8 pounds^[1]
- Temporary seeding at 3 pounds
- Nurse crop seeding at 2 pounds

^[1] Determine the actual seeding rate by multiplying the equivalent seeding rate by the sum of the unadjusted and adjusted percentages of the various species in the seed mixtures as sown.

SER-630-002 (20221013)

45. Landscape Planting Surveillance and Care Cycles.

If the care specialist fails to perform any of the required care cycles as specified in standard spec 632.3.19.1, the department will assess daily damages in the amount of \$500 to cover the cost of performing the work with other forces. The department will assess these damages for each day the requirements of the care cycle remain incomplete, except when the engineer extends the required time period.

stp-632-005 (20070510)

46. Signs Type I and II.

Furnish and install mounting brackets per approved product list for type II signs on overhead sign supports incidental to sign. For type II signs on sign bridges use aluminum vertical support beams noted above incidental to sign.

Supplement standard spec 637.2.4 with the following:

Use stainless steel bolts, washers and nuts for type I and type II signs mounted on sign bridges or type I signs mounted on overhead sign supports. Use clips on every joint for Sign Plate A 4-6 when mounted on a sign bridge or overhead sign support. Inspect installation of clips and assure bolts and nuts are tightened to manufacturers recommended torque values.

Use aluminum vertical sign support beams that have a 5-inch wide flange and weigh 3.7 pounds per foot, if the L-brackets are 4 inches wide then use 4 inch wide flange beams weighing 3.06 pounds per foot. Contractor shall measure the width of the L-brackets on existing structures of determine the width needed for sign support beams.

Use beams a minimum of six feet in length or equal to the height of the sign to be supported, whichever is greater. Use U-bolts that are made of stainless steel, one-half inch diameter and of the proper size to fit the truss cords of each sign bridge. Install vertical sign support beams on each sign and use new U-bolts to attach each beam to the top and bottom cord of the sign bridge truss.

For type II signs on overhead sign supports follow the approved product list for mounting brackets.

Replace standard spec 637.3.3.2(2) with the following:

- (2) Install Type I Signs at the offset stated in the plan, which shall be the clear distance between the edge of mainline pavement right edgeline and the near edge of the sign.

Supplement standard spec 637.3.3.3(3) with the following:

Furnish and install new aluminum vertical sign support beams on each sign and new U-bolts to attach each beam to the top and bottom cord of the sign bridge truss for Type I or Type II Signs and Type I signs on overhead sign supports incidental to sign.

Add the following to standard spec 641.2:

Submit shop drawings for sign bridges and overhead sign supports to SE Region Traffic Operations Engineer, Tom Heydel and Bureau of Structures Design.

SER-637-001 (20170621)

47. Blue Specific Service Signs.

Add the following to standard spec 638.3.4:

Do not remove or move blue specific service signs or their associated posts. Specific service signs are signs with logos that identify commercial entities providing gas, food, lodging, camping, or attractions. A separate contractor, Interstate Logos - Wisconsin, is responsible for these signs. Contact Interstate Logos - Wisconsin at (844) 496-9163 a minimum of 14 calendar days in advance to coordinate removing, moving, or re-installation of these signs.

The contractor is responsible for damage done to these signs due to contractor operations.

stp-638-010 (20150630)

48. Sign Bridge Identification Plaques.

Supplement standard spec 641.5 with the following:

- (5) Payment for Sign Bridge and Overhead Sign Support bid items is full compensation for providing and installing sign bridge identification plaques and mounting hardware as shown on the standard detail drawing in the plans for each existing and new sign bridge or overhead sign support.

SER-641-001 (20160902)

49. Locating No-Passing Zones, Item 648.0100.

For this project, the spotting sight distance in areas with a 55 mph posted speed limit is 0.21 miles (1108 feet).

stp-648-005 (20060512)

50. Traffic Signals, General.

All work shall be according to the plans and the State of Wisconsin Department of Transportation Standard Specifications for Highway and Structure Construction, 2023 Edition, and these special provisions.

Failure to comply with the state standards and specifications may result in the cost of the corrections to be made at the contractors' expense. Any additional disruption of department-owned facilities shall be repaired or relocated as needed at the contractors' expense.

Notify the department's Electrical Field Unit at (414) 266-1170 at least three weeks prior to the beginning of the traffic signal work.

Furnish the engineer with material lists and specifications of all traffic control equipment for approval prior to installation.

51. General Requirements for Electrical Work.

Replace standard spec 651.3.3 (3) with the following:

Request a signal inspection of the signal installation to the engineer after completing the Prerequisites for Underground Inspection or Prerequisites for Above Ground Inspection at least five working days prior to the time of the requested inspection. Notify the department's Electrical Field Unit at (414) 266-1170 to coordinate the inspection. The department's Region Electrical personnel will perform the inspection. In the event of deficiencies, request a re-inspection when the work is corrected. The engineer will not authorize continuation to aboveground work or turn-on until the contractor corrects all deficiencies.

52. Electrical Conduit.

Replace standard spec 652.5(2) with the following:

⁽²⁾ Payment for Conduit Rigid Metallic, Conduit Rigid Nonmetallic, Conduit Reinforced Thermosetting Resin, and Conduit Special bid items is full compensation for providing the conduit, conduit bodies, and fittings; for providing all conduit hangers, clips, attachments, and fittings used to support conduit on structures; for pull wires or ropes; for expansion fittings and caps; for making necessary connections into an existing pull box, manhole, junction box or communication vault; for excavating, bedding, and backfilling, including any sand, concrete, or other required materials; for disposing of surplus materials; and for making inspections.

53. Electrical Service Meter Breaker Pedestal, Item 656.0201.01.

Add the following to standard spec 656.2.3:

The department will be responsible for the electric service installation request for any department maintained facility.

Electric utility company service installation and energy cost will be billed to and paid for by the maintaining authority.

Add the following to standard spec 656.3.4:

Install the cabinet base and meter breaker pedestal first, so the electric utility company can install the service lateral. Finish grade the service trench, replace topsoil that is lost or contaminated with other materials, fertilize, seed, and mulch all areas that are disturbed by the electric utility company.

Add the following to standard spec 656.5(3):

Payment for grading the service trench, replacing topsoil, fertilizer, seed, and mulch will be incidental to this work unless the bid items are in the contract and then they will be paid for at the contract price.

54. Traffic Signal Faces.

Add the following to standard spec 658.3:

⁽⁵⁾ Connect all ungrounded conductors with wire nuts in the appropriate sections of the signal heads. Connect the neutral conductors to the terminal strip. Be certain to twist wires prior to installing the wire nuts. All wire nuts must be installed facing up to prevent the entrance of water.

55. Pedestrian Signal Faces 16-Inch.

Replace standard spec 658.2(4) with the following:

For pedestrian signal faces: furnish polycarbonate resin housings, doors, and visors. Use yellow, Federal Standard 595 – FS13538, housings and dull black door faces and visors. For 16-inch heads, mount a z-crate visor and gasket to the door with stainless steel tabs. Drill the housing for top and bottom pipe mounting with the ability to rotate 270 degrees on the poly mounting brackets.

56. Pedestrian Push Buttons.

Replace standard spec 658.2(5) with the following:

For pedestrian push buttons: furnish freeze-proof ADA compliant pedestrian push buttons made by a department-approved manufacturer. The contractor shall place a Size 1, Type H reflective (R10-3EL, R, D) sign sticker (per state sign plate), message series – B, directly above each push button. Include a directional arrow or arrows on the sign as the plans show.

57. Signal Mounting Hardware.

Add the following to standard spec 658.2(7):

Use an approved type of pole or standard vertical mounting brackets/clamps for signal faces from an approved manufacturer. Pedestrian traffic signal heads mounted in the median shall use federal yellow aluminum side of pole 2-way upper and lower arm assemblies providing 16 ½-inch center to center spacing.

58. Lamp, Ballast, LED, Switch Disposal by Contractor, Item 659.5000.S.

A Description

This special provision describes the detachment and packaging of lamps, ballasts, LEDs, and mercury containing switches (e.g., overhead roadway lighting, underdeck bridge, wall packs, pedestrian signals, traffic control stop lights and warning flashers, fluorescent bulbs, and thermostats) removed under this contract for disposal as hazardous materials.

For Lamp, Ballast, LED, Switch Disposal by Contractor, coordinate removal from the work site by the department's hazardous waste disposal vendor. Disposal will be billed to the department by the hazardous waste disposal vendor.

For Lamp, Ballast, LED, Switch Disposal by Department, coordinate removal from the work site and delivery to the designated location for disposal by the department.

B Materials

B.1 Disposal by Contractor

Items removed under this contract will be considered the property of the department for waste generator identification. The contractor is responsible for coordinating with the department's hazardous waste vendor for disposal:

<https://wisconsin.gov/Documents/doing-bus/eng-consultants/cnslt-rsrces/environment/hazwaste-contacts.pdf>

C Construction

C.1 Removal

Arrange for the de-energizing of luminaires after receiving approval from the engineer that the existing luminaires can be removed. Do not remove luminaires that cannot be replaced with proposed LED units and operational within the same workday. The new LED units need to be operational prior to sunset of the same workday.

Detach and remove luminaires and lamps from the existing traffic signal poles or respective structure. Avoid breaking fixtures whenever possible.

Lamps, ballasts, LED, and switches will become property of the department, and will be disposed of in an environmentally sound manner.

C.2 Packaging of Hazardous Materials

Provide a secure, level location removed from the travelled way for storage of the material for disposal.

Pack intact fixtures in the packaging of the new lamps used to replace them, or packaging affording the equivalent protection. Place in full, closed stackable cartons.

Pile cartons no more than four high if palletized and secure cartons with shrink wrap to prevent shifting or falling of the loads. Clearly mark each pallet with the words "Universal Waste Lamps" or "Universal Waste Ballasts", the date, and the number of fixtures on each pallet.

Pack broken fixtures into (min.) 6 mil thick plastic bags and place inside sturdy cardboard boxes or the equivalent. Mark the outer packaging with the term "Broken Fixtures/Lamps", the date and the number of broken fixtures clearly marked on the box.

The hazardous waste vendor will not accept fixtures improperly packaged. The vendor will reject any fixtures not removed as part of a contract pay item or otherwise required under this contract.

Pack ballasts and mercury containing switches in appropriate containers.

C.3 Disposal by Contractor

Complete the lamp and ballast inventory (<https://wisconsin.gov/Documents/doing-bus/eng-consultants/cnslt-rsrcs/environment/dotlampballastinventory.dotx>) and contact the hazardous waste vendor to coordinate pickup and disposal at a location specified by the contractor. Consolidate all pallets and boxes from one project at a single location. Contact the hazardous waste vendor to set up an appointment for pickup. The hazardous waste vendor requires a minimum of one week advance notice to schedule pickup.

D Measurement

The department will measure Lamp, Ballast, LED, Switch Disposal by Contractor as each individual unit removed and received by the hazardous waste vendor, properly packaged and acceptably completed, matching the total number of units provided on the inventory form. The department will not measure broken fixtures that exceed a total of 10 percent of all fixtures to be disposed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
659.5000.S	Lamp, Ballast, LED, Switch Disposal by Contractor	EACH

Payment for Lamp, Ballast, LED, Switch Disposal by Contractor is full compensation for handling, packaging, labeling and scheduling disposal with the hazardous waste vendor; and scrapping and disposal of all other materials.

The department will pay separately for the work under which the lamps, ballasts LED or Switches are removed from service.

stp-659-500 (20220628)

59. Temporary Traffic Signal for Intersections STH 20 & CTH ES, Item 661.0201.01.

Replace standard spec 661.2.1(1) with the following:

(1) Furnish control cabinet and control equipment. The department will supply, maintain, and install a signal controller, cellular modem, and ethernet switch to establish remote communication to the signal controller. The cabinet must be equipped with a 6-circuit Isotel independent of the GFI receptacles. Provide a cabinet with a Corbin #2 door lock and an access door that allows placing the controller in emergency flash. Provide keys to the access door to the engineer and law enforcement agencies as required. Also provide a manual control accessible by the police. Test traffic signal control cabinets before installation. The department will provide the signal controller with the initial traffic signal timing, and the department will be responsible for all subsequent signal timing changes.

Replace standard spec 661.2.1(3) with the following:

(3) Use existing underground electric service and meter breaker pedestal for the operation of the Temporary Traffic Signal. The contractor will be responsible for arranging any additional service connection to the temporary signal. The department will pay for all Energy Costs for the operation of the Temporary Traffic Signal.

Furnish and install a generator to operate the temporary traffic signals for the times required to switch the existing permanent traffic signal over to the temporary traffic signal and for the time required to switch the temporary traffic signal back over to the permanent traffic signal.

Contact the local electrical utility at least four days prior to making the switch from the Temporary Traffic Signal to the new Permanent Traffic Signal.

Append standard spec 661.2.1 with the following:

(6) Control equipment or controller equipment is defined as anything inside the control cabinet excluding the department furnished signal controller, cellular modem, and ethernet switch.

Replace standard spec 661.3.1(2) with the following:

(2) Request a signal inspection of the completed temporary traffic signal installation to the engineer at least five working days prior to the time of the requested inspection. Notify the SE Region Electrical Field Unit at (414) 266-1170 to coordinate the inspection. The SE Region electrical personnel will perform the inspection.

Append standard spec 661.3.1.4 with the following:

(4) Arrange for every other week inspections with the engineer to check the height of the span wire above the roadways to ensure that the bottom of the traffic signal heads remain within the minimum and maximum heights allowed above the roadway. Make all height adjustments within 1-hour of an inspection indicating that adjustments are required. Notify the engineer in writing upon completion of all necessary adjustments. Maintain a written log to properly document the date of each every other week inspection, the heights above the roadway, the roadway clearance after adjustments have been made, and acceptance by the engineer. Provide all documentation related to the every other week span wire height checks as well as all records related to maintenance performed on the temporary traffic signal installations to the engineer.

Replace standard spec 661.3.2.6(2) with the following:

(2) Upon acceptance of new signal and completion of work, the department will switch control of the intersection over to the permanent cabinet installation. Remove signal cable and wires, wood poles, wood posts, control cabinet, control equipment, and incidental materials. Upon deactivation of the controller, call the electrical utility immediately for the temporary electrical service disconnect. The department shall remove the signal controller, cellular modem, and ethernet switch.

Replace standard spec 661.3.2.7 (2) with the following:

(2) Respond within one hour of notification to provide corrective action to any emergency such as but not limited to knockdowns, signal cable problems, and controller equipment failures. If equipment becomes damaged or faulty beyond repair, replace it within one working day. In order to fulfill this requirement, maintain, in stock, sufficient materials and equipment to provide repairs. Replace the traffic signal control equipment including the cabinet and cabinet accessories within 4 hours. If the outcome of the response identifies damage to the department furnished signal controller, notify the Traffic Management Center at (800) 375-7302 who will then dispatch the SE Region Electrical Field Unit.

Replace standard spec 661.5(2) with the following:

(2) Payment for the Temporary Traffic Signals for Intersections bid item is full compensation for providing, maintaining, and repairing the complete temporary installation, and for removal. Payment also includes the following:

1. Furnishing and installing replacement equipment.
2. The cost of delivery and pick-up of the cabinet assemblies.

Payment is full compensation for drilling holes; furnishing and installing all materials, including bricks, and coarse aggregate; for excavation, bedding, and backfilling, including any sand or other required materials; furnishing and placing topsoil, fertilizer, seed, and mulch in disturbed areas; for properly disposing of surplus materials; for making inspections; for cleaning up and properly disposing of waste; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.

60. Backfill Slurry, Item SPV.0035.01.

A Description

This special provision describes furnishing and placing Backfill Slurry. Conform to standard spec 209 except as follows.

B Materials

Replace standard spec 209.2.2 with the following:

- (1) Use aggregates that conform to the gradation conforming to standard spec 501.2.5.3 for fine aggregate and for Size No. 1 in standard spec 501.2.5.4. Provide aggregates in the same proportion by weight as for Grade A concrete as in standard spec 501.3.2.2. Weigh aggregates at a batch plant suitable for batching concrete masonry. Mix and deliver to the project site using a truck mixer. Add enough water meeting the requirements of standard spec 501.2.4 to enable the mixture to flow readily.

C Construction

Replace standard spec 209.3 with the following:

Discharge from the truck in a manner to prevent segregation. Completely fill excavation in a single operation. Consolidation or compaction effort will not be required. Twelve hours shall elapse before paving over the backfill.

D Measurement

Replace standard spec 209.4 with the following:

The department will measure Backfill Slurry in volume by the cubic yard of material placed acceptably completed. Such volume shall be computed from actual measurements of the dimensions of the area to be backfilled. In irregular or inaccessible areas, the engineer may allow volume to be determined by other appropriate methods.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.01	Backfill Slurry	CY

Payment is full compensation conforming to standard spec 209.5.(2) and 209.5.(5).

SER-209-001 (20161208)

61. **RRFB System STH 20 WB At Edwards St Assembly, Item SPV.0060.01;**
RRFB System STH 20 EB At Edwards St Assembly, Item SPV.0060.02;
RRFB System STH 20 EB/WB at Edwards St Back To Back Assembly In Median, Item SPV.0060.03;
RRFB System STH 20 EB At Sterling Circle, Item SPV.0060.04;
RRFB System STH 20 WB At Sterling Circle, Item SPV.0060.05;
RRFB System STH 20 WB Median At Sterling Circle, SPV.0060.06;
RRFB System STH 20 EB Median At Sterling Circle, Item SPV.0060.07.

A Description

This work shall consist of furnishing and installing to the department a solar powered rectangular rapid flashing beacon (RRFB) system consisting of multiple assemblies as described herein and as shown in the plans. Each assembly shall be solar powered and pedestrian activated. The assemblies shall be wirelessly controlled, and multiple units shall be synchronized. This specification is according to requirements contained in FHWA interim approval 1A-21 dated March 20, 2018 for flashing requirements and beacon operation.

B Materials

Furnish a RRFB system with multiple assemblies. Each assembly may consist of, but not limited to, light indications, and electrical components (wiring, solid-state circuit boards, etc.). An assembly may include the following items:

- (1) Light Indications
 1. Each indication shall be a minimum size of approximately 7" wide x 3" high with 8 high power LEDs.
 2. Two indications shall be installed on an assembly facing in the direction of approaching vehicular traffic. The two indications shall be aligned horizontally, with the longer dimension of the indication horizontal, and a minimum space between the two indications of approximately 7" measured from inside edge of one indication to inside edge of second indication.
 3. A 6 LED or approved equal indication shall be installed on an assembly facing in the direction of approaching pedestrian traffic to serve as a confirmation for the pedestrian that the system has been activated.
 4. The outside edges of the two indications, including any housing, shall not protrude beyond the outside edges of the integral signage of the assembly.
 5. The light intensity of the indications shall be certified to meet the minimum specifications of the Society of Automotive Engineers (SAE) standard J595 Class 1(Directional Flashing Optical Warning Devices for Authorized Emergency, Maintenance, and Service Vehicles) dated January 2005 and be available upon request
 6. Each indication shall be located between the bottom of the crossing warning sign and the top of the supplemental downward diagonal arrow plaque.
 7. All exposed hardware shall be anti-vandal.
 8. All individual components of the system shall be replaceable to allow for easy field repair and maintenance.
 9. To minimize excessive glare during nighttime conditions, an automatic signal dimming device should be used to reduce the brilliance of the RRFB indications during nighttime conditions.
- (2) Sign
 1. All signs shall be supplied and installed under a separate bid item in signing plan quantities. However, the assemblies must be constructed to allow the appropriate space for the installation of the signs in the field. The R10-25 9" x 12" push button sign is incidental to this assembly
- (3) Control Circuit
 1. The control circuit shall have the capability of independently flashing up to two independent outputs. The LED light outputs and flash pattern shall be FHWA approved and engineer programmed.
 2. The controller shall be one of the following:
 - web enabled to allow for remote programming and system diagnostics. Including flash time, flash pattern and report system information, such as battery voltage, and temperature.
 - on-board user interface that provides system diagnostics and allows system setting changes
 - Approved equal

3. The flashing output shall have 75 flashing sequences per minute during each 800 millisecond flashing sequence, the left and right RRFB indications shall operate using the following sequence:
 - a) The RRFB indication on the median side shall be illuminated for approximately 50 milliseconds.
 - b) Both RRFB indications shall be dark for approximately 50 milliseconds.
 - c) The RRFB indication on the right-hand side shall be illuminated for approximately 50 milliseconds.
Both RRFB indications shall be dark for approximately 50 milliseconds.
 - d) Both RRFB indications shall be illuminated for approximately 50 milliseconds.
Both RRFB indications shall be dark for approximately 50 milliseconds.
 4. Flash rates with the frequencies of 5 to 30 flashes/second shall not be used to avoid inducing seizures.
 5. The control circuit shall be installed in an IP67 NEMA rated enclosure or NEMA 3R.
 6. All circuit connectors shall conform to Ingress Protection, IP-67 rating, dust proof, and protected from temporary immersion in water up to 3 feet deep for 30 minutes. Connectors shall be Deutsch DTM series, Carmanah RRFB or approved equal
 7. All individual components of the system shall be replaceable to allow for easy field repair and maintenance.
- (4) Beacon Operation:
1. The RRFB shall be normally dark, shall initiate operation only upon pedestrian actuation, and shall cease operation at a predetermined time after the pedestrian actuation or, with passive detection, after the pedestrian clears the crosswalk.
 2. All RRFB units associated with a given crosswalk (including those with an advance crossing sign, if used) shall, when actuated, simultaneously commence operation of their rapid-flashing indications and shall cease operation simultaneously.
 3. If pedestrian pushbutton detectors (rather than passive detection) are used to actuate the RRFB indications, a Push Button To Turn On Warning Lights (R10-25) sign shall be installed explaining the purpose and use of the pedestrian pushbutton detector. See signing plan
 4. The duration of a predetermined period of operation of the RRFBs following each actuation should be based on the procedures provided in Section 4E.06 of the 2009 MUTCD for the timing of pedestrian clearance times for pedestrian signals.
 5. The predetermined flash period shall be immediately initiated each and every time that a pedestrian pressing a pushbutton detector
 6. A small pilot light may be installed integral to the RRFB or pedestrian pushbutton detector to give confirmation that the RRFB is in operation.
- (5) Battery:
1. The Battery shall be a 12VDC Absorbed Glass Mat (AGM) sealed lead-acid, maintenance-free battery.
 2. The Battery shall be rated at 45AH minimum and shall conform to Battery Council International (BCI) specifications or battery system that is 14Ah or 48AR Gel Battery and is suitable for usage model and system autonomy requirements or approved equal.
All batteries shall be sealed in a plastic film to provide moisture and corrosion resistance.
 3. The Battery shall have a minimum operating temperature range of -76° to 140°F (-60° to 60°C).
 4. All battery connectors shall conform to Ingress Protection, IP-67 rating, dust proof, and protected from temporary immersion in water up to 3 feet deep for 30 minutes. Connectors shall be Deutsch DTM series or approved equal
 5. The Battery shall be solar-charged with a capacity up to 30 days of autonomy without sunlight, varying with ambient temperature and number of activations. Solar calculations shall be provided
- (6) Wireless Radio
1. Radio control shall operate on 900 MHz frequency hopping spread spectrum network or 2.4 GHz ISM band mesh network radio
 2. Radio shall integrate with communication of RRFB system control circuit to activate light indications from pushbutton input.
 3. The Radio shall synchronize all of the remote light indications so they will turn on within 120 msec of each other and remain synchronized through-out the duration of the flashing cycle.
 4. Radio systems shall operate from 3.6 vdc to 15vdc
 5. The Radio unit shall have an LCD display to program flash time and communicate system information, such as battery voltage, battery temperature and solar charge level an onboard diagnostics.
 6. All individual components of the system shall be replaceable to allow for easy field repair and maintenance.

- (7) Pushbutton
 1. The pushbutton shall be capable of continuous operation over a temperature range of -30 degrees F to 165 degrees F (-34 degrees C to 74 degrees C).
 2. Pushbutton shall be ADA compliant.
 3. Pushbutton facing sidewalk area that is accessible to wheelchair person
- (8) Solar Panel
 1. The Solar Panel shall provide a minimum of 10 watts and maximum of 55 watts at peak total output or approved equal.
 2. The Solar Panel shall be affixed to an aluminum plate and bracket, at minimum angle of 45 degrees to allow for maximum solar collection and optimal battery strength or approved equal.
 3. The Solar Panel Assembly (panel, plate and bracket) shall be mounted on a pole cap mount or aluminum mounting bracket, to allow for maximum solar collection and optimal battery strength or approved equal.
 4. The Solar Panel shall have a minimum operating temperature range of -40° to 185°F (-40° to 85°C).
- (9) Pedestal Shaft
 1. Shall meet the requirements as set forth in standard spec 657 for highway and structure construction.
 2. Shall be a standard 4.5" OD aluminum pedestal pole. Supplied with one end threaded for easy installation into a pedestal base.
 3. Shall be a 13' Schedule 80 pipe raw aluminum.
 4. Shall be per SDD 09E07-06
 5. Incidental to RRFB
 6. See signing plan for locations
- (10) Pedestal Base
 1. Shall meet the requirements as set forth in standard spec 657.2.5 for highway and structure construction.
 2. The pedestal base shall be a cast aluminum pedestals mount on a concrete base attached by four internal anchor bolts imbedded in the base.
 3. The Base shall have a large 8.5" square hand hole cover allowing access to the interior of the base.
 4. Shall be per SDD 9C3-4
 5. Incidental to RRFB
- (11) Concrete Base
 1. Shall meet the requirements as set forth in standard spec 654.2 for highway and structure construction, as applicable.
 2. The concrete base shall be a Type 1 base per SDD 09C02-09 type 1 base
 3. Drilling of shaft is incidental to base.
 3. Incidental to RRFB
- (12) Anchor Bolts
 1. The anchor bolts shall be galvanized steel 1" x 42".
 2. Set of 4 includes lock washer and nut.
 3. Incidental to RRFB

C Construction

The RRFB system will consist of multiple assemblies to be constructed by the contractor as shown on the plans. NOTE: The RRFB's back-to-back assemblies include an RRFB facing both EB and WB at Edwards. RRFB' in Median at Sterling Circle are not back-to-back. See signing plan for locations

D Measurement

The department will measure RRFB System (location) as a single unit for each system, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item.

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.01	RRFB System STH 20 WB At Edwards St Assembly	EACH
SPV.0060.02	RRFB System STH 20 EB At Edwards St Assembly	EACH
SPV.0060.03	RRFB System STH 20 EB/WB At Edwards St Back to Back Assembly In Median	EACH
SPV.0060.04	RRFB System STH 20 EB At Sterling Circle	EACH
SPV.0060.05	RRFB System STH 20 WB At Sterling Circle	EACH
SPV.0060.06	RRFB System STH 20 WB Median at Sterling Circle	EACH
SPV.0060.07	RRFB System STH 20 EB Median at Sterling Circle	EACH

Payment is full compensation for providing and installing a fully operational RRFB system consisting of multiple assemblies.

62. Remove RRFB System STH 20 WB At Byrnes St Assembly, Item SPV.0060.08.

A Description

This work consists of removing the existing RRFB's both EB and WB on STH 20.

B (Vacant)

C Construction

Remove and turn over the RRFB's to the Village of East Troy

D Measurement

The department will measure Remove RRFB System STH 20 WB at Byrnes St Assembly as a single unit for the system, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.08	Remove RRFB System STH 20 WB At Byrnes St Assembly	EACH

Payment is full compensation for removal of RRFB Systems and turning over to the Village of East Troy. The department will pay separately for the removal of signs and sign posts.

63. Install Poles Type 10, Item SPV.0060.10; Install Poles Type 12-Over Height, Item SPV.0060.11; Install Monotube Arms 20-FT, Item SPV.0060.12; Install Monotube Arms 35-FT, Item SPV.0060.13; Install Luminaire Arms Steel 15-FT, Item SPV.0060.14.

A Description

This special provision describes installing state furnished materials conforming to standard spec 657, details shown in the plans, and as modified in this special provision.

B Materials

The department will furnish the monotube poles and monotube arms. Provide any other necessary material required to complete the installation as the plans show.

C Construction

Install equipment according to standard spec 657.3.

D Measurement

The department will measure Install Poles Type 10, Install Poles Type 12-Over Height, Install Monotube Arms 20-FT, Install Monotube Arms 35-FT, Install Luminaire Arms Steel 15-FT by the individual unit, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.10	Install Poles Type 10	EACH
SPV.0060.11	Install Poles Type 12-Over Height	EACH
SPV.0060.12	Install Monotube Arms 20-FT	EACH
SPV.0060.13	Install Monotube Arms 35-FT	EACH
SPV.0060.14	Install Luminaire Arms Steel 15-FT	EACH

Payment for the Install Poles bid items is full compensation for installing department furnished poles and for providing grounding lugs, fittings, shims, hardware, and other required components the department does not furnish.

Payment for the Install Monotube Arms bid items is full compensation for installing department furnished arms; for providing high-strength bolt/nut/washer assemblies and DTIs including those required for testing; and for providing related mounting hardware, leveling shims, and other required components the department does not furnish.

Payment for the Install Luminaire Arms Steel bid items is full compensation for installing department furnished luminaire arms and for providing grounding lugs, fittings, shims, hardware, and other required components the department does not furnish.

64. Trnspt & Install State Furn Traffic Signal Cabinet STH 20 & CTH ES (CB1), Item SPV.0060.15.

A Description

This special provision describes the transporting and installing of department furnished materials for traffic signals.

B Materials

Use materials furnished by the department including: the traffic signal controller and the traffic signal cabinet.

Pick up the department furnished materials at the department's Electrical Shop located at 935 South 60th Street, West Allis. Notify the department's Electrical Field Unit at (414) 266-1170 and make arrangements for picking up the department furnished materials five working days prior to picking the materials up.

Provide all other needed materials in conformance with standard spec 651.2, 652.2, 653.2, 654.2, 655.2, 656.2, 657.2, 658.2 and 659.2.

C Construction

Perform work according to standard spec 651.3, 652.3, 653.3, 654.3, 655.3, 656.3, 657.3, 658.3 and 659.3 except as specified below.

Request a signal inspection of the completed signal installation to the engineer at least five (5) working days prior to the time of the requested inspection. The department's Region Electrical personnel will perform the inspection.

Coordinate directly with the department's traffic signal cabinet vendor {TAPCO at (262) 814-7327 or rickk@tapconet.com / TCC at (651) 439-1737 or mallwood@trafficcontrolcorp} to schedule the cabinet acceptance testing. Coordinate with the department's Electrical Field Unit at (414) 266-1170 to participate in the acceptance testing. The department has final determination of the cabinet acceptance testing date and time.

D Measurement

The department will measure Trnspt & Install State Furn Traffic Signal Cabinet STH 20 & CTH ES by the individual unit, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.15	Trnspt & Install State Furn Traffic Signal Cabinet STH 20 & CTH ES (CB1)	EACH

Payment is full compensation for transporting and installing the traffic signal controller and the traffic signal cabinet; for furnishing and installing all other items necessary (such as wire nuts, splice kits and/or connectors, tape, insulating varnish, ground lug fasteners, etc.) to make the proposed system complete from the source of supply to the most remote unit and for clean-up and waste disposal.

65. Trnspt Traffic Signal & Inter Lighting Materials STH 20 & CTH ES, Item SPV.0060.16.

A Description

This special provision describes the transporting of department furnished materials for traffic signals and intersection lighting.

B Materials

Transport materials furnished by the department including: monotube arms and poles.

Pick up the department furnished materials at the department’s Electrical Shop located at 935 South 60th Street, West Allis. Notify the department’s Electrical Field Unit at (414) 266-1170 and make arrangements for picking up the department furnished materials five working days prior to picking the materials up.

Provide all other needed materials in conformance with standard spec 651.2, 652.2, 653.2, 654.2, 655.2, 656.2, 657.2, 658.2 and 659.2.

C Construction

Perform work according to standard spec 651.3, 652.3, 653.3, 654.3, 655.3, 656.3, 657.3, 658.3 and 659.3 except as specified below.

D Measurement

The department will measure Trnspt Traffic Signal & Inter Lighting Materials STH 20 & CTH ES by the individual unit, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.16	Trnspt Traffic Signal & Inter Lighting Materials STH 20 & CTH ES	EACH

Payment is full compensation for transporting the monotube poles and arms. Installation of these materials is included under a separate pay item.

66. Trnspt & Install State Furnished EVP Detector Heads STH 20 & CTH ES, Item SPV.0060.17.

A Description

This special provision describes the transporting and installing of state furnished Emergency Vehicle Preemption (EVP) detector heads and mounting brackets.

B Materials

Use materials furnished by the department including EVP detector heads and mounting brackets.

Pick up the state furnished materials at the department’s Electrical Shop located at 935 South 60th Street, West Allis. Notify the department’s Electrical Field Unit at (414) 266-1170 and make arrangements for picking up the state furnished materials at least five working days prior to picking the materials up.

C Construction

Install the EVP detector heads and mounting brackets as shown on the plans. The department will determine the exact location to ensure that the installation does not create a sight obstruction. Mount the EVP detector heads and wire them per manufacturer instructions. For a cabinet that is not operating the signal, the contractor will terminate the ends and install the discriminators and card rack in the cabinet. If the cabinet is operating the signal, the cabinet wiring will be done by the department.

Notify the department's Electrical shop at (414) 266-1170 upon completion of the installation of the EVP equipment.

D Measurement

The department will measure Transport & Install State Furnish EVP Detector Heads STH 20 & CTH ES by the individual intersection, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.17	Trnspt & Install State Furnished EVP Detector Heads STH 20 & CTH ES	EACH

Payment is full compensation for transporting and installing of department furnished EVP detector heads and mounting brackets.

67. Inlet Covers Type H With Curb Plate, Item SPV.0060.18.

A Description

This special provision describes providing Inlet Covers Type H with Curb Plate according to standard spec 611, as shown on the plans, and as hereinafter provided.

B (Vacant)

C (Vacant)

D Measurement

The department will measure Inlet Covers Type H with Curb Plate as each individual unit, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.18	Inlet Covers Type H with Curb Plate	EACH

Payment is full compensation for providing new covers, including frames, grates or lids, and all other required materials and for installing and adjusting each cover.

68. Section Corner Monuments, Item SPV.0060.19.

A Description

Coordinate with Southeastern Wisconsin Regional Planning Commission (SEWRPC) for the perpetuation and replacement of a section corner (Public Land Survey System- PLSS) monument.

B Materials

SEWRPC will provide a pre-cast concrete monument or brass disk to be used to mark the PLSS corner.

Furnish base aggregate dense materials that conform to standard spec 305. Furnish concrete, asphalt, topsoil or other materials depending on the surface surrounding the corner.

C Construction

SEWRPC will perpetuate existing section corner monument. The contractor is responsible to coordinate with SEWRPC and the WisDOT Project Manager throughout the perpetuation and replacement process. The contractor will contact the engineer and SEWRPC at (920) 912-1036 at least two weeks before starting construction operations or the preconstruction meeting to allow for section corner monument perpetuation.

Contractor must excavate and completely remove the existing monument. Contractor is responsible for providing a backfilled 3 to 4 foot deep hole where existing monument was removed. Contractor is responsible to coordinate the materials and methodology to complete the construction of the surface surrounding the monument. This may include but is not limited to a 2' x 2' "box out" or 24" diameter core hole in concrete, asphalt pavement/paving rings, coring to facilitate poured in place monuments, topsoil, seed and mulching or other materials or methodologies as agreed to by the contractor and SEWRPC.

Contact Information:

Attn: Rob Merry
Southeastern Wisconsin Regional Planning Commission
W239 N1812 Rockwood Drive
P.O. Box 1607
Waukesha, WI 53187-1607
Phone (262) 953-4289
Cell (920) 912-1036
Fax (262) 547-1103
rmerry@sewrpc.org

D Measurement

The department will measure Section Corner Monuments Special by the individual unit, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.19	Section Corner Monuments	EACH

Payment is full compensation for all excavating; removal of existing monument, for placing and compacting backfill material; for disposing of surplus materials; for concrete or asphalt material, finishing of roadway or other surfaces, for all coordination with SEWRPC.

SER-621-001 (20210924)

69. Sanitary Sewer Manhole Rebuild, SPV.0060.20.

A Description

This special provision includes furnishing and installing all materials, parts, tools, equipment, excavation, backfill, and supervision necessary for the rebuilding of a sanitary manhole including internal/external seal, new frame and grate, and adjustment to final grade.

B Materials

All sanitary manhole rebuilding materials shall conform with Village of East Troy Standard Construction Specification latest edition.

Granular backfill meeting the requirements of standard spec 305 for 3/4-Inch or 1 1/4-Inch dense graded base shall be used; except that no more than 10% shall pass the No. 200 sieve.

C Construction

All sanitary manhole rebuilding materials shall conform with Village of East Troy Standard Construction Specification latest edition.

D Measurement

The department will measure Sanitary Sewer Manhole Rebuild by each manhole, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.20	Sanitary Sewer Manhole Rebuild	EACH

Payment is full compensation for providing and installing a fully operational manhole and for furnishing all chimney seals, seals, gaskets, adjustment rings and incidentals.

70. Sanitary Sewer Manhole Adjustment, SPV.0060.21.

A Description

This special provision includes furnishing and installing all materials, parts, tools, equipment, excavation, backfill, and supervision necessary for the adjustment of a sanitary manhole including internal/external seal, new frames and grate, and adjustment to final grade.

B Materials

Use materials conforming to Section 33 05 13 of the Village of East Troy Standard Construction Specification

C Construction

Use methods that conform to Section 33 05 13 of the Village of East Troy Standard Construction Specification.

D Measurement

The department will measure Sanitary Sewer Manhole Adjustment by each manhole, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.21	Sanitary Sewer Manhole Adjustment	EACH

Payment is full compensation for providing and installing a fully operational manhole and for furnishing all chimney seals, seals, gaskets, adjustment rings and incidentals.

**71. 8-Inch Water Main Gate Valve, Item SPV.0060.22;
12-Inch Water Main Butterfly Valve, Item SPV.0060.23.**

A Description

Work under this item shall include installing (size) water main valve and valve box as identified on the plan and as required to complete the installation of the proposed water main

B Materials

Use materials conforming to Section 33 11 13 of the Village of East Troy Standard Construction Specification and standard spec sections 204, 305, 390, and 460.

C Construction

Use methods that conform to Section 33 11 13 of the Village of East Troy Standard Construction Specification and standard spec sections 204, 305, 390, and 460.

Maintain the normal water service at all times during installation of the new water main. All temporary piping and/or temporary connections shall be incidental to this bid item.

D Measurement

The department will measure (size) Water Main (type) Valve by each individual unit, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.22	8-Inch Water Main Gate Valve	EACH
SPV.0060.23	12-Inch Water Main Butterfly Valve	EACH

Payment is full compensation for milling existing pavement, excavation; installation and removal of sheeting and bracing; dewatering; disposal of surplus material from the trench; back fill material; backfilling and compaction of the backfill material; fittings; bedding; installing valves, valve boxes and any necessary extensions; adjustment of valve boxes; thrust restraint; maintaining water service to customers; corrosion protection; bonding; blocking; base aggregate, asphalt base patching, and HMA pavement; valve box adapter; and restoring the site.

**72. 1 1/2" Corp, Curb Stop and Box, Item SPV.0060.24;
2" Corp, Curb Stop and Box, Item SPV.0060.25.**

A Description

Work under this item shall consist of providing a new (size) water service curb valve and curb box as shown in the plans.

B Materials

Use materials conforming to Section 33 11 13 of the Village of East Troy Standard Construction Specification latest edition.

C Construction

Use methods that conform to Section 33 11 13 of the Village of East Troy Standard Construction Specification latest edition.

Maintain the normal water service at all times during installation of the new water main. All temporary piping and/or temporary connections shall be incidental to this bid item.

D Measurement

The department will measure (size) Corp, Curb Stop and Box by each individual unit, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.24	1 1/2" Corp, Curb Stop and Box	EACH
SPV.0060.25	2" Corp, Curb Stop and Box	EACH

Payment is full compensation for excavation; installation and removal of sheeting and bracing; dewatering; disposal of surplus material from the trench; back fill material; backfilling and compaction of the backfill material; fittings; bedding; installing corp, curb stop and boxes and any necessary extensions; adjustment of boxes; thrust restraint; maintaining water service to customers; corrosion protection; bonding; blocking; and restoring the site.

73. Reconnect Water Service, Item SPV.0060.26.

A Description

Work under this item shall consist of providing a new connection to the existing water service as shown in the plans.

B Materials

Use materials conforming to Section 33 11 13 of the Village of East Troy Standard Construction Specification latest edition.

C Construction

Use methods that conform to Section 33 11 13 of the Village of East Troy Standard Construction Specification latest edition.

Contractor is to provide 24-hour notice to property impacted prior to shutting down the exiting service

D Measurement

The department will measure Reconnect Water Service by each individual unit, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.26	Reconnect Water Service	EACH

Payment is full compensation for locating the existing service, excavation; installation and removal of sheeting and bracing; dewatering; disposal of surplus material from the trench; back fill material; backfilling and compaction of the backfill material; piping and fittings, bedding; corrosion protection, and restoring the site.

74. Connect to Existing Water Main, Item SPV.0060.27.

A Description

Work under this item shall consist of providing a connection from the existing water main to the new water main as shown in the plans.

B Materials

Use materials conforming to Section 33 11 13 of the Village of East Troy Standard Construction Specification latest edition.

C Construction

Use methods that conform to Section 33 11 13 of the Village of East Troy Standard Construction Specification latest edition.

Maintain the normal water service at all times during installation of the new water main. All temporary piping and/or temporary connections shall be incidental to this bid item.

D Measurement

The department will measure Connect to Existing Water Main by each individual unit, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.27	Connect to Existing Water Main	EACH

Payment is full compensation for locating the main, excavation; installation and removal of sheeting and bracing; dewatering; disposal of surplus material from the trench; back fill material; backfilling and compaction of the backfill material; fittings; bedding; boxes and any necessary extensions; thrust restraint; maintaining water service to customers; corrosion protection; bonding; blocking; and restoring the site.

75. Connect to Existing Water Main Lateral, Item SPV.0060.28.

A Description

Work under this item shall consist of providing a 1" Tap to the new water main as shown in the plans for an existing water service.

B Materials

Use materials conforming to Section 33 11 13 of the Village of East Troy Standard Construction Specification latest edition.

C Construction

Use methods that conform to Section 33 11 13 of the Village of East Troy Standard Construction Specification latest edition.

Maintain the normal water service at all times during installation of the new water main. All temporary piping and/or temporary connections shall be incidental to this bid item.

D Measurement

The department will measure Connect to Existing Water Main by each individual unit, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.28	Connect to Existing Water Main Lateral	EACH

Payment is full compensation for locating the main, excavation; installation and removal of sheeting and bracing; dewatering; disposal of surplus material from the trench; back fill material; backfilling and compaction of the backfill material; Tap; fittings; bedding; thrust restraint; maintaining water service to customers; corrosion protection; bonding; blocking; and restoring the site.

76. New 1.5" Water Main Lateral, Item SPV.0060.29.

A Description

Work under this item shall consist of providing a 1.5" Tap in the new water main as shown in the plans for new 2" water services.

B Materials

Use materials conforming to Section 33 11 13 of the Village of East Troy Standard Construction Specification latest edition.

C Construction

Use methods that conform to Section 33 11 13 of the Village of East Troy Standard Construction Specification latest edition.

Maintain the normal water service at all times during installation of the new water main. All temporary piping and/or temporary connections shall be incidental to this bid item.

D Measurement

The department will measure New 1.5" Water Main Lateral by each individual unit, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.29	New 1.5" Water Main Lateral	EACH

Payment is full compensation for locating the main, excavation; installation and removal of sheeting and bracing; dewatering; disposal of surplus material from the trench; back fill material; backfilling and compaction of the backfill material; Tap; fittings; bedding; boxes and any necessary extensions; thrust restraint; maintaining water service to customers; corrosion protection; bonding; blocking; and restoring the site.

77. Hydrant Assembly, Item SPV.0060.30.

A Description

Work under this item shall consist of installing a new fire hydrant assembly including the tee at main, 6" gate valve, 6" hydrant lead and hydrant installation. The fire hydrant will be provided by the Village; 6" main, tee, 6" gate valve and appurtenances to be provided by contractor.

B Materials

Use materials conforming to Section 33 11 13 of the Village of East Troy Standard Construction Specification latest edition.

C Construction

Use methods that conform to Section 33 11 13 of the Village of East Troy Standard Construction Specification latest edition. No hydrant extensions are allowed.

Maintain the normal water service at all times during installation of the new water main. All temporary piping and/or temporary connections shall be incidental to this bid item.

D Measurement

The department will measure Hydrant Assembly by each individual unit, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.30	Hydrant Assembly	EACH

Payment is full compensation for locating the main, excavation; installation and removal of sheeting and bracing; dewatering; disposal of surplus material from the trench; back fill material; backfilling and compaction of the backfill material; fittings; bedding; thrust restraint; Tee at the Main; 6" gate valve and 6" water main lead; corrosion protection; bonding; blocking; and restoring the site.

78. Tracer Wire Access Box, Item SPV.0060.31.

A Description

Work under this item shall consist of installing tracer wire access boxes at all hydrants installed as part of this project.

B Materials

Use materials conforming to Section 33 11 13 of the Village of East Troy Standard Construction Specification latest edition.

C Construction

Use methods that conform to Section 33 11 13 of the Village of East Troy Standard Construction Specification latest edition. No hydrant extensions are allowed.

Maintain the normal water service at all times during installation of the new water main. All temporary piping and/or temporary connections shall be incidental to this bid item.

D Measurement

The department will measure Tracer Wire Access Box by each individual unit, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.31	Tracer Wire Access Box	EACH

Payment is full compensation for providing and installing the tracer wire access box including connecting the tracer wires and testing.

79. Construction Staking Water Main, SPV.0060.32.

A Description

This special provision describes modifying standard spec 105.6 and 650 and as follows to define the requirements for construction staking of water main for this contract.

B (Vacant)

C Construction

Supplement standard spec 650.3 with the following:

650.3.15 Water Main

Record all elevation data for pipe inverts, bends, fittings, casings and other information necessary to accurately record the construction document. Submit a hard copy to the engineer within 24 hours or as requested by the engineer.

Set and maintain construction stakes or marks as necessary to achieve the required accuracy and to support the method of operations. Locate all pipe inverts, to within 0.02 feet horizontally and to within 0.01 feet vertically.

Provide the as-built xyz coordinates and elevations, in the project horizontal and vertical datum, of all tie in locations for the as-built plan. Also provide the locations of the casing ends, the elevation of the top of casing and the size and material of all pipes.

D Measurement

Replace standard spec 650.4 with the following:

The department will measure Construction Staking Water Main as a single unit for a project, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV. 0060.32	Construction Staking Water Main	EACH

Payment is full compensation for locating and setting construction stakes; for adjusting stakes to ensure compatibility with existing field conditions; and for relocating and resetting damaged or missing construction stakes as well as all work required for layout, documentation, recording, and provide as-built plans for water main. Final payment will not be made for any staking item until the contractor submits all survey notes and computations used to establish the required lines and grades to the engineer within 24 hours of completing this work. Payments due to the contractor will be deducted for the additional costs specified in 105.6. No additional payments will be made for re-staking due to construction disturbance and knock-outs.

**80. 6" Water Main, Item SPV.0090.01;
8" Water Main, Item SPV.0090.02;
12" Water Main, Item SPV.0090.03.**

A Description

Work under this item shall include installing (size) water main at the alignment and grades as shown in the plans and as hereinafter provided. Abandoning the existing water main is incidental to the new main.

B Materials

Use materials conforming to Section 33 11 13 of the Village of East Troy Standard Construction Specification latest edition.

C Construction

Use methods that conform to Section 33 11 13 of the Village of East Troy Standard Construction Specification latest edition.

Maintain the normal water service at all times during installation of the new water main. All temporary piping and/or temporary connections shall be incidental to this bid item.

D Measurement

The department will measure (size) Water Main by the linear foot unit, measured along the centerline of the pipe including fittings and valves, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV. 0090.01	6" Water Main	LF
SPV. 0090.02	8" Water Main	LF
SPV. 0090.03	12" Water Main	LF

Payment is full compensation for excavation; installation and removal of sheeting and bracing; dewatering; disposal of surplus material from the trench; back fill material; backfilling and compaction of the backfill material; location aides; fittings; bedding the pipe; laying the pipe and installing fittings and accessories; jointing and sealing of joints in pipe; thrust restraint; maintaining water service to customers; water main offsets to avoid obstructions and to maintain separation; corrosion protection; bonding; blocking; testing; and abandoning existing main and restoring the site.

81. 24" Steel Casing Pipe – Jack and Bore Construction, Item SPV.0090.04.

A Description

Work under this item shall include installing (size) Steel Casing Pipe at the alignment and grades as shown in the plans and as hereinafter provided.

B Materials

Use materials conforming to Section 33 05 23.16 of the Village of East Troy Standard Construction Specification latest edition.

C Construction

Use methods that conform to Section 33 05 23.16 of the Village of East Troy Standard Construction Specification latest edition.

Maintain the normal water service at all times during installation of the new water main. All temporary piping and/or temporary connections shall be incidental to this bid item.

D Measurement

The department will measure (size) Steel Casing Pipe by the linear foot unit, measured along the centerline of the pipe, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV. 0090.04	24" Steel Casing Pipe – Jack and Bore Construction	LF

Payment is full compensation for excavation; installation and removal of sheeting and bracing; dewatering; disposal of surplus material from the trench; back fill material; backfilling and compaction of the backfill material; carrier pipe installation and bracing; strapping; skids and centering devices; sealing of the ends and restoring the site.

82. 1.5" Water Service, Item SPV.0090.05.

A Description

Work under this item shall consist of providing a new (size) water service as shown in the plans.

B Materials

Use materials conforming to Section 33 11 13 of the Village of East Troy Standard Construction Specification latest edition.

C Construction

Use methods that conform to Section 33 11 13 of the Village of East Troy Standard Construction Specification latest edition.

Maintain the normal water service at all times during installation of the new water main. All temporary piping and/or temporary connections shall be incidental to this bid item.

D Measurement

The department will measure (size) Corp, Curb Stop and Box by each individual unit, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV. 0090.05	1.5" Water Service	LF

Payment is full compensation for excavation; installation and removal of sheeting and bracing; dewatering; disposal of surplus material from the trench; back fill material; backfilling and compaction of the backfill material; fittings; bedding; installing of 1.5" piping; thrust restraint; maintaining water service to customers; corrosion protection; bonding; blocking; and restoring the site.

83. 2" Water Service, Item SPV.0090.06.

A Description

Work under this item shall consist of providing a new (size) water service piping as shown in the plans.

B Materials

Use materials conforming to Section 33 11 13 of the Village of East Troy Standard Construction Specification latest edition.

C Construction

Use methods that conform to Section 33 11 13 of the Village of East Troy Standard Construction Specification latest edition.

Maintain the normal water service at all times during installation of the new water main. All temporary piping and/or temporary connections shall be incidental to this bid item.

D Measurement

The department will measure (size) Water Service by the linear foot from the centerline of the water main to the end of the lateral or the connection to the existing service.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV. 0090.06	2" Water Service	LF

Payment is full compensation for excavation; installation and removal of sheeting and bracing; dewatering; disposal of surplus material from the trench; back fill material; backfilling and compaction of the backfill material; fittings; bedding; installing of 2" piping; thrust restraint; maintaining water service to customers; corrosion protection; bonding; blocking; and restoring the site.

84. 8" Water Main, Edwards Street, Item SPV.0090.07.

A Description

This special provision includes furnishing all materials, parts, tools, equipment, excavation, and supervision necessary to install 8" water main and to restore the pavement outside of the DOT paving limits on Edwards Street as shown on the Edwards Street Utility Trench Detail.

B Materials

Use materials conforming to Section 33 11 13 of the Village of East Troy Standard Construction Specification latest edition and standard spec 204, 305, 390, and 460.

C Construction

Use methods that conform to Section 33 11 13 of the Village of East Troy Standard Construction Specification latest edition and standard spec 204, 305, 390, and 460.

Maintain the normal water service at all times during installation of the new water main. All temporary piping and/or temporary connections shall be incidental to this bid item.

Trench restoration shall be completed within 7 days of the water main clean bacteria test.

D Measurement

The department will measure 8" Water Main Edwards St Outside of DOT Paving Limits measured along the centerline of the pipe installed including all fittings and valves acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV. 0090.07	8" Water Main, Edwards Street	LF

Payment is full compensation for milling existing pavement; excavation; installation and removal of sheeting and bracing; dewatering; disposal of surplus material from the trench; back fill material; backfilling and compaction of the backfill material; fittings; bedding; adjustment of boxes; thrust restraint; maintaining water service to customers; corrosion protection; bonding; blocking; base aggregate, asphalt base patching, HMA pavement; and restoring the site.

85. Concrete Curb & Gutter HES 30-Inch Type D, Item SPV.0090.08.

A Description

This special provision describes constructing curb and gutter using high early strength concrete at the locations shown in the plans, or as directed by the engineer.

B Materials

Provide grade C concrete conforming to the standard spec 501 as modified in standard spec 716.

Provide joint filler conforming to the pertinent requirements of standard spec 415.2.3. Provide QMP for class II ancillary concrete as specified in standard spec 716.

C Construction

Construct according to the requirements of standard spec 601.3

D Measurement

The department will measure Concrete Curb & Gutter HES 30-Inch Type D by the linear foot, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.08	Concrete Curb & Gutter HES 30-Inch Type D	LF

Payment is full compensation according to standard spec 601.5.

86. Timber Fence, Item SPV.0090.09.

A Description

This special provision describes constructing timber fence, as shown on the plans, according to the standard specifications and as hereinafter provided.

B Materials

Furnish materials conforming to the requirements specified in standard spec 615.2.

C Construction

Construct according to the pertinent requirements of standard spec 615.3.

D Measurement

The department will measure Timber Fence, completed and accepted according to the terms of the contract, in place by the length in linear feet from end to end of rail

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.09	Timber Fence	LF

Payment is full compensation for providing materials, including posts, rails, bolts, mesh fencing, paint, and preservative; for excavation, erecting, and backfilling; and for preservative treating and staining.

87. Concrete Sidewalk 12-Inch, Item SPV.0165.01.

A Description

This special provision describes providing concrete sidewalk with a 12-inch thickness and according to standard spec 602.

B Materials

Furnish concrete and other ancillary materials according to standard spec 602.

C Construction

Construct according to standard spec 602.

D Measurement

The department will measure Concrete Sidewalk 12-Inch by the square foot, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.01	Concrete Sidewalk 12-Inch	SF

Payment is according to standard spec 602.5.

The department will pay separately for coated high strength bar steel reinforcement under the item Concrete Retaining Curb.

88. Concrete Retaining Curb, Item SPV.0165.02.

A Description

This special provision describes constructing Concrete Retaining Curb according to plan details, standard spec 505, standard spec 601, and as hereinafter provided

B Materials

Add the following to standard spec 601.2:

Furnish coated high-strength bar steel reinforcement according to standard spec 505.2.4.

C Construction

Conform to standard spec 505.3 and 601.3.

D Measurement

The department will measure Concrete Retaining Curb by the square foot, acceptably completed, measured along the front face of the retaining curb.

E Payment

Supplement standard spec 601.5 to include the following:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.02	Concrete Retaining Curb	SF

Add the following to standard spec 601.5(3):

Payment includes providing coated high strength bar steel reinforcement.

89. Wall Modular Block Mechanically Stabilized Earth R-51-082, Item SPV.0165.03.

A Description

This special provision describes designing, furnishing materials and erecting a permanent earth retention system according to the lines, dimension, elevations and details as shown on the plans and provided in the contract. The design life of the wall and all wall components shall be 75 years minimum.

This special provision describes the quality management program (QMP) for Mechanically Stabilized Earth (MSE) walls. A quality management program is defined as all activities, including process control, inspection, sampling and testing, and necessary adjustments in the process that are related to the construction of the MSE wall, which meets all the requirements of this provision.

This special provision describes contractor quality control (QC) sampling and testing for backfill density testing, documenting those results, and documenting related production and placement process changes. This special provision also describes department quality verification (QV), independent assurance (IA), and dispute resolution.

Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes sampling and testing procedures.

B Materials

B.1 Proprietary Wall Systems

The supplied wall system must be from the department's approved list of Modular Block Mechanically Stabilized Earth Wall systems. Proprietary wall systems must conform to the requirements of this specification and be pre-approved for use by the department's Bureau of Structures. The department maintains a list of pre-approved proprietary wall systems. See the approved products list titled "Proprietary Retaining Wall System Vendors." The name of the pre-approved proprietary wall system selected shall be furnished to the engineer within 25 days after the award of contract. The department also maintains a separate list of plants pre-approved by the department to provide wall facing units. See the approved products list titled "Precast Concrete and Block Fabricators." The identity of the plant manufacturing the facing units shall be furnished to the engineer at least 14 days prior to the project delivery.

To be eligible for use on this project, a system must have been pre-approved by the Bureau of Structures and added to that list prior to the bid closing date. To receive pre-approval, the retaining wall system must comply with all pertinent requirements of this provision and be prepared according to the requirements of Chapter 14 of the department's LRFD Bridge Manual. Information and assistance with the pre-approval process can be obtained by contacting the Bureau of Structures, Structures Maintenance Section at the following email address: DOTDLStructuresFabrication@dot.wi.gov.

To be eligible to provide wall facing units for this project, a block manufacturing plant must be pre-approved by the Bureau of Technical Services and added to that list prior to the bid closing date. Information and assistance with the pre-approval process can be obtained by contacting the Bureau of Technical Services at the following email address: DOTProductSubmittal@wisconsin.gov.

B.2 Design Requirements

It is the responsibility of the contractor to submit a design and supporting documentation as required by this special provision, for review and acceptance by the department, to show the proposed wall design conforms to the design specifications. The submittal shall include the following items for review: detailed plans and shop drawings, complete design calculations, explanatory notes, supporting materials, and specifications. The detailed plans and shop drawings shall include all details, dimensions, quantities and cross-sections necessary to construct the walls. Submit shop drawings to the engineer conforming to [105.2](#) with electronic submittal to the fabrication library under [105.2.2](#). Certify that shop drawings conform to quality control standards by submitting department form [DT2329](#) with each set of shop drawings. Department review does not relieve the contractor from responsibility for errors or omissions on shop drawings. Submit no later than 60 days from the date of notification to proceed with the project and a minimum of 30 days prior to the date proposed to begin wall construction.

The plans and shop drawings shall be prepared on reproducible sheets 11 inch x 17 inch, including borders. Each sheet shall have a title block in the lower right corner. The title block shall include the WisDOT project identification number and structure number. Design calculations and notes shall be on 8 ½ inch x 11 inch sheets, and shall contain the project identification number, name or designation of the wall, date of preparation, initials of designer and checker, and page number at the top of the page. All plans, shop drawings, and calculations shall be signed, sealed and dated by a professional engineer licensed in the State of Wisconsin.

The design of the wall shall be in compliance with the current American Association of State Highway and Transportation Officials LRFD (AASHTO LRFD) Bridge Design Specifications with latest interim specifications for Mechanically Stabilized Earth Walls, WisDOT's current Standard Specifications for Highway and Structure Construction (standard spec), Chapter 14 of the WisDOT LRFD Bridge Manual and standard engineering design procedures as determined by the department. Loads, load combinations, load and resistance factors shall be as specified in AASHTO LRFD Section 11. The associated resistance factors shall be defined according to Table 11.5.7-1 in AASHTO LRFD.

Design and construct the walls according to the lines, grades, heights and dimensions shown on the plans, as herein specified, and as directed by the engineer.

Walls parallel to supporting highway traffic shall be designed for the effects of highway surcharge loading equivalent of 2 feet soil surcharge weight or 240 psf. The design shall also consider the traffic barrier impact where applicable. Walls that do not carry highway traffic shall be designed for a live load surcharge of 100 psf according to Chapter 14 of the WisDOT LRFD Bridge Manual or as stated on the plans.

A maximum value of the angle of internal friction of the wall backfill material used for design shall be assumed to be 30 degrees without a certified report of tests. If a certified report of tests yields an angle of internal friction greater than 30 degrees, the larger test value may be used for design, up to a maximum value of 36 degrees.

An external stability check at critical wall stations showing Capacity Demand Ratio (CDR) for sliding, eccentricity, and bearing checks is provided by the department and are provided on the wall plans.

The design of the wall by the contractor shall consider the internal and compound stability of the wall mass according to AASHTO LRFD 11.10.6. The internal stability shall include soil reinforcement pullout, soil reinforcement rupture, and wall facing-reinforcement connection failure at each soil reinforcement level. The design shall be performed using the Simplified Method or Coherent Gravity Method. Calculations for factored stresses and resistances shall be based upon assumed conditions at the end of the design life. Compound stability shall be computed for the applicable strength limits. Sample analyses and hand calculations shall be submitted to verify the output of any software used. The design calculations and notes shall clearly indicate the Capacity to Demand Ratios (CDR) for all internal and external stabilities as defined in AASHTO LRFD.

Wall facing units shall be designed according to AASHTO LRFD 11.10.2.3.

The minimum length of soil reinforcement measured from the back face of the wall shall be equal to 0.7 of the wall height, or as shown on the plan. In no case shall this length be less than 6.0 feet. The soil reinforcement length shall be the same from the bottom to the top of the wall. All soil reinforcement layers shall be connected to facings. The soil reinforcement shall extend a minimum of 3.0 feet beyond the theoretical failure plane in all cases. The maximum vertical spacing of soil reinforcement layers shall be two times the block width (front face to back face) or 32 inches, whichever is less. The first (bottom) layer of reinforcement shall be placed no further than 12 inches above the top of the leveling pad or the height

of the block, but at least one block height above the leveling pad. The last (top) layer of soil reinforcement shall be no further than 21 inches below the top of the uppermost block.

All soil reinforcement required for the reinforced soil zone shall be connected to the wall facing.

Soil reinforcement shall be fabricated or designed to avoid piling, drainage structures or other obstacles in the fill without field modifications. Unless approved by the Bureau of Structures cutting or altering of the basic structural section of either the strip or grid at the site is prohibited, a minimum clearance of 3" shall be maintained between any obstruction and reinforcement, and splicing reinforcement is not allowed.

The minimum embedment of the wall shall be 1 foot 6 inches below finished grade, or as given on the plans. All walls shall be provided with a concrete leveling pad. Minimum wall embedment does not include the leveling pad depth. Step the leveling pad to follow the general slope of the ground line. Frost depth shall not be considered in designing the wall for depth of leveling pad.

Wall facing units shall be installed on a leveling pad.

B.3 Wall System Components

Materials furnished for wall system components under this contract shall conform to the requirements of this specification. All documentation related to material and components of the wall systems specified in this subsection shall be submitted to the engineer.

B.3.1 Wall Facing

Wall facing units shall consist of precast modular concrete blocks. Furnish concrete produced by a dry-cast or wet-cast process. Concrete for all blocks shall not contain less than 565 pounds of cementitious materials per cubic yard. The contractor may use cement conforming to standard spec. [501.2.1](#) or may substitute for portland cement at the time of batching conforming to standard spec. [501.2.6](#) for fly, [501.2.7](#) for slag, or [501.2.8](#) for other pozzolans. In either case the maximum total supplementary cementitious content is limited to 30% of the total cementitious content by weight.

Dry-cast concrete blocks shall be manufactured according to ASTM C1372 and this specification.

All units shall incorporate a mechanism or devices that develop a mechanical connection between vertical block layers. Units that are broken, have cracks wider than 0.02" and longer than 25% of the nominal height of the unit, chips larger than 1", have excessive efflorescence, or are otherwise deemed unacceptable by the engineer, shall not be used within the wall. A single block front face style shall be used throughout each wall. The color and surface texture of the block shall be as given on the plan.

The top course of facing units shall be as noted on the plans, either;

- Solid precast concrete unit designed to be compatible with the remainder of the wall. The finishing course shall be bonded to the underlying facing units with a durable, high strength, flexible adhesive compound compatible with the block material.
- A formed cast-in-place concrete cap. A cap of this type shall have texture, color, and appearance, as noted on the plans. The vertical dimension of the cap shall not be less than 3 1/2 inches. Expansion joints shall be placed in the cap at a maximum spacing of 20 feet unless noted otherwise on the plan. Use Grade A concrete conforming to standard spec 501 as modified in standard spec 716. Provide QMP for cast in place cap and coping concrete as specified in standard spec 716, Class II Concrete.

Block dimensions may vary no more than $\pm 1/8$ inch from the standard values published by the manufacturer. Blocks must have a minimum width (front face to back face) of 8 inches. The minimum front face thickness of blocks shall be 4 inches measured perpendicular from the front face to inside voids greater than 4 square inches. The minimum allowed thickness of any other portions of the block is 1 3/4 inches. The front face of the blocks shall conform to plan requirements for color, texture, or patterns.

If pins are used to align modular block facing units, they shall consist of a non-degrading polymer, or hot dipping galvanized steel and be made for the express use with the modular block units supplied, to develop mechanical interlock between facing unit block layers. Connecting pins shall be capable of holding the wall in the proper position during backfilling. Furnish documentation that establishes and substantiates the design life of such devices.

All block materials shall be furnished palletted and banded, with every pallet marked for quantity, lot number, lot size, manufacturing plant, and manufacturing date(s). Materials furnished loose or unmarked will be rejected. Rejected materials shall be removed from the project at no cost to the department.

B.3.1.1 Material Testing

Perform or procure quality control testing of project materials according to the following requirements:

Test	Method	Requirement	
		Dry-cast	Wet-cast
Compressive Strength (psi)	ASTM C140 or ASTM C39 ^[4]	5000 min.	4000 min.
Air Content (%)	AASHTO T152 ^[4]	N/A	6.0 +/-1.5
Water Absorption (%)	ASTM C140 ^[3]	6 max.	N/A
Freeze-Thaw Loss (%) 40 cycles, 5 of 5 samples 50 cycles, 4 of 5 samples	ASTM C1262 ^{[1][2][3]}	1.0 max. 1.5 max.	N/A

^[1] Test shall be run using a 3% saline solution and blocks greater than 45 days old.

^[2] Test results that meet either of the listed requirements for Freeze-Thaw Loss are acceptable.

^[3] An independent testing laboratory shall control and conduct all sampling and testing under ASTM C140/Water Absorption and ASTM C1262. Prior to sampling, the manufacturer shall identify materials by lot. Five blocks per lot shall be randomly selected for testing. Solid blocks used as a finishing or top course shall not be selected. The selected blocks shall remain under the control of the person who conducted the sampling until shipped or delivered to the testing laboratory.

^[4] The manufacturer may perform their own quality control testing under ASTM C140/Compressive Strength, ASTM C39, and AASHTO T152, if qualified for this work under the requirements for plant certification.

The contractor and fabricator shall coordinate with the independent testing agent (if used) to ensure that strength and air content samples can be taken appropriately during manufacturing. At the time of delivery of materials, furnish the engineer a certified report of test from an AASHTO-registered or ASTM-accredited independent testing laboratory for each lot furnished.

The certified test report shall include the following:

- Project ID
- Production process used (dry-cast or wet-cast)
- Name and location of testing facility
- Name of sampling technician
- Lot number, lot size, and date(s) of fabrication.

Quality control testing of project materials shall be completed not more than 18 months prior to delivery. Lot size shall not exceed the maximum testing frequencies, which shall not exceed 5000 blocks for dry-cast blocks and the lesser of 150 CY or 1 day's production for wet-cast blocks. Test results will represent all blocks within the lot. Each pallet of blocks delivered shall bear lot identification information. Block lots that do not meet the requirements of this specification or blocks without supporting reports will be rejected and shall be removed from the project at no expense to the department.

Nonconforming materials will be subject to evaluation according to standard spec 106.5.

B.3.2 Leveling Pad

Provide an unreinforced cast-in-place concrete leveling pad. Use Grade A concrete conforming to standard spec 501 as modified in standard spec 716. Provide QMP for leveling pad concrete as specified in standard spec 716, Class III Concrete.

The minimum width of the concrete leveling pad shall be as wide as the proposed blocks plus 6-inches, with 6-inches of the leveling pad extending beyond the front face of the blocks. The minimum thickness of the leveling pad shall be 6-inches.

B.3.3 Backfill

Furnish and place backfill for the wall as shown on the plans and as hereinafter provided.

Wall Backfill, Type A, shall comply with the requirements for Coarse Aggregate No. 1 as given in standard spec 501.2.7.4.2. All backfill placed within a zone from the top of the leveling pad to the top of the final layer of wall facing units and within 1 foot behind the back face of the wall shall be Wall Backfill, Type A. This includes all material used to fill openings in the wall facing units.

Wall Backfill, Type B, shall be placed in a zone extending horizontally from 1 foot behind the back face of the wall to 1 foot beyond the end of the reinforcement and extending vertically from the top of the leveling pad to a minimum of 3 inches above the final reinforcement layer.

Use natural sand or a mixture of sand with gravel, crushed gravel or crushed stone. Do not use foundry sand, bottom ash, blast furnace slag, crushed/recycled concrete, crushed/milled asphaltic concrete or other potentially corrosive material.

Provide material conforming to the following gradation requirements as per AASHTO T27.

Sieve Size	% by Weight Passing
1 inch	100
No. 40	0 - 60
No. 200	0 - 15

The material shall have a liquid limit not greater than 25, as per AASHTO T89, and a plasticity index not greater than 6, as per AASHTO T90. Provide the percent by weight, passing the #4 sieve.

In addition, backfill material Type A and Type B shall meet the following requirements.

Test	Method	Value
pH	AASHTO T-289	4.5-9.0
Sulfate content ^[1]	AASHTO T-290	200 ppm max.
Chloride content ^[1]	AASHTO T-291	100 ppm max.
Electrical Resistivity ^[1]	AASHTO T-288	3000 ohm-cm min.
Organic Content ^[1]	AASHTO T-267	1.0% max.
Angle of Internal Friction	AASHTO T-236 ^[2]	30 degrees min. (At 95.0% of maximum density and optimum moisture, per AASHTO T99, or as modified by C.2)

^[1] Requirement does not apply to walls with non-metallic reinforcement and non-metallic connectors.

^[2] If the amount of P-4 material is greater than 60%, use AASHTO 236 with a standard-size shear box. Test results of this method may allow the use of larger angles of internal friction, up to the maximum allowed by this specification.

^[3] If the amount of P-4 material is less than or equal to 60%, two options are available to determine the angle of internal friction. The first method is to perform a fractured faces count, per ASTM D5821, on the R-4 material. If more than 90% of the material is fractured on one face and more than 50% is fractured on two faces, the material meets the specifications and the angle of internal friction can be assumed to be 30 degrees. The second method allows testing all P-1" material, as per AASHTO T-236, with a large shear box. Test results of this second method may allow the use of larger angles of internal friction, up to the maximum allowed by this specification.

Prior to placement of the backfill, obtain and furnish to the engineer a certified report of test results that the backfill material complies with the requirements of this specification. Specify the method used to determine the angle of internal friction. This certified report of test shall be less than 6 months old. Tests will be performed by a certified independent laboratory. In addition, when backfill characteristics and/or sources change, provide a certified report of tests for the new backfill material. Additional certified report of tests are also required. These additional backfill tests may be completed at the time of material production or material placement, with concurrence of the engineer. If this additional testing is completed at the time of material production, complete testing for every 2000 cubic yards of backfill or portion thereof. If this additional testing is completed at the time of material placement, complete testing for every 2000 cubic yards of backfill, or portion thereof, used per wall. For the additional required testing for every 2000 cubic yards of backfill placement, if the characteristic of the backfill and/or the source has not changed then Angle of Internal Friction tests are not included in the additional required testing. All certified reports of test results shall be less than 6 months old and performed by a certified independent laboratory.

B.3.4 Soil Reinforcement

B.3.4.1 Geogrids

Geogrid supplied as reinforcing members shall be manufactured from long chain polymers limited to polypropylene, high-density polyethylene, polyaramid, and polyester. Geogrids shall form a uniform rectangular grid of bonded, formed, or fused polymer tensile strands crossing with a nominal right angle orientation. The minimum grid aperture shall be 0.5 inch. The geogrid shall maintain dimension stability during handling, placing, and installation. The geogrid shall be insect, rodent, mildew, and rot resistant. The geogrid shall be furnished in a protective wrapping that shall prevent exposure to ultraviolet radiation and damage from shipping or handling. The geogrid shall be kept dry until installed. Each roll shall be clearly marked to identify the material contained.

The wall supplier shall provide the nominal long-term design strength (T_{al}) and nominal long-term connection strength, T_{ac} as discussed below.

Nominal Long-Term Design Strength (T_{al})

The wall supplier shall supply the nominal long-term design strength (T_{al}) used in the design for each reinforcement layer and shall be determined by dividing the Ultimate Tensile Strength (T_{ult}) by the factors RF_{ID} , RF_{CR} , RF_D .

Hence,

$$T_{al} = \frac{T_{ult}}{RF_{ID} \times RF_{CR} \times RF_D}$$

where:

- T_{ult} = Ultimate tensile strength of the reinforcement determined from wide width tensile tests (ASTM D6637) for geogrids based on the minimum average roll value (MARV) for the product.
- RF_{ID} = Strength reduction factor to account for installation damage to the reinforcement. In no case shall RF_{ID} be less than 1.1.
- RF_{CR} = Strength reduction factor to prevent long-term creep rupture of the reinforcement. In no case shall RF_{CR} be less than 1.2.
- RF_D = Strength reduction factor to prevent rupture of the reinforcement due to chemical and biological degradation. In no case shall RF_D be less than 1.1.

Values for RF_{ID} , RF_{CR} , and RF_D shall be determined from product specific test results. Guidelines for determining RF_{ID} , RF_{CR} , and RF_D from product specific data are provided in FHWA Publication No. FHWA-NHI-10-024 and FHWA-NHI-10-025 "Design and Construction of Mechanically Stabilized Earth Walls and Reinforced Soil Slopes".

Nominal Long-term Connection Strength T_{ac}

The nominal long term connection strength, T_{ac} , shall be based on laboratory geogrid connection tests between wall facing and geogrids. T_{ac} shall be as given below

$$T_{ac} = \frac{T_{ult} * CR_{cr}}{RF_D}$$

where:

- T_{ac} = Nominal long-term reinforcement facing connection strength per unit reinforcement width at a specified confining pressure.
- T_{ult} = Ultimate tensile strength of the reinforcement for geogrids defined as the minimum average roll value (MARV) for the product.
- CR_{cr} = Long term connection strength reduction factor to account for reduced ultimate strength resulting from connection.
- RF_D = Strength reduction factor to prevent rupture of the reinforcement due to chemical and biological degradation.

T_{ac} shall be developed from the tests conducted by an independent laboratory on the same facing blocks and geogrids as proposed for the wall and shall cover a range of overburden pressures comparable to

those anticipated in the proposed wall. The connection strength reduction factor CR_{cr} shall be determined according to long-term connection test as described in Appendix B of FHWA Publication No. FHWA-NHI 10-025 "Design and Construction of Mechanically Stabilized Earth Walls and Reinforced Soil Slopes". CR_{cr} may also be obtained from the short term connection test meeting the requirements of NCMA test method SRWU-1 in Simac et al 1993 or ASTM D4884.

The contractor shall provide a manufacturer's certificate that the Tult (MARV) of the supplied geogrid has been determined according to ASTM D4595 or ASTM D6637 as appropriate. Contractor shall also provide block to block and block to reinforcement connection test reports prepared and certified by an independent laboratory. Also provide calculations according to AASHTO LRFD, and using the results of laboratory tests, that the block-geogrid connections shall be capable of resisting 100% of the maximum tension load in the soil reinforcements at any level within the wall, for the design life of the wall system.

B.3.4.2 Galvanized Metal Reinforcement

In lieu of polymeric geogrid earth reinforcement, galvanized metal reinforcement may be used. Design and materials shall be according to AASHTO LRFD 11.10.6.4.2. The design life of steel soil reinforcements shall also comply with AASHTO LRFD. Steel soil reinforcement shall be prefabricated into single or multiple elements before galvanizing.

C Construction

C.1 Excavation and Backfill

Excavation and preparation of the foundation for the MSE wall and the leveling pad shall be according to standard spec 206. The volume of excavation covered is limited to the width of the reinforced mass and to the depth of the leveling pad unless shown or noted otherwise on the plan. At the end of each working day, provide good temporary drainage such that the backfill shall not become contaminated with run-off soil or water if it should rain. Do not stockpile or store materials or large equipment within 10 feet of the back of the wall.

Place backfill materials in the areas as indicated on the plans and as detailed in this specification. Backfill lifts shall be no more than 8-inches in depth, after compaction. Backfilling shall closely follow erection of each course of wall facing units.

Conduct backfilling operations in such a manner as to prevent damage or misalignment of the wall facing units, soil reinforcement, or other wall components. At no expense to the department, correct any such damage or misalignment as directed by the engineer. A field representative of the wall supplier shall be available during wall construction to provide technical assistance to the contractor and the engineer.

Place and compact the MSE backfill to the level of the next higher layer of MSE reinforcement before placing the MSE reinforcement or connecting it to the wall facing. Place and compact material beyond the reinforced soil zone to allow for proper compaction of material within the reinforced zone. The MSE reinforcement shall lay horizontally on top of the most recently placed and compacted layer of MSE backfill.

Do not operate tracked or wheeled equipment on the backfill within 3 feet from the back face of modular blocks. The engineer may order the removal of any large or heavy equipment that may cause damage or misalignment of the wall facing units.

C.2 Compaction

Compact wall backfill Type A with at least three passes of lightweight manually operated compaction equipment acceptable to the engineer.

Compact all backfill Type B as specified in standard spec 207.3.6. Compact the backfill Type B to 95.0% of maximum dry density as determined by AASHTO T-99 (modified to compute densities to the nearest 0.1 pcf).

Ensure adequate moisture is present in the backfill during placement and compaction to prevent segregation and to help achieve compaction.

Compaction of backfill within 3 feet of the back face of the wall should be accomplished using lightweight compaction devices. Use of heavy compaction equipment or vehicles should be avoided within 3 feet of the modular blocks. Do not use sheepsfoot or padfoot rollers within the reinforced soil zone.

A minimum of 6 inches of backfill shall be placed over the MSE reinforcement prior to working above the reinforcement.

C.3 Wall Components

C.3.1 General

Erect wall facing units and other associated elements according to the wall manufacturer's construction guide and to the lines, elevations, batter, and tolerances as shown on the plans. Center the initial layer of facing units on the leveling pad; then level them and properly align them. Fill formed voids or openings in the facing units with wall backfill, Type A. Remove all debris on the top of each layer of facing units, before placing the next layer of facing units.

Install all pins, rods, clips, or other devices used to develop mechanical interlock between facing unit layers according to the manufacturer's directions.

The MSE reinforcement shall lay horizontally on the top of the most recently placed and compacted layer of MSE backfill. Bending of MSE reinforcement that result in a kink in the reinforcement shall not be allowed. If skewing of the reinforcement is required due to obstructions in the reinforced fill, the maximum skew angle shall not exceed 15 degrees from the normal position unless a greater angle is shown on the plans. The adequacy of the skewed reinforcement in such a case shall be addressed by supporting calculations.

C.3.2 Leveling Pad

Provide an unreinforced cast-in-place concrete leveling pad as shown on the plans. Vertical tolerances shall not exceed 3/4-inch when measured along a 10-foot straight edge. Allow the concrete to set at least 12 hours prior to placing wall facing units.

The bottom row of wall facing units shall be horizontal and 100% of the unit surface shall bear on the leveling pad.

C.3.3 Soil Reinforcement

C.3.3.1 Geogrid Layers

Place soil reinforcement at the positions and to the lengths as indicated on the accepted shop drawings. Take care that backfill placement over the positioned soil reinforcement elements does not cause damage or misalignment of these elements. Correct any such damage or misalignment as directed by the engineer. Do not operate wheeled or tracked equipment directly on the soil reinforcement. A minimum cover of 6 inches is required before such operation is allowed.

Place and anchor geogrid material between wall unit layers in the same manner as used to determine the Geogrid Block-to-Connection Strength. Place the grid material so that the machine direction of the grid is perpendicular to the wall face. Each grid layer shall be continuous throughout the lengths indicated on the plans. Join grid strips with straps, rings, hooks or other mechanical devices to prevent movement during backfilling operations. Prior to placing backfill on the grid, pull the grid taut and hold in position with pins, stakes or other methods approved by the engineer.

C.3.3.2 Steel Layers

Place the steel reinforcement full width in one piece as shown on the plans. No splicing will be allowed. Maintain elements in position during backfilling.

C.4 Quality Management Program

C.4.1 Quality Control Plan

Submit a comprehensive written quality control plan to the engineer at or before the pre-construction meeting. Do not perform MSE wall construction work before the engineer reviews and accepts the plan. Construct the project as the plan provides.

Do not change the quality control plan without the engineer's review and acceptance. Update the plan with changes as they become effective. Provide a current copy of the plan to the engineer and post in the contractor's laboratory as changes are adopted. Ensure that the plan provides the following elements:

1. An organizational chart with names, telephone numbers, current certifications and/or titles, and roles and responsibilities of QC personnel.
2. The process used to disseminate QC information and corrective action efforts to the appropriate persons. Include a list of recipients, the communication process that will be used, and action time frames.
3. A list of source locations, section and quarter descriptions, for all aggregate materials requiring QC testing.
4. Descriptions of stockpiling and hauling methods.
5. An outline for resolving a process control problem. Include responsible personnel, required documentation, and appropriate communication steps.
6. Location of the QC laboratory, retained sample storage, and other documentation.

7. A summary of the locations and calculated quantities to be tested under this provision.
8. A proposed sequencing plan of wall construction operations and random test locations.

C.4.2 Quality Control Personnel

Perform the quality control sampling, testing, and documentation required under this provision using HTCP certified technicians. Have a HTCP Grading Technician I (GRADINGTEC-I); or Assistant Certified Technician, Grading (ACT-GRADING); or Aggregate Technician I (AGGTEC-I); or Assistant Certified Technician, Aggregate (ACT-AGG) present at the each grading site during all wall backfill placement, compaction, and nuclear testing activities. Have a HTCP Nuclear Density Technician I (NUCDENSITYTEC-I) or Assistant Certified Technician, Nuclear Density Gauge Operator (ACT-NUC) perform field density and field moisture content testing.

If an Assistant Certified Technician (ACT) is performing sampling or testing, a certified technician must coordinate and take responsibility for the work an ACT performs. Have a certified technician Ensure that all sampling and testing is performed correctly, analyze test results, and post resulting data. No more than one ACT can work under a single certified technician.

C.4.3 Equipment

Furnish the necessary equipment and supplies for performing quality control testing. Ensure that all testing equipment conforms to the equipment specifications applicable to the required testing methods. The engineer may inspect the measuring and testing devices to confirm both calibration and condition. Calibrate all testing equipment according to the CMM and maintain a calibration record at the laboratory.

Furnish nuclear gauges from the department's approved product list at:

<https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrcs/tools/appr-prod/default.aspx>

Ensure that the nuclear gauge manufacturer or an approved calibration service calibrates the gauge the same calendar year it is used on the project. Retain a copy of the calibration certificate with the gauge.

Conform to AASHTO T310 and CMM 8-15 for density testing and gauge monitoring methods.

Split each Proctor sample and identify so as to provide comparison with the department's test results. Unless the engineer directs otherwise, retain the QC split samples for 14 calendar days and promptly deliver the department's split samples to the department.

C.4.4 Documentation

- (1) Document all observations, inspection records, and process adjustments daily. Submit test results to the department's project materials coordinator on the same day they become available.
- (2) Use forms provided in CMM Chapter 8. Note other information in a permanent field record and as a part of process control documentation enumerated in the contractor's quality control plan. Enter QC data and backfill material certified report results into the applicable materials reporting system (MRS) software within 5 business days after results are available.
- (3) Submit final testing records and other documentation to the engineer electronically within 10 business days after all contract-required information becomes available. The engineer may allow submission of scanned copies of hand-written documentation.

C.4.5 Quality Control (QC) Testing

Perform compaction testing on the backfill. Conform to CMM 8-15 for testing and gauge monitoring methods. Conduct testing at a minimum frequency of 1 test per 150 cubic yards of backfill, or major portion thereof in each lift. A minimum of one test for every lift is required. Deliver documentation of all compaction testing results to the engineer at the time of testing.

Perform 1 gradation test every 750 cubic yards of fill and one 5-point Proctor test (or as modified in C.2) every 2,250 cubic yards of fill. Provide the region split samples of both within 72 hours of sampling, at the region laboratory. Test sites shall be selected using ASTM Method D3665. Provide Proctor test results to the engineer within 48 hours of sampling. Provide gradation test results to the engineer within 24 hours of sampling.

C.4.6 Department Testing

C.4.6.1 General

- (1) The department will conduct verification testing to validate the quality of the product and independent assurance testing to evaluate the sampling and testing. The department will provide the contractor with a listing of names and telephone numbers of all QV and IA personnel for the project and provide test results to the contractor within two business days after the department obtains the sample.

C.4.6.2 Quality Verification (QV) Testing

- (1) The department will have an HTCP technician, or ACT working under a certified technician, perform QV sampling and testing. Department verification testing personnel must meet the same certification level requirements specified in C.4.2 for contractor testing personnel for each test result being verified. The department will notify the contractor before sampling so the contractor can observe QV sampling.
- (2) The department will conduct QV tests at the minimum frequency of 30% of the required contractor density, Proctor and gradation tests.
- (3) The department will locate density tests and gradation samples randomly, at locations independent of the contractor's QC work. The department will split each Proctor and gradation QV sample, testing half for QV, and retaining the remaining half for 10 business days.
- (4) The department will conduct QV Proctor and gradation tests in a separate laboratory and with separate equipment from the contractor's QC tests. The department will use the same methods specified for QC testing.
- (5) The department will assess QV results by comparing to the appropriate specification limits. If QV test results conform to this special provision, the department will take no further action. If density QV test results are nonconforming, the area shall be reworked until the density requirements of this special provision are met. If the gradation test results are nonconforming, standard spec 106.5 will apply. Differing QC and QV nuclear density values of more than 1.5 pcf will be investigated and resolved. QV density tests will be based on the appropriate QC Proctor test results, unless the QV and QC Proctor result difference is greater than 3.0 pcf. Differing QC and QV Proctor values of more than 3.0 pcf will be investigated and resolved.

C.4.6.3 Independent Assurance (IA)

- (1) Independent assurance is unbiased testing the department performs to evaluate the department's QV and the contractor's QC sampling and testing, including personnel qualifications, procedures, and equipment. The department will perform an IA review according to the department's independent assurance program. That review may include one or more of the following:
 1. Split sample testing.
 2. Proficiency sample testing.
 3. Witnessing sampling and testing.
 4. Test equipment calibration checks.
 5. Reviewing required worksheets and control charts.
 6. Requesting that testing personnel perform additional sampling and testing.
- (2) If the department identifies a deficiency, and after further investigation confirms it, correct that deficiency. If the contractor does not correct or fails to cooperate in resolving identified deficiencies, the engineer may suspend placement until action is taken. Resolve disputes as specified in C.4.6.4.

C.4.6.4 Dispute Resolution

- (1) The engineer and contractor should make every effort to avoid conflict. If a dispute between some aspect of the contractor's and the engineer's testing program does occur, seek a solution mutually agreeable to the project personnel. The department and contractor may review the data, examine data reduction and analysis methods, evaluate sampling and testing procedures, and perform additional testing. Use ASTM E178 to evaluate potential statistically outlying data.
- (2) Production test results, and results from other process control testing, may be considered when resolving a dispute.

- (3) If the project personnel cannot resolve a dispute, and the dispute affects payment or could result in incorporating non-conforming product or work, the department will use third party testing to resolve the dispute. The department's central office laboratory, or a mutually agreed on independent testing laboratory, will provide this testing. The engineer and contractor will abide by the results of the third party tests. The party in error will pay service charges incurred for testing by an independent laboratory. The department may use third party test results to evaluate the quality of questionable materials and determine the appropriate payment. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

C.5 Geotechnical Information

Geotechnical data to be used in the design of the wall is given on the wall plan. After completing wall excavation of the entire reinforced soil zone, notify the department and allow the Regional Soils Engineer two working days to review the foundation.

D Measurement

The department will measure Wall Modular Block Mechanically Stabilized Earth by the square foot, acceptably completed. The department will compute the measured quantity from the theoretical pay limits the contract plans show. The department will make no allowance for wall area constructed above or below the theoretical pay limits. All work beyond the theoretical pay limits is incidental to the cost of work. The department will make no allowance for as-built quantities.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.03	Wall Modular Block Mechanically Stabilized Earth R-51-082	SF

Payment is full compensation for supplying a design and shop drawings; preparing the site, including all necessary excavation and disposal of materials; supplying all necessary wall components to produce a functional wall system including cap, copings, leveling pad, and leveling pad steps; constructing the retaining system and providing temporary drainage; providing backfill, backfilling, compacting, developing/completing/documenting the quality management program, and performing compaction testing.

The department will pay separately for parapets, traffic barriers, railings, and other items above the wall cap or coping.

SPV.0165.03 (20211104)

90. Slope Paving Crushed Aggregate Epoxy, Item SPV.0180. 01.

A Description

This special provision describes furnishing and placing aggregate for slope paving and applying an epoxy resin binder to the aggregate, as the plans show, conforming to standard spec 604, and as follows.

B Materials

Use a binder that has a low-modulus, is of medium-viscosity, and is a two-component epoxy resin. The binder shall conform to ASTM C-881 and AASHTO M-235 specifications and the following requirements:

Total Water Absorption (ASTM D-570)

7-Day	1.3% (2-hour boil)
14-Day	0.232% (24-hour immersion)
Color	Clear to light amber
Viscosity	2500 cps

Provide certification to the engineer that the epoxy meets the specifications before construction.

Use No. 2 clear stone that is crushed limestone that has been washed to remove the fines for the slope paving aggregate that conforms to the following gradation:

Sieve Size	Percent Passing by Weight
2-Inch	100
1-Inch	0-25

C Construction

Construct conforming to standard spec 604.3 except:

Replace standard spec 604.3.2(2) with the following paragraph:

- (2) Before applying the binder, ensure that the application surface is clean and sound, free of standing water, and does not contain dust, grease, waxes, and any other contaminants. Uniformly apply the binder over the surface of the slope paving conforming to the manufacturer's directions, at a rate just sufficient to ensure penetration and binding of the stone in the upper 2 inches of the aggregate blanket. Avoid excessive application of the binder material and exercise care to prevent run-off of such material. Protect the surface of the adjacent structure to prevent it from being splattered or discolored with binder material.

D Measurement

The department will measure Slope Paving Crushed Aggregate Epoxy by the square yard of work, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.01	Slope Paving Crushed Aggregate Epoxy	SY

Payment is full compensation for performing all excavation and backfilling required for preparing the slope paving foundation, properly disposing of surplus materials, for providing, handling, placing, and consolidating the clear stone aggregate; providing, handling, mixing and applying the binder material, and protecting the surfaces of adjacent structures from splatter.

SER-604-001 (20170103)

91. Resin Binder High Friction Surface Treatment, Item SPV.0180.02.

A Description

This special provision describes providing a high friction surface treatment (HFST) composed of aggregate in a resin binder on HMA or concrete pavements.

B Materials

B.1 Resin Binder

Supply a two-part thermosetting resin binder which is compatible with the pavement type, bonds to the pavement surface, holds the aggregate firmly in place in a broad range of climates including below-freezing temperatures, and meets the requirements specified in Table 1. Supply a primer if recommended by the resin binder manufacturer.

Table 1. Resin Binder Properties

Property	Requirements	Test Method*
Viscosity	7 – 30 poises	ASTM D2556 1-pint specimen
Gel Time	10-minute minimum	AASHTO M 235M/M 235 Type III
Ultimate Tensile Strength	2,000 – 5,000 psi @ 7 days	AASHTO M 235M/M 235 Type III
Elongation at Break	30% - 70% @ 7 days	AASHTO M 235M/M 235 Type III
Compressive Strength	≥ 1000 psi @ 3 hrs & ≥ 5000 psi @ 7 days	ASTM C579
Water Absorption	≤ 1.0 % @ 24-hr	AASHTO M 235M/M 235 Type III
Shore D Hardness	60 – 80 @ 7 days	ASTM D2240** Type 1 precision, Type D method
Cure Rate	≤ 3 hours (Dry Through Time)	ASTM D1640 50-55 wet mil thickness**
Adhesive Strength	250 psi @ 24 hours or 100% substrate failure	ASTM D4541**

* Prepare samples per manufacturer's recommendation; cure two sets of specimens at 73 ± 2° F and at 50 ± 2° F; and test all specimens at 73 ± 2° F

** Conduct testing on applicable pavement type

B.2 Aggregate

Furnish calcined bauxite aggregate that is fractured or angular in shape; resistant to polishing and crushing; clean and free of surface moisture; free from silt, clay, asphalt, or other organic materials; compatible with the resin binder; and meet the properties and gradation requirements in Tables 2 and 3. Check with resin binder manufacturer for any compatibility requirements or concerns. The calcined bauxite will be delivered to the construction site in clearly labeled packaging, which protects the aggregate from any contaminants on the jobsite and from exposure to rain or other moisture.

Table 2. Aggregate Properties

Property	Requirements	Test Method
Moisture Content	≤ 0.2%	AASHTO T 255
Fine Aggregate Angularity	≥ 45%	AASHTO T 304, Method A
LA Wear	≤ 10% loss @ 100 revolutions and ≤ 25% loss @ 500 revolutions	AASHTO T 96
Freeze-Thaw Soundness	≤ 9% loss @ 50, 16, or 25 cycles using Procedure A, B, or C, respectively	AASHTO T 103
Aluminum Oxide	≥ 87%	ASTM C 25

Table 3. Aggregate Gradation (AASHTO T27)

Sieve Size	% Passing by Weight
No. 4	100
No. 6	95-100
No. 16	0-5
No. 30	0-1

B.3 Approval of High Friction Surface Treatment

A minimum of 20 working days before applying HFST, submit product data sheets and specifications from the manufacturer, and a certified test report from an independent laboratory verifying that the resin binder and the calcined bauxite aggregate meet all the requirements specified in Tables 1, 2 and 3. Documents must be dated within three years of project letting date; must be representative of the material used on the project.

If resin binder has not been previously used in Wisconsin, also submit a list of at least five reference projects where the resin binder has been used for similar applications and in locations that have similar climatic conditions as Wisconsin. Supply a description of the projects along with contact information of the facility owner.

If the engineer requests, provide samples of the resin binder and aggregate for department testing before applying HFST.

C Construction

C.1 General

The contractor will provide documentation showing HFST application experience from at least three previous projects completed for WisDOT or other agencies.

Conduct a meeting with the resin binder manufacturer representatives before applying HFST to establish procedures for maintaining optimum working conditions and coordination of the work. Submit recommended application procedures, including quality control practices, to the engineer for approval. Ensure that a resin binder manufacturer representative is on site to provide technical assistance and quality assurance during surface preparation and for application of HFST.

Ensure that the resin binder components maintain their original properties during storage and handling. Store all aggregate in a dry environment and protect from contaminants on the job site.

C.2 Pavement Surface Preparation

C.2.1. Pavement Surface Repair

Remove visibly unsound or disintegrated areas of the pavement surface as the plans show or the engineer directs.

Check with resin binder manufacturer to ensure that products used for pavement repairs or patches are compatible with the resin HFST. Ensure that any new concrete or repairs are fully cured before placing the HFST. Allow a minimum 30-day curing time after placing new asphalt or concrete pavement before installing the HFST.

C.2.2 Surface Preparation

Cover and protect utilities, drainage structures, expansion joints on bridge decks, and other structures within or adjacent to the application location to prevent materials from adhering to or entering those structures.

Remove pavement markings that are within the treatment area. Cover existing pavement markings adjacent to the application if they are to remain in place.

Pretreat all joints and cracks, or any portion of cracks, that are greater than ¼ inch wide, with the mixed binder resin system specified herein. Once the binder resin in the pretreated area has galled, the installation may proceed.

Completely remove any grease, oil or other deleterious materials resting on the pavement surface with a mild detergent solution, rinsed with clean potable water, and dried using a hot compressed air lance. Ensure the pavement surface has no curing compound, loosely bonded mortar, pavement marking, or other foreign matter resting on the pavement surface.

Sufficiently clean HMA pavement surface using mechanical sweepers and high-pressure air wash with sufficient oil traps, just before applying HFST. Mechanically sweep all surfaces to remove dirt, loose aggregate, debris, and deleterious material. Vacuum sweep or air wash using a minimum of 180 cfm of clean and dry compressed air, all surfaces to remove all dust, debris, and deleterious material. Maintain air lance perpendicular to the surface and the tip of the air lance within 12 in. of surface.

Clean concrete pavement surface by shot blasting and vacuum sweeping. Shot blast all surfaces to remove all curing compound, loosely bonded mortar, surface carbonation, and deleterious material. After shot blasting, vacuum sweep or air wash, with a minimum of 180 cfm of clean and dry compressed air, all surfaces to remove all dust, debris, and deleterious material. Maintain air lance perpendicular to the surface and the tip of the air lance within 12 inches of the surface.

If the engineer requires additional verification of adequate surface preparation of the pavement, test the bond strength according to ASTM D4541. The surface is acceptable if the tensile bond strength is greater than or equal to 250 psi, or failure is in the substrate. Repeat cleaning, and testing, if needed, until passing test results are obtained or the surface is acceptable to the engineer.

Keep vehicles and unnecessary equipment off the cleaned surface; only allow HFST application equipment on the clean surface. Apply HFST as soon as possible after pavement surface preparations are completed.

C.3 Application of the HFST

Do not apply the HFST if any of the following exists:

- Pavement surface is wet, damp, or has received rainfall in the previous 24 hours.
- Pavement surface is not sufficiently clean.
- Ambient air or pavement surface temperature is below 50° F or below the manufacturer's recommendations.
- If the anticipated weather conditions would prevent adequate curing of the HFST.
- Rain is predicted before HFST completion or proper cure is achieved.
- Pavement preparation is inadequate or didn't pass pull-off test.

Close treatment areas to traffic until HFST is completely cured and pavement surface has been vacuum-swept.

Construct HFST to the full width of the existing pavement surface, or as the plans show. Extend the HFST application 2'-3' onto the shoulders if application site is on a curve where no rumble strip exists. If the rumble strip exists, apply HFST only on the main lane not on the shoulder.

Apply a primer to the pavement surface if recommended by the resin binder manufacturer, and according to their application recommendations. Abide by the established quality control practices and adhere to any additional manufacturer recommendations for HFST application.

Blend and mix the resin binder components at the manufacturer's specified ratio using equipment capable of providing the desired results.

Apply the resin binder uniformly over the pavement surface manually or with automated equipment at a uniform thickness of 50-65 mils (25-32 ft²/gal). Use enough resin to cover the pavement surface and sufficiently embed half the thickness of the aggregate; do not apply so much that it covers the aggregate and creates a slick surface. Adjust application rate, as needed, based on the pavement surface type, profile, and condition.

If using automated equipment, the binder resin system manufacturer shall approve the use of automated continuous application device with their material. Ensure that the equipment features positive displacement, volumetric metering, and can store, mixing, heating, monitoring, and distributing the binder components at the proper mix ratio. Adjust the pressure and the speed of the equipment to achieve the proper application thickness. Coverage rate is based upon expected variance in the surface profile of the pavement.

Do not contaminate the wet binder or allow the binder material to separate or cure and impair bonding of the aggregate.

Immediately after applying the resin binder, distribute a sufficient quantity of dry calcined bauxite aggregate to completely cover the resin binder by hand broadcasting or by using a standard chip spreader or equivalent machine. Ensure aggregate is placed within five minutes of the resin binder placement, before it begins to cure. When broadcasting, sprinkle or drop the aggregate onto the resin binder vertically. Do not distribute aggregate in a way that will cause it to roll in the resin binder before coming to a rest; do not push the aggregate into position with a broom or any other hand tool. If using a chip spreader, the machine shall follow closely behind the crew or equipment applying the resin binder. Immediately cover any visible wet or bare spots, or areas with excessive binder, with additional calcined bauxite aggregate before the resin binder begins to set.

Allow the HFST to properly cure, adhering to manufacturer recommendations for minimum cure times at applicable temperatures.

After the HFST is fully cured, remove excess loose surface aggregate by sweeping, blowing, or vacuuming. Do not tear or otherwise damage the surface. Excess calcined bauxite aggregate that is recovered by a vacuum sweeper can be reused if clean, uncontaminated and dry. Remove and replace damaged areas or areas with excess or insufficient aggregate coverage. Uncover pavement markings and repair damages that occur by covering and uncovering markings. Clean expansion joints, utilities, and drainage structures of all debris before opening to traffic.

Additionally, within 3 to 7 days after opening to traffic, the contractor shall vacuum sweep the pavement surface to remove loosened aggregate from the high friction surface area, the shoulders, and any other areas within and immediately adjacent to the HFST site.

D Measurement

The department will measure Resin Binder High Friction Surface Treatment by the square yard, acceptably completed.

E Payment

The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.01	Resin Binder High Friction Surface Treatment	SY

Payment for Resin Binder High Friction Surface Treatment is full compensation for testing materials; for surface preparation; for providing the HFST; for cleanup including uncovering and restoration of pavement markings; and for vacuum sweeping and disposing of excess material after the completion and again 3 to 7 days after completion.

The department will pay for pavement repairs, and traffic control separately under other contract bid items or, absent the appropriate bid items, as extra work.

92. Management of Solid Waste, Item SPV.0195.01.

A General

A.1 Description

This work will conform with the requirements of standard spec 205; to pertinent parts of the Wisconsin Administrative Code, Chapters NR 700-736 Environmental Investigation and Remediation of Environmental Contamination; Wisconsin Administration Code, Chapters NR 500-538, Solid Waste; and as shown on the plans and as supplemented herein.

Soil considered to be solid waste due to chlorinated solvents will be encountered within the construction limits. The solid waste may contain NR 500 non-exempt industrial wastes including soil mixed with foundry sand. Impacted waste material excavated during construction which cannot in the opinion of the environmental consultant be managed as common excavation or as petroleum-contaminated soil will be managed as solid waste.

This work consists of excavating, segregating, temporary stockpiling, loading, hauling, and disposing of solid waste material at a WDNR-approved disposal facility. The nearest WDNR-approved disposal facilities are:

Green For Life (GFL) Environmental Emerald Park Landfill
W124S10629 South 124th Street
Muskego, WI 53150
(414) 529-1360

Waste Management Metro Ridge Landfill
10712 S. 124th St.
Franklin, WI 53132
(866) 909-4458

Provide information to the environmental consultant and engineer that indicates the WDNR-approved disposal facility that the contractor will use.

A.2 Notice to the Contractor–Solid Waste Location

The department and others completed hazardous materials assessment for locations within this project where excavation is required. Investigation for soil and groundwater contamination was conducted at select locations. Results indicate that solid waste (soil contaminated with trichloroethene) is present at the following location as shown on the plans:

- Station 903+95 to 904+40, from 15 feet left of reference line to project limits left, from approximately 1 to 6 feet below grade. The estimated volume of contaminated soil to be excavated at this location is 60 CY (approximately 102 tons using a conversion factor of 1.7 tons per cubic yard).

Directly load solid waste soil excavated by the project at the above location into trucks that will transport the material to a WDNR-licensed landfill facility for landfill disposal.

If obviously contaminated soils or signs of NR 500 non-exempt solid waste and hazardous materials are unexpectedly encountered elsewhere on the project, terminate excavation activities in the area and notify the engineer. Examples of these unexpected conditions may include, but are not limited to, buried containers or tanks, noxious odors and fumes, stained soils, sheen on ground water, other industrial wastes, and significant volumes of municipal or domestic garbage.

If dewatering is required at the above location, conduct the dewatering according to Section C below.

If active groundwater monitoring wells are encountered during construction, notify the engineer and protect the wells to maintain their integrity. The environmental consultant will determine if monitoring wells need to be maintained. For wells that do not need to be maintained, adjust the wells that do not conflict with structures or curb and gutter to be flush with the final grade. For wells that conflict with the previously mentioned items or if monitoring wells are not required to be maintained, they will be abandoned by others.

A.3 Excavation Management Plan Approval

The excavation management plan for this project has been designed to minimize the off-site disposal of contaminated waste. The excavation management plan, including these special provisions, has been developed in cooperation with the WDNR. The WDNR concurrence letter is on file at the Wisconsin Department of Transportation. For further information regarding previous investigation and remediation activities in this area contact:

Name: Andrew Malsom
Address: 141 NW Barstow Street, Waukesha, WI 53187-0798
Phone: (262) 548-6705
Fax: (262) 548-6891
E-mail: andrew.malsom@dot.state.wi.us

A.4 Coordination

Coordinate work under this contract with the environment consultant:

Consultant: TRC Environmental Corporation
Address: 6737 W. Washington St., Suite 2100, West Allis, WI 53214
Contact: Bryan Bergmann
Phone: (262) 901-2126 office, (262) 227-9210 cell
Fax: (262) 879-1220
E-mail: bbergmann@trccompanies.com

The role of the environmental consultant will be limited to:

1. Determining the location and limits of solid waste to be excavated based on soil analytical results from previous investigations, visual observations, and field screening of soil that is excavated;
2. Identifying soils to be hauled to the landfill facility;
3. Documenting that activities associated with management of solid waste are in conformance with the solid waste management methods for this project as specified herein; and
4. Obtaining the necessary approvals for disposal of solid waste from the landfill facility.

Provide at least a 14-calendar day notice of the preconstruction conference date to the environmental consultant. At the preconstruction conference, provide a schedule for all excavation activities in the area of solid waste fill described in A.2 to the environmental consultant. Identify the WDNR licensed landfill facility that will be used for disposal of solid waste and provide this information to the environmental consultant no later than 30 calendar days prior to commencement of excavation in the impacted area or at the preconstruction conference, whichever comes first. The environmental consultant will be responsible for obtaining the necessary approvals from the landfill facility for disposal of the solid waste.

Coordinate with the environmental consultant to ensure that the environmental consultant is present during excavation in the impacted area. Notify the environmental consultant at least three calendar days prior to commencement of excavation in the impacted area. Perform excavation in the impacted area on a continuous basis until excavation work is completed. Do not transport soil containing solid waste offsite without prior approval from the environmental consultant.

A.5 Health and Safety Requirements

Supplement standard spec 107.1 with the following:

During excavation activities, expect to encounter historic fill contaminated with industrial waste (foundry sand) and associated regulated metals and organic compounds. Site workers taking part in activities that will result in the reasonable probability of exposure to safety and health hazards associated with hazardous materials shall have completed health and safety training that meets the Occupational Safety and Health Administration (OSHA) requirements for Hazardous Waste Operations and Emergency Response (HAZWOPER), as provided in 29 CFR 1910.120.

Prepare a site-specific Health and Safety Plan, and develop, delineate and enforce the health and safety exclusion zones for each impacted area as required by 29 CFR 1910.120. Submit the site-specific health and safety plan and written documentation of up-to-date OSHA training to the engineer prior to the start of work.

B (Vacant)

C Construction

Supplement standard spec 205.3 with the following:

Control operations in the impacted area to minimize the quantity of soil excavated.

The environmental consultant will periodically monitor soil excavated from the area identified in A.2 above. The environmental consultant will evaluate excavated soil based on field screening results, visual observations, and soil analytical results from previous environmental investigations. Assist the environmental consultant in collecting soil samples for evaluation using excavation equipment. The sampling frequency shall be a maximum of one sample for every 20 cubic yards excavated.

Directly load and haul solid waste soil designated by the environmental consultant for offsite disposal to the WDNR approved landfill facility. Use loading and hauling practices that are appropriate to prevent any spills or releases of the material. Prior to transport, sufficiently dewater soils designated for off-site disposal so as not to contain free liquids.

Verify that the vehicles used to transport material are licensed for such activity according to applicable state and federal regulations. Obtain the necessary disposal facility approvals and WDNR approvals for disposal. Do not transport regulated solid waste off-site without obtaining the approval of the environmental consultant and engineer and notifying the disposal facility.

During excavations in the area of known contamination, larger pieces of clean concrete (~2 cubic feet), asphalt and bricks shall be segregated from the fill to the extent practical and managed as common excavation. Under NR 500.08 this material is exempt from licensing and requirements of Wisconsin Administrative Code NR 500-538 of the solid waste regulations and will be reused as designated by the engineer as fill on the project, or it will be disposed of off-site at the contractor's disposal site(s).

If dewatering is required in the area of known contamination, water generated from dewatering activities may contain chlorinated solvents, petroleum compounds and/or metals. Such water may require analytical testing, and with approval from the Village of East Troy may be discharged to the sanitary sewer as follows:

1. Meet all applicable requirements of the Village of East Troy including the control of suspended solids. Perform all necessary monitoring to document compliance with the Village of East Troy requirements. Furnish, install, operate, maintain, disassemble, and remove treatment equipment necessary to comply with the Village of East Troy requirements.
2. Ensure continuous dewatering and excavation safety at all times. Provide, operate, and maintain adequate pumping equipment and drainage and disposal facilities.

If contaminated groundwater cannot be discharged to the Village of East Troy sanitary sewer, the water shall be pumped into a holding tank or tanker truck for off-site testing and disposal.

Groundwater with a petroleum sheen cannot be discharged to the sanitary sewer. If dewatering is necessary where the groundwater has a sheen on the surface, the water shall be pumped into a holding tank or tanker truck for off-site testing and disposal.

Notify the engineer of any dewatering activities and obtain any permits necessary to discharge water. Provide copies of such permits to the engineer. Meet any requirements and pay any costs for obtaining and complying with such permit use. Follow all applicable legislative statutes, judiciary decisions, and regulations of the State of Wisconsin.

Costs associated with excavation dewatering in contaminated areas are considered incidental to this pay item. The Wisconsin Department of Transportation will be the generator of regulated solid waste from this construction project.

D Measurement

The department will measure solid waste by the ton of waste, accepted by the disposal facility and as documented by weight tickets.

E Payment

The department will pay for measured quantities at the contract unit price under the following item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0195.01	Management of Solid Waste	TON

Payment is full compensation for excavating, segregating, loading, hauling, and landfill disposal of solid waste; obtaining solid waste collection and transportation service operating licenses; assisting in the collection of soil samples for field evaluation; dewatering of soils prior to transport, if necessary.

93. Asphaltic Repair, Item SPV.0195.02.

A Description

This special provision describes repairing areas of existing asphalt pavement with asphaltic mixtures for overlaying with new pavement.

B Material

Furnish nominal size No. 3 (19 mm) aggregate blend graded as specified in standard spec 460.2.2.3 and conform to the other material and mixture requirements specified for asphaltic surface in standard spec 465. Use tack coat as required under standard spec 450.3.2.7.

C Construction

- (1) Remove areas of existing asphalt pavement, including existing patching or surfacing materials, at locations the plans show or the engineer directs in the field as specified for removing asphaltic surface milling in standard spec 204.3.2.2.2. Mill the connecting edges as true and perpendicular as possible, both parallel and perpendicular to the roadway, creating a vertical edge on all sides. Remove the pavement without injury to the remaining pavement. Dispose of removed material as specified in standard spec 204.3.1.3.

- (2) As an option for areas of full depth removal, the contractor may remove areas of existing asphalt pavement, including existing patching or surfacing materials, as specified for removing asphaltic surface in standard spec 204.3.2.2.1. Saw cut the connecting edges as true and perpendicular as possible, as specified for sawing pavement in standard spec 690. Remove the pavement without injury to the remaining pavement. Dispose of removed material as specified in standard spec 204.3.1.3.
- (3) Construct as specified for asphaltic surface under standard spec 465.3 except as modified here.

Replace standard spec 465.3.1(2) with the following:

- (2) Place using self-propelled pavers. Pave at a constant speed, appropriate for the paver and mixture, that ensures uniform spreading and strike-off with a smooth, dense texture and no tearing or segregation.

Replace standard spec 465.3.1(3) with the following:

- (3) Immediately after placement, compact the mixture to produce a dense smooth surface using ordinary compaction procedures as specified in standard spec 450.3.2.6. Unless the engineer directs otherwise, compact each layer to a thickness of 6 inches or less so that the finished surface is 1/16 inch to 1/8 inch above the existing pavement surface.

D Measurement

The department will measure Asphaltic Repair by the ton, acceptably completed as specified for asphaltic pavement in standard spec 450.4.

E Payment

- (1) The department will pay for measured quantities at the contract unit price under the following bid item:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0195.02	Asphaltic Repair	TON

- (2) Payment is full compensation for removing old pavement; for preparing the foundation; and for providing and compacting asphaltic mixture including asphaltic binder. Sawing existing asphalt pavement as a contractor option is incidental to the Asphaltic Repair bid item.
- (3) The department will pay separately for tack coat under the Tack Coat bid item as specified in 455.5.
SER-390-001 (20220408)

ADDITIONAL SPECIAL PROVISION 4

This special provision does not limit the right of the department, prime contractor, or subcontractors at any tier to withhold payment for work not acceptably completed or work subject to an unresolved contract dispute.

Payment to First-Tier Subcontractors

Within 10 calendar days of receiving a progress payment for work completed by a subcontractor, pay the subcontractor for that work. The prime contractor may withhold payment to a subcontractor if, within 10 calendar days of receipt of that progress payment, the prime contractor provides written notification to the subcontractor and the department documenting "just cause" for withholding payment.

The prime contractor is not allowed to withhold retainage from payments due subcontractors.

Payment to Lower-Tier Subcontractors

Ensure that subcontracting agreements at all tiers provide prompt payment rights to lower-tier subcontractors that parallel those granted first-tier subcontractors in this provision.

Acceptance and Final Payment

Within 30 calendar days of receiving the semi-final estimate from the department, submit written certification that subcontractors at all tiers are paid in full for acceptably completed work.

ADDITIONAL SPECIAL PROVISIONS 5 FUEL COST ADJUSTMENT

A Description

Fuel Cost Adjustments will be applied to partial and final payments for work items categorized in Section B as a payment to the contractor or a credit to the department. ASP-5 shall not apply to any force account work.

B Categories of Work Items

The following items and Fuel Usage Factors shall be used to determine Fuel Cost Adjustments:

(1) Earthwork.		Unit	Gal. Fuel Per Unit
205.0100	Excavation Common	CY	0.23
205.0200	Excavation Rock	CY	0.39
205.0400	Excavation Marsh	CY	0.29
208.0100	Borrow	CY	0.23
208.1100	Select Borrow	CY	0.23
209.1100	Backfill Granular Grade 1	CY	0.23
209.1500	Backfill Granular Grade 1	Ton	0.115
209.2100	Backfill Granular Grade 2	CY	0.23
209.2500	Backfill Granular Grade 2	Ton	0.115
350.0102	Subbase	CY	0.28
350.0104	Subbase	Ton	0.14
350.0115	Subbase 6-Inch	SY	0.05
350.0120	Subbase 7-Inch	SY	0.05
350.0125	Subbase 8-Inch	SY	0.06
350.0130	Subbase 9-Inch	SY	0.07
350.0135	Subbase 10-Inch	SY	0.08
350.0140	Subbase 11-Inch	SY	0.09
350.0145	Subbase 12-Inch	SY	0.09

C Fuel Index

A Current Fuel Index (CFI) in dollars per gallon will be established by the Department of Transportation for each month. The CFI will be the price of No. 2 fuel oil, as reported in U.S. Oil Week, using the first issue dated that month. The CFI will be the average of prices quoted for Green Bay, Madison, Milwaukee and Minneapolis.

The base Fuel Index (BFI) for this contract is \$3.20 per gallon.

D Computing the Fuel Cost Adjustment

The engineer will compute the ratio CFI/BFI each month. If the ratio falls between 0.85 and 1.15, inclusive, no fuel adjustment will be made for that month. If the ratio is less than 0.85 a credit to the department will be computed. If the ratio is greater than 1.15 additional payment to the contractor will be computed. Credit or additional payment will be computed as follows:

- (1) The engineer will estimate the quantity of work done in that month under each of the contract items categorized in Section B.
- (2) The engineer will compute the gallons of fuel used in that month for each of the contract items categorized in Section B by applying the unit fuel usage factors shown in Section B.
- (3) The engineer will summarize the total gallons (Q) of fuel used in that month for the items categorized in Section B.
- (4) The engineer will determine the Fuel Cost Adjustment credit or payment from the following formula:

$$FA = \frac{CFI}{BFI} - 1 \times Q \times BFI$$

(plus is payment to contractor; minus is credit to the department)

Where	FA	=	Fuel Cost Adjustment (plus or minus)
	CFI	=	Current Fuel Index
	BFI	=	Base Fuel Index
	Q	=	Monthly total gallons of fuel

E Payment

A Fuel Cost Adjustment credit to the department will be deducted as a dollar amount each month from any sums due to the contractor. A Fuel Cost Adjustment payment to the contractor will be made as a dollar amount each month.

Upon completion of the work under the contract, any difference between the estimated quantities and the final quantities will be determined. An average CFI, calculated by averaging the CFI for all months that fuel cost adjustment was applied, will be applied to the quantity differences. The average CFI shall be applied in accordance with the procedure set forth in Section D.

Additional Special Provision 6
ASP 6 - Modifications to the standard specifications

Make the following revisions to the standard specifications:

416.2.4 Concrete Pavement Repair and Replacement

Replace the entire text with the following effective with the November 2022 letting:

- (1) Except as specified in 416.3.6 for inlaid rumble strips, use grade C concrete as specified in 501.
- (2) The engineer will allow the contractor to open to construction and public traffic when the concrete reaches 2000 psi.

416.2.5 Special High Early Strength Concrete Pavement Repair and Replacement

416.2.5.1 Composition and Proportioning of Concrete

Replace paragraph one with the following effective with the November 2022 letting:

- (1) For the concrete mixture, use a minimum of 846 pounds of cementitious material per cubic yard of concrete. The engineer will allow the contractor to open to construction and public traffic when the concrete reaches 2000 psi. The contractor may add one or a combination of admixtures to the ingredients or to the mixture in order to obtain the required minimum strength and required air content. Do not retemper the concrete mixture.

455.2.4.3 Emulsified Asphalts

Replace paragraph one with the following effective with the November 2022 letting:

- (1) Furnish material conforming, before dilution, to the following:
 - Anionic emulsified asphalts^[1]..... AASHTO M140
 - Cationic emulsified asphalts^[1] AASHTO M208
 - Polymer-modified cationic emulsified asphalts AASHTO M316
- ^[1] Non-tracking emulsified asphalts shall conform to TABLE 455-1 for the type and grade specified.

TABLE 455-1 Requirements for Non-Tracking Emulsified Asphalt

PRODUCT	ANTT	CNTT
Saybolt Viscosity at 77°F (25°C), (AASHTO T 59), SFS	15-100	15-100
Paddle Viscosity at 77°F (25°C), (AASHTO T 382), cPs ^[1]	30-200	30-200
Storage Stability Test, 24 hr, (AASHTO T 59), %	1 max	1 max
Residue by Distillation, 500 ± 10 °F (260 ± 5 °C), or Residue by Evaporation, 325 ± 5 °F (163 ± 3 °C), (AASHTO T 59), %	50 min	50 min
Sieve Test, No. 20 (850 µm), (AASHTO T 59), %	0.3	0.3
Penetration at 77°F (25°C), 100 g, 5 sec, (AASHTO T 49), dmm	10-40	10-40
Ash Content, (AASHTO T 111), %	1 max	1 max
Solubility in Trichlorethylene Test, (AASHTO T 44) ^[2]	97.5% min	97.5% min

^[1] Paddle Viscosity (AASHTO T 382) may be run in lieu of Saybolt Viscosity (AASHTO T 59).
^[2] The solubility in Trichlorethylene test (AASHTO T 44) may be run in lieu of Ash Content (AASHTO T 111).

455.2.5 Tack Coat

Replace paragraph one with the following effective with the November 2022 letting:

- (1) Under the Tack Coat bid item, furnish type SS-1h, CSS-1h, QS-1h, CQS-1h, ANTT, CNTT, or modified emulsified asphalt with an “h” suffix, unless the contract specifies otherwise.

710.5.7 Corrective Action

710.5.7.1 Optimized Aggregate Gradations

Replace paragraph one with the following effective with the November 2022 letting:

- (1) If the contractor's 4-point running average or a department test result of the volumetric percent retained exceeds the tarantula curve limits by less than or equal to 1.0 percent on a single sieve size, notify the other party immediately and do one of the following:
 - Perform corrective action documented in the QC plan or as the engineer approves. Continue with the following:
 1. Document and provide corrective action results to the engineer as soon as they are available.
 2. Department will conduct two tests within the next business day after corrective action is complete.
 - If blended aggregate gradations are within the tarantula curve limits by the second department test:
 - Continue with concrete production.
 - Include a break in the 4-point running average.
 - For Class I Pavements: The department will discontinue reduced frequency testing and will test at a frequency of 1 test per placement day. Once 5 consecutive samples are passing at the 1 test per placement day frequency, the reduced frequency testing will be reapplied.
 - If blended aggregate gradations are not within the tarantula curve limits by the second department test and the contract requires an optimized aggregate gradation mix under 501.2.7.4.2.1(2), stop concrete production and submit a new optimized aggregate gradation mix design.
 - If blended aggregate gradations are not within the tarantula curve limits by the second department test and the contract does not require an optimized aggregate gradation mix under 501.2.7.4.2.1(2), stop concrete production and submit either a new optimized aggregate gradation mix design or a combined aggregate gradation mix design.
 - Submit a new optimized aggregate gradation mix design and perform the following:
 1. Restart control charts for the new mix design.
 2. Amend contractor Quality Control Plan

715.5 Payment

Replace the entire text with the following effective with the November 2022 letting:

715.5.1 General

- (1) The department will pay incentive for concrete strength under the following bid items:

<u>ITEM NUMBER</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
715.0502	Incentive Strength Concrete Structures	DOL
715.0603	Incentive Strength Concrete Barrier	DOL
715.0715	Incentive Flexural Strength Concrete Pavement	DOL
715.0720	Incentive Compressive Strength Concrete Pavement	DOL

- (2) Incentive payment may be more or less than the amount the schedule of items shows.
- (3) The department will administer disincentives for strength under the Disincentive Strength Concrete Structures, Disincentive Strength Concrete Barrier, Disincentive Flexural Strength Concrete Pavement, and Disincentive Compressive Strength Concrete Pavement, administrative items.
- (4) The department will adjust pay for each lot using PWL of the 28-day subplot average strengths for that lot. The department will measure PWL relative to strength lower specification limits as follows:
 - Compressive strength of 3700 psi for pavements.
 - Flexural strength of 650 psi for pavements.
 - Compressive strength of 4000 psi for structures and barrier.
- (5) The department will not pay a strength incentive for concrete that is nonconforming in another specified property, for ancillary concrete accepted based on tests of class I concrete, or for high early strength concrete unless placed in pavement gaps as allowed under 715.3.1.2.2.
- (6) Submit test results to the department electronically using MRS software. The department will verify contractor data before determining pay adjustments.
- (7) All coring and testing costs under 715.3.2.2 including filling core holes and providing traffic control during coring are incidental to the contract.

715.5.2 Pavements

715.5.2.1 Compressive

- (1) The department will adjust pay for each lot using equation “QMP 3.01” as follows:

Percent within Limits (PWL)	Pay Adjustment (dollars per square yard)
>= 95 to 100	$(0.1 \times \text{PWL}) - 9.5$
>= 85 to < 95	0
>= 30 to < 85	$(1.5/55 \times \text{PWL}) - 127.5/55$
< 30	-1.50

- (2) The department will not pay incentive if the lot standard deviation is greater than 400 psi compressive.
- (3) For lots with a full battery of QC tests at less than 4 locations, there is no incentive, but the department will assess a disincentive based on the individual subplot average strengths. The department will reduce pay for sublots with an average strength below 3700 psi compressive by \$1.50 per square yard.
- (4) For integral shoulder pavement and pavement gaps accepted using tests from the adjacent travel lane, the department will adjust pay using strength results of the travel lane for integrally placed concrete shoulders and pavement gaps regardless of mix design and placement method, included in a lane-foot lot.

715.5.2.2 Flexural

- (1) The department will adjust pay for each lot using equation “QMP 6.02” as follows:

Percent within Limits (PWL)	Pay Adjustment (dollars per square yard)
>= 95 to 100	$(0.2 \times \text{PWL}) - 19$
>= 85 to < 95	0
>= 50 to < 85	$(2.0/35 \times \text{PWL}) - 170/35$
< 50	-2.00

- (2) The department will not pay incentive if the lot standard deviation is greater than 60 psi flexural.
- (3) For lots with a full battery of QC tests at less than 4 locations, there is no incentive, but the department will assess a disincentive based on the individual subplot average strengths. The department will reduce pay for sublots with an average strength below 650 psi flexural by \$2.00 per square yard.
- (4) For integral shoulder pavement and pavement gaps accepted using tests from the adjacent travel lane, the department will adjust pay using strength results of the travel lane for integrally placed concrete shoulders and pavement gaps regardless of mix design and placement method, included in a lane-foot lot.

715.5.3 Structures and Cast-in-Place Barrier

- (1) The department will adjust pay for each lot using equation “QMP 2.01” as follows:

Percent within Limits (PWL)	Pay Adjustment (dollars per square yard)
>= 99 to 100	10
>= 90 to < 99	0
>= 50 to < 90	$(7/8 \times \text{PWL}) - 78.75$
< 50	-35

- (2) The department will not pay incentive if the lot standard deviation is greater than 350 psi.
- (3) For lots with less than 4 sublots, there is no incentive, but the department will assess a disincentive based on the individual subplot average strengths. The department will reduce pay for sublots with an average strength below 4000 psi by \$35 per cubic yard.

ADDITIONAL SPECIAL PROVISION 7

A. Reporting 1st Tier and DBE Payments During Construction

1. Comply with reporting requirements specified in the department's Civil Rights Compliance, Contractor's User Manual, Sublets and Payments.
2. Report payments to all DBE firms within 10 calendar days of receipt of a progress payment by the department or a contractor for work performed, materials furnished, or materials stockpiled by a DBE firm. Report the payment as specified in A(1) for all work satisfactorily performed and for all materials furnished or stockpiled.
3. Report payments to all first tier subcontractor relationships within 10 calendar days of receipt of a progress payment by the department for work performed. Report the payment as specified in A(1) for all work satisfactorily performed.
4. All tiers shall report payments as necessary to comply with the DBE payment requirement as specified in A(2).
5. DBE firms must enter all payments to DBE and non-DBE firms regardless of tier.
6. Require all first tier relationships, DBE firms and all other tier relationships necessary to comply with the DBE payment requirement in receipt of a progress payment by contractor to acknowledge receipt of payment as specified in A(1), (2), (3) and (4).
7. All agreements made by a contractor shall include the provisions in A(1), (2), (3), (4), (5), and (6), and shall be binding on all first tier subcontractor relationships, all contractors and subcontractors utilizing DBE firms on the project, and all payments from DBE firms.

B. Costs for conforming to this special provision are incidental to the contract.

NOTE: CRCS Prime Contractor payment is currently not automated and will need to be manually loaded into the Civil Rights Compliance System. Copies of prime contractor payments received (check or ACH) will have to be forwarded to paul.ndon@dot.wi.gov within 5 days of payment receipt to be logged manually.

***Additionally, for information on Subcontractor Sublet assignments, Subcontractor Payments and Payment Tracking, please refer to the CRCS Payment and Sublets manual at:

<https://wisconsindot.gov/Documents/doing-bus/civil-rights/labornwage/crcs-payments-sublets-manual.pdf>

ADDITIONAL SPECIAL PROVISION 9

Electronic Certified Payroll or Labor Data Submittal

- (1) Use the department's Civil Rights Compliance System (CRCS) to electronically submit certified payroll reports for contracts with federal funds and labor data for contracts with state funds only. Details are available online through the department's highway construction contractor information (HCCI) site on the Labor, Wages, and EEO Information page at:
<https://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/default.aspx>
- (2) Ensure that all tiers of subcontractors, including all trucking firms, either submit their weekly certified payroll reports (contracts with federal funds) or labor data (contracts with state funds only) electronically through CRCS. These payrolls or labor data are due within seven calendar days following the close of the payroll period. Every firm providing physical labor towards completing the project is a subcontractor under this special provision.
- (3) Upon receipt of contract execution, promptly make all affected firms aware of the requirements under this special provision and arrange for them to receive CRCS training as they are about to begin their submittals. The department will provide training either in a classroom setting at one of our regional offices or by telephone. Contact Paul Ndon at (414) 438-4584 to schedule the training.
- (4) The department will reject all paper submittals for information required under this special provision. All costs for conforming to this special provision are incidental to the contract.
- (5) Firms wishing to export payroll/labor data from their computer system into CRCS should have their payroll coordinator contact Paul Ndon at paul.ndon@dot.wi.gov. Not every contractor's payroll system is capable of producing export files. For details, see Section 4.8 CPR Auto Submit (Data Mapping) on pages 49-50; 66-71 of the CRCS Payroll Manual at:
<https://wisconsindot.gov/Documents/doing-bus/civil-rights/labornwage/crcs-payroll-manual.pdf>

NON-DISCRIMINATION PROVISIONS

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:

1. Compliance with Regulations: The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, Federal Highway Administration, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

2. Non-discrimination: The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.

3. Solicitations for Subcontracts, Including Procurements of Materials and Equipment: In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.

4. Information and Reports: The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the Federal Highway Administration to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the Federal Highway Administration, as appropriate, and will set forth what efforts it has made to obtain the information.

5. Sanctions for Noncompliance: In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:

- a. Withholding payments to the contractor under the contract until the contractor complies; and/or
- b. Cancelling, terminating, or suspending a contract, in whole or in part.

6. Incorporation of Provisions: The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

Pertinent Non-Discrimination Authorities:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 et seq.), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures Non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of Limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

BUY AMERICA PROVISION

Buy America (as documented in M-22-11 from the Office of Management and Budget: <https://www.whitehouse.gov/wp-content/uploads/2022/04/M-22-11.pdf>) shall be domestic products and permanently incorporated in this project as classified in the following three categories, and as noted in the Construction and Materials Manual (CMM):

1. Iron and Steel

All iron and steel manufacturing and coating processes (from smelting forward in the manufacturing process) must have occurred within the United States. Coating includes epoxy coating, galvanizing, painting and any other coating that protects or enhances the value of a material subject to the requirements of Buy America.

The exemption of the iron and steel manufacturing and coating processes Buy America requirement is the minimal use of foreign materials if the total cost of such material permanently incorporated in the product does not exceed one-tenth of one percent (1/10 of 1%) of the total contract cost or \$2,500.00, whichever is greater. For purposes of this paragraph, the cost is that shown to be the value of the subject products as they are delivered to the project.

2. Manufactured Product

All manufactured products (as defined in CMM 228.5) are covered under a previous waiver from 1983, and are currently exempt from Buy America.

3. Construction Material

All construction materials (as defined in OMB M-22-11 and as referenced in CMM 228.5) must comply with Buy America. No exemptions (0.0%) are allowed.

The contractor shall take actions and provide documentation conforming to CMM 228.5 to ensure compliance with this Buy America provision.

<https://wisconsin.gov/rdw/cmm/cm-02-28.pdf>

Upon completion of the project, certify to the engineer, in writing using department form DT4567 that all iron and steel, manufactured products, and construction materials conform to this Buy America provision.

Form DT4567 is available at: <https://wisconsin.gov/Documents/formdocs/dt4567.docx>

Attach a list of iron or steel exemptions and their associated costs to the certification form.



Proposal Schedule of Items

Proposal ID: 20230509013 Project(s): 2340-00-79, 2698-03-70, 2698-03-73

Federal ID(s): N/A, N/A, N/A

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0002	108.4400 CPM Progress Schedule	1.000 EACH	_____.	_____.
0004	201.0110 Clearing	5,200.000 SY	_____.	_____.
0006	201.0120 Clearing	317.000 ID	_____.	_____.
0008	201.0210 Grubbing	5,230.000 SY	_____.	_____.
0010	201.0220 Grubbing	597.000 ID	_____.	_____.
0012	203.0100 Removing Small Pipe Culverts	12.000 EACH	_____.	_____.
0014	204.0100 Removing Concrete Pavement	56,100.000 SY	_____.	_____.
0016	204.0110 Removing Asphaltic Surface	5.000 SY	_____.	_____.
0018	204.0115 Removing Asphaltic Surface Butt Joints	212.000 SY	_____.	_____.
0020	204.0120 Removing Asphaltic Surface Milling	151,100.000 SY	_____.	_____.
0022	204.0150 Removing Curb & Gutter	1,255.000 LF	_____.	_____.
0024	204.0155 Removing Concrete Sidewalk	910.000 SY	_____.	_____.
0026	204.0165 Removing Guardrail	4,105.000 LF	_____.	_____.
0028	204.0170 Removing Fence	600.000 LF	_____.	_____.
0030	204.0195 Removing Concrete Bases	13.000 EACH	_____.	_____.
0032	204.0210 Removing Manholes	3.000 EACH	_____.	_____.
0034	204.0220 Removing Inlets	47.000 EACH	_____.	_____.



Proposal Schedule of Items

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Federal ID(s): N/A, N/A, N/A

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0036	204.0245 Removing Storm Sewer (size) 01. 12-Inch	1,154.000 LF	_____.	_____.
0038	204.0245 Removing Storm Sewer (size) 02. 15-Inch	156.000 LF	_____.	_____.
0040	204.0245 Removing Storm Sewer (size) 03. 18-Inch	106.000 LF	_____.	_____.
0042	204.0245 Removing Storm Sewer (size) 04. 24-Inch	1,778.000 LF	_____.	_____.
0044	204.0245 Removing Storm Sewer (size) 05. 30-Inch	32.000 LF	_____.	_____.
0046	204.0245 Removing Storm Sewer (size) 06. 36-Inch	164.000 LF	_____.	_____.
0048	204.0270 Abandoning Culvert Pipes	2.000 EACH	_____.	_____.
0050	204.0280 Sealing Pipes	1.000 EACH	_____.	_____.
0052	204.9060.S Removing (item description) 01. Corrugated Steel Culvert Pipe and Restoring Cut End	1.000 EACH	_____.	_____.
0054	204.9060.S Removing (item description) 02. Inlet Cover	1.000 EACH	_____.	_____.
0056	204.9060.S Removing (item description) 03. Traffic Signals	1.000 EACH	_____.	_____.
0058	204.9060.S Removing (item description) 04. Loop Detector Wire & Lead-In Cable	1.000 EACH	_____.	_____.
0060	204.9090.S Removing (item description) 01. Steel Plate Beam Guard Retaining Wall	883.000 LF	_____.	_____.



Proposal Schedule of Items

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Federal ID(s): N/A, N/A, N/A

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0062	205.0100 Excavation Common	79,224.000 CY	_____.	_____.
0064	205.0501.S Excavation, Hauling, and Disposal of Petroleum Contaminated Soil	34.000 TON	_____.	_____.
0066	213.0100 Finishing Roadway (project) 01. 2340-00-79	1.000 EACH	_____.	_____.
0068	213.0100 Finishing Roadway (project) 02. 2698-03-70	1.000 EACH	_____.	_____.
0070	305.0110 Base Aggregate Dense 3/4-Inch	5,012.000 TON	_____.	_____.
0072	305.0120 Base Aggregate Dense 1 1/4-Inch	59,226.000 TON	_____.	_____.
0074	305.0500 Shaping Shoulders	472.000 STA	_____.	_____.
0076	310.0110 Base Aggregate Open-Graded	420.000 TON	_____.	_____.
0078	311.0110 Breaker Run	54,812.000 TON	_____.	_____.
0080	371.2000.S QMP Base Aggregate Dense 1 1/4-Inch Compaction	31.000 EACH	_____.	_____.
0082	390.0201 Base Patching Asphaltic	3,283.000 TON	_____.	_____.
0084	390.0403 Base Patching Concrete Shes	12.000 SY	_____.	_____.
0086	415.0080 Concrete Pavement 8-Inch	33.000 SY	_____.	_____.
0088	416.0170 Concrete Driveway 7-Inch	140.000 SY	_____.	_____.
0090	416.0270 Concrete Driveway HES 7-Inch	200.000 SY	_____.	_____.
0092	416.0610 Drilled Tie Bars	47.000 EACH	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20230509013 Project(s): 2340-00-79, 2698-03-70, 2698-03-73

Federal ID(s): N/A, N/A, N/A

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0094	416.1010 Concrete Surface Drains	7.000 CY	_____.	_____.
0096	455.0605 Tack Coat	18,927.000 GAL	_____.	_____.
0098	460.0105.S HMA Percent Within Limits (PWL) Test Strip Volumetrics	2.000 EACH	_____.	_____.
0100	460.0110.S HMA Percent Within Limits (PWL) Test Strip Density	2.000 EACH	_____.	_____.
0102	460.2005 Incentive Density PWL HMA Pavement	26,490.000 DOL	1.00000	26,490.00
0104	460.2007 Incentive Density HMA Pavement Longitudinal Joints	34,930.000 DOL	1.00000	34,930.00
0106	460.2010 Incentive Air Voids HMA Pavement	43,910.000 DOL	1.00000	43,910.00
0108	460.6223 HMA Pavement 3 MT 58-28 S	18,282.000 TON	_____.	_____.
0110	460.6224 HMA Pavement 4 MT 58-28 S	25,667.000 TON	_____.	_____.
0112	465.0105 Asphaltic Surface	46.000 TON	_____.	_____.
0114	465.0110 Asphaltic Surface Patching	100.000 TON	_____.	_____.
0116	465.0120 Asphaltic Surface Driveways and Field Entrances	208.000 TON	_____.	_____.
0118	465.0125 Asphaltic Surface Temporary	825.000 TON	_____.	_____.
0120	465.0425 Asphaltic Shoulder Rumble Strips 2-Lane Rural	835.000 LF	_____.	_____.
0122	465.0475 Asphalt Centerline Rumble Strips 2-Lane Rural	32,700.000 LF	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20230509013 Project(s): 2340-00-79, 2698-03-70, 2698-03-73

Federal ID(s): N/A, N/A, N/A

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0124	495.1000.S Cold patch	100.000 TON	_____.	_____.
0126	520.8000 Concrete Collars for Pipe	14.000 EACH	_____.	_____.
0128	521.0557 Apron Endwalls for Pipe Arch Sloped Cross Drains Steel 57x38-Inch 4 to 1	2.000 EACH	_____.	_____.
0130	521.1018 Apron Endwalls for Culvert Pipe Steel 18-Inch	1.000 EACH	_____.	_____.
0132	521.1507 Apron Endwalls for Culvert Pipe Sloped Side Drains Steel 36-Inch 4 to 1	2.000 EACH	_____.	_____.
0134	521.1708 Apron Endwalls for Pipe Arch Sloped Side Drains Steel 35x24-Inch 4 to 1	2.000 EACH	_____.	_____.
0136	521.3118 Culvert Pipe Corrugated Steel 18-Inch	2.000 LF	_____.	_____.
0138	521.3136 Culvert Pipe Corrugated Steel 36-Inch	310.000 LF	_____.	_____.
0140	521.3735 Pipe Arch Corrugated Steel 35x24-Inch	24.000 LF	_____.	_____.
0142	522.0121 Culvert Pipe Reinforced Concrete Class III 21-Inch	96.000 LF	_____.	_____.
0144	522.0418 Culvert Pipe Reinforced Concrete Class IV 18-Inch	32.000 LF	_____.	_____.
0146	522.1015 Apron Endwalls for Culvert Pipe Reinforced Concrete 15-Inch	5.000 EACH	_____.	_____.
0148	522.1018 Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	4.000 EACH	_____.	_____.
0150	522.1021 Apron Endwalls for Culvert Pipe Reinforced Concrete 21-Inch	5.000 EACH	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0152	522.1024 Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	2.000 EACH	_____.	_____.
0154	522.1036 Apron Endwalls for Culvert Pipe Reinforced Concrete 36-Inch	4.000 EACH	_____.	_____.
0156	522.2319 Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 19x30-Inch	128.000 LF	_____.	_____.
0158	522.2334 Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 34x53-Inch	56.000 LF	_____.	_____.
0160	522.2419 Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 19x30-Inch	48.000 LF	_____.	_____.
0162	522.2619 Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 19x30-Inch	6.000 EACH	_____.	_____.
0164	524.0615 Apron Endwalls for Culvert Pipe Salvaged 15-Inch	1.000 EACH	_____.	_____.
0166	531.2030 Drilling Shaft 30-Inch	17.000 LF	_____.	_____.
0168	531.2048 Drilling Shaft 48-Inch	69.000 LF	_____.	_____.
0170	531.5110 Foundation Single-Shaft Type MC-I (structure) 01. S-64-222	1.000 EACH	_____.	_____.
0172	531.5330 Foundation Single-Shaft Type TC-III (structure) 01. S-64-223	1.000 EACH	_____.	_____.
0174	531.5330 Foundation Single-Shaft Type TC-III (structure) 02. S-64-224	1.000 EACH	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0176	531.5330 Foundation Single-Shaft Type TC-III (structure) 03. S-64-225	1.000 EACH	_____.	_____.
0178	532.5110 Monotube Cantilever Type I (structure) 01. S-64-222	1.000 EACH	_____.	_____.
0180	532.5330 Truss Cantilever 2-Chord Type III (structure) 01. S-64-223	1.000 EACH	_____.	_____.
0182	532.5330 Truss Cantilever 2-Chord Type III (structure) 02. S-64-224	1.000 EACH	_____.	_____.
0184	532.5330 Truss Cantilever 2-Chord Type III (structure) 03. S-64-225	1.000 EACH	_____.	_____.
0186	601.0411 Concrete Curb & Gutter 30-Inch Type D	11,825.000 LF	_____.	_____.
0188	601.0557 Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	7,560.000 LF	_____.	_____.
0190	601.0600 Concrete Curb Pedestrian	293.000 LF	_____.	_____.
0192	602.0410 Concrete Sidewalk 5-Inch	32,184.000 SF	_____.	_____.
0194	602.0505 Curb Ramp Detectable Warning Field Yellow	360.000 SF	_____.	_____.
0196	602.0605 Curb Ramp Detectable Warning Field Radial Yellow	74.000 SF	_____.	_____.
0198	603.1132 Concrete Barrier Type S32	10.500 LF	_____.	_____.
0200	603.1232 Concrete Barrier Type S32A	120.000 LF	_____.	_____.
0202	606.0200 Riprap Medium	127.000 CY	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0204	608.0312 Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	850.000 LF	_____.	_____.
0206	608.0315 Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	710.000 LF	_____.	_____.
0208	608.0318 Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	166.000 LF	_____.	_____.
0210	608.0321 Storm Sewer Pipe Reinforced Concrete Class III 21-Inch	57.000 LF	_____.	_____.
0212	608.0324 Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	72.000 LF	_____.	_____.
0214	608.0330 Storm Sewer Pipe Reinforced Concrete Class III 30-Inch	32.000 LF	_____.	_____.
0216	608.0336 Storm Sewer Pipe Reinforced Concrete Class III 36-Inch	633.000 LF	_____.	_____.
0218	608.0412 Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	945.000 LF	_____.	_____.
0220	608.0415 Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch	763.000 LF	_____.	_____.
0222	608.0418 Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	70.000 LF	_____.	_____.
0224	608.0421 Storm Sewer Pipe Reinforced Concrete Class IV 21-Inch	97.000 LF	_____.	_____.
0226	608.0436 Storm Sewer Pipe Reinforced Concrete Class IV 36-Inch	197.000 LF	_____.	_____.
0228	611.0420 Reconstructing Manholes	15.000 EACH	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0230	611.0530 Manhole Covers Type J	4.000 EACH	_____.	_____.
0232	611.0610 Inlet Covers Type BW	1.000 EACH	_____.	_____.
0234	611.0612 Inlet Covers Type C	4.000 EACH	_____.	_____.
0236	611.0624 Inlet Covers Type H	44.000 EACH	_____.	_____.
0238	611.0627 Inlet Covers Type HM	22.000 EACH	_____.	_____.
0240	611.0636 Inlet Covers Type HM-S	5.000 EACH	_____.	_____.
0242	611.0639 Inlet Covers Type H-S	19.000 EACH	_____.	_____.
0244	611.0642 Inlet Covers Type MS	1.000 EACH	_____.	_____.
0246	611.1005 Catch Basins 5-FT Diameter	7.000 EACH	_____.	_____.
0248	611.1006 Catch Basins 6-FT Diameter	4.000 EACH	_____.	_____.
0250	611.2003 Manholes 3-FT Diameter	1.000 EACH	_____.	_____.
0252	611.2005 Manholes 5-FT Diameter	2.000 EACH	_____.	_____.
0254	611.2006 Manholes 6-FT Diameter	3.000 EACH	_____.	_____.
0256	611.2008 Manholes 8-FT Diameter	1.000 EACH	_____.	_____.
0258	611.3004 Inlets 4-FT Diameter	33.000 EACH	_____.	_____.
0260	611.3230 Inlets 2x3-FT	48.000 EACH	_____.	_____.
0262	611.3901 Inlets Median 1 Grate	1.000 EACH	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0264	611.8120.S Cover Plates Temporary	10.000 EACH	_____.	_____.
0266	612.0106 Pipe Underdrain 6-Inch	4,165.000 LF	_____.	_____.
0268	612.0206 Pipe Underdrain Unperforated 6-Inch	90.000 LF	_____.	_____.
0270	612.0406 Pipe Underdrain Wrapped 6-Inch	2,081.000 LF	_____.	_____.
0272	612.0700 Drain Tile Exploration	500.000 LF	_____.	_____.
0274	612.0806 Apron Endwalls for Underdrain Reinforced Concrete 6-Inch	26.000 EACH	_____.	_____.
0276	614.0396 Guardrail Mow Strip Asphalt	1,150.000 SY	_____.	_____.
0278	614.0397 Guardrail Mow Strip Emulsified Asphalt	440.000 SY	_____.	_____.
0280	614.2300 MGS Guardrail 3	2,266.000 LF	_____.	_____.
0282	614.2500 MGS Thrie Beam Transition	315.000 LF	_____.	_____.
0284	614.2610 MGS Guardrail Terminal EAT	15.000 EACH	_____.	_____.
0286	614.2620 MGS Guardrail Terminal Type 2	5.000 EACH	_____.	_____.
0288	616.0700.S Fence Safety	825.000 LF	_____.	_____.
0290	618.0100 Maintenance And Repair of Haul Roads (project) 01. 2340-00-79	1.000 EACH	_____.	_____.
0292	618.0100 Maintenance And Repair of Haul Roads (project) 02. 2698-03-70	1.000 EACH	_____.	_____.
0294	619.1000 Mobilization	1.000 EACH	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0296	620.0300 Concrete Median Sloped Nose	1,730.000 SF	_____.	_____.
0298	624.0100 Water	1,100.000 MGAL	_____.	_____.
0300	625.0100 Topsoil	3,310.000 SY	_____.	_____.
0302	625.0500 Salvaged Topsoil	50,576.000 SY	_____.	_____.
0304	627.0200 Mulching	17,036.000 SY	_____.	_____.
0306	628.1504 Silt Fence	3,100.000 LF	_____.	_____.
0308	628.1520 Silt Fence Maintenance	3,100.000 LF	_____.	_____.
0310	628.1530.S Silt Fence Heavy Duty	3,000.000 LF	_____.	_____.
0312	628.1535.S Silt Fence Heavy Duty Maintenance	3,000.000 LF	_____.	_____.
0314	628.1905 Mobilizations Erosion Control	30.000 EACH	_____.	_____.
0316	628.1910 Mobilizations Emergency Erosion Control	17.000 EACH	_____.	_____.
0318	628.2004 Erosion Mat Class I Type B	34,456.000 SY	_____.	_____.
0320	628.2023 Erosion Mat Class II Type B	1,550.000 SY	_____.	_____.
0322	628.6510 Soil Stabilizer Type B	2.500 ACRE	_____.	_____.
0324	628.7005 Inlet Protection Type A	112.000 EACH	_____.	_____.
0326	628.7010 Inlet Protection Type B	33.000 EACH	_____.	_____.
0328	628.7015 Inlet Protection Type C	118.000 EACH	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0330	628.7020 Inlet Protection Type D	30.000 EACH	_____.	_____.
0332	628.7504 Temporary Ditch Checks	495.000 LF	_____.	_____.
0334	628.7555 Culvert Pipe Checks	138.000 EACH	_____.	_____.
0336	628.7560 Tracking Pads	10.000 EACH	_____.	_____.
0338	628.7570 Rock Bags	75.000 EACH	_____.	_____.
0340	629.0210 Fertilizer Type B	23.340 CWT	_____.	_____.
0342	630.0130 Seeding Mixture No. 30	1,797.000 LB	_____.	_____.
0344	630.0140 Seeding Mixture No. 40	418.000 LB	_____.	_____.
0346	630.0160 Seeding Mixture No. 60	23.000 LB	_____.	_____.
0348	630.0200 Seeding Temporary	664.000 LB	_____.	_____.
0350	630.0500 Seed Water	107.000 MGAL	_____.	_____.
0352	632.0101 Trees (species) (size) (root) 01. Autumn Blaze Callery Pear, 3" CAL, B&B	3.000 EACH	_____.	_____.
0354	632.0101 Trees (species) (size) (root) 02. Honeylocust Streetkeeper, 2.5" Cal, B&B	2.000 EACH	_____.	_____.
0356	632.0101 Trees (species) (size) (root) 03. Ginkgo Biloba Princeton Sentry, 2.5" Cal, B&B	2.000 EACH	_____.	_____.
0358	632.9101 Landscape Planting Surveillance and Care Cycles	20.000 EACH	_____.	_____.
0360	633.5200 Markers Culvert End	25.000 EACH	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0362	634.0618 Posts Wood 4x6-Inch X 18-FT	349.000 EACH	_____.	_____.
0364	634.0622 Posts Wood 4x6-Inch X 22-FT	8.000 EACH	_____.	_____.
0366	637.0620 Sign Flags Permanent Type II	8.000 EACH	_____.	_____.
0368	637.1220 Signs Type I Reflective SH	52.500 SF	_____.	_____.
0370	637.2210 Signs Type II Reflective H	2,234.540 SF	_____.	_____.
0372	637.2215 Signs Type II Reflective H Folding	99.680 SF	_____.	_____.
0374	637.2230 Signs Type II Reflective F	733.650 SF	_____.	_____.
0376	638.2102 Moving Signs Type II	65.000 EACH	_____.	_____.
0378	638.2602 Removing Signs Type II	230.000 EACH	_____.	_____.
0380	638.3000 Removing Small Sign Supports	310.000 EACH	_____.	_____.
0382	642.5401 Field Office Type D	1.000 EACH	_____.	_____.
0384	643.0300 Traffic Control Drums	83,325.000 DAY	_____.	_____.
0386	643.0420 Traffic Control Barricades Type III	43,865.000 DAY	_____.	_____.
0388	643.0500 Traffic Control Flexible Tubular Marker Posts	300.000 EACH	_____.	_____.
0390	643.0600 Traffic Control Flexible Tubular Marker Bases	300.000 EACH	_____.	_____.
0392	643.0705 Traffic Control Warning Lights Type A	87,000.000 DAY	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0394	643.0715 Traffic Control Warning Lights Type C	12,400.000 DAY	_____.	_____.
0396	643.0800 Traffic Control Arrow Boards	135.000 DAY	_____.	_____.
0398	643.0900 Traffic Control Signs	110,618.000 DAY	_____.	_____.
0400	643.0910 Traffic Control Covering Signs Type I	2.000 EACH	_____.	_____.
0402	643.0920 Traffic Control Covering Signs Type II	4.000 EACH	_____.	_____.
0404	643.1000 Traffic Control Signs Fixed Message	222.000 SF	_____.	_____.
0406	643.1050 Traffic Control Signs PCMS	155.000 DAY	_____.	_____.
0408	643.3105 Temporary Marking Line Paint 4-Inch	18,520.000 LF	_____.	_____.
0410	643.3150 Temporary Marking Line Removable Tape 4-Inch	19,500.000 LF	_____.	_____.
0412	643.3205 Temporary Marking Line Paint 8-Inch	1,810.000 LF	_____.	_____.
0414	643.3250 Temporary Marking Line Removable Tape 8-Inch	1,550.000 LF	_____.	_____.
0416	643.3550 Temporary Marking Arrow Removable Tape	17.000 EACH	_____.	_____.
0418	643.3760 Temporary Marking Raised Pavement Marker Type I	62.000 EACH	_____.	_____.
0420	643.3770 Temporary Marking Raised Pavement Marker Type II	143.000 EACH	_____.	_____.
0422	643.3805 Temporary Marking Stop Line Paint 18-Inch	24.000 LF	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0424	643.3850 Temporary Marking Stop Line Removable Tape 18-Inch	46.000 LF	_____.	_____.
0426	643.5000 Traffic Control	1.000 EACH	_____.	_____.
0428	644.1410 Temporary Pedestrian Surface Asphalt	565.000 SF	_____.	_____.
0430	644.1430 Temporary Pedestrian Surface Plate	200.000 SF	_____.	_____.
0432	644.1440 Temporary Pedestrian Surface Matting	900.000 SF	_____.	_____.
0434	644.1601 Temporary Pedestrian Curb Ramp	250.000 DAY	_____.	_____.
0436	644.1605 Temporary Pedestrian Detectable Warning Field	10.000 SF	_____.	_____.
0438	644.1810 Temporary Pedestrian Barricade	4,472.000 LF	_____.	_____.
0440	645.0111 Geotextile Type DF Schedule A	2,790.000 SY	_____.	_____.
0442	645.0120 Geotextile Type HR	417.000 SY	_____.	_____.
0444	645.0220 Geogrid Type SR	70,970.000 SY	_____.	_____.
0446	646.1020 Marking Line Epoxy 4-Inch	105,760.000 LF	_____.	_____.
0448	646.1040 Marking Line Grooved Wet Ref Epoxy 4-Inch	35,000.000 LF	_____.	_____.
0450	646.1545 Marking Line Grooved Wet Ref Contrast Epoxy 4-Inch	50,223.000 LF	_____.	_____.
0452	646.3020 Marking Line Epoxy 8-Inch	3,136.000 LF	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0454	646.3545 Marking Line Grooved Wet Ref Contrast Epoxy 8-Inch	3,100.000 LF	_____.	_____.
0456	646.5020 Marking Arrow Epoxy	56.000 EACH	_____.	_____.
0458	646.5120 Marking Word Epoxy	17.000 EACH	_____.	_____.
0460	646.5320 Marking Railroad Crossings Epoxy	5.000 EACH	_____.	_____.
0462	646.5520 Marking Outfall Epoxy	35.000 EACH	_____.	_____.
0464	646.6120 Marking Stop Line Epoxy 18-Inch	649.000 LF	_____.	_____.
0466	646.6464 Cold Weather Marking Epoxy 4-Inch	33,400.000 LF	_____.	_____.
0468	646.6468 Cold Weather Marking Epoxy 8-Inch	900.000 LF	_____.	_____.
0470	646.7120 Marking Diagonal Epoxy 12-Inch	1,417.000 LF	_____.	_____.
0472	646.7420 Marking Crosswalk Epoxy Transverse Line 6-Inch	1,360.000 LF	_____.	_____.
0474	646.8120 Marking Curb Epoxy	154.000 LF	_____.	_____.
0476	646.8220 Marking Island Nose Epoxy	16.000 EACH	_____.	_____.
0478	646.9000 Marking Removal Line 4-Inch	38.000 LF	_____.	_____.
0480	646.9010 Marking Removal Line Water Blasting 4-Inch	2,095.000 LF	_____.	_____.
0482	646.9100 Marking Removal Line 8-Inch	1,365.000 LF	_____.	_____.
0484	646.9110 Marking Removal Line Water Blasting 8-Inch	300.000 LF	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0486	646.9200 Marking Removal Line Wide 01. 12-Inch	100.000 LF	_____.	_____.
0488	646.9200 Marking Removal Line Wide 02. 18-Inch	12.000 LF	_____.	_____.
0490	648.0100 Locating No-Passing Zones	8.100 MI	_____.	_____.
0492	650.4000 Construction Staking Storm Sewer	130.000 EACH	_____.	_____.
0494	650.4500 Construction Staking Subgrade	15,990.000 LF	_____.	_____.
0496	650.5000 Construction Staking Base	15,990.000 LF	_____.	_____.
0498	650.5500 Construction Staking Curb Gutter and Curb & Gutter	19,645.000 LF	_____.	_____.
0500	650.6000 Construction Staking Pipe Culverts	9.000 EACH	_____.	_____.
0502	650.6501 Construction Staking Structure Layout (structure) 01. R-51-082	1.000 EACH	_____.	_____.
0504	650.7500 Construction Staking Concrete Barrier	131.000 LF	_____.	_____.
0506	650.8000 Construction Staking Resurfacing Reference	42,583.000 LF	_____.	_____.
0508	650.8501 Construction Staking Electrical Installations (project) 01. 2698-03-70	1.000 EACH	_____.	_____.
0510	650.9000 Construction Staking Curb Ramps	41.000 EACH	_____.	_____.
0512	650.9500 Construction Staking Sidewalk (project) 01. 2698-03-70	1.000 EACH	_____.	_____.
0514	650.9500 Construction Staking Sidewalk (project) 02. 2698-03-73	1.000 EACH	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0516	650.9911 Construction Staking Supplemental Control (project) 01. 2340-00-79	1.000 EACH	_____.	_____.
0518	650.9911 Construction Staking Supplemental Control (project) 02. 2698-03-70	1.000 EACH	_____.	_____.
0520	650.9920 Construction Staking Slope Stakes	16,359.000 LF	_____.	_____.
0522	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch	1,384.000 LF	_____.	_____.
0524	652.0235 Conduit Rigid Nonmetallic Schedule 40 3-Inch	2,248.000 LF	_____.	_____.
0526	652.0800 Conduit Loop Detector	1,344.000 LF	_____.	_____.
0528	653.0135 Pull Boxes Steel 24x36-Inch	7.000 EACH	_____.	_____.
0530	653.0140 Pull Boxes Steel 24x42-Inch	17.000 EACH	_____.	_____.
0532	653.0905 Removing Pull Boxes	19.000 EACH	_____.	_____.
0534	654.0101 Concrete Bases Type 1	6.000 EACH	_____.	_____.
0536	654.0105 Concrete Bases Type 5	7.000 EACH	_____.	_____.
0538	654.0110 Concrete Bases Type 10	4.000 EACH	_____.	_____.
0540	654.0113 Concrete Bases Type 13	2.000 EACH	_____.	_____.
0542	654.0217 Concrete Control Cabinet Bases Type 9 Special	1.000 EACH	_____.	_____.
0544	655.0230 Cable Traffic Signal 5-14 AWG	444.000 LF	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0546	655.0240 Cable Traffic Signal 7-14 AWG	1,762.000 LF	_____.	_____.
0548	655.0260 Cable Traffic Signal 12-14 AWG	2,814.000 LF	_____.	_____.
0550	655.0320 Cable Type UF 2-10 AWG Grounded	2,347.000 LF	_____.	_____.
0552	655.0515 Electrical Wire Traffic Signals 10 AWG	4,225.000 LF	_____.	_____.
0554	655.0610 Electrical Wire Lighting 12 AWG	1,683.000 LF	_____.	_____.
0556	655.0700 Loop Detector Lead In Cable	5,300.000 LF	_____.	_____.
0558	655.0800 Loop Detector Wire	5,108.000 LF	_____.	_____.
0560	655.0900 Traffic Signal EVP Detector Cable	1,646.000 LF	_____.	_____.
0562	656.0201 Electrical Service Meter Breaker Pedestal (location) 01. STH 20 & CTH ES	1.000 EACH	_____.	_____.
0564	657.0100 Pedestal Bases	6.000 EACH	_____.	_____.
0566	657.0255 Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	7.000 EACH	_____.	_____.
0568	657.0322 Poles Type 5-Aluminum	7.000 EACH	_____.	_____.
0570	657.0425 Traffic Signal Standards Aluminum 15-FT	4.000 EACH	_____.	_____.
0572	657.0430 Traffic Signal Standards Aluminum 10-FT	2.000 EACH	_____.	_____.
0574	657.0610 Luminaire Arms Single Member 4 1/2-Inch Clamp 6-FT	7.000 EACH	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20230509013 Project(s): 2340-00-79, 2698-03-70, 2698-03-73

Federal ID(s): N/A, N/A, N/A

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0576	658.0173 Traffic Signal Face 3S 12-Inch	8.000 EACH	_____.	_____.
0578	658.0174 Traffic Signal Face 4S 12-Inch	10.000 EACH	_____.	_____.
0580	658.0416 Pedestrian Signal Face 16-Inch	8.000 EACH	_____.	_____.
0582	658.0500 Pedestrian Push Buttons	10.000 EACH	_____.	_____.
0584	658.5070 Signal Mounting Hardware (location) 01. STH 20 & CTH ES	1.000 EACH	_____.	_____.
0586	659.1125 Luminaires Utility LED C	13.000 EACH	_____.	_____.
0588	659.5000.S Lamp, Ballast, LED, Switch Disposal by Contractor	24.000 EACH	_____.	_____.
0590	661.0201 Temporary Traffic Signals for Intersections (location) 01. STH 20 & CTH ES	1.000 EACH	_____.	_____.
0592	661.0300 Generators	1.000 DAY	_____.	_____.
0594	690.0150 Sawing Asphalt	17,382.000 LF	_____.	_____.
0596	690.0250 Sawing Concrete	2,590.000 LF	_____.	_____.
0598	715.0603 Incentive Strength Concrete Barrier	66.000 DOL	1.00000	66.00
0600	740.0440 Incentive IRI Ride	41,332.000 DOL	1.00000	41,332.00
0602	SPV.0035 Special 01. Backfill Slurry	33.000 CY	_____.	_____.
0604	SPV.0060 Special 01. RRFB System STH 20 WB at Edwards St Assembly	1.000 EACH	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20230509013 Project(s): 2340-00-79, 2698-03-70, 2698-03-73

Federal ID(s): N/A, N/A, N/A

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0606	SPV.0060 Special 02. RRFB System STH 20 EB at Edwards St Assembly	1.000 EACH	_____.	_____.
0608	SPV.0060 Special 03. RRFB Stem STH 20 EB/WB at Edwards St Back to Back Assembly in Median	1.000 EACH	_____.	_____.
0610	SPV.0060 Special 04. RRFB System STH 20 EB at Sterling Circle	1.000 EACH	_____.	_____.
0612	SPV.0060 Special 05. RRFB System STH 20 WB at Sterling Circle	1.000 EACH	_____.	_____.
0614	SPV.0060 Special 06. RRFB System STH 20 WB Median at Sterling Circle	1.000 EACH	_____.	_____.
0616	SPV.0060 Special 07. RRFB System STH 20 EB Median at Sterling Circle	1.000 EACH	_____.	_____.
0618	SPV.0060 Special 08. Remove RRFB System STH 20 at Byrnes St Assembly	1.000 EACH	_____.	_____.
0620	SPV.0060 Special 10. Install Poles Type 10	4.000 EACH	_____.	_____.
0622	SPV.0060 Special 11. Install Poles Type 12 Over Height	2.000 EACH	_____.	_____.
0624	SPV.0060 Special 12. Install Monotube Arms 20-Ft	4.000 EACH	_____.	_____.
0626	SPV.0060 Special 13. Install Monotube Arms 35-Ft	2.000 EACH	_____.	_____.
0628	SPV.0060 Special 14. Install Luminaire Arms Steel 15-Ft	6.000 EACH	_____.	_____.
0630	SPV.0060 Special 15. Trnspt & Install State Furn Traffic Signal Cabinet STH 20 & CTH ES	1.000 EACH	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20230509013 Project(s): 2340-00-79, 2698-03-70, 2698-03-73

Federal ID(s): N/A, N/A, N/A

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0632	SPV.0060 Special 16. Trnspt Traffic Signal & Inter Lighting Materials STH 20 & CTH ES	1.000 EACH	_____.	_____.
0634	SPV.0060 Special 17. Trnspt & Install State Furn EVP Detector Heads STH 20 & CTH ES	1.000 EACH	_____.	_____.
0636	SPV.0060 Special 18. Inlet Covers Type H with Curb Plate	1.000 EACH	_____.	_____.
0638	SPV.0060 Special 19. Section Corner Monuments	4.000 EACH	_____.	_____.
0640	SPV.0060 Special 20. Sanitary Sewer Manhole Rebuild	2.000 EACH	_____.	_____.
0642	SPV.0060 Special 21. Sanitary Sewer Manhole Adjustment	1.000 EACH	_____.	_____.
0644	SPV.0060 Special 22. 8-Inch Water Main Gate Valve	5.000 EACH	_____.	_____.
0646	SPV.0060 Special 23. 12-Inch Water Main Butterfly Valve	9.000 EACH	_____.	_____.
0648	SPV.0060 Special 24. 1 1/2" Corp, Curb Stop and Box	11.000 EACH	_____.	_____.
0650	SPV.0060 Special 25. 2" Corp, Curb Stop and Box	2.000 EACH	_____.	_____.
0652	SPV.0060 Special 26. Reconnect Water Service	2.000 EACH	_____.	_____.
0654	SPV.0060 Special 27. Connect To Existing Water Main	10.000 EACH	_____.	_____.
0656	SPV.0060 Special 28. Connect To Existing Water Main Lateral	9.000 EACH	_____.	_____.
0658	SPV.0060 Special 29. New 1.5" Water Main Lateral	2.000 EACH	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20230509013 Project(s): 2340-00-79, 2698-03-70, 2698-03-73

Federal ID(s): N/A, N/A, N/A

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0660	SPV.0060 Special 30. Hydrant Assembly	6.000 EACH	_____.	_____.
0662	SPV.0060 Special 31. Tracer Wire Access Box	6.000 EACH	_____.	_____.
0664	SPV.0060 Special 32. Construction Staking Water Main	1.000 EACH	_____.	_____.
0666	SPV.0090 Special 01. 6" Water Main	43.000 LF	_____.	_____.
0668	SPV.0090 Special 02. 8" Water Main	148.000 LF	_____.	_____.
0670	SPV.0090 Special 03. 12" Water Main	2,945.000 LF	_____.	_____.
0672	SPV.0090 Special 04. 24" Steel Casing - Jack and Bore Construction	84.000 LF	_____.	_____.
0674	SPV.0090 Special 05. 1.5" Water Service	511.000 LF	_____.	_____.
0676	SPV.0090 Special 06. 2" Water Service	91.000 LF	_____.	_____.
0678	SPV.0090 Special 07. 8" Water Main, Edwards Street	75.000 LF	_____.	_____.
0680	SPV.0090 Special 08. Concrete Curb & Gutter HES 30-Inch Type D	260.000 LF	_____.	_____.
0682	SPV.0090 Special 09. Timber Fence	150.000 LF	_____.	_____.
0684	SPV.0165 Special 01. Concrete Sidewalk 12-Inch	1,620.000 SF	_____.	_____.
0686	SPV.0165 Special 02. Concrete Retaining Curb	525.000 SF	_____.	_____.
0688	SPV.0165 Special 03. Wall Modular Block Mechanically Stabilized Earth R-51-082	3,105.000 SF	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20230509013 Project(s): 2340-00-79, 2698-03-70, 2698-03-73

Federal ID(s): N/A, N/A, N/A

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0690	SPV.0180 Special 01. Slope Paving Crushed Aggregate Epoxy	1,870.000 SY	_____.	_____.
0692	SPV.0180 Special 02. Resin Binder High Friction Surface Treatment	1,500.000 SY	_____.	_____.
0694	SPV.0195 Special 01. Management of Solid Waste	102.000 TON	_____.	_____.
0696	SPV.0195 Special 02. Asphaltic Repair	197.000 TON	_____.	_____.
Section: 0001			Total:	_____.
			Total Bid:	_____.

PLEASE ATTACH ADDENDA HERE



Wisconsin Department of Transportation

April 19, 2023

**Division of Transportation Systems
Development**

Bureau of Project Development
4822 Madison Yards Way, 4th Floor South
Madison, WI 53705

Telephone: (608) 266-1631
Facsimile (FAX): (608) 266-8459

NOTICE TO ALL CONTRACTORS:

Letting Time Addendum #01

Letting of May 9, 2023

The Bid Submittal Time on the Highway Work Proposal for all proposals in the May 9, 2023 letting inadvertently show a time of 9:00 am. This addendum changes the time to 11:00 am.

The responsibility for notifying potential subcontractors and suppliers of these changes remains with the prime contractors.

Sincerely,

Mike Coleman

Proposal Development Specialist
Proposal Management Section



Wisconsin Department of Transportation

May 2, 2023

**Division of Transportation Systems
Development**

Bureau of Project Development
4822 Madison Yards Way, 4th Floor South
Madison, WI 53705

Telephone: (608) 266-1631
Facsimile (FAX): (608) 266-8459

NOTICE TO ALL CONTRACTORS:

ASP-5 Addendum #01

Letting of May 9, 2023

Attached is a copy of the revised ASP-5 Fuel Cost Adjustment that are included in proposals 13 and 23. This will be effective with the May 9, 2023 letting.

The responsibility for notifying potential subcontractors and suppliers of these changes remains with the prime contractors.

Sincerely,

Mike Coleman

Proposal Development Specialist
Proposal Management Section

ADDITIONAL SPECIAL PROVISIONS 5 FUEL COST ADJUSTMENT

A Description

Fuel Cost Adjustments will be applied to partial and final payments for work items categorized in Section B as a payment to the contractor or a credit to the department. ASP-5 shall not apply to any force account work.

B Categories of Work Items

The following items and Fuel Usage Factors shall be used to determine Fuel Cost Adjustments:

(1) Earthwork.		Unit	Gal. Fuel Per Unit
205.0100	Excavation Common	CY	0.23
205.0200	Excavation Rock	CY	0.39
205.0400	Excavation Marsh	CY	0.29
208.0100	Borrow	CY	0.23
208.1100	Select Borrow	CY	0.23
209.1100	Backfill Granular Grade 1	CY	0.23
209.1500	Backfill Granular Grade 1	Ton	0.115
209.2100	Backfill Granular Grade 2	CY	0.23
209.2500	Backfill Granular Grade 2	Ton	0.115
350.0102	Subbase	CY	0.28
350.0104	Subbase	Ton	0.14
350.0115	Subbase 6-Inch	SY	0.05
350.0120	Subbase 7-Inch	SY	0.05
350.0125	Subbase 8-Inch	SY	0.06
350.0130	Subbase 9-Inch	SY	0.07
350.0135	Subbase 10-Inch	SY	0.08
350.0140	Subbase 11-Inch	SY	0.09
350.0145	Subbase 12-Inch	SY	0.09

C Fuel Index

A Current Fuel Index (CFI) in dollars per gallon will be established by the Department of Transportation for each month. The CFI will be the price of No. 2 fuel oil, as reported in U.S. Oil Week, using the first issue dated that month. The CFI will be the average of prices quoted for Green Bay, Madison, Milwaukee and Minneapolis.

The base Fuel Index (BFI) for this contract is \$2.70 per gallon.

D Computing the Fuel Cost Adjustment

The engineer will compute the ratio CFI/BFI each month. If the ratio falls between 0.85 and 1.15, inclusive, no fuel adjustment will be made for that month. If the ratio is less than 0.85 a credit to the department will be computed. If the ratio is greater than 1.15 additional payment to the contractor will be computed. Credit or additional payment will be computed as follows:

- (1) The engineer will estimate the quantity of work done in that month under each of the contract items categorized in Section B.
- (2) The engineer will compute the gallons of fuel used in that month for each of the contract items categorized in Section B by applying the unit fuel usage factors shown in Section B.
- (3) The engineer will summarize the total gallons (Q) of fuel used in that month for the items categorized in Section B.
- (4) The engineer will determine the Fuel Cost Adjustment credit or payment from the following formula:

$$FA = \frac{CFI}{BFI} - 1 \times Q \times BFI$$

(plus is payment to contractor; minus is credit to the department)

Where	FA	=	Fuel Cost Adjustment (plus or minus)
	CFI	=	Current Fuel Index
	BFI	=	Base Fuel Index
	Q	=	Monthly total gallons of fuel

E Payment

A Fuel Cost Adjustment credit to the department will be deducted as a dollar amount each month from any sums due to the contractor. A Fuel Cost Adjustment payment to the contractor will be made as a dollar amount each month.

Upon completion of the work under the contract, any difference between the estimated quantities and the final quantities will be determined. An average CFI, calculated by averaging the CFI for all months that fuel cost adjustment was applied, will be applied to the quantity differences. The average CFI shall be applied in accordance with the procedure set forth in Section D.



Wisconsin Department of Transportation

April 24, 2023

Division of Transportation Systems Development

Bureau of Project Development
4822 Madison Yards Way, 4th Floor South
Madison, WI 53705

Telephone: (608) 266-1631
Facsimile (FAX): (608) 266-8459

NOTICE TO ALL CONTRACTORS:

- | | |
|--|---|
| <p>Proposal #13: 2340-00-79
 East Troy – Racine
 Honey Creek Road to Buena Park Rd
 STH 20
 Racine County</p> | <p>2698-03-70
 East Troy – Racine
 Thomas Drive to Honey Creek Rd
 STH 20
 Walworth County</p> |
| <p>2698-03-73
 East Troy – Racine
 Thomas Drive to Honey Creek Road
 STH 20
 Walworth County</p> | |

Letting of May 9, 2023

This is Addendum No. 01, which provides for the following:

Special Provisions:

Added Special Provisions	
Article No.	Description
94	Information to Bidders, WPDES Transportation Construction General Permit (TCGP) for Storm Water Discharges

Deleted Special Provisions	
Article No.	Description
14	Information to Bidders, WPDES General Construction Storm Water Discharge Permit

The responsibility for notifying potential subcontractors and suppliers of these changes remains with the prime contractor.

Sincerely,

Mike Coleman

Proposal Development Specialist
Proposal Management Section

ADDENDUM NO. 01
2340-00-73, 2698-03-70, & 2698-03-73
April 24, 2023

Special Provisions

14. DELETED.

94. Information to Bidders, WPDES Transportation Construction General Permit (TCGP) for Storm Water Discharges.

The department has obtained permit coverage through the Wisconsin Department of Natural Resources to discharge storm water associated with land disturbing construction activities under this contract. Conform to all permit requirements for the project.

This permit is the Wisconsin Pollutant Discharge Elimination System, Transportation Construction General Permit, (WPDES Permit No. WI-S066796-2). The permit can be found at:
<https://widnr.widen.net/s/s5mwp2gd7s/finalsignedwisdotcsgp>

A certificate of permit coverage is available from the regional office by contacting Julie Jenks at (262) 548-6462. Post the permit certificate in a conspicuous place at the construction site.

END OF ADDENDUM



Wisconsin Department of Transportation

April 27, 2023

Division of Transportation Systems Development
Bureau of Project Development
4822 Madison Yards Way, 4th Floor South
Madison, WI 53705

Telephone: (608) 266-1631
Facsimile (FAX): (608) 266-8459

NOTICE TO ALL CONTRACTORS:

Proposal #13: 2340-00-79
East Troy - Racine
Honey Creek Road to Buena
Park Road
STH 20
Racine County

2698-03-70
East Troy - Racine
Thomas Drive to Honey Creek
Road
STH 20
Walworth and Racine County

2698-03-73
East Troy – Racine
Thomas Drive to Honey Creek
Road
STH 20
Walworth and Racine County

Letting of May 9, 2023

This is Addendum No. 02, which provides for the following:

Special Provisions:

Revised Special Provisions	
Article No.	Description
3	Prosecution and Progress
4	Traffic
5	Holiday and Special Event Work Restrictions
6	Utilities

Added Special Provisions	
Article No.	Description
95	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch, Item 608.0412
96	Inlets 4-FT Diameter, Item 611.3004

Schedule of Items:

Revised Bid Item Quantities					
Bid Item	Item Description	Unit	Proposal Total Prior to Addendum	Proposal Quantity Change (-)	Proposal Total After Addendum
205.0100	Excavation Common	CY	79,224	295	79,519
305.0120	Base Aggregate Dense 1 ¼-Inch	TON	59,226	540	59,766
465.0125	Asphaltic Surface Temporary	TON	825	325	1,150
608.0436	Storm Sewer Pipe Reinforced Concrete Class IV 36-Inch	LF	197	310	507
624.0100	Water	MGAL	1,100	9	1,109
628.1905	Mobilizations Erosion Control	EACH	30	2	32
628.1910	Mobilizations Emergency Erosion Control	EACH	17	4	21
628.2004	Erosion Mat Class I Type B	SY	34,456	405	34,861
628.7005	Inlet Protection Type A	EACH	112	7	119
628.7015	Inlet Protection Type C	EACH	118	9	127
628.7020	Inlet Protection Type D	EACH	30	2	32
630.0200	Seeding Temporary	LB	664	7	671
643.0300	Traffic Control Drums	DAY	83,325	76,900	160,225
643.0420	Traffic Control Barricades Type III	DAY	43,865	11,500	55,365
643.0705	Traffic Control Warning Lights Type A	DAY	87,000	22,700	109,700
643.0715	Traffic Control Warning Lights Type C	DAY	12,400	13,280	25,680
643.0800	Traffic Control Arrow Boards	DAY	135	195	330
643.0900	Traffic Control Signs	DAY	110,618	39,100	149,718
643.0920	Traffic Control Covering Signs Type II	EACH	4	1	5
643.1050	Traffic Control Signs PCMS	DAY	155	20	175
643.3105	Temporary Marking Line Paint 4-Inch	LF	18,520	-12,840	5,680
643.3205	Temporary Marking Line Paint 8-Inch	LF	1,810	1,510	300
646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	1,360	70	1,430
646.9000	Marking Removal Line 4-Inch	LF	38	4,060	4,098
646.9010	Marking Removal Line Water Blasting 4-Inch	LF	2,095	19,650	21,745
646.9100	Marking Removal Line 8-Inch	LF	1,365	825	2,190
646.9110	Marking Removal Line Water Blasting 8-Inch	LF	300	500	800
650.5000	Construction Staking Base	LF	15,990	1,100	17,090
690.0150	Sawing Asphalt	LF	17,382	1,240	18,622
690.0250	Sawing Concrete	LF	2,590	160	2,750

Added Bid Item Quantities					
Bid Item	Item Description	Unit	Proposal Total Prior to Addendum	Quantity Added	Proposal Total After Addendum
608.0436	Storm Sewer Pipe Reinforced Concrete Class IV 36-Inch	LF	0	310	310
611.8115	Adjusting Inlet Covers	EACH	0	1	1
643.3120	Temporary Marking Line Epoxy 4-Inch	LF	0	38,440	38,440
643.3220	Temporary Marking Line Epoxy 8-Inch	LF	0	3,040	3,040
643.3520	Temporary Marking Arrow Epoxy	Each	0	19	19

643.3820	Temporary Marking Stop Line Epoxy 18-Inch	LF	0	108	108
646.9210	Marking Removal Line Water Blasting 18-Inch	LF	0	48	48
646.9300	Marking Removal Special Marking	Each	0	3	3
646.9310	Marking Removal Special Marking Water Blasting	Each	0	7	7

Deleted Bid Item Quantities					
Bid Item	Item Description	Unit	Proposal Total Prior to Addendum	Proposal Quantity Change (-)	Proposal Total After Addendum
521.3136	Culvert Pipe Corrugated Steel 36-Inch	LF	310	-310	0
643.3150	Temporary Marking Line Removable Tape 4-Inch	LF	19,500	-19,500	0
643.3250	Temporary Marking Line Removable Tape 8-Inch	LF	1,550	-1,550	0
643.3550	Temporary Marking Arrow Removable Tape	Each	17	-17	0
643.3805	Temporary Marking Stop Line Paint 18-Inch	LF	24	-24	0
643.3850	Temporary Marking Stop Line Removable Tape 18-Inch	LF	46	-46	0

Plan Sheets:

Revised Plan Sheets – 2340-00-79	
Plan Sheet	Plan Sheet Title (brief description of changes to sheet)
33	Storm Sewer (revised pipe material)
87	Misc. Qty's (revised bid items for storm sewer pipe material change)

Revised Plan Sheets – 2698-03-70	
Plan Sheet	Plan Sheet Title (brief description of changes to sheet)
336	Storm Sewer (revised for joint requirements)
337	Storm Sewer (revised for joint requirements)
480	Traffic Control – Stage 1 (revised pavement marking item)
481	Traffic Control – Stage 1 (revised pavement marking item)
482	Traffic Control – Stage 1 (revised pavement marking item)
483	Traffic Control – Stage 1 (revised pavement marking item)
484	Traffic Control – Stage 1 (revised pavement marking item)
485	Traffic Control – Stage 1 (revised pavement marking item)
486	Traffic Control – Stage 1 (revised pavement marking item)
494	Traffic Control – Over Winter – Between Stage 1 & 2 (revised traffic control for railroad work staging)
495	Traffic Control – Over Winter – Between Stage 1 & 2 (revised traffic control for railroad work staging)
497	Traffic Control – Stage 2 (revised traffic control for railroad work staging)
498	Traffic Control – Stage 2 (revised traffic control for railroad work staging)
499	Traffic Control – Stage 2 (revised traffic control for railroad work staging)
500	Traffic Control – Stage 2 (revised traffic control for railroad work staging)
501	Traffic Control – Stage 2 (revised traffic control for railroad work staging)
502	Traffic Control – Stage 2 (revised traffic control for railroad work staging)
503	Traffic Control – Stage 2 (revised traffic control for railroad work staging)

504	Traffic Control – Stage 2 (revised traffic control for railroad work staging)
505	Traffic Control – Stage 2 (revised traffic control for railroad work staging)
506	Traffic Control – Stage 2 (revised traffic control for railroad work staging)
507	Traffic Control – Stage 2 (revised traffic control for railroad work staging)
508	Traffic Control – Stage 2 (revised traffic control for railroad work staging)
509	Traffic Control – Stage 2 (revised traffic control for railroad work staging)
510	Traffic Control – Stage 2 (revised traffic control for railroad work staging)
513	Traffic Control – Stage 3 (revised traffic control for railroad work staging)
514	Traffic Control – Stage 3 (revised traffic control for railroad work staging)
515	Traffic Control – Stage 3 (revised traffic control for railroad work staging)
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524	Traffic Control – Stage 3 (revised traffic control for railroad work staging)
525	Traffic Control – Stage 3 (revised traffic control for railroad work staging)
526	Traffic Control – Stage 3 (revised traffic control for railroad work staging)
527	Detour Plan – STH 20 Closure – Stage 1 & 4 (revised to use for stage 4)
528	Detour Plan – STH 20 Closure – Stage 1 & 4 (revised to use for stage 4)
601	Miscellaneous Quantities (revised Excavation Common for railroad temp pavement)
602	Miscellaneous Quantities (revised sawing quantities)
603	Miscellaneous Quantities (revised base aggregate and asphalt quantities)
604	Miscellaneous Quantities (revised PWL Table)
605	Miscellaneous Quantities (revised PWL Table)
615	Miscellaneous Quantities (added Adjusting Inlet Covers table)
616	Miscellaneous Quantities (revised Erosion Control Tables)
617	Miscellaneous Quantities (revised Traffic Control and Restoration)
618	Miscellaneous Quantities (revised Marking Removal and Temp Marking)
619	Miscellaneous Quantities (revised Construction Staking Base)

Added Plan Sheets – 2698-03-70	
Plan Sheet	Plan Sheet Title (brief description of why sheet was added)
196A	Added Construction Detail
495A	Traffic Control – Over Winter – Between Stage 1 & 2 (revised traffic control for railroad work staging)
495B	Traffic Control – Over Winter – Between Stage 1 & 2 (revised traffic control for railroad work staging)
465C	Traffic Control – Over Winter – Between Stage 1 & 2 (revised traffic control for railroad work staging)
526A	Traffic Control – Over Winter – Between Stage 3 & 4 (revised traffic control for railroad work staging)
526B	Traffic Control – Over Winter – Between Stage 3 & 4 (revised traffic control for railroad work staging)
526C	Traffic Control – Over Winter – Between Stage 3 & 4 (revised traffic control for railroad work staging)
526D	Traffic Control – Over Winter – Between Stage 3 & 4 (revised traffic control for railroad work staging)
526E	Traffic Control Overview - Stage 4 (revised traffic control for railroad work staging)
527F	Traffic Control - Stage 4 (revised traffic control for railroad work staging)

526G	Traffic Control - Stage 4 (revised traffic control for railroad work staging)
526H	Traffic Control - Stage 4 (revised traffic control for railroad work staging)
526I	Traffic Control - Stage 4 (revised traffic control for railroad work staging)
526J	Traffic Control - Stage 4 (revised traffic control for railroad work staging)
526K	Traffic Control - Stage 4 (revised traffic control for railroad work staging)
526L	Traffic Control - Stage 4 (revised traffic control for railroad work staging)
551A	Alignment Layout – STH 20 EB/WB Temp Railroad RL
667A	Plan and Profile: Temporary ETERR Connection (Profile for railroad temp pavement)
982A	Earthwork Data (EB and WB ETERR Temporary Connection)
1103A	Cross Sections: STH 20 EB Temporary ETERR RL
1103B	Cross Sections: STH 20 EB Temporary ETERR RL
1103C	Cross Sections: STH 20 EB Temporary ETERR RL
1103D	Cross Sections: STH 20 WB Temporary ETERR RL
1103E	Cross Sections: STH 20 WB Temporary ETERR RL
1103F	Cross Sections: STH 20 WB Temporary ETERR RL

Other

Revise Contract Completion Time from a completion date of October 25, 2024, to a completion date of July 20, 2025.

The responsibility for notifying potential subcontractors and suppliers of these changes remains with the prime contractor.

Sincerely,

Mike Coleman

Proposal Development Specialist
Proposal Management Section

ADDENDUM NO. 02
2340-00-79, 2698-03-70, 2698-03-73
April 27, 2023

3. Prosecution and Progress

Replace paragraph six, third bullet under “Stage 1” with the following:

- Roadway Construction Station 884+75 to 913+00, except Station 903+00 to 906+17 WB and Station 901+80 to 905+25 EB

Add the following to paragraph six, under “Stage 1”:

- Temporary Connection ETERR

Remove paragraph six, second bullet under “Stage 3”.

Add the following to paragraph six, after “Stage 3”:

- Stage 4
 - Roadway Construction Station 903+00 to 906+17 WB and 901+80 to 905+25 EB

Add the following after the section titled “Interim Completion and Liquidated Damages – CTH L: 14 Calendar Days”:

Winter Shutdown 2024-2025

Winter shutdown 2024-2025 will commence with the completion of Stage 3 in the Fall of 2024. Do not resume work until April 15, 2025, unless approved by the engineer. Provide a start date in writing at least 14 days prior to the planned recommencement of work in 2025. Upon approval the engineer will issue the notice to proceed within 10 days of the approved start date.

If construction is allowed before April 15, 2025, by the engineer, the contractor is responsible for any additional costs related to the early start.

Replace paragraph fourteen under the section titled “Operations” with the following:

Complete all Stage 2 and 3 HMA paving by October 1, 2024.

Replace paragraph fifteen sentence three, under the section titled “Operations” with the following:

East Troy Railroad Museum, Inc work will be in Stage 4.

4. Traffic.

Replace the first bullet in paragraph one with the following:

- Stage 1 / Stage 4

5. Holiday and Special Event Work Restrictions.

Add the following to the end of the list in paragraph one:

- From noon Friday, May 23, 2025 to 6:00 AM Tuesday, May 27, 2025 for Memorial Day;
- From noon Thursday July 3, 2025 to 6:00 AM Monday, July 7, 2025 for Independence Day;
- From noon Friday, August 29, 2025 to 6:00 AM Tuesday, September 2, 2025 for Labor Day.

6. Utilities.

Replace the section titled **WE Energies – Gas** under the section titled **ID 2340-00-79** with the following:

WE Energies – Gas has facilities within the project limits. The following will be relocated prior to construction:

We Gas will discontinue in place 2" PE pipe at the following location:

Station 1361+40, 19' RT to Station 1362+40, 19' RT

Station 1362+40, 19' RT to Station 1363+50, 29' RT

Station 1363+50, 29' RT to Station 1364+15, 37' RT

Station 1364+15, 37' RT to Station 1364+55, 49' RT

Station 1364+55, 49' RT to Station 1364+55, 75' RT

Install new 4" PE gas main Station 1361+40, 27' LT to Station 1364+65, 30' LT

Bore 6" PE gas main under STH 20 Station 1364+65, 30' LT to Station 1364+65, 85' RT

Main will be bored at minimum depth of 72" at storm sewer crossing at 1364+65, 61' RT

Tie into existing main at Station 1364+80, 95' RT

Any facilities not explicitly identified as being relocated and/or adjusted have been deemed to be not in conflict and will remain in place as is. We Energies has determined that the project is constructible with these facilities left within the work-zone.

It is imperative that the highway contractor contact We Energies before removing any gas facilities to verify that they have been discontinued and carry no natural gas. The contractor must not assume that unmarked facilities have been discontinued. At no time is it acceptable to push, pull, cut or drill an unmarked facility without explicit consent from We Energies. Contractor must call the We Energies 24-hour Dispatch lines to arrange for this verification.

95. Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch, Item 608.0412

Add the following to standard spec 608.2

For the storm sewer pipe from inlet 216 (STA 904+25, 40.9' LT) to existing manhole E-202 (STA 903+46 20.5' RT) provide petroleum resistant pipe joint seals per ASTM C443 fabricated from nitrile materials meeting the dimensions, tolerances, and physical requirements of ASTM C1619, Class D.

96. Inlets 4-FT Diameter, Item 611.3004

Add the following to standard spec 611.2

For storm sewer inlet 216 (STA 904+25, 40.9' LT) provide a petroleum resistant pipe boot connector also meeting ASTM C923. Seal joints between inlet sections, if present, with petroleum resistant pipe joint seals per ASTM C443 fabricated from materials meeting the dimensions, tolerances, and physical requirements of ASTM C1619, Class D.

Schedule of Items

Attached, dated April 27, 2023, are the revised Schedule of Items Pages 1 – 25.

Plan Sheets

The following 8½ x 11-inch sheets are attached and made part of the plans for this proposal:

2340-00-79

Revised: 33 and 87

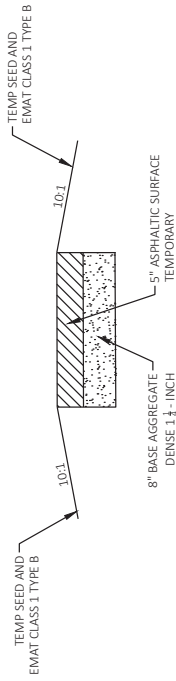
2698-03-70

Revised: 336, 337, 480-486, 494, 495, 497-510, 513-526, 527-528, 601-605, and 615-619

Added: 96A, 495A-C, 526A-L, 551A, 667A, 982A, and 1103A-F

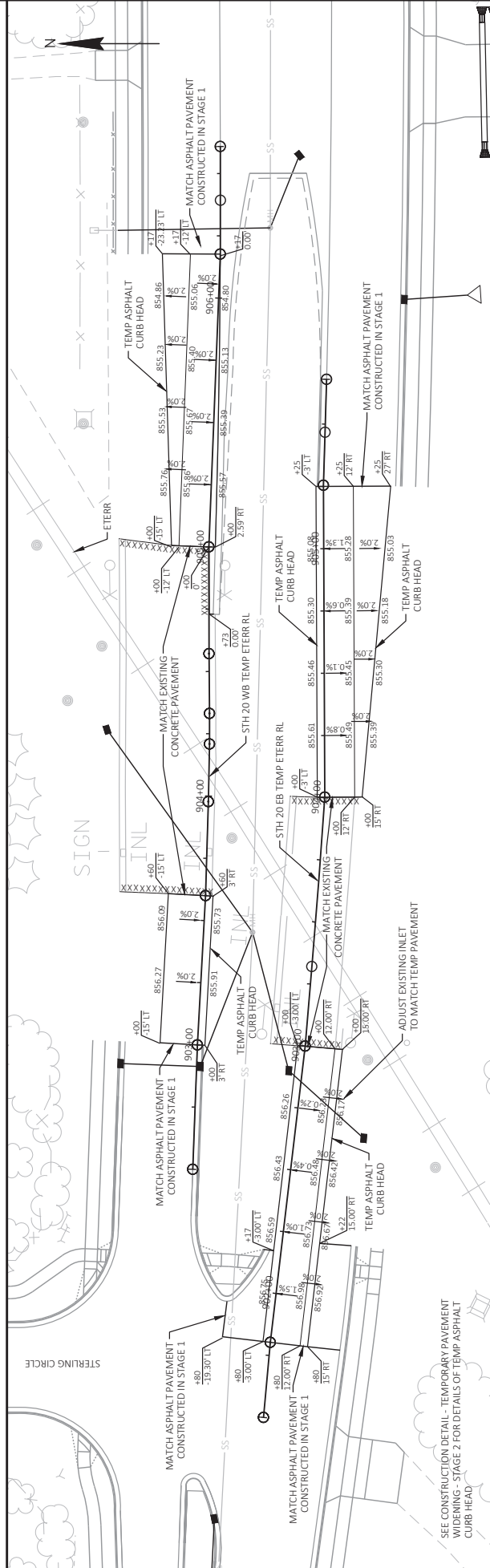
END OF ADDENDUM

Addendum No. 02
ID 2698-03-70
Added Sheet 196A
April 27, 2023



TYPICAL SECTION - TEMPORARY CONNECTION
ETERR

SEE TRAFFIC CONTROL PLANS FOR ADDITIONAL INFORMATION

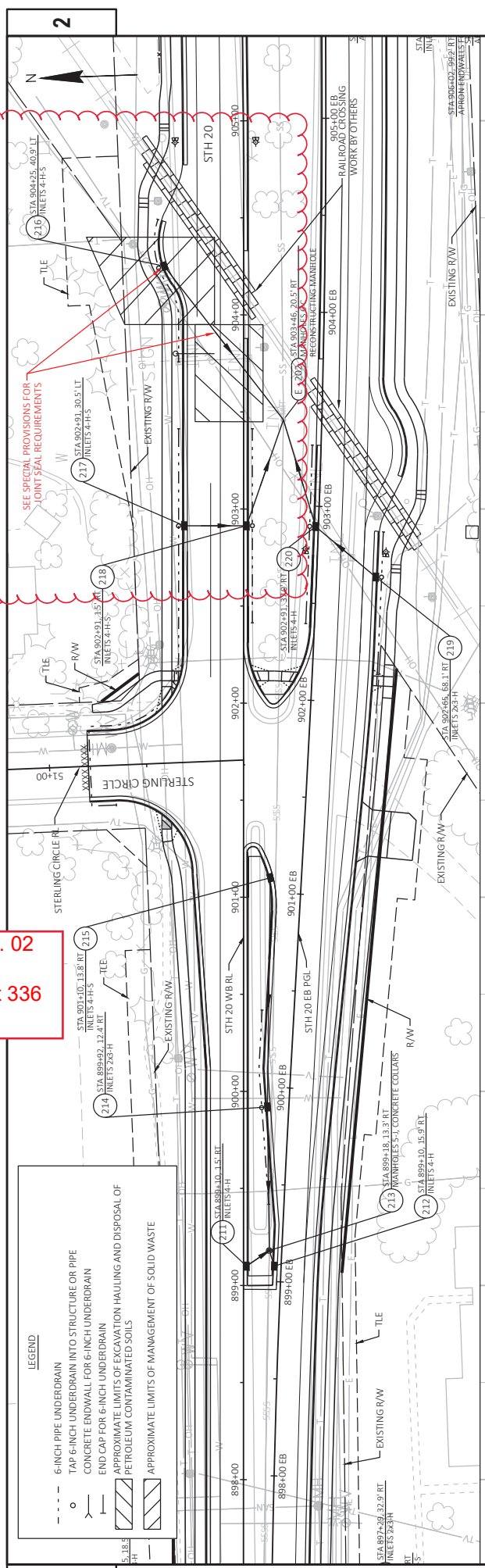


SEE CONSTRUCTION DETAIL - TEMPORARY PAVEMENT WIDENING - STAGE 2 FOR DETAILS OF TEMP ASPHALT CURB HEAD

Addendum No. 02
ID 2698-03-70
Revised Sheet 336
April 27, 2023

LEGEND

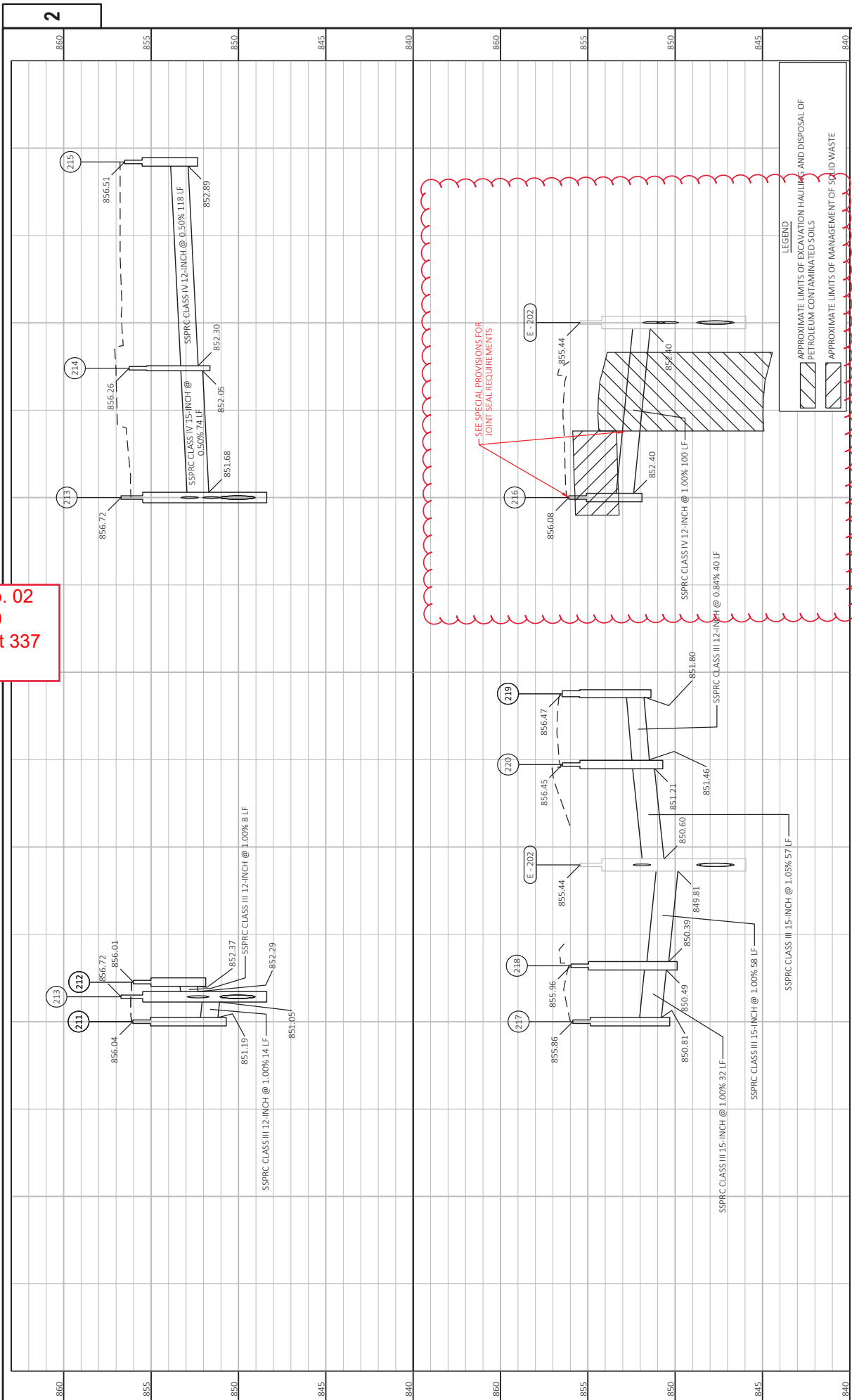
---	6-INCH PIPE UNDERDRAIN
o	TAP 6-INCH UNDERDRAIN INTO STRUCTURE OR PIPE
—	CONCRETE ENDWALL FOR 6-INCH UNDERDRAIN
—	END GAP FOR 6-INCH UNDERDRAIN
▨	APPROXIMATE LIMITS OF EXCAVATION HAULING AND DISPOSAL OF PETROLEUM CONTAMINATED SOILS
▨	APPROXIMATE LIMITS OF MANAGEMENT OF SOLID WASTE

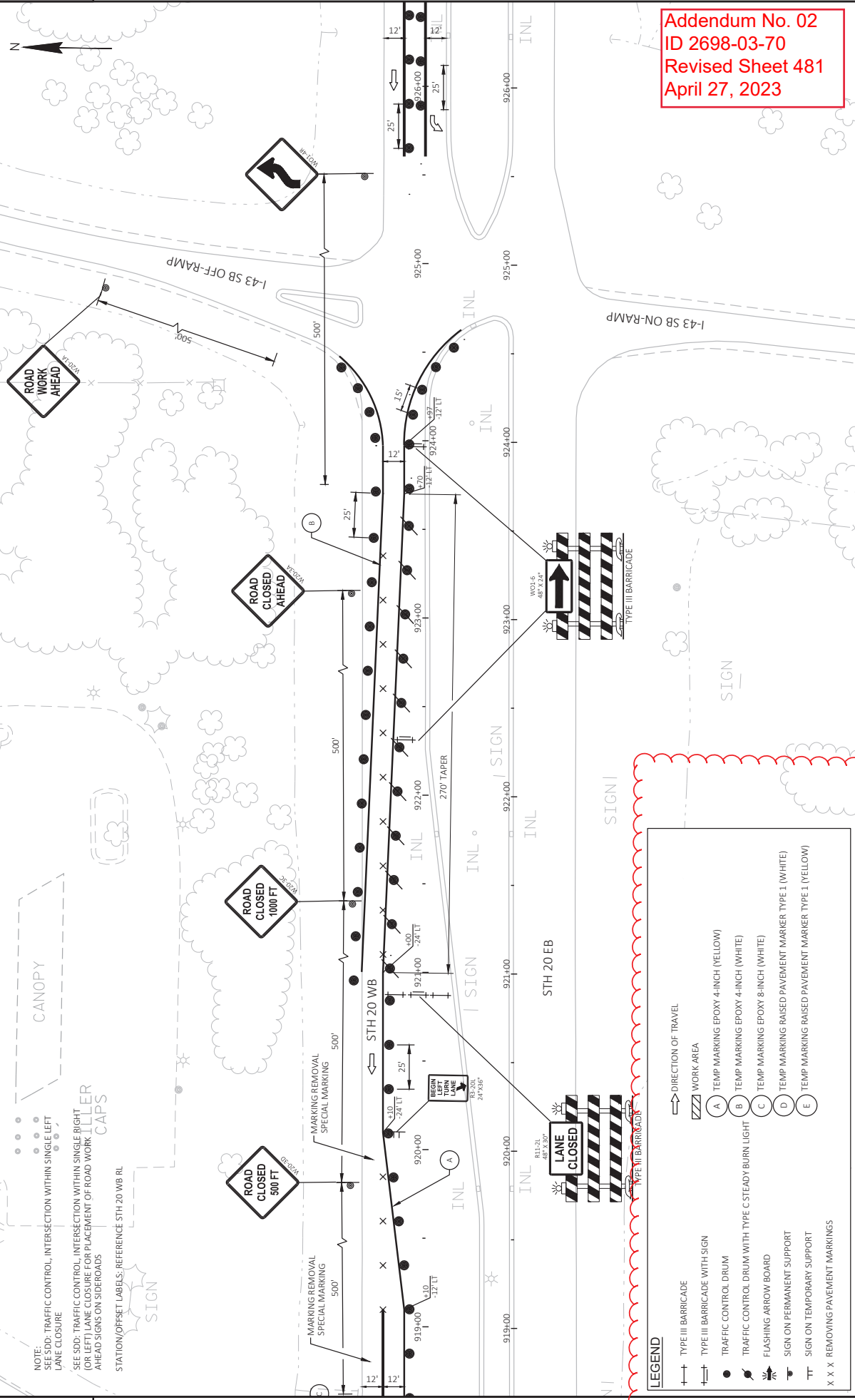


PROJECT NO: 2698-03-70	COUNTY: WALWORTH & RACINE	STORM SEWER	SHEET 336	E
FILE NAME: \\WERTOW\HP\POL\WPUB\KCP\53\26980300-2018\5HEET\PLAN\02.2501.55.DWG	LAYOUT NAME: -022505-55	HWY: STH 20	FLYBY: GUYENETTE, JEFFREY	1 IN=30 FT
			PLOT NAME:	
			PLOT DATE: 4/27/2023 6:40 AM	

WIS007/CADD/SHEET 41

Addendum No. 02
 ID 2698-03-70
 Revised Sheet 337
 April 27, 2023





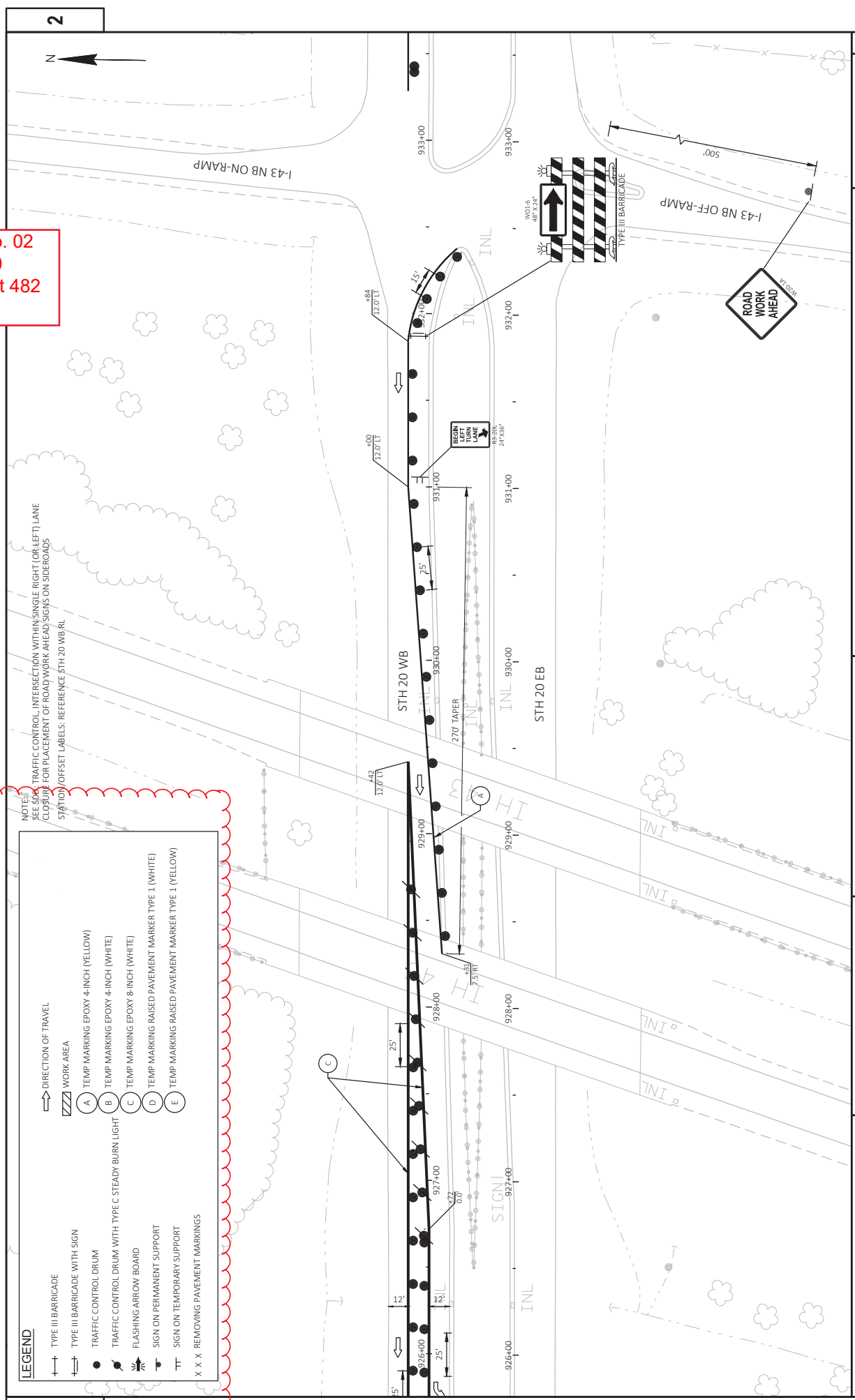
Addendum No. 02
 ID 2698-03-70
 Revised Sheet 481
 April 27, 2023

NOTE:
 SEE SDD: TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE
 SEE SDD: TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT (OR LEFT) LANE CLOSURE FOR PLACEMENT OF ROAD WORK MILLER CAPS
 STATION/OFFSET LABELS: REFERENCE STH 20 WB RL

LEGEND

→	DIRECTION OF TRAVEL
▨	WORK AREA
A	TEMP MARKING EPOXY 4-INCH (YELLOW)
B	TEMP MARKING EPOXY 4-INCH (WHITE)
C	TEMP MARKING EPOXY 8-INCH (WHITE)
D	TEMP MARKING RAISED PAVEMENT MARKER TYPE 1 (WHITE)
E	TEMP MARKING RAISED PAVEMENT MARKER TYPE 1 (YELLOW)
⬇	TRAFFIC CONTROL DRUM
⬆	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
⬇	FLASHING ARROW BOARD
⬆	SIGN ON PERMANENT SUPPORT
⬆	SIGN ON TEMPORARY SUPPORT
X X X	REMOVING PAVEMENT MARKINGS

Addendum No. 02
 ID 2698-03-70
 Revised Sheet 482
 April 27, 2023



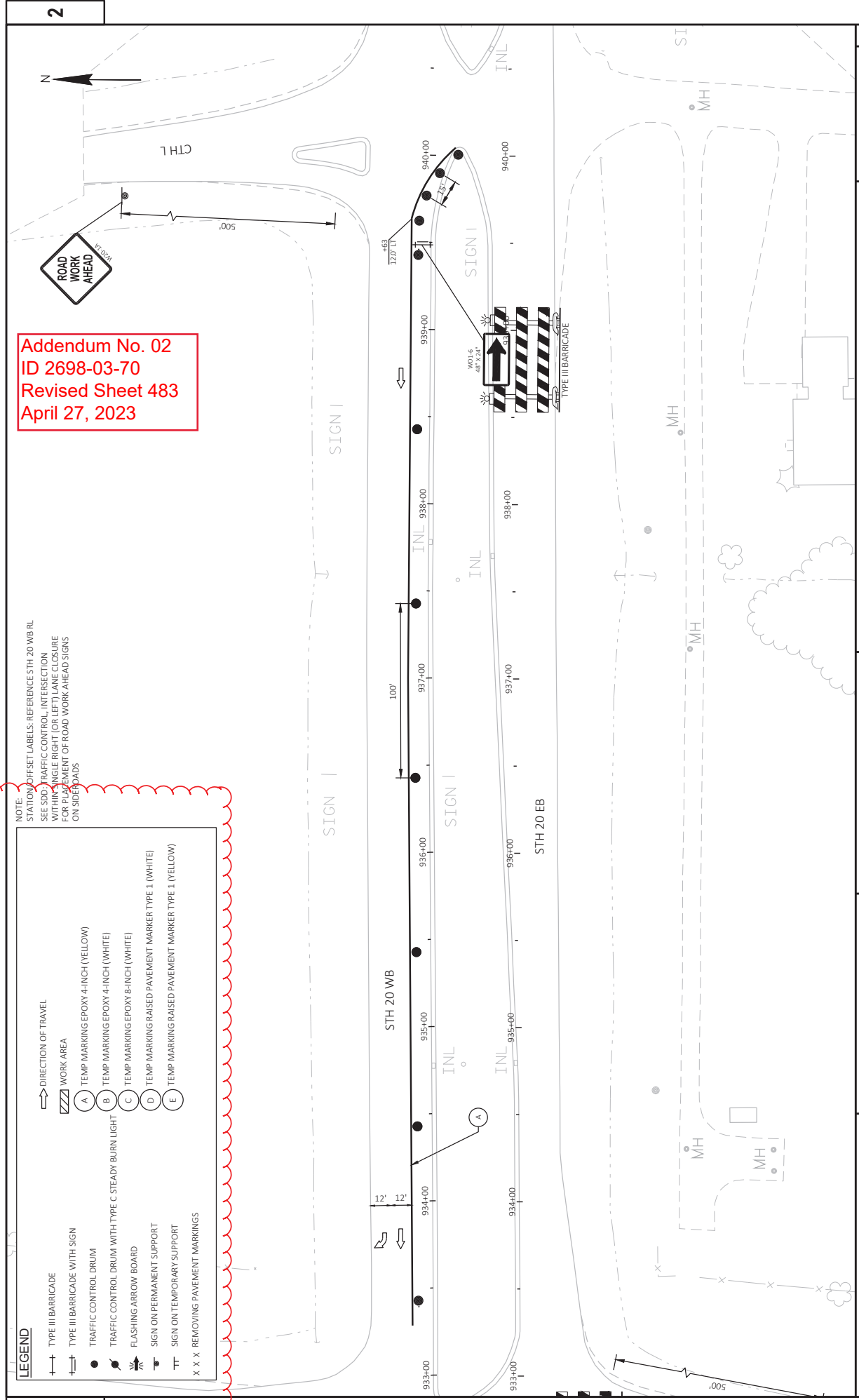
NOTES:
 SEE S16X TRAFFIC CONTROL WITHIN SINGLE-RIGHT (OR LEFT) LANE
 CLOSURE FOR PLACEMENT OF ROAD WORK AHEAD SIGNS ON SIDEROADS
 STATION OFFSET LABELS. REFERENCE S1H 20 WB RL

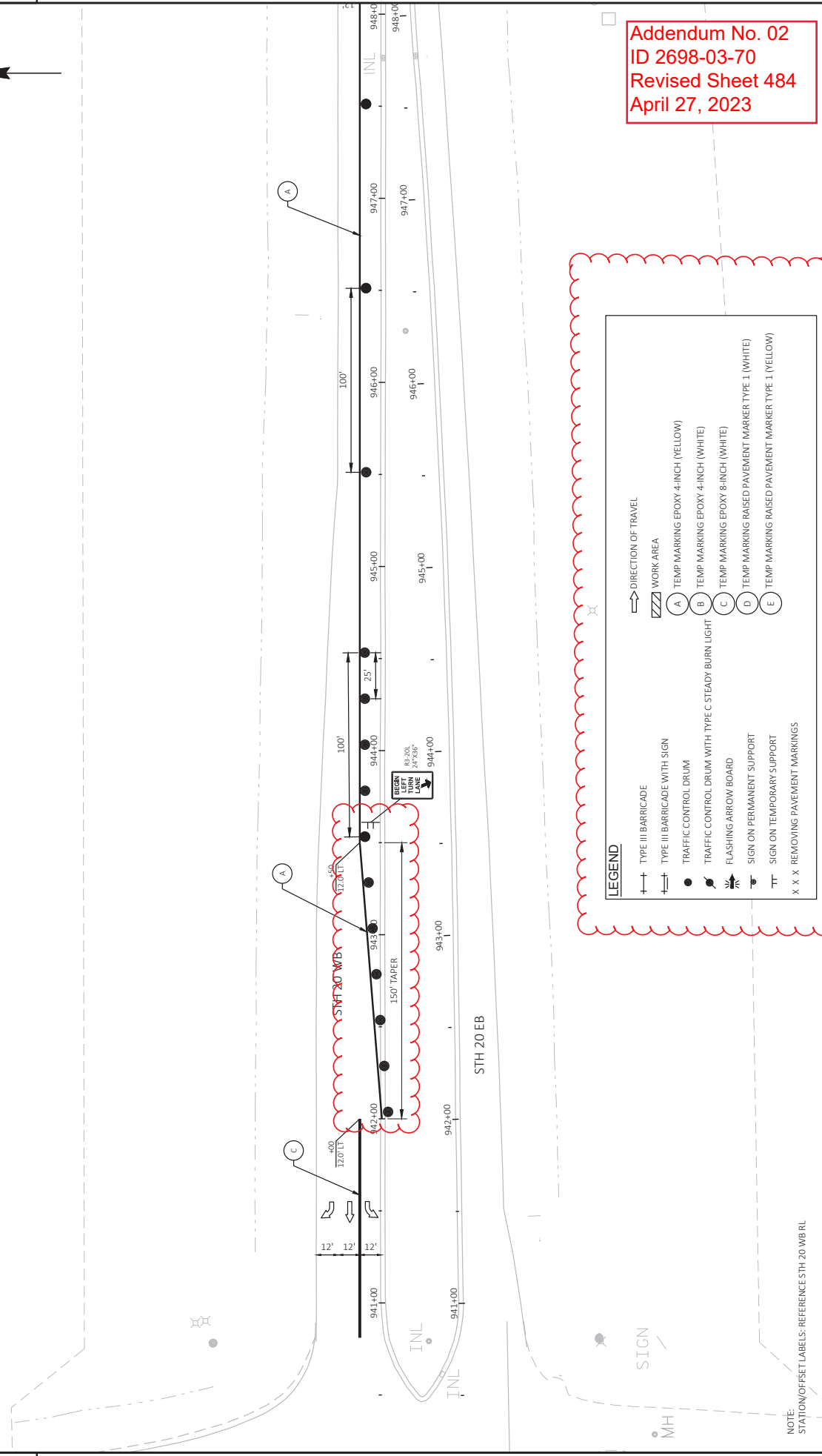
LEGEND	
	DIRECTION OF TRAVEL
	WORK AREA
	TYPE III BARRICADE
	TYPE III BARRICADE WITH SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	FLASHING ARROW BOARD
	SIGN ON PERMANENT SUPPORT
	SIGN ON TEMPORARY SUPPORT
	REMOVING PAVEMENT MARKINGS
	TEMP MARKING EPOXY 4-INCH (YELLOW)
	TEMP MARKING EPOXY 4-INCH (WHITE)
	TEMP MARKING EPOXY 8-INCH (WHITE)
	TEMP MARKING RAISED PAVEMENT MARKER TYPE 1 (WHITE)
	TEMP MARKING RAISED PAVEMENT MARKER TYPE 1 (YELLOW)

Addendum No. 02
ID 2698-03-70
Revised Sheet 483
April 27, 2023

NOTE:
 STATION/OFF-SET LABELS: REFERENCE STH 20 WB RL
 SEE SDD: TRAFFIC CONTROL, INTERSECTION
 WITHIN SINGLE RIGHT (OR LEFT) LANE CLOSURE
 FOR PLACEMENT OF ROAD WORK AHEAD SIGNS
 ON SIDEROADS

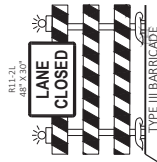
LEGEND	
	TYPE III BARRICADE
	TYPE II BARRICADE WITH SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	FLASHING ARROW BOARD
	SIGN ON PERMANENT SUPPORT
	SIGN ON TEMPORARY SUPPORT
	X X X REMOVING PAVEMENT MARKINGS
	DIRECTION OF TRAVEL
	WORK AREA
	TEMP MARKING EPOXY 4-INCH (YELLOW)
	TEMP MARKING EPOXY 4-INCH (WHITE)
	TEMP MARKING EPOXY 8-INCH (WHITE)
	TEMP MARKING RAISED PAVEMENT MARKER TYPE 1 (WHITE)
	TEMP MARKING RAISED PAVEMENT MARKER TYPE 1 (YELLOW)





Addendum No. 02
 ID 2698-03-70
 Revised Sheet 484
 April 27, 2023

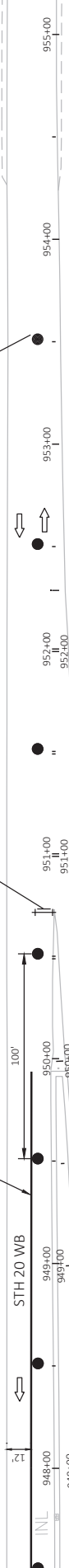
NOTE:
 STATION/OFFSET LABELS: REFERENCE STH 20 WB RL



500'

453
12.3 FT

100'

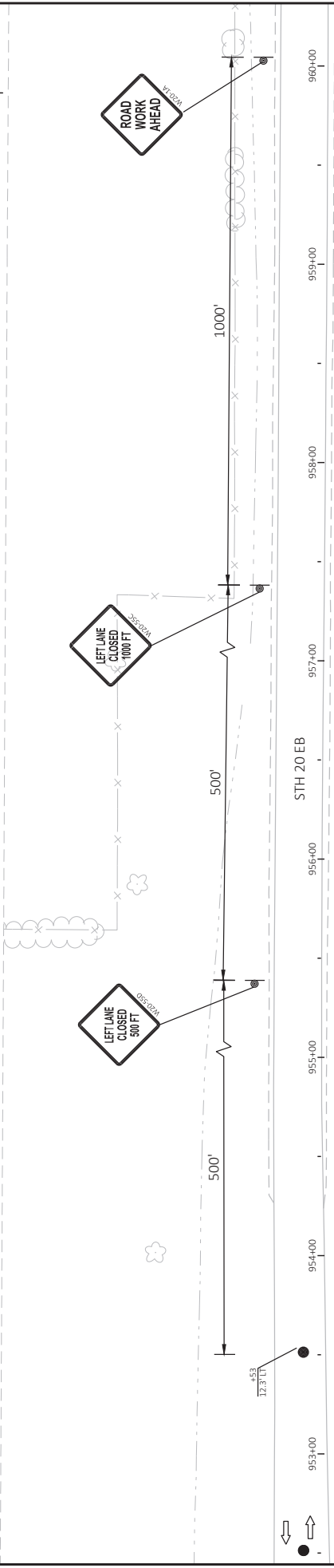


Addendum No. 02
ID 2698-03-70
Revised Sheet 485
April 27, 2023

LEGEND

+	TYPE III BARRICADE	→	DIRECTION OF TRAVEL
+	TYPE III BARRICADE WITH SIGN	▨	WORK AREA
●	TRAFFIC CONTROL DRUM	A	TEMP MARKING EPOXY 4-INCH (YELLOW)
●	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURST LIGHT	B	TEMP MARKING EPOXY 4-INCH (WHITE)
●	FLASHING ARROW BOARD	C	TEMP MARKING EPOXY 8-INCH (WHITE)
▬	SIGN ON PERMANENT SUPPORT	D	TEMP MARKING RAISED PAVEMENT MARKER TYPE 1 (WHITE)
▬	SIGN ON TEMPORARY SUPPORT	E	TEMP MARKING RAISED PAVEMENT MARKER TYPE 1 (YELLOW)
X X X	REMOVING PAVEMENT MARKINGS		

NOTE:
 STATION/OFFSET LABELS: REFERENCE STH 20
 WB RL



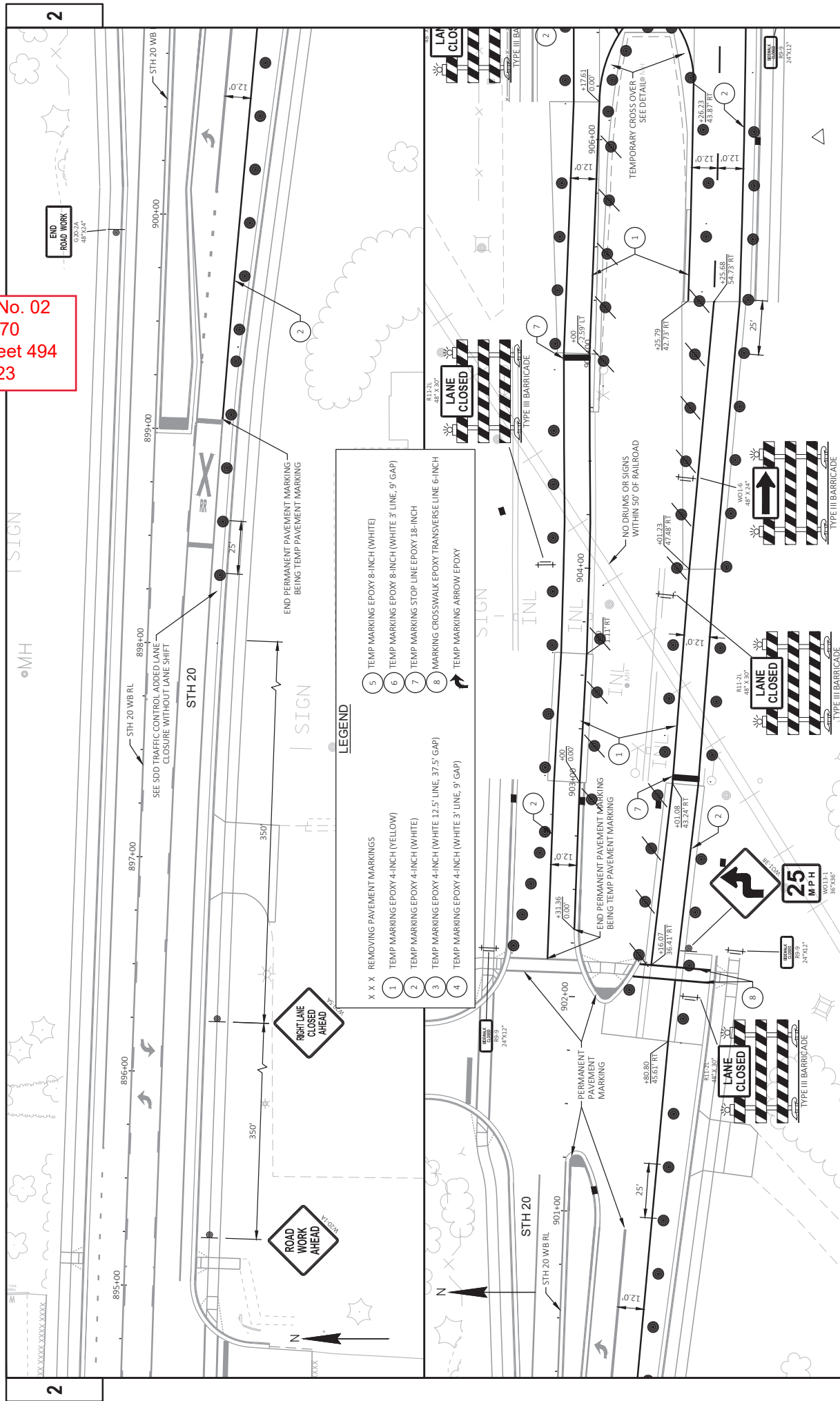
Addendum No. 02
 ID 2698-03-70
 Revised Sheet 486
 April 27, 2023

NOTE:
 STATION/OFFSET LABELS: REFERENCE
 STH 20 WB RL

LEGEND

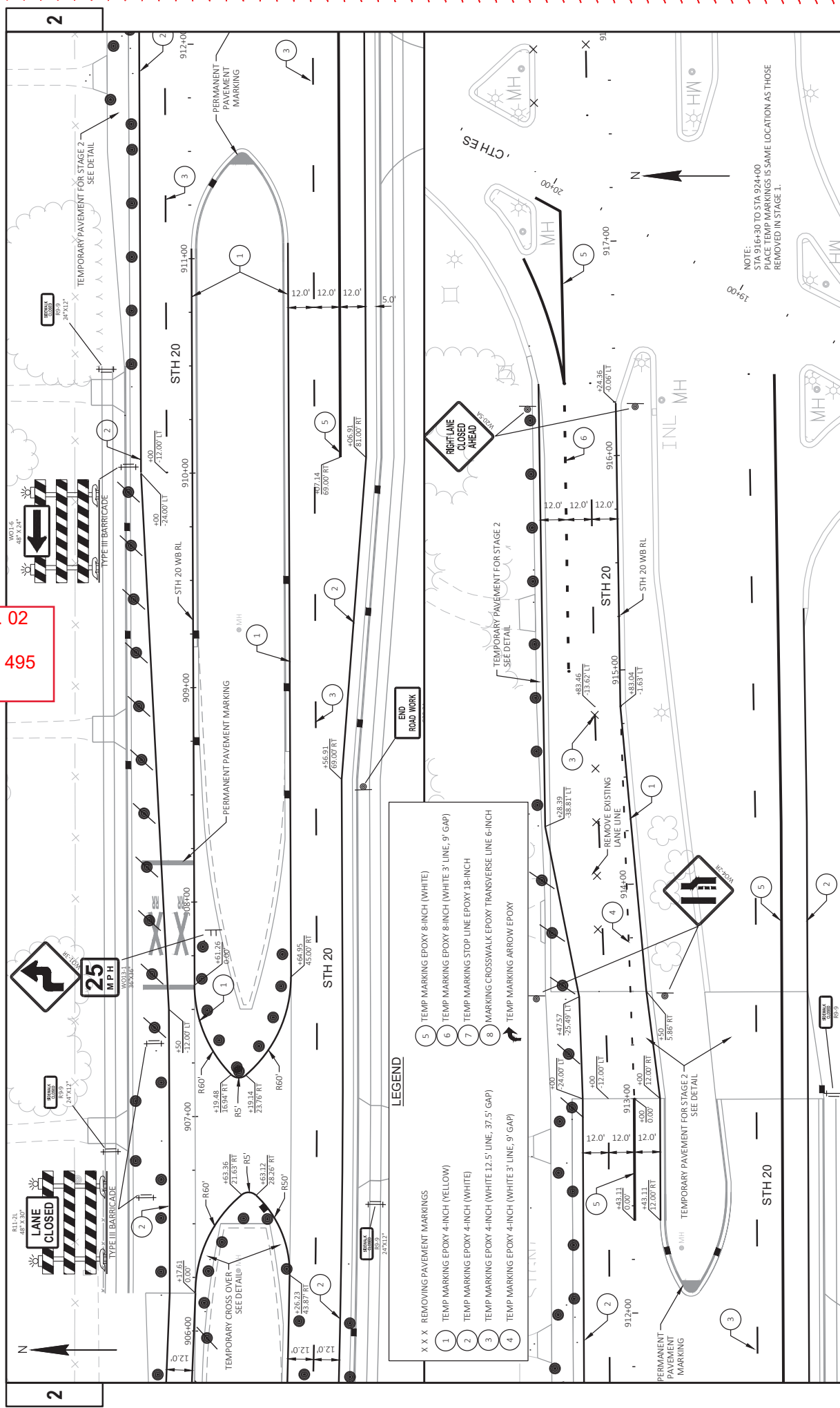
- ↑ TYPE III BARRICADE
- ↑ TYPE III BARRICADE WITH SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- ▲ FLASHING ARROW BOARD
- ▬ SIGN ON PERMANENT SUPPORT
- ▬ SIGN ON TEMPORARY SUPPORT
- X X X REMOVING PAVEMENT MARKINGS
- ⇨ DIRECTION OF TRAVEL
- ▨ WORK AREA
- A TEMP MARKING EPOXY 4-INCH (YELLOW)
- B TEMP MARKING EPOXY 4-INCH (WHITE)
- C TEMP MARKING EPOXY 8-INCH (WHITE)
- D TEMP MARKING RAISED PAVEMENT MARKER TYPE 1 (WHITE)
- E TEMP MARKING RAISED PAVEMENT MARKER TYPE 1 (YELLOW)

Addendum No. 02
 ID 2698-03-70
 Revised Sheet 494
 April 27, 2023

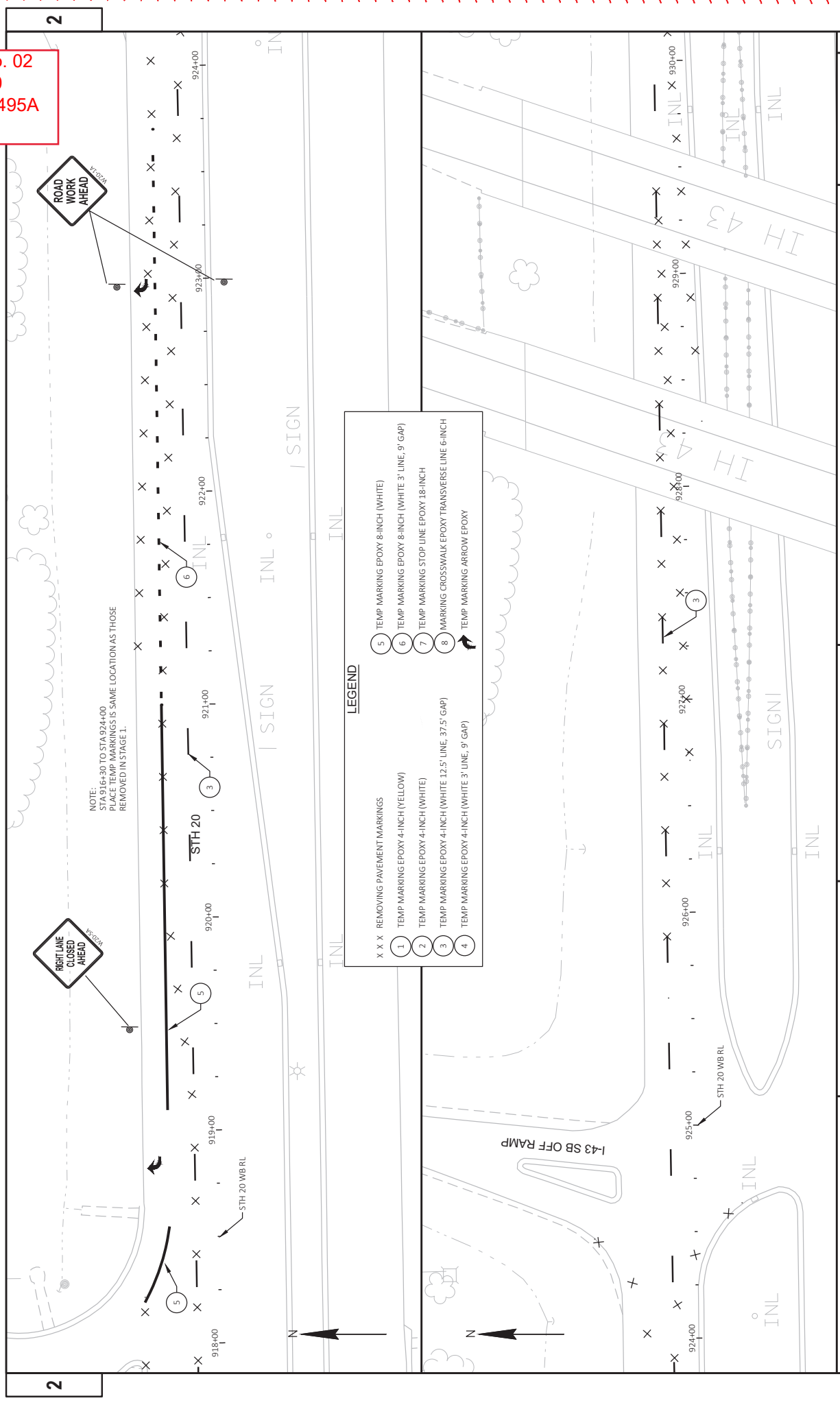


PROJECT NO: 2698-03-70
 COUNTY: WALWORTH / RACINE
 HWY: STH 20
 SHEET 494
 TRAFFIC CONTROL - OVER WINTER - BETWEEN STAGE 1 & 2
 FILE NAME: \\WERTOVHP\PIV\PIV\PUBLIC\PS\3D\26980300-2018\5HEET\PLAN\ETERR\TEMP CONNECTION - TC OVER WINTER 2023-2024.DWG
 PLOT DATE: 4/21/2023 11:03 AM
 PLOT BY: GUENETTE, JEFFREY
 PLOT NAME: 1 INK4DT
 WIS007\CADD\5 SHEET 44

Addendum No. 02
 ID 2698-03-70
 Revised Sheet 495
 April 27, 2023



Addendum No. 02
 ID 2698-03-70
 Added Sheet 495A
 April 27, 2023

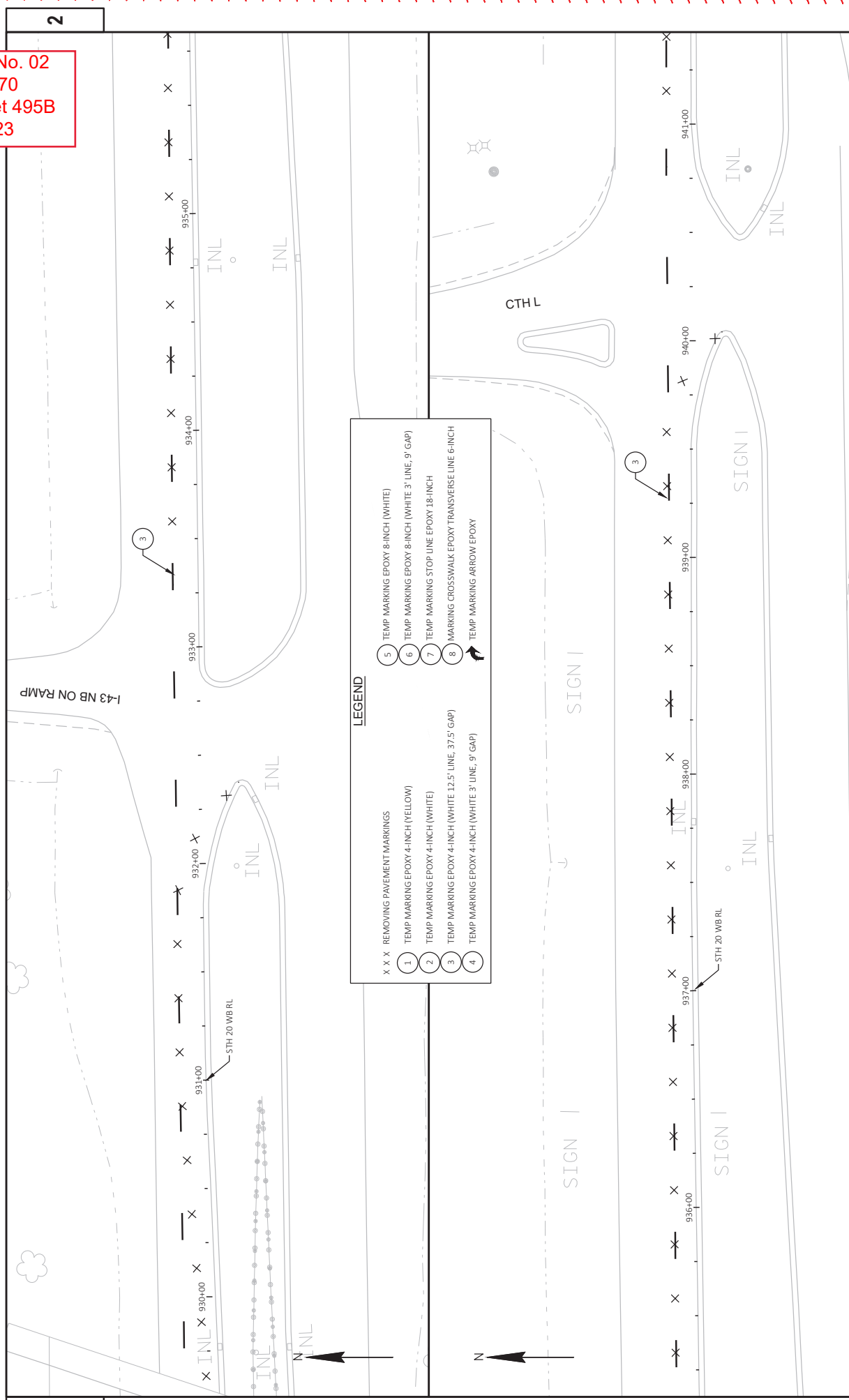


NOTE:
 STA 916+20 TO STA 924+00
 PLACE TEMP MARKINGS IS SAME LOCATION AS THOSE
 REMOVED IN STAGE 1.

LEGEND

X X X	REMOVING PAVEMENT MARKINGS	5	TEMP MARKING EPOXY 8-INCH (WHITE)
1	TEMP MARKING EPOXY 4-INCH (YELLOW)	6	TEMP MARKING EPOXY 8-INCH (WHITE 3' LINE, 9' GAP)
2	TEMP MARKING EPOXY 4-INCH (WHITE)	7	TEMP MARKING STOP LINE EPOXY 1.8-INCH
3	TEMP MARKING EPOXY 4-INCH (WHITE 12.5' LINE, 37.5' GAP)	8	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH
4	TEMP MARKING EPOXY 4-INCH (WHITE 3' LINE, 9' GAP)		TEMP MARKING ARROW EPOXY

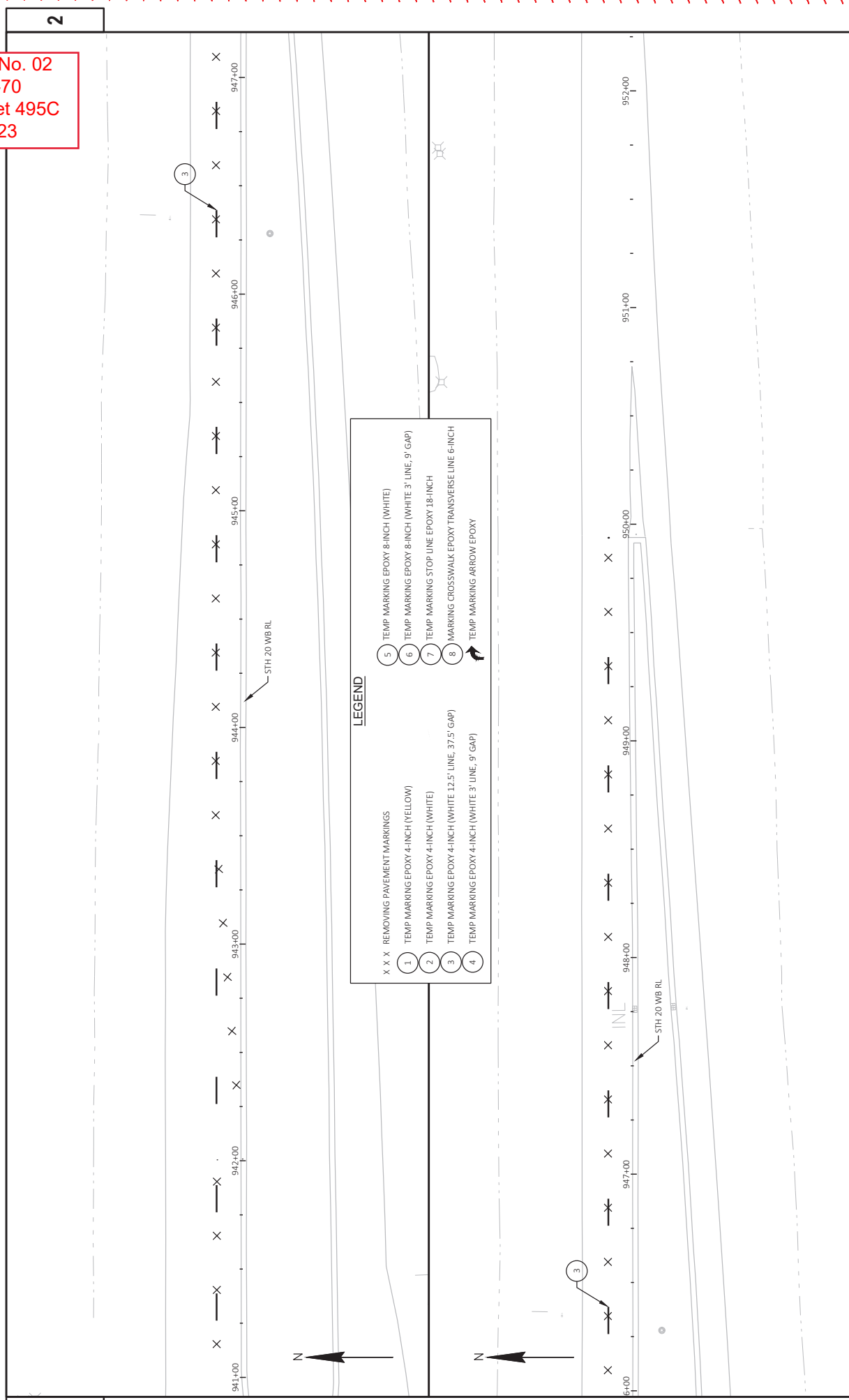
Addendum No. 02
 ID 2698-03-70
 Added Sheet 495B
 April 27, 2023



LEGEND

X X X	REMOVING PAVEMENT MARKINGS
1	TEMP MARKING EPOXY 4-INCH (YELLOW)
2	TEMP MARKING EPOXY 4-INCH (WHITE)
3	TEMP MARKING EPOXY 4-INCH (WHITE 12.5' LINE, 37.5' GAP)
4	TEMP MARKING EPOXY 4-INCH (WHITE 3' LINE, 9' GAP)
5	TEMP MARKING EPOXY 8-INCH (WHITE)
6	TEMP MARKING EPOXY 8-INCH (WHITE 3' LINE, 9' GAP)
7	TEMP MARKING STOP LINE EPOXY 18-INCH
8	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH
	TEMP MARKING ARROW EPOXY

Addendum No. 02
 ID 2698-03-70
 Added Sheet 495C
 April 27, 2023



LEGEND

<p>X X X REMOVING PAVEMENT MARKINGS</p> <p>1 TEMP MARKING EPOXY 4-INCH (YELLOW)</p> <p>2 TEMP MARKING EPOXY 4-INCH (WHITE)</p> <p>3 TEMP MARKING EPOXY 4-INCH (WHITE 12.5' LINE, 37.5' GAP)</p> <p>4 TEMP MARKING EPOXY 4-INCH (WHITE 3' LINE, 9' GAP)</p>	<p>5 TEMP MARKING EPOXY 8-INCH (WHITE)</p> <p>6 TEMP MARKING EPOXY 8-INCH (WHITE 3' LINE, 9' GAP)</p> <p>7 TEMP MARKING STOP LINE EPOXY 18-INCH</p> <p>8 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH</p> <p>TEMP MARKING ARROW EPOXY</p>
--	---

2

2

PROJECT NO: 2698-03-70
 FILE NAME: \\WERT\OVP\POL\IN\PUBLIC\PS\CD\26980300-2018\5\4\2\PLAN\TERR\TEMP CONNECTION - TC OVER WINTER 2023-2024.DWG
 LAYOUT NAME: 086017-51(9)

COUNTY: WALWORTH / RACINE
 HWY: STH 20

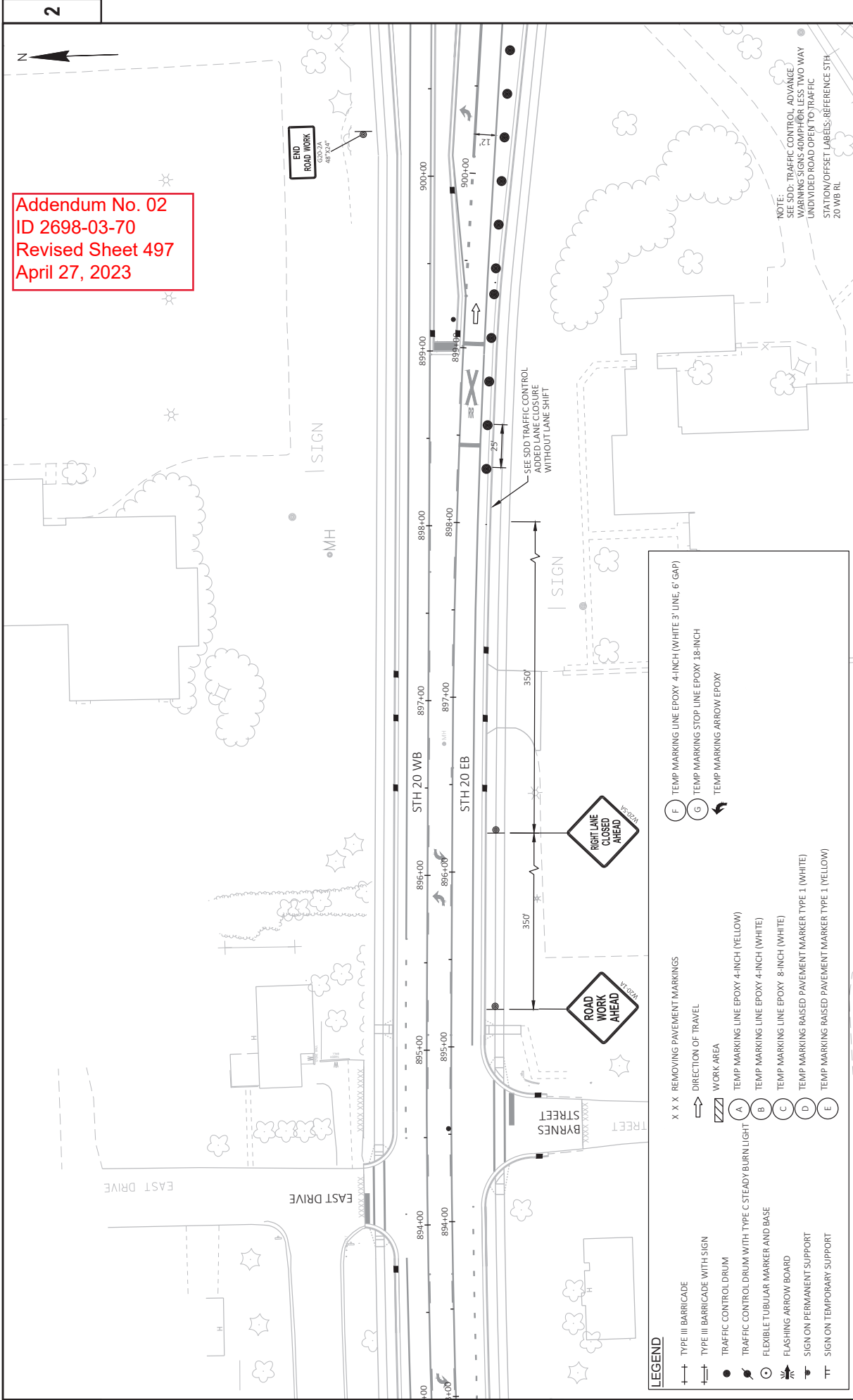
TRAFFIC CONTROL - OVER WINTER - BETWEEN STAGE 1 & 2
 FLOTBY: GUENETTE, JEFFREY

PLOT SCALE: 1 IN=40 FT
 PLOT NAME:

SHEET 495C
 E

WISDOT/CADDIS SHEET 44

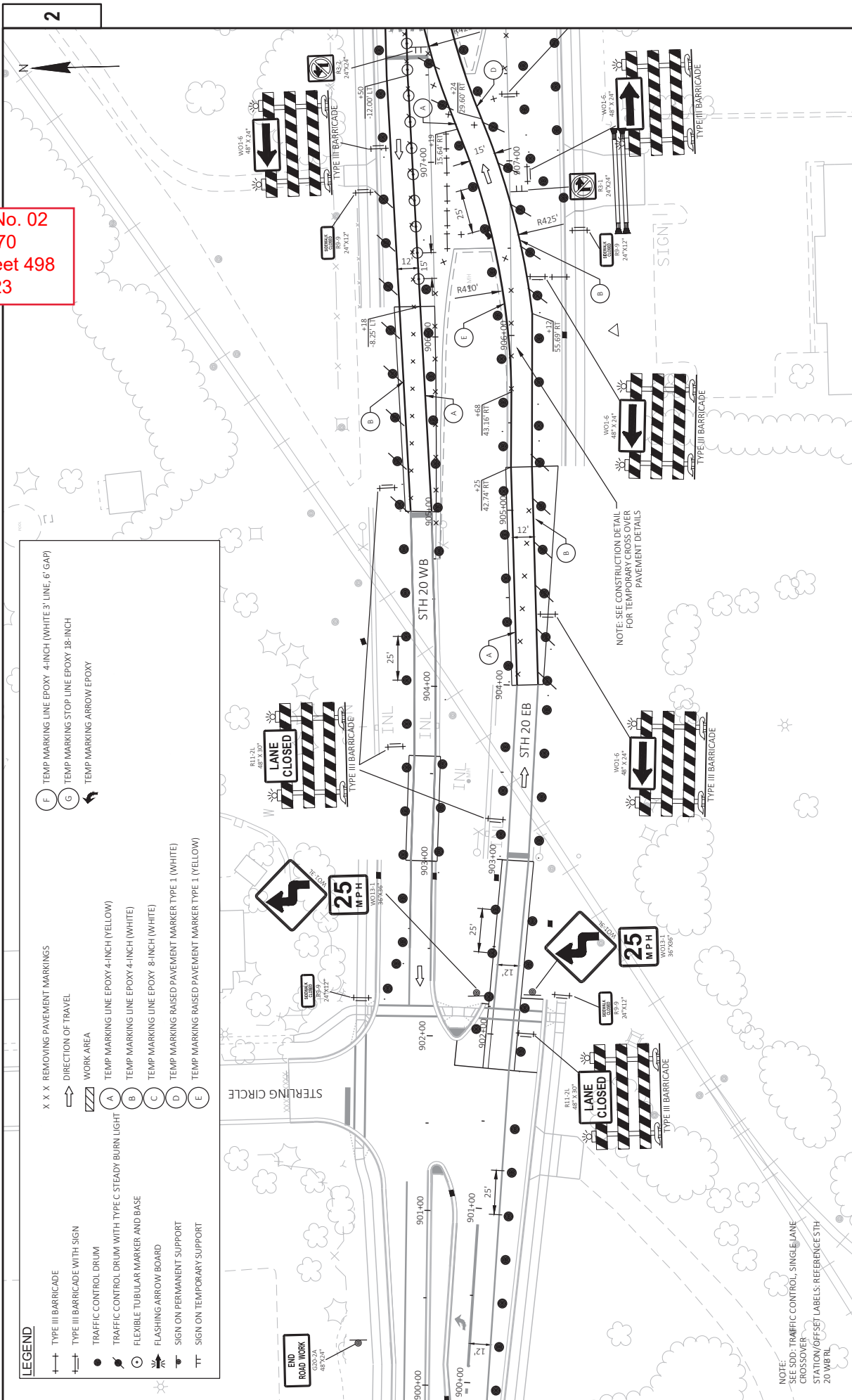
Addendum No. 02
 ID 2698-03-70
 Revised Sheet 497
 April 27, 2023



2

2

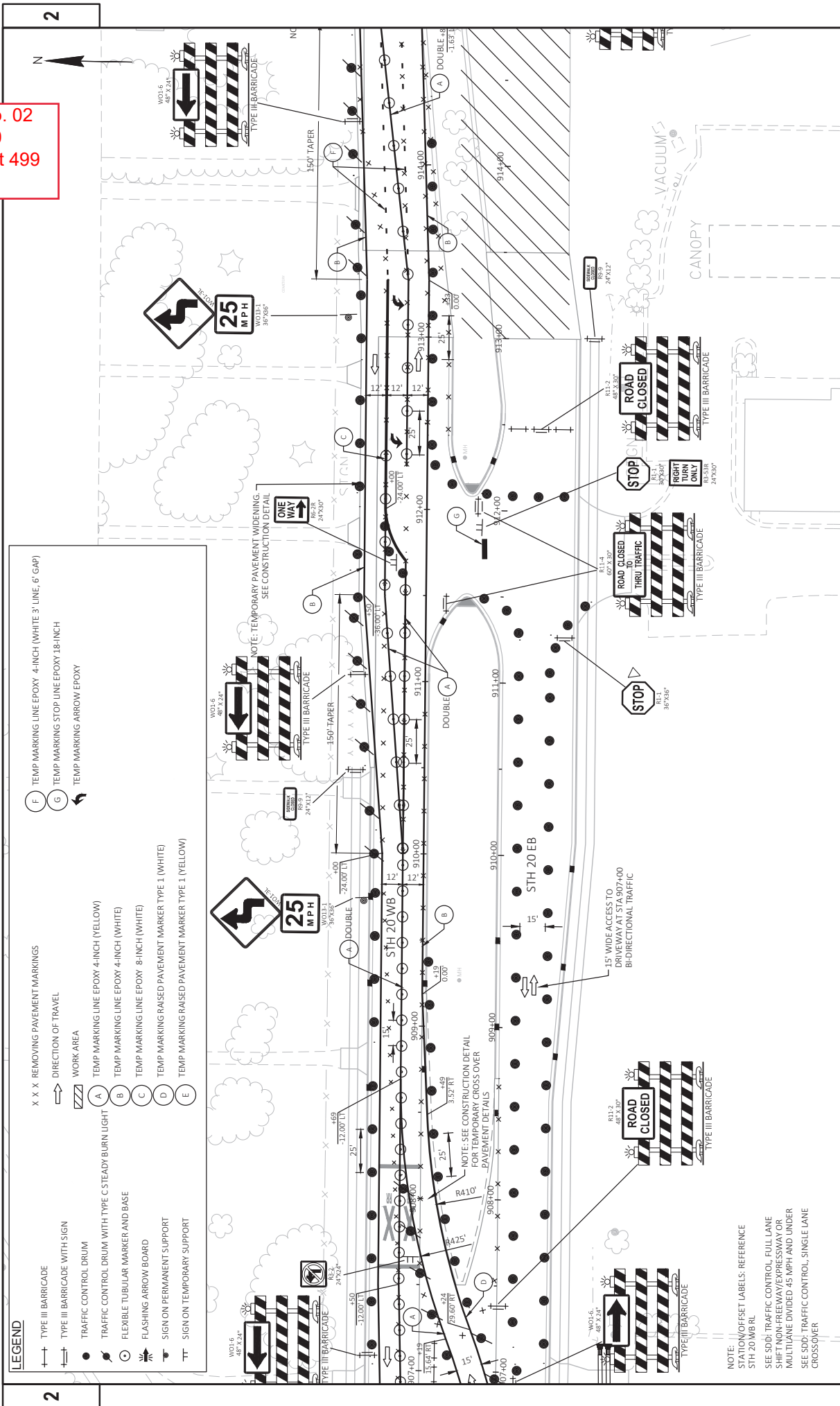
Addendum No. 02
 ID 2698-03-70
 Revised Sheet 498
 April 27, 2023



LEGEND	
+	TYPE III BARRICADE
+	TYPE III BARRICADE WITH SIGN
●	TRAFFIC CONTROL DRUM
○	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
○	FLEXIBLE TUBULAR MARKER AND BASE
○	FLASHING ARROW BOARD
○	SIGN ON PERMANENT SUPPORT
○	SIGN ON TEMPORARY SUPPORT
X X X	REMOVING PAVEMENT MARKINGS
→	DIRECTION OF TRAVEL
▨	WORK AREA
A	TEMP MARKING LINE EPOXY 4-INCH (YELLOW)
B	TEMP MARKING LINE EPOXY 4-INCH (WHITE)
C	TEMP MARKING LINE EPOXY 8-INCH (WHITE)
D	TEMP MARKING RAISED PAVEMENT MARKER TYPE 1 (WHITE)
E	TEMP MARKING RAISED PAVEMENT MARKER TYPE 1 (YELLOW)

NOTE:
 SEE SDD: TRAFFIC CONTROL SINGLE LANE
 CROSSEVER
 STATION/OFFSET LABELS, REFERENCE STH
 20 WB/RL

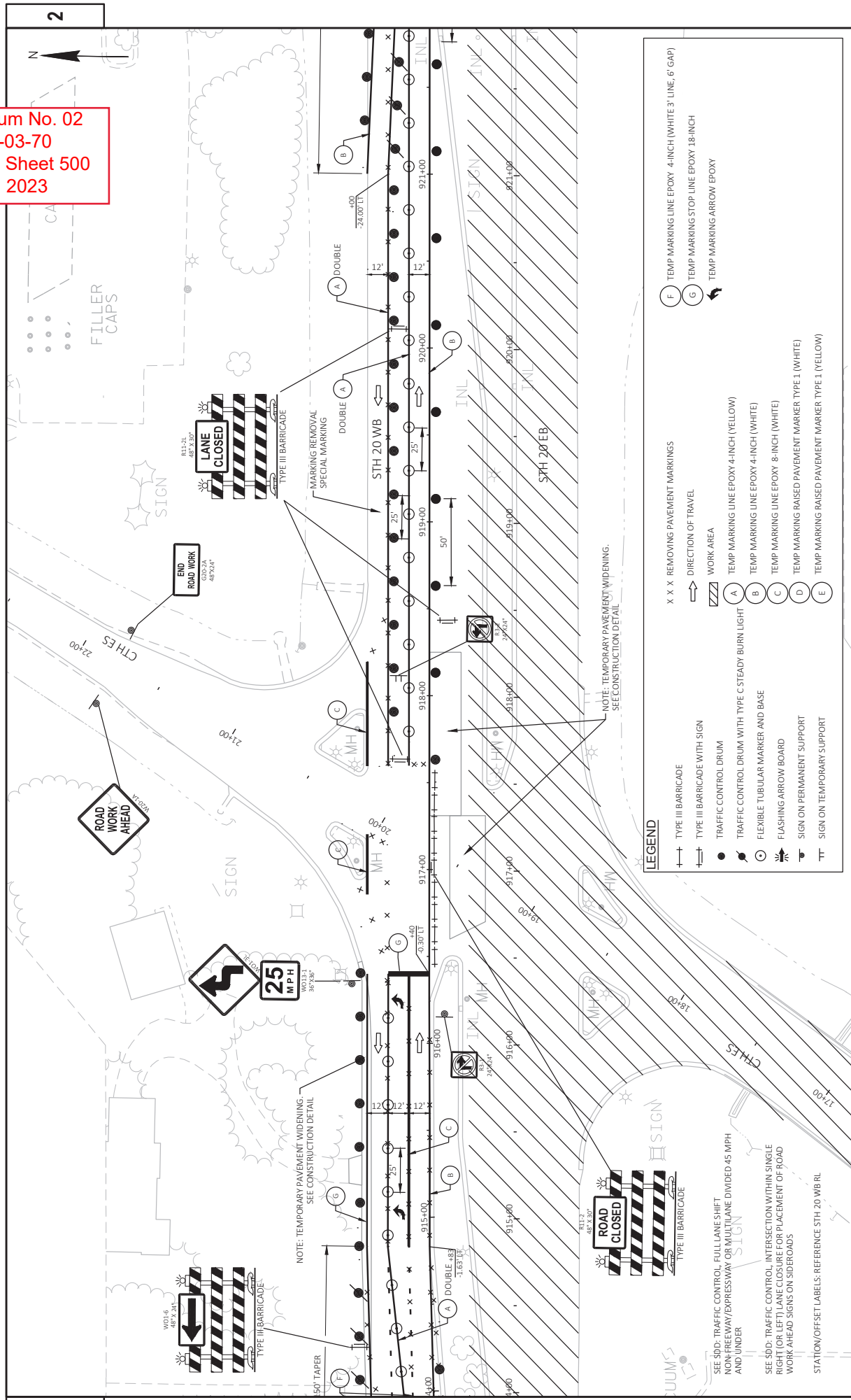
Addendum No. 02
ID 2698-03-70
Revised Sheet 499
April 27, 2023



- LEGEND**
- X X X REMOVING PAVEMENT MARKINGS
 - DIRECTION OF TRAVEL
 - ▨ WORK AREA
 - TEMP MARKING LINE EPOXY 4-INCH (YELLOW)
 - TEMP MARKING LINE EPOXY 4-INCH (WHITE)
 - TEMP MARKING LINE EPOXY 8-INCH (WHITE)
 - TEMP MARKING RAISED PAVEMENT MARKER TYPE 1 (WHITE)
 - TEMP MARKING RAISED PAVEMENT MARKER TYPE 1 (YELLOW)
 - ⊕ TYPE III BARRICADE
 - ⊕ TYPE III BARRICADE WITH SIGN
 - ⊕ TRAFFIC CONTROL DRUM
 - ⊕ TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
 - FLEXIBLE TUBULAR MARKER AND BASE
 - FLASHING ARROW BOARD
 - ⊕ SIGN ON PERMANENT SUPPORT
 - ⊕ SIGN ON TEMPORARY SUPPORT

NOTE:
 STATION/OFFSET LABELS: REFERENCE
 STH 20 WB RL
 SEE SDD: TRAFFIC CONTROL - FULL LANE
 SHIFT NON-FREEWAY/EXPRESSWAY OR
 MULTILANE DIVIDED 45 MPH AND UNDER
 SEE SDD: TRAFFIC CONTROL - SINGLE LANE
 CROSSOVER

Addendum No. 02
 ID 2698-03-70
 Revised Sheet 500
 April 27, 2023



LEGEND

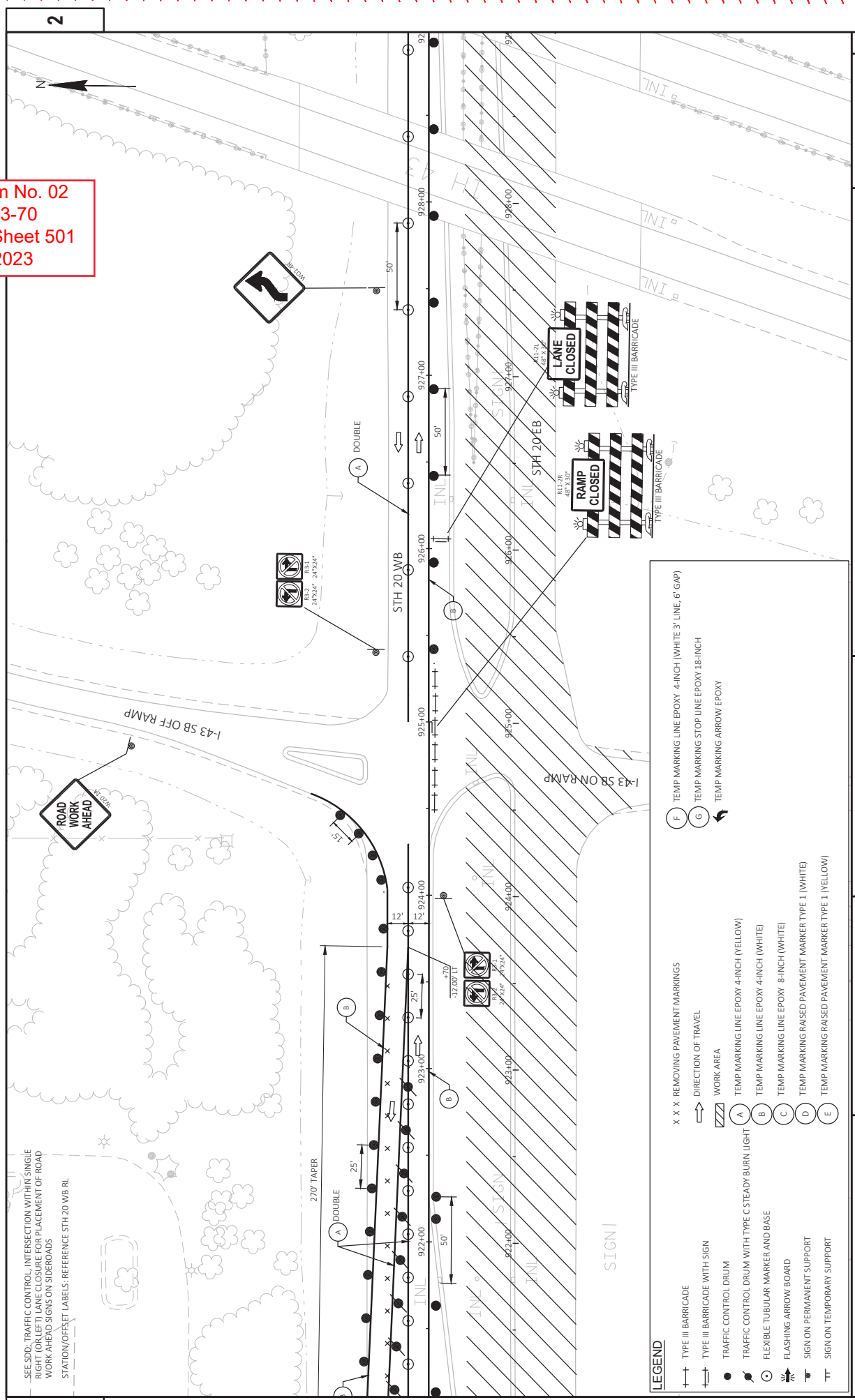
+	X X X
+	→
○	▨
○	○ A
○	○ B
○	○ C
○	○ D
○	○ E

TEMPORARY PAVEMENT MARKINGS

○ F
○ G
→

NOTE: TEMPORARY PAVEMENT WIDENING. SEE CONSTRUCTION DETAIL.

Addendum No. 02
 ID 2698-03-70
 Revised Sheet 501
 April 27, 2023

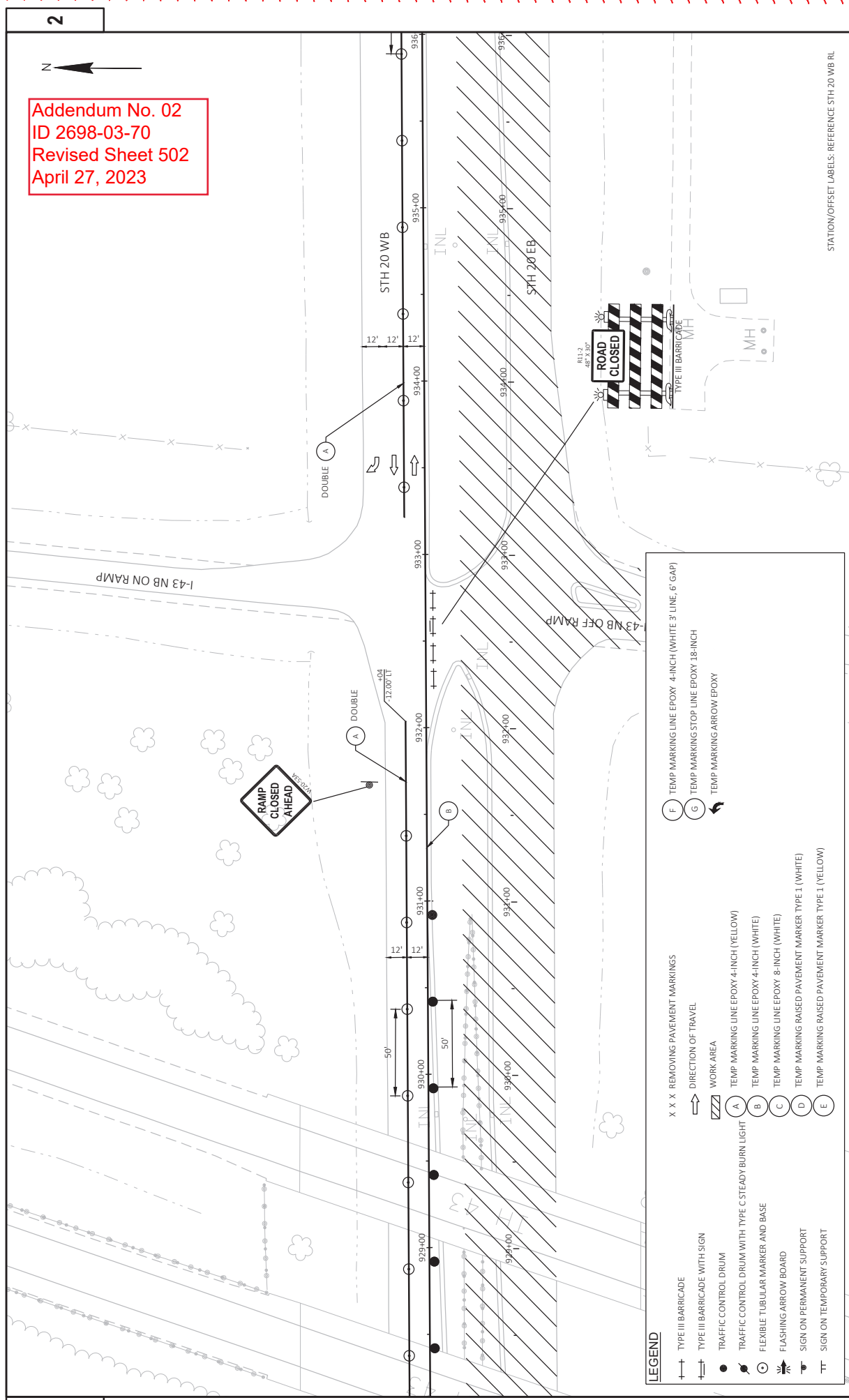


SEE SDD: TRAFFIC CONTROL INTERSECTION WITHIN SINGLE
 RIGHT-OF-WAY LANE CLOSURE FOR PLACEMENT OF ROAD
 WORK AHEAD SIGNS ON SIDEROADS
 STATION/OFFSET LABELS: REFERENCE STH 20 WB RL

LEGEND

+	TYPE III BARRICADE	X X X	REMOVING PAVEMENT MARKINGS
→	DIRECTION OF TRAVEL	↔	TEMP MARKING LINE EPOXY 4-INCH (WHITE) 3'-LINE, 6' GAP
▨	WORK AREA	↔	TEMP MARKING STOP LINE EPOXY 1.8-INCH
●	TRAFFIC CONTROL DRUM	↔	TEMP MARKING ARROW EPOXY
⊙	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	⊙	TEMP MARKING LINE EPOXY 4-INCH (YELLOW)
⊙	FLEXIBLE TUBULAR MARKER AND BASE	⊙	TEMP MARKING LINE EPOXY 4-INCH (WHITE)
⊙	FLASHING ARROW BOARD	⊙	TEMP MARKING LINE EPOXY 8-INCH (WHITE)
⊙	SIGN ON PERMANENT SUPPORT	⊙	TEMP MARKING RAISED PAVEMENT MARKER TYPE 1 (WHITE)
⊙	SIGN ON TEMPORARY SUPPORT	⊙	TEMP MARKING RAISED PAVEMENT MARKER TYPE 1 (YELLOW)

Addendum No. 02
 ID 2698-03-70
 Revised Sheet 502
 April 27, 2023

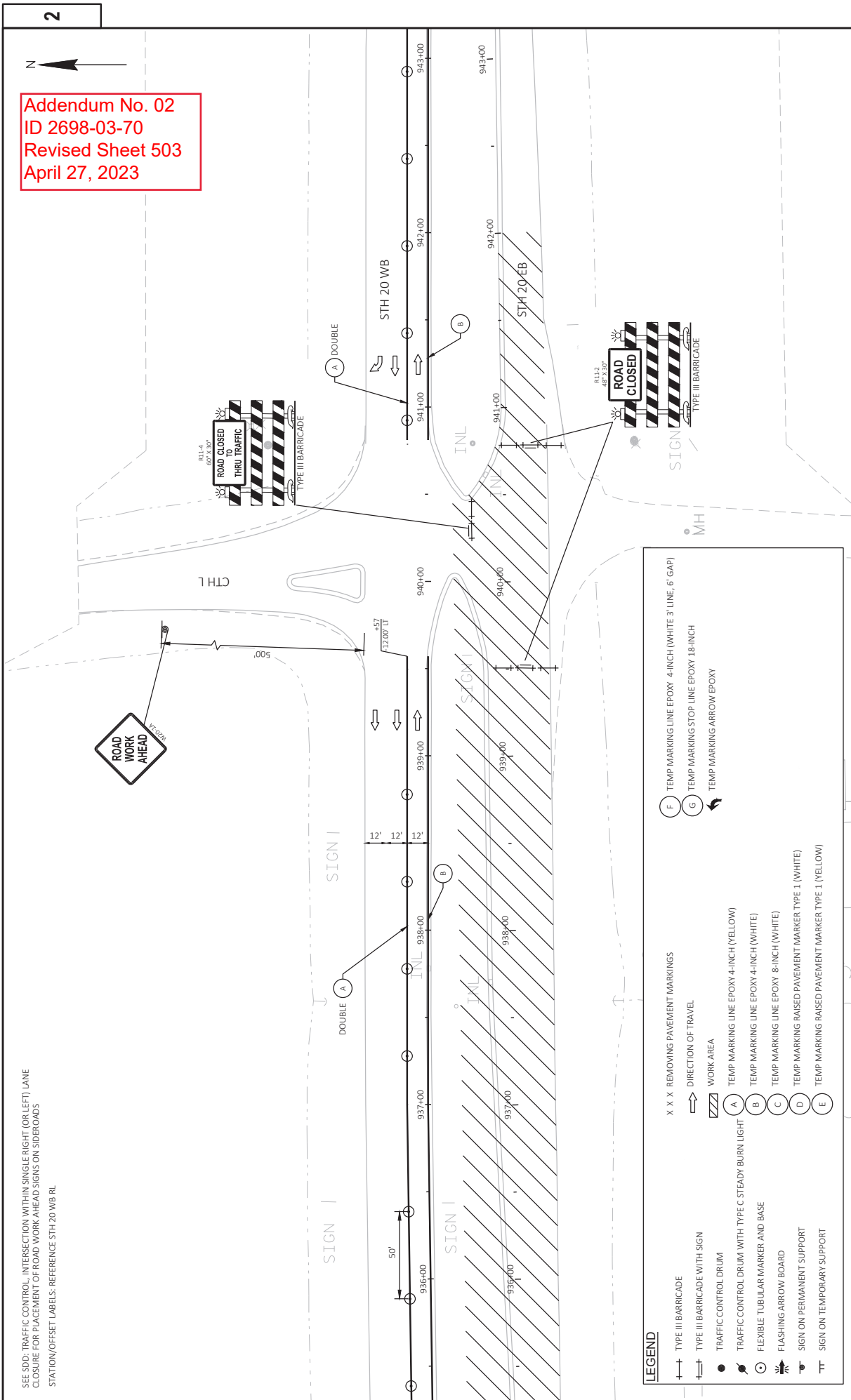


LEGEND

- TYPE III BARRICADE
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLEXIBLE TUBULAR MARKER AND BASE
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TYPE III BARRICADE WITH SIGN
- DIRECTION OF TRAVEL
- WORK AREA
- TEMP MARKING LINE EPOXY 4-INCH (YELLOW)
- TEMP MARKING LINE EPOXY 4-INCH (WHITE)
- TEMP MARKING LINE EPOXY 8-INCH (WHITE)
- TEMP MARKING RAISED PAVEMENT MARKER TYPE 1 (WHITE)
- TEMP MARKING RAISED PAVEMENT MARKER TYPE 1 (YELLOW)
- TEMP MARKING LINE EPOXY 4-INCH (WHITE) 3' LINE, 6' GAP
- TEMP MARKING STOP LINE EPOXY 18-INCH
- TEMP MARKING ARROW EPOXY

SEE SDD: TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT (OR LEFT) LANE CLOSURE FOR PLACEMENT OF ROAD WORK AHEAD SIGNS ON SIDEROADS STATION/OFFSET LABELS: REFERENCE STH 20 WB RL

Addendum No. 02
ID 2698-03-70
Revised Sheet 503
April 27, 2023



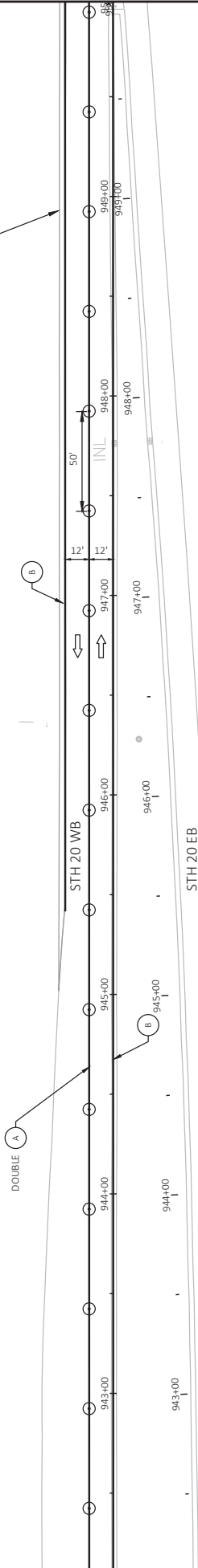
LEGEND	
+	TYPE III BARRICADE
+	TYPE II BARRICADE WITH SIGN
●	TRAFFIC CONTROL DRUM
●	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURIN LIGHT
○	FLEXIBLE TUBULAR MARKER AND BASE
⚡	FLASHING ARROW BOARD
⚡	SIGN ON PERMANENT SUPPORT
TT	SIGN ON TEMPORARY SUPPORT
X X X	REMOVING PAVEMENT MARKINGS
→	DIRECTION OF TRAVEL
▨	WORK AREA
A	TEMP MARKING LINE EPOXY 4-INCH (YELLOW)
B	TEMP MARKING LINE EPOXY 4-INCH (WHITE)
C	TEMP MARKING LINE EPOXY 8-INCH (WHITE)
D	TEMP MARKING RAISED PAVEMENT MARKER TYPE 1 (WHITE)
E	TEMP MARKING RAISED PAVEMENT MARKER TYPE 1 (YELLOW)
F	TEMP MARKING LINE EPOXY 4-INCH (WHITE 3 LINE, 6' GAP)
G	TEMP MARKING STOP LINE EPOXY 18-INCH
↔	TEMP MARKING ARROW EPOXY

Addendum No. 02
 ID 2698-03-70
 Revised Sheet 504
 April 27, 2023

2



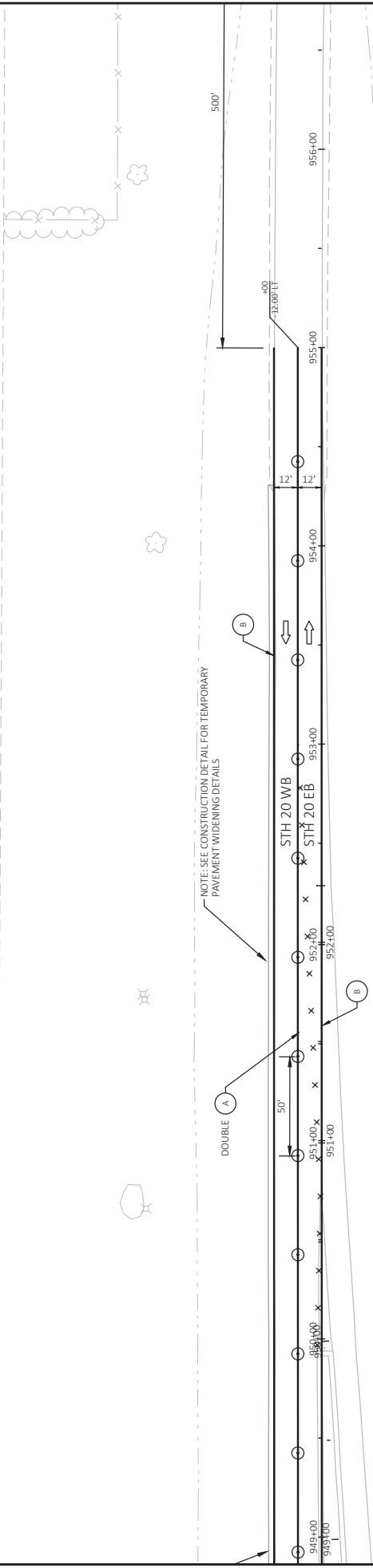
NOTE: SEE CONSTRUCTION DETAIL FOR TEMPORARY PAVEMENT WIDENING DETAILS



LEGEND

- ⊕ TYPE III BARRICADE
- ⊕ TYPE III BARRICADE WITH SIGN
- TRAFFIC CONTROL DRUM
- ⊙ TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- ⊕ FLEXIBLE TUBULAR MARKER AND BASE
- ⊕ FLASHING ARROW BOARD
- ⊕ SIGN ON PERMANENT SUPPORT
- ⊕ SIGN ON TEMPORARY SUPPORT
- X X X REMOVING PAVEMENT MARKINGS
- ➡ DIRECTION OF TRAVEL
- ▨ WORK AREA
- ⊙ TEMP MARKING LINE EPOXY 4-INCH (YELLOW)
- ⊙ TEMP MARKING LINE EPOXY 4-INCH (WHITE)
- ⊙ TEMP MARKING LINE EPOXY 8-INCH (WHITE)
- ⊙ TEMP MARKING RAISED PAVEMENT MARKER TYPE 1 (WHITE)
- ⊙ TEMP MARKING RAISED PAVEMENT MARKER TYPE 1 (YELLOW)
- ⊙ TEMP MARKING LINE EPOXY 4-INCH (WHITE 3' LINE, 6' GAP)
- ⊙ TEMP MARKING STOP LINE EPOXY 18-INCH
- ➡ TEMP MARKING ARROW EPOXY

STATION/OFFSET LABELS: REFERENCE STH 20 WB RL



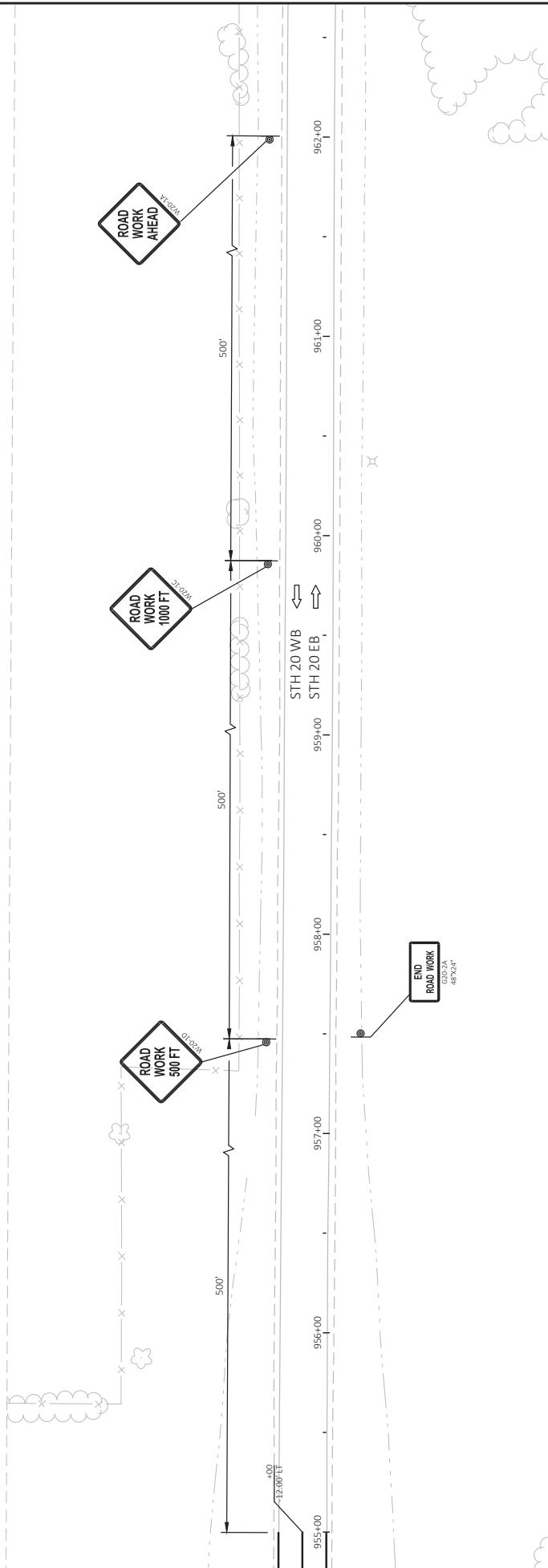
Addendum No. 02
 ID 2698-03-70
 Revised Sheet 505
 April 27, 2023

LEGEND

+	X X X	(F)
—	→	(G)
●	▨	↔
⊙	(A)	
○	(B)	
⬇	(C)	
⊕	(D)	
⊕	(E)	

STATION/OFFSET LABELS: REFERENCE STH 20 WB RL

SEE SDD; TRAFFIC CONTROL ADVANCE WARNING SIGNS 45 MPH OR GREATER UNDIVIDED ROAD OPEN TO TRAFFIC STATION/OFFSET LABELS: REFERENCE STH 20 WB RL

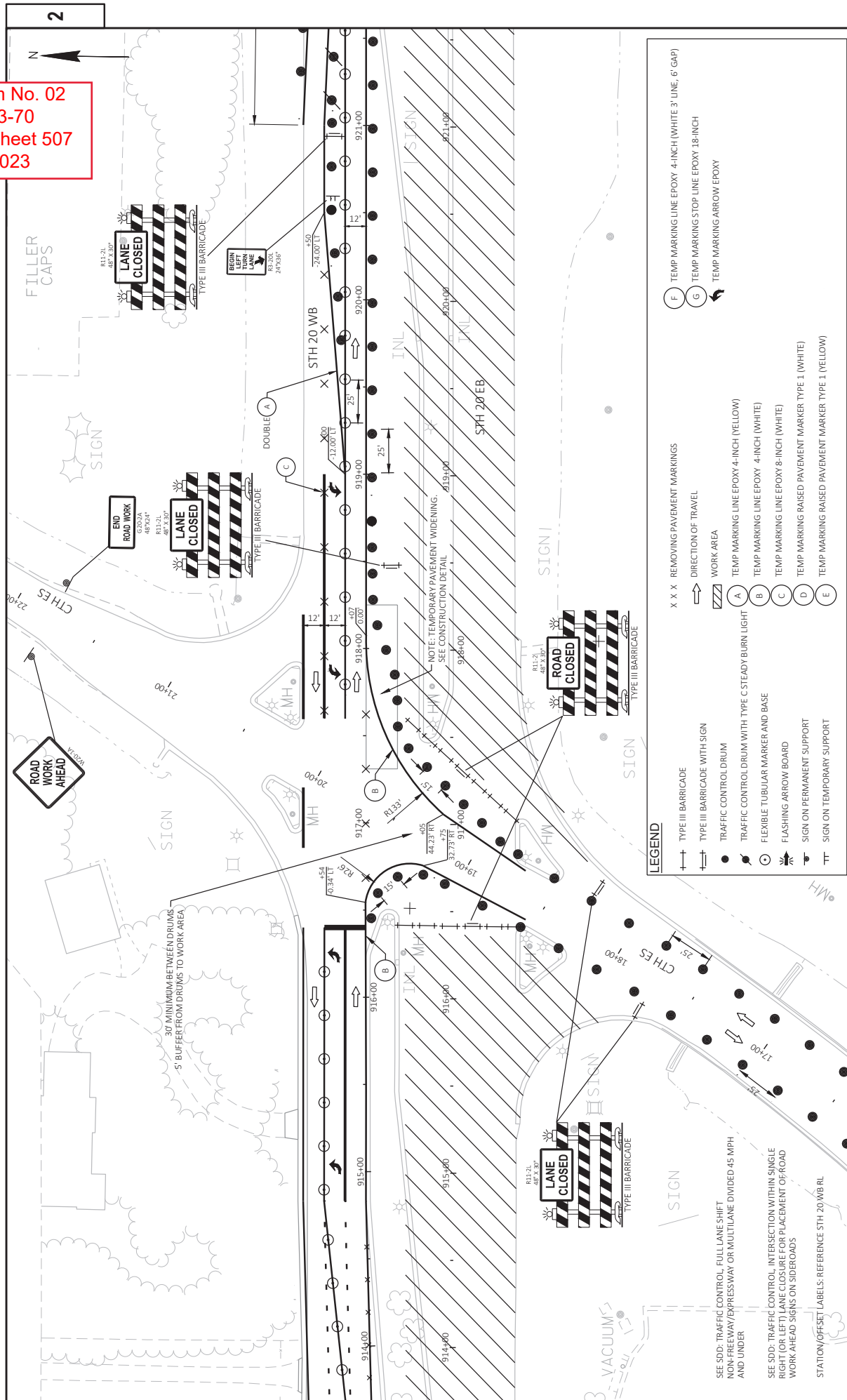


Addendum No. 02
 ID 2698-03-70
 Revised Sheet 506
 April 27, 2023

LEGEND

+	TYPE III BARRICADE	X X X	REMOVING PAVEMENT MARKINGS	F	TEMP MARKING LINE EPOXY 4-INCH (WHITE 3' LINE, 6' GAP)
+	TYPE III BARRICADE WITH SIGN	→	DIRECTION OF TRAVEL	G	TEMP MARKING STOP LINE EPOXY 18-INCH
●	TRAFFIC CONTROL DRUM	▨	WORK AREA	↖	TEMP MARKING ARROW EPOXY
⊙	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	A	TEMP MARKING LINE EPOXY 4-INCH (YELLOW)		
⊖	FLEXIBLE TUBULAR MARKER AND BASE	B	TEMP MARKING LINE EPOXY 4-INCH (WHITE)		
⊕	FLASHING ARROW BOARD	C	TEMP MARKING LINE EPOXY 8-INCH (WHITE)		
⊖	SIGN ON PERMANENT SUPPORT	D	TEMP MARKING RAISED PAVEMENT MARKER TYPE 1 (WHITE)		
⊕	SIGN ON TEMPORARY SUPPORT	E	TEMP MARKING RAISED PAVEMENT MARKER TYPE 1 (YELLOW)		

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 ID 2698-03-70
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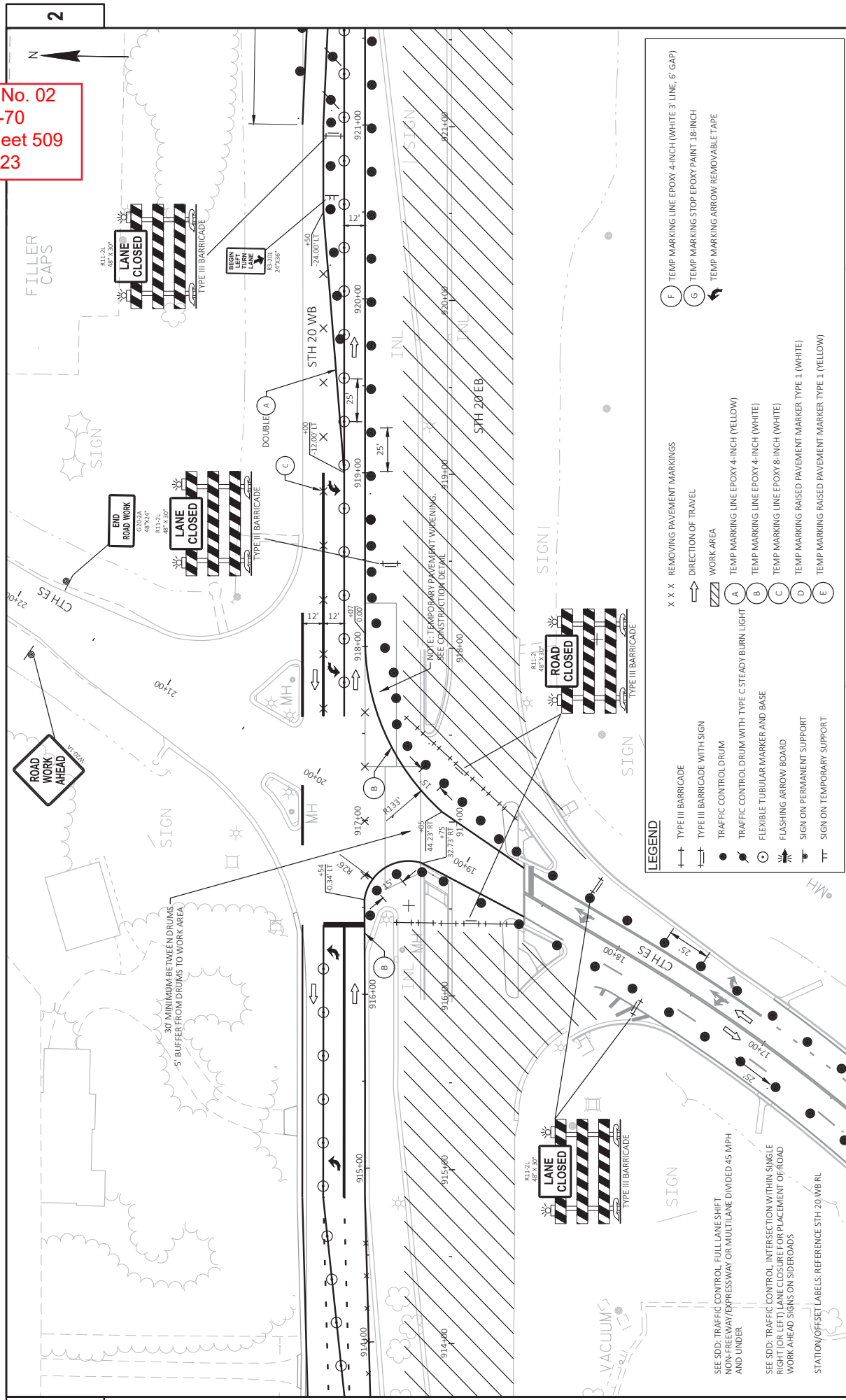
LEGEND

+	⊗
⊞	⇨
⊞	▨
⊞	⊞
⊞	⊞
⊞	⊞
⊞	⊞
⊞	⊞
	⊞
	⊞
	⊞

PROJECT NO: 2698-03-70
 COUNTY: WALWORTH & RACINE
 HWY: STH 20
 TRAFFIC CONTROL - STAGE 2 - CTH ES SOUTH LEG OPEN ON EXISTING PAVEMENT
 SHEET 507

FILE NAME: \\WERT\OFF\POL\IN\PUBLIC\PS\3D\26980300-2018\5HEET\PLAN\ETERR TEMP CONNECTION - TC STAGE 2 - ES OPEN EXISTING.DWG
 LAYOUT NAME: 006112.S2
 PLOT DATE: 4/27/2023 1:41 PM
 PLOT BY: GRENTE, JEFFREY
 PLOT NAME: 1 INS.DPT
 PLOT SCALE: 1 INS.DPT
 WISDOT/CADD/SHEET 42

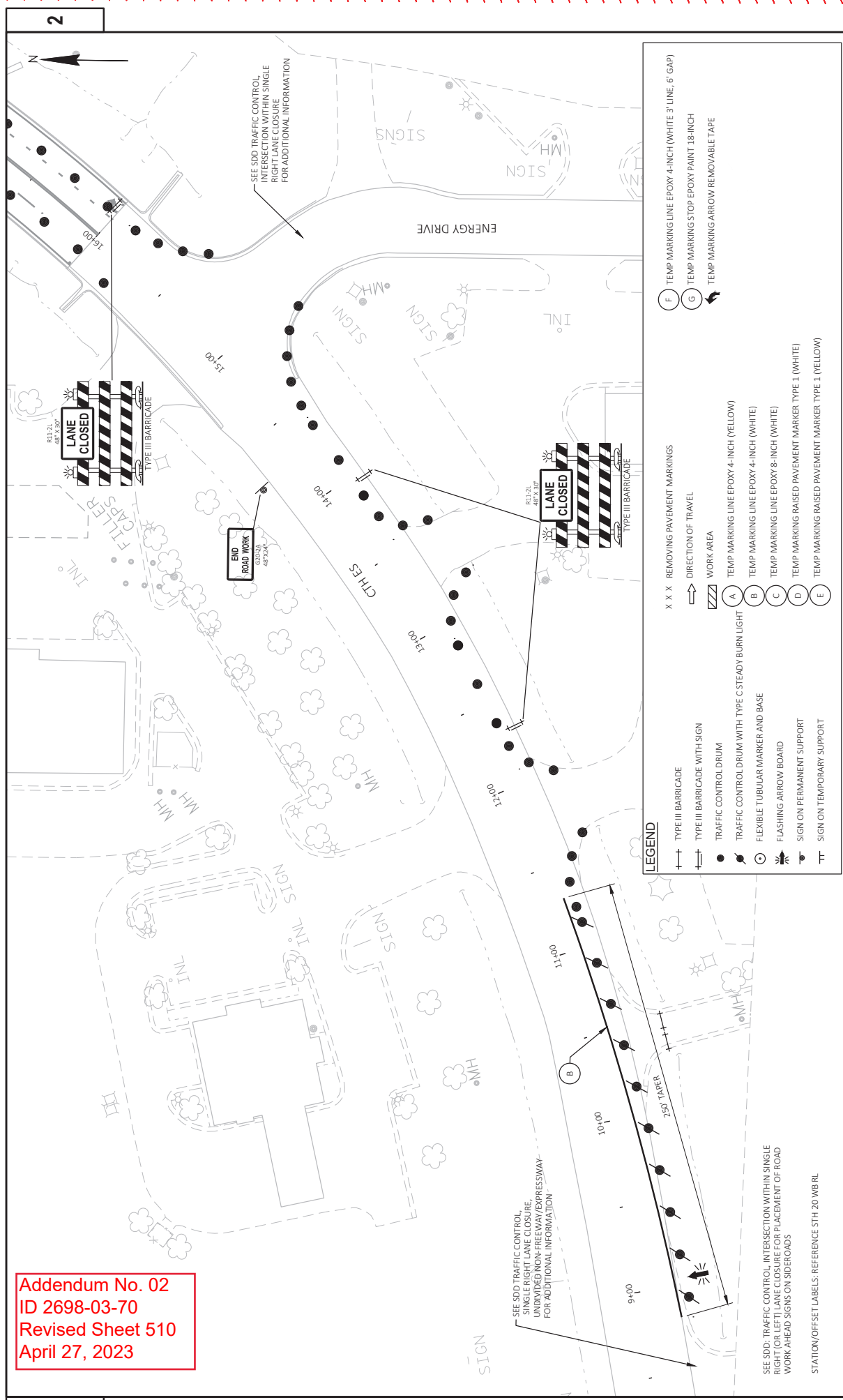
Addendum No. 02
 ID 2698-03-70
 Revised Sheet 509
 April 27, 2023



LEGEND

+	TYPE III BARRICADE	X X X	REMOVING PAVEMENT MARKINGS
+	TYPE III BARRICADE WITH SIGN	↑	DIRECTION OF TRAVEL
○	TRAFFIC CONTROL DRUM	▨	WORK AREA
○	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	A	TEMP MARKING LINE EPOXY 4-INCH (YELLOW)
○	FLEXIBLE TUBULAR MARKER AND BASE	B	TEMP MARKING LINE EPOXY 4-INCH (WHITE)
○	FLASHING ARROW BOARD	C	TEMP MARKING LINE EPOXY 8-INCH (WHITE)
○	SIGN ON PERMANENT SUPPORT	D	TEMP MARKING RAISED PAVEMENT MARKER TYPE I (WHITE)
○	SIGN ON TEMPORARY SUPPORT	E	TEMP MARKING RAISED PAVEMENT MARKER TYPE I (YELLOW)
○		F	TEMP MARKING LINE EPOXY 4-INCH (WHITE) 3 LINE, 6' GAP
○		G	TEMP MARKING STOP EPOXY PAINT 18-INCH
○			TEMP MARKING ARROW REMOVABLE TAPE

Addendum No. 02
ID 2698-03-70
Revised Sheet 510
April 27, 2023



LEGEND

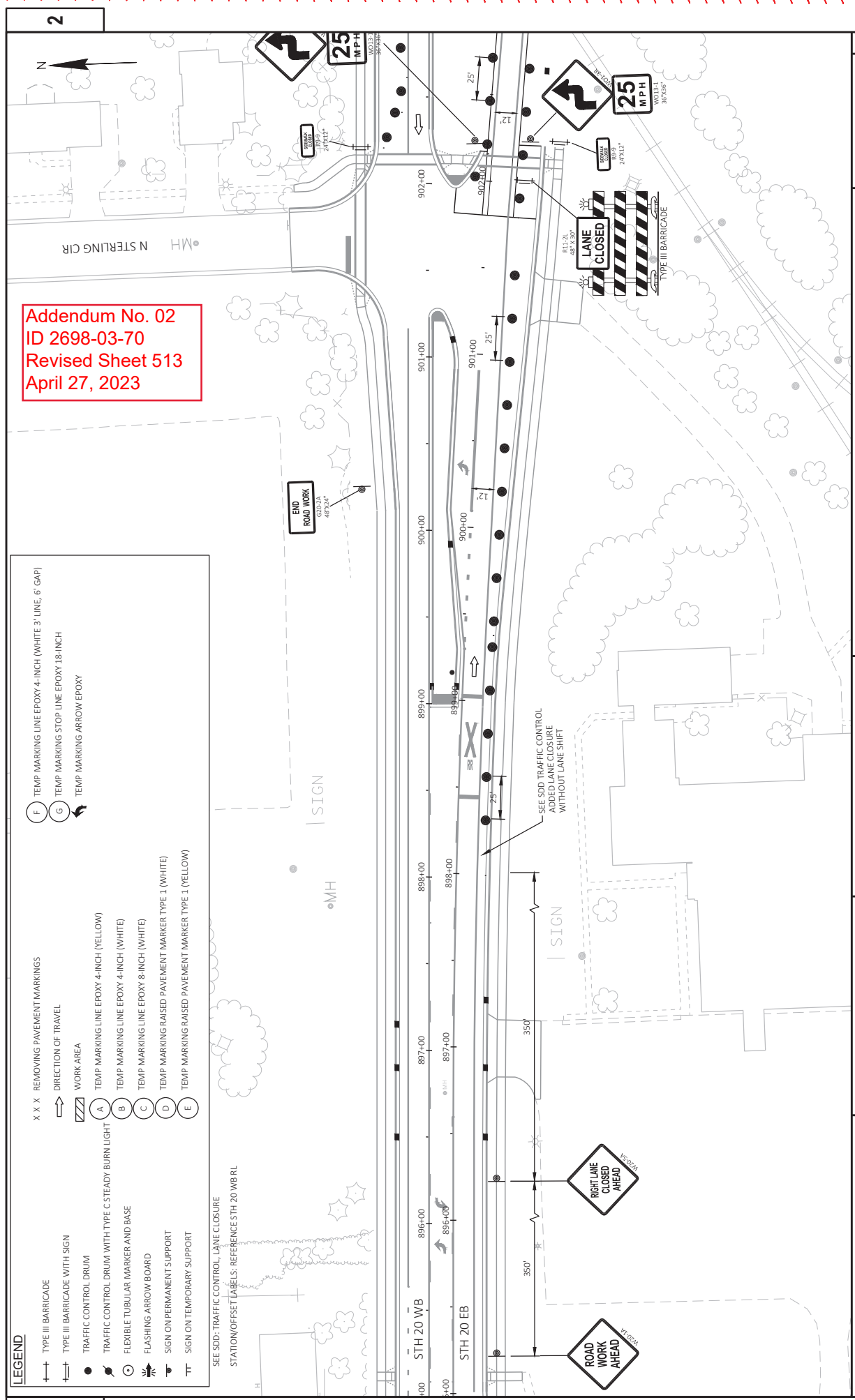
+	TYPE III BARRICADE	X X X	REMOVING PAVEMENT MARKINGS
+	TYPE III BARRICADE WITH SIGN	→	DIRECTION OF TRAVEL
○	TRAFFIC CONTROL DRUM	▨	WORK AREA
●	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	A	TEMP MARKING LINE EPOXY 4-INCH (YELLOW)
○	FLEXIBLE TUBULAR MARKER AND BASE	B	TEMP MARKING LINE EPOXY 4-INCH (WHITE)
⚡	FLASHING ARROW BOARD	C	TEMP MARKING LINE EPOXY 8-INCH (WHITE)
⚡	SIGN ON PERMANENT SUPPORT	D	TEMP MARKING RAISED PAVEMENT MARKER TYPE I (WHITE)
⚡	SIGN ON TEMPORARY SUPPORT	E	TEMP MARKING RAISED PAVEMENT MARKER TYPE I (YELLOW)
○		F	TEMP MARKING LINE EPOXY 4-INCH (WHITE) 3 LINE, 6' GAP
○		G	TEMP MARKING STOP EPOXY PAINT 18-INCH
○			TEMP MARKING ARROW REMOVABLE TAPE

SEE SDD: TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT (OR LEFT) LANE CLOSURE FOR PLACEMENT OF ROAD WORK AHEAD SIGNS ON SIDEROADS
 STATION/OFFSET LABELS: REFERENCE STH 210 WB RL

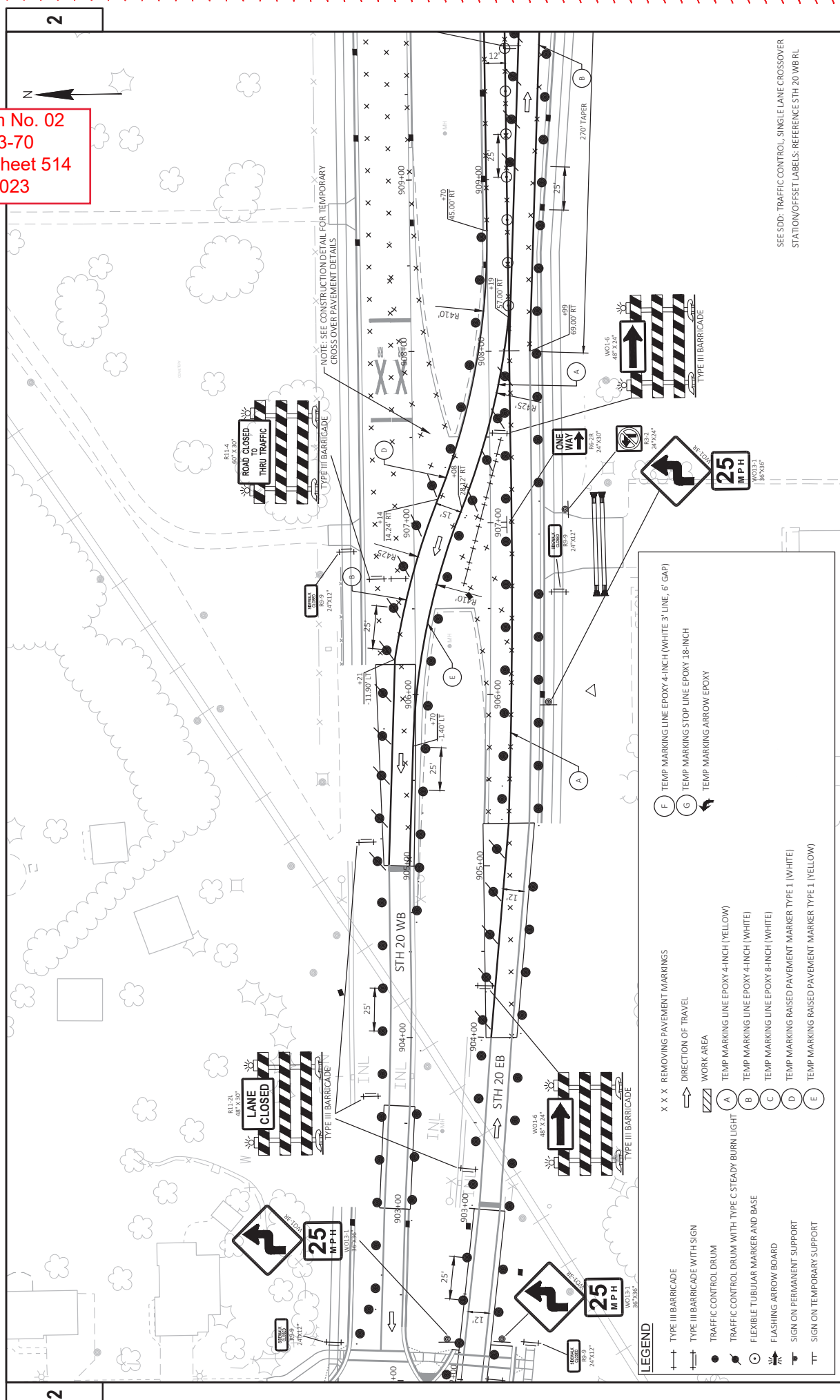
Addendum No. 02
ID 2698-03-70
Revised Sheet 513
April 27, 2023

LEGEND	
+	TYPE III BARRICADE
⇄	TYPE III BARRICADE WITH SIGN
●	TRAFFIC CONTROL DRUM
⊙	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
○	FLEXIBLE TUBULAR MARKER AND BASE
⚡	FLASHING ARROW BOARD
⊞	SIGN ON PERMANENT SUPPORT
⊞	SIGN ON TEMPORARY SUPPORT
X X X	REMOVING PAVEMENT MARKINGS
⇄	DIRECTION OF TRAVEL
▨	WORK AREA
A	TEMP MARKING LINE EPOXY 4-INCH (YELLOW)
B	TEMP MARKING LINE EPOXY 4-INCH (WHITE)
C	TEMP MARKING LINE EPOXY 8-INCH (WHITE)
D	TEMP MARKING RAISED PAVEMENT MARKER TYPE 1 (WHITE)
E	TEMP MARKING RAISED PAVEMENT MARKER TYPE 1 (YELLOW)
F	TEMP MARKING LINE EPOXY 4-INCH (WHITE 3' LINE, 6' GAP)
G	TEMP MARKING STOP LINE EPOXY 18-INCH
↘	TEMP MARKING ARROW EPOXY

SEE SDD: TRAFFIC CONTROL, LANE CLOSURE
 STATION/OFFSET LABELS: REFERENCE STH 20 WB RL



Addendum No. 02
 ID 2698-03-70
 Revised Sheet 514
 April 27, 2023



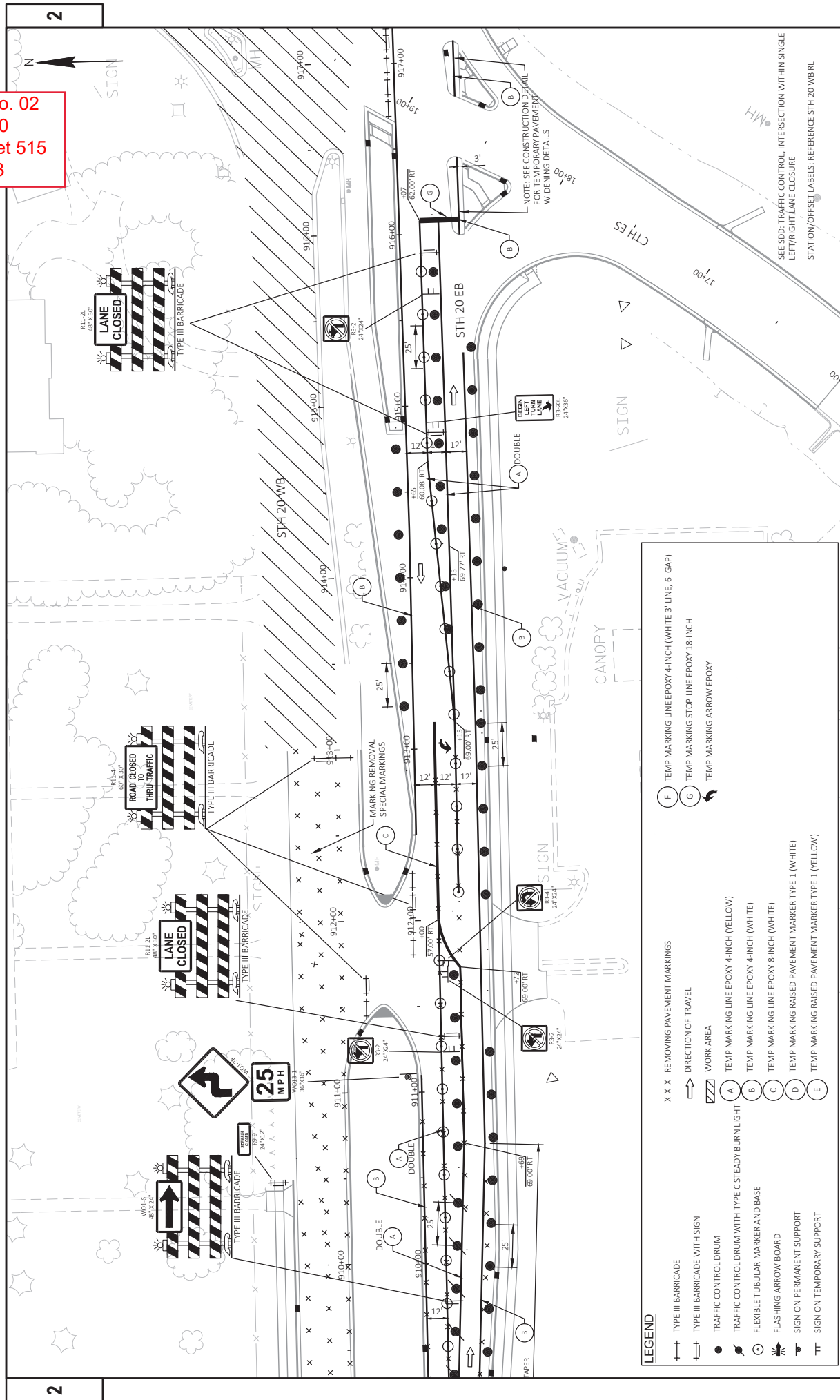
NOTE: SEE CONSTRUCTION DETAIL FOR TEMPORARY CROSS-OVER PAVEMENT DETAILS

LEGEND

+	TYPE III BARRICADE	X X X	REMOVING PAVEMENT MARKINGS
+	TYPE III BARRICADE WITH SIGN	→	DIRECTION OF TRAVEL
●	TRAFFIC CONTROL DRUM	▨	WORK AREA
●	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	A	TEMP MARKING LINE EPOXY 4-INCH (YELLOW)
○	FLEXIBLE TUBULAR MARKER AND BASE	B	TEMP MARKING LINE EPOXY 4-INCH (WHITE)
⚡	FLASHING ARROW BOARD	C	TEMP MARKING LINE EPOXY 8-INCH (WHITE)
↑	SIGN ON PERMANENT SUPPORT	D	TEMP MARKING RAISED PAVEMENT MARKER TYPE I (WHITE)
↑	SIGN ON TEMPORARY SUPPORT	E	TEMP MARKING RAISED PAVEMENT MARKER TYPE I (YELLOW)
TT		F	TEMP MARKING LINE EPOXY 4-INCH (WHITE) 3' LINE, 6' GAP
		G	TEMP MARKING STOP LINE EPOXY 18-INCH
		↩	TEMP MARKING ARROW EPOXY

SEE SDD: TRAFFIC CONTROL, SINGLE LANE CROSSOVER STATION/OFFSET LABELS. REFERENCE STH 20 WB RL

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 ID 2698-03-70
 Revised Sheet 515
 April 27, 2023



LEGEND

- ++ TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLEXIBLE TUBULAR MARKER AND BASE
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- X X X REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAVEL
- ▨ WORK AREA
- A TEMP MARKING LINE EPOXY 4-INCH (YELLOW)
- B TEMP MARKING LINE EPOXY 4-INCH (WHITE)
- C TEMP MARKING LINE EPOXY 8-INCH (WHITE)
- D TEMP MARKING RAISED PAVEMENT MARKER TYPE 1 (WHITE)
- E TEMP MARKING RAISED PAVEMENT MARKER TYPE 1 (YELLOW)
- F TEMP MARKING LINE EPOXY 4-INCH (WHITE) 3' LINE, 6' GAP
- G TEMP MARKING STOP LINE EPOXY 18-INCH
- TEMP MARKING ARROW EPOXY

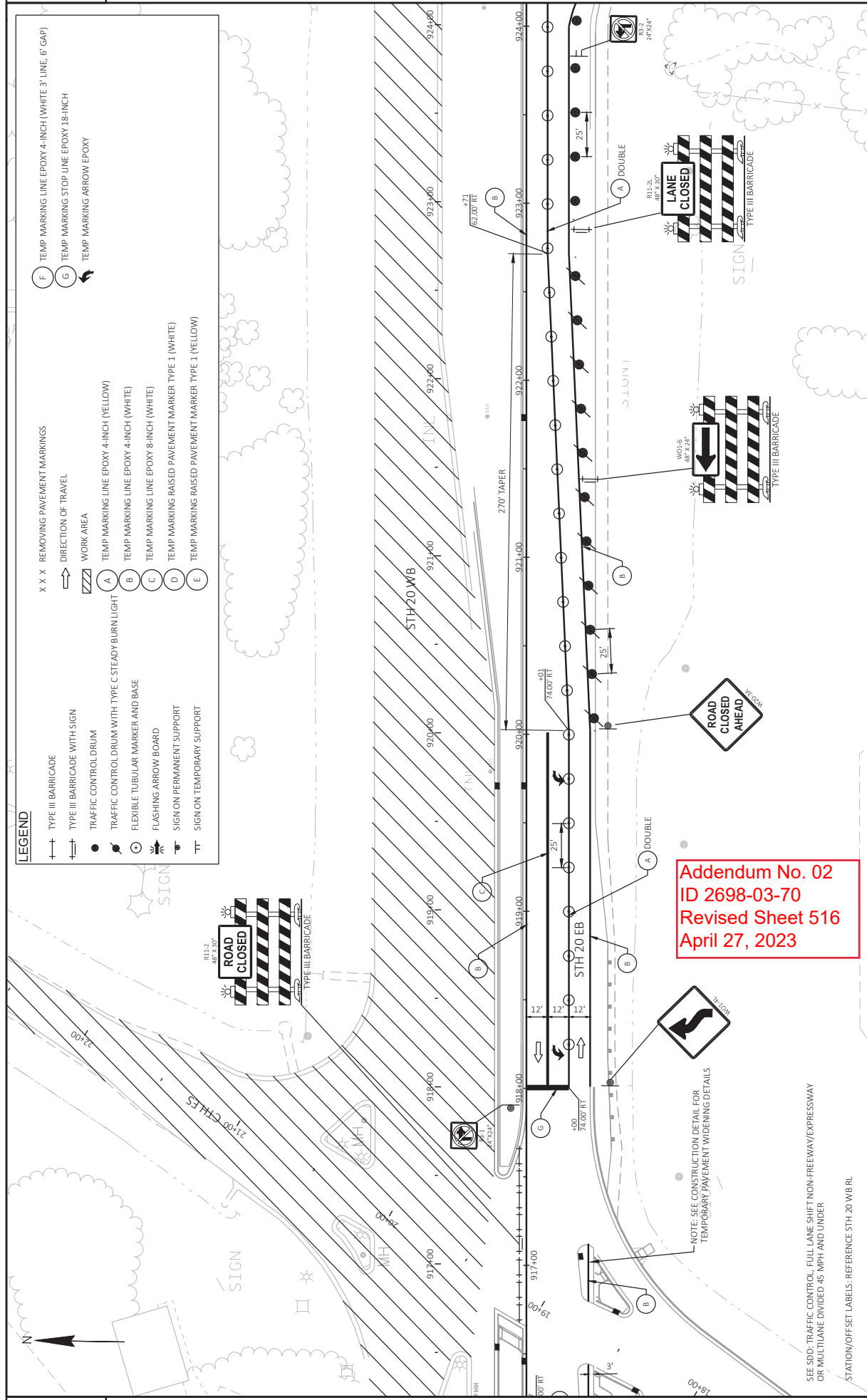
PROJECT NO: 2698-03-70
 HWY: STH 20
 COUNTY: WALWORTH / RACINE
 TRAFFIC CONTROL - STAGE 3
 SHEET 515

FILE NAME: \\WERTOVH\POL\IN\PUBLIC\PCS\3D\26980300-2018\5HEET\PLAN\ETERR TEMP CONNECTION - TC STAGE 3.DWG
 LAYOUT NAME: 065-05-53
 PLOT NAME: GUYENETTE, JEFFREY
 PLOT SCALE: 1 IN=30 FT
 PLOT DATE: 4/21/2023 12:42 PM

SEE SDD: TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT/RIGHT LANE CLOSURE STATION/OFFSET LABELS: REFERENCE STH 20 WB RL

NOTE: SEE CONSTRUCTION DETAIL FOR TEMPORARY PAVEMENT WIDENING DETAILS

- LEGEND**
- +— TYPE III BARRICADE
 - +— TYPE III BARRICADE WITH SIGN
 - TRAFFIC CONTROL DRUM
 - TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
 - FLEXIBLE TUBULAR MARKER AND BASE
 - FLASHING ARROW BOARD
 - SIGN ON PERMANENT SUPPORT
 - SIGN ON TEMPORARY SUPPORT
 - X X X REMOVING PAVEMENT MARKINGS
 - DIRECTION OF TRAVEL
 - ▨ WORK AREA
 - TEMP MARKING LINE EPOXY 4-INCH (YELLOW)
 - TEMP MARKING LINE EPOXY 4-INCH (WHITE)
 - TEMP MARKING LINE EPOXY 8-INCH (WHITE)
 - TEMP MARKING RAISED PAVEMENT MARKER TYPE I (WHITE)
 - TEMP MARKING RAISED PAVEMENT MARKER TYPE I (YELLOW)
 - F TEMP MARKING LINE EPOXY 4-INCH (WHITE) 3' LINE, 6' GAP
 - G TEMP MARKING STOP LINE EPOXY 18-INCH
 - TEMP MARKING ARROW EPOXY

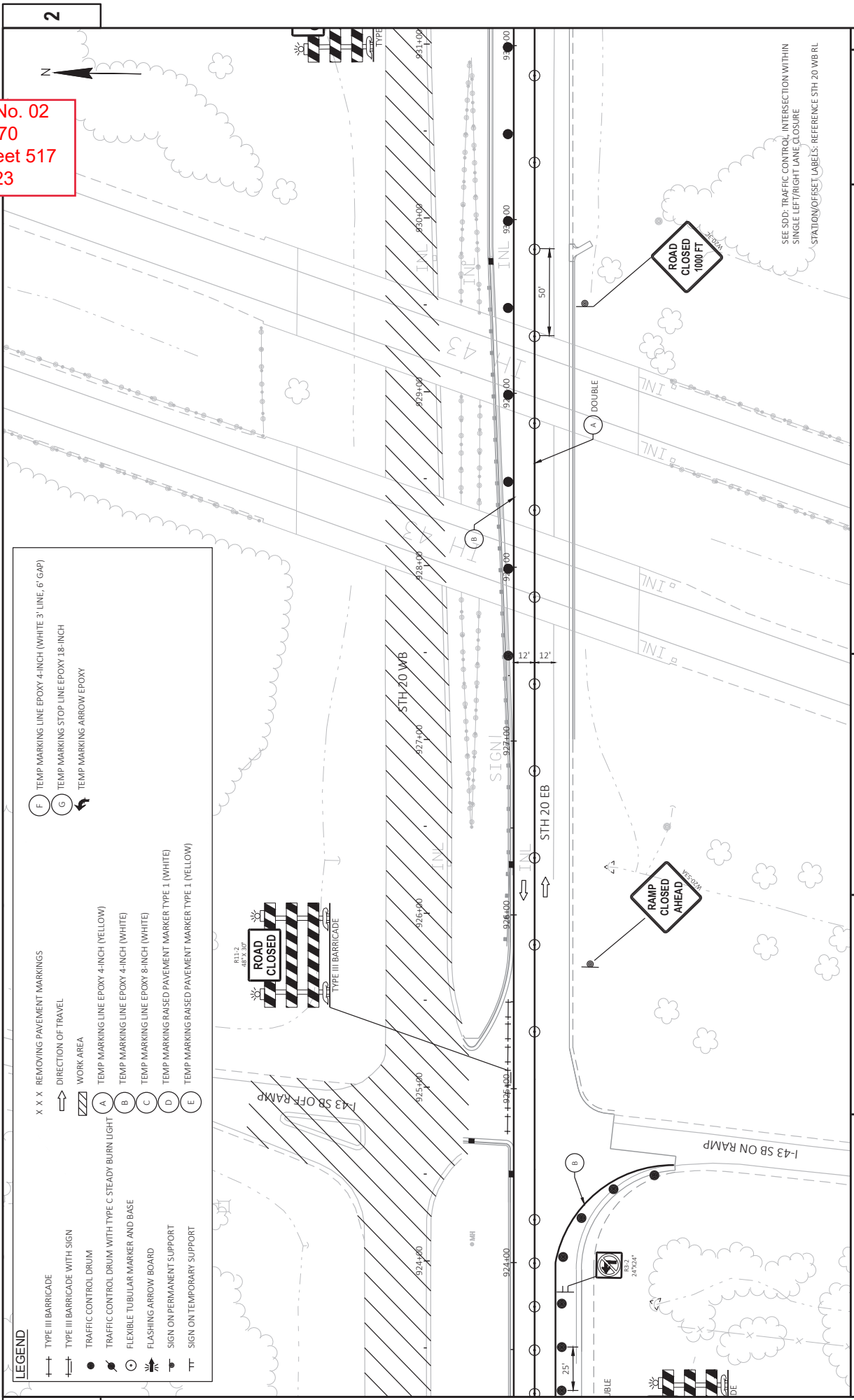


Addendum No. 02
 ID 2698-03-70
 Revised Sheet 516
 April 27, 2023

SEE SDD, TRAFFIC CONTROL, FULL LANE SHIFT NON-FREEWAY/EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER

STATION/OFFSET LABELS: REFERENCE STH 20 WB RL

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ID 2698-03-70
Revised Sheet 517
April 27, 2023



LEGEND	
+	TYPE III BARRICADE
+	TYPE II BARRICADE WITH SIGN
●	TRAFFIC CONTROL DRUM
○	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
○	FLEXIBLE TUBULAR MARKER AND BASE
○	FLASHING ARROW BOARD
○	SIGN ON PERMANENT SUPPORT
○	SIGN ON TEMPORARY SUPPORT
→	X X X REMOVING PAVEMENT MARKINGS
→	DIRECTION OF TRAVEL
▨	WORK AREA
A	TEMP MARKING LINE EPOXY 4-INCH (YELLOW)
B	TEMP MARKING LINE EPOXY 4-INCH (WHITE)
C	TEMP MARKING LINE EPOXY 8-INCH (WHITE)
D	TEMP MARKING RAISED PAVEMENT MARKER TYPE 1 (WHITE)
E	TEMP MARKING RAISED PAVEMENT MARKER TYPE 1 (YELLOW)
F	TEMP MARKING LINE EPOXY 4-INCH (WHITE 3' LINE, 6' GAP)
G	TEMP MARKING STOP LINE EPOXY 18-INCH
↔	TEMP MARKING ARROW EPOXY

PROJECT NO: 2698-03-70
 FILE NAME: \\WVERT07HP\PIV\PIV\PUBLIC\PS\3D\26980300-2018\5HEET\PLAN\ETERR TEMP CONNECTION - TC STAGE 3.DWG
 LAYOUT NAME: 065207-53

HWY: STH 20
 COUNTY: WALWORTH / RACINE
 TRAFFIC CONTROL - STAGE 3
 PLOT BY: GUENETTE, JEFFREY
 PLOT NAME:

DATE: 4/27/2023 12:43 PM
 PLOT DATE:

SCALE: 1"=50.0 FT
 PLOT SCALE:

SHEET 517
 E

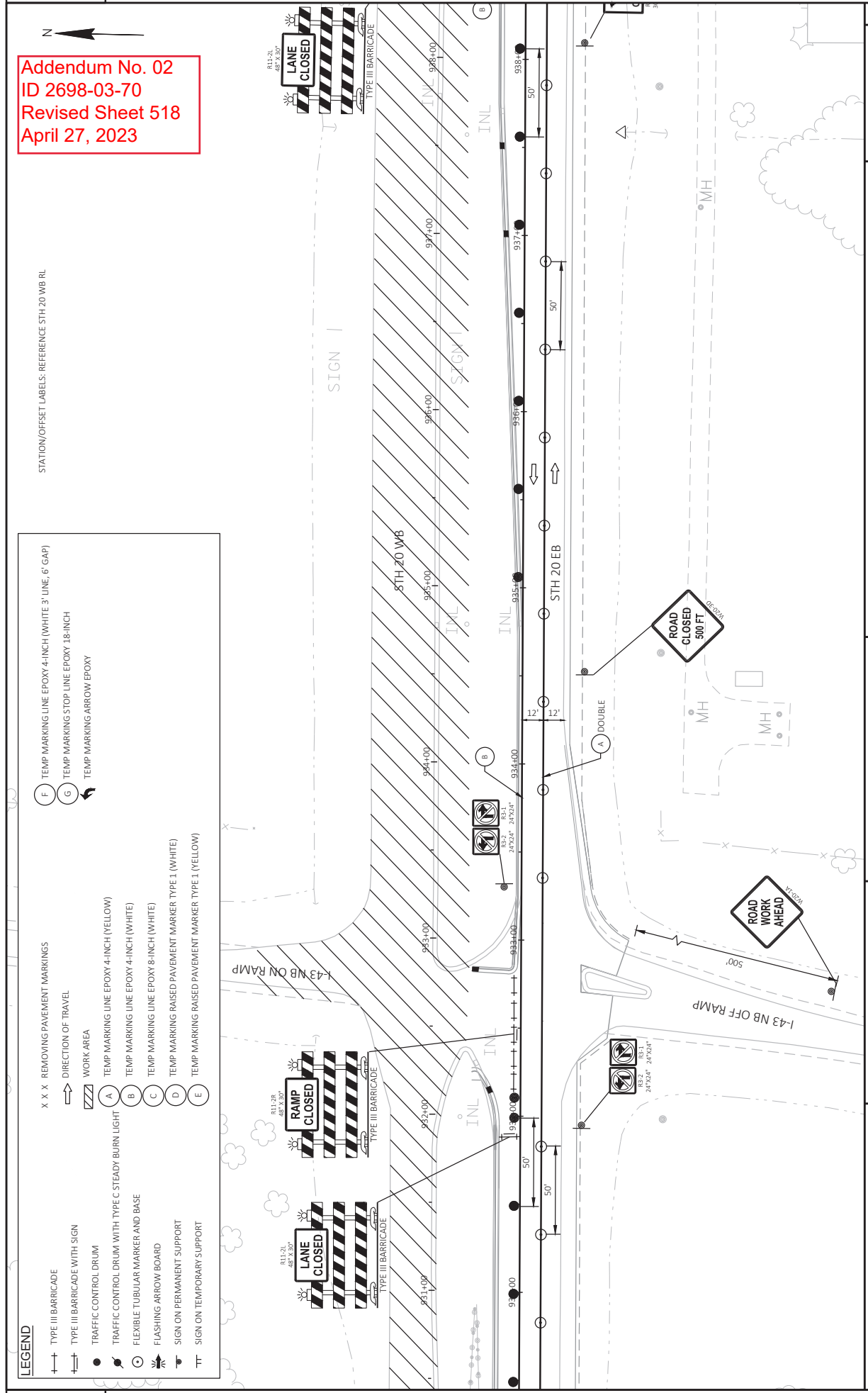
WISDOT/CADD SHEET 42

Addendum No. 02
ID 2698-03-70
Revised Sheet 518
April 27, 2023

STATION/OFFSET LABELS: REFERENCE STH 20 WB RL

- LEGEND**
- TYPE III BARRICADE
 - TYPE III BARRICADE WITH SIGN
 - TRAFFIC CONTROL DRUM
 - TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
 - FLEXIBLE TUBULAR MARKER AND BASE
 - FLASHING ARROW BOARD
 - SIGN ON PERMANENT SUPPORT
 - SIGN ON TEMPORARY SUPPORT
 - X X X REMOVING PAVEMENT MARKINGS
 - DIRECTION OF TRAVEL
 - WORK AREA
 - TEMP MARKING LINE EPOXY 4-INCH (YELLOW)
 - TEMP MARKING LINE EPOXY 4-INCH (WHITE)
 - TEMP MARKING LINE EPOXY 8-INCH (WHITE)
 - TEMP MARKING RAISED PAVEMENT MARKER TYPE 1 (WHITE)
 - TEMP MARKING RAISED PAVEMENT MARKER TYPE 1 (YELLOW)
 - TEMP MARKING LINE EPOXY 4-INCH (WHITE 3' LINE, 6' GAP)
 - TEMP MARKING STOP LINE EPOXY 1.8-INCH
 - TEMP MARKING ARROW EPOXY

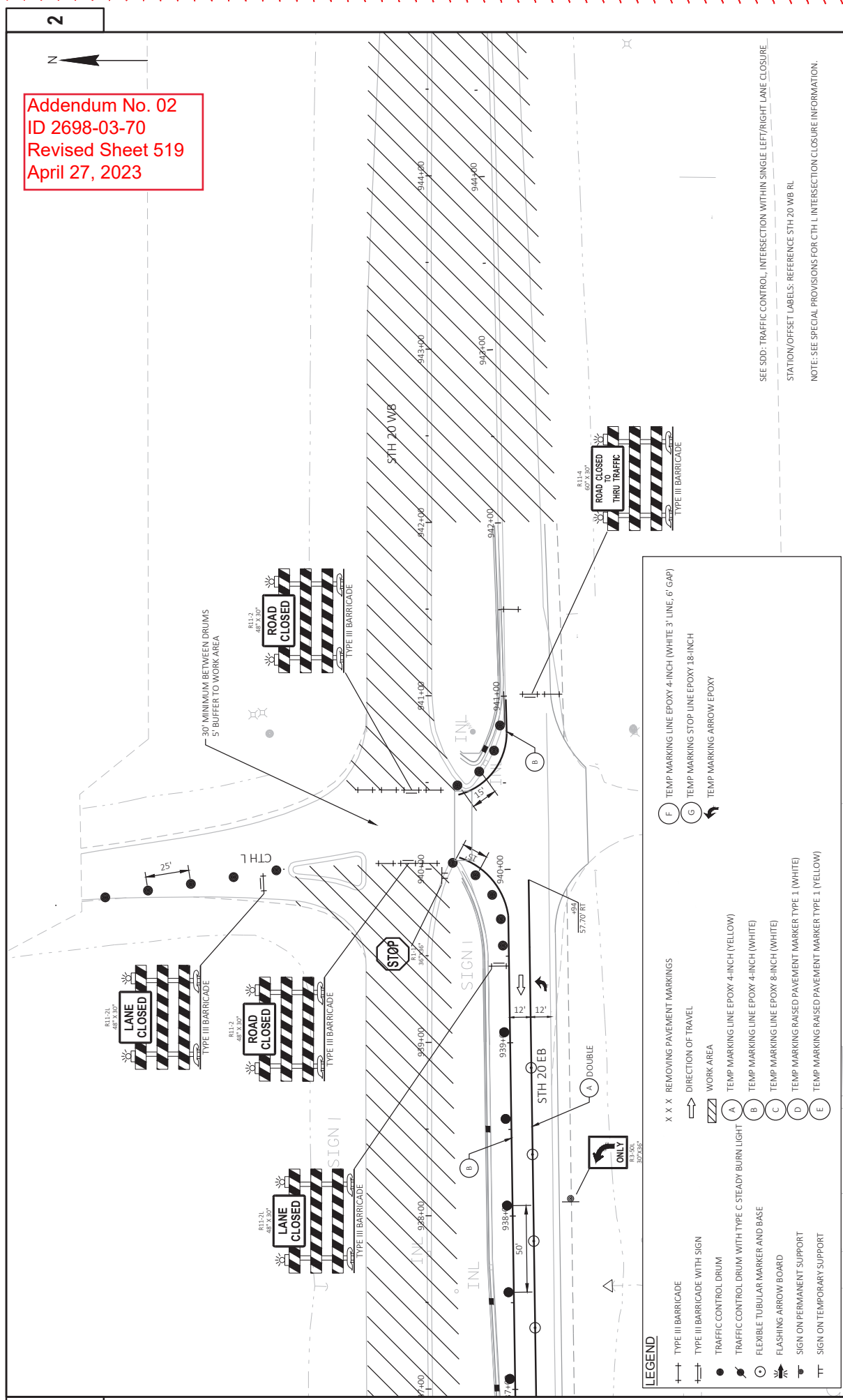
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PROJECT NO: 2698-03-70	COUNTY: WALWORTH / RACINE	TRAFFIC CONTROL - STAGE 3	SHEET 518
<small>FILE NAME: \\WERTOW\PI\PUB\KCP\PS\CD\26980300-2018\518\SHEETPLAN\ETERR TEMP CONNECTION - TC STAGE 3.DWG LAYOUT NAME: 026208.53</small>	<small>DATE: 4/27/2023 12:43 PM</small>	<small>PLOT BY: GUYENETTE, JEFFREY</small>	<small>PLOT NAME: 1 IN=50 FT</small>
HWY: STH 20			

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 ID 2698-03-70
 Revised Sheet 519
 April 27, 2023

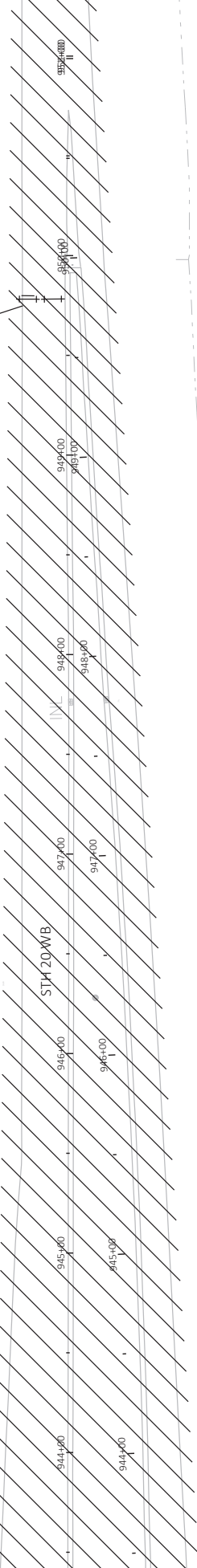
2



LEGEND

- TYPE III BARRICADE
- TYPE II BARRICADE WITH SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLEXIBLE TUBULAR MARKER AND BASE
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- X X X REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAVEL
- WORK AREA
- TEMP MARKING LINE EPOXY 4-INCH (YELLOW)
- TEMP MARKING LINE EPOXY 4-INCH (WHITE)
- TEMP MARKING LINE EPOXY 8-INCH (WHITE)
- TEMP MARKING RAISED PAVEMENT MARKER TYPE I (WHITE)
- TEMP MARKING RAISED PAVEMENT MARKER TYPE I (YELLOW)
- F TEMP MARKING LINE EPOXY 4-INCH (WHITE 3' LINE, 6' GAP)
- G TEMP MARKING STOP LINE EPOXY 18-INCH
- TEMP MARKING ARROW EPOXY

SEE SDD: TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT/RIGHT LANE CLOSURE
 STATION/OFFSET LABELS: REFERENCE STH 20 WB RL
 NOTE: SEE SPECIAL PROVISIONS FOR CTH-L INTERSECTION CLOSURE INFORMATION.

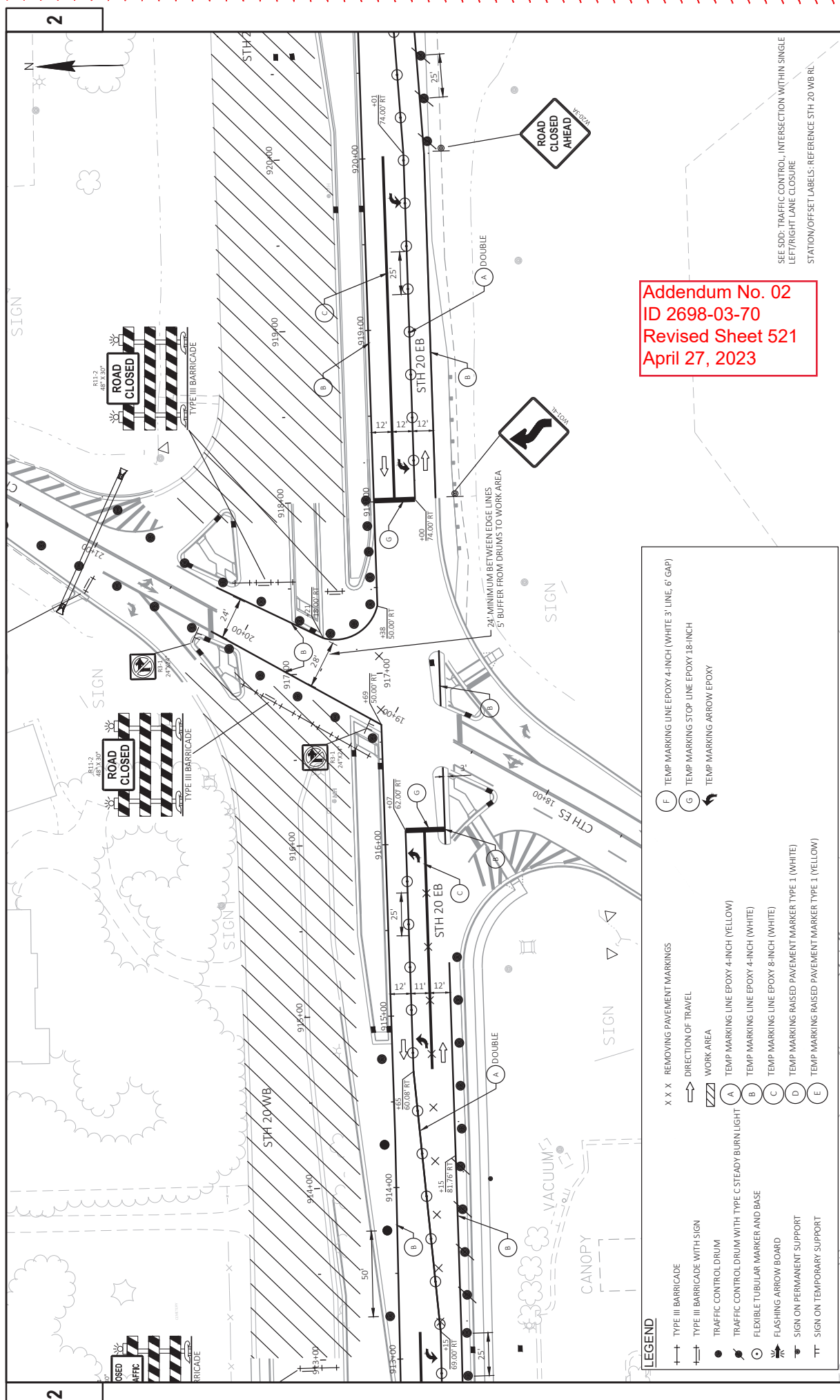


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 ID 2698-03-70
 Revised Sheet 520
 April 27, 2023

LEGEND

+	TYPE III BARRICADE	X X X	REMOVING PAVEMENT MARKINGS	F	TEMP MARKING LINE EPOXY 4-INCH (WHITE) 3' LINE, 6' GAP
+	TYPE III BARRICADE WITH SIGN	→	DIRECTION OF TRAVEL	G	TEMP MARKING STOP LINE EPOXY 18-INCH
●	TRAFFIC CONTROL DRUM	ZZZ	WORK AREA		TEMP MARKING ARROW EPOXY
○	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	A	TEMP MARKING LINE EPOXY 4-INCH (YELLOW)		
○	FLEXIBLE TUBULAR MARKER AND BASE	B	TEMP MARKING LINE EPOXY 4-INCH (WHITE)		
○	FLASHING ARROW BOARD	C	TEMP MARKING LINE EPOXY 8-INCH (WHITE)		
○	SIGN ON PERMANENT SUPPORT	D	TEMP MARKING RAISED PAVEMENT MARKER TYPE 1 (WHITE)		
○	SIGN ON TEMPORARY SUPPORT	E	TEMP MARKING RAISED PAVEMENT MARKER TYPE 1 (YELLOW)		

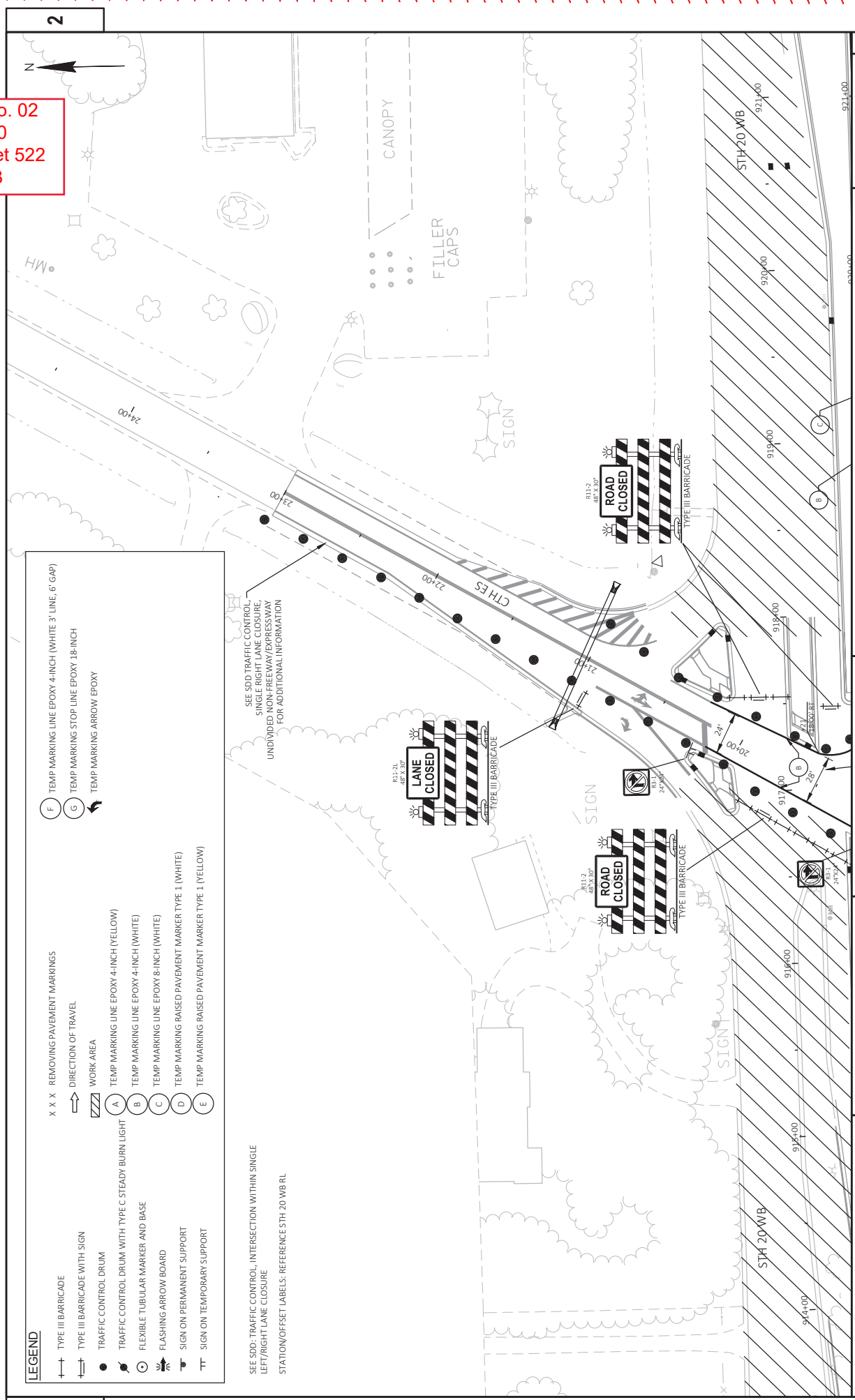
STATION/OFFSET LABELS: REFERENCE STH 20 WB RL



Addendum No. 02
 ID 2698-03-70
 Revised Sheet 521
 April 27, 2023

LEGEND	
+	TYPE III BARRICADE
X X X	REMOVING PAVEMENT MARKINGS
→	DIRECTION OF TRAVEL
▨	WORK AREA
A	TEMP MARKING LINE EPOXY 4-INCH (YELLOW)
B	TEMP MARKING LINE EPOXY 4-INCH (WHITE)
C	TEMP MARKING LINE EPOXY 8-INCH (WHITE)
D	TEMP MARKING RAISED PAVEMENT MARKER TYPE 1 (WHITE)
E	TEMP MARKING RAISED PAVEMENT MARKER TYPE 1 (YELLOW)
●	TRAFFIC CONTROL DRUM
○	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
○	FLEXIBLE TUBULAR MARKER AND BASE
→	FLASHING ARROW BOARD
⊥	SIGN ON PERMANENT SUPPORT
⊥	SIGN ON TEMPORARY SUPPORT
F	TEMP MARKING LINE EPOXY 4-INCH (WHITE) 3' LINE, 6' GAP
G	TEMP MARKING STOP LINE EPOXY 18-INCH
↔	TEMP MARKING ARROW EPOXY

Addendum No. 02
 ID 2698-03-70
 Revised Sheet 522
 April 27, 2023

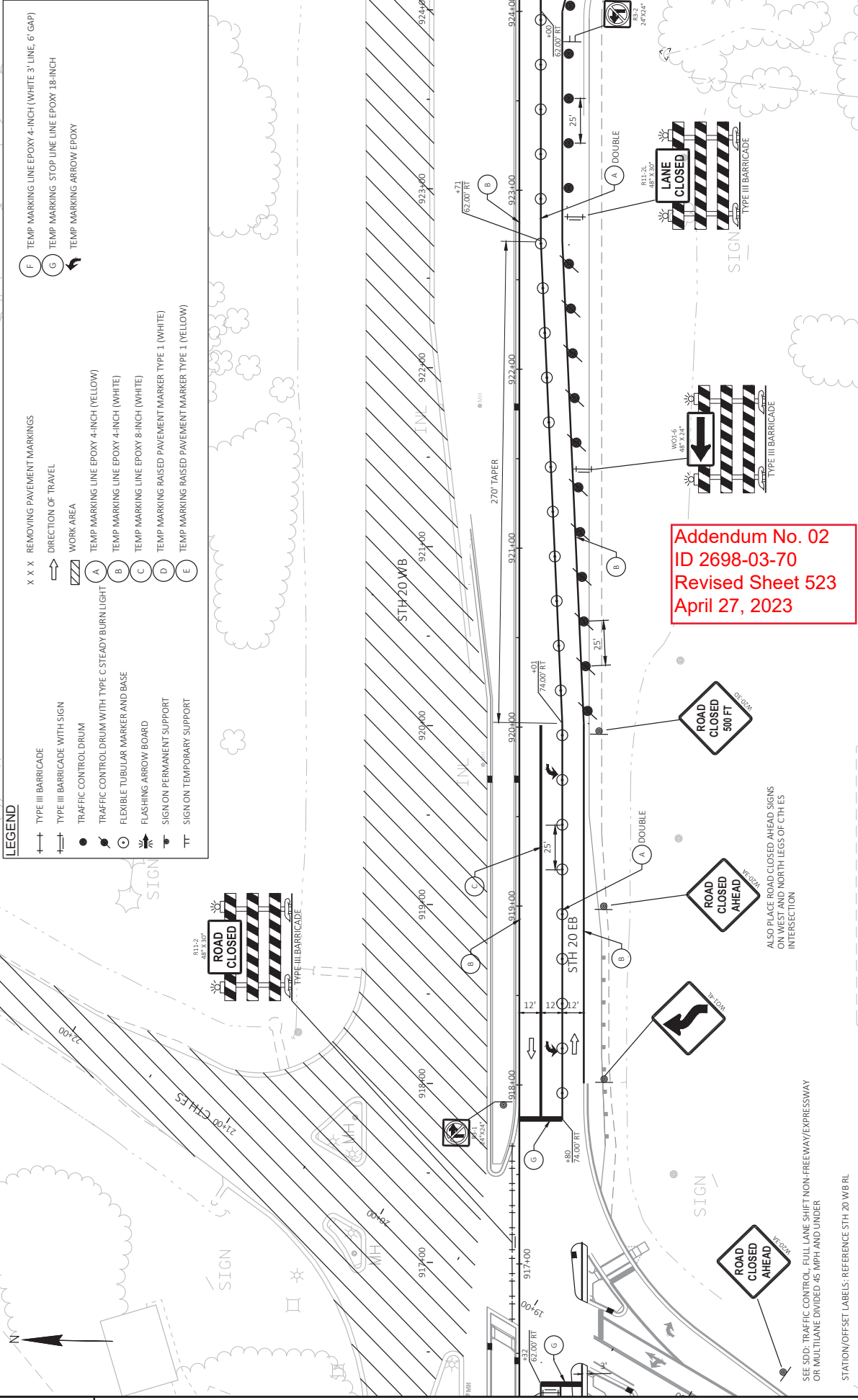


LEGEND	
	TYPE III BARRICADE
	TRAFFIC CONTROL DRUM
	FLEXIBLE TUBULAR MARKER AND BASE
	FLASHING ARROW BOARD
	SIGN ON PERMANENT SUPPORT
	SIGN ON TEMPORARY SUPPORT
	REMOVING PAVEMENT MARKINGS
	DIRECTION OF TRAVEL
	WORK AREA
	TEMP MARKING LINE EPOXY 4-INCH (YELLOW)
	TEMP MARKING LINE EPOXY 4-INCH (WHITE)
	TEMP MARKING LINE EPOXY 8-INCH (WHITE)
	TEMP MARKING RAISED PAVEMENT MARKER TYPE 1 (WHITE)
	TEMP MARKING RAISED PAVEMENT MARKER TYPE 1 (YELLOW)
	TEMP MARKING LINE EPOXY 4-INCH (WHITE 3" LINE, 6" GAP)
	TEMP MARKING STOP LINE EPOXY 18-INCH
	TEMP MARKING ARROW EPOXY

SEE SDD - TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT/RIGHT LANE CLOSURE
 STATION/OFFSET LABELS: REFERENCE STH 20 WB RL

SEE SDD TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY FOR ADDITIONAL INFORMATION

PROJECT NO: 2698-03-70
 COUNTY: WALWORTH & RACINE
 HWY: STH 20
 TRAFFIC CONTROL - STAGE 3 - CTH ES NORTH LEG OPEN
 SHEET 522
 FILE NAME: \\WERT\OFF\POL\IN\PUBLIC\PCS\30\26980300-2018\522\PLAN\TEMP\TEMP CONNECTION - TC STAGE 3 IS OPEN PROPOSED.DWG
 LAYOUT NAME: 082122-53
 PLOT DATE: 4/27/2023 2:20 PM
 PLOT BY: GURENTE, JEFFREY
 PLOT NAME:
 PLOT SCALE: 1 IN=50 FT
 WISDOT/CADDIS SHEET 42



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLEXIBLE TUBULAR MARKER AND BASE
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAVEL
- WORK AREA
- TEMP MARKING LINE EPOXY 4-INCH (YELLOW)
- TEMP MARKING LINE EPOXY 4-INCH (WHITE)
- TEMP MARKING LINE EPOXY 8-INCH (WHITE)
- TEMP MARKING RAISED PAVEMENT MARKER TYPE I (WHITE)
- TEMP MARKING RAISED PAVEMENT MARKER TYPE I (YELLOW)
- TEMP MARKING LINE EPOXY 4-INCH (WHITE 3' LINE, 6' GAP)
- TEMP MARKING STOP LINE LINE EPOXY 18-INCH
- TEMP MARKING ARROW EPOXY

Addendum No. 02
 ID 2698-03-70
 Revised Sheet 523
 April 27, 2023

ALSO PLACE ROAD CLOSED AHEAD SIGNS ON WEST AND NORTH LEGS OF CTH ES INTERSECTION

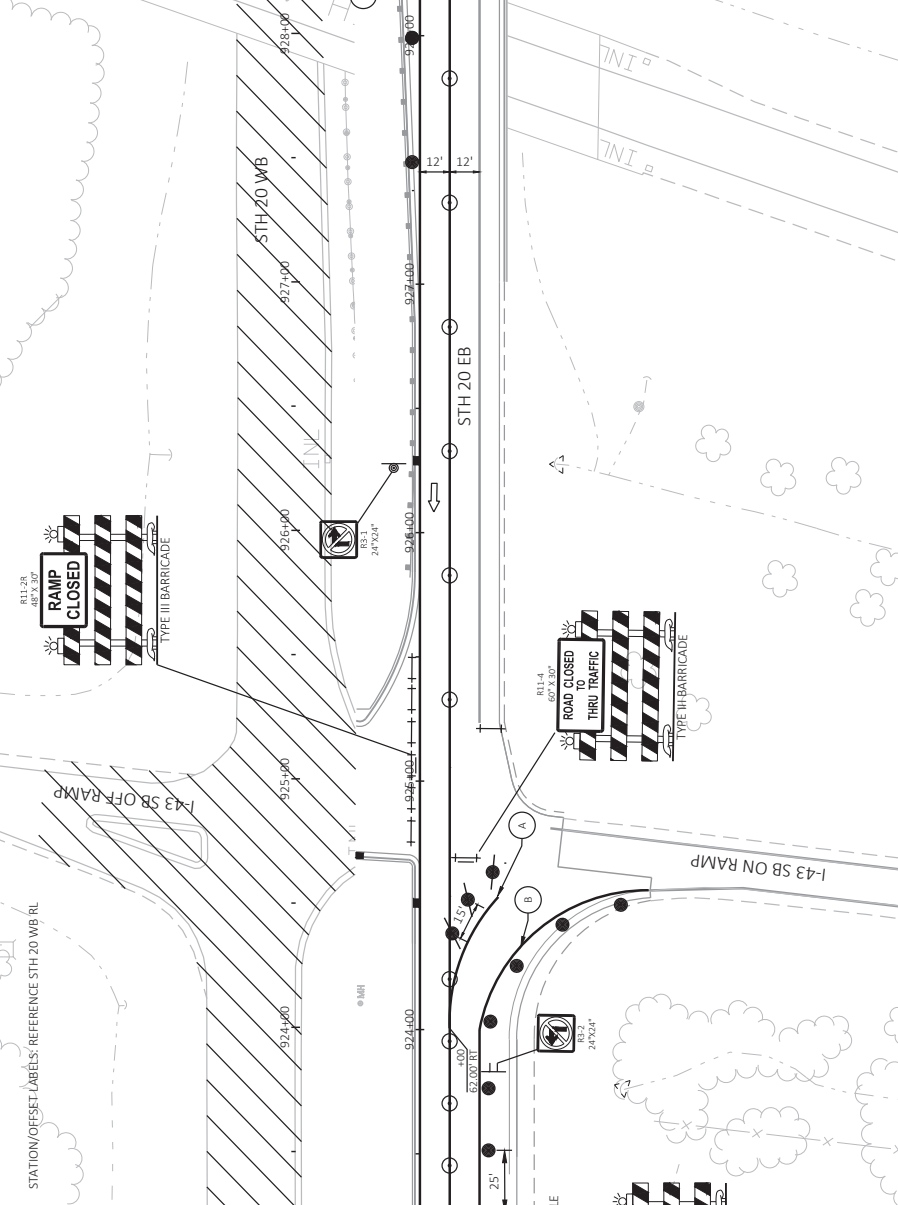
SEE SDD, TRAFFIC CONTROL, FULL LANE SHIFT NON-FREEWAY/EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER

STATION/OFFSET LABELS: REFERENCE STH 20 WB RL

LEGEND

+	TYPE III BARRICADE	X X X	REMOVING PAVEMENT MARKINGS
+	TYPE II BARRICADE WITH SIGN	→	DIRECTION OF TRAVEL
●	TRAFFIC CONTROL DRUM	▨	WORK AREA
○	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	A	TEMP MARKING LINE EPOXY 4-INCH (YELLOW)
○	FLEXIBLE TUBULAR MARKER AND BASE	B	TEMP MARKING LINE EPOXY 4-INCH (WHITE)
⚡	FLASHING ARROW BOARD	C	TEMP MARKING LINE EPOXY 8-INCH (WHITE)
⚡	SIGN ON PERMANENT SUPPORT	D	TEMP MARKING RAISED PAVEMENT MARKER TYPE 1 (WHITE)
TT	SIGN ON TEMPORARY SUPPORT	E	TEMP MARKING RAISED PAVEMENT MARKER TYPE 1 (YELLOW)

STATION/OFFSET LABELS: REFERENCE STH 20 WB RL

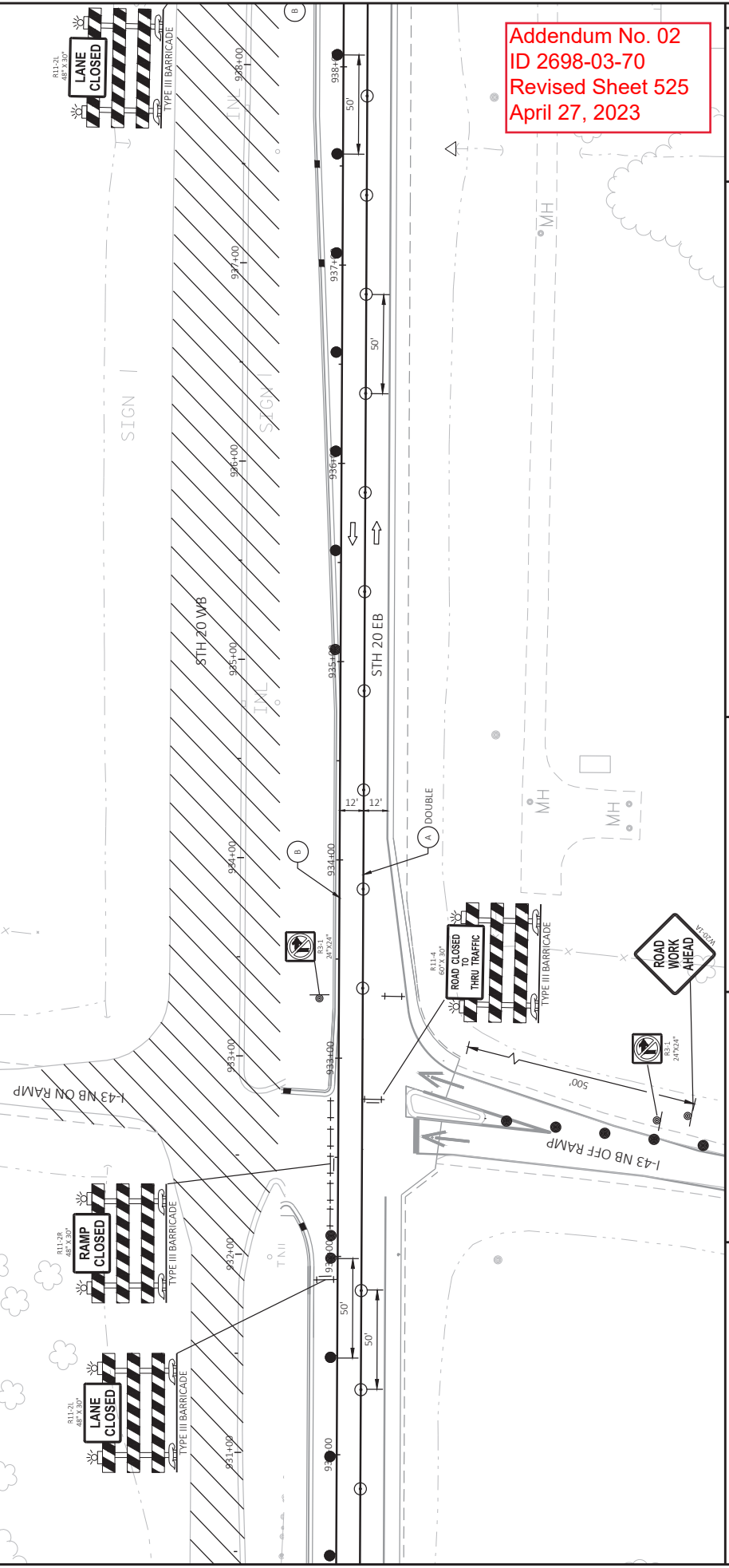


Addendum No. 02
 ID 2698-03-70
 Revised Sheet 524
 April 27, 2023



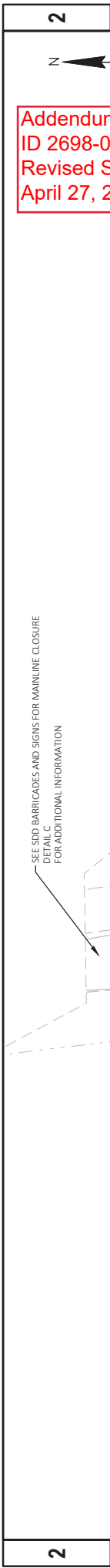
STATION/OFFSET LABELS: REFERENCE STH 20 WB RL

- LEGEND**
- TYPE III BARRICADE
 - TRAFFIC CONTROL DRUM
 - TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
 - FLEXIBLE TUBULAR MARKER AND BASE
 - FLASHING ARROW BOARD
 - SIGN ON PERMANENT SUPPORT
 - SIGN ON TEMPORARY SUPPORT
 - X X X REMOVING PAVEMENT MARKINGS
 - DIRECTION OF TRAVEL
 - WORK AREA
 - TEMP MARKING LINE EPOXY 4-INCH (YELLOW)
 - TEMP MARKING LINE EPOXY 4-INCH (WHITE)
 - TEMP MARKING LINE EPOXY 8-INCH (WHITE)
 - TEMP MARKING RAISED PAVEMENT MARKER TYPE 1 (WHITE)
 - TEMP MARKING RAISED PAVEMENT MARKER TYPE 1 (YELLOW)
 - TEMP MARKING LINE EPOXY 4-INCH (WHITE 3" LINE, 6" GAP)
 - TEMP MARKING STOP LINE LINE EPOXY 18-INCH
 - TEMP MARKING ARROW EPOXY



Addendum No. 02
ID 2698-03-70
Revised Sheet 525
April 27, 2023

Addendum No. 02
 ID 2698-03-70
 Revised Sheet 526
 April 27, 2023



SEE SDD BARRICADES AND SIGNS FOR MAINLINE CLOSURE
 DETAIL C
 FOR ADDITIONAL INFORMATION

CTH L

STH 20 WB

STH 20 EB

DOUBLE

57.70' R/L

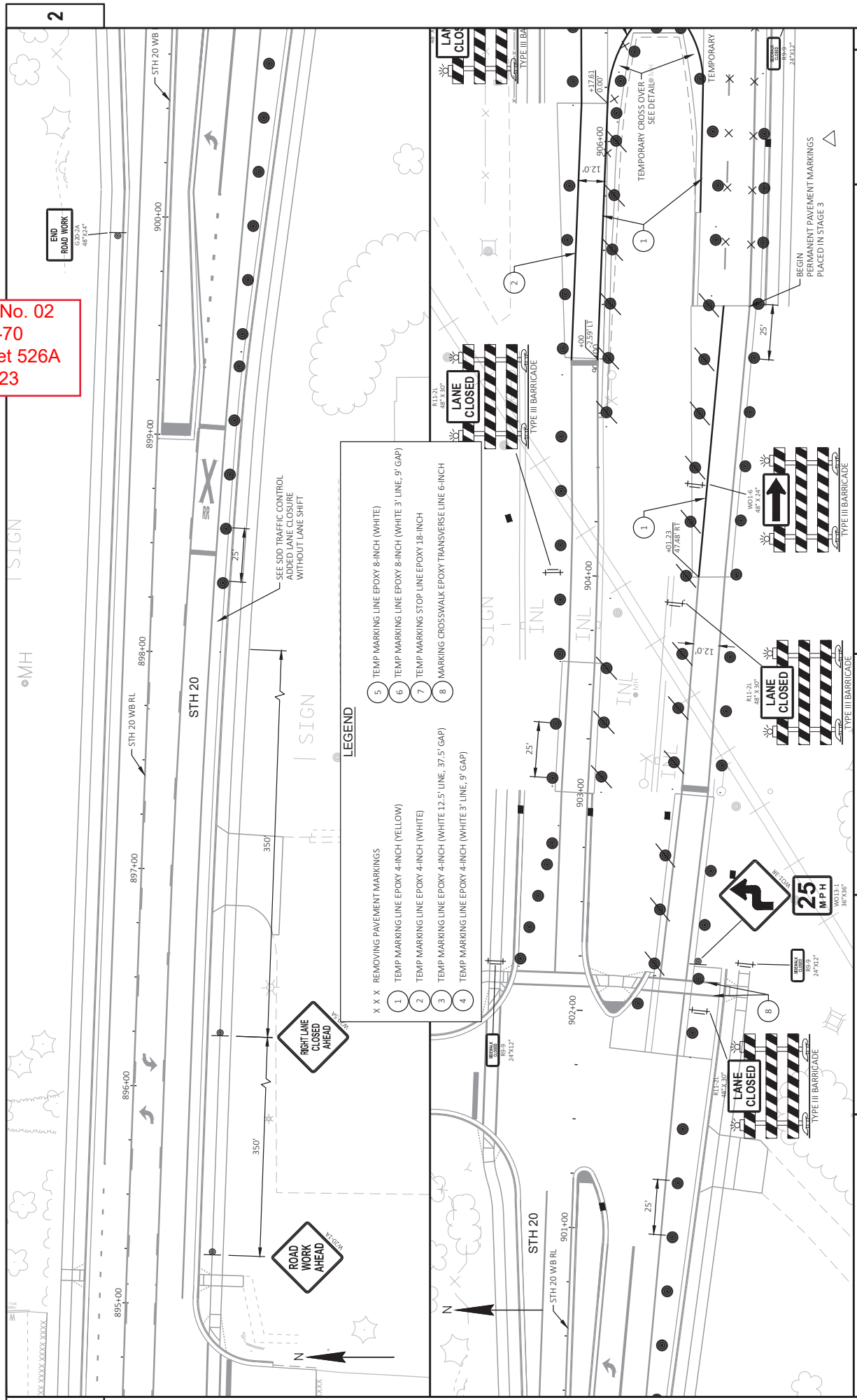
LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLEXIBLE TUBULAR MARKER AND BASE
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- X X X REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAVEL
- WORK AREA
- TEMP MARKING LINE EPOXY 4-INCH (YELLOW)
- TEMP MARKING LINE EPOXY 4-INCH (WHITE)
- TEMP MARKING LINE EPOXY 8-INCH (WHITE)
- TEMP MARKING RAISED PAVEMENT MARKER TYPE I (WHITE)
- TEMP MARKING RAISED PAVEMENT MARKER TYPE I (YELLOW)
- F TEMP MARKING LINE EPOXY 4-INCH (WHITE 3' LINE, 6' GAP)
- G TEMP MARKING STOP LINE LINE EPOXY 18-INCH
- TEMP MARKING ARROW EPOXY

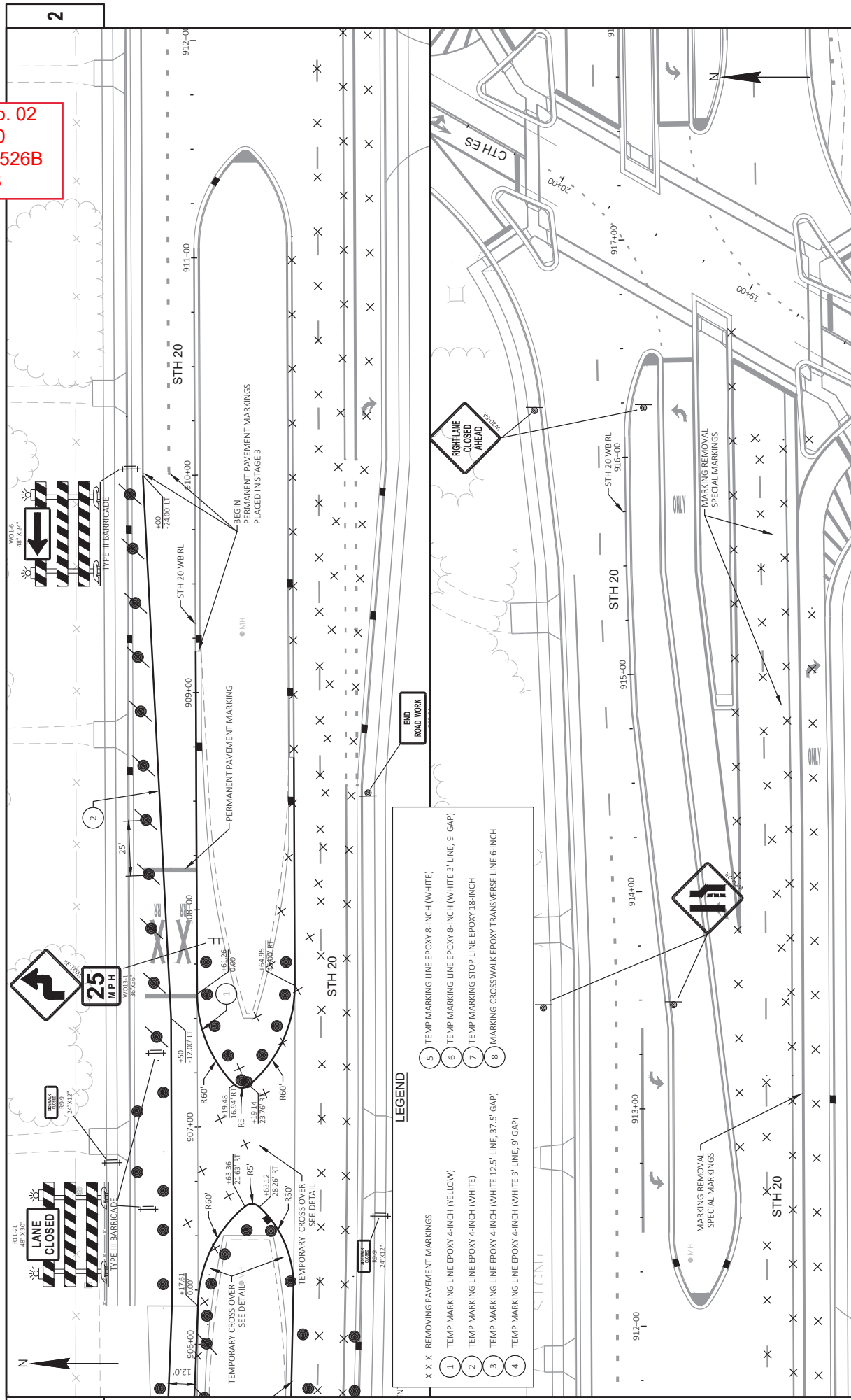
SEE SDD: TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT/RIGHT LANE CLOSURE
 STATION/OFFSET LABELS: REFERENCE STH 20 WB RL
 NOTE: SEE SPECIAL PROVISIONS FOR CTH L INTERSECTION CLOSURE INFORMATION.

PROJECT NO: 2698-03-70	FILE NAME: \\WERTOV\PI\PUB\KIP\PS\CD\26980300-2018\5HEET\PLAN\ETERR TEMP CONNECTION - TC STAGE 3 L CLOSED.DWG	COUNTY: WALWORTH & RACINE	TRAFFIC CONTROL - STAGE 3 - CTH L CLOSED	SHEET 526
LAYOUT NAME: 0623B-53	DATE: 4/19/2023 10:15 AM	FLYBY: GUYENETTE, JEFFREY	PLOT NAME:	WSDOT/CADD SHEET 42
HWY: STH 20	DATE: 4/19/2023 10:15 AM	FLYBY:	PLOT NAME:	

Addendum No. 02
 ID 2698-03-70
 Added Sheet 526A
 April 27, 2023



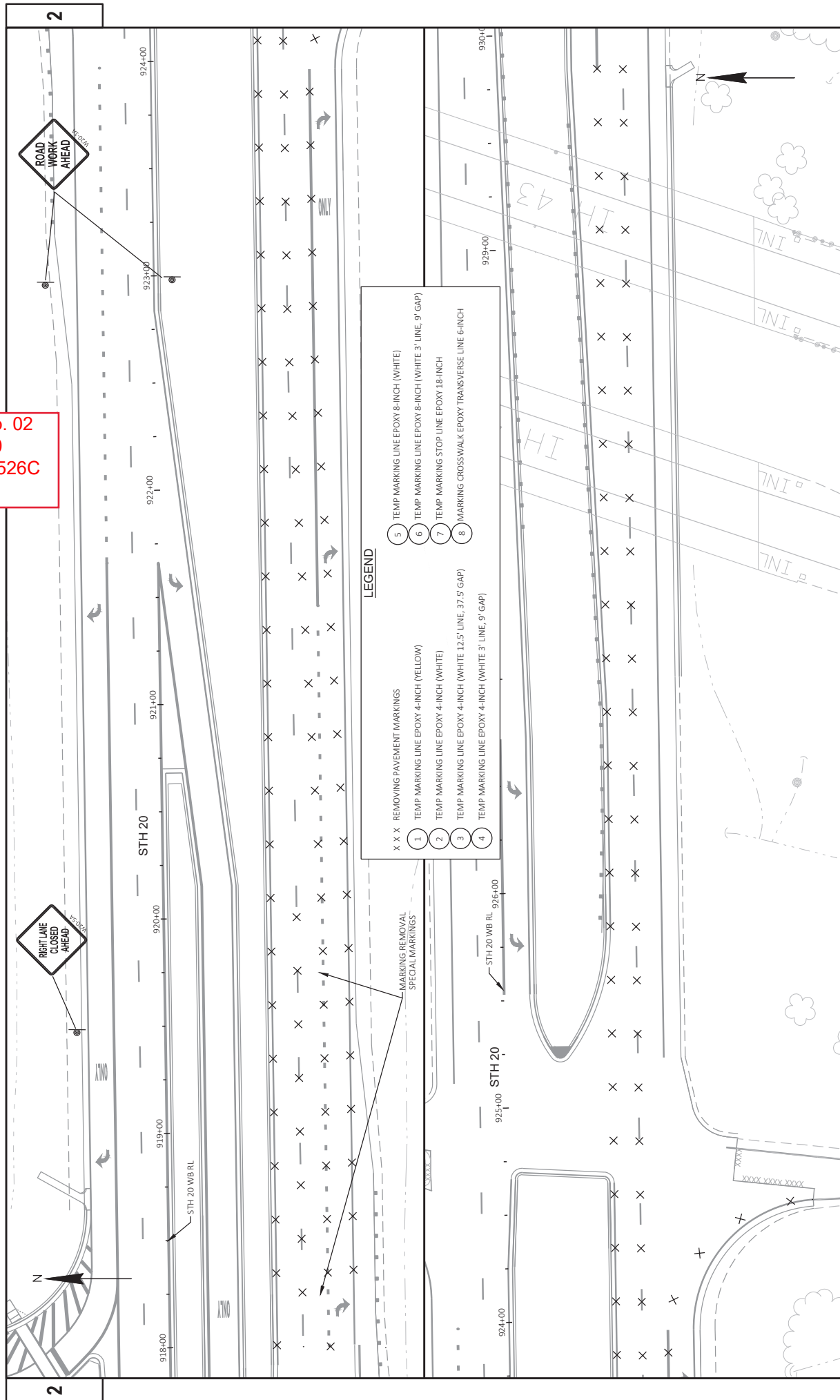
Addendum No. 02
 ID 2698-03-70
 Added Sheet 526B
 April 27, 2023



- LEGEND**
- X X X REMOVING PAVEMENT MARKINGS
 - 1 TEMP MARKING LINE EPOXY 4-INCH (YELLOW)
 - 2 TEMP MARKING LINE EPOXY 4-INCH (WHITE)
 - 3 TEMP MARKING LINE EPOXY 4-INCH (WHITE 12.5' LINE, 37.5' GAP)
 - 4 TEMP MARKING LINE EPOXY 4-INCH (WHITE 3' LINE, 9' GAP)
 - 5 TEMP MARKING LINE EPOXY 8-INCH (WHITE)
 - 6 TEMP MARKING LINE EPOXY 8-INCH (WHITE 3' LINE, 9' GAP)
 - 7 TEMP MARKING STOP LINE EPOXY 18-INCH
 - 8 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH

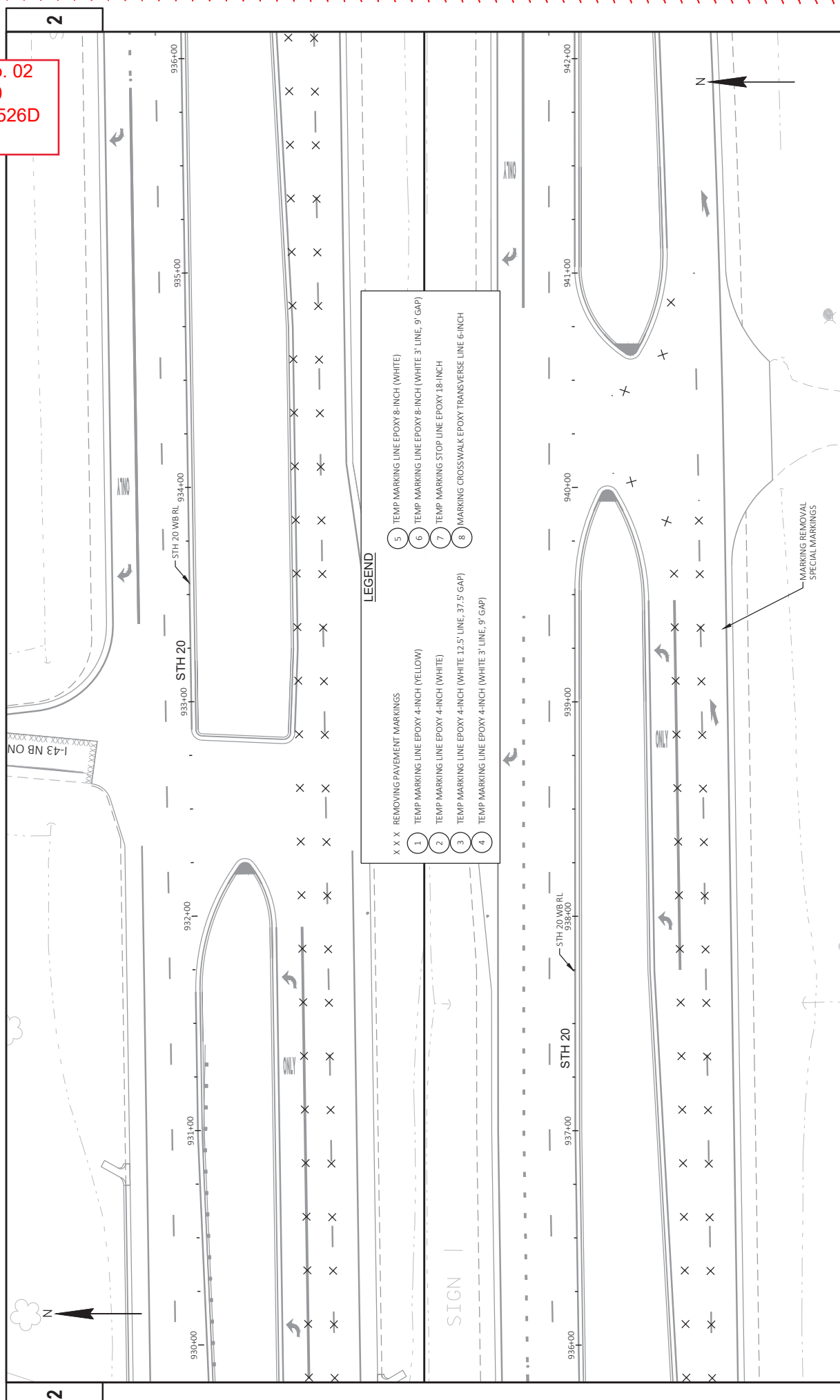
PROJECT NO: 2698-03-70	COUNTY: WALWORTH / RACINE	TRAFFIC CONTROL - OVER WINTER - BETWEEN STAGE 3 & 4	SHEET 526B
FILE NAME: \\WVERT07H\PI\PUB\PCS\3D\26980300-2018\526B\TEMP\TEMP CONNECTION - TC OVER WINTER 2024-2025.DWG	HWY: STH 20	DATE: 4/27/2023 1:07 PM	1 IN=40 FT
LAYOUT NAME: 026005-5312		DESIGNED BY: GUYETTE, JEFFREY	PLotted BY: WISDOT/CADDS SHEET 44

Addendum No. 02
 ID 2698-03-70
 Added Sheet 526C
 April 27, 2023



PROJECT NO: 2698-03-70	COUNTY: WALWORTH / RACINE	TRAFFIC CONTROL - OVER WINTER - BETWEEN STAGE 3 & 4	SHEET 526C	E
FILE NAME: \\WERTOW\PI\PUBLIC\PS\3D\26980300-2018\5HEET\PLAN\ETERR TEMP CONNECTION - TC OVER WINTER 2024-2025.DWG	HWY: STH 20	PLANT: GUNETTE, JEFFREY	1 IN=40 FT	WIS007/CADD SHEET 44
LAYOUT NAME: 086017.53	PLANT DATE: 4/21/2023 1:08 PM	PLANT NAME:		

Addendum No. 02
 ID 2698-03-70
 Added Sheet 526D
 April 27, 2023



- LEGEND**
- X X X REMOVING PAVEMENT MARKINGS
 - 1 TEMP MARKING LINE EPOXY 4-INCH (YELLOW)
 - 2 TEMP MARKING LINE EPOXY 4-INCH (WHITE)
 - 3 TEMP MARKING LINE EPOXY 4-INCH (WHITE 12.5' LINE, 37.5' GAP)
 - 4 TEMP MARKING LINE EPOXY 4-INCH (WHITE 3' LINE, 9' GAP)
 - 5 TEMP MARKING LINE EPOXY 8-INCH (WHITE)
 - 6 TEMP MARKING LINE EPOXY 8-INCH (WHITE 3' LINE, 9' GAP)
 - 7 TEMP MARKING STOP LINE EPOXY 18-INCH
 - 8 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH

2



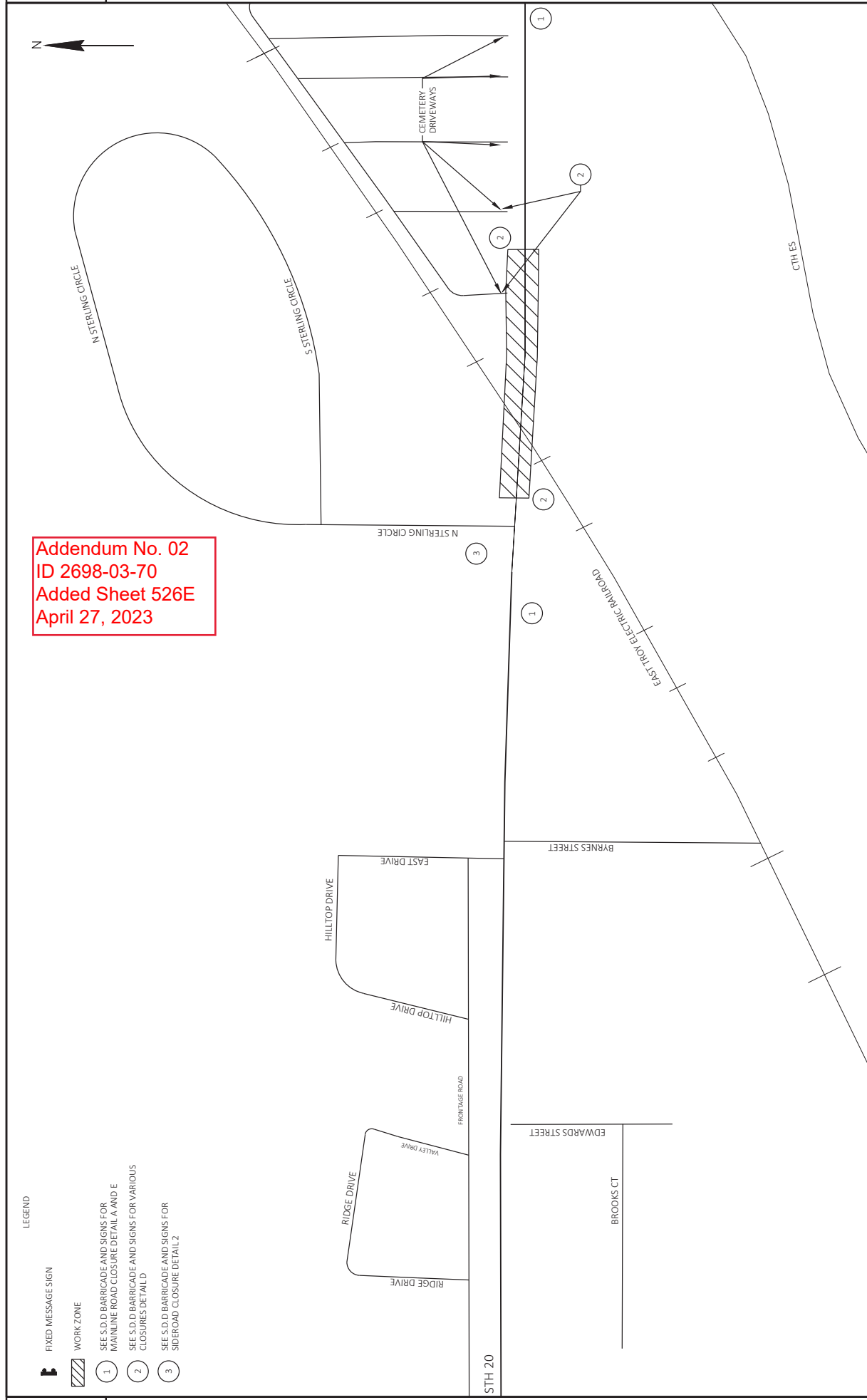
Addendum No. 02
ID 2698-03-70
Added Sheet 526E
April 27, 2023

LEGEND

FIXED MESSAGE SIGN

WORK ZONE

- 1 SEE S.D.D BARRICADE AND SIGNS FOR MAINLINE ROAD CLOSURE DETAIL A AND E
- 2 SEE S.D.D BARRICADE AND SIGNS FOR VARIOUS CLOSURES DETAIL D
- 3 SEE S.D.D BARRICADE AND SIGNS FOR SIDEROAD CLOSURE DETAIL Z



PROJECT NO: 2698-03-70

HWY: STH 20

COUNTY: WALWORTH & RACINE

TRAFFIC CONTROL OVERVIEW - STAGE 4

SHEET

526E

E

FILE NAME: \\WVERT01\PI\PUB\KIP\PS\CD\26980300-2018\526E\TRAFFIC CONTROL OVERVIEW - STAGE 4 OVERVIEW.DWG

LAYOUT NAME: 086001_54

PLOT DATE: 4/7/2023 11:35 AM

PLOT BY: GIBNETTE, JEFFREY

PLOT NAME: 1 IN=200 FT

WISDOT/CADDIS SHEET 42

2

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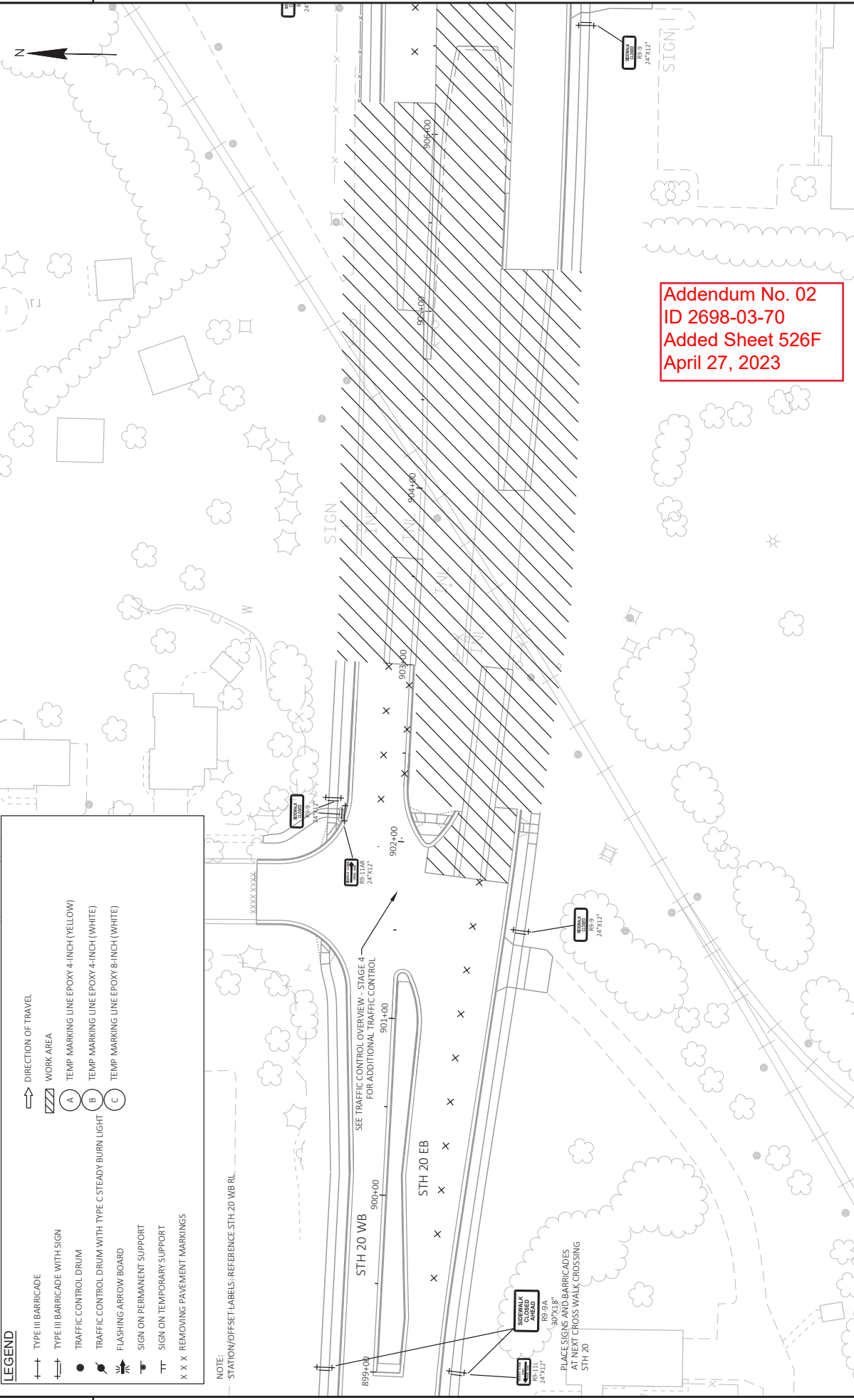
2

1

2

2

2

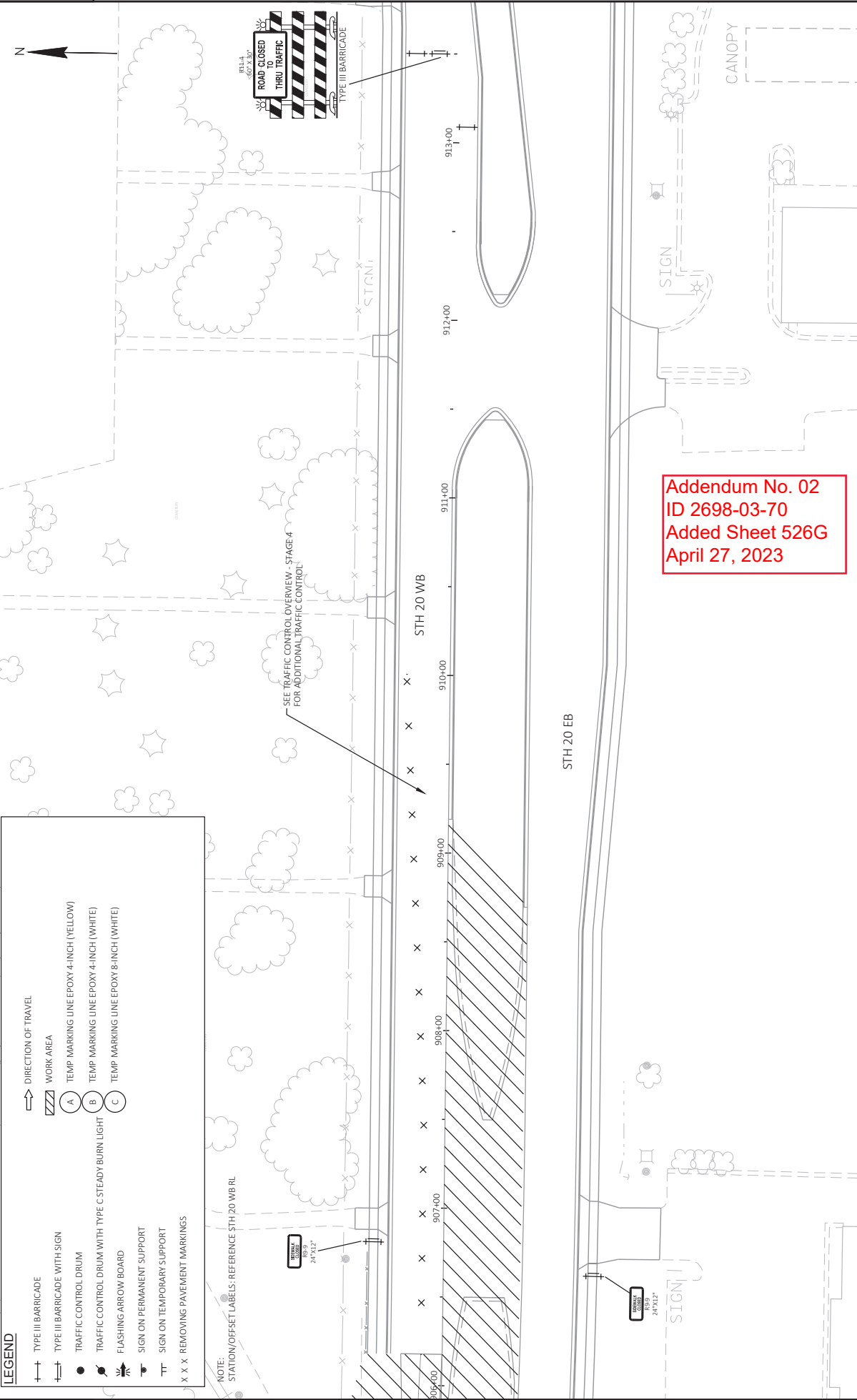


Addendum No. 02
 ID 2698-03-70
 Added Sheet 526F
 April 27, 2023

LEGEND

+	TYPE II BARRICADE	→	DIRECTION OF TRAVEL
+	TYPE III BARRICADE WITH SIGN	▨	WORK AREA
●	TRAFFIC CONTROL DRUM	A	TEMP MARKING LINE EPOXY 4-INCH (YELLOW)
●	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	B	TEMP MARKING LINE EPOXY 4-INCH (WHITE)
⚡	FLASHING ARROW BOARD	C	TEMP MARKING LINE EPOXY 8-INCH (WHITE)
⚡	SIGN ON PERMANENT SUPPORT		
⚡	SIGN ON TEMPORARY SUPPORT		
X X X	REMOVING PAVEMENT MARKINGS		

NOTE:
 STATION/OFFSET LABELS: REFERENCE STH 20 WB RL.

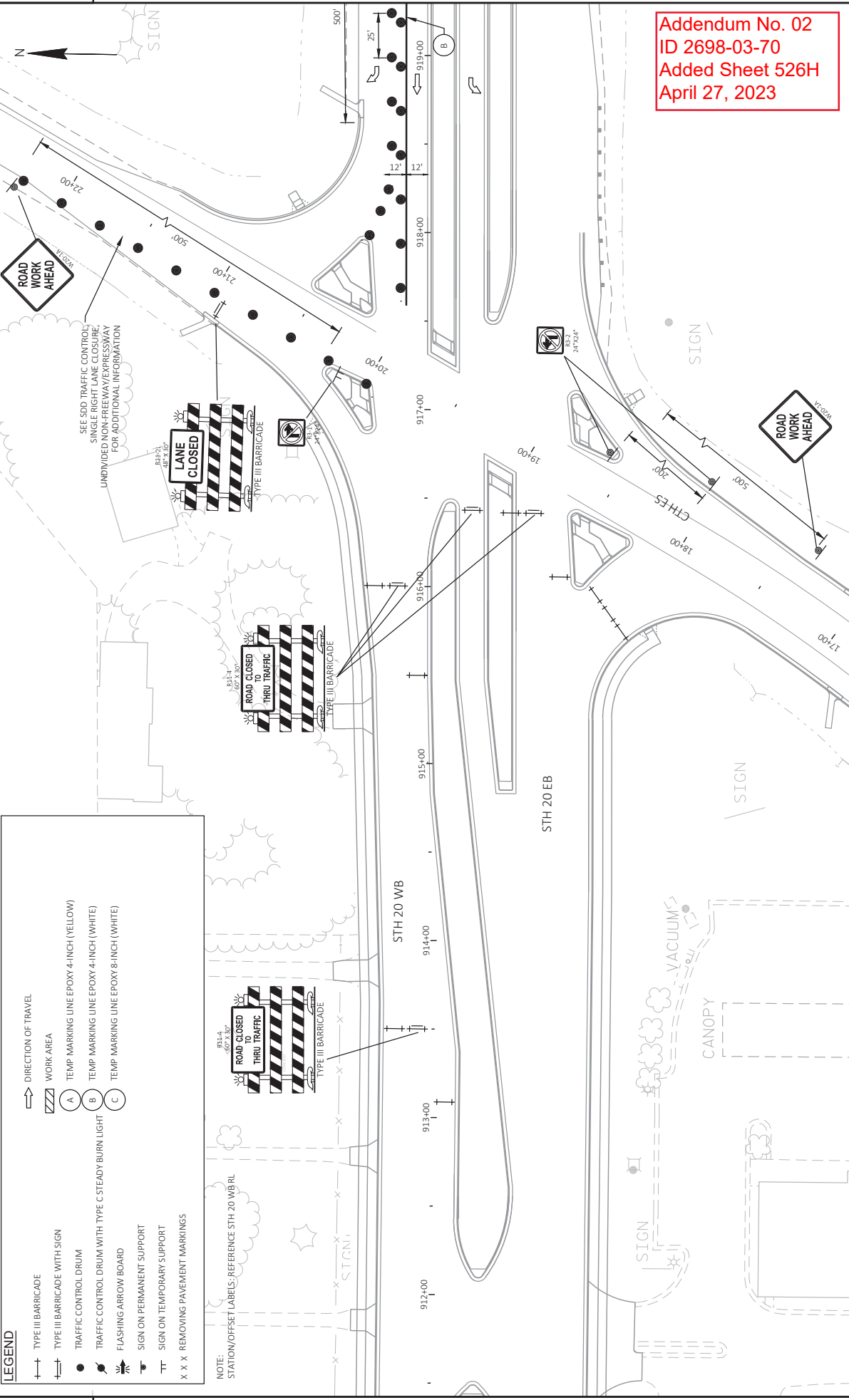


LEGEND

→	DIRECTION OF TRAVEL
▨	WORK AREA
○ A	TEMP MARKING LINE EPOXY 4-INCH (YELLOW)
○ B	TEMP MARKING LINE EPOXY 4-INCH (WHITE)
○ C	TEMP MARKING LINE EPOXY 8-INCH (WHITE)
●	TRAFFIC CONTROL DRUM
⚡	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
⚡	FLASHING ARROW BOARD
⚡	SIGN ON PERMANENT SUPPORT
⚡	SIGN ON TEMPORARY SUPPORT
X X X	REMOVING PAVEMENT MARKINGS

NOTE:
STATION/OFFSET LABELS: REFERENCE STH 20 WB RL

Addendum No. 02
ID 2698-03-70
Added Sheet 526G
April 27, 2023



Addendum No. 02
 ID 2698-03-70
 Added Sheet 526H
 April 27, 2023

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- X X X REMOVING PAVEMENT MARKINGS

→ DIRECTION OF TRAVEL
 WORK AREA
 TEMP MARKING LINE EPOXY 4-INCH (YELLOW)
 TEMP MARKING LINE EPOXY 4-INCH (WHITE)
 TEMP MARKING LINE EPOXY 8-INCH (WHITE)

A B C
 ROAD CLOSED TO THRU TRAFFIC
 TYPE III BARRICADE

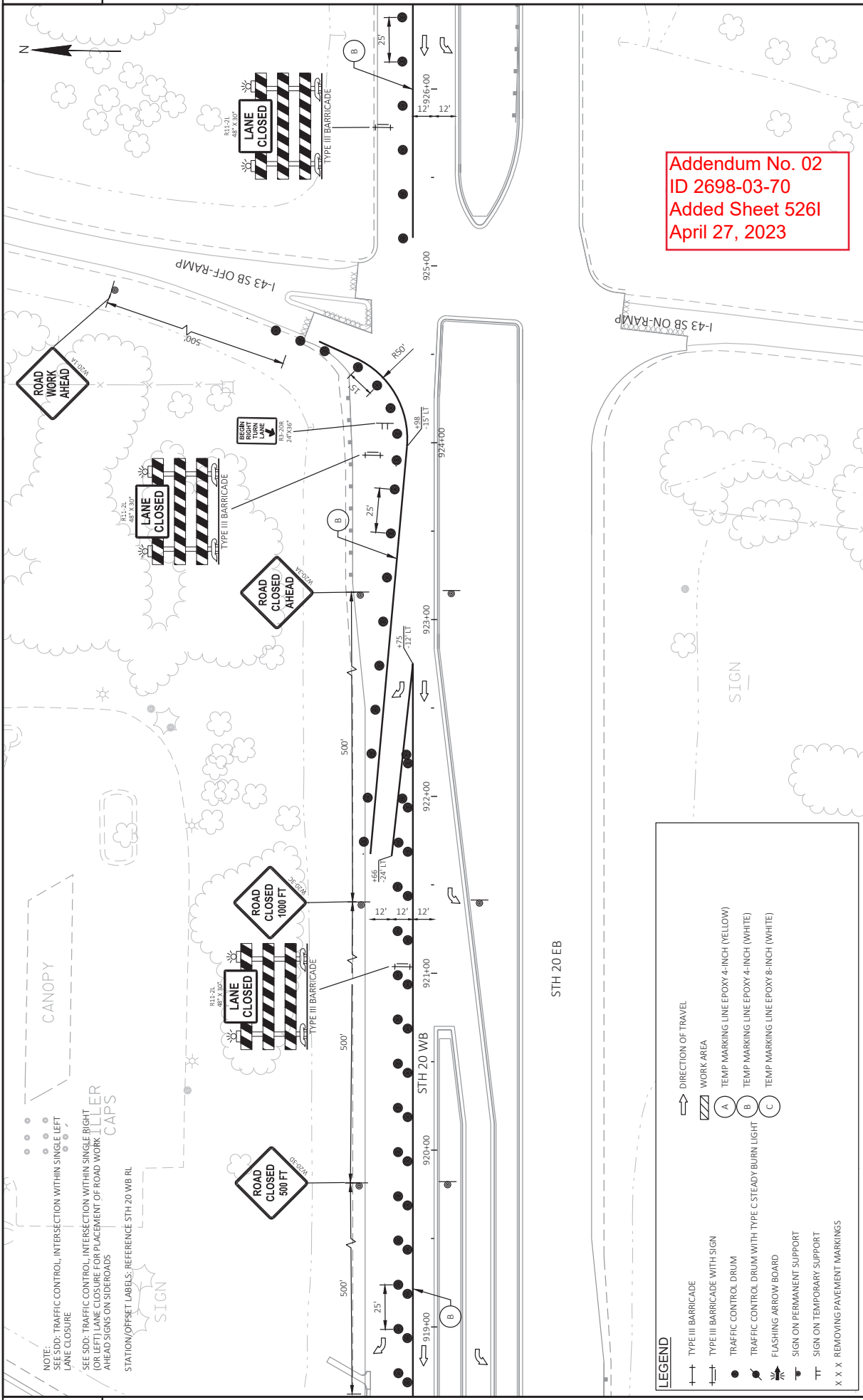
813-4
 60" x 30"
 ROAD CLOSED TO THRU TRAFFIC
 TYPE III BARRICADE

813-4
 60" x 30"
 LANE CLOSED
 TYPE III BARRICADE

813-4
 60" x 30"
 ROAD WORK AHEAD
 SIGN

813-4
 60" x 30"
 ROAD WORK AHEAD
 SIGN

NOTE:
 STATION/OFFSET LABELS - REFERENCE STH 20 WB RL

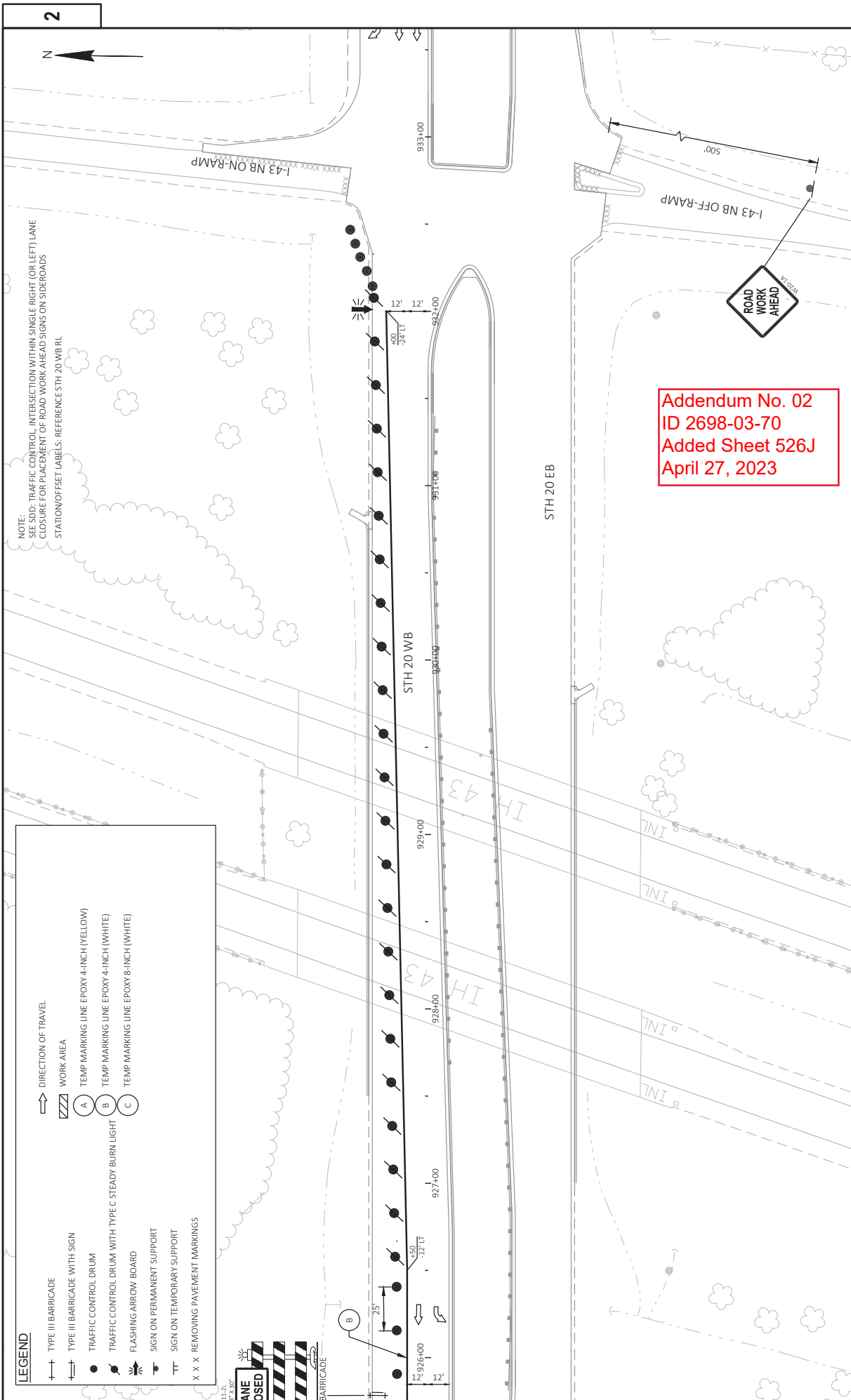


Addendum No. 02
 ID 2698-03-70
 Added Sheet 5261
 April 27, 2023

NOTE:
 SEE SDD: TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE
 SEE SDD: TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT (OR LEFT) LANE CLOSURE FOR PLACEMENT OF ROAD WORK MILLER CAPS AHEAD SIGNS ON SIDEROADS
 STATION/OFFSET LABELS: REFERENCE STH 20 WB RL

LEGEND

- ↑ TYPE III BARRICADE
- ↑ TYPE III BARRICADE WITH SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- ⚡ FLASHING ARROW BOARD
- ⚡ SIGN ON PERMANENT SUPPORT
- ⚡ SIGN ON TEMPORARY SUPPORT
- X X X REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAVEL
- ▨ WORK AREA
- A TEMP MARKING LINE EPOXY 4-INCH (YELLOW)
- B TEMP MARKING LINE EPOXY 4-INCH (WHITE)
- C TEMP MARKING LINE EPOXY 8-INCH (WHITE)

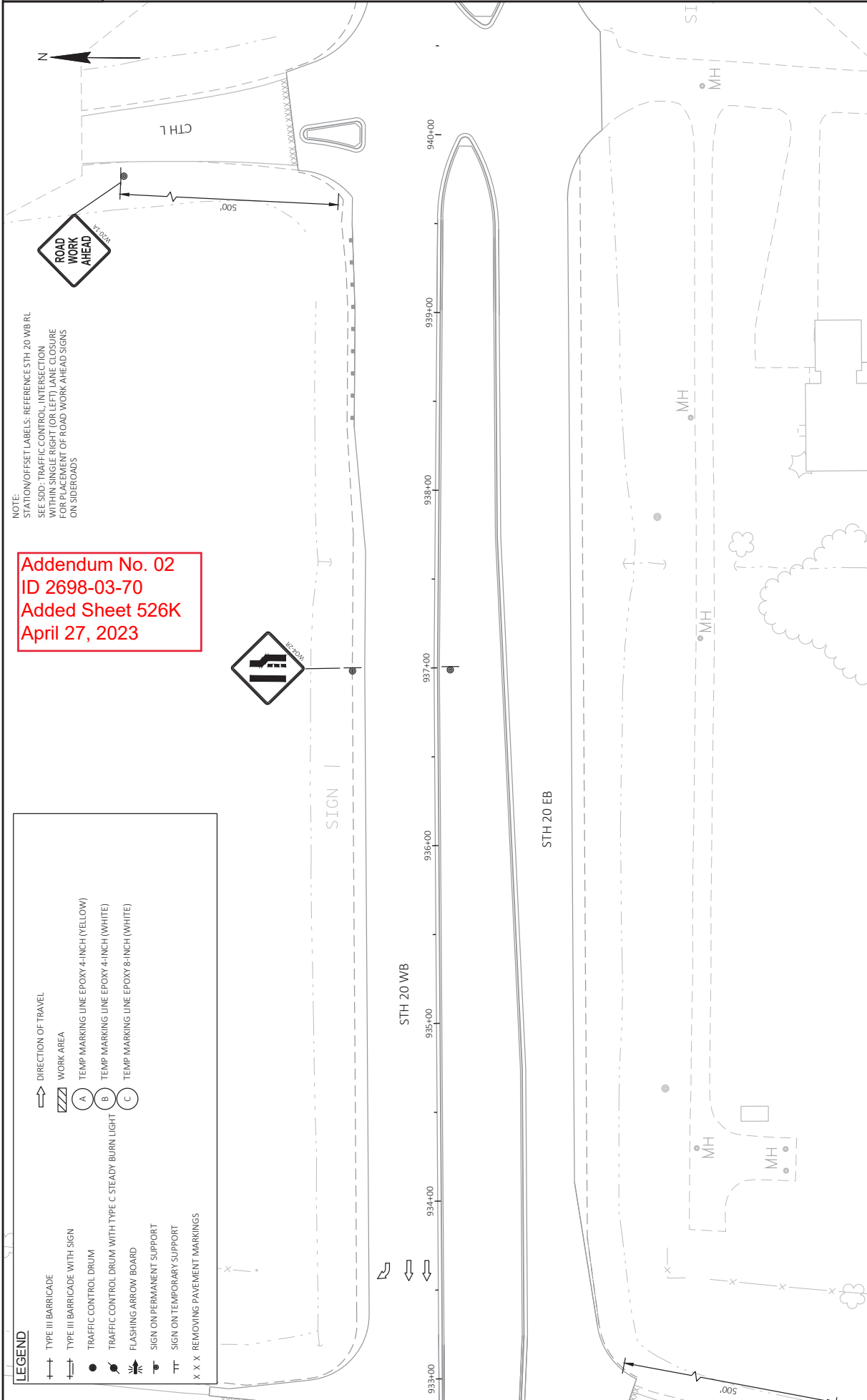


Addendum No. 02
ID 2698-03-70
Added Sheet 526J
April 27, 2023

NOTE:
 STATION/OFFSET LABELS: REFERENCE STH 20 WB RL
 SEE SDD; TRAFFIC CONTROL, INTERSECTION
 WITHIN SINGLE RIGHT (OR LEFT) LANE CLOSURE
 FOR PLACEMENT OF ROAD WORK AHEAD SIGNS
 ON SIDEROADS

Addendum No. 02
ID 2698-03-70
Added Sheet 526K
April 27, 2023

LEGEND	
	TYPE III BARRICADE
	TYPE II BARRICADE WITH SIGN
	TRAFFIC CONTROL DRUM
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
	FLASHING ARROW BOARD
	SIGN ON PERMANENT SUPPORT
	SIGN ON TEMPORARY SUPPORT
	X X X REMOVING PAVEMENT MARKINGS
	DIRECTION OF TRAVEL
	WORK AREA
	TEMP MARKING LINE EPOXY 4-INCH (YELLOW)
	TEMP MARKING LINE EPOXY 4-INCH (WHITE)
	TEMP MARKING LINE EPOXY 8-INCH (WHITE)





948+00 947+00 946+00 945+00 944+00 943+00 942+00 941+00

STH 20 WB

STH 20 EB

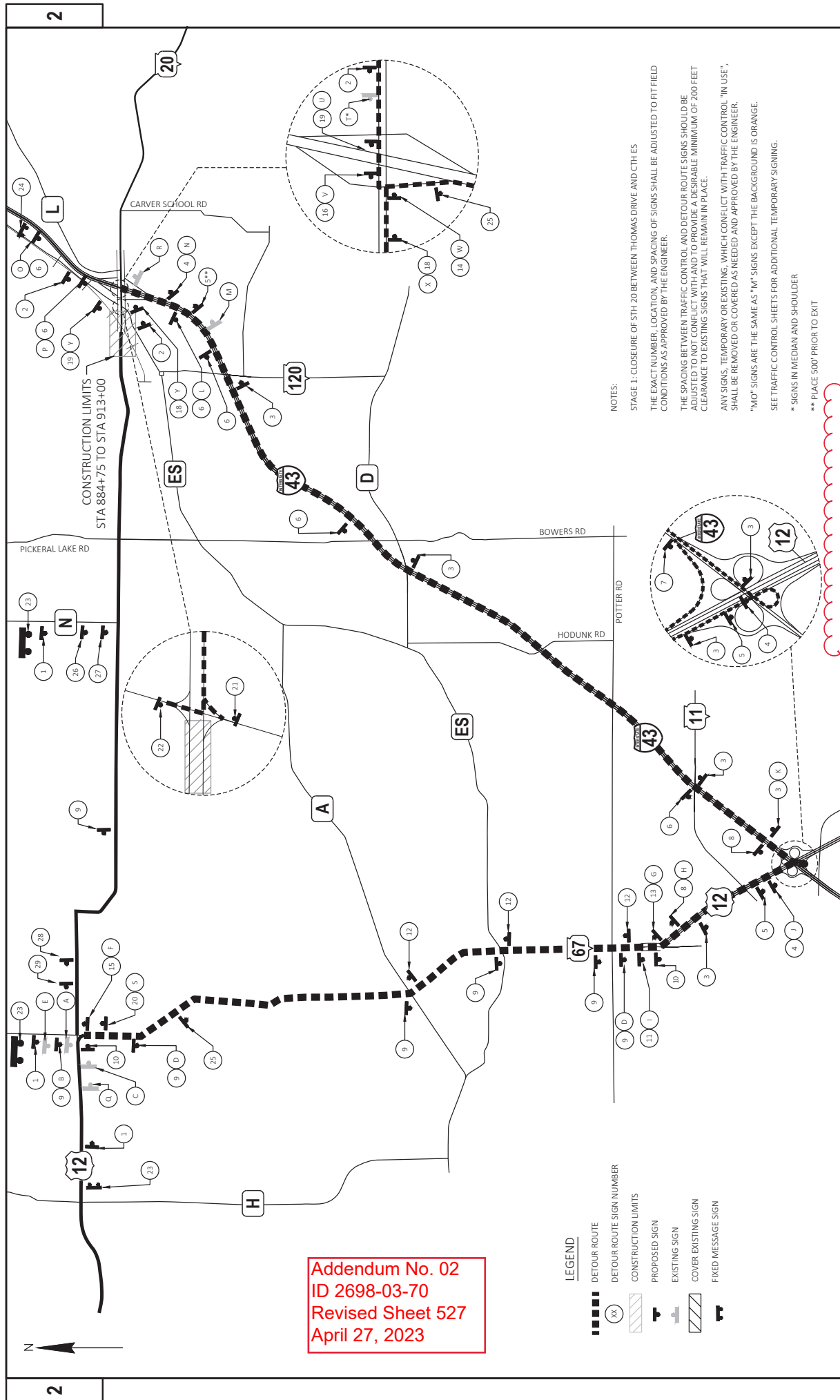
MH SIGN

Addendum No. 02
ID 2698-03-70
Added Sheet 526L
April 27, 2023

LEGEND

	TYPE III BARRICADE		DIRECTION OF TRAVEL
	TYPE III BARRICADE WITH SIGN		WORK AREA
	TRAFFIC CONTROL DRUM		TEMP MARKING LINE EPOXY 4-INCH (YELLOW)
	TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT		TEMP MARKING LINE EPOXY 4-INCH (WHITE)
	FLASHING ARROW BOARD		TEMP MARKING LINE EPOXY 8-INCH (WHITE)
	SIGN ON PERMANENT SUPPORT		
	SIGN ON TEMPORARY SUPPORT		
	X X X REMOVING PAVEMENT MARKINGS		

NOTE:
STATION/OFFSET LABELS: REFERENCE STH 20 WB RL



Addendum No. 02
ID 2698-03-70
Revised Sheet 527
April 27, 2023

- LEGEND**
- DETAOUR ROUTE
 - (X) DETAOUR ROUTE SIGN NUMBER
 - ▨ CONSTRUCTION LIMITS
 - ⊥ PROPOSED SIGN
 - ⊥ EXISTING SIGN
 - ▨ COVER EXISTING SIGN
 - ⊥ FIXED MESSAGE SIGN

NOTES:

STAGE 1: CLOSURE OF STH 20 BETWEEN THOMAS DRIVE AND CTH ES. THE EXACT NUMBER, LOCATION AND SPACING OF SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

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

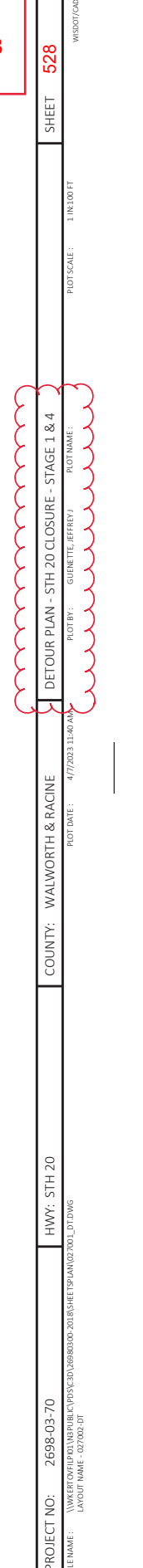
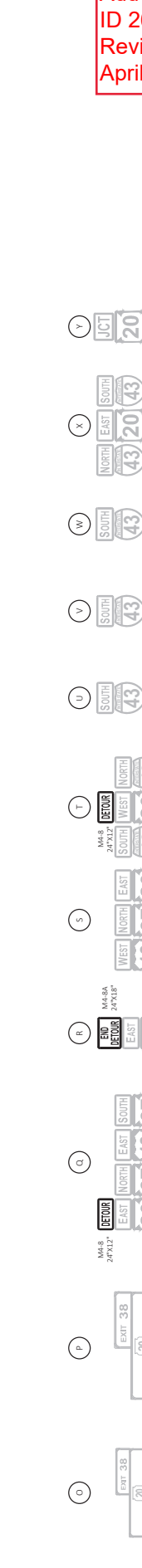
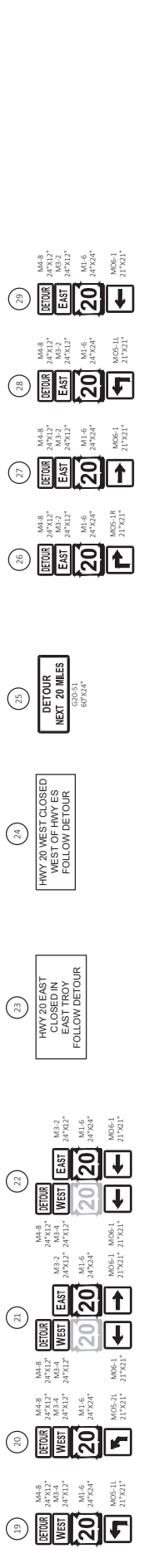
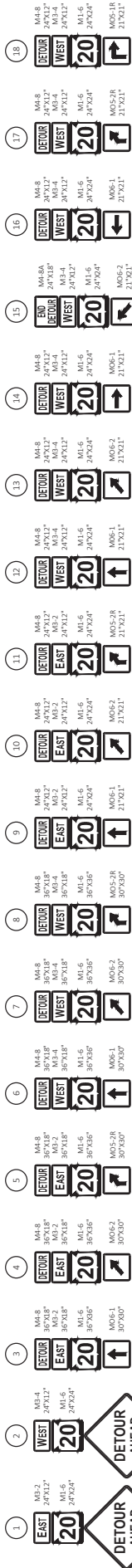
ANY SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE", SHALL BE REMOVED OR COVERED AS NEEDED AND APPROVED BY THE ENGINEER.

"MOT" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

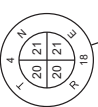
SEE TRAFFIC CONTROL SHEETS FOR ADDITIONAL TEMPORARY SIGNING.

- * SIGNS IN MEDIAN AND SHOULDER
- ** PLACE 500' PRIOR TO EXIT

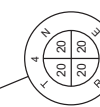
PROJECT NO: 2698-03-70	COUNTY: WALWORTH/RACINE	SHEET: 527	E
FILE NAME: \\WERT07\HP\POL\B\PUBLIC\PS\CD\26980300-2018\527\PLAN\027001.DWG	DATE: 4/7/2023 11:40 AM	PLOT SCALE: Custom	WSS07/CADD5 SHEET 42
DETOUR PLAN - STH 20 CLOSURE - STAGE 1 & 4		PLLOT NAME:	
BY: GUENETTE, JEFFREY		DATE:	



Addendum No. 02
 ID 2698-03-70
 Revised Sheet 528
 April 27, 2023



SEC 4096
 QUARTER SECTION CORNER
 CONC. MON. W/ BRASS CAP
 Y = 409,286.148
 X = 804,757.304



SEC 418095
 CENTER OF SECTION
 CONC. MON. W/ BRASS CAP
 Y = 409,375.089
 X = 802,112.718

Addendum No. 02
 ID 2698-03-70
 Added Sheet 551A
 April 27, 2023

CURVE #1	CURVE #2	CURVE #3
PI STA = 903+50.10 Y = 409204.675 X = 802347.817 DELTA = 103° 46' D = 0° 57' 27" T = 50.127 L = 100.24' R = 5966.10'	PI STA = 905+46.72 Y = 409200.981 X = 802713.121 DELTA = 103° 24' D = 0° 57' 17" T = 21.30' L = 42.59' R = 6001.25'	PI STA = 906+39.27 Y = 409242.982 X = 802806.279 DELTA = 103° 57' D = 1° 11' 15" T = 21.60' L = 43.21' R = 4800.00'
PC STA = 902+99.98 Y = 409209.050 X = 802466.709 PT STA = 904+00.22 Y = 409201.139 X = 802734.411 BK = 386.695333'E AI = 385° 57' 17.7"E	PC STA = 905+25.42 Y = 409201.687 X = 802691.836 PT STA = 906+60.87 Y = 409243.073 X = 802877.882 BK = 386.695333'E AI = 385° 57' 17.7"E	PC STA = 906+17.67 Y = 409243.087 X = 802784.674 PT STA = 906+60.87 Y = 409243.073 X = 802877.882 BK = 386.695333'E AI = 385° 57' 17.7"E

PROJECT NO: 2698-03-70 COUNTY: WALWORTH & RACINE SHEET 551A

FILE NAME: \\WERTOWH\PI\PUB\KIP\PS\CD\26980300-2018\5HEET\PLAN\TERR TEMP CONNECTION- ALIGNMENT.DWG PLOT DATE: 4/7/2023 4:00 PM PLOT BY: GUYENETTE, JEFFREY

LAYOUT NAME: -07201-AD PLOT SCALE: 1 IN=50 FT WISDOT/CADD SHEET 42

HWY: STH 20 ALIGNMENT LAYOUT - STH 20 EB/WB TEMP RAILROAD R/L

Addendum No. 02
ID 2698-03-70
Revised Sheet 601
April 27, 2023

EARTHWORK SUMMARY

DIVISION	FROM/TO STATION	LOCATION	COMMON EXCAVATION (1)		SALVAGED / UNUSABLE PAVEMENT MATERIAL (4)	AVAILABLE MATERIAL (5)	UNEEXPANDED FILL	EXPANDED FILL (13)		MASS ORDNATE +/- (14)	WASTE	COMMENT
			CUT (2)	EBB EXCAVATION (3)				FACTOR	1.20			
DIVISION 1												
STAGE 1 - STH 20	884+75.00 / 913+00	STH 20	22,071	--	5,041	17,030	1,932	2,318	14,712	14,712	14,712	
STAGE 1 - EDWARDS	9+50.00 / 9+88.00	EDWARDS STREET	127	--	22	105	0	0	105	105	105	
STAGE 1 - EAST DRIVE	10+12.00 / 10+36.03	EAST DRIVE	67	--	19	48	0	0	48	48	48	
STAGE 1 - BYRNES	9+24.94 / 9+87.99	BYRNES STREET	200	--	37	163	0	0	163	163	163	
STAGE 2 - STH 20	901+80.00 / 905+25	STH 20	153	--	79	74	5	6	68	68	68	
STAGE 2 - WB ETERR TEMP CONNECTION	903+00.00 / 906+17	STH 20 WB	142	--	53	89	0	0	89	89	89	
STAGE 2 - TEMP CROSS OVER	904+73.00 / 909+19.00	STH 20	409	--	402	409	6	7	402	402	402	
STAGE 2 - BEFORE WINTER	910+49.88 / 916+47.15	STH 20	527	--	527	527	2	2	525	525	525	
DIVISION 1 SUBTOTAL			23,961	0	5,294	18,667	1,945	2,534	16,333	16,333	16,333	
DIVISION 2												
STAGE 2 - STH 20	913+00.00 / 942+00	STH 20	15,975	--	3,465	12,510	231	277	12,233	12,233	12,233	
STAGE 2 - CTH ES	16+00.00 / 18+83.04	CTH ES SOUTH LEG	1,650	--	377	1,273	18	22	1,251	1,251	1,251	
TEMP PAVT - STAGE 2	917+31.00 / 954+29.53	STH 20	179	--	0	179	0	0	179	179	179	
TEMP PAVT - STAGE 2 - CTH ES SOUTH	916+60.00 / 917+30.92	STH 20 / CTH ES	50	--	0	50	0	0	50	50	50	
TEMP PAVT - STAGE 3 - CTH ES	915+98.16 / 917+10.46	STH 20 / CTH ES	13	--	0	13	0	0	13	13	13	
TEMP PAVT - STAGE 3 - CTH L	940+05.00 / 940+45.00	STH 20 / CTH L	15	--	0	15	0	0	15	15	15	
DIVISION 2 SUBTOTAL			17,882	0	3,842	14,040	249	299	13,741	13,741	13,741	
DIVISION 3												
STAGE 3 - STH 20	913+00.00 / 953+50.00	STH 20	26,522	--	5,099	21,423	111	133	21,290	21,290	21,290	
STAGE 3 - CTH ES	19+97.10 / 23+00.00	CTH ES NORTH LEG	1,706	--	315	1,391	8	10	1,381	1,381	1,381	
STAGE 3 - I-43 NB ON RAMP	758+44.02 / 759+52.12	I-43 NB ON RAMP	174	--	19	155	0	0	155	155	155	
STAGE 3 - WEBER ROAD	1051+58.00 / 1059+65.00	STH 20	239	--	3	236	45	54	182	182	182	
STAGE 3 - CULVERT 4	1141+00.00 / 1146+25.00	STH 20	416	--	17	399	174	209	190	190	190	
STAGE 3 - R-51-82	1150+00.00 / 1169+00.00	STH 20 LT	831	--	210	621	1,964	2,357	-1,736	0	0	(16)
STAGE 3 - R-51-82 INSIDE CURB	1152+74.80 / 1161+95.04	STH 20 RT	227	--	25	202	0	0	202	202	202	
STAGE 3 - HONEY CREEK BRIDGE	1177+24.50 / 1181+43.00	STH 20	60	--	8	52	84	101	-49	0	0	(17)
STAGE 3 - HONEY CREEK HSP CURVE	1186+00.00 / 1191+12.20	STH 20	661	--	7	654	234	281	373	373	373	(18)
STAGE 3 - BASE PATCHING AREAS	954+30.00 / 1203+10.00	STH 20	30,836	4,500	5,703	25,133	2,620	3,144	21,989	23,774	23,774	(19)
DIVISION 3 SUBTOTAL			66,161	4,500	14,839	57,840	4,814	5,777	52,063	53,848	53,848	
UNDISTRIBUTED			2,320									
GRAND TOTAL			72,679	6,820	14,839	57,840	4,814	5,777	52,063	53,848	53,848	
TOTAL COMMON EXCAVATION			79,499									
CAT. 0010			75,838									
CAT. 0140			661									

NOTES:

(1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBB EXCAVATION COLUMNS. ITEM NUMBER 205.0100

(2) SALVAGED/UNUSABLE PAVEMENT MATERIALS INCLUDED IN CUT.

(3) EBB EXCAVATION TO BE BACKFILLED WITH BREAKER RUN MATERIAL

(4) SALVAGED/UNUSABLE PAVEMENT MATERIAL

(5) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSABLE PAVEMENT MATERIAL

(13) EXPANDED FILL FACTOR = 1.20

(14) THE MASS ORDNATE +/- OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

(15) FACTORS USED TO COMPUTE ANTICIPATED WASTE AND THE COMPUTED WASTE VOLUME IDENTIFIED ARE FOR GENERAL INFORMATION ONLY.

(16) USE 1,736 CY OF WASTE FROM WITHIN DIVISION 3 FOR STAGE 3 - R-51-82 GRADING

(17) USE 49 CY OF WASTE FROM WITHIN DIVISION 3 FOR STAGE 3 - HONEY CREEK BRIDGE GRADING

(18) CATEGORY 0140

(19) EBB FOR BASE PATCHING AREAS = AREA OF PATCH * AGGREGATE DEPTH. SEE ASPHALTIC BASE PATCHING TABLE FOR AREAS AND DEPTHS.

Addendum No. 02
 ID 2698-03-70
 Revised Sheet 603
 April 27, 2023

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BASE AGGREGATE

LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH CAT 0010	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH CAT 0140	305.0500 SHAPING SHOULDERS	311.0110 BREAKER RUN	371.2000.S OMP BASE AGGREGATE DENSE 1 1/4-INCH COMPACTION EACH	624.0100 WATER	645.0220 GEOGRID TYPE SR
	TON	TON	STA	TON	MGAL	MGAL	SY
STA 884+75 TO 913+00	40	17,200	--	13,800	11	260	22,890
STA 913+00 TO 942+00 EB	670	14,500	20	11,500	7	230	19,150
STA 913+00 TO 942+00 WB	740	14,700	--	12,000	7	240	19,910
STA 942+00 TO 1203+10	1,960	11,300	452	5,500	6	200	9,020
ETERR TEMP CONNECTION	--	540	--	--	--	9	--
UNDISTRIBUTED	290	860	--	4,200	--	140	--
CAT 0010 TOTAL	3,700	59,100	472	47,000	31	1,079	70,970
CAT 0140 TOTAL	--	6	--	80	--	--	--

NOTE: UNDISTRIBUTED 1 1/4 INCH IS FOR ACCESS
 NOTE: UNDISTRIBUTED 3/4 INCH IS FOR DRIVEWAYS IN RESURFACING SECTION THAT ARE LOWER THAN PAVED SHOULDER.
 NOTE: UNDISTRIBUTED BREAKER RUN IS FOR EBS BACKFILL
 NOTE: UNDISTRIBUTED WATER IS FOR DUST CONTROL AND UNDISTRIBUTED 1 1/4 INCH

* ADDITIONAL QUANTITY ELSEWHERE

CONCRETE

LOCATION	415.0080 CONCRETE PAVEMENT 8-INCH	416.0270 CONCRETE DRIVEWAY 7-INCH	416.0610 CONCRETE DRILLED TIE BARS	416.1010 CONCRETE SURFACE DRAINS	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPED	601.0505 CURB RAMP DOWN WARNING FIELD YELLOW	602.0410 CONCRETE SIDEWALK 5-INCH	602.0505 CURB RAMP DOWN WARNING FIELD YELLOW	602.0605 CURB RAMP DOWN WARNING FIELD RADIAL YELLOW	603.1132 CONCRETE BARRIER TYPE S32	603.1232 CONCRETE BARRIER TYPE S32A	620.0800 CONCRETE MEDIAN SLOPED NOSE	SPV.0165.01 CONCRETE RETAINING CURB	SPV.0090.08 CONCRETE CURB & GUTTER HES 30-INCH TYPED	SPV.0165.01 CONCRETE SIDEWALK 12-INCH
	SY	SY	EACH	CY	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF
STA 884+75 TO 913+00	--	120	12	--	8,340	15	22,900	160	74	--	--	530	--	230	1,620
STA 913+00 TO 942+00 EB	--	--	4	3.5	1,880	141	2,730	100	--	--	--	690	--	--	--
STA 913+00 TO 942+00 WB	--	20	--	3.5	1,045	137	3,370	100	--	--	120	510	--	30	--
STA 942+00 TO 1203+10	33	--	31	--	560	--	1,050	--	--	10.5	10.5	--	--	--	--
TOTAL	33	140	47	7	11,825	293	30,060	360	74	10.5	120	1,730	260	1,620	525

ASPHALT

LOCATION	455.0605 TACK COAT	460.6223 HMA PAVEMENT .3 MT 58-28 S CAT 0010	460.6224 HMA PAVEMENT 4 MT 58-28 S CAT 0010	465.0105 ASPHALTIC SURFACE PATCHING	465.0110 ASPHALTIC SURFACE FIELD ENTRANCES	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND TEMPORARY	465.0425 ASPHALTIC SHOULDER RUMBLE STRIPS 2-LANE RURAL	465.0475 ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL	495.1000.S COLD PATCH
	GAL	TON	TON	TON	TON	TON	LF	LF	TON
STA 884+75 TO 913+00	2,700	--	1,960	--	82	600	--	--	--
STA 913+00 TO 942+00 EB	2,200	--	1,640	--	32	225	--	--	--
STA 913+00 TO 942+00 WB	2,300	--	1,700	--	7	--	--	--	--
STA 942+00 TO 1203+10	7,100	22	12,430	17	29	835	21,000	21,000	--
ETERR TEMP CONNECTION	--	--	--	--	--	325	--	--	--
UNDISTRIBUTED	--	--	--	--	100	35	--	--	100
CAT 0010 TOTAL	14,300	18,260	17,730	46	158	1,150	--	21,000	100
CAT 0140 TOTAL	--	--	--	17	--	--	835	--	--

* ADDITIONAL QUANTITY ELSEWHERE

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WISDOT/CADDIS SHEET 42

PWL MIXTURE USE TABLE

THE FOLLOWING ACCEPTANCE CRITERIA ARE APPLICABLE FOR THIS PROJECT:

LOCATION	STATION	MIXTURE USE	UNDERLYING SURFACE	BID ITEM	TONS	THICKNESS	MIXTURE ACCEPTANCE	QUALITY MANAGEMENT PROGRAM TO BE USED FOR:
STH 20 EB INSIDE LANE	884+75 - 901+80 905+25 - 942+55	UPPER LAYER	3 MT 58-28 S	4 MT 58-28 S	760	1 3/4-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	DENSITY ACCEPTANCE
		UPPER-LOWER LAYER	3 MT 58-28 S	3 MT 58-28 S	980	2 1/4-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
		LOWER-LOWER LAYER	1 1/4-INCH BASE AGGREGATE DENSE	3 MT 58-28 S	1,310	3-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
STH 20 WB INSIDE LANE	884+75 - 903+00 906+20 - 954+30	UPPER LAYER	3 MT 58-28 S	4 MT 58-28 S	930	1 3/4-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
		UPPER-LOWER LAYER	3 MT 58-28 S	3 MT 58-28 S	1,190	2 1/4-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
		LOWER-LOWER LAYER	1 1/4-INCH BASE AGGREGATE DENSE	3 MT 58-28 S	1,590	3-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
STH 20 EB OUTSIDE LANE	905+25 - 950+55	UPPER LAYER	3 MT 58-28 S	4 MT 58-28 S	640	1 3/4-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
		UPPER-LOWER LAYER	3 MT 58-28 S	3 MT 58-28 S	820	2 1/4-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
		LOWER-LOWER LAYER	1 1/4-INCH BASE AGGREGATE DENSE	3 MT 58-28 S	1,090	3-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
STH 20 WB OUTSIDE LANE	903+15 - 904+00 906+20 - 954+30	UPPER LAYER	3 MT 58-28 S	4 MT 58-28 S	670	1 3/4-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
		UPPER-LOWER LAYER	3 MT 58-28 S	3 MT 58-28 S	870	2 1/4-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
		LOWER-LOWER LAYER	1 1/4-INCH BASE AGGREGATE DENSE	3 MT 58-28 S	1,160	3-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
STH 20 EB INSIDE LANE	901+80 - 905+25	UPPER LAYER	3 MT 58-28 S	4 MT 58-28 S	50	1 3/4-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
		UPPER-LOWER LAYER	3 MT 58-28 S	3 MT 58-28 S	60	2 1/4-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
		LOWER-LOWER LAYER	1 1/4-INCH BASE AGGREGATE DENSE	3 MT 58-28 S	80	3-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
STH 20 WB INSIDE LANE	903+00 - 906+20	UPPER LAYER	3 MT 58-28 S	4 MT 58-28 S	40	1 3/4-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
		UPPER-LOWER LAYER	3 MT 58-28 S	3 MT 58-28 S	60	2 1/4-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
		LOWER-LOWER LAYER	1 1/4-INCH BASE AGGREGATE DENSE	3 MT 58-28 S	80	3-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
STH 20 EB OUTSIDE LANE	902+25 - 905+25	UPPER LAYER	3 MT 58-28 S	4 MT 58-28 S	40	1 3/4-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
		UPPER-LOWER LAYER	3 MT 58-28 S	3 MT 58-28 S	50	2 1/4-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
		LOWER-LOWER LAYER	1 1/4-INCH BASE AGGREGATE DENSE	3 MT 58-28 S	70	3-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
STH 20 WB OUTSIDE LANE	904+00 - 906+20	UPPER LAYER	3 MT 58-28 S	4 MT 58-28 S	30	1 3/4-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
		UPPER-LOWER LAYER	3 MT 58-28 S	3 MT 58-28 S	40	2 1/4-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
		LOWER-LOWER LAYER	1 1/4-INCH BASE AGGREGATE DENSE	3 MT 58-28 S	50	3-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
STH 20 EB SHOULDER	884+75 - 954+30	UPPER LAYER	3 MT 58-28 S	4 MT 58-28 S	360	1 3/4-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
		UPPER-LOWER LAYER	3 MT 58-28 S	3 MT 58-28 S	460	2 1/4-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
		LOWER-LOWER LAYER	1 1/4-INCH BASE AGGREGATE DENSE	3 MT 58-28 S	610	3-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
STH 20 WB SHOULDER	884+75 - 954+30	UPPER LAYER	3 MT 58-28 S	4 MT 58-28 S	360	1 3/4-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
		UPPER-LOWER LAYER	3 MT 58-28 S	3 MT 58-28 S	470	2 1/4-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
		LOWER-LOWER LAYER	1 1/4-INCH BASE AGGREGATE DENSE	3 MT 58-28 S	620	3-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE

PWL MIXTURE USE TABLE

THE FOLLOWING ACCEPTANCE CRITERIA ARE APPLICABLE FOR THIS PROJECT:

LOCATION	STATION	MIXTURE USE	UNDERLYING SURFACE	BID ITEM	TONS	THICKNESS	MIXTURE	QUALITY MANAGEMENT PROGRAM TO BE USED FOR:
STH 20 TWL TL	887+64 - 899+00	UPPER LAYER	3 MT 58-28 S	4 MT 58-28 S	200	1 3/4-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460,2010	DENSITY ACCEPTANCE ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
		UPPER-LOWER LAYER	3 MT 58-28 S	3 MT 58-28 S	260	2 1/4-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460,2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
		LOWER-LOWER LAYER	1 1/4-INCH BASE AGGREGATE DENSE	3 MT 58-28 S	340	3-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460,2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
STH 20 MEDIAN OPENINGS	901+28 - 901+97 906+65 - 907+18 911+51 - 912+08 924+72 - 925+21 932+26 - 932+80 940+00 - 940+60	UPPER LAYER	3 MT 58-28 S	4 MT 58-28 S	260	1 3/4-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460,2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
		UPPER-LOWER LAYER	3 MT 58-28 S	3 MT 58-28 S	330	2 1/4-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460,2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
		LOWER-LOWER LAYER	1 1/4-INCH BASE AGGREGATE DENSE	3 MT 58-28 S	440	3-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460,2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
		UPPER LAYER	3 MT 58-28 S	4 MT 58-28 S	850	1 3/4-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460,2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
STH 20 TURN LANES		UPPER-LOWER LAYER	3 MT 58-28 S	3 MT 58-28 S	1,100	2 1/4-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460,2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
		LOWER-LOWER LAYER	1 1/4-INCH BASE AGGREGATE DENSE	3 MT 58-28 S	1,560	3-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460,2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
		UPPER LAYER	3 MT 58-28 S	4 MT 58-28 S	780	1 3/4-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460,2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
		UPPER-LOWER LAYER	3 MT 58-28 S	3 MT 58-28 S	1,000	2 1/4-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460,2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
EDWARDS ST. EAST ST. BYRNES ST. N STERLING CIRCLE CTHES CTH L IH 43 RAMPS	VARIOUS	UPPER LAYER	1 1/4-INCH BASE AGGREGATE DENSE	3 MT 58-28 S	1,340	3-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460,2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
		LOWER-LOWER LAYER	1 1/4-INCH BASE AGGREGATE DENSE	3 MT 58-28 S				
STH 20 WB MAINLINE	954+30 - 1154+70 1159+65 - 1203+10	UPPER LAYER	EXISTING MILLED SURFACE	4 MT 58-28 S	3,900	2-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460,2010	INCENTIVE DENSITY PWL-HMA PAVEMENT 460,2005
		UPPER LAYER	EXISTING MILLED SURFACE	4 MT 58-28 S	1,680	2-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460,2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
STH 20 WB SHOULDER	954+30 - 1154+70 1159+65 - 1203+10	UPPER LAYER	3 MT 58-28 S	4 MT 58-28 S	80	2-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460,2010	INCENTIVE DENSITY PWL-HMA PAVEMENT 460,2005
		LOWER LAYER	1 1/4-INCH BASE AGGREGATE DENSE	3 MT 58-28 S	150	3 3/4-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460,2010	INCENTIVE DENSITY PWL-HMA PAVEMENT 460,2005
STH 20 WB SHOULDER	1154+70 - 1159+65	UPPER LAYER	3 MT 58-28 S	4 MT 58-28 S	40	2-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460,2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
		LOWER LAYER	1 1/4-INCH BASE AGGREGATE DENSE	3 MT 58-28 S	80	3 3/4-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460,2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
STH 20 EB MAINLINE	954+30 - 1203+10	UPPER LAYER	EXISTING MILLED SURFACE	4 MT 58-28 S	3,980	2-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460,2010	INCENTIVE DENSITY PWL-HMA PAVEMENT 460,2005
		UPPER LAYER	EXISTING MILLED SURFACE	4 MT 58-28 S	1,690	2-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460,2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
GREENWALD CT CARVER SCHOOL RD HILLBURN MILL RD WEBER RD OAK HILLS DR BELLICK SCHOOL RD HONEY CREEK RD S HONEY CREEK RD N	VARIOUS	UPPER LAYER	EXISTING MILLED SURFACE	4 MT 58-28 S	390	2-INCH	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460,2010	ACCEPTANCE TESTING BY THE DEPARTMENT; NOT ELIGIBLE FOR INCENTIVE
		UPPER LAYER	EXISTING MILLED SURFACE	4 MT 58-28 S				

Addendum No. 02
ID 2698-03-70
Revised Sheet 615
April 27, 2023

CULVERT PIPE SUMMARY

CULVERT	STATION	OFFSET	LOCATION	ELEVATION	ELEVATION	EACH	LF	LF	LF	LF	STEEL THICKNESS (INCHES)
1A	906+86	105.7 RT	5TH 20	849.00	848.53	--	48	48	--	--	--
1B	906+86	110.3 RT	5TH 20	849.00	848.53	--	48	48	--	--	--
2	21+03	0 RT	5TH 20	848.50	848.07	--	--	--	--	--	--
3	1151+90	7 LT	5TH 20	801.14	799.40	--	--	--	--	--	--
4	1144+37	1.4 LT	5TH 20	801.76	801.11	2	--	--	--	--	--
5	1136+70	0 RT	5TH 20	807.95	807.76	--	--	--	32	--	--
6	1141+0.5	28.7 RT	5TH 20	806.30	806.00	2	24	24	--	--	0.079
TOTAL						2	24	96	32		

REMARKS:
 *ADDITIONAL QUANTITY ELSEWHERE
 1. PIPE LENGTH FOR AEW IS MEASURED FROM BEGINNING OF PIPE SECTIONS, NOT END OF APRON ENDWALL.

CULVERT PIPE SUMMARY

CULVERT	APRON ENDWALLS FOR PIPE ARCH SLOPED CROSS DRAINS STEEL	APRON ENDWALLS FOR PIPE ARCH SLOPED SIDE DRAINS STEEL	APRON ENDWALLS FOR PIPE ARCH CORRUGATED STEEL	CULVERT PIPE REINFORCED CONCRETE	STEEL THICKNESS (INCHES)
1A	2	2	2	48	--
1B	2	2	2	48	--
2	--	--	80	--	--
3	--	--	--	48	--
4	--	--	--	56	--
5	2	--	--	--	--
6	--	--	--	--	--
TOTAL					48

REMARKS:
 *ADDITIONAL QUANTITY ELSEWHERE
 1. PIPE LENGTH FOR AEW IS MEASURED FROM BEGINNING OF PIPE SECTIONS, NOT END OF APRON ENDWALL.

LOCATION	SIZE	TYPE	COMMENT
902+75.56 RT	2' X 3'	H	ADJUST TO MATCH TEMPORARY PAVEMENT
TOTAL			1

ADJUSTING INLET COVERS

611.8115
 ADJUSTING INLET COVERS
 EACH

PERMANENT EROSION CONTROL

LOCATION	SPV Q180.01 SLOPE PAVING CRUSHED AGGREGATE EPOXY	645.0120	GEOTEXTILE TYPE HR	645.0120	SY
STA 884+75 TO 913+00	---	---	---	---	---
STA 913+00 TO 942+00 EB	25.5	87	---	---	190
STA 913+00 TO 942+00 WB	5.5	20	---	---	200
STA 942+00 TO 1203+10	70.0	223	---	---	1390
UNDISTRIBUTED (5%-25%)	6.0	17	---	---	90
TOTAL	107	347	---	---	1,870

PROJECT ITEMS

LOCATION	2698-03-70	643.5000	TRAFFIC CONTROL	643.5000	EACH
FINISHING ROADWAY	1	0.8	1	0.8	0.8
FIELD OFFICE TYPE D	1	0.8	1	0.8	0.8
MOBILIZATION	1	0.8	1	0.8	0.8
TOTAL	3	2.4	3	2.4	2.4

TEMPORARY EROSION CONTROL

LOCATION	628.1504	628.1520	628.1530.S	628.1535.S	628.1905	628.1910	628.2004	628.2023
STA 884+75 TO 913+00	742	165	---	---	8	5	2,530	---
STA 913+00 TO 942+00 EB	---	---	---	---	7	4	11,800	---
STA 913+00 TO 942+00 WB	---	---	---	---	4	2	6,450	---
STA 942+00 TO 1203+10	1,550	2,370	2,370	---	8	5	5,710	1,240
ETERR TEMP CONNECTION	---	---	---	---	2	4	255	---
UNDISTRIBUTED (5%-25%)	643	630	630	---	---	---	6,690	310
TOTAL	3,100	3,100	3,000	3,000	29	20	33,435	1,550

TEMPORARY EROSION CONTROL

LOCATION	628.7005	628.7010	628.7015	628.7020	628.7504	628.7555	628.7560	628.7570
STA 884+75 TO 913+00	50	10	40	16	50	13	2	---
STA 913+00 TO 942+00 EB	28	8	30	5	100	28	2	---
STA 913+00 TO 942+00 WB	25	5	31	3	100	27	2	---
STA 942+00 TO 1203+10	4	5	12	1	120	23	2	25
ETERR TEMP CONNECTION	7	---	9	2	---	---	---	---
UNDISTRIBUTED (5%-25%)	5	5	5	5	100	23	2	50
TOTAL	119	33	127	32	470	114	10	75

Addendum No. 02
ID 2698-03-70
Revised Sheet 616
April 27, 2023

RESTORATION

625.0100	625.0500	627.0200	628.6510	629.0210	630.0130	630.0140	630.0160	630.0200	630.0500
TOPSOIL **	SALVAGED TOPSOIL	MULCHING	SOIL STABILIZER TYPE B	FERTILIZER TYPE B	SEEDING MIXTURE NO. 30	SEEDING MIXTURE NO. 40	SEEDING MIXTURE NO. 60	SEEDING TEMPORARY	SEED WATER
SY	SY	SY	ACRE	CMT	LB	LB	LB	LB	MGAL
1,300	12,700	10,100	--	5.75	290	280	--	170	13
200	12,800	970	--	5.75	570	6	--	170	13
200	7,090	640	--	3.25	290	25	--	100	8
--	7,200	--	--	2.75	270	--	18	80	7
--	9,950	--	--	--	--	79	--	7	--
--	9,950	2,930	2.50	4.40	360	--	5	130	11
TOTAL	49,740	14,640	2.50	21.90	1,780	390	23	657	52

** TOPSOIL QTY'S ARE UNDISTRIBUTED FOR AREAS WITH NOT ENOUGH SALVAGE TOPSOIL. FOR URBAN AREAS WEST OF CTH ES.

PLANTINGS

632.0101.01	632.0101.02	632.0101.03	632.9101
TREES ALTIUM	TREES	TREES GINKGO	TREES
BLAZE CALLERY	HONEYLOCUST	BIRDBA PRINCETON	LANDSCAPING PLANTING
PEAR, 3" CAL, B&B	2.5" CAL, B&B	SENTRY 2.5" CAL, B&B	SURVEILLANCE AND CARE
EACH	EACH	EACH	EACH
3	2	2	20
TOTAL	3	2	20

TRAFFIC CONTROL

643.0300	643.0420	643.0500	643.0600	643.0705	643.0715	643.0800	643.0900
DRUMS	BARRICADES TYPE III	FLEXIBLE TUBULAR MARKER POSTS	FLEXIBLE TUBULAR MARKER BASES	WARNING LIGHTS TYPE A	WARNING LIGHTS TYPE C	ARROW BOARDS	SIGNS
DAY	DAY	EACH	EACH	DAY	DAY	DAY	DAY
19,300	10,700	--	--	21,300	1,350	--	33,200
19,400	1,800	--	--	3,500	3,500	--	3,900
33,900	8,300	150	150	16,500	5,570	105	18,600
29,700	13,100	90	90	26,100	4,830	--	10,800
--	5,300	--	--	10,600	--	--	29,100
19,000	2,400	--	--	4,800	3,400	--	5,400
6,400	2,500	--	--	4,900	1,600	155	18,500
32,000	11,100	60	60	22,000	5,100	70	29,900
TOTAL	55,200	300	300	109,700	25,350	330	149,400

TRAFFIC CONTROL

643.0910	643.0920	643.1000	643.1050
COVERING SIGNS TYPE 1	COVERING SIGNS TYPE 2	SIGNS FIXED MESSAGE	SIGNS PCVMS
EACH	EACH	SE	DAY
--	1	132	20
--	--	--	--
--	1	45	40
1	2	45	60
--	--	--	--
--	1	--	20
2	5	222	140
TOTAL			

TEMPORARY PEDESTRIAN

644.1410	644.1430	644.1440	644.1601	644.1605	644.1810
SURFACE ASPHALT	SURFACE PLATE	SURFACE MATTING	CURB RAMP	DETECTABLE WARNING FIELD	BARRICADE
SF	SF	SF	DAY	SF	LF
465	--	750	200	--	3,872
100	200	150	50	10	600
TOTAL	565	200	250	10	4,472

Addendum No. 02
ID 2698-03-70
Revised Sheet 618
April 27, 2023

MARKING REMOVAL

LOCATION	646.9000		646.9100		646.9200.01		646.9200.02		646.9210		646.9300		646.9310	
	4-INCH	8-INCH	8-INCH	8-INCH	12-INCH	18-INCH	18-INCH	18-INCH	18-INCH	18-INCH	18-INCH	18-INCH	18-INCH	18-INCH
STAGE 1	38	465	465	100										
BETWEEN STAGE 1 & 2	2,865	825	825											
STAGE 2	1,195	900	900											
STAGE 3			450											
BETWEEN STAGE 3 & 4			350				48							
STAGE 4														
TOTAL	4,098	21,745	2,190	100	12	48								7

TEMPORARY MARKING

LOCATION	643.3120		643.3520		643.3760		643.3770		643.3820		646.7420	
	LINE EPOXY 4-INCH	RAISED PAVEMENT MARKER	LINE EPOXY 8-INCH	RAISED PAVEMENT MARKER	TYPE I	TYPE II	TYPE I	TYPE II	STOP LINE EPOXY 18-INCH	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH	STOP LINE EPOXY 18-INCH	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH
STAGE 1	2,640	4,110	1,040									
BETWEEN STAGE 1 & 2	2,675	600	1,260								24	
STAGE 2	7,410	5,910	370		13	12					36	
STAGE 3	5,030	7,710	370		13	14					48	70
BETWEEN STAGE 3 & 4	500	780										
STAGE 4	1,675											
UNDISTRIBUTED					5	5						
SUBTOTAL	19,330	19,110		31								
TOTAL	38,440	3,040	19	62	20	108						70

MARKING

LOCATION	646.1020		646.1545		646.3020		646.3545		646.5020		646.5120		646.5320		646.5520	
	LINE EPOXY 4-INCH	LINE GROOVED WET REF CONTRAST EPOXY 8-INCH	LINE EPOXY 8-INCH	LINE GROOVED WET REF CONTRAST EPOXY 8-INCH	LINE EPOXY 8-INCH	LINE GROOVED WET REF CONTRAST EPOXY 8-INCH	LINE EPOXY 8-INCH	LINE GROOVED WET REF CONTRAST EPOXY 8-INCH	LINE EPOXY 8-INCH	LINE GROOVED WET REF CONTRAST EPOXY 8-INCH	WORD EPOXY	RAILROAD CROSSING EPOXY	OUTFALL EPOXY	RAILROAD CROSSING EPOXY	OUTFALL EPOXY	
STAGE 1	4,960	113	113	580	305	580	305	86	775	13	1	1	3	3	3	3
STAGE 2	5,878	119	119	1,107	28	1,107	28	86	775	13	3	3	1	5	5	5
STAGE 3	8,161			769	48,775	35	148	38	148	148	1	1	3	1	5	2
SUBTOTAL	18,999	394	113	1,357	48,775	35	1,835	371	2,866	38	6	2	3	11	5	31
TOTAL	85,080	50,223	2,206	3,100	49											

MARKING		MISC. ITEMS	
LOCATION	LF	LOCATION	LF
646.6120	80	616.0700.S	500
646.6464	300	SPV.0060.19	2
646.7120	235	SECTION CORNER MONUMENTS	1
646.8120	370	FENCE SAFETY	500
646.8220	60	TIMBER FENCE	150
646.8420	84	SPV.0180.02	150
646.8720	396	RESIN BINDER HIGH FRICTION SURFACE TREATMENT CAT 0140	1,500
646.9120	381		
646.9420	605		
TOTAL	33,400		

LOCATION	LF	ISLAND NOSE EPOXY	LOCATING NO-PASSING ZONES
646.7420	84	9	MI
646.8220	10	1	4.75
646.8720	60	6	
646.9120	370		
646.9420	605		
TOTAL	1,360	16	4.75

Addendum No. 02
ID 2698-03-70
Revised Sheet 619
April 27, 2023

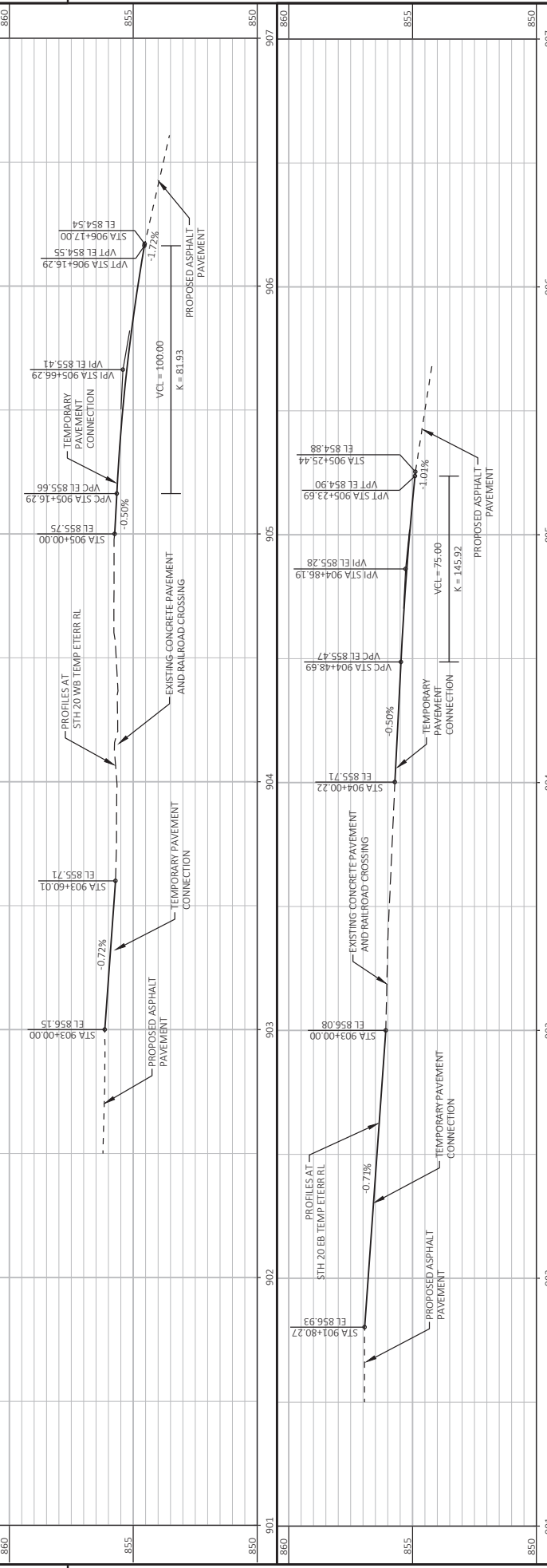
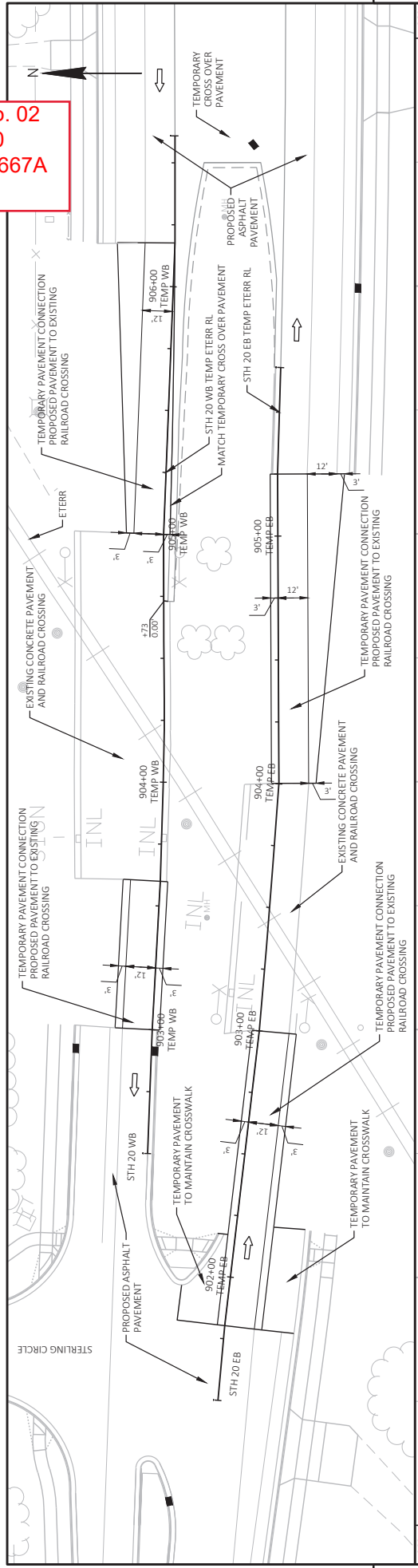
BEAM GUARD		MISCELLANEOUS QUANTITIES	
LOCATION	LF	LOCATION	LF
614.0396	847	614.2620	5
614.2300	154	614.2610	15
614.2500	315	614.2500	315
614.2600	440	614.2600	41
614.2610	15	614.2610	1
614.2620	5	614.2620	1
614.2630	33	614.2630	33
TOTAL	1,150	TOTAL	17,090

CONSTRUCTION STAKING		MISCELLANEOUS QUANTITIES	
LOCATION	LF	LOCATION	LF
650.4500	5,650	650.4500	5,650
650.4500	675	650.4500	675
650.4500	425	650.4500	425
650.4500	2,900	650.4500	2,900
650.4500	2,900	650.4500	2,900
650.4500	4,540	650.4500	4,540
650.4500	1,920	650.4500	1,920
650.4500	19,645	650.4500	19,645
650.4500	17,090	650.4500	17,090
TOTAL	15,990	TOTAL	15,990

MARKING		MISC. ITEMS	
LOCATION	LF	LOCATION	LF
646.6120	80	616.0700.S	500
646.6464	300	SPV.0060.19	2
646.7120	235	SECTION CORNER MONUMENTS	1
646.8120	370	FENCE SAFETY	500
646.8220	60	TIMBER FENCE	150
646.8420	84	SPV.0180.02	150
646.8720	396	RESIN BINDER HIGH FRICTION SURFACE TREATMENT CAT 0140	1,500
646.9120	381		
646.9420	605		
TOTAL	33,400		

BEAM GUARD		MISCELLANEOUS QUANTITIES	
LOCATION	LF	LOCATION	LF
614.0396	847	614.2620	5
614.2300	154	614.2610	15
614.2500	315	614.2500	315
614.2600	440	614.2600	41
614.2610	15	614.2610	1
614.2620	5	614.2620	1
614.2630	33	614.2630	33
TOTAL	1,150	TOTAL	17,090

Addendum No. 02
 ID 2698-03-70
 Added Sheet 667A
 April 27, 2023



PROJECT NO: 2698-03-70	COUNTY: WALWORTH / RACINE	PLAN AND PROFILE:	TEMPORARY ETERR CONNECTION	SHEET 667A
HWY: STH 20	FLYBY: GRENTE, JEFFREY	FLYBY:	TEMPORARY ETERR CONNECTION	
FILE NAME: \\WERTOV\HP\POL\WPUBLIC\PS\CD\26980300-2018\48\SHEET\PLAN\ETERR TEMP CONNECTION- PLAN AND PROFILE.DWG	DATE: 4/17/2023 8:25 AM	DATE:	TEMPORARY ETERR CONNECTION	
LAYOUT NAME: -01	DATE:	DATE:	TEMPORARY ETERR CONNECTION	

WISDOT/CADDIS SHEET 44

Addendum No. 02
 ID 2698-03-70
 Added Sheet 982A
 April 27, 2023

DIVISION 1 - STH 20 EB TERR TEMPORARY CONNECTION

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL. (CY) (UNADJUSTED)		CUMULATIVE VOL. (CY)		MASS ORDNATE
			CUT	FILL	CUT	FILL	1.00	1.20	
901+80.77	90180.77	0.00	7.25	0.00	0	0	0	0	0
902+00.00	90200.00	19.73	11.65	10.00	7	7	0	0	0
902+25.00	90225.00	25.00	14.28	7.50	8	0	19	0	4
902+50.00	90250.00	25.00	14.73	7.50	13	0	32	0	10
902+75.00	90275.00	25.00	16.47	7.50	14	0	46	0	17
903+00.00	90300.00	25.00	21.92	0.00	18	0	64	0	28
904+00.22	90400.22	0.00	20.58	0.00	0	0	64	0	28
904+25.00	90425.00	24.78	8.33	0.21	20	7	84	0	41
904+50.00	90450.00	25.00	23.84	0.02	22	8	106	0	55
904+75.00	90475.00	25.00	20.33	0.53	20	9	126	0	66
905+00.00	90500.00	25.00	14.56	2.16	16	10	142	1	71
905+25.00	90525.00	25.00	9.00	5.97	11	9	153	6	68

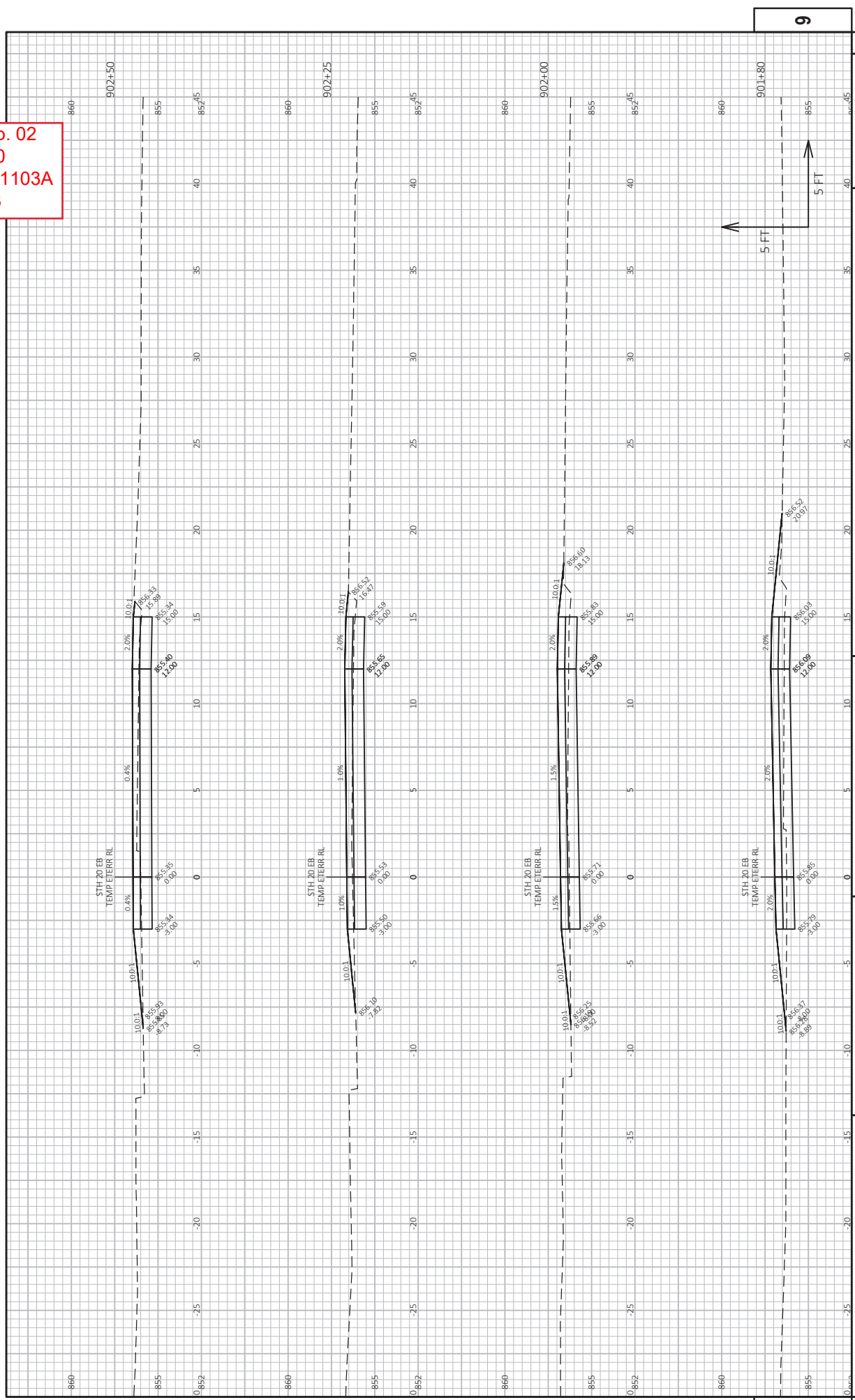
DIVISION 1 - STH 20 WB TERR TEMPORARY CONNECTION

STATION	REAL STATION	DISTANCE	AREA (SF)		INCREMENTAL VOL. (CY) (UNADJUSTED)		CUMULATIVE VOL. (CY)		MASS ORDNATE
			CUT	FILL	CUT	FILL	1.00	1.20	
903+00.00	90300.00	0.00	3.36	0.00	0	0	0	0	0
903+25.00	90325.00	25.00	19.54	0.00	11	5	11	0	6
903+50.00	90350.00	25.00	25.77	0.00	21	7	32	0	20
903+60.01	90360.01	10.01	26.45	0.00	10	3	42	0	27
905+00.00	90500.00	0.00	22.45	0.00	0	0	42	0	27
905+25.00	90525.00	25.00	23.95	0.00	21	7	63	0	41
905+50.00	90550.00	25.00	24.32	0.00	22	7	85	0	56
905+75.00	90575.00	25.00	23.75	0.00	22	8	107	0	70
906+00.00	90600.00	25.00	23.19	0.30	22	9	129	0	83
906+16.87	90616.87	16.87	19.44	0.60	13	7	142	0	89

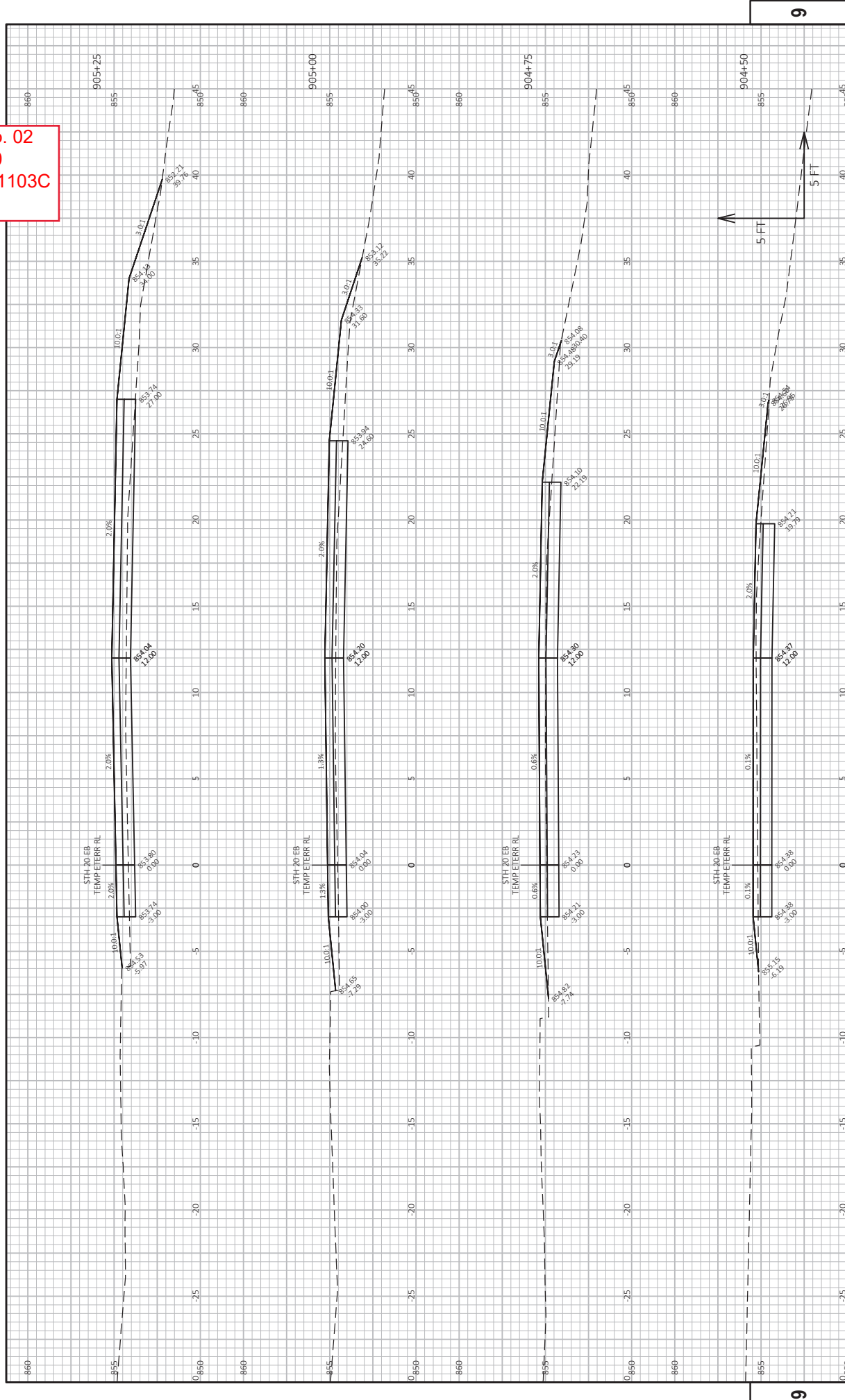
NOTES:
 1- CUT
 2- SALVAGED/UNUSABLE PAVEMENT MATERIAL
 3- FILL
 8- MASS ORDNATE

CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
 THIS DOES NOT SHOW UP IN CROSS SECTIONS
 DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
 [CUT - SALVAGED PAVT - ((FILL) * FILL FACTOR)]

Addendum No. 02
 ID 2698-03-70
 Added Sheet 1103A
 April 27, 2023

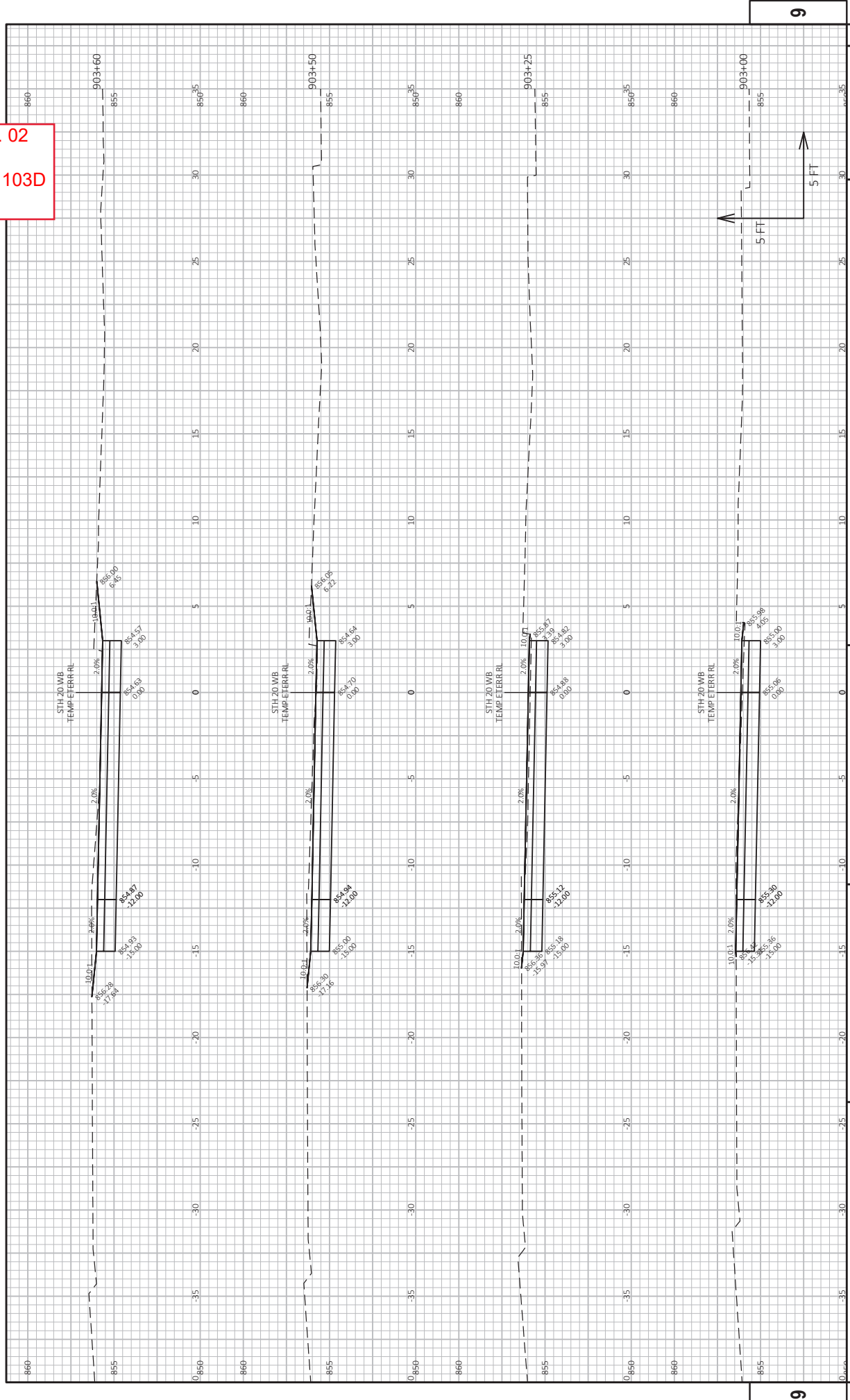


Addendum No. 02
 ID 2698-03-70
 Added Sheet 1103C
 April 27, 2023

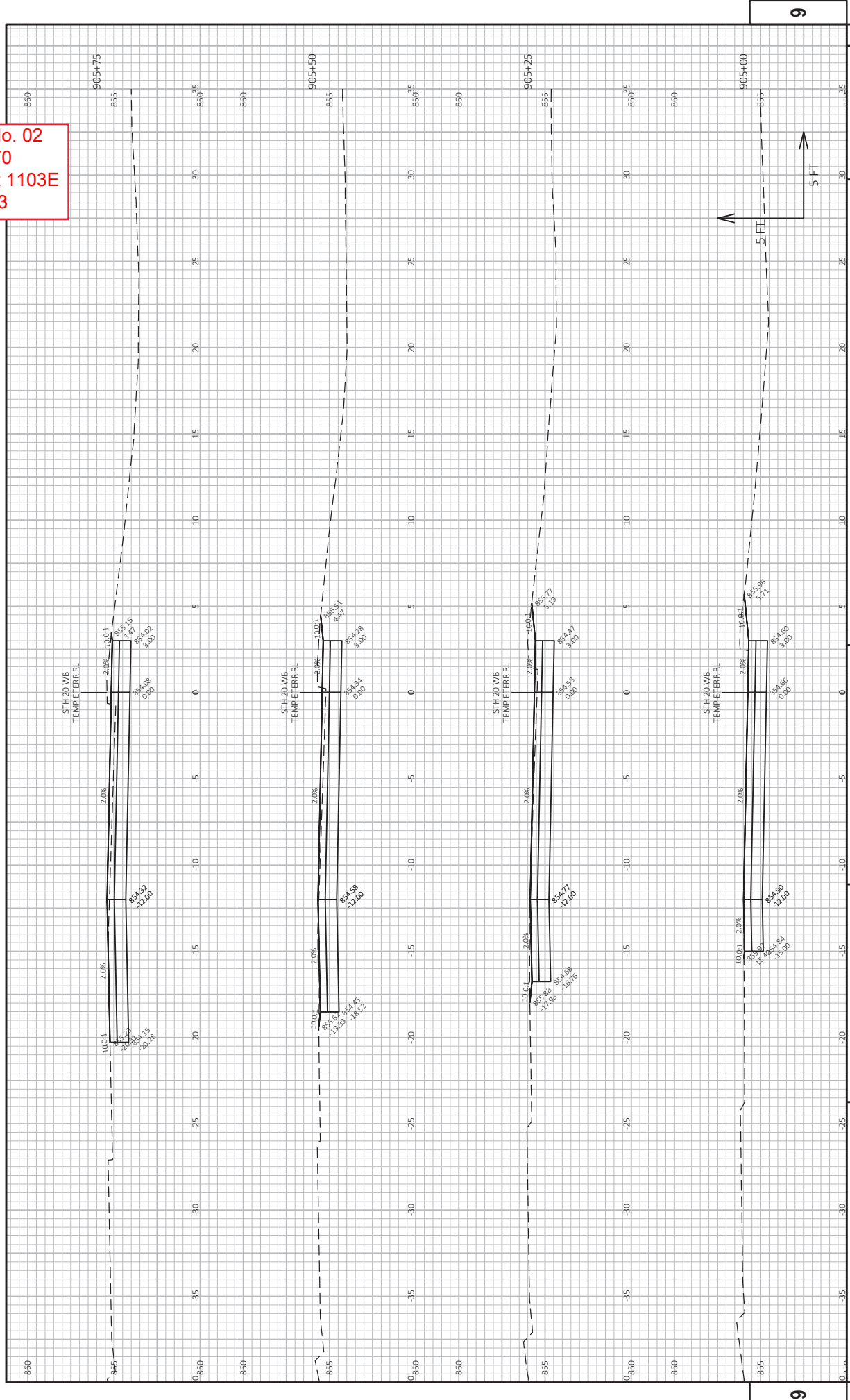


PROJECT NO: 2698-03-70
 COUNTY: WALWORTH / RACINE
 CROSS SECTIONS: STH 20 EB TEMPORARY ETERR RL
 SHEET 1103C
 FILE NAME: \\WERT0VHP\POL\IN\PUBLIC\PS\3D\26980300-2018\SHEET\PLAN\ETERR TEMP CONNECTION - CROSS SECTIONS.DWG
 LAYOUT NAME: TEMP EB 3
 PLOT DATE: 4/17/2023 11:13 AM
 PLOT BY: GUENETTE, JEFFREY
 PLOT NAME: STH 20 EB TEMPORARY ETERR RL
 PLOT SCALE: 1 IN=5 FT HORZ. / 1 IN=5 FT VERT.
 WISDOT/CADDIS SHEET 49

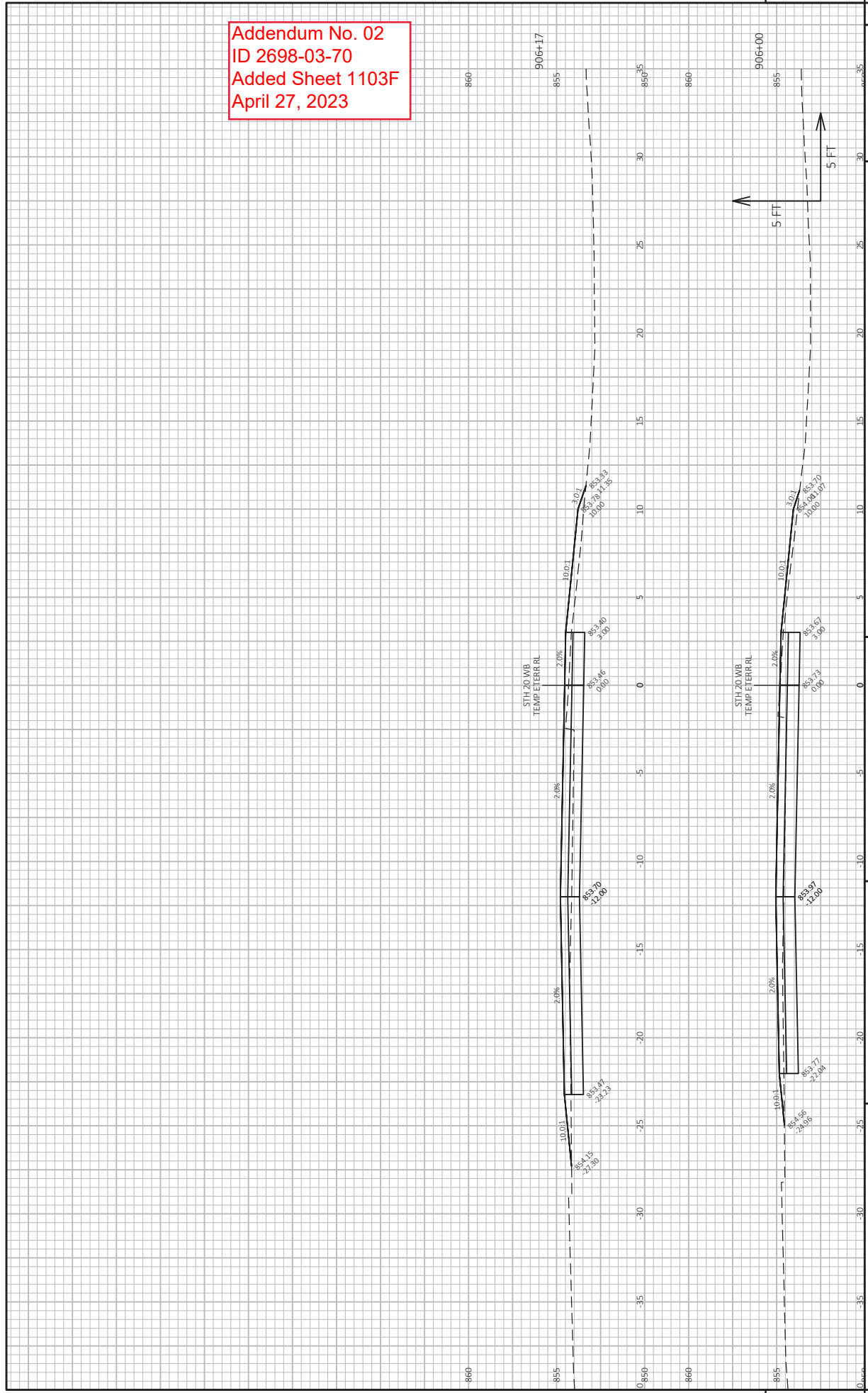
Addendum No. 02
 ID 2698-03-70
 Added Sheet 1103D
 April 27, 2023



Addendum No. 02
 ID 2698-03-70
 Added Sheet 1103E
 April 27, 2023



Addendum No. 02
 ID 2698-03-70
 Added Sheet 1103F
 April 27, 2023





Proposal Schedule of Items

Proposal ID: 20230509013 Project(s): 2340-00-79, 2698-03-70, 2698-03-73

Federal ID(s): N/A, N/A, N/A

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0002	108.4400 CPM Progress Schedule	1.000 EACH	_____.	_____.
0004	201.0110 Clearing	5,200.000 SY	_____.	_____.
0006	201.0120 Clearing	317.000 ID	_____.	_____.
0008	201.0210 Grubbing	5,230.000 SY	_____.	_____.
0010	201.0220 Grubbing	597.000 ID	_____.	_____.
0012	203.0100 Removing Small Pipe Culverts	12.000 EACH	_____.	_____.
0014	204.0100 Removing Concrete Pavement	56,100.000 SY	_____.	_____.
0016	204.0110 Removing Asphaltic Surface	5.000 SY	_____.	_____.
0018	204.0115 Removing Asphaltic Surface Butt Joints	212.000 SY	_____.	_____.
0020	204.0120 Removing Asphaltic Surface Milling	151,100.000 SY	_____.	_____.
0022	204.0150 Removing Curb & Gutter	1,255.000 LF	_____.	_____.
0024	204.0155 Removing Concrete Sidewalk	910.000 SY	_____.	_____.
0026	204.0165 Removing Guardrail	4,105.000 LF	_____.	_____.
0028	204.0170 Removing Fence	600.000 LF	_____.	_____.
0030	204.0195 Removing Concrete Bases	13.000 EACH	_____.	_____.
0032	204.0210 Removing Manholes	3.000 EACH	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20230509013 Project(s): 2340-00-79, 2698-03-70, 2698-03-73

Federal ID(s): N/A, N/A, N/A

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0034	204.0220 Removing Inlets	47.000 EACH	_____.	_____.
0036	204.0245 Removing Storm Sewer (size) 01. 12-Inch	1,154.000 LF	_____.	_____.
0038	204.0245 Removing Storm Sewer (size) 02. 15-Inch	156.000 LF	_____.	_____.
0040	204.0245 Removing Storm Sewer (size) 03. 18-Inch	106.000 LF	_____.	_____.
0042	204.0245 Removing Storm Sewer (size) 04. 24-Inch	1,778.000 LF	_____.	_____.
0044	204.0245 Removing Storm Sewer (size) 05. 30-Inch	32.000 LF	_____.	_____.
0046	204.0245 Removing Storm Sewer (size) 06. 36-Inch	164.000 LF	_____.	_____.
0048	204.0270 Abandoning Culvert Pipes	2.000 EACH	_____.	_____.
0050	204.0280 Sealing Pipes	1.000 EACH	_____.	_____.
0052	204.9060.S Removing (item description) 01. Corrugated Steel Culvert Pipe and Restoring Cut End	1.000 EACH	_____.	_____.
0054	204.9060.S Removing (item description) 02. Inlet Cover	1.000 EACH	_____.	_____.
0056	204.9060.S Removing (item description) 03. Traffic Signals	1.000 EACH	_____.	_____.
0058	204.9060.S Removing (item description) 04. Loop Detector Wire & Lead-In Cable	1.000 EACH	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20230509013 Project(s): 2340-00-79, 2698-03-70, 2698-03-73

Federal ID(s): N/A, N/A, N/A

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0060	204.9090.S Removing (item description) 01. Steel Plate Beam Guard Retaining Wall	883.000 LF	_____.	_____.
0062	205.0100 Excavation Common	79,519.000 CY	_____.	_____.
0064	205.0501.S Excavation, Hauling, and Disposal of Petroleum Contaminated Soil	34.000 TON	_____.	_____.
0066	213.0100 Finishing Roadway (project) 01. 2340-00-79	1.000 EACH	_____.	_____.
0068	213.0100 Finishing Roadway (project) 02. 2698-03-70	1.000 EACH	_____.	_____.
0070	305.0110 Base Aggregate Dense 3/4-Inch	5,012.000 TON	_____.	_____.
0072	305.0120 Base Aggregate Dense 1 1/4-Inch	59,766.000 TON	_____.	_____.
0074	305.0500 Shaping Shoulders	472.000 STA	_____.	_____.
0076	310.0110 Base Aggregate Open-Graded	420.000 TON	_____.	_____.
0078	311.0110 Breaker Run	54,812.000 TON	_____.	_____.
0080	371.2000.S QMP Base Aggregate Dense 1 1/4-Inch Compaction	31.000 EACH	_____.	_____.
0082	390.0201 Base Patching Asphaltic	3,283.000 TON	_____.	_____.
0084	390.0403 Base Patching Concrete Shes	12.000 SY	_____.	_____.
0086	415.0080 Concrete Pavement 8-Inch	33.000 SY	_____.	_____.
0088	416.0170 Concrete Driveway 7-Inch	140.000 SY	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0090	416.0270 Concrete Driveway HES 7-Inch	200.000 SY	_____.	_____.
0092	416.0610 Drilled Tie Bars	47.000 EACH	_____.	_____.
0094	416.1010 Concrete Surface Drains	7.000 CY	_____.	_____.
0096	455.0605 Tack Coat	18,927.000 GAL	_____.	_____.
0098	460.0105.S HMA Percent Within Limits (PWL) Test Strip Volumetrics	2.000 EACH	_____.	_____.
0100	460.0110.S HMA Percent Within Limits (PWL) Test Strip Density	2.000 EACH	_____.	_____.
0102	460.2005 Incentive Density PWL HMA Pavement	26,490.000 DOL	1.00000	26,490.00
0104	460.2007 Incentive Density HMA Pavement Longitudinal Joints	34,930.000 DOL	1.00000	34,930.00
0106	460.2010 Incentive Air Voids HMA Pavement	43,910.000 DOL	1.00000	43,910.00
0108	460.6223 HMA Pavement 3 MT 58-28 S	18,282.000 TON	_____.	_____.
0110	460.6224 HMA Pavement 4 MT 58-28 S	25,667.000 TON	_____.	_____.
0112	465.0105 Asphaltic Surface	46.000 TON	_____.	_____.
0114	465.0110 Asphaltic Surface Patching	100.000 TON	_____.	_____.
0116	465.0120 Asphaltic Surface Driveways and Field Entrances	208.000 TON	_____.	_____.
0118	465.0125 Asphaltic Surface Temporary	1,150.000 TON	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0120	465.0425 Asphaltic Shoulder Rumble Strips 2-Lane Rural	835.000 LF	_____.	_____.
0122	465.0475 Asphalt Centerline Rumble Strips 2-Lane Rural	32,700.000 LF	_____.	_____.
0124	495.1000.S Cold patch	100.000 TON	_____.	_____.
0126	520.8000 Concrete Collars for Pipe	14.000 EACH	_____.	_____.
0128	521.0557 Apron Endwalls for Pipe Arch Sloped Cross Drains Steel 57x38-Inch 4 to 1	2.000 EACH	_____.	_____.
0130	521.1018 Apron Endwalls for Culvert Pipe Steel 18-Inch	1.000 EACH	_____.	_____.
0132	521.1507 Apron Endwalls for Culvert Pipe Sloped Side Drains Steel 36-Inch 4 to 1	2.000 EACH	_____.	_____.
0134	521.1708 Apron Endwalls for Pipe Arch Sloped Side Drains Steel 35x24-Inch 4 to 1	2.000 EACH	_____.	_____.
0136	521.3118 Culvert Pipe Corrugated Steel 18-Inch	2.000 LF	_____.	_____.
0140	521.3735 Pipe Arch Corrugated Steel 35x24-Inch	24.000 LF	_____.	_____.
0142	522.0121 Culvert Pipe Reinforced Concrete Class III 21-Inch	96.000 LF	_____.	_____.
0144	522.0418 Culvert Pipe Reinforced Concrete Class IV 18-Inch	32.000 LF	_____.	_____.
0146	522.1015 Apron Endwalls for Culvert Pipe Reinforced Concrete 15-Inch	5.000 EACH	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0148	522.1018 Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	4.000 EACH	_____.	_____.
0150	522.1021 Apron Endwalls for Culvert Pipe Reinforced Concrete 21-Inch	5.000 EACH	_____.	_____.
0152	522.1024 Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	2.000 EACH	_____.	_____.
0154	522.1036 Apron Endwalls for Culvert Pipe Reinforced Concrete 36-Inch	4.000 EACH	_____.	_____.
0156	522.2319 Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 19x30-Inch	128.000 LF	_____.	_____.
0158	522.2334 Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 34x53-Inch	56.000 LF	_____.	_____.
0160	522.2419 Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 19x30-Inch	48.000 LF	_____.	_____.
0162	522.2619 Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 19x30-Inch	6.000 EACH	_____.	_____.
0164	524.0615 Apron Endwalls for Culvert Pipe Salvaged 15-Inch	1.000 EACH	_____.	_____.
0166	531.2030 Drilling Shaft 30-Inch	17.000 LF	_____.	_____.
0168	531.2048 Drilling Shaft 48-Inch	69.000 LF	_____.	_____.
0170	531.5110 Foundation Single-Shaft Type MC-I (structure) 01. S-64-222	1.000 EACH	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0172	531.5330 Foundation Single-Shaft Type TC-III (structure) 01. S-64-223	1.000 EACH	_____.	_____.
0174	531.5330 Foundation Single-Shaft Type TC-III (structure) 02. S-64-224	1.000 EACH	_____.	_____.
0176	531.5330 Foundation Single-Shaft Type TC-III (structure) 03. S-64-225	1.000 EACH	_____.	_____.
0178	532.5110 Monotube Cantilever Type I (structure) 01. S-64-222	1.000 EACH	_____.	_____.
0180	532.5330 Truss Cantilever 2-Chord Type III (structure) 01. S-64-223	1.000 EACH	_____.	_____.
0182	532.5330 Truss Cantilever 2-Chord Type III (structure) 02. S-64-224	1.000 EACH	_____.	_____.
0184	532.5330 Truss Cantilever 2-Chord Type III (structure) 03. S-64-225	1.000 EACH	_____.	_____.
0186	601.0411 Concrete Curb & Gutter 30-Inch Type D	11,825.000 LF	_____.	_____.
0188	601.0557 Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	7,560.000 LF	_____.	_____.
0190	601.0600 Concrete Curb Pedestrian	293.000 LF	_____.	_____.
0192	602.0410 Concrete Sidewalk 5-Inch	32,184.000 SF	_____.	_____.
0194	602.0505 Curb Ramp Detectable Warning Field Yellow	360.000 SF	_____.	_____.
0196	602.0605 Curb Ramp Detectable Warning Field Radial Yellow	74.000 SF	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0198	603.1132 Concrete Barrier Type S32	10.500 LF	_____.	_____.
0200	603.1232 Concrete Barrier Type S32A	120.000 LF	_____.	_____.
0202	606.0200 Riprap Medium	127.000 CY	_____.	_____.
0204	608.0312 Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	850.000 LF	_____.	_____.
0206	608.0315 Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	710.000 LF	_____.	_____.
0208	608.0318 Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	166.000 LF	_____.	_____.
0210	608.0321 Storm Sewer Pipe Reinforced Concrete Class III 21-Inch	57.000 LF	_____.	_____.
0212	608.0324 Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	72.000 LF	_____.	_____.
0214	608.0330 Storm Sewer Pipe Reinforced Concrete Class III 30-Inch	32.000 LF	_____.	_____.
0216	608.0336 Storm Sewer Pipe Reinforced Concrete Class III 36-Inch	633.000 LF	_____.	_____.
0218	608.0412 Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	945.000 LF	_____.	_____.
0220	608.0415 Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch	763.000 LF	_____.	_____.
0222	608.0418 Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	70.000 LF	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0224	608.0421 Storm Sewer Pipe Reinforced Concrete Class IV 21-Inch	97.000 LF	_____.	_____.
0226	608.0436 Storm Sewer Pipe Reinforced Concrete Class IV 36-Inch	507.000 LF	_____.	_____.
0228	611.0420 Reconstructing Manholes	15.000 EACH	_____.	_____.
0230	611.0530 Manhole Covers Type J	4.000 EACH	_____.	_____.
0232	611.0610 Inlet Covers Type BW	1.000 EACH	_____.	_____.
0234	611.0612 Inlet Covers Type C	4.000 EACH	_____.	_____.
0236	611.0624 Inlet Covers Type H	44.000 EACH	_____.	_____.
0238	611.0627 Inlet Covers Type HM	22.000 EACH	_____.	_____.
0240	611.0636 Inlet Covers Type HM-S	5.000 EACH	_____.	_____.
0242	611.0639 Inlet Covers Type H-S	19.000 EACH	_____.	_____.
0244	611.0642 Inlet Covers Type MS	1.000 EACH	_____.	_____.
0246	611.1005 Catch Basins 5-FT Diameter	7.000 EACH	_____.	_____.
0248	611.1006 Catch Basins 6-FT Diameter	4.000 EACH	_____.	_____.
0250	611.2003 Manholes 3-FT Diameter	1.000 EACH	_____.	_____.
0252	611.2005 Manholes 5-FT Diameter	2.000 EACH	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0254	611.2006 Manholes 6-FT Diameter	3.000 EACH	_____.	_____.
0256	611.2008 Manholes 8-FT Diameter	1.000 EACH	_____.	_____.
0258	611.3004 Inlets 4-FT Diameter	33.000 EACH	_____.	_____.
0260	611.3230 Inlets 2x3-FT	48.000 EACH	_____.	_____.
0262	611.3901 Inlets Median 1 Grate	1.000 EACH	_____.	_____.
0264	611.8120.S Cover Plates Temporary	10.000 EACH	_____.	_____.
0266	612.0106 Pipe Underdrain 6-Inch	4,165.000 LF	_____.	_____.
0268	612.0206 Pipe Underdrain Unperforated 6-Inch	90.000 LF	_____.	_____.
0270	612.0406 Pipe Underdrain Wrapped 6-Inch	2,081.000 LF	_____.	_____.
0272	612.0700 Drain Tile Exploration	500.000 LF	_____.	_____.
0274	612.0806 Apron Endwalls for Underdrain Reinforced Concrete 6-Inch	26.000 EACH	_____.	_____.
0276	614.0396 Guardrail Mow Strip Asphalt	1,150.000 SY	_____.	_____.
0278	614.0397 Guardrail Mow Strip Emulsified Asphalt	440.000 SY	_____.	_____.
0280	614.2300 MGS Guardrail 3	2,266.000 LF	_____.	_____.
0282	614.2500 MGS Thrie Beam Transition	315.000 LF	_____.	_____.
0284	614.2610 MGS Guardrail Terminal EAT	15.000 EACH	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0286	614.2620 MGS Guardrail Terminal Type 2	5.000 EACH	_____.	_____.
0288	616.0700.S Fence Safety	825.000 LF	_____.	_____.
0290	618.0100 Maintenance And Repair of Haul Roads (project) 01. 2340-00-79	1.000 EACH	_____.	_____.
0292	618.0100 Maintenance And Repair of Haul Roads (project) 02. 2698-03-70	1.000 EACH	_____.	_____.
0294	619.1000 Mobilization	1.000 EACH	_____.	_____.
0296	620.0300 Concrete Median Sloped Nose	1,730.000 SF	_____.	_____.
0298	624.0100 Water	1,109.000 MGAL	_____.	_____.
0300	625.0100 Topsoil	3,310.000 SY	_____.	_____.
0302	625.0500 Salvaged Topsoil	50,576.000 SY	_____.	_____.
0304	627.0200 Mulching	17,036.000 SY	_____.	_____.
0306	628.1504 Silt Fence	3,100.000 LF	_____.	_____.
0308	628.1520 Silt Fence Maintenance	3,100.000 LF	_____.	_____.
0310	628.1530.S Silt Fence Heavy Duty	3,000.000 LF	_____.	_____.
0312	628.1535.S Silt Fence Heavy Duty Maintenance	3,000.000 LF	_____.	_____.
0314	628.1905 Mobilizations Erosion Control	32.000 EACH	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0316	628.1910 Mobilizations Emergency Erosion Control	21.000 EACH	_____.	_____.
0318	628.2004 Erosion Mat Class I Type B	34,771.000 SY	_____.	_____.
0320	628.2023 Erosion Mat Class II Type B	1,550.000 SY	_____.	_____.
0322	628.6510 Soil Stabilizer Type B	2.500 ACRE	_____.	_____.
0324	628.7005 Inlet Protection Type A	119.000 EACH	_____.	_____.
0326	628.7010 Inlet Protection Type B	33.000 EACH	_____.	_____.
0328	628.7015 Inlet Protection Type C	127.000 EACH	_____.	_____.
0330	628.7020 Inlet Protection Type D	32.000 EACH	_____.	_____.
0332	628.7504 Temporary Ditch Checks	495.000 LF	_____.	_____.
0334	628.7555 Culvert Pipe Checks	138.000 EACH	_____.	_____.
0336	628.7560 Tracking Pads	10.000 EACH	_____.	_____.
0338	628.7570 Rock Bags	75.000 EACH	_____.	_____.
0340	629.0210 Fertilizer Type B	23.340 CWT	_____.	_____.
0342	630.0130 Seeding Mixture No. 30	1,797.000 LB	_____.	_____.
0344	630.0140 Seeding Mixture No. 40	418.000 LB	_____.	_____.
0346	630.0160 Seeding Mixture No. 60	23.000 LB	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0348	630.0200 Seeding Temporary	671.000 LB	_____.	_____.
0350	630.0500 Seed Water	107.000 MGAL	_____.	_____.
0352	632.0101 Trees (species) (size) (root) 01. Autumn Blaze Callery Pear, 3" CAL, B&B	3.000 EACH	_____.	_____.
0354	632.0101 Trees (species) (size) (root) 02. Honeylocust Streetkeeper, 2.5" Cal, B&B	2.000 EACH	_____.	_____.
0356	632.0101 Trees (species) (size) (root) 03. Ginkgo Biloba Princeton Sentry, 2.5" Cal, B&B	2.000 EACH	_____.	_____.
0358	632.9101 Landscape Planting Surveillance and Care Cycles	20.000 EACH	_____.	_____.
0360	633.5200 Markers Culvert End	25.000 EACH	_____.	_____.
0362	634.0618 Posts Wood 4x6-Inch X 18-FT	349.000 EACH	_____.	_____.
0364	634.0622 Posts Wood 4x6-Inch X 22-FT	8.000 EACH	_____.	_____.
0366	637.0620 Sign Flags Permanent Type II	8.000 EACH	_____.	_____.
0368	637.1220 Signs Type I Reflective SH	52.500 SF	_____.	_____.
0370	637.2210 Signs Type II Reflective H	2,234.540 SF	_____.	_____.
0372	637.2215 Signs Type II Reflective H Folding	99.680 SF	_____.	_____.
0374	637.2230 Signs Type II Reflective F	733.650 SF	_____.	_____.
0376	638.2102 Moving Signs Type II	65.000 EACH	_____.	_____.



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0378	638.2602 Removing Signs Type II	230.000 EACH	_____.	_____.
0380	638.3000 Removing Small Sign Supports	310.000 EACH	_____.	_____.
0382	642.5401 Field Office Type D	1.000 EACH	_____.	_____.
0384	643.0300 Traffic Control Drums	160,225.000 DAY	_____.	_____.
0386	643.0420 Traffic Control Barricades Type III	55,365.000 DAY	_____.	_____.
0388	643.0500 Traffic Control Flexible Tubular Marker Posts	300.000 EACH	_____.	_____.
0390	643.0600 Traffic Control Flexible Tubular Marker Bases	300.000 EACH	_____.	_____.
0392	643.0705 Traffic Control Warning Lights Type A	109,700.000 DAY	_____.	_____.
0394	643.0715 Traffic Control Warning Lights Type C	25,680.000 DAY	_____.	_____.
0396	643.0800 Traffic Control Arrow Boards	330.000 DAY	_____.	_____.
0398	643.0900 Traffic Control Signs	149,718.000 DAY	_____.	_____.
0400	643.0910 Traffic Control Covering Signs Type I	2.000 EACH	_____.	_____.
0402	643.0920 Traffic Control Covering Signs Type II	5.000 EACH	_____.	_____.
0404	643.1000 Traffic Control Signs Fixed Message	222.000 SF	_____.	_____.
0406	643.1050 Traffic Control Signs PCMS	175.000 DAY	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0408	643.3105 Temporary Marking Line Paint 4-Inch	5,680.000 LF	_____.	_____.
0412	643.3205 Temporary Marking Line Paint 8-Inch	300.000 LF	_____.	_____.
0418	643.3760 Temporary Marking Raised Pavement Marker Type I	62.000 EACH	_____.	_____.
0420	643.3770 Temporary Marking Raised Pavement Marker Type II	143.000 EACH	_____.	_____.
0426	643.5000 Traffic Control	1.000 EACH	_____.	_____.
0428	644.1410 Temporary Pedestrian Surface Asphalt	565.000 SF	_____.	_____.
0430	644.1430 Temporary Pedestrian Surface Plate	200.000 SF	_____.	_____.
0432	644.1440 Temporary Pedestrian Surface Matting	900.000 SF	_____.	_____.
0434	644.1601 Temporary Pedestrian Curb Ramp	250.000 DAY	_____.	_____.
0436	644.1605 Temporary Pedestrian Detectable Warning Field	10.000 SF	_____.	_____.
0438	644.1810 Temporary Pedestrian Barricade	4,472.000 LF	_____.	_____.
0440	645.0111 Geotextile Type DF Schedule A	2,790.000 SY	_____.	_____.
0442	645.0120 Geotextile Type HR	417.000 SY	_____.	_____.
0444	645.0220 Geogrid Type SR	70,970.000 SY	_____.	_____.
0446	646.1020 Marking Line Epoxy 4-Inch	105,760.000 LF	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0448	646.1040 Marking Line Grooved Wet Ref Epoxy 4-Inch	35,000.000 LF	_____.	_____.
0450	646.1545 Marking Line Grooved Wet Ref Contrast Epoxy 4-Inch	50,223.000 LF	_____.	_____.
0452	646.3020 Marking Line Epoxy 8-Inch	3,136.000 LF	_____.	_____.
0454	646.3545 Marking Line Grooved Wet Ref Contrast Epoxy 8-Inch	3,100.000 LF	_____.	_____.
0456	646.5020 Marking Arrow Epoxy	56.000 EACH	_____.	_____.
0458	646.5120 Marking Word Epoxy	17.000 EACH	_____.	_____.
0460	646.5320 Marking Railroad Crossings Epoxy	5.000 EACH	_____.	_____.
0462	646.5520 Marking Outfall Epoxy	35.000 EACH	_____.	_____.
0464	646.6120 Marking Stop Line Epoxy 18-Inch	649.000 LF	_____.	_____.
0466	646.6464 Cold Weather Marking Epoxy 4-Inch	33,400.000 LF	_____.	_____.
0468	646.6468 Cold Weather Marking Epoxy 8-Inch	900.000 LF	_____.	_____.
0470	646.7120 Marking Diagonal Epoxy 12-Inch	1,417.000 LF	_____.	_____.
0472	646.7420 Marking Crosswalk Epoxy Transverse Line 6-Inch	1,430.000 LF	_____.	_____.
0474	646.8120 Marking Curb Epoxy	154.000 LF	_____.	_____.
0476	646.8220 Marking Island Nose Epoxy	16.000 EACH	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0478	646.9000 Marking Removal Line 4-Inch	4,098.000 LF	_____.	_____.
0480	646.9010 Marking Removal Line Water Blasting 4-Inch	21,745.000 LF	_____.	_____.
0482	646.9100 Marking Removal Line 8-Inch	2,190.000 LF	_____.	_____.
0484	646.9110 Marking Removal Line Water Blasting 8-Inch	800.000 LF	_____.	_____.
0486	646.9200 Marking Removal Line Wide 01. 12-Inch	100.000 LF	_____.	_____.
0488	646.9200 Marking Removal Line Wide 02. 18-Inch	12.000 LF	_____.	_____.
0490	648.0100 Locating No-Passing Zones	8.100 MI	_____.	_____.
0492	650.4000 Construction Staking Storm Sewer	130.000 EACH	_____.	_____.
0494	650.4500 Construction Staking Subgrade	15,990.000 LF	_____.	_____.
0496	650.5000 Construction Staking Base	17,090.000 LF	_____.	_____.
0498	650.5500 Construction Staking Curb Gutter and Curb & Gutter	19,645.000 LF	_____.	_____.
0500	650.6000 Construction Staking Pipe Culverts	9.000 EACH	_____.	_____.
0502	650.6501 Construction Staking Structure Layout (structure) 01. R-51-082	1.000 EACH	_____.	_____.
0504	650.7500 Construction Staking Concrete Barrier	131.000 LF	_____.	_____.
0506	650.8000 Construction Staking Resurfacing Reference	42,583.000 LF	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20230509013 Project(s): 2340-00-79, 2698-03-70, 2698-03-73

Federal ID(s): N/A, N/A, N/A

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0508	650.8501 Construction Staking Electrical Installations (project) 01. 2698-03-70	1.000 EACH	_____.	_____.
0510	650.9000 Construction Staking Curb Ramps	41.000 EACH	_____.	_____.
0512	650.9500 Construction Staking Sidewalk (project) 01. 2698-03-70	1.000 EACH	_____.	_____.
0514	650.9500 Construction Staking Sidewalk (project) 02. 2698-03-73	1.000 EACH	_____.	_____.
0516	650.9911 Construction Staking Supplemental Control (project) 01. 2340-00-79	1.000 EACH	_____.	_____.
0518	650.9911 Construction Staking Supplemental Control (project) 02. 2698-03-70	1.000 EACH	_____.	_____.
0520	650.9920 Construction Staking Slope Stakes	16,359.000 LF	_____.	_____.
0522	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch	1,384.000 LF	_____.	_____.
0524	652.0235 Conduit Rigid Nonmetallic Schedule 40 3-Inch	2,248.000 LF	_____.	_____.
0526	652.0800 Conduit Loop Detector	1,344.000 LF	_____.	_____.
0528	653.0135 Pull Boxes Steel 24x36-Inch	7.000 EACH	_____.	_____.
0530	653.0140 Pull Boxes Steel 24x42-Inch	17.000 EACH	_____.	_____.
0532	653.0905 Removing Pull Boxes	19.000 EACH	_____.	_____.
0534	654.0101 Concrete Bases Type 1	6.000 EACH	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20230509013 Project(s): 2340-00-79, 2698-03-70, 2698-03-73

Federal ID(s): N/A, N/A, N/A

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0536	654.0105 Concrete Bases Type 5	7.000 EACH	_____.	_____.
0538	654.0110 Concrete Bases Type 10	4.000 EACH	_____.	_____.
0540	654.0113 Concrete Bases Type 13	2.000 EACH	_____.	_____.
0542	654.0217 Concrete Control Cabinet Bases Type 9 Special	1.000 EACH	_____.	_____.
0544	655.0230 Cable Traffic Signal 5-14 AWG	444.000 LF	_____.	_____.
0546	655.0240 Cable Traffic Signal 7-14 AWG	1,762.000 LF	_____.	_____.
0548	655.0260 Cable Traffic Signal 12-14 AWG	2,814.000 LF	_____.	_____.
0550	655.0320 Cable Type UF 2-10 AWG Grounded	2,347.000 LF	_____.	_____.
0552	655.0515 Electrical Wire Traffic Signals 10 AWG	4,225.000 LF	_____.	_____.
0554	655.0610 Electrical Wire Lighting 12 AWG	1,683.000 LF	_____.	_____.
0556	655.0700 Loop Detector Lead In Cable	5,300.000 LF	_____.	_____.
0558	655.0800 Loop Detector Wire	5,108.000 LF	_____.	_____.
0560	655.0900 Traffic Signal EVP Detector Cable	1,646.000 LF	_____.	_____.
0562	656.0201 Electrical Service Meter Breaker Pedestal (location) 01. STH 20 & CTH ES	1.000 EACH	_____.	_____.
0564	657.0100 Pedestal Bases	6.000 EACH	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20230509013 Project(s): 2340-00-79, 2698-03-70, 2698-03-73

Federal ID(s): N/A, N/A, N/A

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0566	657.0255 Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	7.000 EACH	_____.	_____.
0568	657.0322 Poles Type 5-Aluminum	7.000 EACH	_____.	_____.
0570	657.0425 Traffic Signal Standards Aluminum 15-FT	4.000 EACH	_____.	_____.
0572	657.0430 Traffic Signal Standards Aluminum 10-FT	2.000 EACH	_____.	_____.
0574	657.0610 Luminaire Arms Single Member 4 1/2-Inch Clamp 6-FT	7.000 EACH	_____.	_____.
0576	658.0173 Traffic Signal Face 3S 12-Inch	8.000 EACH	_____.	_____.
0578	658.0174 Traffic Signal Face 4S 12-Inch	10.000 EACH	_____.	_____.
0580	658.0416 Pedestrian Signal Face 16-Inch	8.000 EACH	_____.	_____.
0582	658.0500 Pedestrian Push Buttons	10.000 EACH	_____.	_____.
0584	658.5070 Signal Mounting Hardware (location) 01. STH 20 & CTH ES	1.000 EACH	_____.	_____.
0586	659.1125 Luminaires Utility LED C	13.000 EACH	_____.	_____.
0588	659.5000.S Lamp, Ballast, LED, Switch Disposal by Contractor	24.000 EACH	_____.	_____.
0590	661.0201 Temporary Traffic Signals for Intersections (location) 01. STH 20 & CTH ES	1.000 EACH	_____.	_____.
0592	661.0300 Generators	1.000 DAY	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20230509013 Project(s): 2340-00-79, 2698-03-70, 2698-03-73

Federal ID(s): N/A, N/A, N/A

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0594	690.0150 Sawing Asphalt	18,622.000 LF	_____	_____
0596	690.0250 Sawing Concrete	2,750.000 LF	_____	_____
0598	715.0603 Incentive Strength Concrete Barrier	66.000 DOL	1.00000	66.00
0600	740.0440 Incentive IRI Ride	41,332.000 DOL	1.00000	41,332.00
0602	SPV.0035 Special 01. Backfill Slurry	33.000 CY	_____	_____
0604	SPV.0060 Special 01. RRFB System STH 20 WB at Edwards St Assembly	1.000 EACH	_____	_____
0606	SPV.0060 Special 02. RRFB System STH 20 EB at Edwards St Assembly	1.000 EACH	_____	_____
0608	SPV.0060 Special 03. RRFB Stem STH 20 EB/WB at Edwards St Back to Back Assembly in Median	1.000 EACH	_____	_____
0610	SPV.0060 Special 04. RRFB System STH 20 EB at Sterling Circle	1.000 EACH	_____	_____
0612	SPV.0060 Special 05. RRFB System STH 20 WB at Sterling Circle	1.000 EACH	_____	_____
0614	SPV.0060 Special 06. RRFB System STH 20 WB Median at Sterling Circle	1.000 EACH	_____	_____
0616	SPV.0060 Special 07. RRFB System STH 20 EB Median at Sterling Circle	1.000 EACH	_____	_____
0618	SPV.0060 Special 08. Remove RRFB System STH 20 at Byrnes St Assembly	1.000 EACH	_____	_____
0620	SPV.0060 Special 10. Install Poles Type 10	4.000 EACH	_____	_____



Proposal Schedule of Items

Proposal ID: 20230509013 Project(s): 2340-00-79, 2698-03-70, 2698-03-73

Federal ID(s): N/A, N/A, N/A

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0622	SPV.0060 Special 11. Install Poles Type 12 Over Height	2.000 EACH	_____.	_____.
0624	SPV.0060 Special 12. Install Monotube Arms 20-Ft	4.000 EACH	_____.	_____.
0626	SPV.0060 Special 13. Install Monotube Arms 35-Ft	2.000 EACH	_____.	_____.
0628	SPV.0060 Special 14. Install Luminaire Arms Steel 15-Ft	6.000 EACH	_____.	_____.
0630	SPV.0060 Special 15. Trnspt & Install State Furn Traffic Signal Cabinet STH 20 & CTH ES	1.000 EACH	_____.	_____.
0632	SPV.0060 Special 16. Trnspt Traffic Signal & Inter Lighting Materials STH 20 & CTH ES	1.000 EACH	_____.	_____.
0634	SPV.0060 Special 17. Trnspt & Install State Furn EVP Detector Heads STH 20 & CTH ES	1.000 EACH	_____.	_____.
0636	SPV.0060 Special 18. Inlet Covers Type H with Curb Plate	1.000 EACH	_____.	_____.
0638	SPV.0060 Special 19. Section Corner Monuments	4.000 EACH	_____.	_____.
0640	SPV.0060 Special 20. Sanitary Sewer Manhole Rebuild	2.000 EACH	_____.	_____.
0642	SPV.0060 Special 21. Sanitary Sewer Manhole Adjustment	1.000 EACH	_____.	_____.
0644	SPV.0060 Special 22. 8-Inch Water Main Gate Valve	5.000 EACH	_____.	_____.
0646	SPV.0060 Special 23. 12-Inch Water Main Butterfly Valve	9.000 EACH	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20230509013 Project(s): 2340-00-79, 2698-03-70, 2698-03-73

Federal ID(s): N/A, N/A, N/A

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0648	SPV.0060 Special 24. 1 1/2" Corp, Curb Stop and Box	11.000 EACH	_____.	_____.
0650	SPV.0060 Special 25. 2" Corp, Curb Stop and Box	2.000 EACH	_____.	_____.
0652	SPV.0060 Special 26. Reconnect Water Service	2.000 EACH	_____.	_____.
0654	SPV.0060 Special 27. Connect To Existing Water Main	10.000 EACH	_____.	_____.
0656	SPV.0060 Special 28. Connect To Existing Water Main Lateral	9.000 EACH	_____.	_____.
0658	SPV.0060 Special 29. New 1.5" Water Main Lateral	2.000 EACH	_____.	_____.
0660	SPV.0060 Special 30. Hydrant Assembly	6.000 EACH	_____.	_____.
0662	SPV.0060 Special 31. Tracer Wire Access Box	6.000 EACH	_____.	_____.
0664	SPV.0060 Special 32. Construction Staking Water Main	1.000 EACH	_____.	_____.
0666	SPV.0090 Special 01. 6" Water Main	43.000 LF	_____.	_____.
0668	SPV.0090 Special 02. 8" Water Main	148.000 LF	_____.	_____.
0670	SPV.0090 Special 03. 12" Water Main	2,945.000 LF	_____.	_____.
0672	SPV.0090 Special 04. 24" Steel Casing - Jack and Bore Construction	84.000 LF	_____.	_____.
0674	SPV.0090 Special 05. 1.5" Water Service	511.000 LF	_____.	_____.
0676	SPV.0090 Special 06. 2" Water Service	91.000 LF	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20230509013 Project(s): 2340-00-79, 2698-03-70, 2698-03-73

Federal ID(s): N/A, N/A, N/A

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0678	SPV.0090 Special 07. 8" Water Main, Edwards Street	75.000 LF	_____.	_____.
0680	SPV.0090 Special 08. Concrete Curb & Gutter HES 30-Inch Type D	260.000 LF	_____.	_____.
0682	SPV.0090 Special 09. Timber Fence	150.000 LF	_____.	_____.
0684	SPV.0165 Special 01. Concrete Sidewalk 12-Inch	1,620.000 SF	_____.	_____.
0686	SPV.0165 Special 02. Concrete Retaining Curb	525.000 SF	_____.	_____.
0688	SPV.0165 Special 03. Wall Modular Block Mechanically Stabilized Earth R-51-082	3,105.000 SF	_____.	_____.
0690	SPV.0180 Special 01. Slope Paving Crushed Aggregate Epoxy	1,870.000 SY	_____.	_____.
0692	SPV.0180 Special 02. Resin Binder High Friction Surface Treatment	1,500.000 SY	_____.	_____.
0694	SPV.0195 Special 01. Management of Solid Waste	102.000 TON	_____.	_____.
0696	SPV.0195 Special 02. Asphaltic Repair	197.000 TON	_____.	_____.
0700	611.8115 Adjusting Inlet Covers	1.000 EACH	_____.	_____.
0702	643.3120 Temporary Marking Line Epoxy 4-Inch	38,440.000 LF	_____.	_____.
0704	643.3220 Temporary Marking Line Epoxy 8-Inch	3,040.000 LF	_____.	_____.
0706	643.3520 Temporary Marking Arrow Epoxy	19.000 EACH	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20230509013 Project(s): 2340-00-79, 2698-03-70, 2698-03-73

Federal ID(s): N/A, N/A, N/A

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0708	643.3820 Temporary Marking Stop Line Epoxy 18-Inch	108.000 LF	_____.	_____.
0710	646.9210 Marking Removal Line Water Blasting Wide 1. 18-Inch	48.000 LF	_____.	_____.
0712	646.9300 Marking Removal Special Marking	3.000 EACH	_____.	_____.
0714	646.9310 Marking Removal Special Marking Water Blasting	7.000 EACH	_____.	_____.
Section: 0001			Total:	_____.
			Total Bid:	_____.



Wisconsin Department of Transportation

May 3, 2023

Division of Transportation Systems Development

Bureau of Project Development
4822 Madison Yards Way, 4th Floor South
Madison, WI 53705

Telephone: (608) 266-1631
Facsimile (FAX): (608) 266-8459

NOTICE TO ALL CONTRACTORS:

Proposal #13: 2340-00-79
East Troy - Racine
Honey Creek Road to Buena
Park Road
STH 20
Racine County

2698-03-70
East Troy - Racine
Thomas Drive to Honey Creek
Road
STH 20
Walworth and Racine County

2698-03-73
East Troy – Racine
Thomas Drive to Honey Creek
Road
STH 20
Walworth and Racine County

Letting of May 9, 2023

This is Addendum No. 03, which provides for the following:

Special Provisions:

Revised Special Provisions	
Article No.	Description
17	Notice to Contractor – Material Stockpile

The responsibility for notifying potential subcontractors and suppliers of these changes remains with the prime contractor.

Sincerely,

Mike Coleman

Proposal Development Specialist
Proposal Management Section

ADDENDUM NO. 03
2340-00-79, 2698-03-70, 2698-03-73
May 3, 2023

Special Provisions

17. Notice to Contractor – Material Stockpile

Replace entire article language with the following:

Add the following to standard specification 106.4(2):

Limit stockpiles within the right-of-way to a height of 5', unless otherwise approved by the engineer in writing.

END OF ADDENDUM



Wisconsin Department of Transportation

May 4, 2023

Division of Transportation Systems Development

Bureau of Project Development
4822 Madison Yards Way, 4th Floor South
Madison, WI 53705

Telephone: (608) 266-1631
Facsimile (FAX): (608) 266-8459

NOTICE TO ALL CONTRACTORS:

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East Troy - Racine
Honey Creek Road to Buena
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East Troy - Racine
Thomas Drive to Honey Creek
Road
STH 20
Walworth and Racine County

2698-03-73
East Troy – Racine
Thomas Drive to Honey Creek
Road
STH 20
Walworth and Racine County

Letting of May 9, 2023

This is Addendum No. 04, which provides for the following:

Special Provisions:

Revised Special Provisions	
Article No.	Description
3	Prosecution and Progress

The responsibility for notifying potential subcontractors and suppliers of these changes remains with the prime contractor.

Sincerely,

Mike Coleman

Proposal Development Specialist
Proposal Management Section

ADDENDUM NO. 04

2340-00-79, 2698-03-70, 2698-03-73

May 4, 2023

Special Provisions

3. Prosecution and Progress.

*Replace paragraph two under section titled **Operations** with the following:*

Perform earthwork operations, placement of breaker run and an initial lift of base course as a continuous operation to prevent the subgrade from obtaining moisture and becoming unstable. Within 96 hours of removing the base course from any location along the roadway, construct that portion of the roadway by cutting / filling the final subgrade, placing breaker run and the first lift of base course. If the weather forecast predicts rain within 48 hours, complete all earthwork, placement of breaker run, and first lift of base course on any areas where the existing pavement and base course have been removed.

END OF ADDENDUM