

HIGHWAY WORK PROPOSAL

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

Proposal Number: **002**

<u>COUNTY</u>	<u>STATE PROJECT</u>	<u>FEDERAL</u>	<u>PROJECT DESCRIPTION</u>	<u>HIGHWAY</u>
Juneau	1016-05-70	N/A	Tomah - Mauston; Sth 82 Interchnng/B29-36,152-155,157	IH 090

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: \$770,000.00 Payable to: Wisconsin Department of Transportation	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Date: February 8, 2022 Time (Local Time): 11:00 am	Firm Name, Address, City, State, Zip Code <h2 style="text-align: center;">SAMPLE</h2> <h3 style="text-align: center;">NOT FOR BIDDING PURPOSES</h3> This contract is exempt from federal oversight.
Contract Completion Time August 31, 2023	
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:	For Department Use Only
Excavatioin, Base, Concrete Pavement, HMA Pavement, Asphaltic Surface, Curb and Gutter, Sidewalk, Signs, Beam Guard, Pavement Marking, Traffic Signals, Street Lights, Structure Construction, Deck Replacement, Culvert Pipes, Storm Sewer	
Notice of Award Dated	Date Guaranty Returned

**PLEASE ATTACH
PROPOSAL GUARANTY HERE**

Effective with November 2007 Letting

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.

Effective with August 2015 Letting

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://wisconsindot.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://wisconsindot.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 departments 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:
 1. Have a properly executed annual bid bond on file with the department.

2. 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://wisconsindot.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 envelop 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.

C 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

NOTARY FOR SURETY

(Date)

(Date)

State of Wisconsin)
) ss.
_____ County)

State of Wisconsin)
) ss.
_____ County)

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

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

(Signature, Notary Public, State of Wisconsin)

(Signature, Notary Public, State of Wisconsin)

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

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

(Date Commission Expires)

(Date Commission Expires)

Notary Seal

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)

DECEMBER 2000

**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 July 8, 2021

SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for Project 1016-05-70, Tomah – Mauston, STH 82 Interchange/B-29-36, 152-155, 157, IH 90, Juneau County, 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, 2022 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 (20210708)

2. Mandatory Pre-Bid Meeting.

Add the following to standard spec 102.3.1:

Prospective bidders are required to attend a mandatory pre-bid meeting on Wednesday, January 19, 2022 at 10:00 AM at the Mauston Department of Public Works building, 1260 North Road, Mauston, WI 53948.

No meeting minutes will be prepared. Issues discovered at the meeting will be handled by addendum.

stp-102-010 (20150630)

3. Scope of Work.

The work under this contract shall consist of excavation, base aggregate dense, HMA pavement, concrete pavement, concrete curb and gutter, concrete sidewalk, culvert pipes, storm sewer, guard rail, permanent signing, pavement marking, erosion control, traffic control, new Structures B-29-152, B-29-153, B-29-154, B-29-155, B-29-157, concrete deck overlay on existing Structure B-29-36, and all incidental items necessary to complete the work as shown on the plans and included in the proposal and contract.

104-005 (20090901)

4. 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.

Interim Completion and Liquidated Damages – IH 90 / Eastbound lanes / Concrete pavement, three structures, HMA shoulders, and Eastbound ramps: September 1, 2022.

Complete construction operations on IH 90 / Eastbound lanes to the stage necessary to reopen it to through traffic by September 1, 2022. Do not reopen until completing the following work: Concrete pavement on Eastbound IH 90 lanes and Eastbound off and on ramps, Structures B-29-152, B-29-154, B-29-36, HMA for shoulders, shoulder gravel, and traffic control needed for the next stage.

If the contractor fails to complete the work necessary to reopen IH 90 Eastbound lanes to traffic by September 1, 2022, the department will assess the contractor \$2175 in interim liquidated damages for each calendar day the contract work remains incomplete beyond 12:01 AM on September 2, 2022. 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 – IH 90 / Westbound Structures / B-29-153, B-29-155, B-29-157: November 18, 2022.

Complete construction operations on IH 90 / Westbound Structures / B-29-153, B-29-155, B-29-157 and all work on STH 82 to the stage necessary to reopen IH 90 and STH 82 to through traffic by November 18, 2022. Do not reopen until completing the following work: Structures B-29-153, B-29-156, B-29-157, approach transition work and STH 82 final conditions including base aggregate dense, concrete pavement, HMA pavement, storm sewer, pavement markings, and traffic control for over the winter.

If the contractor fails to complete the work necessary to reopen IH 90 / Westbound Structures / B-29-153, B-29-155, B-29-157 and STH 82 to traffic with the above work completed by November 18, 2022, the department will assess the contractor \$2175 in interim liquidated damages for each calendar day the contract work remains incomplete beyond 12:01 AM on November 19, 2022. 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.

Fish Spawning

There shall be no instream disturbance of Lemonweir River as a result of construction activity under or for this contract, from March 1 to June 1 both dates inclusive, in order to avoid adverse impacts upon the spawning of fish and other aquatic organisms.

Sheet piling or barges in the river will not be allowed within the March 1 – June 1 time period, to minimize sediment mobility.

Any change to this limitation will require submitting a written request by the contractor to the engineer, subsequent review and concurrence by the Department of Natural Resources in the request, and final approval by the engineer. The approval will include all conditions to the request as mutually agreed upon by WisDOT and DNR.

Migratory Birds

Swallow or other migratory bird nests have been observed on or under the existing structure(s). All active nests (when eggs or young are present) of migratory birds are protected under the federal Migratory Bird Treaty Act. The nesting season for swallows and other birds is from April 15 to August 31.

Either prevent active nests from becoming established or prevent birds from nesting by installing and/or maintaining a suitable deterrent device on the remaining structure prior to nesting activity under the bid item Installing and Maintaining Bird Deterrent System. As a last resort, apply for a depredation permit from the US Fish and Wildlife Service for work that may disturb or destroy active nests. The need for a permit may be avoided by removing the existing bridge structure prior to nest occupation by birds or clearing nests from all structures before the nests become active in early spring.

Northern Long-eared Bat (*Myotis septentrionalis*)

Northern Long-eared Bats (NLEB) have the potential to inhabit the project limits because they roost in trees. 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).

According to the final 4(d) rule issued for the NLEB, the department has determined that the proposed activity may affect, but will not result in prohibited take of the NLEB. The activity involves tree removal but will not occur within 0.25 miles of a known hibernacula, nor will the activity remove a known maternity roost tree or any other tree within 150 feet of a known maternity roost tree.

If additional trees need to be removed, no Clearing shall occur without prior approval from the engineer, following coordination with the WisDOT REC. Additional tree removal beyond the area originally specified will require consultation with the United States Fish and Wildlife Service (USFWS) and may require a bat presence/absence survey. Notify the engineer if additional Clearing cannot be avoided to begin coordination with the WisDOT REC. The WisDOT REC will initiate consultation with the USFWS and determine if a survey is necessary.

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.

A Schedule of Operations

Complete work as detailed in the staging descriptions below. Modifications pertaining to what work is completed in each stage require prior written approval by the engineer.

Stage 1 - was completed under prior project Station 1016-05-80 in 2021. Ingress/egress locations were left in place from the project at the beginning and end. The locations are noted in the plans.

Stage 2 – 2022

Construct temporary median crossover connections for IH 90 eastbound traffic to the temporary median road on both ends of the project. Shift eastbound traffic to the median roadway and construct the eastbound lanes and eastbound ramps. Construct the eastbound cross-drain culvert pipe outfall indicated on the plan west of CTH G to be operational within 14 calendar days of the traffic switch.

Do not switch traffic to the median road until the barrier and crash cushions are installed.

Close the eastbound IH 90 lanes between the north and south project limits. Shift through traffic to the temporary roadway in the median. **Do not work on the eastbound lanes or bridges at this point.** Inspect the median temporary road and bridges after two days of traffic running on it. Report any cracks or pavement or bridge issues to the engineer. Inspect the median road and bridges again after the third day of traffic running on it. Report any additional cracks, potholes forming, or bridge issues to the engineer. If the temporary median road or bridge deterioration is determined to be excessive by the engineer, remove traffic from the temporary road and shift traffic back to the existing eastbound lanes. Discuss options with the engineer and repair the temporary road pavement and/or bridges. If no issues have formed or the issues have been addressed on the temporary median road and bridges, then work on the eastbound lanes may proceed. If not, discuss with the engineer to inspect the temporary median road and bridges for another two days.

Complete all concrete paving, eastbound ramps, street lighting, pavement markings, and other appropriate finishing items.

Complete this stage by the interim completion date as described above. Provide temporary and permanent traffic control as described under the article Traffic in these special provisions.

Also included in stage 2 is reconstruction on STH 82 using the staging provided in the plans. Work on STH 82 may continue into Stage 3A as noted below.

Stage 3A - 2022

Construct temporary median crossover connections for IH 90 westbound traffic to the temporary median road on both ends of the project. Shift westbound traffic to the median roadway and construct the westbound IH 90 bridge structures including structural approach slabs and concrete approach slabs, transitions to the existing westbound IH 90 lanes, and traffic control over winter. Construct the westbound cross-drain culvert pipe outfall indicated on the plan west of CTH G to be operational within 14 calendar days of the traffic switch.

Complete all remaining STH 82 work including final pavement, shoulders, roundabouts, driveways, curb and gutter, storm sewer, sidewalk, landscaping and all associated work.

Complete this stage by the interim completion date as described above. Provide temporary and permanent traffic control as described under the article Traffic in these special provisions during construction shut down period between Winter 2022 and Spring 2023.

Stage 3B – 2023

Inspect the temporary median road and bridges for damages incurred over winter from the prior stage. Make any necessary repairs prior to the start of stage 3B, prior to shifting traffic onto the median road.

Close the westbound IH 90 lanes between the north and south project limits. Shift IH 90 westbound traffic to the temporary median road. **Do not work on the westbound lanes at this point.** Inspect the median temporary road and bridges after two days of traffic running on it. Report any cracks or pavement or bridge issues to the engineer. Inspect the median road and bridges again after the third day of traffic running on it. Report any additional cracks, potholes forming, or bridge issues to the engineer. If the temporary median road or bridge deterioration is determined to be excessive by the engineer, remove traffic from the temporary road and shift traffic back to the existing eastbound lanes. Discuss options with the engineer and repair the temporary road pavement and/or bridges. If no issues have formed or the issues have been addressed on the temporary median road and bridges, then work on the westbound lanes may proceed. If not, discuss with the engineer to inspect the temporary median road and bridges for another two days.

Shift westbound traffic to the median roadway and construct the westbound lanes.

Provide temporary and permanent traffic control as described under the article Traffic in these special provisions.

Stage 4 – 2023

Remove the temporary median roadway, temporary bridges, and crossovers. Grade the median to the final grades and install the final median cable guard. Install final erosion control and pavement marking.

5. Lane Rental Fee Assessment.

A General

The contract designates some lane closures to perform the work. The contractor will not incur a Lane Rental Fee Assessment for closing lanes during the allowable lane closure times. The contractor will incur a Lane Rental Fee Assessment for each lane closure outside of the allowable lane closure times. If a lane is obstructed at any time due to contractor operations, it is considered a closure. The purpose of lane rental is to enforce compliance of lane restrictions and discourage unnecessary closures.

The allowable lane closure times are shown in the Traffic article.

Submit the dates of the proposed lane, ramp, and roadway restrictions to the engineer as part of the progress schedule.

B Lane Rental Fee Assessment

The Lane Rental Fee Assessment incurred for each nightly lane closure, lane closure, and each full closure of a roadway, per direction of travel, is as follows:

Timeframe	Closure Description	Period Fee Incurred	Rental Rate \$/hr
Jan. 1 – Dec. 31	Lane closure, nightly lane closure and full closure of a roadway	Outside allowable hours	\$4,000

The Lane Rental Fee Assessment represents a portion of the cost of the interference and inconvenience to the road users for each closure. All lane, roadway, or ramp closure event increments 60 minutes and less will be assessed as a 60-minute increment.

The engineer, or designated representative, will be the sole authority in determining time period length for the Lane Rental Fee Assessment.

Lane Rental Fee Assessments will not be assessed for closures due to crashes, accidents, or emergencies not initiated by the contractor.

The department will assess Lane Rental Fee Assessment by the dollar under the administrative item Failing to Open Road to Traffic. The total dollar amount of Lane Rental Fee Assessment will be computed by multiplying the Lane Rental Assessment Rate by the number of 60-minute increments of each lane closure event as described above.

Lane Rental Fee Assessment will be in effect from the time of the Notice to Proceed until the department issues final acceptance. If interim completion time or contract time expires before the completion of specified work in the contract, additional liquidated damages will be assessed as specified in standard spec 108.11 or as specified within this contract.

6. Traffic.

The work under this item shall conform to the requirements of standard spec 643, the Manual on Uniform Traffic Control Devices (MUTCD) and as hereinafter provided.

Provide the Juneau County Highway and Transportation Department, the Juneau County Sheriff's Department, the Wisconsin State Patrol, the town of Lemonweir, the City of Mauston, and the engineer a current telephone number which the contractor or his representatives can be contacted during non-working hours in the event a safety hazard develops. Also contact the above listed parties, as well as local emergency services, local school districts (to discuss bus routes), the Mauston Area Chamber of Commerce, and the post office, prior to starting work and at critical times, such as traffic switches and lane closures to inform them of traffic modifications to their routes.

Submit to the engineer for approval, a detailed traffic control plan if different than the traffic control plan provided in the Plans. Submit this plan to the engineer 14 working days prior to anticipated use.

Do not perform construction operations until all traffic control devices for such work are in proper location.

Portable changeable message signs with cellular communications provided under this contract will be used for incident management or as required by the engineer and are to be operated by the Wisconsin State Patrol or the State Traffic Management Center. Place the required portable changeable message signs at the specified locations in the plan at least one week prior to construction.

All interchange ramps shall remain open to traffic at all times.

Equip all contractor owned vehicles and equipment with at least one flashing amber light. Activate the flashing amber light when vehicles or equipment are being operated and parked in close proximity to live lanes of traffic. Place the flashing amber light at a location that provides visibility from all directions. Provide a flashing strobe or revolving type light meeting the following requirements:

<u>Flashing Strobe Type Light</u>	<u>Revolving Type Light</u>
360-degree lens	360-degree lens
60 to 90 flashes/min	45 to 90 flashes/min
5-inch minimum height	4-5/8 inch minimum height
3-3/4 inch minimum dia.	3-3/4 inch minimum dia.

Equip the light with bulbs of 50 candlepower minimum. Mount the flashing amber light approximately midway between the transverse extremities of the vehicle or machinery and at the highest practicable point. Mounting shall be either magnetic or permanent. No compensation for furnishing and installing the flashing amber light to the contractor owned equipment, vehicles, or workers vehicles, will be provided for in the contract.

Do not use flag persons to direct, control, or stop IH 90, STH 82, or CTH G (Sherman Street) traffic, unless provided written approval from the engineer or shown in the plans.

Maintain access to all businesses and private properties at all times. Additional intermediate construction staging or staging gaps, not shown on the plans, may be necessary to maintain continuous access to all properties. If the contractor coordinates the closure of any access to a business or private property with the owner(s), provide written documentation of coordination with the owner(s) to the engineer.

Do not park or store equipment, vehicles, or construction materials during nonworking hours within 30 feet of the edge of travel lanes carrying IH 90 or STH 82 traffic, or within 20 feet of the edge of traffic lane on the ramps or local roads that exist adjacent to or through the work zone, unless separated from traffic by temporary precast concrete barrier.

The department will coordinate the restriction of oversized loads during the construction stages that require nighttime work. The oversize loads will be prohibited during such time that any roadway is restricted to 16' clear width. Provide the engineer with notification of these restrictions at least 20 days in advance of the restriction.

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')	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')	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.

Traffic Staging

General

Perform construction operations on IH 90 and area roadways according to the stages described in the article Prosecution and Progress and as shown in the construction staging plans, and address traffic under each stage as described in this Traffic article.

Traffic operations during all stage

- Maintain two lanes of traffic in each direction at all times on IH 90 with the exception of nighttime lane closures.
- All work requiring lane closures shall be completed during nighttime hours.

IH 90 lane closures shall be permitted as follows:

Eastbound	Westbound
March – November	
Sunday 8:00 PM to 9:00 AM Monday	Sunday 8:00 PM to 8:00 AM Monday
Monday 6:00 PM to 9:00 AM Tuesday	Monday 6:00 PM to 8:00 AM Tuesday
Tuesday 6:00 PM to 9:00 AM Wednesday	Tuesday 6:00 PM to 8:00 AM Wednesday
Wednesday 6:00 PM to 9:00 AM Thursday	Wednesday 6:00 PM to 8:00 AM Thursday
Thursday 7:00 PM to 9:00 AM Friday	Thursday 7:00 PM to 8:00 AM Friday
Friday 9:00 PM to 8:00 AM Saturday	Friday 9:00 PM to 8:00 AM Saturday
Saturday 6:00 PM to 9:00 AM Sunday	Saturday 6:00 PM to 9:00 AM Sunday

During lane closures maintain 16' min clear width.

No hauling from live eastbound and westbound lanes will be allowed from noon to 4:00 PM on Friday and noon to 4:00 PM on Sunday between Memorial Day and Labor Day.

Pre-Stage 2 – Inspect the temporary median road for damages incurred over winter from the prior project. Install temporary concrete barrier on the median road and any pavement marking needed for the crossovers.

Stage 2 – IH 90 Eastbound lanes

IH 90 shall remain open to all traffic.

Maintain two lanes in each direction throughout stage 2. Construct the eastbound roadway and bridges while maintaining ramp crossovers for the eastbound off and on ramps. Complete the eastbound off ramp to Station 978+50'C' or to the roundabout and begin construction on the eastbound on ramp at Station 986+50'D' or at the roundabout.

The ingress/egress locations on the ends of the project from the previous 1016-05-80 project, have been left in place to reuse.

Stage 2 and 3A – STH 82

- STH 82 shall remain open to all traffic except as follows: STH 82 may be closed between the ramp terminals, including sidewalks, for three 8-hour periods between the hours of 9:00 PM and 5:00 AM, three separate nights, for removal of the IH 90 eastbound overhead bridge slab and adjacent piers, and debris clean-up within 10 feet of the STH 82 roadway edges. A detour for STH 82 utilizing IH 90 as shown in the plans shall be in place for this short-term closure. Provide pedestrian overhead protection while IH90/94 bridge construction takes place.
- STH 82 may be closed between the ramp terminals, including sidewalks, for two 8 hour periods between the hours of 9:00 PM and 5:00 AM for installation of the girders of the IH 90 eastbound and westbound bridge. Utilize the same detour used for removal of the bridge.
- Utilize night-time lane closures for each deck pour over STH 82.
- Utilize night-time lane closures for gap intersection work at Commercial Street. Traffic control details are shown in the plans.
- Utilize off-peak night-time flagging for EB on-ramp pork-chop island work. Traffic control details are shown in the plans.

Maintain pedestrian access along at least one side of STH 82 at all times except those limited times during bridge removal, debris clean-up, or other limited times for safety. Utilize temporary crossings and curb ramps.

Complete all work on STH 82 by the end of Stage 3A.

Pre-Stage 3A – Work to be completed at night. Utilize single lane closures to remove the concrete temporary barrier from the end crossovers and place as much of it in the location required for stage 3A. Shift eastbound traffic from the temporary median road onto the newly constructed eastbound lanes. Finalize any other barrier needed at the crossovers to switch westbound traffic onto the temporary median road. When the barrier is in the location for stage 3A, switch westbound traffic onto the temporary median road.

Stage 3A – IH 90 Westbound Structures

IH 90 shall remain open to all traffic.

Do not switch traffic to the median road until the barrier and crash cushions are installed at the correct locations.

Close the westbound IH 90 lanes between the north and south project limits. Shift through traffic to the temporary roadway in the median.

Maintain two lanes in each direction throughout stage 3A. Construct the westbound bridges, including structural approach slabs and concrete approach slabs and immediate roadway approaches to each westbound structure while maintaining ramp cross overs for the westbound off and on ramps.

Stage 3A – CTH G/Sherman Street

CTH G/Sherman Street shall remain open to all traffic except as follows:

- CTH G/Sherman Street will utilize temporary signals for removal of the IH 90 westbound bridge slab and adjacent piers, and debris clean-up within 10 feet of the CTH G roadway edges. The temporary signals will remain in place for work on the substructure for the new IH 90 westbound bridge over CTH G/Sherman Street. This includes the piers and restoration work immediately around these elements. The temporary signals may be used for 14 consecutive days. See article Temporary Traffic Signals for Bridges (B-29-0037 underneath on CTH G) for signal timing.
- During daytime periods when CTH G/Sherman Street is open to through traffic in each direction, a single lane may be closed during daytime off-peak hours utilizing flagging according to the plan details. The engineer will monitor single lane closures for excessive backups and may prohibit flagging during these periods.
- Do not close CTH G/Sherman Street at the same time that STH 82 is closed.

2022 Winter Project Shut Down

Provide temporary and permanent traffic control as shown on the plans during the construction shutdown period after Stage 3A ends in Fall 2022, until the start of Stage 3B in Spring 2023.

Winter Shutdown – IH 90

Install permanent signing as appropriate. Install temporary pavement marking and temporary traffic control as appropriate including concrete barrier temporary on the eastbound lanes as shown on the plans. Leave concrete barrier left in place on the westbound lanes as shown on the plans. Remove all temporary traffic control devices from the project limits that are not needed including, but not limited to:

- Drums
- Barricades
- Portable changeable message signs
- Traffic control signs

Open IH 90 to two lanes of traffic on each of the eastbound and westbound roadways.

Winter Shutdown – All Other Roadways

All other roadways in the project area are to remain open to all traffic.

Stage 3B – IH 90

Maintain two lanes in each direction throughout stage 3B. Construct the westbound roadway while maintaining and constructing the westbound ramp crossovers. IH 90 shall remain open to all traffic.

Stage 3B – STH 82

With construction on STH 82 having been fully completed under Stage 3A, STH 82 shall remain open to all traffic during Stage 3B.

Stage 3B – CTH G/Sherman Street

With construction on CTH G/Sherman Street having been fully completed under Stage 3A, CTH G/Sherman Street shall remain open to all traffic during Stage 3B.

Stage 4 – Traffic shall be on the newly constructed westbound lanes and eastbound lanes. Traffic on both eastbound and westbound will already be shifted over to the outside shoulder and lane from the stage 3B work per the plan details. Remove the temporary median road, temporary bridges, crossovers, and grade the median to the final grades as shown in the plans. Adjust any median drainage to final conditions and install the final median cable guard.

Utilize night-time lane closures to remove the concrete barrier, paint the permanent pavement markings, remove the temporary pavement markings, install rumble strips, and any other final items that could not be completed while the barrier was in place.

7. **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 IH 90 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, April 15, 2022 to 6:00 AM Tuesday, April 19, 2022 for Easter;
- From noon Friday, May 27, 2022 to 6:00 AM Tuesday, May 31, 2022 for Memorial Day;
- From noon Friday, July 1, 2022 to 6:00 AM Tuesday, July 5, 2022 for Independence Day;
- From noon Friday, September 2, 2022 to 6:00 AM Tuesday, September 6, 2022 for Labor Day;
- From noon Friday, November 18, 2022 to 6:00 AM Monday, November 21, 2022 for Deer Hunting Opener;
- From noon Friday, April 7, 2023 to 6:00 AM Tuesday, April 11, 2023 for Easter;
- 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.

stp-107-005 (20210113)

8. **Utilities.**

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

stp-107-065 (20080501)

Coordinate construction activities with a call to Diggers Hotline or a direct call to the utilities for the underground facilities in the area, as required per state statues. Use caution to maintain the integrity of utilities.

Any utility facilities not explicitly identified as being relocated or removed have been deemed to be not in conflict and will remain in place as is. It is expected that contractors will work safely around any facilities left within the work zone.

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.

The location of utility installations as described in this article are approximate.

Additional detailed information regarding the location of utility facilities is available at the region WisDOT office during normal working hours.

AT&T Legacy (Communication Line)

AT&T Legacy has underground fiber optic facilities along the northeast side of IH 94, including the WB Ramps at STH 82.

AT&T Legacy has underground communication facilities in the project area that directly conflict with the project improvements. The following work will be performed by AT&T Legacy forces prior to construction: Two new underground communication facilities will be directionally bored along the northeast side of the IH 94 WB off-ramp to STH 82 approximately 5-foot offset from the new ROW fence beginning at Station 990+50B and tying back into existing facilities via new handholes near Station 997+75B. Another two new underground communication facilities will be directionally bored along the northeast side of the IH 94 WB on-ramp to STH 82 approximately 5-foot offset from the new ROW fence beginning at Station 973+00B and tying back into existing facilities via existing handholes at Station 984.50B.

Work planned prior to construction is anticipated to begin in January 2022 and will take approximately 30 working days to complete.

Alliant Energy (Electricity)

Alliant Energy has underground electric facilities along the south side of CTH G.

Alliant Energy has aerial electric facilities along the south side of CTH G, west of IH 94.

Alliant Energy has underground electric facilities along the east side of the southeast off-ramp of IH 94.

Alliant Energy has aerial electric facilities located along and which cross the north and south sides of STH 82, west of IH 94.

Alliant Energy has aerial electric facilities located along and which cross the north and south sides of STH 82, east of IH 94.

Alliant Energy has aerial electric facilities along the east side of the east ramps of IH 94 and which cross STH 82 near Station 151+00.

Alliant Energy has underground electric facilities along the south side of STH 82 from Station 147+50 RT to Station 148+50 RT.

Alliant Energy has underground and aerial electric facilities in the project area that directly conflict with the project improvements. The following work will be performed by Alliant Energy forces prior to construction: A new 3-phase electric junction box will be installed adjacent to the west side of pole near Station 153+00WB82. From this junction box, new 3-phase underground electric in conduit will be run south across STH 82 to a new 3-phase padmount transformer outside of road right-of-way (west of the cheese building). From this transformer, new 1-phase underground electric will be run on private property over to the existing pole location and spliced into the existing underground electric near Station 988+40A, 92'LT. The existing underground electric from Station 990+70A to Station 992+40A will be relocated outside of the new right-of-way.

Work planned prior to construction is anticipated to begin in December 2021 or January 2022 and will take approximately 10 working days to complete.

Alliant Energy plans to discontinue in place the following existing facilities in the project limits: Existing underground electric service to weather station.

Alliant Energy (Gas)

Alliant Energy has underground gas facilities along the north side of STH 82.

Alliant Energy has underground facilities in the project area that directly conflict with the project improvements. The following work will be performed by Alliant Energy forces prior to construction: New 2-inch plastic gas main will be installed from Station 19+73G - 23+42G along CTH G. This new main will be about 8-feet south of the existing 2-inch plastic gas main and will be installed minimum of 30-inches deeper than the sidewalk grade using direction drilling. New 4-inch plastic gas main will be installed from Station 140+36WB82 to Station 143+55WB82. New 4-inch plastic gas main will be installed from Station 146+70WB82 to Station 151+21WB82.

Work planned prior to construction is anticipated to begin in December 2021 or January 2022 and will take approximately 15 working days to complete.

Alliant Energy plans to discontinue in place the following existing facilities in the project limits: The existing 2-inch plastic gas main from Station 19+73G to STA 23+42G, the existing 4-inch plastic gas main from Station 140+36WB82 to Station 143+55WB82 and the existing 4-inch plastic gas main from Station 146+70WB83 to Station 151+21WB83 will be purged of gas.

City of Mauston (Sewer)

City of Mauston has underground sewer facilities under CTH G.

City of Mauston has underground sewer facilities that run along the south side of STH 82 beginning at Station 138+00 and continuing east along the south side of STH 82 to Station 162+00.

City of Mauston has underground facilities in the project area that directly conflict with the project improvements. The following work will be performed by the City of Mauston during construction: Exploratory excavations will be performed at all sanitary and storm sewer conflict points to verify elevations. Provide advance notice of the start of construction to the City of Mauston. Exploratory excavations will be completed within 14 days of the start of construction.

Existing sanitary sewer at Station 144+12.74'EB82' RT will have an exploratory excavation by the City of Mauston at the start of construction. Provide advance notice of excavation for proposed storm sewer at this location so the City of Mauston may be present during excavation. The City of Mauston will install the concrete pipe support between the existing sanitary sewer and the new storm sewer. This work is anticipated to take the City of Mauston one day to complete.

Existing sanitary sewer at Stations 148+63'EB82', 149+85'EB82' and 150+16'EB82' will have exploratory excavations by the City of Mauston at the start of construction. The proposed storm sewer in these locations will be installed under the existing sanitary sewer. Provide advance notice of excavation for proposed storm sewer at these locations so the City of Mauston may be present during excavation. During excavation, the contractor must support existing sanitary sewer in place. The City of Mauston will install concrete pipe supports between the sanitary sewer and the new storm sewer. This work is anticipated to take the City of Mauston approximately 2 hours per location to complete.

Existing sanitary manholes located at the following locations will require final grade adjustments:

Station 139+39'EB82' RT

Station 141+88'EB82' RT

Station 142+77'EB82' RT

Station 144+87'EB82' RT

Station 147+34'EB82' RT

Station 148+82'EB82' RT

Station 149+97'EB82' RT

Station 152+27'EB82' RT

Station 155+72'EB82' RT

Station 155+81'WB82' LT

Station 158+45'WB82' LT

Provide advance notice prior to paving, concrete work, final grading, or any work that requires the adjustment and/or reconstruction of the manhole at these locations. Manhole adjustments will take the City of Mauston one half working day per location to complete.

City of Mauston (Water)

City of Mauston has underground water facilities under the westbound lane of CTH G.

City of Mauston has underground water facilities that run under STH 82 beginning at Station 138+00 and continuing east under STH 82 to Station 152+50 where it turns and heads north beyond the right-of-way.

City of Mauston has underground water facilities that run under the eastbound IH 90/94 on ramp and continues east along the south side of STH 82 to Station 155+00.

City of Mauston has underground facilities in the project area that directly conflict with the project improvements. The following work will be performed by the City of Mauston prior to construction: Exploratory excavations will be performed at all watermain conflict points to verify elevations. Provide advance notice of the start of construction to the City of Mauston. Exploratory excavations will be completed within 14 days of the start of construction.

Existing watermain along the south side of STH 82 at Station 148+66'EB82' RT and Station 150+20'EB82' RT will have an exploratory excavation by the City of Mauston at the start of construction. Provide advance notice of excavation for proposed storm sewer at this location so the City of Mauston may be present during excavation.

Existing watermain at Station 149+91'EB82' RT will have an exploratory excavation by the City of Mauston at the start of construction. Provide 7 days of advance notice of excavation for proposed storm sewer at this location so the City of Mauston may be present during excavation. The City of Mauston will adjust the watermain at this location to eliminate the conflict with the proposed storm sewer. This work is anticipated to take the City of Mauston two days to complete.

Existing watermain valves and hydrants located at the following locations will require final grade adjustments:

Station 142+52'EB82' RT (valve)
Station 142+68'EB82' RT (valve)
Station 10+17'ERAB' RT (valve)
Station 10+18'ERAB' RT (valve)
Station 5+74'C' RT (valve)
Station 10+16'EBRT' RT (hydrant)

Provide advance notice prior to paving, concrete work, final grading, or any work that requires the adjustment of the valve or hydrant elevations at these locations. Valve adjustments and hydrant adjustments will take the City of Mauston one half working day per location to complete.

The City of Mauston plans to discontinue in place the following existing facilities in the project limits:
Existing 8" watermain along the median area of STH 82 between Commercial Street and Kennedy Street.

Frontier Communications of Wisconsin (Communication)

Frontier Communications has underground communication facilities along the north side of CTH G.

Frontier Communications has underground communication facilities along the south side of CTH G, east of IH 94.

Frontier Communications has underground communication facilities along the east right of way of IH 94, north of CTH G.

Frontier Communications has underground communication facilities that cross CTH G approximately 100-feet east of IH 94.

Frontier Communications has underground communication facilities along the south side of STH 82, east of the east ramps of IH 94.

Frontier Communications has underground communication facilities along the north and south sides of STH 82, west of the west ramps of IH 94.

Frontier Communications has underground communication facilities that cross STH 82 near Station 153+00.

Frontier Communications has underground communication facilities along the east right of way of IH 94, throughout the project corridor south of STH 82.

Frontier Communications has underground communication facilities in the project area that directly conflict with the project improvements. The following work will be performed by Frontier Communications forces prior to construction: Underground communication facilities on STH 82 from Station 153+00RT to Station 152+00RT will be relocated to 3-feet off existing right of way. In addition, Frontier Communications will directionally bore a new cable under the IH 94 at Station 989+00LT & RT.

Work planned prior to construction is anticipated to begin in November 2021 and will take approximately 30 working days to complete.

Frontier Communications plans to discontinue in place the following existing facilities in the project limits:
The existing underground communication facility from Station 953+00LT to Station 962+00LT.

Mediacom Wisconsin LLC (Communication)

Mediacom Wisconsin has underground communication facilities along the west side of CTH G and along the north side of STH 82.

Mediacom Wisconsin has underground communication facilities in the project area that directly conflict with the project improvements. The following work was performed by Mediacom Wisconsin forces prior to construction: A single fiber was relocated under the existing sidewalk at a depth of approximately 6-feet to resolve conflict with both project 1016-05-80 and this project.

Work planned prior to construction was completed in February 2021.

Mediacom Wisconsin discontinued in place the following existing facilities in the project limits: The existing underground communication along the west side of CTH G behind the existing bridge structures.

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

- **American Transmission Company – Electricity-transmission**
- **Lemonweir Valley Telephone Company – Communication Line**
- **Oakdale Electric Coop – Electricity**

9. Other Contracts.

Project 1016-05-64, I-90 bridge repairs (24th Ave/Koval Rd bridges over I-90/94), near Lyndon Station, Juneau County will be performed in 2022.

Project 5010-06-72, STH 82, Hillsboro – Mauston (STH 80 to County G), Juneau County will be constructed in 2022. This project is a resurface and will be open to traffic.

Project 5020-01-60, STH 58, La Valle – Mauston (STH 33 to 0.05 MI N Sara Lane), Sauk and Juneau Counties, will be constructed in 2022. This project is a resurface and will be open to traffic.

Project 1016-01-64, I-90 bridge repairs (County M/Welch Prairie Rd bridges over I-90/94), near New Lisbon, Juneau County will be performed in 2022.

Project 1016-01-61, I-90, Tomah – Portage (Camp Douglas to Seven Mile Creek) is a preservation project that will perform pavement repair, patches, crack and seal. This project will be performed in 2023.

Project 1016-01-62, I-90, Tomah – Portage (24th Ave. to Mirror Lake Bridge) is a preservation project that will perform pavement repair, patches, crack and seal. This project will be performed in 2023

10. Work by Others.

Alliant Energy will remove the street lighting from Kennedy Street to Commercial Street. Coordinate work with Tyler Donovan, tylerdonovan@alliantenergy.com, (608) 847-1302 a minimum of 5 working days in advance of need for removal. Removal of some street lights/poles may cause other downstream lights to be turned off and/or removed at the same time due to the feed being removed, so time the removal accordingly to maintain lighting during construction.

11. Hauling Restrictions.

Access points to roadways, including openings in the IH 90 right-of-way fence, for the delivery or hauling of construction materials for this project shall be approved by the engineer before work is started. Access through the IH 90 right-of-way fence will not be permitted unless the nearest IH 90 travel lanes are closed to traffic.

Do not haul construction materials longitudinally along the project inside the IH 90 right-of-way within 30 feet of the live traffic lanes unless the work zone is protected by concrete barrier.

The following provides allowances and restrictions for contractor access to and from the IH 90 mainline work zone.

Pre-Stage 2

Utilize the SDD for Ingress/Egress for access to the median from the live traffic lanes.

Several iterations of Ingress/Egress accommodations will be required to facilitate completing all the work longitudinally within the work areas.

Stages 2 and 3

The contractor utilizing live-traffic on-ramps to access to the work site will be considered. Access coming from the work site utilizing a merge onto the ramps to head to the next interchange at New Lisbon or Lyndon Station, will be considered.

Temporary contractor ramps near the eastbound on ramp and westbound on ramp will be considered to access the work zone to/from STH 82, constructed separately from live-traffic ramps, located in the "infields" between the ramp terminals and the bridge slopes. These ramps, if used, would be paid as incidental to the work, and access to and from STH 82 shall be "right-in, right-out" only.

Temporary contractor ramps will be considered to access the work zone to/from CTH G (Sherman Street) contingent on the contractor obtaining approval from the municipalities for use of the area local roads as haul roads. These ramps, if used, would be paid as incidental to the work.

Temporary contractor ramps will be considered to access the work zone to/from CTH N contingent on the contractor obtaining approval from the county for use of the area county roads as haul roads. These ramps, if used, would be paid as incidental to the work.

Temporary contractor ramps will be considered to access the work zone from private property contingent on the contractor obtaining approval from the municipalities for use of the area local roads as haul roads. These ramps, if used, would be paid as incidental to the work.

Stage 4

Utilize the SDD for Ingress/Egress for access to the median from the live traffic lanes.

Several iterations of Ingress/Egress accommodations will be required to facilitate completing all the work longitudinally within the work areas.

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

There are wetlands within the right-of-way, however, impacts are not anticipated based on the proposed slope intercepts. Therefore, the department has not requested or obtained a U.S. Army Corps of Engineers 404 Permit for this project.

Methods of operations, including preparatory work, staging, site clean-up, storing materials, or causing impacts to wetlands or waters are not permitted. 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 U.S. Army Corps of Engineers Section 404 Permit is required. If a Section 404 Permit is necessary, obtain the permit 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 permit. The contractor must be aware that the Corps of Engineers may not grant the permit request.

Required terms and conditions for general permits are available on the USACE's website:

<https://www.mvp.usace.army.mil/Missions/Regulatory.aspx>

stp-107-054 (20210708)

13. 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 Travis Buros at (608) 789-5702. Post the permit in a conspicuous place at the construction site.

stp-107-056 (20180628)

14. Environmental Protection, Aquatic Exotic Species Control.

Exotic invasive organisms such as VHS, zebra mussels, purple loosestrife, and Eurasian water milfoil are becoming more prolific in Wisconsin and pose adverse effects to waters of the state. Wisconsin State Statutes 30.07, "Transportation of Aquatic Plants and Animals; Placement of Objects in Navigable Waters", details the state law that requires the removal of aquatic plants and zebra mussels each time equipment is put into state waters.

At construction sites that involve navigable water or wetlands, use the follow cleaning procedures to minimize the chance of exotic invasive species infestation. Use these procedures for all equipment that comes in contact with waters of the state and/or infested water or potentially infested water in other states.

Ensure that all equipment that has been in contact with waters of the state, or with infested or potentially infested waters, has been decontaminated for aquatic plant materials and zebra mussels before being used in other waters of the state. Before using equipment on this project, thoroughly disinfect all equipment that has come into contact with potentially infested waters. Guidelines from the Wisconsin Department of Natural Resources for disinfection are available at:

<http://dnr.wi.gov/topic/invasives/disinfection.html>

Use the following inspection and removal procedures:

1. Before leaving the contaminated site, wash machinery and ensure that the machinery is free of all soil and other substances that could possibly contain exotic invasive species;
2. Drain all water from boats, trailers, bilges, live wells, coolers, bait buckets, engine compartments, and any other area where water may be trapped;
3. Inspect boat hulls, propellers, trailers and other surfaces. Scrape off any attached mussels, remove any aquatic plant materials (fragments, stems, leaves, seeds, or roots), and dispose of removed mussels and plant materials in a garbage can before leaving the area or invested waters; and
4. Disinfect your boat, equipment and gear by either:
 - 4.1. Washing with ~212 F water (steam clean), or
 - 4.2. Drying thoroughly for five days after cleaning with soap and water and/or high pressure water, or
 - 4.3. Disinfecting with either 200 ppm (0.5 oz per gallon or 1 Tablespoon per gallon) Chlorine for 10-minute contact time or 1:100 solution (38 grams per gallon) of Virkon Aquatic for 20- to 30-minute contact time. Note: Virkon is not registered to kill zebra mussel veligers nor invertebrates like spiny water flea. Therefore, this disinfect should be used in conjunction with a hot water (>104° F) application.

Complete the inspection and removal procedure before equipment is brought to the project site and before the equipment leaves the project site.

stp-107-055 (20130615)

15. Erosion Control Structures.

Within three calendar days after completing the excavation for a substructure unit, place riprap or other permanent erosion control items required by the contract or deemed necessary by the engineer around the unit at a minimum to a height equivalent to the calculated water elevation resulting from a storm that occurs on the average of once every two years (Q2) as shown on the plan, or as the engineer directs.

In the event that construction activity does not disturb the existing ground below the Q2 elevation, the above timing requirements for permanent erosion control shall be waived.

stp-107-070 (20191121)

16. Notice to Contractor – Contamination Beyond Construction Limits.

The department completed testing for soil and ground water contamination for locations within this project where excavation is required. Testing indicated that petroleum-contaminated soil is present at the following sites:

1. Station 131+85 WB82 to 137+00 WB82 from reference line to project limits LT.
2. Station 156+00 WB82 to 158+00 WB82 from reference line to project limits LT.

The contaminated soils at the above sites are expected to be beyond the excavation limits necessary to complete the work under this project. Control construction operations at these locations to ensure that they do not extend beyond the excavation limits indicated in the plans. If contaminated soils are encountered at these sites or elsewhere on the project during excavation, terminate excavation in the area and notify the engineer.

The Hazardous Materials Report is available by contacting: Steve Vetsch at (608) 785-9049.

stp-107-100 (20050901)

17. Notice to Contractor, Notification of Demolition and/or Renovation No Asbestos Found.

Tom Perkins, License Number All-252595, inspected Structure B-29-0032, B-29-0033, B-29-0034, B-29-0035, B-29-0036, and B-29-0037 for asbestos on May 12, 2021. No regulated Asbestos Containing Material (RACM) was found on this structure. A copy of the inspection report is available from: Travis Buros at (608) 789-5702.

Use the following information to complete WisDNR form 4500-113:

Site Name: Structure B-29-0032, IH 90 EB-IH 94 EB over Lemonweir River

- Site Address: 0.7M E JCT STH 82 TO E
- Ownership Information: WisDOT Transportation SW Region, 3550 Mormon Coulee Road, La Crosse, WI 54601.
- Contact: John Bainter, WisDOT Project Manager
- Phone: (608) 785-9729
- Age: 58 years old. This structure was constructed in 1964.
- Area: 8733 SF of deck

Site Name: Structure B-29-0033, IH 90 W-IH 94 WB over Lemonweir River

- Site Address: 9.5M W JCT CTH HH TO N
- Ownership Information: WisDOT Transportation SW Region, 3550 Mormon Coulee Road, La Crosse, WI 54601.
- Contact: John Bainter, WisDOT Project Manager
- Phone: (608) 785-9729
- Age: 58 years old. This structure was constructed in 1964.
- Area: 8733 SF of deck

Site Name: Structure B-29-0034, IH 90 EB-IH 94 EB over STH 82

- Site Address: 7.7M E JCT STH 80 TO N
- Ownership Information: WisDOT Transportation SW Region, 3550 Mormon Coulee Road, La Crosse, WI 54601.
- Contact: John Bainter, WisDOT Project Manager
- Phone: (608) 785-9729
- Age: 58 years old. This structure was constructed in 1964.
- Area: 8655 SF of deck

Site Name: Structure B-29-0035, IH 90 WB-IH 94 WB over STH 82

- Site Address: 10.0M W JCT CTH HH TO N
- Ownership Information: WisDOT Transportation SW Region, 3550 Mormon Coulee Road, La Crosse, WI 54601.
- Contact: John Bainter, WisDOT Project Manager
- Phone: (608) 785-9729
- Age: 58 years old. This structure was constructed in 1964.
- Area: 8655 SF of deck

Site Name: Structure B-29-0036, IH 90 EB-IH 94 EB over CTH G

- Site Address: 7.1M E JCT STH 80 TO N
- Ownership Information: WisDOT Transportation SW Region, 3550 Mormon Coulee Road, La Crosse, WI 54601.
- Contact: John Bainter, WisDOT Project Manager
- Phone: (608) 785-9729
- Age: 58 years old. This structure was constructed in 1964.
- Area: 6252 SF of deck

Site Name: Structure B-29-0037, IH 90 WB-IH 94 WB over CTH G

- Site Address: 0.7M W JCT STH 82 TO E
- Ownership Information: WisDOT Transportation SW Region, 3550 Mormon Coulee Road, La Crosse, WI 54601.
- Contact: John Bainter, WisDOT Project Manager
- Phone: (608) 785-9729
- Age: 57 years old. This structure was constructed in 1964
- Area: 6252 SF of deck

Insert the following paragraph in Section 6.g.:

If asbestos not previously identified is found or previously non-friable asbestos becomes crumbled, pulverized, or reduced to a powder, stop work immediately, notify the engineer, and the engineer will notify the department's Bureau of Technical Services at (608) 266-1476 for an emergency response as specified in standard spec 107.24. Keep material wet until it is abated or until it is determined to be non-asbestos containing material.

stp-107-125 (20120615)

18. 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)

19. Archaeological Site.

47JU185 (Pharo II) site is located approximately Station 1008+45 WB – Station 1010+14 WB, LT and RT within the limits shown on the plans.

47JU187 (Rackas) site is located approximately Station 1017+56 EB – Station 1022+61 EB, LT and RT 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 beyond the existing slope intercept. 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.

stp-107-220 (20180628)

20. Bureau of Aeronautics.

The Federal Aviation Administration (FAA) has conducted an aeronautical study for this project. The study revealed that the structures do not exceed obstruction standards. The determination expires on March 25, 2023. FAA Form 7460-2, Notice of Actual Construction or Alteration, must be received by the FAA for an extension. Contact John Bainter at (608) 785-9729, 3550 Mormon Coulee Road, La Crosse, WI 54601 for the full determination.

21. Coordination with Businesses and Residents.

The contractor shall 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 a meeting one week prior to each traffic staging change. The contractor shall 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)

22. Incentive/Disincentive for Interim Completion of Work, Item 108.3100.S.01.

A General

This item shall consist of either an incentive payment or a disincentive pay reduction as specified below.

The contractor shall complete all of the work necessary to reopen the IH 90 Eastbound lanes including concrete pavement on Eastbound IH 90 lanes, Eastbound off ramp to station 978+50'C' or to the roundabout and eastbound on ramp beginning at station 986+50'D' or at the roundabout, structures B-29-152, B-29-154, B-29-36, HMA for shoulders, shoulder gravel, and traffic control needed for the next stage before 12:01 AM, September 2, 2022.

The completion time allowed for this contract is based on an expedited work schedule.

Under this Incentive/Disincentive plan, no time extensions will be granted for adverse weather conditions; for delays in material deliveries; or for labor disputes unless it can be shown that such disputes are industry wide.

The maximum incentive payment, as shown on the Schedule of Items, is for department accounting purposes. The actual incentive payment the contractor may receive shall be according to section B of this provision.

Incentive payments will not be considered as part of the money value of the work completed for computing time extensions.

B Incentive Payment

The contractor shall be entitled to an incentive payment for completion of all of the work necessary to reopen the IH 90 Eastbound lanes including concrete pavement on Eastbound IH 90 lanes, Eastbound off ramp to station 978+50'C' or to the roundabout, eastbound on ramp beginning at station 986+50'D' or at the roundabout, structures B-29-152, B-29-154, B-29-36, HMA for shoulders, shoulder gravel, and traffic control needed for the next stage on this contract before 12:01 AM, September 2, 2022.

The incentive payment will be paid at the rate of \$20,000 per calendar day, of completion before 12:01 AM, September 2, 2022. The maximum amount of incentive payment cannot exceed \$400,000.

C Disincentive Pay Reduction

Should the contractor fail to complete all of the work necessary to reopen the IH 90 Eastbound lanes including concrete pavement on Eastbound IH 90 lanes and Eastbound off and on ramps, structures B-29-152, B-29-154, B-29-36, HMA for shoulders, shoulder gravel, and traffic control needed for the next stage under this contract before 12:01 AM, September 2, 2022, the contractor shall be liable for a maximum of 10 calendar days to the department for a pay reduction in the amount of \$40,000 per calendar day for each calendar day after 12:01 AM, September 2, 2022 that work remains incomplete. An entire calendar day will be assessed for any period of time within a calendar day that the work remains incomplete beyond 12:01 AM. The maximum amount assessed cannot exceed \$400,000.

If contract time expires before completing all work specified in the contract, additional liquidated damages will be assessed as specified in standard spec 108.11 or as specified within this contract.

D Measurement and Payment

Incentive/Disincentive for interim Completion of Work will be measured by the calendar day and will be paid/assessed at the contract unit price per calendar day.

The unit price per day for an incentive pay adjustment will be compensation in full for completing the work as specified in section B of this provision.

The unit price per day for a disincentive pay reduction will be assessed for failing to complete all the work as specified in section C of this provision.

23. Incentive/Disincentive for Interim Completion of Work, Item 108.3100.S.02.

A General

This item shall consist of either an incentive payment or a disincentive pay reduction as specified below.

The contractor shall complete all of the work necessary to reopen IH 90 fully, acceptably completed except punch list items, to through traffic including completion of all work and removal of traffic control devices on this contract before 12:01 AM September 1, 2023.

The completion time allowed for this contract is based on an expedited work schedule.

Under this Incentive/Disincentive plan, no time extensions will be granted for adverse weather conditions; for delays in material deliveries; or for labor disputes unless it can be shown that such disputes are industry wide.

The maximum incentive payment, as shown on the Schedule of Items, is for department accounting purposes. The actual incentive payment the contractor may receive shall be according to section B of this provision.

Incentive payments will not be considered as part of the money value of the work completed for computing time extensions.

B Incentive Payment

The contractor shall be entitled to an incentive payment for completion of all of the work necessary to reopen IH 90 and STH 82 fully to through traffic including completion of all work and removal of traffic control devices on this contract before 12:01 AM June 29, 2023.

The incentive payment will be paid at the rate of \$200,000 per calendar day, of completion before 12:01 AM June 29, 2023. The maximum amount of incentive payment cannot exceed \$200,000.

C Disincentive Pay Reduction

Should the contractor fail to complete all of the work necessary to reopen IH 90 and STH 82 fully to through traffic including completion of all work and removal of traffic control devices under this contract before 12:01 AM September 1, 2023, the contractor shall be liable to the department for a pay reduction in the amount of \$200,000 per calendar day for each calendar day after 12:01 AM September 1, 2023 that work remains incomplete. The maximum amount assessed cannot exceed \$200,000.

If contract time expires before completing all work specified in the contract, additional liquidated damages will be assessed as specified in standard spec 108.11 or as specified within this contract.

D Measurement and Payment

Incentive/Disincentive for interim Completion of Work will be measured by the calendar day and will be paid/assessed at the contract unit price per calendar day.

The unit price per day for an incentive pay adjustment will be compensation in full for completing the work as specified in section B of this provision.

The unit price per day for a disincentive pay reduction will be assessed for failing to complete all the work as specified in section C of this provision.

24. Removing Structure Over Waterway Minimal Debris, Temporary Bridge Station 1013+00T, Item 203.0260.02.

Perform all work to remove the temporary median bridge structure over the Lemonweir River, Station 1013+00T, according to standard spec 203 for Removing Structure Over Waterway Minimal Debris. This temporary bridge was installed by others in the prior 2021 construction project Station 1016-05-80. The Station 1013+00T (Lemonweir River) structure is a 3-span precast concrete girder bridge with 7.5-inch concrete bridge deck. The piers are both pile bent structures supported on 12.75-inch CIP pipe piling.

25. Removing Cover Plates Left In Place, Item 204.9060.S.01.

A Description

This special provision describes removing Cover Plates Left In Place conforming to standard spec 204.

B (Vacant)

C (Vacant)

D Measurement

The department will measure Removing Cover Plates Left In Place in each, acceptably completed.

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.01	Removing Cover Plates Left In Place	EACH
stp-204-025 (20150630)		

26. Removing Endwall, Item 204.9060.S.02.

A Description

This special provision describes removing Endwall conforming to standard spec 204.

B (Vacant)

C (Vacant)

D Measurement

The department will measure Removing Endwall in each, acceptably completed.

E Payment

Add the following to standard spec 204.5:

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

27. Removing Drain Slotted Vane Longitudinal, Item 204.9090.S.01.

A Description

This special provision describes removing Drain Slotted Vane Longitudinal conforming to standard spec 204.

B (Vacant)

C (Vacant)

D Measurement

The department will measure Removing Drain Slotted Vane Longitudinal in linear feet, acceptably completed.

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9090.S.01	Removing Drain Slotted Vane Longitudinal	LF
stp-204-025 (20150630)		

**28. Removing Temporary Structure Station 952+00T, Item 204.9060.S.03;
Removing Temporary Structure Station 983+00T, Item 204.9060.S.03.**

A Description

This special provision describes removing the existing temporary median bridge structures and their foundations and disposing of resulting materials according to standard spec 203 and as hereinafter provided. These temporary bridges were installed by others in the prior 2021 construction project Station 1016-05-80.

The Station 952+00T (CTH G) bridge is a single span, precast concrete girder bridge with a 7.5-inch concrete bridge deck. It has a timber lagged soldier pile wall at each abutment for temporary shoring.

The Station 983+00T (STH 82) bridge is a 2-span precast concrete girder bridge with 7.5-inch concrete deck. The pier is a pile bent structure supported on 12.75" CIP piling. It has a timber lagged soldier pile wall at the north abutment for temporary shoring.

B (Vacant)

C (Vacant)

D Measurement

The department will measure Removing Temporary Structure Station 952+00T and Temporary Structure Station 983+00T, acceptably completed, for each specific temporary bridge structure removed according to the contract.

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9105.S.03	Removing Temporary Structure Station 952+00T	EACH
204.9105.S.04	Removing Temporary Structure Station 983+00T	EACH

stp-204-025 (20150630)

29. Select Borrow, Item 208.1100.

Conform to standard spec 208 as modified in this special provision.

Material

Furnish and use material that consists of granular material meeting the following requirements: Maximum particle size of 12 inches when measured from any face. The material passing the No. 4 sieve shall have a maximum of 20 percent by weight passing the No. 200 sieve.

swr-208-001 (20031103)

30. Temporary Lane Shift During Culvert Work, Item 208.1500.S.

A Description

This special provision describes the construction of a temporary lane shift to maintain traffic with a one-lane roadway around culvert work.

B (Vacant)

C Construction

Place fill and base aggregate dense as needed to maintain traffic through the lane shift.

Furnish materials and construct conforming to the following standard specs:

Common excavation, material removal, and disposal	205
Borrow	208
Base Aggregate Dense	305

Do pertinent construction staking according to standard spec 650 for the temporary lane shift.

Construct to appropriate widths and material thicknesses. Remove materials once the lane shift is no longer needed to maintain traffic.

D Measurement

The department will measure Temporary Lane Shift During Culvert Work as a single unit for each temporary roadway, 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
208.1500.S	Temporary Lane Shift During Culvert Work	EACH

Payment is full compensation for placing, removing and disposal of fill material, including any base aggregate dense used for the driving surface; and associated construction staking.

The department will pay separately for traffic control and erosion control items.

stp-208-010 (20210708)

31. Base Aggregate Dense ¾-Inch, Item 305.0110.

Add the following to standard spec 301.2.4.3:

Furnish only aggregate classified as crushed stone for Dense ¾-Inch when used in the top 3 inches of the unpaved portion of the shoulder or for unpaved driveways and field entrances.

swr-305-001 (20170711)

32. Rout and Seal, Item 415.6000.S.

A Description

This special provision describes routing, cleaning, drying, and sealing the longitudinal edge of pavement joints in new asphaltic pavement shoulders immediately adjacent to the edge of the concrete mainline pavement.

B Materials

Furnish material that conforms to the requirements of the Specifications for Joint Sealants, Hot-Poured, for Concrete and Asphalt Pavements, ASTM Designation: D 6690, Type II, modified to require that the bond strength test be run at -20 degrees F. (The unmodified ASTM D 6690, Type II allows this test to be run at either 0 degrees F or -20 degrees F.)

Deliver each lot or batch of sealing compound to the jobsite in the manufacturer's original sealed container. Mark each container with the manufacturer's name, batch or lot number, and the safe heating temperature. Present the manufacturer's certification stating that the compound meets the requirements of this specification. Before applying the sealant, furnish to the engineer a certificate of compliance and a copy of the manufacturer's recommendations on heating and applying the sealant.

C Construction

C.1 Equipment

Heat the sealing compound to the pouring temperature recommended by the manufacturer in an approved kettle or tank, constructed as a double boiler, with the space between the inner and outer shells filled with oil or other satisfactory heat transfer medium. If, and when, using the heating kettle on concrete or asphaltic pavement, properly insulate the heating kettle to ensure heat is not radiated to the pavement surface.

Make rout cuts in a single pass. Two-pass cutting will not be allowed. Use a self-propelled mechanical router capable of routing the bituminous pavement to provide a 1.0:1.0 depth to width ratio of all routed cracks. The router blade or blades shall be of such size and configuration to cut the desired joint reservoir in one pass. No spacers between blades shall be allowed unless the contractor can demonstrate to the engineer that the desired reservoir and rout cut can be obtained with them. Either wet or dry routing will be permitted provided the above conditions are met. Use a pressure distributor for applying sealing material through a hand-operated wand or nozzle according to sealant manufacturer's instructions.

C.2 Methods

Conduct the operation so that the routing, cleaning, and sealing are continuous operations. Traffic shall not be allowed to knead together or damage the routed joints. Rerout, if necessary, routed joints not sealed before traffic is allowed on the pavement when routing and sealing operations resume. Do not perform rout cutting, cleaning, and sealing, within 48 hours of the placement of the shoulder's surface course.

Rout the longitudinal joint to a minimum width of 3/4 inches and a minimum depth of 3/4 inches. Use a power vacuum or equivalent to immediately remove any routing slurry, dirt, or deleterious matter adhering to the joint walls or remaining in the joint cavity, or both. Before sealing, dry the cleaned joints either by air-drying or by using a high capacity torch. Immediately before sealing, blow out the dried crack with a blast of compressed air, 80-psi minimum. Continue cleaning until the joint is dry, and until all dirt, dust, or deleterious matter is removed from the joint and adjacent pavement to the satisfaction of the engineer. If the air compressor produces dirt or other residue in the joint cavity, the contractor shall be required to clean the joint again.

If cleaning operations could cause damage to, or interfere with, traffic in adjacent lanes, or both, provide protective screening that is subject to the approval of the engineer to the cleaning operation.

Following cleaning, dry the routed joints and warm them with a hot air lance. Take care not to burn the pavement surface. Under no circumstances shall more than two minutes elapse between the time the hot air lance is used, and the sealant is placed.

Provide positive temperature control and mechanical agitation. Do not heat the sealant to more than 20 degrees F below the safe heating temperature. The safe heating temperature can be obtained from the manufacturer's shipping container. Provide a direct connecting pressure type extruding device with nozzles shaped for insertion into the joint. Immediately remove sealant spilled on the surface of the pavement.

Seal the joints when the sealant material is at the pouring temperature recommended by the manufacturer. Fill the joint such that after cooling, the sealant is flush with the adjacent pavement surface. Do not overfill the joint; the engineer may allow a very slight overband. Sand shall not be spread on the sealed joints to allow for opening to traffic. Before opening to traffic, the sealant shall be tack free.

D Measurement

The department will measure Rout and Seal in length by the linear feet, completed according to the contract and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
415.6000.S	Rout and Seal	LF

Payment is full compensation for rout cutting; cleaning the joint; sealing the joint; and cleanup.

stp-415-100 (20210113)

33. QMP HMA Pavement Nuclear Density.

A Description

Replace standard spec 460.3.3.2 (1) and standard spec 460.3.3.2 (4) with the following:

- (1) This special provision describes density testing of in-place HMA pavement with the use of nuclear density gauges. Conform to standard spec 460 except as modified in this special provision.

- (2) Provide and maintain a quality control program defined as all activities and documentation of the following:
 1. Selection of test sites.
 2. Testing.
 3. Necessary adjustments in the process.
 4. Process control inspection.
- (3) Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes required procedures.

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

- (4) The department's Materials Reporting System (MRS) software allows contractors to submit data to the department electronically, estimate pay adjustments, and print selected reports. Qualified personnel may obtain MRS software from the department's web site at:

<http://www.atwoodsystems.com/>

B Materials

B.1 Personnel

- (1) Nuclear gauge owners and personnel using nuclear gauges shall comply with WisDOT requirements according to 460.3.3 and CMM 8-15.

B.2 Testing

- (1) Conform to ASTM D2950 and CMM 8.15 for density testing and gauge monitoring methods. Conform to CMM 8-15.10.4 for test duration and gauge placement.

B.3 Equipment

B.3.1 General

- (1) Furnish nuclear gauges according to CMM 8-15.2.
- (2) Furnish nuclear gauges from the department's approved product list at

<https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrces/tools/appr-prod/default.aspx>

B.3.2 Comparison of Nuclear Gauges

B.3.2.1 Comparison of QC and QV Nuclear Gauges

- (1) Compare QC and QV nuclear gauges according to CMM 8-15.7.

B.3.2.2 Comparison Monitoring

- (1) Conduct reference site monitoring for both QC and QV gauges according to CMM 8-15.

B.4 Quality Control Testing and Documentation

B.4.1 Lot and Sublot Requirements

B.4.1.1 Mainline Traffic Lanes, Shoulders, and Appurtenances

- (1) Divide the pavement into lots and sublots for nuclear density testing according to CMM 8-15.10.2.
- (2) Determine required number of tests according to CMM 8-15.10.2.1.
- (3) Determine random testing locations according to CMM 8-15.10.3.

B.4.1.2 Side Roads, Crossovers, Turn Lanes, Ramps, and Roundabouts

- (1) Divide the pavement into lots and sublots for nuclear density testing according to CMM 8-15.10.2.
- (2) Determine required number of tests according to CMM 8-15.10.2.2.
- (3) Determine random testing locations according to CMM 8-15.10.3.

B.4.2 Pavement Density Determination

B.4.2.1 Mainline Traffic Lanes and Appurtenances

- (1) Calculate the average subplot densities using the individual test results in each subplot.
- (2) If all subplot averages are no more than one percent below the target density, calculate the daily lot density by averaging the results of each random QC test taken on that day's material.
- (3) If any subplot average is more than one percent below the target density, do not include the individual test results from that subplot when computing the lot average density and remove that subplot's tonnage from the daily quantity for incentive. The tonnage from any such subplot is subject to disincentive pay as specified in standard spec 460.5.2.2.

B.4.2.2 Mainline Shoulders

B.4.2.2.1 Width Greater Than 5 Feet

- (1) Determine the pavement density as specified in B.4.2.1.

B.4.2.2.2 Width of 5 Feet or Less

- (1) If all subplot test results are no more than 3.0 percent below the minimum target density, calculate the daily lot density by averaging all individual test results for the day.
- (2) If a subplot test result is more than 3.0 percent below the target density, the engineer may require the unacceptable material to be removed and replaced with acceptable material or allow the nonconforming material to remain in place with a 50 percent pay reduction. Determine the limits of the unacceptable material according to B.4.3.

B.4.2.3 Side Roads, Crossovers, Turn Lanes, Ramps, and Roundabouts

- (1) Determine the pavement density as specified in B.4.2.1.

B.4.2.4 Documentation

- (1) Document QC density test data as specified in CMM 8.15. Provide the engineer with the data for each lot within 24 hours of completing the QC testing for the lot.

B.4.3 Corrective Action

- (1) Notify the engineer immediately when an individual test is more than 3.0 percent below the specified minimum in standard spec 460.3.3.1. Investigate and determine the cause of the unacceptable test result.
- (2) The engineer may require unacceptable material specified in B.4.3(1) to be removed and replaced with acceptable material or allow the nonconforming material to remain in place with a 50 percent pay reduction. Determine limits of the unacceptable area by measuring density of the layer at 50-foot increments both ahead and behind the point of unacceptable density and at the same offset as the original test site. Continue testing at 50-foot increments until a point of acceptable density is found as specified in standard spec 460.5.2.2(1). Removal and replacement of material may be required if extended testing is in a previously accepted subplot. Testing in a previously accepted subplot will not be used to recalculate a new lot density.
- (3) Compute unacceptable pavement area using the product of the longitudinal limits of the unacceptable density and the full subplot width within the traffic lanes or shoulders.
- (4) Retesting and acceptance of replaced pavement will be as specified in standard spec 105.3.
- (5) Tests indicating density more than 3.0 percent below the specified minimum, and further tests taken to determine the limits of unacceptable area, are excluded from the computations of the subplot and lot densities.
- (6) If two consecutive subplot averages within the same paving pass and same target density are more than one percent below the specified target density, notify the engineer and take necessary corrective action. Document the locations of such sublots and the corrective action that was taken.

B.5 Department Testing

B.5.1 Verification Testing

- (1) The department will have a HTCP certified technician, or ACT working under a certified technician, perform verification testing. The department will test randomly at locations independent of the contractor's QC work. The department will perform verification testing at a minimum frequency of 10 percent of the

sublots and a minimum of one subplot per mix design. The sublots selected will be within the active work zone. The contractor will supply the necessary traffic control for the department's testing activities.

- (2) The QV tester will test each selected subplot using the same testing requirements and frequencies as the QC tester.
- (3) If the verification subplot average is not more than one percent below the specified minimum target density, use the QC tests for acceptance.
- (4) If the verification subplot average is more than one percent below the specified target density, compare the QC and QV subplot averages. If the QV subplot average is within 1.0 lb/ft³ of the QC subplot average, use the QC tests for acceptance.
- (5) If the first QV/QC subplot average comparison shows a difference of more than 1.0 lb/ft³ each tester will perform an additional set of tests within that subplot. Combine the additional tests with the original set of tests to compute a new subplot average for each tester. If the new QV and QC subplot averages compare to within 1.0 lb/ft³, use the original QC tests for acceptance.
- (6) If the QV and QC subplot averages differ by more than 1.0 lb/ft³ after a second set of tests, resolve the difference with dispute resolution specified in B.6. The engineer will notify the contractor immediately when density deficiencies or testing precision exceeding the allowable differences are observed.

B.5.2 Independent Assurance Testing

- (1) Independent assurance is unbiased testing the department performs to evaluate the department's verification and the contractor's QC sampling and testing including personnel qualifications, procedures, and equipment. The department will perform the independent assurance review according to the department's independent assurance program.

B.6 Dispute Resolution

- (1) The testers may perform investigation in the work zone by analyzing the testing, calculation, and documentation procedures. The testers may perform gauge comparison according to B.3.2.1.
- (2) The testers may use comparison monitoring according to B.3.2.2 to determine if one of the gauges is out of tolerance. If a gauge is found to be out of tolerance with its reference value, remove the gauge from the project and use the other gauge's test results for acceptance.
- (3) If the testing discrepancy cannot be identified, the contractor may elect to accept the QV subplot density test results or retesting of the subplot in dispute within 48 hours of paving. Traffic control costs will be split between the department and the contractor.
- (4) If investigation finds that both gauges are in error, the contractor and engineer will reach a decision on resolution through mutual agreement.

B.7 Acceptance

- (1) The department will not accept QMP HMA Pavement Nuclear Density if a non-compared gauge is used for contractor QC tests.

C (Vacant)

D (Vacant)

E Payment

E.1 QMP Testing

- (1) Costs for all sampling, testing, and documentation required under this special provision are incidental to the work. If the contractor fails to perform the work required under this special provision, the department may reduce the contractor's pay. The department will administer pay reduction under the Non-performance of QMP administrative item.

E.2 Disincentive for HMA Pavement Density

- (1) The department will administer density disincentives as specified in standard spec 460.5.2.2.

E.3 Incentive for HMA Pavement Density

- (1) The department will administer density incentives as specified in standard spec 460.5.2.3.

stp-460-020 (20181119)

**34. HMA Pavement 4 SMA 58-28 V, Item 460.8624;
HMA Pavement Test Strip Volumetrics, Item 460.0115.S;
HMA Pavement Test Strip Density, Item 460.0120.S.**

A Description

Conform to standard spec 450 and 460 except as modified in this special provision.

B (Vacant)

C Construction

Add the following to standard spec 450.3.1.3 to require transfer vehicle for SMA:

- (2) Use a Material Transfer Vehicle when constructing SMA pavement.

Add the following to standard spec 450.3.1.5 to prohibit rubber-tire roller on SMA:

- (3) Do not use a rubber-tired roller for compaction of SMA pavement.

Add the following to standard spec 460.3.3.2 to require and define approval criteria for SMA test strips:

- (5) Construct a test strip according to CMM 8-15.13 to correlate nuclear gauges to pavement cores, confirm SMA in-place density using cores and determine mixture air voids. 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. The department will assess the contractor \$2,000 for each instance according to Section E of this special provision if paving does not begin within 2 hours of the submitted start time, delaying the test strip. 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.

Construct the test strip at the beginning of work for each SMA mixture, for each layer and for each thickness. All SMA test strip material produced shall meet the requirements in Tables 460-1 and 460-2 and conform to the JMF limits presented herein except as follows:

ITEM	JMF Limits
Asphaltic content in percent ^[1]	- 0.5
VMA in percent ^[2]	- 1.0
Air Voids in percent	According to the SMA Test Strip Approval Criteria Below

^[1] Asphalt content more than -0.5% below the JMF will be referee tested by BTS using automated extraction according to WisDOT Modified ASTM D8159.

^[2] VMA limits based on minimum requirement for mix design nominal maximum aggregate size in table 460-1 as modified herein.

The test strip shall remain in place and become part of the completed pavement when acceptably produced, acceptably compacted, and meets finish and smoothness requirements. CMM 8-15 describes the SMA density and volumetric testing tolerances required for the test strip.

- (6) The test strip is to be treated as a single/separate lot and will have densities and pay adjustments calculated accordingly. The department will test one of the two split samples for volumetrics to determine test strip approval. If the QV air void sample is outside of the limits for 100% pay (i.e. $3.2 \leq Va \leq 5.8$), dispute resolution according to CMM 8-36 will determine material conformance and payment for the test strip. If QV and QC test results exceed testing tolerances (0.015 for Gmm or Gmb), both retained split samples will be tested by BTS. In this case, additional investigation shall be conducted to identify the source of the difference between QV and QC data and BTS referee test data will be used to determine material conformance and pay.

Pay adjustments made as part of dispute resolution on test strip material will be limited to the test strip and will not extend to material placed during main production nor will pay adjustments made on main production extend into the test strip. The department will notify the contractor within 24 hours of the start of test strip construction regarding approval to proceed with paving beyond the test strip. The department will evaluate mixture air voids, test strip density, and nuclear gauge to core correlation in determining test strip approval and material conformance according to the following:

SMA Test Strip Approval Criteria

Approval / Material Conformance ^[1]	QV Air Voids	Average Density of All Cores ^[2]	Outcome of Test Strip for Contractor
Approved / Material Conforming	$3.2 \leq Va \leq 5.8$	$\geq 93.0 \%$	Proceed with production
Test Strip Approved / Material Nonconforming	$2.8 \leq Va \leq 3.2$ or $5.8 < Va \leq 6.2$	$\geq 91.0 \%$	Propose solution and proceed with production. Payment for material will be based on BTS referee tests.
Test Strip Not Approved / Material Nonconforming	$2.5 \leq Va < 2.8$ or $6.2 < Va \leq 6.5$	$< 91.0 \%$	Stop production, submit cause and solution, make additional 500-ton test strip. Payment for material will be based on BTS referee tests.
Test Strip and Material are Unacceptable ^[3]	$Va < 2.5$ or $Va > 6.5$	$< 90.0 \%$	Stop production, submit cause and solution, make additional 500-ton test strip, and complete new core to nuclear density gauge correlation.

^[1] The overall result of each test strip will coincide with the more restrictive result from air voids or density.

^[2] Individual nuclear density test results more than 3.0% below the minimum density requirement must be addressed according to CMM 8-15.11.

^[3] Unacceptable material will be removed and replaced at no additional cost to the department. Alternatively, the engineer may allow the material to remain in place with a 50 percent payment factor. Material allowed to remain in place requires another test strip prior to additional paving.

- (7) An acceptable core to nuclear density gauge correlation must be completed by both the contractor and department according to CMM 8-15 as part of the test strip.
- (8) A maximum of two test strips will be allowed to remain in place per layer per contract. 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 each additional test strip according to Section E of this special provision.

D Measurement

Add the following to standard spec 460.4:

- (2) The department will measure HMA Pavement Test Strip Volumetrics and HMA Pavement Test Strip Density as each unit of work, acceptably completed, as described in CMM 8-15. Material quantities will be determined according to standard spec 450.4.

E Payment

Replace standard spec 460.5.1 with the following:

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

ITEM NUMBER	DESCRIPTION	UNIT
460.8624	HMA Pavement 4 SMA 58-28 V	TON
460.0115.S	HMA Pavement Test Strip Volumetrics	EACH
460.0120.S	HMA Pavement Test Strip Density	EACH

Payment for SMA is full compensation for providing SMA mixture designs; for preparing foundation; for volumetric and density testing and aggregate source testing; for asphalt binder from recycled sources; for asphalt binder modification or processes; and addition of fibers, fines, or filler.

Payment for HMA Pavement Test Strip Volumetrics is full compensation for volumetric sampling, splitting, and testing; and for proper labeling, handling; and retention of split samples.

Payment for HMA Pavement 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.

The department will pay separately for a material transfer vehicle.

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 standard spec 460.3.3.2(5) as modified herein, 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.

stp-460-030 (20210708)

35. Material Transfer Vehicle 1016-05-70, Item 460.9000.S.

A Description

This special provision describes providing a Material Transfer Vehicle (MTV) and an operator for use during HMA upper layer paving operations of the travel lanes as shown in the plan or as directed by the engineer.

B Materials

Furnish a self-propelled MTV with the ability to remix, maintain constant temperature, and continually feed the paver hopper. MTV storage capacity shall be adequate to provide continuous forward movement of the paver. Coordinate paver speed to match the delivery of material and capacity of the MTV to minimize stopping of the paver.

C Construction

Ensure that an operator stays with the MTV at all times during moving operations. Keep the paver's hopper full at all times to avoid segregation of coarse aggregates. Placement of HMA upper layer pavement in the travel lanes will not be allowed without the MTV. Tie ins of intersections, shoulders paved separately, and other non-travel lane areas will not require the use of the MTV.

D Measurement

The department will measure Material Transfer Vehicle (Project #) as a single unit for each 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
460.9000.S	Material Transfer Vehicle 1016-05-70	EACH

Payment is full compensation for furnishing and operating the MTV and for the operator.

stp-460-900 (20210708)

36. Ice Hot Weather Concreting, Item 501.1000.S.

Conform to standard spec 501.3.8.2 except the department will pay for ice at the contract unit price under the Ice Hot Weather Concreting bid item. This special provision only applies to work done under the following contract bid items:

Concrete Masonry Bridges	Concrete Masonry Retaining Walls
Concrete Masonry Bridges HES	Concrete Masonry Retaining Walls HES
Concrete Masonry Culverts	Concrete Masonry Endwalls
Concrete Masonry Culverts HES	Concrete Masonry Overlay Decks
Concrete Barrier Single-Faced 32-Inch	Concrete Barrier (type)
Concrete Barrier Double-Faced 32-Inch	Concrete Barrier Fixed Object Protection (type)
Concrete Barrier Transition Section 32-Inch	Concrete Barrier Transition (type)

Replace standard spec 501.4 and 501.5 with the following:

501.4 Measurement

- (1) The department will measure Ice Hot Weather Concreting by the pound acceptably completed, measured only if the conditions prescribed in standard spec 501.3.8.2 are met.

501.5 Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
501.1000.S	Ice Hot Weather Concreting	LB

- (2) Payment for Ice Hot Weather Concreting is full compensation for ice used to cool concrete placed in hot weather as specified in standard spec 501.3.8.2.
- (3) The department will not pay directly for the concrete specified under this section. Concrete is incidental to the various bid items using it. Payment under those bid items includes providing all materials, including aggregates and associated aggregate source testing, cement, fly ash, slag, and admixtures; and for preparing, transporting, storing, protecting and curing concrete.
- (4) If required to remove and replace any concrete damaged by lack of proper protection. Perform this work at no expense to the department.

stp-501-010 (20210708)

37. Expansion Device, Item 502.3101.

A Description

This special provision describes furnishing and installing an expansion device as the plans show conforming to standard spec 502 as modified in this special provision.

B Materials

Furnish components for the Expansion Device System from an approved fabricator selected from the department's approved product list of Fabricated Bridge Components – Expansion Devices.

To be eligible for this project, expansion devices from other manufacturers must be pre-approved before the bid closing date. Applications for pre-approval may be submitted at any time. Prepare the application according to the department requirements. If needed, obtain information and assistance with the pre-approval process from the Structures Maintenance Section in the Bureau of Structures, by sending an email to the following address: DOTDLStructuresFabrication@dot.wi.gov

Expansion device strip seal gland size requirement of 4-inches, 5-inches, and 6-inches shall be as the plans show.

The minimum thickness of the polychloroprene strip seal shall be 1/4 inch for non-reinforced elastomeric glands and 1/8 inch for reinforced glands. Furnish the strip seal gland in lengths suitable for a continuous one-piece installation at each individual expansion joint location. Provide preformed polychloroprene strip seals that conform to the requirements ASTM D3542, and have the following physical properties:

Property Requirements	Value	Test Method
Tensile Strength, min.	2000 psi	ASTM D412
Elongation @ Break, min	250%	ASTM D412
Hardness, Type A, Durometer	55 ± 5 pts.	ASTM D2240
Compression Set, 70 hours @212°F, max.	35%	D395 Method B Modified
Ozone Resistance, after 70 hrs. at 100°F under 20% Strain with 100 pphm ozone	No Cracks	ASTM D1149 Method A
Mass Change in Oil 3 after 70 hr. 212°F Mass Change, max.	45%	ASTM D471

Install the elastomeric strip seal gland with tools and a lubricant adhesive recommended by the manufacturer.

Furnish manufacturer's certification for production of polychloroprene represented showing test results for the cured material supplied and certifying that it meets all specified requirements.

The steel extrusion or retainer shall conform to ASTM designation A 709 grade 36 steel. After fabrication, steel shall be galvanized conforming to the requirements ASTM A123.

Manufacturer's certifications for adhesive and steel shall attest that the materials meet the specification requirements.

stp-502-020 (20210113)

38. Bar Steel Reinforcement HS Stainless Structures, Item 505.0800.S.

A Description

This special provision describes furnishing and placing stainless steel reinforcing bars and associated stainless steel bar couplers.

Conform to standard spec 505 as modified in this special provision.

B Materials

B.1 General

Furnish stainless steel reinforcing bars conforming to ASTM A955 and to one of the following Unified Numbering System (UNS) designations: S31653, S31803, S32205, or S32304. Supply grade 60 bars, all of the same UNS designation. Conform to the chemical composition specified for the given UNS designation in ASTM A276 table 1.

Supply bars that are free of dirt, mill scale, oil, and debris by pickling to a bright or uniform light finish. The department may reject bars displaying rust/oxidation, questionable blemishes, or lack of a bright or uniform pickled surface.

Furnish chairs or continuous supports made of stainless steel or recycled plastic to support high-strength stainless bar steel reinforcement subject to the plastic chair restriction stated in standard spec 505.3.4(1).

Furnish couplers made from one of the UNS alloys allowed for bar steel.

Furnish tie wire made from one of the UNS alloys allowed for bar steel or from an engineer-approved plastic or nonmetallic material. Ensure that stainless steel tie wire is dead soft annealed.

B.2 Fabrication

Before fabrication, supply test results from an independent testing agency certifying that the reinforcement meets the requirements of Annex A1 of ASTM A955.

Bend bars conforming to standard spec 505.3.2 and according to ASTM A955. Bend and cut bars using equipment thoroughly cleaned or otherwise modified to prevent contamination from carbon steel or other contaminants. Use tools dedicated solely to working with stainless steel.

B.3 Control of Material

Identify reinforcement bars delivered to the project site with tags bearing the identification symbols used in the plans. Include the UNS designation, heat treat condition, heat number, grade corresponding to minimum yield strength level, and sufficient documentation to track each bar bundle to a mill test report.

Provide samples for department testing and acceptance according to CMM 8-50 Exhibit 1 requirements for concrete masonry reinforcement for uncoated bar steel.

Provide mill test reports for the project that do the following:

1. Verify that sampling and testing procedures and test results conform to ASTM A955, ASTM A276 table 1, and these contract requirements.
2. Include a chemical analysis with the UNS designation, heat lot identification, and the source of the metal.
3. Include tensile strength, yield strength, and elongation tests results conforming to ASTM A955 for each size furnished.
4. Certify that the bars have been pickled to a bright or uniform light finish.

C Construction

C.1 General

Ship, handle, store, and place the stainless steel reinforcing as follows:

1. Separate from regular reinforcement during shipping. Pad points of contact with steel chains or banding, or secure with non-metallic straps.
2. Store on wooden cribbing separated from regular reinforcement. Cover with tarpaulins if stored outside.

3. Handle with non-metallic slings.
4. Do not flame cut or weld. Protect from contamination when cutting, grinding, or welding other steel products above or near the stainless steel during construction.
5. Place on plastic or stainless steel bar chairs. If placing stainless steel chairs on steel beams, use chairs with plastic-coated feet.
6. Tie with stainless steel wire or an engineer-approved plastic or nonmetallic material.

Do not tie stainless steel reinforcing bars to, or allow contact with, uncoated reinforcing bars or galvanized steel. Maintain at least 1 inch clearance between stainless steel bars or dowels and uncoated or galvanized steel. Where 1 inch clearance is not possible, sleeve bars with a continuous polyethylene or nylon tube at least 1/8 inch thick extending at least 1 inch in each direction and bind with nylon or polypropylene cable ties. Sleeves are not required between stainless steel bars and shear studs. Stainless steel bars can be in direct contact with undamaged epoxy-coated bars.

Cut flush with the top flange or remove uncoated fasteners, anchors, lifting loops, or other protrusions into a bridge deck before casting the deck on prestressed concrete beams.

C.2 Splices

Splice as the plans show. Provide stainless steel couplers conforming to the minimum capacity, certification, proof testing, and written approval requirements of standard spec 550.3.3.4. The contractor may substitute stainless steel couplers for lap splices the plans show if the engineer approves in writing.

If increasing or altering the number or type of bar splices the plans show, provide revised plan sheets to the engineer showing the reinforcement layout, type, length, and location of revised bar splices and revised bar lengths. Obtain engineer approval for the location of new lap splices or substitution of mechanical bar couplers before fabrication. Ensure that new lap splices are at least as long as those the plans show.

D Measurement

The department will measure Bar Steel Reinforcement HS Stainless Structures by the pound, acceptably completed, computed from the nominal weights of corresponding sizes for carbon steel deformed bars in AASHTO M31 regardless of stainless steel alloy provided. The department will not measure extra material used if the contractor alters the reinforcement layout as allowed under C.2, extra material for splices or couplers the plans do not show, or the weight of devices used to support or fasten the steel in position.

The department will measure the Bar Couplers Stainless bid items as each individual coupler, 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
505.0800.S	Bar Steel Reinforcement HS Stainless Structures	LB

Payment for Bar Steel Reinforcement HS Stainless Structures is full compensation for furnishing and placing stainless steel reinforcing bars, including supports. Where the plans specify bar couplers, the department will pay for the length of bars as detailed with no deduction or increase for installation of the coupler.

Payment for the Bar Couplers Stainless bid items is full compensation for providing couplers; including bar steel that is part of the coupler and not detailed in the plan; for threading reinforcing bars; for installing and coating the splice; and for supplying and testing 3 couplers.

stp-505-005 (20190618)

39. Removing Bearings, B-29-36, Item 506.7050.S.

A Description

This special provision describes raising the girders and removing the existing bearings, as the plans show.

B (Vacant)

C Construction

Raise the structure's girders and remove the existing bearings as the plans show.

Obtain prior approval from the engineer for the method of jacking the girders and of supporting them as required.

D Measurement

The department will measure Removing Bearings B-29-36 by the unit for each bearing removed, 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
506.7050.S	Removing Bearings, B-29-36	EACH

Payment is full compensation for raising the bridge girders; and for removing the old bearings.

Cost of furnishing and installing the bearings will be paid for under separate bid items.

stp-506-035 (20130615)

40. Structure Overcoating Cleaning and Priming B-29-36, Item 517.3001.S.

A Description

This special provision describes cleaning and painting with two or three coats of paint the metal surfaces.

A.1 Areas to be Cleaned and Painted

Structure B-29-36

1. Two Coat Area: 0 SF with SP 1 cleaning.
2. Three Coat Area:
 - 0 SF with SP 2 cleaning.
 - 0 SF with SP 3 cleaning.
 - 140 SF with SP 11 cleaning.
 - 0 SF with SP 15 cleaning.
 - 0 SF total three-coat area.

B Materials

Furnish an epoxy coating system from the department's APL for Paint- structure maintenance.

C Construction

C.1 Surface Preparation

Before overcoating or power tool cleaning, solvent clean all surfaces to be coated according to SSPC-SP1. A SSPC-SP 11 power Tool Cleaning according to Steel Structures Painting Council Specification 11 will be required on all metal surfaces to be painted with a three-coat system. Prime the same day, or re-clean before application, all metal surfaces receiving a No. 11 cleaning.

Remove all abrasive or paint residue from steel surfaces with a High Efficiency Particulate Abatement (HEPA-VAC) vacuum cleaner equipped with a brush-type cleaning tool, or by double blowing. If the double blowing method is used, vacuum the exposed top surfaces of all structural steel, including flanges, longitudinal stiffeners, splices, plates, and hangers, after the double blowing operations are completed. The air line used for blowing the steel clean shall have an inline water trap and the air shall be free of oil and water as it leaves the air line.

Take care to protect freshly coated surfaces from subsequent cleaning operations. Thoroughly wire brush damaged primed surfaces with a non-rusting tool. Clean and re-prime the brushed surfaces within the time recommended by the manufacturer.

C.2 Painting

Paint by applying two or three coats of an approved coating system as specified herein to the surfaces as described in A.1 from the department's approved products list.

C.3 Coating Application

Apply paint in a neat, workmanlike manner. The resultant paint film shall be smooth and uniform without skips or areas of excessive paint. Apply coating according to the manufacturer's recommendations.

Before applying the prime coat, coat with primer all edges, rivet and bolt heads, nuts and washers by using either a brush, roller, or spray application.

Dry Film Thickness per coat shall be a minimum of 3-mil. The dry film thickness shall be determined by use of a magnetic film thickness gage. The gage shall be calibrated for dry film thickness measurement according to SSPC-PA 2.

During surface preparation and coating application, the ambient and steel temperature shall be between 39 and 100 degrees F. The steel temperature shall be at least 5 degrees F above the dew point temperature, and the relative humidity shall not exceed 85%.

D Measurement

The department will measure Structure Overcoating Cleaning and Priming (Structure #) as a single unit for each structure, 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
517.3001.S	Structure Overcoating Cleaning and Priming B-29-36	EACH

Payment is full compensation for preparing and cleaning the designated surfaces; and for furnishing and applying the paint.

stp-517-036 (20210708)

41. 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.

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.

stp-611-006 (20151210)

42. Pipe Grates, Item 611.9800.S.

A Description

This special provision describes providing pipe grates on the ends of pipes.

B Materials

Furnish steel conforming to the requirements of standard spec 506.2.2.1. Furnish steel pipe conforming to the requirements of standard spec 506.2.3.6.

Furnish pipe grates galvanized according to ASTM A123.

Furnish angles and brackets galvanized according to ASTM A123.

Furnish required hardware galvanized according to ASTM A153.

C Construction

Repair pipes, rods, angles and brackets on which the galvanized coating has been damaged according to the requirements of AASHTO M36M.

D Measurement

The department will measure Pipe Grates in units of work, where one unit is one grate, completed and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
611.9800.S	Pipe Grates	EACH

Payment is full compensation for furnishing and installing all materials; and for drilling and connecting grates to pipes.

stp-611-010 (20030820)

43. Insulation Board Polystyrene, 2-Inch, Item 612.0902.S.01.

A Description

This special provision describes furnishing and placing polystyrene insulation board as the plans show.

B Materials

Provide polystyrene insulation board that conforms to the requirements for Extruded Insulation Board, AASHTO Designation M230 as modified in this special provision.

Delete flammability requirement.

B.1 Certification

Before installation, obtain from the manufacturer a certification indicating compliance and furnish it to the engineer.

C (Vacant)

D Measurement

The department will measure Insulation Board Polystyrene, 2-Inch by area in square yards of work, completed and accepted.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
612.0902.S.01	Insulation Board Polystyrene, 2-Inch	SY

Payment is full compensation for all excavation; and for furnishing and placing the insulation board.

stp-612-005 (20030820)

**44. Cable Barrier Type 1, Item 613.1100.S;
Cable Barrier End Terminal Type 1 Item 613.1200.S.**

A Description

This special provision describes providing socketed high-tension TL-3 or 4 cable guard meeting the National Cooperative Highway Research Program (NCHRP) Report 350, Test Level 3 or 4.

B Materials

Provide a cable barrier system that is on the approved product list for the county in which the system will be installed.

Provide a calibrated tension gauge to each county for the specific system installed in each county.

Provide one copy of video training material on the proper maintenance techniques and recovery of vehicles to each county for the specific system installed in each county. At a minimum, this training is to address, proper tension techniques, proper operation of calibrated tension gauge, proper repair techniques, and proper methods to removed vehicles entrapped in the cable barrier.

B.2 Design Requirements

Thirty days before installation provide the engineer with two sets of manufacturer prepared drawings, Wisconsin P.E. stamped calculations, documentation, notes, plan details, and construction specifications. Provide required information in a PDF format or other in electronic format that the department can review information.

Obtain prior approval from the Bureau of Project Development (Erik Emerson at (608) 266-2842) for all hardware substitutions before delivering the hardware on the project.

C Construction

Construct concrete as specified in standard spec 501.

Construct steel reinforcement as specified in standard spec 505.

Construct terminal units at each end of a run of cable guard as the plans show. The contractor may determine the location of anchors subject to the engineer's approval.

Tension the cable according to the manufacturer's recommendations at the time of installation, and then check and adjust approximately three weeks after installation. If system is not maintaining proper tension, adjust tension and return three weeks later. Provide engineer documentation of date, time, location, tension value, and who checked the tension for each barrier run.

Use only one-half the available adjustment in each turnbuckle or tension adjustment connection to achieve manufacture's recommend tension values.

Manufacture is to certify that the installation was done according to manufacturer's recommendations and the plan requirements. Provide this documentation to the engineer.

The engineer will allow the contractor to open the roadway to traffic or remove traffic control devices if concrete attains manufacture's compressive strength. Without compressive strength information, the engineer may allow the contractor to remove traffic control devices after 14 equivalent curing days. Equivalent curing days are defined in standard spec 415.3.

C.2 Survey Anchor Monitor Points

Obtain or calculate benchmark, alignment, horizontal and vertical control points. The engineer will furnish data for the horizontal and vertical control points, control point ties, and horizontal alignments.

Maintain neat, orderly, and complete survey notes, drawings, and computations used in establishing location of each cable anchor monitor point. Make the survey notes and computations available to the engineer within 24 hours, upon request, as the work progresses.

Locate each cable anchor monitor point to within 0.02 feet horizontally and 0.01 feet vertically.

Survey anchor monitor points after construction of cable barrier end terminal anchors, but before cables are tensioned. Provide paper and electronic copies of survey data to engineer before installing cables.

D Measurement

The department will measure Cable Barrier Type 1 by the linear foot, acceptably completed, measured from terminal to terminal and rounded to the nearest linear foot.

The department will measure Cable Barrier End Terminal Type 1 as each individual terminal, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
613.1100.S	Cable Barrier Type 1	LF
613.1200.S	Cable Barrier End Terminal Type 1	EACH

Payment is full compensation for designing, providing, and surveying anchor monitoring points for cable barrier end terminal or cable barrier.

stp-613-010 (20210708)

45. Stone Ditch Checks, Item 628.7515.S.

A Description

This special provision describes furnishing, installing, maintaining, and removing stone ditch checks, either temporary or permanent, as the plans show or as the engineer directs.

B Materials

Furnish materials conforming to the requirements for Riprap Extra Light according to standard spec 606.2.1.

C Construction

Place stone ditch checks immediately after shaping of the ditches is completed. Place stone ditch checks perpendicular to the direction of flow. Construct according to the plan details.

During construction, maintain stone ditch checks by removing sediment whenever it accumulates to one half of the original ditch check height. Remove all accumulated sediment prior to final stabilization.

For temporary installations, remove all materials incorporated into the work when directed by the engineer. Restore areas with topsoil, seed, fertilizer, and other erosion control items as directed by the engineer.

D Measurement

The department will measure Stone Ditch Checks by the cubic yard of material, 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
628.7515.S	Stone Ditch Checks	CY

Payment is full compensation for excavating, furnishing, placing, and shaping Stone Ditch Checks.

Removal of sediment and removal of temporary stone ditch checks will be paid under the Excavation Common bid item by multiplying the measured removal quantity by a factor of ten.

The department will pay separately for restoration and erosion control items under the appropriate contract bid items.

The department will pay separately for Geotextile Type R fabric.

stp-628-050 (20210708)

46. Removing Signs Type II, Item 638.2602.

Replace standard spec 638.3.4(2) with the following:

- (2) Signs shall remain property of the department. Deliver signs to 3550 Mormon Coulee Road, La Crosse. Contact Jeff Holloway at (608) 246-3268 to coordinate the delivery. Separate the signs by plywood and aluminum and palletize them so they can be unloaded using a forklift. This work will be considered incidental to the bid item "Removing Signs Type II".

swr-638-001 (20141114)

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. Nighttime Work Lighting-Stationary.

A Description

This special provision describes furnishing portable lighting as necessary to complete nighttime work. Nighttime operations consist of work specifically scheduled to occur after sunset and before sunrise.

B (Vacant)

C Construction

C.1 General

This provision shall apply when providing, maintaining, moving, and removing portable light towers and equipment-mounted lighting fixtures for nighttime stationary work operations, for the duration of nighttime work on the contract.

At least 14 days before the nighttime work, furnish a lighting plan to the engineer for review and acceptance. Address the following in the plan:

1. Layout, including location of portable lighting – lateral placement, height, and spacing. Clearly show on the layout the location of all lights necessary for every aspect of work to be done at night.
2. Specifications, brochures, and technical data of all lighting equipment to be used.
3. The details on how the luminaires will be attached.
4. Electrical power source information.
5. Details on the louvers, shields, or methods to be employed to reduce glare.
6. Lighting calculations. Provide illumination with average to minimum uniformity ratio of 5:1 or less throughout the work area.
7. Detail information on any other auxiliary equipment.

C.2 Portable Lighting

Provide portable lighting that is sturdy and free standing and does not require any guy wires, braces, or any other attachments. Furnish portable lighting capable of being moved as necessary to keep up with the construction project. Position the portable lighting and trailers to minimize the risk of being impacted by traffic on the roadway or by construction traffic or equipment. Provide lightning protection for the portable lighting. Portable lighting shall withstand up to 60 mph wind velocity.

If portable generators are used as a power source, furnish adequate power to operate all required lighting equipment without any interruption during the nighttime work. Provide wiring that is weatherproof and installed according to local, state, federal (NECA and OSHA) requirements. Equip all power sources with a ground-fault circuit interrupter to prevent electrical shock.

C.3 Light Level and Uniformity

Position (spacing and mounting height) the luminaires to provide illumination with an average to minimum uniformity ratio of 5:1 or less throughout the work area.

Illuminate the area as necessary to incorporate construction vehicles, equipment, and personnel activities.

C.4 Glare Control

Design, install, and operate all lighting supplied under these specifications to minimize or avoid glare that interferes with all traffic on the roadway or that causes annoyance or discomfort for properties adjoining the roadway. Locate, aim, and adjust the luminaires to provide the adequate level of illumination and the specified uniformity in the work area without the creation of objectionable glare.

Provide louvers, shields, or visors, as needed, to reduce any objectionable levels of glare. As a minimum, ensure the following requirements are met to avoid objectionable glare on the roadways open to traffic in either direction or for adjoining properties:

1. Aim tower-mounted luminaires, either parallel or perpendicular to the roadway, so as to minimize light aimed toward approaching traffic.
2. Aim all luminaires such that the center of beam axis is no greater than 60 degrees above vertical (straight down).

If lighting does not meet above-mentioned criteria, adjust the lighting within 24 hours.

C.5 Continuous Operation

Provide and have available sufficient fuel, spare lamps, generators, and qualified personnel to ensure that the lights will operate continuously during nighttime operation. In the event of any failure of the lighting system, discontinue the operation until the adequate level of illumination is restored. Move and remove lighting as necessary.

D (Vacant)

E Payment

Costs for furnishing a lighting plan, and for providing, maintaining, moving, and removing portable lighting, tower mounted lighting, and equipment-mounted lighting required under this special provision are incidental to the contract.

stp-643-010 (20100709)

49. Digital Speed Limit Sign Assembly.

A Description

This special provision describes providing, relocating, operating, maintaining, monitoring, and removing a digital speed limit (DSL) sign assembly at engineer-allowed locations, in place of covering/uncovering speed limit signs, at the contractor's option.

B Materials

Lay out signs according to the plans.

Use materials and methods specified in standard spec 637 to manufacture the sign.

Provide a digital speed display legend with a minimum of 18-inch-tall numbers.

Use posts from the FHWA list of accepted breakaway sign supports.

Provide a control unit that can be accessed remotely.

Provide a battery power supply with a solar powered charging system and a backup power source.

C Construction

C.1 General

Provide, install, maintain, operate and remove DSL sign assemblies and related signage.

Mount the sign so that the bottom is a minimum 7 feet above the roadway.

Install and operate DSL sign assembly 7 days in advance of the start of temporary speed declaration start date. Perform a successful field test for each sign.

Provide in-person training to the department on the use and operation of the field hardware and the website for the DSL sign assembly.

Ensure the system operates continuously when deployed on the project.

Provide a local specialist, to respond to emergency situations within 2 hours of being notified and who is equipped with sufficient resources to correct deficiencies in the system.

C.2 Programming

Program the DSL sign assembly to ensure the following operations are performed:

- The digital display portion automatically adjusts the brightness under varying light conditions to maintain legibility.
- Speed limit values shown on the digital display legend continuously displays without animation. Brief blanking may be experienced, up to 10 seconds, only during digital display legend user input utilizing the hard-wired hand control.
- The digital display changes between the original posted speed limit and the approved temporary speed limit when directed by the engineer.
- The system autonomously restarts in case of power failure in any part of the system.

D Measurement

The department will not measure the work performed under this special provision.

E Payment

The department will not pay directly for providing the digital speed limit assembly. Providing digital speed limit assembly shall be incidental to the Traffic Control Signs bid item.

stp-643-035 (20180628)

50. Basic Traffic Queue Warning System, Item 643.1205.S.

A Description

This special provision describes providing, repositioning, operating, maintaining, monitoring, calibrating, testing and removing a basic traffic queue warning system (QWS) capable of measuring vehicular speeds at downstream sections of a roadway, and activating the system.

B Materials

Provide Basic Traffic QWS components and software that is National Transportation Communications for ITS Protocol (NCTIP) compliant.

B.1 Portable Traffic Sensors (PTS)

Provide PTS that are nonintrusive and capable of capturing vehicle speed in mph. Integrate each sensor with a modem to communicate with the automated system manager.

B.2 Static Traffic Control Signs with Temporary Flashing Beacon Signs (FBS)

Provide static traffic control signs with temporary flashing beacon signs conforming to standard spec 658.2(2) for Traffic Signal Faces. Ensure each FBS is integrated with a modem, and other equipment (e.g., automated system manager) mounted on it, and acts as a single device for communicating with similarly integrated devices and displaying real-time traffic conditions.

B.3 Automated System Manager (ASM)

Provide an ASM that assesses current traffic data captured by the PTS and activates/deactivates the FBS based on predetermined speed thresholds.

B.4 System Communications

Ensure Basic Traffic QWS communications meet the following requirements:

1. Perform required configuration of the Basic Traffic QWS's communication system automatically during system initialization.
2. Communication between the server and any individual FBS or PTS are independent through the full range of deployed locations, and do not rely upon communications with any other FBS or PTS.
3. Incorporate an error detection/correction mechanism into the Basic Traffic QWS communication system to ensure the integrity of all traffic condition data.

B.5 System Acceptance

Submit vendor verification to the engineer and Bureau of Traffic Operations (DOTBTOWorkzone@dot.wi.gov) 14 calendar days before the pre-construction meeting that the system will adequately perform the functions specified in this special provision. Adequate verification includes past successful performance of the system, literature and references from successful use of the system by other agencies, and/or demonstration of the system.

Provide contact information for a designated representative responsible for monitoring the performance of the system and for making modifications to the operational settings as the engineer directs. Provide all testing and calibration equipment.

C Construction

C.1 General

Install and reposition Basic Traffic Queue Warning System per plan or as the engineer directs. Provide plan to the engineer and Bureau of Traffic Operations (DOTBTOWorkzone@dot.wi.gov) 14 calendar days before the pre-construction meeting.

PTS may be mounted on FBS, arrow board or other trailer devices.

Install PTS at the following locations:

1. Place first PTS within the lane closure taper.
2. Place second PTS 5,700 feet upstream of the lane closure taper or on FBS #3.
3. Place third PTS 2 miles upstream of the lane closure taper or on FBS #2.

Install FBS at the following locations, delineated by 5 drums:

1. Place first FBS (FBS #3) 5,700 feet upstream of the lane closure taper.
2. Place second FBS (FBS #2) 2 miles upstream of the lane closure taper.
3. Place third FBS (FBS #1) 3 miles upstream of the lane closure taper.

If there are more than 2 lanes or specified in the plans, place FBS on both sides of the roadway.

Number the devices in chronological order so they are visible from the shoulder with 6-inch white high reflective sheeting.

Provide technical personnel for all system calibration, operation, maintenance, and timely on-call support services.

Promptly correct the system within 24 hours of becoming aware of a deficiency in the operation or individual part of the system. A minimum of three days before deployment, place the Basic Traffic QWS and demonstrate to the department that the Basic Traffic QWS is operational.

Maintain the Basic Traffic QWS for the duration of the project. Ensure the system operates continuously (24 hours, 7 days a week) in the automated mode throughout the duration of the project.

Remove the system upon completion.

C.2 Reports

Provide an electronic copy of a weekly summary report of all data via email to the engineer. Ensure the report includes, at a minimum, the average speed per sensor, time in congestive state per sensor and number of triggers per day.

C.3 Meetings

Attend mandatory in-person pre-construction meetings with the department. Attend additional meetings as deemed necessary by the department. These meetings may be held in person or via teleconference, as scheduled by the department.

C.4 Programming

C.4.1 General

Program the Basic Traffic QWS to ensure that the following general operations are performed:

1. Provide a password protected login to the ASM, website and all other databases.
2. Automatic setting of the FBS to reflect current traffic flow status updated every 60 seconds for congestion. Ensure to remove a congestion message when 180 seconds of average traffic speeds above the current level are observed, or utilize a customized frequency as determined by the engineer.
3. The FBS activate based on pre-determined speed thresholds from the next downstream sensor.

FBS #3 shall activate based on traffic speeds at the PTS located within the lane closure taper.

FBS #2 shall activate based on traffic speeds at the PTS located approximately 1 mile upstream of lane closure taper, or at FBS #3.

FBS #1 shall activate based on traffic speeds at the PTS located 2 miles upstream of lane closure taper, or at FBS #2.

4. Provide real-time data from the ASM to a website with a full color mapping feature and refresh every 60 seconds. Make data on website available to the department staff at all times for the duration of the work zone activity. Ensure website includes:
 - Vehicle speeds
 - FBS triggers
 - Device locations
5. Archive all traffic data in a Microsoft Excel format with date and time stamps.
6. Configure the website to quantify system failures which includes communication disruption between any devices in the system configuration, FBS malfunctioning, PTS malfunction, loss of power, low battery, etc.
7. Automatically generate and send an email alert any time a user specified queue is detected by the system.
8. Ensure the system autonomously restarts in case of any power failure.

C.4.2 System Operation Strategy

Arrange for the vendor/manufacturer to coordinate system operation, detection, and trends/thresholds with the engineer.

The sequences below are a minimum requirement, but can be adjusted at the discretion of the engineer, are as follows:

Free Flow:

If the current PTS speed on a downstream section is at or above 40 mph, the next upstream FBS will not flash.

Slow or Stopped Traffic:

If the current PTS speed on a downstream section of the roadway is between the 39 mph and 0 mph (for example, 35 mph), the next upstream FBS shall flash.

C.5 Calibration and Testing

At the beginning of the project perform a successful field test and calibration at the Basic Traffic QWS location to verify the system is detecting accurate vehicle speeds, and accurately relaying the information to the ASM and the FBS.

Send email of successful calibration and testing to the engineer.

D Measurement

The department will measure Basic Traffic Queue Warning System by the day, acceptably completed, measured as each complete system per roadway.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
643.1205.S	Basic Traffic Queue Warning System	DAY

Payment is full compensation for providing, repositioning, operating, maintaining, monitoring, calibrating, testing, and removing the complete system consisting of FBS, PTS, ASM, and system communications.

Failure to correct a deficiency to the FBS, PTS, or ASM within 24 hours after notification from the engineer or the department will result in a one-day deduction of measured quantities for each day in which the deficiency is not corrected.

Failure to correct the website within 24 hours after notification from the engineer will result in a 10% reduction of the day quantity for each day the website is down.

The engineer will have sole discretion to assess the deductions for an improperly working Basic Traffic QWS.

stp-643-046 (20210113)

51. Temporary Pavement Marking.

Add the following to standard spec 649.3:

- (1) On pavements not scheduled for removal under this project, remove markings using air blasting, water blasting, or a combination of thereof. Do not use grinding on these pavements.

52. Install Conduit Into Existing Item, Item 652.0700.S.

A Description

This special provision describes installing proposed conduit into an existing manhole, pull box, junction box, communication vault, or other structure.

B Materials

Use conduit as shown in the plan, as provided and paid for under other items in this contract. Furnish backfill material, topsoil, fertilizer, seed, and mulch conforming to the standard spec.

C Construction

Expose the outside of the existing structure without disturbing existing conduits or cabling. Drill the appropriate sized hole for entering conduits at a location within the structure without disturbing the existing cabling and without hindering the installation of new cabling within the installed conduit. Fill void area between the drilled hole and conduit with an engineer-approved filling material to protect against conduit movement and entry of fill material into the structure. Tamp backfill into place.

D Measurement

The department will measure Install Conduit Into Existing System by the unit, acceptably installed. Up to five conduits entering a structure per entry point into the existing structure will be considered a single unit. Conduits in excess of five, or conduits entering at significantly different entry points into the existing pull box, manhole, or junction box will constitute multiple units of payment.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
652.0700.S	Install Conduit Into Existing Item	EACH

Payment is full compensation for excavating, drilling holes; furnishing and installing all materials, including bricks, coarse aggregate, sand, bedding, and backfill; for excavating and backfilling; and for furnishing and placing topsoil, fertilizer, seed, and mulch in disturbed areas; for properly disposing of surplus materials; and for making inspections.

stp-652-070 (20100709)

53. Temporary Traffic Signal.

A Description

This work shall be according to the requirements of standard spec 661, except as hereinafter amended.

Replace standard spec 661.2.1 (1) as follows:

(1) Furnish control cabinet and control equipment. The department will supply, maintain and install a TS2 controller, video detection system and Cellular modem. The cabinet must be equipped with at least three open non- GFI receptacles, SDLC connector and open shelf space to be used by the video detection processor. The video detection will be installed and maintained by the department and placed on the contractor installed poles and span wires. 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. Supply a cabinet complete with programmed MMU, load switches, relays, etc. capable of executing the sequence of operations supplied in this contract for this temporary traffic signal. Test traffic signal control cabinets before installation. The department will be responsible for all signal timing changes.

Replace standard spec 661.2.1 (2) as follows:

(2) Furnish a NEMA monitor for the controller. Test the monitor with an automated programmed testing system. Test annually if used for more than one year. This test verifies that the monitor complies with the intersection requirements. Attach a copy of the monitor test report to the monitor and provide a copy to the department.

Eliminate standard spec 661.2.1 (5)

54. Temporary Traffic Signals for Bridges (B-29-0037 Underneath on CTH G), Item 661.0100.01.

The following timing plan is required as a part of the installation. Timing is based on pre-timed operation. Signal timing is subject to change at pre-construction conference depending on the type of temporary signal that the contractor plans to use.

SIGNAL SEQUENCE

INTERVAL	NB/EB	SB/WB	Seconds
1	G	R	14
2	Y	R	4.8
3	R	R	13.7
4	R	G	14
5	R	Y	4.8
6	R	R	13.7

Cycle Length = 65

Any changes to the timing plan need to be approved by Regional Traffic Engineer prior to being implemented in the field.

Contact Joe Schneider at least 3 business days prior to turning on temporary signals at (608) 789-5959.

**55. Ramp Closure Gates 37-FT, Item 662.1037.S;
Ramp Closure Gates 40-FT, Item 662.1040.S.**

A Description

This special provision describes providing freeway on-ramp closure gates on type 5 steel luminaire poles.

B Materials

B.1 General

Provide five user manuals and a listing of vendors and contact information for each manufactured component including flasher electrical components.

The engineer may allow alternates equal to specified manufactured components. The engineer may require plan detail modifications to accommodate alternates. The engineer may accept alternate arms or mounting adaptors only if the contractor can demonstrate that the department can easily remove and replace the arms.

B.2 Components

Furnish type 5 steel poles designed to carry twin 15-foot luminaire arms and conforming to standard spec 657 and with dimensions for acceptable installation of the ramp gate hardware as shown on the detail. Ensure a contiguous pole by eliminating the hand hole near base of pole, thus allowing uninhibited mounting of the gate pivot assembly.

Furnish galvanized steel nuts and bolts conforming to ASTM A307 except where designated as high strength (HS), conform to ASTM F3125. For the ramp closure gate locking mechanism, furnish a 3/4-inch handle nut.

Furnish grade A36 steel for the gate supports, gate pivot assembly, and associated hardware galvanized after fabrication by either a mechanical or hot-dip process. Grind welded connections, rough edges, and burrs smooth before galvanizing to ensure a finished appearance. Ensure that the galvanized coating conforms to ASTM A 153.

Provide aluminum/fiberglass gate arms of the nominal length the bid item indicates and conforming to plan dimensions. Cover gate arms on two sides with alternating red and white shop-applied type H reflective from the department's approved products list. Also provide a shear pin base that is the manufacturer's "permanent pivot" style. Obtain components from:

B&B Roadway
15191 Hwy 243
Russellville, AL 35654
Tel: (888) 560-2060
Gate arm: Model MU605

Furnish a worm gear winch with a single line vertical lift capacity of 2000 lbs. Ensure that the winch has hardened steel gears, a handgrip, permanently lubricated bearings, a reinforced arc-welded reel assembly, and mounting plate. Ensure that the winch can be mounted to the winch mount plate shown on the construction details and the handgrip can be operated without conflict with the pole or ramp gate assembly. Furnish a 2-inch outdoor rated, rot resistant polyester strap for the connection between the worm gear winch and the gate arm pivot assembly.

C Construction

Provide ramp closure gate at the locations the plans show. Apply marine grade anti seize compound to all bolt threads and to the interface between the aluminum base and steel pole. The engineer may direct adjustment of the gate arm assembly to ensure the correct vertical and angular orientation of the completed closure gate.

Install structure identification plaques in the location the plan details show.

D Measurement

The department will measure the Ramp Closure Gates bid items as each individual installation, 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
662.1037.S	Ramp Closure Gates 37-FT	EACH
662.1040.S	Ramp Closure Gates 40-FT	EACH

Payment for the Ramp Closure Gate bid items is full compensation for providing ramp closure gates including support poles; for gate arm assemblies including guides, collars, and gate arms; and for structure identification plaques.

stp-662-005 (20191121)

56. Intelligent Transportation Systems (ITS) – Control of Materials.

Standard spec 106.2 – Supply Source and Quality

Add the following to standard spec 106.2:

The department will furnish a portion of equipment to be installed by the contractor. This department-furnished equipment includes the following:

Department-Furnished Items
CCTV Camera
CCTV Camera Pole
6-Count Fiber Optic Cable
Fiber Optic Splice Enclosure
Fiber Optic Termination Panel
Ethernet Switch
Pole-Mounted Cabinet

Pick-up small department-furnished equipment, such as communications devices, cameras, and controllers, from the department's Statewide Traffic Operations Center (STOC), 433 W. St. Paul Ave., Milwaukee, WI 53203 at a mutually agreed upon time during normal state office hours. Contact the department's STOC at (414) 227-2166 to coordinate pick-up of equipment.

Large department-furnished equipment, such as camera poles will be delivered by the supplier to a contractor-controlled site within Juneau County. Delivery will not necessarily be in a "just in time" manner. Store the equipment until field installation. Provide location details and a contact for delivery coordination upon receiving the contract's Notice to Proceed.

Transportation of the equipment between the electric shop and the field or interim locations are the responsibility of the contractor.

Standard spec 106.3 – Approval of Materials

Add the following to standard spec 106.3:

Design/Shop Drawings

Before the purchase and/or fabrication of any of the components listed herein, and for any non-catalog item shown on the Material and Equipment List specified above, and no more than 30 days after notice to proceed, submit five copies of design drawings and shop drawings, as required, to the department for review. The items and the drawings that represent them shall meet the requirements of the standard specifications.

Design drawing submissions shall consist of signed and certified designs, design drawings, calculations, and material specifications for required items.

Shop drawings will be required for, but not limited to the following:

1. Mounting assemblies for the vehicle speed and classification sensors, including their attachment to the structure.
2. Mounting LED warning signs to the sign structure.
3. Mounting detail for dynamic message signs.
4. Any contractor-designed structure or foundation.

The department will complete its review of the material within 30 days from the date of receipt of the submission, unless otherwise specified. The department will advise the contractor, in writing, as to the acceptability of the material submitted. The department may determine that if no exceptions were taken for the item, it is approved, and no further action is required by the contractor; or the item may be partially or totally rejected, in which case modify and/or amend the submittal as required by the department and resubmit the item within 14 days. At this time, the review and approval cycle described above will begin again.

stp-670-005 (20150630)

57. Intelligent Transportation Systems - General Requirements.

A Description

A.1 General

This special provision describes providing elements for an Intelligent Transportation System (ITS) in or along the existing roadway as the plans show.

Unusual aspects of this project include:

1. The project includes working on cables and equipment that are carrying data between roadside equipment and the department's Statewide Traffic Operations Center (STOC). Interruption of this service is not expected to perform this work. If an interruption is determined necessary, it must be done on a weekend, and must be done in a way that minimizes communication outages for the existing equipment. Notify the department's STOC at least 48 hours in advance of the planned interruption.
2. The department will furnish some of the equipment to be installed. Make a reasonable effort to discover defects in that equipment before installing it.

A.2 Surge Protection

Equip every ungrounded conductor wire entering or leaving any equipment cabinet with a surge protector. For purposes of this section, multiple cabinets on a single pole or foundation are considered a single cabinet.

B Materials

B.1 General

Only furnish equipment and component parts for this work that are new and have high quality workmanship. All controls, indicators, and connectors shall be clearly and permanently labeled in a manner approved by the engineer. All equipment of each type shall be identical.

All electrical equipment shall conform to the standards and requirements of the Wisconsin Electrical Code, the National Electrical Manufacturers Association (NEMA), National Electric Safety Council (NESC), Underwriter's Laboratory Inc. (UL) or the Electronic Industries Association (EIA), when applicable. All materials and workmanship shall conform to the requirements of the National Electrical Code (NEC), Rural Electrification Administration (REA), Standards of the American Society for Testing and Materials (ASTM), American Association of State Highway and Transportation Officials (AASHTO), requirements of the plans these special provisions, the standard specifications, and to any other codes, standards, or ordinances that may apply. All system wiring, conduit, grounding hardware and circuit breakers shall be in conformance with the National Electrical Code. Whenever reference is made to any of the standards mentioned, the reference shall be considered to mean the code, ordinance, or standard that is in effect at the time of the bid advertisement.

B.2 Outdoor Equipment

All conductive connectors, pins (except pins connected by soldering), and socket contacts shall be gold plated. Acrylic conformal coating shall protect each circuit board side that has conductive traces. Except for integrated circuits containing custom firmware, all components shall be soldered to the printed circuit board.

To prevent galvanic corrosion, all connections between dissimilar metals shall incorporate a means of keeping moisture out of the connection. Where the connection need not conduct electricity, interpose a non-absorbing, inert material or washer between the dissimilar metals. Use nonconductive liners and washers to insulate fasteners from dissimilar metals. Where the connection must conduct electricity, use a conductive sealant between the dissimilar metals. Alternatively, use an insulating gasket and a bond wire connecting the two metal parts.

B.3 Custom Equipment

Equipment that is not part of the manufacturer's standard product line, or that is made or modified specifically for this project, shall conform to the following requirements:

Where practical, electronics shall be modular plug-in assemblies to facilitate maintenance. Such assemblies shall be keyed to prevent incorrect insertion of modules into sockets.

All components shall be available from multiple manufacturers as part of the manufacturers' standard product lines. All must be clearly labeled with the value, part number, tolerance, or other information sufficient to enable a technician to order an exact replacement part.

Lamps used for indicator purposes shall be light-emitting diodes.

The printed circuit boards shall be composed of "two-ounce" copper on 1/16 inch thick fiberglass epoxy or equivalent type construction. Holes that carry electrical connections from one side of the boards to the other shall be completely plated through. Multilayer printed circuit boards shall not be used. The name or reference number used for the board in the drawings and maintenance manuals supplied to the department shall be permanently affixed to each board.

All components shall be mounted so that the identifying markings are visible without moving or removing any part, if practical.

B.4 Environmental Conditions

Equipment shall continue to operate as specified under the following ranges of environmental conditions, except as noted in the specifications for individual pieces of equipment.

1. **Vibration and Shock:** Vehicle speed and classification sensors and any other equipment mounted atop poles or on structures shall not be impaired by the continuous vibration caused by winds (up to 90 mph with a 30 percent gust factor) and traffic.
2. **Duty Cycle:** Continuous
3. **Electromagnetic Radiation:** The equipment shall not be impaired by ambient electrical or magnetic fields, such as those caused by power lines, transformers, and motors. The equipment shall not radiate signals that adversely affect other equipment.
4. **Electrical Power:**
 - 4.1. **Operating power:** The equipment shall operate on 120-volts, 60-Hz, single-phase unless otherwise specified. It shall conform to its specified performance requirements when the input voltage varies from 89 to 135 volts and the frequency varies +3 Hz.
 - 4.2. **High frequency interference:** The equipment operation shall be unaffected by power supply voltage spikes of up to 150 volts in amplitude and 10 microseconds duration.
 - 4.3. **Line voltage transients:** The equipment operation shall be unaffected by voltage transients of plus or minus 20 percent of nominal line voltage for a maximum duration of 50 milliseconds. Equipment in the field shall meet the power service transient requirements of NEMA Standard TS-2 when connected to the surge protectors in the cabinets.
5. **Temperature and Humidity:**
 - 5.1. **Field equipment:** Equipment in the field shall meet the temperature and humidity requirements of NEMA Standard TS-2. Liquid crystal displays shall be undamaged by temperatures as high as 165 degrees F, and shall produce a usable display at temperatures up to 120 degrees F.
 - 5.2. **Equipment in Controlled Environments:** shall operate normally at any combination of temperatures between 50 degrees F and 100 degrees F, and humidity's between 5 percent and 90 percent, non-condensing, and with a temperature gradient of 9 degrees F per hour.

B.5 Patch Cables and Wiring

All cables and wiring between devices installed in a single cabinet, or in separate cabinets sharing a single concrete base, will be considered incidental to the installation of the devices and no separate payment will be made for them. It is anticipated that this will include fiber optic patch cables between termination panels and Ethernet switches, 10 / 100 MBPS Ethernet cables, RS-232 cables between individual devices and terminal servers, and power cables between individual devices and power sources within the cabinets.

B.6 Surge Protection

Low-voltage signal pairs, including twisted pair communication cable entering each cabinet shall be protected by two-stage, plug-in surge protectors and shall be installed on both ends of camera control cables. The protectors shall meet or exceed the following minimum requirements:

1. The protectors shall suppress a peak surge current of up to 10k amps.
2. The protectors shall have a response time less than one nanosecond.
3. The protector shall clamp the voltage between the two wires at a voltage that is no more than twice the peak signal voltage and clamp the voltage between each wire and ground at 50 volts.
4. The first stage of protection shall be a three-element gas discharge tube, and the second stage shall consist of silicon clamping devices.

5. The protector shall also contain a resettable fuse (PTC) to protect against excessive current.
6. There shall be no more than two pairs per protector.
7. It shall be possible to replace the protector without using tools.

Cables carrying power to curve signs shall be protected at the cabinet by grounded metal oxide varistors of appropriate voltages. The varistors must be at least 0.8 inch in diameter.

C Construction

C.1 Thread Protection

Provide rust, corrosion, and anti-seize protection at all thread assemblies of metallic parts by coating (non-spray) the mating surfaces with an approved compound. Failure to use an approved compound will result in no payment for the items to which coating was to have been applied.

C.2 Cable Installation

When installing new cables into conduits containing existing cables, remove the existing cables and reinstall the existing cables simultaneously with the new cables. Take every precaution necessary to protect the existing cables. In the event of avoidable damage to the existing cables, replace all damaged cables, in-kind, at no additional expense to the department. When cables are pulled into conduit, use a cable pulling lubricant approved by the cable manufacturer. Submit documentation supporting manufacturer approval of the lubricant to the engineer.

C.3 Wiring

Every conductor, except a conductor contained entirely within a single piece of equipment, must terminate either in a connector or on a terminal block. Provide and install the connectors and terminal blocks where needed, without separate payment. Use approved splice kits instead of connectors and terminal blocks for underground power cable splices.

Permanently label and key connectors to preclude improper connection. Obtain prior engineer approval for labeling methods before use.

Terminal blocks must be affixed to panels that permanently identify the block and what wire connects to each terminal. This may be accomplished by silk screening or by installing a laminated printed card under the terminal block, with the labels on portions of the card that extend beyond the block. Installation of terminal blocks by drilling holes in the exterior wall of the cabinet is not acceptable.

Use barriers to protect personnel from accidental contact with all dangerous voltages.

Do not install conductors carrying AC power in the same wiring harness as conductors carrying control or communication signals.

Arrange wiring, including fiber optic pigtails, so that any removable assembly can be removed without disturbing wiring that is not associated with the assembly being removed.

Communication and control cables may not be spliced underground, except where indicated on the plans.

Cables in the Statewide Traffic Operations Center or in communication hubs, which are not contained within a single cabinet, shall have at least 10 feet of slack.

C.4 System Operations

If the contractor's operations unexpectedly interrupt Intelligent Transportation Systems (ITS) service, notify the engineer immediately and restore service within 24 hours. Repair all damaged facilities to the condition existing before the interruption. If service is not restored within 24 hours, the department may restore service to any operating device and deduct restoration costs from payments due the contractor.

C.5 Surge Protection

Arrange the equipment and cabinet wiring to minimize the distance between each conductor's point of entry and its protector. Locate the protector as far as possible from electronic equipment. Ensure that all wiring between the surge protectors and the point of entry is free from sharp bends.

D Measurement

The department will not measure the work performed under this special provision.

E Payment

The department will pay for the work performed under this special provision under the contract ITS bid items.

stp-670-010 (20100709)

58. Install Pole Mounted Cabinet, Item 673.0225.S.

A Description

This special provision describes installing department furnished aluminum enclosures on poles for intelligent transportation systems equipment.

B Materials

Use stainless steel bolts, nuts, and washers unless otherwise specified.

All conductors, terminals, and parts that could be hazardous to maintenance personnel shall be protected with suitable insulating material.

The cabinet will be equipped with service panels. Two panels shall be provided and mounted on the cabinet sidewalls. The left side panel shall be designated as "Input/Communications," and the right side panel shall be designated as the "Service Panel."

The service panel will be equipped with a four-outlet handi-box. Wire the handi-box to the series portion of the filtering surge protector.

Use metallic conduit, fittings, and adapters required from the underground conduit transition point to the cabinet as part of this item. A typical installation requires on 2-inch conduit. Use metallic conduit conforming to standard spec 652.

C Construction

Fasten the field cabinet securely onto a pole. Provide bolted stainless steel connections with lock washers, locking nuts, or other engineer-approved means to prevent the connection nuts from backing off. Isolate dissimilar materials from one another using stainless steel fittings. Make all power connections to the cabinet as specified in standard spec 656.

Drill and tap the cabinet, as necessary, to mount the terminal blocks and other attachments to the service panel, to provide an entrance on the back of the cabinet for cable from the pole mounted intelligent transportation systems equipment, and to mount the service panel to the cabinet as shown in the details. Remove all sharp edges or burrs, or both, caused by the cutting or drilling process. Seal all openings to prevent water from entering the cabinet. Mount the surge protector to the service panel.

Install metallic conduit on the exterior of the pole (for entrance to the cabinet from the ground) as the plans show, and according to the applicable requirements of standard spec 652.

D Measurement

The department will measure Install Pole Mounted Cabinet as each individual assembly, 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
673.0225.S	Install Pole Mounted Cabinet	EACH

Payment is full compensation for installing the pole mounted cabinet; for making all connections and conduit/wire entrances; and for all testing.

stp-673-010 (20100630)

59. **Installing and Maintaining Bird Deterrent System 952+00'T', Item 999.2000.S.01;**
Installing and Maintaining Bird Deterrent System 983+00'T', Item 999.2000.S.02;
Installing and Maintaining Bird Deterrent System 1013+00'T', Item 999.2000.S.03;
Maintaining Bird Deterrent System 1013+00'EB', Item 999.2005.S.01;
Maintaining Bird Deterrent System 1013+00'WB', Item 999.2005.S.02.

A Description

This special provision describes inspecting, installing and/or maintaining approved deterrents that prevent migratory bird nesting on bridges and culverts. Swallows or other migratory birds' nests have been observed on or under the existing culvert or bridge at the station identified. All active nests (when eggs or young are present) of migratory birds are protected under the federal Migratory Bird Treaty Act.

B Materials

B.1 Hardware and Lumber

Lumber, hardware, and fastening devices shall be durable enough to last through the length of the nesting season. Fastening devices and deterrence system must be approved by the engineer prior to installation on culverts and bridges that will remain in service after removal of deterrent systems. The method of fastening should not compromise the culvert or bridge concrete surfaces or steel protection systems. The attachment locations must be restored and repaired as needed by use of engineer approved fillers, sealers and paint systems

B.2 Netting Materials

Exclusion netting is material either wrapped around or draped and fastened to bridge decks/abutments and culvert corners to prevent bird entry.

Furnish exclusionary netting to deter nesting in bridge decks and abutments and corners of box culverts, consisting of either:

- a. 1/2" x 1/2" or 3/4" x 3/4" knotless, flame resistant, U.V. stabilized polyethylene or polypropylene netting with minimum 40-pound breaking strength per strand, or engineer approved equal.
- b. Galvanized wire mesh (hardware cloth) with a wire diameter of .040 inches (19-gauge) and opening width of 1/2-inch.

At a minimum, use either 1" x 2" (nominal) lumber or 3/4" x 2" pressure treated plywood strips and of equal length as the netting.

B.3 Plastic Strip Curtain

Plastic strip curtains are strips of plastic attached to vertical surfaces in areas suitable for nesting.

Furnish 3-foot wide lengths of 6 mil minimum plastic sheeting with the lower 2 feet cut into vertical strips 2 inches wide.

At a minimum, use either 1" x 2" (nominal) lumber or 3/4" x 2" pressure treated plywood strips and staples to attach plastic strips to wood to fabricate the strip curtain.

Furnish concrete screws to attach strip curtain to structure.

B.4 Corner Slope Materials

Corner slopes are pieces of curved plastic placed in corners suitable for nesting. They are particularly effective in preventing nesting in top corners of box culverts.

Furnish U.V. stabilized pre-fabricated PVC or polycarbonate corner slopes from commercial bird-deterrent manufacturers or an approved equal.

C Construction

C.1 General

If active nests are observed after construction starts, or if a trapped bird or an active nest is found, stop work that may affect birds or their nests, and notify the engineer to consult with the Wisconsin Department of Natural Resources transportation liaison, Karen Kalvelage at (608) 785-9115, or the department regional environmental coordinator, Stephan Vetsch at (608) 785-9049.

Efforts should be made to release trapped birds, unharmed.

C.2 Nest Removal

Remove unoccupied nests prior to the beginning of the nesting season as designated in Prosecution and Progress. Nest removal involves the removal and disposal of unoccupied or partially constructed nests without eggs or nestlings. Removing all evidence of nesting (e.g., cleaning droppings from structures) eliminates a visual cue for a potential breeding location, especially for first-time breeders. Nest removal is not a type of deterrent and does not prevent nest establishment but can delay the process. As such, it should only be used in conjunction with other methods. It cannot be used on its own to ensure compliance. However, nest removal is not required if deterrents are installed before the start of the avoidance window.

Remove nests on the structure by scraping or pressure washing prior to established avoidance windows to deter nesting. Remove only unoccupied or partially constructed nests without eggs or nestlings. Remove newly built nests every two days before eggs are laid. Nest removal is intended to be used prior to and in conjunction with other nesting deterrents.

C.3 Exclusion Netting

C.3.1 Installation

Using concrete screws, anchor lumber to bridge or culvert along perimeter of intended netting. Fasten netting to lumber until netting is held taut. Eliminate any loose pockets or wrinkles that could trap and entangle birds. Ensure the net is pulled taut in order to prevent flapping in the wind, which results in tangles or breakage at mounting points.

For culverts, attach netting at a 45-degree angle at the culvert corner so it extends at least 12" below the corner.

C.4 Plastic Curtains

C.4.1 Installation

Attach plastic curtains along the entire length of vertical surface or corner on which nest building is to be deterred. Affix plastic curtain strips to treated lumber with staples spaced a minimum of 1 foot O.C. Wrap plastic curtains around lumber prior to attaching it to the structure to reduce the likelihood of it tearing out at the staples. Screw lumber into the underside of the bridge deck or top of box culvert with concrete screws placed 24-inches O.C. minimum.

C.5 Corner Slopes

C.5.1 Installation

Attach corner slopes to the structure per the manufacturer's recommendations. Use urethane-based adhesives if manufacturer supplied hardware or adhesives are not available or no recommendations are provided. Install end caps or seal ends of corner slopes to prevent entry of birds or other animals.

C.6 Inspection and Maintenance

Inspect bird deterrent devices every 2 weeks both during and prior to construction when deterrents have been installed to exclude birds prior to nesting windows, and after large storm events or high winds. Ensure that netting is taut, that no gaps or holes have formed, and that the nets are functioning properly. Ensure that corner slopes are not cracked or otherwise damaged and are functioning properly. Ensure that curtains are undamaged, with no tears, holes, or creases. Repair any damaged or loose deterrent devices. Inspect, maintain, and repair nesting deterrents whether installed by the contractor or others. Repair, replace, supplement deterrents as necessary with materials meeting the requirements of this specification.

Remove any unoccupied or partially constructed nests without eggs or nestlings

Repair deterrents to prevent birds from attempting to nest again.

Record all inspection, removal, and maintenance activities. Provide inspection, removal and maintenance records to the engineer upon request.

C.7 Removal and Structure Repair

Maintain the deterrent until the engineer determines that the deterrent is deemed no longer necessary. Upon completion of the project, remove any remaining migratory bird deterrent from the project site. If the existing bridge or culvert is to remain after construction, restore and repair as needed by use of engineer approved fillers, sealers and paint systems.

D Measurement

The department will measure Installing and Maintaining Bird Deterrent System (Station) as a single unit at each structure, acceptably completed.

The department will measure Maintaining Bird Deterrent System (Station) as a single unit at each structure, 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
999.2000.S.01	Installing and Maintaining Bird Deterrent System 952+00'T'	EACH
999.2000.S.02	Installing and Maintaining Bird Deterrent System 983+00'T'	EACH
999.2000.S.03	Installing and Maintaining Bird Deterrent System 1013+00'T'	EACH
999.2005.S.01	Maintaining Bird Deterrent System 1013+00'EB'	EACH
999.2005.S.02	Maintaining Bird Deterrent System 1013+00'WB'	EACH

Payment for Installing and Maintaining Bird Deterrent System is full compensation for providing and installing deterrents that prevent migratory bird nesting; removing and disposing of unoccupied or partially constructed nests without eggs or nestlings; maintaining, repairing, replacing, supplementing, existing deterrent materials; repairing damage to structures resulting from installation of deterrents; removal and disposal of materials.

Payment for Maintaining Bird Deterrent System is full compensation for inspecting structures for the presence of migratory birds, inspecting deterrents installed by others; maintaining, repairing, replacing, and supplementing existing deterrent materials; repairing damage to structures resulting from installation of deterrents; removal and disposal of materials.

60. Temporary Detectable Warning Field, Item SPV.0045.01.

A Description

This special provision describes providing, maintaining, and removing temporary detectable warning fields.

B Materials

Furnish yellow detectable warning fields conforming to Americans with Disabilities Act Accessibility Guidelines. Use either an engineer-approved surface-applied type or cast iron from the department's approved products list.

C Construction

Provide and maintain temporary detectable warning fields, throughout the project duration.

Remove and dispose temporary curb detectable warning fields when no longer required. Repair damage done during removal as the engineer directs.

D Measurement

The department will measure Temporary Detectable Warning Fields by the calendar day, acceptably completed, measured only on days when not obstructed by construction operations.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0045.01	Temporary Detectable Warning Field	DAY

Payment is full compensation for providing, maintaining, and removing temporary detectable warning fields.

61. Temporary Crosswalk, Item SPV.0045.02.

A Description

This special provision describes providing and maintaining an ADA accessible temporary crosswalk within the construction zone at various locations throughout the project limits. A crosswalk is defined as an ADA compliant accessible crossing of a single leg of an intersection, including curb ramps.

B Materials

Furnish a hard temporary surface material as follows:

- Asphaltic surface conforming to standard spec 465.2,
- Pressure treated 2x4 framing lumber, pressure treated 3/4-inch plywood with skid resistant surface coating, and weather resistant deck screws 3-1/2-inch minimum for framing and 1-5/8-inch minimum for plywood.
- Engineer-approved ready mixed concrete or ancillary concrete conforming to standard spec 602.2 except no QMP is required.
- 1/4 inch minimum steel plate or commercially available prefabricated plates with skid resistant surface coating conforming to Americans with Disabilities Act Accessibility Guidelines. If placed in the roadway, must be able to handle a vehicle weight of 88,000 lbs. or alternative material as approved by the engineer.
- Gravel or base course material is not acceptable.

Furnish and install temporary pedestrian safety barricade to delineate the appropriate pedestrian crosswalk location.

Furnish 4-inch diameter polyvinyl chloride drainage pipe conforming to AASHTO M 278 as needed to maintain drainage across the location of the crosswalk.

Furnish a protective layer between the existing curb and gutter and pavement and asphaltic surface temporary in order to allow easy removal of asphaltic surface. Obtain approval from the engineer for the protective layer material.

Furnish yellow detectable warning fields conforming to Americans with Disabilities Act Accessibility Guidelines. Use either an engineer-approved surface-applied type or cast iron from the department's approved products list.

C Construction

Provide and maintain an accessible crosswalk including temporary surface material, temporary curb ramps, detectable warning fields, temporary pedestrian safety fence on existing pavement, new pavement, or temporary surface material where shown on the plans or directed by the engineer.

C.1 Crosswalk

Install, maintain, relocate (if necessary to accommodate work or operations), and remove temporary surface material at Temporary Crosswalk location as shown on the plans and as directed by the engineer. Level and compact the base material before placing the temporary surface material. The Temporary Crosswalk shall have a minimum clear width of 5 feet; be located outside the immediate work area, as approved by the engineer; and meet the requirements of the current Americans with Disabilities Act Accessibility Guidelines (ADAAG). Install temporary pedestrian safety barricade along both sides of the temporary crosswalk. Provide a gap in the safety fence to provide access for construction and emergency vehicles across the temporary crosswalk. The maximum width of the gap shall be 18 feet. Reconstruct Temporary Crosswalk when disturbed by construction operations or utility trenches.

C.2 Temporary Curb Ramp

Place 4-inch PVC drainage pipe in the flow line of the curb and gutter to maintain storm water drainage.

Place a protective layer between the existing curb and gutter or existing pavement and the asphaltic surface or concrete for temporary curb ramp.

For the portion of the temporary curb ramp in the terrace area, form the foundation by excavating at least 3 inches. Tamp or compact the foundation to ensure stability. Provide adequate support under any plate or plywood placed on the roadway surface to create a firm stable walking surface.

Place asphaltic surface temporary according to standard spec 465.3.1 or place concrete according to standard spec 602.3.2.3, and as shown in the plan.

Maintain temporary curb ramps until permanent curb ramps and crosswalks are in place and open to pedestrian traffic as directed by the engineer.

Remove temporary curb ramps as soon as permanent curb ramps and crosswalks are open and restore the site.

D Measurement

The department will measure Temporary Crosswalk by the day, acceptably in service for each location. The measured quantity will equal the number of calendar days an acceptable and accessible temporary crosswalk through the work area is open to pedestrian traffic. A crosswalk is defined as an accessible crossing of a single leg of an intersection with existing, temporary, or finished curb ramps meeting ADA requirements. Each day that the crosswalk is out of service for more than 2 hours will result in 1 day being deducted from the quantity measured for payment.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0045.02	Temporary Crosswalk	DAY

Payment is full compensation for providing and installing the required materials; for preparing the foundation; for furnishing, placing, maintaining, and removing temporary surface material; for reconstructing or relaying the temporary surface material; and for furnishing, installing, and maintaining temporary pedestrian safety fence.

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62. Combination Work Zone Digital Speed Limit – Speed Feedback Sign Trailer (WZDSL-SF), Item SPV.0045.03.

A Description

This special provision describes furnishing, installing, repositioning, operating, maintaining, monitoring, calibrating, testing and removing a combination work zone digital speed limit – speed feedback (WZDSL-SF) trailer as the engineer directs.

B Materials

Furnish items from the department’s approved proprietary products list.

B.1 Automated System Manager (ASM)

Provide an ASM that assesses current traffic data captured by the traffic sensors and displays appropriate speeds/messages to the motorists through the speed feedback sign based on predetermined speed thresholds.

C Construction

C.1 General

The digital speed limit shall be continuously displayed. All speeds displayed must be approved by the engineer.

There shall not be any conflicting speed limits displayed throughout the project limits.

The contractor will be responsible for coordinating with the engineer when the Work Zone Speed Limits are to be changed.

Place WZDSL-SF upstream of lane closure taper or as the engineer directs.

Placement of WZDSL-SF signs shall be on the right side of the road unless infeasible or as directed by the engineer. Placement of signs shall not interfere with the function of existing signs or roadside devices.

Provide technical personnel for all system calibration, operation, maintenance, and timely on-call support services.

Upon notification of a deficiency in the operation of the system, or individual part of the system, corrections to the system must be made within 24 hours.

Maintain the WZDSL-SF trailer for the duration of the project or as directed by the engineer. Ensure the system operates continuously (24 hours, 7 days a week) throughout the duration of the project.

Remove WZDSL-SF once the project is completed.

C.2 Reports

Provide an electronic copy via email of all data to the engineer in the form of a weekly summary report that includes, at a minimum, speed data, the dates/times and locations of the speed limit changes along with their corresponding speed values. The reports shall also include the speed data in either 1 minute, 5 minute or 15 minutes bins, as directed by the engineer.

C.3 Meetings

Attend mandatory in-person/virtual pre-construction meetings with the department. Additional meetings with the department may be required on a periodic basis. These meetings may be held in person or virtually, as scheduled by the department.

C.4 Programming

C.4.1 General

Program the WZDSL-SF to ensure that the following general operations are performed:

1. Provide a password protected login to the ASM, website and all other databases.
2. Provide real-time data from the ASM to a website and refresh every 60 seconds. The website should have a full-color mapping feature. Data on the website should be available to the department staff at all times for the duration of the work zone activity and should include:
 - Vehicle speeds
 - Dates and Times of Speed Limit Changes
 - Device locations
3. Archive all traffic data in a Microsoft excel format with date and time stamps.
4. Configure the website to quantify system failures which includes traffic sensor malfunction, loss of power, low battery, etc.
5. Ensure the device autonomously restarts in case of any power failure.
6. Provide the department access to manually override the WZDSL-SF trailer for a user-specified duration. Document all override messages.
7. The WZDSL-SF trailer and it's remote management software shall be able to provide a real-time API feed (updated at least once a minute with any new information) conforming to the latest version of the FHWA's [Work Zone Data Exchange \(WZDx\)](https://www.transportation.gov/data/wzdx) (<https://www.transportation.gov/data/wzdx>) format as well as make the feed publicly available to any Agency-approved third parties. This feed shall include the following elements (at a minimum); Device Name, Device Position, Current Display Message and Device Status (on/offline) when the WZDSL-SF has an ACTIVE display message posted. The feed should also include the <Road_Name>, <Road_Direction>, <Mile_Marker> when possible, when on Interstate and State Highway routes.
8. A [Waze](#) compatible data push should also be provided, to allow the WZDSL-SF to be auto-located as an ON_ROAD_CONSTRUCTION (hardhat icon) alert with the following associated description (<40 characters) "WORK ZONE SPEED LIMIT - XX MPH", where XX is automatically populated with the current speed display value. The WZDSL-SF location feeds shall include all active devices. The event location shall be updated at least once a minute, if the device changes position. The event shall be removed when the Display is Blank. Waze events shall be visible on [Waze web map](#) and on smartphones generate a driver alert for an approaching motorist actively using the Waze app with notifications activated.

C.4.2 System Operation

Speed Feedback Conditions: The Speed Feedback Display shall provide the following four feedback displays depending on the speed of each approaching vehicle.

Feedback Condition 1: If an approaching vehicle is \leq Posted Speed (on the above WZDSL) + 4 mph, then the display shall show the approaching vehicle's speed in large bold font visible from at least 750 feet away.

Feedback Condition 2: If an approaching vehicle is 5 to 9 mph $>$ Posted Speed (on the above WZDSL), then the display shall Flash the approaching vehicle's speed in large bold font visible from at least 750 feet away. The flash rate shall be 5 cycles per second (0.1 second ON and 0.1 second OFF).

Feedback Condition 3: If an approaching vehicle is 10 to 14 mph $>$ Posted Speed (on the above WZDSL), then the display shall alternate flashing the approaching vehicle's speed and the words "SLOW" and "DOWN" on three separate frames in large bold font visible from at least 750 feet away. In addition, the display shall provide 4 beacons in the four corners of the display that rapid flash. There shall be an option to activate or deactivate the beacons based on agency preference/practice. The flash rate of the numbers and words shall be 5 cycles per second (0.1 second ON and 0.1 second OFF) and the flash rate of the beacons (below) is 10 cycles per second.

Feedback Condition 4: If an approaching vehicle is 15 mph $>$ Posted Speed (on the above WZDSL), then the display shall alternate flashing the words "SLOW" and "DOWN" on two separate frames in large bold font visible from at least 750 feet away. In addition, the display shall provide 4 beacons in the 4 corners of the display that rapid flash. There shall be an option to activate or deactivate the beacons based on agency preference/practice. The flash rate of the words shall be 5 cycles per second (0.1 second ON and 0.1 second OFF) and the flash rate of the beacons (below) is 10 cycles per second.

C.5 Calibration and Testing

Perform a successful field test and calibration at the WZDSL-SF trailer location to verify the system is detecting accurate vehicle speeds and accurately relaying the information to the ASM and then to the speed feedback sign at the beginning of the project.

Send email of successful calibration and testing to the engineer.

D Measurement

The department will measure each WZDSL-SF by the day, 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.0045.03	Combination Work Zone Digital Speed Limit – Speed Feedback Sign Trailer (WZDSL-SF)	DAY

Payment is full compensation for furnishing, installing, repositioning, operating, maintaining, monitoring, calibrating, testing, and removing the WZDSL-SF trailer.

Failure to correct a deficiency within 24 hours after notification from the engineer or the department will result in a one day deduction of measured quantities for each day in which the deficiency is not corrected.

Failure to correct the website within 24 hours after notification from the engineer will result in a 10% reduction of the day quantity for each day the website is down.

It is the engineer's sole discretion to assess the deductions for an improperly working WZDSL-SF trailer.

63. Emergency Response to Pavement Repairs, Item SPV.0060.01.

A Description

This special provision describes providing prompt response to an emergency repair request of damaged or deteriorated concrete or HMA pavement located on IH 90 or an IH 90 ramp. The provisions of this article will not be applicable during the project's winter shutdown period.

B (Vacant)

C Construction

The contractor shall provide staff, equipment, and materials to the incident site within 45 minutes of receiving a repair request from the responding agency. The contractor shall consult with the department's representative on potential repair or replacement options to restore the damaged or deteriorated

pavement section to a safe and drivable condition. Staff and equipment deployed shall be capable of completing the needed repairs as quickly as possible once repair work is started. The contractor shall provide a time log of when the repair request was received and when staff arrived at the incident site. This information shall be submitted to the engineer, for verification, within 24 hours of the repair completion.

Contact information for the contractor's responsible party (the person or persons in charge of coordinating and completing repair efforts) shall be submitted to the engineer at the pre-construction meeting. This person(s) shall be available 24/7 during the duration of this contract. The contact information for the department's representative will be supplied to the contractor at the pre-construction meeting.

If the contractor fails to be on-site of an incident with appropriate staff and equipment within 75 minutes of receiving a repair request, the department will assess the contractor \$1,000 in liquidated damages for each 15-minute interval that the contractor is not present following the allotted 75-minute response time. Increments of 15 minutes or less will be assessed as a 15-minute increment. The engineer, or designated representative, will be the sole authority in determining assessable 15-minute increments. Liquidated damages will be assessed under the administrative item Failing to Open Road to Traffic.

Additional traffic control measures may be required depending on the severity and duration of the incident. The contractor shall provide any needed traffic control measures as directed by the department's representative.

D Measurement

The department will measure Emergency Response to Pavement Repairs as each individual response, 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	Emergency Response to Pavement Repairs	EACH

Payment is full compensation for providing prompt response to an emergency repair request for damaged or deteriorated concrete or asphalt pavement located within the project's construction limits.

The cost of providing the appropriate level of on-call staff, equipment, and materials for 24/7 incident response shall be included in the Mobilization bid item for this project.

The department will pay for concrete pavement or asphalt pavement repairs under the respective concrete pavement or asphalt pavement bid items in the contract.

The department will pay for any additional traffic control measures, if required, under the respective traffic control bid items in the contract.

64. Emergency Response to Traffic Incident Involving Concrete Barrier Temporary Precast, Item SPV.0060.02.

A Description

This special provision describes providing prompt response to an emergency repair request for damaged and/or dislodged temporary concrete barrier located on IH 90 that is damaged or displaced due to a vehicular collision during the time this contract is in effect.

B (Vacant)

C Construction

The contractor shall provide staff, equipment, and materials to the incident site within 75 minutes of receiving a repair request from the responding agency. The contractor shall consult with the department's representative on potential repair or replacement options to restore the temporary concrete barrier to proper working condition. Staff and equipment deployed shall be capable of completing the needed repairs as quickly as possible once repair work is started. Repair work shall be completed off the traveled way to the maximum extent allowable. The contractor shall provide a time log of when the repair request was received and when staff arrived at the incident site. This information shall be submitted to the engineer, for verification, within 24 hours of the repair completion.

Contact information for the contractor's responsible party (the person or persons in charge of coordinating and completing repair efforts) shall be submitted to the engineer at the pre-construction meeting. This person(s) shall be available 24/7 during the duration of this contract. The contact information for the department's representative will be supplied to the contractor at the pre-construction meeting.

If the contractor fails to be on-site of an incident with appropriate staff and equipment within 75 minutes of receiving a repair request, the department will assess the contractor \$1,000 in liquidated damages for each 15-minute interval that the contractor is not present following the allotted 45-minute response time. Increments of 15 minutes or less will be assessed as a 15-minute increment. The engineer, or designated representative, will be the sole authority in determining assessable 15-minute increments. Liquidated damages will be assessed under the administrative item Failing to Open Road to Traffic.

Additional traffic control measures may be required depending on the severity and duration of the incident. The contractor shall provide any needed traffic control measures as directed by the department's representative.

D Measurement

The department will measure Emergency Response to Traffic Incident Involving Concrete Barrier Temporary Precast as each individual response, 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.0060.02	Emergency Response to Traffic Incident Involving Concrete Barrier Temporary Precast	EACH

Payment is full compensation for providing prompt response to an emergency repair request for damaged and/or dislodged temporary concrete barrier located within the project's limits.

The cost of providing the appropriate level of on-call staff, equipment, and materials for 24/7 incident response shall be included in the Mobilization bid item for this project.

The department will pay for any additional traffic control measures, if required, under the respective traffic control bid items in the contract.

65. Emergency Response to Traffic Incident Involving Crash Cushion, Item SPV.0060.03.

A Description

This special provision describes providing prompt response to an emergency repair request for involving a damaged crash cushion device on IH 90 that is damaged or displaced due to a vehicular collision during the time this contract is in effect.

B (Vacant)

C Construction

The contractor shall provide appropriate staff to the incident site within 75 minutes of receiving a repair request from the responding agency. Staff deployed shall be capable immediately assessing the severity of the damage to the device and consult with the department's representative on potential repair or replacement options and the projected timeline to restore the roadside device to its proper working condition. The contractor shall provide a time log of when the repair request was received and when staff arrived at the incident site. This information shall be submitted to the engineer, for verification, within 24 hours of the repair completion.

Contact information for the contractor's responsible party (the person or persons in charge of coordinating repair efforts) shall be submitted to the engineer at the pre-construction meeting. This person(s) shall be available 24/7 during the duration of this contract. The contact information for the department's representative will be supplied to the contractor at the pre-construction meeting.

If the contractor fails to be on-site of an incident with appropriate staff within 75 minutes of receiving a repair request, the department will assess the contractor \$1,000 in liquidated damages for each 15-minute interval that the contractor is not present following the allotted 75-minute response time. Increments of 15 minutes or less will be assessed as a 15-minute increment. The engineer, or designated representative, will be the sole authority in determining assessable 15-minute increments. Liquidated damages will be assessed under the administrative item Failing to Open Road to Traffic.

For state-owned devices, repair work is covered under article Repair Crash Cushion of these special provisions. In either case, once repair work has been started, work shall continue until completion. Repair work shall be completed off the traveled way to the maximum extent allowable.

Additional traffic control measures may be required depending on the severity and duration of the incident. The contractor shall provide any needed traffic control measures as directed by the department's representative.

D Measurement

The department will measure Emergency Response to Traffic Incident Involving Crash Cushion as each individual response, 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.0060.03	Emergency Response to Traffic Incident Involving Crash Cushion	EACH

Payment is full compensation for providing a prompt staff response to an emergency repair request for a damaged crash cushion device located within the project limits.

The cost of providing the appropriate level of on-call staff 24/7 incident response shall be included in the Mobilization bid item for this project.

The department will pay for any additional traffic control measures, if required, under the respective traffic control bid items in the contract.

66. Repair Crash Cushion, Item SPV.0060.04.

A Description

This special provision describes providing emergency repair services, including the replacement of unusable components or hardware, for crash cushions located on IH 90 that are damaged due to a vehicular collision during the time this contract is in effect. This work shall be according to standard spec 614, as directed by the engineer, and as hereinafter provided. Responding to the incident site with the appropriate staff, equipment and materials is covered under a separate bid item.

B (Vacant)

C Construction

Repairs shall be completed as quickly as possible once repair work is started. Repair work shall be completed off of the traveled way to the maximum extent possible.

Additional traffic control measures may be required depending on the severity and duration of the incident. The contractor shall provide any needed traffic control measures as directed by the engineer.

D Measurement

The department will measure Repair Crash Cushion as each individual unit, acceptably repaired.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.04	Repair Crash Cushion	EACH

Payment is full compensation for completing the necessary repair work to restore the crash cushion to a safe and operational condition, including replacement of damaged, unusable components.

The department will pay for additional traffic control measures, if required, under the respective traffic control bid items in the contract.

67. Removing Sign and Foundation, Item SPV.0060.05.

A Description

This special provision describes removing existing business signs and associated concrete foundation bases according to the pertinent provisions of standard spec 204 and as hereinafter provided.

Coordinate with J & J Navis Properties LLC and disconnect power to the sign and remove electrical appurtenances. Remove signs, lights, and all other items above existing ground elevation. Salvage signs, lights, steel pylon support, nuts and bolts and store within the project limits for up to 30 calendar days, for disposal by the department or others.

Remove all foundation materials below existing ground to an elevation of five feet below proposed surface elevation, or as specified by the engineer. Dispose of all remove foundation material at an offsite location. This may include, but is not limited to piling, concrete foundation, conduit, wiring, and fasteners.

Do not remove the sign and foundation before August 12, 2022 or J & J Navis Properties LLC has agreed to have it removed earlier.

B (Vacant)

C Construction

Carefully remove signs and sign foundations. Avoid damaging salvaged materials and any utilities during construction operations. Do not use equipment or devices that might damage facilities. Complete all necessary operations to remove the sign foundation. Place salvaged materials in neat piles outside the construction limits but within right-of-way at locations approved by the engineer. Backfill all trenches, holes and pits with suitable fill material conforming to standard spec 208. Top soil, seed and fertilize the disturbed area when sign and foundation removal are complete.

D Measurement

The department will measure Removing Sign and Foundation by each individual unit, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.05	Removing Sign and Foundation	EACH

Payment is full compensation for breaking down and removing the sign and foundation as outlined in this specification; for contacting J & J Navis Properties LLC; for disconnecting power; for all excavating; for placing and compacting backfill material; for all required salvaging; for disposing of all materials not required for salvaging that were encountered during removing sign foundation; for repairing all damaged salvaged materials or utilities; and for topsoil, seed, and fertilizer.

68. Maintenance for Temporary Bridge, Item SPV.0060.06.

A Description

This special provision describes maintenance for the temporary bridges in the median for the temporary roadway as hereinafter provided.

B (Vacant)

C Construction

Review the condition of the bridges after each stage. Perform minor maintenance items at this time. Minor maintenance includes but is not limited to surface repair, sealing cracks, sealing joints, fill potholes or spalls, shim abutments, repair slopes or slope paving, and any other surface work.

Provide written documentation of all condition reviews and corrective actions to the engineer within 8 hours of performing the reviews.

D Measurement

The department will measure Maintenance for Temporary Bridge by each individual unit for the duration of the project, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.06	Maintenance for Temporary Bridge	EACH

Payment is full compensation for keeping the temporary bridges operable, including any mobilizations, equipment or materials required to perform the work.

69. Concrete Pipe Support, Item SPV.0060.07.

A Description

This special provision describes constructing a concrete masonry support between storm sewer and local utilities as detailed in the plans and as hereinafter specified.

B Materials

Furnish concrete materials conforming to standard spec 611.2.

Furnish granular backfill conforming to standard spec 209.2

C Construction

Construct according to the plans and standard spec 611.3.

D Measurement

The department will measure Concrete Support as each individual concrete support, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.07	Concrete Pipe Support	EACH

Payment is full compensation for providing all materials, including all masonry; for all excavating, backfilling, disposing of surplus material, insulation, concrete masonry, curing, protecting and for cleaning out and restoring the work site.

70. Maintenance and Removal of Crash Cushion Barrier Temporary Precast Left In Place by Others, Item SPV.0060.08.

A Description

This special provision describes maintaining and removing crash cushion permanent left in place by others according to standard spec 614. The crash cushion permanent left in place by others becomes the property of the contractor upon notice to proceed.

B Materials

Furnish any replacement materials for the crash cushion permanent left in place by others that is according to the pertinent requirements of standard spec 614.2.

C Construction

Maintain and remove the crash cushion permanent according to the pertinent requirements of standard spec 614.3.4.

D Measurement

The department will measure Maintenance and Removal of Crash Cushion Permanent Left In Place by Others as each individual crash cushion, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.08	Maintenance and Removal of Crash Cushion Permanent Left In Place by Others	EACH

Payment is full compensation for maintaining and removing the crash cushions.

71. Cleaning and Painting Bearings, Item SPV.0060.11.

A Description

This special provision describes cleaning and painting the existing steel bearings on structures conforming to standard spec 517 and as directed by the engineer.

B Materials

Furnish a complete coating system from the department's Painting Epoxy System Structure approved product list. Use the same coating system for all repairs due to handling, shipping, and erecting; and for all other uncoated areas.

The color of epoxy shall be gray, and the urethane coating material shall match the color number shown on the plans conforming to AMS Standard 595A.

Supply the engineer with the product data sheets before any coating is applied. The product data sheets shall indicate the mixing and thinning directions, the minimum drying time for shop or field applied coats, and the recommended procedures for coating galvanized bolts, nuts, and washers.

C Construction

C.1 Surface Preparation

Clean areas of loose paint and rust by wire brushing, grinding, or other mechanical means. Sound paint does not need to be removed. After clean up and storage of waste material, blast cleaning is allowed for only those areas where paint has been removed. Shield adjacent painted areas during blast cleaning operations. The blasting sand does not have to be collected.

Furnish containment methods as required to contain and collect waste material resulting from the preparation of painted steel surfaces for painting. All clean up activities should minimize dust. Store waste materials in hazardous waste containers provided by the department. The department is responsible for the transport and disposal of the contained materials by the statewide hazardous waste contractor.

C.2 Coating Application

Apply paint in a neat, workmanlike manner, and conforming to the manufacturer's instructions and recommendations. Paint application shall be brushed on.

D Measurement

The department will measure Cleaning and Painting Bearings as each individual bearing 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.0060.11	Cleaning and Painting Bearings	EACH

Payment for Cleaning and Painting Bearings is full compensation for preparing and cleaning the designated bearings; furnishing and applying the paint; cleaning up; and containing and collecting all waste materials.

72. Utility Line Opening (ULO), Item SPV.0060.12.

A Description

This special provision describes excavating to uncover utilities for the purpose of determining elevation and potential conflicts with proposed work, as shown on the plans, or as directed by the engineer.

B (Vacant)

C Construction

Perform the excavation in such a manner that the utility in question is not damaged and the safety of the workers is not compromised.

Notify the City of Mauston at the start of STH 82 construction. Perform the utility line openings within 14 days after starting work on STH 82 and at least 10 working days in advance of proposed work that may have a utility conflict, to allow any conflicts to be resolved with minimal disruption. Allow the engineer and City of Mauston DPW a minimum of 3 working days once utility line opening information is received to review all relevant design information prior to proceeding with work or relocating utilities in conflict.

Approve and coordinate all utility line openings with the engineer. Notify the city of Mauston utility engineers or their agents of this work a minimum of 3 working days prior to the work so they may be present when the work is performed.

Backfill the excavation with suitable backfill material and thoroughly compact. Replace pavement over utility line opening trenches which are within the staged traffic area as directed by the engineer. Replace pavement and open to traffic within 24 hours of the excavation.

D Measurement

The department will measure Utility Line Opening by each individual utility line opening (ULO), acceptably completed.

Utility line openings include a trench up to 10 feet long as measured at the trench bottom, and of any width and depth required to locate the intended utility. Where utilities are within 6 feet of each other at a potential conflict location, only one utility line opening will be measured. In these cases, a single utility line opening will be considered full payment to locate multiple utilities.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.12	Utility Line Opening (ULO)	EACH

Payment is full compensation for performing the excavation required to expose the utility line; backfilling with existing material removed from the excavation; compacting the backfill material; restoring the site; and cleanup.

Existing pavement, concrete curb, gutter, and sidewalk removals necessary to facilitate utility line openings are not considered part of or paid for under Utility Line Openings but are considered separate and measured and paid for separately as removal items. Pavement replacement material, concrete curb, gutter, and sidewalk items will also be considered separate from Utility Line Openings and will be measured and paid for separately.

73. Landmark Reference Monuments Special, Item SPV.0060.13.

A Description

This special provision describes preserving the location and constructing new reference monuments for existing Public Land Survey System (PLSS) section corner monuments within the proposed construction limits.

B Materials

The department can furnish aluminum monument caps if necessary. Otherwise, all materials for the monumentation and witness ties will be the responsibility of the contractor to provide. Any monuments that satisfy Wisconsin Administrative Code Chapter AE-7 will be acceptable.

C Construction

Complete the work according to the pertinent requirements of standard spec 621.3 and as follows:

Obtain existing tie sheets from the Juneau County Surveyor. Locate and verify existing PLSS monuments and ties. Furnish, and install if necessary, temporary and/or permanent ties. Provide a temporary tie sheet to the department and the Juneau County Surveyor, for use by the public during the construction phase of the project and before the final monumentation is complete.

Perpetuate and/or reset all PLSS monuments and witnesses under the direction of a State of Wisconsin Licensed Professional Land Surveyor. Prepare the temporary and final PLSS monument records according to the Wisconsin Administrative Code Chapter AE-7. Prepare and File new monument records with the Juneau County Surveyor according to AE-7 and provide a copy of the same to the Wis-DOT SW Region-Madison Survey Coordinator. This work shall be overseen and completed by a State of Wisconsin Licensed Professional Land Surveyor.

The approximate location of the section corners that will likely be disturbed due to the proposed construction:

Landmark Reference Monument					
Station	Offset	Township	Range	Section Corner	
148+31EB82	47' RT	T15N	R4E	East ¼ Corner Tie, Section 7	
149+16WB82	1' RT	T15N	R4E	East ¼ Corner Tie, Section 7	
149+45EB82	19' RT	T15N	R4E	East ¼ Corner Tie, Section 7	
149+59EB82	4' RT	T15N	R4E	East ¼ Corner, Section 7	
146+65WB82	64' LT	T15N	R4E	East ¼ Corner Tie, Section 7	
150+01EB82	32' RT	T15N	R4E	East ¼ Corner Tie, Section 7	

Notify the Juneau County Surveyor and Wis-DOT/SW Region-Madison Survey Coordinator five (5) working days prior to construction operations that may disturb existing monuments, with pertinent questions or for department provided monument caps.

D Measurement

The department will measure Landmark Reference Monuments Special by each 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.0060.13	Landmark Reference Monuments Special	EACH

This price shall be payment in full for furnishing a Professional Land Surveyor; obtaining existing PLSS monument record tie sheet(s); preparing, providing and filing temporary/final PLSS monument record tie sheet(s) from a Professional Land Surveyor; all survey work related to the perpetuation process; the furnishing and placing of all PLSS survey monuments; the furnishing and placement of any necessary witness ties; the removal of the existing monument(s) if necessary; excavating for the placement of the new monument(s) if necessary; and for all labor, tools, equipment, materials and incidentals necessary to complete this item of work.

74. Verify Landmark Reference Monuments, Item SPV.0060.14.

A Description

This special provision describes verifying, restoring, and preserving reference (witness) monuments for existing U.S. public land survey corners.

B Materials

Provide reference monument materials that satisfy Wisconsin Administrative Code Chapter A-E 7.07. The department will furnish aluminum monument caps if requested.

C Construction

Complete work under the direction of a Registered Land Surveyor in the state of Wisconsin, according to the pertinent requirements of standard spec 621.3 and as follows.

Obtain existing tie sheets from the county surveyor. Locate and verify existing U.S. public land survey corner monuments and reference ties to at least 4 reference monuments. Restore or reestablish missing or damaged reference monuments.

If required, install temporary reference monuments for construction. Provide a temporary tie sheet to the department and the county surveyor for use by the public during the construction phase of the project and before final monumentation is complete.

Prepare and file final U.S. public land survey monument records according to the Wisconsin Administrative Code Chapter A-E 7.08. Provide a copy to the WisDOT SW Region Madison Survey Coordinator.

D Measurement

The department will measure Verify Landmark Reference Monuments by each U.S. public land survey corner, acceptably verified, tied and preserved.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.14	Verify Landmark Reference Monuments	EACH

Payment is full compensation for obtaining existing tie sheets; for locating and preserving corner monuments; for locating, verifying, restoring and preserving reference monuments; for providing reference monument materials; for temporary reference monuments; and for preparing and filing final monument records.

75. Temporary Pipe Connection, Item SPV.0060.15.

A Description

This special provision describes installing temporary pipe connections between existing storm sewer pipe and newly installed storm sewer pipe during staged construction operations.

B Materials

Furnish a flexible pipe that will allow a temporary connection between existing storm sewer pipe and new storm sewer pipe at different elevations as shown in the plans. The temporary pipe size shall be large enough to allow the existing storm sewer pipe to fit inside the temporary pipe as shown in the plans.

Provide base aggregate dense 1 ¼-inch in conformance with standard spec 305 or clean fill as necessary for backfilling.

C Construction

At the locations where temporary pipe connections are needed, remove the existing storm sewer to the staging limits.

Connect the temporary pipe over the existing storm sewer pipe and/or inside the newly installed storm sewer pipe by means of slitting the ends of the pipe. Pumping may be required to move water through the system.

D Measurement

The department shall measure Temporary Pipe Connection 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.0060.15	Temporary Pipe Connection	EACH

Payment is full compensation for sawing the existing pipe; furnishing and installing the temporary pipe; excavating and backfilling; pumping; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the work.

76. Inlet Covers Flat Temporary, Item SPV.0060.16.

A Description

This special provision describes furnishing, installing, adjusting and removing temporary inlet covers on storm sewer structures at locations shown in the plans.

B Materials

Furnish inlet covers per the pertinent requirements of standard spec 611. Provide open grates for drainage, traversable by vehicle and bicycle traffic, and rated for traffic loading.

C Construction

Remove the inlet or manhole cover and place the temporary inlet cover on the structure with the necessary adjustments per standard spec 611. Adjust and set the grade of the inlet cover to meet the final surface of the temporary pavement for traffic lanes. Bolt inlet covers placed within lanes open to traffic to the inlet or inlet frame.

Remove the temporary inlet cover once no longer needed in the temporary traffic lanes.

D Measurement

The department will measure Inlet Covers, Flat, Temporary as each individual temporary flat inlet cover, 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	Inlet Covers Flat Temporary	EACH

Payment is full compensation for furnishing temporary inlet covers, including frames, grates or lids; for furnishing all necessary bolting; and for furnishing all other required materials and for installing, adjusting, and removing each cover. Upon removal, the temporary inlet cover becomes the property of the contractor.

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77. Ground Rod, Item SPV.0060.17.

A Description

This special provision describes installing a ground rod and ground wire.

B Materials

Ground rod shall be copper clad steel with cladding 13 mils thick. The minimum diameter is 5/8-inch and the minimum length is eight feet. Ground wire shall be AWG # 6 bare, solid copper.

C Construction

Use exothermic welding to connect the ground wire to the rod. Install the rod vertically, or as close to vertical as conditions permit. Select locations with moist soil, if available. Place the rod at least six feet from all other ground rods.

D Measurement

The department will measure Ground Rod by the unit, acceptably installed.

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	Ground Rod	EACH

Payment is full compensation for installation of the ground rod and ground wire; welding and connections at both ends of the ground wire.

78. Temporary Ditch and Storm Sewer Maintenance Project 1016-05-70, Item SPV.0060.18.

A Description

This special provision describes maintaining the temporary ditches, inlets and pipes along each side of the median temporary roadway as hereinafter provided, up to the contract completion date.

B (Vacant)

C Construction

Keep the ditches clear of siltation, debris, ice, snow, or other materials that may hinder runoff flow to and through the ditches and storm sewer system in order to maintain the full hydraulic capacity of the system through the duration of this project.

Review the conditions of the ditches and inlets at a minimum of one time per week. Perform minor maintenance items at this time. Minor maintenance is defined as removal of accumulated material from the ditches and inlet castings. Remove all debris from the project site.

Review the conditions and clear the entire system after any rain exceeding 1 inch within a 24-hour period, or snowfall of 3 inches within a 24 hour period. Continue to monitor the system during snow events to address and remove snow and ice accumulation due to highway snow plowing operations.

Review the conditions and clear the entire system during any freeze/thaw events that will likely contribute to the buildup of ice in any part of the system.

Review the conditions of the entire system within 2 hours of a written or verbal directive from the engineer.

Perform any necessary maintenance items noted during the above reviews within 2 hours.

Provide written documentation of all condition reviews and corrective actions to the engineer within 8 hours of performing the reviews.

Limit the use of salt or other de-icing agents to the area from Station 990+00 to Station 1025+00. Preemptive application of brine solution in the temporary ditches within these limits is acceptable between November 1, 2022 and May 1, 2023.

D Measurement

The department will measure Temporary Ditch and Storm Sewer Maintenance Project 1016-05-70 as a single unit for each project, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.18	Temporary Ditch and Storm Sewer Maintenance Project 1016-05-70	EACH

Payment is full compensation for keeping the temporary ditches and storm sewer system clear and operable, including any mobilizations, equipment or materials required to perform the work.

**79. Construction Staking Roundabout – IH 90 WB Ramp, Item SPV.0060.19;
Construction Staking Roundabout – IH 90 EB Ramp, Item SPV.0060.20.**

A Description

This special provision describes providing the contractor-performed construction staking required to establish the horizontal and vertical position of the following items contained within the roundabout. The limits of this item extends to the end of the splitter islands at the roundabouts. The standard Construction Staking bid items will be used in areas outside the limits of this special provision.

- Curb and gutter
- Curb ramps
- Subgrade
- Base
- Supplemental Control
- Slope Stakes

B (Vacant)

C Construction

Perform Construction Staking Roundabout according to the pertinent provisions of standard spec 650. Multiple mobilizations will be required due to the staging, as shown in the plans.

D Measurement

The department will measure Construction Staking Roundabout (intersection location) as a single unit for each intersection location, 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	Construction Staking Roundabout IH 90 WB Ramp	EACH
SPV.0060.20	Construction Staking Roundabout IH 90 EB Ramp	EACH

Payment is full compensation for work necessary to locate and set all construction stakes; for maintaining, relocating, and resetting construction stakes at the roundabout throughout all project stages.

The department will not make final payment for this bid item until the contractor submits all survey notes and computations used to establish the required lines and grades to the engineer within 21 days of completing this work. The department will deduct from payments due the contractor for the additional costs specified in standard spec 105.6.

80. Maintenance and Removal of Concrete Barrier Temporary Precast Left In Place by Others, Item SPV.0090.01.

A Description

This special provision describes maintaining and removing concrete barrier temporary precast left in place by others according to standard spec 603. The concrete barrier temporary precast left in place by others becomes the property of the contractor upon notice to proceed. Approximately 7200 LF of barrier has been anchored.

B Materials

Furnish any replacement materials for the concrete barrier temporary precast left in place by others that is according to the pertinent requirements of standard spec 603.3.2.

C Construction

Maintain and remove the concrete barrier temporary precast according to the pertinent requirements of standard spec 603.3.

D Measurement

The department will measure Maintenance and Removal of Concrete Barrier Temporary Precast Left In Place by Others by the linear foot, acceptably completed, measured along the base of the barrier in its left-in-place location.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.04	Maintenance and Removal of Concrete Barrier Temporary Precast Left In Place by Others	LF

Payment is full compensation for maintaining and removing the concrete barrier temporary precast and anchors; and for removing and disposing of all materials.

Reinstallation, trucking between worksites, transitions between temporary and permanent barriers, and anchoring will be paid for separately under the bid items provided for in the contract.

81. Drain Slotted Vane Longitudinal, Item SPV.0090.03.

A Description

This special provision describes providing Drain Slotted Vane Longitudinal as the plans show, conforming to standard spec 501, 505, 608, and 611, and as modified in this special provision.

B Materials

Construct the pipe that the vane drain casting rests in using 15-inch diameter SDR-35 poly vinyl chloride, (PVC) sewer pipe for permanent drains subjected to live traffic.

Conform to standard spec 611 for all other materials.

Conform to standard spec 415.2.1 for encasing material around the pipe.'

Furnish steel reinforcement conforming to standard spec 415.2.2.

Furnish concrete curing compounds conforming to standard spec 415.2.4.

C Construction

Before encasing the pipe in concrete, cover the upper end of the slotted drain as the plans show. Otherwise, obtain engineer approval before variations.

Before construction operations adjacent to the slotted area of the slotted vane drainpipe, cover the slots on the top of the drain.

D Measurement

The department will measure Drain Slotted Vane Longitudinal by the linear feet, 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.0090.06	Drain Slotted Vane Longitudinal	LF

Payment is full compensation for furnishing all materials; including PVC pipe and end cap, slotted vane drain castings, concrete masonry and reinforcement; adjusting bricks; hauling and placing the pipe; sawing; encasement material around the pipe; concrete curing compound; tie bars and dowel bars cleaning out and restoring site of work; and removing and disposing of all materials.

Remove material entering the pipe at no additional cost to the department. If any section of pipe is damaged or is unsatisfactory as determined by the engineer, replace the drainpipe at no additional cost to the department.

82. Remove and Salvage Modular Block Retaining Wall, Item SPV.0090.04.

A Description

This special provision describes removing and salvaging existing modular block retaining walls according to the pertinent provisions of standard spec 204 and as hereinafter provided.

B Materials

Salvage the existing materials.

C Construction

Carefully remove and salvage existing retaining wall materials at the location shown on the plans. Remove any existing geotextile fabric that may exist behind the retaining wall and dispose of it. Any damaged materials will be replaced at the cost of the contractor.

Stockpile the salvaged retaining wall blocks off to the side or at an engineer approved location in the area. Notify Rob Nelson at (608) 847-4070 at the city of Mauston where and when the city can pick up the salvaged blocks.

D Measurement

The department will measure Remove and Salvage Modular Block Retaining Wall in length by the linear foot along the ground, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.04	Remove and Salvage Modular Block Retaining Wall	LF

Payment is full compensation for removing retaining wall from existing location; for stockpiling and salvaging the retaining wall blocks, for disposing of surplus materials; for disposing of any damaged materials; for replacing contractor-damage material, and for restoring the work site.

**83. Traffic Control Gawk Screen Furnished, Item SPV.0090.05;
Traffic Control Gawk Screen Installed, Item SPV.0090.06.**

A Description

This special provision describes providing traffic control gawk screen on concrete barrier as a traffic control device and removal upon completion of the project.

B Materials

Furnish rectangular shaped screen for temporary mounting on top of concrete barrier.

Furnish a polymer, polyethylene, or UV protected thermoplastic, or similar lightweight product that will not shatter when impacted and is proven crashworthy.

Submit shop drawings a minimum of two weeks before the proposed use of Traffic Control Gawk Screen.

Requirements:

- 24 inches in height;
- The same length as the concrete barrier on which it will be mounted, without splicing, except account for longitudinal overhang between the concrete barrier as shown in the plans.
- Mounted with two poles, at the spacing shown in the plan, attached to the mounting plate with the mounting plate drilled into the top of the concrete barrier.
- Secured with a chain and pin, or other approved method, to the mounting pole.
- Capable of being securely connected to the adjacent screen section using polyethylene brackets, or similar approved fasteners, made of non-metallic materials.
- Capable of expanding without buckling.
- Capable of contracting without creating gaps in the screening and while remaining securely fastened to the adjacent screen.
- Gray in color and opaque.

- Has finished faces on both sides of the screen.
- Capable of remaining in place from traffic gusts, wind gusts, and other outdoor elements that may move or displace the screen.

Furnish and install mounting pipe and hardware according to manufacturer/supplier directions.

Installations and removals of the gawk screen to/from its supports on the jobsite shall not require any tools.

C Construction

Furnish and deliver traffic control gawk screen to worksites within the project. Install the screen according to manufacturer’s recommendations at contract-identified locations or as the engineer directs. Fasten screen sections together.

Provide surveillance and maintenance as specified in standard spec 643.3.2. Repair or replace any portion of the screen that is damaged as the engineer directs. Replace any screen sections that buckle, deform, shrink, or have any other material or installation failure, as determined by the engineer.

Remove screen when no longer needed at the installation site, during winter when directed by the engineer, and upon project completion. In permanent concrete barrier, concrete parapet, and department owned temporary concrete barrier, remove mounting hardware to below the concrete surface. Encapsulate all exposed metal and fill all holes left by anchorage methods with an epoxy from the department’s approved products list. Fill holes as the screen is removed.

D Measurement

The department will measure Traffic Control Gawk Screen Furnished by the linear foot, acceptably delivered to the project site.

The department will measure Traffic Control Gawk Screen Installed by the linear foot, acceptably completed, measured along the base of the screen after installation for each contract-identified or engineer-directed initial installation. The department will also measure subsequent contract-identified or engineer-directed reinstallations. The department will not measure installations made solely to accommodate the contractor’s means and 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.0090.05	Traffic Control Gawk Screen Furnished	LF
SPV.0090.06	Traffic Control Gawk Screen Installed	LF

Payment for Traffic Control Gawk Screen Furnished is full compensation for furnishing traffic control screen, mounting posts, and mounting and fastening hardware; initial delivery; and storage until installation.

Payment for Traffic Control Gawk Screen Installed is full compensation for each installation; moving/trucking to another worksite within the project, unloading, and reinstalling; screen surveillance, maintenance, repair, and replacement; removing; disposal; and concrete barrier repair due to screen installation and after screen removal.

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84. Traffic Control Gawk Screen Moved, Item SPV.0090.07.

A Description

This special provision describes removing, moving, and reinstalling traffic control gawk screen on concrete barrier as a traffic control device.

B Materials

Furnish and install mounting pipe and hardware according to manufacturer/supplier directions.

Installations and removals of the gawk screen to/from its supports on the jobsite shall not require any tools.

C Construction

Remove, move, and reinstall traffic control gawk screen to worksites within the project. Install the screen according to manufacturer's recommendations at contract-identified locations or as the engineer directs. Fasten screen sections together.

Provide surveillance and maintenance as specified in standard spec 643.3.2. Repair or replace any portion of the screen that is damaged as the engineer directs. Replace any screen sections that buckle, deform, shrink, or have any other material or installation failure, as determined by the engineer.

In permanent concrete barrier, concrete parapet, and department owned temporary concrete barrier, remove mounting hardware to below the concrete surface. Encapsulate all exposed metal and fill all holes left by anchorage methods with an epoxy from the department's approved products list. Fill holes as the screen is removed.

D Measurement

The department will measure Traffic Control Gawk Screen Moved by the linear foot, acceptably completed, measured along the base of the screen after removing and reinstalling for each contract-identified or engineer-directed move--The department will not measure moves made solely to accommodate the contractor's means and 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.0090.07	Traffic Control Gawk Screen Moved	LF

Payment is full compensation for removing, ; moving/trucking to another worksite within the project, unloading, and reinstalling; screen surveillance, maintenance, repair, and replacement; removing; disposal; and concrete barrier repair due to screen installation and after screen removal.

85. Slope Paving Repair, Item SPV.0180.01.

A Description

This special provision describes repair and replacement of the missing and undermined areas of existing slope paving. Repair areas of missing and undermined slope paving conforming to standard spec 604 and as directed by engineer.

B (Vacant)

C Construction

C.1 Repair Procedure for areas of Missing Slope Paving

Remove cracked or damaged slope paving adjacent to the repair area. Existing slope paving may be saw-cut to remove portions that are cracked or deteriorated.

Excavate the existing ground line to achieve a minimum distance of 4" from the top of the existing slope paving to the ground line.

Place and compact structure backfill to within 4" of the top of the existing slope paving.

Place 4" thick minimum slope paving to match the shape and grade of the adjacent slope paving. Provide a broom finish for the concrete.

C.2 Repair Procedure for areas of Undermined Slope Paving

Remove cracked or damaged slope paving adjacent to the repair area and from within the area to be repaired. Existing slope paving may be saw-cut to remove portions that are cracked or deteriorated.

Place and compact structure backfill to within 4" of the top of the existing slope paving.

Place 4" thick minimum slope paving to match the shape and grade of the adjacent slope paving. Provide a broom finish for the concrete.

D Measurement

The department will measure Slope Paving Repair 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	Slope Paving Repair	SY

Payment is full compensation for furnishing all labor, materials, equipment, and incidentals necessary to complete the contract work including removal/disposal of broken slope paving, removal/disposal of debris, excavation, saw cutting, grading, providing and placing structure backfill, providing and placing concrete.

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.

D Measurement

The department will measure Maintenance and Removal of Concrete Barrier Temporary Precast Left In Place by Others by the linear foot, acceptably completed, measured along the base of the barrier in its left-in-place location.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.04	Maintenance and Removal of Concrete Barrier Temporary Precast Left In Place by Others	LF

Payment is full compensation for maintaining and removing the concrete barrier temporary precast and anchors; and for removing and disposing of all materials.

Reinstallation, trucking between worksites, transitions between temporary and permanent barriers, and anchoring will be paid for separately under the bid items provided for in the contract.

81. Drain Slotted Vane Longitudinal, Item SPV.0090.03.

A Description

This special provision describes providing Drain Slotted Vane Longitudinal as the plans show, conforming to standard spec 501, 505, 608, and 611, and as modified in this special provision.

B Materials

Construct the pipe that the vane drain casting rests in using 15-inch diameter SDR-35 poly vinyl chloride, (PVC) sewer pipe for permanent drains subjected to live traffic.

Conform to standard spec 611 for all other materials.

Conform to standard spec 415.2.1 for encasing material around the pipe.'

Furnish steel reinforcement conforming to standard spec 415.2.2.

Furnish concrete curing compounds conforming to standard spec 415.2.4.

C Construction

Before encasing the pipe in concrete, cover the upper end of the slotted drain as the plans show. Otherwise, obtain engineer approval before variations.

Before construction operations adjacent to the slotted area of the slotted vane drainpipe, cover the slots on the top of the drain.

D Measurement

The department will measure Drain Slotted Vane Longitudinal by the linear feet, 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.0090.06	Drain Slotted Vane Longitudinal	LF

Payment is full compensation for furnishing all materials; including PVC pipe and end cap, slotted vane drain castings, concrete masonry and reinforcement; adjusting bricks; hauling and placing the pipe; sawing; encasement material around the pipe; concrete curing compound; tie bars and dowel bars cleaning out and restoring site of work; and removing and disposing of all materials.

Remove material entering the pipe at no additional cost to the department. If any section of pipe is damaged or is unsatisfactory as determined by the engineer, replace the drainpipe at no additional cost to the department.

82. Remove and Salvage Modular Block Retaining Wall, Item SPV.0090.04.

A Description

This special provision describes removing and salvaging existing modular block retaining walls according to the pertinent provisions of standard spec 204 and as hereinafter provided.

B Materials

Salvage the existing materials.

C Construction

Carefully remove and salvage existing retaining wall materials at the location shown on the plans. Remove any existing geotextile fabric that may exist behind the retaining wall and dispose of it. Any damaged materials will be replaced at the cost of the contractor.

Stockpile the salvaged retaining wall blocks off to the side or at an engineer approved location in the area. Notify Rob Nelson at (608) 847-4070 at the city of Mauston where and when the city can pick up the salvaged blocks.

D Measurement

The department will measure Remove and Salvage Modular Block Retaining Wall in length by the linear foot along the ground, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.04	Remove and Salvage Modular Block Retaining Wall	LF

Payment is full compensation for removing retaining wall from existing location; for stockpiling and salvaging the retaining wall blocks, for disposing of surplus materials; for disposing of any damaged materials; for replacing contractor-damage material, and for restoring the work site.

**83. Traffic Control Gawk Screen Furnished, Item SPV.0090.05;
Traffic Control Gawk Screen Installed, Item SPV.0090.06.**

A Description

This special provision describes providing traffic control gawk screen on concrete barrier as a traffic control device and removal upon completion of the project.

B Materials

Furnish rectangular shaped screen for temporary mounting on top of concrete barrier.

Furnish a polymer, polyethylene, or UV protected thermoplastic, or similar lightweight product that will not shatter when impacted and is proven crashworthy.

Submit shop drawings a minimum of two weeks before the proposed use of Traffic Control Gawk Screen.

Requirements:

- 24 inches in height;
- The same length as the concrete barrier on which it will be mounted, without splicing, except account for longitudinal overhang between the concrete barrier as shown in the plans.
- Mounted with two poles, at the spacing shown in the plan, attached to the mounting plate with the mounting plate drilled into the top of the concrete barrier.
- Secured with a chain and pin, or other approved method, to the mounting pole.
- Capable of being securely connected to the adjacent screen section using polyethylene brackets, or similar approved fasteners, made of non-metallic materials.
- Capable of expanding without buckling.
- Capable of contracting without creating gaps in the screening and while remaining securely fastened to the adjacent screen.
- Gray in color and opaque.

- Has finished faces on both sides of the screen.
- Capable of remaining in place from traffic gusts, wind gusts, and other outdoor elements that may move or displace the screen.

Furnish and install mounting pipe and hardware according to manufacturer/supplier directions.

Installations and removals of the gawk screen to/from its supports on the jobsite shall not require any tools.

C Construction

Furnish and deliver traffic control gawk screen to worksites within the project. Install the screen according to manufacturer’s recommendations at contract-identified locations or as the engineer directs. Fasten screen sections together.

Provide surveillance and maintenance as specified in standard spec 643.3.2. Repair or replace any portion of the screen that is damaged as the engineer directs. Replace any screen sections that buckle, deform, shrink, or have any other material or installation failure, as determined by the engineer.

Remove screen when no longer needed at the installation site, during winter when directed by the engineer, and upon project completion. In permanent concrete barrier, concrete parapet, and department owned temporary concrete barrier, remove mounting hardware to below the concrete surface. Encapsulate all exposed metal and fill all holes left by anchorage methods with an epoxy from the department’s approved products list. Fill holes as the screen is removed.

D Measurement

The department will measure Traffic Control Gawk Screen Furnished by the linear foot, acceptably delivered to the project site.

The department will measure Traffic Control Gawk Screen Installed by the linear foot, acceptably completed, measured along the base of the screen after installation for each contract-identified or engineer-directed initial installation. The department will also measure subsequent contract-identified or engineer-directed reinstallations. The department will not measure installations made solely to accommodate the contractor’s means and 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.0090.05	Traffic Control Gawk Screen Furnished	LF
SPV.0090.06	Traffic Control Gawk Screen Installed	LF

Payment for Traffic Control Gawk Screen Furnished is full compensation for furnishing traffic control screen, mounting posts, and mounting and fastening hardware; initial delivery; and storage until installation.

Payment for Traffic Control Gawk Screen Installed is full compensation for each installation; moving/trucking to another worksite within the project, unloading, and reinstalling; screen surveillance, maintenance, repair, and replacement; removing; disposal; and concrete barrier repair due to screen installation and after screen removal.

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84. Traffic Control Gawk Screen Moved, Item SPV.0090.07.

A Description

This special provision describes removing, moving, and reinstalling traffic control gawk screen on concrete barrier as a traffic control device.

B Materials

Furnish and install mounting pipe and hardware according to manufacturer/supplier directions.

Installations and removals of the gawk screen to/from its supports on the jobsite shall not require any tools.

C Construction

Remove, move, and reinstall traffic control gawk screen to worksites within the project. Install the screen according to manufacturer's recommendations at contract-identified locations or as the engineer directs. Fasten screen sections together.

Provide surveillance and maintenance as specified in standard spec 643.3.2. Repair or replace any portion of the screen that is damaged as the engineer directs. Replace any screen sections that buckle, deform, shrink, or have any other material or installation failure, as determined by the engineer.

In permanent concrete barrier, concrete parapet, and department owned temporary concrete barrier, remove mounting hardware to below the concrete surface. Encapsulate all exposed metal and fill all holes left by anchorage methods with an epoxy from the department's approved products list. Fill holes as the screen is removed.

D Measurement

The department will measure Traffic Control Gawk Screen Moved by the linear foot, acceptably completed, measured along the base of the screen after removing and reinstalling for each contract-identified or engineer-directed move--The department will not measure moves made solely to accommodate the contractor's means and 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.0090.07	Traffic Control Gawk Screen Moved	LF

Payment is full compensation for removing, ; moving/trucking to another worksite within the project, unloading, and reinstalling; screen surveillance, maintenance, repair, and replacement; removing; disposal; and concrete barrier repair due to screen installation and after screen removal.

85. Slope Paving Repair, Item SPV.0180.01.

A Description

This special provision describes repair and replacement of the missing and undermined areas of existing slope paving. Repair areas of missing and undermined slope paving conforming to standard spec 604 and as directed by engineer.

B (Vacant)

C Construction

C.1 Repair Procedure for areas of Missing Slope Paving

Remove cracked or damaged slope paving adjacent to the repair area. Existing slope paving may be saw-cut to remove portions that are cracked or deteriorated.

Excavate the existing ground line to achieve a minimum distance of 4" from the top of the existing slope paving to the ground line.

Place and compact structure backfill to within 4" of the top of the existing slope paving.

Place 4" thick minimum slope paving to match the shape and grade of the adjacent slope paving. Provide a broom finish for the concrete.

C.2 Repair Procedure for areas of Undermined Slope Paving

Remove cracked or damaged slope paving adjacent to the repair area and from within the area to be repaired. Existing slope paving may be saw-cut to remove portions that are cracked or deteriorated.

Place and compact structure backfill to within 4" of the top of the existing slope paving.

Place 4" thick minimum slope paving to match the shape and grade of the adjacent slope paving. Provide a broom finish for the concrete.

D Measurement

The department will measure Slope Paving Repair 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	Slope Paving Repair	SY

Payment is full compensation for furnishing all labor, materials, equipment, and incidentals necessary to complete the contract work including removal/disposal of broken slope paving, removal/disposal of debris, excavation, saw cutting, grading, providing and placing structure backfill, providing and placing concrete.

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.

Additional Special Provision 6
ASP 6 - Modifications to the standard specifications

Make the following revisions to the standard specifications:

415.3.16 Tolerance in Pavement Thickness

Replace the entire text with the following effective with the November 2021 letting:

415.3.16.1 General

- (1) Construct the plan thickness or thicker. The department will accept pavement thickness based on the results of department-performed acceptance testing conforming to:

Magnetic Pulse Induction	CMM 870: ASTM E3209 WTM
Probing.....	CMM 870: WTP C-002
Preplacement Measurement	CMM 870: WTP C-003

415.3.16.2 Pavement Units

415.3.16.2.1 Basic Units

- (1) Basic unit is defined as a slip formed, single lane, with a minimum lane width of 10 feet, measured, from the pavement edge to the adjacent longitudinal joint; from one longitudinal joint to the next; or between pavement edges if there is no longitudinal joint.

415.3.16.2.2 Special Units

- (2) Establish special units for areas of fillets, intersections, gaps, gores, shoulders, ramps, pavement lanes less than 10 feet wide and other areas not included in basic units.

415.3.16.3 Test Plate Locations

- (1) Place department-furnished test plates. Within 5 business days after paving, enter the sequential number and associated position data into MRS available at:

<http://www.atwoodsystems.com/>

- (2) Contractor will maintain plate location markings for 10 business days after paving.

415.3.16.4 Acceptance Testing

415.3.16.4.1 Basic Units

415.3.16.4.1.2 Magnetic Pulse Induction

- (1) The department will measure thickness within 10 business days of paving. Upon completion of the project thickness testing, the department will provide the test results to the contractor within 5 business days.
- (2) Department will establish a project reference plate at the start of each paving stage. Project reference plate will be measured before each day of testing. Department will notify the contractor of project reference plate locations before testing.
- (3) If the random plate test result falls within 80 to 50 percent pay range specified in 415.5.2, the department will measure the second plate in that unit. The department will notify the contractor immediately if the average of the 6 readings falls within the 80 to 50 percent pay range.
- (4) If an individual random plate test result is more than 1 inch thinner than contract plan thickness, the pavement is unacceptable. Department will determine limits of unacceptable pavement by performing the following:
- The engineer will test each consecutive plate stationed ahead and behind until the thickness test result is plan thickness or greater.
 - The engineer will direct the contractor to core the hardened concrete to determine the extent of the unacceptable area. In each direction, the contractor shall take cores at points approximately 20 feet from the furthest out of specification plate towards the plate that is plan thickness of greater. Once a core is within 80 to 100 percent pay range, the coring is complete and the limits of unacceptable pavement extend from the stationing between the core test results of 80 to 100 percent payment, inclusive of all unacceptable core and plate test results.
 - The contractor shall perform coring according to AASHTO T24. The department will evaluate the results according to AASHTO T148
 - The contractor shall fill core holes with concrete or mortar.

415.3.16.4.2 Special Units**415.3.16.4.2.1 Magnetic Pulse Induction**

- (1) The department will measure thickness within 10 business days of paving. Upon completion of the project thickness testing, the department will provide the test results to the contractor within 5 business days.
- (2) Department will establish a project reference plate at the start of each paving stage. Project reference plate will be measured before each day of testing. Department will notify the contractor of project reference plate locations before testing.
- (3) If the random plate test result falls within 80 to 50 percent pay range specified in 415.5.2, the department will measure the second plate in that unit. The department will notify the contractor immediately if the average of the 6 readings falls within the 80 to 50 percent pay range.
- (4) If an individual random plate test result is more than 1 inch thinner than contract plan thickness, the department will measure the second plate in that unit. If both plates are required to be measured, then all six thickness measurements will be averaged for that unit. If the average of the six measurements is more than 1 inch thinner than contract plan thickness, the pavement is unacceptable.

415.3.16.4.2.2 Probing

- (1) The department will measure slip form special units during concrete placement. Upon completion of the project thickness testing, the department will provide the test results to the contractor within 5 business days.
- (2) Department will probe 2 random locations within the special unit. The average of the two readings will be the reported measurement for the special unit.

415.3.16.4.2.3 Preplacement Measurement

- (1) The department will measure non-slip form special units before concrete placement.
- (2) Thickness corrections will be made to a conforming thickness by reshaping the base aggregate before the pavement is placed.

415.5.2 Adjusting Pay for Thickness

Replace the entire text with the following effective with the November 2021 letting:

- (1) The department will adjust pay for pavement thickness under the Nonconforming Thickness Concrete Pavement administrative item as follows:

FOR PAVEMENT THINNER THAN PLAN THICKNESS BY:	PERCENT OF THE CONTRACT UNIT PRICE
> 1/4 inch but <= 1/2 inch	80
> 1/2 inch but <= 3/4 inch	60
> 3/4 inch but <= 1 inch	50

- (2) When pavement of unacceptable final thickness is determined, as specified in 415.3.16.4, the department will direct the contractor to either:
 1. Remove and replace unacceptable concrete pavement to the nearest joint with new concrete pavement of conforming thickness. The department will pay once for the area at the full contract price.
 2. If the unacceptable pavement is less than 100 LF, the department may allow the concrete to remain in place without payment for the unacceptable area.

460.2.6 Recovered Asphaltic Binders

Replace paragraph two with the following effective with the November 2021 letting:

- (2) The contractor may replace virgin binder with recovered binder up to the maximum percentage allowed under 460.2.5 without further testing. When the design percent asphalt binder replaced exceeds the allowable limits in 460.2.5, the contractor must:
 - Document adjustments made to the mix design in the mix design submittal.
 - Submit test results that indicate the mixture's asphaltic binder meets or exceeds the upper and lower temperature grade requirements the bid item designates.
 - If only one recycled asphaltic material source is used, furnish one of the following:
 - Test results from extracted and recovered binder from the resultant mixture.
 - Blending charts that indicate the resultant mixture's high and low temperature PG as an interpolation of the percent binder replaced between the virgin binder's and the recycled asphaltic material source binder's high and low temperature PG.
 - If two or more recycled asphaltic material sources are used, furnish test results from extracted and

recovered binder from the resultant mixture.

501.2.6 Water

Retitle with the following effective with the November 2021 letting:

501.2.6 Mixing Water

501.2.6.2 Requirements

Replace paragraph two with the following effective with the November 2021 letting:

(2) Water from other sources must comply with the following:

Acidity, maximum of 0.1N NaOH to neutralize 200 mL of water; CMM 870: WTP C-001.....	2 mL
Alkalinity, maximum of 0.1N HCL to neutralize 200 mL of water; CMM 870: WTP C-001.....	15 mL
Maximum sulphate (SO ₄); CMM 870: WTP C-001.....	0.05 percent
Maximum chloride; CMM 870: WTP C-001.....	0.10 percent
Maximum total solids; CMM 870: WTP C-001	
Organic.....	0.04 percent
Inorganic.....	0.15 percent

501.3.2.4.2 Air Entrainment

Replace paragraph two with the following effective with the November 2021 letting:

(2) Test fresh concrete air content according to AASHTO T152 or AASHTO TP118 at the contract-required frequency and as the engineer directs. Test concrete placed by pumping or belting at the point of discharge from the pump line or belt.

501.3.7.1 Slump

Replace paragraph one with the following effective with the November 2021 letting:

- (1) Use a 1-inch to 4-inch slump for concrete used in structures or placed in forms, except as follows:
- Do not exceed a slump of 2 inches for grade E concrete.
 - Increase slump as specified in 502.3.5.3 for concrete placed underwater.
 - If BTS approves a concrete mixture using a superplasticizer, the contractor may increase slump for that mixture to a maximum of 9 inches without exceeding the maximum mix water allowed for that grade.

531.5 Payment

Replace paragraph two with the following effective with the November 2021 letting:

(2) Payment for Concrete Masonry Ancillary Structures Type NS is full compensation for providing concrete for non-standard sign structure foundations; and for anchor rod assemblies. The department will pay separately for excavating and backfilling drilled shafts under the Drilling Shafts bid items.

Replace paragraph five with the following effective with the November 2021 letting:

(5) Payment for the Foundation bid items is full compensation for providing concrete foundations; for anchor rod assemblies; for reinforcing steel; and for embedded conduit and electrical components. The department will pay separately for excavating and backfilling drilled shafts under the Drilling Shafts bid items.

642.2.2.1 General

Replace paragraph one with the following effective with the November 2021 letting:

(1) Provide each field office with two rooms, separated by an interior door with a padlock. Ensure that each room has a separate exterior door and its own air conditioner. Locate the office where a quality internet connection can be achieved. Ensure quality cell phone reception is achievable inside the field office.

701.3.1 General

Replace table 701-1 with the following effective with the November 2021 letting:

TABLE 701-1 TESTING AND CERTIFICATION STANDARDS

TEST	TEST STANDARD	MINIMUM REQUIRED CERTIFICATION (any one of the certifications listed for each test)
Random Sampling	CMM 830.9.2	Transportation Materials Sampling Technician (TMS) TMS Assistant Certified Technician (ACT-TMS) Aggregate Technician I (AGGTEC-I) AGGTEC-I Assistant Certified Technician (ACT-AGG) PCC Technician I (PCCTEC-I) PCCTEC-I Assistant Certified Technician (ACT-PCC) Grading Technician I (GRADINGTEC-I) Grading Assistant Certified Technician (ACT-GRADING)
Sampling Aggregates	AASHTO T2 ^[1] ^[4]	TMS, ACT-TMS, AGGTEC-1, ACT-AGG
Percent passing the No. 200 sieve	AASHTO T11 ^[1]	AGGTEC-I, ACT-AGG
Fine & coarse aggregate gradation	AASHTO T27 ^[1]	
Aggregate moisture content	AASHTO T255 ^[1]	
Fractured faces	ASTM D5821 ^[1]	
Liquid limit	AASHTO T89	
Plasticity index	AASHTO T90 ^[3]	Aggregate Testing for Transportation Systems (ATTS) GRADINGTEC-I, or ACT-GRADING
Sampling freshly mixed concrete	AASHTO R60	PCCTEC-1 ACT-PCC
Air content of fresh concrete	AASHTO T152 ^[2] AASHTO TP118 ^[5]	
Air void system of fresh concrete	AASHTO TP118 ^[5]	
Concrete slump	AASHTO T119 ^[2]	
Concrete temperature	ASTM C1064	
Making and curing concrete specimens	AASHTO T23	
Moist curing for concrete specimens	AASHTO M201	
Concrete compressive strength	AASHTO T22	
Concrete flexural strength	AASHTO T97	
Concrete surface resistivity ^[2]	AASHTO T358	
Voids in aggregate	AASHTO T19	Concrete Strength Tester (CST) CST Assistant Certified Technician (ACT-CST)
Profiling	—	PCCTEC-II PROFILER

^[1] As modified in CMM 860.

^[2] As modified in CMM 870.

^[3] A plasticity check, if required under individual QMP specifications, may be performed by an AGGTEC-I in addition to the certifications listed for liquid limit and plasticity index tests.

^[4] Plant personnel may operate equipment to obtain samples under the direct observation of a TMS or higher.

^[5] Consolidate by rodding.

710.2 Small Quantities

Replace the entire text with the following effective with the November 2021 letting:

- (1) The department defines small quantities as follows:
 - As specified in 715.1.1.2 for class I concrete.
 - Less than 50 cubic yards of class II ancillary concrete placed under a single bid item.
- (2) For contracts with only small quantities of material subject to testing, modify the requirements of 710 as follows:
 1. The contractor may submit an abbreviated quality control plan as allowed in 701.1.2.3.
 2. Provide one of the following for aggregate process control:
 - Documented previous testing dated within 120 calendar days. Provide gradation test results to the engineer before placing material.
 - Non-random start-up gradation testing.

710.4 Concrete Mixes

Replace paragraph two with the following effective with the November 2021 letting:

- (2) At least 7 business days before producing concrete, document that materials conform to 501 unless the engineer allows or individual QMP specifications provide otherwise. Include the following:

1. For mixes: quantities per cubic yard expressed as SSD weights and net water, water to cementitious material ratio, air content, and SAM number.
2. For cementitious materials and admixtures: type, brand, and source.
3. For aggregates: absorption, SSD bulk specific gravity, wear, soundness, freeze thaw test results if required, and air correction factor. Also include aggregate production records dated within 2 years if using those results in the design. Submit component aggregate gradations, aggregate proportions, and target combined blended aggregate gradations using the following:
 - DT2220 for combined aggregate gradations.
 - DT2221 for optimized aggregate gradations.
4. For optimized concrete mixtures:
 - Complete the worksheets within DT2221 according to the directions.
 - Ensure the optimized aggregate gradations and the optimized mix design conform to WisDOT specifications and pass the built-in tests within DT2221.
 - Verify slip-form mixture workability according to AASHTO TP137 and conformance to specifications through required trial batching.
 - Submit the completed DT2221 to the engineer electronically. Include the trial batch test results with the mix design submittal.

Replace paragraph four with the following effective with the November 2021 letting:

- (4) Prepare and submit modifications to a concrete mix to the engineer for approval 3 business days before using that modified mix. Modifications requiring the engineer's approval include changes in:
 1. Source of any material. For paving and barrier mixes, a source change for fly ash of the same class does not constitute a mix design change.
 2. Quantities of cementitious materials.
 3. Addition or deletion of admixtures. Minor admixture dosage adjustments required to maintain air content or slump do not require engineer review or approval.

710.5.5 Strength

Replace paragraph one with the following effective with the November 2021 letting:

- (1) Cast all 6" x 12" cylinders or all 6" x 6" x 21" beams in a set from the same sample. Do not cast more than one set of specimens from a single truckload of concrete. Mark each specimen to identify the lot and subplot or location on the project it represents.

710.5.6 Aggregate Testing

Retitle and replace the entire text with the following effective with the November 2021 letting:

710.5.6 Aggregate Testing During Concrete Production

710.5.6.1 General

- (1) The department will accept gradation based on the results of department-performed acceptance testing.
- (2) The department and contractor will obtain samples using the same method. When belt sampling, contractor personnel shall obtain samples for the department under the direct observation of the department personnel. Contractor will define sampling method in the QMP or abbreviated QMP.

710.5.6.2 Contractor Control Charts

710.5.6.2.1 General

- (1) Test aggregate gradations during concrete production except as allowed for small quantities under 710.2. Required contractor testing will be performed using non-random samples.
- (2) Sample aggregates from either the conveyor belt or from the working face of the stockpiles.
- (3) Sample aggregates within 2 business days before placement for each mix design. Include this gradation on the control charts.
- (4) Report gradation test results and provide control charts to the engineer within 1 business day of obtaining the sample. Submit results to the engineer and electronically into MRS as specified in 701.1.2.7.
- (5) Conduct aggregate testing at the minimum frequency shown based on the anticipated daily cumulative plant production for each mix design. The contractor's concrete production tests can be used for the same mix design on multiple contracts.

TABLE 710-1 CONTRACTOR GRADATION TESTING FREQUENCY - CLASS I

DAILY PLANT PRODUCTION RATE FOR WisDOT WORK	MINIMUM FREQUENCY
Gradation Report Before Placement	
1000 cubic yards or less	one test per day
more than 1000 cubic yards	two tests per day

TABLE 710-2 CONTRACTOR GRADATION TESTING FREQUENCY - CLASS II

MINIMUM FREQUENCY
Gradation Report Before Placement
One test per calendar week of production

710.5.6.2.2 Optimized Aggregate Gradation Control Charts

- (1) Determine the complete gradation using a washed analysis for both fine and coarse aggregates. Report results for the following:
 - 1 1/2", 1", 3/4", 1/2", 3/8", #4, #8, #16, #30, #50, #100, and #200 sieves.
 - Sum of volumetric percentages retained on No. 8, No. 16, and No. 30 sieves.
 - Sum of volumetric percentages retained on No. 30, No. 50, No. 100, and No. 200 sieves.
- (2) Calculate blended aggregate gradations using the mix design batch percentages for the component aggregates. Ensure the blended aggregate gradation conforms to the volumetric percent retained of the optimized aggregate gradation limits specified in table 501-4.
- (3) Throughout the contract, construct a 4-point running average of the volumetric percent retained for each sieve to determine if the blended aggregate gradation is within the tarantula curve limits specified in table 501-4.

710.5.6.2.3 Combined Aggregate Gradation Control Charts

- (1) Determine the complete gradation using a washed analysis for both fine and coarse aggregates. Report results for the 1 1/2", 1", 3/4", 1/2", 3/8", #4, #8, #16, #30, #50, #100, and #200 sieves.
- (2) Calculate blended aggregate gradations using the mix design batch percentages for the component aggregates. Ensure the blended aggregate gradation conforms to the percent passing by weight requirements of the combined aggregate gradation limits specified in table 501-4.
- (3) Throughout the contract, construct a 4-point running average of the percent passing by weight for each sieve to determine if the blended aggregate gradation is within the combined aggregate gradation limits specified in table 501-4.

710.5.6.3 Department Acceptance Testing

- (1) Department testing frequency is based on the quantity of each mix design placed under each individual WisDOT contract.
- (2) The department will split each sample, test for acceptance, and retain the remainder for a minimum of 10 calendar days.
- (3) The department will obtain the sample and deliver to regional testing lab in the same day. Department will report gradation test results to the contractor within 1 business day of being delivered to the lab. Department and contractor can agree to an alternative test result reporting timeframe; alternative timeframe is required to be documented in the QMP.
- (4) Additional samples may be taken at the engineer's discretion due to change in condition.

TABLE 710-3 DEPARTMENT GRADATION TESTING FREQUENCY

CONCRETE CLASSIFICATION	MINIMUM DEPARTMENT FREQUENCY
Class I: Pavement	1 test per placement day for first 5 days of placement. If all samples are passing, reduced frequency is applied.
	Reduced frequency: 1 test per calendar week of placement
Class I: Structures	1 test per 250 CY placed <ul style="list-style-type: none"> - Minimum of 1 test per substructure - Minimum of 1 test per superstructure

Class I: Cast-in-Place Barrier	1 test per 500 CY placed
Class II	No minimum testing

710.5.7 Corrective Action

Replace the entire text with the following effective with the November 2021 letting:

710.5.7.1 Optimized Aggregate Gradations

- (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, do the following:
 1. Notify the other party immediately.
 2. Perform corrective action documented in the QC plan or as the engineer approves.
 3. Document and provide corrective action results to the engineer as soon as they are available.
 4. Department will conduct two tests within the next business day after corrective action is complete.
 5. If blended aggregate gradations are within the tarantula curve limits by the second department test:
 - Continue with concrete production.
 - Contractor will include a break in the 4-point running average.
 - For Class I: Pavements, 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.
 6. If blended aggregate gradations are not within the tarantula curve limits by the second department test:
 - Provide a new mix design with an increased cementitious content.
 - If the mix design already has a cementitious content of 565 or more pounds per cubic yard, provide a new mix design.
 - If the contract requires optimized aggregate gradations under 501.2.7.4.2.1(2), stop concrete production and submit a new mix design.
- (2) If the contractor's 4-point running average or a department test result of the volumetric percent retained exceeds the tarantula curve limits by more than 1.0 percent on one or more sieves, stop concrete production and submit a new mix design.
- (3) Department and contractor will sample and test aggregate of the new mix design at the frequency defined in 710.5.6.1.

710.5.7.2 Combined Aggregate Gradations

- (1) If the contractor's 4-point running average or a department test result of the percent passing by weight exceeds the combined aggregate gradation limits by less than or equal to 1.0 percent on a single sieve size, do the following:
 1. Notify the other party immediately.
 2. Perform corrective action documented in the QC plan or as the engineer approves.
 3. Document and provide corrective action results to the engineer as soon as they are available.
 4. Department will conduct two tests within the next business day after corrective action is complete.
 5. If blended aggregate gradations are within the combined aggregate gradation limits by the second department test:
 - Continue with concrete production.
 - Contractor will include a break in the 4-point running average.
 - For Class I: Pavements, 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.
 6. If blended aggregate gradations are not within the combined aggregate gradation limits by the second department test, stop concrete production and submit a new mix design.
- (2) If the contractor's 4-point running average or a department test result of the percent passing by weight exceeds the combined aggregate gradation limits by more than 1.0 percent on one or more sieves, stop concrete production and submit a new mix design.
- (3) Department and contractor will sample and test aggregate of the new mix design at the frequency defined in 710.5.6.1.

715.3.1.1 General

Replace paragraphs three and four with the following effective with the November 2021 letting:

- (3) Cast a set of 3 additional 6"x12" cylinders and test the concrete surface resistivity according to AASHTO T358. Perform this testing at least once per lot if total contract quantities are greater than or equal to the following:

- 20,000 square yards for pavements.
- 5,000 linear feet for barriers.
- 500 cubic yards for structure concrete.

Submit the resistivity to the nearest tenth into MRS for information only. Resistivity testing is not required for the following:

- Lot with less than 3 sublots.
 - Concrete items classified as ancillary.
 - Concrete placed under the following bid items:
 - Concrete Pavement Approach Slab
 - Concrete Masonry Culverts
 - Concrete Masonry Retaining Walls
- (4) Test the air void system at least once per lot and enter the SAM number in MRS for information only. SAM testing is not required for the following:
- For lots with less than 3 sublots.
 - High early strength (HES) concrete.
 - Special high early strength (SHES) concrete.
 - Concrete placed under the following bid items:
 - Concrete Pavement Approach Slab
 - Concrete Masonry Culverts
 - Concrete Masonry Retaining Walls
 - Steel Grid Floor Concrete Filled
 - Crash Cushions Permanent
 - Crash Cushions Permanent Low Maintenance
 - Crash Cushions Temporary

715.3.1.2.3 Lots by Cubic Yard

Replace the entire text with the following effective with the November 2021 letting:

- (1) Define standard lots and sublots conforming to the following:

TABLE 715-1 CLASS I - LOT AND SUBLOT SIZES

CONCRETE CLASSIFICATION	LOT SIZE	SUBLOT SIZE	NUMBER OF SUBLOTS PER LOT
Class I: Pavement	1250 cubic yards	250 cubic yards	5
Class I: Structures	250 cubic yards	50 cubic yards	5
Class I: Cast-in-Place Barrier	500 cubic yards	100 cubic yards	5

- (2) The contractor may include sublots less than or equal to 25 percent of the standard volume in the previous subplot. For partial sublots exceeding 25 percent of the standard volume, notify the engineer who will direct additional testing to represent that partial subplot.
- (3) An undersized lot is eligible for incentive payment under 715.5 if the lot has 3 or more sublots for that lot.

715.3.2 Strength Evaluation

Replace the entire text with the following effective with the November 2021 letting:

715.3.2.1 General

- (1) The department will make pay adjustments for strength on a lot-by-lot basis using the compressive strength of contractor QC cylinders or the flexural strength of contractor QC beams.

-
- (2) Randomly select 2 QC specimens to test at 28 days for percent within limits (PWL). Compare the strengths of the 2 randomly selected QC specimens and determine the 28-day subplot average strength as follows:
- If the lower strength divided by the higher strength is 0.9 or more, average the 2 QC specimens.
 - If the lower strength divided by the higher strength is less than 0.9, break one additional specimen and average the 2 higher strength specimens.

715.3.2.2 Removal and Replacement

715.3.2.2.1 Pavement

- (1) If a subplot strength is less than 2500 psi in compressive strength or 500 psi in flexural strength, the department may direct the contractor to core that subplot to determine its structural adequacy and whether to direct removal.
- (2) If the engineer directs coring, obtain three cores from the subplot in question. Have an HTCP-certified PCC technician I perform or observe core sampling according to AASHTO T24.
- (3) Have an independent consultant test cores according to AASHTO T24.
- (4) The department will assess concrete for removal and replacement based on a subplot-by-subplot analysis of core strength. Perform coring and testing, fill core holes with an engineer-approved non-shrink grout or concrete, and provide traffic control during coring.
- (5) The subplot pavement is conforming if the compressive strengths of all cores from the subplot are 2500 psi or greater.
- (6) The subplot pavement is nonconforming if the compressive strengths of any core from the subplot is less than 2500 psi. The department may direct removal and replacement or otherwise determine the final disposition of nonconforming material as specified in 106.5.

715.3.2.2.2 Structures and Cast-in-Place Barrier

- (1) The department will evaluate the subplot for possible removal and replacement if the 28-day subplot average compressive strength is lower than $f'c$ minus 500 psi. The value of $f'c$ is the design stress the plans show. The department may assess further strength price reductions or require removal and replacement only after coring the subplot.
- (2) The engineer may initially evaluate the subplot strength using a non-destructive method. Based on the results of non-destructive testing, the department may accept the subplot at the previously determined pay for the lot, or direct the contractor to core the subplot.
- (3) If the engineer directs coring, obtain three cores from the subplot in question. Have an HTCP-certified PCC technician I perform or observe core sampling according to AASHTO T24. Determine core locations, subject to the engineer's approval, that do not interfere with structural steel.
- (4) Have an independent consultant test cores according to AASHTO T24.
- (5) The department will assess concrete for removal and replacement based on a subplot-by-subplot analysis of core strength. Perform coring and testing, fill core holes with an engineer-approved non-shrink grout or concrete, and provide traffic control during coring.
- (6) If the 3-core average is greater than or equal to 85 percent of $f'c$, and no individual core is less than 75 percent of $f'c$, the engineer will accept the subplot at the previously determined pay for the lot. If the 3-core average is less than 85 percent of $f'c$, or an individual core is less than 75 percent of $f'c$, the engineer may require the contractor to remove and replace the subplot. The department may direct removal and replacement or otherwise determine the final disposition of nonconforming material as specified in 106.5.

715.3.3 Aggregate

Replace the entire text with the following effective with the November 2021 letting:

715.3.3.1 General

- (1) Except as allowed for small quantities in 710.2, test aggregate conforming to 710.5.6.

715.3.3.2 Structures

- (1) In addition to the aggregate testing required under 710.5.6, determine the fine and coarse aggregate moisture content for each sample.
- (2) Calculate target batch weights for each mix when production of that mix begins. Whenever the moisture content of the fine or coarse aggregate changes by more than 0.5 percent, adjust the batch weights to maintain the design w/cm ratio.

715.5 Payment

Replace the entire text with the following effective with the November 2021 letting:

715.5.1 General

- (1) The department will pay incentive for compressive 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 pay factor that is calculated from the equations in 715.5.2(2) and 715.5.3(2) will be applied to the unit costs listed below:
- Pavement: \$45 per SY.
 - Structure: \$635 per CY.
 - Cast-in-place barrier: \$75 per LF.
- (5) 28-day strength average for a lot is the average of the individual subplot strengths within the given lot.
- (6) 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.
- (7) Submit test results to the department electronically using MRS software. The department will validate contractor data before determining pay adjustments.
- (8) 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 Compressive Strength

- (1) The department will measure PWL relative to strength lower specification limits as follows:
- Compressive strength of 3700 psi for pavements.
 - Compressive strength of 4000 psi for structures and cast-in-place barrier.

- (2) The department will adjust pay for each lot using equation "Comp2022" as follows:

Percent within Limits (PWL)	Pay Factor (%)
>= 90 to 100	$(1/5 \times \text{PWL}) + 82$
>= 85 to < 90	100
>= 50 to < 85	$(5/7 \times \text{PWL}) + (275/7)$
< 50	50 ^[1]

^[1] Any material resulting in a lot PWL value less than 50 will be evaluated according to 715.3.2. In the event the material remains in place, it will be paid at 50 percent of the contract unit price of the concrete bid item.

- (3) The department will not pay incentive if the lot standard deviation is greater than the following:
- 400 psi for pavement.
 - 350 psi for structure and cast-in-place barrier
- (4) For lots with less than 3 sublots, there is no incentive but the department will reduce pay by 50 percent of the contract unit price for sublots with an average compressive strength below the following:
- 3700 psi for pavements.
 - 4000 psi for structures and cast-in-place barrier.

715.5.3 Flexural Strength

- (1) The department will measure PWL relative to strength lower specification limits as follows:
- Flexural strength of 650 psi for pavements.

- (2) The department will adjust pay for each lot using equation "Flex2022" as follows:

Percent within Limits (PWL)	Pay Factor (%)
>= 90 to 100	$(2/5 \times \text{PWL}) + 64$
>= 85 to < 90	100

>= 50 to < 85
< 50

$(5/7 \times \text{PWL}) + (275/7)$
 $50^{[1]}$

^[1] Material resulting in a lot PWL value less than 50 will be evaluated according to 715.3.2. In the event the material remains in place, it will be paid at 50 percent of the contract unit price of the concrete bid item.

- (3) The department will not pay incentive if the lot standard deviation is greater than 60 psi.
 - (4) For lots with less than 3 sublots, there is no incentive but the department will reduce pay by 50 percent of the contract unit price for sublots with an average flexural strength below 650 psi.
-

ERRATA

460.2.2.3 Aggregate Gradation Master Range**Correct errata by adding US Standard equivalent sieve sizes.**

- (1) Ensure that the aggregate blend, including recycled material and mineral filler, conforms to the gradation requirements in table 460-1. The values listed are design limits; production values may exceed those limits.

TABLE 460-1 AGGREGATE GRADATION MASTER RANGE AND VMA REQUIREMENTS

SIEVE	PERCENT PASSING DESIGNATED SIEVES							
	NOMINAL SIZE							
	No. 1 (37.5 mm) (1 1/2 inch)	No. 2 (25.0 mm) (1 inch)	No.3 (19.0 mm) (3/4 inch)	No. 4 (12.5 mm) (1/2 inch)	No. 5 (9.5 mm) (3/8 inch)	No. 6 (4.75 mm) (3/16 inch)	SMA No. 4 (12.5 mm) (1/2 inch)	SMA No. 5 (9.5 mm) (3/8 inch)
50.0-mm (2-inch)	100							
37.5-mm (1 1/2-inch)	90 - 100	100						
25.0-mm (1-inch)	90 max	90 - 100	100					
19.0-mm (3/4-inch)	—	90 max	90 - 100	100			100	
12.5-mm (1/2-inch)	—	—	90 max	90 - 100	100		90 - 97	100
9.5-mm (3/8-inch)	—	—	—	90 max	90 - 100	100	58 - 80	90 - 100
4.75-mm (No. 4)	—	—	—	—	90 max	90 - 100	25 - 35	35 - 45
2.36-mm (No. 8)	15 - 41	19 - 45	23 - 49	28 - 58	32 - 67	90 max	15 - 25	18 - 28
1.18-mm (No. 16)	—	—	—	—	—	30 - 55	—	—
0.60-mm (No. 30)	—	—	—	—	—	—	18 max	18 max
0.075-mm (No. 200)	0 - 6.0	1.0 - 7.0	2.0 - 8.0	2.0 - 10.0	2.0 - 10.0	6.0 - 13.0	8.0 - 11.0	8.0 - 12.0
% VMA	11.0 min	12.0 min	13.0 min	14.0 min ^[1]	15.0 min ^[2]	16.0 - 17.5	16.0 min	17.0 min

^[1] 14.5 for LT and MT mixes.

^[2] 15.5 for LT and MT mixes.

715.5.1 GeneralCorrect the bid item number for Incentive Compressive Strength Concrete Pavement.

- (1) The department will pay incentive for compressive 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

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. 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).
 6. All agreements made by a contractor shall include the provisions in A(1), (2), (3), (4) and (5), and shall be binding on all first tier subcontractor relationships and all contractors and subcontractors utilizing DBE firms on the project.
- 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://wisconsin.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).

Effective November 2020 letting

BUY AMERICA PROVISION

All steel and iron materials permanently incorporated in this project shall be domestic products and all manufacturing and coating processes for these materials 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 this 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. The contractor shall take actions and provide documentation conforming to CMM 2-28.5 to ensure compliance with this "Buy America" provision.

<https://wisconsindot.gov/rdwy/cmm/cm-02-28.pdf>

Upon completion of the project certify to the engineer, in writing using department form DT4567, that all steel, iron, and coating processes for steel or iron incorporated into the contract work conform to these "Buy America" provisions. Attach a list of exemptions and their associated costs to the certification form. Department form DT4567 is available at:

<https://wisconsindot.gov/Documents/formdocs/dt4567.docx>



Proposal Schedule of Items

Proposal ID: 20220208002 Project(s): 1016-05-70

Federal ID(s): 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	108.3100.S Incentive/Disincentive for Interim Completion of Work 01.	20.000 CD	20,000.00000	400,000.00
0004	108.3100.S Incentive/Disincentive for Interim Completion of Work 02.	1.000 CD	200,000.00000	200,000.00
0006	108.4300 RBC Progress Schedule	1.000 EACH	_____.	_____.
0008	108.4400 CPM Progress Schedule	1.000 EACH	_____.	_____.
0010	201.0105 Clearing	95.000 STA	_____.	_____.
0012	201.0205 Grubbing	95.000 STA	_____.	_____.
0014	203.0100 Removing Small Pipe Culverts	10.000 EACH	_____.	_____.
0016	203.0220 Removing Structure (structure) 01. B-29-34	1.000 EACH	_____.	_____.
0018	203.0220 Removing Structure (structure) 02. B-29-35	1.000 EACH	_____.	_____.
0020	203.0220 Removing Structure (structure) 03. B-29-36	1.000 EACH	_____.	_____.
0022	203.0220 Removing Structure (structure) 04. B-29-37	1.000 EACH	_____.	_____.
0024	203.0260 Removing Structure Over Waterway Minimal Debris (structure) 01. B-29-32	1.000 EACH	_____.	_____.
0026	203.0260 Removing Structure Over Waterway Minimal Debris (structure) 02. Temporary Bridge 1013+00T	1.000 EACH	_____.	_____.
0028	203.0260 Removing Structure Over Waterway Minimal Debris (structure) 03. B-29-33	1.000 EACH	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20220208002 Project(s): 1016-05-70

Federal ID(s): 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
0030	204.0100 Removing Concrete Pavement	54,716.000 SY	_____.	_____.
0032	204.0110 Removing Asphaltic Surface	4,573.000 SY	_____.	_____.
0034	204.0115 Removing Asphaltic Surface Butt Joints	246.000 SY	_____.	_____.
0036	204.0120 Removing Asphaltic Surface Milling	11,659.000 SY	_____.	_____.
0038	204.0150 Removing Curb & Gutter	4,657.000 LF	_____.	_____.
0040	204.0155 Removing Concrete Sidewalk	3,939.000 SY	_____.	_____.
0042	204.0165 Removing Guardrail	9,607.000 LF	_____.	_____.
0044	204.0170 Removing Fence	3,943.000 LF	_____.	_____.
0046	204.0180 Removing Delineators and Markers	69.000 EACH	_____.	_____.
0048	204.0210 Removing Manholes	1.000 EACH	_____.	_____.
0050	204.0220 Removing Inlets	69.000 EACH	_____.	_____.
0052	204.0245 Removing Storm Sewer (size) 01. 8-Inch	58.000 LF	_____.	_____.
0054	204.0245 Removing Storm Sewer (size) 02. 12-Inch	3,179.000 LF	_____.	_____.
0056	204.0245 Removing Storm Sewer (size) 03. 15-Inch	2,740.000 LF	_____.	_____.
0058	204.0245 Removing Storm Sewer (size) 04. 18-Inch	1,847.000 LF	_____.	_____.
0060	204.0245 Removing Storm Sewer (size) 05. 24-Inch	8.000 LF	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20220208002 Project(s): 1016-05-70

Federal ID(s): 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	204.0270 Abandoning Culvert Pipes	5.000 EACH	_____.	_____.
0064	204.9060.S Removing (item description) 01. Removing Cover Plates Left In Place	1.000 EACH	_____.	_____.
0066	204.9060.S Removing (item description) 02. Removing Endwall	14.000 EACH	_____.	_____.
0068	204.9060.S Removing (item description) 03. Temporary Structure Station 952+00T	1.000 EACH	_____.	_____.
0070	204.9060.S Removing (item description) 04. Temporary Structure Station 983+00T	1.000 EACH	_____.	_____.
0072	204.9090.S Removing (item description) 01. Drain Slotted Vane Longitudinal	4,216.000 LF	_____.	_____.
0074	205.0100 Excavation Common	136,955.000 CY	_____.	_____.
0076	205.0400 Excavation Marsh	220.000 CY	_____.	_____.
0078	206.1000 Excavation for Structures Bridges (structure) 01. B-29-152	LS	LUMP SUM	_____.
0080	206.1000 Excavation for Structures Bridges (structure) 02. B-29-153	LS	LUMP SUM	_____.
0082	206.1000 Excavation for Structures Bridges (structure) 03. B-29-154	LS	LUMP SUM	_____.
0084	206.1000 Excavation for Structures Bridges (structure) 04. B-29-155	LS	LUMP SUM	_____.
0086	206.1000 Excavation for Structures Bridges (structure) 05. B-29-157	LS	LUMP SUM	_____.
0088	206.1000 Excavation for Structures Bridges (structure) 06. B-29-36	LS	LUMP SUM	_____.



Proposal Schedule of Items

Proposal ID: 20220208002 Project(s): 1016-05-70

Federal ID(s): 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
0090	206.5000 Cofferdams (structure) 01. B-29-152	LS	LUMP SUM	_____.
0092	206.5000 Cofferdams (structure) 02. B-29-153	LS	LUMP SUM	_____.
0094	208.1100 Select Borrow	46,923.000 CY	_____.	_____.
0096	208.1500.S Temporary Lane Shift During Culvert Work	1.000 EACH	_____.	_____.
0098	210.1500 Backfill Structure Type A	2,584.000 TON	_____.	_____.
0100	211.0100 Prepare Foundation for Asphaltic Paving (project) 01. 1016-05-70	LS	LUMP SUM	_____.
0102	211.0200 Prepare Foundation for Concrete Pavement (project) 01. 1016-05-70	LS	LUMP SUM	_____.
0104	211.0400 Prepare Foundation for Asphaltic Shoulders	3,830.000 STA	_____.	_____.
0106	213.0100 Finishing Roadway (project) 01. 1016-05-70	1.000 EACH	_____.	_____.
0108	305.0110 Base Aggregate Dense 3/4-Inch	11,264.000 TON	_____.	_____.
0110	305.0120 Base Aggregate Dense 1 1/4-Inch	100,187.000 TON	_____.	_____.
0112	312.0110 Select Crushed Material	456.000 TON	_____.	_____.
0114	390.0203 Base Patching Asphaltic	2,656.000 SY	_____.	_____.
0116	405.0100 Coloring Concrete WisDOT Red	647.000 CY	_____.	_____.
0118	415.0115 Concrete Pavement 11 1/2-Inch	24,746.000 SY	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20220208002 Project(s): 1016-05-70

Federal ID(s): 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
0120	415.0125 Concrete Pavement 12 1/2-Inch	52,368.000 SY	_____.	_____.
0122	415.0210 Concrete Pavement Gaps	10.000 EACH	_____.	_____.
0124	415.0410 Concrete Pavement Approach Slab	1,289.000 SY	_____.	_____.
0126	415.1115 Concrete Pavement HES 11 1/2-Inch	2,011.000 SY	_____.	_____.
0128	415.1125 Concrete Pavement HES 12 1/2-Inch	5,237.000 SY	_____.	_____.
0130	415.6000.S Rout and Seal	40,039.000 LF	_____.	_____.
0132	416.0512 Concrete Truck Apron 12-Inch	2,096.000 SY	_____.	_____.
0134	416.0610 Drilled Tie Bars	144.000 EACH	_____.	_____.
0136	416.0620 Drilled Dowel Bars	201.000 EACH	_____.	_____.
0138	416.1010 Concrete Surface Drains	12.000 CY	_____.	_____.
0140	416.1110 Concrete Shoulder Rumble Strips	14,119.000 LF	_____.	_____.
0142	450.4000 HMA Cold Weather Paving	341.000 TON	_____.	_____.
0144	455.0605 Tack Coat	1,424.000 GAL	_____.	_____.
0146	460.0115.S HMA Pavement Test Strips Volumetrics	1.000 EACH	_____.	_____.
0148	460.0120.S HMA Pavement Test Strips Density	1.000 EACH	_____.	_____.
0150	460.2000 Incentive Density HMA Pavement	10,670.000 DOL	1.00000	10,670.00
0152	460.5224 HMA Pavement 4 LT 58-28 S	3,944.000 TON	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20220208002 Project(s): 1016-05-70

Federal ID(s): 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
0154	460.6223 HMA Pavement 3 MT 58-28 S	58.000 TON	_____.	_____.
0156	460.6224 HMA Pavement 4 MT 58-28 S	45.000 TON	_____.	_____.
0158	460.7223 HMA Pavement 3 HT 58-28 S	7,739.000 TON	_____.	_____.
0160	460.7423 HMA Pavement 3 HT 58-28 H	4,970.000 TON	_____.	_____.
0162	460.7424 HMA Pavement 4 HT 58-28 H	1,089.000 TON	_____.	_____.
0164	460.8624 HMA Pavement 4 SMA 58-28 V	180.000 TON	_____.	_____.
0166	460.9000.S Material Transfer Vehicle 01. 1016-05-70	1.000 EACH	_____.	_____.
0168	465.0105 Asphaltic Surface	431.000 TON	_____.	_____.
0170	465.0120 Asphaltic Surface Driveways and Field Entrances	169.000 TON	_____.	_____.
0172	465.0310 Asphaltic Curb	66.000 LF	_____.	_____.
0174	465.0315 Asphaltic Flumes	81.000 SY	_____.	_____.
0176	465.0400 Asphaltic Shoulder Rumble Strips	15,925.000 LF	_____.	_____.
0178	501.1000.S Ice Hot Weather Concreting 01. 1016-05-70	15,405.000 LB	_____.	_____.
0180	502.0100 Concrete Masonry Bridges	5,197.000 CY	_____.	_____.
0182	502.1100 Concrete Masonry Seal	180.000 CY	_____.	_____.
0184	502.3101 Expansion Device	108.000 LF	_____.	_____.



Proposal Schedule of Items

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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0186	502.3200 Protective Surface Treatment	8,329.000 SY	_____.	_____.
0188	502.3210 Pigmented Surface Sealer	1,317.000 SY	_____.	_____.
0190	502.4205 Adhesive Anchors No. 5 Bar	104.000 EACH	_____.	_____.
0192	503.0137 Prestressed Girder Type I 36W-Inch	3,465.000 LF	_____.	_____.
0194	503.0146 Prestressed Girder Type I 45W-Inch	2,896.000 LF	_____.	_____.
0196	505.0400 Bar Steel Reinforcement HS Structures	89,960.000 LB	_____.	_____.
0198	505.0600 Bar Steel Reinforcement HS Coated Structures	758,920.000 LB	_____.	_____.
0200	505.0800.S Bar Steel Reinforcement HS Stainless Structures	10,200.000 LB	_____.	_____.
0202	506.2605 Bearing Pads Elastomeric Non-Laminated	164.000 EACH	_____.	_____.
0204	506.4000 Steel Diaphragms (structure) 01. B-29-152	15.000 EACH	_____.	_____.
0206	506.4000 Steel Diaphragms (structure) 02. B-29-153	15.000 EACH	_____.	_____.
0208	506.4000 Steel Diaphragms (structure) 03. B-29-154	24.000 EACH	_____.	_____.
0210	506.4000 Steel Diaphragms (structure) 04. B-29-155	24.000 EACH	_____.	_____.
0212	506.4000 Steel Diaphragms (structure) 05. B-29-157	15.000 EACH	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0214	506.5000 Bearing Assemblies Fixed (structure) 01. B-29-36	2.000 EACH	_____.	_____.
0216	506.6000 Bearing Assemblies Expansion (structure) 01. B-29-36	5.000 EACH	_____.	_____.
0218	506.7050.S Removing Bearings (structure) 01. B-29-36	7.000 EACH	_____.	_____.
0220	509.0301 Preparation Decks Type 1	8.000 SY	_____.	_____.
0222	509.0302 Preparation Decks Type 2	4.000 SY	_____.	_____.
0224	509.0500 Cleaning Decks	603.000 SY	_____.	_____.
0226	509.1000 Joint Repair	59.000 SY	_____.	_____.
0228	509.1500 Concrete Surface Repair	214.000 SF	_____.	_____.
0230	509.2000 Full-Depth Deck Repair	1.000 SY	_____.	_____.
0232	509.2500 Concrete Masonry Overlay Decks	36.000 CY	_____.	_____.
0234	511.1200 Temporary Shoring (structure) 01. B-29-152	750.000 SF	_____.	_____.
0236	511.1200 Temporary Shoring (structure) 02. B-29-153	750.000 SF	_____.	_____.
0238	511.1200 Temporary Shoring (structure) 03. B-29-154	815.000 SF	_____.	_____.
0240	511.1200 Temporary Shoring (structure) 04. B-29-155	815.000 SF	_____.	_____.
0242	511.1200 Temporary Shoring (structure) 05. B-29-157	480.000 SF	_____.	_____.



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0244	516.0500 Rubberized Membrane Waterproofing	174.000 SY	_____.	_____.
0246	517.3001.S Structure Overcoating Cleaning and Priming (structure) 01. B-29-36	1.000 EACH	_____.	_____.
0248	520.2018 Culvert Pipe Temporary 18-Inch	116.000 LF	_____.	_____.
0250	520.8000 Concrete Collars for Pipe	39.000 EACH	_____.	_____.
0252	521.1012 Apron Endwalls for Culvert Pipe Steel 12-Inch	5.000 EACH	_____.	_____.
0254	521.1018 Apron Endwalls for Culvert Pipe Steel 18-Inch	3.000 EACH	_____.	_____.
0256	521.1518 Apron Endwalls for Culvert Pipe Sloped Side Drains Steel 18-Inch 6 to 1	8.000 EACH	_____.	_____.
0258	521.1521 Apron Endwalls for Culvert Pipe Sloped Side Drains Steel 21-Inch 6 to 1	1.000 EACH	_____.	_____.
0260	521.1524 Apron Endwalls for Culvert Pipe Sloped Side Drains Steel 24-Inch 6 to 1	5.000 EACH	_____.	_____.
0262	521.3118 Culvert Pipe Corrugated Steel 18-Inch	16.000 LF	_____.	_____.
0264	522.0130 Culvert Pipe Reinforced Concrete Class III 30-Inch	54.000 LF	_____.	_____.
0266	522.0136 Culvert Pipe Reinforced Concrete Class III 36-Inch	14.000 LF	_____.	_____.
0268	522.0148 Culvert Pipe Reinforced Concrete Class III 48-Inch	10.000 LF	_____.	_____.
0270	522.0412 Culvert Pipe Reinforced Concrete Class IV 12-Inch	96.000 LF	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0272	522.0418 Culvert Pipe Reinforced Concrete Class IV 18-Inch	10.000 LF	_____.	_____.
0274	522.0424 Culvert Pipe Reinforced Concrete Class IV 24-Inch	484.000 LF	_____.	_____.
0276	522.1012 Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	7.000 EACH	_____.	_____.
0278	522.1018 Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	4.000 EACH	_____.	_____.
0280	522.1024 Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	21.000 EACH	_____.	_____.
0282	522.1030 Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	7.000 EACH	_____.	_____.
0284	522.1036 Apron Endwalls for Culvert Pipe Reinforced Concrete 36-Inch	1.000 EACH	_____.	_____.
0286	522.1048 Apron Endwalls for Culvert Pipe Reinforced Concrete 48-Inch	2.000 EACH	_____.	_____.
0288	522.2624 Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 24x38-Inch	4.000 EACH	_____.	_____.
0290	530.0112 Culvert Pipe Corrugated Polyethylene 12-Inch	243.000 LF	_____.	_____.
0292	530.0118 Culvert Pipe Corrugated Polyethylene 18-Inch	159.000 LF	_____.	_____.
0294	531.1100 Concrete Masonry Ancillary Structures Type NS	8.800 CY	_____.	_____.
0296	531.1140 Steel Reinforcement HS Ancillary Structures Type NS	1,160.000 LB	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0298	531.2036 Drilling Shaft 36-Inch	90.000 LF	_____.	_____.
0300	531.4050 Foundation Camera Pole 50-FT	1.000 EACH	_____.	_____.
0302	531.5420 Foundation Single-Shaft Type TF-II (structure) 01. S-29-0011	2.000 EACH	_____.	_____.
0304	531.5420 Foundation Single-Shaft Type TF-II (structure) 02. S-29-0012	2.000 EACH	_____.	_____.
0306	532.5420 Truss Full Span 2-Chord Type II (structure) 01. S-29-0011	1.000 EACH	_____.	_____.
0308	532.5420 Truss Full Span 2-Chord Type II (structure) 02. S-29-0012	1.000 EACH	_____.	_____.
0310	550.0010 Pre-Boring Unconsolidated Materials	960.000 LF	_____.	_____.
0312	550.0500 Pile Points	98.000 EACH	_____.	_____.
0314	550.1100 Piling Steel HP 10-Inch X 42 Lb	600.000 LF	_____.	_____.
0316	550.1120 Piling Steel HP 12-Inch X 53 Lb	13,825.000 LF	_____.	_____.
0318	601.0405 Concrete Curb & Gutter 18-Inch Type A	479.000 LF	_____.	_____.
0320	601.0409 Concrete Curb & Gutter 30-Inch Type A	7,826.000 LF	_____.	_____.
0322	601.0411 Concrete Curb & Gutter 30-Inch Type D	274.000 LF	_____.	_____.
0324	601.0551 Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type A	2,306.000 LF	_____.	_____.
0326	601.0553 Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type D	620.000 LF	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0328	601.0580 Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type R	767.000 LF	_____.	_____.
0330	601.0588 Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type TBT	550.000 LF	_____.	_____.
0332	601.0600 Concrete Curb Pedestrian	187.000 LF	_____.	_____.
0334	602.0405 Concrete Sidewalk 4-Inch	72,621.000 SF	_____.	_____.
0336	602.0515 Curb Ramp Detectable Warning Field Natural Patina	470.000 SF	_____.	_____.
0338	602.0615 Curb Ramp Detectable Warning Field Radial Natural Patina	10.000 SF	_____.	_____.
0340	603.8000 Concrete Barrier Temporary Precast Delivered	44,177.000 LF	_____.	_____.
0342	603.8125 Concrete Barrier Temporary Precast Installed	70,382.000 LF	_____.	_____.
0344	603.8500 Anchoring Concrete Barrier Temporary Precast	28,509.000 LF	_____.	_____.
0346	604.0400 Slope Paving Concrete	1,776.000 SY	_____.	_____.
0348	606.0200 Riprap Medium	104.000 CY	_____.	_____.
0350	606.0300 Riprap Heavy	1,361.000 CY	_____.	_____.
0352	608.0330 Storm Sewer Pipe Reinforced Concrete Class III 30-Inch	26.000 LF	_____.	_____.
0354	608.0412 Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	730.000 LF	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0356	608.0415 Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch	20.000 LF	_____.	_____.
0358	608.0418 Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	610.000 LF	_____.	_____.
0360	608.0424 Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	1,970.000 LF	_____.	_____.
0362	608.2319 Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 19x30-Inch	124.000 LF	_____.	_____.
0364	608.2324 Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 24x38-Inch	528.000 LF	_____.	_____.
0366	608.3012 Storm Sewer Pipe Class III-A 12-Inch	288.000 LF	_____.	_____.
0368	608.3015 Storm Sewer Pipe Class III-A 15-Inch	536.000 LF	_____.	_____.
0370	608.6015 Storm Sewer Pipe Composite 15-Inch	222.000 LF	_____.	_____.
0372	611.0420 Reconstructing Manholes	2.000 EACH	_____.	_____.
0374	611.0530 Manhole Covers Type J	12.000 EACH	_____.	_____.
0376	611.0612 Inlet Covers Type C	1.000 EACH	_____.	_____.
0378	611.0624 Inlet Covers Type H	9.000 EACH	_____.	_____.
0380	611.0627 Inlet Covers Type HM	4.000 EACH	_____.	_____.
0382	611.0636 Inlet Covers Type HM-S	8.000 EACH	_____.	_____.
0384	611.0639 Inlet Covers Type H-S	14.000 EACH	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0386	611.0642 Inlet Covers Type MS	27.000 EACH	_____.	_____.
0388	611.0652 Inlet Covers Type T	2.000 EACH	_____.	_____.
0390	611.0654 Inlet Covers Type V	5.000 EACH	_____.	_____.
0392	611.2005 Manholes 5-FT Diameter	9.000 EACH	_____.	_____.
0394	611.2006 Manholes 6-FT Diameter	7.000 EACH	_____.	_____.
0396	611.3004 Inlets 4-FT Diameter	6.000 EACH	_____.	_____.
0398	611.3220 Inlets 2x2-FT	5.000 EACH	_____.	_____.
0400	611.3225 Inlets 2x2.5-FT	1.000 EACH	_____.	_____.
0402	611.3230 Inlets 2x3-FT	28.000 EACH	_____.	_____.
0404	611.3901 Inlets Median 1 Grate	16.000 EACH	_____.	_____.
0406	611.3902 Inlets Median 2 Grate	5.000 EACH	_____.	_____.
0408	611.8110 Adjusting Manhole Covers	11.000 EACH	_____.	_____.
0410	611.8115 Adjusting Inlet Covers	6.000 EACH	_____.	_____.
0412	611.8120.S Cover Plates Temporary	39.000 EACH	_____.	_____.
0414	611.9800.S Pipe Grates	5.000 EACH	_____.	_____.
0416	612.0406 Pipe Underdrain Wrapped 6-Inch	2,065.000 LF	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0418	612.0902.S Insulation Board Polystyrene (inch) 01. 2-Inch	10.800 SY	_____.	_____.
0420	613.1100.S Cable Barrier Type 1	6,132.000 LF	_____.	_____.
0422	613.1200.S Cable Barrier End Terminal Type 1	6.000 EACH	_____.	_____.
0424	614.0150 Anchor Assemblies for Steel Plate Beam Guard	20.000 EACH	_____.	_____.
0426	614.0400 Adjusting Steel Plate Beam Guard	154.000 LF	_____.	_____.
0428	614.0905 Crash Cushions Temporary	22.000 EACH	_____.	_____.
0430	614.1000 MGS Guardrail Temporary	562.500 LF	_____.	_____.
0432	614.1100 MGS Guardrail Temporary Thrie Beam Transition	118.200 LF	_____.	_____.
0434	614.2300 MGS Guardrail 3	7,825.000 LF	_____.	_____.
0436	614.2500 MGS Thrie Beam Transition	709.200 LF	_____.	_____.
0438	614.2610 MGS Guardrail Terminal EAT	17.000 EACH	_____.	_____.
0440	614.2620 MGS Guardrail Terminal Type 2	9.000 EACH	_____.	_____.
0442	616.0100 Fence Woven Wire (height) 01. 4-FT	4,931.000 LF	_____.	_____.
0444	618.0100 Maintenance And Repair of Haul Roads (project) 01. 1016-05-70	1.000 EACH	_____.	_____.
0446	619.1000 Mobilization	1.000 EACH	_____.	_____.
0448	620.0200 Concrete Median Blunt Nose	77.000 SF	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0450	620.0300 Concrete Median Sloped Nose	985.000 SF	_____.	_____.
0452	624.0100 Water	1,658.900 MGAL	_____.	_____.
0454	625.0500 Salvaged Topsoil	213,428.000 SY	_____.	_____.
0456	627.0200 Mulching	50,901.000 SY	_____.	_____.
0458	628.1504 Silt Fence	15,765.000 LF	_____.	_____.
0460	628.1520 Silt Fence Maintenance	15,765.000 LF	_____.	_____.
0462	628.1905 Mobilizations Erosion Control	23.000 EACH	_____.	_____.
0464	628.1910 Mobilizations Emergency Erosion Control	19.000 EACH	_____.	_____.
0466	628.2004 Erosion Mat Class I Type B	174,272.000 SY	_____.	_____.
0468	628.2008 Erosion Mat Urban Class I Type B	35,975.000 SY	_____.	_____.
0470	628.2031 Erosion Mat Class III Type A	3,185.000 SY	_____.	_____.
0472	628.6005 Turbidity Barriers	2,487.000 SY	_____.	_____.
0474	628.7005 Inlet Protection Type A	60.000 EACH	_____.	_____.
0476	628.7010 Inlet Protection Type B	102.000 EACH	_____.	_____.
0478	628.7015 Inlet Protection Type C	55.000 EACH	_____.	_____.
0480	628.7504 Temporary Ditch Checks	903.000 LF	_____.	_____.
0482	628.7515.S Stone Ditch Checks	449.000 CY	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0484	628.7555 Culvert Pipe Checks	99.000 EACH	_____.	_____.
0486	628.7560 Tracking Pads	28.000 EACH	_____.	_____.
0488	628.7570 Rock Bags	388.000 EACH	_____.	_____.
0490	629.0210 Fertilizer Type B	139.500 CWT	_____.	_____.
0492	630.0120 Seeding Mixture No. 20	3,818.000 LB	_____.	_____.
0494	630.0200 Seeding Temporary	1,377.000 LB	_____.	_____.
0496	630.0500 Seed Water	4,871.800 MGAL	_____.	_____.
0498	633.0200 Delineators Flexible	116.000 EACH	_____.	_____.
0500	633.5100 Markers ROW	20.000 EACH	_____.	_____.
0502	633.5200 Markers Culvert End	31.000 EACH	_____.	_____.
0504	634.0614 Posts Wood 4x6-Inch X 14-FT	58.000 EACH	_____.	_____.
0506	634.0616 Posts Wood 4x6-Inch X 16-FT	64.000 EACH	_____.	_____.
0508	634.0618 Posts Wood 4x6-Inch X 18-FT	22.000 EACH	_____.	_____.
0510	634.0814 Posts Tubular Steel 2x2-Inch X 14-FT	18.000 EACH	_____.	_____.
0512	634.0816 Posts Tubular Steel 2x2-Inch X 16-FT	5.000 EACH	_____.	_____.
0514	635.0200 Sign Supports Structural Steel HS	4,966.000 LB	_____.	_____.
0516	637.1220 Signs Type I Reflective SH	843.000 SF	_____.	_____.



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0518	637.2210 Signs Type II Reflective H	1,244.150 SF	_____.	_____.
0520	637.2215 Signs Type II Reflective H Folding	40.000 SF	_____.	_____.
0522	637.2230 Signs Type II Reflective F	211.000 SF	_____.	_____.
0524	638.2101 Moving Signs Type I	4.000 EACH	_____.	_____.
0526	638.2102 Moving Signs Type II	57.000 EACH	_____.	_____.
0528	638.2601 Removing Signs Type I	6.000 EACH	_____.	_____.
0530	638.2602 Removing Signs Type II	110.000 EACH	_____.	_____.
0532	638.3000 Removing Small Sign Supports	126.000 EACH	_____.	_____.
0534	638.3100 Removing Structural Steel Sign Supports	7.000 EACH	_____.	_____.
0536	638.4000 Moving Small Sign Supports	42.000 EACH	_____.	_____.
0538	638.4100 Moving Structural Steel Sign Supports	5.000 EACH	_____.	_____.
0540	642.5401 Field Office Type D	1.000 EACH	_____.	_____.
0542	643.0300 Traffic Control Drums	107,545.000 DAY	_____.	_____.
0544	643.0410 Traffic Control Barricades Type II	915.000 DAY	_____.	_____.
0546	643.0420 Traffic Control Barricades Type III	15,474.000 DAY	_____.	_____.
0548	643.0705 Traffic Control Warning Lights Type A	30,207.000 DAY	_____.	_____.
0550	643.0715 Traffic Control Warning Lights Type C	31,705.000 DAY	_____.	_____.



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0552	643.0800 Traffic Control Arrow Boards	178.000 DAY	_____.	_____.
0554	643.0900 Traffic Control Signs	44,687.000 DAY	_____.	_____.
0556	643.1051 Traffic Control Signs PCMS with Cellular Communications	1,616.000 DAY	_____.	_____.
0558	643.1205.S Basic Traffic Queue Warning System	354.000 DAY	_____.	_____.
0560	643.5000 Traffic Control	1.000 EACH	_____.	_____.
0562	644.1601 Temporary Pedestrian Curb Ramp	272.000 DAY	_____.	_____.
0564	644.1810 Temporary Pedestrian Barricade	1,113.000 LF	_____.	_____.
0566	645.0111 Geotextile Type DF Schedule A	656.000 SY	_____.	_____.
0568	645.0120 Geotextile Type HR	2,104.000 SY	_____.	_____.
0570	645.0130 Geotextile Type R	277.000 SY	_____.	_____.
0572	645.0140 Geotextile Type SAS	918.000 SY	_____.	_____.
0574	646.1005 Marking Line Paint 4-Inch	40,627.000 LF	_____.	_____.
0576	646.1020 Marking Line Epoxy 4-Inch	12,806.000 LF	_____.	_____.
0578	646.1040 Marking Line Grooved Wet Ref Epoxy 4-Inch	42,044.000 LF	_____.	_____.
0580	646.1555 Marking Line Grooved Contrast Permanent Tape 4-Inch	4,222.000 LF	_____.	_____.
0582	646.3005 Marking Line Paint 8-Inch	2,071.000 LF	_____.	_____.



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0584	646.3020 Marking Line Epoxy 8-Inch	4,029.000 LF	_____.	_____.
0586	646.3555 Marking Line Grooved Contrast Permanent Tape 8-Inch	4,527.000 LF	_____.	_____.
0588	646.5020 Marking Arrow Epoxy	21.000 EACH	_____.	_____.
0590	646.5120 Marking Word Epoxy	5.000 EACH	_____.	_____.
0592	646.6120 Marking Stop Line Epoxy 18-Inch	18.000 LF	_____.	_____.
0594	646.6320 Marking Dotted Extension Epoxy 18-Inch	132.000 LF	_____.	_____.
0596	646.6464 Cold Weather Marking Epoxy 4-Inch	45,199.000 LF	_____.	_____.
0598	646.6468 Cold Weather Marking Epoxy 8-Inch	4,527.000 LF	_____.	_____.
0600	646.7120 Marking Diagonal Epoxy 12-Inch	367.000 LF	_____.	_____.
0602	646.7220 Marking Chevron Epoxy 24-Inch	569.000 LF	_____.	_____.
0604	646.7405 Marking Crosswalk Paint Transverse Line 6-Inch	957.000 LF	_____.	_____.
0606	646.7420 Marking Crosswalk Epoxy Transverse Line 6-Inch	711.000 LF	_____.	_____.
0608	646.8120 Marking Curb Epoxy	196.000 LF	_____.	_____.
0610	646.8220 Marking Island Nose Epoxy	6.000 EACH	_____.	_____.
0612	646.9000 Marking Removal Line 4-Inch	17,970.000 LF	_____.	_____.
0614	646.9010 Marking Removal Line Water Blasting 4-Inch	22,966.000 LF	_____.	_____.



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0616	646.9100 Marking Removal Line 8-Inch	1,214.000 LF	_____.	_____.
0618	646.9110 Marking Removal Line Water Blasting 8-Inch	1,169.000 LF	_____.	_____.
0620	649.0105 Temporary Marking Line Paint 4-Inch	86,963.000 LF	_____.	_____.
0622	649.0120 Temporary Marking Line Epoxy 4-Inch	10,631.000 LF	_____.	_____.
0624	649.0150 Temporary Marking Line Removable Tape 4-Inch	31,673.000 LF	_____.	_____.
0626	649.0205 Temporary Marking Line Paint 8-Inch	5,726.000 LF	_____.	_____.
0628	649.0250 Temporary Marking Line Removable Tape 8-Inch	1,444.000 LF	_____.	_____.
0630	649.0805 Temporary Marking Stop Line Paint 18-Inch	512.000 LF	_____.	_____.
0632	649.0850 Temporary Marking Stop Line Removable Tape 18-Inch	32.000 LF	_____.	_____.
0634	650.4000 Construction Staking Storm Sewer	116.000 EACH	_____.	_____.
0636	650.4500 Construction Staking Subgrade	23,565.000 LF	_____.	_____.
0638	650.5000 Construction Staking Base	46,565.000 LF	_____.	_____.
0640	650.5500 Construction Staking Curb Gutter and Curb & Gutter	894.000 LF	_____.	_____.
0642	650.6000 Construction Staking Pipe Culverts	27.000 EACH	_____.	_____.
0644	650.6500 Construction Staking Structure Layout (structure) 01. S-29-0011	LS	LUMP SUM	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0646	650.6500 Construction Staking Structure Layout (structure) 02. S-29-0012	LS	LUMP SUM	_____.
0648	650.7000 Construction Staking Concrete Pavement	23,045.000 LF	_____.	_____.
0650	650.8000 Construction Staking Resurfacing Reference	3,016.000 LF	_____.	_____.
0652	650.8500 Construction Staking Electrical Installations (project) 01. 1016-05-70	LS	LUMP SUM	_____.
0654	650.9000 Construction Staking Curb Ramps	4.000 EACH	_____.	_____.
0656	650.9910 Construction Staking Supplemental Control (project) 01. 1016-05-70	LS	LUMP SUM	_____.
0658	650.9920 Construction Staking Slope Stakes	31,907.000 LF	_____.	_____.
0660	652.0125 Conduit Rigid Metallic 2-Inch	10.000 LF	_____.	_____.
0662	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch	7,950.000 LF	_____.	_____.
0664	652.0235 Conduit Rigid Nonmetallic Schedule 40 3-Inch	32.000 LF	_____.	_____.
0666	652.0325 Conduit Rigid Nonmetallic Schedule 80 2-Inch	465.000 LF	_____.	_____.
0668	652.0605 Conduit Special 2-Inch	846.000 LF	_____.	_____.
0670	652.0700.S Install Conduit into Existing Item	1.000 EACH	_____.	_____.
0672	653.0140 Pull Boxes Steel 24x42-Inch	4.000 EACH	_____.	_____.
0674	653.0164 Pull Boxes Non-Conductive 24x42-Inch	49.000 EACH	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0676	654.0105 Concrete Bases Type 5	37.000 EACH	_____.	_____.
0678	654.0230 Concrete Control Cabinet Bases Type L30	1.000 EACH	_____.	_____.
0680	655.0515 Electrical Wire Traffic Signals 10 AWG	1,270.000 LF	_____.	_____.
0682	655.0525 Electrical Wire Traffic Signals 6 AWG	375.000 LF	_____.	_____.
0684	655.0610 Electrical Wire Lighting 12 AWG	34,885.000 LF	_____.	_____.
0686	655.0615 Electrical Wire Lighting 10 AWG	9,702.000 LF	_____.	_____.
0688	655.0620 Electrical Wire Lighting 8 AWG	10,974.000 LF	_____.	_____.
0690	655.0625 Electrical Wire Lighting 6 AWG	7,290.000 LF	_____.	_____.
0692	656.0200 Electrical Service Meter Breaker Pedestal (location) 01. 985+51B	LS	LUMP SUM	_____.
0694	656.0200 Electrical Service Meter Breaker Pedestal (location) 02. CCTV-29-0143	LS	LUMP SUM	_____.
0696	656.0500 Electrical Service Breaker Disconnect Box (location) 01. CCTV-29-0143	LS	LUMP SUM	_____.
0698	657.0255 Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	37.000 EACH	_____.	_____.
0700	657.0322 Poles Type 5-Aluminum	37.000 EACH	_____.	_____.
0702	657.0610 Luminaire Arms Single Member 4 1/2-Inch Clamp 6-FT	6.000 EACH	_____.	_____.
0704	657.0710 Luminaire Arms Truss Type 4 1/2-Inch Clamp 12-FT	44.000 EACH	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0706	659.0600 Underdeck Lighting (location) 01. 145+09EB82	LS	LUMP SUM	_____.
0708	659.0600 Underdeck Lighting (location) 02. 146+35EB82	LS	LUMP SUM	_____.
0710	659.1115 Luminaires Utility LED A	22.000 EACH	_____.	_____.
0712	659.1125 Luminaires Utility LED C	28.000 EACH	_____.	_____.
0714	659.1210 Luminaires Underdeck LED B	8.000 EACH	_____.	_____.
0716	659.2130 Lighting Control Cabinets 120/240 30- Inch	1.000 EACH	_____.	_____.
0718	661.0100 Temporary Traffic Signals for Bridges (structure) 01. B-29-0037 Underneath on CTH G	LS	LUMP SUM	_____.
0720	661.0200 Temporary Traffic Signals for Intersections (location) 01. Westbound Ramp	LS	LUMP SUM	_____.
0722	661.0200 Temporary Traffic Signals for Intersections (location) 02. Eastbound Ramp	LS	LUMP SUM	_____.
0724	662.1037.S Ramp Closure Gates 37-FT	1.000 EACH	_____.	_____.
0726	662.1040.S Ramp Closure Gates 40-FT	1.000 EACH	_____.	_____.
0728	670.0100 Field System Integrator	LS	LUMP SUM	_____.
0730	670.0200 ITS Documentation	LS	LUMP SUM	_____.
0732	673.0200 Tracer Wire Marker Posts	1.000 EACH	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0734	673.0225.S Install Pole Mounted Cabinet	1.000 EACH	_____.	_____.
0736	677.0150 Install Camera Pole 50-FT	1.000 EACH	_____.	_____.
0738	677.0200 Install Camera Assembly	1.000 EACH	_____.	_____.
0740	678.0006 Install Fiber Optic Cable Outdoor Plant 6-CT	1,470.000 LF	_____.	_____.
0742	678.0200 Fiber Optic Splice Enclosure	1.000 EACH	_____.	_____.
0744	678.0300 Fiber Optic Splice	4.000 EACH	_____.	_____.
0746	678.0400 Fiber Optic Termination	6.000 EACH	_____.	_____.
0748	678.0500 Communication System Testing	LS	LUMP SUM	_____.
0750	678.0600 Install Ethernet Switches	1.000 EACH	_____.	_____.
0752	690.0150 Sawing Asphalt	9,641.000 LF	_____.	_____.
0754	690.0250 Sawing Concrete	735.000 LF	_____.	_____.
0756	715.0502 Incentive Strength Concrete Structures	31,364.000 DOL	1.00000	31,364.00
0758	715.0715 Incentive Flexural Strength Concrete Pavement	23,738.000 DOL	1.00000	23,738.00
0760	740.0440 Incentive IRI Ride	17,996.000 DOL	1.00000	17,996.00
0762	999.2000.S Installing and Maintaining Bird Deterrent System (station) 01. 952+00'T'	1.000 EACH	_____.	_____.
0764	999.2000.S Installing and Maintaining Bird Deterrent System (station) 02. 983+00'T'	1.000 EACH	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0766	999.2000.S Installing and Maintaining Bird Deterrent System (station) 03. 1013+00'T'	1.000 EACH	_____.	_____.
0768	999.2005.S Maintaining Bird Deterrent System (station) 01. 1013+00'EB'	1.000 EACH	_____.	_____.
0770	999.2005.S Maintaining Bird Deterrent System (station) 02. 1013+00'WB'	1.000 EACH	_____.	_____.
0772	SPV.0045 Special 01. Temporary Detectable Warning Field	580.000 DAY	_____.	_____.
0774	SPV.0045 Special 02. Temporary Crosswalk	285.000 DAY	_____.	_____.
0776	SPV.0045 Special 03. Combination Work Zone Digital Speed Limit-Speed Feedback Sign Trailer (WZDSL	830.000 DAY	_____.	_____.
0778	SPV.0060 Special 01. Emergency Response to Pavement Repairs	12.000 EACH	_____.	_____.
0780	SPV.0060 Special 02. Emergency Response to Traffic Incident Involving Conc Barrier Temp Precast	9.000 EACH	_____.	_____.
0782	SPV.0060 Special 03. Emergency Response to Traffic Incident Involving Crash Cushion	9.000 EACH	_____.	_____.
0784	SPV.0060 Special 04. Repair Crash Cushion	6.000 EACH	_____.	_____.
0786	SPV.0060 Special 05. Removing Sign and Foundation	1.000 EACH	_____.	_____.
0788	SPV.0060 Special 06. Maintenance for Temporary Bridge	3.000 EACH	_____.	_____.
0790	SPV.0060 Special 07. Concrete Pipe Support	1.000 EACH	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0792	SPV.0060 Special 08. Maint and Removal of Crash Cushion Barrier Temp Precast L.I.P. By Others	22.000 EACH	_____.	_____.
0794	SPV.0060 Special 11. Cleaning and Painting Bearings	13.000 EACH	_____.	_____.
0796	SPV.0060 Special 12. Utility Line Opening (ULO)	8.000 EACH	_____.	_____.
0798	SPV.0060 Special 13. Landmark Reference Monuments Special	6.000 EACH	_____.	_____.
0800	SPV.0060 Special 14. Verify Landmark Reference Monuments	6.000 EACH	_____.	_____.
0802	SPV.0060 Special 15. Temporary Pipe Connection	2.000 EACH	_____.	_____.
0804	SPV.0060 Special 16. Inlet Covers Flat Temporary	8.000 EACH	_____.	_____.
0806	SPV.0060 Special 17. Ground Rod	1.000 EACH	_____.	_____.
0808	SPV.0060 Special 18. Temporary Ditch and Storm Sewer Maintenance	1.000 EACH	_____.	_____.
0810	SPV.0060 Special 19. Construction Staking Roundabout - IH 90 WB Ramp	1.000 EACH	_____.	_____.
0812	SPV.0060 Special 20. Construction Staking Roundabout - IH 90 EB Ramp	1.000 EACH	_____.	_____.
0814	SPV.0090 Special 01. Maint and Removal of Conc Barrier Temp Precast L.I.P. by Others	24,208.000 LF	_____.	_____.
0816	SPV.0090 Special 03. Drain Slotted Vane Longitudinal	2,302.000 LF	_____.	_____.
0818	SPV.0090 Special 04. Remove and Salvage Modular Block Retaining Wall	555.000 LF	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0820	SPV.0090 Special 05. Traffic Control Gawk Screen Furnished	21,597.000 LF	_____.	_____.
0822	SPV.0090 Special 06. Traffic Control Gawk Screen Installed	21,597.000 LF	_____.	_____.
0824	SPV.0090 Special 07. Traffic Control Gawk Screen Moved	7,832.000 LF	_____.	_____.
0826	SPV.0180 Special 01. Slope Paving Repair	89.000 SY	_____.	_____.
	Section: 0001		Total:	_____.
			Total Bid:	_____.

PLEASE ATTACH ADDENDA HERE