

# HIGHWAY WORK PROPOSAL

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

Proposal Number: **022**

<u>STATE ID</u>	<u>FEDERAL ID</u>	<u>PROJECT DESCRIPTION</u>	<u>HIGHWAY</u>	<u>COUNTY</u>
1130-64-73	WISC 2026186	Appleton - De Pere, I-41 Mainline, Lynndale-Meade	IH 041	Outagamie
1130-64-77	WISC 2026187	Appleton - De Pere, Richmond St (Wis 47) Intchg	STH 047	Outagamie

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: \$1,000,000.00 Payable to: Wisconsin Department of Transportation	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Date: February 10, 2026 Time (Local Time): 11:00 am	Firm Name, Address, City, State, Zip Code
Contract Completion Time June 30, 2028	<b>SAMPLE NOT FOR BIDDING PURPOSES</b>
Assigned Disadvantaged Business Enterprise Goal 0%	This contract is subject to federal oversight.

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

<b>Type of Work:</b> Removals, Milling, Grading, Aggregate, Concrete Pavement, Asphalt Pavement, Structure Replacement, Structure Rehabilitation, Culvert Pipe, Sign Structure, Curb and Gutter, Concrete Sidewalk, Storm Sewer, Beam Guard, Erosion Control, Permanent Signing, Traffic Control, Pavement Marking, Lighting, Traffic Signals, Retaining Wall, Restoration.	<b>For Department Use Only</b>
Notice of Award Dated	Date Guaranty Returned

**PLEASE ATTACH  
PROPOSAL GUARANTY HERE**

## **PROPOSAL REQUIREMENTS AND CONDITIONS**

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

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

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

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

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

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

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

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

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

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

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

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

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

## BID PREPARATION

### **Preparing the Proposal Schedule of Items**

#### **A. General**

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

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

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

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

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

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

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

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

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

**B. Submitting Electronic Bids****B.1 On the Internet**

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

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

- (1) Download the latest schedule of items from the Wisconsin pages of the Bid Express web site reflecting the latest addenda posted on the department's web site at:  
<https://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 envelope but due at the same time and place as the sealed bid, also provide the Expedite™ generated schedule of items on a 3 1/2 inch computer diskette or CD ROM. Label each diskette or CD ROM with the bidder's name, the 4 character department-assigned bidder identification code from the top of the bidding proposal, and a list of the proposal numbers included on that diskette or CD ROM as indicated in the following example:

**Bidder Name**

**BN00**

**Proposals: 1, 12, 14, & 22**

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

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

**B Waiver of Electronic Submittal**

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

# PROPOSAL BID BOND

DT1303 1/2006

Wisconsin Department of Transportation

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

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

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

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

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

## PRINCIPAL

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

\_\_\_\_\_  
(Signature and Title)

\_\_\_\_\_  
(Company Name)

\_\_\_\_\_  
(Signature and Title)

\_\_\_\_\_  
(Company Name)

\_\_\_\_\_  
(Signature and Title)

\_\_\_\_\_  
(Company Name)

\_\_\_\_\_  
(Signature and Title)

## NOTARY FOR PRINCIPAL

\_\_\_\_\_  
(Date)

State of Wisconsin )  
 ) ss.  
\_\_\_\_\_ County )

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

\_\_\_\_\_  
(Signature, Notary Public, State of Wisconsin)

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

\_\_\_\_\_  
(Date Commission Expires)

**Notary Seal**

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

\_\_\_\_\_  
(Signature of Attorney-in-Fact)

## NOTARY FOR SURETY

\_\_\_\_\_  
(Date)

State of Wisconsin )  
 ) ss.  
\_\_\_\_\_ County )

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

\_\_\_\_\_  
(Signature, Notary Public, State of Wisconsin)

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

\_\_\_\_\_  
(Date Commission Expires)

**Notary Seal**

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



# CERTIFICATE OF ANNUAL BID BOND

DT1305 8/2003

Wisconsin Department of Transportation

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

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

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

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

\_\_\_\_\_  
(Signature of Authorized Contractor Representative)

\_\_\_\_\_  
(Date)

## LIST OF SUBCONTRACTORS

Section 66.0901(7), Wisconsin Statutes, provides that as a part of the proposal, the bidder also shall submit a list of the subcontractors the bidder proposes to contract with and the class of work to be performed by each. In order to qualify for inclusion in the bidder's list a subcontractor shall first submit a bid in writing, to the general contractor at least 48 hours prior to the time of the bid closing. The list may not be added to or altered without the written consent of the municipality. A proposal of a bidder is not invalid if any subcontractor and the class of work to be performed by the subcontractor has been omitted from a proposal; the omission shall be considered inadvertent or the bidder will perform the work personally.

No subcontract, whether listed herein or later proposed, may be entered into without the written consent of the Engineer as provided in Subsection 108.1 of the Standard Specifications.

[illegible]

## **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.

## Special Provisions

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**SPECIAL PROVISIONS**

**1. Administrative.**

**1.1 General.**

Perform the work under this construction contract for Project 1130-64-73, IH 41 Mainline, Lynndale – Meade; and Project 1130-64-77, IH 41, Richmond Street (WIS 47) Intchg; 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, 2025 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 (20250701)

**1.2 Scope of Work.**

The work under this contract shall consist of common excavation, roadway embankment, base aggregate, concrete pavement, HMA pavement, storm sewer

Bridges:

B-44-0140, B-44-0171, B-44-0315, B-44-0316, B-44-0317, B-44-0318, B-44-0319, B-44-0320, B-44-0321, B-44-0322, B-44-0323, B-44-0339, B-44-0340

Noise walls:

N-44-0012, N-44-0013, N-44-0014, N-44-0015, N-44- 0016, N-44-0019

Retaining walls R-44-0028, R-44-0030, R-44-0031, R-44-0032, R-44-0033, R-44-0035, R-44-0036, R-44-0037, R-44-0038, R-44-0039, R-44-0052, R-44-0053

Sign structures: S-44-0351, S-44-0352, S-44-0353, S-44-0354, S-44-0355, S-44-0356, S-44-0357, S-44-0358, S-44-0359, S-44-0360, S-44-0361, S-44-0362

erosion control, signing, pavement marking, lighting, ITS, traffic signals and all incidental items necessary to complete the work as shown on the plans and included in the proposal and contract.

104-005 (20090901)

**1.3 Other Contracts.**

Coordinate the work according to standard spec 105.5. Modifications to the traffic control plan may be required by the engineer to be safe and consistent with the adjacent work by others. Coordinate activities, detours, work zone traffic control, roadway, and lane closures, and other work items as required with other contracts. Routine maintenance by town and county personnel may be required at various times concurrently with the work activities specified in this contract. The following contracts are anticipated to be under construction within the time period of this contract:

The following projects will be under construction concurrently with the work under this contract. Coordinate trucking activities, detours, work zone traffic control, roadway and lane closures, and other work items as required with other contracts.

**IH 41, Project ID 1130-63-72;** IH 41, Appleton – De Pere, Smart Work Zone in Outagamie and Brown counties. Work under this contract began in April 2025 and anticipated to be completed in November 2029. Limits of the smart work zone project overlap the limits of this project. Coordinate activities with 1130-63-72.

**IH 41, Project ID 1130-64-71/72/87;** IH 41, Appleton – De Pere, STH 96 to Lynndale Drive in Outagamie County. Work under this contract began in the Spring of 2025 and anticipated to be completed in November 2026. Limits of construction for 1130-64-71/72/87 overlap the project limits in the area between Lynndale Drive and the Fox Valley & Lake Superior Railroad. Provide the engineer a schedule of operations for the work zone in the area between Lynndale Drive and the Fox Valley & Lake Superior Railroad with the IWP to ensure proper coordination between the two projects.

**IH 41, Project ID 1130-64-76/81;** IH 41, Appleton – De Pere, Northland/STH 15 Interchange (1130-64-76) and Capitol Drive Overpass (1130-64-81) in Outagamie County. Work on the Capitol Drive Overpass (1130-64-81) has been completed. Work on the Northland/STH 15 Interchange is anticipated to be

completed in the Winter of 2025. Coordinate work activities at the Northland STH 15 interchange with 1130-64-76.

**IH 41, Project ID 1130-65-76;** Appleton – De Pere, Ballard Road (CTH E) Interchange in Outagamie County. Work under this contract to begin in April 2025, with completion anticipated in May 2026. Coordinate activities with 1130-65-76 including the temporary traffic signals at the intersection of STH 47 and Ridgeview Drive.

**IH 41, Project ID 1130-65-71/72/73/74/78;** Appleton – De Pere, Meade Street to Holland Road (1130-65-71/72/73) and STH 441 Structures (1130-64-74/78). Work under this contract is expected to begin September 2026. It is anticipated all work under this contract will be completed by October 2029. Coordinate activities with 1130-65-71.

**IH 41, Project 1130-65-81;** French Road Overpass, B-44-0329. Work under this contract is expected to begin April 2026 and be completed by September 2026. **Do not close the WIS 47 interchange and the NB WIS 441 to NB IH 41 ramp simultaneously.** NB WIS 441 to NB IH 41 ramp anticipated to be closed for 2 weeks in April 2026. Coordinate activities with 1130-65-81.

**WIS 96, Project ID 4075-40-71;** West Wisconsin Ave, Town of Grand Chute, Casaloma Drive – N Badger Avenue, Outagamie County. Work under this contract is expected to begin Spring 2026. It is anticipated all work under this contract will be completed by Fall 2026. Coordinate activities with 4075-40-71.

See the City of Appleton's improvement plan for a current list of projects in the area of this project.

**Gillett Street:** The Town of Grand Chute will be completing utility replacement along Gillett Street in 2026. Coordinate activities with this project.

See the Town of Grand Chute's capital improvement plan for a current list of projects in the area of this project (Grand Chute Capital Improvement Projects).

ner41-105 (06102025)

#### **1.4 Work by Others.**

At the intersection of IH 41 SB & STH 47 and IH 41 NB & STH 47 the Wisconsin Department of Transportation Northeast Region Electrical Unit, (920) 366-7521, will perform the following work:

- Provide and install the Microwave detectors and cables.
- Terminate all electrical wire in the signal control cabinet.
- Remove existing signal cabinet.

Notify the department's Northeast Region Electrical Unit at (920) 366-7521 at least three (3) weeks prior to final installation of the traffic signal equipment for S44-0580 and S44-1400.

#### **1.5 Field Facilities.**

The department will provide primary field facilities for this project located at 3600 Commerce Court, Appleton, WI 54911.

The contractor is required to schedule and attend all meetings at the department provided field office facility. Formal meetings, unless otherwise specified, will not be scheduled at any offsite locations other than the field facility provided by the department.

ner41-105 (12052023)

#### **1.6 Notice to Contractor– Electronic Load Tickets.**

*Replace standard spec 109.1.4.3 (1) with the following:*

(1) Submit an electronic ticket for each load of material for the following bid items:

- 415.0090 Concrete Pavement 9-inch
- 415.0100 Concrete Pavement 10-inch
- 415.0410 Concrete Pavement Approach Slab
- 415.2010 Concrete Truck Apron 12-Inch
- 502.0100 Concrete Masonry Bridges
- 504.0500 Concrete Masonry Retaining Walls
- SPV.0035.0800 HPC Masonry Structures
- SPV.0180.0100 Concrete Pavement 10 ½-inch Special

Include the information as specified in 109.1.4.2 on each electronic ticket. If there is a failure in the electronic ticket system, provide a printed ticket for each load of material as a substitute for electronic tickets.

stp-107-230 (20250108)

### **1.7 Notice to Contractor, Project Storage and Staging Areas.**

*Supplement sections 106.4(2) and 107.9 of the standard spec with the following:*

To accommodate staged construction of the department planned contracts for the IH 41 corridor expansion project, the department will implement a review and approval process for use of storage and staging areas within the right-of-way and adjacent to the project.

Equipment and materials can be stored within the slope intercepts shown on the plan and within the footprint of the roadway or structures within the project limits. Storage of equipment and materials will not be allowed in areas which are restricted by traffic and other requirements provided in the special provisions.

Make any requests for storage and staging areas located outside of the slope intercepts or outside of the proposed roadway and structure footprints to the engineer. Include in the request the anticipated date for occupying the area, the anticipated date for vacating the area, and a proposed restoration plan for the area. The planned project storage and staging areas shall be submitted to the engineer for review and approval a minimum of 14 calendar days prior to the anticipated implementation. Review by the engineer does not constitute approval.

ner41-106 (12112025)

### **1.8 Notice to Contractor, Safety and Personnel Identification Program.**

All workers shall wear OSHA and ANSI compliant safety head protection, safety glasses, safety-toe protective footwear, and safety vest at all times while within the project footprint. All workers shall wear OSHA and ANSI compliant safety pants within the right of way of a roadway with a posted speed limit of 50 mph or greater unless separated from traffic by positive protection (e.g., temporary concrete barrier). From dusk to dawn, all workers shall wear OSHA and ANSI compliant safety pants.

The prime contractor shall provide a copy of their current Company Safety Plans to the department 7 days prior to the preconstruction meeting. All workers shall comply with the Safety Plans of their employer.

All contractor personnel will be required to register in the program prior to performing work. Valid photo identification which includes unexpired driver's license, government issued identification cards, military identification, passport, or other identification approved by the department will be required to register. All personnel registered will be issued a hard hat sticker with an identification number by the department. Stickers shall be placed in a visible location on the hard hat. Register at the IH 41 corridor field office during normal business hours.

Noncompliance with this contract provision may result in removal of contractor personnel from the project or suspension of work according to standard spec 108.6 applicable under the contract.

ner41-108 (05072024)

### **1.9 Notice to Contractor, Containment System.**

**Provide** a rigid containment system throughout bridge construction over live traffic lanes and pedestrian facilities capable of protecting underlying facilities and vehicles from falling construction debris. Design, detail, install, and maintain the containment system to catch construction debris between exterior girders without extending below the bottom of the girders at the containment system's maximum deflection. The containment system is not intended to be a secondary falsework/formwork system. Put the containment system in place before beginning construction operations that may generate debris over live traffic or active pedestrian facilities. Operations may include, but are not limited to: full or partial deck removals, falsework installation, deck repairs, and deck pours. This containment system is not required if construction operations are performed when the facilities below are under full closure. This containment system does not replace any requirements under standard spec 203. Include details of the proposed containment system in the falsework submittal per standard spec 502.3.2. The containment system is incidental to the bridge construction items.

stp-502-015 (20250701)

### **1.10 Notice to Contractor, Right of Way Fencing.**

Maintain existing right-of-way fencing, as shown in plans, until construction operations require removal, or as directed by the engineer. Notify the department 7 calendar days in advance of existing fence removal. Do not remove any existing fence without prior approval from the engineer.

Provide temporary connections between existing and proposed fencing as needed to maintain continuous right-of-way fencing at all times. Fencing quantities have been included in the contract for this purpose.

Submit a fence staging plan to the engineer detailing existing fence removal, proposed fence placement, and temporary fence use. Temporary fencing use to be kept to a minimum. Staging of installation shall provide adequate measures to protect the general public.

Maintain all existing freeway right-of-way fencing or temporary fencing disturbed by operations.

ner41-616 (07092024)

### **1.11 Notice to Contractor, Geotechnical Exploration Information.**

Information relative to subsurface exploration, borings, soundings, water levels, elevations, or profiles is available for review at the department's Region office. Contact Tim Verhagen, (920) 492-5643 or [timothy.verhagen@dot.wi.us](mailto:timothy.verhagen@dot.wi.us), to request this information.

- Geotechnical Subsurface Investigation Report: B-44-0318 & B-44-0319, 9/1/2025.
- Geotechnical Subsurface Investigation Report: B-44-0320 & B-44-0321, 9/1/2025.
- Geotechnical Subsurface Investigation Report: B-44-0322 & B-44-0323, 12/1/2024.
- Geotechnical Site Investigation Report: R-44-0035/N-44-0019, 09/01/2025.
- Geotechnical Site Investigation Report: R-44-0036, 09/01/2025.
- Geotechnical Site Investigation Report: R-44-0037, 09/01/2025.
- Geotechnical Site Investigation Report: R-44-0038/0039, 12/1/2024.
- Geotechnical Site Investigation Report: N-44-0012, 09/01/2025.
- Geotechnical Site Investigation Report: N-44-0013, 09/01/2025.
- Geotechnical Site Investigation Report: N-44-0014, 12/01/2024.
- Geotechnical Site Investigation Report: N-44-0015, 09/01/2025.
- Geotechnical Site Investigation Report: N-44-0016, 09/01/2025.
- Geotechnical Site Investigation Report: OSS Non-Standard Foundations, 09/01/2025.
- Geotechnical Site Investigation Report: OSS Standard Foundations, 08/1/2024.
- Geotechnical Site Investigation Report: I-41 Mainline Embankment and Settlement: 10/1/2024
- Geotechnical Site Investigation Report: Richmond Interchange Embankment and Settlement: 10/1/2024

Review the available information to determine if it is of use. Whether or not the listed geotechnical information is used, the work shall still be carried out in accordance with the plans and specifications.

ner41-106 (20240917)

### **1.12 Notice to Contractor, Airport Operating Restrictions.**

Fill out the Federal Aviation Administration (FAA) Notice Criteria Tool for all permanent structures (bridge, light pole, etc.) or equipment (crane, etc.) used during construction.

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

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

ner41-100 (20240401)

## **2. Prosecution and Progress.**

### **2.1 Prosecution and Progress.**

#### **General**

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 ten 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.

Winter weather work, excavation of frozen ground, high ground water, dewatering during winter months, and mitigation efforts for high water table elevations shall not be considered adverse weather delays to construction.

Excess fill material and cleared and grubbed material should be stockpiled on upland areas an adequate distance away from wetlands, storm sewer inlets, floodplains, and the waterways. Provide erosion control devices for stockpiled soil to avoid erosion and nuisance dust emissions.

Place final pavement markings on final roadway pavement surface course as shown in the plans. In instances where work zone pavement markings are required for maintaining traffic, they shall be placed on intermediate surface courses, as noted on the plans or otherwise approved by the engineer.

Anticipate cold weather and early spring concrete paving and ancillary concrete work (curb, median barrier, etc.). Plan to heat aggregates and water for mixes and that the heating of the aggregate and water is considered incidental to those concrete items. There will be no adverse weather delay for cold weather construction.

Maintain the existing box culvert C-44-016 beneath IH 41 (east of Gillett Street) until the new drainage way along Gillett Street is completed and all adjacent slopes have been established with permanent erosion control and landscaping.

Do not impact the septic system at Paper 4 Designs, 3799 Alvin Street, Appleton, WI along Ramp D.

Complete the structure staining along IH 41 northbound for structures B-44-0140, B-44-0315, B-44-0316, B-44-0317, B-44-0339, R-44-0030, R-44-0031, R-44-0033, R-44-0052 and R-44-0053 in 2026 during the IH 41 northbound construction for Project ID 1130-64-71/72/87 and 1130-64-76/81. Coordinate activities with Project ID 1130-64-71/72/87 and 1130-64-76/81.

Complete STH 15 interchange landscaping in 2026.

Do not close STH 47 or the ramps and the NB STH 441 to NB IH 41 ramp simultaneously. NB WIS 441 to NB IH 41 ramp anticipated to be closed for 2 weeks in April 2026. Coordinate activities with Project ID 1130-65-81.

Complete IH 41 NB structure staining of B-44-0171 during Stage 2 IH 41 NB night closures.

Do not close the IH 41 northbound entrance (Ramp A) and exit (Ramp B) ramps at STH 47 until traffic is shifted to the respective locations as shown in Stage 2B.

Do not close the IH 41 southbound entrance (Ramp C) and exit (Ramp D) ramps at STH 47 until traffic is shifted to the respective locations as shown in Stage 2D.

Shift IH 41 traffic to the respective locations as shown in Stage 5A to allow for the removal of the IH 41 SB bridge over the Fox Valley and Lake Superior Railroad (B-44-0020) to be completed prior to March 31, 2027.

Complete IH 41 SB structure staining of B-44-0171 during Stage 5 traffic shift. Coordinate activities with Project ID 1130-65-71.

Structure B-44-0320 girder placement and falsework placement and removal is anticipated to occur during Gillett Street 90 day closure.

Complete IH 41 median work from Station 766NB+00 to Station 791NB+50 during Stage 6 prior to April 28, 2028. Coordinate activities with Project ID 1130-65-71.



Do not close Gillett Street until CTH A/Lynndale Drive is open to two lanes of traffic in each direction. Coordinate activities with Project ID 1130-64-72.

IH 41 will be allowed to be closed for 4 nights to complete the removal of the STH 47 bridges (B-44-0035 and B-44-0036) during Stage 2. See the Traffic article for allowable time periods and Lane Rental Fee Assessment article for assessments charged for closures outside the allowed time periods.

The IH 41/STH 47 southbound entrance ramp will be allowed to be closed for 1 night to complete the ramp reconstruction during Stage 5. See the Traffic article for allowable time periods and Lane Rental Fee Assessment article for assessments charged for closures outside the allowed time periods.

The IH 41 Southbound/STH 15 Eastbound Exit Ramp Left Turn Movement will be allowed to be closed for 1 night to complete the B-44-0316 polymer overlay of the outside lanes during Stage 7A. See the Traffic article for allowable time periods and Lane Rental Fee Assessment article for assessments charged for closures outside the allowed time periods.

The STH 15 Eastbound/ IH 41 Southbound Left Turn Movement will be allowed to be closed for 1 night to complete the B-44-0316 polymer overlay of the outside lanes during Stage 7A. See the Traffic article for allowable time periods and Lane Rental Fee Assessment article for assessments charged for closures outside the allowed time periods.

The IH 41 Northbound/STH 47 Northbound Exit Ramp Left Turn Movement (Ramp RMB) will be allowed to be closed for 1 night to complete the B-44-0322 polymer overlay of the outside lanes during Stage 7A. See the Traffic article for allowable time periods and Lane Rental Fee Assessment article for assessments charged for closures outside the allowed time periods.

The STH 47 Northbound/IH 41 Southbound Left Turn Movement (Ramp RMC) will be allowed to be closed for 1 night to complete the B-44-0322 polymer overlay of the outside lanes during Stage 7A. See the Traffic article for allowable time periods and Lane Rental Fee Assessment article for assessments charged for closures outside the allowed time periods.

The IH 41 Southbound/STH 47 Southbound Exit Ramp Left Turn Movement (Ramp RMD) will be allowed to be closed for 1 night to complete the B-44-0323 polymer overlay of the outside lanes during Stage 7A. See the Traffic article for allowable time periods and Lane Rental Fee Assessment article for assessments charged for closures outside the allowed time periods.

The STH 47 Southbound/IH 41 Northbound Left Turn Movement (Ramp RMA) will be allowed to be closed for 1 night to complete the B-44-0323 polymer overlay of the outside lanes during Stage 7A. See the Traffic article for allowable time periods and Lane Rental Fee Assessment article for assessments charged for closures outside the allowed time periods.

See Traffic article for more information on closures and lane restrictions.

Close the IH 41 northbound/STH 47 interchange entrance and exit ramps at the same time. Open the ramps within 110 calendar days.

Close the IH 41 southbound/STH 47 interchange entrance and exit ramps at the same time. Open the ramps within 90 calendar days.

Complete all work on STH 47, including the interchange ramps, by October 16, 2026.

## **Interim Completions**

### **01: Interim Completion and Liquidated Damages – Gillett Street Closure (Girder Placement): 2 calendar day**

Gillett Street will be allowed to be closed for 2 calendar days to complete the placement of girders of structure B-44-0321 during Stage 2.

If the contractor fails to complete the work necessary to place the girder and reopen to traffic within 2 calendar days, the department will assess the contractor \$2,000 in interim liquidated damages for each calendar day the contract work remains incomplete. 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.

### **02: Interim Completion and Liquidated Damages – Gillett Street Closure (Falsework): 2 calendar days**

Gillett Street will be allowed to be closed for 1 calendar day to complete the placement and removal of falsework (2 total calendar days) of structure B-44-0321 during Stage 2.

If the contractor fails to complete the work necessary to place and remove the falsework and reopen to traffic within 1 calendar day, the department will assess the contractor \$2,000 in interim liquidated damages for each calendar day the contract work remains incomplete. 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.

**03: Interim Completion and Liquidated Damages – IH 41 Northbound/STH 47 Interchange Entrance Ramp (Ramp A): 110 calendar days**

The IH 41 northbound/STH 47 interchange entrance ramp (Ramp A) and STH 47 south of IH 41 will be allowed to be closed for 110 consecutive calendar days to complete the ramp reconstruction during Stage 2 and 3. Do not reopen IH 41 northbound/STH 47 interchange entrance ramp (Ramp A) to traffic until drainage, base, pavement, sign structures, traffic signals, lighting and pavement markings are completed.

If the contractor fails to complete the work necessary to complete the reconstruction and reopen to traffic within 110 consecutive calendar days, the department will assess the contractor \$6,000 in interim liquidated damages for each calendar day the contract work remains incomplete. 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.

A contractor designed, engineer approved, temporary traffic signals and lighting system may be installed to reopen the intersection. Temporary systems installation, maintenance, removal, mobilization, and traffic control costs are incidental to the electrical bid items.

**04: Interim Completion and Liquidated Damages – STH 47 and Bridge Reconstruction: 150 calendar days**

STH 47 bridge crossing will be allowed to be closed for 150 consecutive calendar days to complete the bridge and roadway reconstruction during Stage 2 and 3. Do not reopen STH 47/Richmond Street to traffic until drainage, base, pavement, sign structures, traffic signals, lighting and pavement markings are completed.

If the contractor fails to complete the work necessary to complete the reconstruction and reopen to traffic within 150 consecutive calendar days, the department will assess the contractor \$12,000 in interim liquidated damages for each calendar day the contract work remains incomplete. 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.

**05: Interim Completion and Liquidated Damages – IH 41 Northbound/STH 47 Interchange Exit Ramp (Ramp B): 110 calendar days**

The IH 41 northbound/STH 47 interchange exit ramp (Ramp B) and STH 47 south of IH 41 will be allowed to be closed for 110 consecutive calendar days to complete the ramp reconstruction during Stage 2 and 3. Do not reopen IH 41 northbound/STH 47 interchange exit ramp (Ramp B) to traffic until drainage, base, pavement, sign structures, traffic signals, lighting and pavement markings are completed.

If the contractor fails to complete the work necessary to complete the reconstruction and reopen to traffic within 110 consecutive calendar days, the department will assess the contractor \$6,000 in interim liquidated damages for each calendar day the contract work remains incomplete. 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.

A contractor designed, engineer approved, temporary traffic signals and lighting system may be installed to reopen the intersection. Temporary systems installation, maintenance, removal, mobilization, and traffic control costs are incidental to the electrical bid items.

**06: Interim Completion and Liquidated Damages – IH 41 Southbound/STH 47 Interchange Entrance Ramp (Ramp C): 90 calendar days**

The IH 41 southbound/STH 47 interchange entrance ramp (Ramp C) and STH 47 north of IH 41 will be allowed to be closed for 90 consecutive calendar days to complete the ramp reconstruction during Stage 2 and 3. Do not reopen IH 41 southbound/STH 47 interchange entrance ramp (Ramp C) to traffic until drainage, base, pavement, sign structures, traffic signals, lighting and pavement markings are completed.

If the contractor fails to complete the work necessary to complete the reconstruction and reopen to traffic within 90 consecutive calendar days, the department will assess the contractor \$6,000 in interim liquidated damages for each calendar day the contract work remains incomplete. 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.

A contractor designed, engineer approved, temporary traffic signals and lighting system may be installed to reopen the intersection. Temporary systems installation, maintenance, removal, mobilization, and traffic control costs are incidental to the electrical bid items.

**07: Interim Completion and Liquidated Damages – IH 41 Southbound/STH 47 Interchange Exit Ramp (Ramp D): 90 calendar days**

The IH 41 southbound/STH 47 interchange exit ramp (Ramp D) and STH 47 north of IH 41 will be allowed to be closed for 90 consecutive calendar days to complete the ramp reconstruction during Stage 2 and 3. Do not reopen IH 41 southbound/STH 47 interchange exit ramp (Ramp D) to traffic until drainage, base, pavement, sign structures, traffic signals, lighting and pavement markings are completed.

If the contractor fails to complete the work necessary to complete the reconstruction and reopen to traffic within 90 consecutive calendar days, the department will assess the contractor \$6,000 in interim liquidated damages for each calendar day the contract work remains incomplete. 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.

A contractor designed, engineer approved, temporary traffic signals and lighting system may be installed to reopen the intersection. Temporary systems installation, maintenance, removal, mobilization, and traffic control costs are incidental to the electrical bid items.

**08: Interim Completion and Liquidated Damages – STH 47, Including the Interchange Ramps: October 16, 2026 completion date.**

Complete all STH 47 work, including the interchange ramps, by October 16, 2026.

If the contractor fails to complete all STH 47 work, including the interchange ramps, by October 16, 2026, the department will assess the contractor \$12,000 in interim liquidated damages for each calendar day the contract work remains incomplete. 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.

**09: Interim Completion and Liquidated Damages – Gillett Street Closure (Bridge Removal): 2 calendar days**

Gillett Street will be allowed to be closed for 2 calendar days to complete the removal of existing structure B-44-029 during Stage 3.

If the contractor fails to complete the work necessary to remove the structure and reopen to traffic within 2 calendar days, the department will assess the contractor \$2,000 in interim liquidated damages for each calendar day the contract work remains incomplete. 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.

**10: Interim Completion and Liquidated Damages – Gillett Street Closure (Girder Placement): 2 calendar day**

Gillett Street will be allowed to be closed for 2 calendar day to complete the placement of girders of structure B-44-0321 during Stage 3.

If the contractor fails to complete the work necessary to place the girder and reopen to traffic within 2 calendar day, the department will assess the contractor \$2,000 in interim liquidated damages for each calendar day the contract work remains incomplete. 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.

**11: Interim Completion and Liquidated Damages – Gillett Street Closure (Falsework): 2 calendar days**

Gillett Street will be allowed to be closed for 1 calendar day to complete the placement and removal of falsework (2 total calendar days) of structure B-44-0321 during Stage 3.

If the contractor fails to complete the work necessary to place and remove the falsework and reopen to traffic within 1 calendar day, the department will assess the contractor \$2,000 in interim liquidated damages for each calendar day the contract work remains incomplete. 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.

**12: Interim Completion and Liquidated Damages – Stage W1: November 20, 2026**

Shift IH 41 traffic to the respective locations as shown in Stage W1 by November 20, 2026.

If the contractor fails to complete the work necessary to shift IH 41 traffic to the respective locations as shown in Stage W1 by November 20, 2026 the department will assess the contractor \$10,000 in interim

liquidated damages for each calendar day the contract work remains incomplete. 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.

### **13: Interim Completion and Liquidated Damages – Gillett Street Closure (Bridge Removal): 2 calendar days**

Gillett Street will be allowed to be closed for 2 calendar days to complete the removal of existing structure B-44-028 during Stage 5.

If the contractor fails to complete the work necessary to remove the structure and reopen to traffic within 2 calendar days, the department will assess the contractor \$2,000 in interim liquidated damages for each calendar day the contract work remains incomplete. 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.

### **14: Interim Completion and Liquidated Damages – Gillett Street Closure: 90 calendar days**

Gillett Street will be allowed to be closed for 90 consecutive calendar days to complete the B-44-0320 and roadway reconstruction during Stage 5. Do not reopen Gillett Street to traffic until drainage, base, pavement, and pavement markings are completed.

If the contractor fails to complete the work necessary to complete the reconstruction and reopen to traffic within 90 consecutive calendar days, the department will assess the contractor \$2,000 in interim liquidated damages for each calendar day the contract work remains incomplete. 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.

### **15: Interim Completion and Liquidated Damages – Stage W2: October 22, 2027**

Shift IH 41 traffic to the respective locations as shown in Stage W2 prior October 22, 2027. Coordination with project 1130-65-71 will be required for this traffic shift.

If the contractor fails to complete the work necessary to shift IH 41 traffic to the respective locations as shown in Stage W2 by October 22, 2027 the department will assess the contractor \$10,000 in interim liquidated damages for each calendar day the contract work remains incomplete. 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.

## **2.2 Notice to Contractor, New or Revised Temporary Construction Access.**

The use of any construction access point(s) through the right of way which are not shown in the plans is prohibited without the prior written approval from FHWA and the department. To obtain written approval for temporary access through the right of way during construction, a Work Zone Access Request shall be submitted to the engineer. Contact the engineer to obtain a copy of the Work Zone Access Request. Requirements of the Work Zone Access Request for access during construction includes, but is not limited to, the following:

Plan Details:

- The location, dimensions, grades, and slopes for any new/revised temporary construction access point(s) through the right of way.
- Traffic control measures that are required to manage this access change.
- Traffic control measures that are required to secure/close any new construction access points through the right of way when not in use.
- Erosion control measures required to manage this change, including the location(s) of any tracking pad(s).

Written summary of proposed temporary construction access change including:

- Timeframe to construct, duration in place, and time to remove.
- Cost of proposed temporary access including grading, traffic control, erosion control, and all other items and incidentals to implement and remove the access.
- Benefits in implementing the change (i.e., cost or time savings, ease of construction, increased safety to workers, and the traveling public).

- Signed Construction Permit, Right of Entry, or similar documentation if temporary access crosses private property.

The Work Zone Access Request shall be provided to the engineer a minimum of 14 calendar days prior to the anticipated implementation of the new/revised temporary construction access through the right of way. The request will be reviewed, and if warranted, concurred with by the designated department staff. Following department concurrence, the Work Zone Access Request will be forwarded to FHWA for review and processing. A submittal does not guarantee approval.

ner41-100 (08122024)

## **2.3 Notice to Contractor, New or Revised Ingress/Egress Access.**

The use of any construction ingress and egress access point(s) which are not shown in the plans is prohibited without the prior written approval from the engineer. To obtain written approval for new or revised ingress and egress construction access, a Work Zone Access Request shall be submitted to the engineer. Contact the engineer to obtain a copy of the Work Zone Access Request. Requirements of the Work Zone Access request for access during construction includes, but is not limited to, the following:

Plan Details:

- The location, dimensions, grades, and slopes for any new/revised ingress and egress access point(s).
- Traffic control measures that are required to manage the ingress and egress change.
- Traffic control measures that are required to secure/close any new or revised ingress and egress access points when not in use.
- Erosion control measures required to manage this change, including the location(s) of any tracking pad(s).

Written summary of proposed temporary construction access change including:

- Timeframe to construct, duration in place, and time to remove.
- Cost of proposed temporary access including grading, traffic control, erosion control, and all other items and incidentals to implement and remove the access.
- Benefits in implementing the change (i.e., cost or time savings, ease of construction, increased safety to workers, and the traveling public).

The Work Zone Access Request shall be provided to the engineer a minimum of 14 calendar days prior to the anticipated implementation of the new/revised temporary construction access to IH 41 through the right of way. The request will be reviewed, and if warranted, concurred with by the designated department staff. A submittal does not guarantee approval.

ner41-100 (08122024)

## **2.4 Notice to Contractor, Multiple Mobilizations.**

The contractor is advised that there may be multiple mobilizations for such items as traffic control, detours, signing items, temporary pavement markings and other incidental items related to the staging. The department will make no additional payment for said mobilizations.

ner41-100 (12052023)

## **2.5 Notice to Contractor, Roadway Maintenance During Construction.**

*Supplement 104.6.1 of the standard specifications with the following:*

Assist with maintenance of existing roadways and bridges, including work to maintain the existing freeway and local streets during construction and accommodating local repair forces within the work zones. The department will pay for necessary work and materials at the contract unit prices of the bid items used or as extra work if the necessary bid items are not included in the contract.

ner41-100 (03182024)

## **2.6 Baseline CPM Progress Schedule, Item SPV.0060.0100; CPM Progress Schedule and Accepted Revisions, Item SPV.0060.0105.**

*Replace standard spec 108.4 with the following:*

### **108.4 Critical Path Method Progress Schedule**

#### **108.4.1 Definitions**

The department defines terms used in standard spec 108.4 as follows:

**Activity** An administrative or construction task performed during the course of the project with a defined duration and scheduled (or actual) start and finish dates.

**Critical Path** The longest continuous chain of activities through the CPM schedule that establishes the minimum overall project duration.

**Construction Activity** Construction activities are discrete work activities performed by the contractor, subcontractors, utilities, or third parties within the project limits.

**CPM Progress Schedule** A Critical Path Method (CPM) Progress Schedule is a network of logically related activities. The CPM schedule calculates when activities can be performed and establishes the critical or longest continuous path or paths of activities through the project.

**Data date** The earliest work period after the date through which a schedule is current. Everything occurring earlier than the data date is "as-built" and everything on or after the data date is "as-planned".

**Preliminary Construction Schedule (PCS)** The department's schedule for the contract work, developed during design, and provided to the contractor for informational purposes only.

**Float** Float, as used herein, is the total float of an activity; i.e., it is the amount of time between the date when an activity can start (the early start), and the date when an activity must start (the late start). In cases where the total float of an activity has a different value when calculated based on the finish dates, the lower (more critical) value will govern.

**Forecast Completion Date** The completion date predicted by the latest accepted CPM Update, which may be earlier or later than the contract completion date, depending on progress.

**Fragnet** A group of logically-related activities, typically inserted into an existing CPM schedule to model a portion of the project, such as the work associated with a change order.

**Initial Work Plan** The initial work plan is a time-scaled CPM schedule showing detailed activities for the first 90 calendar days of work and summary level activities for the remainder of the project.

**Intermediate Milestone Date** A contractually required date for the completion of a portion of the work, so that a subsequent portion of the work or stage of traffic phasing may proceed.

**Master Project Schedule** The department's schedule for the contract work, developed during design, and provided to the contractor for informational purposes only.

**Work Breakdown Structure (WBS)** A framework for organizing the activities that make up a project by breaking the project into successively greater detail by level. A WBS organizes the project work. It does not address the sequencing and scheduling of project activities.

#### **108.4.2 Department's Preliminary Construction Schedule**

The department's Preliminary Construction Schedule was developed during the design phase of the contract. Its purpose was to illustrate work areas per Stage/Phase of construction. Durations and resource availability are department estimates only. Contractor is solely responsible for its use of means and methods and as such is fully responsible for determining durations based on own estimate of production and available resources. The suggested use of the department's Preliminary Construction Schedule is ease of identification of work availability during each Stage/Phase and the logical relationship between the Stages/Phases. The Preliminary Construction Schedule reflects one possible approach to completing the work, consistent with the traffic phasing requirements and the interim/final completion date(s) contained in the contract. The logic contained in the Preliminary Construction Schedule is not intended to alter or supplement contract requirements for the phasing of the work, but to reflect those requirements. Any reliance on the department's Preliminary Construction Schedule is at the sole risk of the contractor.

#### **108.4.3 Contractor's Scheduling Responsibilities**

Prepare and submit a CPM progress schedule that accurately reflects the plan for the performance of the work, based on the physical requirements of the Work, and Traffic Phasing requirements. The CPM schedule is the contractor's committed plan to complete all work within the completion deadlines. The contractor assumes full responsibility for the prosecution of the work as shown. Schedule the Work in the manner required to achieve the completion date and intermediate milestone dates specified in the Prosecution and Progress Special Provision.

Use the latest version of Primavera Project Planner (P6), by Primavera Systems, Inc., Bala Cynwyd, PA to prepare the Initial Work Plan, Baseline CPM Progress Schedule, and Monthly CPM Updates.

Designate a Project Scheduler who will be responsible for scheduling the Work and submit for approval a professional resume describing a minimum of three years of scheduling experience on urban, interstate-highway reconstruction work of similar size and complexity, including recent experience with P6.

#### **108.4.4 Submittals**

##### **108.4.4.1 Initial Work Plan**

At least 10 business days before the preconstruction meeting, submit an Initial Work Plan (IWP) schedule consisting of the following:

1. Provide a detailed plan of activities to be performed within the first 90 calendar days of the contract. Provide construction activities with durations not greater than 28 calendar days (20 business days), unless the engineer accepts requested exceptions.
2. Provide activities as necessary to depict administrative work, including submittals, reviews, and procurements that will occur within the first 90 calendar days of the contract. Activities other than construction activities may have durations greater than 28 calendar days (20 business days). Allow 21 calendar days (15 business days) for department review of submittals.
3. Do not actualize any tasks.
4. Schedule all intermediate milestones in the proper sequence and input as either a "Start On or After" or "Finish On or Before" date. Do not use other constraint types, within the software, without prior approval by the engineer. Do not apply date constraints on any work tasks without prior approval by the engineer. Provide predecessors and successors for each intermediate milestone as necessary to model each Stage of the Work. Unless the engineer accepts a requested exception, the schedule should encompass all the time in the contract period between the starting date and the specified completion date.
5. Provide summary activities for the balance of the project. Summary activities may have durations greater than 28 calendar days (20 business days).
6. Submit the IWP Schedule, including the P6 native data file (XER) and an electronic file (PDF). Submit the P6 native data file (XER) and an electronic file (PDF) to the project engineer and the following DOT email boxes; DOTDTSNRI41@dot.wi.gov
7. The engineer will accept the contractor's Initial Work Plan or provide comments within ten business days after receipt of the Initial Work Plan. Within five business days of receiving the IWP Schedule, the department will schedule a workshop for the contractor to present the IWP Schedule and to answer questions raised during the department's review. Address comments and resubmit the Initial Work Plan as necessary. Do not begin work until the engineer accepts the Initial Work Plan. The department will use the initial work plan to monitor the progress of the work until the Baseline CPM Progress Schedule is accepted.
8. If the baseline acceptance extends more than a month into construction, submit an updated version of the Initial Work Plan on a monthly basis until the engineer accepts the Baseline CPM Progress Schedule. With each update, include actual start dates, completion percentages, and remaining durations for activities started but not completed. Include actual finish dates for completed activities.

##### **108.4.4.2 Baseline CPM Progress Schedule**

Within ten business days of receiving an approved IWP, as required by the contract, submit a Baseline CPM Progress Schedule and written narrative consisting of the following:

1. Develop the Baseline CPM schedule. The Baseline CPM is the contractor's committed plan to complete the Work within the time frames required to achieve the contract completion date and Intermediate milestone dates. The department will use the schedule to monitor the progress of the work. Include the following:
  - 1.1 Provide a detailed plan of activities to be performed during the entire contract duration, including all administrative and construction activities required to complete the work as described in the contract documents. Provide construction activities with durations not greater than 28 calendar days (20 business days), unless the engineer accepts requested exceptions.
  - 1.2 Provide activities as necessary to depict administrative work, including submittals, reviews, procurements, inspections, and all else necessary to complete the work as described in the contract documents. Activities other than construction activities may have durations greater than 28 calendar days (20 business days). Allow 21 calendar days (15 business days) for department review of submittals.
  - 1.3 Provide activities as necessary to depict third party work related to the contract.
  - 1.4 Make allowance for specified work restrictions, non-working days, time constraints, calendars, and weather; and reflect involvement and reviews by the department, and coordination with adjacent contractors, utility owners, and other third parties.
  - 1.5 With the exception of the Project Start Milestone and Project Completion Milestone, all activities must have predecessors and successors. The start of an activity shall have a Start-to-Start or Finish-to-Start relationship with preceding activities. The completion of an activity shall have a Finish-to-Start

- or Finish-to-Finish relationship with succeeding activities. Do not use Start-to-Finish relationships. Do not use Finish-to-Start relationships with a lag unless the engineer accepts requested exceptions.
- 1.6 Schedule activities shall include a clear and legible description. The use of abbreviations shall be limited. Descriptions shall include an action verb describing the work performed, a basic description of the materials used, and, where applicable, a general location of the work.
  - 1.7 Schedule all intermediate milestones in the proper sequence and input as either a "Start On or After" or "Finish On or Before" date. Do not use other constraint types, within the software, without prior approval by the engineer. Do not apply date constraints on any work tasks without prior approval by the engineer. Provide predecessors and successors for each intermediate milestone as necessary to model each Stage of the Work. Unless the engineer accepts a requested exception, the schedule should encompass all the time in the contract period between the starting date and the specified completion date.
  - 1.8 Develop and submit an anticipated cash-flow curve for the project within the P6 application, based on the Baseline CPM schedule by assigning cost values to stage or substage summary tasks that total the value of the contract. An example will be provided by the department of a previously accepted cash-flow diagram (created in p6). The example will provide resource type and details required.
  - 1.9 Provide budgeted quantities consistent with the bid quantities on selective construction tasks within the CPM schedule. The engineer will provide a summarized list of generalized quantities required on construction activities. Quantities are to be added to the activity name description only.
  - 1.10 Do not actualize any tasks.
  2. Provide an electronic PDF of the CPM schedule depicting the CPM network. Organize the logic diagram by grouping related activities using the WBS that matches the work requirements as laid out in the prosecution and progress.
  3. Provide a written narrative with the baseline CPM explaining the planned sequence of work, as-planned critical path, critical activities for achieving intermediate milestone dates, traffic phasing, and planned labor and equipment resources. Use the narrative to further explain:
    - 3.1 The basis for activity durations in terms of production rates for each major type of work (number of shifts per day and number of hours per shift), and equipment usage and limitations.
    - 3.2 Use of constraints.
    - 3.3 Use of calendars.
    - 3.4 Estimated number of adverse weather days on a monthly-basis.
    - 3.5 Scheduling of permit and environmental constraints, and coordination of the schedule with other contractors, utilities, and public entities.
  4. Submit the Baseline CPM Narrative and schedule including the P6 native data file (XER) and an electronic file (PDF). Submit the P6 native data file (XER), an electronic file (PDF), and written narrative (PDF) to the project engineer and the following DOT email boxes; DOTDTSNERI41@dot.wi.gov.

Within ten business days of receiving the Baseline CPM, the engineer will provide comments. And accept or reject the Baseline CPM based solely on whether the schedule is complete as specified in this section and meets the requirements of the contract. The engineer's acceptance of the schedule does not modify the contract and does not relieve the contractor from meeting the contract requirements. The Baseline CPM schedule may, but not limited to, be rejected for one of the following reasons

- Does not meet the requirements as laid out in these special provisions
- Out of sequence work
- Missing significant work
- Quantity differences significant enough impacting critical path or near critical path work

The department will not consider requests for contract time extensions as specified in 108.10 or additional compensation for delay specified in 109.4.7 until the department accepts the Baseline CPM schedule.

#### **108.4.4.3 Monthly CPM Updates**

Submit CPM Updates on a monthly basis after acceptance of the Baseline CPM. With each CPM Update, include the following:

1. Actual start dates, completion percentages, and remaining durations for activities started but not completed, and actual finish dates for completed activities.
2. Additional activities as necessary to depict additions to the contract by changes and logic revisions as necessary to reflect changes in the contractor's plan for prosecuting the work.
3. Include a narrative report that includes a brief description of monthly progress, changes to the critical path from the previous update, sources of delay, potential problems, work planned for the next 30 calendar days, and changes to the CPM schedule. Changes to the logic of the CPM schedule include the addition or deletion of activities and changes to activity descriptions, original durations, relationships, constraints,



calendars, or previously recorded actual dates. Justify changes to the CPM schedule in the narrative by describing associated changes in the planned methods or manner of performing the work or changes in the work itself.

4. Submit each CPM Schedule update, including the P6 native data file (XER) and an electronic file (PDF). Submit the P6 native data file (XER), the electronic file (PDF), responses to the DOT review comments, and the progress schedule update narrative to the project engineer and the following DOT email boxes; DOTDTSNERI41@dot.wi.gov.
5. Within ten business days of receiving each CPM Update, the engineer will provide comments and schedule a meeting as necessary to address comments raised in the engineer's review. Address the engineer's comments as described in the comment review spreadsheet.

#### **108.4.4.4 Three-Week Look-Ahead Schedules**

Submit Three-Week Look-Ahead Schedules on a weekly basis after notice to proceed (NTP). The schedule can be hand drawn or generated by computer. With each Three-Week Look-Ahead include:

1. Activities underway and as-built dates for the past week.
2. Planned work for the upcoming two-week period.
3. The activities of the Three-Week Look-Ahead schedule shall include the activities underway and critical RFIs and submittals, based on the CPM schedule. The Three-Week Look-Ahead may also include details on other activities not individually represented in the CPM schedule.
4. On a weekly basis, the department and the contractor shall agree on the as-built dates depicted in the Three-Week Look-Ahead schedule or document any disagreements. Use the as-built dates from the Three-Week Look-Ahead schedules for the month when updating the CPM schedule.

#### **108.4.4.5 Weekly Production Data**

Provide estimated and actual weekly production rates for items of work on a weekly basis as follows:

1. Provide data on the following items by area or station:
  - 1.1 Retaining Walls—SF per week
    - a. MSE Walls
  - 1.2 Bridge Construction
    - a. Foundation Pile—Each per week
    - b. Foundation/Substructure Concrete—CY per week
    - c. Structural Steel Girders—Each per week
    - d. Prestressed Concrete Girders—Each per week
    - e. Deck Formwork—SF per week
  - 1.3 Roadway Excavation—CY per week
  - 1.4 Roadway Structural Section
    - a. Grading/Subgrade Preparation—SY per week
    - b. Base Material Placement—Ton per week
    - c. Base Material Subgrade Preparation—SY per week
    - d. Asphalt Pavement—Ton per week
    - e. Concrete Pavement – SY per week
2. For each item, indicate the actual daily production for the past week and the anticipated weekly production for the next week.
3. Submit the data in an electronic spreadsheet format at the same time the Three-Week Look-Ahead is submitted. On a weekly basis, the department and the contractor shall agree on the production data or document any disagreements.

#### **108.4.5 Progress Review Meetings**

Weekly Progress Review Meetings—After completing the weekly submittal of the Three-Week Look-Ahead and production data, attend a weekly meeting to review the submittals with the department. At the meeting, address comments as necessary, and document agreement or disagreement with the department.

#### **108.4.6 CPM Progress Schedule Revisions**

Revision by the contractor—If necessary due to changes in the Work or project conditions and authorized by the engineer, the contractor may submit a CPM Progress Schedule Revision, although the next CPM Update is not yet due. Prepare the CPM Revision in the same format as required for CPM Updates, including justification for changes to the schedule. The process for comment and acceptance of a CPM Revision will be the same as for CPM Updates. If the CPM Revision is accepted, prepare the next

monthly update based on the revised CPM. If the CPM Revision is rejected, prepare the next monthly update based on the previous month's update.

**Engineer's Right to Request Revisions** - The engineer will monitor the progress of the work and may request revisions to the CPM schedule. Revise the schedule as requested by the engineer, and submit a CPM Progress Schedule Revision within ten business days of the request. The process for comment and acceptance of a CPM Revision will be the same as for CPM Updates. The engineer may request that the contractor revise the CPM schedule for one or more of the following reasons:

1. The forecast completion date is scheduled to occur more than 14 calendar days after the contract completion date.
2. An intermediate milestone is scheduled to occur more than 14 calendar days after the date required by the contract.
3. The engineer determines that the progress of the work differs significantly from the current schedule.
4. A contract change order requires the addition, deletion, or revision of activities that causes a change in the contractor's work sequence or the method and manner of performing the work.

#### **108.4.7 Documentation Required for Time Extension Requests**

To request a time extension to an intermediate milestone date or the contract completion date associated with changes to the work, provide a narrative detailing the work added or deleted and the other activities affected, based on the latest accepted CPM Update. For added work, submit a proposed fragnet of activities to be added or revised in the CPM schedule, indicating how the fragnet is to be tied to the CPM schedule.

To request a time extension to an intermediate milestone date or the contract completion date associated with delays to the work, provide a narrative detailing the affected activities and the cause of the delay, based on the latest accepted CPM Update. Requests for time extensions due to delays should meet the following criteria:

1. For requests to extend the contract completion date, include a description of how the delay affected the project's critical path, based on the latest accepted CPM Update.
2. For requests to extend an intermediate milestone date, include a description of how the delay affected the controlling (longest) path to the milestone, based on the latest accepted CPM Update.
3. The department and the contractor agree that float is not for the exclusive use or financial benefit of either party. Either party has the full use of the float on a first come basis until it is depleted.

#### **108.4.8 Payment for CPM Progress Schedule**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.0100	Baseline CPM Progress Schedule	EACH
SPV.0060.0105	CPM Progress Schedule and Accepted Revisions	EACH

The department will only make progress payments for the value of materials, as specified in standard spec 109.6.3.2.1, until the contractor has submitted the Baseline CPM schedule. The department will retain ten percent of each estimate until the department accepts the Baseline CPM schedule.

Payment is full compensation for all work required under these bid items including the three week look ahead. The department will pay the contract unit price for the Baseline CPM schedule after the department accepts the schedule. Thereafter, the department will pay the contract unit price for each monthly CPM Update, acceptably completed. The department will pay the contract unit price for CPM Revisions, if the department accepts the revision. The department will not pay for proposed revisions that are not accepted.

## **2.7 Lane Rental Fee Assessment.**

### **A General**

This special provision describes lane rental fee assessments.

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

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

Coordinate lane, ramp, and roadway closures with any concurrent operations on adjacent roadways within 3 miles of the project. If other projects are in the vicinity of this project, coordinate lane closures to run concurrent with lane closures on adjacent projects when possible. When lane closures on adjacent projects extend into the limits of this project, Lane Rental Fee Assessments will only occur if the closure facilitates work under this contract.

## **B Lane Rental Fee Assessment**

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

- \$3,000 initial infraction plus **Lane Rental Assessment Rate** per lane, per direction of travel, per hour broken into 15-minute increments as shown below:

<b>Highway</b>	<b>County</b>	<b>Lane Rental Assessment Rate (\$/hour)</b>
IH 41 Mainline and Ramps	Outagamie	\$3,000

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 15 minutes and less will be assessed as a 15-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 initial infraction is applied per event and will be added to the separate lane rental assessment calculated per 15-minute increment (\$/hour).

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 15-minute increments of each lane closure event as described above plus the initial infraction.

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 according to standard spec 108.11 or as specified within this contract.

ner41-643 (102825)

## **2.8 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)

## **3. Meetings.**

### **3.1 Non-Mandatory Pre-Bid Meeting.**

*Add the following to standard spec 102.3.1:*

Prospective bidders are invited to attend a pre-bid meeting 11:00 am to 12:00 PM, Thursday, January 22, 2026, Northeast Region Field Office, located at 3600 Commerce Court, Appleton, WI.

No meeting minutes will be prepared. Issues discovered at the meeting which may impact the contract will be handled by addendum.

ner41-102 (12052023)

### **3.2 Coordination with Businesses and Residents.**

Participate in department-sponsored public involvement meetings as directed by the engineer. Ensure that representatives of subcontractors responsible for activities to be discussed at the public involvement meeting are also available to participate in the meeting if directed by the engineer.

The department will schedule meetings as necessary and will notify the contractor seven days prior to the meeting date of the time and location of the meeting such that the contractor can make appropriate accommodations to attend the meeting.

Anticipated meetings include, but are not limited to:

- Quarterly basis
- Before each traffic shift
- Access changes
- Long term closures
- As directed by the engineer

ner41-105 (12052023)

### **3.3 Traffic Meetings and Traffic Control Scheduling.**

Every Tuesday by 10 PM and at least 12-hours prior to the weekly progress meeting, submit a detailed proposed 2-week look-ahead traffic closure schedule to the engineer. Type the detailed proposed 2-week look-ahead closure schedule into an excel spreadsheet provided by the engineer. Enter information such as closure dates, closure type, speed reductions, width restrictions, closure duration, work causing the closure and detours to be used. Also enter information such as ongoing long-term closures, emergency contacts and general 2-month look-ahead closure information into the excel spreadsheet. The closure schedule submittal does not guarantee approval. Requested closures will be discussed in the weekly progress meetings, including any coordination between projects.

The Prime contractor and traffic control contractor are required to attend traffic control meetings as scheduled by the engineer. The meeting will bring local agencies, project stakeholders, owner managers, owner engineers, contractors, document control and construction engineering personnel together to discuss traffic staging, closures and general impacts. Upon obtaining feedback from the meeting attendees, edit, delete and add information to the detailed 2-week look-ahead closure schedule, as needed. Submit the revised 2-week look-ahead to the engineer.

Obtain approval from the engineer for any mid-week changes to the closure schedule. Revise the 2-week look-ahead as required and obtain engineer approval.

ner41-105 (08222024)

### **3.4 Partnering Meetings Monthly.**

The department will implement mandatory monthly leadership partnering meetings. Unless the department and contractor agree otherwise, the contractor, project design engineers, and department field personnel shall meet monthly from project start until the contractor accepts the tentative final estimate. The contractor and department field personnel may mutually agree to invite other attendees.

The department will develop all meeting agendas and compile all meeting notes to be shared with the meeting attendees.

This meeting is intended to facilitate a cooperative team environment that defines roles and responsibilities, determines common goals and objectives, and provides a platform to build trust and accountability. Meeting topics may include:

- Issue and risk management
- Dispute resolution procedures
- Safety
- Public outreach
- Traffic management
- Cost reducing incentives

- Claim resolution
- Scheduling issues
- Quality control

All cost associated with these meetings are incidental to the contract work.

ner41-103 (12052023)

#### **4. Traffic and Restrictions to Work.**

##### **4.1 Notice to Contractor, Coordination with Contract 1130-63-72.**

Project 1130-63-72 will be responsible for maintaining a smart work zone for the IH 41 corridor. It is anticipated the contractor for the IH 41 Corridor Smart Work Zone project will begin work in April 2025. The primary components of the smart work zone will include Queue Warning Systems (QWS) and Portable Changeable Message Signs (PCMS). It is anticipated that the smart work zone equipment will be maintained at the following locations:

- IH 41 northbound and southbound,
- IH 41 exit ramps,
- STH 441 northbound (south of IH 41),
- STH 441 ramps between the Southern IH 41/USH 10/STH 441 Interchange and
- STH 172 Interchange in Green Bay.

The anticipated equipment installed as part of the project includes portable traffic sensors (PTS) spaced every 1-2 miles on IH 41 (northbound and southbound), on IH 41 and STH 441 exit ramps where excessive queueing is expected, flashing beacon signs (FBS) to alert traffic of unexpected queueing on IH 41 and STH 441 northbound and cellular PCMSs.

The Transportation Management Engineer will provide a map showing the existing locations of the PTSs, which may be installed on signposts, barricades, traffic control drums, or other existing or temporary structures, at the pre-construction meeting. If any PTSs are expected to be impacted by this project, provide notification to the Transportation Management Engineer within 72 hours of the pre-construction meeting.

##### **QWS Deployment**

All QWS components will be installed by Project 1130-63-72. Coordinate all IH 41 and STH 441 lane closures, long term ramp closures, and IH 41 and STH 441 stage changes with the Traffic Management Engineer, Susan Paulus at 414-460-3409. Provide the following advance notification to the Traffic Management Engineer.

- Short term (nighttime/off peak) lane closures on IH 41 and STH 441:
  - 72 hours before initial lane closure set up
  - 48 hours before a change in the lane closure location
- Long term exit ramp closures
  - 7 days before initial ramp closure
  - 72 hours before anticipated ramp opening
- Traffic Control Stage Change on IH 41 and STH 441
  - 7 days before the expected stage change.
  - 72 hours before any sub-stage change (including changed locations of staged exit ramps)

Anticipate additional coordination when work zones between multiple construction contracts overlap.

##### **PCMSs**

Corridor cellular PCMSs will also be installed as part of Project 1130-63-72. PCMSs will provide advanced notice of both IH 41 mainline and exit ramp queueing, STH 441 northbound queueing, and for incident notifications. The locations of the corridor PCMSs will be provided by the Transportation

Management Engineer at the pre-construction meeting. Any changes to their locations will be provided at weekly progress meetings. The corridor PCMSs will be available to this contract for advanced notice of full closures and full closure implementation. Notify the Transportation Management Engineer 10 days in advance of all IH 41 and STH 441 full closures to determine what messages can be placed on the corridor PCMSs and what PCMSs will need to be provided under this contract.

## **Meetings**

Participate in the Traffic Control Meetings scheduled by the engineer to coordinate the corridor QWSs and PCMSs with Project 1130-63-72. Coordinate the removal and installation of PTSs and FBSs on IH 41, STH 441, and exit ramps to ensure the locations do not impact construction activities and that the devices are not blocked or impacted by construction traffic within the work area.

### **4.2 Notice to Contractor, Coordination with Contract 1130-64-71/72/87.**

Project ID 1130-64-71/72/87, Appleton – De Pere; STH 96 to Railroad Bridges/Railroad Bridges to Lynndale Drive/ Railroad Bridges was let December 2024. Construction of this project has begun and is expected to conclude November 2026. Coordinate project activities with this project, as needed.

Participate in the Freeway Traffic Control Meeting for the initial traffic control setup of the IH 41 Mainline project as traffic control on IH 41 placed for this project could conflict with traffic control required to reconstruct IH 41. Coordinate removal of any traffic control devices placed by Project ID 1130-64-71/72/87 that conflict with traffic control devices for this project, or as directed by the engineer. Provide and maintain traffic control devices on IH 41 in accordance to standard specs 104.6.1.2 and 643 during the placement of the IH 41 Mainline project traffic control devices.

Concrete barrier temporary precast identified as left in place in the 1130-64-71/72/87 project are anticipated to become property of the 1130-64-73/77 contractor. However, the actual date ownership of the barrier and crash cushion transfers will be finalized during the weekly traffic meeting. Maintain and remove the left in place devices per the requirements identified in special provision Maintain and Remove Crash Cushions Temporary Left in Place and Maintain and Remove Concrete Barrier Temporary Precast Left in Place.

### **4.3 Notice to Contractor, Coordination with Contract 1130-65-71/72/73/74/78.**

It is anticipated the contractor for the IH 41 Mainline project ID 1130-65-71 (reconstruction of mainline IH 41 between Meade Street and Ballard Road) will begin work in September 2026. Participate in the Freeway Traffic Control Meeting for the initial traffic control setup of the IH 41 Mainline project as traffic control on IH 41 placed by this contract could conflict with traffic control required to reconstruct the IH 41 Mainline project. Coordinate the removal of traffic control devices on IH 41 required for this project with the installation of traffic control devices for the IH 41 Mainline project. Provide and maintain traffic control devices on IH 41 in accordance to standard specs 104.6.1.2 and 643 during the placement of the IH 41 Mainline project traffic control devices.

At this end of this contract, coordinate the removal of traffic control devices installed for this project with the IH 41 Mainline project. Concrete barrier temporary precast identified as left in place shall become property of the department during this coordination per the requirements identified in the special provisions Concrete Barrier Temporary Precast Left in Place.

### **4.4 Traffic.**

#### **General**

The construction sequence, including the associated traffic control, shall be substantially accomplished as detailed in the Traffic Control Plans, and described herein.

Maintain emergency vehicle access at all times.

Prior to any traffic control being placed, provide engineer, Wisconsin State Patrol and Outagamie County highway department(s) with the name and telephone number of local person responsible for the emergency maintenance of traffic control.

After written notice to proceed, and prior to Final Acceptance of the work, assist with maintenance of existing roadways and bridges as specified in section 104.6.1 of the standard specifications. This assistance may include performance of work covered under pay items or accommodating local repair forces within the work zones. Maintain all newly constructed work as specified in 104.6.1 of the standard specifications. Various pay items may be required to maintain the existing freeway and local streets during construction.

Stockpile excess fill material and cleared and grubbed material on upland areas an adequate distance, as approved by the engineer, away from wetlands, storm sewer inlets, floodplains, and the waterways. Provide erosion control devices for stockpiled soil to avoid erosion and nuisance dust emissions.

Keep IH 41, STH 47 and all service ramps open to through traffic at all times for the duration of this project except as noted below and in the Prosecution and Progress article in these special provisions.

Unless detailed in the plans, do not begin or continue any work that closes traffic lanes outside the allowed time periods specified in this article.

Do not store equipment, vehicles, or materials on adjacent streets beyond the project limits without specific approval of the engineer.

Prior to any traffic control being placed, provide the engineer, Wisconsin State Patrol and Outagamie County Highway Maintenance with the name and telephone number of a local person responsible for the emergency maintenance of traffic control. Contact the IH 41 Traffic Management Engineer, Susan Paulus, at (414) 460-3409 for the individuals at the Wisconsin State Patrol and Outagamie County Highway Maintenance.

Coordinate all traffic handling with the engineer. Place roadway signing as detailed on the plans and in conformance with the Manual on Uniform Traffic Control Devices (MUTCD), latest edition. Employ such flag persons, signs, barricades, and drums as may be necessary to safeguard or protect hazards in the work zone, such as exposed manholes or drop-offs for vehicles and direct traffic at locations where construction operations may interfere or restrict the smooth flow of traffic. Make arrangements and be responsible for the prompt replacement of damaged or dislocated traffic control or guidance signs, day or night.

Coordinate traffic requirements under this contract with other adjacent and concurrent department or local municipality projects. The contractor shall be responsible for implementing and coordinating with other contractors all traffic control as shown on the plans. Modifications to the traffic control plan may be required by the engineer to be safe and consistent with adjacent others. See Article 1.3, Other Contracts for adjacent projects.

### **Freeway Service Team (FST)**

The department has contracted with a private towing vendor to patrol parts of IH 41 during weekdays, holidays and special events. To improve safety and minimize delay, contact 911 immediately for breakdowns or incidents in or near the construction work zone. The FST will be dispatched directly to the scene to aid the vehicles that need to be removed.

### **Freeway Traffic Control Meeting**

The contractor shall conduct a traffic control meeting before:

1. Initial traffic control set up.
2. Intermediate traffic switches.
3. Full freeway closures.
4. Reopening of the highway to traffic.
5. Closures involving multiple projects or over-lapping project limits.

Notify the IH 41 Traffic Management Engineer, Susan Paulus, at (414) 460-3409 seven business days before setting up the meeting.

### **Freeway and Service Ramp Work Restrictions**

Maintain the following lanes during work on each roadway unless otherwise allowed. Each hour shown in the lane requirement tables is defined as a sixty-minute period (example: Hour 7 is the period from 7:00 to 7:59).

Freeway entrance and exit ramps may be closed for construction operations during identified lane closure hours or engineer approved timeframes. Coordinate ramp closures with work being performed under separate contracts.



Freeway/Expressway Lane Requirements																									
<b>Limits:</b>	Northbound IH 41: STH 125 to CTH N																								
	<b>AM</b>												<b>PM</b>												
<b>From Hour to Hour</b>	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
Monday through Thursday	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1
Fridays	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1
Saturdays	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1
Sundays	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1
Legend																									
1	Off Peak Hours: Provide at least one through freeway lane open in each direction of travel																								
2	Peak Hours: Open all IH 41 lanes to travel																								

Freeway/Expressway Lane Requirements																									
<b>Limits:</b>	Southbound IH 41: STH 96 to CTH N																								
	<b>AM</b>												<b>PM</b>												
<b>From Hour to Hour</b>	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
Monday through Thursday	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1
Fridays	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1
Saturdays	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1
Sundays	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1	1
Legend																									
1	Off-Peak Hours: Provide at least one through freeway lane open in each direction of travel																								
2	Peak Hours: Open all IH 41 lanes to travel																								

#### Full Freeway Closure Hours

##### IH 41 NB and SB Lanes

11:00 PM – 4:30 AM

Sunday PM to Monday AM, Monday PM to Tuesday AM, Tuesday PM to Wednesday AM, Wednesday PM to Thursday AM and Thursday PM to Friday AM

11:00 PM – 6:00 AM

Friday PM to Saturday AM and Saturday PM to Sunday AM

## **Ramp Closure Hours**

Ramp closures at STH 15, STH 47 and STH 96 are allowed Sunday through Saturday during the time periods identified below:

IH 41 NB exit ramp	8:00 PM – 6:00 AM
IH 41 NB entrance ramp	7:00 PM – 5:00 AM
IH 41 SB exit ramp	8:00 PM – 6:00 AM
IH 41 SB entrance ramp	7:00 PM – 5:00 AM

No lane or shoulder closures will be permitted during Special Events listed below or over holiday weekends listed under the Holiday Work Restrictions article.

Shoulders may be closed if required by the work operation, but the right and left shoulder may not be closed in the same area at the same time without the approval of the engineer.

## **Rolling Closures**

For setting of the girders for Structure B-44-0322 and B-44-0323, for setting S-44-353 sign bridge truss during Stage 3 and S-44-352, S-44-360 and S-44-362 sign bridge trusses during Stage 6, IH 41 and service ramps may be closed for periods not to exceed 20 minutes between the hours of 10:00 PM to the following morning at 4:00 AM, Sunday, Monday, Tuesday, Wednesday, and Thursday nights. Allow all vehicle backups to clear the project area prior to setting up the next road closure during the above timeframe.

Short-term freeway mainline and service ramp rolling closures may be allowed for a maximum of 15 minutes for the removal and erection of sign structures, equipment moves across the road, or other required work as determined by the engineer.

The department has contracted with the Wisconsin State Patrol to assist with traffic control operations by setting up rolling roadblocks for these closures.

Coordinate with the IH 41 Traffic Management Engineer, Susan Paulus, at (414) 460-3409, on these road closures and provide 72 hours prior notice to the engineer.

## **Full Freeway Closure**

Full closure and detouring of freeway roads will be restricted to Full Freeway and Service Ramp Closure/Hours unless otherwise specified. The freeway may be closed to facilitate the removal/demolition of structures, erection of girders, deck pours, drainage crossings or other work approved by the engineer. Provide signed detour routes, as shown in the plans, fully open and free of construction during all full roadway and service ramp closures.

Bridge superstructure demolition activities will require a full freeway closure. Only one direction of the freeway may be closed at a time, unless otherwise approved by the engineer. These closures are to be utilized only for bridge demolition, girder erection, and stage construction changes for the following locations:

- IH 41 NB & SB for demolition of existing structures B-44-35 and B-44-36 during Stage 2A
- IH 41 SB for storm sewer crossings during Stage 2C
- IH 41 NB for storm sewer crossings during Stage 2C and Stage 2E
- IH 41 NB or SB for inside girder placement of structures B-44-0319 and B-44-0321 during Stage 2
- IH 41 NB for deck pour of structures B-44-0319 and B-44-0321 during Stage 3
- IH 41 NB for outside girder placement of structures B-44-0319 and B-44-0321 during Stage 3
- IH 41 SB for girder placement of structures B-44-0318 and B-44-0320 during Stage 5
- Major traffic shifts

Submit requests for closures 14 calendar days prior to the planned closure events. Notify State Patrol 7 calendar days prior to closures.

## Ramp Closures

Freeway entrance and exit ramps may be closed for construction operations during time periods identified in the Prosecution and Progress article and Ramp Closure Hours or engineer approved timeframes. Coordinate ramp closures with work being performed under separate contracts. During closure of a particular ramp movement at one interchange, the corresponding ramp movement at the other interchange shall remain open to traffic.

## Wisconsin Lane Closure System Advanced 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**

<b>Closure type with height, weight, or width restrictions (available width, all lanes in one direction &lt; 16 feet)</b>	<b>MINIMUM NOTIFICATION</b>
Lane and shoulder closures	7 calendar days
Full roadway closures	7 calendar days
System Interchange Ramp closures	7 calendar days
Detours	7 calendar days
<b>Closure type without height, weight, or width restrictions (available width, all lanes in one direction ≥ 16 feet)</b>	<b>MINIMUM NOTIFICATION</b>
Lane and shoulder closures	3 business days
Service Interchange 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.

## Portable Changeable Message Signs (PCMS)

After coordinating with department construction field staff, obtain approval of the proposed message from the IH 41 Traffic Management Engineer, Susan Paulus, at (414) 460-3409 at least 3 business days before deploying or changing a message on a PCMS board.

The following are requirements for deploying PCMS boards:

- 7 days in advance of a full freeway closure.
- 7 days advance of a system ramp closure.
- 3 days advance of a service ramp closure.
- 7 days following a major traffic switch in the direction affected.
- Long-term daytime contractor access points on IH 41.
  - Use PCMS board for first 7 days for each acceleration/deceleration lane is used.
  - Fixed signage used after first 7 days has expired.
- 7 days in advance of a local road closure

## Local Roadway Restrictions

The following restrictions apply to the local roads impacted by this project:

- STH 47 and STH 15
- Lane closures are allowed from 8 PM to 5 AM PM on Sunday through Saturday for polymer overlays
- Gillett Street and Meade Street
  - Flagging is not allowed on Gillett Street during the hours of 7 AM to 8 AM and 2 PM to 7 PM
  - Flagging will not be allowed on Meade Street
  - Full closures are allowed based on Prosecution and Progress

## **Temporary Work Zone Clear Zone Working Restrictions**

The temporary work zone clear zone for this project is 18-feet from the edge of traveled way. If auxiliary lanes are present, clear zone is from the outside edge of the auxiliary lane.

Do not perform work in the median at any time unless protected by concrete barrier temporary precast in both directions except as allowed during lane closure periods.

Do not perform work within the clear zone unless protected by concrete barrier temporary precast or a lane closure during the allowed closure periods.

*Replace standard spec 104.6.1.2.3 with the following:*

If the roadway remains open to through traffic during construction and a drop-off greater than 2-inches occurs within the 18' clear zone, eliminate the drop-off prior to completing that day's work. Unless the special provisions specify otherwise, provide aggregate shoulder material compacted to a temporary 3:1 or flatter cross slope from the surface of the pavement edge.

*Replace standard spec 104.6.1.2.4 (1) with the following:*

Park equipment a minimum of 30-feet from the edge of the traveled way. Equipment may be parked in the median if it meets the minimum distance requirement from both traveled ways or if it is protected by concrete barrier.

*Replace standard spec 104.6.1.2.4 (2) with the following:*

Bridge abutments, parapets, pier columns, concrete barrier blunt ends and sign bridge foundations are to remain protected at all times during construction. Removal of existing guardrail shall be done concurrently with, or after, the placement of the concrete barrier temporary precast or concrete barrier temporary precast left in place. It may be necessary to remove existing guardrail in several phase to maintain protection. Coordinate the removal of existing guardrail with the installation of temporary concrete barrier.

Do not perform heavy equipment work in the median at any time unless protected by concrete barrier in both directions except as allowed during night work with lane closures.

Do not perform heavy equipment work within 18 feet of the edge of the traveled way unless protected by concrete barrier or a lane closure during the allowed closure periods.

If the contractor is unsure whether an individual work operation will meet the safety requirements for working within the clear zone, review the proposed work operation with the engineer before proceeding with the work.

## **Protection of Bridge Pier Columns**

Bridge pier columns are to remain protected at all times throughout construction if they are in the clear zone. Removal of existing guardrail shall be done concurrently with the placement of the temporary concrete barrier so that the bridge pier columns remain protected at all times. Placement of new beam guard shall be done concurrently with the temporary concrete barrier removal.

## **Private Driveways**

Maintain access at all times to all driveways located along IH 41 frontage roads, STH 47 and all the other side roads within the project limits unless otherwise noted in the plans. Notify the property occupant 5 days in advance of the driveway reconstruction to verify closure or staged driveway construction methods.

Maintain access to all business driveways and private residence driveways on a minimum of crushed aggregate base course surface at all times except as follows.

- Close driveways for a maximum of 5 business days due to roadway concrete paving.
- Close driveways for a maximum of 5 business days for grading and placement of base aggregate and concrete paving for each driveway.

## **Winter Maintenance**

During winter months park equipment at a safe distance (a minimum of 30 feet from the edge of travel lane, equipment may be parked in the median if it meets the minimum 30 feet from both traveled ways or if it is protected by concrete barrier) from the active travel lanes to prevent damage to equipment from snow plowing operations. Do not store equipment or materials within the work zone which may interfere with horizontal sight distances along IH 41.

Outagamie County, the City of Appleton and Town of Grand Chute will perform snow removal operations for freeway and local roads that are open to through traffic during construction. Snow may be plowed from the traveled roadway into the work site by the maintaining authority. Remove any snow from the work site that may be required to continue work operations.

Provide for snow removal in those areas closed to through traffic as required to facilitate safe construction activities, changes in traffic control and to provide access to properties within the work area. Outagamie County, the City of Appleton or the Town of Grand Chute will not provide snow plowing operations in areas outside of the active traveled lanes.

Re-install or adjust any traffic control devices that may be damaged, removed, or shifted as part of normal winter maintenance operations. Clean and maintain traffic control devices as necessary or directed as a result of winter maintenance operations.

Anticipated locations of traffic control devices are shown in the plans. Review the work site with the engineer for locations where additional area may be available to maximize lane and shoulder widths over winter months to aid in winter maintenance operations and to maximize snow storage area. Adjust traffic control devices in these areas.

Snow plowing, ice removal including any road salt which may be required, maintenance and cleaning of traffic control devices, and other winter maintenance activities are incidental other items of work under this contract.

#### **IH 41 Traffic**

Submit any traffic control change request to the engineer at least 72 hours prior to an actual traffic control change. A request does not constitute approval.

#### **Freight Width Restrictions**

IH 41 is designated WisDOT Freight Network Route. During periods no lane closures are allowed, maintain a width restriction no less than 16 feet in each direction, except as indicated in the plans. Movement of OSOW freight is scheduled to occur during this construction project that will require a minimum of 16 feet of horizontal clearance, except as provided for in the plans.

Enter in the correct minimum width restriction in Wisconsin Lane Closure System.

#### **Construction Access**

All initial set up or changes to locations of work zone egress or ingress for construction vehicles must be approved by the engineer to ensure work zone traffic and traveling public safety. Factors such as, but not limited to, sight distance, roadway profiles, truck type, and truck frequency are considered. Submit to the engineer a Work Zone Access Request, including locations for freeway access into and out of the work zone for each stage and plans that include signage and parallel decelerations and acceleration lanes for each freeway access into and out of the work zones. Contact the engineer to obtain a copy of the Work Zone Access Request. Submit a Work Zone Access Request 14 calendar days prior to each stage for review and approval by the engineer.

During the period when lane closures are allowed on IH 41, access into the work zones from IH 41 can be made from the closed lane, subject to the approval of the engineer. Construction traffic from the work zone entering IH 41 shall use an approved acceleration lane or run out of the closed lane. All construction traffic ingress and egress shall be designed using a 60 mph value for "S" following the Standard Detail Drawing Traffic Control Ingress/Egress without Barrier.

During the period when lane closures are not allowed on IH 41, access into and out of the work zones from IH 41 must be made with an engineer approved deceleration and acceleration lanes. All construction traffic ingress and egress shall be designed using a 60 mph value for "S" following the Standard Detail Drawing Traffic Control Ingress/Egress with Barrier. Final lengths will be determined by field conditions and approved by the engineer.

During periods when lane closures are not allowed, deceleration lanes cannot be placed within 1,500-feet of an interchange ramp that is opened to live traffic. Acceleration lanes cannot be placed within 1,500-feet of an interchange ramp that is opened to live traffic.

Construction traffic exiting or reentering the work zone must be within 10 mph of the posted speed.

Construction traffic cannot travel counter-directional adjacent to IH 41 mainline and ramp traffic except behind temporary concrete barrier.

Delivery of materials and equipment, such as but not limited to semi-trucks, lowboy semis, and delivery trucks, from IH 41 shall only occur during those hours identified as allowable lane closures.

Any approved access points can be closed at any time due to safety or noncompliance issues, as deemed necessary by the engineer.

### **General Access**

U-Turns at existing maintenance crossovers or temporary crossovers between IH 41 northbound and southbound will be allowed when lane closures are in place for inside northbound and southbound passing lanes.

Construction operations affecting the traveling public's safety on IH 41 will not be allowed during snow and ice conditions, or any other adverse weather conditions, unless approved by the engineer.

If a 2-mile spacing between lane closures is not attainable, the upstream lane closure project/contractor shall extend that closure into the downstream closure.

### **Ramp Access**

Access on and off of ramps will only be allowed if approved by the engineer. Crossing ramps with construction equipment/vehicles, unless shown in the plans, needs to be approved by the engineer. For crossing of ramps with equipment that is not tire equipped, an engineer approved rolling road block shall only occur during those hours identified as allowable lane closures associated with the ramp area on IH 41.

### **Construction Overview**

This information is included to assist the contractor and its subcontractors; do not interpret this information as a demonstration of specified means and methods. Coordinate the schedule of operations for the construction staging as shown in the plans and as noted in these special provisions. Do not move operations ahead within the proposed construction staging unless modifications to the staging and schedule are approved in writing by the engineer. Staging modifications shall address traffic and construction.

#### Stage 1

##### 1130-64-73

- Construct rumble strip removal along IH 41 northbound from Fox Valley & Lake Superior railroad to Station 723NB+00
- Construct temporary widening along IH 41 northbound from Station 723NB+00 to Station 736NB+50 and Station 758SB+00 to Station 802NB+00
- Construct rumble strip removal and joint repair along IH 41 southbound from the Fox Valley & Lake Superior railroad to approximately Station 745SB+00
- Construct temporary widening along IH 41 southbound from Station 745SB+00 to Station 757SB+50
- Place early fill along IH 41 southbound from Station 695SB+00 to Station 805SB+00 for structure R-44-0036

#### Stage 2A

##### 1130-64-73

- Begin construction of inside lanes and shoulder of IH 41 northbound from B-44-0319 to Station 720N+00
- Begin construction of inside portion of structures B-44-0319 and B-44-0321
- Construct temporary widening along IH 41 northbound from Station 735NB+50 to Station 759NB+50
- Begin construction of structure S-44-0351

##### 1130-64-77

- Remove existing structures B-44-0035 and B-44-0036

#### Stage 2B

##### 1130-64-73

- Continue construction of inside lanes and shoulder of IH 41 northbound from B-44-0319 to Station 720N+00
- Begin construction of inside lanes and shoulder of IH 41 northbound from Station 720N+00 to EOP

- Continue construction of inside portion of structures B-44-0319 and B-44-0321
- Continue construction of structure S-44-0351
- Begin construction on median base of structures S-44-0353 and S-44-0360

#### 1130-64-77

- Begin construction on STH 47 south of IH 41, northbound interchange ramps and Association Lane
- Construct median piers for structures B-44-0322 and B-44-0323
- Begin construction on structures R-44-0038 and abutments for structures B-44-0322 and B-44-0323
- Begin construction of structure S-44-0354 and S-44-0357

### Stage 2C

#### 1130-64-73

- Continue construction of inside lanes and shoulder of IH 41 northbound from 688NB+50 to EOP
- Continue construction of inside portion of structures B-44-0319 and B-44-0321
- Continue construction of structure S-44-0351
- Continue construction on median base of structures S-44-0353 and S-44-0360
- Install temporary pipe crossing of IH 41 southbound at Station 749SB+50
- Begin staining structure B-44-0171 during IH 41 northbound closures.

#### 1130-64-77

- Continue construction on STH 47 south of IH 41, northbound interchange ramps and Association Lane
- Complete median piers for structures B-44-0322 and B-44-0323
- Continue construction on structures R-44-0038 and abutments for structures B-44-0322 and B-44-0323
- Continue construction structures S-44-0354 and S-44-0357

### Stage 2D

#### 1130-64-73

- Continue construction of inside lanes and shoulder of IH 41 northbound from 688NB+50 to 717NB+80 and from 758NB+00 to EOP
- Continue construction of inside portion of structures B-44-0319 and B-44-0321
- Continue construction of structure S-44-0351
- Continue construction on median base of structures S-44-0353 and S-44-0360

#### 1130-64-77

- Continue construction on STH 47 south of IH 41, northbound interchange ramps and Association Lane
- Begin construction on STH 47 north of IH 41 and southbound interchange ramps
- Continue construction of structures R-44-0038 and structures B-44-0322 and B-44-00323
- Begin construction of structure R-44-0039
- Continue construction structures S-44-0354 and S-44-0357
- Begin construction of S-44-0355, S-44-0356, S-44-0358 and S-44-0359

### Stage 2E

#### 1130-64-73

- Complete construction of inside lanes and shoulder of IH 41 northbound from 688NB+50 to 717NB+80 and from 758NB+00 to EOP
- Construct inside lanes and shoulder of IH 41 northbound from Station 685NB+00 to Station 688NB+50
- Complete construction of inside portion of structures B-44-0319 and B-44-0321
- Construct inside portion of IH 41 northbound interim tie-in to project 1130-65-71
- Construct temporary widening along IH 41 northbound from BOP to Station 685NB+00
- Construct temporary widening along IH 41 northbound for Ramp D cross over
- Construct median base of structure S-44-0353 and S-44-0360
- Construct base of structure S-44-0351

#### 1130-64-77

- Continue construction of STH 47, interchange ramps and Association Lane

- Continue construction of structures R-44-0038 and R-44-0039 and structures B-44-0322 and B-44-00323
- Continue construction structures S-44-0354, S-44-0355, S-44-0356, S-44-0357, S-44-0358 and S-44-0359

#### Stage 3A

##### 1130-64-73

- Begin construction of outside lanes and shoulder of IH 41 northbound
- Complete construction of outside lanes and shoulder of IH 41 northbound from Station 718NB+00 to 778NB+00
- Remove existing structures B-44-0021 and B-44-0029
- Begin construction of outside portion of structures B-44-0319 and B-44-0321
- Begin construction of structure N-44-0012, N-44-0013 and N-44-0014
- Begin construction of outside support of S-44-0352 and S-44-0353
- Construct Ramp C and Ramp D interim tie-ins
- Complete staining structure B-44-0171 during IH 41 northbound closures.

##### 1130-64-77

- Complete STH 47, interchange ramps and Association Lane
- Complete construction of structures R-44-0038 and R-44-0039 and structures B-44-0322 and B-44-00323
- Complete construction structures S-44-0354, S-44-0355, S-44-0356, S-44-0357, S-44-0358 and S-44-0359

#### Stage 3B

##### 1130-64-73

- Complete construction of outside lanes and shoulder of IH 41 northbound
- Complete construction of outside portion of structures B-44-0319 and B-44-0321
- Complete construction of structure N-44-0012, N-44-0013 and N-44-0014
- Complete construction of outside support of S-44-0352 and S-44-0353
- Construct of outside portion IH 41 northbound interim tie-in to project 1130-65-71

#### Stage 4

##### 1130-64-73

- Complete construction of inside portion of IH 41 from BOP to Station 685NB+00

#### 2026-2027 W1 Winter Staging

- Winter staging will commence with the completion of Stage 4 in the Fall of 2026. Provide a start date in writing at least 14 calendar days prior to the planned resumption of work in 2027. Upon approval, the engineer will issue the notice to proceed with 10 calendar days of the approved start date.

#### Stage 5A

##### 1130-64-73

- Begin construction of IH 41 southbound
- Remove existing structures B-44-20 and B-44-28
- Begin construction of B-44-0318, B-44-0320, R-44-0035, R-44-0036, R-44-0037, N-44-0015, N-44-0016 and N-44-0019
- Begin construction of outside support of S-44-0360 and S-44-0362
- Begin construction of Gillett Street drainage way

#### Stage 5B

##### 1130-64-73

- Continue construction of IH 41 southbound
- Continue construction of B-44-0318, B-44-0320, R-44-0035, R-44-0036, R-44-0037, N-44-0015, N-44-0016 and N-44-0019
- Construct outside support of S-44-0360 and S-44-0362
- Continue construction of Gillett Street and drainage way

#### Stage 5C

##### 1130-64-73



- Continue construction of IH 41 southbound
- Continue construction of B-44-0318, B-44-0320, R-44-0035, R-44-0036, R-44-0037, N-44-0015, N-44-0016 and N-44-0019
- Construct outside support of S-44-0360 and S-44-0362
- Complete construction of Gillett Street and drainage way
- Complete southbound staining of structure B-44-0171

#### Stage 5D

##### 1130-64-73

- Complete IH 41 southbound and Ramp C and Ramp D

#### 2027-2028 W2 Winter Staging

- Winter staging will commence with the completion of Stage 5D in the Fall of 2027. Provide a start date in writing at least 14 calendar days prior to the planned resumption of work in 2028. Upon approval, the engineer will issue the notice to proceed with 10 calendar days of the approved start date.

#### Stage 6

##### 1130-64-73

- Complete construction of IH 41 median
- Complete IH 41 southbound shoulder from Ramp C to STH 47
- Construct structures S-44-0360 and S-44-0361
- Complete construction of structures S-44-0352 and S-44-0362

##### 1130-64-77

- Complete construction of Ramp C inside shoulder and Ramp D outside shoulder and barrier

#### Stage 7A

##### 1130-64-73

- Complete polymer overlays of inside lanes and shoulder of structures B-44-0318, B-44-0319, B-44-0320, B-44-0321, B-44-0339 and B-44-0340
- Complete polymer overlays of outside lanes and shoulder of structures B-44-0315 and B-44-0316
- Complete polymer overlay of structure B-44-0317

##### 1130-64-77

- Complete polymer overlays of outside lanes and shoulder of structures B-44-0322 and B-44-0323

#### Stage 7B

##### 1130-64-73

- Complete polymer overlays of outside lanes and shoulder of structures B-44-0318, B-44-0319, B-44-0320, B-44-0321, B-44-0339 and B-44-0340
- Complete polymer overlays of inside lanes and shoulder of structures B-44-0315 and B-44-0316

##### 1130-64-77

- Complete polymer overlays of inside lanes and shoulder of structures B-44-0322 and B-44-0323

#### **Traffic Operations During Construction**

Traffic shifts shown in a given stage may occur at different times during that stage depending on the controlling elements for a given traffic movement as approved by the engineer. The department anticipates that the schedule of major freeway traffic shifts and roadway openings and closings for each stage shall be as follows, unless approved by the engineer:

#### Stage 1

- Maintain 2 lanes of traffic in each direction on IH 41 except as specified in the Freeway and Service Ramp Work Restrictions section of this article.
- Maintain STH 47/Richmond Street, interchange ramps and Gillett Street traffic on all existing lanes at all times except as specified in Freeway and Service Ramp Work Restrictions.
- Maintain all existing pedestrian movements.

#### Stage 2A

- Maintain 2 lanes of traffic in each direction on IH 41 except as specified in the Freeway and Service Ramp Work Restrictions section of this article.
- Work on IH 41 is anticipated to occur during off peak closures and full freeway closures as specified in the Freeway and Service Ramp Work Restrictions section of this article.
- Close STH 47/Richmond Street to traffic at the IH 41 crossing.
- Maintain STH 47/Richmond Street interchange ramp traffic on all existing lanes at all times except as specified in Freeway and Service Ramp Work Restrictions.
- Maintain Gillett Street traffic on all existing lanes at all times except as specified in the Prosecution and Progress article.
- Pedestrians on STH 47 Richmond Street will be detoured to the Meade Street crossing.
- Maintain all existing pedestrian movements except Gillett pedestrians will be detoured to Lynndale Drive during short term closures.

#### Stage 2B/2C

- Maintain 2 lanes of traffic in each direction on IH 41 except as specified in the Freeway and Service Ramp Work Restrictions section of this article.
- Work on IH 41 is anticipated to occur during off peak closures and full freeway closures as specified in the Freeway and Service Ramp Work Restrictions section of this article.
- Close STH 47/Richmond Street and northbound interchange ramps.
- Maintain STH 47/Richmond Street southbound interchange ramp traffic on all existing lanes at all times except as specified in Freeway and Service Ramp Work Restrictions.
- Maintain Gillett Street traffic on all existing lanes at all times except as specified in the Prosecution and Progress article.
- Pedestrians on STH 47 Richmond Street will be detoured to the Meade Street crossing.
- Maintain Gillett pedestrian movements except will be detoured to Lynndale Drive during short term closures.

#### Stage 2D/2E/3A

- Maintain 2 lanes of traffic in each direction on IH 41 except as specified in the Freeway and Service Ramp Work Restrictions section of this article.
- Work on IH 41 is anticipated to occur during off peak closures and full freeway closures as specified in the Freeway and Service Ramp Work Restrictions section of this article.
- Close STH 47/Richmond Street and interchange ramps.
- Maintain Gillett Street traffic on all existing lanes at all times except as specified in the Prosecution and Progress article.
- Pedestrians on STH 47 Richmond Street will be detoured to the Meade Street crossing.
- Maintain Gillett pedestrian movements except will be detoured to Lynndale Drive during short term closures.

#### Stage 3B

- Maintain 2 lanes of traffic in each direction on IH 41 except as specified in the Freeway and Service Ramp Work Restrictions section of this article.
- Work on IH 41 is anticipated to occur during off peak closures and full freeway closures as specified in the Freeway and Service Ramp Work Restrictions section of this article.
- Close STH 47/Richmond Street and northbound interchange ramps.
- Maintain STH 47/Richmond Street southbound interchange ramp traffic on all existing lanes at all times except as specified in Freeway and Service Ramp Work Restrictions.
- Maintain Gillett Street traffic on all existing lanes at all times except as specified in the Prosecution and Progress article.
- Pedestrians on STH 47 Richmond Street will be detoured to the Meade Street crossing.
- Maintain Gillett pedestrian movements except will be detoured to Lynndale Drive during short term closures.

#### Stage 4

- Maintain 2 lanes of traffic in each direction on IH 41 except as specified in the Freeway and Service Ramp Work Restrictions section of this article.
- Work on IH 41 is anticipated to occur during off peak closures and full freeway closures as specified in the Freeway and Service Ramp Work Restrictions section of this article.
- Maintain STH 47/Richmond Street and interchange ramp traffic on all lanes at all times.

- Maintain Gillett Street traffic on all lanes at all times except as specified in the Prosecution and Progress article.
- Maintain all new and existing pedestrian movements.

#### 2026-2027 W1 Winter Staging

- Maintain 2 lanes of traffic in each direction on IH 41
- Maintain STH 47/Richmond Street and Gillett Street traffic on all lanes at all times.
- Maintain STH 47/Richmond Street interchange ramp traffic on all lanes at all times.
- Maintain all pedestrian movements.

#### Stage 5A/5B/5C/5D

- Maintain 2 lanes of traffic in each direction on IH 41 except as specified in the Freeway and Service Ramp Work Restrictions section of this article.
- Work on IH 41 is anticipated to occur during off peak closures and full freeway closures as specified in the Freeway and Service Ramp Work Restrictions section of this article.
- Maintain STH 47/Richmond Street and interchange ramp traffic on all lanes at all times.
- Maintain Gillett Street traffic on all lanes at all times except as specified in the Prosecution and Progress article.
- Maintain all new and existing pedestrian movements except Gillett pedestrians will be detoured to STH 47/Richmond Street.

#### 2027-2028 W2 Winter Staging

- Maintain 2 lanes of traffic in each direction on IH 41
- Maintain STH 47/Richmond Street and Gillett Street traffic on all lanes at all times.
- Maintain STH 47/Richmond Street interchange ramp traffic on all lanes at all times.
- Maintain all new and existing pedestrian movements.

#### Stage 6

- Maintain 2 lanes of traffic in each direction on IH 41 except as specified in the Freeway and Service Ramp Work Restrictions section of this article.
- Work on IH 41 is anticipated to occur during off peak closures and full freeway closures as specified in the Freeway and Service Ramp Work Restrictions section of this article.
- Maintain STH 47/Richmond Street and interchange ramp traffic on all lanes at all times.
- Maintain Gillett Street traffic on all lanes at all times.
- Maintain all pedestrian movements.

#### Stage 7A/7B

- Maintain 2 lanes of traffic in each direction on IH 41 except as specified in the Freeway and Service Ramp Work Restrictions section of this article.
- Work on IH 41 is anticipated to occur during off peak closures and full freeway closures as specified in the Freeway and Service Ramp Work Restrictions section of this article.
- Maintain STH 47/Richmond Street and interchange ramp traffic except as specified in the Freeway and Service Ramp Work Restrictions section of this article.
- Maintain Gillett Street traffic on all lanes at all times.
- Maintain all pedestrian movements.

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### **4.5 Traffic Control.**

Perform this work in accordance with the requirements of section 643 of the standard spec, and as shown on the plans or as approved by the engineer, except as hereinafter modified.

Submit to engineer for approval a detailed traffic control plan for any changes to the proposed traffic control detail as shown on the plans. Submit this plan ten (10) days prior to the preconstruction conference.

Submit any traffic control change request to the engineer at least 72 hours prior to an actual traffic control change. A request does not constitute approval.

Provide 24 hours-a-day availability of equipment and forces to expeditiously restore lights, signs, or other traffic control devices that are damaged or disturbed. The cost to maintain and restore the above items shall be considered incidental to the item as bid and no additional payment will be made.

Supply the name and telephone number of a local contact person for traffic control repair before starting work.

Have available at all times sufficient experienced personnel to promptly install, remove and reinstall the required traffic control devices to route traffic during the construction operations.

Cover or remove and reinstall existing signs which conflict with traffic control as directed by the engineer.

Conduct operations in such a manner that causes the least interference and inconvenience to the free flow of vehicles on the roadways. This includes the following:

1. Do not park or store any vehicle, piece of equipment, or construction materials on the right-of-way without approval of the engineer or as allowed elsewhere in these special provisions.
2. All construction vehicles and equipment entering or leaving live traffic lanes shall yield to through traffic.
3. Equip all vehicles and equipment entering or leaving the live traffic lanes with a hazard identification beam (flashing yellow signal) capable of being visible on a sunny day when viewed without the sun directly on or behind the device from a distance of 1,000 feet. Activate the beam when merging into or exiting a live traffic lane.

Do not disturb, remove or obliterate any traffic control signs, advisory signs, shoulder delineators or beam guard in place along the traveled roadways without the approval of the engineer. Immediately repair or replace any damage done to the above during the construction operations at contractor expense.

The traffic requirements are subject to change at the direction of the engineer in the event of an emergency.

ner41-643 (12052023)

#### **4.6 Temporary Regulatory Speed Limit Reduction – IH 41.**

A reduction of the posted regulatory speed is allowed to accommodate construction activities. The following speed reductions shall be used when the following parameters are met:

- 70 mph to 60 mph
  - Lanes are less than 12 feet.
  - Traffic is utilizing cross over.
  - Traffic is utilizing shoulders/temporary pavement.
- 70 mph to 55 mph
  - During allowable nighttime lane reductions and construction activities, vehicles, material storage are within 12' of live traffic without positive barrier wall protection.

During periods of no work activity when devices are pulled back and lanes re-opened, restore speed limit to previously posted speed.

During approved temporary regulatory speed limit reductions, install regulatory speed limit signs on the inside and outside shoulders of the roadway at the beginning of the reduced regulatory speed zone, after all locations where traffic may enter the highway segment or every 1/2 mile within the reduced regulatory speed zone. Signs shall be installed at the end of the temporary regulatory speed zone to designate the end of the temporary regulatory speed zone and inform drivers the posted regulatory speed limit reverts back to the original posted speed limit. To minimize possible confusion to the traveling public and to ensure appropriate speed enforcement, enhanced attention to placement and changing of speed limit signs is required. The begin and end limits of the temporary regulatory speed limit reduction shall be defined in the plans or as directed by the engineer. Speed reduction signing and advancing warning shall be shown in the plans.

No portion of sign text shall be visible when not in use, regardless if it is temporary or permanent regulatory speed limit sign.

When construction activities impede the location of a post mounted regulatory speed limit sign, mount the regulatory speed limit sign on portable supports that meet the "crashworthy" definition and height criteria in the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD).

ner41-643 (08272024)

#### **4.7 Traffic Impact Response Time.**

Provide a preferred method of notification and contact information for the contractor's responsible party (the person or persons in charge of coordinating and completing repair efforts) to the engineer at the pre-construction meeting. This person(s) shall be available 24 hours a day, 7 days a week, to respond to any event that impacts the free flow of traffic during non-working hours for the duration of this contract.

Notification is defined as the first phone call/voice message, text message, or email. Impacts to traffic may include, but are not limited to, temporary concrete barrier wall impacts, crash cushion impacts, water ponding on the travel lanes, or pavement deterioration. The contractor designated person needs to be able to promptly address the issues impacting traffic once notified by the engineer.

The contractor shall provide staff to the incident site within one hour of receiving a repair request from the responding agency, that is able to assess the situation, plan, and coordinate the repair operations. The contractor shall consult with the department's representative on potential repair or replacement options to restore the free flow of traffic. Staff and equipment deployed shall be capable of completing the needed repairs as quickly as possible once repair work is started.

If the contractor fails to be on-site of an incident with appropriate staff within one hour of receiving notification for a repair request, the department will assess the contractor a \$500 fee assessment for each 15-minute interval that the contractor is not present following the allotted one-hour 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. Fee assessments will be assessed under the administrative item Failing to Open Road to Traffic.

ner41-643 (07082024)

#### **4.8 Public Convenience and Safety.**

*Delete subsection 107.8 (4) of the standard specifications and replace with the following:*

Notify the following organizations and departments at least 72 hours before road closures or detours are put into effect:

##### State of Wisconsin:

- Wisconsin State Patrol: (920) 929-3700

##### Outagamie County:

###### Outagamie County

- Highway Department: (920) 832-5673
- Public Safety Communications: (920) 832-5000
- Sheriff's Department: (920) 832-5605

###### City of Appleton

- Department of Public Works: (920) 832-5580
- Police Department: (920) 832-5500
- Fire Department: (920) 832-5810
- Appleton Area School District: (920) 852-5300
- Valley Transit: (920) 832-5800

###### Town of Grand Chute

- Department of Public Works: (920) 832-1581
- Police Department: (920) 832-1575
- Fire Department: (920) 832-6050
- Served by Appleton Area School District: (920) 852-5300
- Served by Valley Transit: (920) 832-5800

###### Village of Little Chute

- Department of Public Works: (920) 423-3865

- Fox Valley Metropolitan Police Department: (920) 788-7505
- Fire Department: (920) 788-7399
- Little Chute Area School District: (920) 788-7605

Private Company

- ThedaStar: (920) 729-2114

The Outagamie County Public Safety Communications 911 dispatches all area police, fire and ambulance services, and will relay any notification given by the contractor in the event of an emergency.

ner41-107 (12052023)

#### **4.9 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 41 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.

These restrictions apply to the following holiday and special event periods:

- Lambeau Field events with anticipated attendance of 30,000 or more:
  - IH 41 Northbound
    - § Begin – 5 hours prior to the posted start time of the event.
    - § End – At the posted start time of the event.
  - IH 41 Southbound
    - § Begin – At the posted start time of the event.
    - § End – 8 hours after the posted start time of the even.

These restrictions apply to the following holiday and special event periods:

- From noon Friday, May 22, 2026, to 6:00 AM Tuesday, May 26, 2026 for Memorial Day
- From noon Friday, July 3, 2026, to 6:00 AM Monday, July 6, 2026 for July 4<sup>th</sup>
- From noon Friday, September 4, 2026, to 6:00 AM Tuesday, September 8, 2026 for Labor Day
- From noon Friday, November 20, 2026 to 6:00 AM Monday, November 23, 2026 for deer hunting
- From noon Wednesday, November 25, 2026 to 6:00 AM, Monday, November 30, 2026 for Thanksgiving
- From noon Wednesday, December 23, 2026 to 6:00 AM Monday January 4, 2027 for Christmas and New Year's Eve
- From noon Friday, May 28, 2027, to 6:00 AM Tuesday, June 1, 2027 for Memorial Day
- From noon Friday, July 2, 2027, to 6:00 AM Tuesday, July 6, 2027 for July 4<sup>th</sup>
- From noon Friday, September 3, 2027, to 6:00 AM Tuesday, September 7, 2027 for Labor Day
- From noon Friday, November 19, 2027 to 6:00 AM Monday, November 22, 2027 for deer hunting
- From noon Wednesday, November 24, 2027 to 6:00 AM, Monday, November 29, 2027 for Thanksgiving
- From noon Thursday, December 23, 2027 to 6:00 AM Monday January 3, 2028 for Christmas and New Year's Eve
- From noon Friday, May 26, 2028, to 6:00 AM Tuesday, May 30, 2028 for Memorial Day

During holidays, do not haul materials of any kind along or across any portion of the following marked State Trunk Highway including:

- STH 441
- STH 96
- STH 47
- STH 15

These restrictions apply to the allowable nighttime closures of the IH 41, STH 47, STH 15 and STH 96:

- Nighttime closures during Timber Rattler Game nights may not start until 4 hours after the posted game start time.

Prior to preparing bids, verify the dates of each event listed to obtain current dates for work restrictions.

ner41-107 (08122024)

#### 4.10 Local Street Work Restrictions

Existing trees, street light poles, hydrants and other utility poles are to remain in place during construction unless otherwise noted in the plan. Conduct an on-site visit prior to bidding to determine any special measures required for proper clearance between the trees, hydrants and poles and the paving equipment.

Keep sidewalks open unless otherwise shown on the plans, or to facilitate the removal of structures and erection of girders or as approved by the engineer. Maintain pedestrian access to adjacent properties, businesses, schools, and at bus stops or provide where necessary, as directed by the engineer. Protect pedestrians from falling debris at all times when sidewalks are open.

Provide adequate temporary sidewalk and bridging between the curb and right-of-way line over freshly paved concrete or other obstructions in the sidewalk area, as directed by the engineer.

Construct temporary sidewalk surfaces with a minimum of 2 inches of asphaltic surface temporary or salvaged asphalt millings and a minimum of 4-feet wide. Compact the surface of temporary sidewalks until smooth and capable of supporting a wheelchair. The separate payment for the construction of temporary sidewalks including materials, labor, removal and restoration, will not be made by the department but will be considered included in other bid items of work unless otherwise shown on the plans.

Inform property owners and tenants at least 48 hours prior to removing a driveway approach that serves that property. Schedule sidewalk and driveway approach removal and replacement so that the time lapse between removal and replacement is minimal.

Do not close residential approaches or remove from service without sufficient notice given to the occupants of the premises to remove their vehicles prior to driveway removal or closing of the driveway approach access. If necessary, make other access arrangements, agreed to in writing and signed by the contractor and the property owner serviced by the driveway. Obtain approval from the engineer prior to alternating construction sequencing.

ner41-643 (12052023)

### 5. Utilities.

#### 5.1 Utilities.

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

The utility work plan includes additional detailed information regarding the location of known discontinued, relocated, or removed utility facilities. These can be requested from the department during the bid preparation process, or from the project engineer after the contract has been awarded and executed.

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. Follow-up with a confirmation notice to the engineer and the utility not less than 3 working days before the site will be ready for the utility to begin its work.

stp-107-065 (20240703)

Any utility facility locations (stations, offsets, elevations, depths) listed in this article are approximate.

#### **1130-64-73**

**ANR Pipeline Co (GSPTR)** has underground gas pipelines with protective casings crossing IH-41 at Station 714'SB'+73 and at Station 715'SB'+15. ANR Pipeline Co will remove the underground gas pipelines from the casings and relocate the underground gas pipelines crossing IH-41 at Station 714'SB'+86 and Station 715'SB'+00 prior to construction. Both casings will be discontinued in place and grouted.

ANR Pipeline Co requests a representative onsite when the roadway contractor is working near the gas pipeline. Contact ANR pipeline Co when working within 100 feet of any ANR Pipeline Co pipeline.

- All equipment passes at 5 feet soil cover depth.
- At 4 feet soil cover depth, an 8-inch thick timber matting must be used for equipment crossings.
- The vibratory function on rollers must be turned off when crossing areas with pipelines beneath.

- For multiple crossings (except roadway paving), matting should be used regardless of whether the soil cover is 4 feet or 5 feet.

**AT&T Wisconsin (COMLN)** has underground communication lines from Station 690'NB'+00 to Station 699'NB'+60 right, Station 695'NB'+00 to Station 700'NB'+00 right, and Station 710'NB'+00 to Station 716'NB'+00 right that will be discontinued in place prior to construction.

AT&T Wisconsin has overhead communication lines on We Energies poles from Station 725'NB'+00 to Station 734'NB'+00 right that will be discontinued and removed by AT&T Wisconsin prior to construction.

AT&T Wisconsin has underground communication lines from Station 251'GIL'+50 to Station 255'GIL'+00 left that will be discontinued in place and relocated jointly with We Energies crossing IH-41 at Station 706'NB'+35 prior to construction. AT&T Wisconsin will relocate an existing handhole 3 feet east from Station 251'GIL'+67, 48 feet left to Station 251'GIL'+67, 45 feet left prior to construction.

AT&T Wisconsin has underground communication lines from Station 255'GIL'+00 to Station 255'GIL'+84 left. AT&T Wisconsin does not anticipate any conflicts with these facilities.

AT&T Wisconsin has underground communication lines from Station 1723'RMC'+50 to Station 1726'RMC'+50 left. AT&T Wisconsin will discontinue these facilities in place and relocate joint with We Energies to an easement outside of right of way prior to construction.

AT&T Wisconsin has underground communication lines crossing IH-41 at Station 746'NB'+70. AT&T Wisconsin will discontinue these facilities in place and relocate prior to construction under work plan approval for Project 1130-64-77.

**City of Appleton (SEWR)** has underground sanitary sewer main from Station 198'RMNB'+22 to Station 204'RMNB'+52 left, and from Station 10'AL'+29 to Station 11'AL'+34 right. City of Appleton will adjust manhole covers during construction under work plan approval for Project 1130-64-77.

**City of Appleton (WATR)** has underground water main crossing IH-41 at Station 749'NB'+30. City of Appleton does not anticipate any conflicts with these facilities.

**Grand Chute Sanitary District 1 (WATR)** has an underground water main from Station 251'GIL'+50 to Station 255'GIL'+84 left. Hydrant adjustments at Station 254'GIL'+87 left will be completed by the roadway contractor in accordance with the requirements of the Adjusting Hydrant bid item during construction.

**Grand Chute Sanitary District 2 (SEWR)** has an underground sanitary sewer main from Station 251'GIL'+50 to Station 255'GIL'+84 right. Manhole cover adjustments at Station 254'GIL'+10 right will be completed by the roadway contractor in accordance with the requirements of the Adjusting Manhole Covers bid item during construction.

**Net Lec LLC (COMLN)** has overhead communication lines on We Energies poles from Station 251'GIL'+50 to Station 255'GIL'+84 right and crossing IH-41 at Station 749'NB'+00. Net Lec LLC will remove these overhead facilities and relocate underground inside of the proposed right of way on the right side of STH 47 and crossing IH-41 at Station 749'SB'+50 prior to construction.

**Spectrum (COMLN)** has underground communication lines from Station 672'NB'+55 to Station 693'NB'+25 right, from Station 673'SB'+45 to Station 676'SB'+50 left, from Station 694'NB'+75 to Station 700'NB'+00 right, from Station 707'NB'+50 to Station 721'NB'+90 right and overhead communication lines from Station 724'NB'+50 to Station 729'NB'+68 right. Spectrum does not anticipate any conflicts with these facilities.

Spectrum has overhead communication lines from Station 729'NB'+68 to Station 734'NB'+18 right that will be removed and relocated underground from Station 729'NB'+68 to Station 731'NB'+50 right jointly with We Energies prior to construction. Spectrum will install a new pedestal at Station 731'NB'+50 right prior to construction.

Spectrum has overhead communication lines from Station 734'NB'+18 right continuing south out of project limits. Spectrum will remove these overhead lines prior to construction.

Spectrum has underground communication lines from Station 251'GIL'+50 to Station 255'GIL'+84 left that will be discontinued in place. Spectrum will install new handholes at Station 251'GIL'+49 left and Station 255'GIL'+05 left then relocate jointly between them with We Energies to an easement outside of the right of way and across IH-41 at Station 706'NB'+33. Spectrum will relocate from Station 255'GIL'+05 to Station 255'GIL'+84 left and install underground communication lines along the right of way. All work is to be done prior to construction.

Spectrum has underground communication lines crossing Gillett Street at Station 251'GIL'+79. Spectrum



does not anticipate any conflicts with these facilities.

**TDS Metrocom LLC (COMLN)** has underground communication lines from Station 694'NB'+75 to Station 700'NB'+00 right. TDS Metrocom LLC will discontinue these facilities in place and relocate jointly with We Energies to an easement outside of right of way prior to construction.

TDS Metrocom LLC has underground communication lines from Station 720'NB'+75 to Station 730'NB'+45 right and Station 732'NB'+79 to Station 734'NB'+10 right. TDS Metrocom LLC does not anticipate any conflicts with these facilities.

TDS Metrocom LLC has underground communication lines from Station 730'NB'+45 to Station 732'NB'+79 right. TDS Metrocom LLC will discontinue these facilities in place and relocate prior to construction. TDS Metrocom LLC will install new pedestals at Station 730'NB'+45 right and Station 732'NB'+79 right prior to construction.

TDS Metrocom LLC has underground communication lines from Station 762'NB'+50 to Station 771'NB'+50 right. TDS Metrocom LLC does not anticipate any conflicts with these facilities.

TDS Metrocom LLC has underground communication lines jointly with WisDOT fiber from Station 762'SB'+50 to Station 792'SB'+50 left. TDS Metrocom LLC will discontinue these facilities in place and relocate prior to construction under work plan approval for Project ID 1130-65-76.

TDS Metrocom LLC has underground communication lines from Station 777'SB'+25 to Station 788'SB'+50 left. TDS Metrocom LLC does not anticipate any conflicts with these facilities.

TDS Metrocom LLC has underground communication lines crossing IH-41 at Station 799'NB'+15. TDS Metrocom LLC will discontinue these facilities in place and relocate crossing IH-41 at Station 799'NB'+00 prior to construction.

**We Energies (GSPTR)** has underground gas main from Station 251'GIL'+50 to Station 255'GIL'+84 right. We Energies does not anticipate any conflicts with these facilities.

**We Energies (ELCTY)** has underground electric lines from Station 690'NB'+19 to 693'NB'+36 right. We Energies will discontinue these facilities in place and relocate to an easement outside of right of way prior to construction.

We Energies has underground electric lines from Station 694'NB'+74 to Station 697'NB'+52 right. We Energies will discontinue these facilities in place and relocate inside of the right of way and to an easement outside of the right of way prior to construction.

We Energies has underground electric lines from Station 697'NB'+52 to Station 699'NB'+90 right. We Energies will discontinue these facilities in place and relocate to an easement outside of right of way prior to construction.

We Energies has overhead electric lines from Station 695'SB'+50 to Station 696'SB'+24 left. We Energies does not anticipate any conflicts with these facilities.

We Energies has overhead electric lines from Station 696'SB'+24 to Station 697'SB'+91 left that are in conflict. We Energies will remove these overhead facilities and relocate underground to an easement outside of right of way prior to construction.

We Energies has overhead electric lines from Station 697'SB'+91 to Station 708'SB'+11 left that will be discontinued and removed prior to construction.

We Energies has underground electric lines crossing IH-41 at Station 706'NB'+40. We Energies will discontinue these facilities in place and relocate crossing IH-41 at Station 707'SB'+22 prior to construction.

We Energies has overhead electric lines from Station 251'GIL'+50 to Station 251'GIL'+93 left. We Energies will remove these overhead facilities and relocate underground prior to construction.

We Energies has underground electric lines from Station 251'GIL'+50 to Station 255'GIL'+04. We Energies will discontinue these facilities in place and relocate to an easement outside of the right of way and across IH-41 at Station 706'SB'+35 prior to construction.

We Energies has overhead electric lines from Station 254'GIL'+63 to Station 255'GIL'+04 left. We Energies will remove these overhead facilities and relocate underground inside of right of way prior to construction.

We Energies has underground electric lines from Station 708'NB'+00 to Station 710'NB'+54 right. We Energies will discontinue these facilities in place and relocate to an easement outside of right of way prior

to construction.

We Energies has underground electric lines from Station 710'NB'+54 to Station 720'NB'+90 right. We Energies does not anticipate any conflicts with these facilities.

We Energies has overhead electric lines from Station 724'NB'+53 to Station 729'NB'+68 right. We Energies does not anticipate any conflicts with these facilities.

We Energies has overhead electric lines from Station 729'NB'+68 to Station 731'NB'+56 right. We Energies will remove these overhead facilities and relocate underground to an easement outside of right of way prior to construction.

We Energies has overhead electric lines from Station 731'NB'+56 to Station 734'NB'+17 right that will be discontinued and removed prior to construction.

We Energies has underground electric lines from Station 718'SB'+68 to Station 721'SB'+22 left. We Energies does not anticipate any conflicts with these facilities.

We Energies has underground electric lines from Station 721'SB'+22 to Station 735'SB'+10 left. We Energies will discontinue these facilities in place and relocate to an easement outside of right of way prior to construction.

We Energies will install new underground electric lines crossing IH-41 at Station 735'SB'+07 and Station 735'SB'+18 prior to construction.

We Energies has underground electric lines from Station 735'SB'+10 to Station 747'SB'+86 left. We Energies will discontinue these facilities in place and relocate to an easement outside of right of way prior to construction.

**WIN Technology (COMLN)** has underground communication lines from Station 198'RMSB'+22 to Station 218'RMSB'+26 left that cross under IH-41 at Station 746'NB'+68. WIN Technology will discontinue conduit in place and remove underground communication lines prior to construction.

#### **1130-64-77**

**ANR Pipeline Co (GSPTR)** has underground gas pipelines from Station 212'RMSB'+43 to Station 213'RMSB'+82 left. ANR Pipeline Co will remove these underground facilities and relocate to an easement outside of the right of way prior to construction.

ANR Pipeline Co has underground gas pipelines with protective casings crossing STH 47 at Station 213'RMSB'+62 and Station 213'RMSB'+ 87 that will remain in place. ANR Pipeline Co will extend both protective casings to the proposed right of way on the left and right side of STH 47 prior to construction.

ANR Pipeline Co requests a representative onsite when the roadway contractor is working near the gas pipeline. Contact ANR Pipeline Co when working within 100 feet of any ANR Pipeline Co pipeline.

- All equipment passes at 5 feet soil cover depth.
- At 4 feet soil cover depth, an 8-inch thick timber matting must be used for equipment crossings.
- The vibratory function on rollers must be turned off when crossing areas with pipelines beneath.
- For multiple crossings (except roadway paving), matting should be used regardless of whether the soil cover is 4 feet or 5 feet.

**AT&T Wisconsin (COMLN)** has overhead communication lines that will be discontinued and removed by AT&T Wisconsin at the following locations prior to construction:

- Station 198'RMNB'+22 to Station 201'RMNB'+25 right
- Station 212'RMNB'+59 to Station 218'RMNB'+47 right

AT&T Wisconsin has 3 manholes that will be discontinued at the following locations prior to construction:

- Station 200'RMSB'+03, 18 feet left
- Station 206'RMNB'+78, 75 feet left
- Station 210'RMNB'+50, 66 feet left

AT&T Wisconsin will discontinue conduit in place and remove underground communication lines at the following locations prior to construction:

- Station 198'RMNB'+22 to Station 218'RMNB'+47 left
- Crossing STH 47 at Station 213'RMSB'+53

AT&T Wisconsin has underground communication lines that will be discontinued in place at the following locations prior to construction:

- Station 1738'RMCA'+88 to Station 1743'RMCA'+00 left
- Station 212'RMNB'+59 to Station 218'RMNB'+47 right

AT&T Wisconsin will install underground communication lines crossing Ramp BA at Station 1745'RMBA'+09, Ramp B at Station 1745'RMB'+07, IH-41 at Station 745'NB'+20, Ramp C at Station 1740'RMC'+31, Ramp CA at Station 1740'RMCA'+20 and to a new manhole in easement outside of right of way at Station 1740'RMCA'+20 left prior to construction.

AT&T Wisconsin will install underground communication lines in an easement outside of right of way from Station 1740'RMCA'+20 to Station 1742'RMCA'+58 left prior to construction.

AT&T Wisconsin will install underground communication lines from Station 212'RMSB'+25 to Station 218'RMSB'+26 left inside the proposed right of way prior to construction.

**City of Appleton (SEWR)** has underground sanitary sewer main from Station 198'RMNB'+22 to Station 204'RMNB'+52 left and from Station 10'AL'+29 to Station 11'AL'+34 right that will remain in place. Manhole cover adjustments will be completed by the roadway contractor in accordance with the requirements of the Adjusting Manhole Covers bid item at the following locations during construction:

- Station 199'RMNB'+64 left
- Station 201'RMNB'+57 left
- Station 202'RMNB'+97 left

**City of Appleton (WATR)** has underground water main from Station 198'RMSB'+22 to Station 203'RMSB'+00 left, from Station 10'AL'+29 to Station 11'AL'+34 right, from Station 202'RMNB'+90 to Station 218'RMNB'+47 right and crossing STH 47 at Station 203'RMSB'+00 that will remain in place. Contact City of Appleton prior to excavating at the following locations so City of Appleton can adjust hydrants and water valves. Hydrant adjustments will require 2 working days each and valve adjustments will require 1 working day each to complete:

City of Appleton will relocate hydrants prior to construction:

- From Station 202'RMSB'+84, 60 feet left to Station 202'RMSB'+68, 50 feet left
- From Station 212'RMSB'+50, 22 feet right to Station 212'RMSB'+96, 37 feet right

City of Appleton will adjust water valves during construction:

- Station 202'RMSB'+97 left, 2 valves
- Station 200'RMSB'+40 left
- Station 201'RMSB'+53 left
- Station 202'RMSB'+81 left
- Station 199'RMSB'+14 left
- Station 199'RMSB'+17 left

**Grand Chute Sanitary District 2 (SEWR)** has an underground sanitary sewer main from Station 200'RMSB'+46 to Station 204'RMSB'+54 left that will remain in place. Manhole cover adjustments will be completed by the roadway contractor in accordance with the requirements of the Adjusting Manhole Covers bid item at the following locations during construction:

- Station 203'RMSB'+26 left
- Station 204'RMSB'+54 left

**Net Lec LLC (COMLN)** has overhead communication lines on We Energies poles from Station 198'RMNB'+22 to Station 206'RMNB'+00 right, crossing STH 47 at Station 204'RMNB'+70, crossing Ramp AA at Station 206'RMAA'+25, crossing Ramp A at Station 1748'RMA'+42, crossing IH-41 at Station 749'NB'+00, crossing Ramp D at Station 1749'RMD'+33 and crossing Ramp DA at Station 1748'RMDA'+66. Net Lec LLC will remove these overhead facilities and relocate underground from Station 198'RMNB'+22 to Station 218'RMNB'+00 right inside the proposed right of way prior to construction.

**Spectrum (COMLN)** has overhead communication lines on We Energies poles from Station 198'RMNB'+00 to Station 218'RMNB'+72 right. Spectrum will remove these overhead facilities and

relocate underground from a proposed manhole south of the project limits at Station 198'RMNB'+00 to Station 218'RMNB'+72 right and crossing IH-41 at Station 749'NB'+44. Spectrum will begin relocations on January 1<sup>st</sup>, 2026, and will take 45 working days to complete.

Spectrum has underground communication lines crossing STH 47 from Station 198'RMNB'+93 right to Station 199'RMSB'+60 left that will be discontinued in place and relocated. Spectrum will install underground communication lines crossing STH 47 at Station 198'RMNB'+98 and a new manhole at Station 198'RMNB'+98 right in an easement outside of the right of way. Spectrum will begin relocations on January 1<sup>st</sup>, 2026, and will take 45 working days to complete.

Spectrum has underground communication lines from Station 200'RMNB'+43 to Station 202'RMSB'+69 left that will be discontinued in place and relocated underground jointly with We Energies to an easement outside of the right of way. Spectrum will install a manhole at Station 202'RMSB'+69 left. Spectrum will begin their relocation work 10 calendar days after We Energies completes their relocations and provides notification. Spectrum anticipates their work will take approximately 30 working days to complete.

Spectrum has underground communication lines from Station 10'AL'+28 to Station 11'AL'+34 right. Spectrum will discontinue these facilities in place and relocate inside of the proposed right of way. Spectrum will begin relocations on January 1<sup>st</sup>, 2026, and will take 45 working days to complete.

Spectrum has underground communication lines crossing STH 47 at Station 202'RMSB'+69 that will be discontinued in place and relocated underground crossing STH 47 at Station 202'RMSB'+51. Spectrum will begin relocations on January 1<sup>st</sup>, 2026, and will take 45 working days to complete.

Spectrum has underground communication lines along Ramp RMCA from Station 1716'RMCA'+04 to Station 1742'RMCA'+85 left that will be discontinued in place and relocated along the right of way jointly with We Energies. Spectrum will begin their relocation work 10 calendar days after We Energies completes their relocations and provides notification. Spectrum anticipates their work will take approximately 30 working days to complete.

Spectrum will install a new utility vault and intercept the existing underground communication lines at Station 1742'RMCA'+85 left. Spectrum will install underground communication lines jointly with AT&T Wisconsin from Station 212'RMSB'+25 to Station 217'RMSB'+65 left inside of the proposed right of way. Spectrum will begin relocations prior to construction and remain on the project during construction. Spectrum will begin relocations on January 1<sup>st</sup>, 2026, and will take 45 working days to complete.

Spectrum has underground communication lines crossing STH 47 at Station 215'RMSB'+38 will be discontinued in place and relocated underground crossing STH 47 at Station 216'RMSB'+60. Spectrum will install an utility vault at Station 216'RMNB'+80 right. Spectrum will begin relocations prior to construction and remain on the project during construction. Spectrum will begin relocations on January 1<sup>st</sup>, 2026, and will take 45 working days to complete.

**TDS Metrocom LLC (COMLN)** has underground communication lines from Station 1752'RMA'+50 to Station 1762'RMA'+00 right. TDS Metrocom LLC does not anticipate any conflicts with these facilities.

TDS Metrocom LLC has underground communication lines from Station 1732'RMB'+22 to Station 1734'RMB'+00 right. TDS Metrocom LLC will discontinue these facilities in place and relocate inside the proposed right of way prior to construction.

TDS Metrocom LLC has underground communication lines from Station 1740'RMCA'+65 to Station 1743'RMCA'+50 left, from Station 1749'RMD'+50 to Station 1761'RMD'+92 left and crossing STH 47 at Station 21'RMSB'+80. TDS Metrocom LLC will discontinue these facilities in place and relocate under work plan approval for Project 1130-65-76.

**We Energies (GSPTR)** has underground gas main from Station 198'RMNB'+22 to Station 204'RMNB'+75 right and from Station 212'RMNB'+30 to Station 215'RMNB'+60 right. We Energies will discontinue these facilities in place and relocate inside of the proposed right of way prior to construction.

**We Energies (ELCTY)** has overhead electric lines from Station 198'RMNB'+22 to Station 216'RMNB'+80 right, Station 200'RMNB'+25 to Station 201'RMNB'+64 left and Station 212'RMSB'+57 to Station 218'RMSB'+26 left. We Energies will remove these overhead facilities during construction following the removal of all joint utilities and will take 30 working days.

We Energies has overhead electric lines crossing STH 47 at Station 200'RMNB'+50, Station 200'RMNB'+80, Station 201'RMNB'+29, Station 202'RMNB'+92, Station 204'RMNB'+71 and Station 215'RMNB'+54. We Energies will remove these overhead facilities prior to construction. We Energies will remove these overhead facilities during construction following the removal of all joint utilities and will take 30 working days.

We Energies will install new underground electric lines from Station 200'RMSB'+42 to Station 202'RMSB'+59 left in an easement outside of right of way. We Energies will begin relocations on March 20<sup>th</sup> 2026 and will take 30 working days.

We Energies will install new underground electric lines from Station 10'AL'+28 to Station 11'AL'+34 right inside the proposed right of way. We Energies will begin relocations on March 20<sup>th</sup>, 2026, and will take 30 working days.

We Energies has underground electric lines from Station 1729'RCM'+35 to Station 1740'RCM'+14 left. We Energies will discontinue these facilities in place and relocate along the proposed right of way. We Energies will begin relocations on March 20<sup>th</sup>, 2026, and will take 30 working days.

We Energies will install new underground electric lines from Station 1740'RCM'+14 left, crossing STH 47 at Station 211'RMNB'+94 and to an easement outside of right of way at Station 1749'RMDA'+71 left. We Energies will begin relocations on March 20<sup>th</sup>, 2026, and will take 30 working days.

We Energies will install new underground electric lines from Station 1749'RMDA'+71 to Station 216'RMNB'+80 right in an easement outside of right of way. We Energies will begin relocations on March 20<sup>th</sup>, 2026, and will take 30 working days.

We Energies has overhead electric lines from Station 216'RMNB'+80 to Station 218'RMNB'+78 right. We Energies does not anticipate any conflicts with these facilities.

**WIN Technology (COMLN)** has underground communication lines from Station 198'RMSB'+22 to Station 218'RMSB'+26 left that cross under IH-41 at Station 746'NB'+68. WIN Technology will discontinue conduit in place and remove underground communication lines prior to construction.

## **5.2 Municipality Acceptance of Sanitary Sewer and Water Main.**

The department, the City of Appleton and the Town of Grand Chute personnel will inspect construction of sanitary sewer force main and water main under this contract. However, acceptance of the sanitary sewer main and water main construction will be by the City of Appleton and the Town of Grand Chute.

## **5.3 Utility Line Opening, Item SPV.0060.0140.**

### **A Description**

This special provision describes excavating to uncover utilities for the purpose of determining elevation and potential conflicts as shown in 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.

Perform the utility line openings as soon as possible and at least 10 days in advance of proposed utility construction to allow any conflicts to be resolved with minimal disruption. Where utilities are within 6 feet of each other at a potential conflict location, only one utility line opening is called for. In these cases, a single utility line opening will be considered full payment to locate multiple utilities. Utility line openings include a trench up to 10 feet long as measured at the trench bottom, and of any depth required to locate the intended utility.

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

### **D Measurement**

The department will measure Utility Line Opening 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.0060.0140	Utility Line Opening	EACH

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

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

#### **5.4 Adjusting Sanitary Manhole Covers, Item SPV.0060.1205.**

##### **A Description**

This special provision describes adjusting sanitary manhole covers

##### **B Materials**

Use materials conforming to standard spec 611.2.

##### **C Construction**

Use construction methods conforming to standard spec 611.3 and as follows:

Remove and reinstall existing chimney seals, as necessary to adjust manhole cover.

##### **D Measurement**

The department will measure Adjusting Sanitary Manhole Covers 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.0060.1205	Adjusting Sanitary Manhole Covers	EACH

Payment is full compensation for providing all required materials, exclusive of frames, grates, or lids; and for removing, reinstalling and adjusting the covers, including removing and reinstalling the existing chimney seal.

ner-900-005 (20190718)

#### **5.5 Adjusting Hydrant, Item SPV.0060.1210.**

##### **A Description**

This special provision describes locating, exposing, and protecting existing hydrant and furnishing and installing hydrant extensions if necessary; and adjusting the hydrant to the final finished elevation required.

##### **B Materials**

Furnish hydrant extensions as needed to adjust the existing hydrant to final grade.

##### **C Construction**

Furnish and install hydrant extensions to the existing hydrant if necessary. Protect the hydrant during construction. Clean out the hydrant assembly as necessary. Adjust the hydrant to the required final finished elevation.

##### **D Measurement**

The department will measure Adjusting Hydrant 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.0060.1210	Adjusting Hydrant	EACH

Payment is full compensation for locating, exposing, and protecting hydrant; cleaning out the hydrant assembly; adjusting hydrant to the finished elevation; and furnishing and installing hydrant extensions if necessary. Replace hydrant damaged by the contractor's operations at no expense to the department.

## 6. Railroads.

### 6.1 Railroad Insurance and Coordination - Fox Valley and Lake Superior Rail System, LLC.

#### A. Description

Comply with standard spec 107.17 for all work affecting Fox Valley and Lake Superior Rail System, LLC property and any existing tracks.

#### A.1 Railroad Insurance Requirements

In addition to standard spec 107.26, provide railroad protective liability insurance coverage as specified in standard spec 107.17.3 Insurance is filed in the name of Fox Valley and Lake Superior Rail System.

Notify evidence of the required coverage, and duration to Justin Mahr, Senior Manager Real Estate - Contracts; 315 W. 3<sup>rd</sup> Street, Pittsburg, KS 66762; Telephone (402) 651-8238; E-mail: [justin.mahr@watco.com](mailto:justin.mahr@watco.com)

Also send a copy to the following: Jared Kinziger, NE Region Railroad Coordinator; 944 Vanderperren Way, Green Bay, WI 54304; Telephone (920) 492-7713; E-mail: [jared.kinziger@dot.wi.gov](mailto:jared.kinziger@dot.wi.gov).

Include the following information on the insurance document:

- Project ID: 1130-64-73
- Project Location: Town of Grand Chute, Wisconsin
- Route Name: IH 41, Outagamie County
- Work Performed on or within 50' of RR ROW: Reconstruct bridges over railroad and traffic control

#	Route Name	City/County	Crossing ID	RR Subdivision	RR Milepost
1	IH 41	Grand Chute, Outagamie	697811A	Fox River	353.50

#### A.2 Train Operation

#	Passenger Train Volume	Passenger Train Speed	Freight Train Volume	Freight Train Speed	Frequency	Switch Train Comment*
1	None	NA	6	25	Weekly	No switch trains

\* Switch trains are in addition to freight and passenger trains.

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

##### Construction Contact

Roger Schaalma, Divisional Engineer, Fox Valley and Lake Superior Rail System, LLC.; 1890 East Johnson Street, Madison, WI 53704; Telephone (608) 620-2044; E-mail [rschaalma@watco.com](mailto:rschaalma@watco.com) for consultation on railroad requirements during construction.

##### Flagging Contact

Gary Westphal; Roadmaster; 414-750-5676; gwestphal@watco.com Reference the Crossing ID, Wisconsin Milepost and Subdivision found in A.1.

##### Cable Locate Contact

In addition to contacting Diggers Hotline, contact the Construction Contact above at least five working days before the locate is needed. Reference the Crossing ID, Wisconsin Milepost and Subdivision found in A.1.

Fox Valley and Lake Superior Rail System, LLC will only locate railroad owned facilities located in the railroad right-of-way. The railroad does not locate any other utilities.

#### A.4 Work by Railroad

The railroad will perform the work described in this section, except for work described in other special provisions, and will be accomplished without cost to the contractor. None

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

### **A.5 Temporary Grade Crossing**

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

### **B Railroad Flagging**

Arrange with the railroad for the flagging of trains and safety of railroad operations if clearances specified in subsection 107.17.1 are not maintained during construction operations. At any other time in railroad representative's judgment, the contractor's work or operations constitute an intrusion into the track zone and create an extraordinary hazard to railroad traffic, and at any other time when flagging protection is necessary for safety to comply with the operating rules of the railroad.

Projects with concurrent activity may require more than one flagger.

Projects with heavy contractor activity within 25 feet of the centerline of any track or unusual or heavy impact on railroad facilities will normally require a full-time flagger.

The department and railroad will monitor operations for compliance with the above flagging requirements. Violations may result in removal from railroad property until arrangements to adhere to the flagging requirements are satisfied. If the railroad imposes additional flagging requirements beyond the above flagging requirements due to the previous violations, the contractor shall bear all costs of the additional flagging requirements.

### **C Flagging by Railroad– Railroad Does Not Pay Flagging Costs**

#### **C.1 General**

*Replace paragraph (1,3 and 4) of standard spec 107.17.1 with the following:*

(1) Coordinate with the railroad for all work performed within 25 feet of the track centerline including equipment or extensions of equipment that can fall within 25 feet of the track centerline or adjacent facilities or when working on railroad right-of-way. Include the following on all submittals and other written communications with the railroad:

- WisDOT crossing number.
- Railroad milepost.
- Railroad subdivision.

(3) Perform all work within 25 feet of the track centerline including equipment or extensions of equipment that can fall within 25 feet of the track centerline or adjacent facilities or when working on railroad right-of-way in a way that does not interfere with the safe and uninterrupted operation of railroad traffic. Maintain clearances during construction as follows:

1. Do not operate equipment closer than 25 feet horizontally from a track centerline or 22 feet vertically above the top of a rail, except under the protection of railroad flaggers.
2. Do not store materials or equipment closer than 25 feet horizontally from a track centerline.
3. Provide an obstruction-free work zone adjacent to a track extending 12 feet or more horizontally on both sides of the track centerline. Keep this work zone free of construction debris.
4. Unless the railroad's chief engineering officer approves otherwise in writing, maintain minimum clearances from falsework, forms, shoring, and other temporary fixed objects as follows:
  - a. Provide 12 feet, plus 1.5 inches per degree of track curvature, measured horizontally from the track centerline.
  - b. Provide 21 feet, plus compensation for super-elevated track, measured vertically above the top of the highest rail.

(4) Comply with the railroad's rules and regulations when work is within 25 feet of the track centerline including equipment or extensions of equipment that can fall within 25 feet of the track centerline or adjacent facilities or when working on railroad right-of-way. If the railroad's chief engineering officer requires, arrange with the railroad to obtain the services of qualified railroad employees to protect railroad traffic through the work area. Bear the cost of these services and make payment directly to the railroad.



Notify the appropriate railroad representative as listed in section A.3 above, in writing, at least 40 business days before starting work near a track. Provide the specific time planned to start the operations.

## **C.2 Rates – Fox Valley and Lake Superior Rail System, LLC**

The following rates, reimbursement provisions, and excluded conditions will be used to determine the contractor's cost of flagging:

- \$968 daily rate for an 8-hour day (including wages, labor surcharges, meals, lodging, vehicle and mileage expenses),
- \$182 per hour for all hours over 8-hours in any weekday (including wages, labor surcharges, meals, lodging, vehicle and mileage expenses),
- \$1,150 daily rate for an 8-hour day on Saturdays, Sundays or holidays (including wages, labor surcharges, meals, lodging, vehicle and mileage expenses),
- \$207 per hour for all hours on Saturdays, Sundays or holidays over 8-hours (including wages, labor surcharges, meals, lodging, vehicle and mileage expenses).

## **C.3 Reimbursement Provisions**

The actual cost for flagging will be billed by the railroad. After the completion of the work requiring flagging protection as provided in section B above, the department will reimburse 50% of the cost of such services up to the rates provided above based on paid railroad invoices, except for the excluded conditions enumerated below. In the event actual flagging rates exceed the rates stated above, the department will reimburse 100% of the portion of the rate that is greater than the rates stated above.

## **C.4 Excluded Conditions**

The department will not reimburse any of the cost for additional flagging attributable to the following:

1. Additional flagging requirements imposed by the railroad beyond the flagging requirements provided in subsection B above due to violations by the contractor.
2. Temporary construction crossings arranged for by the contractor.

The contractor shall bear all costs of the additional flagging requirements for the excluded conditions.

## **C.5 Payment for Flagging**

The department will pay for the department's portion of flagging reimbursement as specified in section C of this provision under the following item:

ITEM NUMBER	DESCRIPTION	UNIT
801.0117	Railroad Flagging Reimbursement	DOL

The reimbursement payment, as shown on the Schedule of Items, is solely for department accounting purposes. Actual flagging costs will vary based on the contractor's means and methods.

Railroads may issue progressive invoices. Notify the railroad when the work is completed and request a final invoice from the railroad. Promptly pay railroad-flagging invoices, less any charges that may be in dispute. The department will withhold flagging reimbursement until any disputed charges are resolved and the final invoice is paid. No reimbursement for flagging will be made by the department if a violation of subsection B is documented.

stp-107-034 (20250108)

## **7. Environmental.**

### **7.1 Information to Bidders, U.S. Army Corps of Engineers Section 404 Permit.**

The department has obtained an individual Section 404 Permit from the U.S. Army Corps of Engineers. Comply with the requirements of the permit in addition to requirements of the special provisions.

A copy of the permit is available from the regional office by contacting Scott Ebel at (920) 492-5676.

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 modification is required. If a Section 404 permit modification is necessary, obtain the permit modification 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 modification. The contractor must be aware that the U.S. Army Corps of Engineers may not grant the permit modification request.

stp-107-054 (20230629)

## **7.2 Information to Bidders, WPDES Transportation Construction General Permit (TCGP) for Storm Water Discharges.**

The calculated land disturbance for the project site is 90.7 acres.

The department has obtained permit coverage through the Wisconsin Department of Natural Resources to discharge storm water associated with land disturbing construction activities under this contract. Conform to all permit requirements for the project.

This permit is the Wisconsin Pollutant Discharge Elimination System, Transportation Construction General Permit, (WPDES Permit No. WI-S066796-2). The permit can be found at:

<https://widnr.widen.net/s/s5mwp2gd7s/finalsignedwisdotcsgp>

A "Certificate of Permit Coverage" is available from the regional office by contacting Tim Verhagen at (920) 362-1267. Post the "Certificate of Permit Coverage" in a conspicuous place at the construction site.

Permit coverage for additional land disturbing construction activities related to contractor means and methods will be considered as part of the ECIP review and approval process. Coverage under the TCGP for additional land disturbance areas will be considered if the areas meet all of the following:

- Must meet the permit's applicability criteria.
- Must be for the exclusive use of a WisDOT project.
- Land disturbance first commences after the ECIP approval, and the areas are fully restored to meet the final stabilization criteria of the permit upon completion of the work.

The contractor is responsible for obtaining any permits for areas that are not approved by the department for coverage under the TCGP.

stp-107-056 (20230629)

## **7.3 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 following 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)

## **7.4 Environmental Protection, Dewatering.**

*Add the following to standard spec 107.18:*

If dewatering is required, treat the water to remove suspended sediments by filtration, settlement or other appropriate best management practice before discharge. The means and methods proposed to be used during construction shall be submitted for approval as part of the Erosion Control Implementation Plan for dewatering at each location it is required. The submittal shall also include the details of how the intake will be managed to not cause an increase in the background level turbidity before treatment and any additional erosion controls necessary to prevent sediments from reaching the project limits or wetlands and waterways. Guidance on dewatering can be found on the Wisconsin Department of Natural Resources website located in the Storm Water Construction Technical Standards, Dewatering Code #1061, "Dewatering". This document can be found at the WisDNR website:

[http://dnr.wi.gov/topic/stormwater/standards/const\\_standards.html](http://dnr.wi.gov/topic/stormwater/standards/const_standards.html)

The cost of all work and materials associated with water treatment and/or dewatering is incidental to the bid items the work is associated.

ner-107-040 (20180212)

## **7.5 Environmental Protection, By-Pass Pumping**

*Add the following to standard spec 107.18:*

If by-pass pumping is required, the means and methods proposed to be used during construction shall be submitted for approval as part of the Erosion Control Implementation Plan for each location it is required. The submittal shall include how the intake will be managed to not cause an increase in the background level turbidity during pumping; equipment pumping rate capabilities; discharge energy dissipation; and erosion controls. For by-pass pumping that will extend beyond one working day, the submittal should also include how the work zone will be managed and protected should the pump fail; be shut down due to unacceptable water quality; or storm water flows exceed the pumping rate of equipment. After setup of the approved by-pass pumping operation, the contractor shall demonstrate that the means and methods will pump the water at an acceptable water quality before starting work that necessitates the by-pass pumping. The cost of all work and materials associated with by-pass pumping is incidental to the bid items the work is associated with. Erosion control devices beyond the discharge energy dissipation point will be paid for at the contract unit prices for the items that are included in the plan.

ner-107-035 (20180212)

## **7.6 Construction Over or Adjacent to Navigable Waters.**

The Mud Creek Tributary is classified as a state navigable waterway under standard spec 107.19.

stp-107-060 (20171130)

## **7.7 Environmental Protection, Phragmites.**

*Add the following to standard spec 107.18:*

- (7) Phragmites, an invasive species plant, is known to exist within the project limits and in areas that ground disturbance or excavation work is shown in the plans. All soils containing plant or root fragments within the roadway construction limits that will be excavated or salvaged as part of the work within the contract shall be used as fill per standard spec. 205.3.12, replaced in its original location as salvaged topsoil, hauled to locations designated for disposal as shown in the contract or wasted at a select site as approved by the engineer.
- (8) All waste sites are subject to review and approval by the department and shall be suitable to the waste of material containing invasive species to control their spread in compliance with NR 40. Waste sites suitable for invasive species would prevent or control the growth and spread of the plant by

burying, mowing or other control practices. The contractor shall submit methods for managing phragmites infested soil on this project for approval as part of the Erosion Control Implementation Plan.

- (9) Known Locations of invasives are shown in the plans as a construction detail, but other locations may exist within the project limits. Notify the engineer of any addition areas of phragmites that are identified. The limits of all previously and newly identified locations of phragmites are to be verified by the engineer in the field prior to any soil disturbance taking place.
- (10) Prior to moving equipment out of the infested area clean soils, seeds, plant, or invertebrates from exterior surfaces. Use most effective method that is practical by the following means: brush, broom, or other hand tools; high pressure air, steam cleaning; or portable wash station that contains runoff from washing equipment. Do not clean equipment, vehicles or trailers in or near waterways as it may promote the spread of invasive species downstream.

ner41-107 (12052023)

## **7.8 Environmental Protection, Northern Long Eared Bat.**

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

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

Avoidance and Minimization Measures (AMMs) for Northern Long Eared Bat (NLEB) and Tri Colored Bat (TCB) include:

### General AMM

1. Ensure all operators, employees, and contractors working in areas of known or presumed bat habitat are aware of all FHWA and the department's environmental commitments, including all applicable AMMs.

### Lighting AMM

1. Direct temporary lighting away from suitable habitat during the active season.

### Tree Removal AMM

1. Apply time of year restrictions for tree removal, November 1 to March 31 of the calendar year.
2. Ensure tree removal is limited to that specified in the plans. Clearing limits shall be marked in the field by the engineer (e.g., install bright colored flagging/fencing prior to any tree clearing to ensure contractors stay within clearing limits).

### Bridge AMM

1. If bridge assessment or P/A surveys suggest presence of a small number of bats (<5 – not a colony), and work is conducted during the active season, the following types of bridge work can generally be conducted with the presence of bats:
  - a. Above deck work where construction equipment or materials do not extend to the underside of deck where bats may be located (e.g., materials that may drip down to underside of deck) and does not include percussives (vibration) or noise levels above general traffic (e.g., road line painting, wing-wall work). Below deck work that is conducted away from roosting bats and does not involve percussives or noise level above general traffic (e.g., wing-wall work, some abutment, beam end, scour, or pier repair).
  - b. Any other bridge repair, retrofit, maintenance, and/or rehabilitation (which may include activities with percussives) conducted in the evening while the bats are feeding, starting one hour after sunset, and ending one hour before daylight excluding the hours between 10 p.m. and midnight and keep the lighting localized to the work operation.

Reasonable and Prudent Measures (RPMs) the following RPMs are necessary and appropriate to minimize impacts of incidental take of bats:

1. The department will ensure that all of the AMMs are implemented.

- a. Notify contractors and construction staff of conservation measures and ensure compliance with these measures.
  - b. Bridge/culvert surveys for bats will be conducted by the department a minimum of 24 months before construction activities begin. Construction activities should not begin until after appropriate agencies have been notified of survey results (if not already on-site during the survey).
  - c. Only individuals with authorization to capture bats will capture and handle bats.
  - d. If any AMMs cannot be implemented or require modification, contact the engineer and Regional Environmental Coordinator (REC) for further discussion before proceeding with work.
2. The department and its contractors will ensure that appropriate agencies are notified of construction initiation and completion dates, as well as any unforeseen circumstances.
  - a. Notify WisDOT REC Rachel Weber via email (rachel.weber@dot.wi.gov) or current REC when construction is expected to begin.
  - b. Provide contact information for Mae Sommerfeld or current REC to appropriate on-site staff so the department can immediately notify agencies of any unforeseen or emergency circumstances or request clarification regarding conservation measures or terms and conditions.
  - c. Notify WisDOT Regional Environmental Coordinator Rachel Weber via email (rachel.weber@dot.wi.gov) or current REC when construction is complete.
3. Should a dead or injured bat be found during project activities; all contractors will ensure that construction activities cease immediately and that the engineer is notified.
  - a. Cease all construction activities if a dead or injured bat is found during project activities and immediately notify the engineer and WisDOT REC Rachel Weber via email (rachel.weber@dot.wi.gov) or current REC.
  - b. Contractors should be aware that if dead or injured bats are found additional conservation measures to prevent additional injury or mortality throughout the remaining project activities may be required on a project specific basis.

ner41-107 (09262024)

## **7.9 Environmental Protection, Migratory Birds.**

No evidence of swallow or other migratory bird nests have been observed on or under the following structures(s) during the preconstruction inspection. However, if nesting is later observed prior to or during construction, the contractor shall implement avoidance/deterrent measures or obtain a depredation permit. 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.

- B-44-20
- B-44-21
- B-44-28
- B-44-29
- B-44-35
- B-44-36

## **7.10 Notice to Contractor, Fish Spawning.**

There shall be no instream disturbance of Mud Creek Tributary (Station 709NB+50 RT and Station 710SB+70 LT) as a result of construction activity under or for this contract, from March 1 to May 31 both dates inclusive, in order to avoid adverse impacts to fish species during the spawning period.

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 request, and final approval by the engineer. The approval will include all conditions to the request as mutually agreed upon by WisDOT and DNR.

## **7.11 Excavation, Hauling, and Disposal of Petroleum Contaminated Soil, Item 205.0501.S.**

### **A Description**

#### **A.1 General**

This special provision describes excavating, loading, hauling, and disposing of petroleum contaminated soil at a DNR approved bioremediation facility or landfill. The closest DNR approved bioremediation facility or landfill is

GFL Hickory Meadows Landfill  
W3105 Schneider Road  
Hilbert, WI 54129  
(920) 853-8553

Outagamie County Recycling & Solid Waste Department  
1919 Holland Road (Gate #3)  
Appleton, WI 54911  
(920) 832-5004

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

#### **A.2 Notice to the Contractor – Contaminated Soil Locations**

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

1. Station 211+80 RMSB to 215+00 RMSB from 20 feet LT of reference line to construction limits LT of centerline.
2. Station 217+00 RMSB to 218+50 RMSB from reference line to construction limits LT of centerline

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

For further information regarding previous investigation and remediation activities at these sites contact:

Name: Dan Haak, TRC Environmental Corporation  
Address: 999 Fourier Drive, Suite 101, Madison, WI 53717  
Phone: 608-826-3628 (office), 608-886-7423 (mobile)  
E-mail: DHaak@trccompanies.com

#### **A.3 Coordination**

Coordinate work under this contract with the environment consultant:

Consultant: TRC Environmental Corporation  
Address: 999 Fourier Drive, Suite 101, Madison, WI 53717  
Contact: Dan Haak  
Phone: 608-826-3628 (office), 608-886-7423 (mobile)  
E-mail: DHaak@trccompanies.com

The role of the environmental consultant will be limited to:

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

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

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

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

#### **A.4 Health and Safety Requirements**

*Add the following to standard spec 107.1:*

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

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

#### **B (Vacant)**

#### **C Construction**

*Add the following to standard spec 205.3:*

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

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

On the basis of the results of such field-screening, the material will be designated for disposal as follows:

- Excavation Common consisting of clean soil and/or clean construction and demolition fill (such as clean soil, boulders, concrete, reinforced concrete, bituminous pavement, bricks, building stone, and unpainted or untreated wood), which under NR 500.08 are exempt materials, or
- Low-level contaminated material (PID readings less than 10 ppm and no observation of staining or petroleum odor, or based on existing analytical data) for reuse as fill within the construction limits as allowed, or
- Petroleum contaminated soil (significant petroleum odor, staining, and/or PID readings greater than 10 ppm) for off-site treatment and disposal at the WDNR-licensed bioremediation facility, or
- Contaminated soil (based on the presence of industrial fill or existing analytical data) for off-site disposal at the WDNR-licensed disposal facility, or
- Potentially contaminated for temporary stockpiling and additional characterization prior to disposal.

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

When material is encountered outside the above-identified limits of known contamination that appears to have been impacted with petroleum or chemical products, or when other obvious potentially contaminated materials are encountered or material exhibits characteristics of industrial-type wastes, such as fly ash, foundry sand, and cinders, or when underground storage tanks are encountered, suspend excavation in that area and notify the engineer.

Groundwater may be present within the construction limits. Water generated during dewatering operations (if necessary) is expected to be permitted to discharge to the surface except in the contaminated location.

Control operations in the contaminated location to minimize the quantity of contaminated water managed. Minimize the amount of open trenches, and construct diversion berms and implement other controls to minimize the infiltration of surface water into excavations in areas of known contamination. Maintain surface water controls until construction of utilities in the area of contamination is complete. Allow contaminated water encountered, but not requiring removal as a standard course of construction, to remain in-place and do not manage in accordance with this special provision.

If surface water infiltrates excavations and dewatering is required, water may be discharged to the surface if the water meets the requirements of the project dewatering permit and the applicable requirements of the Wisconsin Pollution Discharge Elimination System (WPDES) for contaminated groundwater from remedial action operations. This includes, but is not limited to, pretreatment of water in order to meet WPDES discharge requirements. Perform all necessary monitoring to document compliance with WPDES requirements. Furnish, install, operate, maintain, disassemble, and remove treatment equipment necessary to comply with WPDES requirements.

Ensure continuous dewatering and excavation safety at all times. Provide, operate, and maintain adequate pumping equipment, and drainage and disposal facilities. Notify the engineer of any dewatering activities, and obtain any permits necessary to discharge water. Provide copies of such permits to the engineer. Meet any requirements and pay any costs for obtaining and complying with such permit use. Follow all applicable legislative statutes, judiciary decisions, and regulations of the State of Wisconsin.

The environmental consultant may periodically evaluate water removed from the contaminated locations. Assist the environmental consultant in collecting water samples.

Water generated from dewatering activities within the contaminated locations may exceed the surface water discharge limits for compounds specified in the Wisconsin DNR's "General Permit to Discharge under the Wisconsin Pollutant Discharge Elimination System" for "Contaminated Groundwater from Remedial Action Operations" (WPDES Permit No. WI-0046566-5), Table 3.1.

If dewatering of groundwater is required in the contaminated location, water shall be either containerized for disposal, treated, and discharged to surface, or upon approval of the municipality, discharged to the sanitary sewer. Pump contaminated water that exceeds surface water discharge limits, as determined by the environmental consultant, into either temporary holding tanks, a treatment system provided by the contractor, or upon approval of the municipality, discharged to the sanitary sewer, as necessary to complete construction. The contractor will coordinate holding tank mobilizations, waste characterization sampling of accumulated water, and transportation/disposal of contaminated water. The cost for holding tank mobilization, transportation, and contaminated water disposal shall be paid by the contractor. Management of contaminated groundwater shall be incidental to this item.

#### **D Measurement**

The department will measure Excavation, Hauling, and Disposal of Petroleum Contaminated Soil in tons of contaminated soil, accepted by the bioremediation facility or landfill as documented by weight tickets generated by the bioremediation facility or landfill. Load tickets must be delivered to the engineer within 10 business days of the date on which the soil was accepted by the facility.

#### **E Payment**

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

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

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

stp-205-003 (20230113)



## **8. Clear, Demolition and Removal.**

### **8.1 Clearing and Grubbing.**

*Add to standard spec 201.3:*

The contractor is prohibited from open burning of weeds, brush, logs, limbs, stumps, roots, lumber and debris from clearing and grubbing or from demolition.

Dispose of stumps, roots, brush, waste logs and limbs, timber tops and debris resulting from clearing and grubbing or occurring within clearing and grubbing limits by chipping and removing from the highway right of way.

ner-201-005 (20190717)

### **8.2 Ground Water Monitoring Well.**

Others have constructed groundwater monitoring wells along the corridor, these wells have been abandoned prior to construction.

If ground water monitoring wells or portions of a ground water monitoring well are encountered during construction, notify the project engineer. Any work encountered with verified ground water monitoring wells is incidental to the project.

ner41-210 (20240917)

### **8.3 Abandoning Sewer, Item 204.0291.S.**

#### **A Description**

This special provision describes abandoning existing sewer by filling it with flowable grout as the plans show and conforming to standard spec 204 and standard spec 501 as modified in this special provision.

#### **B Materials**

##### **B.1 Cement**

Furnish cement meeting the requirements of standard spec 501.2.4.1 for Type I or II Portland Cement or Type IL Portland-Limestone Cement.

##### **B.2 Fly Ash**

Furnish Class C or F Fly Ash meeting the requirements of standard spec 501.2.4.2.2.

##### **B.3 Sand**

Furnish natural sand meeting the fine aggregate requirements of standard spec 501.2.7.2 and the size requirements of standard spec 501.2.7 except the percent passing the number 200 sieve shall be 0-5 percent by weight.

##### **B.4 Water**

Furnish water meeting the requirements of standard spec 501.2.6.

##### **B.5 Mix Design**

Use the basic proportions of dry materials per cubic yard of grout as follows:

- Cement 100 pounds
- Fly Ash 400 pounds
- Fine Aggregate 2600 pounds

or an engineer approved equal.

In addition the grout shall conform to the following:

Compressive Strength	ASTM C495	300 psi @ 28 day min
Density	ASTM C495 (no oven drying)	50 pcf min
Shrinkage	ASTM C157	1% by volume
Flow	ASTM C939	35 sec max

Air entraining and chemical admixtures to control fluidity of the grout are allowable. Ten days before placement, furnish to the engineer a design mix detailing all components and their proportions in the mix.

## B.6 Cellular Grout

Alternatively, the contractor may use, or if the manufacturer recommends, an engineer-approved commercial cellular concrete grout conforming to the following:

Cement	ASTM C150/ ASTM C595	Type I or II/Type IL
Density	ASTM C495 (no oven drying)	50 pcf min
Compressive Strength	ASTM C495	300 psi @ 28 day min 100 psi in 24 hours
Shrinkage	ASTM C157	1% by volume
Flow	ASTM C939	35 sec max

## C Construction

Fill the abandoned sewer pipe with flowable grout as the engineer directs. In the event that the sewer cannot be completely filled from existing manholes, tap the sewer where necessary and fill from these locations.

## D Measurement

The department will measure Abandoning Sewer in volume by the cubic yard as specified in standard spec 109.1.3.

## E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
204.0291.S	Abandoning Sewer	CY

Payment is full compensation for furnishing all materials and excavating and backfilling where necessary.  
stp-204-050 (20250701)

## 8.4 Removing Apron Endwalls, Item 204.9060.S.0103.

### A Description

This special provision describes removing apron endwalls conforming to standard spec 204.

### B (Vacant)

### C (Vacant)

### D Measurement

The department will measure Removing Apron Endwalls by each unit, acceptably completed.

### E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.0103	Removing Apron Endwalls	EACH

stp-204-025 (20230113)

## **8.5 Removing Box Culvert Endwalls, Item 204.9060.S.0104.**

### **A Description**

This special provision describes removing box culvert endwalls conforming to standard spec 204.

### **B (Vacant)**

### **C (Vacant)**

### **D Measurement**

The department will measure Removing Box Culvert Endwalls by each unit, acceptably completed.

### **E Payment**

*Add the following to standard spec 204.5:*

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.0104	Removing Box Culvert Endwalls	EACH
stp-204-025 (20230113)		

## **8.6 Removing Drain Slotted Vane, Item 204.9090.S.0105.**

### **A Description**

This special provision describes removing slotted vane drain conforming to standard spec 204.

### **B (Vacant)**

### **C (Vacant)**

### **D Measurement**

The department will measure Removing Drain Slotted Vane by each unit, acceptably completed.

### **E Payment**

*Add the following to standard spec 204.5:*

ITEM NUMBER	DESCRIPTION	UNIT
204.9090.S.0105	Removing Drain Slotted Vane	EACH
stp-204-025 (20230113)		

## **8.7 Abandoning Box Culvert, Item SPV.0035.0125.**

### **A Description**

This special provision describes abandoning box culverts by plugging each end as specified in standard spec 204.3.3.1 and filling it with cellular concrete as the plans show and conforming to standard spec 204 and standard spec 501 as modified in this special provision.

### **B Materials**

Provide cellular concrete meeting the following specifications: 1 part cement, 1 part fly ash, 8 parts sand, or an approved equal, and water. Provide cement meeting the requirements of standard spec 501.2.4.1 for Type I or Type IL Portland Cement. Provide sand meeting the requirements of standard spec 501.2.7.2. Provide water meeting the requirements of standard spec 501.2.6.

### **C Construction**

Plug the box culvert ends as specified in standard spec 204.3.3.1. Fill the abandoned box culvert with cellular concrete as the engineer directs.

### **D Measurement**

The department will measure Abandoning Box Culvert in volume by the cubic yard as specified in standard spec 109.1.3.

## E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.0125	Abandoning Box Culvert	CY

Payment is full compensation for furnishing all materials and excavating and backfilling where necessary.

### 8.8 Removing Cover Plates, Item SPV.0060.0125.

#### A Description

This special provision describes removing steel cover plates placed and left in place on storm sewer structures under a previous contract.

#### B (Vacant)

#### C Construction

Excavate and carefully remove steel cover plates at locations shown on the plan or as directed by the engineer. Do not damage storm sewer structures and pipes while removing cover plates.

Clean out all soil, debris other accumulated matter and materials deposited or lodged resulting from the removal of the cover plate.

#### D Measurement

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

## E Payment

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.0125	Removing Cover Plates	EACH

Payment is full compensation for excavating, cleaning out and disposing of excavated material and cover plates. The cover plates shall become the property of the contractor for reuse or disposal.

Temporary cover plates placed under this contract are paid under that bid item and no payment will be made for those as part of this bid item. Placing new frame and grate, adjusting and/or reconstructing inlets or manholes are paid under appropriate bid items. No additional payments will be made for replacing damaged storm sewer structures and pipes when removing cover plates.

ner41-204 (20240917)

### 8.9 Removing Storm Sewer Plug, Item SPV.0060.0126.

#### A Description

This special provision describes removing storm sewer plugs placed in storm sewer pipes under a previous contract.

#### B Vacant

#### C Construction

Excavate and carefully remove storm sewer plugs at locations shown on the plan or as directed by the engineer. Do not damage storm sewer pipes while removing plugs.

Clean out all soil, debris other accumulated matter and materials deposited or lodged resulting from the removal of the plug.

#### D Measurement

The department will measure Removing Storm Sewer Plug as 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.0060.0126	Removing Storm Sewer Plug	EACH

Payment is full compensation for excavating, cleaning out and disposing of excavated material and plug.

Storm sewer plugs placed under this contract are paid under that bid item and no payment will be made for removal of those as part of this bid item. No additional payments will be made for replacing damaged storm sewer structures and pipes when removing plugs.

ner41-204 (20240917)

## **8.10 Animal Carcass Removal, Item SPV.0075.0105.**

### **A Description**

This special provision describes removal and relocation of animal carcasses encountered within the work zone.

### **B Materials**

Provide appropriate personal protective equipment for the removal of animal carcasses from the roadway.

### **C Construction**

Collect animal carcasses from live lanes of traffic and shoulders as directed by the engineer. Complete animal carcass removal utilizing lane closures or mobile operations per SDD "Traffic Control, Short Duration Mobile Operations", during off peak hours as shown in the Freeway Lane Requirements. Remove animal carcasses within two (2) calendar days of notification by the engineer.

Provide adequate equipment to secure the animal carcasses to the vehicle or trailer to prevent animal carcass and animal residue from falling off.

Prepare a location map to relocate the carcasses to the nearest interchange outside the limits of any work zone with vegetated ramp shoulder slopes at least 300 feet from the mainline gore, for approval by the engineer. Place animal carcasses on the outside shoulder, outside the aggregate and within vegetation to obscure visibility from the traveling public, for pick up and disposal by others. Notify the engineer of the number and location of the carcasses to be picked up.

Notify the engineer prior to start and upon completion of the removal operations.

### **D Measurement**

The department will measure Animal Carcass Removal by the HOUR that the contractor is actively picking up from the roadway, relocating, and dropping off the carcasses.

### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0075.0105	Animal Carcass Removal	HOURS

Payment is full compensation for mobilization; traffic control, materials, equipment, loading, unloading, and delivery of animal carcasses to an engineer approved location; and submitting hourly invoices. The cost for lane closures and mobile operations, SDD "Traffic Control, Short Duration Mobile Operations", including vehicles and traffic control shall be incidental to the Animal Carcass Removal bid item. The department shall make no payment for time to set up and removal of traffic control and is considered incidental to the Animal Carcass Removal bid item.

ner41-643 (06302025)

## **8.11 Removing Existing Bridge Chain Link Fencing, SPV.0090.0805.**

### **A Description**

Remove and dispose of existing chain link fencing from existing parapet, bridge deck, or concrete barrier as shown in the plans.

### **B Vacant**

### **C Construction**

Provide a schedule for all removal activities to the engineer. Notify the engineer a minimum of 24 hours in advance of hardware removal.

Prior to removal, field verify and measure all existing post spacing, anchor plate dimensions, and existing bolt patterns for fabrication of Fence Chain Link Polymer-Coated.

Inspect and provide a list of any damaged anchor bolts to the engineer prior to hardware removal. Care shall be taken to avoid damage to the anchor bolts during the removal process. Unless the engineer determines damage was preexisting or unavoidable, replacement of bolts damaged by the contractor operations shall be replaced by the contractor at no cost to the department.

Remove existing bridge chain link fence as shown in the plans. Existing nuts shall be removed from anchor bolts and discarded. Use care when removing nuts from anchor bolts. Existing anchor bolts are intended to remain in place for installation of new fencing.

#### **D Measurement**

The department will measure Removing Existing Bridge Chain Link Fencing by the linear foot, acceptably completed.

#### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.0805	Removing Existing Bridge Chain Link Fencing	LF

Payment for removing existing bridge chain link fencing is full compensation for field verification of existing post spacing, anchor plate dimensions, anchor plate bolt configuration, and for removing, disposing, and repairing damage caused by the removal of the existing bridge chain link fencing.

ner41-506 (12117024)

### **9. Earthwork.**

#### **9.1 Notice to Contractor, Salvaged Topsoil.**

Remove additional topsoil in areas beneath embankments, as shown in the plans or as directed by the engineer. Use materials as shown in the plans to backfill the area. Removal of additional topsoil beneath embankments is incidental to the Salvaged Topsoil bid item.

After completing the finished grading, place 6-inches of salvaged topsoil on all surfaces where seeds will be sown, or sod will be placed. Use surplus humus-bearing soils to flatten slopes, fill low places in the right of way or as directed by the engineer.

#### **9.2 Staged Embankment Construction, SB Shoulder – FVLS Railroad to Gillett St.**

Construct the early roadway embankment and pre-load fill as the plans show, conforming to section 207 of the standard spec, and as hereinafter provided.

Place each stage of roadway embankment to the maximum elevation and limits shown in the table below. After placement, wait a minimum number of calendar days as indicated in the table below unless allowed by the engineer. The engineer may extend the wait period of the fill if the settlement data indicates this is appropriate. No additional payment will be made for any delays or additional work incurred if the settlement data indicate the need for an extended waiting period. Except for maintaining embankments, perform no work on embankments until settlement and monitoring requirements identified in Article 12.2, Geotechnical Instrumentation Monitoring and Reporting, are complete, unless otherwise approved by the engineer.

Stockpile no material nor store equipment on embankments during the waiting period, unless otherwise approved by the engineer.

Location - Alignment	Begin Station	End Station	Features	Construction Stage(s)	Max Fill Elevation	Wait Period Before Wall Construction
IH41 Mainline	696SB+00	699SB+50	Embankment Fill	2, 3 or 4	Bottom of Wall	0 days
	699SB+50	702SB+50	Embankment Pre-load	2, 3 or 4	Bottom of Wall	90 days
	702SB+50	707SB+50	Embankment Fill	2, 3 or 4	Bottom of Wall	0 days

### 9.3 Embankment Construction, Benching.

*Replace standard spec 205.3.2(4) with the following:*

If placing embankment on side slopes 10-feet high or higher and steeper than one vertical to 3 horizontal, cut a minimum 18-inch depth bench into the existing embankment every 3 feet of vertical fill height.

ner-207-005 (20171213)

### 9.4 Select Borrow.

*Add the following to standard spec 208.2.1(2):*

Furnish mechanically unprocessed, natural occurring granular material conforming to the gradation requirements specified for Grade 2 in standard spec 209.2.2(1).

If the engineer approves, the contractor may substitute Select Crushed Material conforming to standard spec 312 for select borrow.

ner41-208 (12052023)

### 9.5 Preparing the Foundation.

*Add the following to standard spec 211.3.1:*

The contractor shall plan construction activities such that the earth subgrade is covered by the roadway base in a timely manner upon completion of preparation of the subgrade or as the engineer directs. The contractor is responsible for the removal of any excess water from the subgrade as a result of rainfall events or natural drainage.

ner-211-005 (20171213)

### 9.6 Roadway Embankment, Item SPV.0035.0100.

#### A Description

This special provision describes providing embankments and the materials needed to construct embankments. Conform to standard spec 207 and 208 and as below.

Material to construct embankments is incidental to this bid item, including Borrow.

#### B Materials

Furnish materials in accordance to standard spec 207.2.

If Borrow material is used conform to standard spec 208.2.

#### C Construction

Conform to standard spec 207.3.

If Borrow material is used conform to standard spec 208.3.

#### D Measurement

The department will measure Roadway Embankment by the cubic yard, acceptably completed in its final position, using the method of average end areas, with no correction for curvature. The department will determine the end areas from preconstruction cross-sections of the area being covered by the proposed embankment and from cross-sections of the completed work. The department will not make allowances for shrinkage, subsidence, lateral movement of the material, or for material in excess of that required for work the plans show or the engineer orders.

#### E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.0100	Roadway Embankment	CY

Payment is full compensation for placing material to construct embankments which includes hauling, placing, forming, compacting, shaping, sloping, trimming, finishing, maintaining embankments and other incidental work required under standard spec 207 and 208.

Payment includes clearing, grubbing, excavating, disposing of surplus and unsuitable material and spreading salvaged material for covering the surfaces of excavated areas within the borrow sites.

The department will not pay separately for removing and disposing of rock, stone and boulders that the engineer rejects under 207.3.11.

The department will not pay separately for Borrow, 208.0100; it is incidental to this SPV.

The department will pay separately for Select Borrow under the bid item 208.1100.

ner-207-015 (20190402)

## **10. Bases, Subbases and Pavements.**

### **10.1 Notice to Contractor = Concrete Pavement Material Placement.**

Spread concrete uniformly across the subgrade or subbase as close as possible to its final position prior to the concrete mix reaching the concrete paving machine.

ner41-105 (11182025)

### **10.2 Concrete Pavement Bond Breaker**

*Supplement section 415 of the standard specifications as follows:*

#### **415.3.3 Preparing the Foundation**

*Add the following text:*

Place polyethylene sheets over entire area where concrete pavement contacts the concrete masonry associated with the MSE wall. Total thickness of the sheets shall be at least 0.03 inches. Place the polyethylene sheets with overlap joints of at least 6 inches.

#### **415.5.1 General**

*Add the following text:*

- (7) Payment for polyethylene sheets is considered incidental to the Concrete Pavement bid items or Concrete Pavement Special bid items included in the contract.

ner41-415 (02202024)

### **10.3 Hot Mix Asphalt Pavement.**

*Delete subsection 460.3.3.3 of the standard spec.*

### **10.4 Asphaltic Surface.**

*Supplement subsection 465.2 of the standard spec as follows:*

Under the Asphaltic Surface and Asphaltic Surface Temporary bid items furnish asphaltic mixture meeting the requirements as shown in the plans.

### **10.5 Cold Patch, Item 495.1000.S.**

#### **A Description**

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

#### **B Materials**

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

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



Conform to the following gradation:

SIEVE SIZE	PERCENT PASSING (by weight)
½-inch (12.5 mm)	100
3/8-inch (9.5 mm)	90 – 100
No. 4 (4.75 mm)	90 max
No. 8 (2.38 mm)	20 – 65
No. 200 (0.074 mm)	2 – 10
Bitumen	4.8 – 5.4

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

### C Construction

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

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

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

### D Measurement

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

### E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
495.1000.S	Cold Patch	TON

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

stp-495-010 (20160607)

## 10.6 Incentive IRI Ride PCC Surfaces, Item SPV.0055.0100.

### A Description

*Follow standard specification 740 QMP Ride for asphalt pavement riding surfaces.*

*Replace standard specification 740 QMP Ride with the following for concrete pavement riding surfaces .*

- (1) This special provision describes profiling requirements with a non-contact profiler, locating areas of localized roughness and determining the International Roughness Index (IRI) for each wheel path.

### B Pre-Project Requirements

- (1) The Profiler APL is located at: <https://wisconsindot.gov/pages/doing-bus/eng-consultants/cnslt-rsrcs/tools/appr-prod/default.aspx>
- (2) Re-certify profiler if changes or repairs are made to the device that affect data collection or analysis, including repairs made to the profiler components or software.

### B.1 Material Conformance

- (1) Use profiler equipment that conforms to the following:

**Table 1: Profiler Conformance**

Equipment Name	Conformance
Inertial Profiler	AASHTO M328
Annual Certification of Profiler (Standard Practice for Certification of Inertial Profiling Systems)	AASHTO R56
Daily Calibration of Profiler	AASHTO R57

**B.2 Contractor Requirement**

- (1) Furnish profiler equipment from the current APL at the time of project testing.
- (2) Enter the equipment-specific department-approved filter settings and parameters given in the approved profilers list at: <https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrcs/gmp/default.aspx>

**B.3 Department Requirement**

- (1) The department will certify all profilers conforming to Table 1: Profiler Conformance.

**C Project Requirements****C.1 Material Conformance****Table 2: Category Definition**

Category Name	Description
PCC	Concrete pavements

**Table 3: Profile Segment Conformance**

Profile	ProVAL Analysis	Length	Category
IRI	Smoothness Assurance - Fixed Interval (IRI)	500 feet (1 segment)	PCC
Localized Roughness	Smoothness Assurance – Short Continuous (IRI)	25 feet	PCC & Posted Vehicle Speed > 45 mph

**C.2 Contractor Testing**

- (1) Measure smoothness with an inertial profiler to determine the International Roughness Index (IRI) for each wheel path of each driving lane.
- (2) Perform, record and submit a daily calibration according to AASHTO R57 to the engineer, prior to data collection.
- (3) Profile final riding surfaces greater than 1500 feet in continuous length, including bridge decks, bridge approaches, intersections, railroad crossings, and pavement gaps. Profile final riding surfaces that are full width, and typically carry moving vehicles. Include the following:
  1. Auxiliary lanes.
  2. System interchanges that carry traffic from one freeway to another via ramps or connectors.
  3. Mainline pavement on county, state, or U.S. highway crossroads reconstructed under the contract.
  4. Include bridges and bridge approaches in profile runs but exclude them from segment IRI calculations.

- (4) Follow Table 4 for list of exclusions:

**Table 4: Exclusions**

<b>Pavement</b>	<b>Excluded Areas From IRI Smoothness Only</b>	<b>Excluded Areas From Smoothness And Localized Roughness</b>
PCC	<ol style="list-style-type: none"> <li>1. Pavement with a posted vehicle speed less than 45 mph</li> <li>2. Service interchange entrance ramps, exit ramps, loop ramps and turn lanes</li> <li>3. Acceleration and deceleration lanes less than 1,500 feet in length</li> <li>4. Intersections constructed under traffic; begin and end exclusion 100 feet from the Intersection radius</li> </ol>	<ol style="list-style-type: none"> <li>1. Pavement with a posted vehicle speed less than or equal to 35 mph</li> <li>2. Turn lanes and crossovers</li> <li>3. Side roads</li> <li>4. 150 feet before stop signs at an Intersection</li> <li>5. 150 feet within points of curvature of a roundabout</li> <li>6. Bridge decks, approach panels</li> <li>7. Pavements within 25 feet of bridges or bridge approaches not constructed under the contract or 25 feet from terminal headers tying into existing pavement.</li> <li>8. Doweled Shoulders less than 10 feet in width</li> <li>9. Un-doweled Shoulders</li> <li>10. Headers adjacent to colored concrete</li> </ol>

### **C.2.1 Quality Control Plan**

- (1) Prepare a project-specific written quality control (QC) plan and submit to the engineer no later than 10 business days before paving. Update QC plans with changes as they become effective.
- (2) Ensure the QC plan conforms to Standard Specification 701.1.2.2 with the following modifications:

*Replace 701.1.2.2(2) with the following:*

*Ensure that quality control plans include the following elements:*

1. *Organizational chart including names, telephone numbers, current certifications with expiration dates, and roles and responsibilities of quality control personnel.*
2. *Process for disseminating quality control and corrective action information to appropriate persons. Include a list of recipients, the communication means used, and the action time frames.*
3. *Initial and routing equipment checks and documentation.*
4. *Frequency of contractor quality control testing.*
5. *Process control testing the contractor intends to perform, and associated control charts or other documentation the contractor will make available to the department.*
6. *The methods and timing used for monitoring and testing ride quality throughout the placement process/work. Also indicate the approximate timing of testing in relation to the work.*
7. *Segment locations of each profile run used for testing.*
8. *Traffic control plan*
9. *Describe how concrete will be transferred from the truck to the paver. Provide details regarding how the method of placement will lead to a smooth ride.*
10. *If using of a Dowel Bar Inserter, describe how the Dowel Bar Inserter will not have a negative impact on smoothness of ride.*

- (3) Deviations from this plan must be submitted to the engineer in writing for approval no later than 10 business days before paving.

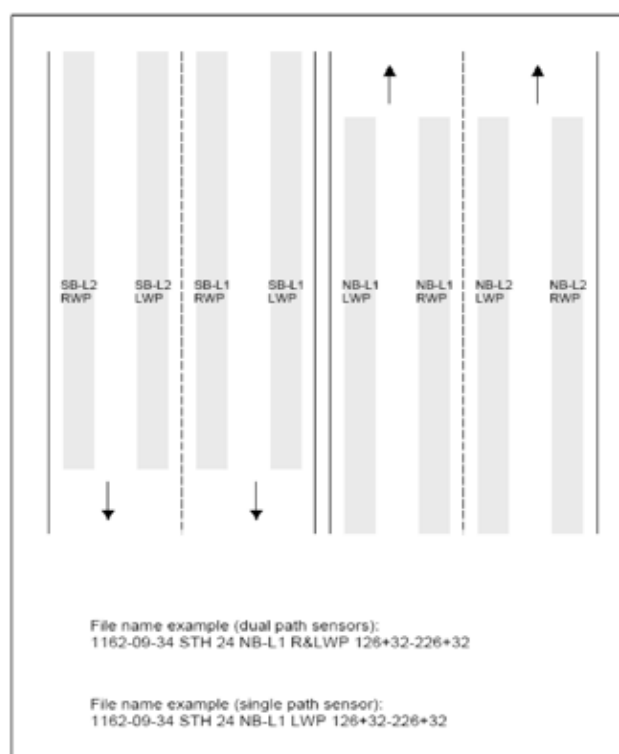
## C.2.2 Testing

- (1) Have an HTCP-certified profiler operator operate the equipment, collect the required data, and analyze the results using the methods taught in the HTCP profiling course. Ensure that an HTCP-certified profiler supervises data entry.
- (2) Unless the engineer and contractor mutually agree otherwise, arrange to have a calibrated profiler available when paving the final riding surface.
- (3) Verify profiler equipment calibration daily using AASHTO R57. Notify the engineer before verifying the calibration. Arrange to have the engineer observe the calibration verification and profiler operation. Maintain records of calibration verification activities; provide those records to the engineer upon request.
- (4) Operate profilers within the manufacturer's recommended speed tolerances. Perform profile runs in the direction of travel. Measure the longitudinal profile of each wheel track of each lane. The center of each wheel tracks are 6.0 feet apart and centered in the travel lane.
- (5) Coordinate with the engineer at least 24 hours before making profile runs for acceptance, unless the engineer approves otherwise. The department may require profiling to accommodate staged construction or if corrective action is required.
- (6) Mark the beginning and ending points for each profile run; ensure markings remain for a minimum of 10 business days after reporting profile data. Measure the profiles of each standard and partial segment. Define segments starting at a project terminus and running contiguously along the mainline to the other project terminus. Define segments one wheel path wide and distinguished by length as follows:
  1. Standard segments are 500 feet long.
  2. Partial segments are less than 500 feet long.
- (7) Treat partial segments as independent segments.
- (8) Ensure sufficient or per manufacturer's specification run-in and run-out length to maintain a constant speed during data collection.

## C.2.3 Naming Protocol for Profile Runs

- (1) Figure 1 provides the recommended protocol for naming profile runs.

**Figure 1: Naming Protocol**



### C.2.4 Documentation/Analysis

- (1) After profiling, compute the segment IRI for each segment and analyze areas of localized roughness using the ProVAL software.
- (2) Prepare the ProVAL ride quality module reports showing the segment IRI for each segment and areas of localized roughness. Generate the ride quality module reports in ProVAL conforming to Table 6.
- (3) Prior to leaving the project site, provide the engineer with a copy of the raw .ppf.
- (4) Within five business days after completing profile acceptance runs, unless the engineer and contractor mutually agree to a different timeline, upload the unedited .ppf files, the electronic ProVAL project file (.pvp) containing the edited .ppf files for each profiler run and ride quality module reports, as PDF files.
- (5) Notify the engineer when MRS submittal is complete and profiler acceptance run data and ride quality module reports are available.

### C.2.5 Corrective Action and Re-Profiling

- (1) Field-locate the areas of localized roughness before the engineer's assessment for corrective action. Document the reasons for areas excluded.
- (2) Recommend corrective action to the engineer.
- (3) Correct the ride as the engineer directs in writing, including re-profiling entire segment, including areas of corrected segments and areas of localized roughness as follows:
  - Excessive Segment IRI: Re-profile entire segment to verify that the final segment IRI meets the correction limits in Table 6 and there are no areas of localized roughness. Upload within 5 business days a revised ProVAL ride quality module report for the corrected areas. Segments failing these criteria after correction are nonconforming work under 105.3.
  - Localized Roughness: Re-profile entire segment to verify that the localized roughness is less than the conformance listed in Table 6. Upload within 5 business days a revised ProVAL ride quality module report for corrected areas.

## C.3 Department Requirements

### C.3.1 Testing Oversight

- (1) The engineer may request ride information if there appears to be a ride-related problem during construction of the pavement.
  - Verify that the profiler and operator are certified, the device has been properly calibrated and daily calibration verification has been performed.
  - The engineer will verify that the operator is HTCP certified, the profiler equipment is on the APL and will review the calibration records for the profiler.

### C.3.2 Corrective Action for PCC

- (1) All pavement is subject to straight-edging and engineer-directed corrective actions.
- (2) The engineer will not direct corrective action or assess a disincentive for area(s) of localized roughness without independent identification of that area as determined by physically riding the pavement.
- (3) Before directing corrective action, the engineer will assess whether a repair will help or hurt the long-term performance.
- (4) The engineer will assess each wheel path for areas of localized roughness within 5 business days of being notified that ProVAL reports are uploaded. For each area that exceeds the conformance in Table 6, the engineer will direct the contractor to correct the area to minimize the effect on the ride.
- (5) If an individual segment IRI exceeds the conformance in Table 6 PCC pavement after correction for localized roughness, the engineer may require the contractor to correct that segment's final surface according to the conformance requirements in Table 6, using whichever method the engineer approves in Table 5.
- (6)

**Table 5: Corrective Action Options**

Category	Corrective Action Optional Methods
PCC	1. Diamond grinding of the non-conforming wheel path of the riding surface including adjustment of the paved shoulders at no additional cost to the department. <sup>1</sup> 2. Remove and replace the full lane width of the riding surface at no additional cost to the department.

<sup>1</sup> Conforming to 420.3.1 through 420.3.4

**Table 6: After Grinding Profile Conformance**

Profile	ProVAL Analysis	Length	Category	Threshold
IRI	Smoothness Assurance - Fixed Interval (IRI)	500 feet (1 segment)	PCC	<=65 in/mile
Localized Roughness	Smoothness Assurance – Short Continuous (IRI)	25 feet	PCC and a posted vehicle speed of >45 mph	<175 inches/mile
			Ramps, Loops, concrete Intersections constructed under traffic, or any paving with a posted vehicle speed ≤ 45 mph	<200 inches/mile

### C.3.3 Department Testing

- (1) The department reserves the right to conduct QV testing to validate the quality of the product on any segment at any time. The department will notify the contractor before testing so the contractor can observe the QV testing.
- (2) After completing QV profile runs, the department will review the profiling data with the contractor directly on-site and will identify any areas of immediate concern. The department will analyze the data and provide the test results to the contractor unless the contractor and engineer mutually agree otherwise.

### C.4 Dispute Resolution

- (1) The engineer and contractor will jointly investigate any testing discrepancies. If the QC and QV profiles differ by more than the allowable tolerances of AASHTO R54-14 (2022) (Table 2 in R54-14), engineer may request to resolve a testing discrepancy. If the contractor does not respond to an engineer request to resolve a testing discrepancy, the engineer may suspend production until action is taken. QV profiles will be used for payment when the discrepancy is not resolved.

### D Measurement

- (1) The department will measure Incentive IRI Ride PCC Surfaces PCC Riding Surfaces by the dollar, calculated as specified below.

### E Payment

#### E.1 General

- (1) Costs for furnishing and operating the profiler, documenting profile results, and correcting the final surface are incidental to the contract. The department will pay separately for engineer-directed corrective action performed in excluded areas.

#### E.2 Pay Adjustment

The department will pay incentive for ride as follows:

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0055.0100	Incentive IRI Ride PCC Surfaces	DOL

- (2) Incentive payment may be more or less than the amount the schedule of item shows.

- (3) The department will adjust pay as follows for work placed under the contract:
  - Based on the initial segment IRI for that segment.
  - The department will not pay incentives as specified in Table 7 for segments that require corrective action.

### E.2.1 Pay Adjustment – IRI

- (1) IRI Ride incentives and disincentives are based on the initial IRI of each segment.
- (2) The department will adjust pay for 500-foot long standard segments nominally one wheel path wide using equations according to Table 7.
- (3) Contactor may perform corrective work to  $\leq 65$  inches/mile in lieu of disincentives if both the engineer and contractor agree.
- (4) The department will not pay incentives on corrective action work. No disincentives will apply after corrective work has reached  $\leq 65$  inches/mile.

**Table 7: Pay Adjustment For IRI**

Category	Initial IRI (in/mile)	Pay Adjustment (dollars/segment)
PCC	<50	1,000
	$\geq 50$ to $\leq 80$	4,062.5 - (62.5 x IRI)
	>80	Corrective Work to $\leq 65$ inches/mile

- (5) The department will prorate the pay adjustment for non-standard segments based on their length.

### E.2.2 Pay Adjustment – Localized Roughness

- (1) The department will adjust pay for Localized Roughness according to Table 8.

**Table 8: Pay Adjustment For Localized Roughness (LR)**

Category	Length of LR Segment (Feet)	LR Pay Reduction	
		25' continuous IRI (inches/mile)	Corrective Work or Deduction per linear 1.0'
PCC and a posted vehicle speed of >45 mph	25	$\geq 175$ to <200	Corrective Work unless both the engineer and contractor agree to a monetary deduction of \$25.00 per linear foot
		$\geq 200$	Corrective work to <175
PCC: Ramps, Loops, Intersections constructed under traffic, or any paving with a posted vehicle speed $\leq 45$ mph	25	<200	Acceptable
		$\geq 200$	\$25.00 per linear foot

## 10.7 HMA Longitudinal Joint Repair, Item SPV.0090.0120.

### A Description

This special provision describes providing longitudinal joint repairs in HMA pavements. Conform to standard spec 204, 315, 455, and 460, and as follows.

## **B Materials**

Furnish asphaltic surface per standard spec 465 as specified for type 4 MT 58-28 S under standard spec 460.2

Provide tack coat conforming to standard spec 455.2.5.

## **C Construction**

### **C.1 General**

Conform to standard spec 315.3.1 for placement of the HMA pavement.

Work to repair longitudinal joints shall begin and be completed during the same engineer approved off-peak lane closure period.

Mill an area 2 feet wide and at least 2 inches deep along existing joint lines as shown in the plans; the engineer will determine the final repair length. Ensure any loose asphalt is removed prior to paving.

Clean the existing milled surface before placing tack coat. Dispose of removed pavement and other waste materials outside of the project limits unless the engineer allows otherwise.

## **D Measurement**

The department will measure HMA Longitudinal Joint Repair by the linear foot, acceptably completed.

## **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.0120	HMA Longitudinal Joint Repair	LF

Payment is full compensation for providing the joint repair including removing the existing asphaltic surface; for tack coat and asphaltic pavement mixture. The department will pay for any additional traffic control measures, if required, under the respective traffic control items in the contract.

## **10.8 Concrete Pavement 10 1/2-Inch Special, Item SPV.0180.0100.**

### **A Description**

This special provision describes specialized material and construction requirements for high performance concrete used in mainline pavement and shoulders. Conform to standard specs 415, 501, 710, 715 as modified in this special provision.

## **B Materials**

### **415.2.1 Concrete**

*Replace 415.2.1(1) with the following:*

Furnish grade A concrete conforming to 501 except develop a concrete mixture to follow 501.3.2.3 and as modified for class I pavement concrete in 715. Provide QMP for class I pavement concrete as specified in 715.

### **415.2.2 Reinforcement**

*Supplement standard spec 415.2.2 with the following:*

Furnish High Performance Dowel Bars according to 505.2.6.2.4

### **501.2.7.3 Coarse Aggregates**

#### **501.2.7.3.1 General**

*Replace 501.2.7.3.1 with the following:*

#### **501.2.7.3.1 General**

Provide coarse aggregates from a department-approved source. Use an approved source listed on the APL or follow the source approval process specified in standard spec 106.3.4.2. In addition to the requirements of standard spec 106.3.4.2, perform tests for LA wear, sodium sulfate soundness, freeze-thaw soundness and lightweight pieces at least once per calendar year when producing coarse aggregates for use in high-performance concrete mixes.



Use clean, hard, durable crushed stone with 100 percent fractured surfaces and free of excess flat and elongated pieces, lightweight particles, frozen lumps, vegetation, deleterious substances or adherent coatings considered injurious.

Use virgin aggregates only.

Contact the engineer a minimum of 5 weeks prior to paving to collect a sample of the aggregates proposed for the project. The engineer will obtain the sample or observe the contractor obtaining the sample. The sampler must be HTCP certified to sample aggregates.

The department test results will be used for aggregate acceptance.

The department will randomly sample coarse aggregate for lightweight pieces testing at least once per 10,000 cubic yards during placement of concrete pavement.

### 501.2.7.3.2 Physical Properties

*Replace 501.2.7.3.2 paragraph one with the following:*

Furnish coarse aggregates approved for use in concrete pavement and conforming to the following:

**Table 501-2 Physical Properties**

Aggregate Quality Test	Test Method	Maximum Percent by Weight
LA Wear (100 and 500 revolutions) <sup>[1]</sup>	AASSTO T96 WTM	35
Sodium Sulfate Soundness (R-4, 5 cycles) <sup>[1]</sup>	AASHTO T104 WTM	6
Freeze-Thaw Soundness <sup>[1]</sup>	AASHTO T103 WTM	10
Lightweight Pieces <sup>[1] [2]</sup>	AASHTO T113 WTM	See Table 501-3

Coarse aggregate sizes No. 1 and No. 2 as defined in 501.2.7.4.2 will be tested individually and the results weighted by the blend percentage listed in the mix design.

Material having a bulk specific gravity (saturated surface-dry basis) of less than 2.45. Determine the percentage of lightweight pieces in the sample retained on the 3/8-inch sieve by the weight of the total sample.

### 501.2.7.3.3 Deleterious Substances

*Replace 501.2.7.3.3 paragraph one with the following:*

Ensure aggregates are free of excess flat & elongated particles, lightweight pieces, frozen lumps, vegetation, deleterious substances, or adherent coatings considered injurious. Do not exceed the maximum limits of deleterious substances specified in table 501-3.

**Table 501-3 Deleterious Substances**

Substance	Maximum Percent by Weight
Shale	1.0
Coal	1.0
Clay lumps	0.3
Soft fragments	5.0
Any combination of shale, coal, clay lumps, and soft fragments	5.0
Flat or elongated pieces based on a 3:1 ratio <sup>[1]</sup>	15.0
Materials passing the No. 200 sieve	1.5
Lightweight pieces	2.0

According to ASTM D4791 WTM

#### **501.2.7.3.4 Alkali Silica Reactivity Testing and Mitigation Requirements**

*Replace 501.2.7.3.4 paragraph two and paragraph three with the following:*

- (2) The department will reject the aggregate if the ASTM C1260 test indicates a 14-day expansion of 0.15 percent or greater.
- (3) The department may waive additional testing if the initial test is passing.

#### **710.5.5 Strength**

*Replace 710.5.5 paragraph one with the following:*

- (1) Cast all 6-inch x 6-inch x 21-inch 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.

#### **715.2 Materials**

##### **715.2.1 General**

*Replace 715.2.1 paragraph four with the following:*

- (4) The regional materials engineer must review and approve the submitted mix design within 7 business days of receiving the mix design submittal and complete Project Staff Review section of mix design certification within DT2220 or DT2221.

#### **715.3 Testing and Acceptance**

##### **715.3.1 Class I Concrete Testing**

###### **715.3.1.1 General**

*Replace 715.3.1.1 paragraph one with the following:*

- (1) Provide slump, air content, concrete temperature, and strength test results as specified in 710.5. Provide a battery of QC tests, consisting of results for each specified property, using a single sample randomly located within each subplot. Cast 3 specimens for strength evaluation.

###### **715.3.1.1.1 Flexural Strength**

*Replace 715.3.1.1.1 paragraph one with the following:*

- (1) Cast 3 beams for flexural strength acceptance testing at 28 days.

###### **715.3.1.3 Department Verification Testing**

*Replace 715.3.1.3 paragraph one with the following:*

- (1) The department will perform verification testing once for each 5 contractor QC tests with additional testing as required to obtain at least 1 verification test per lot for air content, slump, temperature, and strength.

##### **715.3.2 Strength Evaluation**

###### **715.3.2.1 General**

*Replace 715.3.2.1 paragraph one with the following:*

- (1) The department will make pay adjustments for strength on a lot-by-lot basis using the flexural strength of contractor QC beams.

###### **715.5.1 General**

*Replace 715.5.1 with the following:*

The department will pay incentive for strength under the following bid items:

ITEM NUMBER	DESCRIPTION	UNIT
715.0715	Incentive Flexural Strength Concrete Pavement	DOL

Incentive payment may be more or less than the amount the schedule of items shows.

The department will administer disincentives for strength under the Disincentive Flexural Strength Concrete Pavement administrative item.

The department will adjust pay for each lot using PWL of the 28-day subplot average strengths for that lot. The department will measure PWL relative to strength lower specification limits as follows:

- Flexural strength of 650 psi for pavements

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.

Submit strength results to the department electronically using the MRS software. The department will validate contractor data before determining pay adjustments.

All coring and testing costs under 715.3.2.2 including filling core holes and providing traffic control during coring are incidental to the contract.

## **715.5.2 Pavements**

*Delete section 715.5.2.1.*

## **C Construction**

### **C.1 Jointing**

#### **C.1.1 General**

*Add the following to standard spec 415.3.7.1:*

Treat sawed surfaces of transverse joints and longitudinal joints to a depth of 1-inch or greater into the joint on each sawed face with a silane. Furnish a silane from the department's Concrete Protective Surface Treatments approved products list. Conform to the manufacturer's recommendations for use of the product.

The contractor shall perform a field trial under the department's observation to demonstrate the application method for the silane treatment of the joint. The field trial can be done with bricks or cinder blocks and shall be constructed in a way that represents a sawed concrete joint. The field trial must show the proposed application method can consistently treat the surfaces of the joint to a depth of 1-inch or greater into the joint.

Clean the saw cut by water blast and air to thoroughly remove cutting residue prior to application of the silane treatment.

### **C.2 Curing Concrete**

#### **C.2.1 General**

#### **501.3.2.4.3.3 Extended Delivery Time**

*Delete 501.3.2.4.3.3 paragraph one.*

#### **501.3.5 Ready-Mixed Concrete**

*Replace 501.3.5.1 paragraph one with the following:*

- (1) Use central-mixed concrete as defined in standard spec 501.3.5.1(2) for all work performed under this special provision.

#### **501.3.5.2 Delivery**

*Replace 501.3.5.2(3) with the following:*

- (3) Deliver and completely discharge the concrete within the following limits, beginning when adding water to the cement, or when adding cement to the aggregates.

Delivered in Agitating Vehicles:

- 60 minutes if the concrete temperature is 60 F or higher at placement, and the contractor does not use a department-approved retarder.
- 90 minutes if the concrete temperature is less than 60 F at placement.
- 90 minutes if the concrete temperature is 60 F or higher at placement, and the contractor uses a department-approved retarder.

Delivered in Non-Agitating Vehicles:

- 30 minutes if the concrete temperature is 85 F or higher at placement, and the contractor does not use a department-approved retarder.
- 45 minutes if the concrete temperature is 60 F to less than 85 F at placement, and the contractor does not use a department-approved retarder.
- 60 minutes if the concrete temperature is less than 60 F at placement.
- 60 minutes if the concrete temperature is 60 F or higher at placement, and the contractor uses a department-approved retarder.

### **501.3.8.2 Hot Weather Concreting**

*Replace all of 501.3.8.2.1 with the following:*

#### **501.3.8.2.1 General**

The contractor is responsible for the quality of concrete placed in hot weather. Submit a written temperature control plan at or before the pre-pour meeting. In that plan, outline the actions to control concrete temperature if the concrete temperature at the point of placement exceeds 80° F. Do not place concrete without the engineer's written acceptance of that temperature control plan. Perform the work as outlined in the temperature control plan.

If the concrete temperature at the point of placement exceeds 90 F, do not place concrete for items covered in this special provision.

If the air temperature exceeds 80 F, ensure that the base material is in a moist condition during concrete placement. Water the base, as required, not less than 6 hours before placing the concrete. If the base material subsequently dries, moisten it by sprinkling water just before placing the concrete. Sprinkle the water to avoid forming pools.

Notify the engineer whenever conditions exist that might cause the temperature at the point of placement to exceed 80 F. If project information is not available, the contractor should obtain information from similar mixes placed for other nearby work.

#### **D Measurement**

The department will measure Concrete Pavement 10 1/2-Inch Special by area in square yards acceptably completed in accordance of standard spec 415 and as modified in this special provision.

#### **E Payment**

Conform to standard spec 415.5 and as modified in this special provision.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.0100	Concrete Pavement 10 1/2-Inch Special	SY

The department will pay separately for the following bid items: 715.0715 Incentive Flexural Strength Concrete Pavement.

ner41-616 (01272025)

### **10.9 Concrete Base Variable Depth, Item SPV.0180.0101.**

#### **A Description**

This special provision describes constructing a concrete base in accordance with the pertinent requirements of section 320 of the standard specifications and the construction details shown in the plans.

#### **B Materials**

Furnish materials in accordance with the pertinent materials of section 320 of the standard specifications.

#### **C Construction**

Perform work in accordance with section 320 of the standard specifications.

#### **D Measurement**

The department will measure Concrete Base Variable Depth 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.0180.0101	Concrete Base Variable Depth	SY

Payment shall be in accordance with section 320.5 of the standard specifications.

## 11. Bridges.

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

John Roelke, License Number All-119523, inspected structures B-44-0020, B-44-0021, B-44-0028, B-44-0029, B-44-0035 and B-44-0036 for asbestos on 12/16/2020. No Regulated Asbestos Containing Material (RACM) was found on this structure. A copy of the inspection report is included with the bid package or available from Tim Verhagen, (920) 362-1267, [Timothy.Verhagen@dot.wi.gov](mailto:Timothy.Verhagen@dot.wi.gov).

According to NR447 and DHS159, ensure that DNR or DHS receives a completed Notification of Demolition and/or Renovation (DNR Form 4500-113 (R 03/20), or subsequent revision) via U.S. mail, hand-delivery, or using the online notification system at least 10 working days before beginning any construction or demolition. Pay all associated fees. Provide a copy of the completed 4500-113 form to Tim Verhagen, (920) 362-1267, [Timothy.Verhagen@dot.wi.gov](mailto:Timothy.Verhagen@dot.wi.gov) and via e-mail to [dothazmatunit@dot.wi.gov](mailto:dothazmatunit@dot.wi.gov) or via U.S. mail to DOT BTS-ESS attn: Hazardous Materials Specialist, 5 South S.513.12, PO Box 7965, Madison, WI 53707-7965. In addition, comply with all local or municipal asbestos requirements.

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

- Site Name: Structure B-44-0020, IH 41 SB over Fox Valley Railroad
- Site Address: 441756.65, 882608.53, Town of Grand Chute
- Ownership Information: WisDOT Northeast Region, 944 Vanderperren Way, Green Bay, WI, 54304
- Contact: Tim Verhagen
- Phone: (920) 362-1267
- Age: 65 years old. This structure was constructed in 1960
- Area: 4,636 SF of deck
  
- Site Name: Structure B-44-0021, IH 41 NB over Fox Valley Railroad
- Site Address: 441755.53, 882610.38, Town of Grand Chute
- Ownership Information: WisDOT Northeast Region, 944 Vanderperren Way, Green Bay, WI, 54304
- Contact: Tim Verhagen
- Phone: (920) 362-1267
- Age: 65 years old. This structure was constructed in 1960
- Area: 4,636 SF of deck
  
- Site Name: Structure B-44-0028, IH 41 SB over Gillett Street
- Site Address: 441756.36, 882549.80, Town of Grand Chute
- Ownership Information: WisDOT Northeast Region, 944 Vanderperren Way, Green Bay, WI, 54304
- Contact: Tim Verhagen
- Phone: (920) 362-1267
- Age: 64 years old. This structure was constructed in 1961
- Area: 3,870 SF of deck
  
- Site Name: Structure B-44-0029, IH 41 NB over Gillett Street
- Site Address: 441755.26, 882551.31, Town of Grand Chute
- Ownership Information: WisDOT Northeast Region, 944 Vanderperren Way, Green Bay, WI, 54304
- Contact: Tim Verhagen
- Phone: (920) 362-1267
- Age: 64 years old. This structure was constructed in 1961
- Area: 3,870 SF of deck

- Site Name: Structure B-44-0035, STH 47/Richmond Street SB over IH 41
  - Site Address: 441756.14, 882455.81, City of Appleton
  - Ownership Information: WisDOT Northeast Region, 944 Vanderperren Way, Green Bay, WI, 54304
  - Contact: Tim Verhagen
  - Phone: (920) 362-1267
  - Age: 64 years old. This structure was constructed in 1961
  - Area: 9,372 SF of deck
- 
- Site Name: Structure B-44-0036, STH 47/Richmond Street NB over IH 41
  - Site Address: 441753.81, 882454.89, City of Appleton
  - Ownership Information: WisDOT Northeast Region, 944 Vanderperren Way, Green Bay, WI, 54304
  - Contact: Tim Verhagen
  - Phone: (920) 362-1267
  - Age: 64 years old. This structure was constructed in 1992
  - Area: 9,372 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 (20220628)

## 11.2 Notice to Contractor – Creosote Lumber.

The Wisconsin Department of Natural Resources requires proper disposal of the creosote timbers that will result from the removal of the existing Structures B-44-35 and B-44-36. Proper disposal includes, but is not limited to, land filling or use as landscape timbers. Under no circumstances should this material be burned or buried on site. Beneficial re-use of this material is an option, and the contractor may contact Matt Schaeve at the WDNR Green Bay Region Headquarters for additional information on disposal options.

Disposal shall be incidental to Removing Old Structure.

stp-107-130 (20220628)

## 11.3 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 the measured quantity 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)

## 11.4 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 550.3.4. 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.

stp-505-005 (20190618)



## 11.5 Polymer Overlay, Item 509.5100.S.

### A Description

This special provision describes providing two layers of a two-component polymer overlay system to the bridge decks the plans show.

### B Materials

#### B.1 General

Furnish materials specifically designed for use over concrete bridge decks. Furnish polymer liquid binders from the department's approved product list.

#### B.2 Polymer Resin

Furnish a polymer resin base and hardener composed of two-component, 100 percent solids, 100 percent reactive, thermosetting compound with the following properties:

Property	Requirements	Test Method
Gel Time <sup>[1]</sup>	15 - 45 minutes @ 73° to 75° F	ASTM C881
Viscosity <sup>[1]</sup>	7 - 70 poises	ASTM D2393, Brookfield RVT, Spindle No. 3, 20 rpm
Shore D Hardness <sup>[2]</sup>	60-75	ASTM D2240
Absorption <sup>[2]</sup>	1% maximum at 24 hr	ASTM D570
Tensile Elongation <sup>[2]</sup>	30% - 70% @ 7 days	ASTM D638
Tensile Strength <sup>[2]</sup>	2000 to 5000 psi @ 7 days	ASTM D638
Chloride Permeability <sup>[2]</sup>	<100 coulombs @ 28 days	AASHTO T277

<sup>[1]</sup> Uncured, mixed polymer binder

<sup>[2]</sup> Cured, mixed polymer binder

Ensure that the polymer resin when mixed with aggregate has the following properties:

Property	Requirement <sup>[1]</sup>	Test Method
Minimum Compressive Strength	1,000 psi @ 8 hrs 5,000 psi @ 24 hrs	ASTM C579 Method B, Modified <sup>[2]</sup>
Thermal Compatibility	No Delaminations	ASTM C884
Minimum Pull-off Strength	250 psi @ 24 hrs	ASTM C1583

<sup>[1]</sup> Based on samples cured or aged and tested at 75°F

<sup>[2]</sup> Plastic inserts that will provide 2-inch by 2-inch cubes shall be placed in the oversized brass molds.

### B.3 Aggregates

Furnish natural or synthetic aggregate that is non-polishing; clean; free of surface moisture; fractured or angular in shape; free from silt, clay, asphalt, or other organic materials; and conform to the following:

#### Aggregate Properties

Property	Requirement	Test Method
Moisture Content <sup>[1]</sup>	1/2 of the measured aggregate absorption, %	ASTM C566
Hardness	≥6.5	Mohs Scale
Fractured Faces	100% with at least 1 fractured face & 80% with at least 2 fractured faces of material retained on No.16	ASTM D5821
Absorption	≤1%	ASTM C128

<sup>[1]</sup> Sampled and tested by the department before placement.

#### Gradation

Sieve Size	% Passing by Weight
No. 4	100
No. 8	30 – 75
No. 16	0 – 5
No. 30	0 – 1

### B.4 Approval of Bridge Deck Polymer Overlay System

A minimum of 20 working days before application, submit product data sheets and specifications from the manufacturer, and a certified report of test or analysis from an independent laboratory to the engineer for approval. The department will sample and test the aggregates for gradation and moisture content before placement. If requested, supply the department with samples of the polymer for the purpose of acceptance testing.

#### B.4.1 Product Data Sheets and Specifications

Product data sheets and specifications from the manufacture consists of literature from the manufacturer showing general instructions, application recommendations/methods, product properties, general instructions, or any other applicable information.

#### B.4.2 Certified Report of Test or Analysis

Conform to the following:

Polymer Binder: Submit a certified report of test or analysis from an independent laboratory dated less than 3 years before the date of the project letting showing the polymer binder meets the requirements of section B.2.

Aggregates: Submit a certified report of test or analysis from an independent laboratory dated less than 6 months before the date of the project letting showing the aggregates meet the requirements of section B.3.

## C Construction

### C.1 General

Ensure that the overlay system is 1/4 inch thick or thicker.

Conform to the following:

Field Review: Conduct a field review of the existing deck to identify any possible surface preparation and material compatibility issues.

Pre-Installation Meeting: Conduct a pre-installation meeting with the manufacturer's representative and the engineer before construction. Discuss the field review findings, verification testing of the surface preparation and establish procedures for maintaining optimum working conditions and coordination of work. Furnish the engineer a copy of the recommended procedures and apply the overlay system according to the manufacturer's instructions. Supply for the engineer's use for the duration of the project, a Concrete Surface Profile (CSP) chip set of 10 from the International Concrete Repair Institute (ICRI).

Manufacturer's Representative: An experienced manufacturer's representative familiar with the overlay system installation procedures shall be present at all times during surface preparation and overlay placement to provide quality assurance that the work is being performed properly. This requirement may be reduced at the engineer's discretion.

Material Storage: Store and handle materials according to the manufacturer's recommendations. Store resin materials in their original containers in a dry area. Store all aggregates in a dry environment and protect aggregates from contaminants on the job site.

## **C.2 Deck Preparation**

### **C.2.1 Deck Repair**

Remove all asphaltic patches and unsound or disintegrated areas of the concrete decks as the plans show, or as the engineer directs. Work performed to remove and repair the concrete deck will be paid for under other items.

Use deck patching products that are compatible with the overlay system. Patching materials with magnesium phosphate shall not be used. Place patches after surface is prepared via shot blasting and cleaning as described in Section C.2.2 of this specification. Portland cement concrete patches shall be used for joint repairs and full depth deck repairs with a plan area larger than 4 sf, unless approved otherwise by the Structures Design Section. If rapid-set concrete is used, place patches per the manufacturer's recommendation. If Portland cement concrete is used, place patches per standard spec 509.3.9.1.

Deck patching shall be filled and properly finished prior to overlay placement. Do not place overlay less than 1 hour, or per the manufacturer's recommendation, after placing rapid-set concrete patches in the repair areas. Do not place overlay less than 28 days after placing Portland cement concrete patches in the repair areas.

### **C.2.2 Surface Preparation**

Determine an acceptable shotblasting machine operation (size of shot, flow of shot, forward speed, and/or number of passes) that provides a surface profile meeting CSP 5 (medium-heavy shotblast) according to the ICRI Technical Guideline No. 310.2. If the engineer requires additional verification of the surface preparation, test the tensile bond strength according to ASTM C1593. The surface preparation will be considered acceptable if the tensile bond strength is greater than or equal to 250 psi or the failure area at a depth of 1/4 inches or more is greater than 50 percent of the test area. Continue adjustment of the shotblasting machine and necessary testing until the surface is acceptable to the engineer or a passing test result is obtained.

Prepare the entire deck using the final accepted adjustments to the shotblasting machine as determined above. Thoroughly blast clean with hand-held equipment any areas inaccessible by the shotblasting equipment. Do not perform surface preparation more than 24 hours before the application of the overlay system.

Protect drains, expansion joints, access hatches, or other appurtenances on the deck from damage by the shot and sand blasting operations and from materials adhering and entering. Tape or form all construction joints to provide a clean straight edge.

Before shot blasting, remove pavement markings within the treatment area using an approved mechanical or blasting method.

Prepare the vertical concrete surfaces adjacent to the deck a minimum of 2" above the overlay according to SSPC-SP 13 (free of contaminants, dust, and loose concrete) by sand blasting, using wire wheels, or other approved method.

Just before overlay placement, clean all dust, debris, and concrete fines from the prepared surfaces including the vertical surfaces with compressed air. When using compressed air, the air stream must be free of oil. Any grease, oil, or other foreign matter that rests on or has absorbed into the concrete shall be removed completely. If prepared surfaces (including the first layer of the polymer overlay) are exposed to rain or dew, lightly sandblast (brush/breeze blast) the exposed surfaces.

The engineer may consider alternate surface preparation methods per the overlay system manufacture's recommendations. The engineer will approve the final surface profile and deck cleanliness before the contractor placing the polymer overlay.

### **C.2.3 Transitional Area**

If the plans show, create a transitional area approaching transverse expansion joints and ends of the deck using an approved mechanical or blasting method. Remove 1/4 inch to 5/16 inch of concrete adjacent to the joint or end of deck and taper a distance of 3 feet.

If the plans show, create a transitional area on the approach pavement. Prep and place the first lift 3 feet beyond the end of the deck the same width as the deck. Prep and place the second lift 6 feet beyond the end of the deck the same width as the deck.

### **C.3 Overlay Application**

Perform the handling and mixing of the polymer resin and hardening agent in a safe manner to achieve the desired results according to the manufacturer's instructions. Do not apply the overlay system if any of the following exists:

1. Ambient air temperature is below 50 F or above 100 F.
2. Deck temperature is below 50 F.
3. Moisture content in the deck exceeds 4.5 percent when measured by an electronic moisture meter or shows visible moisture after 2 hours when measured in accordance with ASTM D4263.
4. Rain is forecasted during the minimum curing periods listed under C.5.
5. Materials component temperatures below 65 F or above 99 F.
6. Concrete deck age is less than 28 days.
7. The deck temperature exceeds 100 F.
8. If the gel time is 10 minutes or less at the predicted high air temperature for the day.

After the deck has been shotblasted or during the overlay curing period, only necessary surface preparation and overlay application equipment will be allowed on the deck. Provide appropriate protective measures to prevent contamination from equipment allowed on the deck during preparation and application operations. Begin overlay placement as soon as possible after surface preparation operations.

The polymer overlay shall consist of a two-course application of polymer and aggregate. Each of the two courses shall consist of a layer of polymer covered with a layer of aggregate in sufficient quantity to completely cover the polymer. Apply the polymer and aggregate according to the manufacturer's requirements. Apply the overlay using equipment designed for this purpose. The application machine shall feature positive displacement volumetric metering and be capable of storing and mixing the polymer resins at the proper mix ratio. Disperse the aggregate using a method that provides a uniform, consistent coverage of aggregate and minimizes aggregate rolling or bouncing into final position. First course applications that do not receive enough aggregate before the polymer gels shall be removed and replaced. A second course applied with insufficient aggregate may be left in place, but will require additional applications before opening to traffic.

After completion of each course, cure the overlay according to the manufacturer's instructions. Follow the minimum cure times listed under C.5 or as prescribed by the manufacturer. Remove the excess aggregate from the surface treatment by sweeping, blowing, or vacuuming without tearing or damaging the surface; the material may be re-used if approved by the engineer and manufacturer. Apply all courses of the overlay system before opening the area to traffic. Do not allow equipment or traffic on the treated area until directed by the engineer.

After the first layer of coating has cured to the point where the aggregate cannot be pulled out, apply the second layer. Before applying the second layer, broom and blow off the first layer with compressed air to remove all loose excess aggregate.

Before opening to traffic, clean expansion joints and joint seals of all debris and polymer. A minimum of 3 days following opening to traffic, remove loosened aggregates from the deck, expansion joints, and approach pavement.

#### C.4 Application Rates

Apply the polymer overlay in two separate courses in accordance with the manufacturer's instructions, but not less than the following rate of application.

Course	Minimum Polymer Rate <sup>[1]</sup> (GAL/100 SF)	Aggregate <sup>[2]</sup> (LBS/SY)
1	2.5	10+
2	5.0	14+

<sup>[1]</sup> The minimum total applications rate is 7.5 GAL/100 SF.

<sup>[2]</sup> Application of aggregate shall be of sufficient quantity to completely cover the polymer.

#### C.5 Minimum Curing Periods

As a minimum, cure the coating as follows:

Course	Average temperature of deck, polymer and aggregate components in degrees F							
	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-99
1	6 hrs.	5 hrs.	4 hrs.	3 hrs.	2.5 hrs	2 hrs	1.5 hrs.	1 hr.
2	8 hrs.	6.5 hrs.	6.5 hrs.	5 hrs.	4 hrs.	3 hrs.	3 hrs.	3 hrs.

If faster cure times are desired and achievable, submit to the engineer a certified test report from an independent laboratory showing the material is able to reach a compressive strength of 1000 psi as tested per ASTM C 579 Method B within the temperature ranges and cure times for which the product is proposed to be placed. Establish ambient air, material, and substrate temperatures from the manufacturer for field applications. Field applications will not be allowed below the documented temperatures.

#### C.6 Repair of Polymer Overlay

Repair all areas of unbonded, uncured, or damaged polymer overlay for no additional compensation. Submit repair procedures from the manufacturer to the engineer for approval. Absent a manufacturer's repair procedures and with the approval of the engineer, complete repairs according to the following: Saw cut the limits of the area to the top of the concrete; remove the overlay by scarifying, grinding, or other approved methods; shot blast or sand blast and air blast the concrete before placement of polymer overlay; and place the polymer overlay according to section C.3.

#### D Measurement

The department will measure Polymer Overlay 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
509.5100.S	Polymer Overlay	SY

Payment is full compensation for preparing the surface; for tensile bond testing; for creating the transitional area; for providing the overlay; for cleanup; and for sweeping/vacuuming and disposing of excess materials.

The department will pay separately for deck repairs.

stp-509-030 (20200629)

- 11.6 Concrete Staining B-44-318, Item 517.1010.S.0801;  
Concrete Staining B-44-319, Item 517.1010.S.0802;  
Concrete Staining B-44-320, Item 517.1010.S.0803;  
Concrete Staining B-44-321, Item 517.1010.S.0804;  
Concrete Staining B-44-322, Item 517.1010.S.0805;  
Concrete Staining B-44-323, Item 517.1010.S.0806;  
Concrete Staining B-44-171, Item 517.1010.S.0807;  
Concrete Staining B-44-140, Item 517.1010.S.0810;  
Concrete Staining B-44-315, Item 517.1010.S.0811;  
Concrete Staining B-44-316, Item 517.1010.S.0812;  
Concrete Staining B-44-317, Item 517.1010.S.0813;  
Concrete Staining B-44-339, Item 517.1010.S.0814;  
Concrete Staining B-44-340, Item 517.1010.S.0815;  
Concrete Staining R-44-35, Item 517.1010.S.0901;  
Concrete Staining R-44-36, Item 517.1010.S.0902;  
Concrete Staining R-44-37, Item 517.1010.S.0903;  
Concrete Staining R-44-38, Item 517.1010.S.0904;  
Concrete Staining R-44-39, Item 517.1010.S.0905;  
Concrete Staining R-44-30, Item 517.1010.S.0910;  
Concrete Staining R-44-31, Item 517.1010.S.0911;  
Concrete Staining R-44-32, Item 517.1010.S.0912;  
Concrete Staining R-44-33, Item 517.1010.S.0913;  
Concrete Staining R-44-28, Item 517.1010.S.0914;  
Concrete Staining R-44-52, Item 517.1010.S.0915;  
Concrete Staining R-44-53, Item 517.1010.S.0916.**

#### **A Description**

This special provision describes providing a two coat concrete stain on the exposed concrete surfaces of structures as the plans show.

#### **B Materials**

##### **B.1 Mortar**

Use mortar for sack rubbing the concrete surfaces as given in standard spec 502.3.7.5 or use one of the following products:

Preblended, Packaged Type II Cement:	Tri-Mix by TK Products
	Thoroseal Pearl Gray by Thoro Products

The mortar shall contain one of the following acrylic bonding admixtures mixed and applied according to manufacturer's recommendations:

Acrylic Bonding Admixture:	TK-225 by TK Products
	Achro 60 by Thoro Products
	Achro Set by Master Builders

##### **B.2 Concrete Stain**

Use concrete stain manufactured for use on exterior concrete surfaces, consisting of a base coat and a pigmented sealer finish coat. Use the following products, or equal as approved by the department, as part of the two coat finish system:

Tri-Sheen Concrete Surfer, Smooth by TK Products
Tri-Sheen Acrylic by TK Products
TK-1450 Natural Look Urethane Anti-Graffiti Primers by TK Products
Safe-Cure & Seal EPX by Chem Masters
H&C Concrete Stain Solid Color Water Based by Sherwin-Williams

## **C Construction**

### **C.1 General**

Furnish, prepare, apply, cure, and store all materials according to the product manufacturer's specifications for the type and condition of application required.

Match or exceed the stain manufacturer's minimum recommended curing time of the concrete or 28 days, whichever is greater, before staining.

### **C.2 Preparation of Concrete Surfaces**

Provide a sack rubbed finish as specified in standard spec 502.3.7.5, using mortar as indicated above on concrete surfaces with open voids or honeycombing.

Following the sack rubbing, clean all concrete surfaces that are to be coated to ensure that the surface is free of all laitance, dirt, dust, grease, efflorescence, and any foreign material and that the surface will accept the coating material according to product requirements. As a minimum, clean the surface using a 3000-psi water blast. Hold the nozzle of the water blaster approximately 6 inches from the concrete surface and move it continuously in a sweeping motion. Give special attention to smooth concrete surfaces to produce an acceptable surface texture. Correct any surface problems resulting from the surface preparation methods. Grit blasting of the concrete surface is not allowed.

### **C.3 Staining Concrete Surfaces**

Apply the concrete stain according to the manufacturer's recommendations.

Apply the concrete stain when the temperature of the concrete surface is 45° F or higher, or as given by the manufacturer.

The color of the stain shall be as given on the plan. Tint the base coat to match the finish coat; the two coats shall be compatible with each other.

Do not begin staining the structure until earthwork operations are completed to a point where this work can begin without receiving damage. Where this work is adjacent to exposed soil or pavement areas, provide temporary covering protection from overspray or splatter.

### **C.4 Test Areas**

Before applying stain to the structure, apply the stain to sample panels measuring a minimum of 48 inches x 48 inches and constructed to demonstrate workmanship in the use of the form liner specified on the structure if applicable. Match or exceed the stain manufacturer's minimum recommended curing time of the concrete or 28 days, whichever is greater, before staining. Prepare the concrete surfaces of the sample panels and apply stain using the same materials and in the same manner as proposed for the structure, including staining of the joints between the stones produced by the form liner if applicable. Do not apply stain to the structure until the department approves the test panels.

### **C.5 Surfaces to be Coated.**

Apply concrete stain to the surfaces according to the plan.

## **D Measurement**

The department will measure Concrete Staining B-44-322, B-44-323, B-44-140, B-44-315, B-44-316, B-44-317, R-44-38, R-44-39, R-44-30, R-44-31, R-44-32, R-44-33 in area by the square foot of surface, acceptably prepared and stained.

## **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
517.1010.S.0801	Concrete Staining B-44-318	SF
517.1010.S.0802	Concrete Staining B-44-319	SF
517.1010.S.0803	Concrete Staining B-44-320	SF
517.1010.S.0804	Concrete Staining B-44-321	SF
517.1010.S.0805	Concrete Staining B-44-322	SF
517.1010.S.0806	Concrete Staining B-44-323	SF
517.1010.S.0807	Concrete Staining B-44-171	SF
517.1010.S.0810	Concrete Staining B-44-140	SF

517.1010.S.0811	Concrete Staining B-44-315	SF
517.1010.S.0812	Concrete Staining B-44-316	SF
517.1010.S.0813	Concrete Staining B-44-317	SF
517.1010.S.0814	Concrete Staining B-44-339	SF
517.1010.S.0815	Concrete Staining B-44-340	SF
517.1010.S.0901	Concrete Staining R-44-35	SF
517.1010.S.0902	Concrete Staining R-44-36	SF
517.1010.S.0903	Concrete Staining R-44-37	SF
517.1010.S.0904	Concrete Staining R-44-38	SF
517.1010.S.0905	Concrete Staining R-44-39	SF
517.1010.S.0910	Concrete Staining R-44-30	SF
517.1010.S.0911	Concrete Staining R-44-31	SF
517.1010.S.0912	Concrete Staining R-44-32	SF
517.1010.S.0913	Concrete Staining R-44-33	SF
517.1010.S.0914	Concrete Staining R-44-28	SF
517.1010.S.0915	Concrete Staining R-44-52	SF
517.1010.S.0916	Concrete Staining R-44-53	SF

Payment is full compensation for furnishing and applying the two coat system; for preparing the concrete surface; and for preparing the sample panels.

stp-517-110 (20140630)

## **11.7 HPC Masonry Structures, Item SPV.0035.0800.**

### **A Description**

This special provision describes specialized material and construction requirements for high-performance concrete used in bridge structures. Conform to standard spec 501, 502, and 509, as modified in this special provision. Conform to standard spec 715 for QMP Concrete Pavement, Cast-in-Place Barrier, and Structures.

### **B Materials**

#### **501.2.7.3 Coarse Aggregates**

##### **501.2.7.3.1 General**

*Replace the entire text of 501.2.7.3.1 with the following:*

- (1) Provide coarse aggregates from a department-approved source. Use an approved source listed on the APL or follow the source approval process specified in standard spec 106.3.4.2. In addition to the requirements of standard spec 106.3.4.2, perform tests for LA wear, sodium sulfate soundness, freeze-thaw soundness and lightweight pieces at least once per calendar year when producing coarse aggregates for use in high-performance concrete mixes.
- (2) Use clean, hard, durable crushed limestone or crushed gravel free of excess flat and elongated pieces, lightweight particles, frozen lumps, vegetation, deleterious substances or adherent coatings considered injurious.
- (3) Use virgin aggregates only.
- (4) Contact the engineer a minimum of 6 weeks prior to placement to collect a sample of the concrete aggregates proposed for the project. The engineer will obtain the sample or observe the contractor obtaining the sample. The sampler must be HTCP certified to sample aggregates.
- (5) The department test results will be used for aggregate acceptance.
- (6) The department will randomly sample coarse aggregate for lightweight pieces testing at least once per 10,000 cubic yards during placement of concrete masonry structures.



### 501.2.7.3.2 Physical Properties

Replace 501.2.7.3.2 paragraph one with the following:

- (1) Furnish coarse aggregates approved for use in concrete masonry structures and conforming to the following:

Aggregate Quality Test	Test Method	Maximum Percent by Weight
LA Wear (100 and 500 revolutions) <sup>[1]</sup>	WTM T96	30
Sodium Sulfate Soundness (R-4, 5 cycles) <sup>[1]</sup>	WTM T104	6
Freeze-Thaw Soundness <sup>[1]</sup>	WTM T103	12
Lightweight Pieces <sup>[1] [2]</sup>	WTM T113	2.0

- (1) Coarse aggregate sizes used in the Portland Cement Concrete mixture design (DT2221 Concrete Mixture Design – Optimized Aggregate Gradation) will be tested individually and the results weighted by the blend percentage listed in the mix design. Do not consider fine aggregate percentage as part of the weighted result.
- (1) Material having a bulk specific gravity (saturated surface-dry basis) of less than 2.45. Determine the percentage of lightweight pieces in the sample retained on the 3/8-inch sieve by the weight of the total sample.

### 501.2.7.3.3 Deleterious Substances

Replace 501.2.7.3.3 paragraph one with the following:

- (1) The quantity of deleterious substances must not exceed the following percentages:

Deleterious Substance	Test Method	Maximum Percent by Weight
Coal, clay lumps, shale, and other deleterious substance	Visual	3.0
Flat or elongated pieces based on a 3:1 ratio <sup>[1]</sup>	WTM D4791	15.0
Materials passing the No. 200 sieve	WTM T11	1.5

### 501.2.8 Concrete Curing Materials

Replace entire text with the following:

- (1) Furnish burlap conforming to AASHTO M 182, class 1, 2, 3 or 4.

## 710.5 Sampling and Testing

Supplement 710.5 with the following:

### 710.5.8 Chloride Penetration Resistance

- (1) For each new or changed mix design, measure chloride penetration resistance according to AASHTO T277 at a frequency of 1 test per 3 months (quarterly) of production.
- (2) Strip permeability samples from molds and wet cure according to AASHTO T277 Accelerated Moist Curing. Upon completion of the curing process, obtain one sample from each cylinder and test according to AASHTO T277.
- (3) Ensure that the initial accepted mix designs meet the chloride penetration resistance limit of 1500 coulombs based on AASHTO T277. Quarterly chloride resistance test results exceeding 1500 coulombs, the department will require adjustment of the concrete mix going forward to improve the chloride penetration resistance.

## 715.2 Materials

### **715.2.1 General**

*Replace 715.2.1 paragraph four with the following:*

- (4) The regional materials engineer must review and approve the submitted mix design within 7 business days of receiving the mix design submittal and complete Project Staff Review section of mix design certification within DT2220 or DT2221.

### **715.2.2 Class I Concrete Mixes**

#### **715.2.2.2 Structures**

*Supplement 715.2.2.2 with the following:*

- (5) Provide a mix design using optimized aggregate gradation and a cementitious content within the range of 470 to 540 pounds per cubic yard. For all superstructure and substructure concrete, unless the engineer approves otherwise in writing, concrete mixtures must use an IL, IP, IS, or IT blended cement.
- (6) In addition to the standard spec mix design laboratory trial batching for structures, include the results of the following tests:
  1. AASHTO T119 Slump of Hydraulic Cement Concrete.
  2. AASHTO T277 Rapid Determination of the Chloride Permeability of Concrete, using the modified curing procedure according to 710.5.8 in this special provision.
- (7) Provide concrete with a 28-day compressive strength that equals or exceeds the following:
  - If the contract specifies  $f'_c$ , then  $f'_c$ .
  - If the contract does not specify  $f'_c$ , then 4000 psi.
- (8) Provide concrete with a maximum chloride penetration resistance of 1500 coulombs at 28-days.

## **C Construction**

### **501.3.2.4.3.3 Extended Delivery Time**

*Delete 501.3.2.4.3.3 paragraph one.*

### **501.3.5 Ready-Mixed Concrete**

#### **501.3.5.1 General**

*Replace 501.3.5.1 paragraph one with the following:*

- (1) Use central-mixed concrete as defined in standard spec 501.3.5.1(2) for all work performed under this special provision.

#### **501.3.5.2 Delivery**

*Replace 501.3.5.2 paragraph three with the following:*

- (3) Deliver and completely discharge all concrete within one hour beginning when adding water to the cement, or when adding cement to the aggregates. A decrease in air temperature below 60 F or the use of department-approved retarders does not increase the discharge time.

#### **501.3.7.1 Slump**

*Replace the entire text with the following:*

- (1) Use a 2-inch to 4-inch slump.
- (2) Perform slump tests for concrete according to AASHTO T119 WTM.

### **501.3.8.2 Hot Weather Concreting**

#### **501.3.8.2.1 General**

*Replace the entire text with the following:*

- (1) The contractor is responsible for the quality of concrete placed in hot weather. Submit a written temperature control plan at or before the pre-pour meeting. In that plan, outline the actions to control concrete temperature if the concrete temperature at the point of placement exceeds 80 F. Do not place concrete without the engineer's written acceptance of that temperature control plan. Perform the work as outlined in the temperature control plan.

- (2) If the concrete temperature at the point of placement exceeds 80 F, do not place concrete for items covered in this special provision.
- (3) The department will pay \$0.75 per pound for the quantity of ice required to reach a target concrete temperature of 75 F if the following conditions are met:
  1. The un-iced concrete temperature exceeds 80 F.
  2. The contractor has performed the actions outlined in the contractor's accepted temperature control plan.
  3. The contractor elects to use ice.
- (4) Notify the engineer whenever conditions exist that might cause the temperature at the point of placement to exceed 80 F. If project information is not available, the contractor should obtain information from similar mixes placed for other nearby work.

#### **501.3.8.2.2 Bridge Decks**

*Replace the entire text with the following:*

- (1) Do not place concrete for bridge decks when the air temperature is above 80 F.
- (2) For concrete placed in bridge decks, submit a written evaporation control plan at each pre-pour meeting. In that plan, outline the actions to maintain concrete surface evaporation at or below 0.15 pounds per square foot per hour. Do not place concrete for bridge decks without the engineer's written acceptance of that evaporation control plan. If the engineer accepts an evaporation control plan calling for ice, the department will pay \$0.75 per pound for that ice. Perform the work as outlined in the evaporation control plan.
- (3) If predicting a concrete surface moisture evaporation rate exceeding 0.15 pounds per square foot per hour, do not place concrete for bridge decks.
- (4) Provide evaporation rate predictions to the engineer 24 hours before each bridge deck pour.
- (5) Compute the evaporation rate from the predicted ambient conditions at the time and place of the pour using the nomograph, or computerized equivalent, specified in [CMM 525](#), figure 1 or using a computerized equivalent. Use weather information from the nearest national weather service station. The engineer will use this information to determine if the pour will proceed as scheduled.
- (6) At least 8 hours before each pour, the engineer will inform the contractor in writing whether to proceed with the pour as scheduled. If the actual computed evaporation rate during the pour exceeds 0.15 pounds per square foot per hour, at the engineer's discretion, the contractor may be allowed to implement immediate corrective action and complete the pour.

#### **502.3.5.4 Superstructures**

*Delete 502.3.5.4 paragraph five.*

#### **502.3.7.8 Floors**

*Replace 502.3.7.8 paragraph five with the following:*

- (5) Set the rails or tracks that the finish machine rides on, to the required elevation; and ensure they adjust to allow for settlement under load. Support the rails or tracks outside the limits of the finished riding surface. Do not support rails or tracks on the tops of girders, or within the finished riding surface, without the engineer's written permission.

*Delete 502.3.7.8 paragraph thirteen, fourteen, and fifteen. Add the following to 501.3.7.8:*

- (19) Do not place bridge deck concrete more than 10 feet ahead of the finishing machine. If there is a delay of more than 10 minutes during the placement of a bridge deck, cover all concrete (unfinished and finished) with wet burlap to protect the concrete from evaporation until placement operations resume.
- (20) Keep hand finishing, except for the edge of deck, to a minimum. Equip the finishing machine with a pan behind the screed. Apply micro texture using a broom or turf drag following the use of a 10-foot straight edge. Only finish by hand as necessary to close up finished concrete. Begin wet curing the deck within a timeframe acceptable to the engineer following the micro texture.
- (21) For bridge decks with a design speed of 40 mph or greater, provide longitudinal grooving according to the provision included in this contract.

## **502.3.8 Curing**

### **502.3.8.1 General**

*Replace 502.3.8.1 paragraph 1 with the following:*

- (1) Maintain adequate moisture throughout the concrete mass to support hydration for at least 14 days.

### **502.3.8.2 Curing Requirements**

#### **502.3.8.2.1 General**

*Replace entire text of 502.3.8.2.1 with the following:*

- (1) Wet-cure the concrete for bridge decks, structural approach slabs, sidewalks on bridges and raised medians on bridges for 14 days by use of a soaker hose system, or other engineer-approved methods. Cover the finished surface of bridge decks and overlays with one layer of wetted burlap or wetted cotton mats within 10 minutes after the finishing machine has passed. Apply the burlap/cotton gently to minimize marking of the fresh concrete. Keep the first layer of burlap/cotton continuously wet until the bridge deck or overlay is sufficiently hard to apply a second layer of wetted burlap/cotton. Immediately after applying the second layer of burlap/cotton, continue to keep the deck wet until placing and activating the soaker hose system. Throughout the remainder of the curing period, keep the burlap/cotton continuously wet with soaker hoses hooked up to a continuous water source. Inspect the burlap/cotton twice daily to ensure the entire surface is moist. If necessary, alter the soaker hose system as needed to ensure the entire surface is covered and stays moist. After 48 hours from the time of completion of the bridge deck or overlay pour, the soaker hose system and burlap/cotton may be covered with polyethylene sheeting. Provide a continuous flow of water through the soaker hose system for the entire curing period.
- (2) Do not uncover any portion of the deck at any time for any reason during the first 7 days of the curing period.
- (3) Set up and test the fogging system before each bridge deck, structural approach slab, bridge mounted sidewalk or bridge mounted raised median pour. Keep the fogging system set up and operational during the pour.

#### **502.3.8.2.3 Decks**

*Delete the entire text.*

#### **502.3.8.2.4 Parapets**

*Replace the entire text with the following:*

- (1) Cure the inside and outside concrete faces and tops of railings or parapets by covering with wetted burlap immediately after form removal and surface finish application. Keep the burlap thoroughly wet for at least 7 days; or by covering for the same period with thoroughly wet polyethylene-coated burlap conforming to standard spec 501.2.8.
- (2) Secure coverings along all edges to prevent moisture loss.

## **502.3.9 Cold Weather Protection**

### **502.3.9.6 Bridge Decks**

*Replace the entire text of 502.3.9.6 with the following:*

- (1) Protect concrete in bridge decks as specified for structural masonry, and except for parapets and similar pours, according to the following requirements:
  1. Do not place concrete for bridge decks or other superstructure elements when the national weather service forecast for the construction area predicts temperatures to fall below 32 F within 24 hours, unless the engineer specifically allows or requires in writing.
  2. Protect the underside of the deck, including the girders, for bridge deck and overlay pours by housing and heating when the national weather service forecast predicts temperatures to fall below 32 F during the cold weather protection period. Maintain a minimum temperature of 40 F in the enclosed area under the deck for the entire 14-day curing period.

### 502.3.13 Concrete Crack and Surface Sealing

*Supplement 502.3.13.2 with the following:*

- (6) Treat all traffic bearing horizontal surfaces and surrounding areas with silane sealer found on the department's Concrete Protective Surface Treatments approved products list. Conform to the manufacturer's recommendations for use of the product. All surface preparation work shall be completed and approved by the Engineer.

#### D (Vacant)

#### E Payment

##### 502.5.1 General

*Replace 502.5.1 paragraph one with the following:*

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.0800	HPC Masonry Structures	CY
BTS-715-005 (20241030)		

### 11.8 Decorative Silhouette Item SPV.0060.0800.

#### A Description

Fabricate, galvanize, paint, deliver, and install decorative silhouette on bridge tubular steel railing screening.

#### B Materials

##### B.1 General

All materials shall meet the requirements shown on the plans and applicable provisions of the standard specifications as follows:

- Welding Materials: AWS D 1.5 Bridge Welding Code
- Painting: Standard spec 517.2

Steel preparation includes the chamfering of sharp edges. Flatten all sharp edges by a single pass of a grinder or suitable device along the sharp edge. Condition any thermal cut edges before blast cleaning by shallow grinding or other cleaning to remove any hardened surface layer. Remove all evident steel defects exposed in accordance to AASHTO M 160 prior to blast cleaning.

Complete all welded connections and drill holes to the decorative silhouette as part of the manufacturing process.

Fabricate the decorative silhouette plates as shown in the plans and patterns. Hot dip galvanize the decorative silhouette plates in accordance with ASTM123. After hot dip galvanizing has been completed, perform additional surface conditioning to remove any drips or imperfections to ensure a smooth surface prior to painting.

Electronic files of the decorative silhouette patterns are available from the Wisconsin Department of Transportation, Bryan Learst, 920-366-5639, [bryan.learst@dot.wi.gov](mailto:bryan.learst@dot.wi.gov).

##### B.2 Painting

Shop coat all steel galvanized surfaces with a department approved paint system. Paint with an approved tie and topcoat. The topcoat shall be AMS color number 27038, Tricorn Black to match the color of the tubular steel railing screening.

Clean galvanizing surfaces to be painted according to SSP-SP1 to remove chlorides, sulfates, zinc salts, oil, dirt, organic matter and other contaminants. Brush-off blast clean the surface per SSPC-SP7 to create a slight angular surface profile (1.0-1.5 mils suggested) for adhesion. Do not fracture the galvanized finish to remove any dry film thickness during these processes.

After cleaning provide a tie coat from an approved coating system that is specifically intended to be used on a galvanized surface. The tie coat shall etch the galvanized rail and prepare the surface for the topcoat. Apply a topcoat matching AMS color number 27038, Tricorn Black. The tie and topcoats should be of contrasting colors. Use a pre-approved topcoat that is resistant to the effects of the sun and is

suitable for use in a marine environment. Paint the decorative silhouette with the tie and topcoats before final installation. Exercise care so as not to damage the painted surface of the decorative silhouette or tubular steel railing screening.

Paint all plates, brackets, bolts, nuts, and washers prior to installation. Repair all paint surfaces damaged during installation.

### **C Construction**

Follow procedures in standard spec 506.3.

Follow procedures in standard spec 517.3 for painting requirements.

Follow procedures in standard spec 506.3.19 for welding requirements.

Provide shop drawings in accordance to the requirements of section 506.3.2 of the standard spec. Shop drawings shall contain material sizes and types, weld sizes and locations, and all necessary details, dimensions, and information to allow fabrication of the decorative silhouette in conformance with the requirements of the contract. Do not begin fabrication prior to shop drawing review and acceptance.

Notify the engineer two days prior to the delivery of the decorative silhouette. The engineer shall inspect the silhouette for damage, defects, or non-conformities. Materials that arrive to the site damaged or in unsatisfactory condition will be rejected.

After the product is unloaded, the installation contractor will signify in writing that the decorative silhouette was received in acceptable condition per the engineer's inspection. Any damage to the decorative silhouette after being accepted by the engineer will be the responsibility of the contractor. No field welding, field cutting, or drilling will be permitted without the approval of the engineer.

Take special care while handling and during construction to minimize the number and size of touch-up spots. Follow the manufacturer's recommendations for damaged area repairs. The engineer must approve the field paint appearance prior to final acceptance.

Locate and field drill holes as required through the tubular steel railing screening. Repair damaged paint and galvanized surfaces in the tubular steel railing prior to installation of the decorative silhouette. Follow procedures in standard spec 513.3.3 (10) to repair railing galvanizing and paint systems damaged by silhouette installation.

Provide the engineer with the name, address, and phone number of a representative of the decorative silhouette for future coordination.

### **D Measurement**

The department will measure Decorative Silhouette as each individual unit, acceptably completed.

### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.0800	Decorative Silhouette	EACH

Payment is full compensation for supplying shop drawings, furnishing and installation.

ner41-506 (04092025)

- 11.9 Concrete Staining – Excavation, Grading, Shaping, and Finishing, Structure B-44-171, Item SPV.0060.0801;  
Concrete Staining – Excavation, Grading, Shaping, and Finishing, Structure B-44-315, Item SPV.0060.0802;  
Concrete Staining – Excavation, Grading, Shaping, and Finishing, Structure B-44-316, Item SPV.0060.0803;  
Concrete Staining – Excavation, Grading, Shaping, and Finishing, Structure B-44-317, Item SPV.0060.0804;  
Concrete Staining – Excavation, Grading, Shaping, and Finishing, Structure B-44-339, Item SPV.0060.0805;  
Concrete Staining – Excavation, Grading, Shaping, and Finishing, Structure B-44-340, Item SPV.0060.0806;  
Concrete Staining – Excavation, Grading, Shaping, and Finishing, Structure B-44-140, Item SPV.0060.0807.**

**A Description**

This special provision describes the required excavation, grading, shaping, and finishing to apply Concrete Stain on existing structures as shown in the plans.

**B Materials**

Furnish materials in accordance with the pertinent materials of conforming to the following standard specs:

207 Embankment  
208 Borrow  
625 Topsoil  
604 Slope Paving Crushed Aggregate  
627 Mulching  
628 Erosion Mat Class I Type B  
629 Fertilizer Typer B  
630 Seeding Mixture No. 30 and seed watering

**C Construction**

Excavate, grade, shape, and finish embankment slopes at the locations shown in the plans. If applicable, salvage existing material and replace in kind. When existing material cannot be salvaged, furnish materials and construct as the plans show and engineer directs conforming to the following standard specs:

205 Common excavation and material disposal  
207 Embankment  
208 Borrow  
625 Topsoil  
604 Slope Paving Crushed Aggregate  
627 Mulching  
628 Erosion mat  
629 Fertilizer  
630 Seeding and seed watering

**D Measurement**

The department will measure Concrete Staining – Excavation, Grading, Shaping, and Finishing by each structure 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.0060.0801	Concrete Staining – Excavation, Grading, Shaping, and Finishing, Structure B-44-171	EACH
SPV.0060.0802	Concrete Staining – Excavation, Grading, Shaping, and Finishing, Structure B-44-315	EACH
SPV.0060.0803	Concrete Staining – Excavation, Grading, Shaping, and Finishing, Structure B-44-316	EACH
SPV.0060.0804	Concrete Staining – Excavation, Grading, Shaping, and Finishing, Structure B-44-317	EACH
SPV.0060.0805	Concrete Staining – Excavation, Grading, Shaping, and Finishing, Structure B-44-339	EACH
SPV.0060.0806	Concrete Staining – Excavation, Grading, Shaping, and Finishing, Structure B-44-340	EACH
SPV.0060.0807	Concrete Staining – Excavation, Grading, Shaping, and Finishing, Structure B-44-140	EACH

Payment for Concrete Staining – Excavation, Grading, Shaping, and Finishing is full compensation to allow for Concrete Staining at each structure plan location including required excavation, borrow, topsoil, mulch, erosion mat, fertilizer, seeding, and seed watering when the existing structure is outside the contract grading limits. If the work specified falls within the contract grading limits, the department will pay separately for that work under the associated contract bid items.

ner41-204 (09042025)

## 11.10 Removing Existing Timber Piling, Item SPV.0090.0800.

### A Description

This special provision describes removing existing timber piling and includes removing, drilling, or coring through existing timber piles in conflict with proposed new piling for abutments and piers at Structure B-44-0322 and B-44-0323. The work also includes backfilling the void left after removal with structure backfill. The purpose of this work is to clear the location so the proposed pile may be driven and installed without interference from an existing timber pile.

### B (Vacant)

### C Construction

Remove any existing timber piling that conflicts with proposed piling locations and as shown on the contract plans.

One of the following methods of removal shall be used:

Direct Pull: Wrap piling with a choker cable, chain, or other device attached to a crane. Pull the piling vertically, removing the piling from the soil.

Vibratory Excavation: Attach a vibratory hammer to a crane and to the existing piling. Vibrate the piling loose. Pull the piling vertically and remove the piling from the soil.

Coring: Core through existing timber piles to an elevation that will permit the installation of the proposed pile without interference. Unless directed otherwise, make the diameter of the core hole only as large as required to eliminate the pile conflict.

Contractor Proposed: The contractor may propose, in writing, an alternate method of pile removal.

When an existing pile is found to be in conflict with the proposed piling, the contractor shall notify the engineer, and receive approval on the selected removal method prior to beginning any work to remove the timber piling.

Fill any void remaining after pile removal with structure backfill.

### D Measurement

The department will measure Remove Existing Timber Piling in length by the linear foot, acceptably completed. Measurement will be made along the vertical length of the timber piling removed regardless of the method used. If the coring method is used, the contractor and engineer will agree to a cored depth.

## E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.0800	Removing Existing Timber Piling	LF



Payment is full compensation for removing existing timber piling; for providing and placing necessary structure backfill material; and for disposing of all material excavated.

### **11.11 Removing Existing Steel Piling, Item SPV.0090.0801.**

#### **A Description**

This special provision describes removing existing steel piles that conflict with proposed new piling for substructures as shown on the plans.

#### **B (Vacant)**

#### **C Construction**

Remove any existing steel piling that conflict with proposed piling locations and as shown on the contract plans.

One of the following methods of removing shall be used:

- a. **Direct Pull:** Remove the piling from the soil by pulling directly upward.
- b. **Vibratory Excavation:** Remove the piling by vibrating the piling loose and pulling the piling directly upward
- c. **Contractor Proposed:** If the contractor chooses to use an alternate method to remove the existing steel piling, the contractor shall provide the engineer with a written methodology for review and acceptance.

When an existing steel piling is found to conflict with the proposed location of a new piling, the contractor shall notify the engineer and receive written acceptance on the method of removal that was chosen prior to beginning any work to remove the steel piling.

Backfill any holes left by pile removal with Backfill Granular Grade 1 or 2 before driving the new piling.

#### **D Measurement**

The department will measure Removing Existing Steel Piling by the linear foot, acceptably completed. Measurement will be made along the vertical length of the steel piling removed.

#### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.0801	Removing Existing Steel Piling	LF

Payment for Removing Existing Steel Piling is full compensation for removing existing steel piling, backfilling and for disposing of all material removed. Any additional excavation necessary is included with the bid item Excavation for Structures.

### **11.12 Fence Chain Link Polymer-Coated 6-Ft. B-44-171, Item SPV.0090.0802; Fence Chain Link Polymer-Coated 8-Ft. B-44-171, Item SPV.0090.0803; Fence Chain Link Polymer-Coated 6-Ft. B-44-140, Item SPV.0090.0804.**

#### **A Description**

This special provision describes furnishing and installing a new polymer-coated fence system on existing structures in conformance to the pertinent plan details, existing anchor bolt location, existing anchor bolts spacing, and as directed by the engineer. The color of all components in this fence system shall be the same and shall be as specified on the plans.

#### **B Materials**

All materials for this fence system shall be new stock, free from defects impairing strength, durability, and appearance. Fabric shall be produced by methods recognized as good commercial practice. Wire used in the manufacture of the fabric shall be capable of being woven into fabric without the polymer-coating cracking or peeling. Pipes used in framework shall be straight, true to section and free of defects. All burrs at the ends of pipes shall be removed before galvanizing. The polymer-coating shall be a dense impervious covering, applied without voids, tears or cuts that reveal the substrate. Excessive roughness, bubbles, blisters and flaking in the polymer-coating will be a basis for rejection.

## **B.1 Fabric**

Provide steel fence chain link fabric conforming to the requirements of ASTM F668, Class 2b, a polymer-coating fused and adhered to wire that is zinc-coated. Provide fabric woven from 9-gage wire using plan specified mesh size, diamond pattern, with both the top and bottom selvages knuckled. The minimum breaking strength of the wire shall be 1290 lbs. The color of polymer-coating shall be black conforming to the requirements of ASTM F934.

## **B.2 Framework**

Provide steel rails, posts and post sleeves conforming to the requirements of ASTM F1083, Standard Weight Pipe (Schedule 40) of the size (O.D.) and weight as shown on the plans. The minimum yield strength shall be 30,000 psi and the minimum tensile strength shall be 48,000 psi. These components shall be zinc-coated inside and outside by the hot-dip process as stated in ASTM F1083. Provide polymer-coating over zinc-coating conforming to ASTM F1043. The color of polymer-coating shall conform to the requirements of ASTM F934, and match the color of the other fence components. Weld base plate to posts or post sleeves and complete any additional welding of components before galvanizing.

## **B.3 Fittings**

Provide end post caps, line post caps, top rail sleeves, rail ends, line rail clamps, brace bands, tension bands, tension bars, and tie wires that are steel and conform to the requirements of ASTM F626. Tie wires shall be round and 9-gage wire. These components (excluding tie wires) shall be zinc-coated by the hot-dip process as stated in ASTM F626. Provide polymer-coating over zinc-coating on components (excluding tie wires) that conforms to the requirements of ASTM F626. For tie wires, provide polymer-coating on wire that is zinc-coated using the same procedure as used for the wires in the fence fabric. End post caps and line post caps shall fit tightly over posts to prevent moisture intrusion. Supply dome style caps for end posts and loop type caps for line posts. The color of polymer-coating shall conform to the requirements of ASTM F934, and match the color of the other fence components.

## **B.4 Bolts**

Match existing anchor bolts left in place after removing existing bridge chain link fencing.

Provide new galvanized steel lock washers and nuts compatible with existing anchor bolts left in place after removal of existing bridge chain link fencing.

## **B.5 Tests**

### **B.5.1 Fabric and Tie Wire**

Breaking Strength:	ASTM A370
Zinc-Coating Requirements	
Weight of Zinc-Coating:	ASTM A90
Polymer-Coating Requirements	
Thickness of Polymer-Coating:	ASTM F668
Adhesion:	ASTM F668
Accelerated Aging Test:	ASTM F668, D1499
Mandrel Bend Test:	ASTM F668

### **B.5.2 Framework**

Tensile and Yield Strength:	ASTM E8
Zinc-Coating Requirements	
Weight of Zinc-Coating:	ASTM A90
Polymer-Coating Requirements	
Thickness of Polymer-Coating:	ASTM E376
Adhesion:	ASTM F1043
Accelerated Aging Test:	ASTM F1043, D1499

### **B.5.3 Fittings**

#### **Zinc-Coating Requirements**

Weight of Zinc-Coating: ASTM A90

#### **Polymer-Coating Requirements**

Thickness of Polymer-Coating: ASTM F626

Adhesion: ASTM F1043 (same test as for framework)

Accelerated Aging Test: ASTM F1043, D1499 (same test as for framework)

### **B.6 Submittals**

In addition to the engineer, send submittals listed in this section to the name below for informational purposes:

David Nelson

WisDOT (Bureau of Structures)

4822 Madison Yards Way

Madison, WI 53705

#### **B.6.1 Shop Drawings**

Use dimensions provided from removing chain link fencing item for the left in place anchor bolts to develop shop drawings. Use existing anchor bolts unless approved by the engineer.

Submit shop drawings showing the details of fence construction. The spacing of the posts for the new fence system shall match the spacing of the posts for the existing fence system. Develop details utilizing the existing anchor bolt locations. Show the fence height, post spacing (match existing post spacing), rail location, and all dimensions necessary for the construction of the fence chain link. Label the end posts, line posts, rails, post sleeves, top rail sleeves, bolts and fittings. State the polymer-coating type used on the fabric, framework and fittings and the Class of coating used on the fabric. State the color of polymer-coating to be used on the fence components. For the fabric, state the wire gage, mesh size, and type of selvages used. For the framework, state the size (O.D.) and unit weight for the posts and rails. For the fittings, state the size for top rail sleeves, brace bands, tension bands, tension bars, line rail clamps, size and type of bolts, and the tie wire gage. State the material type used for fabric, framework, and fittings. Also give the breaking strength for the fabric wire and the tensile and yield strength properties for the framework.

#### **B.6.2 Specification Compliance**

Submit certification of compliance with material specifications. Provide material certification and test documentation for fabric, framework, fittings and hardware that shows that all materials meet or exceed the specifications of this contract and the tests in section B5 of this specification. This document shall provide the name, address and phone number of the manufacturer, and the name of a contact person.

## **C Construction**

### **C.1 Delivery, Storage and Handling**

Deliver material to the site in an undamaged condition. Upon receipt at the job site, all materials shall be thoroughly inspected to ensure that no damage occurred during shipping or handling and condition of materials is in conformance with these specifications. If polymer-coating is damaged, contractor shall repair or replace components as necessary to the approval of the engineer at no additional cost to the department. Carefully store material off the ground to ensure proper ventilation and drainage and to provide protection against damage caused by ground moisture. Handle all polymer-coated material with care.

### **C.2 Touch-up and Repair**

For minor damage caused by shipping, handling or installation to polymer-coated surfaces, touch-up the finish conforming to the manufacturer's recommendations. Provide touch-up coating such that repairs are not visible from a distance of 6-feet. If damage is beyond repair, the fencing component shall be replaced at no additional cost to the department. The contractor shall provide the engineer with a copy of the manufacturer's recommended repair procedure and materials before repairing damaged coatings.

### C.3 General

Field verify the spacing and locations of the existing posts and anchor bolts. Fabricate fence chain link to match existing field conditions. Failure to match field conditions will result in the rejection of the fence chain link at the contractor's expense.

Before placing the base plate, clean the area surrounding the existing anchor bolts to remove all loose debris and rust from the area. Clean to provide a suitable surface for caulking the perimeter of the base plate. Clean the surface in a manner that doesn't damage the surface.

Install the fence chain link conforming to ASTM F567 and the manufacturer's instructions. The contractor shall provide staff that is thoroughly familiar with the type of construction involved and materials and techniques specified. Chain link fabric shall be installed on the side of the posts indicated on the plans. Fabric shall be attached to the end posts with tension bars and tension bands. It shall be attached to rails, and posts without tension bands, with tie wires. The fabric shall be installed and pulled taut to provide a smooth and uniform appearance free from sag, without permanently distorting the fabric diamond or reducing the fabric height. Install top rail to pass through line post caps and form a continuous brace between end posts. Minimum length of top rail between splices shall be 20-feet. Splice top rail at joints with sleeves for a rigid connection. Locate splices near 1/4-point of post spacing. Heads of bolts shall be on the side of the fence adjacent to pedestrian traffic.

### D Measurement

The department will measure Fence Chain Link Polymer-Coated X-Ft. B-44-XXX in length by the linear foot, acceptably completed.

### E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.0802	Fence Chain Link Polymer-Coated 6-Ft. B-44-171	LF
SPV.0090.0803	Fence Chain Link Polymer-Coated 8-Ft. B-44-171	LF
SPV.0090.0804	Fence Chain Link Polymer-Coated 6-Ft. B-44-140	LF

Payment is full compensation for field verification of post spacing and anchor bolt locations of the existing fence system, fabricating, galvanizing and polymer-coating all fence components, and transporting to jobsite; for cleaning the area around the existing anchor bolts; and for erecting components to create a polymer-coated fence system, including any touch-up and repairs.

## 11.13 Piling Sleeves, Item SPV.0090.0900.

### A Description

This special provision describes furnishing and installing a corrugated steel piling sleeve in the LFCF zone of mechanically stabilized earth (MSE) retaining walls. Perform work conforming to pertinent sections of standard spec 520 and 521.

### B Materials

#### B.1 Pipe Sleeves

The piling sleeve shall meet the requirements of standard spec 521.2 for corrugated steel pipe.

### C Construction

Set the piling sleeve within 1 inch of the required position indicated on the plans prior to placing the LFCF. Brace sleeve to maintain position within 2 inches of required position as LFCF placement proceeds. Place soil reinforcing mats around sleeve.

Correct any damage that would hinder the installation of the pile prior to placing any additional reinforced earth.

After completion of pile installation inside a piling sleeve, backfill the void space around the pile within the sleeve with sand or other approved materials.

### D Measurement

The department will measure Piling Sleeves by the linear foot acceptably completed.

## E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.0900	Piling Sleeves	LF

Payment for Piling Sleeves is full compensation for furnishing and installing the piling sleeve; and for furnishing and placing backfill inside the sleeve after pile installation.

### 11.14 Longitudinal Grooving Bridge Deck, Item SPV.0165.0800.

#### A Description

This special provision describes providing longitudinal deck grooves parallel to the centerline of the roadway prior to opening the bridge to traffic as directed by the engineer.

#### B Materials

Use a grooving machine containing blades mounted on a multi-blade arbor on a self-propelled machine built for grooving hardened concrete surfaces.

Use a grooving machine with a depth control device that detects variations in the deck surface and adjusts the cutting head height to maintain a specified depth of groove.

Equip the grooving machine with a guide device to control multi-pass alignment.

#### C Construction

Groove the pavement longitudinally without damaging the concrete deck surface.

Complete a longitudinal grooving operation that results in a uniformly grooved deck surface.

Cut grooves continuously across the deck width to within 18 inches of the barrier rail, curb line, or median divider. If metal floor drains extend more than 18 inches from the barrier rail, curb line, or median divider; all grooves on the bridge deck surface are to end within 6 inches of the floor drain perimeter.

At skewed metal edged expansion joints in the bridge deck surface, end all grooves on the bridge deck surface within 6 inches of the joint leaving no ungrooved surface adjacent to each side of the joint greater than 6 inches in width on the deck side of the expansion joints.

Produce grooves that are continuous across construction joints or other joints in the concrete deck surface less than 1/2-inch wide.

Construct longitudinal grooves with the following criteria:

Width (in)	Depth (in)	Spacing C-C (in)	Width Tolerance (in)	Depth Tolerance (in)	Spacing Tolerance (in)
1/8	3/16	3/4	0 to 1/16	± 1/16	± 1/16

Collect, remove and dispose of solid material residue and liquid waste resulting from grooving operations by vacuuming in a manner satisfactory to the engineer.

#### D Measurement

The department will measure Longitudinal Grooving Bridge Deck by the square foot, acceptably completed.

## E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.0800	Longitudinal Grooving Bridge Deck	SF

Payment for Longitudinal Grooving Bridge Deck is full compensation for providing the required machinery and operators; for grooving, for collecting, removing and properly disposing of all waste materials.

## **11.15 Temporary Shoring Railroad, Item SPV.0165.0801.**

### **A Description**

This special provision describes furnishing and installing temporary shoring at locations alongside railroad tracks as shown on the plan and conforming to the shoring design requirements.

### **B Materials**

#### **B.1 Shoring Design**

Provide an effective shoring system capable of withstanding Coopers E-80 live load surcharge, and which is in compliance with OSHA and Federal Railroad Administration (FRA) requirements. For reference, use "Guidelines For Temporary Shoring" published by Union Pacific Railroad and The Burlington Northern and Santa Fe Railway (BNSF). A copy of these guidelines may be obtained from the department at the Bureau of Railroads & Harbors. Where conflicts exist, the standard specifications, special provisions and plans shall supercede these guidelines.

Refer to standard spec 107.17(5) and (6) regarding the development and submittal of shop drawings, detailed plans, and computations for temporary construction near the Fox Valley & Lake Superior Railroad's tracks. Include in the submitted drawings and plans the proposed method of installation and removal of the shoring not included in the contract plans. In all calculations, take into consideration railroad surcharge loading and design the shoring to meet Coopers E-80 live loading.

### **C Construction**

The Fox Valley & Lake Superior Railroad will coordinate train operations with the contractor to the extent possible, consistent with its operational requirements. The number and duration of work windows free of train operations available per day will vary depending on operational requirements. At the end of each window, leave the construction area in a condition that will allow for safe and normal train operations. Do not leave shoring extended above the top of rail within 12'-0" from the centerline of the nearest track. Contact Roger Schaalma, Divisional Engineer, Fox Valley and Lake Superior Rail System, LLC for available windows. Train operations and available windows for work and hours available for work within windows are subject to change. Contact Roger Schaalma, Divisional Engineer, Fox Valley and Lake Superior Rail System, LLC.; 1890 East Johnson Street, Madison, WI 53704; Telephone (608) 620-2044; E-mail [rschaalma@watco.com](mailto:rschaalma@watco.com) at least three working days in advance of construction operations that require implementation of the temporary shoring.

Provide, install and maintain adequate protection for people within the Fox Valley & Lake Superior Railroad's right of way. Cover, guard, and/or protect all excavations, holes, or trenches within the Fox Valley & Lake Superior Railroad's right-of-way when they are not being worked on. When leaving work site areas at night and over weekends, secure the areas and leave them in a condition that will ensure that railroad employees and other personnel, who may be working or passing through the area, are protected around excavations. Install handrails that are parallel to the track and not less than 9'-0" from the centerline of the nearest track. Handrails, fences, or other barrier methods must meet OSHA and FRA requirements. Backfill all excavations as soon as possible.

Upon completion of the need for the temporary shoring, remove the shoring or cut-off the shoring 4'-6" below the top of the adjacent rail. Backfill the space that is excavated but not occupied by the new permanent construction conforming to standard spec 206.3.13.

### **D Measurement**

The department will measure Temporary Shoring Railroad in area by the square foot, and the quantity to be paid for will be the sum of the areas of exposed faces of shoring constructed at the locations shown on the plans. Area will be determined from measurements taken in the plane of the exposed face of the shoring.

### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.0801	Temporary Shoring Railroad	SF

Payment for Temporary Shoring Railroad is full compensation for providing a verified design of the shoring; providing shop drawings and detailed plans; furnishing and hauling materials to each location;

installing the shoring; maintaining the shoring as needed; removing the shoring; and backfilling upon completion of the need for the shoring.

Temporary shoring not required by the plans and installed for the convenience of the contractor's operations shall be considered incidental to work under this contract and will not be measured and paid for under this item.

### **11.16 Tinted Sealer Reseal, Item SPV.0165.0802.**

#### **A Description**

This special provision describes providing a mixture of TK-Tri-Kote 26 and TK-Tint Paste 1100 to the exposed concrete surfaces of the structures as shown in the plans.

#### **B Materials**

Furnish TK-Tri-Kote 26 from the Wisconsin Product Acceptability List (PAL). The material is ready for use and requires no dilution.

Furnish TK-Tint Paste 1100. Follow the manufacturers recommendation for mixing TK-Tint Paste 1100 with TK-Tri-Kote 26 to color match Sherwin Williams SW 7039 Virtual Taupe.

#### **C Construction**

##### **C.1 Test Area**

Before applying the TK-Tri-Kote 26 UV mixed with TK-Tint Paste 1100 to the area on the structure as shown in the plans, apply to a 48 inch x 48 inch area of similar structural features as directed by the engineer. Prepare the surface for the test area in the same manner as proposed for the rest of the structure. Do not apply to other areas of the structure until the test area is approved by the engineer. Test area is to show the sealer mixture matches the department desired color and may require a new sealer mixer and additional test areas.

##### **C.2 Surface Preparation**

Surfaces must be clean, dry and free of oils, grease, and dust. Clean and dry surfaces before sealing. As a minimum, clean the surface using a 3000 psi water blast. Hold the nozzle of the water blaster approximately 6 inches from the concrete surface and move it continuously in a sweeping motion. Grit blasting of the surface is not allowed. Immediately before sealing, direct an air blast over the surface to remove dust and any loose particles. Surface water must be allowed to completely dissipate before application of the TK-Tri-Kote 26 UV and TK-Tint Paste 1100 mixture.

##### **C.3 Application to Surfaces**

Use a long nap applicator or paint roller to distribute the compound evenly. An airless sprayer or low-pressure spray equipment may be used but avoid heavy accumulation. Do not over apply.

Sprayers must be equipped with neoprene hose, washers, and gaskets as rubber or other materials will disintegrate. Ensure that application equipment is clean inside before filling and that the equipment is functioning properly.

Apply two coats to the surfaces shown in the plans. Conform to sealer manufacturer recommended application procedures and coverage rate. Allow the first coat to dry and become tack free before applying the second coat. Match or exceed the manufactures recommended drying time before applying second coat.

Apply in ambient temperatures above 40 degrees.

The TK-Tri-Kote 26, TK-Tint Paste 1100 and concrete substrate must be allowed to warm to 50 degrees prior to application

#### **D Measurement**

The department will measure Tinted Sealer Reseal in area by the square foot of surface, acceptably completed.

## E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.0802	Tinted Sealer Reseal	SF

Payment is full compensation for furnishing materials and treating and sealing surfaces including surface preparation and color-matching as required; applying two coats; preparing the test area, and waste material confinement, collection and disposal.

ner41-506 (07312025)

## 12. Retaining Walls and Ground Support.

- 12.1 Concrete Staining – Excavation, Grading, Shaping, and Finishing, Structure R-44-28, Item SPV.0060.0901;**  
**Concrete Staining – Excavation, Grading, Shaping, and Finishing, Structure R-44-33, Item SPV.0060.0902;**  
**Concrete Staining – Excavation, Grading, Shaping, and Finishing, Structure R-44-52, Item SPV.0060.0903;**  
**Concrete Staining – Excavation, Grading, Shaping, and Finishing, Structure R-44-53, Item SPV.0060.0904.**

### A Description

This special provision describes the required excavation, grading, shaping, and finishing to apply Concrete Stain on existing structures as shown in the plans.

### B Materials

Furnish materials in accordance with the pertinent materials of conforming to the following standard specifications:

- 207 Embankment
- 208 Borrow
- 625 Topsoil
- 604 Slope Paving Crushed Aggregate
- 627 Mulching
- 628 Erosion Mat Class I Type B
- 629 Fertilizer Typer B
- 630 Seeding Mixture No. 30 and seed watering

### C Construction

Excavate, grade, shape, and finish embankment slopes at the locations shown in the plans. If applicable, salvage existing material and replace in kind. When existing material cannot be salvaged, furnish materials and construct as the plans show and engineer directs conforming to the following standard specification standards:

- 205 Common excavation and material disposal
- 207 Embankment
- 208 Borrow
- 625 Topsoil
- 604 Slope Paving Crushed Aggregate
- 627 Mulching
- 628 Erosion mat
- 629 Fertilizer
- 630 Seeding and seed watering



## D Measurement

The department will measure Concrete Staining – Excavation, Grading, Shaping, and Finishing by EACH structure 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.0060.0901	Concrete Staining – Excavation, Grading, Shaping, and Finishing, Structure R-44-28	EACH
SPV.0060.0902	Concrete Staining – Excavation, Grading, Shaping, and Finishing, Structure R-44-33	EACH
SPV.0060.0903	Concrete Staining – Excavation, Grading, Shaping, and Finishing, Structure R-44-52	EACH
SPV.0060.0904	Concrete Staining – Excavation, Grading, Shaping, and Finishing, Structure R-44-53	EACH

Payment for Concrete Staining – Excavation, Grading, Shaping, and Finishing is full compensation to allow for Concrete Staining at each structure plan location including required excavation, borrow, topsoil, mulch, erosion mat, fertilizer, seeding, and seed watering when the existing structure is outside the contract grading limits. If the work specified falls within the contract grading limits, the department will pay separately for that work under the associated contract bid items.

ner41-204 (09042025)

## 12.2 Vibrating Wire Piezometer Item SPV.0060.0910.

### A Description

This special provision describes furnishing, delivering and installing and abandoning of vibrating wire piezometer (VWP). The purpose of the geotechnical instrumentation is to monitor changes in pore water pressure due to placement of wall fill to estimate the load distribution performance of the load transfer platform, and to provide indication of rate of consolidation settlement to confirm design thresholds and indicate when permanent pavement placement can occur.

#### A.1 General

Install, protect, and abandon the VWPs as specified herein and as shown on the plans.

Maintain fully operational all instrumentation installed under this article for the duration of the monitoring period as identified in “Geotechnical Instrumentation Monitoring and Reporting” special provision.

#### A.2 Definitions

Vibrating Wire Piezometer (VWP): Designed to measure fluid pressures such as ground water elevations and pore pressures when buried directly in embankments, and for installation inside boreholes, observation wells and standard (>19 mm diameter) piezometer riser pipe.

Readout Box: Instrument connected to each VWP or series of VWPs that allows for the automatic collection of readings at programmed intervals, stores the readings in a format that can be downloaded and processed.

#### A.3 Equipment and Personnel Qualification

##### A.3.1 Prior to Installation

Submit the following specific information at least 30 days prior to the start of VWP installation:

1. Submit qualifications and experience of instrumentation specialists and personnel. Requirements include a minimum of 5 years of experience in the installations of VWP similar to those specified herein is required, and a licensed surveyor registered in the State of Wisconsin and have a minimum of 2 years of experience in the installation of geotechnical instrumentation similar to those specified herein.
2. Description of methods for installing and protecting VWP's.
3. Schedule of instrument installation related to significant activities or milestones in the overall project.
4. Manufacturer's literature describing installation, operation, and maintenance procedures for all instruments, materials, readout units, and accessories.
5. Conduct factory calibration on all instruments at the manufacturer facility prior to shipment. Include calibration curve with data points clearly indicated and a tabulation of the data. Mark each instrument with a unique identification and/or serial number.

6. Perform Pre-Installation Tests for acceptance (see below) and submit test record.
7. Example installation logs for VWP installations prepared by the instrumentation specialist.

### **A.3.2 After Installation**

Submit the following specific information, for evaluation and acceptance by engineer:

1. Installation logs, and soil profile data.
2. Contractor shall submit documentation of VWP abandonment.

### **A.3.3 Locations**

Install the VWPs prior to the start of early fill placement, in coordination with the engineer at the locations and elevations shown on the plans.

## **B Materials**

### **B.1 Vibrating Wire Piezometers**

Provide a VWP from a supplier listed below or an approved equal.

- Geokon Model 4500S, 100 psi range (Geokon Incorporated, 48 Spencer Street, Lebanon, NH 03766, (603) 448-1562)
- Slope Indicator Part Number 52611030 (Slope Indicator Company, 316 Forsyth Street, Raleigh, NC 27609-6314, (800) 929-4712)

Provide vibrating wire piezometers meeting the following specifications and include compatible appurtenances as necessary (cables, filter stones, splice kits, connectors, etc.).

Pressure Range (psi):	0-100
Over Range/Maximum Pressure:	1.5X rated pressure range
Resolution:	0.025% full scale (F.S.) minimum
Accuracy:	±0.1% of F.S.
Operating Temperature:	-20 °C to 80 °C
Thermal Zero Shift:	<0.05% F.S./°C or <0.04 psi/°C
Diameter of piezometer:	~ 0.75 inches

### **B.2 Readout Box**

Equip each vibrating wire piezometer with a readout box. Ensure the readout box is water resistant and capable of automatically collecting measurements at scheduled intervals as frequently as one reading per minute. Equip the readout box with onboard storage adequate to store all readings collected prior to regularly scheduled downloads. Propose alternative data collection systems if desired and submit for approval by the department.

## **C Construction**

### **C.1 Pre-Installation Tests for Acceptance**

When instruments are received at the site, perform pre-installation tests for acceptance to ensure the instrument and readout units are functioning correctly before installation. Include the following relevant items in pre-installation testing:

1. Confirm each VWP is the product of an acceptable manufacturer currently engaged in manufacturing and installing settlement gauges as specified herein.
2. Examine factory calibration curve and tabulated data to verify completeness.
3. Examine manufacturer's final quality assurance inspection checklist to verify completeness.
4. Check cable length on non-wireless devices.
5. Check identification and/or serial numbers on instrument and cable.

6. By comparing with procurement document, check that the model, dimensions, materials, etc. are correct.
7. On any non-wireless devices, at point of connection to instrument, bend cable back and forth while reading the instrument to verify connection integrity.
8. Verify all components fit together in correct configuration; check all components for signs of damage in transit.
9. Check that quantities received correspond to quantities ordered.

## **C.2 Quality Assurance**

Notify the engineer at least 24 hours prior to all instrumentation installation operations so that the engineer may monitor the installation work.

## **C.3 Installation and Protection**

Install VWP prior to the start of early fill placement.

Drill, sample, and log borings in soil drilled for the purpose of installing vibrating wire piezometers, as located in the plans. Drill borings using 4-inch minimum outside diameter hollow stem auger per ASTM D6151. Drill the borings so as not to damage adjacent utilities. Perform a standard penetration test at 5.0-foot depth intervals in accordance with ASTM D1586.

Install the vibrating wire piezometer tip, filter pack, filter pack seal, and annular space seal as determined by contractor's engineer or approved alternatives. The sensing zone is provided in the plans and may be modified by the engineer based upon observations of retained soil samples. Withdraw the drill casing in small increments as the backfill materials are placed, so that collapse of the borehole does not occur. Do not rotate casing during withdrawal.

Place filter pack material slowly so that bridging does not occur in the boring and to prevent the instrument from being lifted as the casing is withdrawn. Use a measuring rod or similar device to measure the height of the filter pack to ensure that the filter pack is installed over the proper depth interval. Carefully raise and lower the measuring rod while the filter pack is installed, to prevent bridging and to tamp the filter pack in place.

Place a filter pack seal above the filter pack. Place the filter pack seal in a similar manner as for filter pack material. Place a bentonite seal above the filter pack seal.

Place the annular space seal by tremie grouting. Place the grout in such a manner as to not disturb the integrity of the filter pack and seal.

Supply a grout for the annular space seal, above the sensing zone, for piezometers consisting of a bentonite to cement ratio of 0.15/1 by weight, with sufficient water to allow pumping. Mix bentonite and water first.

Install readout boxes within stainless steel enclosure backfilled with granular material at location agreed upon by contractor and engineer that is protected from construction traffic and easily accessible for measurement download. Record location of readout boxes and show on working plans.

Ensure cable is sleeved and protected and covered by minimum 8 inches of fill before construction traffic is allowed to cross cable location.

## **C.4 Tolerances**

Install VWP's within 2 feet of the horizontal locations and 1 foot of the vertical locations as indicated in the plans.

Should actual field conditions prohibit installation at the locations and elevations indicated on the plans, obtain prior acceptance from the engineer for new instrument locations and elevations.

## **C.5 Project Conditions**

Provide the engineer and the department access to the instruments at all times.

Protect all readout boxes and data cables from construction traffic and accidental damage.

## **C.6 Abandonment**

At the end of the monitoring period or evaluation of the piezometer data, contact the department and coordinate the removal or abandonment of instrumentation. If directed to abandon, remove the readout box and cables as able and backfill with granular material or grout. Supply grout consisting of cement and

water, with the minimum amount of water necessary to allow pumping. If not directed to abandon, leave the instrumentation intact and operable so subsequent readings can be taken by others.

#### **D Measurement**

The department will measure Vibrating Wire Piezometer as 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.0060.0910	Vibrating Wire Piezometer	EACH

Payment is full compensation for furnishing and placing vibrating wire piezometers; protecting the vibrating wire piezometer, cables, and readout boxes; repairing or replacing instruments, and maintaining through the duration of the monitoring period, either left in place or abandoned.

### **12.3 Geotechnical Instrumentation, R-44-36, Item SPV.0060.0925.**

#### **A Description**

##### **A.1 General**

This special provision describes contractor requirements for monitoring the geotechnical instrumentation and collecting and reporting data for a particular structure. The purposes of obtaining and reporting geotechnical instrumentation data are to monitor pore water pressures during and after the placement of wall fills, to evaluate appropriateness of design assumptions related to effective stress conditions and the impact of early fill on strength gain for soft soils under wall R-44-36. The instrumentation program specified herein and shown on the plans is not intended to be used to ensure the safety of the work.

Threshold values are provided which, if encountered, require increased monitoring and reporting frequencies. Shutdown values are also provided. If monitoring detects a shutdown value exceeded at any instrument, immediately report to the engineer and cease filling or other construction operations that would result in further movement until additional operational changes are made.

Do not start the construction of the retaining walls until the pore pressure measurements are stabilized, as determined by the Engineer. If the contractor has exhausted all measures within the contract and is not able to stabilize the pore pressure, submit a correction plan to the department and engineer. Upon acceptance of the correction plan by the department, the contractor shall implement the correction plan immediately.

The cost of actions required for complying with threshold and shutdown values and to repair any damage to adjacent structures shall be borne by the contractor with no additional cost to the department.

The instrumentation program required by this article does not relieve the contractor of responsibility for providing additional instrumentation and monitoring if, in the contractor's opinion, such additional instrumentation and monitoring are necessary to accomplish the work.

This article covers taking initial and subsequent instrument readings, and reporting data obtained from the readings through the completion of the specified monitoring period.

##### **A.2 Personnel Qualification**

Perform monitoring of vibrating wire piezometers by a qualified technician or geoprofessional having a minimum of 2 years of experience, or at least three projects of similar size, collecting data and interpreting the results for projects utilizing similar instruments and equipment to those specified for this project.

Submittals shall be reviewed prior to submittal by a geoprofessional having at least 2 years of experience, or involvement in at least 3 projects of similar size and that utilized similar geotechnical instrumentation to those specified for this project.

### A.3 Submittals

Submittals are required in electronic format and may be transmitted to the engineer via email.

1. After taking readings, the contractor shall submit monitoring data within the timeframe indicated in the table below:

Instrument	Initial Readings	First two weeks after installation	Subsequent Monitoring Performed that Indicates Values Below Thresholds	Monitoring Performed after Threshold Value is exceeded for Any Single Instrument
Vibrating Wire Piezometers (VWP)	24 hours	48 hours	24 hours	12 hours

2. Submit all data in Microsoft Excel spreadsheet format and PDF format for the frequency of readings listed in subsection C.5.
3. Submit ground surface elevations at instrument locations corresponding to frequencies listed in subsection C.5.
4. For inclinometer data submit plots in .pdf format showing cumulative displacement, incremental displacement, and displacement vs. time. For inclinometer readings that indicate movement exceeding the threshold value, or if requested by the department or engineer, provide pdf plots showing cumulative deviation, incrementation deviation, checksums, and difference checksums to confirm accuracy of measurements.
5. For all other monitoring data, submit graphical plots in both Microsoft Excel and .pdf format of recorded values (Y-axis) versus time (x-axis) using arithmetic scale. Include ground surface elevations that correspond to the date, time, and location on each plot.

### A.4 Locations and Definitions

#### A.4.1 Locations

Refer to the plans for location of geotechnical monitoring instruments.

#### A.4.2 Definitions

**Monitoring Period:** The monitoring period for all geotechnical instruments shall extend 2 months after concrete pavement installation in the areas supported by R-44-36.

**Geotechnical Instrumentation:** Installations and equipment used to measure pore water pressures. Geotechnical instrumentation consists of vibrating wire piezometers. Includes ancillary equipment required to record measurements (i.e. readout boxes, etc.).

**Monitoring:** Act of obtaining data from geotechnical instrumentation. Synonymous with performing, taking and obtaining readings.

**Shutdown Value:** Value for data at which, if recorded for any geotechnical instrumentation, project work representative of that instrumentation shall be halted until directed otherwise by department.

**Threshold Value:** Value for data at which, if recorded for any geotechnical instrumentation, an increased frequency of readings and submittals will be required for that geotechnical instrumentation.

### B Materials

### C Construction

#### C.1 General

Obtain data from the geotechnical monitoring instrumentation in accordance with the frequencies identified in C.5 of this article.

#### C.2 Quality Assurance

Notify the engineer at least 24 hours prior to all instrumentation calibration and/or initial readings. Notify the engineer when initial readings will be made; the engineer may elect to observe the initial readings.

### C.3 Threshold and Shutdown Values for Geotechnical Monitoring

Threshold and Shutdown Values for Geotechnical Instrumentation monitoring are presented in the tables below.

Item	Instrumentation ID Name	Threshold Value (excess pressure from initial baseline prior to filling, in psf)	Shutdown Value (excess pressure in psf)
Vibrating Wire Piezometers (VWP)	VWP-01	810	1200
	VWP-02	950	1400

Provide equipment for measuring structure targets that have a horizontal and vertical tolerance of 0.01 feet or less.

### C.5 Initial and Subsequent Readings

Obtain and record data readings at regular intervals as specified herein.

Perform baseline surveys and obtain initial readings of geotechnical instrumentation before commencing any filling work for the retaining walls and embankments. Perform initial and subsequent monitoring as described below.

#### C.5.1 Monitor Vibrating Wire Piezometers

Perform a calibration reading, initial readings to verify instrument settings and subsequent readings through the duration of the monitoring period.

Record initial vibrating wire piezometer readings a minimum of 48 hours after completing installation and testing of each piezometer. Take two sets of vibrating wire piezometer readings, at least 4 hours apart. If the variation in vibrating wire piezometer readings exceeds 5 psf, repeat the two sets of readings. Use the arithmetic average of the two sets of vibrating wire piezometer readings that do not vary by more than 5 psf as the initial baseline vibrating wire piezometer readings.

After initial readings are approved by the engineer, use the average from the initial readings to establish the baseline reading.

Set the frequency of readings to record porewater pressures once every 4 hours.

Download data from the readout box 1 time per week, separated by a minimum of 3 calendar days between download, during the applicable construction stage. Additionally monitor after 5 feet of vertical retaining wall and embankment construction if that occurs sooner.

After completion of wall and embankment fill to finished subgrade, download data every three days for the first month and once per week thereafter for remainder of the monitoring period, unless directed otherwise by the engineer.

Download data twice daily if any geotechnical instrumentation indicates a value that meets or exceeds the threshold value.

### C.6 Acceptance

The engineer will evaluate the submittals. Within 7 calendar days after receipt of each submittal, the engineer will notify the contractor of submittal acceptance (e.g., no exception taken), or if additional information and/or changes are required. Resubmit the submittal with the required information and/or changes. The engineer will notify the contractor of resubmittal acceptance within 7 calendar days after its receipt.

After the submittal acceptance by the engineer, no changes to the submittal can be made without written consent of the engineer.

## D Measurement

The department will measure collecting and reporting data for the duration of the project for all geotechnical instruments associated with a particular structure.

## E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.0925	Geotechnical Instrumentation, R-44-36	EACH

Payment is full compensation for obtaining readings and reporting data at the indicated frequencies from all geotechnical instruments associated with a particular structure through the duration of the monitoring period at locations indicated in the plans; providing submittals as required; and obtaining survey data of ground surface elevations at instruments at time of readings.

Payment for furnishing, installing, maintaining throughout the monitoring period, and abandonment (if required) will be paid for separately under each specific instrument special provision.

### 12.4 Fence Chain Link Polymer-Coated 6-Ft. R-44-38, Item SPV.0090.0904; Fence Chain Link Polymer-Coated 6-Ft. R-44-39, Item SPV.0090.0905.

#### A Description

This special provision describes furnishing and installing a new polymer-coated fence system on structures in conforming to the pertinent plan details and as directed by the Engineer. The color of all components in this fence system shall be the same and shall be as specified on the plans.

#### B Materials

All materials for this fence system shall be new stock, free from defects impairing strength, durability, and appearance. Fabric shall be produced by methods recognized as good commercial practice. Wire used in the manufacture of the fabric shall be capable of being woven into fabric without the polymer-coating cracking or peeling. Pipes used in framework shall be straight, true to section and free of defects. All burrs at the ends of pipes shall be removed before galvanizing. The polymer-coating shall be a dense impervious covering, applied without voids, tears or cuts that reveal the substrate. Excessive roughness, bubbles, blisters and flaking in the polymer-coating will be a basis for rejection.

##### B.1 Fabric

Provide steel chain link fence fabric conforming to the requirements of ASTM F668, Class 2b, a polymer-coating fused and adhered to wire that is zinc-coated. Provide fabric woven from 9-gage wire using plan specified mesh size, diamond pattern, with both the top and bottom selvages knuckled. The minimum breaking strength of the wire shall be 1290 lbs. The color of polymer-coating shall conform to the requirements of ASTM F934.

##### B.2 Framework

Provide steel rails, posts and post sleeves conforming to the requirements of ASTM F1083, Standard Weight Pipe (Schedule 40) of the size (O.D.) and weight as shown on the plans. The minimum yield strength shall be 30,000 psi and the minimum tensile strength shall be 48,000 psi. These components shall be zinc-coated inside and outside by the hot-dip process as stated in ASTM F1083. Provide polymer-coating over zinc-coating conforming to ASTM F1043. The color of polymer-coating shall conform to the requirements of ASTM F934, and match the color of the other fence components. Weld base plate to posts or post sleeves and complete any additional welding of components before galvanizing.

##### B.3 Fittings

Provide end post caps, line post caps, top rail sleeves, rail ends, line rail clamps, brace bands, tension bands, tension bars, and tie wires that are steel and conform to the requirements of ASTM F626. Tie wires shall be round and 9-gage wire. These components (excluding tie wires) shall be zinc-coated by the hot-dip process as stated in ASTM F626. Provide polymer-coating over zinc-coating on components (excluding tie wires) that conforms to the requirements of ASTM F626. For tie wires, provide polymer-coating on wire that is zinc-coated using the same procedure as used for the wires in the fence fabric. End post caps and line post caps shall fit tightly over posts to prevent moisture intrusion. Supply dome style caps for end posts and loop type caps for line posts. The color of polymer-coating shall conform to the requirements of ASTM F934, and match the color of the other fence components.

## **B.4 Bolts**

All bolts are to be supplied with lock washers and nuts. Use galvanized steel bolts, nuts and washers per plan details.

## **B.5 Tests**

### **B.5.1 Fabric and Tie Wire**

Breaking Strength: ASTM A370

Zinc-Coating Requirements

Weight of Zinc-Coating: ASTM A90

Polymer-Coating Requirements

Thickness of Polymer-Coating: ASTM F668

Adhesion: ASTM F668

Accelerated Aging Test: ASTM F668, D1499

Mandrel Bend Test: ASTM F668

### **B.5.2 Framework**

Tensile and Yield Strength: ASTM E8

Zinc-Coating Requirements

Weight of Zinc-Coating: ASTM A90

Polymer-Coating Requirements

Thickness of Polymer-Coating: ASTM E376

Adhesion: ASTM F1043

Accelerated Aging Test: ASTM F1043, D1499

### **B.5.3 Fittings**

Zinc-Coating Requirements

Weight of Zinc-Coating: ASTM A90

Polymer-Coating Requirements

Thickness of Polymer-Coating: ASTM F626

Adhesion: ASTM F1043 (same test as for framework)

Accelerated Aging Test: ASTM F1043, D1499 (same test as for framework)

## **B.6 Submittals**

In addition to the Project Engineer, send submittals listed in this section to the name below for informational purposes:

David Nelson

WisDOT (Bureau of Structures)

4822 Madison Yards Way

Madison, WI 53705

### **B.6.1 Shop Drawings**

Submit shop drawings showing the details of fence construction. Show the fence height, post spacing, rail location, and all dimensions necessary for the construction of the chain link fence. Label the end posts, line posts, rails, post sleeves, top rail sleeves, bolts and fittings. State the polymer-coating type used on the fabric, framework and fittings and the Class of coating used on the fabric. State the color of polymer-coating to be used on the fence components. For the fabric, state the wire gage, mesh size, and type of selvages used. For the framework, state the size (O.D.) and unit weight for the posts and rails. For the fittings, state the size for top rail sleeves, brace bands, tension bands, tension bars, line rail clamps, size and type of bolts, and the tie wire gage. State the material type used for fabric, framework, and fittings.



Also give the breaking strength for the fabric wire and the tensile and yield strength properties for the framework.

### **B.6.2 Specification Compliance**

Submit certification of compliance with material specifications. Provide material certification and test documentation for fabric, framework, fittings and hardware that shows that all materials meet or exceed the specifications of this contract and the tests in section B5 of this specification. This document shall provide the name, address and phone number of the manufacturer, and the name of a contact person.

## **C Construction**

### **C.1 Delivery, Storage and Handling**

Deliver material to the site in an undamaged condition. Upon receipt at the job site, all materials shall be thoroughly inspected to ensure that no damage occurred during shipping or handling and condition of materials is in conformance with these specifications. If polymer-coating is damaged, Contractor shall repair or replace components as necessary to the approval of the Engineer at no additional cost to the Owner. Carefully store material off the ground to ensure proper ventilation and drainage and to provide protection against damage caused by ground moisture. Handle all polymer-coated material with care.

### **C.2 Touch-up and Repair**

For minor damage caused by shipping, handling or installation to polymer-coated surfaces, touch-up the finish conforming to the manufacturer's recommendations. Provide touch-up coating such that repairs are not visible from a distance of 6-feet. If damage is beyond repair, the fencing component shall be replaced at no additional cost to the Owner. The Contractor shall provide the Engineer with a copy of the manufacturer's recommended repair procedure and materials before repairing damaged coatings.

### **C.3 General**

Install the chain link fence conforming to ASTM F567 and the manufacturer's instructions. The Contractor shall provide staff that is thoroughly familiar with the type of construction involved and materials and techniques specified. Chain link fabric shall be installed on the side of the posts indicated on the plans. Fabric shall be attached to the end posts with tension bars and tension bands. It shall be attached to rails, and posts without tension bands, with tie wires. The fabric shall be installed and pulled taut to provide a smooth and uniform appearance free from sag, without permanently distorting the fabric diamond or reducing the fabric height. Install top rail to pass through line post caps and form a continuous brace between end posts. Minimum length of top rail between splices shall be 20-feet. Splice top rail at joints with sleeves for a rigid connection. Locate splices near 1/4-point of post spacing. Heads of bolts shall be on the side of the fence adjacent to pedestrian traffic.

## **D Measurement**

The department will measure Fence Chain Link Polymer-Coated 6-Ft. by the linear foot acceptably furnished and installed.

## **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.0904	Fence Chain Link Polymer-Coated 6-Ft. R-44-38	LF
SPV.0090.0905	Fence Chain Link Polymer-Coated 6-Ft. R-44-39	LF

Payment for Fence Chain Link Polymer-Coated 6-Ft. is full compensation for fabricating, galvanizing and polymer-coating all fence components, and transporting to jobsite; and for erecting components to create a polymer-coated fence system, including any touch-up and repairs.

## **12.5 Temporary Wall Wire Faced Mechanically Stabilized Earth, Item SPV.0165.0900.**

### **A Description**

This special provision describes designing, furnishing materials and erecting a permanent earth retention system in accordance to the lines, dimension, elevations and details as shown on the plans and provided in the contract.

This special provision describes the quality management program (QMP) for Mechanically Stabilized Earth (MSE) walls. A quality management program is defined as all activities, including process control,

inspection, sampling and testing, and necessary adjustments in the process that are related to the construction of the MSE wall, which meets all the requirements of this provision.

This special provision describes contractor quality control (QC) sampling and testing for backfill density testing, documenting those results, and documenting related production and placement process changes. This special provision also describes department quality verification (QV), independent assurance (IA), and dispute resolution.

Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes sampling and testing procedures.

## **B Materials**

### **B.1 Proprietary Wall Systems**

The supplied wall system must be from the department's approved list of Temporary Wire Faced Mechanically Stabilized Earth Wall systems. Proprietary wall systems must conform to the requirements of this specification and be pre-approved for use by the department's Bureau of Structures. The department maintains a list of pre-approved proprietary wall systems. The name of the pre-approved proprietary wall system selected shall be furnished to the engineer within 25 days after the award of contract.

To be eligible for use on this project, a system must have been pre-approved by the Bureau of Structures and added to that list prior to the bid closing date. To receive pre-approval, the retaining wall system must comply with all pertinent requirements of this provision and be prepared in accordance with the requirements of Chapter 14 of the department's LRFD Bridge Manual. Information and assistance with the pre-approval process can be obtained by contacting the Bureau of Structures, Structures Maintenance Section at the following email address: [DOTDLStructuresFabrication@dot.wi.gov](mailto:DOTDLStructuresFabrication@dot.wi.gov).

### **B.2 Design Requirements**

It is the responsibility of the contractor to submit a design and supporting documentation as required by this special provision, for review and acceptance by the department, to show the proposed wall design conforms to the design specifications. The submittal shall include the following items for review: detailed plans and shop drawings, complete design calculations, explanatory notes, supporting materials, and specifications. The detailed plans and shop drawings shall include all details, dimensions, quantities and cross-sections necessary to construct the walls. Submit shop drawings to the engineer conforming to [105.2](#) with electronic submittal to the fabrication library under [105.2.2](#). Certify that shop drawings conform to quality control standards by submitting department form [DT2329](#) with each set of shop drawings. department review does not relieve the contractor from responsibility for errors or omissions on shop drawings. Submit no later than 60 days from the date of notification to proceed with the project and a minimum of 30 days prior to the date proposed to begin wall construction.

The plans and shop drawings shall be prepared on reproducible sheets 11 inch x 17 inch, including borders. Each sheet shall have a title block in the lower right corner. The title block shall include the WisDOT project identification number and structure number. Design calculations and notes shall be on 8 ½ inch x 11 inch sheets, and shall contain the project identification number, name or designation of the wall, date of preparation, initials of designer and checker, and page number at the top of the page. All plans, shop drawings, and calculations shall be signed, sealed and dated by a professional engineer licensed in the State of Wisconsin.

The design of the wall shall conform to the current American Association of State Highway and Transportation Officials LRFD (AASHTO LRFD) Bridge Design Specifications with latest interim specifications for Mechanically Stabilized Earth Walls, WisDOT's current Standard Specifications for Highway and Structure Construction (standard spec), Chapter 14 of the WisDOT LRFD Bridge Manual and standard engineering design procedures as determined by the department. Loads, load combinations, load and resistance factors shall be as specified in AASHTO LRFD Section 11. The associated resistance factors shall be defined in accordance with Table 11.5.7-1 in AASHTO LRFD.

Design and construct the walls in accordance to the lines, grades, heights and dimensions shown on the plans, as herein specified, and as directed by the engineer. If the wall is installed in front of a bridge abutment or wing, it shall also be designed to resist the applied abutment/bridge lateral forces specified on the plans.

Walls parallel to supporting highway traffic shall be designed for the effects of highway surcharge loading equivalent of 2 feet soil surcharge weight or 240 psf. The design shall also consider the traffic barrier impact where applicable. Walls that do not carry highway traffic shall be designed for a live load

surcharge of 100 psf in accordance with Chapter 14 of the WisDOT LRFD Bridge Manual or as stated on the plans.

A maximum value of the angle of internal friction of the wall backfill material used for design shall be assumed to be 30 degrees without a certified report of tests. If a certified report of tests yields an angle of internal friction greater than 30 degrees, the larger test value may be used for design, up to a maximum value of 36 degrees.

An external stability check at critical wall stations showing Capacity Demand Ratios (CDR) for sliding, eccentricity, and bearing checks is performed by the department and are provided in the wall plans.

The design of the wall by the Contractor shall consider the internal and compound stability of the wall mass in accordance with AASHTO LRFD 11.10.6. The internal stability shall include soil reinforcement pullout, soil reinforcement rupture, and panel-reinforcement connection failure at each soil reinforcement level. The design shall be performed using the Simplified Method or Coherent Gravity Method. Calculations for factored stresses and resistances shall be based upon assumed conditions at the end of the design life. The value of the pullout resistance factor,  $F^*$ , used in design calculations shall be obtained from the AASHTO LRFD Figure 11.10.6.3.2-2 as appropriate to the proposed reinforcement type. Compound stability shall be computed for the applicable strength limits. Sample analyses and hand calculations shall be submitted to verify the output of any software used. The design calculations and notes shall clearly indicate the Capacity to Demand Ratios (CDR) for all internal and external stabilities as defined in AASHTO LRFD.

The wall facings shall be designed in accordance with AASHTO 11.10.2.3. A fine metallic screen and a geotextile shall be used at the front face of the wall to retain the fines of the soil mass.

The minimum length of soil reinforcement measured from the back face of the wall shall be equal to 0.7 of the wall height, or as shown on the plan. In no case shall this length be less than 8 feet. The soil reinforcement shall be the same length from the bottom to the top of the wall. All soil reinforcement layers shall be connected to wire facing panels. The soil reinforcement shall extend a minimum of 3.0 feet beyond the theoretical failure plane in all cases. The maximum vertical spacing of soil reinforcement layers shall be 24 inches. The uppermost layer of the reinforcement shall be located between 6 inches and 12 inches below the bottom of an overlying slab, footing or top of the wall. The upper layers of the soil reinforcement shall also be checked to verify that they have sufficient tensile resistance against traffic barrier impact where applicable.

The nominal long term design strength to be used in steel reinforcement and connector design shall consider the corrosion losses and based upon conditions at the end of the design life, as described in Chapter 14 of the WisDOT LRFD Bridge Manual and AASHTO LRFD Section 11.

Soil reinforcement shall be fabricated or designed to avoid piling, drainage structures or other obstacles in the fill without field modifications. Unless approved by the Bureau of Structures cutting or altering of the basic structural section of either the strip or grid at the site is prohibited, a minimum clearance of 3" shall be maintained between any obstruction and reinforcement, and splicing steel reinforcement is not allowed.

The minimum embedment of the MSE wall shall be 1 foot 6 inches, or as given on the contract plan. Step the wall to follow the general slope of the ground line. Frost depth shall not be considered.

### **B.3 Wall System Components**

Materials furnished for wall system components under this contract shall conform to the requirements of this specification. All documentation related to material and components of the wall systems specified in this subsection shall be submitted to the engineer.

#### **B.3.1 Steel Components**

Provide steel reinforcement that meets the following requirements:

- Welded Wire Fabric Soil Reinforcement

Provide shop fabricated welded wire reinforcement from cold drawn steel wire that has a yield stress of 65,000 psi and conforming to the minimum requirements of ASTM A1064 and be welded into the finished configuration in accordance to ASTM A1064. Replace welded wire fabric that has been damaged during handling, placing or backfilling at the direction of the engineer, at no expense to the department.

- Steel Reinforcing Strips and Tie Strips

As an alternate to welded wire reinforcing mesh, provide steel reinforcing strips or ladder reinforcing strips or equal, hot-rolled from bars, to the required shape and dimensions meeting the requirements of ASTM

A572 Grade 65 minimum. Tie strips shall be shop fabricated of hot-rolled steel meeting the requirements of ASTM A1011 Grade 50.

- Welded Wire Fabric Facing Panels

Provide welded wire fabric that is used to fabricate the facings of the wire-faced wall that has a yield stress of 65,000 psi. All steel shall be shop fabricated of cold drawn steel wire conforming to the minimum requirements of ASTM A1064 and be welded into the finished configuration in accordance to ASTM A1064. Replace welded wire fabric that has been damaged during handling, placing or backfilling at the direction of the engineer, at no expense to the department.

- Fasteners

High strength bolts meeting the requirements of AASHTO M164 or equivalent.

- Connector Pins and Mat Bars

Connector pins and mat bars fabricated from cold drawn steel wire meeting the requirements of ASTM A82.

- Metallic Screen

Provide a steel metallic screen. The metallic screen should have an approximate opening of 1/4" and be made of 0.025" (minimum) gauge wire.

### **B.3.2 Geosynthetics**

#### **B.3.2.1 Geotextiles**

Geotextile shall be used behind the metallic screen. Use geotextile as recommended by the wall manufacturer. If none is recommended, use Type DF (schedule B) as shown in standard spec 645 or as specified on the contract plans. Deliver in a protective wrap and keep protected from ultraviolet light until incorporated into the work.

#### **B.3.2.2 Geogrids**

Geogrid supplied as reinforcing members shall be manufactured from long chain polymers limited to polypropylene, high-density polyethylene, polyaramid, and polyester. Geogrids shall form a uniform rectangular grid of bonded, formed, or fused polymer tensile strands crossing with a nominal right-angle orientation. The minimum grid aperture shall be 0.5 inch. The geogrid shall maintain dimension stability during handling, placing, and installation. The geogrid shall be insect, rodent, mildew, and rot resistant. The geogrid shall be furnished in a protective wrapping that shall prevent exposure to ultraviolet radiation and damage from shipping or handling. The geogrid shall be kept dry until installed. Each roll shall be clearly marked to identify the material contained.

The wall supplier shall provide the nominal long-term design strength ( $T_{al}$ ) and nominal long-term connection strength,  $T_{alc}$  in accordance with AASHTO LRFD 11.10.6.4. Values for  $RF_{ID}$ ,  $RF_{CR}$ , and  $RF_D$  shall be determined from product specific test results. Even with project-specific test results for temporary walls,  $RF_{ID}$  shall not be less than 1.10,  $RF_{CR}$  shall not be less than 1.20, and  $RF_D$  shall not be less than 1.10.

The Contractor shall provide a manufacturer's certificate that the Tult (MARV) of the supplied geogrid has been determined in accordance with ASTM D4595 or ASTM D6637 as appropriate. Contractor shall also provide block to block and block to reinforcement connection test reports prepared and certified by an independent laboratory. Also provide calculations in accordance with AASHTO LRFD, and using the results of laboratory tests, that the block-geogrid connections shall be capable of resisting 100% of the maximum tension load in the soil reinforcements at any level within the wall, for the design life of the wall system.

### **B.3.3 Backfill**

Furnish and place backfill for wall as shown on the plans and as herein provided.

Use natural sand or a mixture of sand with gravel, crushed gravel or crushed stone. Do not use foundry sand, bottom ash, blast furnace slag, crushed/recycled concrete, crushed/milled asphaltic concrete or other potentially corrosive material.

Provide material that conforms to the following gradation requirements as per AASHTO T27.

Sieve Size	% by Weight Passing
1 inch	100
No. 40	0-60
No. 200	0-15

The material shall have a liquid limit not greater than 25, as per AASHTO T89, and a plasticity index not greater than 6, as per AASHTO T90. Provide the percent by weight, passing the #4 sieve.

In addition, backfill material shall meet the following requirements.

Test	Method	Value
pH	AASHTO T-289	5.0 – 10.0
Sulfate content	AASHTO T-290	200 ppm max.
Chloride content	AASHTO T-291	100 ppm max.
Electrical Resistivity	AASHTO T-288	3000 ohm-cm min.
Organic Content	AASHTO T-267	1.0% max.
Angle of Internal Friction	AASHTO T-236 <sup>[1]</sup>	30 degrees min. (At 95.0% of maximum density and optimum moisture, per AASHTO T99, or as modified by C.2)

[1] If the amount of P-4 material is greater than 60%, use AASHTO 236 with a standard-size shear box. Test results of this method may allow the use of larger angles of internal friction, up to the maximum allowed by this specification.

If the amount of P-4 material is less than or equal to 60%, two options are available to determine the angle of internal friction. The first method is to perform a fractured faces count, per ASTM 5821, on the R-4 material. If more than 90% of the material is fractured on one face and more than 50% is fractured on two faces, the material meets the specifications and the angle of internal friction can be assumed to be 30 degrees. The second method allows testing all P-1" material, as per AASHTO T-236, with a large shear box. Test results of this second method may allow the use of larger angles of internal friction, up to the maximum allowed by this specification.

Prior to placement of the backfill, obtain and furnish to the engineer a certified report of test results that the backfill material complies with the requirements of this specification. Specify the method used to determine the angle of internal friction. This certified report of test shall be less than 6 months old. Tests will be performed by a certified independent laboratory. In addition, when backfill characteristics and/or sources change, provide a certified report of tests for the new backfill material. Additional certified report of tests (except Angle of Internal Friction test), are also required. These additional backfill tests may be completed at the time of material production or material placement, with concurrence of the engineer. If this additional testing is completed at the time of material production, complete testing for every 2000 cubic yards of backfill or portion thereof. If this additional testing is completed at the time of material placement, complete testing for every 2000 cubic yards of backfill, or portion thereof, used per wall. All certified report of these test results shall be less than 6 months old and performed by a certified independent laboratory.

## C Construction

### C.1 Excavation and Backfill

Excavation and preparation of the foundation for the MSE wall shall be in accordance to standard spec 206. The volume of excavation covered is limited to the width of the reinforced mass and to the depth of the bottom of the wall unless shown or noted otherwise on the plan. At the end of each working day,

provide good temporary drainage such that the backfill shall not become contaminated with run-off soil or water if it should rain. Do not stockpile or store any materials or large equipment within 10 feet of the back of the wall.

Place backfill materials in the areas as indicated on the plans and as detailed in this specification. Backfill lifts shall be no more than 8-inches in depth, after compaction.

Conduct backfilling operations in such a manner as to prevent damage or misalignment of the wall facings, soil reinforcement, or other wall components. At no expense to the department, correct any such damage or misalignment as directed by the engineer. A field representative of the wall supplier shall be available during wall construction to provide technical assistance to the contractor and the engineer.

Place and compact the MSE backfill to the level of the next higher layer of MSE reinforcement before placing the MSE reinforcement or connecting it to the wall facing. Place and compact material beyond the reinforced soil zone to allow for proper compaction of material within the reinforced zone. The MSE reinforcement shall lay horizontally on top of the most recently placed and compacted layer of MSE backfill.

Do not operate tracked or wheeled equipment on the backfill within 3 feet from the back wall facing. The engineer may order the removal of any large or heavy equipment that may cause damage or misalignment of the wall facing.

## **C.2 Compaction**

Compact all backfill behind the wall as specified in standard spec 207.3.6. Compact the backfill to 95.0% of maximum dry density as determined by AASHTO T-99 (modified to compute densities to the nearest 0.1 pcf).

Ensure adequate moisture is present in the backfill during placement and compaction to prevent segregation and to help achieve compaction.

Compaction of backfill within 3 feet of the back face of the wall should be accomplished using lightweight compaction devices. Use of heavy compaction equipment or vehicles should be avoided within 3 feet of the wall face. Do not use sheepsfoot or padfoot rollers within the reinforced soil zone.

A minimum of 3 inches of backfill shall be placed over the MSE reinforcement prior to working above the reinforcement.

## **C.3 Wall Components**

### **C.3.1 General**

Erect welded wire facing and other associated elements according to the wall manufacturer's construction guide. Place and compact the MSE backfill to the level of the next higher layer of MSE reinforcement before placing the MSE reinforcement or connecting it to the wall facing. Place remaining courses in vertical or battered positions as shown on the contract plans.

The MSE reinforcement shall lay horizontally on top of the most recently placed and compacted layer of MSE backfill. Bending of MSE reinforcement that result in a kink in the reinforcement shall not be allowed. If skewing of the reinforcement is required due to obstruction in the reinforced fill, the maximum skew angle shall not exceed 15 degrees from the normal position unless a greater angle is shown on the plans. The adequacy of the skewed reinforcement in such a case shall be addressed by supporting calculations.

When using a temporary wall for four (4) months or more or when the installation of a permanent wall facing will not occur for four (4) months or more after placement of any geotextile material, cover the exposed geotextile material in the wall as quickly as practical, to prevent damage caused by exposure to ultraviolet light.

### **C.3.2 Tolerances**

- The overall vertical tolerance of the wall and the horizontal alignment tolerance shall not exceed 3 inches per 10 feet for permanent installations.
- For battered wire facing, the final deviation from the design batter shall be within  $\pm 1$  inch for each 10 feet of battered wall height.

## **C.4 Quality Management Program**

#### **C.4.1 Quality Control Plan**

Submit a comprehensive written quality control plan to the engineer at or before the pre-construction meeting. Do not perform MSE wall construction work before the engineer reviews and accepts the plan. Construct the project as the plan provides.

Do not change the quality control plan without the engineer's review and acceptance. Update the plan with changes as they become effective. Provide a current copy of the plan to the engineer and post in the contractor's laboratory as changes are adopted. Ensure that the plan provides the following elements:

1. An organizational chart with names, telephone numbers, current certifications and/or titles, and roles and responsibilities of QC personnel.
2. The process used to disseminate QC information and corrective action efforts to the appropriate persons. Include a list of recipients, the communication process that will be used, and action time frames.
3. A list of source locations, section and quarter descriptions, for all aggregate materials requiring QC testing.
4. Descriptions of stockpiling and hauling methods.
5. An outline for resolving a process control problem. Include responsible personnel, required documentation, and appropriate communication steps.
6. Location of the QC laboratory, retained sample storage, and other documentation.
7. A summary of the locations and calculated quantities to be tested under this provision.
8. A proposed sequencing plan of wall construction operations and random test locations.

#### **C.4.2 Quality Control Personnel**

Perform the quality control sampling, testing, and documentation required under this provision using HTCP certified technicians. Have a HTCP Grading Technician I (GRADINGTEC-I); or Assistant Certified Technician, Grading (ACT-GRADING); or Aggregate Technician I (AGGTEC-I); or Assistant Certified Technician, Aggregate (ACT-AGG) present at the each grading site during all wall backfill placement, compaction, and nuclear testing activities. Have a HTCP Nuclear Density Technician I (NUCDENSITYTEC-I) or Assistant Certified Technician, Nuclear Density Gauge Operator (ACT-NUC) perform field density and field moisture content testing.

If an Assistant Certified Technician (ACT) is performing sampling or testing, a certified technician must coordinate and take responsibility for the work an ACT performs. Have a certified technician ensure that all sampling and testing is performed correctly, analyze test results, and post resulting data. No more than one ACT can work under a single certified technician.

#### **C.4.3 Equipment**

Furnish the necessary equipment and supplies for performing quality control testing. Ensure that all testing equipment conforms to the equipment specifications applicable to the required testing methods. The engineer may inspect the measuring and testing devices to confirm both calibration and condition. Calibrate all testing equipment according to the CMM and maintain a calibration record at the laboratory.

Furnish nuclear gauges from the department's approved product list at:

<http://wisconsin.gov/Pages/doing-bus/eng-consultants/cnslt-rsrcs/tools/appr-prod/default.aspx>

Ensure that the nuclear gauge manufacturer or an approved calibration service calibrates the gauge the same calendar year it is used on the project. Retain a copy of the calibration certificate with the gauge.

Conform to AASHTO T310 and CMM 8-15 for density testing and gauge monitoring methods.

Split each Proctor sample and identify so as to provide comparison with the department's test results. Unless the engineer directs otherwise, retain the QC split samples for 14 calendar days and promptly deliver the department's split samples to the department.

#### **C.4.4 Documentation**

- (1) Document all observations, inspection records, and process adjustments daily. Submit test results to the department's project materials coordinator on the same day they become available.
- (2) Use forms provided in CMM Chapter 8. Note other information in a permanent field record and as a part of process control documentation enumerated in the contractor's quality control plan. Enter QC data and backfill material certified report results into the applicable materials reporting system (MRS) software within 5 business days after results are available.

- (3) Submit final testing records and other documentation to the engineer electronically within 10 business days after all contract-required information becomes available. The engineer may allow submission of scanned copies of hand-written documentation.

#### **C.4.5 Quality Control (QC) Testing**

Perform compaction testing on the backfill. Conform to CMM 8-15 for testing and gauge monitoring methods. Conduct testing at a minimum frequency of 1 test per 150 cubic yards of backfill, or major portion thereof in each lift. A minimum of one test for every lift is required. Deliver documentation of all compaction testing results to the engineer at the time of testing.

Perform 1 gradation test every 750 cubic yards of fill and one 5-point Proctor test (or as modified in C.1) every 2,250 cubic yards of fill. Provide the region split samples of both within 72 hours of sampling, at the region laboratory. Test sites shall be selected using ASTM Method D3665. Provide Proctor test results to the engineer within 48 hours of sampling. Provide gradation test results to the engineer within 24 hours of sampling.

#### **C.4.6 Department Testing**

##### **C.4.6.1 General**

- (1) The department will conduct verification testing to validate the quality of the product and independent assurance testing to evaluate the sampling and testing. The department will provide the contractor with a listing of names and telephone numbers of all QV and IA personnel for the project, and provide test results to the contractor within 2 business days after the department obtains the sample.

##### **C.4.6.2 Quality Verification (QV) Testing**

- (1) The department will have an HTCP technician, or ACT working under a certified technician, perform QV sampling and testing. department verification testing personnel must meet the same certification level requirements specified in C.3.2 for contractor testing personnel for each test result being verified. The department will notify the contractor before sampling so the contractor can observe QV sampling.
- (2) The department will conduct QV tests at the minimum frequency of 30% of the required contractor density, Proctor and gradation tests.
- (3) The department will locate density tests and gradation samples randomly, at locations independent of the contractor's QC work. The department will split each Proctor and gradation QV sample, testing half for QV, and retaining the remaining half for 10 business days.
- (4) The department will conduct QV Proctor and gradation tests in a separate laboratory and with separate equipment from the contractor's QC tests. The department will use the same methods specified for QC testing.
- (5) The department will assess QV results by comparing to the appropriate specification limits. If QV test results conform to this special provision, the department will take no further action. If density QV test results are nonconforming, the area shall be reworked until the density requirements of this special provision are met. If the gradation test results are nonconforming, standard spec 106.5 will apply. Differing QC and QV nuclear density values of more than 1.5 pcf will be investigated and resolved. QV density tests will be based on the appropriate QC Proctor test results, unless the QV and QC Proctor result difference is greater than 3.0 pcf. Differing QC and QV Proctor values of more than 3.0 pcf will be investigated and resolved.

##### **C.4.6.3 Independent Assurance (IA)**

- (1) Independent assurance is unbiased testing the department performs to evaluate the department's QV and the contractor's QC sampling and testing, including personnel qualifications, procedures, and equipment. The department will perform an IA review according to the department's independent assurance program. That review may include one or more of the following:
  1. Split sample testing.
  2. Proficiency sample testing.
  3. Witnessing sampling and testing.
  4. Test equipment calibration checks.
  5. Reviewing required worksheets and control charts.



6. Requesting that testing personnel perform additional sampling and testing.
- (2) If the department identifies a deficiency, and after further investigation confirms it, correct that deficiency. If the contractor does not correct or fails to cooperate in resolving identified deficiencies, the engineer may suspend placement until action is taken. Resolve disputes as specified in C.4.6.4.

#### **C.4.6.4 Dispute Resolution**

- (1) The engineer and contractor should make every effort to avoid conflict. If a dispute between some aspect of the contractor's and the engineer's testing program does occur, seek a solution mutually agreeable to the project personnel. The department and contractor may review the data, examine data reduction and analysis methods, evaluate sampling and testing procedures, and perform additional testing. Use ASTM E178 to evaluate potential statistically outlying data.
- (2) Production test results, and results from other process control testing, may be considered when resolving a dispute.
- (3) If the project personnel cannot resolve a dispute, and the dispute affects payment or could result in incorporating non-conforming product or work, the department will use third party testing to resolve the dispute. The department's central office laboratory, or a mutually agreed on independent testing laboratory, will provide this testing. The engineer and contractor will abide by the results of the third party tests. The party in error will pay service charges incurred for testing by an independent laboratory. The department may use third party test results to evaluate the quality of questionable materials and determine the appropriate payment. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

#### **C.5 Geotechnical Information**

Geotechnical data to be used in the design of the wall is given on the wall plan. After completing wall excavation of the entire reinforced soil zone, notify the department and allow the Regional Soils Engineer two working days to review the foundation.

#### **D Measurement**

The department will measure the Temporary Wall Wire Faced Mechanically Stabilized Earth bid items by the square foot acceptably completed at locations the plans show, measured as the area of exposed face in the plane of the wall from the front face ground line of the wall to the retained grade. Temporary Walls used for staged construction in multiple configurations will be measured once based on the configuration with the largest area of exposed face.

#### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.0900	Temporary Wall Wire Faced Mechanically Stabilized Earth	SF

Payment is full compensation for supplying a design and shop drawings; preparing the site, including all necessary excavation and disposal of materials; supplying all necessary wall components to produce a functional wall system, constructing the retaining system including drainage system; providing backfill, backfilling, compacting, developing/completing/documenting the quality management program, performing compaction testing; covering geotextile, and for furnishing all tools, labor, equipment, and incidentals necessary to complete the contract work.

Payment limit for all walls is the line of minimum embedment per section B.2. No payment will be made for additional embedment detailed for construction purposes.

Parapets, railings, vehicle barriers and its support, abutment bodies and other items above the wall will be paid for separately. Concrete facings, facing leveling pads or footings, and copings will be paid separately.

Any required topsoil, fertilizer, seeding or sodding and mulch will be paid for at the contract unit price for those items.

**12.6 Wall Concrete Panel Mechanically Stabilized Earth R-44-35, Item SPV.0165.0901;  
Wall Concrete Panel Mechanically Stabilized Earth R-44-36, Item SPV.0165.0902;  
Wall Concrete Panel Mechanically Stabilized Earth R-44-37, Item SPV.0165.0903.**

**A Description**

This special provision describes designing, furnishing materials and erecting a permanent earth retention system in accordance with the lines, dimension, elevations and details as shown on the plans and provided in the contract. The design life of the wall and all wall components shall be 100 years minimum.

This special provision describes the quality management program (QMP) for Mechanically Stabilized Earth (MSE) walls. A quality management program is defined as all activities, including process control, inspection, sampling and testing, and necessary adjustments in the process that are related to the construction of the MSE wall, which meets all the requirements of this provision.

This special provision describes contractor quality control (QC) sampling and testing for backfill density testing, documenting those results, and documenting related production and placement process changes. This special provision also describes department quality verification (QV), independent assurance (IA), and dispute resolution.

Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes sampling and testing procedures.

**B Materials**

**B.1 Proprietary Wall Systems**

The supplied wall system must be from the department's approved list of Concrete Panel Mechanically Stabilized Earth Wall systems. Proprietary wall systems must conform to the requirements of this specification and be pre-approved for use by the department's Bureau of Structures. The department maintains a list of pre-approved proprietary wall systems. The name of the pre-approved proprietary wall system selected shall be furnished to the engineer within 25 days after the award of contract.

To be eligible for use on this project, a system must have been pre-approved by the Bureau of Structures and added to that list prior to the bid opening date. To receive pre-approval, the retaining wall system must comply with all pertinent requirements of this provision and be prepared in accordance with the requirements of Chapter 14 of the department's LRFD Bridge Manual. Information and assistance with the pre-approval process can be obtained by contacting the Bureau of Structures, Structures Maintenance Section at the following email address: [DOTDLStructuresFabrication@dot.wi.gov](mailto:DOTDLStructuresFabrication@dot.wi.gov).

To be eligible to provide wall facing panels for this project, a precast concrete manufacturing plant must be pre-approved by the Bureau of Technical Services under standard specification 106.3.3.3.1 prior to the bid closing date. Information and assistance with the pre-approval process can be obtained by contacting the Bureau of Technical Services at the following email address: [DOTProductSubmittal@wisconsin.gov](mailto:DOTProductSubmittal@wisconsin.gov).

**B.2 Design Requirements**

It is the responsibility of the contractor to submit a design and supporting documentation as required by this special provision, for review and acceptance by the department, to show the proposed wall design is in compliance with the design specifications. The submittal shall include the following items for review: detailed plans and shop drawings, complete design calculations, explanatory notes, supporting materials, and specifications. The detailed plans and shop drawings shall include all details, dimensions, quantities and cross-sections necessary to construct the walls. Submit shop drawings to the engineer conforming to 105.2 with electronic submittal to the fabrication library under 105.2.2. Certify that shop drawings conform to quality control standards by submitting department form [DT2329](#) with each set of shop drawings. Department review does not relieve the contractor from responsibility for errors or omissions on shop drawings. Submit no later than 60 days from the date of notification to proceed with the project and a minimum of 30 days prior to the date proposed to begin wall construction.

The plans and shop drawings shall be prepared on reproducible sheets 11 inch x 17 inch, including borders. Each sheet shall have a title block in the lower right corner. The title block shall include the WisDOT project identification number and structure number. Design calculations and notes shall be on 8 ½ inch x 11 inch sheets, and shall contain the project identification number, name or designation of the wall, date of preparation, initials of designer and checker, and page number at the top of the page. All plans, shop drawings, and calculations shall be signed, sealed and dated by a professional engineer licensed in the State of Wisconsin.

The design of the wall shall be in compliance with the current American Association of State Highway and Transportation Officials LRFD (AASHTO LRFD) Bridge Design Specifications with latest interim

specifications for Mechanically Stabilized Earth Walls, WisDOT's current Standard Specifications for Highway and Structure Construction (standard spec), Chapter 14 of the WisDOT LRFD Bridge Manual and standard engineering design procedures as determined by the department. Loads, load combinations, load and resistance factors shall be as specified in AASHTO LRFD Section 11. The associated resistance factors shall be defined in accordance with Table 11.5.7-1 in AASHTO LRFD.

Design and construct the walls in accordance with the lines, grades, heights and dimensions shown on the plans, as herein specified, and as directed by the engineer. Where walls or wall sections intersect with an included angle of 130 degrees or less, a vertical corner element separate from the standard panel face shall abut and interact with the opposing standard panels. The corner element shall have ground reinforcement connected specifically to that panel and shall be designed to preclude lateral spread of the intersecting panels. If the wall is installed in front of a bridge abutment or wing, it shall also be designed to resist the applied abutment/bridge lateral forces specified on the plans.

Walls parallel to supporting highway traffic shall be designed for the effects of highway surcharge loading equivalent of 2 feet soil surcharge weight or 240 psf. The design shall also consider the traffic barrier impact where applicable. Walls that do not carry highway traffic shall be designed for a live load surcharge of 100 psf in accordance with Chapter 14 of the WisDOT LRFD Bridge Manual or as stated on the plans.

A maximum value of the angle of internal friction of the wall backfill material used for design shall be assumed to be 30 degrees without a certified report of tests. If a certified report of tests yields an angle of internal friction greater than 30 degrees, the larger test value may be used for design, up to a maximum value of 36 degrees.

An external stability check at critical wall stations showing Capacity Demand Ratios (CDR) for sliding, eccentricity, and bearing checks is performed by the department and are provided on the wall plans.

The design of the wall by the Contractor shall consider the internal and compound stability of the wall mass in accordance with AASHTO LRFD 11.10.6. The internal stability shall include soil reinforcement pullout, soil reinforcement rupture, and panel-reinforcement connection failure at each soil reinforcement level. The design shall be performed using the Simplified Method or Coherent Gravity Method. Calculations for factored stresses and resistances shall be based upon assumed conditions at the end of the design life. The value of the pullout resistance factor,  $F^*$ , used in design calculations shall be obtained from the AASHTO LRFD Figure 11.10.6.3.2-2 as appropriate to the proposed reinforcement type. Compound stability shall be computed for the applicable strength limits. Sample analyses and hand calculations shall be submitted to verify the output of any software program used. The design calculations and notes shall clearly indicate the Capacity to Demand Ratios (CDR) for all internal and external stabilities as defined in AASHTO LRFD.

The wall facing shall be designed in accordance with AASHTO LRFD 11.10.2.3. The facing panels shall also be designed to resist compaction stresses that occur during the wall erection. The minimum thickness of the facing panel shall be 5.5 inches. The surface area of a standard single panel cannot exceed 30 square feet. The maximum height of a standard panel shall be 5 feet. The top and bottom panels may exceed 5 foot in height based on site topography subject to the approval by the Structures Design Section. The design of the steel reinforcement within the panels shall be based on one-way bending action. Design the wall panels and joints between panels to accommodate a maximum differential settlement of 1 foot over a 100-foot length with  $\frac{3}{4}$ -inch joint widths, unless the plans indicate other maximum differential settlement requirements.

The minimum length of soil reinforcement measured from the back face of the wall shall be equal to 0.7 of the wall height, or as shown on the plan. In no case shall this length be less than 8 feet. The soil reinforcement length shall be the same from the bottom to the top of the wall. All soil reinforcement layers shall be connected to facings. The soil reinforcement shall extend a minimum of 3.0 feet beyond the theoretical failure plane in all cases. The maximum vertical spacing of soil reinforcement layers shall be 31 inches. The uppermost layer of the reinforcement shall be located between 6 inches and 18 inches below the bottom of an overlying slab, footing or top of the wall. The upper layers of the soil reinforcement shall also be checked to verify that they have sufficient tensile resistance against traffic barrier impact where applicable.

All soil reinforcement required for the reinforced soil zone shall be connected to the face panels. The reinforcement and the reinforcement/facing connection strength shall be designed to resist maximum factored reinforcement loads in accordance with AASHTO LRFD Section 11.10.6. Facing connection strength shall be defined as the resistance factor times the failure load, or the load at 0.5 inch deformation times 0.9, whichever is less. The nominal long term design strength in steel reinforcement and connections shall be based upon assumed conditions at the end of the design life.

Soil reinforcement shall be prefabricated into single or multiple elements before galvanizing. Soil reinforcement shall be fabricated or designed to avoid piling, drainage structures or other obstacles in the fill without field modifications. Unless approved by the Bureau of Structures cutting or altering of the basic structural section of either the strip or grid at the site is prohibited, a minimum clearance of 3" shall be maintained between any obstruction and reinforcement, and splicing reinforcement is not allowed.

The minimum embedment of the wall shall be 1 foot 6 inches below finished grade, or as given on the plans. All walls shall be provided with a concrete leveling pad. Minimum wall embedment does not include the leveling pad depth. Step the leveling pad to follow the general slope of the ground line. Frost depth shall not be considered in designing the wall for depth of leveling pad.

Wall facing units shall be installed on a leveling pad.

### **B.3 Wall System Components**

Materials furnished for wall system components under this contract shall conform to the requirements of this specification. All documentation related to material and components of the wall systems specified in this subsection shall be submitted to the engineer.

#### **B.3.1 Wall Facing**

Wall facing shall consist of modular precast concrete face panels produced by a wet cast process. The concrete panels shall have a minimum strength of 4000 psi at 28 days. The concrete for the panels shall be air entrained, with an air content of 6% +/- 1.5%. All materials for the concrete mixture for the panels shall meet the requirements of standard spec 501. The panel edges shall be configured so as to conceal the joints. The detail shall be a shiplap, tongue and groove or other detail adequate to prevent vandalism or ultraviolet light damage to the backside of the wall joint covering. Joint widths between panels shall be uniform and 3/4-inch, unless noted otherwise on the plans. Use full wall height slip joints at points of differential settlement when detailed on the plan. Horizontal joints must be provided with a compressible bearing material to prevent concrete to concrete contact. Panels shall be reinforced using coated high-strength bar steel or welded steel wire fabric conforming to standard spec 505. Welded steel wire fabric shall be epoxy-coated in accordance with ASTM A884 or galvanized in accordance with AASHTO M 111 or ASTM A641. Panel dowels for cast-in-place copings shall be coated high-strength bar steel conforming to standard spec 505. Unless approved by the Bureau of Structures, adhesive anchors are prohibited.

For reinforced cast-in-place concrete cap or coping, use poured Grade A concrete conforming to standard spec 501 as modified in standard spec 716. Provide QMP for cast-in-place cap and coping concrete as specified in standard spec 716, Class II Concrete. Use coated high-strength bar steel conforming to standard spec 505.

Provide a minimum of two bearing pads per panel. The allowable bearing stress shall not exceed 900 psi. The bearing pads shall be preformed EPDM rubber conforming to ASTM D2000, Grade 2, Type A, Class A with a Durometer Hardness of 80 +/-5, or high-density polyethylene pads with a minimum density of 0.034 lb/in<sup>3</sup> in accordance with ASTM D1505.

An 18-inch wide geotextile shall be used on the backface of the wall panels to cover all panel joints. The geotextile shall meet the physical requirements stated in standard spec 645.2.4 for Geotextile, Type DF, Schedule B, except that the grab tensile strength shall be a minimum of 180 pounds in both the machine and cross-machine directions. The geotextile shall be attached with a standard construction adhesive suitable for use on concrete surfaces and cold temperatures. The adhesive shall be applied to the panels, not to the geotextile.

#### **B.3.2 Leveling Pad**

Provide an unreinforced cast-in-place concrete leveling pad. Use Grade A concrete conforming to standard spec 501 as modified in standard spec 716. Provide QMP for leveling pad concrete as specified in standard spec 716, Class III Concrete.

The minimum width of the leveling pad shall be 12-inches. The minimum thickness of the leveling pad shall be 6-inches.

#### **B.3.3 Backfill**

Furnish and place backfill for the wall as shown on the plans and as hereinafter provided.

Place backfill in a zone extending horizontally from the back face of the wall facing to 1 foot minimum beyond the end of the reinforcement and extending vertically from the top of the leveling pad to a minimum of 3 inches above the final reinforcement layer.

Use natural sand or a mixture of sand with gravel, crushed gravel or crushed stone. Do not use foundry sand, bottom ash, blast furnace slag, crushed/recycled concrete, crushed/milled asphaltic concrete or other potentially corrosive material.

Provide material conforming to the following gradation requirements as per AASHTO T27.

Sieve Size	% by Weight Passing
1 inch	100
No. 40	0 - 60
No. 200	0 - 15

The material shall have a liquid limit not greater than 25, as per AASHTO T89, and a plasticity index not greater than 6, as per AASHTO T90. Provide the percent by weight, passing the #4 sieve.

In addition, backfill material shall meet the following requirements.

Test	Method	Value	
		(Galvanized)	(Aluminized Type 2)
pH	AASHTO T-289	5.0-10.0	5.0 – 9.0
Sulfate content	AASHTO T-290	200 ppm max.	
Chloride content	AASHTO T-291	100 ppm max.	
Electrical Resistivity	AASHTO T-288	3000 ohm-cm min.	1500 ohm-cm min.
Organic Content	AASHTO T-267	1.0% max.	
Angle of Internal Friction	AASHTO T-236 <sup>[1]</sup>	30 degrees min. (At 95.0% of maximum density and optimum moisture, per AASHTO T99, or as modified by C.2.)	

[1] If the amount of P-4 material is greater than 60%, use AASHTO 236 with a standard-size shear box. Test results of this method may allow the use of larger angles of internal friction, up to the maximum allowed by this specification.

If the amount of P-4 material is less than or equal to 60%, two options are available to determine the angle of internal friction. The first method is to perform a fractured faces count, per ASTM D5821, on the R-4 material. If more than 90% of the material is fractured on one face and more than 50% is fractured on two faces, the material meets the specifications and the angle of internal friction can be assumed to be 30 degrees. The second method allows testing all P-1" material, as per AASHTO T-236, with a large shear box. Test results of this second method may allow the use of larger angles of internal friction, up to the maximum allowed by this specification.

Prior to placement of the backfill, obtain and furnish to the engineer a certified report of test results that the backfill material complies with the requirements of this specification. Specify the method used to determine the angle of internal friction. This certified report of test shall be less than 6 months old. Tests will be performed by a certified independent laboratory. In addition, when backfill characteristics and/or sources change, provide a certified report of tests for the new backfill material. Additional certified report of tests are also required. These additional backfill tests may be completed at the time of material production or material placement, with concurrence of the engineer. If this additional testing is completed at the time of material production, complete testing for every 2000 cubic yards of backfill or portion thereof. If this additional testing is completed at the time of material placement, complete testing for every 2000 cubic yards of backfill, or portion thereof, used per wall. For the additional required testing for every 2000 cubic yards of backfill placement, if the characteristic of the backfill and/or the source has not changed then Angle of Internal Friction tests are not included in the additional required testing. All certified reports of test results shall be less than 6 months old and performed by a certified independent laboratory.

### **B.3.4 Soil Reinforcement**

All steel portions of the wall system exposed to earth shall be galvanized. All soil reinforcement and attachment devices shall be carefully inspected to ensure they are true size and free from defects that may impair the strength and durability. Soil reinforcement shall be galvanized or aluminized Type 2. Galvanized soil reinforcement shall be in accordance with AASHTO M 111 or ASTM A641. Aluminized soil reinforcement shall be in accordance with ASTM A463 Aluminized Type 2-100, SS, Grade 50, Class 2. Design of galvanized soil reinforcement shall be in accordance to Section 11.10.6.4.2 of the current AASHTO LRFD Specifications. The design life of steel soil reinforcements shall comply with AASHTO LRFD. Aluminized soil reinforcement shall be limited 16 years of steel protection. Aluminized steel shall only be used on soil reinforcement elements and shall not be used on facing connections or any other steel portion of the wall system. Steel soil reinforcement shall be prefabricated into single or multiple elements before galvanizing.

## **C Construction**

### **C.1 Excavation and Backfill**

Excavation and preparation of the foundation for the MSE wall and the leveling pad shall be in accordance with standard spec 206. The volume of excavation covered is limited to the width of the reinforced mass and to the depth of the leveling pad unless shown or noted otherwise on the plan. At the end of each working day, provide good temporary drainage such that the backfill shall not become contaminated with run-off soil or water if it should rain. Do not stockpile or store materials or large equipment within 10 feet of the back of the wall.

Place backfill materials in the areas as indicated on the plans and as detailed in this specification. Backfill lifts shall be no more than 8-inches in depth, after compaction.

Conduct backfilling operations in such a manner as to prevent damage or misalignment of the wall panels, soil reinforcement, or other wall components. At no expense to the department, correct any such damage or misalignment as directed by the engineer. A field representative of the wall supplier shall be available during wall construction to provide technical assistance to the contractor and the engineer.

Place and compact the MSE backfill to the level of the next higher layer of MSE reinforcement before placing the MSE reinforcement or connecting it to the wall facing. Place and compact material beyond the reinforced soil zone to allow for proper compaction of material within the reinforced zone. The MSE reinforcement shall lay horizontally on top of the most recently placed and compacted layer of MSE backfill.

Do not operate tracked or wheeled equipment on the backfill within 3 feet from the back panels. The engineer may order the removal of any large or heavy equipment that may cause damage or misalignment of the panels.

### **C.2 Compaction**

Compact all backfill behind the wall as specified in standard spec 207.3.6. Compact the backfill to 95.0% of maximum dry density as determined by AASHTO T-99 (modified to compute densities to the nearest 0.1 pcf).

Ensure adequate moisture is present in the backfill during placement and compaction to prevent segregation and to help achieve compaction.

Compaction of backfill within 3 feet of the back face of the wall should be accomplished using lightweight compaction devices. Use of heavy compaction equipment or vehicles should be avoided within 3 feet of the panels. Do not use sheepfoot or padfoot rollers within the reinforced soil zone.

A minimum of 3 inches of backfill shall be placed over the MSE reinforcement prior to working above the reinforcement.

### **C.3 Wall Components**

#### **C.3.1 General**

Erect panel facing and other associated elements according to the wall manufacturer's construction guide. Place and compact the MSE backfill to the level of the next higher layer of MSE reinforcement before placing the MSE reinforcement or connecting it to the wall facing.

The MSE reinforcement shall lay horizontally on the top of the most recently placed and compacted layer of MSE backfill. Bending of MSE reinforcement that result in a kink in the reinforcement shall not be allowed. If skewing of the reinforcement is required due to obstructions in the reinforced fill, the maximum

skew angle shall not exceed 15 degrees from the normal position unless a greater angle is shown on the plans. The adequacy of the skewed reinforcement in such a case shall be addressed by supporting calculations.

### **C.3.2 Leveling Pad**

Provide an unreinforced cast-in-place concrete leveling pad as shown on the plans. Vertical tolerances shall not exceed 3/4-inch when measured along a 10-foot straight edge. Allow concrete to set at least 12 hours prior to placing wall facing units.

The bottom row of wall facing units shall be horizontal and 100% of the unit surface shall bear on the leveling pad. Rubber or plastic shims may be used to level the wall facing units at the leveling pad. No more than 2 shims (each 3/16-inch thick) shall be used to level the wall facing.

### **C.3.3 Steel Layers**

Place the steel reinforcement full width in one piece as shown on the plans. No splicing will be allowed. Maintain elements in position during backfilling.

### **C.3.4 Panel Tolerances**

As backfill material is placed behind a panel, maintain the panel in its proper inclined position according to the supplier specifications and as approved by the engineer. The supplier shall specify the back batter so that the final position of the wall is vertical. Vertical tolerances and horizontal alignment tolerances shall not exceed 3/4-inch when measured along a 10-foot straight edge. The maximum allowable offset in any panel joint shall be 3/4-inch. The overall vertical tolerance of the wall (plumbness from top to bottom) shall not exceed 1/2-inch per 10 feet of wall height. Erect the precast face panels to ensure that they are located within 1 inch from the contract plan offset at any location to ensure proper wall location at the top of the wall. Provide a uniform joint width between all adjacent face panels to prevent direct concrete-to-concrete contact. Maintain this width by the use of bearing pads and/or alignment pins. The final joint width shall be within 1/4-inch of the design joint width. Failure to meet this tolerance shall cause the engineer to require the contractor to disassemble and re-erect the affected portions of the wall. In addition, imperfect molding, honeycombing, cracking or severe chipping of panels shall be cause of panel rejection.

## **C.4 Quality Management Program**

### **C.4.1 Quality Control Plan**

Submit a comprehensive written quality control plan to the engineer at or before the pre-construction meeting. Do not perform MSE wall construction work before the engineer reviews and accepts the plan. Construct the project as the plan provides.

Do not change the quality control plan without the engineer's review and acceptance. Update the plan with changes as they become effective. Provide a current copy of the plan to the engineer and post in the contractor's laboratory as changes are adopted. Ensure that the plan provides the following elements:

1. An organizational chart with names, telephone numbers, current certifications and/or titles, and roles and responsibilities of QC personnel.
2. The process used to disseminate QC information and corrective action efforts to the appropriate persons. Include a list of recipients, the communication process that will be used, and action time frames.
3. A list of source locations, section and quarter descriptions, for all aggregate materials requiring QC testing.
4. Descriptions of stockpiling and hauling methods.
5. An outline for resolving a process control problem. Include responsible personnel, required documentation, and appropriate communication steps.
6. Location of the QC laboratory, retained sample storage, and other documentation.
7. A summary of the locations and calculated quantities to be tested under this provision.
8. A proposed sequencing plan of wall construction operations and random test locations.

### **C.4.2 Quality Control Personnel**

Perform the quality control sampling, testing, and documentation required under this provision using HTCP certified technicians. Have a HTCP Grading Technician I (GRADINGTEC-I); or Assistant Certified Technician, Grading (ACT-GRADING); or Aggregate Technician I (AGGTEC-I); or Assistant Certified

Technician, Aggregate (ACT-AGG) present at the grading site during all wall backfill placement, compaction, and nuclear testing activities. Have a HTCP Nuclear Density Technician I (NUCDENSITYTEC-I) or Assistant Certified Technician, Nuclear Density Gauge Operator (ACT-NUC) perform field density and field moisture content testing.

If an Assistant Certified Technician (ACT) is performing sampling or testing, a certified technician must coordinate and take responsibility for the work an ACT performs. Have a certified technician ensure that all sampling and testing is performed correctly, analyze test results, and post resulting data. No more than one ACT can work under a single certified technician.

#### **C.4.3 Equipment**

Furnish the necessary equipment and supplies for performing quality control testing. Ensure that all testing equipment conforms to the equipment specifications applicable to the required testing methods. The engineer may inspect the measuring and testing devices to confirm both calibration and condition. Calibrate all testing equipment according to the CMM and maintain a calibration record at the laboratory.

Furnish nuclear gauges from the department's approved product list at:

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

Ensure that the nuclear gauge manufacturer or an approved calibration service calibrates the gauge the same calendar year it is used on the project. Retain a copy of the calibration certificate with the gauge.

Conform to AASHTO T310 and CMM 8-15 for density testing and gauge monitoring methods.

Split each Proctor sample and identify so as to provide comparison with the department's test results. Unless the engineer directs otherwise, retain the QC split samples for 14 calendar days and promptly deliver the department's split samples to the department.

#### **C.4.4 Documentation**

1. Document all observations, inspection records, and process adjustments daily. Submit test results to the department's project materials coordinator on the same day they become available.
2. Use forms provided in CMM Chapter 8. Note other information in a permanent field record and as a part of process control documentation enumerated in the contractor's quality control plan. Enter QC data and backfill material certified report results into the applicable materials reporting system (MRS) software within 5 business days after results are available.
3. Submit final testing records and other documentation to the engineer electronically within 10 business days after all contract-required information becomes available. The engineer may allow submission of scanned copies of hand-written documentation.

#### **C.4.5 Quality Control (QC) Testing**

Perform compaction testing on the backfill. Conform to CMM 8-15 for testing and gauge monitoring methods. Conduct testing at a minimum frequency of 1 test per 150 cubic yards of backfill, or major portion thereof in each lift. A minimum of one test for every lift is required. Deliver documentation of all compaction testing results to the engineer at the time of testing.

Perform one gradation test every 750 cubic yards of fill and one 5-point Proctor test (or as modified in C.2) every 2,250 cubic yards of fill. Provide the region split samples of both within 72 hours of sampling, at the region laboratory. Test sites shall be selected using ASTM Method D3665. Provide Proctor test results to the engineer within 48 hours of sampling. Provide gradation test results to the engineer within 24 hours of sampling.

#### **C.4.6 Department Testing**

##### **C.4.6.1 General**

The department will conduct verification testing to validate the quality of the product and independent assurance testing to evaluate the sampling and testing. The department will provide the contractor with a listing of names and telephone numbers of all QV and IA personnel for the project, and provide test results to the contractor within 2 business days after the department obtains the sample.

##### **C.4.6.2 Quality Verification (QV) Testing**

The department will have an HTCP technician, or ACT working under a certified technician, perform QV sampling and testing. Department verification testing personnel must meet the same certification level requirements specified in C.4.2 for contractor testing personnel for each test result being verified. The department will notify the contractor before sampling so the contractor can observe QV sampling.



The department will conduct QV tests at the minimum frequency of 30% of the required contractor density, Proctor and gradation tests.

The department will locate density tests and gradation samples randomly, at locations independent of the contractor's QC work. The department will split each Proctor and gradation QV sample, testing half for QV, and retaining the remaining half for 10 business days.

The department will conduct QV Proctor and gradation tests in a separate laboratory and with separate equipment from the contractor's QC tests. The department will use the same methods specified for QC testing.

The department will assess QV results by comparing to the appropriate specification limits. If QV test results conform to this special provision, the department will take no further action. If density QV test results are nonconforming, the area shall be reworked until the density requirements of this special provision are met. If the gradation test results are nonconforming, standard spec 106.5 will apply. Differing QC and QV nuclear density values of more than 1.5 pcf will be investigated and resolved. QV density tests will be based on the appropriate QC Proctor test results, unless the QV and QC Proctor result difference is greater than 3.0 pcf. Differing QC and QV Proctor values of more than 3.0 pcf will be investigated and resolved.

#### **C.4.6.3 Independent Assurance (IA)**

Independent assurance is unbiased testing the department performs to evaluate the department's QV and the contractor's QC sampling and testing, including personnel qualifications, procedures, and equipment. The department will perform an IA review according to the department's independent assurance program.

That review may include one or more of the following:

1. Split sample testing.
2. Proficiency sample testing.
3. Witnessing sampling and testing.
4. Test equipment calibration checks.
5. Reviewing required worksheets and control charts.
6. Requesting that testing personnel perform additional sampling and testing.

If the department identifies a deficiency, and after further investigation confirms it, correct that deficiency. If the contractor does not correct or fails to cooperate in resolving identified deficiencies, the engineer may suspend placement until action is taken. Resolve disputes as specified in C.4.6.4.

#### **C.4.6.4 Dispute Resolution**

The engineer and contractor should make every effort to avoid conflict. If a dispute between some aspect of the contractor's and the engineer's testing program does occur, seek a solution mutually agreeable to the project personnel. The department and contractor may review the data, examine data reduction and analysis methods, evaluate sampling and testing procedures, and perform additional testing. Use ASTM E 178 to evaluate potential statistically outlying data.

Production test results, and results from other process control testing, may be considered when resolving a dispute.

If the project personnel cannot resolve a dispute, and the dispute affects payment or could result in incorporating non-conforming product or work, the department will use third party testing to resolve the dispute. The department's central office laboratory, or a mutually agreed on independent testing laboratory, will provide this testing. The engineer and contractor will abide by the results of the third party tests. The party in error will pay service charges incurred for testing by an independent laboratory. The department may use third party test results to evaluate the quality of questionable materials and determine the appropriate payment. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

#### **C.5 Geotechnical Information**

Geotechnical data to be used in the design of the wall is given on the wall plan. After completing wall excavation of the entire reinforced soil zone, notify the department and allow the Regional Soils Engineer two working days to review the foundation.

## D Measurement

The department will measure Wall Concrete Panel Mechanically Stabilized Earth by the square foot, acceptably completed. The department will compute the measured quantity from the theoretical pay limits the contract plans show. The department will make no allowance for wall area constructed above or below the theoretical pay limits. All work beyond the theoretical pay limits is incidental to the cost of work. The department will make no allowance for as-built quantities.

## E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.0901	Wall Concrete Panel Mechanically Stabilized Earth R-44-35	SF
SPV.0165.0902	Wall Concrete Panel Mechanically Stabilized Earth R-44-36	SF
SPV.0165.0903	Wall Concrete Panel Mechanically Stabilized Earth R-44-37	SF

Payment is full compensation for supplying a design and shop drawings; preparing the site, including all necessary excavation and disposal of materials; supplying all necessary wall components to produce a functional wall system including cap, copings, leveling pads, leveling pad steps, and shims; constructing the retaining system and providing temporary drainage; providing backfill, backfilling, compacting, developing/completing/documenting the quality management program, and performing compaction testing.

The department will pay separately for parapets, traffic barriers, railings, and other items above the wall cap or coping.

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### **12.7 Wall Concrete Panel Mechanically Stabilized Earth LFCF R-44-38, Item SPV.0165.0904; Wall Concrete Panel Mechanically Stabilized Earth LFCF R-44-39, Item SPV.0165.0905.**

#### A Description

This special provision describes designing, furnishing materials and erecting a permanent earth retention system in accordance with the lines, dimension, elevations and details as shown on the plans and provided in the contract. The design life of the wall and all wall components shall be 100 years minimum.

This special provision describes using Lightweight Foamed Concrete Fill (LFCF) for a portion of the MSE wall reinforcement zone backfill in lieu of the granular backfill typically specified for MSE walls. Place LFCF to the limits shown in the plans. Granular backfill is required as designated and shown on the plans in the wall reinforcement zones above and adjacent to the LFCF. Granular backfill grade 2 is required for the remainder of the backfill area.

This special provision describes the quality management program (QMP) for Mechanically Stabilized Earth (MSE) walls. A quality management program is defined as all activities, including process control, inspection, sampling and testing, and necessary adjustments in the process that are related to the construction of the MSE wall, which meets all the requirements of this provision.

This special provision describes contractor quality control (QC) sampling and testing for LFCF cast density and compressive strength, granular backfill density testing, documenting test results, and documenting related production and placement process changes. This special provision also describes department quality verification (QV), independent assurance (IA), and dispute resolution.

Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes sampling and testing procedures.

#### A.1 Terms

LFCF Manufacturer – The manufacturer of the foam agent used to make LFCF

LFCF Installer – the subcontractor responsible for batching, and mixing LFCF onsite, and placing the LFCF in accordance to the contract documents.

## B Materials

## B.1 Proprietary Wall Systems

The supplied wall system must be from the department's approved list of Concrete Panel Mechanically Stabilized Earth Wall systems. Proprietary wall systems must conform to the requirements of this specification and be pre-approved for use by the department's Bureau of Structures. The department maintains a list of pre-approved proprietary wall systems. The name of the pre-approved proprietary wall system selected shall be furnished to the engineer within 25 days after the award of contract.

To be eligible for use on this project, a system must have been pre-approved by the Bureau of Structures and added to that list prior to the bid opening date. To receive pre-approval, the retaining wall system must comply with all pertinent requirements of this provision and be prepared in accordance with the requirements of Chapter 14 of the department's LRFD Bridge Manual. Information and assistance with the pre-approval process can be obtained by contacting the Bureau of Structures, Structures Maintenance Section at the following email address: [DOTDLStructuresFabrication@dot.wi.gov](mailto:DOTDLStructuresFabrication@dot.wi.gov).

To be eligible to provide wall facing panels for this project, a precast concrete manufacturing plant must be pre-approved by the Bureau of Technical Services under standard specification 106.3.3.3.1 prior to the bid closing date. Information and assistance with the pre-approval process can be obtained by contacting the Bureau of Technical Services at the following email address: [DOTProductSubmittal@wisconsin.gov](mailto:DOTProductSubmittal@wisconsin.gov).

## B.2 Design Requirements

It is the responsibility of the contractor to submit a design and supporting documentation as required by this special provision, for review and acceptance by the department, to show the proposed wall design is in compliance with the design specifications. The submittal shall include the following items for review: detailed plans and shop drawings, complete design calculations, explanatory notes, supporting materials, and specifications. The detailed plans and shop drawings shall include all details, dimensions, quantities and cross-sections necessary to construct the walls. Submit shop drawings to the engineer conforming to 105.2 with electronic submittal to the fabrication library under 105.2.2. Certify that shop drawings conform to quality control standards by submitting department form DT2329 with each set of shop drawings. Department review does not relieve the contractor from responsibility for errors or omissions on shop drawings. Submit no later than 60 days from the date of notification to proceed with the project and a minimum of 30 days prior to the date proposed to begin wall construction.

The plans and shop drawings shall be prepared on reproducible sheets 11 inch x 17 inch, including borders. Each sheet shall have a title block in the lower right corner. The title block shall include the WisDOT project identification number and structure number. Design calculations and notes shall be on 8 ½ inch x 11 inch sheets, and shall contain the project identification number, name or designation of the wall, date of preparation, initials of designer and checker, and page number at the top of the page. All plans, shop drawings, and calculations shall be signed, sealed and dated by a professional engineer licensed in the State of Wisconsin.

The design of the wall shall be in compliance with the current American Association of State Highway and Transportation Officials LRFD (AASHTO LRFD) Bridge Design Specifications with latest interim specifications for Mechanically Stabilized Earth Walls, WisDOT's current Standard Specifications for Highway and Structure Construction (standard spec), Chapter 14 of the WisDOT LRFD Bridge Manual and standard engineering design procedures as determined by the department. Loads, load combinations, load and resistance factors shall be as specified in AASHTO LRFD Section 11. The associated resistance factors shall be defined in accordance with Table 11.5.7-1 in AASHTO LRFD.

Design and construct the walls in accordance with the lines, grades, heights and dimensions shown on the plans, as herein specified, and as directed by the engineer. Where walls or wall sections intersect with an included angle of 130 degrees or less, a vertical corner element separate from the standard panel face shall abut and interact with the opposing standard panels. The corner element shall have ground reinforcement connected specifically to that panel and shall be designed to preclude lateral spread of the intersecting panels. If the wall is installed in front of a bridge abutment or wing, it shall also be designed to resist the applied abutment/bridge lateral forces specified on the plans.

Walls parallel to supporting highway traffic shall be designed for the effects of highway surcharge loading equivalent of 2 feet soil surcharge weight or 240 psf. The design shall also consider the traffic barrier impact where applicable. Walls that do not carry highway traffic shall be designed for a live load surcharge of 100 psf in accordance with Chapter 14 of the WisDOT LRFD Bridge Manual or as stated on the plans.

Use LFCF as MSE backfill within the limits shown on the plans. The zone of LFCF used within the reinforced zone shall meet the material requirements identified in this Special Provision. The design height of the LFCF zone is based on the equivalent unit weight required as indicated on the plans. All

design and geometric requirements specified by AASHTO and hereinafter for MSE walls with granular backfill, including minimum length of MSE reinforcement will apply to this wall backfilled with LFCF in lieu of the granular backfill.

A maximum value of the angle of internal friction of the wall backfill material used for design shall be assumed to be 30 degrees without a certified report of tests. If a certified report of tests yields an angle of internal friction greater than 30 degrees, the larger test value may be used for design, up to a maximum value of 36 degrees.

An external stability check at critical wall stations showing Capacity Demand Ratios (CDR) for sliding, eccentricity, and bearing checks is performed by the department and are provided on the wall plans.

The design of the wall by the Contractor shall consider the internal and compound stability of the wall mass in accordance with AASHTO LRFD 11.10.6. The internal stability shall include soil reinforcement pullout, soil reinforcement rupture, and panel-reinforcement connection failure at each soil reinforcement level. The design shall be performed using the Simplified Method or Coherent Gravity Method. Calculations for factored stresses and resistances shall be based upon assumed conditions at the end of the design life. The value of the pullout resistance factor,  $F^*$ , used in design calculations shall be obtained from the AASHTO LRFD Figure 11.10.6.3.2-2 as appropriate to the proposed reinforcement type. Compound stability shall be computed for the applicable strength limits. Sample analyses and hand calculations shall be submitted to verify the output of any software program used. The design calculations and notes shall clearly indicate the Capacity to Demand Ratios (CDR) for all internal and external stabilities as defined in AASHTO LRFD.

The wall facing shall be designed in accordance with AASHTO LRFD 11.10.2.3. The facing panels shall also be designed to resist fluid pressures due to LFCF placement and compaction stresses that occur during the wall erection. The minimum thickness of the facing panel shall be 5.5 inches. The surface area of a standard single panel cannot exceed 60 square feet. The maximum height of a standard panel shall be 5 feet. The top and bottom panels may exceed 5 foot in height based on site topography subject to the approval by the Structures Design Section. The design of the steel reinforcement within the panels shall be based on one-way bending action. Design the wall panels and joints between panels to accommodate a maximum differential settlement of 1 foot over a 100-foot length with  $\frac{3}{4}$ -inch joint widths, unless the plans indicate other maximum differential settlement requirements.

The minimum length of soil reinforcement measured from the back face of the wall shall be equal to 0.7 of the wall height, or as shown on the plan. In no case shall this length be less than 8 feet. The soil reinforcement length shall be the same from the bottom to the top of the wall. All soil reinforcement layers shall be connected to facings. The soil reinforcement shall extend a minimum of 3.0 feet beyond the theoretical failure plane in all cases. The maximum vertical spacing of soil reinforcement layers shall be 31 inches. The uppermost layer of the reinforcement shall be located between 6 inches and 18 inches below the bottom of an overlying slab, footing or top of the wall. The upper layers of the soil reinforcement shall also be checked to verify that they have sufficient tensile resistance against traffic barrier impact where applicable.

All soil reinforcement required for the reinforced soil zone shall be connected to the face panels. The reinforcement and the reinforcement/facing connection strength shall be designed to resist maximum factored reinforcement loads in accordance with AASHTO LRFD Section 11.10.6. Facing connection strength shall be defined as the resistance factor times the failure load, or the load at 0.5 inch deformation times 0.9, whichever is less. The nominal long term design strength in steel reinforcement and connections shall be based upon assumed conditions at the end of the design life.

Soil reinforcement shall be prefabricated into single or multiple elements before galvanizing. Soil reinforcement shall be fabricated or designed to avoid piling, drainage structures or other obstacles in the fill without field modifications. Unless approved by the Bureau of Structures cutting or altering of the basic structural section of either the strip or grid at the site is prohibited, a minimum clearance of 3" shall be maintained between any obstruction and reinforcement, and splicing reinforcement is not allowed.

The minimum embedment of the wall shall be 1 foot 6 inches below finished grade, or as given on the plans. All walls shall be provided with a concrete leveling pad. Minimum wall embedment does not include the leveling pad depth. Step the leveling pad to follow the general slope of the ground line. Frost depth shall not be considered in designing the wall for depth of leveling pad.

Wall facing units shall be installed on a leveling pad.

### **B.3 Wall System Components**

Materials furnished for wall system components under this contract shall conform to the requirements of this specification. All documentation related to material and components of the wall systems specified in this subsection shall be submitted to the engineer.

#### **B.3.1 Wall Facing**

Wall facing shall consist of modular precast concrete face panels produced by a wet cast process. The concrete panels shall have a minimum strength of 4000 psi at 28 days. The concrete for the panels shall be air entrained, with an air content of 6% +/- 1.5%. All materials for the concrete mixture for the panels shall meet the requirements of standard spec 501. The panel edges shall be configured so as to conceal the joints. The detail shall be a shiplap, tongue and groove or other detail adequate to prevent vandalism or ultraviolet light damage to the backside of the wall joint covering. Joint widths between panels shall be uniform and  $\frac{3}{4}$ -inch, unless noted otherwise on the plans. Use full wall height slip joints at points of differential settlement when detailed on the plan. Horizontal joints must be provided with a compressible bearing material to prevent concrete to concrete contact. Panels shall be reinforced using coated high-strength bar steel or welded steel wire fabric conforming to standard spec 505. Welded steel wire fabric shall be epoxy-coated in accordance with ASTM A884 or galvanized in accordance with AASHTO M 111 or ASTM A641. Panel dowels for cast-in-place copings shall be coated high-strength bar steel conforming to standard spec 505. Unless approved by the Bureau of Structures, adhesive anchors are prohibited.

For reinforced cast-in-place concrete cap or coping, use poured Grade A concrete conforming to standard spec 501 as modified in standard spec 716. Provide QMP for cast-in-place cap and coping concrete as specified in standard spec 716, Class II Concrete. Use coated high-strength bar steel conforming to standard spec 505.

Provide a minimum of two bearing pads per panel. The allowable bearing stress shall not exceed 900 psi. The bearing pads shall be preformed EPDM rubber conforming to ASTM D2000, Grade 2, Type A, Class A with a Durometer Hardness of 80 +/-5, or high-density polyethylene pads with a minimum density of 0.034 lb/in<sup>3</sup> in accordance with ASTM D1505.

An 18-inch wide geotextile shall be used on the backface of the wall panels to cover all panel joints. The geotextile shall meet the physical requirements stated in standard spec 645.2.4 for Geotextile, Type DF, Schedule B, except that the grab tensile strength shall be a minimum of 180 pounds in both the machine and cross-machine directions. The geotextile shall be attached with a standard construction adhesive suitable for use on concrete surfaces and cold temperatures. The adhesive shall be applied to the panels, not to the geotextile.

All steel portions of the wall system exposed to earth or LFCF shall be galvanized. All soil reinforcement and attachment devices shall be carefully inspected to ensure they are true size and free from defects that may impair the strength and durability.

#### **B.3.2 Leveling Pad**

Provide an unreinforced cast-in-place concrete leveling pad. Use Grade A concrete conforming to standard spec 501 as modified in standard spec 716. Provide QMP for leveling pad concrete as specified in standard spec 716, Class III Concrete.

The minimum width of the leveling pad shall be 12-inches. The minimum thickness of the leveling pad shall be 6-inches.

#### **B.3.3 LFCF Backfill**

Furnish LFCF for Wall Concrete Mechanically Stabilized Earth LFCF as shown on the plans and meeting the requirements as hereinafter provided.

##### **B.3.3.1 LFCF Materials**

Furnish materials meeting the following requirements:

Portland Cement and Portland Pozzolan Cement	standard spec 501.2.4
Water	standard spec 501.2.6
Admixtures	standard spec 501.2.5
Curing Materials	standard spec 501.2.8
Fly Ash	standard spec 501.2.4.2.2
Fine Aggregates	standard spec 501.2.7.2

Pozzolans and admixtures (for accelerating, water reducing, retaining, improving the bond, etc.) may only be used if specifically designed and approved by the LFCF manufacturer.

### B.3.3.2 LFCF Material Specifications

The foaming agent from the selected manufacturer will produce a Lightweight Foamed Concrete Fill Material, complying with the specifications in Table B.3.3.2-1, below:

Property	Value	Test Method
Maximum Cast Density (after pumping)	40 pcf	ASTM C 796
Maximum Dry Density	36.0 pcf	ASTM C 796
Minimum Dry Density	30.0 pcf	ASTM C 796
Unconfined compressive Strength	20 psi minimum at 24 hours curing 70 psi minimum at 28 days curing	ASTM C 796 or ASTM C495, except do not oven dry load test specimens
Freeze-Thaw Resistance – minimum cycles @ relative E = N/N >= 70% per ASTM C666	Relative Young's Modulus, E >= 70% at 100 cycles	ASTM C666 as modified below
Coefficient of Permeability	1 x 10 <sup>-5</sup> cm/sec 2.0 psi	ASTM D-96

### B.3.4 Conventional MSE Granular Backfill

Furnish and place backfill for the wall as shown on the plans and as hereinafter provided.

Place backfill in a zone extending horizontally from the back face of the wall facing to 1 foot minimum beyond the end of the reinforcement and extending vertically from the top of the leveling pad to a minimum of 3 inches above the final reinforcement layer.

Where conventional MSE granular backfill is placed beyond the limits of LFCF, use natural sand or a mixture of sand with gravel, crushed gravel or crushed stone. Do not use foundry sand, bottom ash, blast furnace slag, crushed/recycled concrete, crushed/milled asphaltic concrete or other potentially corrosive material.

Provide conventional MSE granular backfill material conforming to the following gradation requirements as per AASHTO T27.

Sieve Size	% by Weight Passing
1 inch	100
No. 40	0 - 60
No. 200	0 - 15

The material shall have a liquid limit not greater than 25, as per AASHTO T89, and a plasticity index not greater than 6, as per AASHTO T90. Provide the percent by weight, passing the #4 sieve.

In addition, backfill material shall meet the following requirements.

Test	Method	Value	
		(Galvanized)	(Aluminized Type 2)
pH	AASHTO T-289	5.0-10.0	5.0 – 9.0
Sulfate content	AASHTO T-290	200 ppm max.	
Chloride content	AASHTO T-291	100 ppm max.	

Electrical Resistivity	AASHTO T-288	3000 ohm-cm min.	1500 ohm-cm min.
Organic Content	AASHTO T-267	1.0% max.	
Angle of Internal Friction	AASHTO T-236 <sup>[1]</sup>	30 degrees min. (At 95.0% of maximum density and optimum moisture, per AASHTO T99, or as modified by C.2.)	

[1] If the amount of P-4 material is greater than 60%, use AASHTO 236 with a standard-size shear box. Test results of this method may allow the use of larger angles of internal friction, up to the maximum allowed by this specification.

If the amount of P-4 material is less than or equal to 60%, two options are available to determine the angle of internal friction. The first method is to perform a fractured faces count, per ASTM D5821, on the R-4 material. If more than 90% of the material is fractured on one face and more than 50% is fractured on two faces, the material meets the specifications and the angle of internal friction can be assumed to be 30 degrees. The second method allows testing all P-1" material, as per AASHTO T-236, with a large shear box. Test results of this second method may allow the use of larger angles of internal friction, up to the maximum allowed by this specification.

Prior to placement of the backfill, obtain and furnish to the engineer a certified report of test results that the backfill material complies with the requirements of this specification. Specify the method used to determine the angle of internal friction. This certified report of test shall be less than 6 months old. Tests will be performed by a certified independent laboratory. In addition, when backfill characteristics and/or sources change, provide a certified report of tests for the new backfill material. Additional certified report of tests are also required. These additional backfill tests may be completed at the time of material production or material placement, with concurrence of the engineer. If this additional testing is completed at the time of material production, complete testing for every 2000 cubic yards of backfill or portion thereof. If this additional testing is completed at the time of material placement, complete testing for every 2000 cubic yards of backfill, or portion thereof, used per wall. For the additional required testing for every 2000 cubic yards of backfill placement, if the characteristic of the backfill and/or the source has not changed then Angle of Internal Friction tests are not included in the additional required testing. All certified reports of test results shall be less than 6 months old and performed by a certified independent laboratory.

### **B.3.5 Granular Backfill Grade 2**

Furnish and place granular backfill grade 2 for the wall as shown on the plans and as hereinafter provided.

Outside of the conventional MSE backfill areas defined in B.3.4, place granular backfill grade 2 in accordance with standard spec 209.

### **B.3.6 Soil Reinforcement**

All steel portions of the wall system exposed to earth or LFCF shall be galvanized. All soil reinforcement and attachment devices shall be carefully inspected to ensure they are true size and free from defects that may impair the strength and durability. Soil reinforcement shall be galvanized or aluminized Type 2. Galvanized soil reinforcement shall be in accordance with AASHTO M 111 or ASTM A641. Aluminized soil reinforcement shall be in accordance with ASTM A463 Aluminized Type 2-100, SS, Grade 50, Class 2. Design of galvanized soil reinforcement shall be in accordance to Section 11.10.6.4.2 of the current AASHTO LRFD Specifications. The design life of steel soil reinforcements shall comply with AASHTO LRFD. Aluminized soil reinforcement shall be limited to 16 years of steel protection. Aluminized steel shall only be used on soil reinforcement elements and shall not be used on facing connections or any other steel portion of the wall system. Steel soil reinforcement shall be prefabricated into single or multiple elements before galvanizing.

## **C Construction**

### **C.1 Submittals**

#### **C.1.1 LFCF Placement Plan**

Submit a LFCF quality control and placement plan. Place the abutment backfill and embankment in accordance to the information provided in the submitted, accepted plan. No later than two weeks prior to LFCF placement, submit the plan to the engineer for review and comment. Do not begin LFCF production

before the plan has been reviewed and accepted by the engineer. The submitted plan shall provide, as a minimum, the following elements:

1. An organizational chart including names, telephone numbers, current certifications and/or titles, and roles and responsibilities of all those involved with the quality control program.
2. The process of communication by which quality control information will be disseminated to the appropriate persons, including materials suppliers. This shall include a list of recipients, the communication means that will be used, action time frames, and report formats.
3. Materials list of items proposed to be provided under this section.
4. Specifications, catalog cuts, and other engineering data needed to demonstrate compliance with the specified requirements.
5. Proof of LFCF installer's compliance with the requirements in section C.2, to include a list of projects with completion date, owner's name and phone number, and contact person.
6. Mix designs for the LFCF, prepared by the LFCF manufacturer or installer, showing compliance with the specified properties.
7. Certification of batch, mixing and placing equipment by the LFCF installer meeting the requirements of section C.3 hereinafter.
8. Written documentation that LFCF installer is certified by and approved by the foam agent manufacturer.
9. Written documentation that LFCF installer is certified by and approved by the LFCF manufacturer
10. LFCF curing procedures.

#### **C.1.2 Trial Batch Design and Testing**

At least four weeks prior to placement, prepare a trial batch and submit trial batch testing results showing that the proposed LFCF material properties comply with the requirements of this specification. The trial batch testing results shall include 1, 7, and 28 day unconfined compressive strength. The accepted trial batch mix design and tested properties will become the standard of the material furnished under this contract.

#### **C.1.3 Quality Assurance Samples**

At least two weeks prior to placing, submit 10 each 3-inch diameter by 6-inch high cylinder samples of the as designed and tested LFCF to the department. Cover specimens after casting to prevent loss of moisture. Do not oven dry specimens. At the department's option, the samples may be tested for strength and density in accordance to the requirements of ASTM 495 and ASTM C796 to verify the submitted test results and validate the contractor's testing procedures and quality of the furnished product.

#### **C.2 Personnel Requirements**

The Lightweight Foamed Concrete Fill installer, hereafter referred to as the LFCF installer, shall be certified by the manufacturer of the foaming agent and regularly engaged in the production and placement of the Lightweight Foamed Concrete Fill (LFCF). This shall include the completion of lightweight foamed concrete fills having a minimum of 10,000 total cubic yards in the past 5 years. Furthermore, the material shall have been successfully applied on at least three LFCF projects, consisting of mass fills for Federal and State highways, which have performed satisfactorily for at least five years.

The LFCF installer shall be certified and approved in writing by the foam agent manufacturer. The installer's foreman shall have a minimum of 2 years experience in this work and shall have worked on at least one of the three successful LFCF projects.

The LFCF installer shall use adequate numbers of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are familiar with the specified requirements and the methods needed for proper performance of the work noted in this specification.

The foam agent manufacturer's representative (LFCF Manufacturer) shall be experienced in the placement of LFCF and shall be on site full-time during placement.

#### **C.3 LFCF Equipment Requirements**

The specialized batching, mixing, and placing equipment shall be automated and certified for this purpose by the manufacturer of the LFCF material. Bulk cement shall be weighed on a scale which operates within a tolerance of one half of one percent (0.5%) per batch.



Foam shall be added and mixed at the site using the aforementioned equipment. Transit mixers and volumetric batching mixers are not acceptable.

#### **C.4 Required Contractor Testing for LFCF**

The contractor is responsible for conducting acceptance testing and providing test results to the engineer prior to and during the installation of the LFCF.

##### **C4.1 Cast Density of Field Installed LFCF**

Test cast density in accordance to ASTM C 796

1. Prior to placement of the initial batch, the installer shall check the density and adjust the mix as required to obtain the manufacturer's specified cast density at point of placement.
2. At hourly intervals during placement, monitor the density and adjust as necessary to maintain the specified cast density.

##### **C.4.2 LFCF Strength Testing**

Conduct strength testing in accordance to ASTM C 796 except do not oven dry the test specimens.

1. Furnish a sufficient quantity of molded and cured cylinders measuring 3-inches in diameter by 6 inches high for required strength tests. Provide molds, and a similar curing environment of the LFCF being tested. Prepare cylinders in accordance to ASTM C1064.
2. Provide certified strength test results to the engineer for acceptance. At a minimum, conduct a set of three strength tests at 1, 7, and 28 day intervals for each 500 cubic yards of LFCF placed and a minimum of two sets of four cylinders each per day.

#### **C.5 Laboratory Requirements**

Perform the LFCF compressive strength testing at a department qualified laboratory. Information on the Wisconsin Laboratory Qualification Program may be obtained from the Quality Management Section, Wisconsin Department of Transportation, Bureau of Highway Construction, Truax Center, 3502 Kinsman Blvd., Madison, WI, 53704; telephone (608) 266-3246 (Ken: 608-246-5388); or on the internet at: [www.dot.state.wi.us](http://www.dot.state.wi.us). If approved by the department, the compressive testing may also be conducted at the LFCF manufacturer's facility with test results reported as noted.

#### **C.6 LFCF Placement**

LFCF shall be a homogeneous mixture and all materials shall be approved prior to use.

Prepare the areas to be filled in accordance to standard spec 206.3.8. Remove standing water in the test areas prior to placement of the LFCF. Ensure the LFCF remains above the water table at all times during construction.

Subgrade for LFCF fill will be prepared in accordance to standard spec 211.

Protect material before, during and after installation, and protect the work and materials of other trades. In the event of damage, immediately make replacements and repairs to the acceptance of the engineer at no additional cost to the department.

If the LFCF must be placed in freezing susceptible conditions, consult the manufacturer as to what precautions are necessary to assure installation of an acceptable LFCF. Do not place LFCF at a temperature of less than 32 degrees Fahrenheit, nor when freezing conditions are expected in less than 24 hours, unless precautions are taken to maintain temperatures above freezing. Do not place LFCF on frozen ground or material.

Cure LFCF in accordance to the accepted placement plan.

Proportion, mix, and place LFCF only using equipment approved by the manufacturer as indicated in the accepted LFCF placement plan. Once mixed, convey the LFCF concrete promptly to the location of placement without excessive handling.

Place LFCF in lifts not exceeding 24-inches in depth unless greater depths are allowed by the LFCF Manufacturer.

Scarify each lift before placing the next lift. Scarify each lift to a minimum depth of 12 mm (½-inch) using a hand rake or other suitable means. When LFCF is used as backfill within MSE wall anchor zones, take special care when scarifying to not disturb the alignment of or physically damage the MSE wall reinforcing strips/mesh. Scarify after sufficient curing time such that foot traffic will not excessively damage the lift

surface (no greater than 6 mm (¼ inch) indentation). Remove any loose debris or material as a result of the scarification process by blowing or other suitable means before placing the next LFCF lift.

Allow a minimum of one day (24 hours) between subsequent lifts. Prior to verification of the minimum specified compressive strength by testing, additional lifts may be placed after the one day minimum at the contractor's risk. Any material that does not meet the minimum specified strength within 28 days shall be removed and replaced by the contractor at no additional cost.

Move the discharge hose(s) sufficiently to ensure level filling through the specified fill area. Uneven filling is not permitted.

Limit the area of placement to the volume that can be placed within one hour, up to the maximum 24 inch lift height. Stagger placements such that the vertical joints are at least 10 feet apart except at designated vertical slip joints.

Where indicated on the plans, form a vertical slip joint across the entire width of LFCF embankments. The slip joint shall consist of a cold-formed joint in the LFCF, created by placing the LFCF on one side of the joint against a vertical rigid form. After removal of the form, place the LFCF on the opposite side of the joint against the previously placed LFCF with a suitable bond breaker between the placements. Bond breaker shall be plastic sheeting, geotextile fabric, or other means acceptable to the engineer.

The discharge hose length shall not exceed 800 feet in length.

Place LFCF to the limits and grades shown in the plans with top of the LFCF within + 0.1 foot of the elevations shown on the plans. Slope the top of the LFCF as indicated on the plans to provide drainage and prevent the ponding of water on the top of the LFCF. If not achieved at the time of placement, the top slope can be achieved by cutting, grinding or excavating the cured LFCF using methods approved by the engineer provided this is done in such a manner to leave a reasonably smooth, free draining surface without damaging the integrity of the underlying LFCF that remains.

Paving machines, heavy construction equipment or other unusual loading of the LFCF shall not be permitted until it has attained the specified 28-day compressive strength and the loading is approved by the engineer.

Sawing or ripping of the LFCF for utilities, underdrain or other conflicts will be by methods approved by the engineer. Backfill such cuts and excavations into the LFCF to the original top of LFCF elevation using the same grade of LFCF material that was removed.

### **C.7 Excavation and Backfill**

Excavation and preparation of the foundation for the MSE wall and the leveling pad shall be in accordance with standard spec 206. The volume of excavation covered is limited to the width of the reinforced mass and to the depth of the leveling pad unless shown or noted otherwise on the plan. At the end of each working day, provide good temporary drainage such that the backfill shall not become contaminated with run-off soil or water if it should rain. Do not stockpile or store materials or large equipment within 10 feet of the back of the wall.

Outside of the conventional MSE backfill areas defined in B.3.5, place granular backfill grade 2 in accordance with standard spec 209.

Conduct backfilling operations in such a manner as to prevent damage or misalignment of the wall panels, soil reinforcement, or other wall components. At no expense to the department, correct any such damage or misalignment as directed by the engineer. A field representative of the wall supplier shall be available during wall construction to provide technical assistance to the contractor and the engineer.

Place and compact the MSE backfill to the level of the next higher layer of MSE reinforcement before placing the MSE reinforcement or connecting it to the wall facing. Place and compact material beyond the reinforced soil zone to allow for proper compaction of material within the reinforced zone. The MSE reinforcement shall lay horizontally on top of the most recently placed and compacted layer of MSE backfill.

Do not operate tracked or wheeled equipment on the backfill within 3 feet from the back panels. The engineer may order the removal of any large or heavy equipment that may cause damage or misalignment of the panels.

### **C.8 Compaction**

Place and compact all granular backfill indicated on the plans behind the wall as specified in standard spec 207.3.6. Compact the backfill to 95.0% of maximum dry density as determined by AASHTO T-99 (modified to compute densities to the nearest 0.1 pcf), or as modified as follows. If the gradation of the

granular backfill is such that the P-200 material is less than 7% and the P-40 is less than 30%, a one-point Proctor test can be conducted in place of the 5-point Proctor. To complete this one-point test, compact the sample at a moisture content of 6%, then compute the actual (as-tested) sample moisture after completion of the test. Use Method B or D, and perform this test without removing oversize particles and without correction for coarse particles, as per AASHTO T224. The one-point as-tested moisture content represents the optimum moisture, and the measured one-point density represents the maximum wet density of the material. From these values, the maximum dry density can be computed.

Ensure adequate moisture is present in the backfill during placement and compaction to prevent segregation and to help achieve compaction.

Compaction of backfill within 3 feet of the back face of the wall should be accomplished using lightweight compaction devices. Use of heavy compaction equipment or vehicles should be avoided within 3 feet of the panels. Do not use sheepfoot or padfoot rollers within the reinforced soil zone.

A minimum of 3 inches of backfill shall be placed over the MSE reinforcement prior to working above the reinforcement.

## **C.9 Wall Components**

### **C.9.1 General**

Erect panel facing and other associated elements according to the wall manufacturer's construction guide. Place and compact the MSE backfill to the level of the next higher layer of MSE reinforcement before placing the MSE reinforcement or connecting it to the wall facing.

The MSE reinforcement shall lay horizontally on the top of the most recently placed and compacted layer of MSE backfill. Bending of MSE reinforcement that result in a kink in the reinforcement shall not be allowed. If skewing of the reinforcement is required due to obstructions in the reinforced fill, the maximum skew angle shall not exceed 15 degrees from the normal position unless a greater angle is shown on the plans. The adequacy of the skewed reinforcement in such a case shall be addressed by supporting calculations.

For embedment in LFCF, place MSE reinforcement that will become embedded in the next lift of LFCF prior to placing the LFCF lift. Provide temporary supports to hold the MSE reinforcement a minimum of 4" above the previously placed LFCF so that the MSE reinforcement becomes fully encapsulated in the subsequent LFCF lift placement. Provide adequate supports to hold the MSE reinforcement in an approximate original horizontal position with no kinks, sharp bends or abrupt changes in direction in the reinforcement. Do not lay the MSE reinforcement directly on the top of the prior LFCF placement or otherwise locate the MSE reinforcement along cold joints between LFCF placements.

### **C.9.2 Leveling Pad**

Provide an unreinforced cast-in-place concrete leveling pad as shown on the plans. Vertical tolerances shall not exceed 3/4-inch when measured along a 10-foot straight edge. Allow concrete to set at least 12 hours prior to placing wall facing units.

The bottom row of wall facing units shall be horizontal and 100% of the unit surface shall bear on the leveling pad. Rubber or plastic shims may be used to level the wall facing units at the leveling pad. No more than 2 shims (each 3/16-inch thick) shall be used to level the wall facing.

### **C.9.3 Steel Layers**

Place the steel reinforcement full width in one piece as shown on the plans. No splicing will be allowed. Maintain elements in position during backfilling.

### **C.9.4 Panel Tolerances**

As backfill material is placed behind a panel, maintain the panel in its proper inclined position according to the supplier specifications and as approved by the engineer. The supplier shall specify the back batter so that the final position of the wall is vertical. Vertical tolerances and horizontal alignment tolerances shall not exceed 3/4-inch when measured along a 10-foot straight edge. The maximum allowable offset in any panel joint shall be 3/4-inch. The overall vertical tolerance of the wall (plumbness from top to bottom) shall not exceed 1/2-inch per 10 feet of wall height. Erect the precast face panels to ensure that they are located within 1 inch from the contract plan offset at any location to ensure proper wall location at the top of the wall. Provide a uniform joint width between all adjacent face panels to prevent direct concrete-to-concrete contact. Maintain this width by the use of bearing pads and/or alignment pins. The final joint width shall be within 1/4-inch of the design joint width. Failure to meet this tolerance shall cause the engineer to require

the contractor to disassemble and re-erect the affected portions of the wall. In addition, imperfect molding, honeycombing, cracking or severe chipping of panels shall be cause of panel rejection.

## **C.10 Quality Management Program**

### **C.10.1 Quality Control Plan**

Submit a comprehensive written quality control plan to the engineer at or before the pre-construction meeting. Do not perform MSE wall construction work before the engineer reviews and accepts the plan. Construct the project as the plan provides.

Do not change the quality control plan without the engineer's review and acceptance. Update the plan with changes as they become effective. Provide a current copy of the plan to the engineer and post in the contractor's laboratory as changes are adopted. Ensure that the plan provides the following elements:

1. An organizational chart with names, telephone numbers, current certifications and/or titles, and roles and responsibilities of QC personnel.
2. The process used to disseminate QC information and corrective action efforts to the appropriate persons. Include a list of recipients, the communication process that will be used, and action time frames.
3. A list of source locations, section and quarter descriptions, for all aggregate materials requiring QC testing.
4. Descriptions of stockpiling and hauling methods.
5. An outline for resolving a process control problem. Include responsible personnel, required documentation, and appropriate communication steps.
6. Location of the QC laboratory, retained sample storage, and other documentation.
7. A summary of the locations and calculated quantities to be tested under this provision.
8. A proposed sequencing plan of wall construction operations and random test locations.

### **C.10.2 Quality Control Personnel**

Perform the quality control sampling, testing, and documentation required under this provision using HTCP certified technicians. Have a HTCP Grading Technician I (GRADINGTEC-I); or Assistant Certified Technician, Grading (ACT-GRADING); or Aggregate Technician I (AGGTEC-I); or Assistant Certified Technician, Aggregate (ACT-AGG) present at the grading site during all wall backfill placement, compaction, and nuclear testing activities. Have a HTCP Nuclear Density Technician I (NUCDENSITYTEC-I) or Assistant Certified Technician, Nuclear Density Gauge Operator (ACT-NUC) perform field density and field moisture content testing.

If an Assistant Certified Technician (ACT) is performing sampling or testing, a certified technician must coordinate and take responsibility for the work an ACT performs. Have a certified technician ensure that all sampling and testing is performed correctly, analyze test results, and post resulting data. No more than one ACT can work under a single certified technician.

### **C.10.3 Equipment**

Furnish the necessary equipment and supplies for performing quality control testing. Ensure that all testing equipment conforms to the equipment specifications applicable to the required testing methods. The engineer may inspect the measuring and testing devices to confirm both calibration and condition. Calibrate all testing equipment according to the CMM and maintain a calibration record at the laboratory.

Furnish nuclear gauges from the department's approved product list at:

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

Ensure that the nuclear gauge manufacturer or an approved calibration service calibrates the gauge the same calendar year it is used on the project. Retain a copy of the calibration certificate with the gauge.

Conform to AASHTO T310 and CMM 8-15 for density testing and gauge monitoring methods.

Split each Proctor sample and identify so as to provide comparison with the department's test results. Unless the engineer directs otherwise, retain the QC split samples for 14 calendar days and promptly deliver the department's split samples to the department.

#### **C.10.4 Documentation**

1. Document all observations, inspection records, and process adjustments daily. Submit test results to the department's project materials coordinator on the same day they become available.
2. Use forms provided in CMM Chapter 8. Note other information in a permanent field record and as a part of process control documentation enumerated in the contractor's quality control plan. Enter QC data and backfill material certified report results into the applicable materials reporting system (MRS) software within 5 business days after results are available.
3. Submit final testing records and other documentation to the engineer electronically within 10 business days after all contract-required information becomes available. The engineer may allow submission of scanned copies of hand-written documentation.

#### **C.10.5 Quality Control (QC) Testing**

##### **C.10.5.1 LFCF Backfill**

###### **C.10.5.1.1 Cast Density of Field Installed LFCF**

Test cast density in accordance to ASTM C 796

1. Prior to placement of the initial batch, the installer shall check the density and adjust the mix as required to obtain the manufacturer's specified cast density at point of placement.
2. At hourly intervals during placement, monitor the density and adjust as necessary to maintain the specified cast density.

###### **C.10.5.1.2 Strength Testing**

Conduct strength testing in accordance to ASTM C 796 except do not oven dry the test specimens.

1. Furnish a sufficient quantity of molded and cured cylinders measuring 3-inches in diameter by 6-inches high for required strength tests. Provide molds, and a similar curing environment of the LFCF being tested. Prepare cylinders in accordance to ASTM 796.
2. Provide certified strength test results to the engineer for acceptance. At a minimum, conduct a set of three (3) strength tests at 1, 7, and 28 day intervals for each 300 cubic yards of LFCF placed or every four (4) hours of placing.
3. Perform the compressive strength testing at a department qualified laboratory meeting the requirements of this specification.

##### **C.10.5.2 Granular Backfill**

Perform compaction testing on the backfill. Conform to CMM 8-15 for testing and gauge monitoring methods. Conduct testing at a minimum frequency of 1 test per 150 cubic yards of backfill, or major portion thereof in each lift. A minimum of one test for every lift is required. Deliver documentation of all compaction testing results to the engineer at the time of testing.

Perform one gradation test every 750 cubic yards of fill and one 5-point Proctor test (or as modified in C.2) every 2,250 cubic yards of fill. Provide the region split samples of both within 72 hours of sampling, at the region laboratory. Test sites shall be selected using ASTM Method D3665. Provide Proctor test results to the engineer within 48 hours of sampling. Provide gradation test results to the engineer within 24 hours of sampling.

#### **C.10.6 Department Testing**

##### **C.10.6.1 General**

The department will conduct verification testing to validate the quality of the product and independent assurance testing to evaluate the sampling and testing. The department will provide the contractor with a listing of names and telephone numbers of all QV and IA personnel for the project, and provide test results to the contractor within 2 business days after the department obtains the sample.

##### **C.10.6.2 Quality Verification (QV) Testing**

The department will have an HTCP technician, or ACT working under a certified technician, perform QV sampling and testing. Department verification testing personnel must meet the same certification level requirements specified in C.4.2 for contractor testing personnel for each test result being verified. The department will notify the contractor before sampling so the contractor can observe QV sampling.

The department will obtain LFCF for cast density and compressive strength tests at random intervals at a target rate of 1 QV test for every 5 QC tests completed. . For granular backfill the department will locate density tests and gradation samples randomly, at locations independent of the contractor's QC work. The department will split each Proctor and gradation QV sample, testing half for QV, and retaining the remaining half for 10 business days.

The department will conduct QV tests at the minimum frequency of 30% of the required contractor density, Proctor and gradation tests.

The department will locate density tests and gradation samples randomly, at locations independent of the contractor's QC work. The department will split each Proctor and gradation QV sample, testing half for QV, and retaining the remaining half for 10 business days.

The department will conduct QV Proctor and gradation tests in a separate laboratory and with separate equipment from the contractor's QC tests. The department will use the same methods specified for QC testing.

The department will assess QV results by comparing to the appropriate specification limits. If QV test results conform to this special provision, the department will take no further action. If density QV test results are nonconforming, the area shall be reworked until the density requirements of this special provision are met. If the gradation test results are nonconforming, standard spec 106.5 will apply. Differing QC and QV nuclear density values of more than 1.5 pcf will be investigated and resolved. QV density tests will be based on the appropriate QC Proctor test results, unless the QV and QC Proctor result difference is greater than 3.0 pcf. Differing QC and QV Proctor values of more than 3.0 pcf will be investigated and resolved.

#### **C.10.6.3 Independent Assurance (IA)**

Independent assurance is unbiased testing the department performs to evaluate the department's QV and the contractor's QC sampling and testing, including personnel qualifications, procedures, and equipment. The department will perform an IA review according to the department's independent assurance program.

That review may include one or more of the following:

1. Split sample testing.
2. Proficiency sample testing.
3. Witnessing sampling and testing.
4. Test equipment calibration checks.
5. Reviewing required worksheets and control charts.
6. Requesting that testing personnel perform additional sampling and testing.

If the department identifies a deficiency, and after further investigation confirms it, correct that deficiency. If the contractor does not correct or fails to cooperate in resolving identified deficiencies, the engineer may suspend placement until action is taken. Resolve disputes as specified in C.10.6.4.

#### **C.10.6.4 Dispute Resolution**

The engineer and contractor should make every effort to avoid conflict. If a dispute between some aspect of the contractor's and the engineer's testing program does occur, seek a solution mutually agreeable to the project personnel. The department and contractor may review the data, examine data reduction and analysis methods, evaluate sampling and testing procedures, and perform additional testing. Use ASTM E 178 to evaluate potential statistically outlying data.

Production test results, and results from other process control testing, may be considered when resolving a dispute.

If the project personnel cannot resolve a dispute, and the dispute affects payment or could result in incorporating non-conforming product or work, the department will use third party testing to resolve the dispute. The department's central office laboratory, or a mutually agreed on independent testing laboratory, will provide this testing. The engineer and contractor will abide by the results of the third party tests. The party in error will pay service charges incurred for testing by an independent laboratory. The department may use third party test results to evaluate the quality of questionable materials and determine the appropriate payment. The department may reject material or otherwise determine the final disposition of nonconforming material as specified in standard spec 106.5.

### C.11 Geotechnical Information

Geotechnical data to be used in the design of the wall is given on the wall plan. After completing wall excavation of the entire reinforced soil zone, notify the department and allow the Regional Soils Engineer two working days to review the foundation materials.

#### D Measurement

The department will measure Wall Concrete Panel Mechanically Stabilized Earth LFCF by the square foot, acceptably completed. The department will compute the measured quantity from the theoretical pay limits the contract plans show. The department will make no allowance for wall area constructed above or below the theoretical pay limits. All work beyond the theoretical pay limits is incidental to the cost of work. The department will make no allowance for as-built quantities.

#### E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.0904	Wall Concrete Panel Mechanically Stabilized Earth LFCF R-44-38	SF
SPV.0165.0905	Wall Concrete Panel Mechanically Stabilized Earth LFCF R-44-39	SF

Payment is full compensation for supplying a design and shop drawings; preparing the site, including all necessary excavation and disposal of materials; supplying all necessary wall components to produce a functional wall system including cap, copings, leveling pads, leveling pad steps, and shims; constructing the retaining system and providing temporary drainage; providing and placing LFCF and granular backfill, compacting, developing/completing/documenting the quality management program, and performing compaction and other required testing.

The department will pay separately for parapets, traffic barriers, railings, and other items above the wall cap or coping.

### 13. Drainage and Erosion Control.

#### 13.1 Erosion Control.

*Add to standard spec 107.20 as follows:*

Perform construction operations in a timely and diligent manner, continuing all construction operations methodically from the initial topsoil stripping operation through the subsequent grading and finishing to minimize the period of exposure to erosion.

Re-topsoil finished graded areas within 24 hours, or as designated by the engineer. Seed, fertilize, and mulch or erosion mat all topsoiled areas within five working days after placement of topsoil.

At a minimum or as the engineer directs, for every 10 feet of fill placed or cut created, measured vertically, the contractor shall finish grade to the lines and sections the plans show and place permanent erosion control items including out to the slope intercepts. Permanent erosion control includes, but is not limited to, topsoil, mulch, matting, rip rap, and seeding. Do not construct the subsequent 10-foot fill or cut section until the previous 10-foot fill or cut section is restored.

Stockpile excess materials or spoils in upland areas away from wetlands, floodplains, waterways and other environmentally sensitive areas as approved by the engineer. Include stockpile locations as part of the ECIP submittal. Shape stockpiles and use directional tracking or other approved alternatives to minimize erosion during spring melt and runoff if stockpiles that will remain over the winter months. Immediately install silt fence protection around stockpiles. Install temporary seed within 7 calendar days on stockpiles.

#### 13.2 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)

### **13.3 Storm Sewer.**

*Supplement standard spec 608.2 with the following:*

Two weeks prior to start of storm sewer construction, provide a shoring design and installation sequence for each location where shoring is to be used. Have a professional engineer, currently registered in the State of Wisconsin and knowledgeable of the specific site conditions and requirements, verify the adequacy of the design. Submit one electronic copy in portable document format of each shoring design, signed and sealed by the same professional engineer verifying the design, to the engineer for incorporation into the permanent project record.

*Supplement standard spec 608.3.1.1 with the following:*

- (10) Incorporate excavated material in the work to the extent practicable. Use materials with suitable engineering properties for embankment.
- (11) Dispose of surplus or unsuitable material as specified in standard spec 205.3.12.

*Replace standard spec 608.5.2 with the following:*

Payment for the Storm Sewer Pipe bid items is full compensation for providing all materials, including all special Y's, mitered sections, elbows and connections required; for all submittals; for excavating and wasting excess material, except rock excavation; for providing rubber gaskets and lubrication of rubber gaskets; mastic joint; for supporting utilities in storm sewer trench; for shoring design, providing a signed and sealed copy of the design; for installation, monitoring, and removal of shoring; for forming foundation; for laying pipe; for sealing joint seals, wraps and couplers; for concrete collars not required under 520.3.1(5) or 608.3.3(10); making connections to new or existing features, bedding material; for backfilling and granular backfill material; for QMP sampling, testing and documentation; for cleaning out; and absent the pertinent contract bid items, for restoring the work site.

ner41-608 (20240917)

### **13.4 Catch Basins, Manholes, and Inlets.**

*Supplement standard spec 611.3.1 with the following:*

Use a grade A concrete for final adjustment of manhole cover. Provide a butyl rubber gasket or butyl rubber rope for joints of precast reinforced concrete manhole sections. Butyl Rubber gasket joint used for manholes conforms to 8.41.6 of the Standard Specification for Sewer and Water Construction in Wisconsin, latest Edition. Provide non-rocking covers for all drainage structures subject to traffic loading.

Prior to ordering drainage pipes and structures, verify related drainage information in the plan. Submit shop drawings for all drainage structures. For structures where WisDOT standard detail drawings are not available, provide shop drawings prepared, verified and stamped by a professional engineer currently registered in the State of Wisconsin. Submit one electronic copy of shop drawings in portable document format for engineer's review two weeks before fabrication. Show clearly on shop drawings information for all pipe connections to the structure. The contractor is responsible for all errors of detailing and fabrication. The omission from the shop drawings of any pipe connection shall not relieve contractor of the responsibility of providing such materials, even though the shop drawings may have been reviewed and accepted by the engineer.

*Supplement standard spec 611.3.3 with the following:*

Use monolithic concrete shimming as the plan shows for final adjustment of drainage structures located within the concrete pavement, concrete shoulders, concrete curb and gutter and concrete barrier wall.

*Supplement standard spec 611.3.7 with the following:*

Construct height adjustments of 4-inches or more with concrete grade rings. Never use grade rings less than 2-inches thick.

*Replace standard spec 611.5.2 (1) with the following:*

Payment for Catch Basins, Manholes, and Inlets bid items is full compensation for providing all submittals; materials, including all masonry, and concrete bricks, for grade A concrete adjustments and monolithic concrete shimming; adjusting rings; conduit and sewer connections, steps, and other fittings; for providing and installing butyl rubber joints; for furnishing backfill, backfilling; all excavating, disposing of surplus material, and for cleaning out and restoring the work site; except that the department will pay for covers, including frames, grates and lids separately.



Cost of non-rocking covers for all drainage structures subject to traffic loading is incidental to new cover on proposed structure or reconstructing/adjusting manholes or inlets on existing structure.

ner41-611 (20240917)

### **13.5 Inlet Covers Type VV-B.**

*Supplement 611.3.6.2 of the standard spec with the following:*

- (2) Place a manufacturer recommended anti-seize compound on the bolt threads prior to installing.
- (3) Remove bolts as directed by the engineer.

*Supplement 611.5.4 of the standard spec with the following:*

- (2) Payment for Inlet Covers VV-B also includes full compensation for providing required materials, including bolts; for installing the bolts; and for removing and disposing of the bolts when no longer required.

### **13.6 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)

### **13.7 Temporary Ditch Checks.**

Complete work in accordance to section 628 of the standards spec and as herein provided. Erosion bales will not be allowed for construction of temporary ditch checks.

*Delete subsection 628.3.14(2) of the standard spec and replace it with the following:*

- (2) Construct temporary ditch checks per guidance provided in the Wisconsin Erosion Control Product Acceptability List ([PAL](#)). Place temporary ditch checks across ditches at locations the plans show or as the engineer directs immediately after shaping the ditches or slopes. Excavate upstream sumps as the engineer directs.

*Delete subsection 628.4.17 of the standard specifications and replace it with the following:*

- (1) The department will measure Temporary Ditch Checks by the linear foot, acceptably completed.

ner41-628 (20240917)

### **13.8 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)

### **13.9 Inlet Covers Type U, Item SPV.0060.0120.**

#### **A Description**

This special provision describes providing and installing Inlet Covers Type U as shown on the plans. Conform to standard spec 611.

#### **B Materials**

Furnish materials in conformance with section 611.2 of the standard specifications. Inlet Covers Type U should be Neenah R-3210-Q 24-inch by 24-inch ADA compliant grate and frame or equivalent.

#### **C Construction**

Comply with section 611.3 of the standard specifications.

#### **D Measurement**

The department will measure Inlet Covers Type U as each individual unit, acceptably completed.

#### **E Payment**

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.0120	Inlet Covers Type U	EACH

Payment is full compensation for providing new covers, including frames, grates or lids, and other required materials and for installing and adjusting each cover.

### **13.10 Removing Casting Bolts, Item SPV.0060.0200.**

#### **A Description**

This special provision describes Removing Casting Bolts conforming to standard specs 204 and 611.

#### **B Materials (Vacant)**

## C Construction

After proposed paving is finished and traffic has shifted to the ultimate configuration, remove bolts securing the inlet cover to the inlet frame.

Dispose of all removed bolts or return to department as directed by the engineer.

## D Measurement

The department will measure Removing Casting Bolts as each sewer inlet or manhole, acceptably completed.

## E Payment

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.0200	Removing Casting Bolts	EACH

Payment is full compensation for removing casting bolts, disposing of scrap material, and incidentals necessary to complete the contract work.

ner41-204 (20240917)

### 13.11 Storm Sewer Plug, Item SPV.0060.0210.

#### A Description

Install a Storm Sewer Plug at locations specified in the plans.

#### B Materials

Provide a precast reinforced concrete plug or an engineer approved alternative, conforming to the inside diameter of the corresponding pipe as shown on the plan.

All materials, if concrete, must conform to section 501 and section 611 of the standard specifications.

#### C Construction

Place a watertight plug in the end of the storm sewer pipe in a manner that seals the pipe but allows for future removal of plug without damaging the storm sewer pipe.

#### D Measurement

The department will measure Storm Sewer Plug as each individual unit, acceptably completed.

#### E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.0210	Storm Sewer Plug	EACH

Payment is full compensation for furnishing and installing all required materials; and removal in subsequent stage.

ner41-611 (20240917)

### 13.12 Reconnect Storm Sewer, Item SPV.0060.0215.

#### A Description

This special provision describes connecting proposed storm sewer pipe/structures to existing storm sewer pipe/structures or proposed pipe/structures.

#### B Materials

Furnish concrete for concrete collar conforming to standard spec 520.2.4.

Furnish storm sewer pipe in accordance to Section 608.2.

#### C Construction

Remove existing concrete collars, pipe seals or end walls constructed under previous projects or in earlier stages of this project as necessary to reconnect storm sewer. Ensure that positive drainage is achieved when connecting proposed pipe to existing structures or storm sewer. Salvage any structurally sound pipe that requires removal if prior approval is granted by the engineer. Make all necessary connections using the appropriate coupling, concrete collar, or by means approved by the engineer.

## D Measurement

The department will measure Reconnect Storm Sewer as each location as specified in the plans, 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.0060.0215	Reconnect Storm Sewer	EACH

Payment is full compensation for performing all work; removing seals, end walls and concrete collars; providing all materials; coring or sawing; and couplings, concrete collars. Any additional pipe or materials required to reconnect the storm sewer shall be considered incidental to this bid item.

ner41-608 (20240917)

### 13.13 Inlet Covers Type Y, Item SPV.0060.0230.

#### A Description

This special provision describes providing and installing Inlet Covers Type Y as shown on the plans. Conform to standard spec 611.

#### B Materials (Vacant)

#### C Construction (Vacant)

## D Measurement

The department will measure Inlet Covers Type Y as each individual unit acceptably completed.

## E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.0230	Inlet Covers Type Y	EACH

Payment is full compensation for providing new covers, including frames, grates or lids, and other required materials and for installing and adjusting each cover.

### 13.14 Sealing Storm Structure, Item SPV.0060.0240.

#### A Description

This special provision describes constructing a wall to fill and seal the void created in an existing storm sewer structure from removing an existing storm sewer pipe. The wall can be constructed of concrete, brick masonry, concrete brick, or block masonry.

#### B Materials

Furnish concrete conforming to standard spec 501. Furnish brick masonry, concrete brick, block masonry, or mortar conforming to standard spec 519.

#### C Construction

Construct concrete as specified in standard spec 501. Construct brick masonry, concrete brick, or block masonry as specified in standard spec 519.

Place concrete to conform to the inside diameter of the existing storm sewer structure in a manner that fills and seals to make watertight the void created from the removed pipe.

## D Measurement

The department will measure Sealing Storm Structure as each individual sealed storm structure 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.0060.0240	Sealing Storm Structure	EACH

Payment is full compensation for providing all materials, including concrete; for furnishing, placing, finishing, protecting, and curing concrete blocks; for sawing as necessary; and for disposing of surplus material, and all incidentals necessary to complete the work.

ner41-501 (20240917)

### **13.15 Street Sweeping, Item SPV.0075.0100.**

#### **A Description**

This special provision describes removing small dirt and dust particles from the roadway using a street sweeper periodically during the project as the engineer directs.

#### **B Materials**

Furnish a vacuum-type street sweeper equipped with a power broom, water spray system and a vacuum collection system.

Use vacuum equipment with a self-contained particulate collector capable of preventing discharge from the collection bin into the atmosphere.

Use a vacuum-type sweeper as the primary sweeper, except as specified in this special provision or approved by the engineer.

Use a vacuum, water spray system, or other engineer-approved method to clear debris from scuppers in existing concrete barrier walls.

#### **C Construction**

Provide sweeping of pavement, sidewalk, driveways, curb lanes and gutters as directed by the engineer.

#### **D Measurement**

The department will measure Street Sweeping by the hour that the street sweeper is on the project actively picking up and removing debris from the roadway.

#### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0075.0100	Street Sweeping	HRS

Payment is full compensation for mobilization; sweeping, vacuuming and water spray; disposing of materials; and submitting the hourly meter tickets each day the sweeper is used.

### **13.16 Drain Slotted Vane Permanent, Item SPV.0090.0200.**

#### **A Description**

This special provision describes providing slotted vane drain as the plans show conforming to standard spec 611, standard detail drawing "Slotted Vane Drain" and as modified in this special provision.

#### **B (Vacant)**

#### **C Construction**

Before encasing the pipe in concrete, cover the upper end of the slotted drain as the plans show, or as approved by the engineer.

Before construction operations adjacent to the slotted area of the slotted vane drain pipe, cover the slots on the top of the drain. Remove any material entering the pipe at the contractor's expense.

Exercise care to avoid damage to the slotted vane drainpipe. If any section of pipe is damaged or is unsatisfactory as determined by the engineer, replace the drainpipe at contractor's expense.

#### **D Measurement**

The department will measure Drain Slotted Vane Permanent by the linear foot, 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
SPV.0090.0200	Drain Slotted Vane Permanent	LF

Payment is full compensation for furnishing all materials; hauling and placing the pipe; making connections to existing inlets; furnishing concrete masonry, end plug or cap; cleaning out and restoring site of work, removal and disposing of waste material, and all incidentals to complete the work.

### 13.17 Drain Slotted Vane Temporary, Item SPV.0090.0205.

#### A Description

This special provision describes providing and removing temporary slotted vane drain as the plans show conforming to standard spec 611 as modified in this special provision.

#### B (Vacant)

#### C Construction

Before encasing the pipe in concrete, cover the upper end of the slotted drain as the plans show, or as approved by the engineer.

Before construction operations adjacent to the slotted area of the slotted vane drain pipe, cover the slots on the top of the drain. Remove any material entering the pipe at the contractor's expense.

Exercise care to avoid damage to the slotted vane drainpipe. If any section of pipe is damaged or is unsatisfactory as determined by the engineer, replace the drainpipe at contractor's expense.

#### D Measurement

The department will measure Drain Slotted Vane Temporary by the linear foot, 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
SPV.0090.0205	Drain Slotted Vane Temporary	LF

Payment is full compensation for furnishing all materials, including fittings and bends; hauling and placing the pipe; making connections to existing inlets; furnishing concrete masonry, end plug or cap; cleaning out and restoring site of work, removal and disposing of waste material, and all incidentals to complete the work.

ner41-611 (20240917)

## 14. Miscellaneous Concrete.

### 14.1 Protection of Concrete.

*Add to standard spec 415.3.14:*

The contractor shall provide for a minimum of one concrete finisher to remain on the project site after final finishing of all concrete surfaces until the concrete has hardened sufficiently to resist surface scarring caused by footprints, handprints, or any other type of imprint, malicious or otherwise. The finisher shall actively and continuously patrol on foot the newly placed concrete and repair any damage to the surface that might be sustained as described above.

The cost for providing the finisher(s), the necessary equipment, and materials is incidental to the contract.

ner41-415 (20240917)

### 14.2 Concrete Curb and Gutter Integral 30-Inch Special, Item SPV.0090.0100; Concrete Curb and Gutter 30-Inch Special, Item SPV.0090.0101.

#### A Description

This special provision describes constructing concrete curb and curb and gutter in accordance with the pertinent requirements of section 601 of the standard specifications and the construction details shown in the plans.

## **B Materials**

Furnish materials in accordance with the pertinent materials of section 601 of the standard specifications.

## **C Construction**

Perform work in accordance with section 601 of the standard specifications.

## **D Measurement**

The department will measure concrete curb and gutter (type) by the linear foot, acceptable placed according to the contract.

## **E Payment**

The department will measure concrete curb and gutter (type) by the linear foot, acceptably completed.

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.0100	Concrete Curb and Gutter Integral 30-Inch Special	LF
SPV.0090.0101	Concrete Curb and Gutter 30-Inch Special	LF

Payment shall be in accordance with section 601.5 of the standard specifications.

### **14.3 Concrete Barrier Type S42 Special, Item SPV.0090.0105; Concrete Barrier Type S56 Special, Item SPV.0090.0110.**

Construct the concrete barrier in accordance to standard spec 603 and in accordance to the plan details.  
ner 41-403 (08262024)

## **15. Signing and Marking.**

### **15.1 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)

### **15.2 Removing Pavement Marking.**

Perform this work in accordance with section 643 and 646.3.1.4 of the standard spec and as hereinafter provided.

Pavement markings required to be removed on permanent pavement (pavement that will remain at the completion of the contract) will be water blasted off the pavement. Other methods of removing the markings off the permanent pavement will not be allowed.

### **15.3 Inlet Marker, Item SPV.0060.0270.**

#### **A Description**

This special provision describes furnishing and installing a Type II W5-53S sign to mark inlet locations adjacent to barrier wall or parapets as shown in the plans, in accordance with standard spec 637, and as hereinafter provided.

Refer to WisDOT Sign Plate Manual for details of W5-53S (Low Inlet Marker).

#### **B Materials**

Furnish sheet aluminum conforming to standard spec 637.2.1.3.

Furnish reflective sheeting conforming to standard spec 637.2.2.2.

Furnish stainless steel anchors and washers conforming to standard spec 513.2.1.

#### **C Construction**

Manufacture, assemble and install inlet marker in accordance with 637.3 of the standard spec.

Install inlet marker against a clean and flat surface.

#### **D Measurement**

The department will measure Inlet Marker as each individual marker 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.0060.0270	Inlet Marker	EACH

Payment is full compensation for providing sign including mounting hardware; and for installing barrier wall inlet marker.

ner41-633 (20241104)

### **15.4 Fixed Message Sign Portable Support, Item SPV.0060.0400.**

#### **A Description**

This special provision describes the construction of special portable sign supports for fixed message signs for shielded applications only, as the plans show.

#### **B Materials**

Use lumber and hardware conforming to standard spec 634.2.1.

#### **C Construction**

Construct the Fixed Message Sign Portable Support as the plans show. Remove at the completion of the work.

#### **D Measurement**

The department will measure Fixed Message Sign Portable Support as each individual portable support 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.0060.0400	Fixed Message Sign Portable Support	EACH

Payment is full compensation for providing, maintaining and removing the portable support and moving sign.

ner41-634 (20240917)

### **15.5 Fire Hydrant Sign Mounting, Item SPV.0060.0405.**

#### **A Description**

The work under this item shall consist of furnishing and installing a Fire Hydrant Sign Mounting at each fire hydrant hose access location. All work under this item shall conform to section 637 of the standard specifications, the plans and as hereinafter provided.

#### **B Materials**

##### **B.1 Mounting Bracket**

Provide a sign bracket from a supplier listed below or an approved equal.

<u>Supplier</u>	<u>Product Name</u>
TAPCO 5100 W. Brown Deer Road Brown Deer, WI 53223	Metro Wing Bracket
GRIMCO N16W23390 Stone Ridge Dr. Suite A Waukesha, WI 53188	Metro Wing Street Sign Brackets
SafetySign 64 Outwater Lane Garfield, NJ 07026	Street Name Sign Wing Bracket



## B.2 Mounting Hardware

Attach the mounting bracket to the noise wall using stainless steel bolts with self-locking nuts. Provide the following:

- Stainless steel bolts and washers conforming to standard spec 513.2.1.
- Stainless steel self-locking nuts conforming to ASME B18.16.6.

Provide components in accordance to standard spec 637.2.4.2.1 for attaching the sign the mounting bracket.

## C Construction

Two mounting brackets are required for each sign location. One bracket to support the top of the sign and the other to support the bottom of the sign.

Attach the mounting bracket to the noise wall in a stable position. Locate the mounting bracket as follows, or as directed by the engineer:

- No more than 2' from the top of the structure.
- No more than 5' on either side of a vertical line extending up from the actual fire hydrant access point.

Attach the sign to the mounting bracket in accordance to standard spec 637.3.3.3.

## D Measurement

The department will measure Fire Hydrant Sign Mounting as each individual sign mounting 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.0060.0405	Fire Hydrant Sign Mounting	EACH

Payment is full compensation for furnishing, installing mounting bracket and installing sign in bracket.

The department will pay separately for the sign.

ner41-637 (20240917)

## 16. Lighting and Electrical.

### 16.1 General Requirements for Electrical Work.

Contact information for the Wisconsin Department of Transportation Northeast Region

- ITS - Kimberly Bradley, (920) 366-7521 [kimberly.bradley@dot.wi.gov](mailto:kimberly.bradley@dot.wi.gov)
- Traffic Signals – Kimberly Bradley, (920) 366-7521 [kimberly.bradley@dot.wi.gov](mailto:kimberly.bradley@dot.wi.gov)
- Lighting – Matthew Talcott, (920) 360-4749 [matthew.talcott@dot.wi.gov](mailto:matthew.talcott@dot.wi.gov)

Notify the department's Northeast Region Electrical Unit at (920) 366-7521 at least three (3) weeks prior to beginning the electrical work.

*Add the following to standard specification sections 651, 652, 653, 654, 655, 656, 657 and 659.*

All the work necessary to comply with revisions to standards specifications mentioned herewith shall be incidental to associated pay items or to the project including coordination, materials, and labor. No additional payment shall be made to the Contractor.

*Add the following to standard specification subsection 651.3.1:*

Any circuit that the Contractor does not personally tag out at the disconnect shall be considered live and will be subject to being activated by another person with no notice to the Contractor. Make tagouts with manufactured tags and endorse them with the date and the name of the Contractor. Clear tagouts at the end of the workday. The department does not employ a load dispatcher and has no intent to do so. Each electrical worker is responsible for their own protection from automatic switching and from switching by others.

*Add the following to standard specification subsection 655.3.7(4):*

Where two or more wire networks pass through a pull point, tag each circuit network (i.e. A/B/N and C/D/N) with approved all-weather tags.

**Manufacturer's Warranty for LED luminaires:** The manufacturer shall warrant to the department that each complete luminaire (consisting of the housing, optical assembly, LED drivers, surge protection and wiring) will be free from defects in material and workmanship for ten (10) years from the date that the luminaire are put into service. Luminaires shall be installed within one year of manufacture.

If any luminaires fail to meet the above warranty, the department shall provide the manufacturer with a written notice of any defect within thirty (30) days after discovery of the defect. The manufacturer shall provide all materials, luminaires, replacement component parts, labor, and all incidentals necessary to restore the luminaire to a fully operational, installed condition.

## **16.2 Electrical Meetings.**

### **Electrical Kick Off Meeting**

No later than 5 working days prior to starting any electrical installation construction activities, arrange and conduct an on-site electrical kickoff meeting between the contractor, engineer, region electrical unit, and electrical subcontractors to discuss the construction of the electrical elements of the project including traffic signals, roadway lighting systems, Intelligent Transportation Systems (ITS), and all other electrical facilities.

During the electrical kickoff meeting, the contractor may be requested to provide additional workplan information related to the electrical installation activities. Upon completion of the electrical kickoff meeting and acceptance of any additional requested workplan information, the contractor will be given authorization to proceed with electrical construction activities. The contractor shall not start work on electrical installation activities until after authorization has been given by the engineer.

Arrange and conduct additional electrical progress meetings no later than 5 working days prior to energizing new systems, opening the roadway, and final inspection.

The contractor and electrical subcontractor are required to attend all electrical meetings. Electrical meetings are considered incidental to the electrical work.

ner41-658 (10202025)

## **16.3 Conduit Rigid Nonmetallic Schedule 40 2-Inch, Item 652.0225, Conduit Rigid Nonmetallic Schedule 40 3-Inch, Item 652.0235, Conduit Rigid Nonmetallic Schedule 80 3-Inch, Item 652.0335.**

This article describes modifications to items 652.0225, 652.0235, and 652.0335 of the standard specifications and QPL for lighting work identified in project 1130-64-73 and 1130-64-77.

*Modify the following paragraph from standard spec 652.3.1.1 General:*

(3) Install tracer wire in each conduit run that will receive future conductors as the conduit is laid. Unless the contract specifies wire or cable, install a 12 AWG. XLP insulated, green, stranded, copper, 600-volt AC, wire. Provide wire slack in pull boxes per WISDOT SDD 9B16. Tracer wire shall be continuously connected throughout the system and tied into the system ground at the nearest above ground access point. Tracer wire may be spliced below grade in pull boxes only using wet location gel filled wire nuts. Fasten tracer wire near the top of pull box. Tracer wire is the only conductor that will be allowed to be spliced below grade on this project.

## **16.4 Install Conduit Into Existing Item, Item 652.0700.S.**

### **A Description**

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

### **B Materials**

Use conduits, 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, or holes, 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 respective 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 (20230629)

### **16.5 Electrical Service for WisDOT DDI at IH 41 SB & STH 47 and IH 41 NB & STH 47.**

#### **A Description**

Work under this item shall be in accordance with standard spec 656 with the following addition.

#### **B Materials**

Amend Section 656.2.3, Meter Breaker Pedestal Service, paragraph (1) to read as follows:

- (1) Furnish an approved service having a meter breaker pedestal, 22,000-AIC circuit breakers unless the local utility requires otherwise, grounding electrodes and connections, conduit and fittings, and all necessary conductors and equipment required by the WSEC and the utility for a service connection. Furnish a pedestal with one (1) 100 A 2-Pole breaker, (1) 30 A 2-Pole breaker, one (1) 30 A and one (1) 20 A single pole breakers for any meter with shared uses which are intended to provide electrical service for a WisDOT street lighting system as well as a WisDOT traffic signal system. 100 A breakers are not required for non-shared meter pedestals. When the meter breaker pedestal is energized, install an approved meter seal at all access points on the meter trough. Meter shall be time of use type.

Amend Section 656.2.3, Meter Breaker Pedestal Service, by adding the following paragraph:

- (2) Route feeder wire between meter pedestal and main panel board through the bottom of the cabinet enclosure and within conduit. Entry through the side of the cabinet enclosure is not allowed.

#### **C Construction**

Make early application for the installation of the electric service lateral.

Contact the local electric company to make application and request a time of use meter. The future monthly invoices can go to the following address:

IH 41 NB & STH 47:  
WISDOT Expenditure Acct (S44-0580)  
P.O. Box 7366  
Madison, WI 53707-7366

IH 41 SB & STH 47 to:  
WISDOT Expenditure Acct (S44-1400)  
P.O. Box 7366  
Madison, WI 53707-7366

*Amend standard spec 656.3.2 (1) to the following:*

- (1) The local utility will furnish and install a 200 A, 120/240 volt AC, single phase, 3-wire underground electrical service lateral. Arrange and assume responsibility for the timely installation of the service lateral by the utility. The lateral shall be terminated at a meter pedestal as the plans show.

#### **D Measurement**

The department will measure the Electrical Service Meter Breaker Pedestal bid item as each individual service acceptably completed.

#### **E Payment**

In accordance with the plans and section 656.5 of the standard spec.

### **16.6 Poles Type 5 Aluminum, Item 657.0322; Poles Type 17 Aluminum, 657.0337.**

*Replace standard spec 657.2.1.1(6) and add 657.2.1.1(7):*

- (6) Furnish identification plaques in accordance with the plan numbering. Coordinate with the Northeast Region Electrical Unit for information to be included with pole plaques.
- (7) Install PVC rodent screens according to the WisDOT qualified products list <https://wisconsindot.gov/Pages/doing-bus/eng-consultants/cnslt-rsrcs/tools/prods/misc.aspx> for all structure mounted light poles, FTMS cameral poles, monotubes or as directed by the engineer in the field.

### **16.7 Underdeck Lighting (Structure), Item 659.0601.**

This article describes modifications to items 659.0601.001 – 659.0601.006 of the standard specifications and QPL for lighting work identified in project 1130-64-73 and 1130-64-77.

*Add the following paragraph to standard spec 659.2:*

- (2) Furnish underdeck luminaires with bird spikes.

*Modify the following paragraph from standard spec 659.5:*

- (3) Payment for underdeck Lighting bid items is full compensation for grounding; for junction boxes; for luminaire mounting boxes as required; for conduit, condulets, and junction box fusing; for conductors as indicated on the plans; and for hardware and fittings.

### **16.8 Luminaires Utility LED B, Item 659.1120; Luminaires Utility LED C, Item 659.1125.**

This article describes modifications to items 659.1120 and 659.1125 of the standard specifications and QPL for lighting work identified in project 1130-64-73.

*Add the following to standard spec 659.2:*

- (2) Furnish luminaires capable of operating at 480V.

### **16.9 Lamp, Ballast, LED, Switch Disposal by Contractor, Item 659.5000.S.**

#### **A Description**

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

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

#### **B Materials**

##### **B.1 Disposal by Contractor**

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

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

## **C Construction**

### **C.1 Removal**

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

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

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

### **C.2 Packaging of Hazardous Materials**

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

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

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

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

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

Pack ballasts and mercury containing switches in appropriate containers.

### **C.3 Disposal by Contractor**

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

## **D Measurement**

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

## **E Payment**

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

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

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

stp-659-500 (20220628)

### **16.10 Anchor Bolt Cover Shroud, Item SPV.0060.0500.**

#### **A Description**

This work shall be in accordance with the requirements of standard spec 657, the plans, standard detail drawings, and as hereinafter provided.

## **B Materials**

Furnish aluminum cover shroud in accordance with the plans and section 657.2.6 of the standard specifications and as hereinafter provided:

Housing and cover plate shall be 12-gauge aluminum. Rivets for attaching the cover plate to the housing shall be aluminum and sized in accordance with the specifications determined by the fabricator of the unit. Provide nonmetallic washers between cover shroud and steel lock washer.

## **C Construction**

In accordance with the plans and section 657.3 of the standard specifications and as hereinafter provided:

Follow all manufacturer installation guidelines for installation of cover shroud and accessories. Apply silicone sealant between the top of the cover shroud body and the aluminum cover plate.

Cover shrouds shall be installed at the locations noted on the plans.

## **D Measurement**

The item will be measured in place by the unit and the quantity measured for payment will be the number of cover shrouds 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.0060.0500	Anchor Bolt Cover Shroud	EACH

Payment is full compensation for transporting all materials; installing a complete unit; for furnishing all labor, tools, equipment, and incidentals necessary to complete the contract work.

### **16.11 Concrete Bases Type 7 Tall, Item SPV.0060.0501.**

#### **A Description**

This special provision describes constructing Concrete Bases Type 7 Tall mainline median mounted lighting units. This work shall be in accordance with the requirements of section 654 of the Standard Specifications, the plans, standard detail drawings, and as hereinafter provided.

## **B Materials**

In accordance with the plans and section 654.2 of the standard specifications.

## **C Construction**

In accordance with the plans and section 654.3 of the standard specifications.

## **D Measurement**

The item will be measured in place by the unit and the quantity measured for payment will be the number of bases of each one 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.0060.0501	Concrete Bases Type 7 Tall	EACH

Payment for the Bases bid item is full compensation for providing concrete bases; for embedded conduit and electrical components; for anchor rods, nuts and washers; for bar steel reinforcement; for excavating, backfilling, restoring asphaltic surfaces, and disposing of surplus materials.

### **16.12 Electrical Service Meter Breaker Pedestal Special, Item SPV.0060.0502.**

#### **A Description**

Perform work according to the requirements of standard spec 656, the plans, standard detail drawings, and as hereinafter provided.

## B Materials

According to the plans, standard spec 656.2 and as hereinafter provided:

*Amend standard spec 656.2.3, Meter Breaker Pedestal Service, by adding the following paragraphs:*

- (2) Furnish a 2-pole 100amp 120/240 Volt main breaker with 22,000 AIC rating or per utility requirements to be installed inside the meter breaker pedestal.
- (3) Furnish photocell and lighting contactors capable of operating the designed lighting system as shown on the plans and construction details. Install the controls inside a 12"x 16"x 6" minimum, NEMA 3R rated outdoor enclosure with interior back plate. The enclosure shall be mounted to the 2"x 2" stainless steel square tubing supports. Photocell to be mounted on the outside of the enclosure.
- (4) Furnish 2"x 2" stainless steel square tubing, concrete masonry and steel reinforcement as the plans show for rigidly mounting the meter pedestal.
- (5) Furnish a 100amp 120/240 volt single phase 12 space 12 circuit breaker panel with a 100 amp main breaker, installed inside a NEMA 3R outdoor rated enclosure to be attached to the 2"x 2" stainless steel tubing supports. The main breaker is not allowed to occupy two of the twelve spaces required in the breaker panel.
- (6) Furnish 2-pole and single pole 20amp circuit breakers in the electrical panel as required for the amount of circuits shown on the plans including one separate circuit for the lighting controls.
- (7) Furnish all conduit, fittings, hardware, fasteners, terminals, breakers, wiring and any additional items necessary to complete the "meter breaker pedestal, electrical panel and lighting control installation" per the NEC, local and State codes, as shown on the plans, the construction details and described in this special provision.

## C Construction

According to the plans and standard spec 656.3 and as hereinafter provided:

Ensure that electrical service is installed and energized a minimum of one week prior to the system activation deadline.

## D Measurement

The department will measure the Electrical Service Meter Breaker Pedestal Special bid item as an 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.0060.0502	Electrical Service Meter Breaker Pedestal Special	Each

Payment is full compensation for furnishing and installing all materials; for excavation, backfill, disposal of surplus materials and permit fees.

## **16.13 Removing Traffic Signals S44-1400, Item SPV.0060.0601; Removing Traffic Signals S44-0580, Item SPV.0060.0602.**

### A Description

This special provision describes removing the existing traffic signals at the intersection of IH 41 SB & STH 47, IH 41 NB & STH 47 as shown on the plans and hereinafter provided. This article also covers disposal of most traffic signal equipment and all associated cable/wire from the aforementioned intersections.

The department intends to salvage some traffic signal equipment from these intersections.

### B Materials

The traffic signal equipment at these intersections to be salvaged for the department includes transformer bases and pull box rings.

### C Construction

Coordinate salvaged material pickup with NE Region Electrical Unit, Kim Bradley at (920) 366-7521.

Remove all signal poles, arms, standards, pedestal and transformer bases, faces, wiring, control cabinets, and associated components. Remove transformer bases and pullbox rings in a manner that prevents damaging the material.

Other than the items to be salvaged, transport signal equipment off site to the electrical subcontractor facilities and/or to a recycling/garbage facility.

Break down and remove concrete bases according to standard spec 204.

#### **D Measurement**

The department will measure Removing Traffic Signals as each intersection location, 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
SPV.0060.0601	Removing Traffic Signals S44-1400	EACH
SPV.0060.0602	Removing Traffic Signals S44-0580	EACH

Payment is full compensation for removing, hauling, and disposing of signal equipment, unless specified to be salvaged; breaking down, removing, hauling, and disposing of concrete bases; for restoring the roadway cross-section; and for backfilling.

### **17. ITS.**

#### **17.1 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:

<b>Department-Furnished Items</b>
Camera Assembly
Microwave Detector Assembly
Wireless Antennas
Pole Mounted Cabinet
Small Pole Mounted Cabinet
Ethernet Switch
Small Form Pluggable
Ethernet Extender
Fiber Optic Termination (12-CT Panel)
Fiber Optic Cable Outdoor Plan 12-CT
Fiber Optic Cable Outdoor Plan 72-CT

Pick-up small department-furnished equipment, such as communications devices, cameras, and controllers, from the department's Traffic Management Center (TMC), 433 W. St. Paul Ave., Milwaukee, WI 53203 at a mutually agreed upon time during normal state office hours. Contact the Statewide ITS Engineer, Dean Beekman at (414) 227-2154 to coordinate pick-up of equipment.

Pick up cabinets and solar power systems, including batteries, at the department's TMC equipment storage facility at 633 W. Wisconsin Ave., Milwaukee, WI 53203 at a mutually agreed upon time during normal state office hours. Contact Dean Beekman to coordinate pick-up of equipment.

Large department-furnished equipment, such as camera poles and dynamic message signs will be delivered by the supplier to a contractor-controlled site identified by the contractor. Delivery will not necessarily be in a "just in time" manner. Store the equipment until field installation.



Within two weeks of Notice to Proceed, contact the engineer and Dean Beekman. Provide the address and contact information for the contractor-controlled location for delivery and the desired delivery schedule for the large state-furnished materials.

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 (20230629)

## **17.2 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 Traffic Management Center (TMC). 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 TMC 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 Traffic Management Center (TMC) 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 (20230629)

### **17.3 Temporary Intelligent Transportation Systems.**

The department will supply, operate, and maintain a temporary intelligent transportation system during construction of this project which will consist of trailer-mounted Closed Circuit Television (CCTV) devices. These portable devices will be parked inside and outside the construction limits of the project to assist law enforcement and the department with the monitoring of traffic conditions during the construction activities.

The department will coordinate the placement of these devices with the contractor. The contractor shall accommodate the placement of these devices within the project. The general accommodations include an area to park the devices out of the clear zone but still visible to traffic and access to and from the devices. Contact the Northeast Region Traffic Section at (920) 366-7521 for specific details regarding the temporary intelligent transportation system.

### **17.4 Removing Communication Vault, Item 204.9060.S.0701.**

#### **A Description**

This special provision describes removing Communication Vaults conforming to standard spec 204.

#### **B (Vacant)**

#### **C (Vacant)**

## D Measurement

The department will measure Removing Communication Vault by the unit, acceptably completed.

## E Payment

*Add the following to standard spec 204.5:*

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.0701	Removing Communication Vault	EACH
stp-204-025 (20230113)		

### 17.5 Removing Existing Pole, Item 204.9060.S.0702.

#### A Description

This special provision describes removing Existing Pole conforming to standard spec 204.

#### B (Vacant)

#### C (Vacant)

## D Measurement

The department will measure Removing Communication Vault by the unit acceptably completed.

## E Payment

*Add the following to standard spec 204.5:*

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.0702	Removing Existing Pole	EACH
stp-204-025 (20230113)		

### 17.6 Ramp Closure Gates 30-FT, Item 662.1030.S; Ramp Closure Gates 32-FT, Item 662.1032.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
662.1030.S	Ramp Closure Gates 30-FT	EACH
662.1032.S	Ramp Closure Gates 32-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)

## **17.7 Install Pole Mounted Cabinet, Item 673.1225.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

Coordinate receiving the cabinet from the department's vendor and protect and store the cabinet between receiving the cabinet and installing as shown on the plans. Note and photograph any damage to the cabinet upon receipt and notify the engineer and the Statewide ITS Engineer of any damage.

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
673.1225.S	Install Pole Mounted Cabinet	EACH

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

stp-673-010 (20230629)

## 17.8 Removing 50-Foot Camera Pole, Item 677.9051.S.

### A Description

This special provision describes removing existing camera poles and all equipment mounted on them.

### B (Vacant)

### C Construction

The contractor may request a meeting with the engineer to assess the condition and operability of equipment mounted on the pole before beginning work removing the pole. Any damage or improper operation not noted at the meeting, or before the contractor starting work on the removal, will be assumed to be the fault of the contractor; repair or replace the equipment. Store the equipment for pick up by department representatives.

Disconnect all cables, wiring and equipment that are mounted on or in the poles, and remove the pole from the concrete footing. The department will pick up any antenna, cameras, or other equipment mounted on the pole; contact maintenance staff at (414) 227-2166 at the department's Statewide Traffic Operations Center, when the material is ready to be picked up. Properly dispose of the pole, conduit, cabling, and wiring away from the project site.

### D Measurement

The department will measure Removing 50-Foot Camera Pole by the unit, acceptably removed.

### E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
677.9051.S	Removing 50-Foot Camera Pole	EACH

Payment is full compensation for removing and disposing of the existing camera pole; disconnecting any necessary wiring; removing the equipment mounted on the poles; disposing of cabling and wiring; disposing of the pole properly off the project site; and transportation.

stp-677-901 (20230629)

## **17.9 Salvaging Ramp Gate System, Item SPV.0060.0701.**

### **A Description**

This special provision describes salvaging a ramp gate system.

### **B Materials**

The existing ramp gate system consists of a transformer base, pole, gear winch with cable, yoke assembly, gate pivots, supports, guides, collar, gate arm, bumper rods, and flashing LED lights, pedestal base, traffic signal standards, cabinets, solar power system, and all associated hardware.

### **C Construction**

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

Disconnect all cables and remove the ramp gate system from the concrete base. Associated traffic signal standard, pole mounted cabinet, and solar power system are included with the salvaging ramp gate system item. Dispose of the underground cable. Safeguard all parts from damage or loss. Collect the materials as follows:

- Poles – laid on an even, horizontal surface.
- Winches, pivots, guides and transformer bases – neatly bound on pallets.
- Cable and wire – coiled on a cable reel or neatly coiled on pallets.
- Hardware – in 5-gallon pails or burlap sacks.
- Solar panels
- LED lights

Contact Kimberly Bradley at 920-492-4174 to make delivery arrangement at least 5 working days prior to delivery of salvaged materials. Deliver salvaged materials to the department at 944 Vanderperren Way, Green Bay, WI 54304.

Dispose of all materials not designated for salvage as specified for disposing of materials under standard spec 204.3.1.3. Removal and disposal of the components is incidental to the work.

### **D Measurement**

The department will measure Salvaging Ramp Gate System as each individual salvaged system, acceptably completed.

### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.0701	Salvaging Ramp Gate System	EACH

Payment is full compensation for collecting, removing, storing, and disconnecting, disposing of cabling, disposal of damaged or non working equipment, and hauling and unloading to the designated location.

## **17.10 Install Ethernet Extender, Item SPV.0060.0702.**

### **A Description**

This special provision describes installing an ethernet extender.

### **B Materials**

The department will furnish ethernet extenders.

Furnish cables and connectors required to connect department-furnished ethernet switches and ethernet extenders or other devices.

### **C Construction**

Install ethernet extenders in new or existing field cabinets. Connect to the devices the plans show or engineer directs.

### **D Measurement**

The department will measure install Ethernet Extender as each individual unit acceptably completed.



## **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.0702	Install Ethernet Extender	EACH

Payment is full compensation for installing the devices; for cables and connectors; and connecting the devices.

### **17.11 Salvaging Microwave Detector Equipment, Item SPV.0060.0703.**

#### **A Description**

This special provision describes removing and salvaging a mounted controller microwave detector assembly.

#### **B (Vacant)**

#### **C Construction**

Carefully remove the existing microwave detector assembly at the location indicated on the drawings. Remove mounting hardware associated with the microwave detector assembly. Disconnect all wiring connected to the microwave detector assembly back to the control cabinet. Use caution not to damage any existing devices or processor assembly.

Prior to salvaging, the Field System Integrator must determine if the ITS equipment is fully functional. If any part of the ITS equipment is found to not meet original manufacturer's specifications, contact the department's Traffic Management Center at 414-227-2166.

Disconnect all cables and wiring. Salvage and store the microwave detector equipment. The department will pick up to the microwave detector equipment. Contact Traffic Management Center staff at 414-227-2166 at least 5 working days prior to when material is ready to be picked up. Properly dispose of the cabling and wiring away from the project site.

Storage and protection of the salvaged materials prior to pickup is the responsibility of the contractor and is included with this item.

Any materials which are lost or damaged during salvaging or storage shall be repaired or replaced by the contractor at the expense of the contractor or will be repaired or replaced by the department at the expense of the contractor, as determined by the engineer.

#### **D Measurement**

The department will measure Salvaging Microwave Detector Equipment as each unit acceptably salvaged.

## **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.0703	Salvaging Microwave Detector Equipment	EACH

Payment is full compensation for removing of the microwave detector assembly; disconnecting any necessary wiring; removing the equipment mounted on the existing pole; and disposing of cabling and wiring.

### **17.12 Salvaging Wireless Antennas, Item SPV.0060.0704.**

#### **A Description**

This special provision describes removing and salvaging wireless antennas.

#### **B (Vacant)**

#### **C Construction**

Carefully remove the existing wireless antennas at the location indicated on the drawings. Remove mounting hardware associated with the wireless antenna. Disconnect all wiring connected to the antenna back to the control cabinet. Use caution not to damage any existing devices or processor assembly.

Prior to salvaging, the Field System Integrator must determine if the ITS equipment is fully functional. If any part of the ITS equipment is found to not meet original manufacturer's specifications, contact the department's Traffic Management Center at 414-227-2166.

Disconnect all cables and wiring. Salvage and store the wireless antenna equipment. The department will pick up the wireless antenna equipment. Contact Traffic Management Center staff at 414-227-2166 at least 5 working days prior to when material is ready to be picked up. Properly dispose of the cabling and wiring away from the project site.

Storage and protection of the salvaged materials prior to pickup is the responsibility of the contractor and is included with this item.

Any materials which are lost or damaged during salvaging or storage shall be repaired or replaced by the contractor at the expense of the contractor or will be repaired or replaced by the department at the expense of the contractor, as determined by the engineer.

#### **D Measurement**

The department will measure Salvaging Wireless Antennas as each unit acceptably salvaged.

#### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.0704	Salvaging Wireless Antennas	EACH

Payment is full compensation for removing of the wireless antenna; disconnecting any necessary wiring; removing the equipment mounted on the existing pole; and disposing of cabling and wiring.

### **18. Miscellaneous and Incidental Construction.**

#### **18.1 Coloring Concrete Custom.**

*Add to standard spec 405.2.1.1 the following:*

Use Federal Standard Number 26081 Seaplane Gray for locations specified in the plans.

**18.2 Noise Barriers Double-Sided Sound Absorptive N-44-0012, Item 541.0300.S.0951;  
Noise Barriers Double-Sided Sound Absorptive N-44-0013, Item 541.0300.S.0952;  
Noise Barriers Double-Sided Sound Absorptive N-44-0014, Item 541.0300.S.0953;  
Noise Barriers Double-Sided Sound Absorptive N-44-0015, Item 541.0300.S.0954;  
Noise Barriers Double-Sided Sound Absorptive N-44-0016, Item 541.0300.S.0955;  
Noise Barriers Double-Sided Sound Absorptive N-44-0019, Item 541.0300.S.0956.**

#### **A Description**

This special provision describes designing, fabricating, transporting, and erecting composite concrete double-sided sound absorptive noise barriers as the plans show and conforming to department-approved installation specifications.

#### **B Noise Wall System**

##### **B.1 System Pre-Qualification and Selection**

The noise wall system supplied must be pre-qualified by the department. The department maintains a list of pre-qualified systems which can be viewed online at:

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

Systems eligible for use on this project shall be pre-qualified before the award of this contract.

Provide the name of the selected system, and the intended fabricator to the engineer within 25 days after award of the contract. Schedule a pre-design meeting with the engineer subsequent to award of the contract and before beginning design of the noise barrier. A representative of the fabricator of the noise barrier components shall attend this meeting.

##### **B.2 Design**

### **B.2.1 Structural and Foundation Design**

The structural and foundation design of the noise barrier system shall conform to the current edition of "AASHTO LRFD Bridge Design Specifications" published by the American Association of State Highway and Transportation Officials (AASHTO), 444 North Capitol Street, NW, Suite 225, Washington, DC 20001, with the following exceptions:

The minimum design wind pressure shall be 35 pounds per square foot (Strength III) for ground mounted noise barriers and 40 pounds per square foot (Strength III) for structure mounted noise barriers, unless specified otherwise on the plans. For ground and structure mounted noise barriers, the minimum Service I design wind pressure shall be 15 pounds per square foot. All wind loads shall be applied perpendicular to the barrier, alternately in each direction.

Design drilled shaft foundations using the Broms Method or the p-y Method. Ignore the top 1 foot of supporting soil in the design of ground-mounted barrier foundations.

In addition to wind loads, design the bottom noise barrier panel to support the dead load (weight) of the panels directly above it and its own dead load. Assume this dead load to be distributed uniformly across the bottom panel acting as a simple beam supported at the posts.

Bottom noise barrier panels shall have a minimum amount of perimeter reinforcement of a #4 bar which shall be continuous around the corners. Reinforcing steel in the concrete core of noise barrier panels shall have a minimum clear cover of 1 inch. Clear cover does not include sound absorptive material. Design the reinforced concrete core to resist the loads without considering any composite action from other material in the panel.

Provide a neoprene bearing pad or equivalent material of 1/4 inch minimum thickness between the foundation and the bottom panels. The allowable bearing stress shall not exceed 900 psi. Precast concrete pedestals placed between the foundation and bottom panels shall be reinforced if over 1'-0" high. The bearing pads shall be preformed EPDM rubber conforming to ASTM D-2000, Grade 2, Type A, Class A with a minimum Durometer Hardness of 80.

### **B.2.2 Fire Hose Access Openings**

Design fire hose access openings, at locations the plans show, with additional reinforcement and clear cover around the opening as necessary to maintain structural integrity. Detail drawings shall show the additional reinforcement and method for attaching the Fire Hydrant Location Signs to the barrier panel.

### **B.2.3 Barrier Profile**

Unless the plans show or the engineer approves otherwise, design the top of the noise barrier to be horizontal and at or above the acoustic elevation line the plans show. The bottom elevation of the noise barrier shall be as the plans show. Changes in elevation shall be accomplished by stepping sections at posts. Steps shall not exceed 3-feet in height. All joints shall be horizontal or vertical and shall be aligned with the adjacent panels.

### **B.2.4 Panel Orientation**

Design the panels to prevent entrapment and ponding of water. Avoid inadvertently providing areas for perching, nesting of birds or collecting of dirt and debris in the design of the noise barrier system.

### **B.2.5 Sound Transmission Loss (TL)**

Design the noise barrier panel material to achieve a transmission loss equal to or greater than 20 decibels in all test frequency bands, as referenced in ASTM E90.

### **B.2.6 Noise Reduction Coefficient (NRC)**

Design the noise barrier system so that the highway sides of the noise barrier panels have a minimum NRC of 0.80 and the residential sides have a minimum NRC of 0.70 as referenced in ASTM C423.

### **B.2.7 Design Coordination**

Design the noise barrier post spacing so as not to interfere with the existing utility and drainage facilities.

Design the noise barrier post spacing so as not to interfere with proposed utility and drainage facilities the plans show. This includes proposed roadway lighting and ITS facilities.

For noise barriers mounted behind or near proposed retaining walls, coordinate and design the noise barrier post spacing so as to not interfere with embedded portion of the proposed retaining walls, including MSE wall soil reinforcement and tieback anchors on soldier pile and timber lagging retaining walls.

For noise barriers mounted on proposed bridges and retaining walls, coordinate and design the noise barrier post spacing to coincide with noise barrier post and embedded noise barrier anchor assembly spacing shown on the bridge and retaining wall plans. Coordinate any required changes to the noise barrier post spacing and embedded noise barrier anchor assembly locations shown on the bridge and retaining wall plans, if required for the design of the noise barrier.

### **B.2.8 Weep Hole Openings**

Design panels such that weep hole openings in noise wall to allow water to drain can be field installed per C.3 at locations the plans show.

### **B.2.9 Maintenance Doors**

Design maintenance doors and door portals in noise walls, at locations the plans show, with additional reinforcement and clear cover around the opening as necessary to maintain structural integrity per B.2.1.

## **B.3 Materials**

Required material certifications and testing are the responsibility of the contractor. All certifications and test reports shall carry the name and address of the fabrication facility where the specific material was produced.

### **B.3.1 Concrete Masonry**

Provide grade A concrete conforming to standard spec 501 as modified in standard spec 716 for concrete posts and the core component of composite concrete sound absorbing panels. Provide QMP for class II ancillary concrete as specified in standard spec 716.

### **B.3.2 Materials Testing General**

All test reports shall carry the name and address of the laboratory where testing was performed, and the name of the person in responsible charge of the specific tests for which data is presented. Materials tested shall be representative of materials manufactured for this specific contract. Panels tested or from which samples will be taken will be selected and appropriately marked by the engineer either at the manufacturer's plant or from panels delivered to the project at the engineer's option.

Testing as detailed below is required for each lot of material not to exceed 100,000 SF of noise barrier produced. Conduct testing on panels within the first 30,000 SF of production of each lot not exceeding 100,000 SF. For projects that do not exceed 100,000 SF, a minimum of two lots of material will represent the project, each lot representing equivalent square footage. The first set of tests conducted for projects that do not exceed 100,000 SF shall be within the first third of the total square footage of the project. Provide the shipping record of the samples to the laboratory within five days of sampling. Begin testing as soon as practicable after sampling.

Test all materials as fabricated, including any specified finishing.

#### **B.3.2.1 Noise Reduction Coefficient (NRC)**

Test noise barrier panels according to ASTM C423, and placed according to ASTM E795, mounting type A, to determine the noise reduction coefficient (NRC) of the material. Submit to the engineer an independent laboratory test report that shows that the noise barrier panels achieve an NRC as specified in B.2.6 for the highway side of the barrier.

#### **B.3.2.2 Long-term Durability**

Test all sound absorbing composite concrete and composite concrete components for long-term durability according to ASTM C672 and the following modifications and/or requirements:

##### **B.3.2.2.1 Test Specimens**

Three specimens of a full cross section of the composite panel at least 144 square inches in face area will be selected at random from the provided composite panel as defined in B.3. Sample specimens shall be representative of the manufacturer's continuous production operation, as selected and marked by the engineer. Specimens shall be 2D-symmetric and shaped according to the testing laboratory's accommodations.

Prepare the surfaces of the sample specimens for testing as follows. Brush the surfaces of the sample to remove any loose particles. Before testing, submerge the test specimens be submerged in water for a period of 24 hours before testing. Immediately following this, cover the specimens with the sodium chloride solution as stated below.

#### **B.3.2.2.2 Test Procedure**

Place samples in a 5 sided water tight container, fully submerged in a solution of sodium chloride (concentration 3% by mass). Maintain 1/4 inch of sodium chloride solution above the top surface of the fully submerged specimen within the container.

Subject the submerged specimens to continuous freeze-thaw cycles as follows:

After each five cycles, remove the salt solution and particles of deteriorated concrete from the slab and collect in a watertight container. The operation is best accomplished by tilting the slab in a funnel approximately 20 inches in diameter and washing the surface of the slab with a 3% sodium chloride solution. Continue this washing until all loose particles are removed from the sample. Strain the solution through a filter and dry the residue at 221 degrees Fahrenheit to a constant mass condition. Cumulatively weigh the residue after each five cycles. The dry residue is defined as the loss of mass. Calculate the loss of mass to the nearest 0.01 pounds per square foot, not including the exposed surface of any core material on the cast or cut edges. Visually rate the surfaces according to 10.1.5 of ASTM C672 including any delamination of the sound absorbing material from the concrete core for composite concrete materials. After each washing of each sample, re-establish the initial submerged condition with a new solution of 3% sodium chloride before continuing with freeze-thaw cycling.

Continue the test until 30 freeze-thaw cycles have been completed.

During the test position and support each specimen to allow free circulation of the test solution under, around, and over test pieces. Support the bottom of the specimens on blocks in a manner to facilitate movement of moisture through and around the test specimens.

#### **B.3.2.2.3 Test Report**

Submit to the engineer an independent testing laboratory test report which shows that all solid and composite concrete products meet or exceed the following criteria:

1. After 30 freeze-thaw cycles the test specimens shall not exhibit excessive deterioration in the form of cracks, spalls, aggregate disintegration, delamination or other objectionable features.
2. Compliance with the test requirements is based upon a loss of mass of not more than 0.2 pounds per square foot from the surface after 30 cycles of freezing and thawing.
3. The report shall include the following:
  - 3.1. Name of manufacturer.
  - 3.2. Location of production.
  - 3.3. Production description.
  - 3.4. Date product sample was cast.
  - 3.5. Date testing began.
  - 3.6. Specimen identification.
  - 3.7. 5x7-inch color photographs of the test specimens before and after the 30 cycles of freeze-thaw test showing both sound absorbing faces and at least one representative side view of a cut (not cast) face, and any defects.
  - 3.8. A graph of the cumulative mass loss of each specimen plotted against the number of freeze-thaw cycles for 5, 10, 15, 20, 25, and 30 freeze-thaw cycles.
  - 3.9. Visual rating according to ASTM C672 Section 10.1.5, including report of any delamination of the sound absorbing material from the concrete core for composite concrete components.

#### **B.3.3 Materials Certification - General**

Provide certification of compliance or sample fabrications as noted below. All material certifications shall reference the specific facility manufacturing the material and this contract. Certification is required for each lot of material not to exceed 100,000 SF of noise barrier produced, and shall include dates of fabrication for the lot being certified. For projects that do not exceed 100,000 SF, a minimum of two lots of material will represent the project, each lot representing equivalent square footage.

##### **B.3.3.1 Color and Surface Texture**

Supply and deliver to the engineer a 3 foot x 5 foot minimum test panel for each panel type with the specified pattern and colors. Obtain the engineer's acceptance of the panel's pattern and color before production of the panels required for the contract. The accepted pattern and color test panels shall remain on the project site in a readily accessible location for the duration of the project. The accepted pattern and color sample panels will be the standard for all noise barriers on the project.

Manufacture noise barrier posts of the same materials throughout the project. Shop apply coating and coloring of the post and panels.

Unless otherwise shown and provided for in the plans, wall pattern shall contain textures with relief features of sufficient depth and quantity to be distinguishable at an observation distance of 500-feet. The colors and textures chosen will be within the following parameters; however, at the discretion of the engineer, a single color and/or a single texture may be selected for either side of the noise barrier.

	<b>FREEWAY SIDE</b>	<b>RESIDENTIAL SIDE</b>
Number of colors	2	2
In the proportion of	75:25 (+/- 5%)	75:25 (+/-5%)
Number of textures	2	2
In the proportion of	75:25 (+/- 5%)	75:25 (+/- 5%)

The engineer will visually inspect panels for color consistency upon arrival at the project. The panels shall have no substantial variation in color from the accepted sample panel submitted for the project. All panels with substantial color variation will be rejected and shall be removed from the project.

### **B.3.3.2 Structural Steel**

Submit to the engineer certification of compliance, including mill certifications and heat numbers, that structural steel conforms to the properties required on the plans and shop drawings, and is galvanized after fabrication by the hot-dip process according to ASTM A123. Galvanize all steel hardware and threaded fasteners, bolts, nuts, and washers according to ASTM A153.

Shop coat all steel galvanized surfaces exposed to view with a department-approved paint system. Clean galvanizing surfaces to be painted according to SSPC-SP1 to remove, chlorides, sulfates zinc salts, oil, dirt, organic matter and other contaminants. Brush Blast clean the surfaces according to SSPC-SP7 to create a slight angular surface profile (1.0 – 1.5 mils suggested) for adhesion. Do not fracture the galvanized finish or remove any dry film thickness during these processes.

After cleaning, provide a tie coat from an approved coating system that is specifically intended to be used on a galvanized surface. The tie coat shall etch the galvanized surface and prepare the surface for the top coat. Apply a top coat matching the finished color specified in B.3.2. Use a pre-approved top coat that is resistant to the effects of the sun, and is suitable for use in a marine environment. Exercise care so as not to damage the painted surfaces during shipment and erection of the noise barriers.

Use one of the qualified paint sources and products given below. An equivalent system may be used with the written approval of the engineer. Supply the engineer with the product data sheets before applying any coating. The product data sheets shall indicate the mixing and thinning directions, the recommended spray nozzles and pressures, the minimum drying time for shop applied coats, and the recommended procedures for coating galvanized bolts, nuts, and washers.

<b>Producer</b>	<b>Coat</b>	<b>Products</b>	<b>Dry Film Minimum Thickness (mils)</b>	<b>Minimum Time Between Coats (hours)</b>
Sherwin Williams Co. (847) 330-1250	Tie	Recoatable Epoxy Primer B67-5 Series/B67V5	2.0 to 4.0	6
	Top	Acrolon 218 HS Polyurethane, B65-650	2.0 to 4.0	NA
Carboline Co. (314) 644-1000	Tie	Rustbond Penetrating Sealer FC	1	36
	Top	Carboline 133 LH	4	NA
Wasser Corp. (253) 850-2967	Tie	MC-Ferrox B 100	3.0 to 5.0	8
	Top	MC-Luster 100	2.0 to 4.0	NA

### **B.3.3.3 Sound Transmission Loss (TL)**

Submit to the engineer certification of compliance that the sound transmission loss of the panel material, when tested according to ASTM Standard E90, achieves a transmission loss as specified in B.2.5.

### **B.3.3.4 Accelerated Weathering**

Submit to the engineer certification of compliance that all coatings on barrier components, with the exception of structural steel and wood components comply with the following requirements when tested according to ASTM Standard G155, G153, or G152 after 2400 hours of exposure on a cement based test specimens:

1. No checking when rated according to ASTM D660.
2. No cracking when rated according to ASTM D661.
3. No blistering when rated according to ASTM D714.
4. No difference in adhesion between the unexposed control sample and an exposed sample when tested according to ASTM D3359, Method A.
5. No chalking less than #7 rating when rated according to ASTM D4214.
6. No color change greater than 5 NBS units when measured according to ASTM D2244, using illuminant D65 and the 1964 10-degree standard observer.

### **B.3.3.5 Corrosion Resistance (Salt Fog Exposure)**

Submit to the engineer certification of compliance that all coated steel components, with the exception of structural steel, has a coating system that has been tested for corrosion resistance according to ASTM B117 and comply with the following requirements:

1. No checking when rated according to ASTM D660.
2. No blistering when rated according to ASTM D714.
3. No loss of adhesion when tested according to ASTM D3359 with no evidence of corrosion along the edges of the samples or along the score lines or both or other defects.

## **B.4 Project Submittal Requirements**

Furnish required submittals according to the following:

### **B.4.1 Pre-Construction Submittals**

A minimum of 14 days before beginning any shop or field work, submit the following documents to the engineer conforming to standard spec 105.2 with electronic submittal to the fabrication library under standard spec 105.2.2.

1. Structural and foundation design calculations
2. Design calculations shall be on 8 1/2 x 11-inch sheets, neatly bound with a title sheet listing the complete project identification number and sound barrier designation. Structural and foundation calculations shall be signed, sealed, and dated by a professional engineer licensed in the State of Wisconsin.
3. Detailed design/shop drawings.
4. Design/shop drawings shall conform to the contract plans and the requirements of these special provisions. The design/shop drawings shall consist of plan and profile sheets, details, explanatory notes, erection diagrams, aesthetic treatments, and other working plans. All dimensions, sizes of material, material information and other information necessary for the complete fabrication and construction of the noise barrier shall be designated on the appropriate sheets. The design/shop drawings shall be drawn to an appropriate scale on reproducible sheets 11 x 17 inches including borders. Each sheet shall carry the complete project identification number and noise barrier designation. Design/shop drawings shall be signed, sealed and dated by a professional engineer licensed in the State of Wisconsin.
5. Specifications regarding installation requirements and sequence of construction, including a detailed bill of materials.
6. Detailed color plan of the aesthetic treatments and finishes for the entire noise barrier.
7. Shipping, handling, and storage plan identifying methods or practices to limit post production damage.

Department review does not relieve the contractor from responsibility for errors or omissions on shop drawings.

#### **B.4.2 Pre-Installation Submittals**

Supply and deliver to the engineer the sample panel required under Section B.3.3.1 at least 14 calendar days before beginning production and/or installation of job materials. Acceptance of the sample panel will be by: Bryan Learst, (920) 366-5639, [bryan.learst@dot.wi.gov](mailto:bryan.learst@dot.wi.gov). If the panel is not acceptable, a second panel shall be produced and submitted for acceptance. Sample panel to be representative of quality for precast panel work after acceptance. Deliver test panels to the WisDOT CTH S interchange park and ride for comparison purposes. The park and ride is located on the SW side of the interchange and can be accessed from Mid Vally Drive.

#### **B.4.3 Payment Submittals**

Submit certifications and test data as required under B.3 for all materials, including trade name of the products along with the name and address of the manufacturers.

#### **B.4.4 Submittal Review**

The engineer's review and acceptance of the drawings, calculations, and related material, submitted by the contractor, is for compliance with design intent only, and does not relieve the contractor from responsibility in regard to errors or omissions on said submittals.

The final accepted design documents and/or shop drawings will become a part of the contract. Any substitution of materials or dimensions contemplated by the contractor's submitted documents, different from materials or dimensions shown on the contract plans, shall be made only when approved by the engineer, and in such case, additional costs resulting from such substitution shall be borne by the contractor.

Ordering materials before department acceptance of submittals is at the contractor's risk.

### **C Construction**

#### **C.1 General**

Construct the noise barriers at the locations the plans show, according to the contract specifications and design drawings and/or as the engineer directs. Deliver all sound absorbing composite concrete components to the project site as a finished component. A sound absorbing composite concrete system, which has the sound absorbing material glue-laminated or alternately affixed by a secondary adhesion method on the project site, will not be allowed.

Provide a minimum ten day notice to the engineer of the date that the fabrication of the noise barrier material will begin.

Inspect all materials delivered to the construction site for proper dimensions, honeycombing, cracks, voids, surface defects, consistency in color and texture, and any other damage or imperfections, before installation.

If any part of the noise barrier material fails to comply with any requirements of the contract specification, the component shall either be corrected, permanently marked as unacceptable and be disposed of by the contractor or accepted at a reduced price. The decision will be made by the engineer and is dependent on the severity of the specification deviation.

Erect noise barriers to avoid conflict with any existing facilities or utilities to remain in place. Any damage caused by construction activities shall be repaired by the contractor at no cost to the department.

#### **C.2 Fire Hydrant Location Signs**

Attach fire hydrant location signs to the noise barrier at each location the plans show by a method the department's approved drawings show. The signs shall conform and be of the type specified in the department's sign plate book, plate D9-54 and/or D9-54A.

#### **C.3 Weep Hole Openings**

Provide weep hole openings for drainage at the locations and sized as noted on the plan. Install weep holes by drilling through the wall after erection of the noise barrier. Use 6" PVC Schedule 40 pipe sleeve conforming to ASTM D-1785. Epoxy 6" PVC Schedule 40 pipe sleeve into bored weep hole. PVC pipe sleeve shall fit snugly in cored hole through wall. Epoxy PVC pipe sleeve into bored weep hole in noise barrier. Locate and construct weep holes according to the plans and as the engineer directs. Place



weep holes at locations the plans show unless the engineer approves adjusting locations to fit field conditions. The engineer will field verify the height and location of the weep hole for positive drainage.

#### **C.4 Name Plates**

Provide name plates conforming to the requirements of standard spec 506.2.4. Install one name plate on each noise barrier at the location the plans show. Rigidly attach each plate to the barrier by a means approved by the engineer.

Compensation for furnishing and placing of name plates shall be included in the contract price for Noise Barriers, Double-Sided Sound Absorptive Structure and no additional compensation therefore will be allowed.

#### **C.5 Structure Mounted Noise Barriers**

Do not erect noise barriers mounted to bridge or retaining wall structures until after the concrete for bridge decks and parapets or retaining wall moment slabs and parapets have attained their specified 28-day strength.

For noise barriers mounted to moment slabs and parapets on top of MSE retaining walls, erection of the noise barrier is limited to two-thirds the height of the noise barrier acoustical line the plans show before placement of earth fill or pavement over the top of the moment slab as the plans show. Erection of the noise barrier in excess of two-thirds its height to the full height of the noise barrier acoustical line the plans show may not occur until after the earth fill or pavement structure over the top of the moment slab the plans show is complete.

#### **C.6 Construction Tolerances**

Install the posts and panels comprising the noise barrier plumb within 1/2 inch in 15-feet. Locate the posts to the line and grades as the plans show to within +/- 3/4 inch. Align horizontal joints of adjacent panels to a vertical tolerance of 1/4 inch. Where vertical adjustments are required for alignment, use a mortar base or steel shims. Galvanize and prime coat steel shims according to B.3.3.2.

#### **D Measurement**

The department will measure Noise Barriers Double-Sided Sound Absorptive (Structure #) by the square foot, acceptably completed, as the area the original plans show plus engineer-approved modifications to the plan quantity caused by plan corrections or revisions.

#### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
541.0300.S.0951	Noise Barriers Double-Sided Sound Absorptive N-44-0012	SF
541.0300.S.0952	Noise Barriers Double-Sided Sound Absorptive N-44-0013	SF
541.0300.S.0953	Noise Barriers Double-Sided Sound Absorptive N-44-0014	SF
541.0300.S.0954	Noise Barriers Double-Sided Sound Absorptive N-44-0015	SF
541.0300.S.0955	Noise Barriers Double-Sided Sound Absorptive N-44-0016	SF
541.0300.S.0956	Noise Barriers Double-Sided Sound Absorptive N-44-0019	SF

Payment is full compensation for providing noise barrier including coloring and aesthetic treatment on panels, preparing the design drawings and calculations, furnishing and delivering sample and test panels, materials testing, furnishing materials test reports and certifications, excavation, preparing the site, constructing foundations, erecting posts and panels, and disposing of waste materials.

stp-541-010 (20230113)

#### **18.3 Midwest Guardrail System (MGS).**

*Add to standard spec 614.2.1 the following:*

The Midwest Guardrail System installed along IH 41 and STH 47 shall be attached to steel posts and notched plastic blockouts.

*Add to standard spec 614.3.2.1 the following:*

All posts will be installed through the proposed roadway Base Aggregate Dense 1 1/4" and subgrade improvement of Select Crushed.

## **18.4 Fence Safety, Item 616.0700.S.**

### **A Description**

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

### **B Materials**

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

Furnish fence fabric meeting the following requirements.

**Color:** International orange (UV stabilized)

**Roll Height:** 4 feet

**Mesh Opening:** 1 inch min to 3 inch max

**Resin/Construction:** High density polyethylene mesh

**Tensile Yield:** Avg. 2000 lb per 4 ft. width (ASTM D638)

**Ultimate Tensile Strength:** Avg. 3000 lb per 4 ft. width (ASTM D638)

**Elongation at Break (%):** Greater than 100% (ASTM D638)

**Chemical Resistance:** Inert to most chemicals and acids

### **C Construction**

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

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

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

### **D Measurement**

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

### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
616.0700.S	Fence Safety	LF

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

stp-616-030 (20160607)

## **18.5 Temporary Audible Message Devices, Item 644.1900.S**

### **A Description**

This special provision describes providing, maintaining, and removing temporary audible message devices. These devices are used on temporary pedestrian facilities to guide individuals with sight disabilities.

### **B Materials**

Furnish temporary audible message devices from the approved products lists.

### **C Construction**

Provide and maintain temporary audible message device. Maintain and repair devices within two hours of being notified by the project engineer of an issue.

Contractors record messages as approved by the engineer.

Mount temporary audible message devices on drums, temporary sign supports, or other locations approved by the engineer. Locate motion detection areas that will be effective in activating the device to

operate properly. Avoid locating motion detection areas that will cause activation by trees, traffic, or other known regular activity.

Move and adjust devices after disruptions by the work or the public.

Maintain devices in a working condition and replace batteries as needed. Replace any devices that are not working properly within 2 hours of being notified of an issue.

Use tamper-proof hardware for mounting.

#### **D Measurement**

The department will measure temporary audible message devices 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
644.1900.S	Temporary Audible Message Device	DAY

Payment is full compensation for providing, maintaining, and removing temporary audible message device.

The department will not pay for devices that are inoperable.

stp-644-190 (20250108)

### **18.6 Furnishing and Planting Plant Materials.**

The work covered by this special provision is in accordance with standard spec 632 except as hereinafter specified.

*Supplement standard spec 632.2.2.1 with the following:*

All plant material must conform to American Standard for Nursery Stock, ANSI Z60.1-2014 for type, shape, and height.

Provide plants grown within the states of Wisconsin, Minnesota, Michigan, or parts of northern Illinois, Indiana or Ohio located within Zone 5 of the "Plant Hardiness Zone Map" produced by the United States Department of Agriculture, Miscellaneous Publication No. 1475, issued January, 1990, updated January 24, 2012.

*Modify paragraphs (1-3) of standard spec 632.2.2.2 as follows:*

Collected grown stock is not allowed.

*Supplement standard spec 632.2.2.8 with the following:*

Plants with undersized, insufficient, unbalanced, damaged, or improperly stored, transported or handled root systems will be rejected.

To prevent stem-girdling roots over time, plants with encircling roots that cannot be properly repositioned during installation will be rejected.

*Supplement standard spec 632.2.2.9.1 with the following:*

Plants must be protected from excessive vibrations. Plants shall not be thrown or bounced off a truck or loader to the ground. Plants shall not be dragged, lifted, or pulled by the trunk or foliage parts in a manner that will loosen the roots in the ball.

*Supplement standard spec 632.2.2.9.3 with the following:*

Roots cannot extend more than 4" beyond the burlap.

Numerous larger diameter root stubs must not be present.

Roots must fill the soil ball.

Plant must be no more than 10% off center in the soil ball, unless the ball is oversized allowing a centered plant within the minimum radius spread for the root type as specified in the plans.

*Modify paragraphs (1-3) of standard spec 632.2.3.2 as follows:*

Peat Moss is not allowed.

*Replace standard spec 632.2.3.4 with the following:*

The planting mixture shall conform to the requirements in the article "Planting Mixture" contained in these special provisions.

*Remove standard spec 632.2.4.1.*

*Replace standard spec 632.2.6 with the following:*

The mulch shall conform to the requirements in the article "Shredded Hardwood Bark Mulch" contained in these special provisions.

*Replace paragraph (2) of standard spec 632.3.4 with the following:*

Excavate planting holes as shown in the plan details and to minimum widths shown in the plant data tables. The planting hole diameter for trees shall be at least three times the diameter of the root ball or 8-ft minimum. The soil shall be loosened beyond the edge of the planting hole. Excavation may be done by shovel, backhoe, or stump grinder, but a soil auger may not be used.

For balled and burlapped (B&B) plants, determine the depth of plant hole by measuring the distance from the point at which the trunk flare begins to the bottom of the ball and subtracting 2 inches.

Excavated planting holes that will be left open when work is not in progress or pose an immediate and considerable hazard to pedestrians or vehicles shall be adequately barricaded with appropriate warning devices.

*Delete standard spec 632.3.4 (4).*

*Supplement standard spec 632.3.7 with the following:*

For B&B plants, loosen the burlap to the top of the ball and locate the trunk flare ensuring it is visible in accordance with ANSI Z60.1. Remove excess soil, without damaging the plant, if the trunk flare is buried less than 4 inches in the root ball soil. Remove stem girdling, kinked, or injured roots by cutting cleanly, do not break off. If trunk flare is buried in the root ball soil more than 4 inches, it will be rejected.

Test the soil ball by pulling on the stem or crown of the ball. If the stem or crown moves and the ball does not, the ball is broken and will be rejected.

The soil pad on which the B&B soil ball or root ball will be placed shall be of undisturbed soil. Initially clip and remove the bottom two links of the wire basket and burlap material from the bottom of the root ball prior to setting in the planting hole. Carefully set the plant in the hole so that the trunk flare is 2 inches above the existing grade. Once the tree or shrub is set and backfilled enough to stabilize the root ball completely remove the remaining wire basket, burlap, and any rope, string, or twine from the root ball and trunk.

Prior to planting balled and potted (B&P) or container grown (CG) plants, remove the plastic, metal, or biodegradable container. If roots are crowded or coiled on the bottom, sides, or surface of the root ball, gently separate from the edges or surface.

*Replace paragraph (3) of standard spec 632.3.7 with the following:*

Backfill the plant hole(s) as follows:

Use backfill material, Planting Mixture, for all planting beds.

Use backfill material, Topsoil Special, for all trees planted in seeded areas.

Carefully tamp the soil lightly to avoid leaving air pockets but not so firmly as to drive out all the fine air spaces needed for a well-aerated soil. Tamp each soil layer in a way that avoids injuring the roots or ball or disturbing the plant position. To avoid packing the soil too firmly, water the soil halfway through the backfill process and allow it to drain. After the water is absorbed, resume backfilling and water again thoroughly.

To complete backfilling, smooth the surface soil with a rake and check to ensure that the trunk flare is completely exposed and that the top of the rootball is not covered with soil. Build a "saucer" at the outer edge of the hole to retain water and allow it to soak down to the roots.

*Supplement paragraph (5) of standard spec 632.3.7 with the following:*

After planting, water the planting area deeply. Newly planted trees and shrubs must receive adequate water during the establishment period.

*Replace standard spec 632.3.9 as follows:*

Use shredded hardwood bark mulch for all planting beds and tree mulch rings in accordance with the article "Shredded Hardwood Bark Mulch" contained in these special provisions.

*Replace standard spec 632.3.13(1) with the following:*

Provide rodent protection for trees as directed by the Engineer or forestry department of the local municipality.

Provide rodent protection for single-stem trees of rigid plastic mesh made of recycled HDPE with an open mesh matrix  $\frac{3}{4}$ " by  $\frac{3}{4}$ " with each strand approximately  $\frac{1}{8}$ " x  $\frac{1}{8}$ " x  $\frac{1}{8}$ ". Provide products that are UV treated with a life expectancy of up to five (5) years. The product shall be at least 48 inches high. Supply the source of rodent protection to the engineer. Install rodent protection for single-stem trees according to manufacturer's written instructions and at a minimum, burying the bottom of the rodent protection 2-3 inches into the adjacent soil grades.

Provide rodent protection for multi-stemmed trees of chicken wire or other similarly rigid, matrix-material with an open mesh matrix  $\frac{3}{4}$ " by  $\frac{3}{4}$ " or less, 48 inches high. Install rodent protection for multi-stemmed trees such that the entire base of the tree is protected; circumference of rodent protection may vary based on specific characteristics of each tree. Bury the bottom 2-3 inches of the rodent protection into the adjacent soil grades.

Any rodent protection material is to be removed at the end of the landscape planting surveillance and care period unless directed otherwise by the Engineer or forestry department of the local municipality.

*Supplement standard spec 632.3.14 with the following:*

If the root ball is not stable in the soil, at the direction of the Engineer or forestry department of the local municipality, brace the trunk as low as possible to keep the root ball stable while allowing the trunk to sway slightly. Only polyethylene straps are allowed for bracing. Any bracing material is to be removed at the end of the landscape planting surveillance and care period.

*Delete standard spec 632.3.15*

*Supplement standard spec 632.5.1 (2) with the following:*

Payment for Planting Mixture and Topsoil Special will be paid for separately under their associated bid items.

Payment for Shredded Hardwood Bark Mulch will be paid for separately under the associated bid item.

## **18.7 Landscape Planting Surveillance and Care Cycles.**

The work covered by this special provision is in accordance with standard spec 632 except as hereinafter specified.

*Replace paragraph (1) of standard spec 632.3.18.1 with the following:*

A plant establishment period of eighteen months shall follow the completion of planting.

*Delete standard spec 632.3.18.2.*

*Delete standard spec 632.3.18.3.*

*Replace paragraph (1) of standard spec 632.3.19.1 with the following:*

Properly care for low maintenance seed mix, trees, shrubs, and perennials from the time of planting and during the period of establishment until final acceptance of the work.

At least 14 days prior to planting, submit a care cycle schedule to the Engineer.

*Supplement standard spec 632.3.19.1 with the following:*

Perform proper care of low maintenance seed mix extents in consultation and accordance with the seed supplier/manufacturer's maintenance written recommendations specific to the project location. At least 14 days prior to seeding low maintenance seed mix submit a written maintenance plan for low maintenance seed mix to the Engineer that coincides with the overall landscape planting surveillance and care cycle schedule. Proper care for low maintenance seed mix consists of watering, mowing, weeding, spraying, dethatching, aerating, overseeding, removal of trash/debris and any other work necessary to keep the low maintenance seed mix extents in a neat appearance and healthy growing condition.

Provide supplemental watering for germination, initial establishment, and as needed once established during hot dry conditions. Do not apply fertilizer. Excess nitrogen can damage fine fescues. Mow regularly through repeat mowings to a height of 4" to control weeds. Do not mow to less than a height of 4" and do not remove more than one third of the total height when mowing to prevent damage. Hand

apply herbicide using the wiped glove method only as necessary for spot treatment of annual or perennial weeds. Remove and dispose of any trash or debris that has accumulated. Dethatch lawn to remove accumulated dead grass in mid-spring after grass has greened up and resumed active growth. Core aerate and overseed low maintenance seed mix extents prior to the end of the care cycle period. Overseed with one of the following seed mixes in consultation and accordance with the seed supplier/manufacturer's recommendations:

- Low maintenance seed mix composed of a minimum of 4 varieties of fine fescues (hard, sheep, chewings, red, or creeping red fescues) from the same seed supplier/manufacturer used for initial seeding.
- Turf type tall fescue seed mix composed of a minimum of 4 varieties of turf type tall fescues.
- Salt tolerant streets seed mix composed of a minimum of 2 varieties of fine fescues (hard, sheep, chewings, red, or creeping red fescues), 1 variety of salt tolerant turf type tall fescue, and 1 variety of Kentucky bluegrass.
- Custom seed mix as recommended by seed supplier/manufacturer.

Submit written recommended overseed seed mix at least 14 days prior to overseeding to the Engineer for approval prior to performing overseeding operations.

Perform a complete and thorough spring clean-out of all planting beds that contain trees, shrubs, perennials, ornamental grasses and/or bulbs. Perform spring clean-out during the first care cycle or as soon as weather and growing season conditions permit. Do not perform spring clean-out until the ground is no longer saturated from the spring thaw; walking on saturated soil will result in compaction. Ensure that Spring clean-out includes removal of past-season herbaceous material that was left standing over winter, cutting back ornamental grasses to within 3-inches of the mulched surface, removing any material damaged over the winter by pruning according to the language outlined in standard spec 632, removal of trash or other debris that has accumulated in planting beds, removal of leaves or other plant debris that has accumulated on the top of the mulched surface, weeding, and any and all other clean-out and maintenance operations as directed by the Engineer.

Perform a complete and thorough fall clean-out of all planting beds that contain trees, shrubs, perennials, ornamental grasses and/or bulbs. Perform fall clean-out during the last care cycle. Do not perform fall clean-out if the soil is saturated from rain event; wait until the soil moisture levels have gone down before performing the final bed clean-out. Ensure that fall clean-out includes coordination with the Engineer and each of the local municipalities Public Works Department(s) representative(s) to determine which herbaceous perennial and ornamental grass material to leave standing through the winter and which to cut back to the ground, removing any material damaged during the growing season by pruning according to the language outlined in standard spec 632, removal of trash or other debris that has accumulated in planting beds, removal of leaves or other plant debris that has accumulated on the top of the mulched surface, weeding, and any and all other clean-out and maintenance operations as directed by the Engineer.

Top dress all mulched areas with 1"-2" of specified mulch material immediately prior to the end of the surveillance and care period.

Remove and dispose of rodent protection materials after the final inspection of the plantings unless directed otherwise by the Engineer or forestry department of the local municipality.

*Supplement standard spec 632.3.19.2 with the following:*

The department will assess daily damages in the amount of \$1,000.

*Replace paragraph (2) of standard spec 632.3.20 with the following:*

Remove and replace low maintenance seed mix, plants, and/or landscape materials as ordered by the Engineer, that are not conforming to the above requirements, with satisfactory low maintenance seed mix, plants, and/or landscape materials. Use the same materials and methods for replacement planting as specified for the original planting.

## **18.8 Planting Mixture, Item SPV.0035.5000.**

### **A Description**

This Special Provision describes furnishing and installing Planting Mixture at the planting bed locations shown in the plans.

## B Materials

Provide Planting Mixture consisting of the following blend by volume:

- 3 parts topsoil conforming to standard spec 625.
- 1 part sand conforming to the gradation in standard spec 209.2.2.
- 1 part compost. Provide compost that is either well-rotted shredded leaf mulch, free of disease; or well-rotted, unbleached, stable or cattle manure containing no more than 25 percent by volume of straw, sawdust, or other bedding materials and free of toxic substances. Provide compost free of stones, sticks, soil, weed seeds, debris, and other material harmful to plant growth.

Obtain review and approval of Planting Mixture by the Engineer before use on project. The Engineer reserves the right to reject planting mixture that does not conform to the specifications and/or does not come with the appropriate material certificates. The Engineer may require samples (for USDA soil texture classification, pH, % organic matter, nutrient content, cation exchange capacity, soluble salts, and the presence of any materials deleterious to plant growth). Provide testing through a qualified testing laboratory approved by the State of Wisconsin to confirm that topsoil meets the requirements outlined in Section 625.

## C Construction

Deliver Planting Mixture to project site and install within seven days of delivery. Coordinate and schedule the delivery and installation of the Planting Mixture with the delivery and installation of all landscape plant materials.

Provide a list of all materials used in Planting Mixture including manufacturers or suppliers (source) and quantities to the Engineer.

Remove construction materials, stone, or other debris larger than 2" in length or diameter, debris, slag piles and trash from areas receiving Planting Mixture. If temporary and/or permanent seeding has occurred prior to placement of Planting Mixture remove any germinated vegetation and remnant erosion control matting prior to excavation and preparation of subgrades.

Till, disc, or hoe subgrade to loosen and de-compact. Obtain the engineer's approval of subgrade preparation including depth excavated, removal of trash materials, and loosening of subgrades before placing any Planting Mixture.

Provide Planting Mixture over entire planting bed area and fine grade to match grades as indicated on plans or to adjacent back of curb or other hardscape surface as indicated on plans, accounting for settling. Place Planting Mixture in 6-inch to 8-inch lifts, watering or tamping to reduce settling potential. Place Planting Mixture to depths indicated on the plan details.

## D Measurement

The department will measure Planting Mixture in volume by the cubic 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.0035.5000	Planting Mixture	CY

Payment is full compensation for excavating, site preparation, and disposing of surplus materials; and for furnishing and installing all materials and for furnishing all labor, tools, equipment, and incidentals necessary to complete the contract work.

### 18.9 Topsoil Special, Item SPV.0035.5010.

#### A Description

This special provision describes furnishing and installing Topsoil Special at tree planting locations shown in the plans.

#### B Materials

Furnish topsoil materials in accordance with standard spec 625.

#### C Construction

Remove construction materials, stone, or other debris larger than 2" in length or diameter, debris, slag piles and trash from area receiving Topsoil Special.

Till, disc, or hoe to loosen and de-compact subgrades before placing any Topsoil Special.

Provide Topsoil Special to extents and depth indicated on the plan details. Fine grade to match adjacent grades, accounting for settling. Place Topsoil Special in 6-inch to 8-inch lifts, watering or tamping to reduce settling potential.

#### **D Measurement**

The department will measure Topsoil Special in volume by the cubic 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.0035.5010	Topsoil Special	CY

Payment is full compensation for excavating, site preparation, and disposing of surplus materials; and for furnishing and installing all materials and for furnishing all labor, tools, equipment, and incidentals necessary to complete the contract work.

### **18.10 Construction Staking Survey Project 1130-64-73, Item SPV.0060.0110; Construction Staking Survey Project 1130-64-77, Items SPV.0060.0115.**

#### **A Description**

This special provision describes providing all construction staking survey required to layout and construct the work. Conform to standard spec 650 and standard spec 105.6, and as follows.

#### **B (Vacant)**

#### **C Construction**

Perform all surveying required to construct the work under this contract as specified in standard spec 650. Include all other miscellaneous survey required to layout and construct all work under this contract.

Remove and replace standard spec 105.6 with the following:

#### **105.6 Construction Staking**

##### **105.6.1 General**

- (1) The department is responsible for errors or discrepancies found in previous department surveys, plans, specifications, special provisions, or work constructed under other department contracts. The department will pay for further studies and redesign required due to these errors or discrepancies.
- (2) The department will furnish data for the horizontal and vertical control points. Prosecute the work using these points for field control. The department is responsible for the accuracy of lines, slopes, and grades it provides. The engineer and contractor shall agree on the meaning of all stakes, measurements, and marks before the contractor begins work.

##### **105.6.2 Contractor-Performed Staking**

Provide the construction stakes or markings needed to prosecute the work as follows:

- (1) Additional staking or markings that might be needed to support the contractor's specific method of operations.
- (2) Staking required under standard spec 650 to lay out and construct the work for the individual construction bid items the contract includes.
- (3) Other staking or markings as required to successfully prosecute the work.

The contractor is responsible for the accuracy of lines, slopes, and grades the contractor provides. Construct the work conforming to the lines, grades, cross sections, and dimensions the contract specifies or the engineer establishes.

Notify the engineer immediately when finding errors or discrepancies in previous surveys, plans, specifications, special provisions, or work constructed under other contracts. Suspend related operations until the engineer gives approval to proceed.

The engineer may check the control of work, as established by the contractor, at any time. The engineer will provide the results of these checks to the contractor, but by doing so in no way relieves the contractor of the responsibility for the accuracy of their layout work.



Correct or replace deficient layout and construction work resulting from:

- (1) Inaccuracies in the contractor's staking operations.
- (2) Not reporting inaccuracies found in work done by the department or by others.

If, due to the inaccuracies in 105.6.2(5), the department is required to make further studies, redesign, or both, the department will deduct all expenses incurred from the payment due the contractor.

#### **D Measurement**

The department will measure Construction Staking Survey Project as a single unit acceptably completed for the entire project.

#### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.0110	Construction Staking Survey Project 1130-64-73	EACH
SPV.0060.0115	Construction Staking Survey Project 1130-64-77	EACH

Payment is full compensation for performing all survey work required to layout and construct all work under this contract.

ner-650-025 (20210716)

### **18.11 Mobilizations Emergency Pavement Repair, Item SPV.0060.0300.**

#### **A Description**

This special provision describes furnishing and mobilizing personnel, equipment, traffic control, and materials to the project site to repair the existing pavement for emergencies as the engineer directs. An emergency is a sudden occurrence of a serious and urgent nature, beyond normal maintenance of the existing pavement.

#### **B (Vacant)**

#### **C Construction**

Mobilize with sufficient personnel, equipment, traffic control, materials, and incidentals on the jobsite within 4 hours of the engineer's written order to repair the existing pavement on an emergency basis.

#### **D Measurement**

The department will measure Mobilizations Emergency Pavement Repair as each individual mobilization, acceptably completed. The department will not include delivering and installing pavement repair or maintenance materials provided for in specific contract bid items. All traffic control items used for each Mobilization will be considered incidental to the Mobilization.

#### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.0300	Mobilizations Emergency Pavement Repair	EACH

Payment is full compensation for the staged moving of personnel, moving equipment, setting up and removing traffic control, traffic control materials, and moving materials. The department will pay separately for delivery and installation of pavement repair materials under the other bid items in this contract. The department will not pay separately for traffic control items and materials even though they may be included in other bid items in this contract and will consider them incidental to each Mobilization.

### **18.12 Emergency Response to Traffic Involving Concrete Barrier Temporary, Item SPV.0060.0305.**

#### **A Description**

This special provision describes providing prompt response to an emergency repair request for damaged and/or dislodged temporary concrete barrier installed under this project and for temporary concrete barrier left in place that are 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, equipment, and materials to the incident site within one hour 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 hours a day, 7 days a week, 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 one hour of receiving a repair request, the department will assess the contractor a \$500 fee assessment for each 15-minute interval that the contractor is not present following the allotted one-hour 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. Fee assessments will be assessed under the administrative item Failing to Open Road to Traffic.

For contractor owned temporary concrete barrier and temporary concrete barrier left in place, repair work shall be completed according to standard spec 603 and 643, and as directed by the engineer. 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 Involving Concrete Barrier Temporary 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.0060.0305	Emergency Response to Traffic Involving Concrete Barrier Temporary	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 limits.

The cost of providing the appropriate level of on-call staff and equipment for 24 hour a day incident response availability shall be included in the Mobilization bid item for this project.

If the displaced barrier is damaged, replacement of the barrier is incidental to the items Concrete Barrier Temporary Precast Installed and Maintain and Remove Concrete Barrier Temporary Left in Place. If the displaced barrier is anchored, re-anchoring the barrier wall will be paid for under the Anchoring Concrete Barrier Temporary Precast bid item. The anchoring bid item will be used for both contractor owned temporary concrete barrier and temporary concrete barrier left in place that are anchored.

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

ner41-603 (07082024)

### **18.13 Emergency Response to Traffic Involving Crash Cushion Temporary, Item SPV.0060.0310.**

#### **A Description**

This special provision describes providing prompt response to an emergency repair request involving a damaged temporary crash cushion installed under this project and for crash cushions temporary left in place that are displaced or damaged due to a vehicular collision during the time this contract is in effect.

#### **B Vacant**

## C Construction

The contractor shall provide appropriate staff, equipment, and materials to the incident site within one hour of receiving a repair request from the responding agency. Staff deployed shall be capable of 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 hours a day, 7 days a week, 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 one hour of receiving a repair request, the department will assess the contractor a \$500 fee assessment for each 15-minute interval that the contractor is not present following the allotted one-hour 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. Fee assessments will be assessed under the administrative item Failing to Open Road to Traffic.

Repair work shall be completed according to standard spec 614, and as directed by the engineer. 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 Involving Temporary 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.0060.0310	Emergency Response to Traffic Involving Crash Cushion Temporary	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. If a crash cushion temporary requires replacement, payment for the installation and future removal of the new crash cushion is incidental to item Crash Cushions Temporary.

The cost of providing the appropriate level of on-call staff and equipment for 24 hour a day incident response availability shall be incidental to 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.

ner603 (20241216)

## 18.14 Maintain and Remove Crash Cushions Temporary Left In Place, Item SPV.0060.0315.

### A Description

This special provision describes maintaining and removing temporary crash cushions left in place according to standard spec 614 and as hereinafter provided. Contractor shall assume maintenance of crash cushions left in place at the start of the contract.

### B Materials

Furnish any replacement materials for the temporary crash cushions left in place by others according to standard spec 614.2.

### C Construction

Maintain and remove the temporary crash cushions left in place by others according to standard spec 614.3.4.

#### **D Measurement**

The department will measure Maintain and Remove Crash Cushions Temporary Left In Place as each individual crash cushion 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.0060.0315	Maintain and Remove Crash Cushions Temporary Left In Place	EACH

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

### **18.15 Temporary Concrete Barrier Gate, 24-FT, Item SPV.0060.0320.**

#### **A Description**

Furnish and install a Temporary Concrete Barrier Gate and remove when project staging dictates.

#### **B Materials**

Furnish a Temporary Concrete Barrier Gate and all necessary hardware and materials to install the gate. The gate system shall be able to meet the recommended structural adequacy, occupant risk, and vehicle trajectory criteria set forth in the National Cooperative Highway Research Program Report (NCHRP) 350 for Test Level 3 for Longitudinal Barriers. The gate shall be capable of preventing vehicle penetration, vaulting, and under riding during Test Level 3 Length of Need with Transition (TL-3 LON/T) impacts and shall smoothly redirect the vehicle. The gate system shall be able to span a 24-foot minimum gap in concrete barrier. The gate system shall fasten only to the temporary concrete barrier wall. The gate system shall be able to be opened completely within 5 minutes once the moving process begins. The gate shall be able to be opened both by pivoting the gate on a hinge and by completely disconnecting the gate from the barrier wall and rolling it parallel to the temporary barrier wall. Tools and materials required to open the gate system must be physically fastened to, or stored within, the gate system in such a way that prevents such tools and materials from becoming hazards during a crash. Tools and material must be accessible and usable immediately upon need.

#### **C Construction**

Install the gate system according to manufacturer's recommendations at contract-identified locations or as the engineer directs. Ensure that the gap between the traffic face of temporary barrier and the traffic face of the gate transition is to be less than  $\frac{1}{4}$  of an inch. If manufacturer allows, the contractor may bolt thrie beam and thrie beam terminal connector to concrete barrier and the gate transition to bridge the gap in concrete barrier. Provide and maintain the gates throughout the duration of the project. Repair any damage to the gates within 48 hours. Once the gate is installed, a tutorial shall be given to the department and law enforcement at a time determined by the engineer. After completion of the tutorial, furnish written instructions to the department and law enforcement. Upon completion of the work, remove the gate system and properly dispose of all materials.

#### **D Measurement**

The department will measure Temporary Concrete Barrier Gate as each individual gate system, acceptably completed. The department will not make additional measurements for Temporary Concrete Barrier Gate if damaged during construction, including damage due to vehicular hits.

#### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.0320	Temporary Concrete Barrier Gate, 24-FT	EACH

Payment is full compensation for providing, installing, maintaining, and removing the gate system.

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### **18.16 Anchor Assemblies Noise Barrier Structures, Item SPV.0060.0950.**

#### **A Description**

This special provision describes furnishing and installing anchor bolt assemblies for noise barriers that will be installed on retaining walls as shown on the plans, and hereinafter provided.

## **B Materials**

- (1) The department furnishes galvanized anchor rod assemblies for camera poles. For other ancillary structures, furnish steel anchor rod assemblies conforming to the following:

Anchor Rods ..... ASTM F1554, grade 55, supplementary specification S4

Heavy Hex Nuts ..... ASTM A563 grade DH or ASTM A194 grade 2H

Washers..... ASTM F436

Templates ..... ASTM A36

Galvanizing<sup>[1]</sup> according to ASTM A153, class C and as follows:

Hot-dipped ..... ASTM F2329

Mechanical..... ASTM B695, Class 55

<sup>[1]</sup> Use either hot-dipped or mechanical, but use the same process for all parts of the assembly.

- (2) Furnish galvanized anchor rods with a rolled thread on the top 12 inches and bottom 6 inches. Ensure that nuts run freely on the rods after coating the threads and nuts with a wax-based lubricant. Submit a certified report of test or analysis to the engineer for the anchor rods, nuts, and washers. Do not install until the engineer approves the material.

## **C Construction**

Install embedded anchor assemblies in concrete structures at locations as shown on the plans. Mount anchor assemblies to formwork or otherwise provide positive support of anchor assembly within formwork as necessary to prevent movement, shifting or misalignment of the anchor assembly during subsequent concrete placement. Protect or clean exposed anchor bolt threads from concrete splatter.

Coordinate location and spacing of anchor assemblies embedded in retaining walls for mounting noise barriers on retaining walls with approved noise barrier shop drawings.

## **D Measurement**

The department will measure Anchor Assemblies Noise Barrier Structures a unit for each individual anchor bolt assembly 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
SPV.0060.0950	Anchor Assemblies Noise Barrier Structures	EACH

Payment is full compensation for furnishing and installing the anchorages.

### **18.17 Accent Boulder, Item SPV.0060.5000.**

#### **A Description**

This Special Provision describes furnishing and installing Accent Boulders at the locations shown on the plans.

#### **B Materials**

- Type: Wisconsin weathered dolomitic limestone, Type III (High Density).
- Color: Naturally selected from standard range of gray to buff to tan with holes.
- Finish: Natural quarried.
- Unit Size: 12"-36" Height, 12"-36" Depth, 12"-36" Length.

## C Construction

All limestone used on the project shall conform to the following minimum material standards and specifications:

- Comply with ASTM C 568/C568 M. Stone must meet or exceed requirements set forth for the classifications listed in this Section.
- Type III (High Density) Classification.
- Dolomitic Limestone, sound, horizontally bedded in naturally occurring layers.

All limestone to be supplied by a single supplier.

Hand select boulders to fit the unit size parameters and for best character. Artfully place at locations and in groupings as shown on the plans. Compact subgrade beneath locations receiving boulders to prevent settlement. Bury a portion of the boulder below finish grade in accordance with the details.

## D Measurement

The department will measure Accent Boulder as each individual boulder, 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.0060.5000	Accent Boulder	EACH

Payment is full compensation for excavating, site preparation, and disposing of surplus materials; and for furnishing and installing all materials and for furnishing all labor, tools, equipment, and incidentals necessary to complete the contract work.

**18.18 Perennials, Junegrass, Container, #1, Item SPV.0060.5010;  
Perennials, Prairie Dropseed (Tara), Container, #1, Item SPV.0060.5020;  
Perennials, Purple Love Grass, Container, #1, Item SPV.0060.5030;  
Perennials, Side Oats Grama, Container, #1, Items SPV.0060.5040;  
Perennials, Switch Grass (Shenandoah), Container, #1, Item SPV.0060.5050;  
Perennials, Aster (October Skies), Container, #1, Item SPV.0060.5060;  
Perennials, Black-Eyed Susan (American Gold Rush), Container, #1, Item SPV.0060.5070;  
Perennials, Butterfly Milkweed, Container, #1, Item SPV.0060.5080;  
Perennials, Dwarf False Indigo, Container, #1, Item SPV.0060.5090;  
Perennials, Prairie Spiderwort, Container, #1, Item SPV.0060.5100;  
Perennials, Purple Prairie Clover, Container, #1, Item SPV.0060.5110.**

## A Description

This special provision describes furnishing and installing Perennials in accordance with the applicable sections of standard spec 632, as shown on the plans, and as hereinafter provided.

## B Materials

Provide Perennial (plant) complying with American Standard for Nursery Stock (ANSI Z60.1-2004) for type, shape, and height.

Provide plants grown within the states of Wisconsin, Minnesota, Michigan, or parts of northern Illinois, Indiana or Ohio located within Zone 5 of the "Plant Hardiness Zone Map" produced by the United States Department of Agriculture, Miscellaneous Publication No. 1475, issued January, 1990, updated January 24, 2012.

## C Construction

Place Planting Mixture in accordance with the bid item Planting Mixture.

Compact the bottom of the hole to guard against settling. Tamp or water in as necessary to create a condition by which plants will not settle in the planting beds. Place the bottom of the root ball directly on the bottom of the hole.

## D Measurement

The department will measure Perennials (plant) as each individual perennial (plant), acceptably completed.

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.5010	Perennials, Junegrass, Container, #1	Each
SPV.0060.5020	Perennials, Prairie Dropseed (Tara), Container, #1	Each
SPV.0060.5030	Perennials, Purple Love Grass, Container, #1	Each
SPV.0060.5040	Perennials, Side Oats Grama, Container, #1	Each
SPV.0060.5050	Perennials, Switch Grass (Shenandoah), Container, #1	Each
SPV.0060.5060	Perennials, Aster (October Skies), Container, #1	Each
SPV.0060.5070	Perennials, Black-Eyed Susan (American Gold Rush), Container, #1	Each
SPV.0060.5080	Perennials, Butterfly Milkweed, Container, #1	Each
SPV.0060.5090	Perennials, Dwarf False Indigo, Container, #1	Each
SPV.0060.5100	Perennials, Prairie Spiderwort, Container, #1	Each
SPV.0060.5110	Perennials, Purple Prairie Clover, Container, #1	Each
ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.5010	Perennials, Junegrass, Container, #1	EACH
SPV.0060.5020	Perennials, Prairie Dropseed (Tara), Container, #1	EACH
SPV.0060.5030	Perennials, Purple Love Grass, Container, #1	EACH
SPV.0060.5040	Perennials, Side Oats Grama, Container, #1	EACH
SPV.0060.5050	Perennials, Switch Grass (Shenandoah), Container, #1	EACH
SPV.0060.5060	Perennials, Aster (October Skies), Container, #1	EACH
SPV.0060.5070	Perennials, Black-Eyed Susan (American Gold Rush), Container, #1	EACH
SPV.0060.5080	Perennials, Butterfly Milkweed, Container, #1	EACH
SPV.0060.5090	Perennials, Dwarf False Indigo, Container, #1	EACH
SPV.0060.5100	Perennials, Prairie Spiderwort, Container, #1	EACH
SPV.0060.5110	Perennials, Purple Prairie Clover, Container, #1	EACH

Payment is full compensation for providing, transporting, handling, storing, pruning, placing, and replacing plant materials; for laying out plantings and excavating all plant holes, salvaging topsoil, mixing, and backfilling; for providing and applying all required fertilizer, water, rodent protection, herbicides and anti-desiccant spray; for disposing of all excess and waste materials; the department will pay for Planting Mixture separately.

### **18.19 Low Maintenance Seed Mix, Item SPV.0085.5000.**

#### **A Description**

This Special Provision describes furnishing and sowing low maintenance seed mix at the locations shown on the plans. Conform to standard specification 630 and as follows.

#### **B Materials**

Furnish one of the following seed mixes: "No-Mow" seed mix as produced by Prairie Nursery, Westfield, Wisconsin; "Eco-Grass" as produced by Prairie Moon Nursery, Winona, Minnesota; or an approved equal.

Include any nurse crop or supplemental species as recommended by the manufacturer based on time of seeding.

#### **C Construction**

Fully kill and remove all existing vegetation including turf, weeds, etc. and prepare the seed bed conforming to standard specification 630.3.2. Do not apply fertilizer to areas receiving low maintenance seed mix. Sow the seed mix conforming to standard specification 630.3.3. Sow seed at manufacturer's recommended rate.

Place erosion control mat in accordance with section 628.

#### **D Measurement**

The department will measure Low Maintenance Seed Mix by the pound, 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.0085.5000	Low Maintenance Seed Mix	LB

Payment is full compensation for performing the work as described in 630.5 of the standard specification.

### **18.20 Maintain and Remove Concrete Barrier Temporary Left In Place, Item SPV.0090.0300.**

#### **A Description**

This special provision describes receiving existing concrete barrier temporary precast including any attached temporary glare screen. The temporary barrier has been left in place under a previous contract. Take ownership and responsibility of the temporary barrier and temporary glare screen at the notice to proceed, unless directed otherwise by the engineer. Upon taking ownership of the temporary barrier and glare screen, maintain the Concrete Barrier Temporary Precast Left In Place for the duration of the contract.

The location of this temporary barrier is shown in the Traffic Control plans.

#### **B Materials**

Provide materials according to standard spec 603.2.

#### **C Construction**

Maintain, move and remove temporary barrier according to standard spec 603.3.2.

Remove the concrete barrier temporary precast left in place after it is no longer of use to the project.

#### **D Measurement**

The department will measure Maintain and Remove Concrete Barrier Temporary Precast Left In Place by the linear foot of concrete barrier temporary, acceptably maintained. Moving of temporary barrier, if necessary, will be paid for under the respective standard bid item(s) Concrete Barrier Temporary Precast Delivered or Concrete Barrier Temporary Precast 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.0090.0300	Maintain and Remove Concrete Barrier Temporary Left In Place	LF

Payment is full compensation for receiving and maintaining concrete barrier temporary precast including any attached temporary glare screen or delineators; removing and disposing of all materials.

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### **18.21 Glare Screen Temporary, Item SPV.0090.0305.**

#### **A Description**

This special provision describes furnishing, installing, maintaining, and removing a modular paddle glare guard system on concrete barrier temporary precast at the indicated locations according to the plans and standard specifications, as directed by the engineer and as hereinafter provided.

#### **B Materials**

Utilize modular glare guard units consisting of vertical blades, bases, and a horizontal base rail. Utilize paddle devices a minimum of 24-inches in height and constructed of durable, impact resistant, non-warping flexible materials.

Utilize modular units with cumulative nominal length equal to the length of the temporary barrier on which they are installed so that the joint between the barrier sections shall not be spanned by any one unit. Units shall not alter the design of the concrete barrier.

Design the relative connection strengths between various components of the assembly to minimize the potential impact and debris hazard to approaching traffic and to simplify repairs. Fabricate the modular units in a manner to allow replacement of individual blades while the modular unit remains in place. The blade, base and rail shall be made of high impact materials with sufficient strength to withstand three



impacts from a horizontal steel bar traveling at 40 mph and impacting at mid-height of the blade. After three impacts, there shall be no evidence of cracking, splitting, delaminating or separation from the system.

Provide a paddle glare guard from a manufacturer below or an approved equal:

Manufacturer	Address
Safe-Hit Corporation	2405 IH 35 West, New Braunfels, TX 78130
Carsonite International	2900 Lockhead Way, Carson City, NV 89701
Flexstake Incorporated	2150 Andrea Lane, Fort Meyers, FL 33912

## C Construction

Attach the base rail to the top of the concrete barrier temporary precast by a mechanical or adhesive system with a minimum pullout and shear of 3000 psi. All mounting hardware shall be as specified by the manufacturer.

## D Measurement

The department will measure Glare Screens Temporary by the linear foot of paddle glare guard, 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.0090.0305	Glare Screen Temporary	LF

Payment is full compensation for furnishing, installing, maintaining and removing the Glare Screens Temporary.

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## 18.22 Metal Edging, Item SPV.0090.5000.

### A Description

This Special Provision describes furnishing and installing Metal Edging at the locations shown on the plans.

### B Materials

Commercial grade aluminum landscape edging. Standard profile with rolled edge, 3/16" wide by 8" tall. Mill finish. Include stakes, corners, ends and splice pieces from same manufacturer.

Metal Edging must comply with Buy America requirements.

### C Construction

Install at locations shown on the plans and in accordance with the details. Drive stakes below top elevation of edging and utilize corner pieces, end pieces and splices at all joints.

### D Measurement

The department will measure Metal Edging by the linear foot, acceptably completed.

### E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.5000	Metal Edging	LF

Payment is full compensation for excavating, site preparation, and disposing of surplus materials; and for furnishing and installing all materials and for furnishing all labor, tools, equipment, and incidentals necessary to complete the contract work.

## 18.23 Shredded Hardwood Bark Mulch, Item SPV.0180.5000.

### A Description

This special provision describes furnishing and installing Shredded Hardwood Bark Mulch in accordance with the applicable sections of standard spec 632 and as hereinafter provided.

## B Materials

Provide Shredded Hardwood Bark Mulch that is finely shredded hardwood bark mulch and the product of a mechanical chipper, hammermill, or tub grinder.

Provide fibrous wood mulch, naturally (undyed) dark brown in color, free of large wood chunks, and substantially free of mold, dirt, sawdust, and foreign material. Ensure that no portion of the material is in an advanced state of decomposition.

Provide fibrous wood mulch not containing manufactured boards or chemically treated wood, including but not limited to wafer board, particle board, and chromated copper arsenate (CCA) or penta-treated wood. Ensure that the material does not contain the bark of black walnut trees.

Provide air dried mulch, passing a 4-inch screen, with no more than 20 percent by mass passing a 0.10-inch sieve. Ensure that unattached bark or greenleaf composition, either singly or combined, do not exceed 20 percent each by mass. The maximum length of individual pieces cannot exceed 4 inches.

## C Construction

Ensure areas receiving shredded hardwood bark mulch are free of living weeds and grasses before installing mulch.

Install shredded hardwood bark mulch for all tree mulch rings to a depth of 3 inches by 48 inches diameter. Spade cut an edge around the perimeter of the tree mulch rings at the locations shown on the plans. Manually, or machine cut spaded edge to a minimum width and depth as shown on the plan details. Do not fill spaded edge with mulch.

Install shredded hardwood bark mulch over the entire area of all planting beds to a depth of 3 inches.

Install shredded hardwood bark mulch immediately after planting.

Pull shredded hardwood bark mulch back 3-6 inches from tree trunks.

Do not place weed barrier fabric in any areas receiving shredded hardwood bark mulch.

Do not damage plants, edging, stone, structures, and/or other materials already in place, when placing the mulch.

## D Measurement

The department will measure Shredded Hardwood Bark Mulch 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.0180.5000	Shredded Hardwood Bark Mulch	SY

Payment is full compensation for furnishing and installing all materials; and for furnishing all labor, tools, equipment, and incidentals necessary to complete the contract work.

### 18.24 Stone Cobbles, Item SPV.0195.5000.

#### A Description

This Special Provision describes furnishing and installing Stone Cobbles at the locations shown on the plans.

#### B Materials

- Type: Wisconsin granite, rounded cobbles.
- Color: Standard color range of gray to tan to red to blue to purple.
- Finish: Natural quarried.
- Unit Size: 4"-8".

Furnish geotextile fabric in accordance with Standard Section 645.

#### C Construction

All stone cobbles to be supplied by a single supplier.

Compact subgrade beneath locations receiving stone cobbles to prevent settlement. Install over geotextile fabric at locations indicated on the plans and in accordance with the details.

#### **D Measurement**

The department will measure Stone Cobbles by the ton, 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.0195.5000	Stone Cobbles	TON

Payment is full compensation for excavating, site preparation, and disposing of surplus materials; and for furnishing and installing all materials and for furnishing all labor, tools, equipment, and incidentals necessary to complete the contract work.

## **ADDITIONAL SPECIAL PROVISION 1 (ASP 1) HIGHWAY CONSTRUCTION SKILLS TRAINING (HCST) PROGRAM EMPLOYMENT PLACEMENTS AND APPRENTICESHIPS**

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), Section 5204(e) – Surface Transportation Workforce Development Training and Education, provides for 100 percent Federal funding if the core program funds are used for training, education, or workforce development purposes, including “pipeline” activities. The core programs include: Congestion Mitigation and Air Quality Improvement (CMAQ) Program, Highway Bridge Program (HBP), Interstate Maintenance (IM), National Highway System (NHS), and Surface Transportation Program (STP). These workforce development activities cover surface transportation workers, including OJT/SS programs for women and minorities as authorized in 23 U.S.C. §140(b).

The Wisconsin Department of Transportation OJT program was originally established in 1995. Highway Construction Skills Training (HCST) was previously known as Transportation Alliance for New Solutions (TrANS) and underwent a name change in early 2023. HCST is an industry driven plan of services to address the outreach, preparation, placement and retention of women, minorities, and disadvantaged persons as laborers and apprentices in the highway skilled trades. Candidate preparation and contractor coordination services (OJT Supportive Services) are provided by contracted community-based organizations.

### **I. BASIC CONCEPTS**

Training reimbursements to employing contractors for new placements, rehires or advancement to apprenticeship of Highway Construction Skills Training (HCST) graduates and employing eligible trainees in qualifying trades will be made as follows:

- 1) **On-the-Job Training, Item ASP.1T0G, ASP 1 HCST Graduate.** At the rate of \$5.00 per hour on Federal-aid projects when HCST graduates are initially hired, or seasonally rehired, as unskilled laborers or equivalent.  
Eligibility and Duration: To the employing contractor, for up to 2,000 hours or two years, whichever comes first from the point of initial hire as a HCST placement.  
Contract Goal: To maintain the intent of the Equal Employment Opportunity program, it is a goal that   12   HCST Graduate(s) be utilized for  5760  hours on this contract.
- 2) **On-the-Job Training, Item ASP.1T0A, ASP 1 Apprentice.** At the rate of \$5.00 per hour on Federal-aid projects at the point when an employee who came out of the HCST Program is subsequently entered into an apprenticeship contract in a qualifying trade.  
Eligibility and Duration: To the employing contractor, for the length of time that the HCST graduate is in apprenticeship status.  
Contract Goal: To maintain the intent of the Equal Employment Opportunity program, it is a goal that   7   HCST Apprentice(s) be utilized for  2100  hours on this contract.
- 3) The maximum duration of reimbursement is two years as a HCST graduate plus time in apprentice status.
- 4) If a HCST program is not available in the contractor's area and another training program is utilized, payment of On-the-Job Training hours may be approved by the Wisconsin Department of Transportation (WisDOT) if the training program meets the established acceptance criteria. Only On-the-Job Training Hours accumulated after WisDOT approval will be reimbursed as specified

under Items ASP.1T0G and ASP.1T0A. For more information, contact the Department of Transportation Labor Development Specialist at the phone number listed below.

- 5) WisDOT reserves the right to deny payments under items ASP.1T0G and ASP.1T0A if the contractor either fails to provide training or there is evidence of a lack of good faith in meeting the requirements of this training special provision.

## II. RATIONALE AND SPECIAL NOTE

The \$5.00 per hour now being paid for HCST placements is intended to cover the duration of two years to allow for reaching entry-level laborer status. An additional incentive, the \$5.00 rate, would promote movement into the underutilized skilled trades' apprenticeships and applies until the individual completes their apprenticeship. These incentives benefit HCST candidates by giving them a better opportunity to enter a skilled trade; benefits contractors who will be assisted in meeting their EEO profiles and goals; and benefits the public who will see the program reinforce larger public-private employment reform in Wisconsin. The pool of HCST graduates was created for the purpose of addressing underutilization in the skilled trades, an objective that is further reinforced by a parallel retention pilot program, known as the Companywide Reporting. Whether or not reimbursement is involved, the WisDOT reassures contractors who are in the Companywide Program that HCST placements still contribute toward fulfilling the new hire goal of 50% women and minorities. Based on data administered by United States Department of Labor (US DOL), the highway skilled trades remain underutilized for women statewide (less than 6.9%); and for minorities in all counties (% varies by county).

*NOTE: Unless using other advancement strategies, contractors are encouraged to use some or all of this monetary incentive to offset the cut in hourly wages an individual may incur when entering an apprenticeship if the full general laborer hourly rate has been previously paid. No special accounting measures are required.*

## III. IMPLEMENTATION

The implementation of ASP 1 is intended to cover only the amount of time it takes for underutilization to be resolved across the trades. This will be measured annually at the county and/or state levels using data administered by WisDWD in relation to goals set by the USDOL page 2 Dated January 2012 OFCCP. With appropriate state and federal approvals, we may also do some measurement at the company level. It is the contractor's responsibility to note on their Certified Payrolls if their employee is a HCST graduate or a HCST apprentice. The compliance specialists utilize the information on the Certified Payrolls to track the hours accumulated by HCST Graduates and HCST apprentices on WisDOT contracts. Payment under this ASP 1 is made based on the hours recorded off of the Certified Payrolls. Tracking may eventually include improved linkages with the WisDWD apprentice database, information from company and committee level sources. HCST is nondiscriminatory by regulation and is a tool for optional use by contractors to address the underutilization of women and minorities as laborers and apprentices in our industry's skilled trades.

## IV. HCST TRAINING

As part of the contractor's equal employment opportunity affirmative action program, training shall be provided to employees enrolled in apprenticeship and on-the-job training programs as follows: The contractor shall provide on-the-job training aimed at developing full journey workers in the type of trade or job classifications involved. In the event the contractor subcontracts a portion of the contract work, the contractor shall determine how many, if any, of the trainees are to be trained by the subcontractor provided, however, that the contractor shall retain the primary responsibility for meeting the training requirements imposed by this special provision. The contractor shall also ensure that this training special provision is made applicable to such subcontract. Training and upgrading of minorities and women toward journey workers status is a primary objective of this training special provision. Accordingly, the contractor shall make every effort to enroll minority trainees and women (e.g., by conducting systematic and direct recruitment through public and private sources likely to yield minority trainees and women trainees); to the extent such persons are available within a reasonable area of recruitment. The contractor will be given an opportunity and will be responsible for demonstrating the steps that they have taken in pursuance thereof, prior to determination as to whether the contractor is in compliance with this training

special provision. This training commitment is not intended, and shall not be used, to discriminate against any applicant for training, whether a member of a minority group or not. No employee shall be employed as a trainee in any classification in which they have successfully completed a training course leading to journey workers status or in which they have been employed as a journey worker. The contractor should satisfy this requirement by including appropriate questions in the employee application or by other suitable means. Regardless of the method used, the contractor's records should document the findings in each case.

## **V. APPRENTICESHIP TRAINING**

The Federal Highway Administration's (FHWA) policy is to require full use of all available training and skill improvement opportunities to assure increased participation of minority groups, disadvantaged persons, and women in all phases of the highway construction industry. The FHWA On-the-Job Training (OJT) Program requires the State transportation agencies (STAs) to establish apprenticeships and training programs targeted to move women, minorities, and disadvantaged individuals into journey-level positions to ensure that a competent workforce is available to meet highway construction hiring needs, and to address the historical underrepresentation of members of these groups in highway construction skilled crafts.

The OJT Supportive Services (OJT/SS) Program was established in Title 23 Code of Federal Regulations (CFR), Part 230 to supplement the OJT program and support STA training programs by providing services to highway construction contractors and assistance to highway construction apprentices and trainees. The primary objectives of OJT/SS are:

- (1) To increase the overall effectiveness of the State highway agencies' approved training programs.
- (2) To seek other ways to increase the training opportunities for women, minorities, and disadvantaged individuals.

The STAs are responsible for establishing procedures, subject to the availability of Surface Transportation and Bridge Funds under 23 U.S.C. §140(b) (Nondiscrimination), for the provision of supportive services with respect to training programs approved under 23 CFR, Part 230(a) (Equal Employment Opportunity on Federal and Federal-aid Construction Contracts – including Supportive Services).

The contractor and subcontractor shall maintain records to demonstrate compliance with these apprenticeship requirements. Reasonable exemptions and modifications to and from any or all of these requirements will be determined by the Wisconsin Department of Transportation-Office of Business Opportunity & Equity Compliance (OBOEC). A request for an exemption or modification, with justification, shall be made in writing, addressed to WisDOT OBOEC - Labor Development, 141 NW Barstow Street, Suite 411, PO Box 798, Waukesha, WI 53187.

## **VI. PROGRAM CONTACTS**

Marguerite (Maggie) Givings, Labor Development Specialist

[Marguerite.Givings@dot.wi.gov](mailto:Marguerite.Givings@dot.wi.gov) | 608-789-7876

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## ADDITIONAL SPECIAL PROVISION 3

### DISADVANTAGED BUSINESS ENTERPRISE (DBE) PROGRAM IMPLEMENTATION

#### Authority

Wisconsin Department of Transportation (WisDOT) is a recipient of funds from the US Department of Transportation's Federal Highway Administration. The DBE program is a federal program applicable on all contracts administered by WisDOT that include federal-aid highway funds. The authority for the DBE program is the Transportation Bill as approved by Congress periodically. DBE program guidance and requirements are outlined in the Code of Federal Regulations at 49 CFR Part 26. This contract is subject to DBE provisions because it is financed with federal-aid-highway funds. Additionally, this contract is subject to the *State of Wisconsin Standard Specifications for Highway and Structure Construction* and all applicable contract documents.

#### Requirements

Pursuant to the federal DBE program regulation at 49 CFR Part 26, a contractor's failure to comply with any provision of the DBE program regulatory provisions will be considered a material breach of contract. This is nonnegotiable.

If a contractor fails to carry out the DBE program requirements and/or the Required Contract Provisions for Federal Aid Contracts (FHWA 1273) referenced in this document, sanctions will be assessed depending upon the facts, reasoning, severity, and remedial efforts of the contractor that may include: termination of contract, withholding payment, assessment of monetary sanctions, and/or suspension/debarment proceedings that could result in the disqualification of the contractor from bidding for a designated period of time.

- (1) The Commitment to Subcontract to DBE (Form DT1506 or digital submittal), Attachments A, and Good Faith Effort Documentation (Form DT1202) will be submitted as described in Section 2.
- (2) Any change to DBE Commitments thereafter must follow modification of DBE subcontracting commitment as described in Section 9.
- (3) The Department requires this list of DBE subcontractors from all bidders at time of bid to ensure the lowest possible cost to taxpayers and fairness to other bidders and subcontractors. Bid shopping is prohibited.
- (4) The contractor must utilize the specific DBE firms listed in the approved DBE Commitment to perform the work and/or supply the materials for which the DBE firm is listed unless the contractor obtains written consent in advance from WisDOT. The contractor will not be entitled to payment for any work or materials on the approved DBE Commitment that is not performed or supplied by the listed DBE without WisDOT's written consent.

#### Description

The Wisconsin Department of Transportation is committed to the compliant administration of the DBE Program. The DBE provisions work in tandem with FHWA 1273 and WisDOT's *Standard Specifications for Highway and Structure Construction* and *Construction and Materials Manual*. The WisDOT Secretary is signatory to assurances of department-wide compliance.

The Department assigns the contract DBE goal as a percentage of work items that could be performed by certified DBE firms on the contract. The assigned DBE goal is expressed on the bid proposal as a percentage applicable to the total contract bid amount.

- (1) WisDOT identifies the assigned DBE goal in its contract advertisements and posts the contract DBE goal on the cover of the bidding proposal. The contractor can meet the assigned contract DBE goal by subcontracting work to a DBE firm or by procuring services or materials from a DBE firm.

- (2) Under the contract, the prime contractor should inform, advise, and develop participating DBE firms to be more knowledgeable contractors who are prepared to successfully complete their contractual agreement through the proactive provision of assistance in the following areas:
  - Produce accurate and complete quotes
  - Understand highway plans applicable to their work
  - Understand specifications and contract requirements applicable to their work
  - Understand contracting reporting requirements
- (3) The Department encourages contractors to assist DBE subcontractors more formally by participating in WisDOT's Business Development program as a mentor, coach, or resource. For comprehensive information on the Disadvantaged Business Enterprise Program, visit the Department's Civil Rights and Compliance Section website at: <http://wisconsindot.gov/Pages/doing-bus/civil-rights/dbe/default.aspx>

## 1. Definitions

Interpret these terms, used throughout this additional special provision, as follows:

- a. **Assigned DBE Contract Goal:** The percentage shown on the cover of the Highway Work Proposal that represents the feasible level of DBE participation for each contract. The goal is calculated using the Engineer's Estimate and DBE Interest Report. Goal assignment includes review of FHWA funds, analyzes bid items for subcontract opportunity and compatibility with DBE certified firm work codes. Additional factors considered include proximity, proportion, and regulations.
- b. **Bid Shopping:** In construction law, bid shopping is the practice of divulging a subcontractor's bid to another prospective contractor(s) before or after the award of a contract to secure a lower bid.
- c. **DBE:** Disadvantaged Business Enterprise – A for-profit small business concern where socially and economically disadvantaged individuals own at least a 51% interest and control management and daily business operations.
- d. **DBE Commitment:** The DBE Commitment is identified in the Commitment to Subcontract to DBE (Form DT1506) and is expressed as the amount of DBE participation the prime contractor has secured. The DT1506, a contract document completed by the bidder, is required to be considered a responsive bidder on an FHWA-funded contract that has an assigned DBE goal. The prime contractor will have the option to submit the DT1506 digitally, as an entry with the bid in Bid Express, or as an attachment to the bid.
- e. **DBE Utilization:** The actual participation of a DBE subcontractor on a project. WisDOT verifies DBE utilization through review of the DBE Commitment, payments to subcontractors, and contract documentation. The Prime Contractor receives DBE credit for payments made to the DBE firms performing the work listed on the approved DBE Commitment, and those submitted after approved commitment with Attachment A.
- f. **Good Faith Effort:** Legal term describing a diligent and honest effort taken by a reasonable person under the same set of facts or circumstances. For DBE subcontracting, the bidder must show that it took all necessary and reasonable steps to achieve the assigned DBE goal by the scope, intensity, and appropriateness of effort that could reasonably be expected for a contractor to obtain sufficient DBE participation.
- g. **Manufacturer:** A firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract.
- h. **Reasonable Price:** Contractors are expected to assess reasonable price by analyzing the contract scope for DBE subcontract feasibility and comparing common line items in DBE and non-DBE subcontract quotes for the same work. Per federal regulation, reasonable price is not necessarily the lowest price.
- i. **Supplier:** A firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles, or equipment required under the contract are bought, kept in stock, and regularly sold or leased to the public.
- j. **Tied quote:** Subcontractor quote that groups multiple bid/line items at a bundled/package price with a notation that the items within the quote will not be separated.



## 2. WisDOT DBE Program Compliance

### a. Documentation Submittal

- The Commitment to Subcontract to DBE (Form DT1506 or digital submittal) must be submitted at the time of bid (Tuesday) by all prime contractors.
- Attachments A OR quotes from all DBEs included in the Commitment must be submitted at bid (Tuesday) **OR**
- Within one-hour following bid submittal by ALL prime contractors via eSubmit (Tuesday).
- If only DBE quotes were submitted, all remaining signed Attachments A must be submitted within 24-hours of bid closing via eSubmit (Wednesday).
- If the assigned DBE contract goal is not met, Documentation of Good Faith Effort (Form DT1202) and supporting documentation must be submitted within 24-hours of bid closing (Wednesday) via eSubmit. [Instructions for eSubmit.](#)

**\*\*Bidders have the option of submitting the DBE Commitment at the time of bid via direct entry through Bid Express OR with attachment of Form DT1506 (Commitment to Subcontract to DBE). The DBE Commitment entered with bid is the digital form of the DT1506. Separate submission of Form DT1506 is not required if the DBE Commitment is entered in Bid Express. Form DT1202, if applicable, is no longer required to be submitted at time of bid; submit DT1202 within the 24-hour supplemental time frame following bid closing.**

The DBE Office will not certify Good Faith Effort and the Bureau of Project Development will consider the bid nonresponsive if the contractor fails to furnish the DBE Commitment (digitally entered into the bid OR Form DT1506 as an attachment), Attachments A, and Form DT1202 if applicable, as required. See sample forms in the Appendix.

### b. Verification of DBE Commitment

The documentation related to DBE subcontract commitment submitted prior to contract award is evaluated as follows:

#### (1) DBE Goal Met

If the bidder indicates that the contract DBE goal is met, the Department will evaluate the DBE Commitment submitted with bid OR Form DT1506, and Attachments A to verify the actual DBE percentage calculation. If the DBE Commitment is verified, the contract is eligible for award with respect to the DBE Commitment.

#### (2) DBE Goal Not Met

- a) If the bidder indicates a bid percentage on the DBE Commitment that does not meet the assigned DBE contract goal, the bidder must request alternative evaluation of good faith effort through submission of Form DT1202 (Documentation of Good Faith Effort) within 24-hours of bid including narrative description. Supplementary documentation of good faith effort that supports the DT1202 submission is also due within 24-hours of bid submission and prior to bid posting. The Department will review the bidder's DBE Commitment and evaluate the bidder's good faith efforts submission.
- b) Following evaluation of the bidder's Good Faith Effort documentation the bidder will be notified that the Department intends to:
  1. *Approve* the request (adequate documentation of GFE has been submitted) - no conditions placed on the contract with respect to the DBE Commitment;
  2. *Deny* the request (inadequate documentation of GFE has been submitted) - the contract is viewed as non-responsive per Wisconsin Standard Specifications for Highway and Structure Construction and will not be executed.

- c) If the Department denies the bidder's request, the contract is ineligible for award. The Department will provide a written explanation for denying the request to the bidder. The bidder may appeal the Department's denial (see Section 4).

Supplemental good faith effort documentation must be submitted through eSubmit.

### 3. Department's Criteria for Good Faith Effort Documentation

The Federal-aid Construction Contract Provision, referenced as FHWA-1273, explicitly states that the prime contractor shall be responsible for all work performed on the contract by piecework, station work, or subcontract.

The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of the contract including assurances of equal employment opportunity laws, DBE regulations, and affirmative action. Compliance encompasses responsible and responsive action, documentation, and good faith effort.

Contractually, all contractors, subcontractors, and service providers on the contract are bound by FHWA 1273 and DBE program provisions. **Prime contractors should encourage subcontractors to utilize DBE firms whenever possible to contribute to the assigned DBE contract goal.**

Bidders are required to document good faith effort. Per 49 CFR Part 26.53, good faith effort is demonstrated in one of two ways. The bidder:

- (1) Documents that it has obtained enough DBE participation to meet the goal; OR
- (2) Documents that it made adequate good faith efforts to meet the goal, even though it did not succeed

*Appendix A* of 49 CFR Part 26 provides guidance concerning good faith efforts. WisDOT evaluates good faith effort on a contract basis just as each contract award is evaluated individually.

The efforts employed by the bidder should be those that WisDOT can reasonably expect a bidder to take to actively and aggressively obtain DBE participation sufficient to meet the DBE contract goal. The Department will only approve demonstration of good faith effort if the bidder documents the quality, quantity, and intensity of the variety of activities undertaken that are commensurate with expected efforts to meet the stated goal.

The Department, in conjunction with industry stakeholders, has developed the following guidance for contractor good faith effort activity. The guidance and the attached appendices provide a framework for the actions required by all parties in the processing and evaluation of bidder's total efforts to achieve the project specific DBE goal prior to the bid letting date.

#### a. Solicitation Guidance for Prime Contractors:

- (1) Document all efforts and decisions made toward achieving the DBE goal on the contract. The bidder should use WisDOT-approved DBE outreach tools, including the UCP DBE Directory and the Bid Express Small Business Network to foster DBE participation on all applicable contracts.
- (2) As needed, request assistance with DBE outreach and follow-up by contacting the Department's DBE Support Services Office by phone or email request at least 14 days prior to the bid letting date. Phone numbers are (414) 438-4584 and/or (608) 267-3849; Fax: (414) 438-5392; E-mail: [DBE\\_Alert@dot.wi.gov](mailto:DBE_Alert@dot.wi.gov)
- (3) Participate in and document a substantive conversation with at least one DBE firm per Let, to discuss questions, concerns, and any other contract related matters that may be applicable to the DBE firm. Guidelines for this conversation are provided in Appendix A of ASP-3.
- (4) Request quotes by identifying potential items to subcontract and solicit. In their initial contacts, contractors are strongly encouraged to include a single page, detailed list of items for which they are accepting quotes, by project, within a letting. *See attached sample entitled "Sample Contractor Solicitation Letter" in Appendix B.* Prime contractors should also indicate a willingness to accept quotes in areas they are planning to perform themselves, as required by federal rules. In some cases, it might be appropriate to use DBE firms to do work in a prime contractor's area of specialization.

- i. Solicit quotes from certified DBE firms who match possible items to subcontract using all reasonable and available means. Additionally, forward copies of solicitations highlighting the work areas for which quotes are being sought to [DBE\\_Alert@dot.wi.gov](mailto:DBE_Alert@dot.wi.gov)
- ii. Acceptable outreach tools include SBN (Small Business Network, see Appendix C): <https://www.bidx.com/wi/main>, postal mail, email, fax, and phone.
  - a. Contractors must ask DBE firms for a response in their solicitations. See *Sample Contractor Solicitation Letter*, Appendix B. This letter may be included as an attachment to the sub-quote request.
  - b. Solicit quotes at least 10 calendar days prior to the letting date to allow DBE firms sufficient time to respond. Prime contractors should contact DBE firms early, asking if they need help organizing their quote, assistance confirming equipment needs, or other assistance supporting their submission of a competitive quote for their services.
  - c. A follow up solicitation should take place within 5 calendar days of the letting date. Email and/or SBN are the preferred method for the solicitation.
- iii. Upon request, provide interested DBE firms with adequate information about plans, specifications, and the requirements of the contract by letter, information session, email, phone call, and/or referral.
- iv. When potential exists, the contractor should advise interested DBE firms on how to obtain bonding, line of credit, or insurance if requested.
- v. Document DBE firm's interest in quoting by taking appropriate steps to follow up initial solicitation with:
  - a. Email to all prospective DBE firms in relevant work areas
  - b. Phone call log to DBE firms who express interest via written response or call
  - c. Fax/letter confirmation
  - d. Signed copy of record of subcontractor outreach effort

#### **b. Guidance for Evaluating DBE quotes**

- (1) Quote evaluation practices required to evaluate DBE quotes:
  - i. Reasonable Price: Contractors are expected to assess reasonable price by analyzing the contract scope for DBE subcontract feasibility and comparing common line items in DBE and non-DBE subcontract quotes for the same work. Per federal regulation, reasonable price is not necessarily the lowest price. See 49 CFR Part 26, Appendix A. IV.D(2).
- (2) Documentation submitted by the prime of the following evaluation is required to evaluate DBE quotes by contractors:
  - i. Evaluation of DBE firm's ability to perform "possible items to subcontract" using legitimate reasons, including but not limited to, **a discussion** between the prime and DBE firm regarding its capabilities prior to the bid letting. If lack of capacity is the reason for not utilizing the DBE firm's quote, the prime is required to contact the DBE by phone and email regarding their ability to perform the work indicated in the UCP directory listed as their work area by NAICS code. Only the work area indicated by the NAICS code(s) listed in the UCP directory can be counted toward DBE credit. Documentation of the conversation is required.
    - a. In striving to meet an assigned DBE contract goal, contractors are expected to use DBE quotes that are responsive and reasonable. This includes DBE quotes that are not the low quote.
    - b. Additional evaluation - Evaluation of DBE quotes with tied bid items. Typically, this type of quoting represents a cost saving but is not clearly stated as a discount. Tied quotes are usually presented as an 'all or none' quote. When non-DBE subcontractors submit tied bid items in their quotes, the DBE firm's quote may not appear competitive. In such a case, the following steps are taken in comparing the relevant quotes. These are qualitative examples:

- i Compare bid items common to both quotes, noting the reasonableness in the price comparison.
- ii Review quotes from other firms for the bid items not quoted by the DBE firm to see if combining both can provide the same competitive advantage that the tied bid items offered.

See Appendix D – *Good Faith Effort Evaluation Measures* and Appendix E - *Good Faith Effort Best Practices*.

- c. Requesting Good Faith Effort Evaluation** At the time of bid- if the DBE goal is not met in full, the prime contractor must indicate they will file form DT1202- Documentation of Good Faith Effort within 24-hours of bid submission. Supplementary documentation of good faith effort that supports the DT1202 submission is also due within 24-hours of bid submission and prior to bid posting. Supporting documentation for the DT1202 is to include the following:
- (1) Solicitation Documentation: The names, addresses, email addresses, and telephone numbers of DBE firms contacted along with the dates of both initial and follow-up contact; electronic copies of all written solicitations to DBE firms. A printed copy of SBN solicitation is acceptable.
  - (2) Selected Work Items Documentation: Identify economically feasible work units to be performed by DBEs to include activities such as: list of work items to be performed; breaking up of large work items into smaller tasks or quantities; flexible time frames for performance and delivery schedules.
  - (3) Documentation of Project Information provided to interested DBEs: A description of information provided to the DBE firms regarding the plans, specifications, and estimated quantities for portions of the work to be performed by that DBE firm.
  - (4) Documentation of Negotiation with Interested DBEs: Provide sufficient evidence to demonstrate that good faith negotiations took place. Merely sending out solicitations requesting bids from DBEs does not constitute sufficient good faith efforts.
  - (5) Documentation of Sound Reasoning for Rejecting DBEs and copies of each quote received from a DBE firm and, if rejected, copies of quotes from non-DBEs for same items.
  - (6) Documentation of Assistance to Interested DBEs- Bonding, Credit, Insurance, Equipment, Supplies/Materials
  - (7) Documentation of outreach to Minority, Women, and Community Organizations and other DBE Business Development Support: Contact organizations and agencies for assistance in contacting, recruiting, and providing support to DBE subcontractors, suppliers, manufacturers, and truckers at least 14 days before bid opening. Participate in or host activities such as networking events, mentor-protégé programs, small business development workshops, and others consistent with DBE support.

If the Good Faith Effort documentation is deemed adequate, the request will be approved and the DBE office will promptly notify the Prime Contractor and Bureau of Project Development.

If the DBE Office denies the request, the Prime Contractor will receive written correspondence outlining the reasons. The Department encourages the Prime Contractor to communicate with DBE staff to clarify any questions related to meeting goals and/or contractor demonstration of good faith efforts.

If the contract is awarded, the Prime Contractor must obtain written consent from the DBE Office to change or replace any DBE firm listed on the approved DBE Commitment. No contractor, prime or subsequent tier, shall be paid for completing work assigned to a DBE subcontractor on an approved DBE Commitment unless WisDOT has granted permission for the reduction, replacement, or termination of the assigned DBE in writing. If a prime contractor or a subcontractor on any tier uses its own forces to perform work assigned to a DBE on an approved DBE Commitment, **they will not be paid for the work**. Any changes to DBE Commitment after the approval of the DBE Commitment must be reviewed and approved by the DBE Office prior to the change (see Section 9).

Additional resources for demonstrating and tracking good faith effort can be found on the “Contracting with a DBE” webpage in the [ASP-3 and Good Faith Effort Guidance](#) section.

#### 4. Bidder's Documentation of Good Faith Effort Evaluation Request Appeal Process

A bidder can appeal the Department's decision to deny the bidder's demonstration of Good Faith Effort through Administrative Reconsideration. The bidder must provide a written justification refuting the specific reasons for denial as stated in the Department's denial notice. The bidder may meet in person with the Department if so requested. Failure to appeal within 5 business days after receiving the Department's written notice denying the request constitutes a forfeiture of the bidder's right of appeal. Receipt of appeal is confirmed by email date stamp or certified mail signed by WisDOT staff. A contract will not be executed without documentation that the DBE provisions have been fulfilled.

The Department will appoint a representative who did not participate in the original good faith effort determination, to assess the bidder's appeal. The Department will issue a written decision within 5 business days after the bidder presents all written and oral information. In that written decision, the Department will explain the basis for finding that the bidder did or did not demonstrate an adequate good faith effort to meet the contract DBE goal. The Department's decision is final.

#### 5. Determining DBE Eligibility

##### Directory of DBE firms

- a. The only resource for DBE firms certified in the State of Wisconsin is the Wisconsin Unified Certification Program (UCP) DBE Directory. WisDOT maintains a current list of certified DBE firms at: <http://wisconsindot.gov/Documents/doing-bus/civil-rights/dbe/dbe-ucp-directory.xlsx>
- b. The DBE Program office is available to assist with contracting DBE firms:(608) 267-3849.
- c. DBE firms are certified based on various factors including the federal standards from the Small Business Administration that assigns a North American Industrial Classification (NAICS) Codes. DBE firms are only eligible for credit when performing work in their assigned NAICS code(s). If a DBE subcontractor performs work that is not with its assigned NAICS code, the prime contractor should contact the DBE Office to inquire about compatibility with the Business Development Program.

#### 6. Counting DBE Participation

##### Assessing DBE Work

The Department will only count the DBE usage towards the contract DBE goal if the DBE firm is certified as a DBE by one of the UCP agencies. The Department only counts the value of the work a DBE actually performs towards the DBE goal. The Department assesses the DBE work as follows:

- a. The Department counts work performed by the DBE firm's own resources. The Department includes the cost of materials and supplies the DBE firm obtains for the work. The Department also includes the cost of equipment the DBE firm leases for the work. The Department will not include the cost of materials, supplies, or equipment the DBE firm purchases or leases from the prime contractor or its affiliate, with the exception of non-project specific leases the DBE has in place before the work is advertised.
- b. The Department counts fees and commissions the DBE subcontractor charges for providing bona fide professional, technical, consultant, or managerial services. The Department also counts fees and commissions the DBE charges for providing bonds or insurance. The Department will only count costs the program engineer deems reasonable based on experience or prevailing market rates.
- c. If a DBE firm subcontracts work, the Department counts the value of the work subcontracted to a DBE subcontractor.
- d. The contractor will maintain records and may be required to furnish periodic reports documenting its performance under this item.
- e. It is the Prime Contractor's responsibility to determine whether the work that is committed and/or contracted to a DBE firm can be counted for DBE credit by referencing the work type and NAICS code listed for the DBE firm on the Wisconsin UCP DBE Directory.

- f. It is the Prime Contractor's responsibility to assess the DBE firm's ability to perform the work for which it is committing/contracting the DBE to do. Note that the Department encourages the Prime Contractor to assist and develop DBE firms to become fully knowledgeable contractors to successfully perform on its contracts.
- g. The Prime Contractor will inform the DBE office via email of all DBE subcontractors added to the project following execution of the contract. The Prime Contractor may omit submission of another form DT1506, but must submit signed Attachment A forms for additional DBE firms.
- h. See Section 7 for DBE credit evaluation for Trucking and Section 8 for DBE credit evaluation for Manufacturers, Suppliers, and Brokers

Naming conventions: When emailing files, please use the following language to identify your submission- "Project #, Proposal #, Let date, Business Name, Attachment A" Email: [DBE\\_Alert@dot.wi.gov](mailto:DBE_Alert@dot.wi.gov)

\*Note: A sublet request is required for DBE work, regardless of subcontract tier, and also for reporting materials or supplies furnished by a DBE.

- Sublet Requests via form DT1925 or WS1925 are required for 1st Tier DBEs
- For all 2nd Tier and below notification of DBE sublet is indicated by the contractor entering them in CRCS

## 7. Credit Evaluation for Trucking

All bidders are expected to adhere to the Department's current trucking policy posted on the HCCI website at: <http://wisconsindot.gov/Documents/doing-bus/civil-rights/dbe/trucking-utilization-policy.pdf>

The prime contractor is responsible for ensuring that all subcontractors including trucking firms, receive Form FHWA 1273: <https://www.fhwa.dot.gov/programadmin/contracts/1273/1273.pdf>

See Section 8 for Broker credit.

## 8. Credit Evaluation for Manufacturers, Suppliers, Brokers

The Department will calculate the amount of DBE credit awarded to a prime using a DBE firm for the provisions of materials and supplies on a contract-by-contract basis. The Department will count the material and supplies that a DBE firm provides under the contract for DBE credit based on whether the DBE firm is a manufacturer, supplier, or broker. Generally, DBE credit is determined through evaluation of the DBE owner's role, responsibility, and contribution to the transaction. Maximum DBE credit is awarded when the DBE firm manufactures materials or supplies. DBE credit decreases when the DBE firm solely supplies materials, and minimal credit is allotted when the DBE firm's role is administrative or transactional. It is the bidder's responsibility to confirm that the DBE firm is considered a supplier or a manufacturer before listing them on Commitment to Subcontract to DBE form DT1506 or DBE Commitment submitted with the bid.

### a. Manufacturers

- (1) A manufacturer is a firm that operates or maintains a factory or establishment that produces, on the premises, the materials, supplies, articles, or equipment required under the contract and of the general character described by the specifications.
- (2) If the materials or supplies are obtained from a DBE manufacturer, **100%** percent of the cost of the materials or supplies counts toward DBE goals.

### b. Regular Dealers of Material and/or Supplies

- (1) A regular dealer is a firm that owns, operates, or maintains a store, warehouse, or other establishment in which the materials, supplies, articles or equipment of the general character described by the specifications



and required under the contract are bought, kept in stock, and regularly sold or leased to the public in the usual course of business.

- (2) If the materials or supplies are purchased from a DBE regular dealer, count **60%** percent of the cost of the materials or supplies toward DBE goals.
- (3) At a minimum, a regular dealer must meet the following criteria to be counted for DBE credit:
  - i. The DBE firm must be an established, regular business that engages, as its principal business and under its own name, in the purchase and sale or lease of the products in question.
  - ii. The DBE firm must both own and operate distribution equipment for the product--bulk items such as petroleum products, steel, cement, gravel, stone, or asphalt. If some of the distribution equipment is leased, the lease agreement must accompany the DBE Commitment form for evaluation of the dealer's control before the DBE office approves the DBE credit.
- (4) When DBE suppliers are contracted, additional documentation must accompany the DBE Commitment and Attachment A forms. An invoice or bill-of-sale that includes names of the bidder and the DBE supplier, along with documentation of the calculations used as the basis for the purchase agreement, subcontract, or invoice. WisDOT recognizes that the amount on the Attachment A form may be more or less than the amount on the invoice per b.(1) above.
  - i. The bidder should respond to the following questions and include with submission of form DT1506 or the DBE Commitment entered with bid:
    - a. What is the product or material?
    - b. Is this item in the prime's inventory or was the item purchased when contract was awarded?
    - c. Which contract line items were referenced to develop this quote?
    - d. What is the amount of material or product used on the project?
- (5) Supplies purchased in **bulk** from DBE firms at the beginning of the season may be credited to current contracts if submitted with appropriate documentation to the DBE office.
  - i. To ensure that the appropriate credit is assigned, follow the procedure below:
    - a. When DBE suppliers are contracted for bulk supply or commodity purchases, an invoice or bill-of-sale that includes names of the contractor and the DBE supplier should be submitted to the DBE Office via eSubmit (preferred during letting) or the DBE\_Alert email box. The supply/commodity credit may be applied during the federal fiscal year (October- September) in which the purchase was made.
    - b. When the contractor intends to apply the credit to a particular project, submit a copy of the original invoice, documentation of the calculations for supplies/commodities to be used on the project, and an Attachment A. Indicate on the Attachment A:
      - c. This supply/commodity is in the prime's inventory or pre-paid in case of commodities
      - d. The full value of the original invoice submitted to the DBE Office, above in (1)
      - e. The amount of material or product used on this project
      - f. Fuel estimate listed on Attachment A will be recorded as a deduction from the full fuel purchase amount shown on the invoice
  - ii. DBE Office Process (Applies only to bulk purchases)
    - a. Supply/Commodity commitment is received
    - b. Engineer verifies amount listed on invoice and enters the full amount into spreadsheet
    - c. The amount of credit applied for each project is updated on the spreadsheet until the bulk purchase is exhausted
    - d. Engineer informs contractor when full amount of bulk purchase has been applied

**c. Brokers, Transaction Expeditors, Packagers, Manufacturers' Representatives**

- (1) No portion of the cost of the materials, supplies, services themselves will count for DBE credit. However, WisDOT will evaluate the fees or commissions charged when a prime purchases materials, supplies, or services from a DBE certified firm which is neither a manufacturer nor a regular dealer, namely: brokers, packagers, manufacturers' representatives, or other persons who arrange or expedite transactions.
- (2) Brokerage fees are calculated as **10%** of the purchase amount.
- (3) WisDOT may count the amount of fees or commissions charged for assistance in the procurement of the materials and supplies, fees, or transportation charges for the delivery of materials or supplies required on a job site.
- (4) Evaluation of DBE credit includes review of the contract need for the item/service, the sub-contract or invoice for the item/service, and a comparison of the fees customarily allowed for similar services to determine whether they are reasonable.

**9. DBE Commitment Modification Policy (Formerly "DBE Replacement Policy")****a. Issuing a Contract Change Order**

Any changes or modifications to the contract once executed are considered contract modifications and as such require a change order. In addition, the DBE office must provide consent for reduction, termination, or replacement of subcontractors approved on the DBE Commitment *in advance* of the modification for the prime contractor to receive payment for work or supplies. Additions to the DBE Commitment do not require advance notification of the DBE office. (see below e. DBE Utilization beyond the approved DBE Commitment)

**b. Contractor Considerations**

- (1) A prime contractor cannot modify the DBE Commitment through reduction in participation, termination, or replacement of a DBE subcontractor listed on the approved DBE Commitment without prior written consent from the DBE Office. This includes, but is not limited to, instances in which a prime contractor seeks to perform work originally designated for a DBE subcontractor with its own forces or those of an affiliate, a non-DBE firm, or with another DBE firm.
- (2) If a prime contractor reduces participation, replaces, or terminates a DBE subcontractor who has been approved for DBE credit toward its contract, the prime is required to provide documentation supporting its inability to fulfill the contractual commitment made to the Department regarding the DBE utilization.
- (3) The Prime Contractor is required to demonstrate efforts to find another DBE subcontractor to perform at least the same amount of work under the contract as the DBE subcontractor that was terminated, to the extent needed to meet the assigned DBE contract goal. When additional opportunity is available by contract modifications, the Prime Contractor must utilize DBE subcontractors that were committed to equal work items, in the original contract.
- (4) In circumstances when a DBE subcontractor fails to complete its work on the contract for any reason, or is terminated from a contract, the Prime Contractor must undertake efforts to maintain its commitment to the assigned DBE goal.
- (5) The DBE subcontractor should communicate with the Prime Contractor regarding its schedule and capacity in the context of the contract. If the DBE firm anticipates that it cannot fulfill its subcontract, they will advise the Prime Contractor and suggest a DBE subcontractor that may replace their services and provide written consent to be released from its subcontract.
  - i. Before the Prime Contractor can request modification to the approved DBE Commitment, the Prime Contractor must:
    - a. Make every effort to fulfill the DBE Commitment by working with the listed DBE subcontractor to ensure that the firm is fully knowledgeable of the Prime Contractor's expectations for successful performance on the contract. Document these efforts in writing.



- b. If those efforts fail, provide written notice to the DBE subcontractor of the Prime Contractor's intent to request to modify the Commitment through reduction in participation, termination, and/or replacement of the subcontractor including the reason(s) for pursuing this action.
- c. Copy the DBE Office on all correspondence related to changing a DBE subcontractor who has been approved for DBE credit on a contract, including preparation and coordination efforts.
- d. Clearly state the amount of time the DBE firm has to remedy and/or respond to the notice of intent to replace/terminate. The DBE must be allowed five days from the date notice was received as indicated by email time stamp or signed certified mail, to respond, in writing. EXCEPTION: The Prime Contractor must provide a verifiable reason for a response period shorter than five days. For example, a WisDOT project engineer or project manager confirms that WisDOT has eliminated an item the DBE subcontractor was contracted for.
- e. The DBE subcontractor must acknowledge the contract modification with written response to the Prime Contractor and the DBE Office. If objecting to the subcontract modification, the DBE subcontractor must outline the basis for objection to the proposed modification, providing sound reasoning for WisDOT to reject the prime's request.

**c. Request to Modify DBE Subcontracting Commitment**

The written request referenced above may be delivered by email or fax. The request must contain the following:

- (1) Project ID number
- (2) WisDOT Contract Project Engineer's name and contact information
- (3) DBE subcontractor name and work type and/or NAICS code
- (4) Contract's progress schedule
- (5) Reason(s) for requesting that the DBE subcontractor be replaced or terminated
- (6) Attach/include all communication with the DBE subcontractor to deploy/address/resolve work completion

Naming conventions: When emailing files, please use the following language to identify your submission- "Project #, Proposal #, Let date, Business Name, MODIFICATION" Email: [DBE\\_Alert@dot.wi.gov](mailto:DBE_Alert@dot.wi.gov) + Project Engineer

WisDOT will review the request and any supporting documentation submitted to evaluate if the circumstance and the reasons constitute good cause for replacing or terminating the approved DBE subcontractor.

*Good Causes to Replace a DBE subcontractor according to the federal DBE program guidelines {49 CFR part 26.53}*

- The listed DBE subcontractor fails or refuses to execute a written contract
- The listed DBE subcontractor fails or refuses to perform the work of its subcontract in a way consistent with normal industry standards. Provided, however, that good cause does not exist if the failure or refusal of the DBE subcontractor to perform its work on the subcontract results from the bad faith or discriminatory action of the prime contractor
- The listed DBE subcontractor fails or refuses to meet the prime contractor's reasonable, nondiscriminatory bond requirements
- The listed DBE subcontractor becomes bankrupt, insolvent, or exhibits credit unworthiness
- The listed DBE subcontractor is ineligible to work on public works projects because of suspension and debarment proceedings pursuant 2 CFR Parts 180, 215, and 1,200 or applicable state law
- The prime has determined that the listed DBE subcontractor is not a responsible contractor
- The listed DBE subcontractor voluntarily withdraws from the project and provides written notice of its withdrawal
- The listed DBE subcontractor is ineligible to receive DBE credit for the type of work required

- A DBE firm owner dies or becomes disabled with the result that the listed DBE subcontractor is unable to complete its work on the contract.

#### d. Evaluation and Response to the Request

WisDOT's timely response to the Prime Contractor's request for modification of the approved DBE Commitment will be provided to the prime and the WisDOT project engineer via email.

If WisDOT determines that the Prime Contractor's basis for reduction in participation, replacement, or termination of the DBE subcontractor is not consistent with the good cause guidelines, the DBE office will provide a response via email within 48-hours of receipt of request from the Prime Contractor as indicated by email time stamp. The communication will include: the requirement to utilize the committed DBE, actions to support the completion of the contractual commitment, a list of available WisDOT support services, and administrative remedies, including withholding payment to the prime, that may be invoked for failure to comply with federal DBE guidelines for DBE replacement.

The WisDOT contact for all actions related to modification of the approved DBE Commitment is the DBE Program Engineer who can be reached at [DBE\\_Alert@dot.wi.gov](mailto:DBE_Alert@dot.wi.gov) or (414) 335-0413.

#### e. DBE Utilization beyond the approved DBE Commitment

When the prime or a subcontractor increases the scope of work for an approved DBE subcontractor or adds a DBE subcontractor who was not on the approved form DT1506 or DBE Commitment submitted with bid at any time after contract execution, this is referred to as voluntary DBE contract goal achievement. The contractor must follow these steps to ensure that the participation is accurately credited toward the DBE goal:

- (1) Forward a complete, signed Attachment A form to the DBE Office. A complete Attachment A includes DBE subcontractor contact information, signatures, subcontract value, and description of the work areas to be performed by the DBE. The DBE Office will verify the DBE participation and revise the DBE Commitment based on the email/discussion and the new Attachment A.
- (2) When adding to an existing DBE Commitment, submit a new Attachment A to the DBE Alert mailbox
- (3) OR Submit a final Attachment A to DBE Alert during the Finals Process when Compliance receives notice of "Substantially Complete"

Naming conventions: When emailing files, please use the following language to identify your submission- "Project #, Proposal #, Let date, Business Name, New Attachment A" Email: [DBE\\_Alert@dot.wi.gov](mailto:DBE_Alert@dot.wi.gov)

#### Special note on trucking

- DBE truckers added to the sublets in CRCS *will* be approved without DBE credit (You will see a "N" in CRCS instead of "Y")
- Prime Contractors may enter a "place holder" e.g. \$1000.00, for DBE Trucking in CRCS if the full amount of trucking is unknown for sublet purposes only
- The hiring contractor may obtain the Attachment A with DBE signature included but the **Prime Contractor** must sign the Attachment A before submitting
- DBE truckers need to be added to the DBE commitment once. If the DBE trucker is on the initial commitment (DT1506/E1506) there is no requirement to submit another Attachment A for that trucker for that contract.

### 10. Commercially Useful Function

- a. Commercially Useful Function (CUF) is evaluated after the contract has been executed, while the DBE certified firm is performing contracted work items.
- b. The Department uses Form DT1011, DBE Commercially Useful Function Review and Certification to evaluate if the DBE is performing a commercially useful function. WisDOT counts expenditures of a DBE toward the DBE goal only if the DBE is performing a commercially useful function on that contract.

- c. A DBE firm is performing a commercially useful function if the following conditions are met:
  - (1) For contract work, the DBE is responsible for executing a distinct portion of the work and is carrying out its responsibilities by actually performing, managing, and supervising that work.
  - (2) For materials and supplies, the DBE is responsible for negotiating price, determining quality and quantity, ordering, and paying for those materials and supplies.
- d. Offsite Hauling – when DBE truck will haul between a pit and plant or location other than the construction site associated with the commitment
  - (1) Indicate Offsite Hauling on Attachment A
  - (2) Discuss offsite hauling at weekly progress meetings with Project Engineer (PE)
  - (3) PE conducts spot checks of pits/plants to verify DBE truck is hauling and/or verifying hauling log
  - (4) Prime should be prepared to submit haul tickets, plant/pit tickets, timecards, and other pertinent documentation if requested by PE or DBE Office

## 11. Credit Evaluation for DBE Primes

WisDOT calculates DBE credit based on the amount and type of work performed by DBE certified firms for work submitted with required documentation. If the prime contractor is a DBE certified firm, the Department will only count the work that the DBE prime performs with its own forces for DBE neutral credit. The Department will also calculate DBE credit for work performed by any other DBE certified subcontractor, DBE certified supplier, and DBE certified manufacturer on the contract in each firm's approved NAICS code/work areas that are submitted with required documentation. Crediting for manufacturers and suppliers is calculated consistent with Section 8 of this document and 49 CFR Part 26.

## 12. Joint Venture

A joint venture is an association of a DBE firm and one or more other firms to carry out a single, for-profit business enterprise, for which the parties combine their property, capital, efforts, skills and knowledge, and in which the DBE is responsible for a distinct, clearly defined portion of the work of the contract and whose share in the capital contribution, control, management, risks, and profits of the joint venture are commensurate with its ownership interest. If a DBE performs as a participant in a joint venture, the Department will only credit the portion of the total dollar value of the contract equal to the portion of the work that the DBE performs with its own forces.

## 13. Mentor-Protégé

- a. If a DBE performs as a participant in a mentor-protégé agreement, the Department will credit the portion of the work performed by the DBE protégé firm.
- b. DBE credit is evaluated and confirmed by the DBE Office for any contracts on which the mentor-protégé team identifies itself to the DBE Office as a current participant of the Mentor-Protégé Program.
  - (1) DBE credit may only be awarded to a non-DBE mentor firm for using its own protégé firm for less than one half of its goal on any contract; and
  - (2) Not award DBE credit to a non-DBE mentor firm for using its own protégé firm for more than every other contract performed by the protégé firm.
- c. A DBE protégé firm may be eligible for conditional NAICS code extension for training with the mentor. Request permission from the DBE Office- Certification area.
- d. Refer to WisDOT's Mentor-Protégé guidelines for guidance on the number of contracts and amount of DBE credit allowed on WisDOT projects.

## 14. Use of Joint Checks

The use of joint checks is allowable if it is a commonly recognized business practice in the material industry. A joint check is defined as a two-party check between a DBE subcontractor, a prime contractor, and the regular dealer or materials supplier who is neither the prime nor an affiliate of the prime. Typically, the prime contractor issues one check as payor to the DBE subcontractor and to the supplier jointly (to guarantee payment to the supplier) as payment for the material/supplies used by the DBE firm in cases where the DBE subcontractor and materials have been approved for DBE credit. The DBE subcontractor gains the opportunity to establish a direct contracting relationship with the supplier to potentially facilitate a business rapport that results in a line of credit or increased partnering opportunities.

The cost of material and supplies purchased by the DBE firm is part of the value of work performed by the DBE to be counted toward the goal. To receive credit, the DBE firm must be responsible for negotiating price, determining quality and quantity, ordering the materials, and installing (where applicable) and "paying for the material itself." See 49 CFR 26.55(c)(1).

The approval to use joint checks constitutes a commitment to provide further information to WisDOT, upon request by staff. WisDOT will allow the use of joint checks when the following conditions are met:

- a. The Prime Contractor must request permission to use joint checks from the DBE Office by submitting the Application to Use Joint Checks.
  - (1) Request should be made when the DBE Commitment or the Request to Sublet is submitted; the request will not be considered if submitted after the DBE Subcontractor starts its work.
  - (2) Approval/Permission must be granted prior to the issuance of any joint checks.
  - (3) The payment schedule for the supplier must be presented to the DBE office before the first check is issued.
  - (4) The joint check for supplies must be strictly for the cost of approved supplies.
- b. The DBE subcontractor is responsible for furnishing and/or installing the material/work item and is not an 'extra participant' in the transaction. The DBE firm's role in the transaction cannot be limited solely to signing the check(s) to release payment to the material supplier. At a minimum, the DBE subcontractor's tasks should include the following:
  - (1) The DBE subcontractor (not the prime/payor) negotiates the quantities, price, and delivery of materials.
  - (2) The DBE subcontractor consents to sign/release the check to the supplier by signing the [Application to Use Joint Checks](#) after establishing the conditions and documentation of payment within the subcontract terms or in a separate written document.
- c. The Prime contractor/payor acts solely as a guarantor.
  - (1) The Prime Contractor agrees to furnish the check used for the payment of materials/supplies under the contract.
  - (2) The prime contractor/payor cannot require the subcontractor to use a specific supplier or the prime contractor's negotiated unit price.

## 15. Payment

Costs for conforming to this Additional Special Provision (ASP) and any associated DBE requirements are incidental to the contract.

## Appendix A

### Substantive Conversation Guidelines

The substantive conversation is critical to all bidders' demonstration of good faith effort to meet the DBE goal prior to bid opening. Relationship building between primes and subcontractors is crucial to DBE goal attainment. Responsible bidders seek to build rapport with potential DBE subcontractors to understand capacity, areas of expertise, and assess contracting feasibility. Bidders who compete for WisDOT contracts are specialty contractors responding to a growing and changing contract environment. Just as these specialists are responsible for care of the roads, they are likewise responsible for contributing to the health of the industry. The substantive conversation drives collaboration that will build industry health and capacity. The following is intended to provide guidance for such discussions but is not an exhaustive list. Contractors are encouraged to incorporate their existing strategies for cultivating business relationships as well.

Prior to Bid Opening- this discussion should happen as early as possible (WisDOT advertisements are released weeks prior to each Let)

1. Determine DBE subcontractor's interest in quoting
2. If response indicates inexperience with quoting- offer support/assistance to the DBE in understanding the industry including fundamentals a subcontractor needs to know, required reading and/or resources.
3. Assess their interest and experience in the road construction industry by asking questions such as:
  - Have you competed for other WisDOT contracts? Ratio of competed/to wins
  - Have you performed on any transportation industry contracts (locally or with other states)?
  - What the largest contract you've completed?
  - Have you worked in the industry: apprentice, journeyman, safety, inspection etc.?
  - Does this project fit into your schedule? Are you working on any contracts now?
  - Have you reviewed a copy of the plans? Are you comfortable performing within the scope and quantity considerations of this contract?
  - What region do you work in? Home base?
  - Which line items are you considering?
  - Have you read/are you familiar with WisDOT Standard Specifications? Construction Material Manual?
  - Do you understand where your work fits in the project schedule, project phases?

Following Bid Opening- this discussion can happen at any time

1. After reviewing their quote, note the following in your discussion:
  - Does the quote look complete? Irregular?
  - Are there errors in the quote? Are items very high or very low?
  - In general, does the quote look competitive?
2. Questions and Advice for the bidder to share with the potential DBE subcontractor:
  - What line items would typically be in a competitive quote for a subcontractor of their specialty?
  - How many employees and what is their role/experience/expertise in your firm?
  - Do you have resources for labor (union member, family-based, community-resourced) and capital (banking relationship, bond agent, CPA)?
  - Where have you worked: cities, states, government, commercial, residential/private sector, etc. Explain similarities or differences.
  - Refer them to reliable, trusted, industry resources that can educate or connect them to relevant resources, education/certification resources, more appropriate contract opportunities.
  - Discussion about prime contract and subcontract liability, critical path items, contract quantities, schedule risks, and potential profit/loss (for upcoming known projects or in general).
  - Discussion of bonding, insurance, and overall business risk considerations.

## Appendix B

### Sample Contractor Solicitation Letter Page 1

*(This sample is provided as a guide, not a formatting requirement)*

#### DBE Solicitation - [Month] [Day], [Year] WisDOT Bid Letting

Attention all DBEs. [Prime Contractor] is actively seeking your quote for the [Month][Day], [Year] Bid Letting. [Prime Contractor] is considering bidding on the projects listed on page 2 as a prime contractor. Please see page 2 for instructions and the sub-contractable opportunities for each proposal.

**Does [Prime Contractor] accept quotes in areas we might self-perform?** Yes, we do! We support this federal rule and (if needed) we consider areas we might self-perform an opportunity to provide in the field assistance and training if we award your quote.

**Where can DBEs find the plans, specifications & addenda?** Please visit [Prime Contractor's] plan room [LINK] or on WisDOT's Highway Construction Contract Information HCCI website: [Wisconsin Department of Transportation Highway Construction Contract Information \(wisconsindot.gov\)](https://wisconsindot.gov/HighwayConstructionContractInformation). This same website can be checked for the contract status.

**What should your quote include?** All the costs required to complete the items you propose to perform including labor, equipment, material, and related bonding or insurance. The quote should also note items that you are DBE certified to perform, tied items, and any special terms. Please use page 2 as your cover sheet for your quote.

**Do you have a question regarding bonding, credit, insurance, equipment, or supplies/materials?** We welcome all DBE questions! Please call [Prime Contractor] and ask to speak with [Contact]. [Prime Contractor] can provide basic information as well as a referral to a trusted industry partner for insurance and bonding needs.

#### **When are quotes due?**

**[Month] [Day], [Year] at [Time].** We accept quotes via SBN, email, or fax. Please make every effort to have your quotes in by this time or earlier. Quality check your quote so it includes the correct letting date, project ID, proposal number, unit price and extension.

**Who can DBEs contact for questions, information, clarification or for a quote evaluation?** [Project Manager Name] [Phone] [Email]. If you are quoting [Prime Contractor] for the first time, we encourage you to come meet with us in person to discuss the project. Our office hours are 7:30 a.m. – 5:00 p.m. On bid day, we are in the office by 6:30 a.m.

#### **Why partner with [Prime Contractor]?**

DBE partnership is a core part of [Prime Contractor's] mission. Including DBEs at the beginning of each project is essential in the success of each project. We consider DBEs to be important industry partners who bring dedication and knowledge at various stages during construction. We are proud to be an industry leader with our DBE partnership. Your success as a DBE is our success.

**Sample Contractor Solicitation Letter Page 2***(This sample is provided as a guide, not a formatting requirement)*

## REQUEST FOR QUOTE

**[Prime Contractor]****Letting Date: [Month] [Day], [Year]****Project IDs: 1234-56-00 (Proposal #1) & 1234-01-78 (Proposal #6)**

Please check all that apply:

- ☐ Yes, we will be quoting the projects & items listed below
- ☐ No, we are not interested in quoting on the letting or its items referenced below
- ☐ Please take our name off your monthly DBE contact list
- ☐ We have questions about quoting this letting. Please have someone contact me at this number:

Prime Contractor Contact: \_\_\_\_\_

DBE: \_\_\_\_\_

Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

Email: \_\_\_\_\_

**Please circle the proposals and items you will be quoting below and contact us with any questions**

<b>Proposal County</b>	<b>1 Dane County</b>	<b>6 Crawford County</b>
<b>Clearing &amp; Grubbing</b>	<b>X</b>	<b>X</b>
<b>Dump Truck Hauling</b>	<b>X</b>	<b>X</b>
<b>Curb/Gutter/Sidewalk</b>	<b>X</b>	
<b>Erosion Control Items</b>		<b>X</b>
<b>Excavation</b>	<b>X</b>	<b>X</b>
<b>Pavement Marking</b>		<b>X</b>
<b>Traffic Control</b>	<b>X</b>	
<b>Sawing</b>	<b>X</b>	<b>X</b>
<b>QMP, Base</b>		<b>X</b>
<b>Pipe Underdrain</b>	<b>X</b>	
<b>Landscape</b>		<b>X</b>
<b>Beam Guard</b>	<b>X</b>	
<b>Electrical</b>	<b>X</b>	
<b>Signs/Posts/Markers</b>		<b>X</b>
<b>Survey/Staking</b>		<b>X</b>

Again, please make every effort to have your quotes into our office by **time deadline** prior to the letting date.

## Sample Contractor Solicitation Email - Simplified

*(This sample is provided as a guide, not a formatting requirement)*

### ATTENTION DBEs

- [Prime Contractor] specializes in municipal projects in the XX Region(s)
- We have successfully competed for and completed XX WisDOT projects over the past XX years
- Consider [Prime Contractor] your partner on WisDOT Projects

[Prime Contractor] is seeking your subcontractor quote for the XX/XX/20XX WisDOT bid letting on the below projects:

Project	Proposal	County	Region
1234-56-00	2	Dane	SW
1234-01-78	6	Crawford	SW

- Please review the attachments **[attach Solicitation Letter]** and respond with your intent to quote (or not) along with the work items you are interested in performing and respond via fax or email by date. The quote should note items that you are DBE certified to perform, tied items, and any special terms. Please include labor, equipment, material, and related bonding or insurance.
- If you have any questions regarding bonding, credit, insurance, equipment and/or materials/supplies, please feel free to call [Prime Contractor] and ask for [Contact]. **(Include if your company is willing to answer these types of DBE questions)**
- Plans and Specifications can be found: **WisDOT HCCI Website: List webpage where plans are located**
- If you do choose to quote, please make every effort to have your quote into our office by time and date. Make sure the correct letting date, project number, unit price and extension are included in your quote.
- Should you have questions regarding the mentioned project, please call our office at (414) 555-5555 and we will direct you to the correct estimator/project manager.  
Our office hours are 7:30 a.m. - 5:00 p.m.

**Thank you – we look forward to working with your company on this project!**

Prime Contractor  
Project Manager

Direct: 414-555-5555

Cell: 414-555-5556



## Sample Contractor Solicitation Email to **non-DBE** WisDOT Subcontractors - Simplified

*(This sample is provided as a guide, not a formatting requirement)*

### **ATTENTION WisDOT SUBCONTRACTORS**

[Prime Contractor] is considering bidding on the below projects for the XX/XX/20XX WisDOT Bid Letting:

Project	Proposal	County	Region	DBE Goal
1234-56-00	2	Dodge	SW	6.00%
1234-01-78	11	Adams	NC	3.00%
1234-00-99	20	Buffalo	NW	5.00%
1234-00-98	33	Portage	NC	6.00%

The above projects have DBE goals and [Prime Contractor] is committed to DBE inclusion with every project. As such, we are requesting:

- All WisDOT Subcontractors to **solicit and utilize** DBEs in your quotes.
- DBE participation can be achieved through purchasing materials from DBE suppliers, using DBE subcontractors and/or DBE trucking firms or any combination of these.
- If there is an opportunity to untie an item in your quote so a DBE can be utilized, please look for those opportunities as well.
- Your quote will be evaluated based on the amount of DBE participation your company is able to provide when compared to other quotes for the same work.

If you do choose to quote, please make every effort to have your quote into our office by **time and date**. Please submit all quotes to [Email]. Make sure the correct letting date, project number, unit price and extension are included in your quote.

Should you have questions regarding the mentioned project, the Project Manager contact is: [Name] [Phone Number] [Email]

**Thank you for utilizing DBEs who are trusted industry partners with WisDOT projects.**

Prime Contractor  
Project Manager

Direct: 414-555-5555  
Cell: 414-555-5556

## Appendix C

### Small Business Network (SBN) Overview

The Small Business Network is a part of the Bid Express® service that was created to ensure that prime bidders have a centralized online location to find subs - including small and disadvantaged business enterprises (DBEs). It is available for prime bidders to use as part of their Basic Service subscription. Within the Small Business Network, **Prime Contractors** can:

1. Easily select proposals, work types and items:
  - a. After adding applicable work types, select items that you wish to quote. Enter the sub-quote quantities and add comments, if desired. Adding or removing items and work types can be done quickly. If needed, you can save the sub-quote for later completion.
2. Create sub-quotes for the subcontracting community:
  - a. Create sub-quotes with ease using the intuitive sub-quote creator. In seven short steps, you can rapidly create a custom sub-quote directed to all subcontractors that bid on the applicable work types. Steps include: provide contact information and sub-quote expiration date, select letting and proposal, add work types and items, specify terms and conditions, upload attachments, and select vendors.
  - b. Create a sub-quote to send to subcontractors or suppliers that lists the items in a proposal that you want quoted
  - c. Create an unlimited number of sub-quotes for items you want quoted, and optionally mark them as a DBE preferred request.
  - d. Add attachments to sub-quotes.
3. View sub-quote requests & responses:
  - a. After logging into the Bid Express service, you can quickly review all of your sub-quote requests and all unsolicited sub-quote requests from subcontractors. To simplify the Small Business Network home screen, sub-quote requests can be hidden with one click if they are not applicable.
  - b. View or receive unsolicited sub-quotes that subcontractors have posted, complete with terms, conditions and pricing.
4. View Record of Subcontractor Outreach Effort:
  - a. For each sub-quote produced, a *Record of Subcontractor Outreach Effort* is generated that shows the response statistics for a particular sub-quote. If accepted by the letting agency, this report may serve as proof of a "Good Faith" effort in reaching out to the DBE community.
  - b. Easily locate pre-qualified and certified small and disadvantaged businesses.
  - c. Advertise to small and disadvantaged businesses more efficiently and cost effectively.
  - d. Document your interactions with subs/DBEs by producing an Outreach Report (may be accepted as proof of DBE outreach at the discretion of each agency).

The Small Business Network help small businesses learn more about opportunities, compete more effectively, network with other contractors and subcontractors, and win more jobs. The DBE will provide free SBN accounts to DBEs when requested. Use [DBE\\_Alert@dot.wi.gov](mailto:DBE_Alert@dot.wi.gov) to request an account. **DBE firms can:**

1. View and reply to sub-quote requests from primes:
  - a. After logging into the Bid Express service, you can quickly review all incoming sub-quote requests and all unsolicited sub-quotes created by your company. Receive notifications by selected work type. To simplify on the Small Business Network home screen, sub-quote requests can be filtered by work types relevant to your interests or hidden with one click if they are not applicable.
2. Select items when responding to sub-quote requests from primes:
  - a. You have the freedom to choose and price any number of items when responding to a sub-quote request. Quantities can be modified, and per-item comments are also available.
  - b. View requests for sub-quotes for work that primes have posted for projects they are bidding, add your pricing, terms, and conditions, and submit completed sub-quotes to the requesting primes.
  - c. Add attachments to a sub-quote.
3. Create and send unsolicited sub-quotes to specific contractors:
  - a. Create unsolicited sub-quotes with ease using the intuitive sub-quote creator. In eight short steps, you can rapidly create a custom sub-quote directed at any number of specific vendors of your choosing. Steps include: provide contact information and sub-quote expiration date, select letting and proposal, add work types and items, specify terms and conditions, upload attachments, and select vendors.
4. Easily select and price items for unsolicited sub-quotes:
  - a. After adding applicable work types, select items that you wish to quote. The extended price calculates automatically, cutting out costly calculation errors. Comments can be provided on a per-item basis as well.
  - b. Create an unsolicited sub-quote that lists the items from a proposal that you want to quote, include pricing, terms and conditions, and send it to selected prime/plan holder.
  - c. Add attachments to a sub-quote.
  - d. Add unsolicited work items to sub-quotes that you are responding to.
5. Easy Access to Valuable Information
  - a. Receive a confirmation that your sub-quote was opened by a prime.
  - b. View Bid Tab Analysis data from past bids, including the high, average and low prices of items.
  - c. View important notices and publications from DOT targeted to small and disadvantaged businesses.
6. Accessing Small Business Network for WisDOT contracting opportunities
  - a. If you are a contractor not yet subscribing to the Bid Express service, go to [www.bidx.com](http://www.bidx.com) and select "Order Bid Express." The Small Business Network is a part of the Bid Express Basic Service.

## Appendix D

### Good Faith Effort Evaluation Measures *by categories referenced in DBE regulations*

Bidders must demonstrate that they took all necessary and reasonable steps to achieve the assigned DBE contract goal. For each contract, all bidders must submit documentation indicating the goal has been met or if falling short of meeting the assigned goal, must request a DBE Goal Waiver and document all efforts employed to secure DBE subcontractor participation on Form DT1202.

DBE staff analyze the bidder's documented good faith efforts to determine if action taken was sufficient to meet the goal. Sufficiency is measured contract-by-contract. WisDOT evaluates active and aggressive efforts, quality, quantity, scope, intensity, and appropriateness of the bidder's efforts as a scale of the principles of Good Faith outlined in 49 CFR Part 26, Appendix A. Additional emphasis is placed on the bidder's demonstration of timely submission of documentation and communication with DBE subcontractors, and business development initiatives undertaken to support DBE firm growth.

The following is a sample of good faith effort activities that are rated according to the accompanying rubric. Contractors are encouraged to identify additional activities that align with their business type(s).

- Personal, tailored solicitation to firms that specialize in work types planned or desired for subcontracting
- Follow up to initial solicitation via email or phone
- Substantive conversation including topics such as contract liability, critical path work items, schedule risks, and potential profit/loss
- SBN utilization including posting quotes
- Review and response to DBE quotes including provision of information about plans, specifications, and requirements as applicable
- Documentation requesting subcontractors support DBE goal by solicitation and inclusion of DBE subcontractor quotes
- Responsive and timely submission of organized documentation
- Analysis of number of DBE firms who do work types that you typically subcontract
- Analysis of number of DBE firms who reside in geographical areas where prime seeks work
- Analysis of firms who express interest in bidding/quoting including the number of firms who declined your solicitation
- Reference check of DBE subcontractor work or training (documentation of questions and response required)
- Number of different efforts undertaken to meet the assigned DBE goal as documented in accompanying Form DT1202
- Submission of all DBE quotes received matched with a variety of work to be performed by DBEs
- Number and names of DBE firms provided written advice, or referral to industry-specific business development resources
- Overall pattern of DBE utilization on all WisDOT contracts which may include contracting with municipalities
- Documentation of resources expended to meet assigned DBE goal (#of hours, staff titles, average pay rate, actions taken)
- Analysis of subcontractable work items to be completed by prime beyond prime contractor's 30%
- Risk analysis of work items that are typically in tied quotes that could be unbundled
- List of contract work items in smallest economically feasible units, identifying schedule impact
- Submission of a Gap Analysis identifying DBE skillset and/or industry needs
- Staff training in EEO and Civil Rights laws as documented in training logs
- Written Capacity Assessment completed with DBE firm documenting its ability to perform the work quoted
- DBE engagement efforts beyond simple solicitation that include a substantive discussion, initiated as early in the acquisition process as possible (*points added for each day prior to letting*)
- Outreach and marketing efforts with minority, women, and veteran-focused organizations at least 10 days prior to bid opening
- Active involvement in WisDOT's Business Development Program, TrANS training, facilitated networking efforts, workshops
- Customized teaching/training efforts for future opportunities with DBE subcontractor, contract specific and/or annually
- Introduction and reference provided for DBE subcontractor to a prime who has not previously contracted with the DBE firm
- Prime utilization of a DBE subcontractor the prime has not contracted with previously
- Written referral/recommendation to bond/insurance agents, manufacturer, supplier
- Documented efforts fostering DBE participation through administrative and/or technical assistance
- Evidence of negotiation with the DBE firm about current and future Let opportunities
- Recommendation of local and state services that support small business and access to opportunity: DOA, SBA, WEDC, WPI, etc.
- Advice on bonding, lines of credit, or insurance as required to complete the items quoted and contract requirements

## GFE Evaluation Rubric – Phase 1 – Initial Review

DT1202	Examples	Rating	OBOEC Feedback
<b>Solicitation Documentation</b>	<p>Identify all reasonable and available activities performed to solicit the interest of all certified DBEs who have capacity and ability to perform work on the project.</p> <p><i>Such as: Updated solicitation letter and email, timely solicitation, and follow-up, and/or utilized various methods to communicate solicitation (ex: letter, email, publication, posting and/or website)</i></p>		
<b>Selected Work Items Documentation</b>	<p>All work items are broken out into economically feasible units to facilitate DBE participation.</p> <p><i>Such as: Selected work items are specific to each proposal and clearly identified in all solicitation(s)</i></p>		
<b>Documentation of Project Information provided to Interested DBEs</b>	<p>Provide interested DBEs with adequate information about the plans, specifications, and any other contractual requirements in a timely manner to assist DBEs in response to solicitation.</p> <p><i>Such as: Project information is clearly identified in all solicitation(s)</i></p>		
<b>Documentation of Negotiation with Interested DBEs</b>	<p>Provide sufficient evidence demonstrating that good faith negotiations took place during the bid letting.</p> <p><i>Such as: Documented attempts with DBEs or on behalf of DBEs to increase DBE participation</i></p>		
<b>Documentation of Sound Reason for Rejecting DBEs</b>	<p>Provide sufficient evidence demonstrating that DBEs are rejected for sound reasons.</p> <p><i>Such as: Detailed and thoughtful analysis that considers both the percentage and dollar difference when rejecting a DBE including past performance, relevant business experience and stability, safety record, business ethic and integrity, technical capacity, and other tangible factors.</i></p>		
<b>Documentation of Assistance to Interested DBEs- bonding, credit, insurance, equipment, supplies/materials</b>	<p>Documented assistance in both solicitation(s) and outreach to DBEs.</p>		
<b>Documentation of Outreach to Minority, Women, and Community organizations and other DBE Business Development Support</b>	<p>Effectively use the services of minority, women, and community organizations as well as contractors' groups, local, state, and federal business assistance offices and organization that provide assistance in recruiting and supporting DBEs, as well participation in activities that support DBE business development.</p> <p><i>Such as: Variety of activities that translate into meaningful DBE participation</i></p>		
<b>Documentation of other GFE activities</b>	<p><i>Such as: Used DT1202 Excel Workbook, Diversity &amp; Inclusion company policy, Mentor-Protégé participant, awarded neutral DBE after bid submission, included company GFE overview/strategy information and/or company website highlights DBE opportunities and participation</i></p>		
<b>Overall Demonstration of GFE</b>			

**GFE EVALUATION RATING LEGEND – PHASE 1 – Initial Review**

Documentation provided by bidder is evaluated and rated on the rubric. Bidders should include activities characterized by the following types of effort:

**ACTIVE & AGGRESSIVE:** Demonstrated through engaged and assertive activity

**QUALITY:** Demonstrated through essential character of conscientious and serious activity

**QUANTITY:** Demonstrated through a measurable number of activities

**SCOPE & INTENSITY:** Demonstrated through a rigorous approach to an appropriate and purposeful range of activities

**TIMING:** Demonstrated through engagement efforts beyond simple solicitation, initiated early in the process

**GFE EVALUATION – PHASE 2 – Team Review****GFE Team completes:**

- Review of activities included on the rubric
- Review of the intent to award and sound reasoning submitted by Prime
- Bid analysis to confirm if any bid submitted met the DBE goal
- Review average of other bidders DBE goal achievement
- Team review of combined efforts documented in Phase 1 and 2 constitute final GFE determination

**Rating Scale:**

- **GFE Approval:**  
**Bona Fide = 6 or more categories color coded green.**  
Genuine effort characterized by sincere and earnest activities – “Solicitation” and “Sound Reasoning” must be green
- **GFE Approval:**  
**Sufficient = 5 or more categories color coded green or yellow**  
Adequate effort documented with a variety of quality activities – “Solicitation” and “Sound Reasoning” must be green or yellow
- **GFE Denial:**  
**Pro Forma efforts = 4 or less categories color coded green or yellow.** Perfunctory effort characterized by routine or superficial activities

**Green = Exceeds expectations**

**Yellow = Meets expectations**

**Red = Areas in need of attention and/or absence of documentation**

**See OBOEC Rubric Analysis Feedback**

Excerpt from Appendix A to 49 CFR Part 26:

V. In determining whether a bidder has made good faith efforts, it is essential to scrutinize its documented efforts. At a minimum, you must review the performance of other bidders in meeting the contract goal. For example, when the apparent successful bidder fails to meet the contract goal, but others meet it, you may reasonably raise the question of whether, with additional efforts, the apparent successful bidder could have met the goal. If the apparent successful bidder fails to meet the goal but meets or exceeds the average DBE participation obtained by other bidders, you may view this, in conjunction with other factors, as evidence of the apparent successful bidder having made good faith efforts. As provided in §26.53(b)(2)(vi), you must also require the contractor to submit copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract to review whether DBE prices were substantially higher; and contact the DBEs listed

<b>GFE RUBRIC ANALYSIS</b>	
OBOEC DECISION	APPROVAL OR DENIAL
Prime Contractor	
Proposal	
Project	
Bid Letting	
DBE Goal Amount	
DBE Goal Amount Achieved	
<b>Bid Analysis</b>	
Goal %	Achieved %
Apparent Low Bidder	%
Bidder B	
Bidder C	
<b>Average of OTHER Bidders (Not including Apparent Low Bidder)</b>	
<b>DBE Quotes Received</b>	
<b>DBE Quotes Awarded</b>	
<b>DBE Quote(s) Rejected</b>	<b>Rejected Quote Analysis</b>
<b>DBE Quote(s) Awarded</b>	<b>Awarded DBE Amount</b>

## **Appendix E**

### **Good Faith Effort Best Practices**

This list is not a set of requirements; it is a list of potential strategies

#### **Primes**

- Prime contractor open houses inviting DBE firms to see the bid “war room” or providing technical assistance.
- Participate in speed networking and mosaic exercises as arranged by DBE office.
- Host information sessions not directly associated with a bid letting.
- Participate in a formal mentor protégé or joint venture with a DBE firm.
- Participate in WisDOT advisory committees i.e. TRANSAC, or Mega Project committee meetings.
- Facilitate a small group DBE ‘training session’ clarifying how your firm prepares for bid letting, evaluates subcontractors, preferred qualifications, and communication methods.
- Encourage subcontractors to solicit and highlight DBE participation in their quotes to you.
- Quality of communication, not quantity creates the best results. Contractors should be thorough in communicating with DBE firms before the bid and provide any assistance requested to assure best possible bid.

#### **DBE**

- DBE firms should contact primes as soon as possible with questions regarding their quotes or bid; seven days prior is optimal.
- Continually check for contract addendums on the HCCI website through the Thursday prior to letting to stay abreast of changes.
- Review the status of contracts on the HCCI website reviewing the ‘apparent low bidder’ list and bid tabs at a minimum.
- Prepare a portfolio or list of related projects and prime and supplier references; be sure to note transportation related projects of similar size and scope, firm expertise and staffing.
- Participate in DBE office assessment programs.
- Participate on advisory and mega-project committees.
- Sign up to receive the DBE Contracting Update.
- Consider membership in relevant industry or contractor organizations.
- Active participation is a must. Quote as many projects as you can reasonably work on; quoting the primes and bidding as a prime with the Department are the only ways to get work.



## **Appendix F**

### **Good Faith Effort Evaluation Guidance**

#### *Appendix A of 49 CFR Part 26*

I. When, as a recipient, you establish a contract goal on a DOT-assisted contract for procuring construction, equipment, services, or any other purpose, a bidder must, in order to be responsible and/or responsive, make sufficient good faith efforts to meet the goal. The bidder can meet this requirement in either of two ways. First, the bidder can meet the goal, documenting commitments for participation by DBE firms sufficient for this purpose. Second, even if it doesn't meet the goal, the bidder can document adequate good faith efforts. This means that the bidder must show that it took all necessary and reasonable steps to achieve a DBE goal or other requirement of this part which, by their scope, intensity, and appropriateness to the objective, could reasonably be expected to obtain sufficient DBE participation, even if they were not fully successful.

II. In any situation in which you have established a contract goal, Part 26 requires you to use the good faith efforts mechanism of this part. As a recipient, you have the responsibility to make a fair and reasonable judgment whether a bidder that did not meet the goal made adequate good faith efforts. It is important for you to consider the quality, quantity, and intensity of the different kinds of efforts that the bidder has made, based on the regulations and the guidance in this Appendix.

The efforts employed by the bidder should be those that one could reasonably expect a bidder to take if the bidder were actively and aggressively trying to obtain DBE participation sufficient to meet the DBE contract goal. Mere pro forma efforts are not good faith efforts to meet the DBE contract requirements. We emphasize, however, that your determination concerning the sufficiency of the firm's good faith efforts is a judgment call. Determinations should not be made using quantitative formulas.

III. The Department also strongly cautions you against requiring that a bidder meet a contract goal (i.e., obtain a specified amount of DBE participation) in order to be awarded a contract, even though the bidder makes an adequate good faith efforts showing. This rule specifically prohibits you from ignoring bona fide good faith efforts.

IV. The following is a list of types of actions which you should consider as part of the bidder's good faith efforts to obtain DBE participation. It is not intended to be a mandatory checklist, nor is it intended to be exclusive or exhaustive. Other factors or types of efforts may be relevant in appropriate cases.

A. (1) Conducting market research to identify small business contractors and suppliers and soliciting through all reasonable and available means the interest of all certified DBEs that have the capability to perform the work of the contract. This may include attendance at pre-bid and business matchmaking meetings and events, advertising and/or written notices, posting of Notices of Sources Sought and/or Requests for Proposals, written notices or emails to all DBEs listed in the State's directory of transportation firms that specialize in the areas of work desired (as noted in the DBE directory) and which are located in the area or surrounding areas of the project.

(2) The bidder should solicit this interest as early in the acquisition process as practicable to allow the DBEs to respond to the solicitation and submit a timely offer for the subcontract. The bidder should determine with certainty if the DBEs are interested by taking appropriate steps to follow up initial solicitations.

B. Selecting portions of the work to be performed by DBEs in order to increase the likelihood that the DBE goals will be achieved. This includes, where appropriate, breaking out contract work items into economically feasible units (for example, smaller tasks or quantities) to facilitate DBE participation, even when the prime contractor might otherwise prefer to perform these work items with its own forces. This may include, where possible, establishing flexible timeframes for performance and delivery schedules in a manner that encourages and facilitates DBE participation.

C. Providing interested DBEs with adequate information about the plans, specifications, and requirements of the contract in a timely manner to assist them in responding to a solicitation with their offer for the subcontract.

D. (1) Negotiating in good faith with interested DBEs. It is the bidder's responsibility to make a portion of the work available to DBE subcontractors and suppliers and to select those portions of the work or material needs consistent with the available DBE subcontractors and suppliers, so as to facilitate DBE participation. Evidence of such negotiation includes the names, addresses, and telephone numbers of DBEs that were considered; a description of the information provided regarding the plans and specifications for the work selected for subcontracting; and evidence as to why additional Agreements could not be reached for DBEs to perform the work.

(2) A bidder using good business judgment would consider a number of factors in negotiating with subcontractors, including DBE subcontractors, and would take a firm's price and capabilities as well as contract goals into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for a bidder's failure to meet the contract DBE goal, as long as such costs are reasonable. Also, the ability or desire of a prime contractor to perform the work of a contract with its own organization does not relieve the bidder of the responsibility to make good faith efforts. Prime contractors are not, however, required to accept higher quotes from DBEs if the price difference is excessive or unreasonable.

E. (1) Not rejecting DBEs as being unqualified without sound reasons based on a thorough investigation of their capabilities. The contractor's standing within its industry, membership in specific groups, organizations, or associations and political or social affiliations (for example union vs. non-union status) are not legitimate causes for the rejection or non-solicitation of bids in the contractor's efforts to meet the project goal. Another practice considered an insufficient good faith effort is the rejection of the DBE because its quotation for the work was not the lowest received. However, nothing in this paragraph shall be construed to require the bidder or prime contractor to accept unreasonable quotes in order to satisfy contract goals.

(2) A prime contractor's inability to find a replacement DBE at the original price is not alone sufficient to support a finding that good faith efforts have been made to replace the original DBE. The fact that the contractor has the ability and/or desire to perform the contract work with its own forces does not relieve the contractor of the obligation to make good faith efforts to find a replacement DBE, and it is not a sound basis for rejecting a prospective replacement DBE's reasonable quote.

F. Making efforts to assist interested DBEs in obtaining bonding, lines of credit, or insurance as required by the recipient or contractor.

G. Making efforts to assist interested DBEs in obtaining necessary equipment, supplies, materials, or related assistance or services.

H. Effectively using the services of available minority/women community organizations; minority/women contractors' groups; local, State, and Federal minority/women business assistance offices; and other organizations as allowed on a case-by-case basis to provide assistance in the recruitment and placement of DBEs.

V. In determining whether a bidder has made good faith efforts, it is essential to scrutinize its documented efforts. At a minimum, you must review the performance of other bidders in meeting the contract goal. For example, when the apparent successful bidder fails to meet the contract goal, but others meet it, you may reasonably raise the question of whether, with additional efforts, the apparent successful bidder could have met the goal. If the apparent successful bidder fails to meet the goal, but meets or exceeds the average DBE participation obtained by other bidders, you may view this, in conjunction with other factors, as evidence of the apparent successful bidder having made good faith efforts. As provided in §26.53(b)(2)(vi), you must also require the contractor to submit copies of each DBE and non-DBE subcontractor quote submitted to the bidder when a non-DBE subcontractor was selected over a DBE for work on the contract to review whether DBE prices were substantially higher; and contact the DBEs listed on a contractor's solicitation to inquire as to whether they were contacted by the prime. Pro forma mailings to DBEs requesting bids are not alone sufficient to satisfy good faith efforts under the rule.

VI. A promise to use DBEs after contract award is not considered to be responsive to the contract solicitation or to constitute good faith efforts.

[79 FR 59600, Oct. 2, 2014]

**Appendix G**  
**(SAMPLE) Forms DT1506 and DT1202**

### COMMITMENT TO SUBCONTRACT TO DBE

Wisconsin Department of Transportation

Proposal # \_\_\_\_\_

DBE Goal Achieved:	0.00%
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\$	0.00	\$	0.00
----	------	----	------

**COMMITMENT TO SUBCONTRACT TO DBE  
ATTACHMENT A**

**CONFIRMATION OF PARTICIPATION**

Project I.D.:	Proposal Number:
Letting Date:	

Name of DBE Firm Participating in this Contract:	
Name of the Prime/Subcontractor who hired the DBE Firm: <i>(list all names of tiers if more than one)</i>	
Type of Work or Type of Material Supplied:	
Total Subcontract Value:	Total DBE Credit Value:

<b>FOR PRIME CONTRACTORS ONLY:</b> I certify that I made arrangements with the participating DBE firm to perform the type of work listed or supply the material indicated above for the subcontract value listed above.	Prime Contractor Representative's Signature
	Prime Contractor Representative's Name (Print Name)
	Prime Contractor (Print Company Name)
	Date

<b>FOR PARTICIPATING DBE FIRMS ONLY:</b> I certify that I made arrangements with the Prime Contractor or the Hiring Contractor to perform the type of work or supply the material indicated above for the subcontract value listed above.  <b>FOR DBE TRUCKING FIRMS ONLY:</b> I certify that I will utilize, for DBE credit, only trucks listed on my WisDOT approved Schedule of Owned/Leased Vehicles for DBE Credit form and I will be utilizing the number of trucks as listed below.	Participating DBE Firm Representative's Signature	Date
	Participating DBE Firm Representative's Name (Print Name)	
	Participating DBE Firm (Print Company Name)	
	DBE Firm's Address:	

# Owned Trucks	# Leased Trucks	# DBE-Owned Leased Trucks	# Non-DBE-Owned Leased Trucks

☐ Off site Hauling

**DOCUMENTATION OF GOOD FAITH EFFORT**
 Wisconsin Department of Transportation  
 DT1202 ..... 3/2020


Project ID *****	Proposal No. *****	Letting *****
Prime Contractor *****	County *****	
Person Submitting Document *****	Telephone Number *****	
Address *****	Email Address *****	

All bidders must undertake necessary and reasonable steps to achieve the assigned DBE contract goal per federal regulatory guidance at 49 CFR Part 26. Bidders use this form to document all efforts employed to meet the assigned goal as a record of contractor good faith efforts (GFE). Refer to ASP3 or 49 CFR Part 26 for guidance on actions that demonstrate good faith effort.

It is critical to list all efforts, attach documentation, and follow the instructions to complete this submission. Documentation of good faith effort includes copies of each DBE and non-DBE subcontractor quote submitted to the bidder for the same line items. Utilize the sample documentation logs to document and organize efforts.

Submit good faith effort documentation per ASP-3 guidelines.

**Instructions:** Provide a narrative description of all activities pursued to demonstrate good faith efforts, any corresponding documentation, and applicable explanation on separate pages. Include the following items, organized in the order listed below.

**1.→ Solicitation Documentation:**

**a.→ Purpose:** To identify all reasonable and available activities the bidder performed to solicit the interest of all certified DBEs who have the capacity and ability to perform work on the project. All solicitation efforts should begin as early as possible to ensure DBEs have ample time to respond and ask questions.

**b.→ Action:** Identify and list all activities engaged in to solicit DBEs using all reasonable and available means such as written notice and follow-up communications; substantive conversations; pre-bid meetings; networking events; market research; advertising.

**2.→ Selected Work Items Documentation:**

**a.→ Purpose:** To ensure that all work items are broken out into economically feasible units to facilitate DBE participation. This must occur even when you prefer to perform the work yourself.

**b.→ Action:** Identify economically feasible work units to be performed by DBEs to include activities such as: list of work items to be performed; breaking up of large work items into smaller tasks or quantities; flexible time frames for performance and delivery schedules.

**3.→ Documentation of Project Information provided to Interested DBEs:**

**a.→ Purpose:** To provide interested DBEs with adequate information about the plans, specifications, and any other contractual requirements in a timely manner to assist DBEs in response to solicitation.

**b.→ Action:** Provide DBEs access to plans, specifications, and other contract requirements. Early solicitation allows ample opportunity to provide project information, links to Let advertisements, and substantive engagement with DBEs.

**4.→ Documentation of Negotiation with Interested DBEs:**

**a.→ Purpose:** To ensure that negotiations with interested DBEs were made in good faith providing evidence as to why agreements could not be reached for DBEs to perform work.

**b.→ Action:** Provide sufficient evidence to demonstrate that good faith negotiations took place. Merely sending out solicitations requesting bids from DBEs does not constitute sufficient good faith efforts. A bidder using good business judgment considers a number of factors in negotiating with all subcontractors, and the firm's price and capabilities in addition to contract goals are taken into consideration. However, the fact that there may be some additional costs involved in finding and using DBEs is not in itself sufficient reason for failing to meet the DBE goal as long as costs are reasonable. (see 49 CFR Part 26 Appendix A)

**5.→ Documentation of Sound Reason for Rejecting DBEs:**

**a.→ Purpose:** To ensure that bidders avoid rejecting DBEs as unqualified without sound reasons. Reasons for rejection must be based on thorough investigation of DBE capabilities.

**b.→ Action:** Provide sufficient evidence to demonstrate that DBE was rejected for sound reasons such as past performance, relevant business experience and stability, safety record, business ethic and integrity, technical capacity, other tangible factors.

**6.→ Documentation of Assistance to Interested DBEs--Bonding, Credit, Insurance, Equipment, Supplies/Materials:**

**a.→ Purpose:** To assist interested DBEs in obtaining bonds, lines of credit, insurance, equipment, supplies, materials, and other assistance or services.

**b.→ Action:** Assist interested DBEs in obtaining bonding, lines of credit or insurance, and provide technical assistance or information related to plans, specifications, and project requirements. Assist DBEs in obtaining equipment, supplies, materials or other services related to meeting project requirements (excluding supplies or equipment the DBE purchases from the prime).

**7.→ Documentation of outreach to Minority, Women, and Community Organizations and other DBE Business Development Support:**

**a.→ Purpose:** To effectively use the services of minority, women, and community organizations as well as contractors' groups, local, state, and federal business assistance offices and organization that provide assistance in recruiting and supporting DBEs, as well as participation in activities that support DBE business development.

**b.→ Action:** Contact organizations and agencies for assistance in contacting, recruiting, and providing support to DBE subcontractors, suppliers, manufacturers, and truckers at least 14 days before bid opening. Participate in or host activities such as networking events, mentor-protégé programs, small business development workshops, and others consistent with DBE support.



Return to:  
 Wisconsin Department of Transportation  
 DBE Program Office  
 PO Box 7965  
 Madison, WI 53707-7965  
 DBE\_Alert@dot.wi.gov

I certify that I have utilized comprehensive good faith efforts to solicit and utilize DBE firms to meet the DBE participation requirements of this contract proposal, as demonstrated by my responses and as specified in Additional Special Provision 3 (ASP-3).

I certify that the information given in the Documentation of Good Faith Efforts is true and correct to the best of my knowledge and belief.

I further understand that any willful falsification, fraudulent statement, or misrepresentation will result in appropriate sanctions, which may involve debarment and/or prosecution under applicable state (Trans 504) and Federal laws.

		(Bidder/Authorized Representative Signature)
		_____
		(Print Name)
		_____
		(Title)
		_____

### Good Faith Effort--Sample Documentation Logs

The sample logs below are provided as guides rather than exhaustive list. See ASP3, Appendix A for additional examples of demonstrable good faith efforts. Attach documentation for each activity listed.

Acceptable forms of documentation include copies of solicitations sent to DBEs, notes from substantive conversations and negotiations with DBEs, copies of advertisements placed, email communications, all quotes received from DBEs and from all subcontractors who were considered alongside DBE quotes, proof of attendance at applicable networking events; flyers for events or workshops for DBEs offered by the prime, and other physical records of good faith efforts activities.

#### SOLICITATION LOG

Date	Activity	Name of DBE Solicited	Follow-up
4/1/2020	Sent May-Let solicitation	Winterland Electric	Spoke with Mark Winterland on 4/15/20 to ask if he would quote.

#### SELECTED WORK ITEMS SOLICITED LOG

Work Type	DBE Firm	Contact Person	Date	Contact Mode
Pavement Marking	ABC Marking	Leslie Lynch	4/1/2020	Email; phone
	#1 Marking Co.	Mark Smart	4/1/2020	Email; left VM
Electrical	Winterland Electric	Tabitha Tinker	4/3/2020	Email; left VM
	Superstar Wiring	Jose Huascar	4/3/2020	Email; phone

#### INFORMATION PROVIDED LOG

Request Date	DBE Firm	Information Requested & Provided	Response Date
4/1/2020	Winterland Electric	Requested info on electrical requirements; provided plan and link to specs	4/3/2020
4/21/2020	Absolute Construction	Wanted to know how and when supplies are paid for by WisDOT; referred to spec that covers stockpiling	4/21/2020

#### NEGOTIATIONS LOG

Date	DBE Firm	Contact Name	Work Type	Quotes Rec'd?	Considered for project?	If not selected, why?
4/12/2020	ABC Landscape	John Dean	Erosion Control	Yes	No	Cannot perform all items
4/17/2020	Wild Ferns	Sandy Lynn	Erosion Control	Yes	Yes	
4/20/2020	#1 Marking	Mark Smart	Electrical	Yes	Yes	

#### ASSISTANCE LOG

Date	DBE Firm	Contact Person	Assistance Provided
4/1/2020	ABC Sawing	Jackie Swiggle	Informed DBE on how to obtain bonding
4/17/2020	Supreme Construction	Winston Walters	Provided contact for wholesale supply purchase

#### OUTREACH & BUSINESS DEVELOPMENT LOG

Date	Agency/Organization Contacted	Contact Person	Assistance Requested
4/1/2020	Women in Construction	LaTonya Klein	Contact information for woman-owned suppliers
4/28/2020	WBIC	Sam Smith	Asked for information to provide to DBE regarding financing programs through WBIC

Official Form DT1202 can be found here: <https://wisconsindot.gov/pages/global-footer/formdocs/default.aspx>

## **ADDITIONAL SPECIAL PROVISION 4**

This special provision does not limit the right of the department, prime contractor, or subcontractors at any tier to withhold payment for work not acceptably completed or work subject to an unresolved contract dispute.

### **Payment to First-Tier Subcontractors**

Within 10 calendar days of receiving a progress payment for work completed by a subcontractor, pay the subcontractor for that work. The prime contractor may withhold payment to a subcontractor if, within 10 calendar days of receipt of that progress payment, the prime contractor provides written notification to the subcontractor and the department documenting "just cause" for withholding payment.

The prime contractor is not allowed to withhold retainage from payments due subcontractors.

### **Payment to Lower-Tier Subcontractors**

Ensure that subcontracting agreements at all tiers provide prompt payment rights to lower-tier subcontractors that parallel those granted first-tier subcontractors in this provision.

### **Acceptance and Final Payment**

Within 30 calendar days of receiving the semi-final estimate from the department, submit written certification that subcontractors at all tiers are paid in full for acceptably completed work.

## ADDITIONAL SPECIAL PROVISIONS 5 FUEL COST ADJUSTMENT

### A Description

Fuel Cost Adjustments will be applied to partial and final payments for work items categorized in Section B as a payment to the contractor or a credit to the department. ASP-5 shall not apply to any force account work.

### B Categories of Work Items

The following items and Fuel Usage Factors shall be used to determine Fuel Cost Adjustments:

(1) Earthwork.		Unit	Gal. Fuel Per Unit
205.0100	Excavation Common	CY	0.23
205.0200	Excavation Rock	CY	0.39
205.0400	Excavation Marsh	CY	0.29
208.0100	Borrow	CY	0.23
208.1100	Select Borrow	CY	0.23
209.1100	Backfill Granular Grade 1	CY	0.23
209.1500	Backfill Granular Grade 1	Ton	0.115
209.2100	Backfill Granular Grade 2	CY	0.23
209.2500	Backfill Granular Grade 2	Ton	0.115
350.0102	Subbase	CY	0.28
350.0104	Subbase	Ton	0.14
350.0115	Subbase 6-Inch	SY	0.05
350.0120	Subbase 7-Inch	SY	0.05
350.0125	Subbase 8-Inch	SY	0.06
350.0130	Subbase 9-Inch	SY	0.07
350.0135	Subbase 10-Inch	SY	0.08
350.0140	Subbase 11-Inch	SY	0.09
350.0145	Subbase 12-Inch	SY	0.09

### C Fuel Index

A Current Fuel Index (CFI) in dollars per gallon will be established by the Department of Transportation for each month. The CFI will be the price of No. 2 fuel oil, as reported in U.S. Oil Week, using the first issue dated that month. The CFI will be the average of prices quoted for Green Bay, Madison, Milwaukee and Minneapolis.

The base Fuel Index (BFI) for this contract is \$2.20 per gallon.

### D Computing the Fuel Cost Adjustment

The engineer will compute the ratio CFI/BFI each month. If the ratio falls between 0.85 and 1.15, inclusive, no fuel adjustment will be made for that month. If the ratio is less than 0.85 a credit to the department will be computed. If the ratio is greater than 1.15 additional payment to the contractor will be computed. Credit or additional payment will be computed as follows:

- (1) The engineer will estimate the quantity of work done in that month under each of the contract items categorized in Section B.
- (2) The engineer will compute the gallons of fuel used in that month for each of the contract items categorized in Section B by applying the unit fuel usage factors shown in Section B.
- (3) The engineer will summarize the total gallons (Q) of fuel used in that month for the items categorized in Section B.
- (4) The engineer will determine the Fuel Cost Adjustment credit or payment from the following formula:

$$FA = \frac{CFI}{BFI} - 1 \times Q \times BFI$$

(plus is payment to contractor; minus is credit to the department)

Where	FA	=	Fuel Cost Adjustment (plus or minus)
	CFI	=	Current Fuel Index
	BFI	=	Base Fuel Index
	Q	=	Monthly total gallons of fuel

### E Payment

A Fuel Cost Adjustment credit to the department will be deducted as a dollar amount each month from any sums due to the contractor. A Fuel Cost Adjustment payment to the contractor will be made as a dollar amount each month.

Upon completion of the work under the contract, any difference between the estimated quantities and the final quantities will be determined. An average CFI, calculated by averaging the CFI for all months that fuel cost adjustment was applied, will be applied to the quantity differences. The average CFI shall be applied in accordance with the procedure set forth in Section D.

**Additional Special Provision 6 (ASP-6)**  
**Modifications to the standard specifications**

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**Additional Special Provision 6 (ASP-6)**  
**Modifications to the standard specifications**

*Make the following revisions to the standard specifications.*

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**104 Scope of Work**

**104.6.1.2.3 Drop-Off Protection**

Replace subsection with the following effective with the November 2025 letting.

- (1) Eliminate vertical drop-offs greater than 2 inches and edge slopes steeper than 3:1 between adjacent lanes open to traffic.
- (2) If the roadway remains open to through traffic during construction and a greater than 2-inch drop-off occurs within 3 feet or less from the edge of the traveled way, eliminate the drop-off within 48 hours after completing that day's work. Provide aggregate shoulder material compacted to a temporary 3:1 or flatter cross slope from the surface of the pavement edge.
- (3) Unless the engineer allows otherwise address drop-offs when they exist greater than 3 and less than 8 feet from the travelled way as follows:
  - Delineate vertical drop-offs 2 inches or greater and edge slopes steeper than 3:1 with drums, barricades, and signs, by the end of the workday.
  - Eliminate vertical drop-offs 2 inches or greater and edge slopes steeper than 3:1 within 72 hours or before a weekend or holiday whichever comes first.
  - Eliminate or use temporary concrete barrier to protect vertical drop-offs 4-inches or greater after 72 hours or before a weekend or holiday whichever comes first.
- (4) If a 4-inch or greater vertical drop-off or an edge slope steeper than 3:1 exists greater than 8 and less than 15 feet from the traveled way, delineate that drop-off or edge slope with drums, barricades, and signs by the end of the workday.
- (5) If a 12-inch or greater vertical drop-off exists greater than 8 and less than 15 feet from a traveled way with a posted speed limit of 55 mph or greater, eliminate or use temporary concrete barrier to protect that drop-off within 72 hours or before a weekend or holiday whichever comes first.

**104.6.1.2.4 Hazard Protection on Roads Open to All Traffic**

Replace subsection with the following effective with the November 2025 letting.

- (1) On roads open to all traffic; conform to the following construction clear zone requirements:
    - Posted speeds 45 mph or less: within 8 feet of the travelled way.
    - Posted speeds from 45 mph to 55 mph inclusive: within 10 feet of the travelled way.
    - Posted speeds above 55 mph: within 15 feet of the travelled way.
  - (2) Remove all construction debris, stored materials, and equipment not in use from the construction clear zone; or if the engineer allows, delineate and shield with concrete barrier.
  - (3) Delay removal of existing permanent roadside safety devices until necessary. When located within the construction clear zone and not shielded by concrete barrier, use temporary traffic control drums to delineate bridge abutments, concrete barrier blunt ends, sign bridge foundations, drainage structures, and slopes exposed by removing permanent protective measures.
    - For exposed bridge abutments, concrete barrier blunt ends, sign bridge foundations, and drainage structures, eliminate the need for delineation within 5 calendar days.
    - For exposed slopes steeper than 3:1, eliminate the need for delineation within 14 calendar days, or duration approved by the engineer.
- 

**107 Legal Relations and Responsibility to the Public**

Add section 107.27 (Drones or Unmanned Aircraft Systems (UAS)) effective with the November 2024 letting.

**107.27 Drones or Unmanned Aircraft Systems (UAS)**

**107.27.1 Licensing and Compliance**

- (1) Obtain and possess the necessary Federal Aviation Administration (FAA) licenses and certifications to operate drones commercially (<https://www.faa.gov/uas>).
- (2) Comply with all FAA regulations, airspace restrictions, and local laws. Operators of small drones that are less than 55 pounds for work or business must follow all requirements as listed in Title 14, Chapter 1, Subchapter

F, Part 107 of the Code of Federal Regulations (14 CFR) and obtain a remote pilot certificate ([https://www.faa.gov/uas/commercial\\_operators](https://www.faa.gov/uas/commercial_operators)).

- (3) Comply with Wisconsin State Statute 942.10. Limit operations to the specific approved purpose and employ reasonable precautions to avoid capturing images of the public except those that are incidental to the project.
- (4) Provide copies of waivers required for specific project conditions to the engineer prior to any flight.

#### **107.27.2 Flight Approval, Safety, and Incident Reporting**

- (1) Submit information in 107.27.2(2) to obtain written drone flight approval from the engineer at least 3 business days prior to operating a drone within the right-of-way. Do not operate a drone within the right-of-way unless approved by the engineer.
- (2) Drone flight application for review and approval must include:
  - UAS pilot information and qualifications, images of certification
  - UAS drone information and FAA tail numbers
  - Max/ Min allowable flight parameters (weather)
  - Specifics of flight mission: capture scope
  - Estimated flight duration
  - Pre-flight checklist
  - Site-specific parameters
  - Notification protocols - Federal/Local/Agency/Owner/Responsible in Charge
  - Confirmation and verification of approved operators and hardware
  - Flight plan map diagram (including launch and landing location)
  - FAA-Airspace flight map classification and confirmation with graphics
  - UAS incident management protocol
- (3) If contractor is requesting multiple types of the same flight, a simplified request can be submitted listing weekly flight plan.
- (4) Safety measures must include but are not limited to:
  - Regular training and updates on drone regulations are required and must be provided upon request.
  - Drones must be operated in accordance with safety guidelines, including maintaining a safe distance from people, structures, vehicles, etc.
  - Conduct a pre-flight safety assessment, considering weather conditions, airspace restrictions, and potential hazards.
  - Emergency procedures (e.g., drone malfunction, loss of control) must be documented and followed.
  - All incidents must be reported to the engineer.
- (5) If the drone has an incident during flight, report the following to the engineer:
  - Incident background and details.
  - FAA (14 CFR 107.9) and NTSB (49 CFR 870) notification protocol.
  - Contractor internal notification protocol.

#### **107.27.3 Insurance Requirements**

- (1) Maintain drone liability insurance with the following limits.
  - 1. For drones weighing 10 pounds or less, a liability policy with a minimum limit of \$1,000,000.00 is required.
  - 2. For drones weighing more than 10 pounds and less than or equal to 20 pounds, a liability policy with a minimum limit of \$2,000,000.00 is required.
  - 3. For drones weighing more than 20 pounds, notify engineer and department will determine appropriate liability policy coverage levels based on size, use, location, and other risk factors.

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### **305 Dense Graded Base**

#### **305.3.3.3 Shoulders Adjacent to Asphaltic Pavement or Surfacing**

Replace subsection with the following effective with the November 2025 letting.

- (1) If the roadway is closed to through traffic during construction, construct the aggregate shoulders before opening the road.
- (2) If the roadway remains open to through traffic during construction, conform as specified in 104.6.1.2.3.
- (3) Provide and maintain signing and other traffic protection and control devices, as specified in 643, until completing shoulder construction to the required cross-section and flush with the asphaltic pavement or surfacing.



**310 Open-Graded Base****310.2 Materials**

*Replace paragraph (2) with the following effective with the November 2025 letting.*

- (2) The contractor may substitute material conforming to the gradation requirements for crushed aggregate specified in table 310-01 if that material conforms to the fracture requirements for open-graded crushed gravel specified in 301.2.4.5.

**TABLE 310-01 COARSE AGGREGATE (% passing by weight)****AASHTO No. 67<sup>[1]</sup>**

SIEVE	COARSE AGGREGATE (% PASSING by WEIGHT) AASHTO No. 67
2-inch	-
1 1/2-inch	-
1-inch	100
3/4-inch	90 - 100
1/2-inch	-
3/8-inch	20 - 55
No. 4	0 - 10
No. 8	0 - 5
No. 16	-
No. 30	-
No. 50	-
No. 100	-
No. 200	-

<sup>[1]</sup> Size according to AASHTO M43.

**415 Concrete Pavement****415.3.16.4.1.2 Magnetic Pulse Induction**

*Replace subsection with the following effective with the November 2025 letting.*

- (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) The department will establish a project reference plate at the start of each paving stage. The department will notify the contractor of project reference plate locations before testing. The department will measure the project reference plate before each day of 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 fall 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.
  - Perform coring according to WTM T24. The department will evaluate the results according to AASHTO T148
  - Fill core holes with concrete or mortar.

**416 Concrete Pavement - Repair and Replacement****416.2 Materials****416.2.1 General**

Replace paragraph (3) with the following effective with the November 2025 letting.

- (3) The contractor may use accelerating admixtures for concrete placed under SHES bid items as follows:
1. If using calcium chloride,
    - AASHTO M144, type S as grade N1 or grade N2, class A.
    - AASHTO M144, type L in a concentration of approximately 30 percent for premixed solutions.
  2. If using non-chloride accelerators, conform to:
    - AASHTO M194, type C accelerating admixtures.
  3. Do not exceed the manufacturer's recommended maximum dosage.
  4. If the engineer requests, provide a written copy of the manufacturer's dosage recommendations.

**416.2.4 Special High Early Strength Concrete Pavement Repair and Replacement****416.2.4.1 Composition and Proportioning of Concrete**

Add paragraph (4) to subsection effective with the November 2025 letting.

- (4) The contractor may use pre-packaged horizontal rapid set concrete patch material from the APL for partial and full-depth pavement repairs instead of specified grades of concrete.

**506 Steel Bridges****506.3.12.3 High-Strength Bolts****506.3.12.3.1 Materials**

Replace subsection with the following effective with the November 2025 letting.

- (1) Install bolts according to AASHTO LRFD Bridge Construction Specifications, article 11.5.5, with the following exceptions:
1. If connections are assembled, install bolts with a hardened washer under the nut or bolt head, whichever is the element turned in tightening.
  2. If using oversized holes, 2 hardened washers are required, one under the bolt head and one under the nut.
  3. Bring the bolted parts into solid contact bearing before final tightening. Use not less than 25 percent of the total number of bolts in a joint to serve as fitting up bolts.
  4. For steel diaphragms on prestressed concrete bridges do the following:
    - 4.1. For steel-to-steel connections within diaphragms:
      - Tension by the turn-of-nut method.
    - 4.2. For steel-to-concrete girder connections:
      - No PIV or field rotational capacity (RoCAP) testing is required.
      - Tighten as the plan details specify.
- (2) Before fasteners are delivered to the site, provide documentation of rotational capacity testing in accordance with ASTM F3125, Annex A2, Rotational Capacity (RoCap) Test. The fasteners must be received in packages that match the fastener assembly combination as tested. If documentation of RoCap testing is not received; then perform this testing in the field prior to installation.
- (3) Install bolt, nut, and washer combinations from the same rotational-capacity lot.
- (4) Check galvanized nuts to verify that a visible dyed lubricant is on the threads and at least one bolt face.
- (5) Ensure that uncoated bolts are oily to the touch over their entire surface when delivered and installed.
- (6) Provide and use a Skidmore-Wilhelm Calibrator or an acceptable equivalent tension measuring device at each job site during erection. Perform pre-installation verification (PIV) testing in the field conforming to the procedures enumerated in department form DT2114 no earlier than 14 calendar days prior to permanent bolting. Submit 2 copies of form DT2114 to the engineer.
- (7) Prior to installation, ensure that the fastener condition has not changed due to accumulation of rust or dirt, weathering, mixture of tested assembly lots, or other reasons. If changes have occurred, including cleaning and re-lubricating of weathered bolts, the engineer will require re-qualification using RoCap testing in the field, for a minimum of two fastener assemblies of each combination to be used in permanent bolting, and PIV re-testing.

- (8) Additional RoCap or PIV tests are required whenever the condition of the fasteners or understanding of the bolting crew is in question by the Engineer. Do not allow permanent bolting until PIV testing is completed.
- (9) Tighten threaded bolts by the turn-of-nut method while holding the bolt head. Where clearance is an issue, the contractor may tighten the bolt head while holding the nut.
- (10) The contractor may use alternate tightening methods if the engineer approves before use.
- (11) The contractor may use a flat washer if the surface adjacent to and abutting the bolt head or nut does not have a slope of more than 1:20 with respect to a plane normal to the bolt axis. For slopes greater than 1:20, use smooth, beveled washers to produce parallelism.
- (12) Snug all bolts during installation according to AASHTO LRFD Bridge Construction Specifications, article 11.5.5.4.1.
- (13) Tighten each fastener to provide, if all fasteners in the joint are tight, at least the minimum bolt tension as follows:

**TABLE 506-1 BOLT TENSION**

BOLT SIZE	REQUIRED MINIMUM BOLT TENSION <sup>[1]</sup>
1/2-inch.....	12 kips
5/8-inch.....	19 kips
3/4-inch.....	28 kips
7/8-inch.....	39 kips
1-inch .....	51 kips
1 1/8-inch.....	64 kips
1 1/4-inch.....	81 kips
1 3/8-inch.....	97 kips
1 1/2-inch.....	118 kips

<sup>[1]</sup> Equal to the proof load by the length measurement method as specified in ASTM F3125 for grade A35 bolts.

- (14) Do not reuse galvanized F3125 A325 bolts. The contractor may reuse uncoated F3125 A325 bolts, if the engineer approves, but not more than once. The department will not consider re-tightening previously tightened bolts that become loosened by the tightening of adjacent bolts as reuse.

### **506.3.19 Welding**

Replace subsection title and text with the following effective with the November 2025 letting.

#### **506.3.19.4 Welding Inspection**

- (1) Inspect welding according to the current edition of AWS D1.5. Unless specified otherwise, test butt welds in main members by either the radiographic or the ultrasonic method.
- (2) Test fillet welds and groove welds not covered otherwise in main members in a non-destructive manner by the magnetic particle method according to ASTM E709, utilizing the yoke method. This includes, but is not limited to, a minimum of 12 inches in every 10 feet or portion thereof of each weld connecting web to flange, bearing stiffener to web or flange, framing connection bar to web or flange, and longitudinal stiffener to web or vertical bar.

### **506.3.31 Cleaning of Surfaces**

#### **506.3.31.2 Coated Surfaces**

Replace subsection with the following effective with the November 2025 letting.

- (1) Blast clean structural steel and ferrous metal products to be coated as specified in 517.3.1.3.3.
- (2) Blast clean steel that will be encased in concrete to SSPC-SP 6 standards or cleaner.

### **506.3.32 Painting Metal**

Replace subsection with the following effective with the November 2025 letting.

- (1) Unless the contract provides otherwise, apply 3 coats of paint to structural steel and ferrous metal products. Furnish and apply paints according to the epoxy system or as specified in the special provisions. The requirements for this system are set forth in 517.
- (2) For structural steel, including weathering steel, and miscellaneous metals that will be encased in concrete, paint as specified in 517.3.1.
- (3) For galvanized surfaces paint as specified in 517.3.1.
- (4) Use the 3-coat epoxy system to paint the end 6 feet of structural weathering steel at the abutments, the 6 feet on each side of piers, joints, downspouts, hinges, and galvanized bearings in contact with weathering

steel. Use a coat of brown urethane matching AMS Standard 595A: AMS-STD 20059. Apply one coat of zinc-rich paint to surfaces of expansion joint assemblies and other surfaces not in contact with the weathering steel but inaccessible after assembly or erection.

- (5) Do not paint structural steel to be welded before completing welding. If welding only in the fabricating shop and subsequently erecting by bolting, coat it after completing shop welding. Apply one coat of weldable primer or other engineer-approved protective coating to steel surfaces to be field welded after completing shop welding and shop fabrication. Protect machine-finished surfaces that do not receive a paint or galvanizing from contamination during the cleaning and painting process.
- (6) Upon fabrication and acceptance, coat pins and pinholes with a plastic or other engineer-approved coating before removing from the shop.
- (7) Mark members weighing 3 tons or more with their weights on areas that will be encased in concrete, or paint with a compatible paint on zinc-rich primer, or mark with soapstone on an epoxy-coated surface. Wait until material is dry, inspected, and approved for shipment before loading for shipment.

## 509 Concrete Overlay and Structure Repair

### 509.2 Materials

Replace subsection with the following effective with the November 2025 letting.

- (1) Furnish a neat cement bonding grout. Mix the neat cement in a water-cement ratio approximately equal to 5 gallons of water per 94 pounds of cement. Pre-packaged non-shrink grout from the APL may be used instead of site mixed or ready mixed grout.
- (2) Furnish grade E conforming to 501 for overlays.
- (3) Furnish grade C or E concrete conforming to 501 for surface repairs. The contractor may increase the slump for grade E concrete to a maximum of 4 inches. For vertical and overhead repairs, use pre-packaged vertical and overhead repair material from the APL unless a different material is approved by the engineer in writing.
- (4) Furnish grade C or E concrete conforming to 501 for joint repairs, curb repairs, and full-depth deck repairs; except as follows:
  1. The contractor may increase slump of grade E concrete to 3 inches.
  2. The contractor may use ready-mixed concrete.
- (5) Provide QMP for class II ancillary concrete as specified in 716 if using concrete mixtures conforming to 501.

## 513 Railing

### 513.2.3 Steel Railing

Replace subsection with the following effective with the November 2025 letting.

- (1) Furnish steel railing components as follows:
 

Structural steel .....	506.2.2
High strength bolts .....	506.2.5
Steel guardrail .....	614.2
Round structural steel tubing for steel pipe railing .....	ASTM A500 grade B
Structural steel tubing used with other steel railings .....	ASTM A500 grade B or C
- (2) Furnish a two-coat paint system from the APL for structure painting systems under paint - galvanized surfaces.

## 517 Paint and Painting

### 517.3.1.3.3 Blast Cleaning

#### 517.3.1.3.3.2 Epoxy Coating System

Replace subsection with the following effective with the November 2025 letting.

- (1) Blast clean structural steel receiving this coating to a near-white finish according to SSPC-SP 10.
- (2) Solvent clean oil and grease on surfaces receiving this coating according to SSPC-SP 1 and blast clean to a near-white finish according to SSPC-SP 10.
- (3) Remove fins, tears, slivers, and burred or sharp edges present on any steel member, or that appears during blasting, by grinding then re-blast the area to a one to 2 mils surface shape.

- 
- (4) If using abrasives for blast cleaning, use either clean dry sand, steel shot, mineral grit, or manufactured grit of a gradation that produces a uniform one to 2 mils profile as measured with a department-approved impregnated surface profile tape.
  - (5) Remove abrasive and paint residue from steel surfaces with a commercial grade vacuum cleaner equipped with a brush-type cleaning tool, or by double blowing. If using the double blowing method, vacuum the top surfaces of structural steel, including top and bottom flanges; longitudinal stiffeners, splice plates, and hangers after completing the double blowing operations. Ensure that the steel is dust free when applying primer. Apply the primer within 8 hours after blast cleaning.
  - (6) Protect freshly coated surfaces from later blast cleaning operations. Brush any blast damaged primed surfaces with a non-rusting tool, or if visible rust occurs, re-blast to a near white condition. Clean the brushed or blast cleaned surfaces and re-prime within the manufacturer's recommended time.
  - (7) When coating galvanized surfaces, ensure tie-coat adhesion by brush blasting the cleaned surface according to SSPC-SP7 to create a slight angular surface profile according to manufacturer's recommendations of 1 mil to 1.5 mils. Blasting must not fracture the galvanized finish or remove dry film thickness. For the tie- and top-coat, furnish an epoxy coating system from the APL for paint systems for galvanized surfaces.

#### **517.3.1.3.5 Galvanizing**

Add subsection effective with the November 2025 letting.

- (1) After fabrication, blast clean assemblies per SSPC-SP6 and galvanize according to ASTM A123.
- 

### **526 Temporary Structures**

#### **526.3.4 Construction, Backfilling, Inspection and Maintenance**

Replace subsection with the following effective with the November 2025 letting.

- (1) Construct temporary structures conforming to 500. Backfill conforming to 206.3.13 with structure backfill conforming to 210.2.
- (2) Temporary highway bridges open to traffic less than or equal to 24 months: inspect temporary bridges conforming to the National Bridge Inspection Standards (NBIS) and the department's Structure Inspection Manual (SIM) before opening to traffic. Perform additional inspections, as the department's SIM requires, based on structure type, condition, and time in service. Submit inspection reports on department form DT2007 to the engineer and electronic copies to the Bureau of Structures (BOS) Maintenance Section. Ensure that a department-certified qualified team leader performs the inspections.
- (3) Temporary highway bridges open to traffic greater than 24 months: complete additional inspections and inventory data collection per the NBIS and SIM within 27 months of the bridge being opened to traffic. Contact the BOS to have a structure number assigned. Enter the inventory data and element level bridge inspection data in accordance with the SIM into WisDOT's Highway Structures Information System (HSIS) within 90 days of completing the field portion of the inspection. Continue to complete required inspections and data submittal at intervals according to the requirements of the NBIS and SIM.
- (4) Maintain temporary structures and approaches in place until no longer needed. Unless the engineer directs otherwise, completely remove and dispose of as specified in 203.3.5; do not place on the finished surface.

#### **526.5 Payment**

Replace paragraph (2) with the following effective with the November 2025 letting.

- (2) Payment for the Temporary Structure bid items is full compensation for providing a temporary structure including design and construction; for construction staking; for temporary shoring and other secondary structure items; for backfilling with structure backfill; for maintaining; and for removing when no longer needed. The department will pay 70 percent of the contract amount when open to traffic and the balance after structure removal and associated site restoration.

**621 Landmark Reference Monuments**

Remove Standard Specification 621 (Landmark Reference Monuments) effective with the November 2025 letting. Refer to updated information in standard specifications 680 and 682.

**643 Traffic Control****643.1 Description**

Replace paragraph (1) with the following effective with the November 2025 letting.

- (1) This section describes providing, maintaining, repositioning, and removing temporary traffic control devices as follows:

Drums	Warning lights	42-inch cones
Barricades type III	Connected arrow boards	Portable changeable message signs
Flexible tubular markers	Signs	Channelizing curb system
Speed feedback trailers	Connected work zone start and end location markers	

**643.2.2 Department's Approved Products List (APL)**

Replace paragraph (1) with the following effective with the November 2025 letting.

- (1) Furnish materials from the APL as follows:

- |  |                                     |
|--|-------------------------------------|
| - Drums  | - Connected arrow boards            |
| - Barricades type III                                | - Sign sheeting                     |
| - Flexible tubular marker posts including bases      | - 42-inch cone assemblies           |
| - Warning lights and attachment hardware             | - Portable changeable message signs |
| - Channelizing curb systems                          | - Speed feedback trailers           |
| - Connected work zone start and end location markers |                                     |

**643.3 Construction****643.3.1 General**

Add paragraphs (10), (11), (12) and (13) effective with the November 2025 letting.

- (10) For connected devices provide a local specialist to respond to emergency situations within 2 hours of being notified. Equip local specialists with sufficient resources to correct deficiencies in the connected work zone devices.
- (11) Prior to deployment, test all connected devices with the engineer to ensure the device is showing in the WisDOT approved data feed. Send an email to [DOTBTOWorkzone@dot.wi.gov](mailto:DOTBTOWorkzone@dot.wi.gov) to notify Bureau of Traffic Operations (BTO) that the devices have been turned on.
- (12) Provide a WisDOT approved data feed from connected devices and the remote management software, updated at least every minute.
- (13) If requested by the engineer, provide real-time status change alerts to a list of designated personnel via text or email or both. Send an alert each time a connected device is switched between operating modes which include the current operating mode, the previous operating mode, the date and time of the mode switch, and the location (latitude and longitude) of the device at the time of the mode switch in the alert.

**643.3.3 Connected Arrow Boards**

Revise subsection title, replace paragraph (3) and add paragraph (4) effective with the November 2025 letting.

- (3) The connected arrow board may be switched between the following pattern displays per the plan:

- Blank
- Right arrow static
- Right arrow flashing
- Right arrow sequential
- Left arrow static
- Left arrow flashing
- Left arrow sequential
- Line flashing
- Bi-directional arrow flashing.

- (4) When the connected arrow board is not displaying a pattern, the display shall be blank, and the connected arrow board transmits its status to the data feed. When a connected arrow board is switched to a pattern, the connected arrow board transmits its location and its current operating mode to the data feed.

**643.3.7 Temporary Pavement Marking***Add paragraph (9) effective with the November 2025 letting.*

- (9) Install temporary markings on the final surface in the same location as permanent markings will be placed or as the plans show.

**643.3.10 Connected Work Zone Start and End Location Markers***Add subsection effective with the November 2025 letting.*

- (1) Place work zone start location marker at the beginning of the work zone per plan or as the engineer directs. Clearly label the work zone start location marker so that it is easily distinguishable by field personnel.
- (2) Place work zone end location marker at the end of the work zone per plan or as the engineer directs. Clearly label the work zone end location marker so that it is easily distinguishable by field personnel.
- (3) Ensure the connected work zone start and end location markers operate continuously when deployed on the project.
- (4) Ensure the work zone location markers and connected arrow board are from the same manufacturer.
- (5) When the work zone start and end location markers are switched to the ON mode, verify the begin and end location markers transmit their location and identity as begin or end markers to the data feed.
- (6) Switch the work zone start and end location markers to OFF mode when temporary traffic control is removed, and the normal traveled way is restored.

**643.4 Measurement****643.4.1 Items Measured by the Day***Add paragraphs (3) and (4) effective with the November 2025 letting.*

- (3) The department will measure Traffic Control Connected Arrow Boards by day for the days the device is reporting correct data.
- (4) The department will measure Traffic Control Connected Work Zone Start and End Location Markers by day per roadway segment for the days the devices are reporting correct data.

**643.5 Payment****643.5.1 General***Replace paragraph (1) with the following effective with the November 2025 letting.*

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

<u>ITEM NUMBER</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
643.0300	Traffic Control Drums	DAY
643.0420	Traffic Control Barricades Type III	DAY
643.0500	Traffic Control Flexible Tubular Marker Posts	EACH
643.0600	Traffic Control Flexible Tubular Marker Bases	EACH
643.0650	Traffic Control Channelizing Curb System	LF
643.0700 - 0799	Traffic Control Warning Lights (type)	DAY
643.0810	Traffic Control Connected Arrow Boards	DAY
643.0900	Traffic Control Signs	DAY
643.0910	Traffic Control Covering Signs Type I	EACH
643.0920	Traffic Control Covering Signs Type II	EACH
643.1000	Traffic Control Signs Fixed Message	SF
643.1050	Traffic Control PCMS	DAY
643.1051	Traffic Control PCMS with TMC Communications	DAY
643.1070 - 1079	Traffic Control Cones (height)	DAY
643.1220	Traffic Control Connected Work Zone Start and End Location Markers	DAY
643.1500	Traffic Control Speed Feedback Trailer	DAY
643.3100 - 3299	Temporary Marking Line (material/type) (width)	LF
643.3300 - 3399	Temporary Marking Crosswalk (material) 6-Inch	LF
643.3500 - 3599	Temporary Marking Arrow (material)	EACH
643.3600 - 3699	Temporary Marking Word (material)	EACH
643.3700 - 3799	Temporary Marking Raised Pavement Marker (type)	EACH
643.3800 - 3899	Temporary Marking Stop Line (material) 18-Inch	LF
643.3900 - 3959	Temporary Marking Diagonal (material) 12-Inch	LF

643.3960 - 3999	Temporary Marking Removable Mask Out Tape (width)	LF
643.4100	Traffic Control Interim Lane Closure	EACH
643.5000	Traffic Control	EACH

**646 Pavement Marking****646.3.1.1 General Marking**

Replace paragraph (7) with the following effective with the November 2025 letting.

- (7) Apply marking to the width and color the bid item indicates. Distribute beads uniformly across the line. Provide a sharp cutoff for both sides and ends of the marking with a uniform cross-section. Achieve straight alignment, not to exceed a 3/8-inch variation in any 40-foot section of travelled way. Do not damage existing marking that will remain in place.

**646.3.1.6.2 Retroreflectivity**

Replace paragraph (1) with the following effective with the November 2025 letting.

- (1) For grooved-in markings, the engineer will also evaluate the percent failing retroreflectivity at the end of the proving period. Ensure that the 180-day reflectivity, in millicandelas/lux/m<sup>2</sup>, meets or exceeds the following:

		180 DAY DRY
<u>MATERIAL</u>	<u>COLOR</u>	<u>RETROREFLECTIVITY</u>
Epoxy	White	150
	Yellow	100
Wet Reflective Epoxy	White	250
	Yellow	150
Permanent Tape	White	400
	Yellow	335

**646.3.2.4 Black Epoxy**

Replace paragraph (1) with the following effective with the November 2024 letting.

- (1) Apply black epoxy in a grooved slot directly after the white marking. Apply epoxy at a wet mil thickness of 20. Apply black aggregate at or exceeding 25 pounds per gallon of epoxy. Do not apply glass beads to black epoxy.

**650 Construction Staking****650.3.12 Supplemental Control Staking**

Replace paragraph (2) with the following effective with the November 2025 letting.

- (2) Document and provide to the engineer complete descriptions and reference ties of the control points, alignment points, and benchmarks to allow for quick reestablishment of the plan data at any time during construction and upon project completion. Document additional control on department form DT1291 as described in CMM 710, table 710-1.

**680 Public Land Survey Monuments**

Add section 680 (Public Land Survey Monuments) effective with the November 2025 letting.

**680.1 Description**

- (1) This section describes perpetuating US Public Land Survey System (USPLSS) monuments.

**680.2 Materials**

- (1) Furnish magnetic survey nails with center point a minimum of 2-1/2 inches long or engineer approved alternative.  
 (2) Furnish minimum 3/4-inch reinforcement or 1 inch outside diameter (OD) iron pipe at least 24 inches long.  
 (3) Furnish plastic survey marker cap with lettering that reads "Witness Monument".  
 (4) Use alternative materials if requested and furnished by the county surveyor.

**680.3 Construction****680.3.1 General**

- (1) Perform work under the direction and control of a professional land surveyor registered in the state of Wisconsin, following Wisconsin Administrative Code A-E 7 ([https://docs.legis.wisconsin.gov/code/admin\\_code/a\\_e/7](https://docs.legis.wisconsin.gov/code/admin_code/a_e/7)).



- (2) Preserve existing USPLSS monuments and witness monuments (ties) within the construction limits in their original position until monuments are verified and sufficiently tied off.

#### **680.3.2 Pre-Construction**

- (1) Notify the county surveyor at least 30 days prior to start of construction operations about all USPLSS monuments within the construction limits that might be disturbed.
- (2) Obtain the existing USPLSS Monument Record from the county surveyor. Verify existing monuments and witness monuments are in place and undisturbed.
- (3) Replace witness monuments that are missing or that could be disturbed by construction operations. Locate new witness monuments near the USPLSS monument but outside the construction limits. Submit a monument record as specified in 680.3.5.
- (4) Temporarily mark the location of all witness monuments to protect them during construction.

#### **680.3.3 Removals**

- (1) Remove or abandon existing monument and monument cover that interfere with construction operations. Remove and dispose of surplus excavation and materials as specified in 205.3.12.

#### **680.3.4 Post-Construction**

- (1) Verify the location of monuments and witness monuments when construction operations are complete.
- (2) Set new monuments and witness monuments where necessary. Recess magnetic survey nails 1/4 inch below the pavement surface for monuments located in pavement. Use reinforcement or iron pipe for monuments not in pavement and for witness monuments. Locate new witness monuments near the USPLSS monument and outside the roadbed. Install plastic caps on witness monuments.
- (3) Install marker posts next to all witness monuments if required and supplied by the county surveyor.
- (4) Omit setting monuments in the pavement if approved by the department's regional survey coordinator and county surveyor due to traffic or safety concerns.
- (5) Submit a monument record as specified in 680.3.5.

#### **680.3.5 Monument Records**

- (1) Submit a monument record on department form DT1291 to the county surveyor at locations where monuments were set. Provide a copy to the engineer and regional survey coordinator.

#### **680.4 Measurement**

- (1) The department will measure bid items under this section as each individual monument acceptably completed.

#### **680.5 Payment**

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

<u>ITEM NUMBER</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
680.0100	Public Land Survey Monument Verify and Reset	EACH

- (2) Payment for the Public Land Survey Monument Verify and Salvage bid item is full compensation for providing all materials; for coordinating with county surveyors; for obtaining existing monument records; for verifying the existing location of monuments and witness monuments; for removing or abandoning existing monuments and monument covers; for resetting monuments; for setting or resetting temporary and permanent witness monuments; and for submitting monument records.

### **682 Geodetic Survey Monuments**

*Add section 682 (Geodetic Survey Monuments) effective with the November 2025 letting.*

#### **682.1 Description**

- (1) This section describes salvaging geodetic survey discs and constructing geodetic survey monuments.

#### **682.2 Materials**

- (1) Furnish materials conforming to the following:

Concrete.....	501
Reinforcement .....	505.2
Foundation backfill .....	520.2

- (2) Furnish grade A concrete as modified in 716. Provide QMP for class III ancillary concrete as specified in 716.

#### **682.3 Construction**

- (1) Contact the WisDOT Geodetic Surveys Unit at (866) 568-2852 or "geodetic@dot.wi.gov" as required below.

**682.3.1 Salvage Geodetic Survey Discs**

- (1) Remove and salvage geodetic survey discs from existing structures or survey monuments being removed at the locations shown in the plan.
- (2) Notify the WisDOT Geodetic Surveys Unit 7 calendar days prior to removal operations.
- (3) Ship or deliver salvaged discs to following address:

WisDOT Bureau of Technical Services  
 Geodetic Surveys Unit  
 3502 Kinsman Boulevard  
 Madison, WI 53704

Provide a tracking number to the Geodetic Surveys Unit upon shipment or contact the Geodetic Surveys Unit to schedule in-person delivery.

**682.3.2 Geodetic Survey Monuments****682.3.2.1 Monument Location**

- (1) Stake the approximate location of monuments provided in the plan and contact the WisDOT Geodetic Surveys Unit 30 days prior to excavating holes for field verification and delivery of department furnished geodetic survey discs.

**682.3.2.2 Placing Monuments**

- (1) Excavate holes for monuments by use of a circular auger at the size and depth the plans show or as the engineer directs.
- (2) Remove and dispose of surplus excavation and materials as specified in 205.3.12.
- (3) Fill holes with concrete and strike off flush with the ground surface. Place circular forms and steel reinforcement in the concrete as the plans show. Place geodetic survey discs on monuments while the concrete is still plastic.

**682.3.2.3 Protecting and Curing**

- (1) Cure exposed portions of cast in place concrete monuments as specified in 415.3.12 except the contractor may use curing compound conforming to 501.2.8.
- (2) Protect placed concrete monuments as specified for concrete pavement as specified in 415.3.14
- (3) Protect cast in place concrete monuments from freezing for 7 days.

**682.4 Measurement**

- (1) The department will measure bid items under this section as each individual monument acceptably completed.

**682.5 Payment**

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

<u>ITEM NUMBER</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
682.0100	Salvage Geodetic Survey Disc	EACH
682.0200	Geodetic Survey Monument	EACH

- (2) Payment for the Salvage Geodetic Survey Disc bid item is full compensation for removing and salvaging; and shipping or delivering the disc to the Geodetic Surveys Unit. Removing existing survey monuments will be paid separately under the Removing Concrete Bases bid item. Removing existing survey marker posts will be paid separately under the Removing Delineators and Markers bid item.
- (3) Payment for the Geodetic Survey Monument bid item is full compensation for staking; providing concrete; providing steel reinforcement; for placing department-furnished geodetic discs; and for excavating and backfilling.

**710 General Concrete QMP****710.3 Certification Requirements**

Replace paragraph (1) and add paragraph (2) effective with the November 2025 letting.

- (1) Have a person certified from the Highway Technician Certification Program Portland Cement Concrete Technician 1 (HTCP - PCCTEC-1) or Assistant Certified Technician Program - Portland Cement Concrete (ACT-PCC) working under a certified technician, on the project site, prepared and equipped to perform required sampling and testing whenever placing concrete.

- (2) The department will have a certified HTCP Portland Cement Concrete Mix Design Certification (PCC MDC) technician to review and approve concrete mixes.

#### 710.4 Concrete Mixes

Replace subsection with the following effective with the November 2025 letting.

- (1) The contractor is responsible for mix performance.
- (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, oven-dried specific gravity, SSD bulk specific gravity, wear, soundness, light weight pieces, freeze thaw test results if required, and air correction factor. 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 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.
  5. For high early strength (HES) concrete mixtures required by contract, complete the HES mix modification section in the DT2220 or DT2221 form.
- (3) Document mix adjustments daily during concrete production.
- (4) Prepare, notify, and submit mixture design modifications to the engineer. Do not place material until the documentation is submitted and, when required, written approval of the mixture design modifications.
- (5) Report concrete mix design modifications as classified in levels as specified in table 710-1.

**TABLE 710-1 MIX DESIGN MODIFICATION NOTIFICATION**

NOTIFICATION	LEVEL I	LEVEL II	NEW MIX DESIGN DURING PROJECT
Prepare, notify, and submit mix design to Engineer	Prior to use	3 business days prior to use	5 business days prior to use
Approval required before placement	No	Yes	Yes

- (6) A mix design modification is when any modification occurs for a specific level as specified in table 710-2.
- (7) Dependent on the modification performed, documentation is required to be submitted to the engineer as specified in table 710-3.
- (8) For HES concrete, conform as specified in table 710-4.
- (9) HES concrete is not eligible for 28-day strength incentives.
- (10) Submit concrete mix designs into MRS as specified in 701.1.2.7.

TABLE 710-2 MATERIAL MIX DESIGN MODIFICATIONS

MODIFICATION TYPE		LEVEL I	LEVEL II	NEW MIX DESIGN DURING PROJECT
Change in:	Water source	X		
	Cement source, type, or brand			X
	Total cementitious <sup>[1]</sup>			X
	Aggregate blend	X		
	Aggregate source			X
	SCM replacement rate		X	
	SCM type and supplier			X
	Fly ash source (different class)			X
	Fly ash source (same class for pavements and cast-in-place barriers)		X	
	Fly ash source (same class for structures)			X
	Slag source (same grade)		X	
	Chemical admixture manufacturer or product name <sup>[2]</sup>			X
Removal of:	SCM			X
	Type B or Type D chemical admixture	X <sup>[3]</sup>	X <sup>[4]</sup>	
Addition of:	Non-fading, color pigment	X		
	Type B or Type D chemical admixture	X <sup>[3]</sup>	X <sup>[4]</sup>	
	New SCM			X

<sup>[1]</sup> If not HES/SHES concrete.

<sup>[2]</sup> Not including Type B or Type D chemical admixture.

<sup>[3]</sup> Furnished from the APL.

<sup>[4]</sup> Not furnished from the APL.

TABLE 710-3 MIX DESIGN MODIFICATION DOCUMENTATION

NEW REQUIRED DOCUMENTATION	LEVEL I	LEVEL II	NEW MIX DESIGN DURING PROJECT
Results from trial batching if required			X
Amendment to the quality control plan	X	X	X
Water source name and report <sup>[1]</sup>	X		
Cement mill certification			X
WisDOT aggregate quality report			X
SCM mill certification		X	X
Chemical additive product data sheet	X	X	X
Updated DT2220 or DT2221 form	X	X	
New DT2220 or DT2221 form			X
New mixture ID: Contractor ID and WisDOT ID	X	X	X
New maturity curve	X <sup>[2]</sup>	X	X
New lot/sublot layout <sup>[3]</sup>		X <sup>[4]</sup>	X

<sup>[1]</sup> Water for concrete report conforming to 501.2.6 for private wells or surface water sources.

<sup>[2]</sup> Required only when using a retarder.

<sup>[3]</sup> Required for HES concrete.

<sup>[4]</sup> Required when changing the SCM replacement rate.

TABLE 710-4 OPTIONS FOR HES CONCRETE

SCENARIO	MIXTURE MODIFICATION	
When the contract requires, or the HES is directed by the department	OPTION 1 <sup>[1]</sup>	Add 94 to 282 lb/cy of cement <sup>[2]</sup>
	OPTION 2	Use Type III cement
When the engineer allows HES when requested by the contractor in writing	Add up to 282 lb/cy of cement <sup>[1,2]</sup>	

<sup>[1]</sup> Adjust water to maintain workability without raising the w/cm ratio.

<sup>[2]</sup> Add to a previously accepted mixture.

### 710.5.6.2 Contractor Control Charts

#### 710.5.6.2.1 General

Replace subsection with the following effective with the November 2025 letting.

- (1) Test aggregate gradations during concrete production except as allowed for small quantities under 710.2. Perform required contractor testing using non-random samples.
- (2) Sample aggregates from either the conveyor belt or from the working face of the stockpiles.
- (3) Complete aggregate testing as specified in table 710-5. Submit one pre-placement test within five days before anticipated placement. 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 specified in table 710-5 for each mix design, except as allowed for small quantities in 710.2. The contractor's concrete production tests can be used for the same mix design on multiple contracts.

TABLE 710-5 QC AGGREGATE TESTING FREQUENCY

CONCRETE CLASSIFICATION	PRE-PLACEMENT TESTING	PLACEMENT TESTING	
Class I: Pavement	One pre-placement test per aggregate source	Hand Placement: ≤ 250 CY > 250 CY Slip Formed Placement <sup>[1]</sup> ≤ 1500 CY > 1500 CY	One test per cumulative 250 CY One test per day  One test per day Two tests per day
Class I: Structures <sup>[2], [3], [4]</sup>		One test per cumulative 150 CY, maximum one test per day	
Class I: Cast-in Place Barrier		≤ 250 CY > 250 CY	One test per cumulative 250 CY One test per day
Class II: Base	One pre-placement test per aggregate source	One test per calendar week of production	
Class II: Structure Repair - Joints		One test per cumulative 150 CY, maximum one test per day	
Class II: Concrete Overlay		One test per 400 CY, minimum one test per 10 business days, maximum one test per day	
Class II: Pavement Repair			
Class II: Pavement Replacement			
Class II: Base Patching			
Class II: Ancillary			
Class II: Structure Repair – Curb & Surface <sup>[5]</sup>		Preplacement testing only	

<sup>[1]</sup> Frequency is based on project daily production rate.

<sup>[2]</sup> Aggregate gradation testing must be performed on a per contract basis. If multiple structures are on the same contract and use the same aggregate source, then the samples must be collected based on cumulative concrete contract quantities within the same concrete classification.

<sup>[3]</sup> WTM T255 (Fine and Coarse) required for each aggregate sample.

[4] Calculate trial batch weights for each mix design when production begins and 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.

[5] Aggregate gradation must meet the gradation previously approved by the engineer.

### 710.5.6.3 Department Acceptance Testing

Replace subsection with the following effective with the November 2025 letting.

- (1) Department testing frequency is based on the quantity of each mix design placed under each individual WisDOT contract as specified table 710-6. Aggregate gradation testing must be performed on a per contract basis.
- (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 the regional testing lab in the same day. The department will report gradation test results to the contractor within 1 business day of being delivered to the lab. The department and contractor can agree to an alternative test result reporting timeframe. Document alternative timeframes in the contractor's quality control plan.
- (4) Additional samples may be taken at the engineer's discretion due to a changed condition.
- (5) If multiple bid items on the same contract use the same aggregate source, then the samples must be collected based on cumulative concrete contract quantities within the same concrete classification.
- (6) Department will test small quantities at the minimum frequency specified in table 710-7.

**TABLE 710-6 QV AGGREGATE TESTING FREQUENCY**

CONCRETE CLASSIFICATION	PLACEMENT TESTING
Class I: Pavement	One test per placement day for first 5 days of placement. - If all samples are passing, reduced testing frequency is applied. - Reduced frequency: One test per calendar week of placement
Class I: Structures	One test per 250 CY placed. - Minimum of one test per contract for substructure - Minimum of one test per contract for superstructure
Class I: Cast-in-Place Barrier	One test per 500 CY placed
Class II: Concrete Overlay	One test per 250 CY - Maximum one test per day
Class II: Base	No minimum testing
Class II: Structure Repair	
Class II: Pavement Repair	
Class II: Pavement Replacement	
Class II: Base Patching	
Class II: Ancillary	

**TABLE 710-7 QV AGGREGATE TESTING FREQUENCY FOR SMALL QUANTITIES**

CONCRETE CLASSIFICATION	PLACEMENT TESTING
Class I: Pavement	One test on the first day of placement.
Class I: Structures	
Class I: Cast-in-Place Barrier	

### 710.5.7 Corrective Action

#### 710.5.7.1 Optimized Aggregate Gradations

Replace subsection with the following effective with the November 2025 letting.

- (1) If the contractor's 4-point running average or a department test result of the volumetric percent retained exceeds the tarantula curve limits by less than or equal to 1.0 percent on a single sieve size or limits listed in the additional requirements for optimized aggregate gradation in 501.2.7.4.2 table 501-4, notify the other party immediately and do the following:

#### Option A:

1. Perform corrective action documented in the QC plan or as the engineer approves.
2. Document and provide corrective action results to the engineer as soon as they are available.
3. Department will conduct two tests within the next business day after corrective action. Department will provide test results to contractor after each test is complete.
4. If blended aggregate gradations are within the tarantula curve limits by the second department test:
  - Continue with concrete production.
  - Include a break in the 4-point running average.
  - For Class I Pavements: The department will discontinue reduced frequency testing and will test at a frequency of 1 test per placement day. Once 5 consecutive samples are passing at the 1 test per placement day frequency, the reduced frequency testing will be reapplied.
5. If blended aggregate gradations are not within the tarantula curve limits by the second department test:
  - If the contract does not require optimized aggregate gradation under 501.2.7.4.2.1(2), stop concrete production and submit either a modified optimized aggregate gradation mix design or a new optimized aggregate gradation mix design or a new combined aggregate gradation mix design.
  - If the contract requires optimized aggregate gradations under 501.2.7.4.2.1(2), stop concrete production and submit a modified optimized aggregate gradation mix design or a new optimized aggregate gradation mix design.

**Option B:**

1. Submit a modified optimized aggregate gradation mix design or a new optimized aggregate gradation mix design.
  2. Restart control charts for 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 modified mix design or a new mix design.
- (3) Both the department and contractor must sample and test aggregate of the modified mix design or a new mix design at the frequency specified in 710.5.6.1.

**710.5.7.2 Combined Aggregate Gradations**

Replace subsection with the following effective with the November 2025 letting.

- (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. The 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.
    - Include a break in the 4-point running average.
    - For Class I Pavements: The department will discontinue reduced frequency testing and will test at a frequency of 1 test per placement day. Once 5 consecutive samples are passing at the 1 test per placement day frequency, the reduced frequency testing will be reapplied.
  6. If blended aggregate gradations are not within the combined aggregate gradation limits by the second department test, stop concrete production and submit a modified mix design or 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 modified mix design or a new mix design.
- (3) Both the department and contractor must sample and test aggregate of the modified mix design or a new mix design at the frequency specified in 710.5.6.1.

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**715 QMP Concrete Pavement, Cast-in-Place Barrier and Structures****715.3.1.2 Lot and Sublot Definition****715.3.1.2.1 General**

Replace subsection with the following effective with the November 2025 letting.

- (1) Designate the location and size of all lots before placing concrete. Ensure that no lot contains concrete of more than one mix design or placement method defined as follows:

**Mix design change** A modification to the mix requiring the engineer's approval under 710.4(5).  
For paving and barrier mixes, follow 710.4(4) and 710.4(5) for concrete mixture design modifications.

**Placement method** Either slip-formed, not slip-formed, or placed under water.

- (2) Lots and sublots include ancillary concrete placed integrally with the class I concrete.

#### **715.3.1.2.3 Lots by Cubic Yard**

Replace paragraph (3) with the following effective with the November 2025 letting.

- (3) An undersized lot is eligible for incentive payment under 715.5 if the lot has 4 or more sublots for that lot.

### **715.3.2 Strength Evaluation**

#### **715.3.2.1 General**

Replace subsection with the following effective with the November 2025 letting.

- (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) The department will evaluate the subplot for possible removal and replacement if the 28-day subplot average strength is:
- Pavement (Compressive): < 2500 psi
  - Pavement (Flexural): < 500 psi
  - Structure: <  $f'_c$  - 500 psi <sup>[1]</sup>
  - Cast-in-Place Barrier: <  $f'_c$  - 500 psi <sup>[1]</sup>
- <sup>[1]</sup>  $f'_c$  is design strength found in plans or specials.

### **715.5 Payment**

#### **715.5.1 General**

Replace paragraph (4) and add paragraphs (8) and (9) effective with the November 2025 letting.

- (4) The department will adjust pay for each lot using PWL of the 28-day subplot average strengths for that lot. The department will measure PWL relative to strength lower specification limits as follows:
- Compressive strength of 3700 psi for pavements.
  - Flexural strength of 650 psi for pavements.
  - Compressive strength of 4000 psi for super structures and barrier, or as shown in the plan details.
  - Compressive strength of 3500 psi for substructures and culverts, or as shown in the plan details.
- (5) The department will not pay a strength incentive for concrete that is nonconforming in another specified property, for ancillary concrete accepted based on tests of class I concrete, or for high early strength concrete unless placed in pavement gaps as allowed under 715.3.1.2.2.
- (6) Submit test results to the department electronically using MRS software. The department will verify contractor data before determining pay adjustments.
- (7) All coring and testing costs under 715.3.2.2 including filling core holes and providing traffic control during coring are incidental to the contract.
- (8) If the contractor combines concrete of varying specified strengths in a single lot/sublot, the highest specified strength of the related concrete shall be used to calculate pay incentive/disincentive.
- (9) The department will apply one price adjustment to a given quantity of material. If the quantity in question is subject to more than one nonconforming test, apply the adjustment with the greater price reduction. In the absence of exact quantities affected by the subplot test results, pay reductions will be applied to the entire subplot.

#### **715.5.4 Pay Adjustments for Nonconforming Air Content, Temperature, and Delivery Time**

Add subsection 715.5.4 (Pay Adjustments for Nonconforming Air Content, Temperature, and Delivery Time) effective with the November 2025 letting.

- (1) The department will adjust pay for each subplot with nonconforming QC air content and temperature test results as specified in table 715-2 and table 715-3. If the quantity in question is subject to more than one of the following conditions, apply the adjustment with the greater price reduction.
- (2) For high temperatures, the engineer may consider the effectiveness of the contractor's temperature control plan and the contractor's compliance with their temperature control plan before taking a price reduction.
- (3) A 25% price reduction to the concrete invoice price will be applied if concrete is placed after the delivery time exceeds the limit specified in 501.3.5.2.



**TABLE 715-2 PRICE REDUCTIONS FOR NONCONFORMING AIR CONTENT**

LIMITS (%)		PERCENT PRICE REDUCTION OF THE CONTRACT UNIT PRICE
Above Specification	$\geq 0.5$ <sup>[1]</sup>	10
	0.1 to 0.4 <sup>[1]</sup>	5
Below Specification	0.1 to 0.5	20
	0.6 to 1.0	30
	$> 1.0$	50 or remove and replace

<sup>[1]</sup> Evaluate the strength data. If the strengths are acceptable, do not take a price reduction for high air content. Contractor is responsible to provide additional strength data, if necessary.

**TABLE 715-3 PRICE REDUCTIONS FOR NONCONFORMING TEMPERATURE**

LIMITS (F) <sup>[1]</sup>	PERCENT PRICE REDUCTION OF THE CONTRACT UNIT PRICE
$\leq 5$	10
$> 5$	25

<sup>[1]</sup> Applies only for Concrete Structures and Cast-in-Place Barrier.

## 716 QMP Ancillary Concrete

### 716.2 Materials

#### 716.2.1 Class II Concrete

Replace paragraph (2) with the following effective with the November 2025 letting.

(2) Perform random QC testing at the following frequencies:

1. Test air content, temperature, and slump a minimum of once per 100 cubic yards for each mix design and placement method.
2. Cast one set of 3 cylinders per 200 cubic yards for each mix design and placement method. Cast a minimum of one set of 3 cylinders per contract for each mix design and placement method. Random 28-day compressive strength cylinders are not required for HES or SHES concrete.
3. For deck overlays, perform tests and cast cylinders once per 50 cubic yards of grade E concrete placed.
4. For concrete base, one set of tests and one set of cylinders per 250 cubic yards.

The department will allow concrete startup test results for small quantities as specified in 710.2(1). Cast one set of 3 cylinders if using startup testing for acceptance.

#### 716.2.2 Class III Concrete

Replace paragraph (1) with the following effective with the November 2025 letting.

- (1) Acceptance of class III concrete is based on DT2220/ DT2221 certification page. Submit the certificate of compliance at least 3 business days before producing concrete along with the initial concrete mix documentation as required under 710.4(2).

## Bid Items

### 600 Bid Items

Add the following bid items effective with the November 2025 letting.

611.0613	Inlet Covers Type DW	EACH
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Remove the following bid items effective with the November 2025 letting.

621.0100	Landmark Reference Monuments	EACH
621.1100	Landmark Reference Monuments and Cast-Iron Covers	EACH
621.1200	Landmark Reference Monuments and Aluminum Covers	EACH

Remove the following bid items effective with the November 2025 letting.

643.0405	Traffic Control Barricades Type I	DAY
643.0410	Traffic Control Barricades Type II	DAY
643.0800	Traffic Control Arrow Boards	DAY

Add the following bid items effective with the November 2025 letting.

643.0810	Traffic Control Connected Arrow Boards	DAY
643.1220	Traffic Control Connected Work Zone Start and End Location Markers	DAY

Add the following bid items effective with the November 2025 letting.

680.0100	Public Land Survey Monument Verify and Reset	EACH
682.0100	Salvage Geodetic Survey Disk	EACH
682.0200	Geodetic Survey Monuments	EACH

## ERRATA

### 204.3.1.3 Salvaging or Disposal of Materials

Replace paragraph (2) to correct link from 203.3.4 to 203.3.5 effective with the November 2024 letting.

- (2) Dispose of concrete, stone, brick, and other material not designated for salvage as specified for disposing of materials under 203.3.5.

### 204.3.2.3 Removing Buildings

Replace paragraph (2) to correct link from 203.3.4 to 203.3.5 effective with the November 2024 letting.

- (2) Buildings removed and materials resulting from building removal become the contractor's property unless the contract specifies otherwise. Dispose of unclaimed and removed material as specified for disposing of materials in 203.3.5.

### 335.3.2 Rubblizing

Replace paragraph (6) to correct link from 203.3.4 to 203.3.5 effective with the November 2024 letting.

- (6) Remove reinforcing steel exposed at the surface by cutting below the surface and disposing of the steel as specified in 203.3.5. Do not remove unexposed reinforcing steel.

### 335.3.3 Compacting

Replace paragraph (2) to correct link from 203.3.4 to 203.3.5 effective with the November 2024 letting.

- (2) Remove loose asphaltic patching material, joint fillers, expansion material, or other similar materials from the compacted surface. Also remove pavement or patches that have a maximum dimension greater than or equal to 6 inches that are either not well seated or projecting more than one inch. Dispose of removed material as specified in 203.3.5.

### 460.3.3.2 Pavement Density Determination

Replace change description annotation with the following to revise implementation date. This change is effective with the November 2025 letting.

Add information to 460.3.3.2(1) and (3). Add reference to CMM, WTM, and WTP H-002. WTP H-002 contains the subplot layouts formerly in CMM 815. Definition of a lot is now defined here (460.3.3.2(3)) instead of CMM. This change was implemented via ASP-6 with the February 2024 letting.

### 602.3.6 Concrete Rumble Strips

Replace paragraph (5) to correct link from 203.3.4 to 203.3.5 effective with the November 2024 letting.

- (5) At the end of each workday, move equipment and material out of the clear zone and sweep or vacuum the traveled way pavement and shoulder areas. Sweep away or vacuum up milling debris before opening adjacent lanes to traffic. Dispose of waste material as specified in 203.3.5; do not place on the finished shoulder surface.

### 604.2 Materials

Replace paragraph (1) with the following information to remove line and link for crushed aggregate effective with the November 2024 letting. The crushed aggregate gradation information for slope paving is now found in 604.2(3).

- (1) Furnish materials conforming to the following:

Water.....	501.2
Select crushed material .....	312.2
Concrete.....	501
Reinforcement .....	505
Expansion joint filler .....	415.2.3
Asphaltic materials .....	455.2

## **ADDITIONAL SPECIAL PROVISION 7**

### **A. Reporting 1<sup>st</sup> Tier and DBE Payments During Construction**

1. Comply with reporting requirements specified in the department's Civil Rights Compliance, Contractor's User Manual, Sublets and Payments.
2. Report payments to all DBE firms within 10 calendar days of receipt of a progress payment by the department or a contractor for work performed, materials furnished, or materials stockpiled by a DBE firm. Report the payment as specified in A(1) for all work satisfactorily performed and for all materials furnished or stockpiled.
3. Report payments to all first tier subcontractor relationships within 10 calendar days of receipt of a progress payment by the department for work performed. Report the payment as specified in A(1) for all work satisfactorily performed.
4. All tiers shall report payments as necessary to comply with the DBE payment requirement as specified in A(2).
5. DBE firms must enter all payments to DBE and non-DBE firms regardless of tier.
6. Require all first tier relationships, DBE firms and all other tier relationships necessary to comply with the DBE payment requirement in receipt of a progress payment by contractor to acknowledge receipt of payment as specified in A(1), (2), (3) and (4).
7. All agreements made by a contractor shall include the provisions in A(1), (2), (3), (4), (5), and (6), and shall be binding on all first tier subcontractor relationships, all contractors and subcontractors utilizing DBE firms on the project, and all payments from DBE firms.

### **B. Costs for conforming to this special provision are incidental to the contract.**

NOTE: CRCS Prime Contractor payment is currently not automated and will need to be manually loaded into the Civil Rights Compliance System. Copies of prime contractor payments received (check or ACH) will have to be forwarded to [paul.ndon@dot.wi.gov](mailto:paul.ndon@dot.wi.gov) within 5 days of payment receipt to be logged manually.

\*\*\*Additionally, for information on Subcontractor Sublet assignments, Subcontractor Payments and Payment Tracking, please refer to the CRCS Payment and Sublets manual at:

<https://wisconsindot.gov/Documents/doing-bus/civil-rights/labornwage/crcs-payments-sublets-manual.pdf>

## **ADDITIONAL SPECIAL PROVISION 9**

### **Electronic Certified Payroll or Labor Data Submittal**

- (1) Use the department's Civil Rights Compliance System (CRCS) for projects with a LET date on or before December 2024 and AASHTOWare Project Civil Rights and Labor (AWP CRL) for projects with a LET date on or after January 2025 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 or AWP CRL. 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 or AWP CRL 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, via the online AWP Knowledge Base, or by telephone. to schedule CRCS specific training. The AWP Knowledge Base is at: <https://awpkb.dot.wi.gov/>
- (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) For firms wishing to export payroll/labor data from their computer system, have their payroll coordinator contact:
  - For CRCS: Paul Ndon at [paul.ndon@dot.wi.gov](mailto:paul.ndon@dot.wi.gov). Information about exporting payroll/labor data. Not every contractor's payroll system can produce 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>
  - For AWP CRL: Contact AWP Support at [awpsupport@dot.wi.gov](mailto:awpsupport@dot.wi.gov). Additional information can be found in the AWP Knowledge Base at <https://awpkb.dot.wi.gov/Content/crl/Payrolls-PrimesAndSubs/PayrollXMLFileCreationProcess.htm>

## REQUIRED CONTRACT PROVISIONS FEDERAL-AID CONSTRUCTION CONTRACTS

- I. General
- II. Nondiscrimination
- III. Non-segregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
- XI. Certification Regarding Use of Contract Funds for Lobbying
- XII. Use of United States-Flag Vessels:

### ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

### I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under title 23, United States Code, as required in 23 CFR 633.102(b) (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services). 23 CFR 633.102(e).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. 23 CFR 633.102(e).

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services) in accordance with 23 CFR 633.102. The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract). 23 CFR 633.102(b).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work

performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract. 23 CFR 633.102(d).

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

### II. NONDISCRIMINATION (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR Part 230, Subpart A, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

**1. Equal Employment Opportunity:** Equal Employment Opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (see 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140, shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR Part 35 and 29 CFR Part 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract. 23 CFR 230.409 (g)(4) & (5).

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, sexual orientation, gender identity, color, national origin, age or disability. Such action shall include: 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, pre-apprenticeship, and/or on-the-job training."

**2. EEO Officer:** The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

**3. Dissemination of Policy:** All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action or are substantially involved in such action, will be made fully cognizant of and will implement the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

**4. Recruitment:** When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

**5. Personnel Actions:** Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to ensure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action

within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

#### **6. Training and Promotion:**

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs (i.e., apprenticeship and on-the-job training programs for the geographical area of contract performance). In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

**7. Unions:** If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. 23 CFR 230.409. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide

sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

#### **8. Reasonable Accommodation for Applicants /**

**Employees with Disabilities:** The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established thereunder. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

#### **9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment:**

The contractor shall not discriminate on the grounds of race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors, suppliers, and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

#### **10. Assurances Required:**

a. The requirements of 49 CFR Part 26 and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:

- (1) Withholding monthly progress payments;
- (2) Assessing sanctions;
- (3) Liquidated damages; and/or
- (4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E are incorporated by reference. 49 CFR Part 21.

**11. Records and Reports:** The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:



(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women.

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

### III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of more than \$10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, the contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location under the contractor's control where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

### IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway

Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

#### 1. Minimum wages (29 CFR 5.5)

a. *Wage rates and fringe benefits.* All laborers and mechanics employed or working upon the site of the work (or otherwise working in construction or development of the project under a development statute), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act ([29 CFR part 3](#))), the full amount of basic hourly wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. As provided in paragraphs (d) and (e) of 29 CFR 5.5, the appropriate wage determinations are effective by operation of law even if they have not been attached to the contract. Contributions made or costs reasonably anticipated for bona fide fringe benefits under the Davis-Bacon Act ([40 U.S.C. 3141\(2\)\(B\)](#)) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.e. of this section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics must be paid the appropriate wage rate and fringe benefits on the wage determination for the classification(s) of work actually performed, without regard to skill, except as provided in paragraph 4. of this section. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided*, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph 1.c. of this section) and the Davis-Bacon poster (WH-1321) must be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. *Frequently recurring classifications.* (1) In addition to wage and fringe benefit rates that have been determined to be prevailing under the procedures set forth in [29 CFR part 1](#), a wage determination may contain, pursuant to § 1.3(f), wage and fringe benefit rates for classifications of laborers and mechanics for which conformance requests are regularly submitted pursuant to paragraph 1.c. of this section, provided that:

(i) The work performed by the classification is not performed by a classification in the wage determination for which a prevailing wage rate has been determined;



(ii) The classification is used in the area by the construction industry; and

(iii) The wage rate for the classification bears a reasonable relationship to the prevailing wage rates contained in the wage determination.

(2) The Administrator will establish wage rates for such classifications in accordance with paragraph 1.c.(1)(iii) of this section. Work performed in such a classification must be paid at no less than the wage and fringe benefit rate listed on the wage determination for such classification.

c. *Conformance.* (1) The contracting officer must require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract be classified in conformance with the wage determination. Conformance of an additional classification and wage rate and fringe benefits is appropriate only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is used in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) The conformance process may not be used to split, subdivide, or otherwise avoid application of classifications listed in the wage determination.

(3) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken will be sent by the contracting officer by email to [DBAconformance@dol.gov](mailto:DBAconformance@dol.gov). The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(4) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer will, by email to [DBAconformance@dol.gov](mailto:DBAconformance@dol.gov), refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(5) The contracting officer must promptly notify the contractor of the action taken by the Wage and Hour Division

under paragraphs 1.c.(3) and (4) of this section. The contractor must furnish a written copy of such determination to each affected worker or it must be posted as a part of the wage determination. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 1.c.(3) or (4) of this section must be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

d. *Fringe benefits not expressed as an hourly rate.* Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor may either pay the benefit as stated in the wage determination or may pay another bona fide fringe benefit or an hourly cash equivalent thereof.

e. *Unfunded plans.* If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, *Provided*, That the Secretary of Labor has found, upon the written request of the contractor, in accordance with the criteria set forth in § 5.28, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

f. *Interest.* In the event of a failure to pay all or part of the wages required by the contract, the contractor will be required to pay interest on any underpayment of wages.

## 2. Withholding (29 CFR 5.5)

a. *Withholding requirements.* The contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for the full amount of wages and monetary relief, including interest, required by the clauses set forth in this section for violations of this contract, or to satisfy any such liabilities required by any other Federal contract, or federally assisted contract subject to Davis-Bacon labor standards, that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to Davis-Bacon labor standards requirements and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld. In the event of a contractor's failure to pay any laborer or mechanic, including any apprentice or helper working on the site of the work all or part of the wages required by the contract, or upon the contractor's failure to submit the required records as discussed in paragraph 3.d. of this section, the contracting agency may on its own initiative and after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with paragraph

2.a. of this section or Section V, paragraph 3.a., or both, over claims to those funds by:

- (1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;
- (2) A contracting agency for its procurement costs;
- (3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;
- (4) A contractor's assignee(s);
- (5) A contractor's successor(s); or
- (6) A claim asserted under the Prompt Payment Act, [31 U.S.C. 3901–3907](#).

### 3. Records and certified payrolls (29 CFR 5.5)

*a. Basic record requirements (1) Length of record retention.* All regular payrolls and other basic records must be maintained by the contractor and any subcontractor during the course of the work and preserved for all laborers and mechanics working at the site of the work (or otherwise working in construction or development of the project under a development statute) for a period of at least 3 years after all the work on the prime contract is completed.

*(2) Information required.* Such records must contain the name; Social Security number; last known address, telephone number, and email address of each such worker; each worker's correct classification(s) of work actually performed; hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in [40 U.S.C. 3141\(2\)\(B\)](#) of the Davis-Bacon Act); daily and weekly number of hours actually worked in total and on each covered contract; deductions made; and actual wages paid.

*(3) Additional records relating to fringe benefits.* Whenever the Secretary of Labor has found under paragraph 1.e. of this section that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in [40 U.S.C. 3141\(2\)\(B\)](#) of the Davis-Bacon Act, the contractor must maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits.

*(4) Additional records relating to apprenticeship.* Contractors with apprentices working under approved programs must maintain written evidence of the registration of apprenticeship programs, the registration of the apprentices, and the ratios and wage rates prescribed in the applicable programs.

*b. Certified payroll requirements (1) Frequency and method of submission.* The contractor or subcontractor must submit weekly, for each week in which any DBA- or Related Acts-covered work is performed, certified payrolls to the contracting

agency. The prime contractor is responsible for the submission of all certified payrolls by all subcontractors. A contracting agency or prime contractor may permit or require contractors to submit certified payrolls through an electronic system, as long as the electronic system requires a legally valid electronic signature; the system allows the contractor, the contracting agency, and the Department of Labor to access the certified payrolls upon request for at least 3 years after the work on the prime contract has been completed; and the contracting agency or prime contractor permits other methods of submission in situations where the contractor is unable or limited in its ability to use or access the electronic system.

*(2) Information required.* The certified payrolls submitted must set out accurately and completely all of the information required to be maintained under paragraph 3.a.(2) of this section, except that full Social Security numbers and last known addresses, telephone numbers, and email addresses must not be included on weekly transmittals. Instead, the certified payrolls need only include an individually identifying number for each worker (e.g., the last four digits of the worker's Social Security number). The required weekly certified payroll information may be submitted using Optional Form WH-347 or in any other format desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division website at <https://www.dol.gov/sites/dolgov/files/WHDL/legacy/files/wh347.pdf> or its successor website. It is not a violation of this section for a prime contractor to require a subcontractor to provide full Social Security numbers and last known addresses, telephone numbers, and email addresses to the prime contractor for its own records, without weekly submission by the subcontractor to the contracting agency.

*(3) Statement of Compliance.* Each certified payroll submitted must be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor, or the contractor's or subcontractor's agent who pays or supervises the payment of the persons working on the contract, and must certify the following:

(i) That the certified payroll for the payroll period contains the information required to be provided under paragraph 3.b. of this section, the appropriate information and basic records are being maintained under paragraph 3.a. of this section, and such information and records are correct and complete;

(ii) That each laborer or mechanic (including each helper and apprentice) working on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in [29 CFR part 3](#); and

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification(s) of work actually performed, as specified in the applicable wage determination incorporated into the contract.

*(4) Use of Optional Form WH-347.* The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 will satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(3) of this section.

(5) *Signature.* The signature by the contractor, subcontractor, or the contractor's or subcontractor's agent must be an original handwritten signature or a legally valid electronic signature.

(6) *Falsification.* The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under [18 U.S.C. 1001](#) and [31 U.S.C. 3729](#).

(7) *Length of certified payroll retention.* The contractor or subcontractor must preserve all certified payrolls during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

c. *Contracts, subcontracts, and related documents.* The contractor or subcontractor must maintain this contract or subcontract and related documents including, without limitation, bids, proposals, amendments, modifications, and extensions. The contractor or subcontractor must preserve these contracts, subcontracts, and related documents during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

d. *Required disclosures and access* (1) *Required record disclosures and access to workers.* The contractor or subcontractor must make the records required under paragraphs 3.a. through 3.c. of this section, and any other documents that the contracting agency, the State DOT, the FHWA, or the Department of Labor deems necessary to determine compliance with the labor standards provisions of any of the applicable statutes referenced by § 5.1, available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and must permit such representatives to interview workers during working hours on the job.

(2) *Sanctions for non-compliance with records and worker access requirements.* If the contractor or subcontractor fails to submit the required records or to make them available, or refuses to permit worker interviews during working hours on the job, the Federal agency may, after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, that maintains such records or that employs such workers, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available, or to permit worker interviews during working hours on the job, may be grounds for debarment action pursuant to § 5.12. In addition, any contractor or other person that fails to submit the required records or make those records available to WHD within the time WHD requests that the records be produced will be precluded from introducing as evidence in an administrative proceeding under [29 CFR part 6](#) any of the required records that were not provided or made available to WHD. WHD will take into consideration a reasonable request from the contractor or person for an extension of the time for submission of records. WHD will determine the reasonableness of the request and may consider, among other things, the location of the records and the volume of production.

(3) *Required information disclosures.* Contractors and subcontractors must maintain the full Social Security number and last known address, telephone number, and email address

of each covered worker, and must provide them upon request to the contracting agency, the State DOT, the FHWA, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or other compliance action.

#### **4. Apprentices and equal employment opportunity (29 CFR 5.5)**

a. *Apprentices (1) Rate of pay.* Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Office of Apprenticeship (OA), or with a State Apprenticeship Agency recognized by the OA. A person who is not individually registered in the program, but who has been certified by the OA or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice, will be permitted to work at less than the predetermined rate for the work they perform in the first 90 days of probationary employment as an apprentice in such a program. In the event the OA or a State Apprenticeship Agency recognized by the OA withdraws approval of an apprenticeship program, the contractor will no longer be permitted to use apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(2) *Fringe benefits.* Apprentices must be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringe benefits must be paid in accordance with that determination.

(3) *Apprenticeship ratio.* The allowable ratio of apprentices to journeyworkers on the job site in any craft classification must not be greater than the ratio permitted to the contractor as to the entire work force under the registered program or the ratio applicable to the locality of the project pursuant to paragraph 4.a.(4) of this section. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph 4.a.(1) of this section, must be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under this section must be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(4) *Reciprocity of ratios and wage rates.* Where a contractor is performing construction on a project in a locality other than the locality in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyworker's hourly rate) applicable within the locality in which the construction is being performed must be observed. If there is no applicable ratio or wage rate for the locality of the project, the ratio and wage rate specified in the contractor's registered program must be observed.

b. *Equal employment opportunity.* The use of apprentices and journeyworkers under this part must be in conformity with

the equal employment opportunity requirements of Executive Order 11246, as amended, and [29 CFR part 30](#).

c. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. 23 CFR 230.111(e)(2). The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeyworkers shall not be greater than permitted by the terms of the particular program.

**5. Compliance with Copeland Act requirements.** The contractor shall comply with the requirements of 29 CFR part 3, which are incorporated by reference in this contract as provided in 29 CFR 5.5.

**6. Subcontracts.** The contractor or subcontractor must insert FHWA-1273 in any subcontracts, along with the applicable wage determination(s) and such other clauses or contract modifications as the contracting agency may by appropriate instructions require, and a clause requiring the subcontractors to include these clauses and wage determination(s) in any lower tier subcontracts. The prime contractor is responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this section. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and may be subject to debarment, as appropriate. 29 CFR 5.5.

**7. Contract termination: debarment.** A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract, and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

**8. Compliance with Davis-Bacon and Related Act requirements.** All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR parts 1, 3, and 5 are herein incorporated by reference in this contract as provided in 29 CFR 5.5.

**9. Disputes concerning labor standards.** As provided in 29 CFR 5.5, disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

**10. Certification of eligibility.** a. By entering into this contract, the contractor certifies that neither it nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of [40 U.S.C. 3144\(b\)](#) or § 5.12(a).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of [40 U.S.C. 3144\(b\)](#) or § 5.12(a).

c. The penalty for making false statements is prescribed in the U.S. Code, Title 18 Crimes and Criminal Procedure, [18 U.S.C. 1001](#).

**11. Anti-retaliation.** It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#);

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#);

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#); or

d. Informing any other person about their rights under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#).

## **V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT**

Pursuant to 29 CFR 5.5(b), the following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchpersons and guards.

**1. Overtime requirements.** No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 29 CFR 5.5.

**2. Violation; liability for unpaid wages; liquidated damages.** In the event of any violation of the clause set forth in paragraph 1. of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages and interest from the date of the underpayment. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or



mechanic, including watchpersons and guards, employed in violation of the clause set forth in paragraph 1. of this section, in the sum currently provided in 29 CFR 5.5(b)(2)\* for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1. of this section.

\* \$31 as of January 15, 2023 (See 88 FR 88 FR 2210) as may be adjusted annually by the Department of Labor, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990.

### 3. Withholding for unpaid wages and liquidated damages

a. *Withholding process.* The FHWA or the contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in this section on this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to the Contract Work Hours and Safety Standards Act and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with Section IV paragraph 2.a. or paragraph 3.a. of this section, or both, over claims to those funds by:

- (1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;
- (2) A contracting agency for its procurement costs;
- (3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;
- (4) A contractor's assignee(s);
- (5) A contractor's successor(s); or
- (6) A claim asserted under the Prompt Payment Act, [31 U.S.C. 3901](#)–3907.

**4. Subcontracts.** The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs 1. through 5. of this section and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor is responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1. through 5. In the

event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.

**5. Anti-retaliation.** It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the Contract Work Hours and Safety Standards Act (CWHSSA) or its implementing regulations in this part;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or this part;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or this part; or

d. Informing any other person about their rights under CWHSSA or this part.

## VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" in paragraph 1 of Section VI refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions: (based on longstanding interpretation)

- (1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
- (2) the prime contractor remains responsible for the quality of the work of the leased employees;

(3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and  
(4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract. (based on long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

## **VII. SAFETY: ACCIDENT PREVENTION**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and

health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

## **VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR Part 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

## **IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)**

This provision is applicable to all Federal-aid construction contracts in excess of \$150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.327.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.327.

## **X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION**

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220.

### **1. Instructions for Certification – First Tier Participants:**

a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.

b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant 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 first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction. 2 CFR 180.320.

c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.

d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction 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 or agency entering into this transaction. 2 CFR 180.330.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 180.300.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (<https://www.sam.gov/>). 2 CFR 180.300, 180.320, and 180.325.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant 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 or agency may terminate this transaction for cause or default. 2 CFR 180.325.

\* \* \* \* \*

## **2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:**

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;.

(2) 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, 2 CFR 180.800;

(3) 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 offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

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### **3. Instructions for Certification - Lower Tier Participants:**

(Applicable to all subcontracts, purchase orders, and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which

this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances. 2 CFR 180.365.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900 – 180.1020, and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contractor). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction 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 or agency with which this transaction originated. 2 CFR 1200.220 and 1200.332.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 1200.220.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (<https://www.sam.gov/>), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

h. 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 participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant 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 or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

\* \* \* \* \*

#### **4. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:**

a. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(1) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(2) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(3) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

b. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal.

\* \* \* \* \*

#### **XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING**

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000. 49 CFR Part 20, App. A.

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or

cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

#### **XII. USE OF UNITED STATES-FLAG VESSELS:**

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.

2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS  
PREFERENCE FOR APPALACHIAN DEVELOPMENT  
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS  
ROAD CONTRACTS (23 CFR 633, Subpart B, Appendix B)**

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

## 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).

## NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY (EXECUTIVE ORDER 11246)

1. The Offeror's or Bidder's attention is called to the "Employment Practices" and "Equal Opportunity Clause" set forth in the Required Contract Provisions, FHWA 1273.
2. The goals and timetables for minority and female participation expressed in percentage terms for the contractor's aggregate work force in each trade, on all construction work in the covered area, are as follows:

### **Goals for Minority Participation for Each Trade:**

<u>County</u>	<u>%</u>	<u>County</u>	<u>%</u>	<u>County</u>	<u>%</u>
Adams	1.7	Iowa	1.7	Polk	2.2
Ashland	1.2	Iron	1.2	Portage	0.6
Barron	0.6	Jackson	0.6	Price	0.6
Bayfield	1.2	Jefferson	7.0	Racine	8.4
Brown	1.3	Juneau	0.6	Richland	1.7
Buffalo	0.6	Kenosha	3.0	Rock	3.1
Burnett	2.2	Kewaunee	1.0	Rusk	0.6
Calumet	0.9	La Crosse	0.9	St. Croix	2.9
Chippewa	0.5	Lafayette	0.5	Sauk	1.7
Clark	0.6	Langlade	0.6	Sawyer	0.6
Columbia	1.7	Lincoln	0.6	Shawano	1.0
Crawford	0.5	Manitowoc	1.0	Sheboygan	7.0
Dane	2.2	Marathon	0.6	Taylor	0.6
Dodge	7.0	Marinette	1.0	Trempealeau	0.6
Door	1.0	Marquette	1.7	Vernon	0.6
Douglas	1.0	Menominee	1.0	Vilas	0.6
Dunn	0.6	Milwaukee	8.0	Walworth	7.0
Eau Claire	0.5	Monroe	0.6	Washburn	0.6
Florence	1.0	Oconto	1.0	Washington	8.0
Fond du Lac	1.0	Oneida	0.6	Waukesha	8.0
Forest	1.0	Outagamie	0.9	Waupaca	1.0
Grant	0.5	Ozaukee	8.0	Waushara	1.0
Green	1.7	Pepin	0.6	Winnebago	0.9
Green Lake	1.0	Pierce	2.2	Wood	0.6

**Goals for female participation for each trade: 6.9%**

These goals are applicable to all the contractor's construction work, (whether or not it is federal or federally assisted), performed in the covered area. If the contractor performs construction work in the geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its federally involved and nonfederally involved construction.

The contractor's compliance with the Executive Order and the Regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from contractor to contractor or from project to project for the sole purpose of meeting the contractor's goals shall be a violation of the contract, the Executive Order and the Regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within ten (10) working days of award of any construction subcontract in excess of \$10,000.00 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address and telephone number of the subcontractor, employer identification number of the subcontractor; estimated dollar amount of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the subcontract is to be performed.

As referred to in this section, the Director means:

Director  
Office of Federal Contract Compliance Programs  
Ruess Federal Plaza  
310 W. Wisconsin Ave., Suite 1115  
Milwaukee, WI 53202

The "Employer Identification Number" means the Federal Social Security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.

4. As used in this notice, and in the contract resulting from solicitation, the "covered area" is the county(ies) in Wisconsin to which this proposal applies.

## **ADDITIONAL FEDERAL-AID PROVISIONS**

### **NOTICE TO ALL BIDDERS**

To report bid rigging activities call:

**1-800-424-9071**

The U.S. Department of Transportation (DOT) operates the above toll-free "hotline" Monday through Friday, 8:00 a.m. to 5:00 p.m., Eastern Time. Anyone with knowledge of possible bid rigging, bidding collusion, or other fraudulent activities should use the "hotline" to report such activities.

The "hotline" is part of the DOT's continuing effort to identify and investigate highway construction contract fraud and abuse and is operated under the direction of the DOT Inspector General. All information will be treated confidentially and caller anonymity will be respected.

## DOMESTIC MATERIALS PREFERENCE PROVISION

Domestic Materials Preference (in accordance with the Buy America Act per [23 CFR 635.410](#), and the Build America-Buy America Act (BABA) per [2 CFR Part 184](#), and [2 CFR Part 200](#)) shall be articles, materials, or supplies permanently incorporated in this project as classified in the following four categories, and as described in the Construction and Materials Manual (CMM):

### 1. Iron and Steel

To be considered domestic, all steel and iron products used, and all products predominantly manufactured from steel or iron must be produced in the United States in accordance with the steel and iron product standards in 23 CFR 635.410.

This includes smelting, coating, bending, shaping, and all other manufacturing processes performed on the product. Coating includes all processes which protect or enhance the value of the material to which the coating is applied.

Products that are predominantly iron or steel or a combination of both as defined in 23 CFR 635.410 are considered Steel and Iron products and must comply with this section.

### 2. Construction Materials

To be considered domestic, all construction materials used must be produced in the United States in accordance with the construction material standards in [2 CFR 184.6](#):

- Non-ferrous metals: All manufacturing processes, from initial smelting or melting through final shaping, coating, and assembly, occurred in the United States.
- Plastic and polymer-based products: All manufacturing processes, from initial combination of constituent plastic or polymer-based inputs, or, where applicable, constituent composite materials, until the item is in its final form, occurred in the United States.
- Glass: All manufacturing processes, from initial batching and melting of raw materials through annealing, cooling, and cutting, occurred in the United States.
- Fiber optic cable (including drop cable): All manufacturing processes, from the initial ribboning (if applicable), through buffering, fiber stranding and jacketing, occurred in the United States. All manufacturing processes also include the standards for glass and optical fiber, but not for non-ferrous metals, plastic and polymer-based products, or any others.
- Optical fiber: All manufacturing processes, from the initial preform fabrication stage through the completion of the draw, occurred in the United States.
- Lumber: All manufacturing processes, from initial debarking through treatment and planing, occurred in the United States.
- Drywall: All manufacturing processes, from initial blending of mined or synthetic gypsum plaster and additives through cutting and drying of sandwiched panels, occurred in the United States.
- Engineered wood: All manufacturing processes from the initial combination of constituent materials until the wood product is in its final form, occurred in the United States.

### 3. Manufactured Products

To be considered domestic, all manufactured products used must be produced in the United States as defined in [23 CFR 635.410\(c\)\(1\)\(vii\)](#):

- For projects with let dates on or after October 1, 2025, the final step in the manufacturing process must occur in the United States.
- For projects with let dates on or after October 1, 2026, the final step in the manufacturing process must occur in the United States and the cost of the components of the manufactured product that are mined, produced, or manufactured in the United States must be greater than 55 percent of the total cost of all components of the manufactured product.

Manufactured products means articles, materials, or supplies that have been processed into a specific form and shape, or combined with other articles, materials, or supplies to create a product with different properties than the individual articles, materials, or supplies. If an item is classified as an iron or steel product, an excluded material, or construction material, then it is not a manufactured product. An article, material, or supply classified as a manufactured product may include components that are iron or steel



products, excluded materials, or construction materials. Mixtures of excluded materials delivered to a work site without final form for incorporation into a project are not a manufactured product.

Items that consist of two or more construction materials that have been combined together through a manufacturing process, and items that include at least one construction material combined with a material that is not a construction material (including steel/iron) through a manufacturing process are treated as manufactured products, rather than as construction materials.

Products that are classified as predominantly iron or steel do not meet the definition of a manufactured product and must comply with section 1.

With respect to precast concrete products **that are classified as manufactured products**, components of precast concrete products that consist wholly or predominantly of iron or steel or a combination of both shall meet the requirements of section 1. The cost of such components shall be included in the applicable calculation for purposes of determining whether the precast concrete product is produced in the United States.

With respect to intelligent transportation systems and other electronic hardware systems that are installed in the highway right of way or other real property **and classified as manufactured products**, the cabinets or other enclosures of such systems that consist wholly or predominantly of iron or steel or a combination of both shall meet the requirements of section 1. The cost of cabinets or other enclosures shall be included in the applicable calculation for purposes of determining whether systems referred to in the preceding sentence are produced in the United States.

#### 4. Temporary and Excluded Materials

Temporary materials, and excluded materials meeting the definition of Section 70917(c) Materials as defined in [2 CFR 184](#), do not have any domestic materials requirements. Section 70917(c) Materials means cement and cementitious materials; aggregates such as stone, sand, or gravel; or aggregate binding agents or additives. Mixtures of excluded materials delivered to a work site without final form for incorporation into a project are not a manufactured product.

The classification of an article, material, or supply as falling into one of the categories listed in this section will be made based on its status at the time it is brought to the work site for incorporation into the project. Except as otherwise provided, an article, material, or supply incorporated into an infrastructure project must meet the Domestic Material Preference for only the single category in which it is classified.

Requirements do not preclude a minimal use of foreign steel and iron provided the cost of such materials do not exceed 0.1 percent (0.1%) of the total contract cost or \$2500 whichever is greater. The total contract cost is the contract amount at award.

For each iron or steel product subject to meeting domestic materials requirements, that doesn't fully meet Buy America Act requirements, the following documentation must be provided by the Contractor to verify the foreign steel value. Ensure the threshold is not exceeded and place the documentation in the project files.

- Pay Item,
- Description of associated foreign iron or steel product, or component,
- Invoiced cost of associated foreign iron or steel product, or component, and
- Current cumulative list of all foreign iron or steel products with the total dollar amount of foreign products in relation to the total contract amount.

The minimal use of foreign iron or steel under the minimal usage threshold must be approved by the Engineer prior to incorporation into the project and any associated payment under the contract. The use of foreign iron or steel under the minimal usage threshold does not need to be approved by FHWA. This amount is not considered a waiver to the domestic materials requirements. The Contractor must ensure that the minimal usage amount is not exceeded.

The contractor shall take actions and provide documentation conforming to CMM 228.5 to ensure compliance with this Domestic Material provision.

<https://wisconsindot.gov/rdwy/cmm/cm-02-28.pdf>

Effective with October 2025 Letting

Upon completion of the project, certify to the engineer, in writing using department form DT4567 that all iron and steel, construction materials, and manufactured products conform to this domestic material provision.

Form DT4567 is available at: <https://wisconsindot.gov/Documents/formdocs/dt4567.docx>

Attach a list of foreign iron or steel and their associated costs to the certification form using the Domestic Material Exemption Tracking Tool, available at:

<https://wisconsindot.gov/hccidocs/contracting-info/buy-america-exemption-tracking-tool.xlsx>

## **CARGO PREFERENCE ACT REQUIREMENT**

All Federal-aid projects shall comply with 46 CFR 381.7 (a) – (b) as follows:

(a) *Agreement Clauses.* “Use of United States-flag vessels:”

(1) Pursuant to Pub. L. 664 (43 U.S.C. 1241(b)) at least 50 percent of any equipment, materials or commodities procured, contracted for or otherwise obtained with funds granted, guaranteed, loaned, or advanced by the U.S. Government under this agreement, and which may be transported by ocean vessel, shall be transported on privately owned United States-flag commercial vessels, if available.

(2) Within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, ‘on-board’ commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (a)(1) of this section shall be furnished to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.”

(b) *Contractor and Subcontractor Clauses.* “Use of United States-flag vessels: The contractor agrees—”

(1) To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels.

(2) To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, ‘on-board’ commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b) (1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590.

(3) To insert the substance of the provisions of this clause in all subcontracts issued pursuant to this contract.

**WISCONSIN DEPARTMENT OF TRANSPORTATION  
DIVISION OF TRANSPORTATION AND SYSTEM DEVELOPMENT**

**SUPPLEMENTAL REQUIRED CONTRACT PROVISIONS  
FOR PROJECTS WITH FEDERAL AID**

**I. PREVAILING WAGE RATES**

The attached U.S. Department of Labor (Davis-Bacon Minimum Wage Rates) furnishes the minimum prevailing wage rates pursuant to the Davis-Bacon and Related Acts. The wage rates shown are the minimum rates required by the contract to be paid during its life, however this is not a representation that labor can be obtained at these rates. It is the responsibility of bidders to inform themselves as to the local labor conditions and prospective changes or adjustments of wage rates. No increase in the contract price will be allowed or authorized on account of the payment of wage rates in excess of those listed herein.

**II. COVERAGE OF TRUCK DRIVERS**

Truck drivers are covered by Davis-Bacon Minimum Wage Rates in the following circumstances:

- Drivers of a contractor or subcontractor for time spent working on the site of the work.
- Drivers of a contractor or subcontractor for time spent loading and/or unloading materials and supplies on the site of the work, if such time is not de minimis.  
[https://www.dol.gov/whd/FOH/FOH\\_Ch15.pdf](https://www.dol.gov/whd/FOH/FOH_Ch15.pdf)
- Truck drivers transporting materials or supplies between a facility that is deemed part of the site of the work and the actual construction site.
- Truck drivers transporting portions of the building or work between a site established specifically for the performance of the contract where a significant portion of such building or work is constructed and the physical place where the building or work called for in the contract will remain.

Truck drivers are not covered by Davis-Bacon Minimum Wage Rates in the following circumstances:

- Material delivery truck drivers while off the site of the work.
- Drivers of a contractor or subcontractor traveling between a Davis-Bacon job and a commercial supply facility while they are off the site of the work.”
- Truck drivers whose time spent on the site of the work is de minimis, such as only a few minutes at a time merely to pick up or drop off materials or supplies.

Details are available online at:

<https://www.dol.gov/whd/recovery/pwrb/Tab9.pdf>

<https://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/trckng.aspx>

**III. POSTINGS AT THE SITE OF THE WORK**

In addition to the required postings furnished by the department, the contractor shall post the following in at least one conspicuous and accessible place at the site of work:

- a. A copy of the contractor's Equal Employment Opportunity Policy.

All required documents shall be posted by the first day of work and be accurate and complete. Postings must be readable, in an area where they will be noticed, and maintained until the last day of work.

**IV. RESOURCES**

Required information regarding compliance with federal provisions is found in the following resources:

- FHWA-1273 included in this contract
- U.S. Department of Labor Prevailing Wage Resource Book
- U.S. Department of Labor Field Operations Handbook
- U.S. Code of Federal Regulations
- Any applicable law, Act, or Executive Order enacted by the federal government at the time of the letting of this contract

"General Decision Number: WI20260010 01/02/2026

Superseded General Decision Number: WI20250010

State: Wisconsin

Construction Type: Highway

Counties: Wisconsin Statewide.

HIGHWAY, AIRPORT RUNWAY & TAXIWAY CONSTRUCTION PROJECTS (does not include bridges over navigable waters; tunnels; buildings in highway rest areas; and railroad construction)

Modification Number	Publication Date
0	01/02/2026

BRWI0001-002 06/01/2025

CRAWFORD, JACKSON, JUNEAU, LA CROSSE, MONROE, TREMPLEAU, AND VERNON COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 40.09	28.10
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BRWI0002-002 06/01/2025		

ASHLAND, BAYFIELD, DOUGLAS, AND IRON COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 48.60	29.31
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BRWI0002-005 06/01/2025		

ADAMS, BARRON, BROWN, CALUMET, CHIPPEWA, CLARK, COLUMBIA, DODGE, DOOR, DUNN, FLORENCE, FOND DU LAC, FOREST, GREEN LAKE, JEFFERSON, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, OCONTO, ONEIDA, OUTAGAMIE, POLK, PORTAGE, RUSK, SAUK, SHAWANO, SHEBOYGAN, ST. CROIX, TAYLOR, VILAS, WALWORTH, WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 46.01	29.31
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BRWI0003-002 06/01/2024		

BROWN, DOOR, FLORENCE, KEWAUNEE, MARINETTE, AND OCONTO COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 38.45	27.41
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BRWI0004-002 06/01/2025		

KENOSHA, RACINE, AND WALWORTH COUNTIES

Rates	Fringes
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BRICKLAYER.....	\$ 44.71	28.90
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BRWI0006-002 06/01/2025

ADAMS, CLARK, FOREST, LANGLADE, LINCOLN, MARATHON, MENOMINEE,  
ONEIDA, PORTAGE, PRICE, TAYLOR, VILAS AND WOOD COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 39.36	28.83

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BRWI0007-002 06/01/2025

GREEN, LAFAYETTE, AND ROCK COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 40.34	29.49

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BRWI0008-002 06/01/2025

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 45.72	27.42

-----  
BRWI0011-002 06/01/2024

CALUMET, FOND DU LAC, MANITOWOC, AND SHEBOYGAN COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 38.45	27.41

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BRWI0019-002 06/01/2025

BARRON, BUFFALO, BURNETT, CHIPPEWA, DUNN, EAU CLAIRE, PEPIN,  
PIERCE, POLK, RUSK, ST. CROIX, SAWYER AND WASHBURN COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 39.50	28.69

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BRWI0034-002 06/01/2025

COLUMBIA AND SAUK COUNTIES

	Rates	Fringes
BRICKLAYER.....	\$ 41.17	28.66

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CARP0068-011 05/05/2025

BURNETT (W. of Hwy 48), PIERCE (W. of Hwy 29), POLK (W. of Hwys  
35, 48 & 65), AND ST. CROIX (W. of Hwy 65) COUNTIES

	Rates	Fringes
CARPENTER.....	\$ 47.57	31.17
PILEDRIVERMAN.....	\$ 47.71	30.98

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CARP0231-002 06/01/2025

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WASHINGTON, AND WAUKESHA  
COUNTIES

	Rates	Fringes
CARPENTER.....	\$ 45.46	31.52

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CARP0310-002 06/01/2025

ADAMS, ASHLAND, BAYFIELD (Eastern 2/3), FOREST, IRON, JUNEAU,  
LANGLADE, LINCOLN, MARATHON, ONEIDA, PORTAGE, PRICE, SHAWANO  
(Western Portion of the County), TAYLOR, VILAS, AND WOOD  
COUNTIES

	Rates	Fringes
Carpenter.....	\$ 44.43	29.95
Piledriver.....	\$ 44.43	29.95

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CARP0314-001 06/02/2025

COLUMBIA, DANE, DODGE, GRANT, GREEN, IOWA, JEFFERSON,  
LAFAYETTE, RICHLAND, ROCK, SAUK, AND WALWORTH COUNTIES

	Rates	Fringes
Carpenter.....	\$ 42.45	28.78
Piledrivermen.....	\$ 44.45	28.78

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CARP0361-004 05/05/2025

BAYFIELD (West of Hwy 63) AND DOUGLAS COUNTIES

	Rates	Fringes
CARPENTER.....	\$ 46.82	31.92

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CARP0731-002 06/03/2024

CALUMET (Eastern Portion of the County), FOND DU LAC (Eastern  
Portion of the County), MANITOWOC, AND SHEBOYGAN COUNTIES

	Rates	Fringes
Carpenter.....	\$ 42.44	28.44
Piledriver.....	\$ 42.44	28.44

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CARP0955-002 06/02/2025

CALUMET (Western Portion of the County), FOND DU LAC (Western  
Portion of the County), GREEN LAKE, MARQUETTE, OUTAGAMIE,  
WAUPACA, WAUSHARA, AND WINNEBAGO

	Rates	Fringes
Carpenter.....	\$ 44.43	29.95
Piledriver.....	\$ 44.43	29.95



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CARP1056-002 06/01/2024

ADAMS, ASHLAND, BARRON, BAYFIELD , BROWN, BUFFALO, BURNETT  
, CALUMET, CHIPPEWA, CLARK, COLUMBIA, CRAWFORD, DANE, DODGE,  
DOOR, DUNN, EAU CLAIRE, FLORENCE, FOND DU LAC, FOREST, GRANT,  
GREEN, GREEN LAKE, IOWA, IRON, JACKSON, JEFFERSON, JUNEAU,  
KEWAUNEE, LA CROSSE, LAFAYETTE, LANGLADE, LINCOLN, MANITOWOC,  
MARATHON, MARINETTE, MARQUETTE, MENOMINEE, MONROE, OCONTO,  
ONEIDA, OUTAGAMIE, PEPIN, PIERCE (E. of Hwy. 29 & 65), POLK (E.  
of Hwy. 35, 48 & 65), PORTAGE, PRICE, RICHLAND, ROCK, RUSK,  
SAUK, SAWYER, SHAWANO, SHEBOYGAN, ST. CROIX (E. of Hwy. 65),  
TAYLOR, TREMPLEAU, VERNON, VILAS, WALWORTH, WASHBURN,  
WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
MILLWRIGHT.....	\$ 42.00	28.85

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CARP1074-002 06/02/2025

BARRON, BURNETT, CHIPPEWA, CLARK, DUNN, EAU CLAIRE, PEPIN,  
PIERCE (E. of Hwy. 29 & 65), POLK (E. of Hwy. 35, 48 & 65),  
RUSK, SAWYER, ST. CROIX (E. of Hwy. 65), AND WASHBURN

	Rates	Fringes
Carpenter.....	\$ 44.43	29.95
Piledriver.....	\$ 44.43	29.95

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CARP1143-002 06/02/2025

BUFFALO, CRAWFORD, JACKSON, LA CROSSE, MONROE, TREMPLEAU AND  
VERNON COUNTIES

	Rates	Fringes
Carpenter.....	\$ 44.43	29.95
Piledriver.....	\$ 44.43	29.95

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CARP1146-002 06/02/2025

BROWN, DOOR, FLORENCE, KEWAUNEE, MARINETTE, MENOMINEE, OCONTO,  
AND SHAWANO (Western Portion of the County) COUNTIES

	Rates	Fringes
Carpenter.....	\$ 44.43	29.95
Piledriver.....	\$ 44.43	29.95

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CARP2337-009 06/02/2025

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WASHINGTON, AND WAUKESHA

	Rates	Fringes
PILEDRIVERMAN.....	\$ 44.39	34.79

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ELEC0014-002 05/25/2025

ASHLAND, BARRON, BAYFIELD, BUFFALO, BURNETT, CHIPPEWA, CLARK

(except Maryville, Colby, Unity, Sherman, Fremont, Lynn & Sherwood), CRAWFORD, DUNN, EAU CLAIRE, GRANT, IRON, JACKSON, LA CROSSE, MONROE, PEPIN, PIERCE, POLK, PRICE, RICHLAND, RUSK, ST CROIX, SAWYER, TAYLOR, TREMPLEAU, VERNON, AND WASHBURN COUNTIES

	Rates	Fringes
Electricians:.....	\$ 44.29	25.21
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ELEC0014-007 05/25/2025		

ADAMS, ASHLAND, BARRON, BAYFIELD, BROWN, BUFFALO, BURNETT, CALUMET, CHIPPEWA, CLARK, COLUMBIA, CRAWFORD, DANE, DODGE, DOOR, DOUGLAS, DUNN, EAU CLAIRE, FLORENCE, FOND DU LAC, FOREST, GRANT, GREEN, GREEN LAKE, IOWA, IRON, JACKSON, JEFFERSON, JUNEAU, KENOSHA, KEWAUNEE, LA CROSSE, LAFAYETTE, LANGLADE, LINCOLN, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, MONROE, OCONTO, ONEIDA, OUTAGAMIE, PEPIN, PIERCE, POLK, PORTAGE, PRICE, RACINE, RICHLAND, ROCK, RUSK, SAUK, SAWYER, SHAWANO, SHEBOYGAN, ST CROIX, TAYLOR, TREMPLEAU, VERNON, VILAS, WALWORTH, WASHBURN, WAUPACA, WAUSHARA, WINNEBAGO AND WOOD COUNTIES

	Rates	Fringes
Teledata System Installer		
Installer/Technician.....	\$ 31.17	20.08

Low voltage construction, installation, maintenance and removal of teledata facilities (voice, data, and video) including outside plant, telephone and data inside wire, interconnect, terminal equipment, central offices, PABX, fiber optic cable and equipment, micro waves, V-SAT, bypass, CATV, WAN (wide area networks), LAN (local area networks), and ISDN (integrated systems digital network).

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ELEC0127-002 06/01/2025

KENOSHA COUNTY

	Rates	Fringes
Electricians:.....	\$ 50.01	28.4
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ELEC0158-002 05/25/2025		

BROWN, DOOR, KEWAUNEE, MANITOWOC (except Schleswig), MARINETTE(Wausuakee and area South thereof), OCONTO, MENOMINEE (East of a line 6 miles West of the West boundary of Oconto County), SHAWANO (Except Area North of Townships of Aniwa and Hutchins) COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 42.00	23.93
-----		
ELEC0159-003 05/26/2024		

COLUMBIA, DANE, DODGE (Area West of Hwy 26, except Chester and Emmet Townships), GREEN, LAKE (except Townships of Berlin, Seneca, and St. Marie), IOWA, MARQUETTE (except Townships of

Neshkoka, Crystal Lake, Newton, and Springfield), and SAUK  
COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 48.55	25.91
-----		
ELEC0219-004 06/01/2019		

FLORENCE COUNTY (Townships of Aurora, Commonwealth, Fern,  
Florence and Homestead) AND MARINETTE COUNTY (Township of  
Niagara)

	Rates	Fringes
Electricians:		
Electrical contracts over \$180,000.....	\$ 33.94	21.80
Electrical contracts under \$180,000.....	\$ 31.75	21.73
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ELEC0242-005 06/01/2025		

DOUGLAS COUNTY

	Rates	Fringes
Electricians:.....	\$ 47.46	33.34
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ELEC0388-002 06/01/2024		

ADAMS, CLARK (Colby, Freemont, Lynn, Mayville, Sherman,  
Sherwood, Unity), FOREST, JUNEAU, LANGLADE, LINCOLN, MARATHON,  
MARINETTE (Beecher, Dunbar, Goodman & Pembine), MENOMINEE (Area  
West of a line 6 miles West of the West boundary of Oconto  
County), ONEIDA, PORTAGE, SHAWANO (Aniwa and Hutchins), VILAS  
AND WOOD COUNTIES

	Rates	Fringes
Electricians:.....	\$ 40.19	26%+12.45
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ELEC0430-002 06/01/2024		

RACINE COUNTY (Except Burlington Township)

	Rates	Fringes
Electricians:.....	\$ 48.50	26.25
-----		
ELEC0494-005 06/01/2025		

MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Electricians:.....	\$ 50.86	28.26
-----		
ELEC0494-006 06/01/2025		

CALUMET (Township of New Holstein), DODGE (East of Hwy 26  
including Chester Township), FOND DU LAC, MANITOWOC

(Schleswig), and SHEBOYGAN COUNTIES

	Rates	Fringes
Electricians:.....	\$ 45.20	25.27
-----		
ELEC0494-013 06/01/2025		

DODGE (East of Hwy 26 including Chester Twp, excluding Emmet Twp), FOND DU LAC (Except Waupun), MILWAUKEE, OZAUKEE, MANITOWOC (Schleswig), WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Sound & Communications		
Installer.....	\$ 37.13	21.58
Technician.....	\$ 37.13	21.58

Installation, testing, maintenance, operation and servicing of all sound, intercom, telephone interconnect, closed circuit TV systems, radio systems, background music systems, language laboratories, electronic carillon, antenna distribution systems, clock and program systems and low-voltage systems such as visual nurse call, audio/visual nurse call systems, doctors entrance register systems. Includes all wire and cable carrying audio, visual, data, light and radio frequency signals. Includes the installation of conduit, wiremold, or raceways in existing structures that have been occupied for six months or more where required for the protection of the wire or cable, but does not mean a complete conduit or raceway system. work covered does not include the installation of conduit, wiremold or any raceways in any new construction, or the installation of power supply outlets by means of which external electric power is supplied to any of the foregoing equipment or products

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ELEC0577-003 06/01/2025

CALUMET (except Township of New Holstein), GREEN LAKE (N. part including Townships of Berlin, St Marie, and Seneca), MARQUETTE (N. part including Townships of Crystal Lake, Neshkoro, Newton, and Springfield), OUTAGAMIE, WAUPACA, WAUSHARA, AND WINNEBAGO COUNTIES

	Rates	Fringes
Electricians:.....	\$ 41.76	23.65
-----		
ELEC0890-003 06/01/2024		

DODGE (Emmet Township only), GREEN, JEFFERSON, LAFAYETTE, RACINE (Burlington Township), ROCK AND WALWORTH COUNTIES

	Rates	Fringes
Electricians:.....	\$ 43.65	25.95%+12.26
-----		
ELEC0953-001 06/02/2019		

	Rates	Fringes
Line Construction:		
(1) Lineman.....	\$ 47.53	21.43
(2) Heavy Equipment Operator.....	\$ 42.78	19.80
(3) Equipment Operator.....	\$ 38.02	18.40
(4) Heavy Groundman Driver..	\$ 33.27	16.88
(5) Light Groundman Driver..	\$ 30.89	16.11
(6) Groundsman.....	\$ 26.14	14.60

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 ENGI0139-005 06/01/2025

	Rates	Fringes
Power Equipment Operator		
Group 1.....	\$ 48.37	30.30
Group 2.....	\$ 47.87	30.30
Group 3.....	\$ 46.77	30.30
Group 4.....	\$ 46.51	30.30
Group 5.....	\$ 46.22	30.30
Group 6.....	\$ 40.32	30.30

#### HAZARDOUS WASTE PREMIUMS:

EPA Level ""A"" protection - \$3.00 per hour  
 EPA Level ""B"" protection - \$2.00 per hour  
 EPA Level ""C"" protection - \$1.00 per hour

#### POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Cranes, tower cranes, and derricks with or without attachments with a lifting capacity of over 100 tons; or cranes, tower cranes, and derricks with boom, leads and/or jib lengths measuring 176 feet or longer.

GROUP 2: Cranes, tower cranes and derricks with or without attachments with a lifting capacity of 100 tons or less; or cranes, tower cranes, and derricks with boom, leads, and/or jibs lengths measuring 175 feet or under and Backhoes (excavators) weighing 130,000 lbs and over; caisson rigs; pile driver; dredge operator; dredge engineer; Boat Pilot.

GROUP 3: Mechanic or welder - Heavy duty equipment; cranes with a lifting capacity of 25 tons or under; concrete breaker (manual or remote); vibratory/sonic concrete breaker; concrete laser screed; concrete slipform paver; concrete batch plant operator; concrete pvt. spreader - heavy duty (rubber tired); concrete spreader & distributor; automatic subgrader (concrete); concrete grinder & planing machine; concrete slipform curb & gutter machine; slipform concrete placer; tube finisher; hydro blaster (10,000 psi & over); bridge paver; concrete conveyor system; concrete pump; Rotec type Conveyor; stabilizing mixer (self-propelled); shoulder widener; asphalt plant engineer; bituminous paver; bump cutter & grooving machine; milling machine; screed (bituminous paver); asphalt heater, planer & scarifier; Backhoes (excavators) weighing under 130,000 lbs; grader or motor patrol; tractor (scraper, dozer, pusher, loader); scraper - rubber tired (single or twin engine); endloader; hydraulic backhoe (tractor type); trenching machine; skid rigs; tractor, side boom (heavy); drilling or boring machine (mechanical heavy); roller over 5 tons; percussion or rotary drilling machine; air track; blaster; loading machine (conveyor); tugger; boatmen; winches & A-frames; post driver; material hoist.

GROUP 4: Greaser, roller steel (5 tons or less); roller (pneumatic tired) - self propelled; tractor (mounted or towed compactors & light equipment); shouldering machine; self- propelled chip spreader; concrete spreader; finishing machine; mechanical float; curing machine; power subgrader; joint sawer (multiple blade) belting machine; burlap machine; texturing machine; tractor endloader (rubber tired) - light; jeep digger; forklift; mulcher; launch operator; fireman, environmental burner

GROUP 5: Air compressor; power pack; vibrator hammer and extractor; heavy equipment, leadman; tank car heaters; stump chipper; curb machine operator; Concrete proportioning plants; generators; mudjack operator; rock breaker; crusher or screening plant; screed (milling machine); automatic belt conveyor and surge bin; pug mill operator; Oiler, pump (over 3 inches); Drilling Machine Tender, day light machine

GROUP 6: Off-road material hauler with or without ejector.

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IRON0008-002 06/01/2025

BROWN, CALUMET, DOOR, FOND DU LAC, KEWAUNEE, MANITOWOC, MARINETTE, OCONTO, OUTAGAMI, SHAWANO, SHEBOYGAN, AND WINNEBAGO COUNTIES:

	Rates	Fringes
IRONWORKER.....	\$ 44.66	33.67

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

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IRON0008-003 06/01/2025

KENOSHA, MILWAUKEE, OZAUCKEE, RACINE, WALWORTH (N.E. 2/3), WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 47.52	33.67

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor Day, Thanksgiving Day & Christmas Day.

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IRON0383-001 06/01/2025

ADAMS, COLUMBIA, CRAWFORD, DANE, DODGE, FLORENCE, FOREST, GRANT, GREENE, (Excluding S.E. tip), GREEN LAKE, IOWA, JEFFERSON, JUNEAU, LA CROSSE, LAFAYETTE, LANGLADE, MARATHON, MARQUETTE, MENOMINEE, MONROE, PORTAGE, RICHLAND, ROCK (Northern area, vicinity of Edgerton and Milton), SAUK, VERNON, WAUPACA, WAUSHARA, AND WOOD COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 44.00	32.66

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IRON0498-005 06/01/2025

GREEN (S.E. 1/3), ROCK (South of Edgerton and Milton), and  
WALWORTH (S.W. 1/3) COUNTIES:

	Rates	Fringes
IRONWORKER.....	\$ 48.74	49.65

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IRON0512-008 05/01/2025

BARRON, BUFFALO, CHIPPEWA, CLARK, DUNN, EAU CLAIRE, JACKSON,  
PEPIN, PIERCE, POLK, RUSK, ST CROIX, TAYLOR, AND TREMPLEAU  
COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 46.35	36.86

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IRON0512-021 05/01/2025

ASHLAND, BAYFIELD, BURNETT, DOUGLAS, IRON, LINCOLN, ONEIDA,  
PRICE, SAWYER, VILAS AND WASHBURN COUNTIES

	Rates	Fringes
IRONWORKER.....	\$ 42.89	36.86

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LAB00113-002 06/02/2025

MILWAUKEE AND WAUKESHA COUNTIES

	Rates	Fringes
LABORER		
Group 1.....	\$ 38.81	25.53
Group 2.....	\$ 38.96	25.53
Group 3.....	\$ 39.16	25.53
Group 4.....	\$ 39.31	25.53
Group 5.....	\$ 39.46	25.53
Group 6.....	\$ 35.30	25.53

LABORERS CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer;  
Demolition and Wrecking Laborer; Guard Rail, Fence, and  
Bridge Builder; Landscaper; Multiplate Culvert Assembler;  
Stone Handler; Bituminous Worker (Shoveler, Loader, and  
Utility Man); Batch Truck Dumper or Cement Handler;  
Bituminous Worker (Dumper, Ironer, Smoother, and Tamper);  
Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawyer and Filler  
(Pavement); Vibrator or Tamper Operator (Mechanical Hand  
Operated); Chain Saw Operator; Demolition Burning Torch  
Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter  
(Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster and Powderman

GROUP 6: Flagperson; traffic control person

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LAB00113-003 06/02/2025

OZAUKEE AND WASHINGTON COUNTIES

	Rates	Fringes
LABORER		
Group 1.....	\$ 38.06	25.53
Group 2.....	\$ 38.16	25.53
Group 3.....	\$ 38.21	25.53
Group 4.....	\$ 38.41	25.53
Group 5.....	\$ 38.26	25.53
Group 6.....	\$ 35.15	25.53

LABORERS CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawyer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated);

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster; powderman

GROUP 6: Flagperson and Traffic Control Person

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LAB00113-011 06/02/2025

KENOSHA AND RACINE COUNTIES

	Rates	Fringes
LABORER		
Group 1.....	\$ 37.87	25.53
Group 2.....	\$ 38.02	25.53
Group 3.....	\$ 38.22	25.53
Group 4.....	\$ 38.19	25.53
Group 5.....	\$ 38.52	25.53
Group 6.....	\$ 35.02	25.53

LABORERS CLASSIFICATIONS:

GROUP 1: General laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler;



Bituminous worker (Dumper, Ironer, Smoother, and Tamper);  
Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawyer and Filler  
(Pavement); Vibrator or Tamper Operator (Mechanical Hand  
Operated); Chain Saw Operator; Demolition Burning Torch  
Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter  
(Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster and Powderman

GROUP 6: Flagman; traffic control person

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LAB00140-002 06/02/2025

ADAMS, ASHLAND, BARRON, BAYFIELD, BROWN, BUFFALO, BURNETT,  
CALUMET, CHIPPEWA, CLARK, COLUMBIA, CRAWFORD, DODGE, DOOR,  
DOUGLAS, DUNN, EAU CLAIRE, FLORENCE, FOND DU LAC, FOREST,  
GRANT, GREEN, GREEN LAKE, IRON, JACKSON, JUNEAU, IOWA,  
JEFFERSON, KEWAUNEE, LA CROSSE, LAFAYETTE, LANGLADE, LINCOLN,  
MANITOWOC, MARATHON, MARINETTE, MARQUETTE, MENOMINEE, MONROE,  
OCONTO, ONEIDA, OUTAGAMIE, PEPIN, PIERCE, POLK, PORTAGE, PRICE,  
RICHLAND, ROCK, RUSK, SAUK, SAWYER, SHAWANO, SHEBOYGAN, ST.  
CROIX, TAYLOR, TREMPLEAU, VERNON, VILLAS, WALWORTH, WASHBURN,  
WAUPACA, WAUSHARA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
LABORER		
Group 1.....	\$ 43.77	19.97
Group 2.....	\$ 43.87	19.97
Group 3.....	\$ 43.92	19.97
Group 4.....	\$ 44.12	19.97
Group 5.....	\$ 43.97	19.97
Group 6.....	\$ 40.40	19.97

LABORER CLASSIFICATIONS

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer;  
Demolition and Wrecking Laborer; Guard Rail, Fence, and  
Bridge Builder; Landscaper; Multiplate Culvert Assembler;  
Stone Handler; Bituminous Worker (Shoveler, Loader, and  
Utility Man); Batch Truck Dumper or Cement Handler;  
Bituminous Worker (Dumper, Ironer, Smoother and Tamper);  
Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawyer and Filler  
(Pavement); Vibrator or Tamper Operator (Mechanical Hand  
Operated); Chain Saw Operator, Demolition Burning Torch  
Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter  
(Curb, Sidewalk and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster; powderman

GROUP 6: Flagperson; Traffic Control

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LAB00464-003 06/02/2025

DANE COUNTY

	Rates	Fringes
LABORER		
Group 1.....	\$ 44.05	19.97
Group 2.....	\$ 44.15	19.97
Group 3.....	\$ 44.20	19.97
Group 4.....	\$ 44.40	19.97
Group 5.....	\$ 44.25	19.97
Group 6.....	\$ 40.40	19.97

LABORERS CLASSIFICATIONS:

GROUP 1: General Laborer; Tree Trimmer; Conduit Layer; Demolition and Wrecking Laborer; Guard Rail, Fence, and Bridge Builder; Landscaper; Multiplate Culvert Assembler; Stone Handler; Bituminous Worker (Shoveler, Loader, and Utility Man); Batch Truck Dumper or Cement Handler; Bituminous Worker (Dumper, Ironer, Smoother, and Tamper); Concrete Handler

GROUP 2: Air Tool Operator; Joint Sawyer and Filler (Pavement); Vibrator or Tamper Operator (Mechanical Hand Operated); Chain Saw Operator; Demolition Burning Torch Laborer

GROUP 3: Bituminous Worker (Raker and Luteman); Formsetter (Curb, Sidewalk, and Pavement); Strike Off Man

GROUP 4: Line and Grade Specialist

GROUP 5: Blaster; Powderman

GROUP 6: Flagperson and Traffic Control Person

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PAIN0106-008 05/05/2025

ASHLAND, BAYFIELD, BURNETT, AND DOUGLAS COUNTIES

	Rates	Fringes
Painters:		
New:		
Brush, Roller.....	\$ 38.17	27.26
Spray, Sandblast, Steel....	\$ 38.77	27.26
Repaint:		
Brush, Roller.....	\$ 36.67	27.26
Spray, Sandblast, Steel....	\$ 37.27	27.26

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PAIN0108-002 06/01/2025

RACINE COUNTY

	Rates	Fringes
Painters:		
Brush, Roller.....	\$ 43.64	23.35
Spray & Sandblast.....	\$ 44.64	23.35

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PAIN0259-002 05/01/2008

BARRON, CHIPPEWA, DUNN, EAU CLAIRE, PEPIN, PIERCE, POLK, RUSK,  
SAWYER, ST. CROIX, AND WASHBURN COUNTIES

	Rates	Fringes
PAINTER.....	\$ 24.11	12.15

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PAIN0259-004 05/01/2015

BUFFALO, CRAWFORD, JACKSON, LA CROSSE, MONROE, TREMPLEAU, AND  
VERNON COUNTIES

	Rates	Fringes
PAINTER.....	\$ 22.03	12.45

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PAIN0781-002 06/01/2025

JEFFERSON, MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Painters:		
Bridge.....	\$ 43.19	24.87
Brush.....	\$ 42.44	24.87
Spray & Sandblast.....	\$ 43.19	24.87

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PAIN0802-002 06/01/2025

COLUMBIA, DANE, DODGE, GRANT, GREEN, IOWA, LAFAYETTE, RICHLAND,  
ROCK, AND SAUK COUNTIES

	Rates	Fringes
PAINTER		
Brush.....	\$ 37.65	21.17

PREMIUM PAY:  
    Structural Steel, Spray, Bridges =   \$1.00 additional per  
    hour.

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PAIN0802-003 06/01/2025

ADAMS, BROWN, CALUMET, CLARK, DOOR, FOND DU LAC, FOREST, GREEN  
LAKE, IRON, JUNEAU, KEWAUNEE, LANGLADE, LINCOLN, MANITOWOC,  
MARATHON, MARINETTE, MARQUETTE, MENOMINEE, OCONTO, ONEIDA,  
OUTAGAMIE, PORTAGE, PRICE, SHAWANO, SHEBOYGAN, TAYLOR, VILAS,  
WAUSHARA, WAUPACA, WINNEBAGO, AND WOOD COUNTIES

	Rates	Fringes
PAINTER.....	\$ 37.65	21.17

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PAIN0934-001 06/01/2025

KENOSHA AND WALWORTH COUNTIES

	Rates	Fringes
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Painters:

Brush.....	\$ 40.62	26.37
Spray.....	\$ 41.62	26.37
Structural Steel.....	\$ 40.77	26.37

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PAIN1011-002 06/01/2025

FLORENCE COUNTY

	Rates	Fringes
Painters:.....	\$ 31.17	15.92

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PLAS0599-002 06/01/2025

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER		
Area A.....	\$ 47.22	31.90
Area C.....	\$ 40.06	28.65
Area D.....	\$ 42.28	26.43
Area E.....	\$ 41.16	27.54
Area F.....	\$ 37.33	31.38

AREA DESCRIPTIONS:

AREA A: ASHLAND, BURNETT, BAYFIELD, DOUGLAS, IRON, PRICE,  
SAWYER, AND WASHBURN COUNTIES

AREA C: BUFFALO, CRAWFORD, EAU CLAIRE, JACKSON, JUNEAU, LA  
CROSSE, MONROE, PEPIN, PIERCE, RICHLAND, TREMPLEAU, AND  
VERNON COUNTIES

AREA D: MILWAUKEE, OZAUKEE, WASHINGTON, AND WAUKESHA COUNTIES

AREA E: DANE, GRANT, GREEN, IOWA, LAFAYETTE, AND ROCK COUNTIES

AREA F: KENOSHA AND RACINE COUNTIES

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TEAM0039-001 06/01/2025

	Rates	Fringes
TRUCK DRIVER		
1 & 2 Axles.....	\$ 39.57	28.70
3 or more Axles; Euclids, Dumpton & Articulated, Truck Mechanic.....	\$ 39.72	28.70

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WELDERS - Receive rate prescribed for craft performing  
operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave  
for Federal Contractors applies to all contracts subject to the  
Davis-Bacon Act for which the contract is awarded (and any  
solicitation was issued) on or after January 1, 2017. If this  
contract is covered by the EO, the contractor must provide  
employees with 1 hour of paid sick leave for every 30 hours  
they work, up to 56 hours of paid sick leave each year.

Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Note: Executive Order 13658 generally applies to contracts subject to the Davis-Bacon Act that were awarded on or between January 1, 2015 and January 29, 2022, and that have not been renewed or extended on or after January 30, 2022. Executive Order 13658 does not apply to contracts subject only to the Davis-Bacon Related Acts regardless of when they were awarded. If a contract is subject to Executive Order 13658, the contractor must pay all covered workers at least \$13.30 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2025. The applicable Executive Order minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under Executive Order 13658 is available at [www.dol.gov/whd/govcontracts](http://www.dol.gov/whd/govcontracts).

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

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The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

#### Union Rate Identifiers

A four-letter identifier beginning with characters other than ""SU"", ""UAVG"", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

## Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE:

UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

## Survey Rate Identifiers

The "SU" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

## State Adopted Rate Identifiers

The "SA" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

## WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

- a) a survey underlying a wage determination
- b) an existing published wage determination
- c) an initial WHD letter setting forth a position on a wage determination matter
- d) an initial conformance (additional classification

and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to [davisbaconinfo@dol.gov](mailto:davisbaconinfo@dol.gov) or by mail to:

Branch of Wage Surveys  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to [BCWD-Office@dol.gov](mailto:BCWD-Office@dol.gov) or by mail to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to [dba.reconsideration@dol.gov](mailto:dba.reconsideration@dol.gov) or by mail to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U.S. Department of Labor  
200 Constitution Avenue, N.W.  
Washington, DC 20210.

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END OF GENERAL DECISION

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## **NOTICE TO BIDDERS WAGE RATE DECISION**

The wage rate decision of the Department of Labor which has been incorporated in these advertised specifications is incomplete in that the classifications may be omitted from the Department of Labor's decision.

Since the bidder is responsible, independently, for ascertaining area practice with respect to the necessity, or lack of necessity, for the use of these classifications in the prosecution of the work contemplated by this project, no inference may be drawn from the omission of these classifications concerning prevailing area practices relative to their use. Further, this omission will not, per se, be construed as establishing any governmental liability for increased labor cost if it is subsequently determined that such classifications are required.

There may be omissions and/or errors in the federal wage rates. The bidder is responsible for evaluating and determining the correct applicable rate.

If a project includes multiple types of construction (highway, bridge over navigable water, sanitary sewer and water main, building) and there is not a separate wage determination for this type of work included in the proposal, use the wage determination that is in the proposal.

If a project includes multiple types of construction, different wage rate determinations may be inserted into the contract (WI10/Highway = in all WisDOT highway contracts, WI15/Heavy = bridge over navigable water per USDOL and US Coast Guard designation, WI8/Heavy (Sewer & Water Line & Tunnel) = sanitary sewer and water main if the cost is more than 20% of the contract and/or at least \$1,000,000, and Building). If multiple wage rate determinations are inserted into the contract, use the classification in the wage determination for the work being done. Use WI15 wage rates when working on the bridge and/or structure from bank to bank. Use WI8 wage rates when working on any sanitary sewer or water main work. Use Building wage rates for all work done within the footprint of the building. Use WI10 wage rates for all other highway work in the contract and approaches to structures. For example, if a laborer is working within the footprint of a building, use the Laborer rate in the Building wage determination inserted in the contract. If a laborer is working on a bridge/structure within the banks, use the Laborer rate in the WI15/Heavy wage determination if inserted in the contract. If the laborer is working on the highway, use the Laborer rate in the WI10/Highway wage determination.





## Proposal Schedule of Items

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Proposal ID: 20260210022 Project(s): 1130-64-73, 1130-64-77

Federal ID(s): WISC 2026187, WISC 2026186

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	201.0105 Clearing	71.000 STA	_____.	_____.
0004	201.0205 Grubbing	211.000 STA	_____.	_____.
0006	203.0100 Removing Small Pipe Culverts	9.000 EACH	_____.	_____.
0008	203.0220 Removing Structure (structure) 0801. B-44-20	1.000 EACH	_____.	_____.
0010	203.0220 Removing Structure (structure) 0802. B-44-21	1.000 EACH	_____.	_____.
0012	203.0220 Removing Structure (structure) 0803. B-44-28	1.000 EACH	_____.	_____.
0014	203.0220 Removing Structure (structure) 0804. B-44-29	1.000 EACH	_____.	_____.
0016	203.0220 Removing Structure (structure) 0805. B-44-35	1.000 EACH	_____.	_____.
0018	203.0220 Removing Structure (structure) 0806. B-44-36	1.000 EACH	_____.	_____.
0020	203.0330 Debris Containment (structure) 0801. B-44-20	1.000 EACH	_____.	_____.
0022	203.0330 Debris Containment (structure) 0802. B-44-21	1.000 EACH	_____.	_____.
0024	204.0100 Removing Concrete Pavement	92,400.000 SY	_____.	_____.
0026	204.0110 Removing Asphaltic Surface	1,850.000 SY	_____.	_____.
0028	204.0120 Removing Asphaltic Surface Milling	2,590.000 SY	_____.	_____.



## Proposal Schedule of Items

Page 2 of 43

Proposal ID: 20260210022 Project(s): 1130-64-73, 1130-64-77

Federal ID(s): WISC 2026187, WISC 2026186

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	204.0150 Removing Curb & Gutter	3,670.000 LF	_____.	_____.
0032	204.0155 Removing Concrete Sidewalk	4,300.000 SY	_____.	_____.
0034	204.0157 Removing Concrete Barrier	2,130.000 LF	_____.	_____.
0036	204.0165 Removing Guardrail	9,390.000 LF	_____.	_____.
0038	204.0167 Removing Cable Barrier	10,900.000 LF	_____.	_____.
0040	204.0170 Removing Fence	23,220.000 LF	_____.	_____.
0042	204.0180 Removing Delineators and Markers	78.000 EACH	_____.	_____.
0044	204.0190 Removing Surface Drains	2.000 EACH	_____.	_____.
0046	204.0195 Removing Concrete Bases	9.000 EACH	_____.	_____.
0048	204.0210 Removing Manholes	14.000 EACH	_____.	_____.
0050	204.0220 Removing Inlets	63.000 EACH	_____.	_____.
0052	204.0245 Removing Storm Sewer (size) 0001. 4-Inch	3,387.000 LF	_____.	_____.
0054	204.0245 Removing Storm Sewer (size) 0002. 6-Inch	134.000 LF	_____.	_____.
0056	204.0245 Removing Storm Sewer (size) 0003. 8-Inch	60.000 LF	_____.	_____.
0058	204.0245 Removing Storm Sewer (size) 0004. 12-Inch	695.000 LF	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0060	204.0245 Removing Storm Sewer (size) 0005. 15-Inch	1,140.000 LF	_____.	_____.
0062	204.0245 Removing Storm Sewer (size) 0006. 18-Inch	1,847.000 LF	_____.	_____.
0064	204.0245 Removing Storm Sewer (size) 0007. 24-Inch	685.000 LF	_____.	_____.
0066	204.0245 Removing Storm Sewer (size) 0008. 30-Inch	259.000 LF	_____.	_____.
0068	204.0245 Removing Storm Sewer (size) 0009. 14x23-Inch	76.000 LF	_____.	_____.
0070	204.0246 Removing Ancillary Structure (structure) 0001. S-44-31	1.000 EACH	_____.	_____.
0072	204.0246 Removing Ancillary Structure (structure) 0002. S-44-32	1.000 EACH	_____.	_____.
0074	204.0260 Abandoning Inlets	1.000 EACH	_____.	_____.
0076	204.0265 Abandoning Wells	5.000 EACH	_____.	_____.
0078	204.0291.S Abandoning Sewer	6.000 CY	_____.	_____.
0080	204.9060.S Removing (item description) 0103. Apron Endwalls	5.000 EACH	_____.	_____.
0082	204.9060.S Removing (item description) 0104. Box Culvert Endwalls	2.000 EACH	_____.	_____.
0084	204.9060.S Removing (item description) 0701. Removing Communication Vault	6.000 EACH	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0086	204.9060.S Removing (item description) 0702. Removing Existing Pole	1.000 EACH	_____.	_____.
0088	204.9090.S Removing (item description) 0105. Removing Drain Slotted Vane	545.000 LF	_____.	_____.
0090	205.0100 Excavation Common	370,305.000 CY	_____.	_____.
0092	205.0400 Excavation Marsh	7,350.000 CY	_____.	_____.
0094	205.0501.S Excavation, Hauling, and Disposal of Petroleum Contaminated Soil	500.000 TON	_____.	_____.
0096	206.1001 Excavation for Structures Bridges (structure) 0801. B-44-318	1.000 EACH	_____.	_____.
0098	206.1001 Excavation for Structures Bridges (structure) 0802. B-44-319	1.000 EACH	_____.	_____.
0100	206.1001 Excavation for Structures Bridges (structure) 0803. B-44-320	1.000 EACH	_____.	_____.
0102	206.1001 Excavation for Structures Bridges (structure) 0804. B-44-321	1.000 EACH	_____.	_____.
0104	206.1001 Excavation for Structures Bridges (structure) 0805. B-44-322	1.000 EACH	_____.	_____.
0106	206.1001 Excavation for Structures Bridges (structure) 0806. B-44-323	1.000 EACH	_____.	_____.
0108	210.1500 Backfill Structure Type A	8,050.000 TON	_____.	_____.
0110	213.0100 Finishing Roadway (project) 0001. Project ID 1130-64-73	1.000 EACH	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0112	213.0100 Finishing Roadway (project) 0002. Project ID 1130-64-77	1.000 EACH	_____.	_____.
0114	305.0110 Base Aggregate Dense 3/4-Inch	1,970.000 TON	_____.	_____.
0116	305.0120 Base Aggregate Dense 1 1/4-Inch	112,995.000 TON	_____.	_____.
0118	310.0110 Base Aggregate Open-Graded	310.000 TON	_____.	_____.
0120	312.0110 Select Crushed Material	442,560.000 TON	_____.	_____.
0122	320.0105 Concrete Base 4-Inch	4,325.000 SY	_____.	_____.
0124	405.0100 Coloring Concrete WisDOT Red	125.000 CY	_____.	_____.
0126	405.0200 Coloring Concrete Custom	440.000 CY	_____.	_____.
0128	415.0090 Concrete Pavement 9-Inch	21,560.000 SY	_____.	_____.
0130	415.0100 Concrete Pavement 10-Inch	15,350.000 SY	_____.	_____.
0132	415.0210 Concrete Pavement Gaps	4.000 EACH	_____.	_____.
0134	415.0410 Concrete Pavement Approach Slab	842.000 SY	_____.	_____.
0136	415.2010 Concrete Truck Apron 12-inch	370.000 SY	_____.	_____.
0138	415.4100 Concrete Pavement Joint Filling	20,910.000 SY	_____.	_____.
0140	416.0610 Drilled Tie Bars	1,130.000 EACH	_____.	_____.
0142	416.0620 Drilled Dowel Bars	260.000 EACH	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0144	450.4000 HMA Cold Weather Paving	2,485.000 TON	_____.	_____.
0146	455.0605 Tack Coat	4,704.000 GAL	_____.	_____.
0148	460.2000 Incentive Density HMA Pavement	1,300.000 DOL	1.00000	1,300.00
0150	460.5223 HMA Pavement 3 LT 58-28 S	660.000 TON	_____.	_____.
0152	460.5224 HMA Pavement 4 LT 58-28 S	830.000 TON	_____.	_____.
0154	460.6223 HMA Pavement 3 MT 58-28 S	330.000 TON	_____.	_____.
0156	460.6224 HMA Pavement 4 MT 58-28 S	190.000 TON	_____.	_____.
0158	465.0105 Asphaltic Surface	4,370.000 TON	_____.	_____.
0160	465.0120 Asphaltic Surface Driveways and Field Entrances	16.000 TON	_____.	_____.
0162	465.0125 Asphaltic Surface Temporary	13,740.000 TON	_____.	_____.
0164	465.0310 Asphaltic Curb	47.000 LF	_____.	_____.
0166	465.0315 Asphaltic Flumes	60.000 SY	_____.	_____.
0168	495.1000.S Cold Patch	10.000 TON	_____.	_____.
0170	501.1000.S Ice Hot Weather Concreting	41,005.000 LB	_____.	_____.
0172	502.0100 Concrete Masonry Bridges	1,969.000 CY	_____.	_____.
0174	502.3200 Protective Surface Treatment	8,636.000 SY	_____.	_____.



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0176	502.3210 Pigmented Surface Sealer	2,495.000 SY	_____.	_____.
0178	502.4106 Adhesive Anchors 3/4-inch	25.000 EACH	_____.	_____.
0180	503.0137 Prestressed Girder Type I 36W-Inch	7,227.000 LF	_____.	_____.
0182	504.0500 Concrete Masonry Retaining Walls	1,373.000 CY	_____.	_____.
0184	505.0400 Bar Steel Reinforcement HS Structures	70,010.000 LB	_____.	_____.
0186	505.0600 Bar Steel Reinforcement HS Coated Structures	1,101,460.000 LB	_____.	_____.
0188	505.0800.S Bar Steel Reinforcement HS Stainless Structures	13,320.000 LB	_____.	_____.
0190	505.0904 Bar Couplers No. 4	56.000 EACH	_____.	_____.
0192	505.0905 Bar Couplers No. 5	1,197.000 EACH	_____.	_____.
0194	505.0906 Bar Couplers No. 6	100.000 EACH	_____.	_____.
0196	505.0908 Bar Couplers No. 8	48.000 EACH	_____.	_____.
0198	505.0910 Bar Couplers No. 10	44.000 EACH	_____.	_____.
0200	506.2605 Bearing Pads Elastomeric Non-Laminated	244.000 EACH	_____.	_____.
0202	506.4000 Steel Diaphragms (structure) 0801. B-44-318	21.000 EACH	_____.	_____.
0204	506.4000 Steel Diaphragms (structure) 0802. B-44-319	21.000 EACH	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0206	506.4000 Steel Diaphragms (structure) 0803. B-44-320	21.000 EACH	_____.	_____.
0208	506.4000 Steel Diaphragms (structure) 0804. B-44-321	21.000 EACH	_____.	_____.
0210	506.4000 Steel Diaphragms (structure) 0805. B-44-322	10.000 EACH	_____.	_____.
0212	506.4000 Steel Diaphragms (structure) 0806. B-44-323	12.000 EACH	_____.	_____.
0214	509.5100.S Polymer Overlay	13,960.000 SY	_____.	_____.
0216	511.1100 Temporary Shoring	14,800.000 SF	_____.	_____.
0218	511.1200 Temporary Shoring (structure) 0801. B-44-318	3,010.000 SF	_____.	_____.
0220	511.1200 Temporary Shoring (structure) 0802. B-44-319	4,180.000 SF	_____.	_____.
0222	511.1200 Temporary Shoring (structure) 0803. B-44-320	470.000 SF	_____.	_____.
0224	511.1200 Temporary Shoring (structure) 0804. B-44-321	2,970.000 SF	_____.	_____.
0226	511.1200 Temporary Shoring (structure) 0904. R-44-38	1,050.000 SF	_____.	_____.
0228	513.2001 Railing Pipe	307.000 LF	_____.	_____.
0230	513.4091 Railing Tubular Screening	766.000 LF	_____.	_____.
0232	516.0500 Rubberized Membrane Waterproofing	257.000 SY	_____.	_____.





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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0234	517.1010.S Concrete Staining (structure) 0801. B-44-318	6,280.000 SF	_____.	_____.
0236	517.1010.S Concrete Staining (structure) 0802. B-44-319	6,725.000 SF	_____.	_____.
0238	517.1010.S Concrete Staining (structure) 0803. B-44-320	5,990.000 SF	_____.	_____.
0240	517.1010.S Concrete Staining (structure) 0804. B-44-321	6,280.000 SF	_____.	_____.
0242	517.1010.S Concrete Staining (structure) 0805. B-44-322	6,390.000 SF	_____.	_____.
0244	517.1010.S Concrete Staining (structure) 0806. B-44-323	7,320.000 SF	_____.	_____.
0246	517.1010.S Concrete Staining (structure) 0807. B-44-171	8,280.000 SF	_____.	_____.
0248	517.1010.S Concrete Staining (structure) 0810. B-44-140	9,870.000 SF	_____.	_____.
0250	517.1010.S Concrete Staining (structure) 0811. B-44-315	6,100.000 SF	_____.	_____.
0252	517.1010.S Concrete Staining (structure) 0812. B-44-316	5,700.000 SF	_____.	_____.
0254	517.1010.S Concrete Staining (structure) 0813. B-44-317	9,270.000 SF	_____.	_____.
0256	517.1010.S Concrete Staining (structure) 0814. B-44-339	8,590.000 SF	_____.	_____.
0258	517.1010.S Concrete Staining (structure) 0815. B-44-340	11,950.000 SF	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0260	517.1010.S Concrete Staining (structure) 0901. R-44-35	8,430.000 SF	_____.	_____.
0262	517.1010.S Concrete Staining (structure) 0902. R-44-36	13,504.000 SF	_____.	_____.
0264	517.1010.S Concrete Staining (structure) 0903. R-44-37	12,355.000 SF	_____.	_____.
0266	517.1010.S Concrete Staining (structure) 0904. R-44-38	4,350.000 SF	_____.	_____.
0268	517.1010.S Concrete Staining (structure) 0905. R-44-39	4,100.000 SF	_____.	_____.
0270	517.1010.S Concrete Staining (structure) 0910. R-44-30	4,390.000 SF	_____.	_____.
0272	517.1010.S Concrete Staining (structure) 0911. R-44-31	4,450.000 SF	_____.	_____.
0274	517.1010.S Concrete Staining (structure) 0912. R-44-32	2,640.000 SF	_____.	_____.
0276	517.1010.S Concrete Staining (structure) 0913. R-44-33	2,780.000 SF	_____.	_____.
0278	517.1010.S Concrete Staining (structure) 0914. R-44-28	27,410.000 SF	_____.	_____.
0280	517.1010.S Concrete Staining (structure) 0915. R-44-52	20,790.000 SF	_____.	_____.
0282	517.1010.S Concrete Staining (structure) 0916. R-44-53	20,940.000 SF	_____.	_____.
0284	520.2012 Culvert Pipe Temporary 12-Inch	94.000 LF	_____.	_____.



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0286	520.8000 Concrete Collars for Pipe	2.000 EACH	_____.	_____.
0288	522.0415 Culvert Pipe Reinforced Concrete Class IV 15-Inch	15.000 LF	_____.	_____.
0290	522.0424 Culvert Pipe Reinforced Concrete Class IV 24-Inch	259.000 LF	_____.	_____.
0292	522.1012 Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	2.000 EACH	_____.	_____.
0294	522.1015 Apron Endwalls for Culvert Pipe Reinforced Concrete 15-Inch	45.000 EACH	_____.	_____.
0296	522.1018 Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	8.000 EACH	_____.	_____.
0298	522.1024 Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	22.000 EACH	_____.	_____.
0300	522.1030 Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	2.000 EACH	_____.	_____.
0302	522.2424 Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 24x38-Inch	192.000 LF	_____.	_____.
0304	522.2619 Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 19x30-Inch	2.000 EACH	_____.	_____.
0306	522.2624 Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 24x38-Inch	6.000 EACH	_____.	_____.
0308	522.2629 Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 29x45-Inch	4.000 EACH	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0310	524.0615 Apron Endwalls for Culvert Pipe Salvaged 15-Inch	1.000 EACH	_____.	_____.
0312	524.0624 Apron Endwalls for Culvert Pipe Salvaged 24-Inch	1.000 EACH	_____.	_____.
0314	524.0630 Apron Endwalls for Culvert Pipe Salvaged 30-Inch	3.000 EACH	_____.	_____.
0316	531.1100 Concrete Masonry Ancillary Structures Type NS	6.000 CY	_____.	_____.
0318	531.1140 Steel Reinforcement HS Ancillary Structures Type NS	900.000 LB	_____.	_____.
0320	531.2024 Drilling Shaft 24-Inch	50.000 LF	_____.	_____.
0322	531.2030 Drilling Shaft 30-Inch	60.000 LF	_____.	_____.
0324	531.2036 Drilling Shaft 36-Inch	362.000 LF	_____.	_____.
0326	531.2042 Drilling Shaft 42-Inch	184.000 LF	_____.	_____.
0328	531.4050 Foundation Camera Pole 50-FT	1.000 EACH	_____.	_____.
0330	531.5030 Foundation Two-Shaft Butterfly Type B-1 (structure) 1010. S-44-351	1.000 EACH	_____.	_____.
0332	531.5030 Foundation Two-Shaft Butterfly Type B-1 (structure) 1011. S-44-361	1.000 EACH	_____.	_____.
0334	531.5440 Foundation Single-Shaft Type TF-IV (structure) 1001. S-44-354	2.000 EACH	_____.	_____.
0336	531.5440 Foundation Single-Shaft Type TF-IV (structure) 1002. S-44-356	2.000 EACH	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0338	531.5440 Foundation Single-Shaft Type TF-IV (structure) 1003. S-44-357	2.000 EACH	_____.	_____.
0340	531.5440 Foundation Single-Shaft Type TF-IV (structure) 1005. S-44-359	2.000 EACH	_____.	_____.
0342	531.6120 Foundation Two-Shaft Type FF-II (structure) 1006. S-44-352	2.000 EACH	_____.	_____.
0344	531.6120 Foundation Two-Shaft Type FF-II (structure) 1007. S-44-353	2.000 EACH	_____.	_____.
0346	531.6120 Foundation Two-Shaft Type FF-II (structure) 1008. S-44-360	2.000 EACH	_____.	_____.
0348	531.6120 Foundation Two-Shaft Type FF-II (structure) 1009. S-44-362	2.000 EACH	_____.	_____.
0350	531.8990 Anchor Assemblies Poles on Structures	6.000 EACH	_____.	_____.
0352	532.5030 Butterfly 2-Chord Type 1 (structure) 1010. S-44-351	1.000 EACH	_____.	_____.
0354	532.5030 Butterfly 2-Chord Type 1 (structure) 1011. S-44-361	1.000 EACH	_____.	_____.
0356	532.5420 Truss Full Span 2-Chord Type II (structure) 1002. S-44-355	1.000 EACH	_____.	_____.
0358	532.5440 Truss Full Span 2-Chord Type IV (structure) 1001. S-44-354	1.000 EACH	_____.	_____.
0360	532.5440 Truss Full Span 2-Chord Type IV (structure) 1002. S-44-356	1.000 EACH	_____.	_____.
0362	532.5440 Truss Full Span 2-Chord Type IV (structure) 1003. S-44-357	1.000 EACH	_____.	_____.



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0364	532.5440 Truss Full Span 2-Chord Type IV (structure) 1004. S-44-358	1.000 EACH	_____.	_____.
0366	532.5440 Truss Full Span 2-Chord Type IV (structure) 1005. S-44-359	1.000 EACH	_____.	_____.
0368	532.6120 Truss Full Span 4-Chord Type II (structure) 1006. S-44-352	1.000 EACH	_____.	_____.
0370	532.6120 Truss Full Span 4-Chord Type II (structure) 1007. S-44-353	1.000 EACH	_____.	_____.
0372	532.6120 Truss Full Span 4-Chord Type II (structure) 1008. S-44-360	1.000 EACH	_____.	_____.
0374	532.6120 Truss Full Span 4-Chord Type II (structure) 1009. S-44-362	1.000 EACH	_____.	_____.
0376	541.0300.S Noise Barriers Double-Sided Sound Absorptive (structure) 0951. N-44-12	47,300.000 SF	_____.	_____.
0378	541.0300.S Noise Barriers Double-Sided Sound Absorptive (structure) 0952. N-44-13	21,620.000 SF	_____.	_____.
0380	541.0300.S Noise Barriers Double-Sided Sound Absorptive (structure) 0953. N-44-14	58,340.000 SF	_____.	_____.
0382	541.0300.S Noise Barriers Double-Sided Sound Absorptive (structure) 0954. N-44-15	45,470.000 SF	_____.	_____.
0384	541.0300.S Noise Barriers Double-Sided Sound Absorptive (structure) 0955. N-44-16	57,080.000 SF	_____.	_____.
0386	541.0300.S Noise Barriers Double-Sided Sound Absorptive (structure) 0956. N-44-19	7,080.000 SF	_____.	_____.
0388	550.0500 Pile Points	389.000 EACH	_____.	_____.



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0390	550.1120 Piling Steel HP 12-Inch X 53 Lb	14,715.000 LF	_____.	_____.
0392	550.1140 Piling Steel HP 14-Inch X 73 Lb	4,410.000 LF	_____.	_____.
0394	601.0409 Concrete Curb & Gutter 30-Inch Type A	3,250.000 LF	_____.	_____.
0396	601.0411 Concrete Curb & Gutter 30-Inch Type D	940.000 LF	_____.	_____.
0398	601.0452 Concrete Curb & Gutter Integral 30-Inch Type D	5,620.000 LF	_____.	_____.
0400	601.0551 Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type A	630.000 LF	_____.	_____.
0402	601.0588 Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type TBT	100.000 LF	_____.	_____.
0404	601.0590 Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type TBTT	84.000 LF	_____.	_____.
0406	601.0600 Concrete Curb Pedestrian	660.000 LF	_____.	_____.
0408	602.0405 Concrete Sidewalk 4-Inch	37,900.000 SF	_____.	_____.
0410	602.0410 Concrete Sidewalk 5-Inch	17,700.000 SF	_____.	_____.
0412	602.0420 Concrete Sidewalk 7-Inch	390.000 SF	_____.	_____.
0414	602.0515 Curb Ramp Detectable Warning Field Natural Patina	160.000 SF	_____.	_____.
0416	602.0615 Curb Ramp Detectable Warning Field Radial Natural Patina	211.000 SF	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0418	602.0810 Concrete Driveway 6-Inch	367.000 SY	_____.	_____.
0420	602.0860 Concrete Driveway HES 6-Inch	50.000 SY	_____.	_____.
0422	602.3210 Concrete Rumble Strips, Shoulder Divided Roadway	43,600.000 LF	_____.	_____.
0424	603.1142 Concrete Barrier Type S42	265.000 LF	_____.	_____.
0426	603.1456 Concrete Barrier Type S56C	650.000 LF	_____.	_____.
0428	603.3535 Concrete Barrier Transition Type S36 to S42	2.000 EACH	_____.	_____.
0430	603.3613 Concrete Barrier Transition Type V32 to S36	2.000 EACH	_____.	_____.
0432	603.8000 Concrete Barrier Temporary Precast Delivered	123,310.000 LF	_____.	_____.
0434	603.8125 Concrete Barrier Temporary Precast Installed	166,010.000 LF	_____.	_____.
0436	603.8500 Anchoring Concrete Barrier Temporary Precast	21,050.000 LF	_____.	_____.
0438	604.0400 Slope Paving Concrete	1,103.000 SY	_____.	_____.
0440	604.0600 Slope Paving Select Crushed Material	2,320.000 SY	_____.	_____.
0442	606.0100 Riprap Light	250.000 CY	_____.	_____.
0444	606.0200 Riprap Medium	1,240.000 CY	_____.	_____.





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Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0446	606.0300 Riprap Heavy	1,190.000 CY	_____.	_____.
0448	608.0115 Relaid Storm Sewer 15-Inch	70.000 LF	_____.	_____.
0450	608.0124 Relaid Storm Sewer 24-Inch	112.000 LF	_____.	_____.
0452	608.0130 Relaid Storm Sewer 30-Inch	44.000 LF	_____.	_____.
0454	608.0315 Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	294.000 LF	_____.	_____.
0456	608.0318 Storm Sewer Pipe Reinforced Concrete Class III 18-Inch	315.000 LF	_____.	_____.
0458	608.0324 Storm Sewer Pipe Reinforced Concrete Class III 24-Inch	34.000 LF	_____.	_____.
0460	608.0412 Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	629.000 LF	_____.	_____.
0462	608.0415 Storm Sewer Pipe Reinforced Concrete Class IV 15-Inch	3,260.000 LF	_____.	_____.
0464	608.0418 Storm Sewer Pipe Reinforced Concrete Class IV 18-Inch	1,618.000 LF	_____.	_____.
0466	608.0424 Storm Sewer Pipe Reinforced Concrete Class IV 24-Inch	15,294.000 LF	_____.	_____.
0468	608.0430 Storm Sewer Pipe Reinforced Concrete Class IV 30-Inch	212.000 LF	_____.	_____.
0470	608.2319 Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 19x30-Inch	109.000 LF	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0472	608.2414 Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 14x23-Inch	191.000 LF	_____.	_____.
0474	608.2419 Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 19x30-Inch	516.000 LF	_____.	_____.
0476	608.2424 Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 24x38-Inch	535.000 LF	_____.	_____.
0478	608.2429 Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 29x45-Inch	419.000 LF	_____.	_____.
0480	611.0430 Reconstructing Inlets	1.000 EACH	_____.	_____.
0482	611.0530 Manhole Covers Type J	8.000 EACH	_____.	_____.
0484	611.0535 Manhole Covers Type J-Special	2.000 EACH	_____.	_____.
0486	611.0545 Manhole Covers Type L	3.000 EACH	_____.	_____.
0488	611.0606 Inlet Covers Type B	6.000 EACH	_____.	_____.
0490	611.0610 Inlet Covers Type BW	11.000 EACH	_____.	_____.
0492	611.0612 Inlet Covers Type C	1.000 EACH	_____.	_____.
0494	611.0624 Inlet Covers Type H	66.000 EACH	_____.	_____.
0496	611.0627 Inlet Covers Type HM	4.000 EACH	_____.	_____.
0498	611.0642 Inlet Covers Type MS	25.000 EACH	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0500	611.0651 Inlet Covers Type S	2.000 EACH	_____.	_____.
0502	611.0654 Inlet Covers Type V	2.000 EACH	_____.	_____.
0504	611.0656 Inlet Covers Type VV-B	170.000 EACH	_____.	_____.
0506	611.2003 Manholes 3-FT Diameter	2.000 EACH	_____.	_____.
0508	611.2004 Manholes 4-FT Diameter	3.000 EACH	_____.	_____.
0510	611.2005 Manholes 5-FT Diameter	176.000 EACH	_____.	_____.
0512	611.2006 Manholes 6-FT Diameter	3.000 EACH	_____.	_____.
0514	611.2007 Manholes 7-FT Diameter	2.000 EACH	_____.	_____.
0516	611.2008 Manholes 8-FT Diameter	1.000 EACH	_____.	_____.
0518	611.2009 Manholes 9-FT Diameter	2.000 EACH	_____.	_____.
0520	611.2033 Manholes 3x3-FT	6.000 EACH	_____.	_____.
0522	611.3003 Inlets 3-FT Diameter	6.000 EACH	_____.	_____.
0524	611.3004 Inlets 4-FT Diameter	67.000 EACH	_____.	_____.
0526	611.3225 Inlets 2x2.5-FT	12.000 EACH	_____.	_____.
0528	611.3901 Inlets Median 1 Grate	13.000 EACH	_____.	_____.
0530	611.3902 Inlets Median 2 Grate	6.000 EACH	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0532	611.8110 Adjusting Manhole Covers	2.000 EACH	_____.	_____.
0534	611.8115 Adjusting Inlet Covers	6.000 EACH	_____.	_____.
0536	611.8120.S Cover Plates Temporary	21.000 EACH	_____.	_____.
0538	612.0106 Pipe Underdrain 6-Inch	5,020.000 LF	_____.	_____.
0540	612.0204 Pipe Underdrain Unperforated 4-Inch	98.000 LF	_____.	_____.
0542	612.0206 Pipe Underdrain Unperforated 6-Inch	510.000 LF	_____.	_____.
0544	612.0406 Pipe Underdrain Wrapped 6-Inch	4,223.000 LF	_____.	_____.
0546	614.0360 Steel Plate Beam Guard Temporary	350.000 LF	_____.	_____.
0548	614.0397 Guardrail Mow Strip Emulsified Asphalt	238.000 SY	_____.	_____.
0550	614.0905 Crash Cushions Temporary	22.000 EACH	_____.	_____.
0552	614.1100 MGS Guardrail Temporary Thrie Beam Transition	192.000 LF	_____.	_____.
0554	614.2300 MGS Guardrail 3	150.000 LF	_____.	_____.
0556	614.2500 MGS Thrie Beam Transition	236.400 LF	_____.	_____.
0558	614.2610 MGS Guardrail Terminal EAT	6.000 EACH	_____.	_____.
0560	616.0206 Fence Chain Link 6-FT	17,305.000 LF	_____.	_____.
0562	616.0700.S Fence Safety	2,000.000 LF	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0564	618.0100 Maintenance and Repair of Haul Roads (project) 0001. Project ID 1130-64-73	1.000 EACH	_____.	_____.
0566	618.0100 Maintenance and Repair of Haul Roads (project) 0002. Project ID 1130-64-77	1.000 EACH	_____.	_____.
0568	619.1000 Mobilization	1.000 EACH	_____.	_____.
0570	620.0300 Concrete Median Sloped Nose	490.000 SF	_____.	_____.
0572	623.0200 Dust Control Surface Treatment	354,870.000 SY	_____.	_____.
0574	624.0100 Water	6,092.000 MGAL	_____.	_____.
0576	625.0100 Topsoil	8,700.000 SY	_____.	_____.
0578	625.0500 Salvaged Topsoil	172,800.000 SY	_____.	_____.
0580	628.1504 Silt Fence	6,100.000 LF	_____.	_____.
0582	628.1520 Silt Fence Maintenance	26,410.000 LF	_____.	_____.
0584	628.1905 Mobilizations Erosion Control	43.000 EACH	_____.	_____.
0586	628.1910 Mobilizations Emergency Erosion Control	22.000 EACH	_____.	_____.
0588	628.2004 Erosion Mat Class I Type B	252,800.000 SY	_____.	_____.
0590	628.2008 Erosion Mat Urban Class I Type B	18,980.000 SY	_____.	_____.
0592	628.7005 Inlet Protection Type A	268.000 EACH	_____.	_____.



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0594	628.7010 Inlet Protection Type B	207.000 EACH	_____.	_____.
0596	628.7015 Inlet Protection Type C	80.000 EACH	_____.	_____.
0598	628.7504 Temporary Ditch Checks	3,495.000 LF	_____.	_____.
0600	628.7515.S Stone Ditch Checks	50.000 CY	_____.	_____.
0602	628.7555 Culvert Pipe Checks	93.000 EACH	_____.	_____.
0604	628.7560 Tracking Pads	27.000 EACH	_____.	_____.
0606	628.7570 Rock Bags	10.000 EACH	_____.	_____.
0608	629.0210 Fertilizer Type B	127.000 CWT	_____.	_____.
0610	630.0130 Seeding Mixture No. 30	8,130.000 LB	_____.	_____.
0612	630.0140 Seeding Mixture No. 40	250.000 LB	_____.	_____.
0614	630.0200 Seeding Temporary	4,100.000 LB	_____.	_____.
0616	630.0500 Seed Water	6,020.000 MGAL	_____.	_____.
0618	632.0101 Trees (species, root, size) 0001. Baldcypress, B&B, 2.5" Cal.	5.000 EACH	_____.	_____.
0620	632.0101 Trees (species, root, size) 0002. Buckeye, 'Early Glow', B&B, 2.5" Cal.	1.000 EACH	_____.	_____.
0622	632.0101 Trees (species, root, size) 0003. Elm, 'Triumph', B&B, 2.5" Cal.	2.000 EACH	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0624	632.0101 Trees (species, root, size) 0004. Hackberry, B&B, 2.5" Cal.	4.000 EACH	_____.	_____.
0626	632.0101 Trees (species, root, size) 0005. Maple, 'Siena Glen', B&B, 2.5" Cal.	3.000 EACH	_____.	_____.
0628	632.0101 Trees (species, root, size) 0006. Oak, Hybrid Swamp x Bur, B&B, 2.5" Cal.	7.000 EACH	_____.	_____.
0630	632.0101 Trees (species, root, size) 0007. Oak, Swamp White, B&B, 2.5" Cal.	9.000 EACH	_____.	_____.
0632	632.0101 Trees (species, root, size) 0008. Hawthorn, 'Winter King' (Shrub Form Tree), B&B, 6' Ht.	14.000 EACH	_____.	_____.
0634	632.0101 Trees (species, root, size) 0009. Serviceberry, 'Autumn Brilliance' (Shrub Form Tree), B&B, 6' Ht.	5.000 EACH	_____.	_____.
0636	632.0101 Trees (species, root, size) 0010. Witchhazel (Shrub Form Tree), B&B, 6' Ht.	13.000 EACH	_____.	_____.
0638	632.0201 Shrubs (species, root, size) 0001. Black Chokeberry 'Iroquois Beauty', Cont., 24" Sprd. / #3	42.000 EACH	_____.	_____.
0640	632.0201 Shrubs (species, root, size) 0002. Juniper, 'Broadmoor', Cont., 24" Sprd. / #3	47.000 EACH	_____.	_____.
0642	632.0201 Shrubs (species, root, size) 0003. Juniper, 'Kallay's Compact' Pfitzer, Cont., 24" Sprd. / #3	63.000 EACH	_____.	_____.
0644	632.0201 Shrubs (species, root, size) 0004. Honeysuckle, Dwarf Bush, Cont., 24" Sprd. / #3	82.000 EACH	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0646	632.0201 Shrubs (species, root, size) 0005. Viburnum, 'Lil' Ditty', 24" Sprd. / #3	462.000 EACH	_____.	_____.
0648	632.9101 Landscape Planting Surveillance and Care Cycles	40.000 EACH	_____.	_____.
0650	633.0100 Delineator Posts Steel	6.000 EACH	_____.	_____.
0652	633.0500 Delineator Reflectors	6.000 EACH	_____.	_____.
0654	633.1000 Delineators Barrier Wall	453.000 EACH	_____.	_____.
0656	633.5200 Markers Culvert End	82.000 EACH	_____.	_____.
0658	634.0614 Posts Wood 4x6-Inch X 14-FT	37.000 EACH	_____.	_____.
0660	634.0616 Posts Wood 4x6-Inch X 16-FT	17.000 EACH	_____.	_____.
0662	634.0618 Posts Wood 4x6-Inch X 18-FT	20.000 EACH	_____.	_____.
0664	634.0808 Posts Tubular Steel 2x2-Inch X 8-FT	22.000 EACH	_____.	_____.
0666	635.0200 Sign Supports Structural Steel HS	3,800.000 LB	_____.	_____.
0668	637.1220 Signs Type I Reflective SH	3,727.000 SF	_____.	_____.
0670	637.2210 Signs Type II Reflective H	1,145.000 SF	_____.	_____.
0672	637.2215 Signs Type II Reflective H Folding	102.880 SF	_____.	_____.
0674	637.2230 Signs Type II Reflective F	215.750 SF	_____.	_____.





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0676	638.2102 Moving Signs Type II	60.000 EACH	_____.	_____.
0678	638.2601 Removing Signs Type I	7.000 EACH	_____.	_____.
0680	638.2602 Removing Signs Type II	107.000 EACH	_____.	_____.
0682	638.3000 Removing Small Sign Supports	118.000 EACH	_____.	_____.
0684	638.3100 Removing Structural Steel Sign Supports	10.000 EACH	_____.	_____.
0686	638.4000 Moving Small Sign Supports	32.000 EACH	_____.	_____.
0688	643.0300 Traffic Control Drums	389,121.000 DAY	_____.	_____.
0690	643.0420 Traffic Control Barricades Type III	14,997.000 DAY	_____.	_____.
0692	643.0500 Traffic Control Flexible Tubular Marker Posts	12.000 EACH	_____.	_____.
0694	643.0600 Traffic Control Flexible Tubular Marker Bases	12.000 EACH	_____.	_____.
0696	643.0705 Traffic Control Warning Lights Type A	29,622.000 DAY	_____.	_____.
0698	643.0715 Traffic Control Warning Lights Type C	130,801.000 DAY	_____.	_____.
0700	643.0810 Traffic Control Connected Arrow Boards	2,771.000 DAY	_____.	_____.
0702	643.0900 Traffic Control Signs	323,976.000 DAY	_____.	_____.
0704	643.0910 Traffic Control Covering Signs Type I	69.000 EACH	_____.	_____.



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0706	643.0920 Traffic Control Covering Signs Type II	82.000 EACH	_____.	_____.
0708	643.1000 Traffic Control Signs Fixed Message	1,868.750 SF	_____.	_____.
0710	643.1050 Traffic Control Signs PCMS	4,165.000 DAY	_____.	_____.
0712	643.1220 Traffic Control Connected Work Zone Start and End Location Markers	2,988.000 DAY	_____.	_____.
0714	643.3170 Temporary Marking Line Epoxy 6-Inch	339,900.000 LF	_____.	_____.
0716	643.3180 Temporary Marking Line Removable Tape 6-Inch	3,150.000 LF	_____.	_____.
0718	643.3270 Temporary Marking Line Epoxy 10-Inch	17,210.000 LF	_____.	_____.
0720	643.3770 Temporary Marking Raised Pavement Marker Type II	420.000 EACH	_____.	_____.
0722	643.5000 Traffic Control	1.000 EACH	_____.	_____.
0724	644.1810 Temporary Pedestrian Barricade	325.000 LF	_____.	_____.
0726	644.1900.S Temporary Audible Message Devices	10,732.000 DAY	_____.	_____.
0728	645.0105 Geotextile Type C	3,800.000 SY	_____.	_____.
0730	645.0111 Geotextile Type DF Schedule A	3,570.000 SY	_____.	_____.
0732	645.0120 Geotextile Type HR	4,174.000 SY	_____.	_____.
0734	645.0125 Geotextile Type MS	20.000 SY	_____.	_____.



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0736	645.0130 Geotextile Type R	640.000 SY	_____.	_____.
0738	645.0140 Geotextile Type SAS	3,075.000 SY	_____.	_____.
0740	646.1020 Marking Line Epoxy 4-Inch	1,100.000 LF	_____.	_____.
0742	646.2020 Marking Line Epoxy 6-Inch	17,680.000 LF	_____.	_____.
0744	646.2040 Marking Line Grooved Wet Ref Epoxy 6-Inch	179,300.000 LF	_____.	_____.
0746	646.4020 Marking Line Epoxy 10-Inch	890.000 LF	_____.	_____.
0748	646.4040 Marking Line Grooved Wet Ref Epoxy 10-Inch	23,260.000 LF	_____.	_____.
0750	646.5020 Marking Arrow Epoxy	77.000 EACH	_____.	_____.
0752	646.5120 Marking Word Epoxy	26.000 EACH	_____.	_____.
0754	646.5220 Marking Symbol Epoxy	13.000 EACH	_____.	_____.
0756	646.6120 Marking Stop Line Epoxy 18-Inch	570.000 LF	_____.	_____.
0758	646.6466 Cold Weather Marking Epoxy 6-Inch	66,300.000 LF	_____.	_____.
0760	646.6470 Cold Weather Marking Epoxy 10-Inch	10,510.000 LF	_____.	_____.
0762	646.7220 Marking Chevron Epoxy 24-Inch	160.000 LF	_____.	_____.
0764	646.7420 Marking Crosswalk Epoxy Transverse Line 6-Inch	1,300.000 LF	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0766	646.8020 Marking Corrugated Median Epoxy	410.000 SF	_____.	_____.
0768	646.8120 Marking Curb Epoxy	60.000 LF	_____.	_____.
0770	646.8220 Marking Island Nose Epoxy	7.000 EACH	_____.	_____.
0772	646.9000 Marking Removal Line 4-Inch	11,280.000 LF	_____.	_____.
0774	646.9010 Marking Removal Line Water Blasting 4-Inch	1,100.000 LF	_____.	_____.
0776	646.9012 Marking Removal Line Water Blasting 6-Inch	95,960.000 LF	_____.	_____.
0778	646.9100 Marking Removal Line 8-Inch	2,440.000 LF	_____.	_____.
0780	646.9112 Marking Removal Line Water Blasting 10-Inch	9,020.000 LF	_____.	_____.
0782	646.9300 Marking Removal Special Marking	17.000 EACH	_____.	_____.
0784	646.9310 Marking Removal Special Marking Water Blasting	16.000 EACH	_____.	_____.
0786	652.0125 Conduit Rigid Metallic 2-Inch	135.000 LF	_____.	_____.
0788	652.0210 Conduit Rigid Nonmetallic Schedule 40 1-Inch	270.000 LF	_____.	_____.
0790	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch	23,139.000 LF	_____.	_____.
0792	652.0235 Conduit Rigid Nonmetallic Schedule 40 3-Inch	6,471.000 LF	_____.	_____.



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0794	652.0335 Conduit Rigid Nonmetallic Schedule 80 3-Inch	1,690.000 LF	_____.	_____.
0796	652.0700.S Install Conduit into Existing Item	2.000 EACH	_____.	_____.
0798	652.0800 Conduit Loop Detector	2,338.000 LF	_____.	_____.
0800	653.0154 Pull Boxes Non-Conductive 24x36-Inch	6.000 EACH	_____.	_____.
0802	653.0164 Pull Boxes Non-Conductive 24x42-Inch	78.000 EACH	_____.	_____.
0804	653.0222 Junction Boxes 18x12x6-Inch	5.000 EACH	_____.	_____.
0806	653.0900 Adjusting Pull Boxes	1.000 EACH	_____.	_____.
0808	653.0905 Removing Pull Boxes	35.000 EACH	_____.	_____.
0810	654.0101 Concrete Bases Type 1	12.000 EACH	_____.	_____.
0812	654.0102 Concrete Bases Type 2	7.000 EACH	_____.	_____.
0814	654.0105 Concrete Bases Type 5	33.000 EACH	_____.	_____.
0816	654.0107 Concrete Bases Type 7	9.000 EACH	_____.	_____.
0818	654.0113 Concrete Bases Type 13	2.000 EACH	_____.	_____.
0820	654.0120 Concrete Bases Type 10-Special	4.000 EACH	_____.	_____.
0822	654.0217 Concrete Control Cabinet Bases Type 9 Special	2.000 EACH	_____.	_____.



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0824	654.0230 Concrete Control Cabinet Bases Type L30	2.000 EACH	_____.	_____.
0826	655.0230 Cable Traffic Signal 5-14 AWG	9,050.000 LF	_____.	_____.
0828	655.0260 Cable Traffic Signal 12-14 AWG	506.000 LF	_____.	_____.
0830	655.0305 Cable Type UF 2-12 AWG Grounded	2,475.000 LF	_____.	_____.
0832	655.0515 Electrical Wire Traffic Signals 10 AWG	3,679.000 LF	_____.	_____.
0834	655.0610 Electrical Wire Lighting 12 AWG	45,807.000 LF	_____.	_____.
0836	655.0625 Electrical Wire Lighting 6 AWG	30,692.000 LF	_____.	_____.
0838	655.0630 Electrical Wire Lighting 4 AWG	23,215.000 LF	_____.	_____.
0840	655.0635 Electrical Wire Lighting 2 AWG	8,455.000 LF	_____.	_____.
0842	655.0700 Loop Detector Lead In Cable	4,134.000 LF	_____.	_____.
0844	655.0800 Loop Detector Wire	7,136.000 LF	_____.	_____.
0846	656.0201 Electrical Service Meter Breaker Pedestal (location) 0001. S44-1400	1.000 EACH	_____.	_____.
0848	656.0201 Electrical Service Meter Breaker Pedestal (location) 0002. S44-0580	1.000 EACH	_____.	_____.
0850	656.0201 Electrical Service Meter Breaker Pedestal (location) 0003. CB500	1.000 EACH	_____.	_____.
0852	656.0201 Electrical Service Meter Breaker Pedestal (location) 0701. MB3-1	1.000 EACH	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0854	656.0401 Electrical Service Main Lugs Only Meter Pedestal (location) 0001. CB400	1.000 EACH	_____.	_____.
0856	656.0501 Electrical Service Breaker Disconnect Box (location) 0001. CB3-1	1.000 EACH	_____.	_____.
0858	656.0501 Electrical Service Breaker Disconnect Box (location) 0002. CB3-2	1.000 EACH	_____.	_____.
0860	657.0100 Pedestal Bases	12.000 EACH	_____.	_____.
0862	657.0210 Transformer Bases Breakaway 15-17 Inch Bolt Circle	14.000 EACH	_____.	_____.
0864	657.0255 Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	42.000 EACH	_____.	_____.
0866	657.0310 Poles Type 3	7.000 EACH	_____.	_____.
0868	657.0322 Poles Type 5-Aluminum	31.000 EACH	_____.	_____.
0870	657.0337 Poles Type 17-Aluminum	14.000 EACH	_____.	_____.
0872	657.0348 Poles Type 9 - Over Height Special	2.000 EACH	_____.	_____.
0874	657.0353 Poles Type 10 - Over Height Special	2.000 EACH	_____.	_____.
0876	657.0361 Poles Type 13-Over Height	2.000 EACH	_____.	_____.
0878	657.0420 Traffic Signal Standards Aluminum 13-FT	7.000 EACH	_____.	_____.
0880	657.0430 Traffic Signal Standards Aluminum 10-FT	5.000 EACH	_____.	_____.
0882	657.0536 Monotube Arms 35-FT-Special	2.000 EACH	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0884	657.0546 Monotube Arms 45-FT-Special	2.000 EACH	_____.	_____.
0886	657.0550 Monotube Arms 50-FT	2.000 EACH	_____.	_____.
0888	657.0620 Luminaire Arms Single Member 6-Inch Clamp 4-FT	19.000 EACH	_____.	_____.
0890	657.0709 Luminaire Arms Truss Type 4-Inch Clamp 12-FT	6.000 EACH	_____.	_____.
0892	657.0710 Luminaire Arms Truss Type 4 1/2-Inch Clamp 12-FT	35.000 EACH	_____.	_____.
0894	657.0812 Luminaire Arms Steel 12-FT	4.000 EACH	_____.	_____.
0896	658.0173 Traffic Signal Face 3S 12-Inch	30.000 EACH	_____.	_____.
0898	658.0416 Pedestrian Signal Face 16-Inch	12.000 EACH	_____.	_____.
0900	658.0500 Pedestrian Push Buttons	12.000 EACH	_____.	_____.
0902	658.5070 Signal Mounting Hardware (location) 0001. S44-1400	1.000 EACH	_____.	_____.
0904	658.5070 Signal Mounting Hardware (location) 0002. S44-0580	1.000 EACH	_____.	_____.
0906	659.0601 Underdeck Lighting (structure) 0001. B- 44-320	1.000 EACH	_____.	_____.
0908	659.0601 Underdeck Lighting (structure) 0002. B- 44-321	1.000 EACH	_____.	_____.
0910	659.1120 Luminaires Utility LED B	45.000 EACH	_____.	_____.





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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0912	659.1125 Luminaires Utility LED C	19.000 EACH	_____.	_____.
0914	659.1210 Luminaires Underdeck LED B	4.000 EACH	_____.	_____.
0916	659.2130 Lighting Control Cabinets 120/240 30-Inch	1.000 EACH	_____.	_____.
0918	659.2230 Lighting Control Cabinets 240/480 30-Inch	1.000 EACH	_____.	_____.
0920	659.5000.S Lamp, Ballast, LED, Switch Disposal by Contractor 0001. S44-1400	46.000 EACH	_____.	_____.
0922	659.5000.S Lamp, Ballast, LED, Switch Disposal by Contractor 0002. S44-0580	45.000 EACH	_____.	_____.
0924	662.1030.S Ramp Closure Gates 30-FT	1.000 EACH	_____.	_____.
0926	662.1032.S Ramp Closure Gates 32-FT	1.000 EACH	_____.	_____.
0928	662.1040.S Ramp Closure Gates 40-FT	2.000 EACH	_____.	_____.
0930	670.0101 Field System Integrator	1.000 EACH	_____.	_____.
0932	670.0201 ITS Documentation	1.000 EACH	_____.	_____.
0934	671.0132 Conduit HDPE 3-Duct 2-Inch	6,328.000 LF	_____.	_____.
0936	671.0142 Conduit HDPE 4-Duct 2-Inch	5,453.000 LF	_____.	_____.
0938	671.0300 Fiber Optic Cable Marker	42.000 EACH	_____.	_____.
0940	673.0105 Communication Vault Type 1	10.000 EACH	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0942	673.0200 Tracer Wire Marker Posts	20.000 EACH	_____.	_____.
0944	673.1225.S Install Pole Mounted Cabinet	6.000 EACH	_____.	_____.
0946	674.0200 Cable Microwave Detector	6,023.000 LF	_____.	_____.
0948	674.0300 Remove Cable	14,112.000 LF	_____.	_____.
0950	675.0300 Install Mounted Controller Microwave Detector Assembly	4.000 EACH	_____.	_____.
0952	677.0150 Install Camera Pole 50-FT	1.000 EACH	_____.	_____.
0954	677.0200 Install Camera Assembly	2.000 EACH	_____.	_____.
0956	677.9051.S Removing 50-FT Camera Pole	1.000 EACH	_____.	_____.
0958	678.0012 Install Fiber Optic Cable Outdoor Plant 12-CT	1,474.000 LF	_____.	_____.
0960	678.0072 Install Fiber Optic Cable Outdoor Plant 72-CT	9,479.000 LF	_____.	_____.
0962	678.0200 Fiber Optic Splice Enclosure	1.000 EACH	_____.	_____.
0964	678.0300 Fiber Optic Splice	80.000 EACH	_____.	_____.
0966	678.0400 Fiber Optic Termination	12.000 EACH	_____.	_____.
0968	678.0501 Communication System Testing	1.000 EACH	_____.	_____.
0970	678.0600 Install Ethernet Switches	3.000 EACH	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0972	678.0700 Install Wireless Antennas	2.000 EACH	_____.	_____.
0974	690.0150 Sawing Asphalt	35,005.000 LF	_____.	_____.
0976	690.0250 Sawing Concrete	13,760.000 LF	_____.	_____.
0978	715.0502 Incentive Strength Concrete Structures	32,808.000 DOL	1.00000	32,808.00
0980	715.0603 Incentive Strength Concrete Barrier	22,018.000 DOL	1.00000	22,018.00
0982	715.0715 Incentive Flexural Strength Concrete Pavement	64,113.000 DOL	1.00000	64,113.00
0984	801.0117 Railroad Flagging Reimbursement	193,140.000 DOL	1.00000	193,140.00
0986	ASP.1T0A On-the-Job Training Apprentice at \$5.00/HR	2,100.000 HRS	5.00000	10,500.00
0988	ASP.1T0G On-the-Job Training Graduate at \$5.00/HR	5,760.000 HRS	5.00000	28,800.00
0990	SPV.0035 Special 0100. Roadway Embankment	158,800.000 CY	_____.	_____.
0992	SPV.0035 Special 0125. Abandoning Box Culvert	350.000 CY	_____.	_____.
0994	SPV.0035 Special 0800. HPC Masonry Structures	3,499.000 CY	_____.	_____.
0996	SPV.0035 Special 5000. Planting Mixture	583.000 CY	_____.	_____.
0998	SPV.0035 Special 5010. Topsoil Special	200.000 CY	_____.	_____.
1000	SPV.0055 Special 0100. Incentive IRI Ride PCC Surfaces	111,231.000 DOL	1.00000	111,231.00



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1002	SPV.0060 Special 0100. Baseline CPM Progress Schedule	1.000 EACH	_____.	_____.
1004	SPV.0060 Special 0105. CPM Progress Schedule and Accepted Revisions	20.000 EACH	_____.	_____.
1006	SPV.0060 Special 0110. Construction Staking Survey Project 1130-64-73	1.000 EACH	_____.	_____.
1008	SPV.0060 Special 0115. Construction Staking Survey Project 1130-64-77	1.000 EACH	_____.	_____.
1010	SPV.0060 Special 0120. Inlet Covers Type U	1.000 EACH	_____.	_____.
1012	SPV.0060 Special 0125. Removing Cover Plates	4.000 EACH	_____.	_____.
1014	SPV.0060 Special 0126. Removing Storm Sewer Plug	1.000 EACH	_____.	_____.
1016	SPV.0060 Special 0140. Utility Line Opening	15.000 EACH	_____.	_____.
1018	SPV.0060 Special 0200. Removing Casting Bolts	17.000 EACH	_____.	_____.
1020	SPV.0060 Special 0210. Storm Sewer Plug	42.000 EACH	_____.	_____.
1022	SPV.0060 Special 0215. Reconnect Storm Sewer	32.000 EACH	_____.	_____.
1024	SPV.0060 Special 0230. Inlet Covers Type Y	13.000 EACH	_____.	_____.
1026	SPV.0060 Special 0240. Sealing Storm Structure	4.000 EACH	_____.	_____.
1028	SPV.0060 Special 0270. Inlet Marker	171.000 EACH	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1030	SPV.0060 Special 0300. Mobilizations Emergency Pavement Repair	4.000 EACH	_____.	_____.
1032	SPV.0060 Special 0305. Emergency Response to Traffic Involving Concrete Barrier Temporary	20.000 EACH	_____.	_____.
1034	SPV.0060 Special 0310. Emergency Response to Traffic Involving Crash Cushion Temporary	10.000 EACH	_____.	_____.
1036	SPV.0060 Special 0315. Maintain and Remove Crash Cushions Temporary Left in Place	1.000 EACH	_____.	_____.
1038	SPV.0060 Special 0320. Temporary Concrete Barrier Gate 24-FT	5.000 EACH	_____.	_____.
1040	SPV.0060 Special 0400. Fixed Message Sign Portable Support	94.000 EACH	_____.	_____.
1042	SPV.0060 Special 0405. Fire Hydrant Sign Mounting	18.000 EACH	_____.	_____.
1044	SPV.0060 Special 0500. Anchor Bolt Cover Shroud	35.000 EACH	_____.	_____.
1046	SPV.0060 Special 0501. Concrete Bases Type 7 Tall	40.000 EACH	_____.	_____.
1048	SPV.0060 Special 0502. Electrical Service Meter Breaker Pedestal Special (MBP100)	1.000 EACH	_____.	_____.
1050	SPV.0060 Special 0601. Removing Traffic Signals S44-1400	1.000 EACH	_____.	_____.
1052	SPV.0060 Special 0602. Removing Traffic Signals S44-0580	1.000 EACH	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1054	SPV.0060 Special 0701. Salvaging Ramp Gate System	4.000 EACH	_____.	_____.
1056	SPV.0060 Special 0702. Install Ethernet Extender	8.000 EACH	_____.	_____.
1058	SPV.0060 Special 0703. Salvaging Microwave Detector Equipment	1.000 EACH	_____.	_____.
1060	SPV.0060 Special 0704. Salvaging Wireless Antennas	2.000 EACH	_____.	_____.
1062	SPV.0060 Special 0800. Decorative Silhouette	6.000 EACH	_____.	_____.
1064	SPV.0060 Special 0801. Concrete Staining-Excavation,Grdng,Shpng,and Finishing,Structure B-44-171	1.000 EACH	_____.	_____.
1066	SPV.0060 Special 0802. Concrete Staining-Excavation,Grdng,Shpng,and Finishing,Structure B-44-315	1.000 EACH	_____.	_____.
1068	SPV.0060 Special 0803. Concrete Staining-Excavation,Grdng,Shpng,and Finishing,Structure B-44-316	1.000 EACH	_____.	_____.
1070	SPV.0060 Special 0804. Concrete Staining-Excavation,Grdng,Shpng,and Finishing,Structure B-44-317	1.000 EACH	_____.	_____.
1072	SPV.0060 Special 0805. Concrete Staining-Excavation,Grdng,Shpng,and Finishing,Structure B-44-339	1.000 EACH	_____.	_____.
1074	SPV.0060 Special 0806. Concrete Staining-Excavation,Grdng,Shpng,and Finishing,Structure B-44-340	1.000 EACH	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1076	SPV.0060 Special 0807. Concrete Staining-Excavation,Grdng,Shpng,and Finishing,Structure B-44-140	1.000 EACH	_____.	_____.
1078	SPV.0060 Special 0901. Concrete Staining-Excavation,Grdng,Shpng,and Finishing,Structure R-44-28	1.000 EACH	_____.	_____.
1080	SPV.0060 Special 0902. Concrete Staining-Excavation,Grdng,Shpng,and Finishing,Structure R-44-33	1.000 EACH	_____.	_____.
1082	SPV.0060 Special 0903. Concrete Staining-Excavation,Grdng,Shpng,and Finishing,Structure R-44-52	1.000 EACH	_____.	_____.
1084	SPV.0060 Special 0904. Concrete Staining-Excavation,Grdng,Shpng,and Finishing,Structure R-44-53	1.000 EACH	_____.	_____.
1086	SPV.0060 Special 0910. Vibrating Wire Piezometer	2.000 EACH	_____.	_____.
1088	SPV.0060 Special 0925. Geotechnical Instrumentation, R-44-36	1.000 EACH	_____.	_____.
1090	SPV.0060 Special 0950. Anchor Assemblies Noise Barrier Structures	32.000 EACH	_____.	_____.
1092	SPV.0060 Special 1205. Adjusting Sanitary Manhole Covers	6.000 EACH	_____.	_____.
1094	SPV.0060 Special 1210. Adjusting Hydrant	1.000 EACH	_____.	_____.
1096	SPV.0060 Special 5000. Accent Boulder	85.000 EACH	_____.	_____.
1098	SPV.0060 Special 5010. Perennials, Junegrass, Container, #1	280.000 EACH	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1100	SPV.0060 Special 5020. Perennials, Prairie Dropseed (Tara), Container, #1	633.000 EACH	_____.	_____.
1102	SPV.0060 Special 5030. Perennials, Purple Love Grass, Container, #1	201.000 EACH	_____.	_____.
1104	SPV.0060 Special 5040. Perennials, Side Oats Grama, Container, #1	211.000 EACH	_____.	_____.
1106	SPV.0060 Special 5050. Perennials, Switch Grass (Shenandoah), Container, #1	29.000 EACH	_____.	_____.
1108	SPV.0060 Special 5060. Perennials, Aster (October Skies), Container, #1	219.000 EACH	_____.	_____.
1110	SPV.0060 Special 5070. Perennials, Black-Eyed Susan (American Gold Rush), Container, #1	495.000 EACH	_____.	_____.
1112	SPV.0060 Special 5080. Perennials, Butterfly Milkweed, Container, #1	249.000 EACH	_____.	_____.
1114	SPV.0060 Special 5090. Perennials, Dwarf False Indigo, Container, #1	180.000 EACH	_____.	_____.
1116	SPV.0060 Special 5100. Perennials, Prairie Spiderwort, Container, #1	539.000 EACH	_____.	_____.
1118	SPV.0060 Special 5110. Perennials, Purple Prairie Clover, Container, #1	335.000 EACH	_____.	_____.
1120	SPV.0075 Special 0100. Street Sweeping	820.000 HRS	_____.	_____.
1122	SPV.0075 Special 0105. Animal Carcass Removal	45.000 HRS	_____.	_____.
1124	SPV.0085 Special 5000. Low Maintenance Seed Mix	665.000 LB	_____.	_____.





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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1126	SPV.0090 Special 0100. Concrete Curb & Gutter Integral 30-Inch Special	61.000 LF	_____.	_____.
1128	SPV.0090 Special 0101. Concrete Curb & Gutter 30-Inch Special	53.000 LF	_____.	_____.
1130	SPV.0090 Special 0105. Concrete Barrier Type S42 Special	20,350.000 LF	_____.	_____.
1132	SPV.0090 Special 0110. Concrete Barrier Type S56 Special	22,770.000 LF	_____.	_____.
1134	SPV.0090 Special 0120. HMA Longitudinal Joint Repair	25,900.000 LF	_____.	_____.
1136	SPV.0090 Special 0200. Drain Slotted Vane Permanent	277.000 LF	_____.	_____.
1138	SPV.0090 Special 0205. Drain Slotted Vane Temporary	4,718.000 LF	_____.	_____.
1140	SPV.0090 Special 0300. Maintain and Remove Concrete Barrier Temporary Left in Place	1,920.000 LF	_____.	_____.
1142	SPV.0090 Special 0305. Glare Screen Temporary	1,310.000 LF	_____.	_____.
1144	SPV.0090 Special 0800. Removing Existing Timber Piling	280.000 LF	_____.	_____.
1146	SPV.0090 Special 0801. Removing Existing Steel Piling	220.000 LF	_____.	_____.
1148	SPV.0090 Special 0802. Fence Chain Link Polymer-Coated 6-FT. B-44-171	212.000 LF	_____.	_____.
1150	SPV.0090 Special 0803. Fence Chain Link Polymer-Coated 8-FT. B-44-171	212.000 LF	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1152	SPV.0090 Special 0804. Fence Chain Link Polymer-Coated 6-Ft. B-44-140	484.000 LF	_____.	_____.
1154	SPV.0090 Special 0805. Removing Existing Bridge Chain Link Fencing	908.000 LF	_____.	_____.
1156	SPV.0090 Special 0900. Piling Sleeves	176.000 LF	_____.	_____.
1158	SPV.0090 Special 0904. Fence Chain Link Polymer-Coated 6-FT R-44-38	206.000 LF	_____.	_____.
1160	SPV.0090 Special 0905. Fence Chain Link Polymer-Coated 6-FT R-44-39	200.000 LF	_____.	_____.
1162	SPV.0090 Special 5000. Metal Edging	1,938.000 LF	_____.	_____.
1164	SPV.0165 Special 0800. Longitudinal Grooving Bridge Deck	71,044.000 SF	_____.	_____.
1166	SPV.0165 Special 0801. Temporary Shoring Railroad	4,420.000 SF	_____.	_____.
1168	SPV.0165 Special 0802. Tinted Sealer Reseal	8,470.000 SF	_____.	_____.
1170	SPV.0165 Special 0900. Temporary Wall Wire Faced Mechanically Stabilized Earth	17,440.000 SF	_____.	_____.
1172	SPV.0165 Special 0901. Wall Concrete Panel Mechanically Stabilized Earth R-44-35	7,930.000 SF	_____.	_____.
1174	SPV.0165 Special 0902. Wall Concrete Panel Mechanically Stabilized Earth R-44-36	12,386.000 SF	_____.	_____.
1176	SPV.0165 Special 0903. Wall Concrete Panel Mechanically Stabilized Earth R-44-37	10,531.000 SF	_____.	_____.



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Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
1178	SPV.0165 Special 0904. Wall Concrete Panel Mechanically Stabilized Earth LFCF R-44-38	5,435.000 SF	_____.	_____.
1180	SPV.0165 Special 0905. Wall Concrete Panel Mechanically Stabilized Earth LFCF R-44-39	5,160.000 SF	_____.	_____.
1182	SPV.0180 Special 0100. Concrete Pavement 10 1/2-Inch Special	176,800.000 SY	_____.	_____.
1184	SPV.0180 Special 0101. Concrete Base Variable Depth	37.000 SY	_____.	_____.
1186	SPV.0180 Special 5000. Shredded Hardwood Bark Mulch	1,872.000 SY	_____.	_____.
1188	SPV.0195 Special 5000. Stone Cobbles	345.000 TON	_____.	_____.
Section: 0001			Total:	_____.
			Total Bid:	_____.

**PLEASE ATTACH ADDENDA HERE**