HIGHWAY WORK PROPOSAL

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

Proposal Number: 044

STATE ID	FEDERAL ID	PROJECT DESCRIPTION	HIGHWAY	COUNTY
8180-00-81	N/A	Cornell - Ladysmith, Chippewa/Rusk Co Ln to USH 8	STH 027	Rusk

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: $100,000.00 Payable to: Wisconsin Department of Transportation	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Date: December 8, 2026 Time (Local Time): 11:00 am	Firm Name, Address, City, State, Zip Code **SAMPLE** **NOT FOR BIDDING PURPOSES**
Contract Completion Time 65 Working Days	
Assigned Disadvantaged Business Enterprise Goal 0%	This contract is exempt from 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

For Department Use Only

Type of Work:
Removals, Milling, Grading, Aggregate, Asphalt Pavement, Structure Rehabilitation, Culvert Pipe, Curb and Gutter, Concrete Sidewalk, Beam Guard, Erosion Control, Traffic Control, Pavement Marking, Restoration.

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://wisconsindot.gov/Pages/doing-bus/contractors/hcci/bid-let.aspx

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

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

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

(5) The department will address equipment and process failures, if the bidder can demonstrate that those failures were beyond their control.

(6) Contractors are responsible for checking on the issuance of addenda and for obtaining the addenda. Notice of issuance of addenda is posted on the department's web site at:

https://wisconsindot.gov/Pages/doing-bus/contractors/hcci/bid-let.aspx

or by calling the department at (608) 266-1631. Addenda can ONLY be obtained from the 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 envelop but due at the same time and place as the sealed bid, also provide the Expedite™ generated schedule of items on a 3 1/2 inch computer diskette or CD ROM. Label each diskette or CD ROM with the bidder's name, the 4 character department-assigned bidder identification code from the top of the bidding proposal, and a list of the proposal numbers included on that diskette or CD ROM as indicated in the following example:

Bidder Name
BN00
Proposals: 1, 12, 14, & 22

(3) If bidding on more than one proposal in the letting, the bidder may include all proposals for that letting on one diskette or CD ROM. Include only submitted proposals with no incomplete or other files on the diskette or CD ROM.

(4) The bidder-submitted printout of the Expedite□□ generated schedule of items is the governing contract document and must conform to the requirements of section 102 of the standard specifications. If a printout needs to be altered, cross out the printed information with ink or typewriter and enter the new information and initial it in ink. If there is a discrepancy between the printout and the diskette or CD ROM, the department will analyze the bid using the printout information.

(5) In addition to the reasons specified in section 102 of the standard specifications, proposals are irregular and the department may reject them for one or more of the following:

1. The check code printed on the bottom of the printout of the Expedite™ generated schedule of items is not the same on each page.
2. The check code printed on the printout of the Expedite™ generated schedule of items is not the same as the check code for that proposal provided on the diskette or CD ROM.
3. The diskette or CD ROM is not submitted at the time and place the department designates.

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

Wisconsin Department of Transportation

DT1303 1/2006

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

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

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

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

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

PRINCIPAL

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

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

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

(Signature of Attorney-in-Fact)

NOTARY FOR PRINCIPAL

(Date)

State of Wisconsin)
) ss.
_____ County)

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

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

NOTARY FOR SURETY

(Date)

State of Wisconsin)
) ss.
_____ County)

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

(Signature, Notary Public, State of Wisconsin)

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

(Date Commission Expires)

Notary Seal

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

CERTIFICATE OF ANNUAL BID BOND

Wisconsin Department of Transportation

DT1305 8/2003

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)

Effective with March 2010 Letting

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.

Name of Subcontractor	Class of Work	Estimated Value

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

Instructions for Certification

1. By signing and submitting this proposal, the prospective contractor is providing the certification set out below.

2. The inability of a person to provide the certification required below will not necessarily result in denial of participation in this covered transaction. The prospective contractor shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective contractor to furnish a certification or an explanation shall disqualify such person from participation in this transaction.

3. The certification in this clause is a material representation of fact upon which reliance was placed when the department determined to enter into this transaction. If it is later determined that the contractor knowingly rendered an erroneous certification in addition to other remedies available to the Federal Government the department may terminate this transaction for cause or default.

4. The prospective contractor shall provide immediate written notice to the department to whom this proposal is submitted if at any time the prospective contractor learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

5. The terms "covered transaction," "debarred," "suspended," "ineligible," "lower tier covered transaction," "participant," "person," "primary covered transaction," "principal," "proposal," and "voluntarily excluded," as used in this clause, have the meanings set out in the Definitions and Coverage sections of the rules implementing Executive Order 12549. You may contact the department to which this proposal is being submitted for assistance in obtaining a copy of those regulations.

6. The prospective contractor agrees by submitting this proposal that, should this contract be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department entering into this transaction.

7. The prospective contractor further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," which is included as an addendum to PR- 1273 - "Required Contract Provisions Federal Aid Construction Contracts," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

8. The contractor may rely upon a certification of a prospective subcontractor/materials supplier that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A contractor may decide the method and frequency by which it determines the eligibility of its principals. Each contractor may, but is not required to, check the Disapproval List (telephone # 608/266/1631).

9. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a contractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

10. Except for transactions authorized under paragraph 6 of these instructions, if a contractor in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department may terminate this transaction for cause or default.

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

1. The prospective contractor certifies to the best of its knowledge and belief, that it and its principals:

   (a) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

   (b) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements or receiving stolen property;

   (c) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offense enumerated in paragraph (1)(b) of this certification; and

   (d) Have not within a three-year period preceding this proposal had one or more public transactions (Federal, State or local) terminated for cause or default.

2. Where the prospective contractor is unable to certify to any of the statements in this certification, such prospective contractor shall attach an explanation to this proposal.

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SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for the following projects:

8180-00-81
Cornell – Ladysmith
Chippewa/Rusk Co Ln to USH 8
STH 27
Rusk County

Perform the work 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 (20260701)

2. Scope of Work.

The work under this contract consists of removing asphaltic surface milling, culvert replacement, HMA pavement, base aggregate dense, concrete surface repair, box culvert wingwall repair, curb and gutter, curb ramps, traffic signal replacement, guardrail replacement, slope work, restoration, traffic control, pavement markings and all incidental items necessary to complete the work as shown on the plans and included in the proposal and contract.

104-005 (20090901)

3. Prosecution and Progress.

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

Provide the time frame for construction of the project within the 2027 construction season to the engineer in writing within a month after executing the contract but at least 14 calendar days before the preconstruction conference. Assure that the time frame is consistent with the contract completion time. Upon approval, the engineer will issue the notice to proceed within ten calendar days before the beginning of the approved time frame.

To revise the time frame, submit a written request to the engineer at least two weeks before the beginning of the intended time frame. 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.

Migratory Birds

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

Either prevent active nests from becoming established or prevent birds from nesting by installing and/or maintaining one suitable deterrent device on the following structure(s) prior to nesting season under the bid item Installing and Maintaining Bird Deterrent System:

- Station 367+00 – B-54-0046 Deer Tail Creek
- Station 503+00 – C-54-2335 Meadow Brook

Working days will not be assessed for placement of deterrent systems.

Fish Spawning/Stream Work

There shall be no instream disturbance of Deer Tail Creek at Station 367+00 and Meadow Brook at Station 503+00 as a result of construction activity under or for this contract, from April 1 to June 1 both dates inclusive.

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

Protection of Endangered Bats

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

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

Direct temporary lighting, if used, away from wooded areas during the bat active season April 15 to October 31, both dates inclusive.

Tree Clearing

To avoid adverse impacts upon protected bats, no tree clearing is allowed between April 15 and October 31, both dates inclusive. If the required tree clearing is not completed by April 14, the department will suspend all tree clearing and associated work directly impacted by clearing.

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

Due to potential for erosion, do not perform grubbing operations at the time of tree clearing unless grading activities will commence in those areas immediately following the tree clearing, or as otherwise approved by the engineer. Provide information for the grubbing and grading activities, including the schedule of operations, in the Erosion Control Implementation Plan (ECIP).

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

Upon approval from the engineer, working day assessments may be suspended once clearing operations are completed by April 14.

Bridge Deck Sealing/Overlay

To avoid affecting bats that may be roosting under or within structures, do not allow construction equipment, sealants, polymer overlays, or other materials from reaching the underside off the end of the structure or through any other openings on the structure.

Climbing Turtle

General

Suitable habitat for at least one type of climbing turtle exists within 1,000 ft of the Flambeau River (B-54-50, station range from 587+25 to 592+00). It is assumed turtles are present at or near the project site during construction.

When within 1,000 ft of this location, use the following erosion mat types as shown on the plans or directed by the engineer, to minimize animal entrapment:

Erosion Mat Urban Class I Type A

Erosion Mat Urban Class I Type B

Erosion Mat Class II Type C

Furnish mat of these classes from the WisDOT Erosion Control Product Acceptability List (PAL).

Nesting Habitat

No ground disturbance, heavy equipment operation or supply/equipment storage shall occur within 1,000 ft of the Flambeau River (B-54-50, station range from 587+25 to 592+00) from March 15 to October 31, unless exclusion fencing has been installed prior to March 15 to keep turtles from entering the work area. Install and/or maintain exclusion fencing in accordance with the Turtle Exclusion Fencing, Climbing Turtle bid item included in the contract.

Installation of exclusion fencing from March 15 to November 16 is not allowed, even if a turtle survey is conducted, as it must be assumed that turtles have established nests as of March 15. A survey is not sufficient to identify established nests, resulting in potential egg mortality. Adjustment of these dates will not be considered.

The department will not charge working days for the installation of turtle fence. Notify the engineer at least 48 hours prior to beginning turtle fence installation. Working day assessments will resume upon completion of turtle fence installation.

Milling and Paving Operations

Coordinate construction activities so that traffic does not travel on the milled asphaltic surface for longer than 96 hours prior to placement of the lower HMA pavement layer.

Coordinate construction activities so that traffic does not travel on the milled asphaltic surface during any periods of time covered by the holiday work restrictions.

Submit in writing to the engineer any proposed changes to paving operations.

4. Traffic.

Close STH 27 for up to 14 consecutive days to complete the railroad crossing work. Detour STH 27 traffic via STH 64, STH 40, and USH 8 around the work zone. Do not maintain the detour during the holidays and special events identified in the Holiday and Special Events Work Restrictions article.

Outside the 14-day closure period, as needed, reduce STH 27 to a single lane using flagging operations during working hours, subject to engineer approval.

Reduce STH 27 traffic to a single lane at bridge B-54-46 over Deer Tail Creek and culvert C-54-2335 using a temporary signal. Close Ambrose Road at its intersection with STH 27 while completing work at bridge B-54-46.

Maintain local access to all sideroads, businesses and residences at all times. Maintain emergency access to the project area at all times. Keep all private entrances and field entrances accessible at all times, unless written permission is obtained from the property owner 48 hours in advance of closing the access.

Pedestrian traffic will be maintained with temporary pedestrian accommodations.

Maintain vehicle access at CTH G / CTH P at approximate Station 474 RT for Riverview Trailhead.

Wisconsin Lane Closure System Advance Notification

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

TABLE 108-1 CLOSURE TYPE AND REQUIRED MINIMUM ADVANCE NOTIFICATION

Closure type with height, weight, or width restrictions (available width, all lanes in one direction < 16 feet)	MINIMUM NOTIFICATION
Lane and shoulder closures	7 calendar days
Full roadway closures	7 calendar days
Ramp closures	7 calendar days
Detours	7 calendar days

Closure type without height, weight, or width restrictions (available width, all lanes in one direction ≥ 16 feet)	MINIMUM NOTIFICATION
Shoulder Closures	3 calendar days
Lane closures	3 business days
Ramp closures	3 business days
Modifying all closure types	3 business days

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

Portable Changeable Message Signs (PCMS)

Place PCMS boards on STH 27 in the approximate locations shown in the plan, or as approved by the engineer, one week prior to the anticipated start date and one week prior to road closure to notify motorists of upcoming construction activities.

Message is as follows:

ROADWORK	HWY 27
STARTING	CLOSED
X/XX/XX	STARTING
	X/XX/XX

5. Holiday and Special Event Work Restrictions.

Do not perform work on, nor haul materials of any kind along or across any portion of the highway carrying STH 27 traffic, and entirely clear the traveled way and shoulders of such portions of the highway of equipment, barricades, signs, lights, and any other material that might impede the free flow of traffic during the following holiday and special event periods:

- From noon Friday, May 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, Independence Day;
- From noon Thursday, July 15, 2027, to 6:00 AM Monday, July 19, 2027, for Northland Mardi Gras Festival;
- From noon Wednesday, August 11, 2027, to 6:00 AM Monday, August 16, 2027, for the Rusk County Fair;
- From noon Friday, September 3, 2027, to 6:00 AM Tuesday, Tuesday, September 7, 2027, for Labor Day.

stp-107-005 (20210113)

6. 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.

City of Ladysmith - Water has facilities along STH 27 between Station 592+00 and Station 632+00. Adjust up to eleven water valves to match the new finished pavement elevation. Perform this work in accordance with the requirements of the *Adjusting Water Valves* SPV. Arrange for an observer to be on site during the adjustments by notifying the City as noted above prior to performing said adjustments.

City of Ladysmith - Sewer has facilities along STH 27 between Station 592+00 and Station 632+00. Adjust fourteen manholes to match the new finished pavement elevation. Perform this work in accordance with the requirements of the *Adjusting Manhole Covers* bid item. Arrange for an observer to be on site during the adjustments by notifying the City as noted above prior to performing said adjustments.

Jump River Electric Cooperative (Electricity) has facilities along STH 27. The overhead electric line will be buried from the first pole north of the pipe replacements located at Station 352+59 to the first pole to the south. This work will be completed prior to construction.

Brightspeed of Northern Wisconsin, LLC (Communication Line) has facilities along STH 27. The following utility adjustments are required and will be completed prior to construction, except where noted.

- Station 500+75 – Install fiber pedestal 48 feet west of centerline (CL), expose existing 96-count fiber. Cut and reroute to handhole (HH).
- Station 500+75 – Station 505+00 – Bore 96-count fiber line 50 feet west of CL at a depth of 4 feet below existing grade.
- Station 505+00 – Install fiber pedestal 48 feet west of CL, expose existing 96-count fiber, cut and reroute to HH.
- Station 587+05 - During construction, expose existing 255-count fiber and 50-pair communication cable and adjust as necessary to avoid conflicts with guardrail posts. This work is anticipated to require five working days to complete.

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

- **ATC Management, Inc.** (Electricity – Transmission)
- **Enbridge Energy** (Gas/Petroleum)
- **NTERA, LLC** (Communication Line)
- **S&K TV System** (Communication Line)
- **Spectrum** (Communication Line)
- **WE Energies** (Gas/Petroleum)
- **Xcel Energy** (Electricity-Distribution)
- **Xcel Energy** (Electricity-Transmission)

7. Work by Others.

Canadian National Railroad is replacing the rail crossing between W Fritz Avenue and Miner Avenue W in the City of Ladysmith. This work is to be completed during the full two-week closure of STH 27.

The City of Ladysmith will be constructing a project on Miner Avenue during the 2027 construction season. The contractor on that project will replace utilities, base layers, and asphalt binder course at the Miner Avenue / STH 27 intersection from approximate station 629+00 to 630+00. Coordination will be required during construction. This work will occur during the same two-week closure as the rail crossing. Notify the City of Ladysmith at least 2 weeks prior to the railroad crossing closure and detour. The contact is Zech Gotham at (715) 532-3721.

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

A. Description

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

A.1 Railroad Insurance Requirements

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

Notify evidence of the required coverage, and duration to Mike Bee, Manager Public Works, 214 Fleet Street, Chippewa Falls, WI; Telephone (312) 882-3503; E-mail: mike.bee@cn.ca

Also, send a copy to the following: Anna Davey, NW Region Railroad Coordinator; 1701 N 4th Street, Superior, WI 54880; Telephone (715) 392-7960; DOTDTSDNWRRailroadCoordination@dot.wi.gov

Include the following information on the insurance document:

- Project ID: 8180-00-81
- Project Location: Ladysmith, WI
- Route Name: STH 27
- Crossing ID: 691260Y
- Railroad Subdivision: Barron Sub
- Railroad Milepost: 129.36
- Work Performed on or within 50’ of RR ROW: Mill and asphalt overlay

A.2 Train Operation

Approximately two (2) through freight trains operate daily at up to 25 mph. There are no switching movements at this location.

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

Construction Contact

to Mike Bee, Manager Public Works, 214 Fleet Street, Chippewa Falls, WI; Telephone (312) 882-3503; E-mail: mike.bee@cn.ca for consultation on railroad requirements during construction.

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

Flagging Contact

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

The form can be obtained at: https://www.cn.ca/en/safety/utility-installations/

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

Cable Locate Contact

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

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

cc: WisDOT Region Railroad Coordinator referenced in A.1 on all written correspondence with the railroads.

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. Replace crossing surface and railroad signals.

A.5 Temporary Grade Crossing

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

A.6 Rail Security Awareness and Contractor Orientation

All employees of contractors who work on CN properties are required to have minimum CN Safety and Security Awareness training. This training can be obtained by registering and following the CN link through www.contractororientation.com. This training is good for a period of one year.

a. Exception: CN has exempted from this training those it classifies as "Delivery Persons". Delivery Persons include contractors such as UPS, FedEx, trucking companies, etc. who merely access the property to supply materials or equipment.

The security awareness and contractor orientation certification must be renewed for projects that will carry over beyond the one-year period. Contractor and subcontractor employees shall wear the identification

badge issued by www.contractororientation.com when on railroad right-of-way. Costs associated with training and registration are incidental to other items in the contract.

If employees of contractors have a current eRailSafe badge for CN, then an additional badge is not required from www.contractororientation.com.

stp-107-026 (20260701)

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

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

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

https://www.mvp.usace.army.mil/Portals/57/docs/regulatory/RGP/Transportation.pdf

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

stp-107-054 (20230629)

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

The following Project IDs have one acre or more of land disturbing construction activity and are required to obtain coverage under the TCGP. The permit requirements are part of the contract:

Project ID	Design Calculated Amount of Land Disturbing Construction Activity (acres)
8180-00-81	1.0

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

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

The department will apply for coverage under the TCGP upon submittal of the complete ECIP from the contractor, and concurrent with the department providing the ECIP to the Department of Natural Resources (DNR). The DNR will convey permit coverage upon the department's approval of the ECIP and DNR concurrence that the project has met the requirements for coverage under the TCGP.

Do not begin land disturbing construction activity until the ECIP is approved and the DNR conveys TCGP coverage for the project.

A "Certificate of Permit Coverage" will be provided by the DNR upon conveyance of coverage under the permit. Post the "Certificate of Permit Coverage" in a conspicuous place at the construction site.

Stormwater discharge permit coverage for additional land disturbing construction activities related to contractor means and methods, including temporary support activity sites, 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 TCGP applicability criteria.
- Must be for the exclusive use of WisDOT projects.

- Land disturbance first commences after the ECIP approval, and the areas are fully restored to meet the final stabilization criteria of the TCGP upon completion of the work.

Obtain any permits for areas that are not approved by the department for coverage under the TCGP.

stp-107-056 (20260701)

11. Construction Over or Adjacent to Navigable Waters.

The Deer Tail Creek is classified as a state navigable waterway under standard spec 107.19.

stp-107-060 (20171130)

12. Environmental Protection, Aquatic Exotic Species Control.

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

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

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

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

Use the following inspection and removal procedures:

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

13. 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 prior to discharge. Submit the proposed means and methods of dewatering for each required location for approval as part of the Erosion Control Implementation Plan

(ECIP). Include details of how the intake will be managed to not cause an increase in the background level turbidity prior to treatment and any additional measures 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. This document can be found at the WisDNR website: http://dnr.wi.gov/topic/stormwater/standards/const_standards.html

Work includes furnishing all materials, excavation, maintenance, cleaning, disposal of surplus material and removal of the dewatering system and is incidental to contract work.

14. 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)

15. Notice to Contractor, Contamination Beyond Construction Limits.

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

1. Station 607+80 to 614+50 from 80 feet LT of centerline to 370 feet LT of centerline.
2. Station 628+90 to 632+60 from 30 feet LT of centerline to 260 feet LT of centerline.
3. Station 631+23 to 632+600 from 30 feet RT of centerline to 185 feet RT of centerline.

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

The Hazardous Materials Report is available by contacting: Jeff Smith, 2101 Wright Street, Madison, WI 53704, (608) 246-7906.

stp-107-100 (20230113)

16. Notice to Contractor, Verification of Asbestos Inspection, No Asbestos Found.

John Roelke, License Number All-119523, inspected Structures B-54-46 & C-54-2335 for asbestos on June 26, 2024. No regulated Asbestos Containing Material (RACM) was found on these structures. A copy of the inspection report is available by contacting the Design Project Manager, Jeff Smith by phone at (608) 246-7906 or via email at jeff.smith3@dot.wi.gov.

stp-107-127 (20220628)

17. 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:

- 460.6244 HMA Pavement 4 MT 58-34 S,
- 460.8644 HMA Pavement 4 SMA 58-34 V

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)

18. Notice to Contractor, Pre-Construction Coordination.

Notify the organizations below 48 hours in advance of the start of work, closures of existing roads, and prior to traffic control changes. Notifications must be given by 4:00 PM on Thursday for such work to be done on the following Monday. Notify Rusk County Highway Department ten days prior to the STH 27 / Ambrose Road closure. Notify both Rusk County Highway Department and the City of Ladysmith ten days prior to the railroad crossing closure and detour.

State Patrol/County Sheriff/Local Police
Wisconsin State Patrol – Eau Claire Office
(715) 839-3800

Rusk County Sheriff
(715) 532-2200

City of Ladysmith Police Department
(715) 532-2186

Fire Departments/EMS/Ambulance
City of Ladysmith Fire Department
(715) 532-2600

Rusk County Ambulance Service
(715) 532-2121

School Districts
Ladysmith School District
(715) 532-5277

Lake Holcombe School District
(715) 595-4241

Rusk County Highway Department
(715) 532-2633

City of Ladysmith Public Works Department
(715) 532-2654

19. Notice to Contractor, Airport Operating Restrictions.

General Restrictions

A temporary permit is not required from the Federal Aviation Administration (FAA) for the permanent or temporary installations that are included in the plans as long as the contractor uses equipment that will not exceed 15 feet above ground level. The contractor shall submit FAA Form 7460-1, Notice of Proposed Construction or Alteration, to the FAA a minimum of 45 days before beginning construction operations that propose to use equipment that will exceed 15 feet above ground level.

If required, the FAA will return FAA Form 7460-2, Notice of Actual Construction or Alteration, with a determination. The contractor shall complete and send FAA Form 7460-2, Part 1 to the FAA at least 48 hours prior to starting the actual construction or alteration of a structure. Additionally, the contractor shall submit Part 2 no later than 5 days after the structure has reached its greatest height.

Contact the Airspace Safety Program, Bureau of Aeronautics at (608) 266-6812 (BOAHighwayCoordination@dot.wi.gov) with any questions. Refer to the following FAA website for instructions to complete the form and the required information.

http://oeaaa.faa.gov/oeaaa/external/portal.jsp.

20. General Requirements for Electrical Work.

Replace standard specification 651.3.3 (3) with the following:

Notify the engineer and request a signal inspection at least five (5) business days before the date of the requested inspection. In the event of deficiencies, request a reinspection when the work is corrected. The engineer will not authorize turn-on until the contractor corrects deficiencies.

Electrical item inspections are required at the following times: after the staking of all electrical underground items, before the pouring of all lighting, signal, and cabinet bases; before cable and wire are pulled; during field terminations at signal and lighting bases; and prior to the installation of any poles, standards, or other above ground electrical items.

Request electrical inspections of the completed signal and lighting work to the engineer at least five working days prior to the time of the required inspection. Notify the Northwest Region – Eau Claire Office Electrical Field Unit at (715) 577-5399 to coordinate the inspection. The department's region electrical personnel will perform the inspection.

21. Traffic Signals, General.

Notify the Northwest Region – Eau Claire Office Electrical Field Unit at (715) 577-5399 at least three weeks before beginning traffic signal work. The Electrical Field Unit will replace the existing signal cabinet and controller at the STH 27 and Port Arthur Road intersection, including all required traffic signal cabinet wiring connections and disconnections.

22. Removing Asphaltic Longitudinal Notched Wedge Joint Milling, Item 204.0126.S.

A Description

This special provision describes the milling and removing of the upper layer HMA longitudinal notched wedge joint, including sweeping and cleaning of the affected area prior to paving the adjacent lane. Follow drop-off and hazard protection in standard spec 104.6.1.2.3.

B (Vacant)

C Construction

Prior to paving the adjacent upper layer HMA lane, mill longitudinal notched wedge joint to a true line with a face perpendicular to the surface of the existing asphaltic surface pavement as the plans show or the engineer directs. Provide a uniform milled surface that is reasonably plane, free of excessively large scarification marks, and has the grade and transverse slope the plans show, or the engineer directs. Do not damage the remaining pavement.

Use a self-propelled milling machine with depth, grade, and slope controls. Shroud the drum to prevent discharging loosened material onto the adjacent work areas or live traffic lanes. Provide an engineer-approved dust control system.

Thoroughly clean the milled surface and completely remove all millings from the project site. Unless using a continuous removal and pick-up operation, do not windrow or store material on the roadway. Clear the roadway of all material and equipment during non-working hours. The contractor becomes the owner of the removed asphaltic pavement and is responsible for the disposal as specified in standard spec 204.3.1.3.

D Measurement

The department will measure Removing Asphaltic Longitudinal Notched Wedge Joint Milling by the linear foot unit for all wedge joints, 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
204.0126.S	Removing Asphaltic Longitudinal Notched Wedge Joint Milling	LF

Payment is full compensation for milling, removing, sweeping, cleaning, and disposing of materials.

stp-204-045 (20191121)

23. Removing Existing Traffic Signal Equipment, Item 204.9060.S.

A Description

This special provision describes salvaging existing traffic signal equipment at the STH 27 & Port Arthur Road intersection as shown on plans.

B (Vacant)

C Construction

Arrange for the de-energizing of the traffic signals with the local utility after receiving approval from the engineer that the existing traffic signals can be removed.

Notify the WisDOT Northwest Region – Eau Claire Office Electrical department at (715) 577-5399 at least three working days prior to the removal of the traffic signal equipment. Complete this work immediately following shut down of equipment. The department's electrical unit will remove and salvage the Gridsmart Camera unit prior to removal of signal poles.

Traffic Signals shall remain operational during construction at the STH 27 & Port Arthur Road intersection. Only one signal head per intersection approach may be out of service at any one time. Each signal face shall be in operation at all times work is not being actively performed on that face, including overnight.

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 be salvaged to the engineer. Any equipment not identified as damaged or not working, prior to removal, will be replaced by the contractor at no cost to the department.

Salvage all traffic signal heads, poles, arms, push buttons, transformer bases, pedestal bases, EVP detector heads, signal mounting equipment and street signs mounted on poles. Ensure that all access hand hole doors and all associated hardware remain intact. Disassemble out of traffic, store and protect equipment until the department is able to pick it up.

Remove underground signal cable, internal wires, pertaining to the traffic signal cable except where noted in the plans. Dispose of wire and cable off the right of way.

D Measurement

The department will measure Removing Existing Traffic Signal Equipment, STH 27 & Port Arthur Road by each intersection, acceptably completed.

E Payment

Add the following to standard spec 204.5:

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S	Removing Existing Traffic Signal Equipment, STH 27 & Port Arthur Road	Each

Payment is full compensation for salvaging and protecting traffic signal equipment, scrapping of some materials, disposing of scrap material and cabling/wiring, and storing equipment on site until picked up by the department, and incidentals necessary to complete the contract work.

stp-204-025 (20230113)

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

A Description

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

B (Vacant)

C Construction

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

Furnish materials and construct conforming to the following standard specs:

Common excavation, material removal, and disposal 205

Borrow 208

Base Aggregate Dense 305

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

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

D Measurement

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
208.1500.S	Temporary Lane Shift During Culvert Work	EACH

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

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

stp-208-010 (20210708)

25. HMA Pavement 4 SMA 58-34 V, Item 460.8644; HMA Pavement Test Strip Volumetrics, Item 460.0115.S; HMA Pavement Test Strip Density, Item 460.0120.S.

A Description

This special provision describes the Stone Matrix Asphalt (SMA) density and volumetric testing tolerances required for an SMA Test Strip. A density test strip is required for each pavement layer and thickness placed over a specific, uniform underlying material, unless specified otherwise in the plans. Each mix design requires a separate test strip. Density and volumetrics testing will be conducted on the same test strip whenever possible.

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

B (Vacant)

C Construction

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

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

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

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

C.1 Test Strip

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

On the first day of production for a test strip, produce approximately 500 tons of SMA. (Note: adjust tonnage to accommodate natural break points in the project.) Locate test strips in a section of the roadway to allow a representative rolling pattern (i.e. not a ramp or shoulder, etc.).

C.1.1 Sampling and Testing Intervals

C.1.1.1 Volumetrics

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

During production for the test strip, obtain sufficient SMA mixture for four-part split samples from trucks prior to departure from the plant. Collect two split samples during production of the test strip material. Perform sampling from the truck box and four-part splitting of SMA according to WTM R47. These two samples will be randomly selected by the engineer from each half of the test strip tonnage (T), excluding the first 50 tons:

TABLE 1: SMA Volumetric Test Strip Sampling Frequency

Sample Number	Production Interval (Tons)
1	50 to T/2
2	T/2 to T

C.1.1.2 Density

Required field tests include contractor QC and department QV nuclear density gauge tests and pavement coring at ten individual locations (five in each half of the test strip length) according to WTM T355 Appendix X1. Both QV and QC teams must have two nuclear density gauges present for correlation at the time the test strip is constructed. QC and QV teams may correlate additional gauges at the locations detailed in Appendix X1, as only gauges used during the test strip correlation phase will be allowed.

C.1.2 Field Tests

A gauge comparison according to WTM T355 must be completed before the day of test strip construction. Perform daily standardization of gauges on reference blocks and a reference site according to WTM T355. Perform a standard count for each gauge on the material placed for the test strip, prior to any additional data collection. Use nuclear gauge readings and pavement cores to determine nuclear gauge correlation according to WTM T355 Appendix X1. Provide the two to three readings for the five locations across the mat for each of two zones to the engineer. The engineer will analyze the readings of each gauge relative to the densities of the cores taken at each location. The engineer will determine the average difference between the nuclear gauge density readings and the measured core densities to be used as a constant offset value. This offset will be used to adjust raw density readings of the specific gauge and shall appear on the density data sheet along with gauge and project identification. An offset is specific to the mix and layer; therefore, a separate value shall be determined for each layer of each mix placed over a differing underlying material for the contract. This constitutes correlation of that individual gauge for the given layer. Two gauges per team are not required to be onsite daily after completion of the test strip. Any data collected without a correlated gauge will not be accepted.

Core the pavement from the footprint of the density tests and fill core holes according to WTM R67. Coring and filling of pavement core holes must be approved by the engineer. The QV team is responsible for the labeling and safe transport of the cores from the field to the QC laboratory. Conduct testing of cores while being witnessed by department personnel. Dry the cores following testing. The department will take possession of cores following laboratory testing and will be responsible for any verification testing at the discretion of the engineer.

The target maximum density used to determine core density is determined according to WTM T355 section 10.1.1. In the event mix and density portions of the test strip procedure are separated, or if an additional density test strip is required, the mix portion must be conducted prior to density determination.

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

C.1.3 Laboratory Tests

C.1.3.1 Volumetrics

Obtain random samples according to C1.1.1, WTM R47, and WTM R97.

Both QC and QV will test both split samples for Gmm, Gmb, and AC. Air voids and VMA are then calculated using these test results. QC samples are also tested for aggregate gradation according to

WTM T30. Theoretical maximum specific gravities of each mixture sample will be obtained according to WTM T209. Determine bulk specific gravities of both gyratory compacted samples and field cores according to WTM T331. Use the bulk specific gravity values determined from field cores to calculate a correction factor (i.e.: offset) for each QC and QV nuclear density gauge. The correction factor will be used throughout the remainder of the layer. Asphalt content for each mixture sample will be obtained according to WTM T308, AASHTO T164 Method A or B, or WTM D8159.

C.2 Acceptance

The test strip shall remain in place and become part of the completed pavement when acceptably produced, acceptably compacted, and meets finish and smoothness requirements.

C.2.1 Volumetrics

Produce mix conforming Table 2 on individual QC and QV test results (tolerances based on most recent JMF):

TABLE 2: SMA Test Strip Volumetric Acceptance Requirements

Item	JMF Limits
Asphalt Content (%)[1]	- 0.5
VMA (%)[2]	- 1.0
Air Voids (%)	According to the SMA Test Strip Approval Criteria Below.

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

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

If either QV air void sample is outside of the limits for 100% pay (i.e., 3.2 < Va < 5.8), send both QV-retained split samples to BTS for dispute resolution testing. The engineer in consultation with BTS will jointly determine whether main production may proceed based on the results of the QV tests while dispute testing is performed. The results from the BTS dispute resolution testing will determine material conformance and payment for the test strip according to the SMA Prorated Pay Factors Table in Section E. If QV and QC test results exceed testing tolerances (0.015 for Gmm or Gmb), both retained split samples will be tested by BTS. In this case, conduct additional investigation to identify the source of the difference between QV and QC data and BTS referee test data will be used to determine material conformance and pay.

C.2.2 Density

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

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

C.2.3 Test Strip Approval and Material Conformance

Complete all applicable laboratory and field testing associated with a test strip prior to any additional mainline placement of the mix. Submit all test reports to the department upon completion and approved before paving resumes. The department will notify the contractor within 24 hours of the start of test strip construction regarding approval to proceed with paving unless an alternate time frame is agreed upon in writing with the department. The 24-hour approval time includes only working days as defined in standard spec 101.3.

The department will evaluate mixture air voids, test strip density, and nuclear gauge to core correlation in determining test strip approval and material conformance according to Table 3:

Table 3: SMA Test Strip Approval Criteria

Approval / Material Conformance [1]	QV / BTS Volumetrics	Average Density of All Cores	Outcome of Test Strip for Contractor
Approved / Material Conforming	3.2 ≤ Va ≤ 5.8 AC ≥ JMF AC - 0.3% VMA ≥ Min. VMA - 0.5%	≥ 93.0 %	Proceed with production
Test Strip Approved / Material Nonconforming	2.8 ≤ Va ≤ 3.2 or 5.8 < Va < 6.2 JMF AC - 0.5% ≤ AC < JMF AC - 0.3% Min. VMA - 1.0% ≤ VMA < Min. VMA - 0.5%	≥ 91.0 %	Propose solution and proceed with production. Payment for material will be based on BTS referee tests.
Test Strip Not Approved / Material Nonconforming	2.5 ≤ Va < 2.8 or 6.2 < Va < 6.5	< 91.0 %	Stop production, submit cause and solution, make additional 500-ton test strip. Payment for material will be based on BTS referee tests.
Test Strip and Material are Unacceptable [2]	Va < 2.5 or Va > 6.5 AC < JMF AC - 0.5% VMA < Min. VMA - 1.0%	< 90.0 %	Stop production, submit cause and solution, make additional 500-ton test strip, and complete a new nuclear density gauge correlation.

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

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

An acceptable core to nuclear density gauge correlation must be completed by both the contractor and department according to WTM T355 Appendix X1 as part of the test strip.

A maximum of two test strips will be allowed to remain in place per layer per contract. If material is removed, replace the previous one with a new test strip at no additional cost to the department. If the contractor changes the mix design for a given mix type during a contract, no additional compensation will be paid by the department for the required additional test strip, and the department will assess the contractor $2,000 for each additional test strip according to Section E of this I provision.

D Measurement

Add the following to standard spec 460.4:

(2) The department will measure HMA Pavement Test Strip Volumetrics and HMA Pavement Test Strip Density as each unit of work, acceptably completed as passing the required air void, VMA, asphalt content, and density correlation for a Test Strip. Material quantities will be determined according to standard spec 450.4.

E Payment

Replace standard spec 460.5.1 with the following:

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

ITEM NUMBER	DESCRIPTION	UNIT
460.8644	HMA Pavement 4 SMA 58-34 V	TON
460.0115.S	HMA Pavement Test Strip Volumetrics	EACH
460.0120.S	HMA Pavement Test Strip Density	EACH

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

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

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

Regard the test strip as a single/separate lot, with densities and pay adjustments calculated accordingly. Pay adjustments made as part of dispute resolution on test strip material will be limited to the test strip and will not extend to material placed during main production nor will pay adjustments made on main production extend into the test strip.

The department will pay separately for a material transfer vehicle.

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

Replace standard spec 460.5.2.1(5) with the following:

(5) The department will reduce pay for nonconforming SMA mixture as specified in C.2.1. The engineer will determine the quantity of material subject to pay reduction based on the testing data and an inspection of the completed pavement. The department will reduce pay according to Table 4:

Table 4: SMA Prorated Pay Factors

Description	Criteria	Pay Factor
High Air Voids Pay Factor	5.8% < Va ≤ 6.5%	100 - (Va - 5.8) * 71.4
Low Air Voids Pay Factor	2.5% ≤ Va < 3.2%	100 - (3.2 - Va) * 71.4
Low VMA Pay Factor	0.5% < VMA below min ≤ 1.0%	100 * [1 - (percent below min. - 0.5)]
Low AC Pay Factor	0.3% < AC below JMF ≤ 0.5%	75

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

A Description

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

Perform work according to standard spec 460 and as follows.

B Materials

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

C Construction

C.1 Test Strip

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

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

C.1.1 Sampling and Testing Intervals

C.1.1.1 Volumetrics

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

During production for the test strip, obtain sufficient HMA mixture for three-part split samples from trucks prior to departure from the plant. Collect three split samples during the production of test strip material. Perform sampling from the truck box and three-part splitting of HMA according to WTM R47. These three samples will be randomly selected by the engineer from each *third* of the test strip tonnage (T), excluding the first 50 tons:

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

C.1.1.2 Density

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

C.1.2 Field Tests

C.1.2.1 Density

For contracts that include STSP 460-020 QMP Density in addition to PWL, a gauge comparison according to WTM T355 shall be completed prior to the day of test strip construction. Daily standardization of gauges on reference blocks and a project reference site shall be performed according to WTM T355. A standard count shall be performed for each gauge on the material placed for the test strip, prior to any additional data collection. Nuclear gauge readings and pavement cores shall be used to determine nuclear gauge correlation according to Appendix A. The two to three readings for the five locations across the mat for each of two zones shall be provided to the engineer. The engineer will analyze the readings of each gauge relative to the densities of the cores taken at each location. The engineer will determine the average difference between the nuclear gauge density readings and the measured core densities to be used as a constant offset value. This offset will be used to adjust raw density readings of the specific gauge and shall appear on the density data sheet along with gauge and project identification. An offset is specific to the mix and layer; therefore, a separate value shall be determined for each layer of each mix placed over a differing underlying material for the contract. This constitutes correlation of that individual gauge for the given layer. Two gauges per team are not required to be onsite daily after completion of the test strip. Any data collected without a correlated gauge will not be accepted.

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

The target maximum density to be used in determining core density is the average of the three volumetric/mix Gmm values from the test strip multiplied by 62.24 lb/ft^3. In the event mix and density portions of the test strip procedure are separated, or if an additional density test strip is required, the mix portion must be conducted prior to density determination. The target maximum density to determine core densities shall then be the Gmm four-test running average (or three-test average from a PWL volumetric-only test strip) from the end of the previous day's production multiplied by 62.24 lb/ft^3. If no PWL production QV volumetric test is to be taken in a density-only test strip, a non-random QV test will be taken according to 460.2.8.3.1.4 as modified in HMA Pavement Percent Within Limits (PWL) QMP and if non-conforming to C.2.1 herein, follow corrective action outlined in 460.2.8.2.1.7(4) as modified in HMA Pavement Percent Within Limits (PWL) QMP.

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

C.1.3 Laboratory Tests

C.1.3.1 Volumetrics

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

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

C.2 Acceptance

C.2.1 Volumetrics

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

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

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

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

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

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

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

C.2.2 Density

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

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

C.2.3 Test Strip Approval and Material Conformance

All applicable laboratory and field testing associated with a test strip shall be completed prior to any additional mainline placement of the mix. All test reports shall be submitted to the department upon

completion and approved before paving resumes. The department will notify the contractor within 24 hours from start of test strip regarding approval to proceed with paving unless an alternate time frame is agreed upon in writing with the department. The 24-hour approval time includes only working days as defined in standard spec 101.3.

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

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

PWL TEST STRIP APPROVAL AND MATERIAL CONFORMANCE CRITERIA

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

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

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

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

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

D Measurement

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

E Payment

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

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

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

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

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

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

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

PAY ADJUSTMENT FOR HMA PAVEMENT AIR VOIDS & DENSITY

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

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

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

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

Pay Adjustment = (PF-100)/100 x (WP) x (tonnage) x ($65/ton)*

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

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

Parameter	WP
Air Voids	0.5
Density	0.5

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

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

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

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

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

A Description

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

B Materials

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

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

460.2.8.2.1.3.1 Contracts under Percent within Limits

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

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

(3) Perform sampling from the truck box according to WTM R97 and four-part splitting of HMA samples according to WTM R47. Sample size must be adequate to run the appropriate required tests in addition to one set of duplicate tests that may be required for dispute resolution (i.e., retained). This requires sample sizes which yield four splits for all random sampling per sublot. All QC samples shall provide the following: QC, QV, Retained, and Extra. Take possession of the QC and Extra split samples intended for QC testing. The department will observe the splitting and take possession of the QV and Retained split samples intended for QV testing. Additional sampling details are found in Appendix A. Label samples according to WTM R97.

(4) Test the QC split sample using the test methods identified below at a frequency greater than or equal to that indicated. The Extra split sample shall be tested only when the Gmm and/or Gmb replicate tolerances are exceeded according to WTM T166 section 13.1.4 and WTM T209 section 14.1.1. When testing the Extra split sample, only the results from the test from which the tolerances were exceeded may replace the results from the QC split sample. The Rule of Retained according to CMM 836.1.2 applies.

- Blended aggregate gradations according to WTM T30.
- Asphalt content (AC) in percent.

  Determine AC using one of the following methods:

  - AC by ignition oven according to WTM T308. If the department is using an ignition oven to determine AC, conform to WTP H-003. If the department is not using an ignition oven to determine AC, IOCFs must still be reverified for any of the reasons listed in WTP H-003 Table 2 and conform to WTP H-003 section 3.
  - AC by chemical extraction according to AASHTO T 164 Method A or B.
  - AC by automated extraction according to WTM D8159.
- Bulk specific gravity (Gmb) of the compacted mixture according to WTM T166.
- Maximum specific gravity (Gmm) according to WTM T209.
- Air voids (V_a) by calculation according to WTM T269.
- Voids in Mineral Aggregate (VMA) by calculation according to WTM R35 section 9.2.

(5) Lot size shall consist of 3,750 tons with sublots of 750 tons. Test each design mixture at a frequency of 1 test per 750 tons of mixture type produced and placed as part of the contract. Add a random sample for any fraction of 750 tons at the end of production for a specific mixture design. Partial lots with less than three sublot tests will be included into the previous lot for data analysis and pay adjustment. Volumetric lots will include all tonnage of mixture type under specified bid item unless otherwise specified in the plan.

(6) Conduct field tensile strength ratio tests according to WTM T283 on each qualifying mixture according to CMM 836.6.14. Test each full 50,000-ton production increment, or fraction of an increment, after the first 5,000 tons of production. Perform required increment testing in the first week of production of that increment. If field tensile strength ratio values are below the spec limit, notify the engineer. The engineer and contractor will jointly determine a corrective action.

Delete standard spec 460.2.8.2.1.5 and 460.2.8.2.1.6.

Replace standard spec 460.2.8.2.1.7 Corrective Action with the following:

460.2.8.2.1.7 Corrective Action

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

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

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

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

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

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

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

Replace standard spec 460.2.8.3.1.2 Personnel Requirements with the following:

460.2.8.3.1.2 Personnel Requirements

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

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

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

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

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

460.2.8.3.1.4 Department Verification Testing Requirements

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

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

(3) The department will test the QV split sample using the test methods identified below at the frequency indicated. The Extra split sample will be tested only when the Gmm and/or Gmb replicate tolerances are exceeded according to WTM T166 section 13.1.4 and WTM T209 section 14.1.1. When testing the Extra split sample, only the results from the test from which the tolerances were exceeded may replace the results from the QV split sample. The Rule of Retained according to CMM 836.1.2 applies. In the event that both the department and contractor's replicate tolerances are exceeded, perform dispute resolution according to 460.2.8.3.1.7(2).

- Bulk specific gravity (Gmb) of the compacted mixture according to WTM T166.
- Maximum specific gravity (Gmm) according to WTM T209.
- Air voids (Va) by calculation according to WTM T269.
- Voids in Mineral Aggregate (VMA) by calculation according to WTM R35 section 9.2.
- Asphalt Content (AC) in percent determined by ignition oven method according to WTM T308 and conforming to WTP H-003, chemical extraction according to AASHTO T 164 Method A or B, or automated extraction according to WTM D8159.

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

Delete standard spec 460.2.8.3.1.6.

Replace standard spec 460.2.8.3.1.7 Dispute Resolution with the following:

460.2.8.3.1.7 Data Analysis for Volumetrics

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

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

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

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

i. If the F- and t-tests indicate variances and means compare, no further testing is required for the lot and QC data will be used for PWL and pay factor/adjustment calculations.

ii. If the F- and t-tests indicate non-comparable variances or means, the Retained portion of the random QC sample will be tested for Gmm, Gmb, and Asphalt Content by the department’s regional lab for the remaining 4 sublots of the lot which the F- and t-tests indicate non-comparable datasets. The department’s regional lab and the referee test results will be used for PWL and pay factor/adjustment calculations. Upon the second instance of non-comparable variance or means and for every instance thereafter, the department will assess a pay reduction for the additional testing of the remaining 4 sublots at $2,000/lot under the HMA Regional Lab Testing administrative item.

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

i. If referee testing results in an increased calculated pay factor, the department will pay for the cost of the additional referee testing.

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

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

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

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

analysis and pay determination.] The quantity of material paid at 50% the contract unit price will be deducted from PWL pay adjustments, along with accompanying data of this material.

Delete standard spec 460.2.8.3.1.8 Corrective Action.

C Construction

Replace standard spec 460.3.3.2 Pavement Density Determination with the following:

460.3.3.2 Pavement Density Determination

(1) The engineer will determine the target maximum density using department procedures described in WTM T355 and CMM 815. The engineer will determine density as soon as practicable after compaction and before placement of subsequent layers or before opening to traffic.

(2) Do not re-roll compacted mixtures with deficient density test results. Do not operate continuously below the specified minimum density. Stop production, identify the source of the problem, and make corrections to produce work meeting the specification requirements.

(3) A lot is defined as 7,500 lane feet with sublots of 1,500 lane feet (excluding shoulder, even if paved integrally) and placed within a single layer for each location and target maximum density category indicated in table 460-3. Complete three tests randomly per sublot and the department will randomly conduct one QV test per sublot. A partial quantity less than 750 lane feet will be included with the previous sublot. Partial lots with less than three sublots will be included in the previous lot for data analysis/acceptance and pay, by the engineer. If density lots/sublots are determined prior to construction of the test strip, any random locations within the test strip shall be omitted. Exclusions such as shoulders and appurtenances shall be tested and recorded according to WTM T355 and CMM 815. However, all acceptance testing of shoulders and appurtenances will be conducted by the department, and average lot (daily) densities must conform to standard spec Table 460-3 or else be subject to disincentives according to 460.5.2.2(5) herein. No density incentive will be applied to shoulders or appurtenances. Offsets will not be applied to nuclear density gauge readings for shoulders or appurtenances. Unacceptable shoulder material will be handled according to standard spec 460.3.3.1 and CMM 815.11.

(4) The three QC locations per sublot represent the outside, middle, and inside of the paving lane. The QC density testing procedures are detailed in Appendix A.

(5) QV nuclear testing will consist of one randomly selected location per sublot. The QV density testing procedures will be the same as the QC procedure at each testing location and are also detailed in Appendix A.

(6) An HTCP-certified nuclear density technician (NUCDENSITYTEC-I) shall identify random locations and perform the testing for both the contractor and department. The responsible certified technician shall ensure that sample location and testing is performed correctly, analyze test results, and provide density results to the contractor weekly, or at the completion of each lot.

(7) For any additional tests outside the random number testing conducted for density, the data collected will not be entered into PWL calculations. However, additional QV testing must meet the tolerances for material conformance as specified in the standard specification and this special provision. If additional density data identifies unacceptable material, proceed as specified in CMM 815.11.

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

460.3.3.3 Analysis of Density Data

(1) Analysis of test data for pay determination will be contingent upon test results from both the contractor (QC) and the department (QV).

(2) As random density locations are paved, the data will be recorded in the HMA PWL Production Spreadsheet for analysis in chronological order. The engineer, upon completion of the first 3 lots, will compare the variances (F-test) and the means (t-test) of the QV test results with the QC test results. A rolling window of 3 lots will be used to conduct F & t comparison for the remainder of the contract (i.e., lots 2-4, then lots 3-5, etc.), reporting comparison results for each individual lot. Analysis will use a set alpha value of 0.025.

i. If the F- and t-tests indicate variances and means compare, the QC and QV data sets are determined to be statistically similar and QC data will be used for PWL and pay adjustment calculations.

ii. If the F- and t-tests indicate variances or means do not compare, the QV data will be used for subsequent calculations.

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

(4) Density resulting in a PWL value less than 50 or not meeting the requirements of 460.3.3.1 (any individual density test result falling more than 3.0 percent below the minimum required target maximum density as specified in standard spec Table 460-3) is unacceptable and may be subject to remove and replace at no additional cost to the department, at the discretion of the engineer.

i. Replacement may be conducted on a sublot basis. If an entire PWL sublot is removed and replaced, the test results of the newly placed material will replace the original data for the sublot.

ii. Testing of replaced material must include a minimum of one QV result. [Note: If the removed and replaced material does not result in replacement of original QV data, an additional QV test must be conducted and under such circumstances will be entered into the data analysis and pay determination.]

iii. If the engineer allows such material to remain in place, it will be paid for at 50% of the HMA Pavement contract unit price. The extent of unacceptable material will be addressed as specified in CMM 815.11. The quantity of material paid at 50% the contract unit price will be deducted from PWL pay adjustments, along with accompanying data of this material.

D Measurement

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

E Payment

Replace standard spec 460.5.2 HMA Pavement with the following:

460.5.2 HMA Pavement

460.5.2.1 General

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

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

460.5.2.2 Calculation of Pay Adjustment for HMA Pavement using PWL

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

PAY FACTOR FOR HMA PAVEMENT AIR VOIDS & DENSITY

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

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

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

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

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

Pay Adjustment = (PF-100)/100 x (WP) x (tonnage) x ($65/ton)*

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

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

Parameter	WP
Air Voids	0.5
Density	0.5

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

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

DISINCENTIVE PAY REDUCTION FOR HMA PAVEMENT DENSITY

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

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

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

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

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

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

AC Binder Relative to JMF	Pay Adjustment / Sublot
-0.4% to -0.5%	75%[1]
More than -0.5%	50%[1] [2]

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

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

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

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28. Appendix A.

Test Methods & Sampling for HMA PWL QMP Projects

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

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

WisDOT Procedure for Nuclear Gauge/Core Correlation – Test Strip

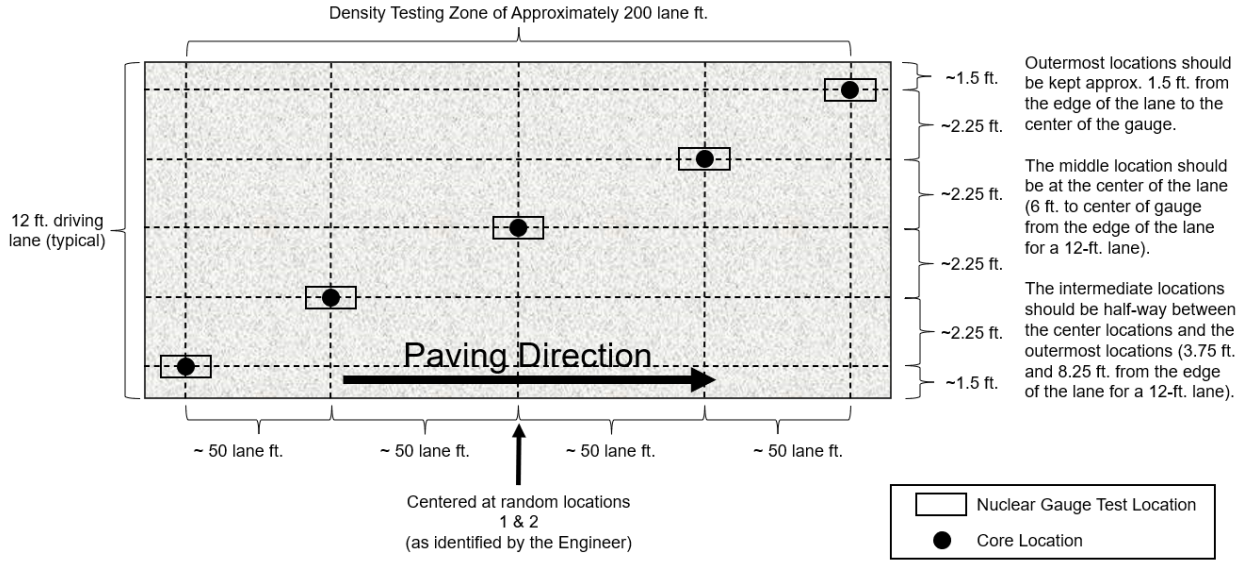


Figure 1: Nuclear/Core Correlation Location Layout

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

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

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

The zones are supposed to be undisclosed to the contractor/roller operators. The engineer will not lay out density/core test sites until rolling is completed and the cold/finish roller is beyond the entirety of the zone. Sites are staggered across the 12-foot travel lane, and do not include shoulders. The outermost locations shall be 1.5-feet from the center of the gauge to the edge of the lane. [NOTE: This staggered layout is only applicable to the test strip. All mainline density locations after test strip shall have a longitudinal and transverse random number to determine the location as detailed in the *WisDOT Test Method for HMA PWL QMP Density Measurements for Main Production* section of this document.]

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



(a) (b)

Figure 2: Nuclear Gauge Orientation for (a) 1st One-Minute Reading and (b) 2nd One-Minute Reading

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



Figure 3: Layout of Raw Gauge Readings as Recorded on the Pavement

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

Each core 100 or 150 mm (4 or 6 inches) in diameter will be taken at locations as identified in Figure 1. Each random core will be full thickness of the layer being placed. Thoroughly dry cores obtained from the

mat according to WTM R79 prior to using specimens for in-place density determination according to WTM T166.

Cut cores by the next day after completion of the test strip, except if the next day is not a working day, then cut within 48 hours of placement. Cores are cut under department/project staff observation. Relabel each core immediately after extruding or ensure that labels applied to pavement prior to cutting remain legible. The layer interface should also be marked immediately following extrusion. Cores should be cut at this interface, using a wet saw, to allow for density measurement of only the most recently placed layer. Cores should be protected from excessive temperatures such as direct sunlight. Also, there should be department custody (both in transport and storage) for the cores until they are tested whether that be immediately after the test strip or the subsequent day if agreed upon between department and contractor. Use of concrete cylinder molds works well to transport cores. Cores should be placed upside down (flat surface to bottom of cylinder mold) in the molds, one core per mold, cylinder molds stored upright, and ideally transported in a cooler. Avoid any stacking of pavement cores.

Fill all core holes with non-shrink rapid-hardening grout, mortar, or concrete, or with HMA. When using grout, mortar, or concrete, remove all water from the core holes prior to filling. Mix the mortar or concrete in a separate container prior to placement in the hole. If HMA is used, fill all core holes with hot-mix matching the same day's production mix type at same day compaction temperature +/- 20 F. Dry the core holes and coat with tack before filling, filled with a top layer no thicker than 2.25 inches, lower layers not to exceed 4 inches, and compacted with a Marshall hammer or similar tamping device using approximately 50 blows per layer. The finished surface shall be flush with the pavement surface. Any deviation in the surface of the filled core holes greater than ¼ inch at the time of final inspection will require removal of the fill material to the depth of the layer thickness and replacement.

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

For nuclear density testing of the pavement beyond the test strip, QC tests shall be completed at three locations per sublot, with a sublot defined as 1,500 lane feet. The three locations shall represent the outside, middle, and inside of the paving lane (i.e., the lane width will be divided into thirds as shown by the dashed longitudinal lines in Figure 3 and random numbers shall be used to identify the specific transverse location within each third determined by WTM D3665). Longitudinal locations within each sublot shall be determined with 3 independent random numbers determined by WTM D3665. The PWL Density measurements do not include the shoulder and other appurtenances. Such areas are tested by the department and are not eligible for density incentive but are subject to disincentive according to 460.5.2.2(5) of the HMA PWL QMP article. Measure each location with two one-minute gauge readings oriented 180 degrees from one another, in the same footprint as detailed in Figure 2 above. Each location requires a minimum of two readings per gauge. The density gauge orientation for the first test shall be with the source rod towards the direction of paving. QV nuclear testing will consist of one randomly selected location per sublot. The QV is also comprised of two one-minute readings oriented 180 degrees from one another. For both QC and QV test locations, if the two readings exceed 1.0 pcf of one another, a third reading shall be conducted in the same orientation as the first reading. In this event, all three readings are averaged, the individual test reading of the three which falls farthest from the average value is discarded, and the average of the remaining two values is used to represent the location for the gauge. The sublot density testing layout is depicted in Figure 4, with QC test locations shown as solid black boxes and QV test locations shown as dashed red boxes.

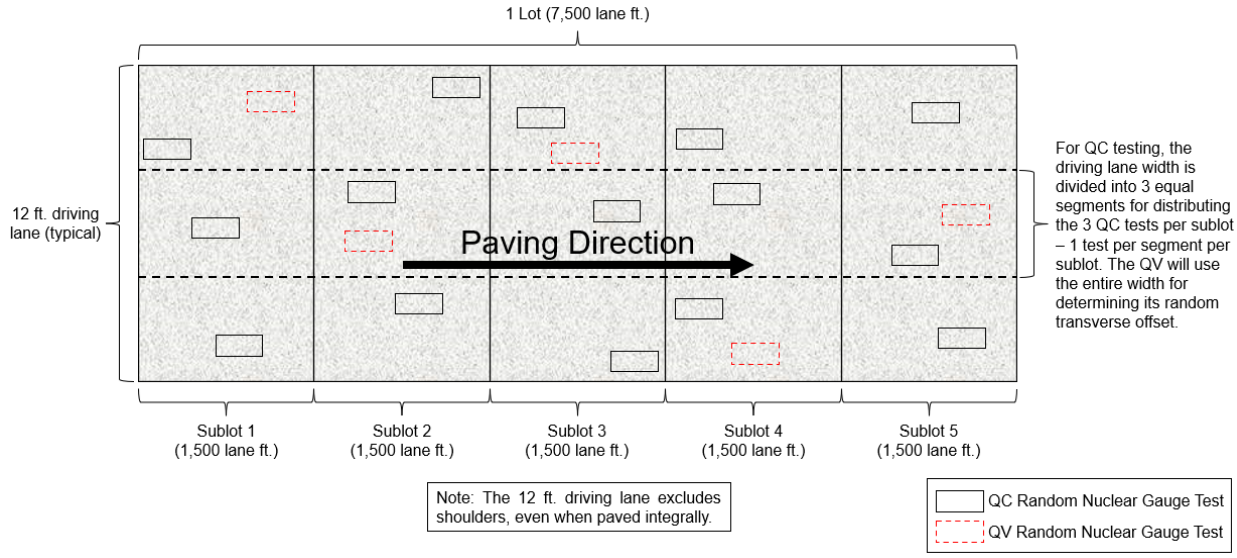


Figure 4: Example Layout of Mainline HMA Nuclear Density Tests

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

Investigative cores will be allowed on the approaching side of traffic outside of the footprint locations. Results shall be shared with the department.
The QV density technician is expected to be onsite within 1 hour of the start of paving operations and should remain on-site until all paving is completed. Perform footprint testing as soon as both the QC and QV nuclear density technician are onsite and a minimum of once per day to ensure the gauges are not drifting apart during a project. Footprint testing compares the density readings of two gauges at the same testing location and can be done at any randomly selected location on the project. Both teams are encouraged to conduct footprint testing as often as they feel necessary. Footprint testing does not need to be performed at the same time. At project start-up, the QV should footprint the first 10 QC locations. Individual density tests less than 0.5% above the lower limit should be communicated to the other party and be footprint tested. Each gauge conducts 2 to 3 1-minute tests according to WTM T355 and the final results from each gauge are compared for the location. If the difference between the QC and QV gauges exceeds 1.0 pcf (0.7 percent) for an average of 10 locations, investigate the cause, check gauge moisture and density standards and perform additional footprint testing. If the cause of the difference between gauge readings cannot be identified, the regional HMA Coordinator will consult the RSO, the regional PWL representative and the BTS HMA unit to determine necessary actions. If it is agreed that there is a gauge comparison issue, perform one of the following two options:

New Gauge Combination

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

Re-correlation of Gauges

- Follow all test strip procedures regarding correlating gauges except the following:
- The 10 locations can be QC or QV random locations.
- The locations used may have been paved on a previous day.
- Retesting with gauges must be done immediately prior to coring.

- New gauge offsets will be used for that day's paving and subsequent paving days. New gauge offsets will not be used to recalculate density results from prior days.

Density Dispute Resolution Procedure

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

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

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

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

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

Sampling for WisDOT HMA PWL QMP Production

Sampling of HMA mix for QC, QV, Retained, and Extra split samples shall conform to WTM R97 and WTM R47.

Sampling Hot Mix Asphalt

At the beginning of the contract, determine the anticipated tonnage to be produced. The frequency of sampling is 1 per 750 tons (sublot) for QC and Retained Samples and 1 per 3,750 tons (lot or 5 sublots) for QV as defined by the HMA PWL QMP article. A test sample is obtained randomly from each sublot. Each random sample shall be collected at the plant according to WTM R97. Submit the random numbers for all mix sampling to the department before production begins.

Example 1

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

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

The approximate location of each sample within the prescribed sublots is determined by selecting random numbers using WTM D3665. The random numbers selected are used in determining when a sample is to

be taken and will be multiplied by the sublot tonnage. This number will then be added to the final tonnage of the previous sublot to yield the approximate cumulative tonnage of when each sample is to be taken.

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

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

If the production is less than the final randomly generated sample tonnage, then the random sample is to be collected from the remaining portion of that sublot of production. If the randomly generated sample is calculated to be within the first 0-50 tons of the subsequent day of production, it shall be taken in the next truck. Add a random sample for any fraction of 750 tons at the end of the contract. Lot size will consist of 3750 tons with sublots of 750 tons. Partial lots with less than three sublot tests will be included into the previous lot, by the engineer.

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

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

Collect QC, QV, Retained, and Extra split samples for all test strip and production mixture testing using a four-part splitting procedure according to WTM R47.

Calculation of PWL Mainline Tonnage Example

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

Solution:

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

stp-460-055 (20240105)

29. HMA Pavement Longitudinal Joint Density.

A Description

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

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

B Materials

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

TABLE B-1 MINIMUM REQUIRED LONGITUDINAL JOINT DENSITY

Layer	Percent of Target Maximum Density

	Unconfined		Confined	
	LT and MT	HT	LT and MT	HT
Lower (on crushed/recycled base)	88	89	89.5	90.5
Lower (on Concrete/HMA)	90[1]	90[1]	91.5[1]	91.5[1]
Upper	90	90	91.5	91.5

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

C Construction

Add the following to standard spec 460.3.3.2:

(5) Establish companion QC and QV density locations for each applicable joint. Each companion location shares longitudinal stationing with the respective QC or QV mainline density location within each sublot and is located transversely with the center of the gauge 6-inches from the final joint edge of the paving area. Sublot and lot numbering remains the same as mainline densities, however, in addition to conventional naming, joint identification must clearly indicate “M” for inside/median side of lane or “O” for outside shoulder side of lane, as well as “U” for an unconfined joint or “C” for a confined joint (e.g., XXXXX-MC or XXXXX-OU).

(6) Each joint shall be measured, reported, and accepted under methods, testing times, and procedures consistent with the program employed for mainline density, i.e., PWL.

(7) For single nuclear density test results greater than 3.0% below specified minimums per Table B-1 herein, perform the following:

a) Testing at 50-foot increments both ahead and behind the unacceptable site.
b) Continued 50-foot incremental testing until test values indicate higher than or equal to -3.0 percent from target joint density.
c) Materials within the incremental testing indicating lower than -3.0 percent from target joint density are defined as unacceptable and will be handled with remedial action as defined in the payment section of this document.
d) The remaining sublot average (exclusive of unacceptable material) will be determined by the first forward and backward 50-foot incremental tests that reach the criteria of higher than or equal to -3.0 percent from target joint density.

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

(8) Joint density measurements shall be kept separate from all other density measurements and entered as an individual data set into Atwood Systems.

(9) Placement and removal of excess material outside of the final joint edge, to increase joint density at the longitudinal joint nuclear testing location, shall be done at the contractor’s discretion and cost. This excess material and related labor will be considered waste and will not be paid for by the department. Joints with excess material placed outside of the final joint edge to increase joint density or where a notched wedge is used will be considered unconfined joints.

(10) When not required by the contract, echelon paving may be performed at the contractor’s discretion to increase longitudinal joint density and still remain eligible to earn incentive. The additional costs incurred related to echelon paving will not be paid for by the department. If lanes are paved in echelon, the contractor may choose to use a longitudinal vertical joint or notched wedge longitudinal joint as described in SDD 13c19 HMA Longitudinal Joints. Lanes paved in echelon shall be considered confined on both sides of the joint regardless of the selected joint design. The joint between echelon paved lanes shall be placed at the centerline or along lane lines.

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

D Measurement

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

E Payment

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

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

PAY ADJUSTMENT FOR HMA PAVEMENT LONGITUDINAL JOINT DENSITY

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

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

(2) The department will not assess joint density disincentives for pavement placed in cold weather because of a department-caused delay as specified in standard spec 450.5.2(3).

(3) The department will not pay incentive on the longitudinal joint density if the traffic lane is in disincentive A disincentive may be applied for each mainline lane and all joint densities if both qualify for a pay reduction.

(4) Inlay paving operations will limit payment for additional material to 2 inches wider than the final paving lane width at the centerline.

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

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

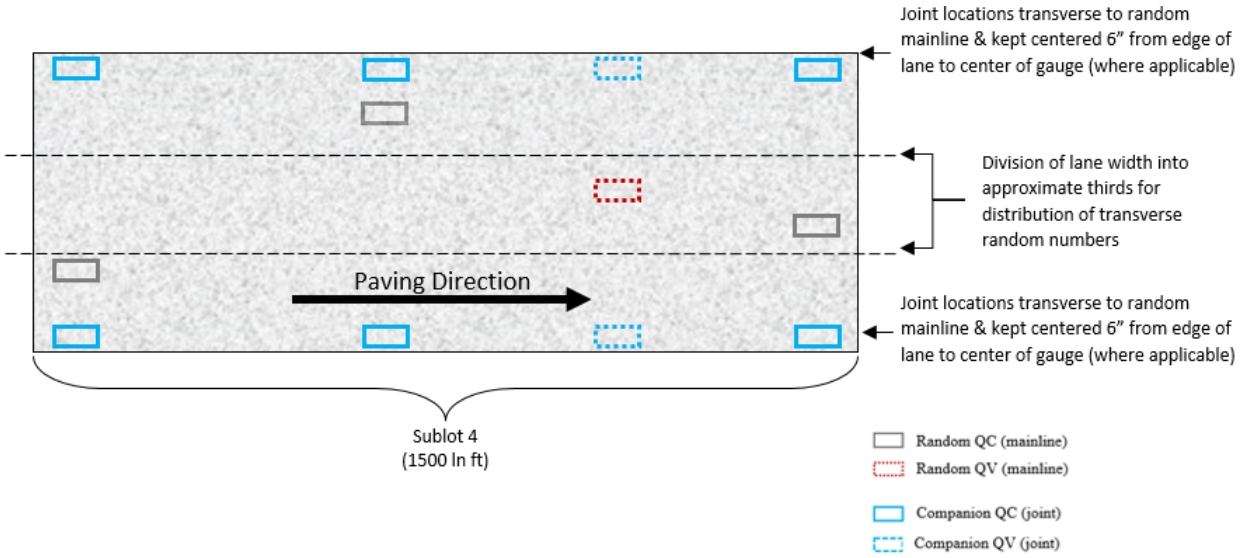
The department will administer disincentives under the Disincentive Density HMA Pavement Longitudinal Joints administrative item.

Appendix

WisDOT Longitudinal Joint – Nuclear Gauge Density Layout

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

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



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

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

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

stp-460-075 (20240105)

30. Material Transfer Vehicle, Item 460.9000.S.

A Description

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

B Materials

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

C Construction

Ensure that an operator stays with the MTV at all times during moving operations. Keep the paver's hopper full at all times and the MTV's hopper filled such that the conveying augers are never exposed to avoid segregation of the material. Placement of HMA upper layer pavement in the travel lanes will not be allowed without the MTV. Tie ins of intersections, shoulders paved separately, and other non-travel lane areas will not require the use of the MTV.

D Measurement

The department will measure Material Transfer Vehicle once for the contract, acceptably completed, regardless the number of vehicles in use.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
460.9000.S	Material Transfer Vehicle	EACH

Payment is full compensation for furnishing all material transfer vehicles and operators.

stp-460-900 (20230113)

31. Asphaltic Surface.

Replace standard spec 465.2 (1) with the following:

Under the Asphaltic Surface, Asphaltic Surface Detours, and Asphaltic Surface Patching bid items; submit a mixture design. Furnish asphaltic mixture meeting the requirements specified for HMA Pavement Type 4 MT 58-34 S under standard spec 460.2; except the engineer will not require the contractor to conform to the quality management program specified under standard spec 460.2.8. Use tack coat as required under 450.3.2.7.

32. Containment and Collection of Waste Materials B-54-0046, Item 517.4001.S.

A Description

This special provision describes furnishing and erecting tarpaulins to contain, collect and store the spent material from surface preparation of steel surfaces, collecting such spent material, and labeling and storing the spent material in waste containers.

B Materials

Provide 5-gallon lidded plastic containers for containing the spent material.

C Construction

Erect tarpaulins or other materials to collect all of the spent material from power tool cleaning. Consider and treat all spent material as hazardous waste.

Collect and store all waste material collected by this operation at the bridge site for disposal. Collect and store all waste materials at the end of each workday or more often if needed. Store materials in 5-gallon lidded plastic containers.

Label each container with the date the first waste was placed in the container and the words "Hazardous Waste – EPA Waste Code D008." Lock and secure all containers at the end of each workday. Keep the containers covered at all times except to add or remove waste material. Store the containers in an accessible and secured area, not located in a storm water runoff course, flood plain or exposed to standing water.

Collect the spent debris by vacuuming, shoveling, sweeping, or by channeling it directly to disposal containers. The enclosure shall be thoroughly cleaned at the end of each work day.

D Measurement

The department will measure Containment and Collection of Waste Materials (Structure) as a single unit for each structure, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
517.4001.S	Containment and Collection of Waste Materials B-54-006	EACH

Payment is full compensation for designing, erecting, operating, maintaining and disassembling the containment devices; collecting, labeling and storing spent materials in appropriate containers.

stp-517-037 (20230113)

33. Pipe Culverts

Replace standard spec 520.3.3 (5) with the following:

Provide joint ties on circular and horizontal elliptical concrete culvert and concrete cattle pass installations. Tie all joints including the endwall joint. Ties are not required on culverts with masonry endwalls unless the plans show them.

34. Adjusting Manhole Covers, Item 611.8110.

This special provision describes adjusting manhole covers conforming to standard spec 611 as modified in this special provision.

Adjust manhole covers located in pavement areas in two separate operations. Initially, remove designated manhole covers along with sufficient pavement to permit installation of temporary cover plate over the opening. Fill the excavated area with asphaltic pavement mixture, which shall remain in place until contract milling and paving operations permit setting the manhole frames to grade. During the second phase, remove the asphaltic pavement mixture surrounding the manhole plus the temporary cover plate, and set the manhole cover to final grade. The department will measure and pay for the items of asphaltic pavement mixture, temporary cover plate, milling, and paving separately.

Add to standard spec 611.3.7 the following:

Set the manhole frames so that they comply with the surface requirements of standard spec 450.3.2.9. At the completion of the paving, a 6-foot straightedge shall be placed over the centerline of each manhole frame parallel to the direction of traffic. A measurement shall be made at each side of the frame. The two measurements shall be averaged. If this average is greater than 5/8 inches, reset the manhole frame to the correct plane and elevation. If this average is 5/8 inches or less but greater than 3/8 inches, the manhole frame shall be allowed to remain in place but shall be paid for at 50 percent of the contract unit price.

If the manhole frame is higher than the adjacent pavement, the two measurements shall be made at each end of the straightedge. These two measurements shall be averaged. The same criteria for acceptance and payment as above, shall apply.

stp-611-005 (20200629)

35. 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)

36. 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)

37. 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 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, acceptable 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 backfill: for properly disposing of surplus materials: and for making inspections.

38. Traffic Signal Face 3S 12-Inch, Item 658.0173; Traffic Signal Face 4S 12-Inch, Item 658.0174.

Replace 658.2 (2) of the standard specifications with the following:

(2) Furnish materials from the department's QPL as follows:

- Traffic signal faces including signal housings, backplates, retroreflective backplates, and LED modules.
- Pedestrian signal faces including signal housing and LED modules.
- Pedestrian signal faces including signal housing and LED modules.
- Pedestrian push buttons
- Signal mounting hardware.

39. Installing and Maintaining Bird Deterrent System Station 367+00, Item 999.2000.S.01; Installing and Maintaining Bird Deterrent System Station 503+00, Item 999.2000.S.02.

A Description

This special provision describes inspecting, installing and/or maintaining approved deterrents that prevent migratory bird nesting on bridges and culverts. Swallows or other migratory birds' nests have been observed on or under the existing culvert or bridge at the station identified. All active nests (when eggs or young are present) of migratory birds are protected under the federal Migratory Bird Treaty Act. One deterrent system shall be installed and/or maintained for each applicable structure. Deterrent methods selected shall be appropriate for structure type, size and/or site-specific constraints.

B Materials

B.1 Hardware and Lumber

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

B.2 Netting Materials

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

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

a. 1/2" x 1/2" or 3/4" x 3/4" knotless, flame resistant, U.V. stabilized polyethylene or polypropylene netting with minimum 40-pound breaking strength per strand, or engineer approved equal.

b. Galvanized wire mesh (hardware cloth) with a wire diameter of .040 inches (19-gauge) and opening width of 1/2-inch.

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

B.3 Plastic Strip Curtain

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

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

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

Furnish concrete screws to attach strip curtain to structure.

B.4 Corner Slope Materials

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

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

C Construction

C.1 General

If active nests are observed after construction starts, or if a trapped bird or an active nest is found, stop work that may affect birds or their nests, and notify the engineer to consult with the Wisconsin Department of Natural Resources transportation liaison at Leah Nicole, at (715) 934-9014, or the department regional environmental coordinator Nathan Raymaker, at (715) 919-2643.

Efforts should be made to release trapped birds, unharmed.

C.2 Nest Removal

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

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

C.3 Exclusion Netting

C.3.1 Installation

Using concrete screws, anchor lumber to bridge or culvert along perimeter of intended netting. Fasten netting to lumber until netting is held taut. Use the minimum length of lumber and netting necessary to avoid sections of netting that are not flush to the bridge or culvert. Eliminate any loose pockets or wrinkles that could trap and entangle birds or other wildlife. Ensure the net is pulled taut in order to prevent flapping in the wind, which results in tangles or breakage at mounting points.

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

C.4 Plastic Curtains

C.4.1 Installation

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

C.5 Corner Slopes

C.5.1 Installation

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

C.6 Inspection and Maintenance

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

Remove any unoccupied or partially constructed nests without eggs or nestlings.

Repair deterrents to prevent birds from attempting to nest again.

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

C.7 Removal and Structure Repair

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

D Measurement

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

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

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
999.2000.S.01	Installing and Maintaining Bird Deterrent System Station 367+00	EACH
999.2000.S.02	Installing and Maintaining Bird Deterrent System Station 503+00	EACH

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

stp-999-200 (20250108)

40. Installing and Maintaining Climbing Turtle Exclusion Fence, Item 999.2100.S.

A Description

This special provision describes furnishing, installing, maintaining, repairing, and removing turtle exclusion fencing; or for maintaining, repairing, and removing turtle exclusion fencing when installed by others. See Prosecution and Progress for additional information.

B Materials

Use geotextile fabric in accordance with standard spec 628.2.6.1.

Use wooden posts with a minimum size of 1 1/8-inch x 1 1/8-inch and made from oak or hickory.

Use steel wire fencing with a minimum thickness of 20 gauge and maximum opening width of one-inch in any direction for drainage relief areas.

Use one of the following for fence cap for drainage relief areas:

- Commercially available safety cap with a lip to prevent turtles from climbing over.
- 6-inch underdrain pipe, slit longitudinally.
- Other DNR approved methods.

Furnish rock bags in accordance with standard spec 628.2.13.

Furnish sand bags in accordance with standard spec 628.2.8.

Furnish wire ties, nylon zip ties, or other engineer approved methods to secure materials in place.

C Construction

No ground disturbance, heavy equipment operation or supply/equipment storage shall occur unless exclusion fencing has been installed to keep turtles from entering the work area in accordance with the below provisions.

C.1 Installation Timeframes

Active Season: Install exclusion fencing prior to March 15. The active season runs from March 15 – October 31, both dates inclusive. Requests for date adjustments will only be considered if they coincide with the WDNR's weather-dependent activity periods found at this link: https://dnr.wisconsin.gov/topic/Wildlifehabitat/HerpRegulations.

Requests must be submitted to the engineer for approval. The engineer will consult with the WDNR Endangered Resources Transportation Liaison, Stacy Rowe. Other date adjustment requests will not be approved.

C.2 Locations/Exclusion Zone

Install exclusion fencing in the following areas within the timeframes identified in C.1:

Active Season: Within 1000 feet of the Flambeau River (B-54-50, station range from 587+25 to 592+00)**.**

C.2 Installation

Install exclusion fence in accordance with the plan details and as hereinafter provided:

Install fencing to have at least 24 inches of exposed material above ground and at least 6 inches trenched into the ground. If trenching is not possible due to ground conditions, place rock bags or sand bags continuously along the length where trenching is not possible. Other anchors may be used with approval from the engineer, with concurrence from the WDNR Endangered Resources Transportation Liaison..

Secure geotextile fabric to wooden posts using wire staples. Alternative methods to secure or brace the geotextile fabric may be approved by the engineer, with concurrence from the WDNR Endangered Resources Transportation Liaison. All alternative methods must prevent turtles from climbing the exclusion fence and entering the work area.

Install exclusion fence posts on the construction side of the fence to prevent turtles from climbing up the posts and entering the work area. This is opposite of the standard silt fence post installation for sediment control. Space exclusion fence posts a maximum of 8 feet apart, or more often as necessary to keep the geotextile fabric tight and secure. If silt fence is also required for sediment control, select one of the following options:

- Install a separate row of silt fence for sediment control on the construction side of the exclusion fencing; or
- Staple and entrench a second layer of geotextile fabric for exclusion fencing on the backside of the sediment control silt fence to cover the stakes and create a smooth surface; or
- Use another alternative that has been approved on a case-by-case basis by the engineer, with concurrence from the WDNR Endangered Resources Transportation Liaison. Submit alternative proposals to the engineer and allow at least two weeks for review.

Install turnarounds at all termini ends of exclusion fence and at any access openings to redirect turtles away from the work area.

When temporary access points are needed during construction that require openings in the exclusion fencing, place hay or straw bales in a continuous row through the opening when the opening is not needed for construction operations. Immediately reinstall exclusion fencing when the work requiring the temporary access opening has been completed.

Where openings are needed in the fencing for drainage relief purposes, install relief areas in accordance with the plan details at location directed by the engineer.

C.3 Turtle Survey

Survey the area on the construction side of the exclusion fence for turtles immediately after installation and prior to any land disturbing construction activity. If a turtle is encountered at any point in time, work in the immediate area must be stopped and the turtle shall be promptly and carefully removed and relocated to suitable habitat outside of the work area.

C.4 Inspection

Fences must be inspected at least once per week and after any significant rain event (0.5 inches or more of rainfall in any 24-hour period) or high wind event. Needed repairs to the exclusion fencing must be made immediately.

C.5 Maintenance Period

Maintain exclusion fence in good working order and free of openings during the following time period:

Active Season: Through October 31 or until ground disturbance, heavy equipment operation and supply/equipment storage activities within the suitable habitat is complete, whichever is earlier.

C.6 Removal

Remove all material upon completion of the work. Clean up and restore the surface after removal. The contractor owns materials after removal and is responsible for its disposal off the right-of-way.

D Measurement

The department will measure Installing and Maintaining Climbing Turtle Exclusion Fence 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
999.2100.S	Installing and Maintaining Climbing Turtle Exclusion Fence	LF

Payment for Installing and Maintaining Climbing Turtle Exclusion Fence is full compensation for furnishing, installing, repairing, maintaining, and removing fence; disposing all materials; and restoring the area.

stp-999-210 (20260701)

41. Adjusting Water Valves, Item SPV.0060.01.

A Description

This special provision describes locating, exposing, and protecting existing water valve boxes after the pavement is removed, furnishing and installing water valve box extensions if necessary; and adjusting the water valve boxes to the final finished elevation required.

B (Vacant)

C Construction

Furnish and install water valve box extensions to the existing water valve boxes, if necessary. Protect the water valve boxes during construction. Clean out the water valve boxes as necessary to assure the valve wrench will fit completely over the valve bolt. Adjust the valve boxes to the required final finished elevation.

D Measurement

The department will measure Adjusting Water Valves by the each, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.01	Adjusting Water Valves	EACH

Payment is full compensation for locating, exposing, and protecting water valve boxes; furnishing and installing water valve box extensions if necessary; exclusive of water valve boxes; cleaning out the water valve boxes, and adjusting water valve boxes to the final finished elevation. The contractor shall replace water valve boxes, which are damaged by the contractor’s operations, in kind, at the contractor's expense.

42. Embedded Galvanic Anodes, Item SPV.0060.02.

A Description

This special provision describes furnishing and installing embedded galvanic anodes in concrete.

B Materials

Furnish pre-manufactured galvanic anodes designed for cathodic protection when embedded in concrete and tied to steel reinforcing. The core of the anode shall consist of a minimum of 1.3 ounces of electrolytic zinc in compliance with ASTM B418 Type II, cast around a pair of steel tie wires and encased in a cementitious shell with a minimum pH of 14. The anodes shall have one side that is less than 1-1/2 inches in height.

Submit the product information to the engineer for approval. Supply a certification of compliance to the engineer a minimum of two weeks before starting work. Deliver, store, and handle all materials according to the manufacturer’s instructions.

C Construction

C.1 Concrete Repair

Repair the concrete and prepare the exposed reinforcing steel conforming to standard spec 509.

C.2 Galvanic Anode Installation

1. Install embedded galvanic anodes conforming to the manufacturer's recommendations.
2. Attach galvanic anodes to existing reinforcement along the perimeter of the repair at spacing as specified on the plans. Space anodes no further than 24 inches apart.
3. Provide 3/4-inch clearance between anodes and substrate.
4. Secure the galvanic anodes as close as possible to the patch edge using the anode tie wires. Tighten the tie wires to allow no free movement.

   If the anode is to be tied onto a single bar, or if less than 1-1/2 inch of concrete cover is expected, place anode beneath the uncoated bar and secure to reinforcing steel.

   If 1-1/2 inch concrete cover will exist over the anode, the anode may be placed at the intersection between two bars and secured to each bar.

C.3 Electrical Continuity

Confirm electrical connection between anode tie wire and uncoated reinforcing steel with a multi-meter. The maximum DC resistance shall be 1 Ohm. Confirm electrical continuity of the exposed uncoated reinforcing steel within the repair area. Steel reinforcement shall be considered continuous when the DC resistance is 1 Ohm or less. If necessary, establish the electrical continuity with uncoated steel tie wire.

C.4 Inspection

Obtain Engineer's verification of proper installation of the galvanic anodes prior to placement of the concrete.

D Measurement

The department will measure Embedded Galvanic Anodes as each individual anode acceptably installed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.02	Embedded Galvanic Anodes	EA

Payment is full compensation for furnishing and for properly installing anodes.

Concrete repair work, and concrete for that work, will be paid for separately.

43. Cleaning and Painting Piling, Item SPV.0060.03.

A Description

This special provision describes cleaning and painting the exposed areas above the groundline or waterline of the existing steel piling on the structure as shown on the plans, as directed by the engineer, and according to standard spec 517.

B Materials

Furnish a complete epoxy coating system from the department's approved product list for "Painting Systems for Exposed Piling". Use the same coating system for all repairs due to handling, shipping and erecting, and for all other uncoated areas. The color of epoxy shall be white and the urethane coating material shall match the color number shown on the plans according to AMS Standard 595A. Supply the engineer with the product data sheets before any coating is applied. The product data sheets shall indicate the mixing and thinning directions, the minimum drying time for shop or field applied coats, and the recommended procedures for coating galvanized bolts, nuts, and washers.

C Construction

C.1 Surface Preparation

Clean areas of loose paint and rust by wire brushing, grinding, or other mechanical means. Sound paint does not need to be removed.

After clean up and storage of waste material, blast cleaning is allowed for only those areas where paint has been removed. Shield adjacent painted areas during blast cleaning operations. The blasting sand does not have to be collected.

Furnish adequate containment methods as required to contain and collect waste material resulting from the preparation of painted steel surfaces for painting. All clean up activities should minimize dust. Store materials in 5-gallon lidded plastic containers.

C.2 Coating Application

Apply paint in a neat, workmanlike manner, and according to the manufacturer's instructions and recommendations.

D Measurement

The department will measure Cleaning and Painting Piling as each individual pile, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.03	Cleaning and Painting Piling	EA

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

44. Reseal Railing Post Connections, Item SPV.0060.04.

A Description

This special provision describes cleaning and resealing bridge railing post base plate to deck connections.

B Materials

Furnish non-staining, gray non-bituminous joint sealer conforming to 502.2.9.

C Construction

Remove all existing sealer, clean the surface and reseal all sides of railing base plate.

D Measurement

The department will measure Reseal Railing Post Connections each 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.0060.04	Reseal Railing Post Connections	EA

Payment is full compensation for removing existing joint sealer, cleaning the joint, furnishing and applying new joint sealer.

45. Ditch Cleaning, Item SPV.0090.01.

A Description

This special provision describes removing existing vegetation, brush, and sediment from the ditch flowline and for grading and shaping the ditch bottom and slopes to restore drainage and match adjacent slopes.

B (Vacant)

C Construction

Grade and shape the ditch flowline within the roadway right-of-way as necessary to remove existing vegetation and restore unimpeded flow. Do not excavate deeper than 1 foot nor disturb an overall lateral width greater than 10 feet. Grade and trim the lateral areas of disturbance to produce uniform side slope surfaces. Place salvaged topsoil as needed to reestablish the pre-excavated ditch flowline. Dispose of surplus material according to standard spec 205.3.12.

D Measurement

The department will measure Ditch Cleaning 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.0090.01	Ditch Cleaning	LF

Payment is full compensation for removing existing vegetation, brush, and debris, including accumulated sediment; for disposing of excavated materials; and for grading and shaping the ditch bottom and slopes to reestablish a positive ditch flowline.

Salvaged topsoil, seed, and erosion control items will be measured and paid for separately.

46. Flashing Stainless Steel, Item SPV.0090.02.

A Description

This special provision describes furnishing and installing a flashing system on structures.

B Materials

All materials for this system shall be new stock, free from defects impairing strength, durability, and appearance.

Provide stainless steel flashing that conforms to the requirements of ASTM A240, Type 304, 2B mill finish, with a minimum 16-gauge thickness. Provide 410 stainless steel hex head concrete screws.

Provide caulk at the top of the flashing for the entire length for a watertight seal between the concrete surface and the flashing system. Caulk shall conform to standard spec 502.2.9.

C Construction

Complete any required concrete surface repairs before flashing system installation.

Install flashing on the side of the deck as indicated on the plans, with minimum sheet lengths of 9.5-feet.

D Measurement

The department will measure Flashing Stainless Steel by the linear foot acceptably completed.

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.0090.02	Flashing Stainless Steel	LF

Payment is full compensation for fabricating, furnishing and installing the flashing system; and for furnishing and installing the caulk seal.

47. MGS Thrie Beam Transition TL-2, Item SPV.0090.03.

A Description

This special provision describes providing and constructing MGS Thrie Beam Transition TL-2 as shown on the plans and according to standard spec 614 and as hereinafter provided.

B Materials

See standard spec 614 for materials information.

C Construction

Construct the MGS Thrie Beam Transition TL-2 according to standard spec 614, the construction detail drawings, and as hereinafter provided.

D Measurement

The department will measure MGS Thrie Beam Transition TL-2 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.0090.03	MGS Thrie Beam Transition TL-2	LF

Payment is full compensation for providing rail, posts and offset blocks, terminal connectors, fittings, and hardware; for repairing damaged zinc coatings; for setting and driving posts; for excavating, backfilling and disposing of surplus materials; and for grouting bolt holes left in the parapet from the existing guardrail connection.

48. Removing Distressed Pavement Milling, Item SPV.0180.01.

A Description

This special provision describes the removal and disposal of additional 2-inches of asphaltic pavement by milling in areas of distressed pavement. This will be completed in spot locations throughout the project as directed by the engineer.

B (Vacant)

C Construction

C.1 Milling

Use a milling machine designed and constructed for milling pavements without tearing or gouging the underlying surface. Space the teeth on the drum to mill a surface finish that is acceptable to the engineer. Shroud the machine to prevent discharge of any loosened material into adjacent work areas or live traffic lanes. Equip the machine with electronic devices that provide accurate depth, grade, and slope control, and an acceptable dust control system.

The milling operation is to be done in a manner to prevent damage to the remaining pavement. It should result in a reasonably uniform plane surface free of excessively large scarification marks, and with the uniform transverse slope required on the plans or directed by the engineer.

Windrowing or storing of the removed milled asphaltic pavement on the road is only permitted in connection with the continuous removal and pick-up operation. During nonworking hours, clear the road of waste materials and equipment.

Properly dispose of removed material according to standard spec 204.

C.2 Cleaning

Clean the milled surface by removing all dust, dirt, debris, or other foreign or loose material.

C.3 Pavement Prep

The cleaned milled surface will have Tack Coat applied and be filled with Asphaltic Surface.

D Measurement

The department will measure Removing Distressed Pavement Milling by the square yard, acceptably completed.

E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0180.01	Removing Distressed Pavement Milling	SY

Payment is full compensation for removing the asphaltic surface; cleaning the milled surface; and for disposing of waste material. Tack Coat and Asphaltic Surface will be paid for separately.

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 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

104.2.2 Issuing Change Orders

Replace subsection 104.2.2 with the following and rearrange to add a 104.2.2.7 effective with the February 2026 letting.

104.2.2.1 Change Orders for Differing Site Conditions

(1) During the progress of the work, if one or more of the following differing conditions are encountered at the site, the party discovering the condition must promptly notify the other party of the specific condition before further disturbing the site and before further performing the affected work.

1. A subsurface or latent physical condition, differing materially from those indicated in the contract.
2. An unknown physical condition of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in the work specified in the contract.

(2) If the contractor discovers the differing condition, the contractor shall provide oral notification as specified in 104.3.2, of the specific differing condition before further disturbing the site and before further performing the affected work.

(3) The project engineer will investigate the conditions. If the project engineer determines the conditions materially differ and cause an increase or decrease in the cost, time, or both, required to perform the work under the contract, the project engineer will adjust the contract price, time, or both, and modify the contract in writing accordingly. The project engineer will respond to the contractor as to whether or not an adjustment is warranted. The project engineer will follow the contractor notification procedures specified in 104.3.

(4) The department will not allow a contract adjustment unless the contractor has provided the required notice as specified in 104.3.

104.2.2.2 Change Orders for Engineer-Ordered Suspensions

(1) If the project engineer suspends or delays the performance of all or any portion of the work in writing for an unreasonable period of time (not originally anticipated, customary, or inherent to the construction industry) and the contractor believes that additional payment, contract time, or both, is due because of the suspension or delay, the contractor shall notify the engineer as specified in 104.3.

(2) The project engineer will evaluate the contractor's request. If the project engineer agrees that the cost, time, or both, required for the performance of the contract has increased due to the suspension or delay and the suspension or delay was caused by conditions beyond the control of and not the fault of the contractor, its suppliers, or subcontractors at any approved tier, and not caused by weather, the project engineer will make an adjustment and modify the contract in writing accordingly. The project engineer will respond to the contractor as to whether or not an adjustment is warranted as specified in 104.3.6.

(3) The project engineer will not consider a contract adjustment unless the contractor submits the request for adjustment within the time specified above.

(4) The project engineer will not consider a contract adjustment under this clause to the extent that the performance would have been suspended by any other cause, or for which an adjustment is provided or excluded under any other term or condition of this contract.

104.2.2.3 Change Orders for Altered Work

(1) If original contract work is altered from what is included in the contract, the department will adjust the contract if the character of the work as altered differs materially in kind or nature from that involved or included in the original contract.

(2) Before performing altered work, reach agreement with the project engineer for any price adjustments as specified in 109.4. If the project engineer does not agree that the work has significantly changed and a price adjustment is justified, follow the notification procedures as specified in 104.3.

(3) If the alterations do not significantly change the character of the work under the contract, the department will not adjust the contract.

104.2.2.4 Change Orders for Quantity Variations

(1) If all original contract work for a bid item is completed as required in the contract, and the measured quantity for that bid item varies from the contract quantity, the department will adjust the contract if the department or contractor demonstrates that the quantity variation affects the contractor's unit cost to perform the work and

meets one of the criteria below. If the quantity variation does not significantly change the character of the work under the contract, the department will pay for the work at the contract price.

1. The quantity of a major bid item, as defined in 101.3, is increased in excess of 125 percent or decreased below 75 percent of the original contract quantity. Any allowance for an increase in quantity applies only to that portion in excess of 125 percent of the original contract bid item quantity, or in case of a decrease below 75 percent, to the work actually performed.
2. The quantity of a minor bid item is increased to become a major bid item. An adjustment in the contract unit price for that bid item applies only to the quantity of that bid item having a contract value as follows:

   Original Contract < $8M: In excess of 6.25 percent of the original contract.

   Original Contract >= $8M: In excess of $500,000.
3. The quantity of a minor bid item that is part of an approved subcontract and that exceeds 10 percent of the original value of that subcontract is decreased more than 50 percent from the original contract quantity for that bid item. Either party to the contract may submit a request for a revision to the contract unit price for that bid item. The department's total payment for the final reduced quantity will not exceed 75 percent of the original contract quantity at the contract price.
4. The quantity of a minor bid item that is part of an approved subcontract and that exceeds 10 percent of the original value of that subcontract is increased more than 50 percent from the original contract quantity for that bid item and which as increased does not qualify for adjustment as a major bid item. Either party to the contract may submit a request to the other for a revision of the contract unit price for that quantity of the bid item that is in excess of 125 percent of the original contract quantity.

104.2.2.5 Change Orders for Extra Work

(1) The department has the right to direct extra work not required in the original contract, as defined in 101.3.

(2) The engineer will determine payment for extra work as specified in 109.4.

104.2.2.6 Change Orders for Eliminated Work

(1) The department has the right to partially eliminate or completely eliminate work the project engineer finds to be unnecessary for the project. If the project engineer partially eliminates or completely eliminates work, the project engineer will issue a change order for a fair and equitable amount as specified in 109.5.

104.2.2.7 Change Orders for Revisions to Contract Time

(1) The department will issue a change order to revise the contract time as specified in 108.10.

104.6 Roadway Maintenance and Traffic Control

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 days 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.

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105 Control of the Work

105.13 Claims Process for Unresolved Changes

Replace subsection with the following effective with the February 2026 letting.

105.13.3 Submission of Claim

(1) Submit the claim to the project engineer as promptly as possible following the submission of the Notice of Claim. If the contractor does not submit the claim prior to the earlier of the following dates, the department will deny the claim:

1. 120 calendar days from the date of the Notice of Claim.
2. The end of the time allowed under 109.7 for the contractor to respond in writing to the engineer issued semi-final estimate.

(2) The department will not accept the submission of a claim until the resolution process in 104.3 has been completed and the contractor makes no further requests to submit updated information that may affect the region's final decision.

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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

Add paragraph 107.27.1(5) to the information included with the November 2024 ASP-6, effective with the February 2026 letting.

(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).

(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.

(5) UAS and UAS components are required to be compliant with federal guidelines outlined in the American Security Drone Act of 2023 (ASDA) and the OMB memorandum M-26-02.

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 [1]

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	-

[1] Size according to AASHTO M43.

415 Concrete Pavement

415.3.16 Tolerance in Pavement Thickness

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.

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420 Diamond Grinding

420.3.4 Residual Disposal

Replace subsection with the following effective with the November 2026 letting.

(1) Remove solid and liquid grinding residues from the roadway by vacuuming. Leave the roadway in a clean, damp condition immediately behind the grinding machine. Remove residue immediately in areas of cross traffic. Do not allow residue and water to flow or blow across lanes used by public traffic.

(2) Do not allow solid and liquid grinding residues to enter any storm sewer, waterway, wetland, or other drainage conveyance system.

(3) Contractor is responsible for the disposal of solid and liquid grinding residues. Dispose of solid and liquid grinding residues in accordance with regulatory requirements at an acceptable disposal site. Perform all necessary coordination with the regulatory agency and disposal site owners and operators.

(4) Submit disposal methods and proposed disposal site information with the ECIP.

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506 Steel Bridges

506.1 Description

Replace paragraph (1) with the following effective with the November 2026 letting.

(1) This section describes fabricating, furnishing, casting, machining or preparing otherwise, delivering, installing, and erecting the steel and miscellaneous metals required for steel bridges, or metal parts of other bridges.

506.2.6 Elastomeric Bearings

506.2.6.1 General

Replace subsection with the following effective with the November 2026 letting.

(1) Furnish laminated bearings from the APL of laminated elastomeric bearings

(2) Manufacture bearings according to AASHTO M251 except replace the requirements of sections 4.1 and 4.2 with the following:

- Use virgin crystallization resistant polychloroprene, or virgin natural polyisoprene as the raw polymer. Use only new material with no reclaimed material incorporated in the finished bearing.
- Provide elastomer with durometer hardness of 60 on the Shore "A" scale. Provide elastomer compounds classified as low-temperature zone D, grade 4 or 5, meeting the requirements of AASHTO LRFD Bridge Design Specifications, table 14.7.5.2-1.
- Conform to the following physical properties:

	POLYISOPRENE (NATURAL RUBBER)	POLYCHLOROPRENE (NEOPRENE)
Grade (durometer)	60±5	60±5
Physical properties		
Hardness (ASTM D2240)	60+/-5	60+/-5
Tensile strength (ASTM D412), psi	2500	2500
Ultimate elongation, minimum percent	400	400
Low temperature brittleness (ASTM D2137, Test method C)		
Grade 4, test at -54°F	No Failure	No Failure
Grade 5, test at -71°F	No Failure	No Failure
Laminated pad adhesion test (ASTM D429, method B)		
Bond strength, psi	40	40

506.2.7 Welded Stud Shear Connectors

Replace paragraph (3) with the following effective with the November 2026 letting.

(3) Determine tensile properties according to ASTM A370. Perform tensile tests of finished studs on studs welded to test plates using a test fixture similar to figure 9.2 of clause 9 of AWS D1.5 (2025). If fracture occurs outside the middle half of the gauge length, repeat the test.

506.3 Construction

506.3.1 General

506.3.1.1 Primary Members

Replace subsection with the following effective with the November 2026 letting.

(1) Components not listed in 506.3.1.2 or 506.3.1.3 are considered primary members unless otherwise noted in the contract documents. Ensure that primary members are fabricated by an approved fabricator selected from the APL for primary members.

(2) Ensure that the fabricator does the following:

- Submits department form DT2330 electronically to the department's fabrication library for each structure before fabrication.
- Submits and updates weekly fabrication progress reports on department form DT2172 electronically to the department's fabrication library for each structure during fabrication.

506.3.1.2 Secondary Members

Replace subsection with the following and retitle subsection effective with the November 2026 letting.

(1) Materials used in the following applications are considered secondary members

- Fabricated Bridge Components: steel diaphragms for concrete bridges, diaphragms and cross-frames for steel bridges (except for horizontally curved bridges), railing assemblies (including guard rail connections), expansion joint devices (including protection angles), and bearing assemblies (including sole plates, masonry plates).
- Laminated elastomeric bearings
- Stud shear connectors
- Fill plates
- Ballast plates
- Drainage systems

(2) Ensure that fabricated bridge components are manufactured by an approved fabricator selected from the APL for fabricated bridge components.

(3) For fabricated bridge components, ensure the fabricator submits a fabrication progress report on department form DT2334 electronically to the department's fabrication library. Update this form weekly for each component in fabrication.

(4) Ensure that sole plates and ballast systems are fabricated by an approved fabricator selected from the APL for fabricated bridge components or primary members.

(5) Ensure that stud shear connectors meet the requirements of 506.2.7 and 506.3.20.

506.3.1.3 Other Structural Steel Components

Add subsection effective with the November 2026 letting.

(1) Ensure that soldier pile walls with tieback anchor assemblies are fabricated by an approved fabricator selected from the APL for soldier pile wall with tie back anchors. Tieback anchor assemblies include but is not limited to the cover plates and extra strong steel pipe.

506.3.2 Shop Drawings

Replace paragraphs (2) and (3) with the following effective with the November 2026 letting.

(2) Submit shop drawings to the engineer conforming to 105.2 with electronic submittal to the fabrication library under 105.2.2. Also certify that shop drawings conform to quality control standards before fabrication by submitting department form DT2333 for primary members and department form DT2327 for fabricated bridge components with each set of shop drawings. Department review does not relieve the contractor from responsibility for errors or omissions on shop drawings. Shop drawings for drainage systems do not need to be submitted to the fabrication library under 105.2.2.

(3) Shop drawings are part of the contract. The department must approve differences between shop drawings and contract plans. The contractor bears the costs of department-approved substitutions. Do not deviate from or revise drawings without notifying the department and resubmitting revised drawings and an updated department form DT2333 and DT2327 for primary members and fabricated bridge components respectively.

506.3.4.2 Camber

Replace paragraph (1) with the following effective with the November 2026 letting.

(1) If the plans show, camber rolled beams conforming to a uniform, approximately circular curve for the entire length of the beam or between designated points. Ensure the camber is within the tolerance specified in the current editions of the American Institute of Steel Construction Manual and AWS D1.5 Bridge Welding Code.

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[1]
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

[1] Equal to the proof load by the length measurement method as specified in ASTM F3125 for grade A325 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

506.3.19.3 Procedure Qualifications

Replace paragraph (1) with the following effective with the November 2026 letting.

(1) Ensure that procedure qualifications conform to Clause 7 of AWS D1.5 (2025).

506.3.19.4 Welding Inspection

Replace subsection title and text with the following effective with the November 2025 letting.

Add paragraph (3) effective with the November 2026 letting.

(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.

(3) Ensure fabrication and inspection for soldier pile walls with tie back anchors follow the requirements of the current edition of AWS D1.1 Structural Welding Code, modified as follows:

- Test all welds for surface and near-surface discontinuities using magnetic particle testing according to ASTM E709, utilizing the yoke method.

506.3.20 Stud Shear Connectors

Replace paragraph (1) with the following effective with the November 2026 letting.

(1) Use studs for shear connectors if the plans show. Weld conforming to Clause 9 of AWS D1.5 (2025) except as follows:

1. Fillet welds varying in size from 3/16 to 5/16 inch are satisfactory provided the studs pass other required tests. Make adequate provision in structural member fabrication to compensate for camber loss due to shear connector welding.
2. Ensure the studs are free from rust, scale, rust pits, and oil at the time of welding and immediately before placing the concrete.
3. Longitudinal and lateral spacing of studs with respect to each other and to edges of beam or girder flanges must not vary more than 1/2 inch from the dimensions the plans show, except that the engineer will allow a variation of one inch if required to avoid obstruction of other attachments on the beam, or if welding a new stud to replace a defective one. Ensure a minimum distance from the edge of a stud shank to the edge of a beam or plate of one inch exists, but preferably 1 1/2 inch or more.

4. Notify the engineer promptly of any changes in the welding procedure at any time during construction.
5. If welding the studs reduces their height to less than normal, immediately stop welding and do not resume until correcting the cause.
6. After welding the studs to the beams, perform a visual inspection and give each stud a light blow with a hammer. Bend test studs without a complete 360-degree end weld, studs that do not ring when given a light blow with a hammer, studs repaired by welding, or studs reduced to less than normal in height due to welding. The bend test consists of bending the stud 15 degrees from its correct installation axis by striking with a hammer. In cases of a defective or a repaired weld, bend the stud in the direction that places the weld's defective portion in the greatest tension. Replace studs that crack either in the weld or in the shank.
7. The engineer may select additional studs to subject to the bend test specified in item 6 above.

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 2026 letting.

(1) The steel fabricator performing the coating application must demonstrate qualification by obtaining the AISC Complex Coating Endorsement (CCE), or a quality certification system acceptable to the Engineer and a Quality Manual (QM) that is acceptable to the Engineer.

(2) 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.

(3) For structural steel, including weathering steel, and miscellaneous metals that will be encased in concrete, paint as specified in 517.3.1.

(4) For galvanized surfaces paint as specified in 517.3.1.

(5) 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.

(6) 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.

(7) Upon fabrication and acceptance, coat pins and pinholes with a plastic or other engineer-approved coating before removing from the shop.

(8) 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.

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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.

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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.

513.3 Construction

513.3.5 Welding

Replace paragraph (1) with the following effective with the November 2026 ASP-6.

(1) Weld railing as the plans show and conforming to the following:

For steel railing: AWS D1.1, Structural Welding Code (current edition).

For aluminum railing: AWS D1.2, Structural Welding Code - Aluminum.

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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 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 Bureau of Structures 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.

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550 Driven Piles

550.3.9 Pre-Boring

550.3.9.1 General

Add paragraph (2) effective with the February 2026 letting.

(1) Pre-bore holes to the depth the plans or special provisions require. Submit written requests for pre-boring not required under the contract to the engineer for review and approval. Do not impair the capacity of in-place piles or damage adjacent structures by pre-boring operations.

(2) Contractor may elect to not perform pre-boring, subject to written approval from the engineer as specified in 104.2.1(2). If the contractor elects to not perform pre-boring and subsequently pre-boring is necessary at any point throughout the project, no additional time or compensation will be granted.

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608 Storm Sewer

608.4 Measurement

608.4.2 Rock Excavation for Storm Sewer

Replace paragraph (3) with the following effective with the November 2026 letting.

(3) The department will measure this work vertically from the top of the rock to the bottom of the rock, or to an elevation 6 inches below the bottom of the pipe or storm sewer structure, whichever is higher. The department will measure this work horizontally as the outside diameter of the pipe or outside dimension of the structure, plus 3 feet, 1 1/2 feet on either side, regardless of actual width required under 608.3.1.1.

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611 Catch Basins, Manholes, and Inlets

611.4 Measurement

Replace subsection with the following to add paragraph (2) effective with the November 2026 letting.

(1) The department will measure the bid items under this section as each individual unit acceptably completed.

(2) The department will measure rock excavation as specified for storm sewer rock excavation in 608.4.

611.5 Payment

611.5.1 General

Add paragraph (2) effective with the November 2026 letting.

(2) The department will pay separately for rock excavation as specified for storm sewer rock excavation in 608.4.

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621 Landmark Reference Monuments

Remove Standard Specification 621 (Landmark Reference Monuments) effective with the November 2025 letting. Refer to updated information in this ASP-6 for standard specifications 680 and 682.

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633 Delineators and Markers

633.2.4 Barrier Wall Delineators

Replace paragraph (1) with the following effective with the November 2026 letting.

(1) Furnish aluminum for barrier wall delineators conforming to ASTM B221, alloy 6061-T6 with sheeting from the APL. Furnish stainless steel stud bolts, self-locking nuts, and washers conforming to ASTM F593, type 316 stainless steel.

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643 Traffic Control

643.1 Description

Replace paragraph (1) with the following effective with the November 2025 letting. Replace paragraph (1) with revised information effective with the November 2026 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 end location marker	

643.2.2 Department's Approved Products List (APL)

Replace paragraph (1) with the following effective with the November 2025 letting. Replace paragraph (1) with revised information effective with the November 2026 letting.

(1) Furnish materials from the APL as follows:

- Drums
- Barricades type III
- Flexible tubular marker posts including bases
- Warning lights and attachment hardware
- Channelizing curb systems
- Connected work zone end location marker
- Connected arrow boards
- Sign sheeting
- 42-inch cone assemblies
- Portable changeable message signs
- Speed feedback trailers

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* to notify 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 and add paragraphs (3) and (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 Location Marker

Add subsection effective with the November 2025 letting. Replace subsection with revised subsection title and text information effective with the November 2026 letting.

(1) Place work zone 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.

(2) Ensure the connected work zone location marker operates continuously when deployed on the project.

(3) Ensure the work zone location marker and connected arrow board are from the same manufacturer.

(4) When the work zone end location marker is switched to the ON mode, verify the location marker transmits location and identity as end marker to the data feed.

(5) Switch the work zone end location marker 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 End Location Marker 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. Replace revised paragraph (1) with the following effective with the November 2026 letting.

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

ITEM NUMBER	DESCRIPTION	UNIT
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
643.1222	Traffic Control Connected Work Zone End Location Marker	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. Add paragraph (8) effective with the February 2026 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.

(8) Apply both lines of the centerline marking simultaneously to ensure a consistent gap.

646.3.1.5 Marking Acceptance

Replace paragraph (4) with the following effective with the November 2026 letting.

(4) Remove and replace all marking in sections with failing initial retroreflectivity. Remove and replace marking that the engineer deems improperly constructed. Remove existing marking in the groove before replacement. If post-acceptance inspections uncover evidence of defective material or improper construction, the department may revoke acceptance under 105.11.2.3.

646.3.1.6 Proving Period

646.3.1.6.1 General

Replace paragraph (1) with the following effective with the February 2026 letting.

(1) The engineer may conduct post acceptance inspections periodically during a proving period to evaluate the physical presence of pavement marking and, for permanent markings, the retroreflectivity. The proving period begins on the last day of the week, for all marking placed within that week. The proving period extends through April 15 of the next calendar year or 180 days, whichever is longer. If weather or road surface conditions prevent the engineer from fully evaluating the marking at the end of the proving period, the engineer may extend the proving period.

646.3.1.6.2 Retroreflectivity

Replace paragraph (1), included with the November 2025 ASP-6, with the following effective with the February 2026 letting.

(1) For permanent 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^2, meets or exceeds the following:

MATERIAL	COLOR	180 DAY DRY RETROREFLECTIVITY
Epoxy	White	150
	Yellow	100
Wet Reflective Epoxy	White	250
	Yellow	150
Permanent Tape	White	400
	Yellow	335

646.3.2 Long Line Marking

646.3.2.3 Grooving

646.3.2.3.2 Wet Reflective Epoxy

Replace paragraph (1) with the following effective with the February 2026 letting.

(1) Apply wet reflective epoxy binder in a grooved slot and provide a double drop bead system at the application rate specified in the APL.

646.3.2.4 Black Epoxy

Replace paragraph (1) with the following effective with the November 2026 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 or glass beads at or exceeding 25 pounds per gallon of epoxy.

646.3.3 Special Marking

Replace subsection with the following effective with the February 2026 letting.

(1) Fill in any breaks left from the stencil with the same material to ensure there are no gaps.

(2) Under the Marking Railroad Crossings bid items, apply the RXR symbol and 3 transverse lines as the plans show.

(3) Under the Marking Curb bid items, mark the vertical face and the top of the curb.

(4) Under the Marking Aerial Enforcement Bars bid items, the department will locate the marking. Notify the engineer at least one week before marking so the State Patrol can provide exact locations.

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650 Construction Staking

650.3.12 Supplemental Control Staking

Replace paragraph (2) with the following effective with the November 2026 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 as described in CMM 710, table 710-1.

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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).

(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:

ITEM NUMBER	DESCRIPTION	UNIT
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.

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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:

ITEM NUMBER	DESCRIPTION	UNIT
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

Replace Table 710-2, included with the November 2025 ASP-6, with the following effective with the February 2026 letting.

MODIFICATION TYPE		LEVEL I	LEVEL II	NEW MIX DESIGN DURING PROJECT
Change in:	Water source	X		
	Cement source, type, or brand			X
	Total cementitious		X [1]	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	
	Slag source (different grade)		X	
	Chemical admixture manufacturer or product name [2]			X
	Chemical admixture dosage rates	X [3]		X
Removal of:	SCM			X
	Chemical admixture other than Type B or D			X [3,4]
	Type B or Type D chemical admixture	X [3]	X [4]	
Addition of:	Non-fading, color pigment	X		
	Chemical admixture other than Type B or D			X [3,4]
	Type B or Type D chemical admixture	X [3]	X [4]	
	New SCM			X

[1] For HES/SHES concrete modification only.

[2] Not including Type B or Type D chemical admixture.

[3] When admixture is from the concrete admixture APL and the dosage rate is within recommended dosage rates as specified in the APL. If the admixture dosage rate is outside of recommended dosage rates as specified in the APL, BTS approval is required before use.

[4] Not furnished from the APL.

TABLE 710-3 MIX DESIGN MODIFICATION DOCUMENTATION

Replace Table 710-3, included with the November 2025 ASP-6, with the following effective with the February 2026 letting.

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	X [1]		
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
New maturity curve	X [2]	X	X
New lot/sublot layout [3]		X [3,4,5]	X

[1] Water for concrete report conforming to 501.2.6 for private wells or surface water sources.

[2] Required only when using a retarder.

[3] Required for HES concrete.

[4] Required when changing the SCM replacement rate.

[5] Not required for SCM source change of same Class/Grade in pavements and cast-in-place barrier projects.

TABLE 710-4 OPTIONS FOR HES CONCRETE

SCENARIO	MIXTURE MODIFICATION	
When the contract requires, or the HES is directed by the department	OPTION 1 [1]	Add 94 to 282 lb/cy of cement [2]
	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 [1.2]	

[1] Adjust water to maintain workability without raising the w/cm ratio.

[2] 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

Replace Table 710-5, included with the November 2025 ASP-6, with the following effective with the February 2026 letting.

<table>
<tr><th>CONCRETE CLASSIFICATION</th><th>PRE-PLACEMENT TESTING</th><th colspan="2">PLACEMENT TESTING</th></tr>
<tr><td rowspan="2">Class I: Pavement [1]</td><td rowspan="3">One pre-placement test per aggregate source</td><td>Hand Placement:
≤ 250 CY
> 250 CY
Slip Formed Placement
≤ 1500 CY
> 1500 CY</td><td>One test per cumulative 250 CY
One test per day

One test per day
Two tests per day</td></tr>
<tr><td>Class I: Structures [2], [3], [4]</td><td colspan="2">One test per cumulative 150 CY, maximum one test per day</td></tr>
<tr><td>Class I: Cast-in Place Barrier [1]</td><td>≤ 250 CY
> 250 CY</td><td>One test per cumulative 250 CY
One test per day</td></tr>
<tr><td>Class II: Base</td><td rowspan="8">One pre-placement test per aggregate source</td><td colspan="2">One test per calendar week of production</td></tr>
<tr><td>Class II: Structure Repair - Joints</td><td colspan="2" rowspan="2">One test per cumulative 150 CY, maximum one test per day</td></tr>
<tr><td>Class II: Concrete Overlay</td></tr>
<tr><td>Class II: Pavement Repair</td><td colspan="2" rowspan="4">One test per 400 CY, minimum one test per 10 business days, maximum one test per day</td></tr>
<tr><td>Class II: Pavement Replacement</td></tr>
<tr><td>Class II: Base Patching</td></tr>
<tr><td>Class II: Ancillary</td></tr>
<tr><td>Class II: Structure Repair – Curb & Surface [5]</td><td colspan="2">Preplacement testing only</td></tr>
</table>

[1] Frequency is based on project daily production rate.

[2] 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.

[3] 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. Replace Table 710-6 with the following effective with the November 2026 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 2 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, maximum one test per day. - 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, maximum one test per day.
Class II: Concrete Overlay	One test per 250 CY placed, 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 sublot for possible removal and replacement if the 28-day sublot average strength is:

- Pavement (Compressive): < 2500 psi
- Pavement (Flexural): < 500 psi
- Structure: < f'c - 500 psi [1]
- Cast-in-Place Barrier: < f'c - 500 psi [1]

[1] f'c is design strength found in plans or specials.

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. Replace paragraph (1) and Table 715-2 with the following effective with the November 2026 letting.

(1) The department will adjust pay for each sublot 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 price reductions, apply the adjustment with the greater price reduction. The following unit prices shall be used in pay adjustment equations specified in table 715-2:

- Pavement: $55 per SY.
- Structure and cast-in-place barrier: $350 per CY.

(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 (%)		PAY FACTOR (PF) [1]	PAY ADJUSTMENT ($) [2]
Above Specification [3]	0.1 and above	$(0.15 \times ASL^2) + (0.125 \times ASL)$	PF x Quantity (SY or CY) x Unit Price
Below Specification	>= 0.1 to =< 1.0	$(0.30 \times BSL^2) + (0.02 \times BSL)$	PF x Quantity (SY or CY) x Unit Price
	1.1 and below	50 or remove and replace	0.5 x Quantity (SY or CY) x Contract Unit Price

[1] ASL = % air content above specification limit.
BSL = % air content below specification limit.

[2] "Unit price" is specified in 715.5.4(1). "Contract unit price" is the bid item unit price for the awarded contract.

[3] Evaluate the strength data. If the strengths are acceptable, do not assess a price reduction for high air content. Contractor is responsible for providing additional strength data, if necessary.

TABLE 715-3 PRICE REDUCTIONS FOR NONCONFORMING TEMPERATURE

Replace Table 715-3, included with the November 2025 ASP-6, with the following effective with the February 2026 letting.

CONCRETE TEMPERATURE (F) [1]		PRICE REDUCTION (%)
Upper Temperature Limit [2]	> 80 to <= 85	10
	> 85	25
Lower Temperature Limit	45 to <= 50	10
	< 45	25

[1] Applies only for Concrete Structures and Cast-in-Place Barrier.

[2] If a written temperature control plan outlining the actions by the contractor to control concrete temperature at the point of placement exceeding 80 F is submitted and followed to effectively control the temperature, the upper temperature limit is increased by 10 F for price reductions for nonconforming temperature.

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. Replace paragraph (2) with the following to add paragraph at end of item 4 effective with the November 2026 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.

The contractor may include sublots less than or equal to 25 percent of the standard length in the previous sublot. For partial sublots exceeding 25 percent of the standard length, notify the engineer who will direct additional testing to represent that partial sublot.

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).

730 QMP Base Aggregate

730.5 Payment

Replace paragraph (2) with the following effective with the November 2026 letting.

(2) The department will calculate pay reductions for base aggregate with nonconforming gradation and fracture. The pay reduction percentage as specified in table 730-1 will be applied to the nonconforming quantity that remains in place using a unit price of $15/TON or $30/CY. The department will administer a 50 percent pay reduction for base aggregate with nonconforming plasticity or liquid limit that remains in place.

TABLE 730-1 Pay Reductions for Nonconforming Base Aggregate

% PAY REDUCTION	NONCONFORMING GRADATION		NONCONFORMING FRACTURE
	NO 200 SIEVE	SIEVES OTHER THAN NO 200	
5% to 10%	<= 1.5%	<= 3%	<= 5%
10% to 20%	> 1.5% to <= 3%	> 3% to <= 5%	> 5% to <= 10%
SIGNIFICANTLY OUT OF SPEC[1]			
20% to 40%	> 3%	> 5%	> 10%

[1] The engineer may assess pay reductions for individual QC or QV test results that are significantly out of spec even if the running average is within spec limits.

Bid Items

500 Bid Items

Remove the following bid items effective with the February 2026 letting.

522.2363	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 63x98-Inch	LF
522.2663	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 63x98-Inch	EACH

600 Bid Items

Remove the following bid item effective with the February 2026 letting.

608.2363	Storm Sewer Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 63x98-Inch	LF

Add the following bid item effective with the November 2025 letting.

611.0613	Inlet Covers Type DW	EACH

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. Replace bid item number and description for traffic control connected work zone end location marker effective with the November 2026 letting.

643.0810	Traffic Control Connected Arrow Boards	DAY
643.1222	Traffic Control Connected Work Zone End Location Marker	DAY

Remove the following bid items effective with the November 2026 letting.

643.3760	Temporary Marking Raised Pavement Marker Type I	EACH
643.3770	Temporary Marking Raised Pavement Marker Type II	EACH

Add the following bid items effective with the November 2026 letting.

643.3764	Temporary Marking Raised Pavement Marker Type I 4-Inch	EACH
643.3766	Temporary Marking Raised Pavement Marker Type I 6-Inch	EACH
643.3774	Temporary Marking Raised Pavement Marker Type II 4-Inch	EACH
643.3776	Temporary Marking Raised Pavement Marker Type II 6-Inch	EACH

Add the following bid item effective with the February 2026 letting.

657.0348	Poles Type 9 - Special Over Height	EACH
657.0353	Poles Type 10 - Special Over Height	EACH

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 sublot 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 1st Tier and DBE Payments During Construction

1. Comply with reporting requirements specified in the department's Civil Rights Compliance, Contractor's User Manual, Sublets and Payments.
2. Report payments to all DBE firms within 10 calendar days of receipt of a progress payment by the department or a contractor for work performed, materials furnished, or materials stockpiled by a DBE firm. Report the payment as specified in A(1) for all work satisfactorily performed and for all materials furnished or stockpiled.
3. Report payments to all first tier subcontractor relationships within 10 calendar days of receipt of a progress payment by the department for work performed. Report the payment as specified in A(1) for all work satisfactorily performed.
4. All tiers shall report payments as necessary to comply with the DBE payment requirement as specified in A(2).
5. DBE firms must enter all payments to DBE and non-DBE firms regardless of tier.
6. Require all first tier relationships, DBE firms and all other tier relationships necessary to comply with the DBE payment requirement in receipt of a progress payment by contractor to acknowledge receipt of payment as specified in A(1), (2), (3) and (4).
7. All agreements made by a contractor shall include the provisions in A(1), (2), (3), (4), (5), and (6), and shall be binding on all first tier subcontractor relationships, all contractors and subcontractors utilizing DBE firms on the project, and all payments from DBE firms.

B. Costs for conforming to this special provision are incidental to the contract.

NOTE: CRCS Prime Contractor payment is currently not automated and will need to be manually loaded into the Civil Rights Compliance System. Copies of prime contractor payments received (check or ACH) will have to be forwarded to paul.ndon@dot.wi.gov within 5 days of payment receipt to be logged manually.

***Additionally, for information on Subcontractor Sublet assignments, Subcontractor Payments and Payment Tracking, please refer to the CRCS Payment and Sublets manual at:

https://wisconsindot.gov/Documents/doing-bus/civil-rights/labornwage/crcs-payments-sublets-manual.pdf

ADDITIONAL SPECIAL PROVISION 9

Electronic Certified Payroll or Labor Data Submittal

(1) Use the department's Civil Rights Compliance System (CRCS) 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. 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. Additional information can be found in the AWP Knowledge Base at https://awpkb.dot.wi.gov/Content/crl/Payrolls-PrimesAndSubs/PayrollXMLFileCreationProcess.htm

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).

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 planning, 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

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

Proposal ID: 20261208044 **Project(s):** 8180-00-81

Federal ID(s): N/A

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0002	201.0105 Clearing	10.000 STA	_____.____	_____.____
0004	201.0205 Grubbing	10.000 STA	_____.____	_____.____
0006	203.0100 Removing Small Pipe Culverts	11.000 EACH	_____.____	_____.____
0008	203.0220 Removing Structure (structure) 01. C-54-2335	1.000 EACH	_____.____	_____.____
0010	203.0335 Debris Containment Over Waterway (structure) 01. B-54-46	1.000 EACH	_____.____	_____.____
0012	204.0115 Removing Asphaltic Surface Butt Joints	241.000 SY	_____.____	_____.____
0014	204.0120 Removing Asphaltic Surface Milling	247,300.000 SY	_____.____	_____.____
0016	204.0126.S Removing Asphaltic Longitudinal Notched Wedge Joint Milling	62,800.000 LF	_____.____	_____.____
0018	204.0150 Removing Curb & Gutter	580.000 LF	_____.____	_____.____
0020	204.0155 Removing Concrete Sidewalk	72.000 SY	_____.____	_____.____
0022	204.0165 Removing Guardrail	1,450.000 LF	_____.____	_____.____
0024	204.0195 Removing Concrete Bases	4.000 EACH	_____.____	_____.____
0026	204.0270 Abandoning Culvert Pipes	1.000 EACH	_____.____	_____.____
0028	204.9060.S Removing (item description) 01. Existing Traffic Signal Equipment, STH 27 & Port Arthur Road	1.000 EACH	_____.____	_____.____
0030	205.0100 Excavation Common	5,806.000 CY	_____.____	_____.____

Proposal ID: 20261208044 **Project(s):** 8180-00-81

Federal ID(s): N/A

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0032	206.2001 Excavation for Structures Culverts (structure) 01. C-54-2335	1.000 EACH	_____.____	_____.____
0034	206.5001 Cofferdams (structure) 01. C-54-2335	1.000 EACH	_____.____	_____.____
0036	208.1500.S Temporary Lane Shift During Culvert Work	8.000 EACH	_____.____	_____.____
0038	209.2100 Backfill Granular Grade 2	2,070.000 CY	_____.____	_____.____
0040	210.1500 Backfill Structure Type A	44.000 TON	_____.____	_____.____
0042	211.0101 Prepare Foundation for Asphaltic Paving (project) 01. 8180-00-81	1.000 EACH	_____.____	_____.____
0044	213.0100 Finishing Roadway (project) 01. 8180-00-81	1.000 EACH	_____.____	_____.____
0046	305.0110 Base Aggregate Dense 3/4-Inch	1,135.000 TON	_____.____	_____.____
0048	305.0120 Base Aggregate Dense 1 1/4-Inch	4,790.000 TON	_____.____	_____.____
0050	312.0110 Select Crushed Material	20.000 TON	_____.____	_____.____
0052	455.0605 Tack Coat	12,760.000 GAL	_____.____	_____.____
0054	460.0105.S HMA Percent Within Limits (PWL) Test Strip Volumetrics	1.000 EACH	_____.____	_____.____
0056	460.0110.S HMA Percent Within Limits (PWL) Test Strip Density	2.000 EACH	_____.____	_____.____
0058	460.0115.S HMA Pavement Test Strip Volumetrics	1.000 EACH	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0060	460.0120.S HMA Test Strip Density	1.000 EACH	_____.____	_____.____
0062	460.2005 Incentive Density PWL HMA Pavement	47,895.000 DOL	1.00000	47,895.00
0064	460.2007 Incentive Density HMA Pavement Longitudinal Joints	25,289.000 DOL	1.00000	25,289.00
0066	460.2010 Incentive Air Voids HMA Pavement	56,300.000 DOL	1.00000	56,300.00
0068	460.6244 HMA Pavement 4 MT 58-34 S	37,620.000 TON	_____.____	_____.____
0070	460.8644 HMA Pavement 4 SMA 58-34 V	18,680.000 TON	_____.____	_____.____
0072	460.9000.S Material Transfer Vehicle	1.000 EACH	_____.____	_____.____
0074	465.0105 Asphaltic Surface	830.000 TON	_____.____	_____.____
0076	465.0110 Asphaltic Surface Patching	67.000 TON	_____.____	_____.____
0078	465.0120 Asphaltic Surface Driveways and Field Entrances	270.000 TON	_____.____	_____.____
0080	465.0520 Asphaltic Rumble Strips, Shoulder	100,480.000 LF	_____.____	_____.____
0082	465.0560 Asphaltic Rumble Strips, Centerline	50,240.000 LF	_____.____	_____.____
0084	502.0100 Concrete Masonry Bridges	11.000 CY	_____.____	_____.____
0086	502.3200 Protective Surface Treatment	140.000 SY	_____.____	_____.____
0088	502.4204 Adhesive Anchors No. 4 Bar	88.000 EACH	_____.____	_____.____

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SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0090	502.4205 Adhesive Anchors No. 5 Bar	15.000 EACH	_____.____	_____.____
0092	505.0400 Bar Steel Reinforcement HS Structures	530.000 LB	_____.____	_____.____
0094	505.0600 Bar Steel Reinforcement HS Coated Structures	5,030.000 LB	_____.____	_____.____
0096	509.1500 Concrete Surface Repair	743.000 SF	_____.____	_____.____
0098	511.1200 Temporary Shoring (structure) 01. C-54-2335	120.000 SF	_____.____	_____.____
0100	516.0500 Rubberized Membrane Waterproofing	4.000 SY	_____.____	_____.____
0102	517.4001.S Containment and Collection of Waste Materials (structure) 01. B-54-46	1.000 EACH	_____.____	_____.____
0104	520.8700 Cleaning Culvert Pipes	3.000 EACH	_____.____	_____.____
0106	521.1012 Apron Endwalls for Culvert Pipe Steel 12-Inch	1.000 EACH	_____.____	_____.____
0108	522.0130 Culvert Pipe Reinforced Concrete Class III 30-Inch	62.000 LF	_____.____	_____.____
0110	522.0148 Culvert Pipe Reinforced Concrete Class III 48-Inch	288.000 LF	_____.____	_____.____
0112	522.1030 Apron Endwalls for Culvert Pipe Reinforced Concrete 30-Inch	2.000 EACH	_____.____	_____.____
0114	522.1048 Apron Endwalls for Culvert Pipe Reinforced Concrete 48-Inch	8.000 EACH	_____.____	_____.____

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SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0116	522.2334 Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-III 34x53-Inch	120.000 LF	_____.____	_____.____
0118	522.2424 Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 24x38-Inch	336.000 LF	_____.____	_____.____
0120	522.2429 Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 29x45-Inch	116.000 LF	_____.____	_____.____
0122	522.2624 Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 24x38-Inch	12.000 EACH	_____.____	_____.____
0124	522.2629 Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 29x45-Inch	4.000 EACH	_____.____	_____.____
0126	522.2634 Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 34x53-Inch	4.000 EACH	_____.____	_____.____
0128	530.0112 Culvert Pipe Corrugated Polyethylene 12-Inch	24.000 LF	_____.____	_____.____
0130	601.0411 Concrete Curb & Gutter 30-Inch Type D	337.000 LF	_____.____	_____.____
0132	601.0553 Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type D	154.000 LF	_____.____	_____.____
0134	601.0588 Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type TBT	44.000 LF	_____.____	_____.____
0136	602.0410 Concrete Sidewalk 5-Inch	1,151.000 SF	_____.____	_____.____
0138	602.0505 Curb Ramp Detectable Warning Field Yellow	106.000 SF	_____.____	_____.____

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SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0140	602.0605 Curb Ramp Detectable Warning Field Radial Yellow	20.000 SF	_____.____	_____.____
0142	603.8000 Concrete Barrier Temporary Precast Delivered	1,225.000 LF	_____.____	_____.____
0144	603.8125 Concrete Barrier Temporary Precast Installed	1,225.000 LF	_____.____	_____.____
0146	606.0200 Riprap Medium	98.000 CY	_____.____	_____.____
0148	606.0300 Riprap Heavy	25.000 CY	_____.____	_____.____
0150	608.0315 Storm Sewer Pipe Reinforced Concrete Class III 15-Inch	33.000 LF	_____.____	_____.____
0152	611.0600 Inlet Covers Type A	1.000 EACH	_____.____	_____.____
0154	611.3220 Inlets 2x2-FT	1.000 EACH	_____.____	_____.____
0156	611.8110 Adjusting Manhole Covers	14.000 EACH	_____.____	_____.____
0158	611.8120.S Cover Plates Temporary	14.000 EACH	_____.____	_____.____
0160	612.0406 Pipe Underdrain Wrapped 6-Inch	15.000 LF	_____.____	_____.____
0162	614.0396 Guardrail Mow Strip Asphalt	476.000 SY	_____.____	_____.____
0164	614.0397 Guardrail Mow Strip Emulsified Asphalt	317.000 SY	_____.____	_____.____
0166	614.0905 Crash Cushions Temporary	2.000 EACH	_____.____	_____.____
0168	614.2300 MGS Guardrail 3	712.500 LF	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0170	614.2330 MGS Guardrail 3 K	50.000 LF	_____.____	_____.____
0172	614.2500 MGS Thrie Beam Transition	275.800 LF	_____.____	_____.____
0174	614.2610 MGS Guardrail Terminal EAT	11.000 EACH	_____.____	_____.____
0176	614.2630 MGS Guardrail Short Radius Terminal	1.000 EACH	_____.____	_____.____
0178	618.0100 Maintenance and Repair of Haul Roads (project) 01. 8180-00-81	1.000 EACH	_____.____	_____.____
0180	619.1000 Mobilization	1.000 EACH	_____.____	_____.____
0182	624.0100 Water	60.000 MGAL	_____.____	_____.____
0184	625.0500 Salvaged Topsoil	11,600.000 SY	_____.____	_____.____
0186	628.1504 Silt Fence	5,383.000 LF	_____.____	_____.____
0188	628.1520 Silt Fence Maintenance	5,383.000 LF	_____.____	_____.____
0190	628.1905 Mobilizations Erosion Control	5.000 EACH	_____.____	_____.____
0192	628.1910 Mobilizations Emergency Erosion Control	3.000 EACH	_____.____	_____.____
0194	628.2008 Erosion Mat Urban Class I Type B	11,575.000 SY	_____.____	_____.____
0196	628.7015 Inlet Protection Type C	8.000 EACH	_____.____	_____.____
0198	628.7504 Temporary Ditch Checks	200.000 LF	_____.____	_____.____
0200	628.7555 Culvert Pipe Checks	145.000 EACH	_____.____	_____.____

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Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0202	629.0210 Fertilizer Type B	8.500 CWT	_____.____	_____.____
0204	630.0120 Seeding Mixture No. 20	538.000 LB	_____.____	_____.____
0206	630.0200 Seeding Temporary	538.000 LB	_____.____	_____.____
0208	630.0500 Seed Water	273.000 MGAL	_____.____	_____.____
0210	633.5200 Markers Culvert End	16.000 EACH	_____.____	_____.____
0212	638.2102 Moving Signs Type II	13.000 EACH	_____.____	_____.____
0214	642.5001 Field Office Type B	1.000 EACH	_____.____	_____.____
0216	643.0300 Traffic Control Drums	2,898.000 DAY	_____.____	_____.____
0218	643.0420 Traffic Control Barricades Type III	389.000 DAY	_____.____	_____.____
0220	643.0705 Traffic Control Warning Lights Type A	288.000 DAY	_____.____	_____.____
0222	643.0715 Traffic Control Warning Lights Type C	580.000 DAY	_____.____	_____.____
0224	643.0900 Traffic Control Signs	6,594.000 DAY	_____.____	_____.____
0226	643.0920 Traffic Control Covering Signs Type II	4.000 EACH	_____.____	_____.____
0228	643.1050 Traffic Control Signs PCMS	102.000 DAY	_____.____	_____.____
0230	643.3165 Temporary Marking Line Paint 6-Inch	171,944.000 LF	_____.____	_____.____
0232	643.3305 Temporary Marking Crosswalk Paint 6-Inch	670.000 LF	_____.____	_____.____

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SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0234	643.3350 Temporary Marking Crosswalk Removable Tape 6-Inch	56.000 LF	_____.____	_____.____
0236	643.3805 Temporary Marking Stop Line Paint 18-Inch	48.000 LF	_____.____	_____.____
0238	643.5000 Traffic Control	1.000 EACH	_____.____	_____.____
0240	644.1430 Temporary Pedestrian Surface Plate	290.000 SF	_____.____	_____.____
0242	644.1440 Temporary Pedestrian Surface Matting	343.000 SF	_____.____	_____.____
0244	644.1601 Temporary Pedestrian Curb Ramp	49.000 DAY	_____.____	_____.____
0246	644.1605 Temporary Pedestrian Detectable Warning Field	88.000 SF	_____.____	_____.____
0248	644.1810 Temporary Pedestrian Barricade	422.000 LF	_____.____	_____.____
0250	644.1900.S Temporary Audible Message Devices	63.000 DAY	_____.____	_____.____
0252	645.0120 Geotextile Type HR	351.000 SY	_____.____	_____.____
0254	646.2040 Marking Line Grooved Wet Ref Epoxy 6-Inch	184,232.000 LF	_____.____	_____.____
0256	646.4040 Marking Line Grooved Wet Ref Epoxy 10-Inch	2,915.000 LF	_____.____	_____.____
0258	646.5020 Marking Arrow Epoxy	12.000 EACH	_____.____	_____.____
0260	646.5120 Marking Word Epoxy	1.000 EACH	_____.____	_____.____
0262	646.5320 Marking Railroad Crossing Epoxy	3.000 EACH	_____.____	_____.____

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SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0264	646.6020 Marking Stop Line Epoxy 12-Inch	216.000 LF	_____.____	_____.____
0266	646.7120 Marking Diagonal Epoxy 12-Inch	364.000 LF	_____.____	_____.____
0268	646.7420 Marking Crosswalk Epoxy Transverse Line 6-Inch	509.000 LF	_____.____	_____.____
0270	646.7520 Marking Crosswalk Epoxy Block Style 24-Inch	46.000 LF	_____.____	_____.____
0272	646.8120 Marking Curb Epoxy	210.000 LF	_____.____	_____.____
0274	646.9000 Marking Removal Line 4-Inch	925.000 LF	_____.____	_____.____
0276	650.4500 Construction Staking Subgrade	1,133.000 LF	_____.____	_____.____
0278	650.5000 Construction Staking Base	1,133.000 LF	_____.____	_____.____
0280	650.5500 Construction Staking Curb Gutter and Curb & Gutter	341.000 LF	_____.____	_____.____
0282	650.6000 Construction Staking Pipe Culverts	14.000 EACH	_____.____	_____.____
0284	650.8000 Construction Staking Resurfacing Reference	62,662.000 LF	_____.____	_____.____
0286	650.9000 Construction Staking Curb Ramps	10.000 EACH	_____.____	_____.____
0288	650.9500 Construction Staking Sidewalk (project) 01. 8180-00-81	1.000 EACH	_____.____	_____.____
0290	650.9911 Construction Staking Supplemental Control (project) 01. 8180-00-81	1.000 EACH	_____.____	_____.____

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SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0292	650.9920 Construction Staking Slope Stakes	1,433.000 LF	_____.____	_____.____
0294	652.0225 Conduit Rigid Nonmetallic Schedule 40 2-Inch	44.000 LF	_____.____	_____.____
0296	652.0235 Conduit Rigid Nonmetallic Schedule 40 3-Inch	22.000 LF	_____.____	_____.____
0298	652.0700.S Install Conduit into Existing Item	8.000 EACH	_____.____	_____.____
0300	652.0800 Conduit Loop Detector	778.000 LF	_____.____	_____.____
0302	653.0900 Adjusting Pull Boxes	5.000 EACH	_____.____	_____.____
0304	654.0101 Concrete Bases Type 1	2.000 EACH	_____.____	_____.____
0306	654.0102 Concrete Bases Type 2	1.000 EACH	_____.____	_____.____
0308	654.0110 Concrete Bases Type 10	2.000 EACH	_____.____	_____.____
0310	655.0230 Cable Traffic Signal 5-14 AWG	188.000 LF	_____.____	_____.____
0312	655.0240 Cable Traffic Signal 7-14 AWG	910.000 LF	_____.____	_____.____
0314	655.0260 Cable Traffic Signal 12-14 AWG	254.000 LF	_____.____	_____.____
0316	655.0320 Cable Type UF 2-10 AWG Grounded	531.000 LF	_____.____	_____.____
0318	655.0515 Electrical Wire Traffic Signals 10 AWG	1,420.000 LF	_____.____	_____.____
0320	655.0610 Electrical Wire Lighting 12 AWG	240.000 LF	_____.____	_____.____

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Federal ID(s): N/A

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0322	655.0700 Loop Detector Lead In Cable	2,634.000 LF	_____.____	_____.____
0324	655.0800 Loop Detector Wire	2,654.000 LF	_____.____	_____.____
0326	655.0900 Traffic Signal EVP Detector Cable	591.000 LF	_____.____	_____.____
0328	657.0100 Pedestal Bases	2.000 EACH	_____.____	_____.____
0330	657.0255 Transformer Bases Breakaway 11 1/2-Inch Bolt Circle	1.000 EACH	_____.____	_____.____
0332	657.0310 Poles Type 3	1.000 EACH	_____.____	_____.____
0334	657.0351 Poles Type 10-Over Height	2.000 EACH	_____.____	_____.____
0336	657.0425 Traffic Signal Standards Aluminum 15-FT	1.000 EACH	_____.____	_____.____
0338	657.0430 Traffic Signal Standards Aluminum 10-FT	1.000 EACH	_____.____	_____.____
0340	657.0530 Monotube Arms 30-FT	2.000 EACH	_____.____	_____.____
0342	657.0614 Luminaire Arms Single Member 4-Inch Clamp 8-FT	1.000 EACH	_____.____	_____.____
0344	657.0808 Luminaire Arms Steel 8-FT	2.000 EACH	_____.____	_____.____
0346	658.0173 Traffic Signal Face 3S 12-Inch	4.000 EACH	_____.____	_____.____
0348	658.0174 Traffic Signal Face 4S 12-Inch	2.000 EACH	_____.____	_____.____
0350	658.0416 Pedestrian Signal Face 16-Inch	3.000 EACH	_____.____	_____.____

Proposal ID: 20261208044 **Project(s):** 8180-00-81

Federal ID(s): N/A

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0352	658.0500 Pedestrian Push Buttons	3.000 EACH	_____.____	_____.____
0354	658.5070 Signal Mounting Hardware (location) 01. Signal Mounting Hardware, STH 27 & Port Arthur Road	1.000 EACH	_____.____	_____.____
0356	659.1125 Luminaires Utility LED C	3.000 EACH	_____.____	_____.____
0358	661.0101 Temporary Traffic Signals for Bridges (structure) 01. C-54-2335	1.000 EACH	_____.____	_____.____
0360	661.0101 Temporary Traffic Signals for Bridges (structure) 02. B-54-46	1.000 EACH	_____.____	_____.____
0362	690.0150 Sawing Asphalt	1,225.000 LF	_____.____	_____.____
0364	690.0250 Sawing Concrete	39.000 LF	_____.____	_____.____
0366	715.0502 Incentive Strength Concrete Structures	500.000 DOL	1.00000	500.00
0368	740.0440 Incentive IRI Ride	23,737.000 DOL	1.00000	23,737.00
0370	999.2000.S Installing and Maintaining Bird Deterrent System (station) 01. Station 367+00	1.000 EACH	_____.____	_____.____
0372	999.2000.S Installing and Maintaining Bird Deterrent System (station) 02. Station 503+00	1.000 EACH	_____.____	_____.____
0374	999.2100.S Installing and Maintaining Climbing Turtle Exclusion Fence	2,500.000 LF	_____.____	_____.____
0376	SPV.0060 Special 01. Adjusting Water Valves	9.000 EACH	_____.____	_____.____
0378	SPV.0060 Special 02. Embedded Galvonic Anodes	156.000 EACH	_____.____	_____.____

Proposal ID: 20261208044 **Project(s):** 8180-00-81

Federal ID(s): N/A

SECTION: 0001 Contract Items

Alt Set ID: **Alt Mbr ID:**

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0380	SPV.0060 Special 03. Cleaning and Painting Piling	7.000 EACH	_____.____	_____.____
0382	SPV.0060 Special 04. Reseal Railing Post Connections	28.000 EACH	_____.____	_____.____
0384	SPV.0090 Special 01. Ditch Cleaning	50.000 LF	_____.____	_____.____
0386	SPV.0090 Special 02. Flashing Stainless Steel	168.000 LF	_____.____	_____.____
0388	SPV.0090 Special 03. MGS Thrie Beam Transition TL-2	21.900 LF	_____.____	_____.____
0390	SPV.0180 Special 01. Removing Distressed Pavement Milling	4,000.000 SY	_____.____	_____.____
	Section: 0001		**Total:**	_____.____

Total Bid: _____.____

PLEASE ATTACH ADDENDA HERE