

# HIGHWAY WORK PROPOSAL

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

Proposal Number: **016**

<u>COUNTY</u>	<u>STATE PROJECT</u>	<u>FEDERAL</u>	<u>PROJECT DESCRIPTION</u>	<u>HIGHWAY</u>
Walworth	3190-11-70	N/A	Springfield to Burlington; STH 120 to STH 11	STH 036

## ADDENDUM REQUIRED ATTACHED AT BACK

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

Proposal Guaranty Required: \$75,000.00 Payable to: Wisconsin Department of Transportation	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Date: February 13, 2024 Time (Local Time): 11:00 am	Firm Name, Address, City, State, Zip Code
Contract Completion Time September 30, 2024	<b>SAMPLE NOT FOR BIDDING PURPOSES</b>  This contract is exempt from federal oversight.
Assigned Disadvantaged Business Enterprise Goal 0%	

This certifies that the undersigned bidder, duly sworn, is an authorized representative of the firm named above; that the bidder has examined and carefully prepared the bid from the plans, Highway Work Proposal, and all addenda, and has checked the same in detail before submitting this proposal or bid; and that the bidder or agents, officer, or employees have not, either directly or indirectly, entered into any agreement, participated in any collusion, or otherwise taken any action in restraint of free competitive bidding in connection with this proposal bid.

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

Subscribed and sworn to before me this date \_\_\_\_\_

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

\_\_\_\_\_  
(Bidder Signature)

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

\_\_\_\_\_  
(Print or Type Bidder Name)

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

\_\_\_\_\_  
(Bidder Title)

Notary Seal

<b>Type of Work:</b> Mill, Grade, Storm Sewer, Culvert Pipe, Base, Asphalt Pavement, Curb & Gutter, Sidewalk, Beam Guard, Signing, Marking, Structures B-64-146, 162, & 210	<b>For Department Use Only</b>
Notice of Award Dated	Date Guaranty Returned

**PLEASE ATTACH  
PROPOSAL GUARANTY HERE**

## PROPOSAL REQUIREMENTS AND CONDITIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

## BID PREPARATION

### Preparing the Proposal Schedule of Items

#### A. General

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

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

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

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

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

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

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

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

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

## B. Submitting Electronic Bids

### B.1 On the Internet

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

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

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

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

**Bidder Name**

**BN00**

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

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

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

#### **B Waiver of Electronic Submittal**

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

**PROPOSAL BID BOND**

DT1303 1/2006

Wisconsin Department of Transportation

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

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

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

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

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

**PRINCIPAL**

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

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

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

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

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

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

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

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

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

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

**NOTARY FOR PRINCIPAL**

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

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

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

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

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

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

**Notary Seal**

**NOTARY FOR SURETY**

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

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

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

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

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

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

**Notary Seal**

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



# CERTIFICATE OF ANNUAL BID BOND

DT1305 8/2003

Wisconsin Department of Transportation

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

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

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

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

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

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



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

### Instructions for Certification

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

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

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

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

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## STSP'S Revised June 29, 2023

### SPECIAL PROVISIONS

#### 1. General.

Perform the work under this construction contract for Project 3190-11-70, Springfield to Burlington, STH 120 to STH 11, STH 36, Walworth County, Wisconsin as the plans show and execute the work as specified in the State of Wisconsin, Department of Transportation, Standard Specifications for Highway and Structure Construction, 2024 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 (20230629)

#### 2. Scope of Work.

The work under this contract shall consist of removals, excavation, base aggregate dense, HMA pavement, concrete curb & gutter, concrete sidewalk, bridge replacement, erosion control, restoration, traffic control, permanent signing, pavement marking 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.

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

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

The Notice to Proceed will be issued such that work shall start no later than April 1, 2024, unless otherwise approved by the engineer.

All swallow nests shall be removed, and the bridge shall be netted no later than April 15, 2024.

Do not close and detour STH 36 traffic until after May 1, 2024.

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

Complete all curb & gutter and curb ramp construction prior to milling asphalt pavement.

Complete Removing Asphaltic Surface Milling prior to performing Asphaltic Repair.

Place HMA pavement on milled surfaces within 5 calendar days of milling operation.

Pave travel lane and adjacent paved shoulder with widths of 5 feet or less in one operation to eliminate construction joint between travel lane and shoulder pavement.

#### **Northern Long-eared Bat (*Myotis septentrionalis*)**

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

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

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

The department has contracted with others and will perform the following operations after October 31 and prior to April 1:

- Cutting down and removing trees.

### **Fish Spawning**

There shall be no instream disturbance of Ore Creek as a result of construction activity under or for this contract, from March 1, 2024 to June 15, 2024 both dates inclusive, in order to avoid adverse impacts upon the spawning of fish species.

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

### **Migratory Birds**

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

See below for information on affected structure(s). As a last resort, apply for a depredation permit from the US Fish and Wildlife Service for work that may disturb or destroy active nests. The need for a permit may be avoided by removing the existing bridge structure prior to nest occupation by birds or clearing nests from all structures before the nests become active in early spring.

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 activity under the bid item Installing and Maintaining Bird Deterrent System:

- B-64-665

### **Access During Construction**

Maintain access to properties along the project for local residents, businesses, and emergency vehicles. Access for all driveways shall remain open at all times except when paving at local resident driveways. Do not fully close commercial driveways without the approval of the property owner and the engineer. If a property owner agrees to fully close a driveway provide a minimum of 48 hours' notice of the driveway closure. Construct commercial driveways in halves or by closing one access at a time for properties that have multiple driveways. Restore private and commercial entrances to include a crushed aggregate surface within the same working day of entrance removal.

### **Work Zone Restrictions**

Accommodate pedestrians at all times. Maintain pedestrian access throughout the project as shown in the traffic control plan unless otherwise approved in writing by the engineer. The engineer shall not allow sidewalk or a curb ramp to be closed to pedestrians unless a temporary pedestrian route is in place. When pedestrian traffic is using a pedestrian diversion as shown in the plans the diversion shall be in place for a maximum of 14 calendar days before the work is completed and the diversion is removed.

Provide a flagging operation for local traffic during mill & overlay operation, curb ramp construction, beam guard replacement, and any other work that restricts traffic to less than one 11-foot lane in each direction.

Provide a flagging operation on the White River State Trail at STH 36 for bicycle and pedestrian traffic when work is occurring on the underside of the bridge deck and outside of the parapet walls of bridge B-64-146. Pedestrians and bicyclists shall not be delayed for more than 10 minutes before construction equipment is removed from the trail and bicyclists and pedestrians are allowed to cross the work zone. When work is not actively occurring construction equipment and materials shall be a minimum of 8 feet from the edge of the trail. At the end of each work day remove all debris from the trail and sweep the trail with a magnet to remove any metal debris from the trail.



Construct the segment of STH 36 between the ramp to STH 11 and the northern project limits using a flagging operation.

Alternate closure of the STH 36 intersections with Church Street and Mill Street so that one of the two intersections is open to through traffic across STH 36 at all times.

Alternate closure of the STH 36 intersections with Mill Street and Creek Side Drive so that one of the two intersections is open to through traffic at all times.

Construct the abutments and cofferdams at the STH 36 bridge over Ore Creek (B-64-210) in two stages so that only one of the two cofferdams is in place at a time to maximize the width of Ore Creek under the structure. Fully construct one abutment and remove the cofferdam before beginning work on the second cofferdam.

#### **4. Traffic.**

The work under this contract shall conform to the requirements of standard spec 643, the Wisconsin Manual on Uniform Traffic Control Devices (WMUTCD) and as herein provided.

Accomplish the construction sequence as detailed in the traffic control section of the plans and as described herein.

Submit to the engineer for approval a detailed traffic control plan for any changes to the proposed traffic control plans shown in the plans. Submit the plan 14 calendar days prior to the Pre-Construction Conference, or if after the Pre-Construction Conference 14 days prior to the intended use of the revised traffic control.

*Supplement standard spec 643.3.1 with the following:*

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

Yield to all through traffic at all locations. Equip all vehicles or equipment operating in the live traffic lanes with a hazard identification beam (flashing yellow signal light) that is visible from 360 degrees. Operate the flashing yellow beam only when merging or exiting live traffic lanes or when parked or operating on shoulders, except when parked behind barrier wall. Do not park personal vehicles within the access control limits of the freeway.

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

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

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

SER-643-001 (20230214)

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

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

#### **Work Restrictions**

Close STH 36 from STH 120 to the STH 36 ramp to STH 11 for the duration of the project.

Provide flagging operations along STH 36 during milling, asphalt pavement, curb ramps, beam guard, and culvert installation.

Maintain access to local traffic and businesses unless otherwise shown in the traffic control plans.

All work zone clear zones and drop offs shall be according to standard spec 104.6.1.2.3.

Do not store materials within 8 feet of the traveled way or a turn lane open to traffic during non-work hours.

Do not place any items within 50-feet of the railroad right-of-way, including items that could foul the same area. Including but not limited to signing, equipment, or material. This includes at-grade crossings and structures with railroad under or over. If this is not adhered to Railroad Protective Liability Insurance will be required of the contractor and incidental to the contract.

**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**

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

**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 36 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 24, 2024 to 6:00 AM Tuesday, May 28, 2024 for Memorial Day;
- From noon Wednesday, July 3, 2024 to 6:00 AM Monday, July 8, 2024 for Independence Day;
- From noon Friday, August 30, 2024 to 6:00 AM Tuesday, September 3, 2024 for Labor Day.

stp-107-005 (20210113)

**6. Utilities.**

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

stp-107-065 (20080501)

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

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

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

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

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

- 2" steel gas main to be replaced by 2" PE gas main Station 195+50 to Station 198+12 prior to construction.

All other WE Energies Gas facilities will remain in place as is.

It is imperative that the highway contractor contact WE Energies before removing any gas facilities to verify that they have been discontinued and carry no natural gas. The contractor must not assume that unmarked facilities have been discontinued. At no time is it acceptable to push, pull, cut, or drill an unmarked facility without explicit consent from WE Energies. Contractor must call the WE Energies 24-hour Dispatch lines to arrange for this verification. WE Energies Gas Dispatch 1-800-261-5325.

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

- Fiber optic cable and conduit to be replaced Station 134+00 to Station 137+00 prior to construction.

**Town of Lyons Sanitary District #2 – Sanitary Sewer** has facilities within the project limits. Adjust sanitary manholes to match the new finished pavement elevation and replace the external seal. Perform this work in accordance with the requirements of Adjusting Sanitary Manholes. All other sanitary sewer facilities will remain in place as is.

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

- **AT&T Legacy – Communications**
- **AT&T Wisconsin – Communications**
- **Midwest Fiber – Communications**
- **Spectrum – Communications**
- **WE Energies Electric – Electric**
- **Windstream – Communications**

## **7. Municipality Acceptance of Sanitary Sewer Construction.**

Both the department and Town of Lyons Sanitary District #2 personnel will inspect construction of sanitary sewer under this contract. However, construction staking, testing, and acceptance of the sanitary sewer construction will be by the Town of Lyons Sanitary District #2.

stp-105-001

## **8. Referenced Construction Specifications.**

Construct the work enumerated below conforming to the Standard Specifications for Sewer and Water Construction in Wisconsin, Latest Edition. If there is a discrepancy or conflict between the referenced specification and the standard specifications regarding contract administration, part 1 of the standard specifications governs.

Conform to the referenced construction specifications for the following:

- Adjusting Sanitary Manhole

stp-105-002 (20130615)

## 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. Construction Over or Adjacent to Navigable Waters.

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

stp-107-060 (20171130)

## 11. Waterway Marker Application and Permit.

A Waterway Marker Application and Permit is required for the placement of navigational aids around the construction area during construction on the structures on STH 36 over both the Fox River and the Wind Lake Drainage Canal.

Hazard Warning and Informational Markers are required for this project. A full closure of the waterway is not required.

Fill out the Waterway Marker Application and Permit form:

<https://dnr.wi.gov/files/PDF/forms/8700/8700-058.pdf>

The Wisconsin Department of Transportation should be listed as the applicant.

Include an aerial map, diagram, or engineered diagram of the work location and the placement of the waterway markers (buoys). If proposed GPS coordinates for each buoy are not provided, then markers placed on the diagram must show distance (in feet) from each marker location and from one permanent fixture as a benchmark. Provide the completed application/permit to the local municipalities having jurisdictional authority over the area in which the waterway markers will be placed.

Forward the signed application permit to:

Craig Webster  
DNR Regional DOT Liaison  
Wisconsin Dep. of Natural Resources  
141 NW Barstow St  
Waukesha, WI 53188

Penny Kanable  
Boating Program Specialist  
Wisconsin Department of Natural Resources  
101 S Weber Street – LE/8  
Madison, WI 53703

The Boating Program Specialist will communicate with the local Warden and Recreational Safety Warden in processing and finalizing the permit. If the permit application is incomplete or additional information is needed, the Boating Program Specialist will work with DNR's Regional DOT Liaison to resolve.

## 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 (>104° F) application.

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

stp-107-055 (20130615)

## 13. Erosion Control.

*Supplement standard spec 107.20 with the following:*

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

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

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

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

All disturbed, graded, and stockpile areas shall be permanently restored within 14 calendar days of any contractor disturbance. If any disturbed, graded, or stockpiled area (including partial/full cuts and fills, adjusted/replacement storm sewer, sidewalks, curbs, etc.) will not be permanently restored within 14 calendar days they shall be restored with temporary seed and erosion mat or mulch within 5 calendar days of the initial and repeated disturbance.

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

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

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

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

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

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

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

### **Maintaining Drainage**

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

SER-107-003 (20161220)

### **Saw Cut Slurry**

Saw cut slurry that may be generated as part of this contract shall be collected and actively managed. Prevent deposition of saw cut slurry into wetlands, drainage courses, and onto private property. Management of saw cut slurry is incidental to construction and no separate payment will be made.

### **Concrete Washout Containment**

All concrete trucks shall wash out into a containment system located sufficiently away from the work area to prevent runoff into wetlands and drainage courses. The contractor shall provide a construction detail and location of the containment system with the ECIP and reviewed by the engineer prior to use. Concrete washout containment is incidental to construction and no separate payment will be made.

## **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 192+92 to 196+16 right of centerline.
2. Station 195+54 to 196+89 left 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 Gary Metzger, (262) 548-5685, [gary.metzer@dot.wi.gov](mailto:gary.metzer@dot.wi.gov).

stp-107-100 (20230113)

## **16. Notice to Contractor, Asbestos Containing Materials on Structure.**

Paul Garvey, License Number All-117079, inspected Structure B-64-068 for asbestos on August 18, 2021. Regulated Asbestos Containing Material (RACM) was found on this structure in the following locations and quantities: Grey caulk in wingwall joints.

A copy of the inspection report is available from Gary Metzger, (262) 548-5685, [gary.metzer@dot.wi.gov](mailto:gary.metzer@dot.wi.gov). Locations of asbestos containing material are noted on the plan set. Do not disturb any asbestos containing material. Should asbestos containing material be disturbed, stop work immediately, notify the engineer, and the engineer will notify the department's Bureau of Technical Services at (608) 266-1476 for an emergency response as specified in standard spec 107.24. Keep material wet until it is abated.

stp-107-120 (20220628)

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

Paul Garvey, License Number All-117079, inspected Structure B-64-665 for asbestos on March 4, 2021. No Regulated Asbestos Containing Material (RACM) was found on this structure. A copy of the inspection report is included with the bid package or available from Gary Metzger, (262) 548-5685, [gary.metzer@dot.wi.gov](mailto:gary.metzer@dot.wi.gov).

According to NR447 and DHS159, ensure that DNR or DHS receives a completed Notification of Demolition and/or Renovation (DNR Form 4500-113 (R 03/20), or subsequent revision) via U.S. mail, hand-delivery, or using the online notification system at least 10 working days before beginning any construction or demolition. Pay all associated fees. Provide a copy of the completed 4500-113 form to Andrew Malsom, (262) 548-6705, [andrew.malsom@dot.wi.gov](mailto:andrew.malsom@dot.wi.gov) and via e-mail to [dothazmatunit@dot.wi.gov](mailto:dothazmatunit@dot.wi.gov) or via U.S. mail to DOT BTS-ESS attn: Hazardous Materials Specialist, 5 South S.513.12, PO Box 7965, Madison, WI 53707-7965. In addition, comply with all local or municipal asbestos requirements.

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

- Site Name: Structure B-64-665, STH 36 over Ore Creek
- Site Address: Section 9, Town 2 North, Range 18 East, Town of Lyons. Latitude 42o 38' 49.5" N, Longitude 88o22'14.2" W
- Ownership Information: WisDOT Transportation Southeast Region, 141 NW Barstow St, Waukesha, WI 53188.
- Contact: Amy Taetsch
- Phone: (414) 750-4708
- Age: 95 years old. This structure was constructed in 1929.
- Area: 1969 SF of deck

Insert the following paragraph in Section 6.g.:

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

stp-107-125 (20220628)

**18. Notice to Contractor, Verification of Asbestos Inspection, No Asbestos Found.**

Paul Garvey, License Number All-117079, inspected Structure B-64-146 for asbestos on August 18, 2021. No regulated Asbestos Containing Material (RACM) was found on this structure. A copy of the inspection report is available from Gary Metzger, (262) 548-5685, [gary.metzer@dot.wi.gov](mailto:gary.metzer@dot.wi.gov).

John Roelke, License Number All-119523, inspected Structure B-64-162 for asbestos on September 27, 2021. No regulated Asbestos Containing Material (RACM) was found on this structure. A copy of the inspection report is available from Gary Metzger, (262) 548-5685, [gary.metzer@dot.wi.gov](mailto:gary.metzer@dot.wi.gov).

stp-107-127 (20220628)

**19. Notice to Contractor, Removal of Mussels.**

The Wisconsin Department of Natural Resources (DNR) will remove Ellipse and Slippershell Mussels from the stream bed of Ore Creek prior to construction. If mussels are observed within the grading limits stop all work within the stream bed or bank and contact the Wisconsin DNR. Stream bed and bank impacts outside of the grading limits are not allowed without the approval of the Wisconsin DNR.



**20. Available Documents.**

The following documents are available for review:

- Geotechnical Investigation Report
- Abbreviated Pavement Design and Certification Report
- Environmental Document
- Phase 1 Hazardous Materials Report
- Bridge Asbestos Inspection Reports
- Technical Infeasibility Report

Please contact Gary Metzger, (262) 548-5685, [gary.metzer@dot.wi.gov](mailto:gary.metzer@dot.wi.gov), to obtain a copy of these documents.

**21. Coordination with Businesses and Residents.**

The contractor shall arrange and conduct a meeting between the contractor, the department, affected residents, local officials and business people to discuss the project schedule of operations including vehicular and pedestrian access during construction operations. Hold the first meeting at least one week before the start of work under this contract and no further meetings will be required unless directed by the engineer. The contractor shall arrange for a suitable location for meetings that provides reasonable accommodation for public involvement. The department will prepare and coordinate publication of the meeting notices and mailings for meetings. The contractor shall schedule meetings with at least two weeks' prior notice to the engineer to allow for these notifications.

stp-108-060 (20141107)

**22. Material Stockpile and Equipment Storage.**

Submit a map showing all proposed material stockpile and equipment storage locations to the engineer 14 calendar days before either the preconstruction conference or proposed use, whichever comes first. Identify the purpose; length, width, and height; and duration of material stockpile or equipment storage at each location. Do not stockpile material or store equipment until the engineer approves.

SER-107-011 (20220412)

**23. Removing Culvert Endwalls, Item 204.9060.S.01.**

**A Description**

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

**B (Vacant)**

**C (Vacant)**

**D Measurement**

The department will measure Removing Culvert Endwalls in an individual unit, acceptably completed.

**E Payment**

*Add the following to standard spec 204.5:*

ITEM NUMBER	DESCRIPTION	UNIT
204.9060.S.01	Removing Culvert Endwalls	EACH

Payment shall only be made when no other pipe sections are removed. When other pipe sections are removed payment shall be made as part of the bid item Removing Small Pipe Culverts.

stp-204-025 (20230113)

## **24. QMP HMA Pavement Nuclear Density.**

### **A Description**

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

- (1) This special provision describes density testing of in-place HMA pavement with the use of nuclear density gauges. Conform to standard spec 460 except as modified in this special provision.
- (2) Provide and maintain a quality control program defined as all activities and documentation of the following:
  1. Selection of test sites.
  2. Testing.
  3. Necessary adjustments in the process.
  4. Process control inspection.
- (3) Chapter 8 of the department's construction and materials manual (CMM) provides additional detailed guidance for QMP work and describes required procedures.

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

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

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

### **B Materials**

#### **B.1 Personnel**

- (1) Nuclear gauge owners and personnel using nuclear gauges shall comply with WisDOT requirements according to 460.3.3 and CMM 815.

#### **B.2 Testing**

- (1) Conform to WTM T355 and CMM 815 for density testing and gauge monitoring methods. Conform to CMM 815.10.4 for test duration and gauge placement.

#### **B.3 Equipment**

##### **B.3.1 General**

- (1) Furnish nuclear gauges according to CMM 815.2.
- (2) Furnish nuclear gauges from the department's approved product list at

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

##### **B.3.2 Comparison of Nuclear Gauges**

###### **B.3.2.1 Comparison of QC and QV Nuclear Gauges**

- (1) Compare QC and QV nuclear gauges according to WTM T355.

###### **B.3.2.2 Reference Site Monitoring**

- (1) Conduct reference site monitoring for both QC and QV gauges according to WTM T355.

#### **B.4 Quality Control Testing and Documentation**

##### **B.4.1 Lot and Sublot Requirements**

###### **B.4.1.1 Mainline Traffic Lanes, Shoulders, and Appurtenances**

- (1) Divide the pavement into lots and sublots for nuclear density testing according to CMM 815.10.2.
- (2) Determine required number of tests according to CMM 815.10.2.1.
- (3) Determine random testing locations according to CMM 815.10.3.

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

- (1) Divide the pavement into lots and sublots for nuclear density testing according to CMM 815.10.2.
- (2) Determine required number of tests according to CMM 815.10.2.2.
- (3) Determine random testing locations according to CMM 815.10.3.

### **B.4.2 Pavement Density Determination**

#### **B.4.2.1 Mainline Traffic Lanes and Appurtenances**

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

#### **B.4.2.2 Mainline Shoulders**

##### **B.4.2.2.1 Width Greater Than 5 Feet**

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

##### **B.4.2.2.2 Width of 5 Feet or Less**

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

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

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

#### **B.4.2.4 Documentation**

- (1) Document QC density test data as specified in CMM 815. Provide the engineer with the data for each lot within 24 hours of completing the QC testing for the lot.

### **B.4.3 Corrective Action**

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

## **B.5 Department Testing**

### **B.5.1 Verification Testing**

- (1) The department will have a HTCP certified technician, or ACT working under a certified technician, perform verification testing. The department will test randomly at locations independent of the contractor's QC work. The department will perform verification testing at a minimum frequency of 10 percent of the sublots and a minimum of one subplot per mix design. The sublots selected will be within the active work zone. The contractor will supply the necessary traffic control for the department's testing activities.
- (2) The QV tester will test each selected subplot using the same testing requirements and frequencies as the QC tester.
- (3) If the verification subplot average is not more than one percent below the specified minimum target density, use the QC tests for acceptance.
- (4) If the verification subplot average is more than one percent below the specified target density, compare the QC and QV subplot averages. If the QV subplot average is within 1.0 lb/ft<sup>3</sup> of the QC subplot average, use the QC tests for acceptance.
- (5) If the first QV/QC subplot average comparison shows a difference of more than 1.0 lb/ft<sup>3</sup> each tester will perform an additional set of tests within that subplot. Combine the additional tests with the original set of tests to compute a new subplot average for each tester. If the new QV and QC subplot averages compare to within 1.0 lb/ft<sup>3</sup>, use the original QC tests for acceptance.
- (6) If the QV and QC subplot averages differ by more than 1.0 lb/ft<sup>3</sup> after a second set of tests, resolve the difference with dispute resolution specified in B.6. The engineer will notify the contractor immediately when density deficiencies or testing precision exceeding the allowable differences are observed.

### **B.5.2 Independent Assurance Testing**

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

## **B.6 Dispute Resolution**

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

## **B.7 Acceptance**

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

### **C (Vacant)**

### **D (Vacant)**

## **E Payment**

### **E.1 QMP Testing**

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

## E.2 Disincentive for HMA Pavement Density

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

## E.3 Incentive for HMA Pavement Density

- (1) The department will administer density incentives as specified in standard spec 460.5.2.3.  
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## 25. 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:

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

### **C.1.1.2 Density**

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

### **C.1.2 Field Tests**

#### **C.1.2.1 Density**

For contracts that include STSP 460-020 QMP Density in addition to PWL, a gauge comparison according to 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<sup>3</sup>. 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<sup>3</sup>. 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 <sup>[1]</sup>	- 0.5
Air Voids	-1.5 & +2.0
VMA in percent <sup>[2]</sup>	- 1.0
Maximum specific gravity	+/- 0.024

<sup>[1]</sup> 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.

<sup>[2]</sup> 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 <sup>1</sup>	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

<sup>1</sup> 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 volumetric or density test strip) under the HMA Additional Test Strip administrative item.

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

**PAY ADJUSTMENT FOR HMA PAVEMENT AIR VOIDS & DENSITY**

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

where, PF is calculated per air voids and density, denoted PF<sub>air voids</sub> and PF<sub>density</sub>

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

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

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

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

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

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

Individual Pay Factors for each air voids (PF<sub>air voids</sub>) and density (PF<sub>density</sub>) will be determined. PF<sub>air voids</sub> will be multiplied by the total tonnage produced (i.e., from truck tickets), and PF<sub>density</sub> 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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## 26. HMA Pavement Percent Within Limits (PWL) QMP.

### A Description

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

### B Materials

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

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

#### **460.2.8.2.1.3.1 Contracts under Percent within Limits**

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

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

(3) Perform sampling from the truck box and three-part splitting of HMA samples according to 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 three splits for all random sampling per subplot. All QC samples shall provide the following: QC, QV, and Retained. The contractor shall take possession and test the QC portions. The department will observe the splitting and take possession of the samples intended for QV testing (i.e., QV portion from each sample) and the Retained portions. Additional sampling details are found in Appendix A. Label samples according to WTM R97. Additional handling instructions for retained samples are found in CMM 836.4 and CMM 836.5.

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

- Blended aggregate gradations according to 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 (G<sub>mb</sub>) of the compacted mixture according to WTM T166.
- Maximum specific gravity (G<sub>mm</sub>) according to WTM T209.
- Air voids (V<sub>a</sub>) by calculation according to WTM T269.
- Voids in Mineral Aggregate (VMA) by calculation according to WTM R35.

(5) Lot size shall consist of 3750 tons with sublots of 750 tons. Test each design mixture at a frequency of one test per 750 tons of mixture type produced and placed as part of the contract. Add a random sample for any fraction of 750 tons at the end of production for a specific mixture design. Partial lots with less than three subplot tests will be included into the previous lot for data analysis and pay adjustment.

Volumetric lots will include all tonnage of mixture type under specified bid item unless otherwise specified in the plan.

(6) Conduct field tensile strength ratio tests, without freeze-thaw conditioning cycles, on each qualifying mixture according to WTM T283 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 <sup>[1]</sup>	- 0.5	-1.0

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

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

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

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

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

*Replace standard spec 460.2.8.3.1.2 Personnel Requirements with the following:*

**460.2.8.3.1.2 Personnel Requirements**

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

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

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

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

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

#### **460.2.8.3.1.4 Department Verification Testing Requirements**

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

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

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

- Bulk specific gravity (Gmb) of the compacted mixture according to 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.
- 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 4<sup>th</sup> and 5<sup>th</sup> 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:

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

<sup>[2]</sup> 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.

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

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

<sup>(3)</sup> 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.

<sup>(4)</sup> 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.

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

*Delete standard spec 460.2.8.3.1.8 Corrective Action.*

## **C Construction**

*Replace standard spec 460.3.3.2 Pavement Density Determination with the following:*

### **460.3.3.2 Pavement Density Determination**

<sup>(1)</sup> 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 7500 lane feet with sublots of 1500 lane feet (excluding shoulder, even if paved integrally) and placed within a single layer for each location and target maximum density category indicated in table 460-3. The contractor is required to complete three tests randomly per subplot and the department will randomly conduct one QV test per subplot. A partial quantity less than 750 lane feet will be included with the previous subplot. Partial lots with less than three sublots will be included in the previous lot for data analysis/acceptance and pay, by the engineer. If density lots/sublots are determined prior to construction of the test strip, any random locations within the test strip shall be omitted. Exclusions such as shoulders and appurtenances shall be tested and recorded according to CMM 815. However, all acceptance testing of shoulders and appurtenances will be conducted by the department, and average lot (daily) densities must conform to standard spec Table 460-3 or else be subject to disincentives according to 460.5.2.2(5) herein. No density incentive will be applied to shoulders or appurtenances. Offsets will not be applied to nuclear density gauge readings for shoulders or appurtenances. Unacceptable shoulder material will be handled according to standard spec 460.3.3.1 and CMM 815.11.
- (4) The three QC locations per subplot represent the outside, middle, and inside of the paving lane. The QC density testing procedures are detailed in Appendix A.
- (5) QV nuclear testing will consist of one randomly selected location per subplot. The QV density testing procedures will be the same as the QC procedure at each testing location and are also detailed in Appendix A.
- (6) An HTCP-certified nuclear density technician (NUCDENSITYTEC-I) shall identify random locations and perform the testing for both the contractor and department. The responsible certified technician shall ensure that sample location and testing is performed correctly, analyze test results, and provide density results to the contractor weekly, or at the completion of each lot.
- (7) For any additional tests outside the random number testing conducted for density, the data collected will not be entered into PWL calculations. However, additional QV testing must meet the tolerances for material conformance as specified in the standard specification and this special provision. If additional density data identifies unacceptable material, proceed as specified in CMM 815.11.

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

#### **460.3.3.3 Analysis of Density Data**

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

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

**D Measurement**

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

**E Payment**

Replace standard spec 460.5.2 HMA Pavement with the following:

**460.5.2 HMA Pavement**

**460.5.2.1 General**

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

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

**460.5.2.2 Calculation of Pay Adjustment for HMA Pavement using PWL**

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

**PAY FACTOR FOR HMA PAVEMENT AIR VOIDS & DENSITY**

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

where PF is calculated per air voids and density, denoted PF<sub>air voids</sub> and PF<sub>density</sub>.

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

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

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

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

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

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

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

(4) Individual Pay Factors for each air voids ( $\text{PF}_{\text{air voids}}$ ) and density ( $\text{PF}_{\text{density}}$ ) will be determined.  $\text{PF}_{\text{air voids}}$  will be multiplied by the total tonnage placed (i.e., from truck tickets), and  $\text{PF}_{\text{density}}$  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 <sup>[1]</sup>	—

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

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

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

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

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

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

<sup>[1]</sup> 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.



<sup>[2]</sup> 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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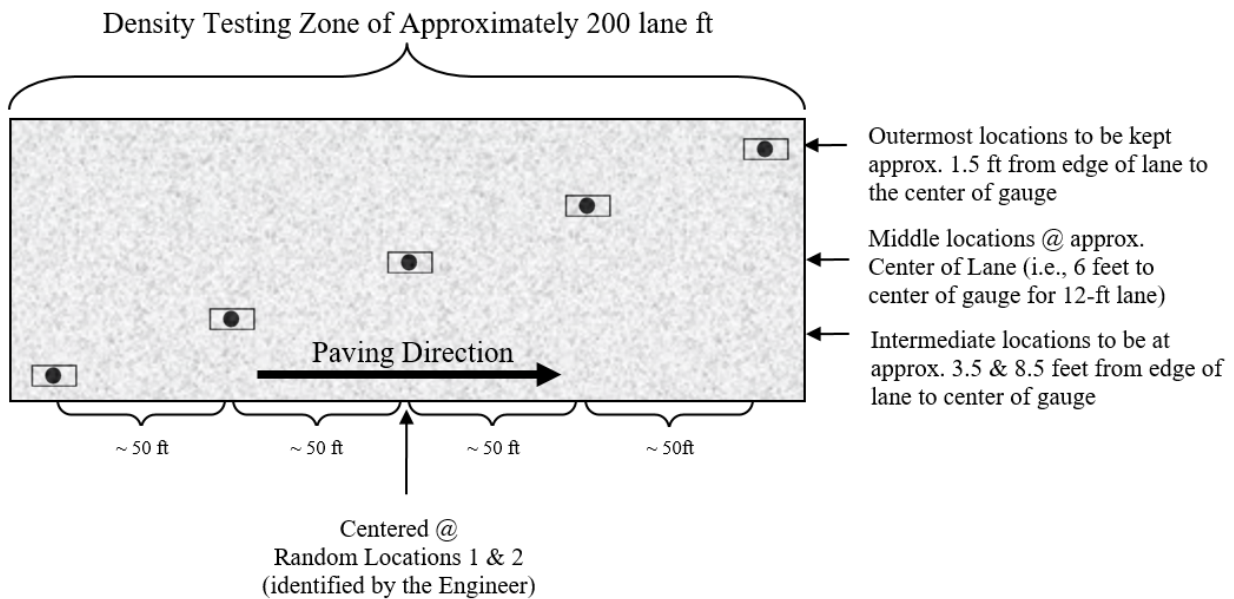
## 27. Appendix A.

### Test Methods & Sampling for HMA PWL QMP Projects

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

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

### WisDOT Procedure for Nuclear Gauge/Core Correlation – Test Strip




**Figure 1: Nuclear/Core Correlation Location Layout**

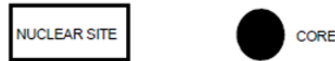
The engineer will identify two zones in which gauge/core correlation is to be performed. These two zones will be randomly selected within each *half* of the test strip length. (Note: Density zones shall not overlap and must have a minimum of 100 feet between the two zones; therefore, random numbers may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

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

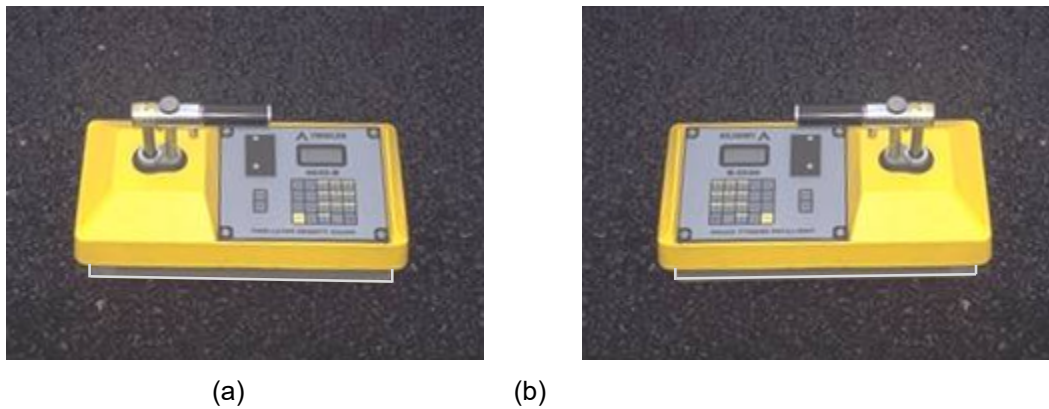
\*If the two readings exceed 1.0 pcf of one another, a third reading is conducted in the same orientation as the first reading. In this event, all three readings are averaged, the individual test reading of the three which falls farthest from the average value is discarded, and the average of the remaining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

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

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



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



**Figure 2: Nuclear gauge orientation for (a) 1<sup>st</sup> one-minute reading and (b) 2<sup>nd</sup> one-minute reading**

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



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

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

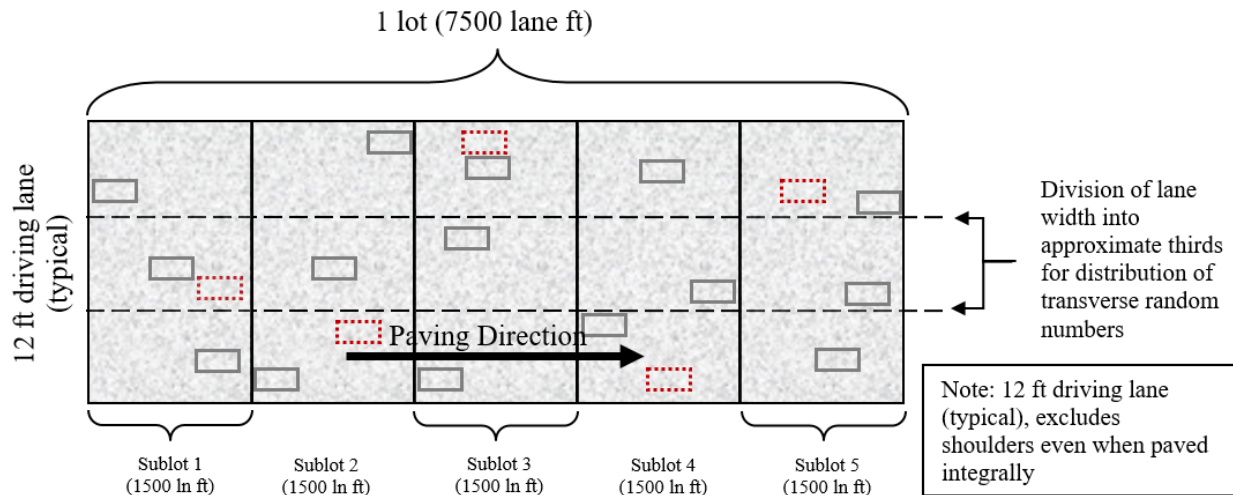
Each core 100 or 150 mm (4 or 6 inches) in diameter will be taken at locations as identified in Figure 1. Each random core will be full thickness of the layer being placed. The contractor is responsible for thoroughly drying cores obtained from the mat according to WTM R79 prior to using specimens for in-place density determination according to WTM T166.

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

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

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

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



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

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

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

The QV density technician is expected to be onsite within 1 hour of the start of paving operations and should remain on-site until all paving is completed. Perform footprint testing as soon as both the QC and QV nuclear density technician are onsite and a minimum of once per day to ensure the gauges are not drifting apart during a project. Footprint testing compares the density readings of two gauges at the same testing location and can be done at any randomly selected location on the project. Both teams are encouraged to conduct footprint testing as often as they feel necessary. Footprint testing does not need to be performed at the same time. At project start-up, the QV should footprint the first 10 QC locations. Individual density tests less than 0.5% above the lower limit should be communicated to the other party and be footprint tested. Each gauge conducts 2 to 3 1-minute tests according to 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%.

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

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

Under the direct observation of the engineer, cut 100 or 150 mm (4 or 6 inch) diameter cores. Cores will be cut by the next day after completion of the lot, except if the next day is not a working day, then they shall be cut within 48 hours of placement. Prepare cores and determine density according to 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 foot ahead of the existing testing location in the direction of traffic at the same offset as the damaged core. If a core is damaged during transport, record it as damaged and notify the engineer immediately.

### **Sampling for WisDOT HMA PWL QMP Production**

Sampling of HMA mix for QC, QV and Retained samples shall conform to WTM R97 and WTM R47 except as modified here.

### **Sampling Hot Mix Asphalt**

At the beginning of the contract, the contractor determines the anticipated tonnage to be produced. The frequency of sampling is 1 per 750 tons (sublot) for QC and Retained Samples and 1 per 3750 tons (lot or 5 sublots) for QV as defined by the HMA PWL QMP article. A test sample is obtained randomly from each sublot. Each random sample shall be collected at the plant according to WTM R97. The contractor must submit the random numbers for all mix sampling to the department before production begins.

Example 1

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

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

The approximate location of each sample within the prescribed sublots is determined by selecting random numbers using WTM D3665 or by using a calculator or computerized spreadsheet that has a random number generator. The random numbers selected are used in determining when a sample is to be taken and will be multiplied by the subplot tonnage. This number will then be added to the final tonnage of the previous subplot to yield the approximate cumulative tonnage of when each sample is to be taken.

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

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

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

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

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

QC, QV, and retained samples shall be collected for all test strip and production mixture testing using a three-part splitting procedure according to 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 subplot eligible for density incentive or disincentive.

**Solution:**

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

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## 28. 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 <sup>[1]</sup>	90 <sup>[1]</sup>	91.5 <sup>[1]</sup>	91.5 <sup>[1]</sup>
Upper	90	90	91.5	91.5

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

### C Construction

Add the following to standard spec 460.3.3.2:

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

- d) The remaining subplot average (exclusive of unacceptable material) will be determined by the first forward and backward 50-foot incremental tests that reach the criteria of higher than or equal to -3.0 percent from target joint density.

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

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

**D Measurement**

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

**E Payment**

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

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

**PAY ADJUSTMENT FOR HMA PAVEMENT LONGITUDINAL JOINT DENSITY**

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

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

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



- (3) The department will not pay incentive on the longitudinal joint density if the traffic lane is in disincentive A disincentive may be applied for each mainline lane and all joint densities if both qualify for a pay reduction.
- (4) Inlay paving operations will limit payment for additional material to 2 inches wider than the final paving lane width at the centerline.

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

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

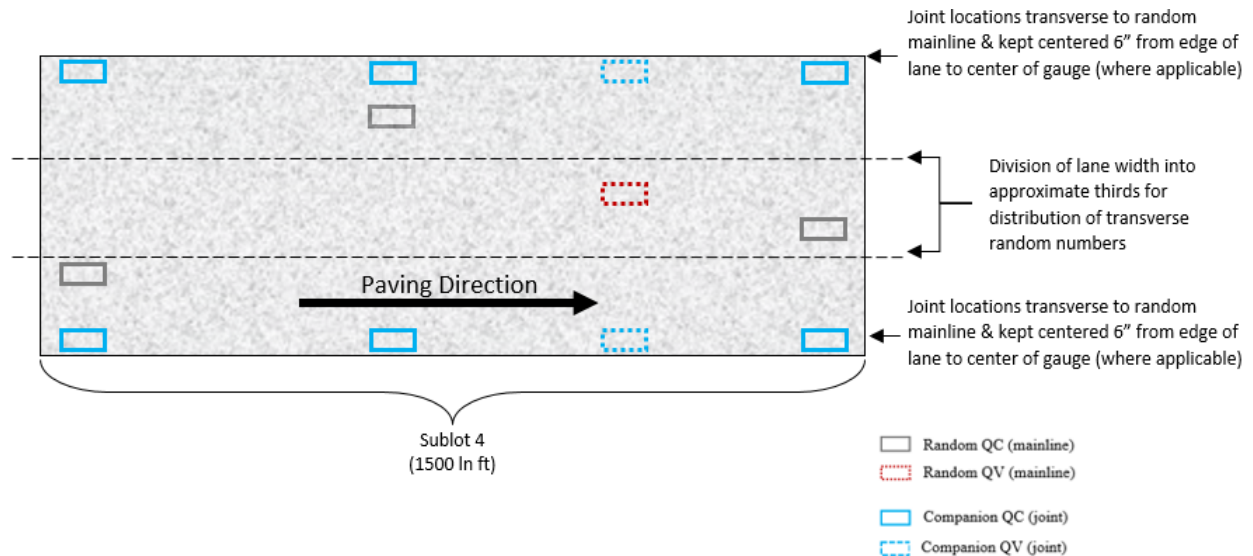
The department will administer disincentives under the Disincentive Density HMA Pavement Longitudinal Joints administrative item.

### Appendix

#### WisDOT Longitudinal Joint – Nuclear Gauge Density Layout

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

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



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

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

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

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**29. Asphaltic Surface, Item 465.0105;  
Asphaltic Surface Driveways and Field Entrances, 465.0120.**

*Add the following to standard spec 465.5:*

When asphaltic surface is installed in conjunction with driveway or curb ramp replacements that are not adjacent to other work requiring excavation or aggregate placement, payment for asphaltic surface includes foundation excavation, preparation, and backfill. Payment also includes placement and compaction of base aggregate dense. No additional payment will be made for excavation and base aggregate dense in these locations.

**30. Cleaning and Sealing Cracks and Joints with Hot-Applied Sealant, Item 492.2020.S.**

**A Description**

This special provision describes sealing primary cracks and joints along the entire length of asphalt or concrete pavements by means of routing or cleaning.

The item Routing and Sealing Cracks and Joints with Hot-Applied Sealant consists of routing primary cracks and joints, cleaning prior to sealant application, and applying the sealant as the plans show or as directed by the engineer.

The item Cleaning and Sealing Cracks and Joints with Hot-Applied Sealant consists of cleaning primary cracks and joints prior to sealant application and applying the sealant as the plans show or as directed by the engineer.

Primary cracks are defined as transverse, longitudinal, and centerline cracks greater than or equal to 1/4 inches wide but less than or equal to 1½ inch wide.

**B Materials**

**B.1 Sealant Material**

Use a sealant material meeting the requirements of ASTM D6690 Type II or Type IV: Joint and Crack Sealants, Hot Applied, for Asphalt and Concrete Pavements. Deliver the sealant in the manufacturer's original sealed container legibly marked with the following information:

- Manufacturer's name
- Trade name of sealant
- Manufacturer's batch or lot number
- ASTM D6690, Type II or Type IV
- Minimum application temperature
- Maximum (or safe) heating temperature

Provide the engineer with a certificate of compliance along with a copy of the manufacturer's recommendations on heating, re-heating and application of the sealant prior to start of work.

Mixing of different manufacturer's brands or different types of sealants is prohibited.

## **B.2 Equipment**

Furnish all equipment necessary to complete the routing, cleaning, preparing and sealing of cracks in accordance with the requirements specified. Equipment required for this operation includes the following:

- Mechanical router capable of routing the asphaltic pavement to provide a depth to width ratio of all routed cracks of 1:1 (i.e., 3/4 inch depth x 3/4 inch width).
- Air Compressor shall be portable and have a minimum rated capacity of 100 CF of air per minute at 90-psi pressure at the nozzle and have sufficient hose to maintain a continuing operation without interruption. The unit shall also be equipped with traps that will maintain the compressed air free of oil and water.
- High Pressure Air Lance or Hot Air Lance shall be designed specifically for use in cleaning highway pavement and to remove debris, dirt, and dust from the cracks.
- Hand tools shall consist of brooms, shovels, metal bars with chisel shaped ends, and any other tools that may be satisfactorily used to accomplish this work.
- Squeegees shall be of a flexible rubber type, in the shape of a "vee" (V), and capable of contacting materials up to 450° F without damage to it or materials.
- Pouring Pots shall be equipped with mobile carriage and have a flow control valve that allows all cracks to be filled to refusal to eliminate all voids or entrapped air and not leave unnecessary surplus crack sealer on pavement surfaces.
- Melting Kettle shall be constructed as a double lined boiler with space between the inner and outer shells filled with oil or other material for heat transfer. The material for transferring heat shall have a flash point of not less than 600° F. Positive temperature control and mechanical agitation will be provided. Direct heating shall not be used. When using, maintain the temperature of the sealing compound within the range specified by the manufacturer. The kettle shall be equipped with thermostatic controls calibrated between 200° F and 550° F.

## **C Construction**

### **C.1 General**

Before commencing work, complete all pavement repairs that are included in the contract and are adjacent to pavement cracks.

Place sealant materials when air and surface temperature at the crack sealing area are 40° F or greater in the shade. Do not place sealant material if temperatures are predicted to drop below 40° F before the sealant is cured.

Do not place sealant material if weather conditions are raining or wet. If sealant is placed and rain falls before the sealant has properly cured, remove and replace the wet/contaminated sealant.

Do not place sealant material when anti-icing or de-icing chemicals agents are present on the pavement. Presence of these materials will negatively affect the ability of the sealant to adhere to the pavement.

Remove failed sealant, dirt, dust, and any deleterious material. Dispose of any debris or material removed in the preparation of cracks and any over-heated material in a legal and environmentally safe method.

Prepare cracks for sealing on the same day that are to be sealed. Do not allow traffic to run on cleaned cracks or joints prior to application of sealant material.

At location where crack sealant settles into the crack opening more than ¼ inch below the pavement, apply additional material to meet the requirements.

A low pressure, light spray of water may be used to accelerate cooling of the sealant. Protect the public from potentially objectionable and/or hazardous airborne debris.

Apply an approved de-tacking agent or single ply-toilet paper for use with the specified sealant to the surface of the newly placed sealant if traffic results in tracking of the crack sealing material. Repair any damage by traffic to treated pavement areas.

Place same day pavement markings for centerline that becomes covered or obliterated with the sealant if the road is open to all traffic. Re-mark lane lines and edge lines within a timely manner.

## C.2 Rout and Seals

Primary cracks shall be routed, cleaned, and sealed. Routing is required for all primary cracks less than  $\frac{3}{4}$  Inch wide. Hairline cracks will not be sealed.

Route cracks to be sealed to a minimum width of  $\frac{3}{4}$  inch and a minimum depth of  $\frac{3}{4}$  inch.

Clean the routed reservoirs/cracks with a minimum of one pass of the high-pressure air equipment. Cleaning continues until the reservoir/crack is dry and all dirt, dust, or deleterious material is removed.

The use of a heat lance to clean and dry route cracks is optional. If a heat lance is used, condition the pavement prior to placement of the crack sealant. Immediately prior to the placement of the crack sealant, heat the surface of both sidewalls of the reservoir/crack, as well as the pavement 1 inch on either side of the sidewalls with hot compressed air from a heat lance. Do not scorch the routed reservoir, crack, or adjacent pavement surface.

## C.3 Clean and Seal

Clean and seal, without routing, longitudinal and transverse cracks that are equal or greater than  $\frac{3}{4}$  inch wide but equal or less than  $1\frac{1}{2}$  inch wide.

Previously sealed cracks that exhibit signs of failure, allowing water to penetrate the crack, such as missing or loss of existing sealant material, cracking of the existing sealant, loss of adhesion to existing pavement and overband wear shall be cleaned of foreign and loose material and filled without routing.

Use a high-pressure air lance or hot air lance to thoroughly clean cracks to minimum depth of  $\frac{1}{2}$  inch of dust, dirt, foreign material, sand, and any other extraneous materials immediately before sealing. Do not burn, scotch, or ignite the adjoining pavement when using a hot air lance.

Install suitable traps or devices on the compressed air equipment to prevent moisture and oil from contaminating the crack surfaces. Maintain these devices and ensure that they are functioning properly.

Seal the crack by placing the applicator wand in or directly over the crack opening and carefully discharge the sealant. Strike-off the sealant flush with the pavement surface using a squeegee or using a sealing shoe pressed firmly against the pavement. Only a narrow thin film of material measuring from 1 inch to 3 inches wide is allowed on the pavement surface after sealing the crack.

**Cracks intersecting milled rumble strips along the centerline or paved shoulder shall be cleaned of foreign and loose materials and may be filled without routing at the department's discretion and decide to quote. Minimize puddling of sealant in the depressions of the rumble strips.**

## D Measurement

The department will measure Routing and Sealing Cracks and Joints with Hot-Applied Sealant by the mile, measured in length by the centerline mile, acceptably completed.

The department will measure Cleaning and Sealing Cracks and Joints with Hot-Applied Sealant by the mile, measured in length by the centerline mile, 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
492.2020.S	Cleaning and Sealing Cracks and Joints with Hot-Applied Sealant	MI

Payment for Routing and Sealing Cracks and Joints with Hot-Applied Sealant is full compensation for routing, cleaning, disposal, furnishing and application of sealant and re-sealing as needed.

Payment for Cleaning and Sealing Cracks and Joints with Hot-Applied Sealant is full compensation for cleaning, disposal, furnishing and application of sealant and re-sealing as needed.

The department will pay separately for Pavement Markings.

stp-492-010 (20200629)

## **31. Bar Steel Reinforcement HS Stainless Structures, Item 505.0800.S.**

### **A Description**

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

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

### **B Materials**

#### **B.1 General**

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

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

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

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

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

#### **B.2 Fabrication**

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

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

#### **B.3 Control of Material**

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

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

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

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

### **C Construction**

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

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

1. Separate from regular reinforcement during shipping. Pad points of contact with steel chains or banding, or secure with non-metallic straps.
2. Store on wooden cribbing separated from regular reinforcement. Cover with tarpaulins if stored outside.
3. Handle with non-metallic slings.
4. Do not flame cut or weld. Protect from contamination when cutting, grinding, or welding other steel products above or near the stainless steel during construction.
5. Place on plastic or stainless steel bar chairs. If placing stainless steel chairs on steel beams, use chairs with plastic-coated feet.
6. Tie with stainless steel wire or an engineer-approved plastic or nonmetallic material.

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

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

## **C.2 Splices**

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

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

## **D Measurement**

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

## **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
505.0800.S	Bar Steel Reinforcement HS Stainless Structures	LB

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

stp-505-005 (20190618)

## **32. Sawing Pavement Deck Preparation Areas, Item 509.0310.S.**

### **A Description**

This special provision describes sawing around deteriorated areas requiring deck repairs under the Preparation Decks bid items on decks receiving asphalt or polymer overlays and for deck repairs that will not receive an overlay.

### **B (Vacant)**

### **C Construction**

The department will sound and mark areas of deteriorated concrete that require deck preparation. The engineer may identify and mark additional areas as the work is being performed.

Wet cut a minimum of 1 inch deep and at least 2 inches outside of the marked areas. Bound each marked area by providing cuts aligned parallel and perpendicular to the deck centerline.

Remove sawing sludge after completing each area. Do not allow sludge or resulting residue to enter a live lane of traffic, storm sewer, stream, lake, reservoir, marsh, or wetland. Dispose of sludge at an acceptable material disposal site located off the project limits or, if the engineer allows, within the project limits.

## D Measurement

The department will measure Sawing Pavement Deck Preparation Areas by the linear foot, acceptably completed, measured as the total linear feet of bounding cuts.

The department will not measure for payment over-cuts or cuts made beyond what is required to bound engineer-marked deterioration limits.

## E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
509.0310.S	Sawing Pavement Deck Preparation Areas	LF

Payment is full compensation for making all saw cuts; and for debris disposal.

stp-509-070 (20180628)

### 33. Concrete Masonry Deck Repair, Item 509.2100.S.

#### A Description

This special provision describes providing concrete masonry on the sawed deck preparation areas of the concrete bridge deck and in full depth deck, curb, and joint repair areas. Conform to standard spec 502 and standard spec 509.

#### B Materials

##### B.1 Neat Cement

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.

##### B.2 Concrete

Furnish grade C or E concrete conforming to standard spec 501 for deck preparation, full-depth deck repair, curb repair and joint repair areas except as follows:

1. The contractor may increase slump of grade E concrete to 3 inches.
2. The contractor may use ready-mixed concrete.

Provide QMP for class II ancillary concrete as specified in standard spec 716.

#### C Construction

##### C.1 Neat Cement

Immediately before placing the concrete deck patching, coat the prepared surfaces with a neat cement mixture. Ensure the prepared concrete surfaces are moist without any standing water before coating with the neat cement mixture. Brush the neat cement mixture over the prepared concrete surfaces to ensure that all parts receive an even coating, and do not allow excess neat cement to collect in pockets. Apply the neat cement at a rate that ensures the cement does not dry out before being covered with the new concrete.

##### C.2 Placing Concrete

Place concrete conforming to standard spec 509. As determined by the engineer, consolidate smaller areas by internal vibration, strike them off, and finish the areas with hand floats to produce plane surfaces that conform to the grade and elevation of the adjoining surfaces. Give all deck patching areas a final hand float finish.

##### C.3 Curing Concrete

Cure the concrete masonry deck patching conforming to standard spec 502.2.6(1).

#### D Measurement

The department will measure Concrete Masonry Deck Repair by the cubic yard, acceptably completed.

The department will measure concrete used in deck preparation areas and in full depth deck, curb, and joint repair as part of the Concrete Masonry Deck Repair bid item.

The department will not measure wasted concrete.

## E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
509.2100.S	Concrete Masonry Deck Repair	CY

Payment is full compensation for furnishing, hauling, preparing, placing, finishing, curing, and protecting all materials.

stp-509-060 (20210708)

## 34. Polymer Overlay, Item 509.5100.S.

### A Description

This special provision describes providing two layers of a two-component polymer overlay system to the bridge decks the plans show.

### B Materials

#### B.1 General

Furnish materials specifically designed for use over concrete bridge decks. Furnish polymer liquid binders from the department's approved product list.

#### B.2 Polymer Resin

Furnish a polymer resin base and hardener composed of two-component, 100 percent solids, 100 percent reactive, thermosetting compound with the following properties:

Property	Requirements	Test Method
Gel Time <sup>[1]</sup>	15 - 45 minutes @ 73° to 75° F	ASTM C881
Viscosity <sup>[1]</sup>	7 - 70 poises	ASTM D2393, Brookfield RVT, Spindle No. 3, 20 rpm
Shore D Hardness <sup>[2]</sup>	60-75	ASTM D2240
Absorption <sup>[2]</sup>	1% maximum at 24 hr	ASTM D570
Tensile Elongation <sup>[2]</sup>	30% - 70% @ 7 days	ASTM D638
Tensile Strength <sup>[2]</sup>	2000 to 5000 psi @ 7 days	ASTM D638
Chloride Permeability <sup>[2]</sup>	<100 coulombs @ 28 days	AASHTO T277

<sup>[1]</sup> Uncured, mixed polymer binder

<sup>[2]</sup> Cured, mixed polymer binder

Ensure that the polymer resin when mixed with aggregate has the following properties:

Property	Requirement <sup>[1]</sup>	Test Method
Minimum Compressive Strength	1,000 psi @ 8 hrs 5,000 psi @ 24 hrs	ASTM C579 Method B, Modified <sup>[2]</sup>
Thermal Compatibility	No Delaminations	ASTM C884
Minimum Pull-off Strength	250 psi @ 24 hrs	ASTM C1583

<sup>[1]</sup> Based on samples cured or aged and tested at 75°F

<sup>[2]</sup> Plastic inserts that will provide 2-inch by 2-inch cubes shall be placed in the oversized brass molds.



### B.3 Aggregates

Furnish natural or synthetic aggregate that is non-polishing; clean; free of surface moisture; fractured or angular in shape; free from silt, clay, asphalt, or other organic materials; and conform to the following:

**Aggregate Properties**

Property	Requirement	Test Method
Moisture Content <sup>[1]</sup>	1/2 of the measured aggregate absorption, %	ASTM C566
Hardness	≥6.5	Mohs Scale
Fractured Faces	100% with at least 1 fractured face & 80% with at least 2 fractured faces of material retained on No.16	ASTM D5821
Absorption	≤1%	ASTM C128

<sup>[1]</sup> Sampled and tested by the department before placement.

**Gradation**

Sieve Size	% Passing by Weight
No. 4	100
No. 8	30 – 75
No. 16	0 – 5
No. 30	0 – 1

### B.4 Approval of Bridge Deck Polymer Overlay System

A minimum of 20 working days before application, submit product data sheets and specifications from the manufacturer, and a certified report of test or analysis from an independent laboratory to the engineer for approval. The department will sample and test the aggregates for gradation and moisture content before placement. If requested, supply the department with samples of the polymer for the purpose of acceptance testing.

#### B.4.1 Product Data Sheets and Specifications

Product data sheets and specifications from the manufacturer consists of literature from the manufacturer showing general instructions, application recommendations/methods, product properties, general instructions, or any other applicable information.

#### B.4.2 Certified Report of Test or Analysis

Conform to the following:

**Polymer Binder:** Submit a certified report of test or analysis from an independent laboratory dated less than 3 years before the date of the project letting showing the polymer binder meets the requirements of section B.2.

**Aggregates:** Submit a certified report of test or analysis from an independent laboratory dated less than 6 months before the date of the project letting showing the aggregates meet the requirements of section B.3.

## C Construction

### C.1 General

Ensure that the overlay system is 1/4 inch thick or thicker.

Conform to the following:

**Field Review:** Conduct a field review of the existing deck to identify any possible surface preparation and material compatibility issues.

***Pre-Installation Meeting:*** Conduct a pre-installation meeting with the manufacturer's representative and the engineer before construction. Discuss the field review findings, verification testing of the surface preparation and establish procedures for maintaining optimum working conditions and coordination of work. Furnish the engineer a copy of the recommended procedures and apply the overlay system according to the manufacturer's instructions. Supply for the engineer's use for the duration of the project, a Concrete Surface Profile (CSP) chip set of 10 from the International Concrete Repair Institute (ICRI).

***Manufacturer's Representative:*** An experienced manufacturer's representative familiar with the overlay system installation procedures shall be present at all times during surface preparation and overlay placement to provide quality assurance that the work is being performed properly. This requirement may be reduced at the engineer's discretion.

***Material Storage:*** Store and handle materials according to the manufacturer's recommendations. Store resin materials in their original containers in a dry area. Store all aggregates in a dry environment and protect aggregates from contaminants on the job site.

## **C.2 Deck Preparation**

### **C.2.1 Deck Repair**

Remove all asphaltic patches and unsound or disintegrated areas of the concrete decks as the plans show, or as the engineer directs. Work performed to remove and repair the concrete deck will be paid for under other items.

Use deck patching products that are compatible with the overlay system. Patching materials with magnesium phosphate shall not be used. Place patches after surface is prepared via shot blasting and cleaning as described in Section C.2.2 of this specification. Portland cement concrete patches shall be used for joint repairs and full depth deck repairs with a plan area larger than 4 sf, unless approved otherwise by the Structures Design Section. If rapid-set concrete is used, place patches per the manufacturer's recommendation. If Portland cement concrete is used, place patches per standard spec 509.3.9.1.

Deck patching shall be filled and properly finished prior to overlay placement. Do not place overlay less than 1 hour, or per the manufacturer's recommendation, after placing rapid-set concrete patches in the repair areas. Do not place overlay less than 28 days after placing Portland cement concrete patches in the repair areas.

### **C.2.2 Surface Preparation**

Determine an acceptable shotblasting machine operation (size of shot, flow of shot, forward speed, and/or number of passes) that provides a surface profile meeting CSP 5 (medium-heavy shotblast) according to the ICRI Technical Guideline No. 310.2. If the engineer requires additional verification of the surface preparation, test the tensile bond strength according to ASTM C1593. The surface preparation will be considered acceptable if the tensile bond strength is greater than or equal to 250 psi or the failure area at a depth of 1/4 inches or more is greater than 50 percent of the test area. Continue adjustment of the shotblasting machine and necessary testing until the surface is acceptable to the engineer or a passing test result is obtained.

Prepare the entire deck using the final accepted adjustments to the shotblasting machine as determined above. Thoroughly blast clean with hand-held equipment any areas inaccessible by the shotblasting equipment. Do not perform surface preparation more than 24 hours before the application of the overlay system.

Protect drains, expansion joints, access hatches, or other appurtenances on the deck from damage by the shot and sand blasting operations and from materials adhering and entering. Tape or form all construction joints to provide a clean straight edge.

Before shot blasting, remove pavement markings within the treatment area using an approved mechanical or blasting method.

Prepare the vertical concrete surfaces adjacent to the deck a minimum of 2" above the overlay according to SSPC-SP 13 (free of contaminants, dust, and loose concrete) by sand blasting, using wire wheels, or other approved method.

Just before overlay placement, clean all dust, debris, and concrete fines from the prepared surfaces including the vertical surfaces with compressed air. When using compressed air, the air stream must be free of oil. Any grease, oil, or other foreign matter that rests on or has absorbed into the concrete shall be removed completely. If prepared surfaces (including the first layer of the polymer overlay) are exposed to rain or dew, lightly sandblast (brush/breeze blast) the exposed surfaces.

The engineer may consider alternate surface preparation methods per the overlay system manufacturer's recommendations. The engineer will approve the final surface profile and deck cleanliness before the contractor places the polymer overlay.

### **C.2.3 Transitional Area**

If the plans show, create a transitional area approaching transverse expansion joints and ends of the deck using an approved mechanical or blasting method. Remove 1/4 inch to 5/16 inch of concrete adjacent to the joint or end of deck and taper a distance of 3 feet.

If the plans show, create a transitional area on the approach pavement. Prep and place the first lift 3 feet beyond the end of the deck the same width as the deck. Prep and place the second lift 6 feet beyond the end of the deck the same width as the deck.

### **C.3 Overlay Application**

Perform the handling and mixing of the polymer resin and hardening agent in a safe manner to achieve the desired results according to the manufacturer's instructions. Do not apply the overlay system if any of the following exists:

1. Ambient air temperature is below 50 F or above 100 F.
2. Deck temperature is below 50 F.
3. Moisture content in the deck exceeds 4.5 percent when measured by an electronic moisture meter or shows visible moisture after 2 hours when measured in accordance with ASTM D4263.
4. Rain is forecasted during the minimum curing periods listed under C.5.
5. Materials component temperatures below 65 F or above 99 F.
6. Concrete deck age is less than 28 days.
7. The deck temperature exceeds 100 F.
8. If the gel time is 10 minutes or less at the predicted high air temperature for the day.

After the deck has been shotblasted or during the overlay curing period, only necessary surface preparation and overlay application equipment will be allowed on the deck. Provide appropriate protective measures to prevent contamination from equipment allowed on the deck during preparation and application operations. Begin overlay placement as soon as possible after surface preparation operations.

The polymer overlay shall consist of a two-course application of polymer and aggregate. Each of the two courses shall consist of a layer of polymer covered with a layer of aggregate in sufficient quantity to completely cover the polymer. Apply the polymer and aggregate according to the manufacturer's requirements. Apply the overlay using equipment designed for this purpose. The application machine shall feature positive displacement volumetric metering and be capable of storing and mixing the polymer resins at the proper mix ratio. Disperse the aggregate using a method that provides a uniform, consistent coverage of aggregate and minimizes aggregate rolling or bouncing into final position. First course applications that do not receive enough aggregate before the polymer gels shall be removed and replaced. A second course applied with insufficient aggregate may be left in place but will require additional applications before opening to traffic.

After completion of each course, cure the overlay according to the manufacturer's instructions. Follow the minimum cure times listed under C.5 or as prescribed by the manufacturer. Remove the excess aggregate from the surface treatment by sweeping, blowing, or vacuuming without tearing or damaging the surface; the material may be re-used if approved by the engineer and manufacturer. Apply all courses of the overlay system before opening the area to traffic. Do not allow equipment or traffic on the treated area until directed by the engineer.

After the first layer of coating has cured to the point where the aggregate cannot be pulled out, apply the second layer. Before applying the second layer, broom and blow off the first layer with compressed air to remove all loose excess aggregate.

Before opening to traffic, clean expansion joints and joint seals of all debris and polymer. A minimum of 3 days following opening to traffic, remove loosened aggregates from the deck, expansion joints, and approach pavement.

### **C.4 Application Rates**

Apply the polymer overlay in two separate courses in accordance with the manufacturer's instructions, but not less than the following rate of application.

Course	Minimum Polymer Rate <sup>[1]</sup> (GAL/100 SF)	Aggregate <sup>[2]</sup> (LBS/SY)
1	2.5	10+
2	5.0	14+

<sup>[1]</sup> The minimum total applications rate is 7.5 GAL/100 SF.

<sup>[2]</sup> Application of aggregate shall be of sufficient quantity to completely cover the polymer.

### C.5 Minimum Curing Periods

As a minimum, cure the coating as follows:

Course	Average temperature of deck, polymer and aggregate components in degrees F							
	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-99
1	6 hrs.	5 hrs.	4 hrs.	3 hrs.	2.5 hrs	2 hrs	1.5 hrs.	1 hr.
2	8 hrs.	6.5 hrs.	6.5 hrs.	5 hrs.	4 hrs.	3 hrs.	3 hrs.	3 hrs.

If faster cure times are desired and achievable, submit to the engineer a certified test report from an independent laboratory showing the material is able to reach a compressive strength of 1000 psi as tested per ASTM C 579 Method B within the temperature ranges and cure times for which the product is proposed to be placed. Establish ambient air, material, and substrate temperatures from the manufacturer for field applications. Field applications will not be allowed below the documented temperatures.

### C.6 Repair of Polymer Overlay

Repair all areas of unbonded, uncured, or damaged polymer overlay for no additional compensation. Submit repair procedures from the manufacturer to the engineer for approval. Absent a manufacturer's repair procedures and with the approval of the engineer, complete repairs according to the following: Saw cut the limits of the area to the top of the concrete; remove the overlay by scarifying, grinding, or other approved methods; shot blast or sand blast and air blast the concrete before placement of polymer overlay; and place the polymer overlay according to section C.3.

### D Measurement

The department will measure Polymer Overlay by the square yard, acceptably completed.

### E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
509.5100.S	Polymer Overlay	SY

Payment is full compensation for preparing the surface; for tensile bond testing; for creating the transitional area; for providing the overlay; for cleanup; and for sweeping/vacuuuming and disposing of excess materials.

The department will pay separately for deck repairs.

stp-509-030 (20200629)

## 35. Slope Paving Repair Crushed Aggregate, Item 604.9010.S.

### A Description

This special provision describes providing crushed aggregate slope paving where erosion has occurred.

Conform to standard spec 604 as modified in this special provision.

### B Materials

Furnish materials conforming to standard spec 604.2.

**C Construction**

*Replace paragraph (1) of standard spec 604.3.2 with the following:*

- (1) Place the crushed aggregate on the prepared foundation in areas where erosion has occurred. Shape and consolidate it using mechanical or hand methods to provide a stable, even, and uniform surface.

**D Measurement**

The department will measure Slope Paving Repair Crushed Aggregate by the cubic yard, acceptably completed.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
604.9010.S	Slope Paving Repair Crushed Aggregate	CY

Payment is full compensation for all excavating and backfilling required to prepare the foundation; disposing of surplus materials; providing, handling, placing, and consolidating the crushed aggregate; providing, handling, heating, and for applying the asphaltic material.

stp-604-010 (20100709)

**36. Reseal Crushed Aggregate Slope Paving, Item 604.9015.S.**

**A Description**

This special provision describes sealing existing crushed aggregate slope paving as the engineer directs and conforming to standard spec 604 as modified in this special provision.

**B Materials**

Furnish materials conforming to standard spec 604.2.

**C Construction**

Clean all debris from the surface of the slope paving before applying asphalt. Apply sufficient asphalt so that it penetrates to seal the top 2 inches of aggregate; where existing asphalt is closer to the surface of the aggregate, apply less asphalt.

**D Measurement**

The department will measure Reseal Crushed Aggregate Slope Paving in area by the square yard of slope paving, acceptably resealed.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
604.9015.S	Reseal Crushed Aggregate Slope Paving	SY

Payment is full compensation for cleaning the surface, furnishing and applying the asphalt.

stp-604-015 (20100709)

**37. Topsoil and Salvaged Topsoil.**

*Replace standard spec 625.2 (1) with the following:*

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

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

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

*Add the following to standard spec 625.2:*

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

*Replace standard spec 625.3.3 (3) with the following:*

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

SER-625-001 (20221007)

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

**A Description**

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

**B Materials**

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

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

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

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

Furnish Geotextile Fabric Type HR according to standard spec 645.2.2.7.

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

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

### C Construction

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

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

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

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

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

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

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

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

### D Measurement

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

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

### E Payment

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

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

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

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

stp-628-005 (20220628)

## 39. Fertilizer Type B.

*Replace standard spec 629.2.1.3 with the following:*

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

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

Phosphorus, not less than 15%

Potash, not less than 9%

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

Replace standard spec 629.3.1.3 with the following:

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

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

Replace standard spec 629.4(1):

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

SER-629-001 (20230109)

#### 40. Seeding.

Replace standard spec 630.3.5 (1) with the following:

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

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

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

SER-630-002 (20221013)

#### 41. Locating No-Passing Zones, Item 648.0100.

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

stp-648-005 (20060512)

#### 42. Installing and Maintaining Bird Deterrent System Station 135+00, Item 999.2000.S.01.

##### 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, Craig Webster at (262) 574-2141, or the department regional environmental coordinator, Tommy Curran at (262) 548-5682.

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. Eliminate any loose pockets or wrinkles that could trap and entangle birds. Ensure the net is pulled taut in order to prevent flapping in the wind, which results in tangles or breakage at mounting points.

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

### **C.4 Plastic Curtains**

#### **C.4.1 Installation**

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

### **C.5 Corner Slopes**

#### **C.5.1 Installation**

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

### **C.6 Inspection and Maintenance**

Inspect bird deterrent devices every 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.

## **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 135+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 (20220107)

**43. Backfill Slurry, Item SPV.0035.01.**

**A Description**

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

**B Materials**

*Replace standard spec 209.2.2 with the following:*

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

**C Construction**

*Replace standard spec 209.3 with the following:*

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

**D Measurement**

*Replace standard spec 209.4 with the following:*

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

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.01	Backfill Slurry	CY

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

SER-209-001 (20161208)

**44. Remove and Replace Riprap, Item SPV.0060.01.**

**A Description**

This special provision describes removing, salvaging, and reinstalling existing riprap to facilitate the replacement of a culvert endwall.

**B (Vacant)**

**C Construction**

Remove existing riprap as needed to facilitate the replacement of culvert endwall.

Salvage the existing riprap and reinstall the riprap once the culvert endwall has been replaced to the existing riprap elevation.

## D Measurement

The department will measure Remove and Replace Riprap by the individual unit, acceptably completed.

All riprap required to be removed and replaced at a single location will be measured as one unit.

Individual pieces of riprap will not be measured.

## 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	Remove and Replace Riprap	EACH

Payment is full compensation for removing and salvaging existing riprap; for stockpiling riprap; and for placing riprap in its final location.

## 45. Adjusting Sanitary Manholes, Item SPV.0060.02.

### A Description

This special provision describes providing adjusting Lyons Sanitary District No. 2 sanitary manhole covers to finished grade and replacing the external seal. Adjustment includes all work from the top of the cone to the top of the manhole frame and cover. Perform this work according to the pertinent provisions of Standard Specifications for Sewer and Water Construction in Wisconsin, 6<sup>th</sup> Edition and all amendments, except as herein modified.

### B Materials

#### B.1 Adjustment Rings

Make all adjustments using concrete adjustment rings and mortar.

#### B.2 External Seal

Provide an external seal that is corrugated and is able to be adjusted to various heights. The external seal shall be capable of being mechanically locked to the bottom of the manhole casting frame. The seal shall be made of rubber suitable for both above ground and below ground applications. The rubber shall conform with ASTM C-923. The section of the external seal that compresses against the manhole casting frame and the concrete cone shall have a series of sealing fins to facilitate a watertight seal.

Provide stainless steel bands to compress the seal against the manhole. The bands shall be 16 gauge stainless steel conforming to ASTM C-923, Type 304, with no welded attachments and shall have a minimum width of 1 inch. The top band shall have a shape and width sufficient to, when tightened, mechanically lock the sleeve to the manhole casting frame's base flange. The lower compression band shall be a flat strip to allow placement into the lower band recess of the seal. Both the top and bottom bands shall have a mechanism capable of developing a minimum of 400 pounds of torque.

### C Construction

Perform the work according to the Standard Specifications for Sewer and Water Construction in Wisconsin, 6<sup>th</sup> Edition and all amendments. Set manhole frames to finished grade.

Install external seal in accordance with manufacturer's specifications after manhole frame has been adjusted to final grade.

## D Measurement

The department will measure Adjusting Sanitary Manholes by the individual unit, acceptably completed.

## E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.02	Adjusting Sanitary Manholes	EACH

Payment is full compensation for providing adjustment rings and external seals; for adjusting existing manhole frame and casting to finished grade from the top of existing cone to the top of the manhole frame and casting. This shall include but not be limited to construction, necessary removals, excavation, and backfilling.

Multiple adjustments required to perform this work or additional adjustments as directed by the engineer shall be considered incidental.

**46. Utility Line Opening, Item SPV.0060.03.**

**A Description**

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

**B (Vacant)**

**C Construction**

Comply with s.182.0175 (2), Stats., with respect to precautions to be taken to avoid and prevent damage to utility facilities.

All Utility Line Opening (ULO) shall be approved by the engineer. Notify the utility engineers or their agents of this work a minimum of 3 days prior to the work so they may be present when the work is completed. Notify the infrastructure/utility owner or their agents 3 working days in advance so that they may be present when excavation work commences.

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

Perform the utility line opening at least 10 days in advance of proposed construction to allow any conflicts to be resolved with minimal disruption. Allow the engineer a minimum of 3 working days after ULO information is received to review and respond with potential design inquiries.

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

**D Measurement**

The department will measure Utility Line Opening by each individual unit, acceptably completed.

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

**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	Utility Line Opening	EACH

Payment is full compensation for the excavation required to expose the utility line; backfilling with engineer approved material; compacting the backfill material; restoring the site; cleanup, and maintenance of Utility Line Opening location during construction.

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

SER-107-013

**47. Section Corner Monuments, Item SPV.0060.06.**

**A Description**

Coordinate with Southeastern Wisconsin Regional Planning Commission (SEWRPC) for the perpetuation and replacement of a section corner (Public Land Survey System- PLSS) monument.

**B Materials**

SEWRPC will provide a pre-cast concrete monument or brass disk to be used to mark the PLSS corner.

Furnish base aggregate dense materials that conform to standard spec 305. Furnish concrete, asphalt, topsoil, or other materials depending on the surface surrounding the corner.

**C Construction**

SEWRPC will perpetuate existing section corner monument. The contractor is responsible to coordinate with SEWRPC and the WisDOT Project Manager throughout the perpetuation and replacement process. The contractor will contact the engineer and SEWRPC at (920) 912-1036 at least two weeks before starting construction operations or the preconstruction meeting to allow for section corner monument perpetuation.

Contractor must excavate and completely remove the existing monument. Contractor is responsible for providing a backfilled 3 to 4 foot deep hole where existing monument was removed. Contractor is responsible to coordinate the materials and methodology to complete the construction of the surface surrounding the monument. This may include but is not limited to a 2' x 2' "box out" or 24" diameter core hole in concrete, asphalt pavement/paving rings, coring to facilitate poured in place monuments, topsoil, seed and mulching or other materials or methodologies as agreed to by the contractor and SEWRPC.

**Contact Information:**

Attn: Rob Merry  
Southeastern Wisconsin Regional Planning Commission  
W239 N1812 Rockwood Drive  
P.O. Box 1607  
Waukesha, WI 53187-1607  
Phone (262) 953-4289  
Cell (920) 912-1036  
Fax (262) 547-1103  
[rmerry@sewrpc.org](mailto:rmerry@sewrpc.org)

**D Measurement**

The department will measure Section Corner Monuments by the individual unit, acceptably completed.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.06	Section Corner Monuments	EACH

Payment is full compensation for all excavating; removal of existing monument, for placing and compacting backfill material; for disposing of surplus materials; for concrete or asphalt material, finishing of roadway or other surfaces, for all coordination with SEWRPC.

SER-621-001 (20210924)

**48. Joint Sealant Parapet, Item SPV.0060.07.**

**A Description**

This special provision describes removing and replacing the existing failed/deteriorated non-bituminous joint sealant at the paving notch joint of the parapets and the vertical abutment joint of the abutment diaphragm abutting the wing walls. Perform work in accordance with standard spec 502, the plans, and as hereinafter provided.

**B Materials**

Furnish gray non-bituminous joint sealant in accordance with standard spec 502.2.9.

Furnish preformed joint filler between parapets and abutment diaphragm/wing according to standard spec 502.2.7.

**C Construction**

Remove existing sealant and joint filler from concrete surfaces and joints. Clean concrete surfaces of all debris, dirt, moisture, or other deleterious material that may prohibit proper adherence of sealant. Replace preformed joint filler to full depth of joints and to a depth to allow placement of sealant. Place non-bituminous joint sealant around parapet and vertical abutment joint to create seamless placement. Place material according to manufacturer specifications.

**D Measurement**

The department will measure Joint Sealant Parapet by each joint, 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.0060.07	Joint Sealant Parapet	EACH

Payment is full compensation for removing the existing joint sealant, filler material, cleaning of concrete surfaces, providing, handling and for placing preformed joint material and non-bituminous joint sealant.

**49. Silicone Bridge Joint Sealant, Item SPV.0090.01.**

**A Description**

This work consists of furnishing all labor, equipment, technical assistance, and materials necessary to install the silicone joint sealant as shown on the plans and as specified herein, including removing the asphaltic concrete overlay at the joint, removing the existing neoprene compression joint seal, cleaning the joint opening, blast cleaning and priming the existing surfaces, and furnishing and installing the silicone joint sealant.

**B Materials**

**B.1 Silicone Joint Sealant**

Provide rapid cure, self-leveling, cold applied, two component silicone sealant. Provide sealant, which upon curing, demonstrates resilience, flexibility and resistance to moisture and puncture. Provide sealant which also demonstrates excellent adhesion to Portland cement concrete, polymer concrete, and steel over a range of temperatures from -30 degrees F to 130 degrees F while maintaining a watertight seal. Provide sealant that does not contain any solvents or diluents that cause shrinkage or expansion during curing. Acid cure sealants are not acceptable. Provide the date of manufacture or "use-by date" with Each lot. Materials twelve months old or older from the date of manufacture or past its "use-by date" will not be accepted. Provide manufacturer certification that the sealant meets or exceeds the following test requirements before installation begins. The department reserves the right to test representative samples from material proposed for use.

Physical Properties:

Each component supplied:

Specific gravity (ASTM D1475)	1.3 – 1.4
Extrusion rate (MIL-5-8802)	200 – 550 grams per minute
Flow	Self-leveling
Durometer hardness, shore (ASTM D2240)	40 – 80
"00" (0 degrees and 77 ±3 degrees F)	
Ozone and U.V. resistance (ASTM C793-75)	no chalking, cracking or bond loss after 5,000 hours

After mixing:

Tack-free time (ASTM C679)	60 minutes maximum
Joint cure rate (% of total cure)	50% within 4 - 6 hours
	75% within 24 hours
	100% within 48 - 160 hours

Upon complete cure (ASTM D3583<sup>1</sup>):

Joint elongation (adhesion to concrete/ steel/polymer concrete)	600% minimum
Joint modulus	3 –12 psi at 100% elongation

<sup>1</sup>Modified; sample cured 2 days @ 77 ± 2 degrees F, 50 ± 5% humidity

## **B.2 Backer Rod**

The backer rod must be closed cell as recommended by the sealant manufacturer and shall conform to ASTM D5249, Type 3.

## **B.3 Joint Sealant Primer**

For Portland cement concrete, the primer must be according to the manufacturer's recommendations. For steel surfaces, the primer must be a rust-inhibiting primer recommended by the sealant manufacturer.

## **C Construction**

### **C.1 General**

Furnish technical assistance provided by the manufacturer during surface preparation and installation at no additional cost to the department. Furnish the engineer with the manufacturer's written product information, installation procedures, and instructional video at least two weeks prior to installation. Meet with the manufacturer's representative and the engineer to review and clarify installation procedures and requirements prior to starting the work. A technical representative must be present at the start of surface preparations and sealant installation for at least one day. Contact the manufacturer at least two weeks prior to installation.

When placing the silicone against concrete, the concrete must be dry. For newly placed concrete, the concrete must be fully cured and allowed to dry over a minimum of 7 additional days prior to placement of the silicone. Cold, wet, inclement weather will require an extended drying time.

Apply in strict accordance with the manufacturer's instructions. Joint opening must be 1 inch to 3 inches at the time of sealing.

### **C.2 Removals**

Remove the joint filler and tar from in the joint area to the limits shown on the plans.

### **C.3 Surface Preparation**

Sandblast both faces of the joint. Provide a separate pass for each face for the full length of the joint and to the design depth of the center of the backer rod will be required. The nozzle must be held at an angle of 30 to 90 degrees to the joint face, at a distance of 1 to 2 inches.

For Portland cement concrete and polymer concrete surfaces, sandblasting will be considered acceptable when both joint faces have a roughened surface with clean, exposed aggregate. The surface must be free of foreign matter or plastic residue.

For steel surfaces, sandblasting will be considered acceptable when the steel surfaces have been cleaned to an SSPC-SP10 degree of cleanliness.

After sandblasting is completed clean the joint of debris using compressed air with a minimum pressure of 90 psi. Equip the air compressor with traps to prevent the inclusion of water and/or oil in the air line. Clean, dry, and free mud, dirt, sand, oil, or grease and any other contaminants from the joint opening prior to application of the primer or sealant.



Provide priming immediately following sandblasting and cleaning. This operation will only be permitted to proceed when the air and substrate temperatures are at least 41 degrees F and rising. Sandblasting, priming, and sealing must be performed on the same day. Prime the entire sandblasted surface using a brush-applied primer. Allow the primer to dry a minimum of one hour or more until it is thoroughly dry, whichever is longer, before proceeding. The minimum primer drying time must be extended to a minimum of 90 minutes when the substrate temperature is below 60 degrees F.

Supply the primer in original containers. Provide primers that are fresh, and only use primer that is within its "use-by date." Only primer, freshly poured from the original container into clean pails will be permitted. The primer must be used immediately. Dispose of all primer left in the pail after priming and do not reuse.

#### **C.4 Joint Installation**

Install the backer rod to a uniform depth of at least 1 ¼ inch as specified on the plans and as recommended by the manufacturer. Tape all splices in the backer rod to prevent material loss during sealing. Install the backer rod to within 1/8-inch tolerance prior to sealing.

Provide sealant that is ½ inch thick within 1/8-inch tolerance as measured in the center of the joint at the thinnest point. Measure the sealant thickness during installation every ±2 feet. Immediately adjust sealant thickness to within tolerance before the sealant begins to set up. Sealant placement will only be permitted when the air and substrate temperatures are above 41 degrees F and 5 degrees F above the dew point. The joint must be kept clean and dry during sealing. If the joint becomes wet and/or dirty during sealing, the operation will be halted until the joint has been restored to a clean and dry state.

Perform sealing using a pneumatic gun approved by the sealant manufacturer. Prior to sealing, inspect the gun to ensure that it is in proper working order and that it is being operated at the recommended air pressure.

The gun must demonstrate proper mixing action before sealant will be allowed into the joint. Unmixed sealant will not be permitted in the joint. All unmixed sealant found in the joint will be removed and replaced at the contractor's expense.

After the engineer has determined that the pneumatic gun is functioning properly, seal the joint to the thickness and depth as shown on the plans and according to sealant manufacturer's recommendations. The sealant must be allowed to achieve initial set before opening the joint to traffic.

End seal treatment at vertical faces of curbs, sidewalks or parapets as recommended by the manufacturer and as shown on the plans.

Sealant placed incorrectly must be removed and replaced by the contractor at the contractor's expense.

A minimum of one joint per bridge per joint configuration will be tested by the engineer by performing a "Pull Test". The sealant must be allowed to cure for a minimum of 24 hours before testing. The locations for the tests will be determined by the engineer. The tests will be performed per the manufacturer's written instructions. As part of the test, the recess depth and sealant thickness will be verified. All joint system installations failing to meet the specifications must be removed and replaced by the contractor, to the satisfaction of the engineer, at no cost to the department. In addition, since the "Pull Test" is a destructive test, the contractor must repair the joint after completion of the test per the sealant manufacturer's written instructions at no additional cost to the department.

#### **D Measurement**

The department will measure Silicone Bridge Joint Sealant 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	Silicone Bridge Joint Sealant	LF

Payment is full compensation for all removals, cleaning, and for furnishing and placing the silicone joint sealant and backer rod.

## 50. Shotcrete Surface Repair, Item SPV.0165.01.

### A Description

This special provision describes providing dry-mix shotcrete surface repairs to vertical surfaces on existing wing walls as described in the plans. Work shall be according to standard spec 509, except as modified herein.

### B Materials

*Replace standard spec 509.2(3) as follows:*

Furnish fiber reinforced shotcrete according to ACI 506R, Guide to Shotcrete. The dry-mix shotcrete method shall be used. The contractor shall supply the engineer with a copy ACI 506R, 7 days prior to beginning work.

A prepackaged, pre-blended, and dry combination of materials for the dry-mix shotcrete method shall be provided according to ASTM C1480. An accelerator is prohibited. The shotcrete shall be Type FA or CA, Grade FR, Class I according to ASTM C1480. All packaging shall be identified as conforming to ASTM Specifications C1480. Prior to delivery, the contractor shall provide to the engineer laboratory performance data, provided by the producer, that the product meets the specified type and grades.

The reinforcing fibers shall be Type III synthetic according to ASTM C1116. All packaging shall be identified as conforming to ASTM Specifications C1116. Provide fiber dosage rate according to ACI 506R recommendations.

The 28-day compressive strength of the shotcrete shall be 4,000 psi. Contractor shall produce two 18 in. x 18 in x 3.5 in test panel on the first day of the shotcrete repairs and for every 1,500 s.f. of repairs made. The contractor shall cure the test panels according to standard spec 502.3.8.1.3 while stored at the jobsite and during delivery to the laboratory. The contractor shall perform or hire a laboratory to perform testing to determine the 28-day compressive strength for one of the test panels. The second panel shall be made available to the engineer for independent testing. After delivery to the laboratory for testing, curing and testing shall be according to ASTM C1140.

The water/cement ratio shall be determined on a weight (mass) basis. The maximum of water/cement ratio shall be 0.40. The air content shall be 4.0 to 8.0 percent. Shotcrete shall be tested by the contractor and engineer daily for air content. Obtain the sample in a damp, non-absorbent container from the discharge end of the nozzle. Air content shall be tested according to standard spec 501.3.2.4.2(2).

Aggregate for shotcrete shall be according to the gradation provided ACI 560R and shall meet the requirements of ASTM C33.

### C Construction

*Supplement standard spec 509.3.7(2) as follows:*

The intention is to treat the entire exposed areas of the wing walls with 1 inch (minimum) of shotcrete to extend the life of the wing walls and prevent further deterioration of the existing mortar and blocks. All exposed areas shall be inspected by the engineer prior to application of shotcrete. Remove any unsound material/mortar prior to the shotcrete application. This surface preparation shall be incidental to the cost of this item.

Submit a shotcrete waste material containment plan. Do not start shotcrete work without the department's written approval of the plan. Include the following information in the shotcrete waste material containment plan.

- Methods to control potentially harmful environmental impacts.
- Methods to control dust and contain slurry.

Placement of shotcrete and method of alignment control (i.e., ground wires, guide strips, depth gauges and form work) shall be done according to ACI 506R. The application of shotcrete shall be done in a manner that does not result in cold joints, laminations, sandy areas, voids, sags, or separations. In addition, the shotcrete shall be applied in a manner that results in maximum densification of the shotcrete. Shotcrete identified as unacceptable while still plastic shall be removed and reapplied.

If required, shotcrete shall be cut back to line and grade using trowels, cutting rods, screeds, or other suitable devices. The shotcrete shall be allowed to stiffen sufficiently before cutting. Cutting shall not cause cracks or delamination in the shotcrete. For depressions, cut material may be used for filling in small areas. Rebound material shall not be incorporated in the work. For final finish, a wood float shall be used.

Curing of repairs shall be done concurrently with shotcrete application. Curing compound shall be according to standard spec 502.3.8. For shotcrete repairs, the nozzleman who performs the work shall have current American Concrete Institute (ACI) certification for vertical dry-mix applications. A copy of the nozzleman's certificate(s) shall be given to the engineer. The contractor shall provide all appropriate access equipment and operators to the engineer to inspect repaired areas. Twenty-eight days after application of shotcrete the repairs shall be examined for conformance with the required thickness, cracks, voids, and delamination. Sounding for delamination shall be done with a hammer or by other methods determined by the engineer.

Repaired areas that are found to not be in conformance with original dimensions, to have surface cracks greater than 0.01 inches in width, map cracking with a crack spacing in any direction of 18 inches or less, voids or delamination shall be removed and replaced at no additional cost to the department.

**D Measurement**

The department will measure Shotcrete Surface Repair by the square foot, acceptably completed, measured as the exposed surface area.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0165.01	Shotcrete Surface Repair	SF

Payment is full compensation for removing and disposing of deteriorated mortar, forming; furnishing, hauling, placing, containing and disposing of waste material, curing, and protecting all materials.

**51. Asphaltic Repair, Item SPV.0195.01.**

**A Description**

This special provision describes repairing areas of existing asphalt pavement with asphaltic mixtures for overlaying with new pavement.

**B Material**

Furnish nominal size No. 3 (19mm) aggregate blend graded as specified in standard spec 460.2.2.3 and conform to the other material and mixture requirements specified for asphaltic surface in standard spec 465. Use tack coat as required under standard spec 450.3.2.7.

**C Construction**

- (1) Remove areas of existing asphalt pavement, including existing patching or surfacing materials, at locations the plans show, or the engineer directs in the field as specified for removing asphaltic surface milling in standard spec 204.3.2.2.2. Mill the connecting edges as true and perpendicular as possible, both parallel and perpendicular to the roadway, creating a vertical edge on all sides. Remove the pavement without injury to the remaining pavement. Dispose of removed material as specified in standard spec 204.3.1.3.
- (2) As an option for areas of full depth removal, the contractor may remove areas of existing asphalt pavement, including existing patching or surfacing materials, as specified for removing asphaltic surface in standard spec 204.3.2.2.1. Saw cut the connecting edges as true and perpendicular as possible, as specified for sawing pavement in standard spec 690. Remove the pavement without injury to the remaining pavement. Dispose of removed material as specified in standard spec 204.3.1.3.
- (3) Construct as specified for asphaltic surface under 465.3 except as modified here.

*Replace standard spec 465.3.1(2) with the following:*

- (2) Place using self-propelled pavers. Pave at a constant speed, appropriate for the paver and mixture, that ensures uniform spreading and strike-off with a smooth, dense texture and no tearing or segregation.

*Replace standard spec 465.3.1(3) with the following:*

- (3) Immediately after placement, compact the mixture to produce a dense smooth surface using ordinary compaction procedures as specified in standard spec 450.3.2.6. Unless the engineer directs otherwise, compact each layer to a thickness of 6 inches or less so that the finished surface is 1/16 inch to 1/8 inch above the existing pavement surface.

**D Measurement**

The department will measure Asphaltic Repair by the ton, acceptably completed as specified for asphaltic pavement in standard spec 450.4.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0195.01	Asphaltic Repair	TON

Payment is full compensation for removing old pavement; for preparing the foundation; and for providing and compacting asphaltic mixture including asphaltic binder. Sawing existing asphalt pavement as a contractor option is incidental to the Asphaltic Repair bid item.

The department will pay separately for tack coat under the Tack Coat bid item as specified in standard spec 455.5.

SER-390-001 (20220408)

**52. Select Crushed Material for Travel Corridor, Item SPV.0195.02.**

**A Description**

This special provision describes furnishing and placing select crushed material to fill voids to create a wildlife travel corridor.

**B Materials**

Furnish select crushed material according to the pertinent requirements of standard spec 312. Material shall be clean and substantially free from material passing the No. 4 (4.75mm) sieve.

**C Construction**

Place the material after the heavy riprap has been completed. Place material such that voids in the finished surface are three inches or less in any dimension.

**D Measurement**

The department will measure Select Crushed Material for Travel Corridor by the ton, acceptably completed.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0195.02	Select Crushed Material for Travel Corridor	TON

Payment is full compensation for providing, placing, and shaping the material.

## **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.

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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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#### 108 Prosecution and Progress

*Add subsection 108.9.4.1 effective with the November 2023 letting:*

##### 108.9.4.1 Winter Suspension for Completion Date Contracts

- (1) The contractor may request a winter suspension for a completion date contract. If the department determines weather conditions do not allow for the completion of the remaining work, the department may approve the contractor's request and determine the start date of the winter suspension. The end date of the winter suspension is March 31 or a date mutually agreed upon by both parties. For multi-year contracts, the department will only consider winter suspension for the final year of the contract.
  - (2) During winter suspension, store all materials in a manner that does not obstruct vehicular and pedestrian traffic and protect the materials from damage. Install traffic control and other safety devices necessary to protect the traveling public and pedestrians. Provide suitable drainage and install temporary erosion control where necessary. If the winter suspension begins when liquidated damages are being assessed, or when the work has not progressed as scheduled and would not have been completed prior to the completion date, the cost of necessary pre-suspension work is incidental. If the winter suspension begins prior to the contract completion date, and the work has progressed as scheduled and would have been completed prior to the completion date, the cost of pre-suspension work will be paid as specified under 109.4.
  - (3) For a winter suspension that begins prior to the contract completion date and the work has progressed as scheduled and would have been completed prior to the completion date, the engineer will extend contract time to correspond with the end of the winter suspension and liquidated damages will not be assessed during the winter suspension.
  - (4) For a winter suspension that begins when liquidated damages are being assessed or when the work has not progressed as scheduled and would not have been completed prior to the completion date, the engineer will not extend contract time. Time will be suspended until the end of the winter suspension. Liquidated damages will not be assessed during the winter suspension and liquidated damages will resume at the end of the winter suspension.
- 

#### 108.10.2 Excusable, Non-Compensable Delays

##### 108.10.2.1 General

*Replace entire section with the following effective with the January 2024 letting:*

- (1) Non-compensable delays, 108.10.2.1(3), are excusable delays not the contractor's or the department's fault. The engineer will not pay for the delay costs listed in 109.4.7 for non-compensable delays.
  - (2) For non-compensable delays under calendar day and completion date contracts, the engineer will extend contract time if the conditions specified in 108.10.1 are met. The department will relieve the contractor from associated liquidated damages, as specified in 108.11, if the engineer extends time under 108.10.1.
  - (3) The following are non-compensable delays:
    1. Delays due to earthquakes, other cataclysmic phenomena of nature the contractor cannot foresee and avoid, severe weather or job conditions caused by recent weather as specified in 108.10.2.2.
    2. Extraordinary delays in material deliveries the contractor or their suppliers cannot foresee and forestall resulting from strikes, lockouts, freight embargoes, industry-wide shortages, governmental acts, or sudden disasters.
    3. Delays due to acts of the government, a political subdivision other than the department, or the public enemy.
    4. Delays from fires or epidemics.
    5. Delays from strikes beyond the contractor's power to settle not caused by improper acts or omissions of the contractor, their subcontractors, or their suppliers.
    6. Altered quantities as specified in 109.3.
- 

#### 108.10.3 Excusable Compensable Delays

*Replace entire section with the following effective with the January 2024 letting:*

- (1) Compensable delays are excusable delays due to the department's actions or lack of actions. The engineer will grant a time extension for a compensable delay if the conditions specified in 108.10.1 are met.
- (2) The following are compensable delays:

1. A contract change for revised work as specified for extra work under 104.2.2.1, for a differing site condition under 104.2.2.2, or for significant changes in the character of the work under 104.2.2.4.
  2. A contract change for an engineer-ordered suspension under 104.2.2.3.
  3. The unexpected discovery of human remains, an archaeological find, or historical find consistent with 107.25.
  4. The unexpected discovery of a hazardous substance consistent with 107.24.
  5. The non-completion of work that utilities or other third parties perform, if that work is not completed as specified in the contract.
- (3) For a compensable delay or a time extension, the department will relieve the contractor from associated liquidated damages under 108.11, and will pay the contractor for delay costs determined as follows:
1. Adjust the contract price as specified in 109.4.2 through 109.4.5 for delays under item 1 of 108.10.3(2).
  2. Adjust the contract price as specified in 109.4.7 for delays under items 2 through 5 of 108.10.3(2).

**310 Open Graded Base**

**310.2 Materials**

Replace paragraph two with the following effective with the November 2023 letting:

- (2) The contractor may substitute material conforming to the gradation requirements for crushed aggregate specified in Table 310-01 if that material conforms to the fracture requirements for open-graded crushed gravel specified in 301.2.4.5.

**TABLE 310-01 COARSE AGGREGATE (% passing by weight)**

AASHTO No. 67 <sup>[1]</sup>	
SEIVE	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	<=1.5

[1] Size according to AASHTO M43.

**390 Base Patching**

**390.4 Measurement**

Replace entire section with the following effective with the November 2023 letting:

- (1) The department will measure Removing Pavement for Base Patching by the cubic yard acceptably completed. Measure the depth from the bottom of the adjacent pavement to the top of the patch.
- (2) The department will measure Base Patching Asphaltic by the ton acceptably completed as specified for asphaltic pavement in 450.4.
- (3) The department will measure Base Patching Concrete HES and Base Patching Concrete SHES by the cubic yard acceptably completed. Measure the depth from the bottom of the adjacent pavement to the top of the patch.

**390.5 Payment**

Replace entire section with the following effective with the November 2023 letting:

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

<u>ITEM NUMBER</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
390.0100	Removing Pavement for Base Patching	CY
390.0201	Base Patching Asphaltic	TON
390.0305	Base Patching Concrete HES	CY
390.0405	Base Patching Concrete SHES	CY

- (2) Payment for Removing Pavement for Base Patching is full compensation for removing old pavement; for preparing the foundation and bringing up to grade. If the engineer orders the contractor to excavate yielding or unstable subgrade materials and backfill with suitable materials, the department will pay for that work with contract bid items or as agreed upon using 109.4.
- (3) Payment for Base Patching Asphaltic is full compensation for providing and compacting asphaltic mixture including asphaltic binder.
- (4) Payment for Base Patching Concrete HES and Base Patching Concrete SHES is full compensation for providing, curing, and protecting concrete. Payment also includes providing tie bars and dowel bars in unhardened concrete and steel within the patch. For tie bars and dowel bars provided in concrete not placed under the contract, the department will pay separately under the Drilled Tie Bars and Drilled Dowel Bars bid items as specified in 416.5.
- (5) Payment for Base Patching SHES also includes providing test data to the engineer as specified in 416.2.4.
- (6) The department will pay for sawing existing concrete pavement for removal under the Sawing Concrete bid item as specified in 690.5.

**460 Hot Mix Asphalt Pavement****460.2.8.2.1.3.1 Contracts with 5000 Tons of Mixture or Greater**

Replace paragraph four with the following effective with the November 2023 letting:

- (4) Use the test methods identified below, or other methods the engineer approves, to perform the following tests at the frequency indicated:

Blended aggregate gradations:

Drum plants:

- Field extraction by ignition oven according to WTM T308, chemical extraction according to AASHTO T-164 method A or B; or automated extraction according to WTM D8159. Gradation of resulting aggregate sample determined according to WTM T30.
- Belt samples, optional for virgin mixtures, obtained from stopped belt or from the belt discharge using an engineer-approved sampling device and performed according to WTM T11 and T27.

Batch plants:

- Field extraction by ignition oven according to WTM T308, chemical extraction according to AASHTO T-164 method A or B; or automated extraction according to WTM D8159. Gradation of resulting aggregate sample determined 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.
- AC by chemical extraction according to AASHTO T-164 method A or B.
- AC by automated extraction according to WTM D8159.
- If the department is using an ignition oven to determine AC, conform to WTP H003.
- If the department is not using an ignition oven to determine AC, ignition oven correction factor (IOCF) must still be reverified for any of the reasons listed in WTP H003 Table 2 and conform to WTP H-003 sections 3 through 6.
- Gradation of resulting aggregate sample determined according to WTM T30.

Bulk specific gravity of the compacted mixture:

According to WTM T166.

Theoretical maximum specific gravity:

According to WTM T209.

Air voids (Va) by calculation according to WTM T269.



VMA by calculation according to WTM R35.

**460.2.8.3.1.4 Department Verification Testing Requirements**

Replace paragraph three with the following effective with the November 2023 letting:

- (3) The department will perform testing conforming to the following standards:
  - Bulk specific gravity ( $G_{mb}$ ) of the compacted mixture according to WTM T166.
  - Maximum specific gravity ( $G_{mm}$ ) according to WTM T209.
  - Air voids ( $V_a$ ) by calculation according to WTM T269.
  - VMA by calculation according to WTM R35.
  - Asphalt content by ignition oven according to WTM T308, chemical extraction according to AASHTO T-164 method A or B, or automated extraction according to WTM D8159. If using an ignition oven to determine AC, conform to WTP H-003.

**503 Prestressed Concrete Members**

**503.2.2 Concrete**

Replace paragraph five with the following effective with the November 2023 letting:

- (5) Furnish prestressed concrete members cast from air-entrained concrete, except I-type girders may use non-air-entrained concrete. Use type I, IL, IS, IP, IT, II, or III cement. The contractor may replace up to 30 percent of type I, IL, II, or III cement with an equal weight of fly ash, slag, or a combination of fly ash and slag. Ensure that fly ash conforms to 501.2.4.2.2 and slag conforms to 501.2.4.2.3. Use only one source and replacement rate for work under a single bid item. Use a department-approved air-entraining admixture conforming to 501.2.5.2 for air-entrained concrete. Use only coarse aggregate conforming to 310.2(2).

**604 Slope Paving**

**604.2 Materials**

Replace paragraph three with the following effective with the November 2023 letting:

- (3) Under the Slope Paving Crushed Aggregate bid item, furnish crushed stone or crushed gravel conforming to the gradation in Table 604-01, but with the additional requirements that at least 75 percent of the particles, by count, have at least one fractured face. Determine fracture according to WTM D5821.

**TABLE 604-01 COARSE AGGREGATE (% passing by weight)**

AASHTO No. 4 <sup>[1]</sup>	
SEIVE	COARSE AGGREGATE (% PASSING by WEIGHT) AASHTO No. 4
2-inch	100
1 1/2-inch	90 - 100
1-inch	20 - 55
3/4-inch	0 - 15
1/2-inch	-
3/8-inch	0 - 5
No. 4	-
No. 8	-
No. 16	-
No. 30	-
No. 50	-
No. 100	-
No. 200	≤1.5

<sup>[1]</sup> Size according to AASHTO M43.

**612 Underdrains****612.3.9 Trench Underdrains**

*Replace paragraph one with the following effective with the November 2023 letting:*

- (1) Under the Underdrain Trench bid item, excavate and backfill underdrain trenches. Backfill with coarse aggregate gradation conforming to 604.2(3). Before backfilling place geotextile as the plans show.

**614 Semi-rigid Barrier Systems and End Treatments****614.2.6 Sand Barrel Arrays**

*Replace paragraph one with the following effective with the November 2023 letting:*

- (1) Furnish sand barrels from the APL. Use fine aggregate conforming to gradation shown in Table 614-2 mixed with sodium chloride conforming to AASHTO M143. Apply an object marker to front-most barrel in the array.

**TABLE 614-2 FINE AGGREGATE GRADATION**

SEIVE	FINE AGGREGATE (% PASSING by WEIGHT)
3/8-inch	100
No. 4	90 - 100
No. 8	-
No. 16	45 - 85
No. 30	-
No. 50	5 - 30
No. 100	0 - 10
No. 200	<=3.5

**628 Erosion Control****628.2.13 Rock Bags**

*Replace paragraph two with the following effective with the November 2023 letting:*

- (2) Fill the bags with a clean, sound, hard, durable, engineer-approved coarse aggregate conforming by visual inspection to the gradation specified for coarse aggregate gradation in 604.2(3).

**639 Drilling Wells****639.2.1 General**

*Replace paragraph two with the following effective with the November 2023 letting:*

- (2) For grout use fine aggregate conforming to 501.2.7.2; and gradation conforming to 614.2.6(1); and type I, IL, IS, IP, or IT cement.

**652 Electrical Conduit****652.3.1.2 Installing Underground**

*Replace paragraph two with the following effective with the November 2023 letting:*

- (2) Excavate trenches true to line and grade to provide the conduit uniform bearing throughout its length. Do not backfill the trench before inspecting the conduit. Carefully tamp the backfill in place as specified for placing backfill in layers in 651.3. Place at least 0.7 cubic feet of coarse aggregate gradation conforming to 604.2(3) directly under each drainage hole.

**ERRATA****390.3.4 Special High Early Strength Concrete Patching**

*Correct errata link in paragraph (1) by changing from 416.3.8 to 416.3.7.*

- (1) Construct as specified for special high early strength repairs under 416.3.7 except as follows:
- The contractor may delay removal for up to 14 calendar days after cutting the existing pavement.
  - Open to traffic as specified for concrete base in 320.3.

## ADDITIONAL SPECIAL PROVISION 7

### A. Reporting 1<sup>st</sup> Tier and DBE Payments During Construction

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

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

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

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

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

## **ADDITIONAL SPECIAL PROVISION 9**

### **Electronic Certified Payroll or Labor Data Submittal**

- (1) Use the department's Civil Rights Compliance System (CRCS) to electronically submit certified payroll reports for contracts with federal funds and labor data for contracts with state funds only. Details are available online through the department's highway construction contractor information (HCCI) site on the Labor, Wages, and EEO Information page at:  
<https://wisconsindot.gov/Pages/doing-bus/civil-rights/labornwage/default.aspx>
- (2) Ensure that all tiers of subcontractors, including all trucking firms, either submit their weekly certified payroll reports (contracts with federal funds) or labor data (contracts with state funds only) electronically through CRCS. These payrolls or labor data are due within seven calendar days following the close of the payroll period. Every firm providing physical labor towards completing the project is a subcontractor under this special provision.
- (3) Upon receipt of contract execution, promptly make all affected firms aware of the requirements under this special provision and arrange for them to receive CRCS training as they are about to begin their submittals. The department will provide training either in a classroom setting at one of our regional offices or by telephone. Contact Paul Ndon at (414) 438-4584 to schedule the training.
- (4) The department will reject all paper submittals for information required under this special provision. All costs for conforming to this special provision are incidental to the contract.
- (5) Firms wishing to export payroll/labor data from their computer system into CRCS should have their payroll coordinator contact Paul Ndon at [paul.ndon@dot.wi.gov](mailto:paul.ndon@dot.wi.gov). Not every contractor's payroll system is capable of producing export files. For details, see Section 4.8 CPR Auto Submit (Data Mapping) on pages 49-50; 66-71 of the CRCS Payroll Manual at:  
<https://wisconsindot.gov/Documents/doing-bus/civil-rights/labornwage/crcs-payroll-manual.pdf>

## NON-DISCRIMINATION PROVISIONS

**During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees as follows:**

**1. Compliance with Regulations:** The contractor (hereinafter includes consultants) will comply with the Acts and the Regulations relative to Non-discrimination in Federally-assisted programs of the U.S. Department of Transportation, Federal Highway Administration, as they may be amended from time to time, which are herein incorporated by reference and made a part of this contract.

**2. Non-discrimination:** The contractor, with regard to the work performed by it during the contract, will not discriminate on the grounds of race, color, or national origin in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The contractor will not participate directly or indirectly in the discrimination prohibited by the Acts and the Regulations, including employment practices when the contract covers any activity, project, or program set forth in Appendix B of 49 CFR Part 21.

**3. Solicitations for Subcontracts, Including Procurements of Materials and Equipment:** In all solicitations, either by competitive bidding, or negotiation made by the contractor for work to be performed under a subcontract, including procurements of materials, or leases of equipment, each potential subcontractor or supplier will be notified by the contractor of the contractor's obligations under this contract and the Acts and the Regulations relative to Non-discrimination on the grounds of race, color, or national origin.

**4. Information and Reports:** The contractor will provide all information and reports required by the Acts, the Regulations, and directives issued pursuant thereto and will permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the Recipient or the Federal Highway Administration to be pertinent to ascertain compliance with such Acts, Regulations, and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish the information, the contractor will so certify to the Recipient or the Federal Highway Administration, as appropriate, and will set forth what efforts it has made to obtain the information.

**5. Sanctions for Noncompliance:** In the event of a contractor's noncompliance with the Non-discrimination provisions of this contract, the Recipient will impose such contract sanctions as it or the Federal Highway Administration may determine to be appropriate, including, but not limited to:

- a. Withholding payments to the contractor under the contract until the contractor complies; and/or
- b. Cancelling, terminating, or suspending a contract, in whole or in part.

**6. Incorporation of Provisions:** The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

**During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:**

**Pertinent Non-Discrimination Authorities:**

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 et seq.), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures Non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of Limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

## BUY AMERICA PROVISION

Buy America (as documented in [88 FR 57750 \(2 CFR part 184 and 200\)](#) from the Office of Management and Budget: [Federal Register: Guidance for Grants and Agreements](#) ) shall be domestic products and permanently incorporated in this project as classified in the following three categories, and as noted in the Construction and Materials Manual (CMM):

### 1. Iron and Steel

All iron and steel manufacturing and coating processes (from the initial melting stage through the application of coatings) must have occurred within the United States. Coating includes epoxy coating, galvanizing, painting and any other coating that protects or enhances the value of a material subject to the requirements of Buy America.

The exemption of the iron and steel manufacturing and coating processes Buy America requirement is the minimal use of foreign materials if the total cost of such material permanently incorporated in the product does not exceed one-tenth of one percent (1/10 of 1%) of the total contract cost or \$2,500.00, whichever is greater. For purposes of this paragraph, the cost is that shown to be the value of the subject products as they are delivered to the project.

### 2. Manufactured Product

All manufactured products (as defined in CMM 228.5) are covered under a previous waiver from 1983 and are currently exempt from Buy America.

### 3. Construction Material

All construction materials (as defined in [88 FR 57750 \(2 CFR part 184 and 200\)](#) and as referenced in CMM 228.5) must comply with Buy America. All manufacturing process of construction materials must occur in the United States.

[88 FR 55817 \(DOT-OST-2022-0124\)](#) allows a limited waiver of Buy America requirements for de minimis costs and small grants.

- The Total value of the non-compliant products is no more than the lesser of \$1,000,000 or 5% of total applicable costs for the project<sup>1</sup>; or
- The total amount of Federal financial assistance applied to the project, through awards or subaward, is below \$500,000<sup>2</sup>

The contractor shall take actions and provide documentation conforming to CMM 228.5 to ensure compliance with this Buy America provision.

<https://wisconsin.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, manufactured products, and construction materials conform to this Buy America provision.

Form DT4567 is available at: <https://wisconsin.gov/Documents/formdocs/dt4567.docx>

Attach a list of iron or steel and construction material exemptions and their associated costs to the certification form.

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<sup>1</sup> The de minimis public interest waiver does not apply to iron and steel subject to the requirements of 23 U.S.C. 313 on financial assistance administered by FHWA. The de minimis threshold in 23 CFR 635.410(b)(4) continues to apply for iron and steel.

<sup>2</sup> The small grant portion of the waiver does not apply to iron, steel, and manufactured goods subject to the requirements of 49 U.S.C. 22905(a).



Proposal Schedule of Items

Proposal ID: 20240213016 Project(s): 3190-11-70

Federal ID(s): N/A

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0002	201.0205 Grubbing	3.000 STA	_____.	_____.
0004	203.0100 Removing Small Pipe Culverts	3.000 EACH	_____.	_____.
0006	203.0270 Removing Structure Over Waterway Debris Capture (structure) 01. B-64-665	1.000 EACH	_____.	_____.
0008	204.0110 Removing Asphaltic Surface	565.000 SY	_____.	_____.
0010	204.0115 Removing Asphaltic Surface Butt Joints	190.000 SY	_____.	_____.
0012	204.0120 Removing Asphaltic Surface Milling	128,745.000 SY	_____.	_____.
0014	204.0150 Removing Curb & Gutter	480.000 LF	_____.	_____.
0016	204.0155 Removing Concrete Sidewalk	125.000 SY	_____.	_____.
0018	204.0165 Removing Guardrail	445.000 LF	_____.	_____.
0020	204.9060.S Removing (item description) 01. Culvert Endwalls	5.000 EACH	_____.	_____.
0022	205.0100 Excavation Common	496.000 CY	_____.	_____.
0024	206.1001 Excavation for Structures Bridges (structure) 01. B-64-210	1.000 EACH	_____.	_____.
0026	206.5001 Cofferdams (structure) 01. B-64-210	2.000 EACH	_____.	_____.
0028	210.1500 Backfill Structure Type A	388.000 TON	_____.	_____.
0030	211.0101 Prepare Foundation for Asphaltic Paving (project) 01. 3190-11-70	1.000 EACH	_____.	_____.





Proposal Schedule of Items

Proposal ID: 20240213016 Project(s): 3190-11-70

Federal ID(s): N/A

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0032	213.0100 Finishing Roadway (project) 01. 3190-11-70	1.000 EACH	_____.	_____.
0034	305.0110 Base Aggregate Dense 3/4-Inch	3,170.000 TON	_____.	_____.
0036	305.0120 Base Aggregate Dense 1 1/4-Inch	920.000 TON	_____.	_____.
0038	305.0500 Shaping Shoulders	635.000 STA	_____.	_____.
0040	311.0110 Breaker Run	107.000 TON	_____.	_____.
0042	416.0610 Drilled Tie Bars	44.000 EACH	_____.	_____.
0044	455.0605 Tack Coat	10,045.000 GAL	_____.	_____.
0046	460.0105.S HMA Percent Within Limits (PWL) Test Strip Volumetrics	1.000 EACH	_____.	_____.
0048	460.0110.S HMA Percent Within Limits (PWL) Test Strip Density	2.000 EACH	_____.	_____.
0050	460.2000 Incentive Density HMA Pavement	3,480.000 DOL	1.00000	3,480.00
0052	460.2005 Incentive Density PWL HMA Pavement	9,930.000 DOL	1.00000	9,930.00
0054	460.2007 Incentive Density HMA Pavement Longitudinal Joints	3,160.000 DOL	1.00000	3,160.00
0056	460.2010 Incentive Air Voids HMA Pavement	15,180.000 DOL	1.00000	15,180.00
0058	460.5223 HMA Pavement 3 LT 58-28 S	100.000 TON	_____.	_____.
0060	460.5224 HMA Pavement 4 LT 58-28 S	15,300.000 TON	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20240213016 Project(s): 3190-11-70

Federal ID(s): N/A

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0062	465.0105 Asphaltic Surface	1,525.000 TON	_____.	_____.
0064	465.0120 Asphaltic Surface Driveways and Field Entrances	58.000 TON	_____.	_____.
0066	465.0315 Asphaltic Flumes	55.000 SY	_____.	_____.
0068	465.0520 Asphaltic Rumble Strips, Shoulder	41,930.000 LF	_____.	_____.
0070	465.0560 Asphaltic Rumble Strips, Centerline	25,450.000 LF	_____.	_____.
0072	492.2020.S Cleaning and Sealing Cracks and Joints with Hot-Applied Sealant	0.379 MI	_____.	_____.
0074	502.0100 Concrete Masonry Bridges	472.000 CY	_____.	_____.
0076	502.3200 Protective Surface Treatment	471.000 SY	_____.	_____.
0078	502.3210 Pigmented Surface Sealer	91.000 SY	_____.	_____.
0080	505.0400 Bar Steel Reinforcement HS Structures	6,620.000 LB	_____.	_____.
0082	505.0600 Bar Steel Reinforcement HS Coated Structures	63,950.000 LB	_____.	_____.
0084	505.0800.S Bar Steel Reinforcement HS Stainless Structures	430.000 LB	_____.	_____.
0086	509.0301 Preparation Decks Type 1	1.000 SY	_____.	_____.
0088	509.0310.S Sawing Pavement Deck Preparation Areas	12.000 LF	_____.	_____.
0090	509.1500 Concrete Surface Repair	42.000 SF	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20240213016 Project(s): 3190-11-70

Federal ID(s): N/A

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0092	509.2100.S Concrete Masonry Deck Repair	1.000 CY	_____.	_____.
0094	509.5100.S Polymer Overlay	2,231.000 SY	_____.	_____.
0096	516.0500 Rubberized Membrane Waterproofing	22.000 SY	_____.	_____.
0098	520.8700 Cleaning Culvert Pipes	13.000 EACH	_____.	_____.
0100	521.1012 Apron Endwalls for Culvert Pipe Steel 12-Inch	2.000 EACH	_____.	_____.
0102	521.1036 Apron Endwalls for Culvert Pipe Steel 36-Inch	2.000 EACH	_____.	_____.
0104	521.3112 Culvert Pipe Corrugated Steel 12-Inch	8.000 LF	_____.	_____.
0106	521.3742 Pipe Arch Corrugated Steel 42x29-Inch	16.000 LF	_____.	_____.
0108	522.1018 Apron Endwalls for Culvert Pipe Reinforced Concrete 18-Inch	1.000 EACH	_____.	_____.
0110	522.1024 Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	1.000 EACH	_____.	_____.
0112	550.1100 Piling Steel HP 10-Inch X 42 Lb	650.000 LF	_____.	_____.
0114	601.0411 Concrete Curb & Gutter 30-Inch Type D	450.000 LF	_____.	_____.
0116	601.0557 Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	30.000 LF	_____.	_____.
0118	601.0584 Concrete Curb & Gutter 4-Inch Sloped 30-Inch Type TBT	75.000 LF	_____.	_____.
0120	601.0600 Concrete Curb Pedestrian	70.000 LF	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20240213016 Project(s): 3190-11-70

Federal ID(s): N/A

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0122	602.0410 Concrete Sidewalk 5-Inch	1,125.000 SF	_____.	_____.
0124	602.0505 Curb Ramp Detectable Warning Field Yellow	60.000 SF	_____.	_____.
0126	602.0605 Curb Ramp Detectable Warning Field Radial Yellow	30.000 SF	_____.	_____.
0128	602.0810 Concrete Driveway 6-Inch	80.000 SY	_____.	_____.
0130	602.3010 Concrete Surface Drains	2.000 CY	_____.	_____.
0132	604.9010.S Slope Paving Repair Crushed Aggregate	24.000 CY	_____.	_____.
0134	604.9015.S Reseal Crushed Aggregate Slope Paving	610.000 SY	_____.	_____.
0136	606.0200 Riprap Medium	5.000 CY	_____.	_____.
0138	606.0300 Riprap Heavy	310.000 CY	_____.	_____.
0140	612.0106 Pipe Underdrain 6-Inch	50.000 LF	_____.	_____.
0142	612.0108 Pipe Underdrain 8-Inch	50.000 LF	_____.	_____.
0144	612.0110 Pipe Underdrain 10-Inch	50.000 LF	_____.	_____.
0146	612.0406 Pipe Underdrain Wrapped 6-Inch	154.000 LF	_____.	_____.
0148	612.0700 Drain Tile Exploration	100.000 LF	_____.	_____.
0150	614.0150 Anchor Assemblies for Steel Plate Beam Guard	4.000 EACH	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20240213016 Project(s): 3190-11-70

Federal ID(s): N/A

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0152	614.0305 Steel Plate Beam Guard Class A	75.000 LF	_____.	_____.
0154	614.0397 Guardrail Mow Strip Emulsified Asphalt	160.000 SY	_____.	_____.
0156	614.0400 Adjusting Steel Plate Beam Guard	1,325.000 LF	_____.	_____.
0158	614.0950 Replacing Guardrail Posts and Blocks	50.000 EACH	_____.	_____.
0160	614.0951 Replacing Guardrail Rail and Hardware	200.000 LF	_____.	_____.
0162	614.2300 MGS Guardrail 3	138.000 LF	_____.	_____.
0164	614.2500 MGS Thrie Beam Transition	160.000 LF	_____.	_____.
0166	614.2610 MGS Guardrail Terminal EAT	1.000 EACH	_____.	_____.
0168	618.0100 Maintenance and Repair of Haul Roads (project) 01. 3190-11-70	1.000 EACH	_____.	_____.
0170	619.1000 Mobilization	1.000 EACH	_____.	_____.
0172	623.0200 Dust Control Surface Treatment	3,300.000 SY	_____.	_____.
0174	624.0100 Water	90.000 MGAL	_____.	_____.
0176	625.0100 Topsoil	2,300.000 SY	_____.	_____.
0178	627.0200 Mulching	700.000 SY	_____.	_____.
0180	628.1104 Erosion Bales	50.000 EACH	_____.	_____.
0182	628.1504 Silt Fence	1,075.000 LF	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20240213016 Project(s): 3190-11-70

Federal ID(s): N/A

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0184	628.1520 Silt Fence Maintenance	545.000 LF	_____.	_____.
0186	628.1530.S Silt Fence Heavy Duty	540.000 LF	_____.	_____.
0188	628.1535.S Silt Fence Heavy Duty Maintenance	270.000 LF	_____.	_____.
0190	628.1905 Mobilizations Erosion Control	4.000 EACH	_____.	_____.
0192	628.1910 Mobilizations Emergency Erosion Control	4.000 EACH	_____.	_____.
0194	628.2008 Erosion Mat Urban Class I Type B	1,440.000 SY	_____.	_____.
0196	628.6005 Turbidity Barriers	50.000 SY	_____.	_____.
0198	628.6510 Soil Stabilizer Type B	2.000 ACRE	_____.	_____.
0200	628.7010 Inlet Protection Type B	16.000 EACH	_____.	_____.
0202	628.7015 Inlet Protection Type C	20.000 EACH	_____.	_____.
0204	628.7504 Temporary Ditch Checks	270.000 LF	_____.	_____.
0206	628.7555 Culvert Pipe Checks	50.000 EACH	_____.	_____.
0208	628.7560 Tracking Pads	2.000 EACH	_____.	_____.
0210	628.7570 Rock Bags	50.000 EACH	_____.	_____.
0212	629.0210 Fertilizer Type B	9.000 CWT	_____.	_____.
0214	630.0130 Seeding Mixture No. 30	23.000 LB	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20240213016 Project(s): 3190-11-70

Federal ID(s): N/A

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0216	630.0140 Seeding Mixture No. 40	53.000 LB	_____.	_____.
0218	630.0200 Seeding Temporary	19.000 LB	_____.	_____.
0220	630.0300 Seeding Borrow Pit	10.000 LB	_____.	_____.
0222	630.0500 Seed Water	59.000 MGAL	_____.	_____.
0224	633.5200 Markers Culvert End	41.000 EACH	_____.	_____.
0226	634.0618 Posts Wood 4x6-Inch X 18-FT	19.000 EACH	_____.	_____.
0228	634.0814 Posts Tubular Steel 2x2-Inch X 14-FT	5.000 EACH	_____.	_____.
0230	637.2210 Signs Type II Reflective H	40.000 SF	_____.	_____.
0232	637.2230 Signs Type II Reflective F	73.000 SF	_____.	_____.
0234	638.2102 Moving Signs Type II	17.000 EACH	_____.	_____.
0236	638.2602 Removing Signs Type II	3.000 EACH	_____.	_____.
0238	638.3000 Removing Small Sign Supports	19.000 EACH	_____.	_____.
0240	642.5001 Field Office Type B	1.000 EACH	_____.	_____.
0242	643.0300 Traffic Control Drums	2,230.000 DAY	_____.	_____.
0244	643.0420 Traffic Control Barricades Type III	14,135.000 DAY	_____.	_____.
0246	643.0705 Traffic Control Warning Lights Type A	28,270.000 DAY	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20240213016 Project(s): 3190-11-70

Federal ID(s): N/A

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0248	643.0900 Traffic Control Signs	66,500.000 DAY	_____.	_____.
0250	643.0910 Traffic Control Covering Signs Type I	4.000 EACH	_____.	_____.
0252	643.0920 Traffic Control Covering Signs Type II	23.000 EACH	_____.	_____.
0254	643.1000 Traffic Control Signs Fixed Message	242.000 SF	_____.	_____.
0256	643.1050 Traffic Control Signs PCMS	42.000 DAY	_____.	_____.
0258	643.3165 Temporary Marking Line Paint 6-Inch	45,900.000 LF	_____.	_____.
0260	643.3770 Temporary Marking Raised Pavement Marker Type II	700.000 EACH	_____.	_____.
0262	643.5000 Traffic Control	1.000 EACH	_____.	_____.
0264	644.1440 Temporary Pedestrian Surface Matting	240.000 SF	_____.	_____.
0266	644.1601 Temporary Pedestrian Curb Ramp	56.000 DAY	_____.	_____.
0268	644.1605 Temporary Pedestrian Detectable Warning Field	140.000 SF	_____.	_____.
0270	644.1810 Temporary Pedestrian Barricade	765.000 LF	_____.	_____.
0272	645.0111 Geotextile Type DF Schedule A	86.000 SY	_____.	_____.
0274	645.0120 Geotextile Type HR	567.000 SY	_____.	_____.
0276	646.2040 Marking Line Grooved Wet Ref Epoxy 6-Inch	108,360.000 LF	_____.	_____.





Proposal Schedule of Items

Proposal ID: 20240213016 Project(s): 3190-11-70

Federal ID(s): N/A

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0278	646.4040 Marking Line Grooved Wet Ref Epoxy 10-Inch	1,805.000 LF	_____.	_____.
0280	646.5020 Marking Arrow Epoxy	2.000 EACH	_____.	_____.
0282	646.5120 Marking Word Epoxy	2.000 EACH	_____.	_____.
0284	646.6120 Marking Stop Line Epoxy 18-Inch	210.000 LF	_____.	_____.
0286	646.7120 Marking Diagonal Epoxy 12-Inch	105.000 LF	_____.	_____.
0288	648.0100 Locating No-Passing Zones	6.014 MI	_____.	_____.
0290	650.4500 Construction Staking Subgrade	500.000 LF	_____.	_____.
0292	650.5000 Construction Staking Base	500.000 LF	_____.	_____.
0294	650.5500 Construction Staking Curb Gutter and Curb & Gutter	555.000 LF	_____.	_____.
0296	650.6000 Construction Staking Pipe Culverts	3.000 EACH	_____.	_____.
0298	650.8000 Construction Staking Resurfacing Reference	31,750.000 LF	_____.	_____.
0300	650.9000 Construction Staking Curb Ramps	8.000 EACH	_____.	_____.
0302	650.9500 Construction Staking Sidewalk (project) 01. 3190-11-70	1.000 EACH	_____.	_____.
0304	650.9911 Construction Staking Supplemental Control (project) 01. 3190-11-70	1.000 EACH	_____.	_____.
0306	650.9920 Construction Staking Slope Stakes	500.000 LF	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20240213016 Project(s): 3190-11-70

Federal ID(s): N/A

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0308	690.0150 Sawing Asphalt	840.000 LF	_____.	_____.
0310	690.0250 Sawing Concrete	85.000 LF	_____.	_____.
0312	715.0502 Incentive Strength Concrete Structures	3,000.000 DOL	1.00000	3,000.00
0314	740.0440 Incentive IRI Ride	24,000.000 DOL	1.00000	24,000.00
0316	999.2000.S Installing and Maintaining Bird Deterrent System (station) 01. 135+00	1.000 EACH	_____.	_____.
0318	SPV.0035 Special 01. Backfill Slurry	13.000 CY	_____.	_____.
0320	SPV.0060 Special 01. Remove and Replace Riprap	1.000 EACH	_____.	_____.
0322	SPV.0060 Special 02. Adjusting Sanitary Manholes	4.000 EACH	_____.	_____.
0324	SPV.0060 Special 03. Utility Line Opening	5.000 EACH	_____.	_____.
0326	SPV.0060 Special 06. Section Corner Monuments	4.000 EACH	_____.	_____.
0328	SPV.0060 Special 07. Joint Sealant Parapet	8.000 EACH	_____.	_____.
0330	SPV.0090 Special 01. Silicone Bridge Joint Sealant	168.000 LF	_____.	_____.
0332	SPV.0165 Special 01. Shotcrete Surface Repair	94.000 SF	_____.	_____.
0334	SPV.0195 Special 01. Asphaltic Repair	1,525.000 TON	_____.	_____.
0336	SPV.0195 Special 02. Select Crushed Material for Travel Corridor	15.000 TON	_____.	_____.
<b>Section: 0001</b>			<b>Total:</b>	_____.

**Total Bid:** \_\_\_\_\_.

**PLEASE ATTACH ADDENDA HERE**



## Wisconsin Department of Transportation

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January 18, 2024

**Division of Transportation Systems  
Development**

Bureau of Project Development  
4822 Madison Yards Way, 4<sup>th</sup> Floor South  
Madison, WI 53705

Telephone: (608) 266-1631  
Facsimile (FAX): (608) 266-8459

### **NOTICE TO ALL CONTRACTORS:**

#### **ASP-6 Addendum #01**

#### **Letting of February 13, 2024**

Attached is a copy of the revised ASP-6. This ASP-6 replaces ASP-6 in all proposals in the February 13, 2024 Letting.

The responsibility for notifying potential subcontractors and suppliers of these changes remains with the prime contractors.

Sincerely,

*Mike Coleman*

Proposal Development Specialist  
Proposal Management Section

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## Additional Special Provision 6 (ASP-6)

### Modifications to the standard specifications

*Make the following revisions to the standard specifications:*

---

#### 108 Prosecution and Progress

*Add subsection 108.9.4.1 effective with the November 2023 letting:*

##### 108.9.4.1 Winter Suspension for Completion Date Contracts

- (1) The contractor may request a winter suspension for a completion date contract. If the department determines weather conditions do not allow for the completion of the remaining work, the department may approve the contractor's request and determine the start date of the winter suspension. The end date of the winter suspension is March 31 or a date mutually agreed upon by both parties. For multi-year contracts, the department will only consider winter suspension for the final year of the contract.
  - (2) During winter suspension, store all materials in a manner that does not obstruct vehicular and pedestrian traffic and protect the materials from damage. Install traffic control and other safety devices necessary to protect the traveling public and pedestrians. Provide suitable drainage and install temporary erosion control where necessary. If the winter suspension begins when liquidated damages are being assessed, or when the work has not progressed as scheduled and would not have been completed prior to the completion date, the cost of necessary pre-suspension work is incidental. If the winter suspension begins prior to the contract completion date, and the work has progressed as scheduled and would have been completed prior to the completion date, the cost of pre-suspension work will be paid as specified under 109.4.
  - (3) For a winter suspension that begins prior to the contract completion date and the work has progressed as scheduled and would have been completed prior to the completion date, the engineer will extend contract time to correspond with the end of the winter suspension and liquidated damages will not be assessed during the winter suspension.
  - (4) For a winter suspension that begins when liquidated damages are being assessed or when the work has not progressed as scheduled and would not have been completed prior to the completion date, the engineer will not extend contract time. Time will be suspended until the end of the winter suspension. Liquidated damages will not be assessed during the winter suspension and liquidated damages will resume at the end of the winter suspension.
- 

#### 108.10.2 Excusable, Non-Compensable Delays

##### 108.10.2.1 General

*Replace entire section with the following effective with the January 2024 letting:*

- (1) Non-compensable delays, 108.10.2.1(3), are excusable delays not the contractor's or the department's fault. The engineer will not pay for the delay costs listed in 109.4.7 for non-compensable delays.
  - (2) For non-compensable delays under calendar day and completion date contracts, the engineer will extend contract time if the conditions specified in 108.10.1 are met. The department will relieve the contractor from associated liquidated damages, as specified in 108.11, if the engineer extends time under 108.10.1.
  - (3) The following are non-compensable delays:
    1. Delays due to earthquakes, other cataclysmic phenomena of nature the contractor cannot foresee and avoid, severe weather or job conditions caused by recent weather as specified in 108.10.2.2.
    2. Extraordinary delays in material deliveries the contractor or their suppliers cannot foresee and forestall resulting from strikes, lockouts, freight embargoes, industry-wide shortages, governmental acts, or sudden disasters.
    3. Delays due to acts of the government, a political subdivision other than the department, or the public enemy.
    4. Delays from fires or epidemics.
    5. Delays from strikes beyond the contractor's power to settle not caused by improper acts or omissions of the contractor, their subcontractors, or their suppliers.
    6. Altered quantities as specified in 109.3.
- 

#### 108.10.3 Excusable Compensable Delays

*Replace entire section with the following effective with the January 2024 letting:*

- (1) Compensable delays are excusable delays due to the department's actions or lack of actions. The engineer will grant a time extension for a compensable delay if the conditions specified in 108.10.1 are met.
- (2) The following are compensable delays:

1. A contract change for revised work as specified for extra work under 104.2.2.1, for a differing site condition under 104.2.2.2, or for significant changes in the character of the work under 104.2.2.4.
  2. A contract change for an engineer-ordered suspension under 104.2.2.3.
  3. The unexpected discovery of human remains, an archaeological find, or historical find consistent with 107.25.
  4. The unexpected discovery of a hazardous substance consistent with 107.24.
  5. The non-completion of work that utilities or other third parties perform, if that work is not completed as specified in the contract.
- (3) For a compensable delay or a time extension, the department will relieve the contractor from associated liquidated damages under 108.11, and will pay the contractor for delay costs determined as follows:
1. Adjust the contract price as specified in 109.4.2 through 109.4.5 for delays under item 1 of 108.10.3(2).
  2. Adjust the contract price as specified in 109.4.7 for delays under items 2 through 5 of 108.10.3(2).

**310 Open Graded Base**

**310.2 Materials**

Replace paragraph two with the following effective with the November 2023 letting:

- (2) The contractor may substitute material conforming to the gradation requirements for crushed aggregate specified in Table 310-01 if that material conforms to the fracture requirements for open-graded crushed gravel specified in 301.2.4.5.

**TABLE 310-01 COARSE AGGREGATE (% passing by weight)**

AASHTO No. 67 <sup>[1]</sup>	
SEIVE	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	<=1.5

[1] Size according to AASHTO M43.

**390 Base Patching**

**390.4 Measurement**

Replace entire section with the following effective with the November 2023 letting:

- (1) The department will measure Removing Pavement for Base Patching by the cubic yard acceptably completed. Measure the depth from the bottom of the adjacent pavement to the top of the patch.
- (2) The department will measure Base Patching Asphaltic by the ton acceptably completed as specified for asphaltic pavement in 450.4.
- (3) The department will measure Base Patching Concrete HES and Base Patching Concrete SHES by the cubic yard acceptably completed. Measure the depth from the bottom of the adjacent pavement to the top of the patch.

**390.5 Payment**

Replace entire section with the following effective with the November 2023 letting:

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

<u>ITEM NUMBER</u>	<u>DESCRIPTION</u>	<u>UNIT</u>
390.0100	Removing Pavement for Base Patching	CY
390.0201	Base Patching Asphaltic	TON
390.0305	Base Patching Concrete HES	CY
390.0405	Base Patching Concrete SHES	CY

- (2) Payment for Removing Pavement for Base Patching is full compensation for removing old pavement; for preparing the foundation and bringing up to grade. If the engineer orders the contractor to excavate yielding or unstable subgrade materials and backfill with suitable materials, the department will pay for that work with contract bid items or as agreed upon using 109.4.
- (3) Payment for Base Patching Asphaltic is full compensation for providing and compacting asphaltic mixture including asphaltic binder.
- (4) Payment for Base Patching Concrete HES and Base Patching Concrete SHES is full compensation for providing, curing, and protecting concrete. Payment also includes providing tie bars and dowel bars in unhardened concrete and steel within the patch. For tie bars and dowel bars provided in concrete not placed under the contract, the department will pay separately under the Drilled Tie Bars and Drilled Dowel Bars bid items as specified in 416.5.
- (5) Payment for Base Patching SHES also includes providing test data to the engineer as specified in 416.2.4.
- (6) The department will pay for sawing existing concrete pavement for removal under the Sawing Concrete bid item as specified in 690.5.

**460 Hot Mix Asphalt Pavement**

**460.2.8.2.1.3.1 Contracts with 5000 Tons of Mixture or Greater**

Replace paragraph four with the following effective with the November 2023 letting:

(4) Use the test methods identified below, or other methods the engineer approves, to perform the following tests at the frequency indicated:

Blended aggregate gradations:

Drum plants:

- Field extraction by ignition oven according to WTM T308, chemical extraction according to AASHTO T-164 method A or B; or automated extraction according to WTM D8159. Gradation of resulting aggregate sample determined according to WTM T30.
- Belt samples, optional for virgin mixtures, obtained from stopped belt or from the belt discharge using an engineer-approved sampling device and performed according to WTM T11 and T27.

Batch plants:

- Field extraction by ignition oven according to WTM T308, chemical extraction according to AASHTO T-164 method A or B; or automated extraction according to WTM D8159. Gradation of resulting aggregate sample determined 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.
- AC by chemical extraction according to AASHTO T-164 method A or B.
- AC by automated extraction according to WTM D8159.
- If the department is using an ignition oven to determine AC, conform to WTP H003.
- If the department is not using an ignition oven to determine AC, ignition oven correction factor (IOCF) must still be reverified for any of the reasons listed in WTP H003 Table 2 and conform to WTP H-003 sections 3 through 6.
- Gradation of resulting aggregate sample determined according to WTM T30.

Bulk specific gravity of the compacted mixture:

According to WTM T166.

Theoretical maximum specific gravity:

According to WTM T209.

Air voids (Va) by calculation according to WTM T269.



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VMA by calculation according to WTM R35.

#### 460.2.8.3.1.4 Department Verification Testing Requirements

Replace paragraph three with the following effective with the November 2023 letting:

- (3) The department will perform testing conforming to the following standards:
  - Bulk specific gravity ( $G_{mb}$ ) of the compacted mixture according to WTM T166.
  - Maximum specific gravity ( $G_{mm}$ ) according to WTM T209.
  - Air voids ( $V_a$ ) by calculation according to WTM T269.
  - VMA by calculation according to WTM R35.
  - Asphalt content by ignition oven according to WTM T308, chemical extraction according to AASHTO T-164 method A or B, or automated extraction according to WTM D8159. If using an ignition oven to determine AC, conform to WTP H-003.

#### 460.3.3.2 Pavement Density Determinations

Replace entire section with the following effective with the February 2024 letting:

- (1) The engineer will determine the target maximum density using department procedures described in WTM T355. The engineer will determine density according to CMM 815 and WTM T355 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 one day's production for each subplot type or one production shift if running 24 hours per day and placed within a single layer for each location and target maximum density category indicated in table 460-3. The lot density is the average of the tests taken for that lot. The department determines the number of tests per lot according to WTP H-002.
- (4) An HTCP-certified Nuclear Density Technician I (NUCDENSITYTEC-I) or a nuclear density ACT working under a NUCDENSITYTEC-I technician, will locate samples and perform the testing. A NUCDENSITYTEC-I technician will coordinate and take responsibility for the work an ACT performs. No more than one ACT can work under a single NUCDENSITYTEC-I technician. The responsible NUCDENSITYTEC-I technician will ensure that sample location and testing is performed correctly, analyze test results, and provide density results to the contractor weekly.

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### 503 Prestressed Concrete Members

#### 503.2.2 Concrete

Replace paragraph five with the following effective with the November 2023 letting:

- (5) Furnish prestressed concrete members cast from air-entrained concrete, except I-type girders may use non-air-entrained concrete. Use type I, IL, IS, IP, IT, II, or III cement. The contractor may replace up to 30 percent of type I, IL, II, or III cement with an equal weight of fly ash, slag, or a combination of fly ash and slag. Ensure that fly ash conforms to 501.2.4.2.2 and slag conforms to 501.2.4.2.3. Use only one source and replacement rate for work under a single bid item. Use a department-approved air-entraining admixture conforming to 501.2.5.2 for air-entrained concrete. Use only coarse aggregate conforming to 310.2(2).

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### 604 Slope Paving

#### 604.2 Materials

Replace paragraph three with the following effective with the November 2023 letting:

- (3) Under the Slope Paving Crushed Aggregate bid item, furnish crushed stone or crushed gravel conforming to the gradation in Table 604-01, but with the additional requirements that at least 75 percent of the particles, by count, have at least one fractured face. Determine fracture according to WTM D5821.

**TABLE 604-01 COARSE AGGREGATE (% passing by weight)**

<b>AASHTO No. 4<sup>[1]</sup></b>	
SEIVE	COARSE AGGREGATE (% PASSING by WEIGHT) AASHTO No. 4
2-inch	100
1 1/2-inch	90 - 100
1-inch	20 - 55
3/4-inch	0 - 15
1/2-inch	-
3/8-inch	0 - 5
No. 4	-
No. 8	-
No. 16	-
No. 30	-
No. 50	-
No. 100	-
No. 200	<=1.5

<sup>[1]</sup> Size according to AASHTO M43.

**612 Underdrains**

**612.3.9 Trench Underdrains**

*Replace paragraph one with the following effective with the November 2023 letting:*

- (1) Under the Underdrain Trench bid item, excavate and backfill underdrain trenches. Backfill with coarse aggregate gradation conforming to 604.2(3). Before backfilling place geotextile as the plans show.

**614 Semi-rigid Barrier Systems and End Treatments**

**614.2.6 Sand Barrel Arrays**

*Replace paragraph one with the following effective with the November 2023 letting:*

- (1) Furnish sand barrels from the APL. Use fine aggregate conforming to gradation shown in Table 614-2 mixed with sodium chloride conforming to AASHTO M143. Apply an object marker to front-most barrel in the array.

**TABLE 614-2 FINE AGGREGATE GRADATION**

SEIVE	FINE AGGREGATE (% PASSING by WEIGHT)
3/8-inch	100
No. 4	90 - 100
No. 8	-
No. 16	45 - 85
No. 30	-
No. 50	5 - 30
No. 100	0 - 10
No. 200	<=3.5

**628 Erosion Control****628.2.13 Rock Bags**

*Replace paragraph two with the following effective with the November 2023 letting:*

- (2) Fill the bags with a clean, sound, hard, durable, engineer-approved coarse aggregate conforming by visual inspection to the gradation specified for coarse aggregate gradation in 604.2(3).

**639 Drilling Wells****639.2.1 General**

*Replace paragraph two with the following effective with the November 2023 letting:*

- (2) For grout use fine aggregate conforming to 501.2.7.2; and gradation conforming to 614.2.6(1); and type I, IL, IS, IP, or IT cement.

**652 Electrical Conduit****652.3.1.2 Installing Underground**

*Replace paragraph two with the following effective with the November 2023 letting:*

- (2) Excavate trenches true to line and grade to provide the conduit uniform bearing throughout its length. Do not backfill the trench before inspecting the conduit. Carefully tamp the backfill in place as specified for placing backfill in layers in 651.3. Place at least 0.7 cubic feet of coarse aggregate gradation conforming to 604.2(3) directly under each drainage hole.

---

**ERRATA**

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**390.3.4 Special High Early Strength Concrete Patching**

*Correct errata link in paragraph (1) by changing from 416.3.8 to 416.3.7.*

- (1) Construct as specified for special high early strength repairs under 416.3.7 except as follows:
  - The contractor may delay removal for up to 14 calendar days after cutting the existing pavement.
  - Open to traffic as specified for concrete base in 320.3.





## Wisconsin Department of Transportation

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January 29, 2024

**Division of Transportation Systems  
Development**

Bureau of Project Development  
4822 Madison Yards Way, 4<sup>th</sup> Floor South  
Madison, WI 53705

Telephone: (608) 266-1631  
Facsimile (FAX): (608) 266-8459

### NOTICE TO ALL CONTRACTORS:

**Proposal #16: 3190-11-70  
Springfield to Burlington  
STH 120 to STH 11  
STH 36  
Walworth County**

### Letting of February 13, 2024

This is Addendum No. 01, which provides for the following:

#### Special Provisions:

Revised Special Provisions	
Article No.	Description
43	Backfill Slurry, Item SPV.0035.01

The responsibility for notifying potential subcontractors and suppliers of these changes remains with the prime contractor.

Sincerely,

*Mike Coleman*

Proposal Development Specialist  
Proposal Management Section

**ADDENDUM NO. 01**  
**PROJECT ID 3190-11-70**  
**January 29, 2024**

**Special Provisions**

**43. Backfill Slurry, Item SPV.0035.01**

*Replace entire article language with the following:*

**A Description**

This special provision describes furnishing and placing backfill slurry for, but not limited to, removing and abandoning utility pipes and structures, installation of storm sewer, sanitary sewer, and water pipes and structures, and exposing existing utility items as shown on the plans. Conform to 209 of the standard specs except as follows.

**B Materials**

Replace 209.2.2 of the standard spec with the following:

- (1) Use well graded fine and coarse aggregate conforming to the standard combined aggregate gradation specified in table 501-4. Weigh aggregates at a batch plant suitable for batching concrete masonry. Mix and deliver to the project site using a truck mixer. Add enough water meeting the requirements of 501.2.6 of the standard specs to enable the mixture to flow readily.
- (2) Backfill Slurry is considered a class III concrete mix. Follow the procedure in 716.2.2 of the standard spec for mix design certification and submittal.

**C Construction**

Replace 209.3 of the standard specs with the following:

Prior to placement of backfill slurry provide for positive drainage of the area to be backfilled. Discharge from the truck in a manner to prevent segregation. Consolidation or compaction effort will not be required. Twelve hours shall elapse before paving over the backfill.

**D Measurement**

Replace 209.4 of the standard spec with the following:

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

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.01	Backfill Slurry	CY

Payment is full compensation conforming to 209.5.(2) and 209.5.(5) of the standard specs.

END OF ADDENDUM



# Wisconsin Department of Transportation

February 6, 2024

**Division of Transportation Systems Development**

Bureau of Project Development  
4822 Madison Yards Way, 4<sup>th</sup> Floor South  
Madison, WI 53705

Telephone: (608) 266-1631  
Facsimile (FAX): (608) 266-8459

**NOTICE TO ALL CONTRACTORS:**

**Proposal #16: 3190-11-70  
Springfield to Burlington  
STH 120 to STH 11  
STH 36  
Walworth County**

**Letting of February 13, 2024**

This is Addendum No. 02, which provides for the following:

**Schedule of Items:**

Revised Bid Item Quantities					
Bid Item	Item Description	Unit	Proposal Total Prior to Addendum	Proposal Quantity Change (-)	Proposal Total After Addendum
465.0105	Asphaltic Surface	TON	1,525	-1,475	50

Added Bid Item Quantities					
Bid Item	Item Description	Unit	Proposal Total Prior to Addendum	Quantity Added	Proposal Total After Addendum
650.6501	Construction Staking Structure Layout (structure) 01. B-64-210	EACH	0	1	1

**Plan Sheets:**

Revised Plan Sheets	
Plan Sheet	Plan Sheet Title (brief description of changes to sheet)
94	Miscellaneous quantities (revised quantity of Asphaltic Surface bid item)
100	Miscellaneous quantities (added new item Construction Staking Structure Layout (structure) 01. B-64-210 to Construction Staking Items table)

**Schedule of Items**

Attached, dated February 6, 2024, are the revised Schedule of Items Pages 3 and 12.

**Plan Sheets**

The following 8½ x 11-inch sheets are attached and made part of the plans for this proposal:

Revised: 94 and 100.

The responsibility for notifying potential subcontractors and suppliers of these changes remains with the prime contractor.

Sincerely,

*Mike Coleman*

Proposal Development Specialist  
Proposal Management Section

END OF ADDENDUM

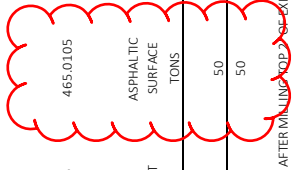


**BASE AGGREGATE DENSE**

STATION	TO	STATION	SHAPE	STA	TON	TON	TON
305.0500		305.0110	SHAPING SHOULDERS	635	3,100	---	---
		305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	---	70	630	630
PROJECT TOTALS				635	3,170	630	630

**ASPHALT PATCHING ITEMS**

CATEGORY	LOCATION	TONS	TON
1000	UNDISTRIBUTED	905	1,525
PROJECT TOTALS		905	1,525



NOTE: PATCHING AREAS TO BE DETERMINED BY ENGINEER AFTER MAINTENANCE OF EXISTING HMA PAVEMENT

\*\*-ADDITIONAL ITEMS FOUND ELSEWHERE - ASPHALT ITEMS

**HMA PWL MIXTURE USE TABLE**

LOCATION	STATION	TO	STATION	MIXTURE USE	UNDERLYING SURFACE	BID ITEM	TONS	THICKNESS	FOR INFORMATION ONLY	
									MIXTURE ACCEPTANCE	DENSITY ACCEPTANCE
2-12 FOOT DRIVING LANES	5+77	-	134+75	UPPER LAYER	MILLED SURFACE	4 LT58-28 S	4,060	2 INCHES	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
2-5 FOOT PAVED SHOULDERS	5+77	-	134+75	UPPER LAYER	MILLED SURFACE	4 LT58-28 S	2,100	2 INCHES	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY HMA PAVEMENT 460.2000
2-12 FOOT DRIVING LANES	134+75	-	136+75	LOWER LAYER	BASE AGGREGATE	3 LT58-28 S	60	3 1/2 INCHES	QMP AS PER STANDARD SPECIFICATION 460.	INCENTIVE DENSITY HMA PAVEMENT 460.2000
2-12 FOOT DRIVING LANES	134+75	-	136+75	UPPER LAYER	3 LT58-28 S	4 LT58-28 S	50	2 1/2 INCHES	QMP AS PER STANDARD SPECIFICATION 460.	INCENTIVE DENSITY HMA PAVEMENT 460.2000
2-10 FOOT PAVED SHOULDERS	134+75	-	136+75	LOWER LAYER	BASE AGGREGATE	3 LT58-28 S	45	3 1/2 INCHES	QMP AS PER STANDARD SPECIFICATION 460.	INCENTIVE DENSITY HMA PAVEMENT 460.2000
2-10 FOOT PAVED SHOULDERS	134+75	-	136+75	UPPER LAYER	MILLED SURFACE	4 LT58-28 S	20	2 1/2 INCHES	QMP AS PER STANDARD SPECIFICATION 460.	INCENTIVE DENSITY PWL HMA PAVEMENT 460.2005
2-12 FOOT DRIVING LANES	136+75	-	323+31	UPPER LAYER	MILLED SURFACE	4 LT58-28 S	5,870	2 INCHES	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY HMA PAVEMENT 460.2000
2-5 FOOT PAVED SHOULDERS	136+75	-	323+31	UPPER LAYER	MILLED SURFACE	4 LT58-28 S	3,150	2 INCHES	PWL INCENTIVE AIR VOIDS HMA PAVEMENT 460.2010	INCENTIVE DENSITY HMA PAVEMENT 460.2000
VARIOUS	5+77	-	323+31	PATCHES	BASE AGGREGATE OR MILLED SURFACE	ASPHALTIC SURFACE	1,530	VARIABLE	QMP AS PER STANDARD SPECIFICATION 465.	ACCEPTANCE BY ORDINARY COMPACTION

Addendum No. 02  
ID 3190-11-70  
Revised Sheet 94  
February 6, 2024

ALL ITEMS CATEGORY 1000 UNLESS NOTED

PROJECT NO: 3190-11-70      HWY: STH 36      COUNTY: WALWORTH      MISCELLANEOUS QUANTITIES      SHEET NO: 94

PAVEMENT MARKING ITEMS

643.3165	646.2040	646.4040	646.5020	646.5120	646.6120	646.7120	
TEMPORARY MARKING LINE PAINT 6-INCH (YELLOW)	MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (YELLOW)	MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH (WHITE)	MARKING LINE GROOVED WET REFLECTIVE EPOXY 10-INCH (WHITE)	MARKING ARROW EPOXY (WHITE)	MARKING WORD EPOXY (WHITE)	MARKING STOP LINE EPOXY 18-INCH (WHITE)	MARKING DIAGONAL EPOXY 1.2-INCH (WHITE)
STATION	STATION	STATION	STATION	STATION	STATION	STATION	STATION
5+77	33+00	1,285	---	---	---	---	---
33+00	63+00	2,300	---	---	---	---	---
63+00	93+00	3,300	35	---	---	---	---
93+00	123+00	5,815	510	---	---	50	---
123+00	153+00	4,420	4,420	---	---	---	---
153+00	183+00	5,040	290	---	---	40	---
183+00	213+00	6,000	---	---	---	40	---
213+00	243+00	3,290	---	---	---	---	---
243+00	273+00	5,000	---	---	---	---	---
273+00	303+00	6,000	---	---	---	45	---
303+00	333+31	3,450	970	2	2	35	105
PROJECT TOTALS	45,900	62,460	1,805	2	2	210	105
	108,360						

- NOTES:
1. PLACE TEMPORARY CENTERLINE MARKINGS ON MILLED SURFACE ON SAME DAY AS MILLING
  2. DELINEATE THE CENTERLINE OF THE ROADWAY ON SAME DAY AS HMA PAVEMENT IS PLACED BEFORE RUMBLE STRIPS ARE MILLED.
  3. PLACE MARKING LINE GROOVED WET REFLECTIVE EPOXY 6-INCH ON CENTERLINE AFTER RUMBLE STRIPS ARE MILLED.
  4. PLACE WHITE EDGELINE AFTER SHOULDER RUMBLE STRIPS HAVE BEEN MILLED.

ADJUSTING SANITARY MANHOLES

CATEGORY	STATION	SIDE	EACH
3000	192+52	RT	1
	192+62	LT	1
	194+49	LT	1
	201+59	RT	1
			4

SECTION CORNER MONUMENTS

CATEGORY	STATION	SIDE	EACH
1000	29+87	LT	1
	83+60	C/L	1
	172+16	LT	1
	198+20	LT	1
			4

TRAFFIC CONTROL/FIXED MESSAGE SIGNS

CATEGORY	SIGN NUMBER	SIGN SIZE	SF
1000	1	66" X 36"	17
	2	102" X 54"	38
	3	102" X 54"	38
	4	102" X 54"	38
	5	102" X 54"	38
	6	72" X 36"	18
	7	66" X 36"	17
	8	102" X 54"	38
PROJECT TOTALS			242

NOTES:  
\* FOR INFORMATION ONLY

LOCATION	CATEGORY	STATION	QUANTITY	DESCRIPTION
650.4500	650.5000			SUBGRADE
650.4500	650.5000			BASE
650.6501	650.8000			RESURFACING REFERENCE
650.6501	650.9000			CONSTRUCTION STAKING
650.6501	650.9500			SIDEWALK
650.6501	650.9911			SUPPLEMENTAL CONTROL
650.6501	650.9920			SLOPE STAKES
650.6501	650.9920			STRUCTURE LAYOUT
650.6501	650.9920			01-B-64-210
650.6501	650.9920			RESURFACING REFERENCE
650.6501	650.9920			CONSTRUCTION STAKING
650.6501	650.9920			SIDEWALK
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650.6501	650.9920			CONSTRUCTION STAKING
650.6501	650.9920			SIDEWALK
650.6501	650.9920			SUPPLEMENTAL CONTROL
650.6501	650.9920			SLOPE STAKES
650.6501	650.9920			STRUCTURE LAYOUT



Proposal Schedule of Items

Proposal ID: 20240213016 Project(s): 3190-11-70

Federal ID(s): N/A

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0062	465.0105 Asphaltic Surface	50.000 TON	_____.	_____.
0064	465.0120 Asphaltic Surface Driveways and Field Entrances	58.000 TON	_____.	_____.
0066	465.0315 Asphaltic Flumes	55.000 SY	_____.	_____.
0068	465.0520 Asphaltic Rumble Strips, Shoulder	41,930.000 LF	_____.	_____.
0070	465.0560 Asphaltic Rumble Strips, Centerline	25,450.000 LF	_____.	_____.
0072	492.2020.S Cleaning and Sealing Cracks and Joints with Hot-Applied Sealant	0.379 MI	_____.	_____.
0074	502.0100 Concrete Masonry Bridges	472.000 CY	_____.	_____.
0076	502.3200 Protective Surface Treatment	471.000 SY	_____.	_____.
0078	502.3210 Pigmented Surface Sealer	91.000 SY	_____.	_____.
0080	505.0400 Bar Steel Reinforcement HS Structures	6,620.000 LB	_____.	_____.
0082	505.0600 Bar Steel Reinforcement HS Coated Structures	63,950.000 LB	_____.	_____.
0084	505.0800.S Bar Steel Reinforcement HS Stainless Structures	430.000 LB	_____.	_____.
0086	509.0301 Preparation Decks Type 1	1.000 SY	_____.	_____.
0088	509.0310.S Sawing Pavement Deck Preparation Areas	12.000 LF	_____.	_____.
0090	509.1500 Concrete Surface Repair	42.000 SF	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20240213016 Project(s): 3190-11-70

Federal ID(s): N/A

SECTION: 0001 Roadway Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID Description	Approximate Quantity and Units	Unit Price	Bid Amount
0338	650.6501 Construction Staking Structure Layout (structure) 01. B-64-210	1.000 EACH	_____.	_____.
	<b>Section: 0001</b>		<b>Total:</b>	_____.
			<b>Total Bid:</b>	_____.



# Wisconsin Department of Transportation

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February 7, 2024

**Division of Transportation Systems  
Development**

Bureau of Project Development  
4822 Madison Yards Way, 4<sup>th</sup> Floor South  
Madison, WI 53705

Telephone: (608) 266-1631  
Facsimile (FAX): (608) 266-8459

## NOTICE TO ALL CONTRACTORS:

**Proposal #16: 3190-11-70  
Springfield to Burlington  
STH 120 to STH 11  
STH 36  
Walworth County**

## Letting of February 13, 2024

This is Addendum No. 03, which provides for the following:

### Plan Sheets:

Revised Plan Sheets	
Plan Sheet	Plan Sheet Title (brief description of changes to sheet)
266	Callouts identifying locations of joint sealant were added to the plan for B-64-162

The responsibility for notifying potential subcontractors and suppliers of these changes remains with the prime contractor.

Sincerely,

*Mike Coleman*

Proposal Development Specialist  
Proposal Management Section

END OF ADDENDUM

**DESIGN DATA**

**LIVE LOAD:**  
 HS-20  
 DESIGN LOADING:  
 INVENTORY RATING: HS-22  
 WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 (KIPS)

**MATERIAL PROPERTIES:**  
 CONCRETE MASONRY - DECK REPAIRS  
 ALL OTHER

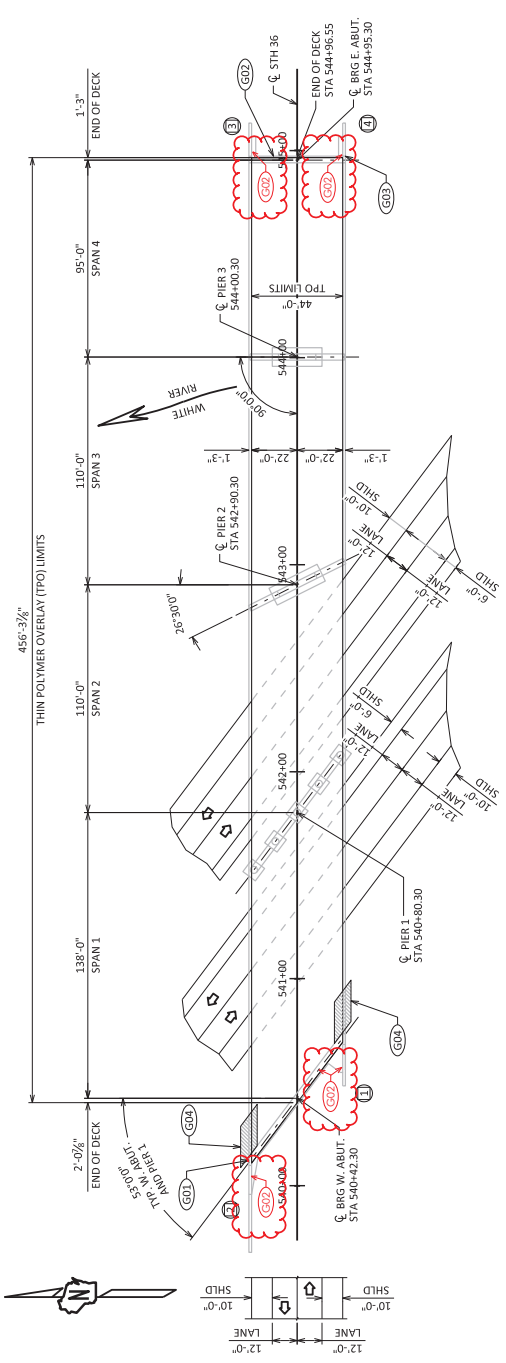
**TRAFFIC DATA**

**FEATURE ONE:**  
 ADT = 6,600 (2038)  
 ADT = 5,800 (2048)  
 R.D.S. = 60 MPH  
**FEATURE UNDER:**  
 ADT = 6,600 (2038)  
 R.D.S. = 60 MPH

Addendum No. 03  
 ID 3190-11-70  
 Revised Sheet 266  
 February 7, 2024

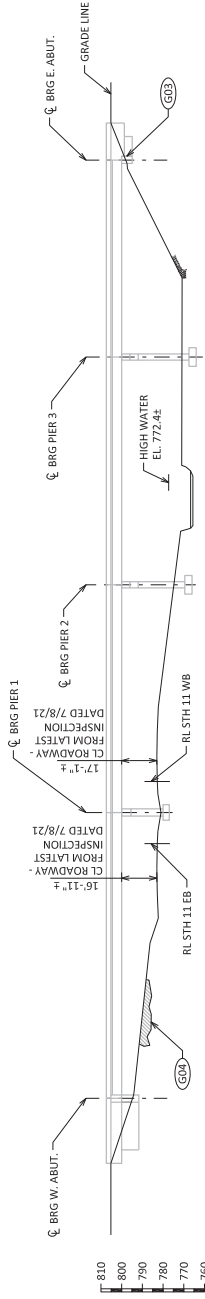
**LIST OF DRAWINGS:**

1. GENERAL PLAN AND ELEVATION
2. MATERIALS, DIMENSIONS AND QUANTITIES
3. REPAIR DETAILS



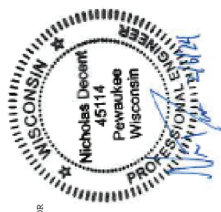
**PLAN**

(EXISTING 4 SPAN-5AW PRESTRESSED GIRDER BRIDGE - THIN POLYMER OVERLAY)



**ELEVATION**

(NORMAL TO S.T.H. 36)



02/07/24

**NOTES**

- GC01 CONCRETE SURFACE REPAIR
- GC02 SEAL APPROACH JOINT
- GC03 SEAL BRIDGE JOINT
- GC04 SLOPE PAVING REPAIR CRUSHED AGGREGATE

**STRUCTURE DESIGN CONTACTS:**  
 PAUL FORD 262-317-3342  
 NICK DECENT 262-317-3362

**BRIDGE OFFICE CONTACT:**  
 AARON BONK 608-261-0262

NO.	DATE	REVISION	BY
1	02/07/2024	JOINT SEALANT	

**raSmith**  
 1674 W. Bluemound Road  
 Pewaukee, WI 53072  
 (262) 891-1010  
 raSmith.com

Job Number: 1202723  
 STATE OF WISCONSIN  
 DEPARTMENT OF TRANSPORTATION

ACCEPTED: \_\_\_\_\_ DATE: \_\_\_\_\_  
 CHIEF STRUCTURES DESIGN ENGINEER

**STRUCTURE B-64-162**

S.T.H. 36 OVER S.T.H. 11 BIPASS AND WHITE RIVER

COUNTY: WALWORTH TOWN: LYONS

DESIGN SPEC: \_\_\_\_\_  
 REHABILITATION/MAINTENANCE: \_\_\_\_\_  
 BY: \_\_\_\_\_ DRAWN: \_\_\_\_\_  
 CHECKED: \_\_\_\_\_ NLD BY: \_\_\_\_\_

**GENERAL PLAN**

SHEET 1 OF 3  
**266**