

HIGHWAY WORK PROPOSAL

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

Proposal Number: **045**

| <u>COUNTY</u> | <u>STATE PROJECT</u> | <u>FEDERAL</u> | <u>PROJECT DESCRIPTION</u> | <u>HIGHWAY</u> |
|---------------|----------------------|----------------|------------------------------------|----------------|
| St Croix | 7620-00-70 | N/A | Elmwood - Sth 64; Sth 29 To Ush 12 | STH 128 |

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 14, 2023 Time (Local Time): 11:00 am | Firm Name, Address, City, State, Zip Code |
| Contract Completion Time 45 Working Days | SAMPLE NOT FOR BIDDING PURPOSES |
| Assigned Disadvantaged Business Enterprise Goal 0% | This contract is exempt from federal oversight. |

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

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

Subscribed and sworn to before me this date _____

(Signature, Notary Public, State of Wisconsin)

(Bidder Signature)

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

(Print or Type Bidder Name)

(Date Commission Expires)

(Bidder Title)

Notary Seal

| | |
|---|--------------------------------|
| Type of Work: Base, HMA Pavement, Asphaltic Surface, Pavement Marking, Culvert Pipe Replacements. | For Department Use Only |
| Notice of Award Dated | Date Guaranty Returned |

**PLEASE ATTACH
PROPOSAL GUARANTY HERE**

PROPOSAL REQUIREMENTS AND CONDITIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

BID PREPARATION

Preparing the Proposal Schedule of Items

A. General

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

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

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

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

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

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

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

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

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

B. Submitting Electronic Bids

B.1 On the Internet

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

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

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

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

Bidder Name

BN00

Proposals: 1, 12, 14, & 22

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

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

B Waiver of Electronic Submittal

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

PROPOSAL BID BOND

DT1303 1/2006

Wisconsin Department of Transportation

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

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

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

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

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

PRINCIPAL

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

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

(Company Name)

(Signature and Title)

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

(Signature of Attorney-in-Fact)

NOTARY FOR PRINCIPAL

NOTARY FOR SURETY

(Date)

(Date)

State of Wisconsin)
) ss.
_____ County)

State of Wisconsin)
) ss.
_____ County)

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

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

(Signature, Notary Public, State of Wisconsin)

(Signature, Notary Public, State of Wisconsin)

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

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

(Date Commission Expires)

(Date Commission Expires)

Notary Seal

Notary Seal

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

CERTIFICATE OF ANNUAL BID BOND

DT1305 8/2003

Wisconsin Department of Transportation

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

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

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

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

(Signature of Authorized Contractor Representative)

(Date)

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 28, 2022

SPECIAL PROVISIONS

1. General.

Perform the work under this construction contract for Project 7620-00-70, Elmwood – STH 64, STH 29 to USH 12, STH 128, St. Croix 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, 2023 Edition, as published by the department, and these special provisions.

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

100-005 (20220628)

2. Scope of Work.

The work under this contract shall consist of excavation common, base aggregate dense, asphalt surface milling, HMA pavement, Structure B-55-290, and all incidental items necessary to complete the work as shown on the plans and included in the proposal and contract.

104-005 (20090901)

3. Prosecution and Progress.

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

Provide the time frame for construction of the project within the 2023 construction season to the engineer in writing within a month after executing the contract but at least 14 calendar days before the preconstruction conference. Assure that the time frame is consistent with the contract completion time. Upon approval, the engineer will issue the notice to proceed within 10 calendar days before the beginning of the approved time frame.

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

The Notice to Proceed will be issued such that work shall start no later than June 5, 2023, unless otherwise approved by the engineer.

Construct Structure B-55-290 one-half at a time using temporary traffic signals as shown in the plans and as directed by the engineer in the field.

Complete all culvert replacements prior to mainline milling and paving operations, including placement of asphaltic surface in area of replaced culvert to avoid vertical elevation difference between existing pavement and excavated area.

Due to the thin and varying thickness of the existing pavement, pave the lower layer within 48 hours of the milling operation unless otherwise approved by the engineer in the field.

Do not place any items within 50 feet of the railroad right-of-way that could foul the track or railroad right-of-way. Including but not limited to signing, equipment, or materials. This includes at-grade crossings and structures with railroad tracks under or over the roadway. If this is not adhered to, Railroad Liability insurance will be required of the contractor and incidental to the project.

Fish Spawning

There shall be no instream disturbance of a tributary to Lohn Creek at Station 60+50 as a result of construction activity under or for this contract, from April 1 to June 1 both dates inclusive, in order to avoid adverse impacts upon the spawning of fish.

There shall be no instream disturbance of a tributary to Wilson Creek at Stations 308+00 and 315+15 as a result of construction activity under or for this contract, from April 1 to June 1 both dates inclusive, in order to avoid adverse impacts upon the spawning of fish.

There shall be no instream disturbance of a tributary to Cady Creek at Station 226+48 as a result of construction activity under or for this contract, from September 15 to May 15 both dates inclusive, in order to avoid adverse impacts upon the spawning of fish.

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.

Bat Hibernaculum

There is a Bat Hibernaculum located approximately 5,500 feet away from the project. As a result, several endangered species have been known to occur in the project area or its vicinity and could be impacted by this project including:

- Little Brown Bat
- Eastern Pipistrelle

Prior to major ground disturbing activities, consult with the ER Review Program (DNRRERReview@wi.gov) or DNR Ba Ecologist J. Paul White, (608) 267-0813, john.white@wisconsin.gov for further information on avoiding hibernating and roosting bats.

To avoid potential taking of the Little Brown Bat or Eastern Pipistrelle, construction on the southern portion of the project is to be completed between May 15 and August 15, both dates inclusive. The southern portion of the project has been identified as the portion of the project located within sections 21,22,27,28,33, and 34 of T28N, R15W.

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. To avoid adverse impacts upon the NLEBs, no tree clearing is allowed between April 1 and October 31, both dates inclusive.

If the required tree clearing is not completed by March 31, the department will suspend all tree clearing and associated work directly impacted by clearing. The department will issue a notice to proceed with clearing and associated work directly impacted by clearing after consulting with the United States Fish and Wildlife Service (USFWS).

Tree clearing is limited to that which is specified in the plans. If additional trees with a 3-inch or greater diameter at breast height (dbh) need to be removed, no tree clearing shall occur without prior approval from the engineer, following coordination with the WisDOT REC. Additional tree removal beyond the area originally specified will require consultation with the USFWS and may require a bat presence/absence or visual emergency survey. Notify the engineer if additional clearing cannot be avoided to begin coordination with the WisDOT REC. The WisDOT REC will initiate consultation with the USFWS and determine if a survey is necessary. Submit a schedule and description of clearing operations with the ECIP 14 days prior to any clearing operations. The department will determine, based on schedule and scope of work, what additional erosion control measures shall be implemented prior to the start of clearing operations, and list those additional measures in the ECIP.

4. Traffic.

Keep STH 128 open to through traffic utilizing staging and temporary traffic signals. Use flagging operations to construct work outside of the zone controlled by the temporary traffic signals.

Wisconsin Lane Closure System Advance Notification

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

TABLE 108-1 CLOSURE TYPE AND REQUIRED MINIMUM ADVANCE NOTIFICATION

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

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

5. Holiday and Special Event Work Restrictions.

Do not perform work on, nor haul materials of any kind along or across any portion of the highway carrying STH 128 traffic, and entirely clear the traveled way and shoulders of such portions of the highway of equipment, barricades, signs, lights, and any other material that might impede the free flow of traffic during the following holiday and special event periods:

- From noon Friday, May 26, 2023 to 6:00 AM Tuesday, May 30, 2023 for Memorial Day;
- From noon Friday, June 30, 2023 to 6:00 AM Wednesday, July 5, 2023 for Independence Day;
- From noon Friday, September 1, 2023 to 6:00 AM Tuesday, September 5, 2023 for Labor Day.

stp-107-005 (20210113)

6. Utilities.

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

stp-107-065 (20080501)

St. Croix Electric Cooperative has overhead electric facilities located along both sides of STH 128 from Station 19+40 – 235+00. No conflicts anticipated. The electric line crosses over the eastern endwalls of proposed Structure B-55-290.

West Wisconsin Telecom has underground fiber optic lines located on the east side of STH 128 at the eastern endwalls of proposed Structure B-55-290, no conflict identified. At Station 213+04 the fiber optic line will be lowered approximately 3 feet, and the existing pedestal will be relocated to approximately Station 212+90, LT, prior to construction.

We Energies has underground gas facilities located on the east side of STH 128 at proposed Structure B-55-290. We Energies will relocate the existing gas line at a minimum of 4 feet below the proposed final grade or to a minimum elevation of 1198 prior to construction.

Xcel Energy has overhead electric facilities located along STH 128 between 50th Street and USH 12. No conflicts are anticipated with their facilities.

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

The department has obtained a U.S. Army Corps of Engineers Section 404 permit. Comply with the requirements of the permit in addition to requirements of the special provisions. A copy of the permit is available from the regional office by contacting Lance Williston, P.E. at (608) 663-1218.

stp-107-054 (20210708)

8. 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)

9. 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)

10. Archaeological Site.

St. Michaels Cemetery site is located approximately Station 23+50 – Station 25+00, RT within the limits shown on the plans.

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

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

Newman Campsite is located approximately Station 161+00 – Station 173+00, RT within the limits shown on the plans.

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

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

stp-107-220 (20180628)

11. 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 35+00 to 41+00 from 110 feet LT of centerline to 475 feet LT of centerline.
2. Station 126+00 to 160+00 from 90 feet LT of centerline to 330 feet LT of centerline.
3. Station 223+00 to 232+00 from 20 feet RT of centerline to 700 feet RT of centerline.
4. Station 251+00 to 259+00 from 60 feet RT of centerline to 720 feet RT of centerline.

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

The Hazardous Materials Report is available by contacting: Lance Williston at (608) 663-1218.

stp-107-100 (20050901)

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

A Description

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

B (Vacant)

C Construction

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

Furnish materials and construct conforming to the following standard specs:

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

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

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

D Measurement

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

E Payment

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

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

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

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

stp-208-010 (20210708)

13. Base Aggregate Dense 1 1/4-Inch for Lower Base Layers.

Replace standard spec 305.2.2.1(2) with the following:

(2) Unless the plans or special provisions specify otherwise, do the following:

1. Use 1 1/4-inch base throughout the full base depth.
2. Use 3/4-inch base in the top 3 inches of the unpaved portion of shoulders. Use 3/4-inch base or 1 1/4-inch base elsewhere in shoulders.

stp-305-020 (20080902)

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

A Description

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

Perform work according to standard spec 460 and as follows.

B Materials

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

C Construction

C.1 Test Strip

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

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

C.1.1 Sampling and Testing Intervals

C.1.1.1 Volumetrics

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

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

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

C.1.1.2 Density

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

C.1.2 Field Tests

C.1.2.1 Density

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

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

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

non-conforming to C.2.1 herein, follow corrective action outlined in 460.2.8.2.1.7(4) as modified in HMA Pavement Percent Within Limits (PWL) QMP.

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

C.1.3 Laboratory Tests

C.1.3.1 Volumetrics

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

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

C.2 Acceptance

C.2.1 Volumetrics

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

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

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

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

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

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

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

C.2.2 Density

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

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

C.2.3 Test Strip Approval and Material Conformance

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

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

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

PWL TEST STRIP APPROVAL AND MATERIAL CONFORMANCE CRITERIA

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

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

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

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

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

D Measurement

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

E Payment

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

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

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

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

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

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

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

PAY ADJUSTMENT FOR HMA PAVEMENT AIR VOIDS & DENSITY

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

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

^[1] 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

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

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

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

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

stp-460-040 (20220107)

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

A Description

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

B Materials

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

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

460.2.8.2.1.3.1 Contracts under Percent within Limits

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

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

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

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

- Blended aggregate gradations according to AASHTO T 30.
- Asphalt content (AC) in percent determined by ignition oven method according to AASHTO T 308 as modified in CMM 836.6.3.6, chemical extraction according to AASHTO T 164 Method A or B, or automated extraction according to ASTM D8159 as modified in CMM 836.6.3.1.
- Bulk specific gravity (Gmb) of the compacted mixture according to AASHTO T 166 as modified in CMM 836.6.5.

- Maximum specific gravity (G_{mm}) according to AASHTO T 209 as modified in CMM 836.6.6.
- Air voids (V_a) by calculation according to AASHTO T 269.
- Voids in Mineral Aggregate (VMA) by calculation according to AASHTO R35.

(5) Lot size shall consist of 3750 tons with sublots of 750 tons. Test each design mixture at a frequency of 1 test per 750 tons of mixture type produced and placed as part of the contract. Add a random sample for any fraction of 750 tons at the end of production for a specific mixture design. Partial lots with less than three subplot tests will be included into the previous lot for data analysis and pay adjustment. Volumetric lots will include all tonnage of mixture type under specified bid item unless otherwise specified in the plan.

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

Delete standard spec 460.2.8.2.1.5 and 460.2.8.2.1.6.

Replace standard spec 460.2.8.2.1.7 Corrective Action with the following:

460.2.8.2.1.7 Corrective Action

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

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

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

(2) QV samples will be tested for G_{mm}, G_{mb}, and AC. Air voids and VMA will then be calculated using these test results.

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

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

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

Replace standard spec 460.2.8.3.1.2 Personnel Requirements with the following:

460.2.8.3.1.2 Personnel Requirements

- (1) The department will provide at least one HTCP-certified Transportation Materials Sampling (TMS) Technician, to observe QV sampling of HMA mixtures.
- (2) Under departmental observation, a contractor TMS technician shall collect and split samples.
- (3) A department HTCP-certified Hot Mix Asphalt, Technician I, Production Tester (HMA-IPT) technician will ensure that all sampling is performed correctly and conduct testing, analyze test results, and report resulting data.
- (4) The department will make an organizational chart available to the contractor before mixture production begins. The organizational chart will include names, telephone numbers, and current certifications of all QV testing personnel. The department will update the chart with appropriate changes, as they become effective.

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

460.2.8.3.1.4 Department Verification Testing Requirements

- (1) HTCP-certified department personnel will obtain QV random samples by directly supervising HTCP-certified contractor personnel sampling from trucks at the plant. Sample size must be adequate to run the appropriate required tests in addition to one set of duplicate tests that may be required for dispute resolution (i.e., retained). This requires sample sizes which yield three splits for all random sampling per subplot. All QV samples shall furnish the following: QC, QV, and Retained. The department will observe the splitting and take possession of the samples intended for QV testing (i.e., QV portion from each sample) and the Retained portions. The department will take possession of retained samples accumulated to date each day QV samples are collected. The department will retain samples until surpassing the analysis window of up to 5 lots, as defined in standard spec 460.2.8.3.1.7(2) of this special provision. Additional sampling details are found in Appendix A.
- (2) The department will verify product quality using the test methods specified here in standard spec 460.2.8.3.1.4(3). The department will identify test methods before construction starts and use only those methods during production of that material unless the engineer and contractor mutually agree otherwise.
- (3) The department will perform all testing conforming to the following standards:
 - Bulk specific gravity (Gmb) of the compacted mixture according to AASHTO T 166 as modified in CMM 836.6.5.
 - Maximum specific gravity (Gmm) according to AASHTO T 209 as modified in CMM 836.6.6.
 - Air voids (Va) by calculation according to AASHTO T 269.
 - Voids in Mineral Aggregate (VMA) by calculation according to AASHTO R 35.
 - Asphalt Content (AC) in percent determined by ignition oven method according to AASHTO T308 as modified in CMM 836.6.3.6, chemical extraction according to AASHTO T 164 Method A or B, or automated extraction according to ASTM D8159 as modified in CMM 836.6.3.1.
- (4) The department will randomly test each design mixture at the minimum frequency of one test for each lot.

Delete standard spec 460.2.8.3.1.6.

Replace standard spec 460.2.8.3.1.7 Dispute Resolution with the following:

460.2.8.3.1.7 Data Analysis for Volumetrics

- (1) Analysis of test data for pay determination will be contingent upon QC and QV test results. Statistical analysis will be conducted on Gmm and Gmb test results for calculation of Va. If either Gmm or Gmb analysis results in non-comparable data as described in 460.2.8.3.1.7(2), subsequent testing will be performed for both parameters as detailed in the following paragraph.
- (2) The engineer, upon completion of the first 3 lots, will compare the variances (F-test) and the means (t-test) of the QV test results with the QC test results. Additional comparisons incorporating the first 3 lots of data will be performed following completion of the 4th and 5th lots (i.e., lots 1-3, 1-4, and 1-5). A rolling window of 5 lots will be used to conduct F & t comparison for the remainder of the contract (i.e., lots 2-6, then lots 3-7, etc.), reporting comparison results for each individual lot. Analysis will use a set alpha value

of 0.025. If the F- and t-tests report comparable data, the QC and QV data sets are determined to be statistically similar and QC data will be used to calculate the Va used in PWL and pay adjustment calculations. If the F- and t-tests result in non-comparable data, proceed to the *dispute resolution* steps found below. Note: if both QC and QV Va PWL result in a pay adjustment of 102% or greater, dispute resolution testing will not be conducted. Dispute resolution via further investigation is as follows:

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

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

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

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

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

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

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

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

Delete standard spec 460.2.8.3.1.8 Corrective Action.

C Construction

Replace standard spec 460.3.3.2 Pavement Density Determination with the following:

460.3.3.2 Pavement Density Determination

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

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

460.3.3.3 Analysis of Density Data

- (1) Analysis of test data for pay determination will be contingent upon test results from both the contractor (QC) and the department (QV).
- (2) As random density locations are paved, the data will be recorded in the HMA PWL Production Spreadsheet for analysis in chronological order. The engineer, upon completion of the first 3 lots, will compare the variances (F-test) and the means (t-test) of the QV test results with the QC test results. A rolling window of 3 lots will be used to conduct F & t comparison for the remainder of the contract (i.e., lots 2-4, then lots 3-5, etc.), reporting comparison results for each individual lot. Analysis will use a set alpha value of 0.025.
 - i. If the F- and t-tests indicate variances and means compare, the QC and QV data sets are determined to be statistically similar and QC data will be used for PWL and pay adjustment calculations.
 - ii. If the F- and t-tests indicate variances or means do not compare, the QV data will be used for subsequent calculations.

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

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

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

D Measurement

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

E Payment

Replace standard spec 460.5.2 HMA Pavement with the following:

460.5.2 HMA Pavement

460.5.2.1 General

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

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

460.5.2.2 Calculation of Pay Adjustment for HMA Pavement using PWL

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

PAY FACTOR FOR HMA PAVEMENT AIR VOIDS & DENSITY

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

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

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

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. 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

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 ($\text{PF}_{\text{air voids}}$) 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.

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

| <u>ITEM NUMBER</u> | <u>DESCRIPTION</u> | <u>UNIT</u> |
|--------------------|------------------------------------|-------------|
| 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 / Sublot</u> |
|----------------------------------|--------------------------------|
| -0.4% to -0.5% | 75% ^[1] |
| More than -0.5% | 50% ^{[1][2]} |

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

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

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

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16. 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 | 90 | 91.5 | 91.5 |
| Upper | 90 | 90 | 91.5 | 91.5 |

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

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 | \$0.40 |
| From 0.0 to +0.9 confined, 0.0 to +1.9 unconfined | \$0 |
| From -0.1 to -1.0 | \$(0.20) |
| From -1.1 to -2.0 | \$(0.40) |
| From -2.1 to -3.0 | \$(0.80) |
| More than -3.0 | <i>REMEDIAL ACTION ^[1]</i> |

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

- (2) The department will not assess joint density disincentives for pavement placed in cold weather because of a department-caused delay as specified in [standard spec 450.5.2\(3\)](#).
- (3) The department will not pay incentive on the longitudinal joint density if the traffic lane is in disincentive A disincentive may be applied for each mainline lane and all joint densities if both qualify for a pay reduction.

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 |

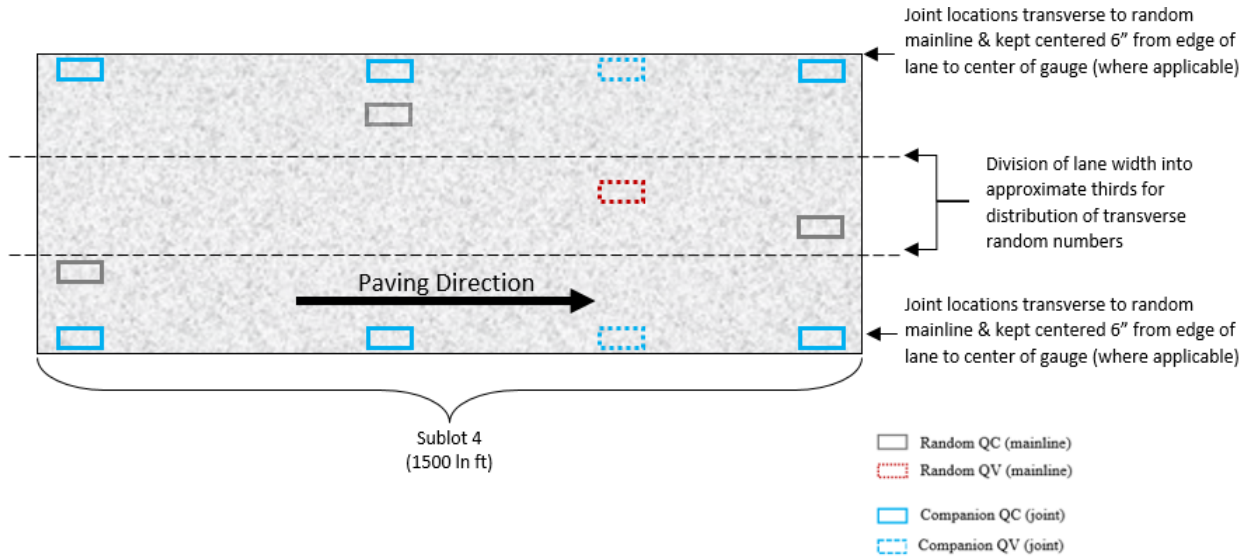
The department will administer disincentives under the Disincentive Density HMA Pavement Longitudinal Joints administrative item.

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 | \$0.40 |
| 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 | \$0.40 |
| 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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17. Material Transfer Vehicle, Item 460.9000.S.

A Description

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

B Materials

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

C Construction

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

D Measurement

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

E Payment

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

| ITEM NUMBER | DESCRIPTION | UNIT |
|-------------|---------------------------|------|
| 460.9000.S | Material Transfer Vehicle | EACH |

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

stp-460-900 (20220628)

18. Asphaltic Surface Temporary, Item 465.0125

Add the following to standard spec 465:

For temporary widening areas, the minimum material used for paving shall consist of 4 MT 58-34 S material.

19. **Culvert Pipe Liners, 24-Inch, Item 520.9700.S.01;**
Culvert Pipe Liners, 36-Inch, Item 520.9700.S.02;
Cleaning Culvert Pipes for Liner Verification, Item 520.9750.S.

A Description

This special provision describes providing, verifying, and pressure grouting culvert pipe liners for circular culverts.

B Materials

B.1 General

Provide flow calculations at the preconstruction conference. Use contractor-proposed liner properties, the Manning's coefficients listed on the department's approved products list, and base calculations on existing culvert sizes and liner sizes the plans show. Ensure that pipes when lined have a capacity within $\pm 5\%$ of the original full flow capacity of the pipe.

B.2 Flexible Pipe Liner

Use liners with a Manning's coefficient value published on the department's approved products list. Upon delivery provide manufacturer certificates of compliance certifying that the liners conform to the following:

| Pipe Type | ASTM Designation | ASTM D3350 Resin |
|---|-------------------------|-------------------------|
| High Density Polyethylene (HDPE) | | |
| Profile Wall Pipe | F894 | 345463C |
| Solid Wall Pipe | F714 | 345463C |
| Polyvinylchloride (PVC) | F949 | --- |

B.3 Grout

B.3.1 Cement

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

B.3.2 Fly Ash

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

B.3.3 Sand

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

B.3.4 Water

Furnish water meeting the requirements of standard spec 501.2.6.

B.3.5 Mix Design

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

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

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

B.3.6 Cellular Grout

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

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

C Construction

C.1 General

As soon as possible after contract execution, survey existing culvert pipes to determine which culverts need cleaning in order to verify the required liner diameter and length. Notify the engineer before cleaning to confirm payment under the Cleaning Culvert Pipes for Liner Verification bid item.

Coordinate with the engineer to field verify culvert diameter and length, shape, material, and condition before ordering the liners.

Obtain easements if necessary for installing long sections of pipe.

C.2 Excavating and Cleaning

Before inserting the liner, clean and dry the pipe. Excavate and pump as required to remove debris and other materials that would interfere with the placement or support of the inserted liner. Dispose of and replace unserviceable endwalls as the engineer directs.

C.3 Flow Diversion

Maintain drainage at and through worksite during construction according to standard spec 107.20, 205 and 520. Use existing culvert pipes, existing drainage channels, temporary culvert pipes, or temporary drainage channels to maintain existing surface and pipe drainage. Provide, operate, and maintain pumps to bypass flow or dewater during construction as necessary. Unless otherwise approved by the engineer, dewater by bypassing or diverting flow during bulkheading and grouting operations. Provide a plan for controlling flow and dewatering (including sediment treatment as required) as part of the project EQIP.

C.4 Placing Liners

Unload liners using slings and boom-type trucks or equivalents. Do not use chains or wire rope to handle liners and do not dump liners from the trucks when unloading.

Install liners such that the alignment and invert lie true to the lines, grades, and elevations in the plan. In absence of plan details, install liners horizontally to provide even annular space between the host pipe and sides of the liner. Install liners vertically with the invert as close to the host pipe invert as possible.

Obtain additional easements, if necessary, for installing long sections of liner.

Connect joints and install the liner per the manufacturer's recommendations and this part.

C.5 Pressure Grouting

Furnish a written plan for grouting the annular space between the host pipe and culvert pipe liner to the engineer for acceptance. Furnish the grouting plan prior to or at the project preconstruction conference so that it can be reviewed and discussed. At a minimum, the grouting plan shall consist of the following:

- Intended grout mix(es)
- Testing methods and frequency
- Pumping equipment and pressure regulation
- Intended grout staging
- Grout monitoring
- Bracing/floatation control

Include a description of staging in the grouting plan. Based on the length and slope of the host culvert, multiple stages may be required to minimize external loads on the culvert pipe liner. Develop the staging plan with the manufacturer based on the recommended maximum loading for the culvert pipe liner and the condition of the host culvert. Unless approved by the manufacturer, in no case shall a single lift of grout exceed 1/3rd the pipe external diameter at any point in the pour.

After the liner is in place, fill the area between the original culvert and the liner completely with grout per the accepted grouting plan. Block, grout in lifts, or otherwise secure liners to prevent floatation or deformation of the liner while grouting. Grout ports can be fabricated to allow placement of anti-floatation bracing or spacers.

Use a grout plant that is capable of accurately measuring, proportioning, mixing, and discharging by volume and at discharge pressures the liner manufacturer recommends. Do not exceed manufacturer-specified maximum pressures. Place grout in lifts to prevent exceeding maximum allowable pressures and to prevent floatation.

Use grout and witness ports to vent grouting and monitoring grouting progress. Plug ports as necessary as grout reaches them.

Do not remove any bracing inside of the liner until the grouting process is complete.

C.6 Assembly, Floatation, and Deflection Mitigation

Damage or misalignment due to assembly, floatation or deformation during grouting, or otherwise resulting from workmanship will be mitigated at the contractor's expense.

C.7 Site Restoration

Replace pipe sections damaged or collapsed during installation or grouting operations. Restore the grade to its original or improved cross section. Dispose of waste material.

D Measurement

The department will measure the Culvert Pipe Liners bid items by the linear foot measured in place for each culvert location, acceptably completed.

The department will measure Cleaning Culvert Pipes for Liner Verification as each culvert, acceptably cleaned. The department will only measure culverts the engineer approves for payment.

E Payment

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

| ITEM NUMBER | DESCRIPTION | UNIT |
|---------------|---|------|
| 520.9700.S.01 | Culvert Pipe Liners 24-Inch | LF |
| 520.9700.S.02 | Culvert Pipe Liners 36-Inch | LF |
| 520.9750.S | Cleaning Culvert Pipes for Liner Verification | EACH |

Payment for the Culvert Pipe Liners bid items is full compensation for providing pipe liners; obtaining easements; for excavation; for pumping to bypass flow, to clean pipes, for liner insertion or for grouting; for shoring and dewatering; for cleaning the existing pipe before liner installation; for pressure grouting; for replacing contractor-damaged pipe and endwalls; and for restoring the grade and disposing of waste materials.

The department will pay the contractor \$150 per cubic yard for grout required in excess of 110 percent of the theoretical quantity required to fill the space between the inside diameter of the existing pipe and the outside diameter of the liner.

Payment for Cleaning Culvert Pipes for Liner Verification is full compensation for cleaning required to verify liner length and diameter; for excavation; for pumping to bypass flow, to dewater, or to remove debris; and for disposing of waste material.

The department will pay separately for replacing unserviceable endwalls not rendered unserviceable by contractor operations under the appropriate contract endwall bid item, or absent the appropriate item as extra work.

stp-520-015 (20220107)

20. Apron Endwalls for Culvert Pipe RCHE 72x113-Inch, Item SPV.0060.01.

A Description

Furnish and install Apron Endwalls for Culvert Pipe Reinforced Concrete HE 72x113-Inch, as shown in the plans, according to standard spec 522, and as hereinafter provided.

B Materials

Provide materials according to standard spec 522.2

C Construction

Perform construction operations according to standard spec 522.3.

D Measurement

The department will measure the Apron Endwalls for Culvert Pipe RCHE 72x113-Inch bid item by each individual unit, acceptably completed.

E Payment

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

| ITEM NUMBER | DESCRIPTION | UNIT |
|-------------|--|------|
| SPV.0060.01 | Apron Endwalls for Culvert Pipe RCHE 72x113-Inch | EACH |

Payment is full compensation for providing apron endwalls; and for excavating, constructing the foundation, backfilling, and all incidentals necessary to complete the contract work.

21. Landmark Reference Monuments Special, Item SPV.0060.02.

A Description

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

B Materials

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

C Construction

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

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

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

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

Landmark Reference Monument

| Station | Offset | Township | Range | Section Corner |
|---------|--------|----------|-------|----------------|
| 25+01 | 49' RT | 28N | 15W | 28 |
| 51+37 | 2' RT | 28N | 15W | 28 |
| 77+68 | 3' RT | 28N | 15W | 22 |
| 104+10 | 1' LT | 28N | 15W | 21 |
| 130+51 | 0' | 28N | 15W | 15 |
| 156+92 | 33' RT | 28N | 15W | 15 |
| 183+33 | 11' RT | 28N | 15W | 10 |
| 209+79 | 0' | 28N | 15W | 9 |
| 236+26 | 1' RT | 28N | 15W | 3 |
| 262+61 | 1' LT | 28N | 15W | 3 |
| 288+47 | 5' RT | 28N | 15W | 3 |
| 314+72 | 0' | 29N | 15W | 33 |

Notify the St. Croix County Surveyors and Wis-DOT/NW Region-Eau Claire Survey Coordinator five working days prior to construction operations that may disturb existing monuments, with pertinent questions or for department provided monument caps.

D Measurement

The department will measure Landmark Reference Monuments Special by each unit, acceptably completed.

E Payment

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

| ITEM NUMBER | DESCRIPTION | UNIT |
|-------------|--------------------------------------|------|
| SPV.0060.02 | Landmark Reference Monuments Special | EACH |

Payment is full compensation for furnishing a Professional Land Surveyor; obtaining existing PLSS monument record tie sheet(s); preparing, providing and filing temporary/final PLSS monument record tie sheet(s) from a Professional Land Surveyor; all survey work related to the perpetuation process; the furnishing and placing of all PLSS survey monuments; the furnishing and placement of any necessary witness ties; the removal of the existing monument(s) if necessary; excavating for the placement of the new monument(s) if necessary.

22. Verify Landmark Reference Monuments, Item SPV.0060.03.

A Description

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

B Materials

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

C Construction

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

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

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

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

D Measurement

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

E Payment

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

| ITEM NUMBER | DESCRIPTION | UNIT |
|-------------|-------------------------------------|------|
| SPV.0060.03 | Verify Landmark Reference Monuments | EACH |

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

Restoring or reestablishing missing or damaged survey corners will be considered extra work. Replacing survey corners damaged due to construction operations is incidental to the contract.

23. Culvert Pipe RCHE Class HE-IV 72x113-Inch, Item SPV.0090.01.

A Description

This special provision describes furnishing and installing culvert pipe reinforced concrete of the type and size indicated according to standard spec 522 and the plan details.

B Materials

Comply with standard spec 522 except replace standard spec 522.2(4) and standard spec 520.2.6 as follows:

Joint Connections

Furnish joint materials conforming to the following:

Joints using rubber gaskets per ASTM C443.

Joints using preformed flexible joint sealants per ASTM C990.

External Sealing Bands per ASTM C877.

Trowel Applied Mastics: Furnish an engineer-approved cold-applied bituminous mastic joint sealer with a consistency that enables application to joints with a trowel if air temperatures range from 20 to 100 F.

C Construction

Construct according to standard spec 520.3 and the plan details and as follows:

Do not use pipe with different wall thicknesses in the same installations unless the plans or special provisions specify otherwise.

Replace standard spec 520.3.3(3) as follows:

(3) Lay concrete pipe with bells or grooves up grade and with spigot or tongue ends fully inserted in the bells or grooves.

Replace standard spec 520.3.3(4) as follows:

(1) Connect joints for concrete pipe with annular rubber or plastic gaskets, or the combination of both an external sealing band and a mastic joint sealer, as specified below.

(2) If using trowelable mastic joint sealer with an external sealing band, fill the joint with mastic sealer and wipe the inside of the joint and finish smooth.

(3) If using annular rubber or plastic gaskets, fit the gasket snugly into the annular space between the surfaces of the connecting parts of the pipe sections to form a flexible, watertight joint.

(4) If using preformed mastic joint sealer with an external sealing band, remove sharp edges and protrusions from pipe joint surfaces and clean dust, dirt, and other foreign matter from them. A primer may be used. If using a primer, use the type recommended by the preformed seal manufacturer. After the primer dries, remove the wrapper from one side of the seal only and press the seal to the primed surface. When ready to assemble, remove the remaining wrapper and fit the pipe sections in place. Shove the pipe sections together at the required alignment. Make seals of sufficient size so that after the pipe sections are in their final position a squeeze-out of the seal is evident around the joints' exterior circumference. Remove and make flush with the interior pipe wall, any extrusion of the seal inside the pipe before applying the external sealing band.

(5) Place external sealing band as the manufacturer specifies and the engineer approves.

D Measurement

The department will measure Culvert Pipe RCHE Class HE-IV 72x113-Inch by the linear foot according to standard spec 522.4(1), 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 | Culvert Pipe RCHE Class HE-IV 72x113-Inch | LF |

Payment is according to standard spec 522.5

ADDITIONAL SPECIAL PROVISION 4

This special provision does not limit the right of the department, prime contractor, or subcontractors at any tier to withhold payment for work not acceptably completed or work subject to an unresolved contract dispute.

Payment to First-Tier Subcontractors

Within 10 calendar days of receiving a progress payment for work completed by a subcontractor, pay the subcontractor for that work. The prime contractor may withhold payment to a subcontractor if, within 10 calendar days of receipt of that progress payment, the prime contractor provides written notification to the subcontractor and the department documenting "just cause" for withholding payment.

The prime contractor is not allowed to withhold retainage from payments due subcontractors.

Payment to Lower-Tier Subcontractors

Ensure that subcontracting agreements at all tiers provide prompt payment rights to lower-tier subcontractors that parallel those granted first-tier subcontractors in this provision.

Acceptance and Final Payment

Within 30 calendar days of receiving the semi-final estimate from the department, submit written certification that subcontractors at all tiers are paid in full for acceptably completed work.

Additional Special Provision 6

ASP 6 - Modifications to the standard specifications

Make the following revisions to the standard specifications:

416.2.4 Concrete Pavement Repair and Replacement

Replace the entire text with the following effective with the November 2022 letting:

- (1) Except as specified in 416.3.6 for inlaid rumble strips, use grade C concrete as specified in 501.
- (2) The engineer will allow the contractor to open to construction and public traffic when the concrete reaches 2000 psi.

416.2.5 Special High Early Strength Concrete Pavement Repair and Replacement

416.2.5.1 Composition and Proportioning of Concrete

Replace paragraph one with the following effective with the November 2022 letting:

- (1) For the concrete mixture, use a minimum of 846 pounds of cementitious material per cubic yard of concrete. The engineer will allow the contractor to open to construction and public traffic when the concrete reaches 2000 psi. The contractor may add one or a combination of admixtures to the ingredients or to the mixture in order to obtain the required minimum strength and required air content. Do not retemper the concrete mixture.

455.2.4.3 Emulsified Asphalts

Replace paragraph one with the following effective with the November 2022 letting:

- (1) Furnish material conforming, before dilution, to the following:
 - Anionic emulsified asphalts^[1]..... AASHTO M140
 - Cationic emulsified asphalts^[1] AASHTO M208
 - Polymer-modified cationic emulsified asphalts AASHTO M316
- ^[1] Non-tracking emulsified asphalts shall conform to TABLE 455-1 for the type and grade specified.

TABLE 455-1 Requirements for Non-Tracking Emulsified Asphalt

| PRODUCT | ANTT | CNTT |
|---|-----------|-----------|
| Saybolt Viscosity at 77°F (25°C), (AASHTO T 59), SFS | 15-100 | 15-100 |
| Paddle Viscosity at 77°F (25°C), (AASHTO T 382), cPs ^[1] | 30-200 | 30-200 |
| Storage Stability Test, 24 hr, (AASHTO T 59), % | 1 max | 1 max |
| Residue by Distillation, 500 ± 10 °F (260 ± 5 °C), or Residue by Evaporation, 325 ± 5 °F (163 ± 3 °C), (AASHTO T 59), % | 50 min | 50 min |
| Sieve Test, No. 20 (850 µm), (AASHTO T 59), % | 0.3 | 0.3 |
| Penetration at 77°F (25°C), 100 g, 5 sec, (AASHTO T 49), dmm | 10-40 | 10-40 |
| Ash Content, (AASHTO T 111), % | 1 max | 1 max |
| Solubility in Trichlorethylene Test, (AASHTO T 44) ^[2] | 97.5% min | 97.5% min |

^[1] Paddle Viscosity (AASHTO T 382) may be run in lieu of Saybolt Viscosity (AASHTO T 59).
^[2] The solubility in Trichlorethylene test (AASHTO T 44) may be run in lieu of Ash Content (AASHTO T 111).

455.2.5 Tack Coat

Replace paragraph one with the following effective with the November 2022 letting:

- (1) Under the Tack Coat bid item, furnish type SS-1h, CSS-1h, QS-1h, CQS-1h, ANTT, CNTT, or modified emulsified asphalt with an “h” suffix, unless the contract specifies otherwise.

710.5.7 Corrective Action

710.5.7.1 Optimized Aggregate Gradations

Replace paragraph one with the following effective with the November 2022 letting:

- (1) If the contractor's 4-point running average or a department test result of the volumetric percent retained exceeds the tarantula curve limits by less than or equal to 1.0 percent on a single sieve size, notify the other party immediately and do one of the following:
 - Perform corrective action documented in the QC plan or as the engineer approves. Continue with the following:
 1. Document and provide corrective action results to the engineer as soon as they are available.
 2. Department will conduct two tests within the next business day after corrective action is complete.
 - If blended aggregate gradations are within the tarantula curve limits by the second department test:
 - Continue with concrete production.
 - Include a break in the 4-point running average.
 - For Class I Pavements: The department will discontinue reduced frequency testing and will test at a frequency of 1 test per placement day. Once 5 consecutive samples are passing at the 1 test per placement day frequency, the reduced frequency testing will be reapplied.
 - If blended aggregate gradations are not within the tarantula curve limits by the second department test and the contract requires an optimized aggregate gradation mix under 501.2.7.4.2.1(2), stop concrete production and submit a new optimized aggregate gradation mix design.
 - If blended aggregate gradations are not within the tarantula curve limits by the second department test and the contract does not require an optimized aggregate gradation mix under 501.2.7.4.2.1(2), stop concrete production and submit either a new optimized aggregate gradation mix design or a combined aggregate gradation mix design.
 - Submit a new optimized aggregate gradation mix design and perform the following:
 1. Restart control charts for the new mix design.
 2. Amend contractor Quality Control Plan

715.5 Payment

Replace the entire text with the following effective with the November 2022 letting:

715.5.1 General

- (1) The department will pay incentive for concrete strength under the following bid items:

| <u>ITEM NUMBER</u> | <u>DESCRIPTION</u> | <u>UNIT</u> |
|--------------------|--|-------------|
| 715.0502 | Incentive Strength Concrete Structures | DOL |
| 715.0603 | Incentive Strength Concrete Barrier | DOL |
| 715.0715 | Incentive Flexural Strength Concrete Pavement | DOL |
| 715.0720 | Incentive Compressive Strength Concrete Pavement | DOL |

- (2) Incentive payment may be more or less than the amount the schedule of items shows.
- (3) The department will administer disincentives for strength under the Disincentive Strength Concrete Structures, Disincentive Strength Concrete Barrier, Disincentive Flexural Strength Concrete Pavement, and Disincentive Compressive Strength Concrete Pavement, administrative items.
- (4) The department will adjust pay for each lot using PWL of the 28-day subplot average strengths for that lot. The department will measure PWL relative to strength lower specification limits as follows:
 - Compressive strength of 3700 psi for pavements.
 - Flexural strength of 650 psi for pavements.
 - Compressive strength of 4000 psi for structures and barrier.
- (5) The department will not pay a strength incentive for concrete that is nonconforming in another specified property, for ancillary concrete accepted based on tests of class I concrete, or for high early strength concrete unless placed in pavement gaps as allowed under 715.3.1.2.2.
- (6) Submit test results to the department electronically using MRS software. The department will verify contractor data before determining pay adjustments.
- (7) All coring and testing costs under 715.3.2.2 including filling core holes and providing traffic control during coring are incidental to the contract.

715.5.2 Pavements

715.5.2.1 Compressive

- (1) The department will adjust pay for each lot using equation “QMP 3.01” as follows:

| Percent within Limits (PWL) | Pay Adjustment (dollars per square yard) |
|-----------------------------|--|
| >= 95 to 100 | $(0.1 \times \text{PWL}) - 9.5$ |
| >= 85 to < 95 | 0 |
| >= 30 to < 85 | $(1.5/55 \times \text{PWL}) - 127.5/55$ |
| < 30 | -1.50 |

- (2) The department will not pay incentive if the lot standard deviation is greater than 400 psi compressive.
- (3) For lots with a full battery of QC tests at less than 4 locations, there is no incentive, but the department will assess a disincentive based on the individual subplot average strengths. The department will reduce pay for sublots with an average strength below 3700 psi compressive by \$1.50 per square yard.
- (4) For integral shoulder pavement and pavement gaps accepted using tests from the adjacent travel lane, the department will adjust pay using strength results of the travel lane for integrally placed concrete shoulders and pavement gaps regardless of mix design and placement method, included in a lane-foot lot.

715.5.2.2 Flexural

- (1) The department will adjust pay for each lot using equation “QMP 6.02” as follows:

| Percent within Limits (PWL) | Pay Adjustment (dollars per square yard) |
|-----------------------------|--|
| >= 95 to 100 | $(0.2 \times \text{PWL}) - 19$ |
| >= 85 to < 95 | 0 |
| >= 50 to < 85 | $(2.0/35 \times \text{PWL}) - 170/35$ |
| < 50 | -2.00 |

- (2) The department will not pay incentive if the lot standard deviation is greater than 60 psi flexural.
- (3) For lots with a full battery of QC tests at less than 4 locations, there is no incentive, but the department will assess a disincentive based on the individual subplot average strengths. The department will reduce pay for sublots with an average strength below 650 psi flexural by \$2.00 per square yard.
- (4) For integral shoulder pavement and pavement gaps accepted using tests from the adjacent travel lane, the department will adjust pay using strength results of the travel lane for integrally placed concrete shoulders and pavement gaps regardless of mix design and placement method, included in a lane-foot lot.

715.5.3 Structures and Cast-in-Place Barrier

- (1) The department will adjust pay for each lot using equation “QMP 2.01” as follows:

| Percent within Limits (PWL) | Pay Adjustment (dollars per square yard) |
|-----------------------------|--|
| >= 99 to 100 | 10 |
| >= 90 to < 99 | 0 |
| >= 50 to < 90 | $(7/8 \times \text{PWL}) - 78.75$ |
| < 50 | -35 |

- (2) The department will not pay incentive if the lot standard deviation is greater than 350 psi.
- (3) For lots with less than 4 sublots, there is no incentive, but the department will assess a disincentive based on the individual subplot average strengths. The department will reduce pay for sublots with an average strength below 4000 psi by \$35 per cubic yard.

ADDITIONAL SPECIAL PROVISION 7

A. Reporting 1st Tier and DBE Payments During Construction

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

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

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

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

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

ADDITIONAL SPECIAL PROVISION 9

Electronic Certified Payroll or Labor Data Submittal

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

NON-DISCRIMINATION PROVISIONS

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

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

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

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

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

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

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

6. Incorporation of Provisions: The contractor will include the provisions of paragraphs one through six in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Acts, the Regulations and directives issued pursuant thereto. The contractor will take action with respect to any subcontract or procurement as the Recipient or the Federal Highway Administration may direct as a means of enforcing such provisions including sanctions for noncompliance. Provided, that if the contractor becomes involved in, or is threatened with litigation by a subcontractor, or supplier because of such direction, the contractor may request the Recipient to enter into any litigation to protect the interests of the Recipient. In addition, the contractor may request the United States to enter into the litigation to protect the interests of the United States.

During the performance of this contract, the contractor, for itself, its assignees, and successors in interest (hereinafter referred to as the "contractor") agrees to comply with the following non-discrimination statutes and authorities; including but not limited to:

Pertinent Non-Discrimination Authorities:

- Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21.
- The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects);
- Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 et seq.), (prohibits discrimination on the basis of sex);
- Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27;
- The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age);
- Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex);
- The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms "programs or activities" to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not);
- Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131-12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38;
- The Federal Aviation Administration's Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex);
- Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures Non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations;
- Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of Limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100);
- Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

BUY AMERICA PROVISION

Buy America (as documented in M-22-11 from the Office of Management and Budget: <https://www.whitehouse.gov/wp-content/uploads/2022/04/M-22-11.pdf>) shall be domestic products and permanently incorporated in this project as classified in the following three categories, and as noted in the Construction and Materials Manual (CMM):

1. Iron and Steel

All iron and steel manufacturing and coating processes (from smelting forward in the manufacturing process) must have occurred within the United States. Coating includes epoxy coating, galvanizing, painting and any other coating that protects or enhances the value of a material subject to the requirements of Buy America.

The exemption of the iron and steel manufacturing and coating processes Buy America requirement is the minimal use of foreign materials if the total cost of such material permanently incorporated in the product does not exceed one-tenth of one percent (1/10 of 1%) of the total contract cost or \$2,500.00, whichever is greater. For purposes of this paragraph, the cost is that shown to be the value of the subject products as they are delivered to the project.

2. Manufactured Product

All manufactured products (as defined in CMM 228.5) are covered under a previous waiver from 1983, and are currently exempt from Buy America.

3. Construction Material

All construction materials (as defined in OMB M-22-11 and as referenced in CMM 228.5) must comply with Buy America. No exemptions (0.0%) are allowed.

The contractor shall take actions and provide documentation conforming to CMM 228.5 to ensure compliance with this Buy America provision.

<https://wisconsindot.gov/rdwy/cmm/cm-02-28.pdf>

Upon completion of the project, certify to the engineer, in writing using department form DT4567 that all iron and steel, manufactured products, and construction materials conform to this Buy America provision.

Form DT4567 is available at: <https://wisconsindot.gov/Documents/formdocs/dt4567.docx>

Attach a list of iron or steel exemptions and their associated costs to the certification form.



Proposal Schedule of Items

Proposal ID: 20230214045 Project(s): 7620-00-70

Federal ID(s): N/A

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

| Proposal Line Number | Item ID Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|----------------------|--|--------------------------------|------------|------------|
| 0002 | 201.0105 Clearing | 2.000 STA | _____. | _____. |
| 0004 | 201.0205 Grubbing | 2.000 STA | _____. | _____. |
| 0006 | 203.0100 Removing Small Pipe Culverts | 6.000 EACH | _____. | _____. |
| 0008 | 203.0220 Removing Structure (structure) 01. B-55-0088 | 1.000 EACH | _____. | _____. |
| 0010 | 204.0100 Removing Concrete Pavement | 70.000 SY | _____. | _____. |
| 0012 | 204.0115 Removing Asphaltic Surface Butt Joints | 5,200.000 SY | _____. | _____. |
| 0014 | 204.0120 Removing Asphaltic Surface Milling | 96,000.000 SY | _____. | _____. |
| 0016 | 204.0165 Removing Guardrail | 290.000 LF | _____. | _____. |
| 0018 | 204.0180 Removing Delineators and Markers | 16.000 EACH | _____. | _____. |
| 0020 | 206.1001 Excavation for Structures Bridges (structure) 01. B-55-290 | 1.000 EACH | _____. | _____. |
| 0022 | 208.1500.S Temporary Lane Shift During Culvert Work | 9.000 EACH | _____. | _____. |
| 0024 | 210.2500 Backfill Structure Type B | 1,870.000 TON | _____. | _____. |
| 0026 | 211.0101 Prepare Foundation for Asphaltic Paving (project) 01. 7620-00-70 | 1.000 EACH | _____. | _____. |
| 0028 | 213.0100 Finishing Roadway (project) 01. 7620-00-70 | 1.000 EACH | _____. | _____. |
| 0030 | 305.0110 Base Aggregate Dense 3/4-Inch | 8,300.000 TON | _____. | _____. |



Proposal Schedule of Items

Proposal ID: 20230214045 Project(s): 7620-00-70

Federal ID(s): N/A

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

| Proposal Line Number | Item ID Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|----------------------|--|--------------------------------|------------|------------|
| 0032 | 305.0120 Base Aggregate Dense 1 1/4-Inch | 4,650.000 TON | _____. | _____. |
| 0034 | 312.0110 Select Crushed Material | 2,950.000 TON | _____. | _____. |
| 0036 | 455.0605 Tack Coat | 11,000.000 GAL | _____. | _____. |
| 0038 | 460.0105.S HMA Percent Within Limits (PWL) Test Strip Volumetrics | 1.000 EACH | _____. | _____. |
| 0040 | 460.0110.S HMA Percent Within Limits (PWL) Test Strip Density | 2.000 EACH | _____. | _____. |
| 0042 | 460.2005 Incentive Density PWL HMA Pavement | 14,750.000 DOL | 1.00000 | 14,750.00 |
| 0044 | 460.2007 Incentive Density HMA Pavement Longitudinal Joints | 13,790.000 DOL | 1.00000 | 13,790.00 |
| 0046 | 460.2010 Incentive Air Voids HMA Pavement | 20,100.000 DOL | 1.00000 | 20,100.00 |
| 0048 | 460.6645 HMA Pavement 5 MT 58-34 V | 20,100.000 TON | _____. | _____. |
| 0050 | 460.9000.S Material Transfer Vehicle 01. 7620-00-70 | 1.000 EACH | _____. | _____. |
| 0052 | 465.0105 Asphaltic Surface | 2,200.000 TON | _____. | _____. |
| 0054 | 465.0110 Asphaltic Surface Patching | 300.000 TON | _____. | _____. |
| 0056 | 465.0125 Asphaltic Surface Temporary | 110.000 TON | _____. | _____. |
| 0058 | 465.0450 Asphaltic Intersection Rumble Strips | 200.000 SY | _____. | _____. |
| 0060 | 465.0475 Asphalt Centerline Rumble Strips 2-Lane Rural | 23,050.000 LF | _____. | _____. |



Proposal Schedule of Items

Proposal ID: 20230214045 Project(s): 7620-00-70

Federal ID(s): N/A

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

| Proposal Line Number | Item ID Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|----------------------|---|--------------------------------|------------|------------|
| 0062 | 511.1100 Temporary Shoring | 845.000 SF | _____ | _____ |
| 0064 | 520.1024 Apron Endwalls for Culvert Pipe 24-Inch | 8.000 EACH | _____ | _____ |
| 0066 | 520.1030 Apron Endwalls for Culvert Pipe 30-Inch | 2.000 EACH | _____ | _____ |
| 0068 | 520.1036 Apron Endwalls for Culvert Pipe 36-Inch | 2.000 EACH | _____ | _____ |
| 0070 | 520.3324 Culvert Pipe Class III-A 24-Inch | 340.000 LF | _____ | _____ |
| 0072 | 520.3330 Culvert Pipe Class III-A 30-Inch | 132.000 LF | _____ | _____ |
| 0074 | 520.3336 Culvert Pipe Class III-A 36-Inch | 86.000 LF | _____ | _____ |
| 0076 | 520.8700 Cleaning Culvert Pipes | 7.000 EACH | _____ | _____ |
| 0078 | 520.9700.S Culvert Pipe Liners (size) 01. 24-Inch | 156.000 LF | _____ | _____ |
| 0080 | 520.9700.S Culvert Pipe Liners (size) 02. 36-Inch | 242.000 LF | _____ | _____ |
| 0082 | 520.9750.S Cleaning Culvert Pipes for Liner Verification | 3.000 EACH | _____ | _____ |
| 0084 | 603.8000 Concrete Barrier Temporary Precast Delivered | 550.000 LF | _____ | _____ |
| 0086 | 603.8125 Concrete Barrier Temporary Precast Installed | 1,100.000 LF | _____ | _____ |
| 0088 | 606.0200 Riprap Medium | 24.000 CY | _____ | _____ |
| 0090 | 606.0300 Riprap Heavy | 70.000 CY | _____ | _____ |
| 0092 | 614.0905 Crash Cushions Temporary | 2.000 EACH | _____ | _____ |



Proposal Schedule of Items

Proposal ID: 20230214045 Project(s): 7620-00-70

Federal ID(s): N/A

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

| Proposal Line Number | Item ID Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|----------------------|---|--------------------------------|------------|------------|
| 0094 | 619.1000 Mobilization | 1.000 EACH | _____. | _____. |
| 0096 | 624.0100 Water | 200.000 MGAL | _____. | _____. |
| 0098 | 625.0500 Salvaged Topsoil | 4,800.000 SY | _____. | _____. |
| 0100 | 627.0200 Mulching | 4,800.000 SY | _____. | _____. |
| 0102 | 628.1504 Silt Fence | 2,100.000 LF | _____. | _____. |
| 0104 | 628.1520 Silt Fence Maintenance | 4,200.000 LF | _____. | _____. |
| 0106 | 628.1905 Mobilizations Erosion Control | 5.000 EACH | _____. | _____. |
| 0108 | 628.1910 Mobilizations Emergency Erosion Control | 3.000 EACH | _____. | _____. |
| 0110 | 628.2023 Erosion Mat Class II Type B | 40.000 SY | _____. | _____. |
| 0112 | 628.7504 Temporary Ditch Checks | 240.000 LF | _____. | _____. |
| 0114 | 628.7555 Culvert Pipe Checks | 50.000 EACH | _____. | _____. |
| 0116 | 629.0210 Fertilizer Type B | 5.000 CWT | _____. | _____. |
| 0118 | 630.0120 Seeding Mixture No. 20 | 200.000 LB | _____. | _____. |
| 0120 | 630.0200 Seeding Temporary | 200.000 LB | _____. | _____. |
| 0122 | 630.0500 Seed Water | 160.000 MGAL | _____. | _____. |
| 0124 | 633.5200 Markers Culvert End | 27.000 EACH | _____. | _____. |
| 0126 | 638.2102 Moving Signs Type II | 3.000 EACH | _____. | _____. |



Proposal Schedule of Items

Proposal ID: 20230214045 Project(s): 7620-00-70

Federal ID(s): N/A

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

| Proposal Line Number | Item ID Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|----------------------|--|--------------------------------|------------|------------|
| 0128 | 638.4000 Moving Small Sign Supports | 3.000 EACH | _____. | _____. |
| 0130 | 642.5001 Field Office Type B | 1.000 EACH | _____. | _____. |
| 0132 | 643.0300 Traffic Control Drums | 270.000 DAY | _____. | _____. |
| 0134 | 643.0420 Traffic Control Barricades Type III | 15.000 DAY | _____. | _____. |
| 0136 | 643.0715 Traffic Control Warning Lights Type C | 150.000 DAY | _____. | _____. |
| 0138 | 643.0900 Traffic Control Signs | 5,605.000 DAY | _____. | _____. |
| 0140 | 643.1050 Traffic Control Signs PCMS | 14.000 DAY | _____. | _____. |
| 0142 | 643.3105 Temporary Marking Line Paint 4-Inch | 59,000.000 LF | _____. | _____. |
| 0144 | 643.3120 Temporary Marking Line Epoxy 4-Inch | 36,800.000 LF | _____. | _____. |
| 0146 | 643.3850 Temporary Marking Stop Line Removable Tape 18-Inch | 30.000 LF | _____. | _____. |
| 0148 | 643.5000 Traffic Control | 1.000 EACH | _____. | _____. |
| 0150 | 645.0120 Geotextile Type HR | 211.000 SY | _____. | _____. |
| 0152 | 646.1040 Marking Line Grooved Wet Ref Epoxy 4-Inch | 53,800.000 LF | _____. | _____. |
| 0154 | 646.3545 Marking Line Grooved Wet Ref Contrast Epoxy 8-Inch | 370.000 LF | _____. | _____. |
| 0156 | 646.4520 Marking Line Same Day Epoxy 4-Inch | 36,800.000 LF | _____. | _____. |
| 0158 | 646.6120 Marking Stop Line Epoxy 18-Inch | 80.000 LF | _____. | _____. |



Proposal Schedule of Items

Proposal ID: 20230214045 Project(s): 7620-00-70

Federal ID(s): N/A

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

| Proposal Line Number | Item ID Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|----------------------|--|--------------------------------|------------|------------|
| 0160 | 646.9000 Marking Removal Line 4-Inch | 1,800.000 LF | _____. | _____. |
| 0162 | 650.4500 Construction Staking Subgrade | 1,150.000 LF | _____. | _____. |
| 0164 | 650.5000 Construction Staking Base | 1,150.000 LF | _____. | _____. |
| 0166 | 650.6000 Construction Staking Pipe Culverts | 6.000 EACH | _____. | _____. |
| 0168 | 650.8000 Construction Staking Resurfacing Reference | 27,600.000 LF | _____. | _____. |
| 0170 | 650.9911 Construction Staking Supplemental Control (project) 01. 7620-00-70 | 1.000 EACH | _____. | _____. |
| 0172 | 650.9920 Construction Staking Slope Stakes | 1,150.000 LF | _____. | _____. |
| 0174 | 661.0101 Temporary Traffic Signals for Bridges (structure) 01. B-55-0088 | 1.000 EACH | _____. | _____. |
| 0176 | 690.0150 Sawing Asphalt | 1,250.000 LF | _____. | _____. |
| 0178 | 740.0440 Incentive IRI Ride | 20,900.000 DOL | 1.00000 | 20,900.00 |
| 0180 | SPV.0060 Special 01. Apron Endwalls for Culvert Pipe RCHE 72x113-Inch | 6.000 EACH | _____. | _____. |
| 0182 | SPV.0060 Special 02. Landmark Reference Monuments Special | 12.000 EACH | _____. | _____. |
| 0184 | SPV.0060 Special 03. Verify Landmark Reference Monuments Special | 12.000 EACH | _____. | _____. |
| 0186 | SPV.0090 Special 01. Culvert Pipe RCHE Class HE-IV 72x113-Inch | 258.000 LF | _____. | _____. |
| Section: 0001 | | | Total: | _____. |

Total Bid: _____.

PLEASE ATTACH ADDENDA HERE



Wisconsin Department of Transportation

**Division of Transportation Systems
Development**

Bureau of Project Development
4822 Madison Yards Way, 4th Floor South
Madison, WI 53705

Telephone: (608) 266-1631
Facsimile (FAX): (608) 266-8459

January 30, 2023

NOTICE TO ALL CONTRACTORS:

**Proposal #45: 7620-00-70
Elmwood – STH 64
STH 29 to USH 12
STH 128
St. Croix County**

Letting of February 14, 2023

This is Addendum No. 01, which provides for the following:

Plan Sheets:

| Revised Plan Sheets | |
|---------------------|--|
| Plan Sheet | Plan Sheet Title (brief description of changes to sheet) |
| 80 | Added notes to the SDD |

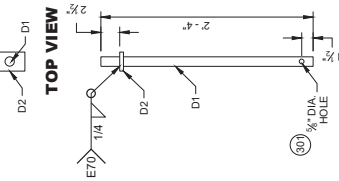
The responsibility for notifying potential subcontractors and suppliers of these changes remains with the prime contractor.

Sincerely,

Mike Coleman

Proposal Development Specialist
Proposal Management Section

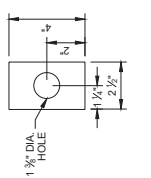
END OF ADDENDUM



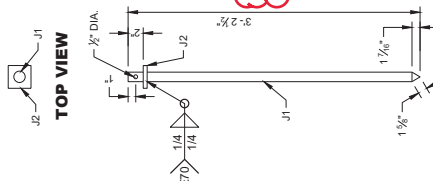
**PROFILE VIEW
CONNECTOR PIN
ASSEMBLY**



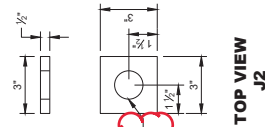
PROFILE VIEW



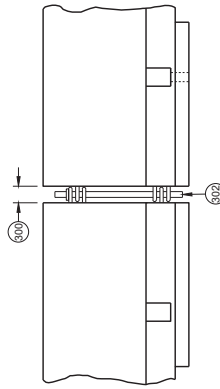
**TOP VIEW
D2**



**PROFILE VIEW
ASPHALT ANCHOR PIN
ASSEMBLY**

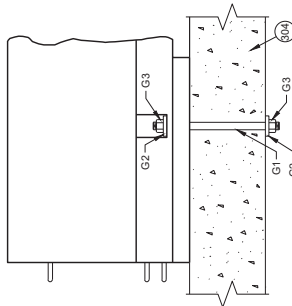


**TOP VIEW
J2**

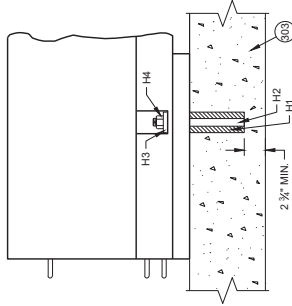


**CONNECTING TEMPORARY
BARRIER SECTIONS**

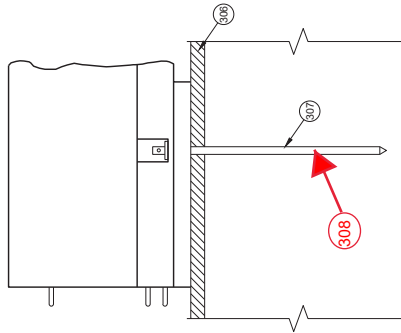
- GENERAL NOTES**
- 300 SET WITH 3/4" WOOD BLOCK.
 - 301 HOLE IS OPTIONAL.
 - 302 CONNECTOR PIN ASSEMBLY.
 - 303 CONCRETE PAVEMENT, APPROACH SLAB, OR DECK.
 - 304 CONCRETE DECK.
 - 305 DO NOT USE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY OR CONCRETE PAVEMENT WITH ASPHALT OVERLAY.
 - 306 MINIMUM OF 2" OF ASPHALT.
 - 307 ASPHALT ANCHOR PIN ASSEMBLY.
 - 308 IF DRILLING A PILOT HOLE, THE MAX DIA. OF THE PILOT HOLE IS 3/4".



**SIDE VIEW
THROUGH BOLT ANCHOR
INSTALLATION**



**SIDE VIEW
ADHESIVE ANCHOR
INSTALLATION**



**SIDE VIEW
ASPHALT ANCHOR
INSTALLATION**

Addendum No. 01
ID 7620-00-70
Revised Sheet 80
January 30, 2023

**CONCRETE BARRIER
TEMPORARY PRECAST,
12' - 6"**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



Wisconsin Department of Transportation

Division of Transportation Systems Development

Bureau of Project Development
4822 Madison Yards Way, 4th Floor South
Madison, WI 53705

February 8, 2023

Telephone: (608) 266-1631
Facsimile (FAX): (608) 266-8459

NOTICE TO ALL CONTRACTORS:

Proposal #45: 7620-00-70
Elmwood – STH 64
STH 29 to USH 12
STH 128
St. Croix County

Letting of February 14, 2023

This is Addendum No. 02, which provides for the following:

Special Provisions:

| Revised Special Provisions | |
|----------------------------|--------------------------|
| Article No. | Description |
| 3 | Prosecution and Progress |

| Deleted Special Provisions | |
|----------------------------|--|
| Article No. | Description |
| 18 | Asphaltic Surface Temporary, Item 465.0125 |

Schedule of Items:

| Revised Bid Item Quantities | | | | | |
|-----------------------------|------------------------------------|------|----------------------------------|------------------------------|-------------------------------|
| Bid Item | Item Description | Unit | Proposal Total Prior to Addendum | Proposal Quantity Change (-) | Proposal Total After Addendum |
| 650.6000 | Construction Staking Pipe Culverts | Each | 6 | +3 | 9 |

Plan Sheets:

| Revised Plan Sheets | |
|---------------------|--|
| Plan Sheet | Plan Sheet Title (brief description of changes to sheet) |
| 50 | Revised MQ table for Culvert Pipes |

| Deleted Plan Sheets | |
|----------------------------|--|
| Plan Sheet | Plan Sheet Title (brief description of why sheet was deleted) |
| 15 | Construction Details (Removed due to potential contractor confusion and recommendations of WisDOT NW Region Pavement Engineer) |
| 16 | Construction Details (Removed due to potential contractor confusion and recommendations of WisDOT NW Region Pavement Engineer) |
| 17 | Construction Details (Removed due to potential contractor confusion and recommendations of WisDOT NW Region Pavement Engineer) |

The responsibility for notifying potential subcontractors and suppliers of these changes remains with the prime contractor.

Sincerely,

Mike Coleman

Proposal Development Specialist
Proposal Management Section

ADDENDUM NO. 02

7620-00-70

February 8, 2023

Special Provisions

3. Prosecution and Progress.

Delete paragraph four.

18. DELETED

Schedule of Items

Attached, dated February 8, 2023, are the revised Schedule of Items Page 6.

Plan Sheets

The following 8½ x 11-inch sheets are attached and made part of the plans for this proposal:

Revised: 50

Deleted: 15 – 17.

END OF ADDENDUM



Proposal Schedule of Items

Proposal ID: 20230214045 Project(s): 7620-00-70

Federal ID(s): N/A

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

| Proposal Line Number | Item ID Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|----------------------|--|--------------------------------|------------|------------|
| 0160 | 646.9000 Marking Removal Line 4-Inch | 1,800.000 LF | _____ | _____ |
| 0162 | 650.4500 Construction Staking Subgrade | 1,150.000 LF | _____ | _____ |
| 0164 | 650.5000 Construction Staking Base | 1,150.000 LF | _____ | _____ |
| 0166 | 650.6000 Construction Staking Pipe Culverts | 9.000 EACH | _____ | _____ |
| 0168 | 650.8000 Construction Staking Resurfacing Reference | 27,600.000 LF | _____ | _____ |
| 0170 | 650.9911 Construction Staking Supplemental Control (project) 01. 7620-00-70 | 1.000 EACH | _____ | _____ |
| 0172 | 650.9920 Construction Staking Slope Stakes | 1,150.000 LF | _____ | _____ |
| 0174 | 661.0101 Temporary Traffic Signals for Bridges (structure) 01. B-55-0088 | 1.000 EACH | _____ | _____ |
| 0176 | 690.0150 Sawing Asphalt | 1,250.000 LF | _____ | _____ |
| 0178 | 740.0440 Incentive IRI Ride | 20,900.000 DOL | 1.00000 | 20,900.00 |
| 0180 | SPV.0060 Special 01. Apron Endwalls for Culvert Pipe RCHE 72x113-Inch | 6.000 EACH | _____ | _____ |
| 0182 | SPV.0060 Special 02. Landmark Reference Monuments Special | 12.000 EACH | _____ | _____ |
| 0184 | SPV.0060 Special 03. Verify Landmark Reference Monuments Special | 12.000 EACH | _____ | _____ |
| 0186 | SPV.0090 Special 01. Culvert Pipe RCHE Class HE-IV 72x113-Inch | 258.000 LF | _____ | _____ |
| Section: 0001 | | | Total: | _____ |



Wisconsin Department of Transportation

Division of Transportation Systems Development

Bureau of Project Development
4822 Madison Yards Way, 4th Floor South
Madison, WI 53705

February 9, 2023

Telephone: (608) 266-1631
Facsimile (FAX): (608) 266-8459

NOTICE TO ALL CONTRACTORS:

**Proposal #45: 7620-00-70
Elmwood – STH 64
STH 29 to USH 12
STH 128
St. Croix County**

Letting of February 14, 2023

This is Addendum No. 03, 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 |
| 520.8700 | Cleaning Culvert Pipes | Each | 7 | -3 | 4 |

Plan Sheets:

| Revised Plan Sheets | |
|---------------------|--|
| Plan Sheet | Plan Sheet Title (brief description of changes to sheet) |
| 50 | Miscellaneous Quantities (Cleaning Culvert Pipes (520.8700) quantity revised to 4 each.) |

Schedule of Items

Attached, dated February 9, 2023, are the revised Schedule of Items Pages 3.

Plan Sheets

The following 8½ x 11-inch sheets are attached and made part of the plans for this proposal:

Revised: 50

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

| ASPHALT INTERSECTION RUMBLE STRIPS | | | ASPHALTIC CENTERLINE RUMBLE STRIPS 2-LANE RURAL | | | CONCRETE BARRIER TEMPORARY PRECAST | | | WATER | | | |
|------------------------------------|------------------|------------------|---|------------------|------------------|------------------------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| STATION-LOCATION | STATION-LOCATION | STATION-LOCATION | STATION-LOCATION | STATION-LOCATION | STATION-LOCATION | STATION-LOCATION | STATION-LOCATION | STATION-LOCATION | STATION-LOCATION | STATION-LOCATION | STATION-LOCATION | STATION-LOCATION |
| 23+40-29+40 | 21+15-23+00 | 27+00-35+20 | 21+15-23+00 | 27+00-35+20 | 27+00-35+20 | 223+75-229+25 | 19+40-173+20 | 19+40-173+20 | 19+40-173+20 | 106+00-107+50 | 106+00-107+50 | 106+00-107+50 |
| 318+25-322+25 | 40+65-75+70 | 79+70-97+40 | 40+65-75+70 | 79+70-97+40 | 98+40-128+50 | 223+75-229+25 | 116+50-118+00 | 116+50-118+00 | 116+50-118+00 | 131+69-133+00 | 131+69-133+00 | 131+69-133+00 |
| TOTAL = 200 | 185 | 3,870 | 185 | 3,870 | 3,870 | TOTALS = | 148+50-150+00 | 148+50-150+00 | 148+50-150+00 | 173+20-236+35 | 173+20-236+35 | 173+20-236+35 |
| | 820 | 430 | 820 | 430 | 430 | | 176+50-178+00 | 176+50-178+00 | 176+50-178+00 | 212+50-214+00 | 212+50-214+00 | 212+50-214+00 |
| | 3,505 | 2,515 | 3,505 | 2,515 | 2,515 | | 226+50-227+60 | 226+50-227+60 | 226+50-227+60 | 263+60-322+30 | 263+60-322+30 | 263+60-322+30 |
| | 1,770 | 3,665 | 1,770 | 3,665 | 3,200 | | DRIVEWAY | DRIVEWAY | DRIVEWAY | SIDEROADS | SIDEROADS | SIDEROADS |
| | 98+40-128+50 | 181+50-206+65 | 214+30-234+25 | 181+50-206+65 | 232+20-234+25 | | TOTAL = | TOTAL = | TOTAL = | TOTAL = | TOTAL = | TOTAL = |
| | 132+50-171+20 | 208+65-212+30 | 214+30-234+25 | 208+65-212+30 | 232+20-234+25 | | 61 | 61 | 61 | 61 | 61 | 61 |
| | 175+20-179+50 | 263+60-265+00 | 269+00-277+60 | 175+20-179+50 | 263+60-265+00 | | | | | | | |
| | 181+50-206+65 | 279+60-286+45 | 290+45-322+30 | 181+50-206+65 | 279+60-286+45 | | | | | | | |
| | 208+65-212+30 | TOTAL = | 23,050 | 208+65-212+30 | TOTAL = | | | | | | | |
| | 214+30-234+25 | | | 214+30-234+25 | | | | | | | | |
| | 263+60-265+00 | | | 263+60-265+00 | | | | | | | | |
| | 269+00-277+60 | | | 269+00-277+60 | | | | | | | | |
| | 279+60-286+45 | | | 279+60-286+45 | | | | | | | | |
| | 290+45-322+30 | | | 290+45-322+30 | | | | | | | | |
| | TOTAL = | | | TOTAL = | | | | | | | | |
| | 23,050 | | | 23,050 | | | | | | | | |

| TEMPORARY SHORING | | | RIPRAP MEDIUM & GEOTEXTILE FABRIC TYPE HR | | |
|-------------------|------------------|------------------|---|------------------|------------------|
| STATION-LOCATION | STATION-LOCATION | STATION-LOCATION | STATION-LOCATION | STATION-LOCATION | STATION-LOCATION |
| 228+10-226+65 | 628 1910 | 606 0200 | 646 0120 | 606 0200 | 646 0120 |
| TOTAL = 845 | 628 1910 | 606 0200 | 646 0120 | 606 0200 | 646 0120 |
| | EROSION CONTROL | EROSION CONTROL | EROSION CONTROL | EROSION CONTROL | EROSION CONTROL |
| | 5 | 5 | 5 | 5 | 5 |
| | 3 | 3 | 3 | 3 | 3 |
| | TOTALS = | TOTALS = | TOTALS = | TOTALS = | TOTALS = |
| | 5 | 5 | 5 | 5 | 5 |

| CULVERT PIPES | | | | | | | | | | | |
|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| STATION-LOCATION | STATION-LOCATION | STATION-LOCATION | STATION-LOCATION | STATION-LOCATION | STATION-LOCATION | STATION-LOCATION | STATION-LOCATION | STATION-LOCATION | STATION-LOCATION | STATION-LOCATION | STATION-LOCATION |
| 39+70 | 520 8700 | 520 9700.S | 520 9700.S | 520 1024 | 520 1036 | 520 1036* | 520 1036* | 520 333* | 520 333* | 520 3336* | 650 6000 |
| 52+14 | CLEANING | CULVERT | CULVERT | APRON | APRON | CULVERT | CULVERT | CULVERT | CULVERT | CULVERT | CONSTRUCTION |
| 55+37 | PIPES | PIPER | PIPER | ENDWALLS | ENDWALLS | PIPE | PIPE | PIPE | PIPE | PIPE | STAKING |
| 119+64 | 01.24-INCH | 02.36-INCH | 02.36-INCH | FOR CULVERT | FOR CULVERT | CLASS III-A | CLASS III-A | CLASS III-A | CLASS III-A | CLASS III-A | PIPE |
| 132+39 | (EACH) | (EACH) | (EACH) | PIPES | PIPES | 30-INCH | 30-INCH | 30-INCH | 30-INCH | 30-INCH | CULVERTS |
| 147+14 | 1 | 1 | 1 | 38-INCH | 38-INCH | (LF) | (LF) | (LF) | (LF) | (LF) | (EACH) |
| 149+14 | 1 | 1 | 1 | (EACH) | (EACH) | 132 | 132 | 132 | 132 | 86 | 9 |
| 171+13 | 1 | 1 | 1 | 2 | 2 | 118 | 118 | 118 | 118 | 86 | 9 |
| 177+06 | 1 | 1 | 1 | 2 | 2 | 62 | 62 | 62 | 62 | 86 | 9 |
| 196+38 | 1 | 1 | 1 | 2 | 2 | 62 | 62 | 62 | 62 | 86 | 9 |
| 213+04 | 1 | 1 | 1 | 2 | 2 | 62 | 62 | 62 | 62 | 86 | 9 |
| 308+15 | 1 | 1 | 1 | 2 | 2 | 62 | 62 | 62 | 62 | 86 | 9 |
| 226+34 (1) | 1 | 1 | 1 | 2 | 2 | 62 | 62 | 62 | 62 | 86 | 9 |
| 226+48 (1) | 1 | 1 | 1 | 2 | 2 | 62 | 62 | 62 | 62 | 86 | 9 |
| 226+61 (1) | 1 | 1 | 1 | 2 | 2 | 62 | 62 | 62 | 62 | 86 | 9 |
| TOTALS = | 9 | 156 | 242 | 8 | 2 | 340 | 340 | 132 | 132 | 86 | 9 |

Addendum No. 03
 IF 7620-00-70
 Revised Sheet 50
 February 9, 2023

| CRASH CUSHION | | | | | | | | | | | |
|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| STATION-LOCATION | STATION-LOCATION | STATION-LOCATION | STATION-LOCATION | STATION-LOCATION | STATION-LOCATION | STATION-LOCATION | STATION-LOCATION | STATION-LOCATION | STATION-LOCATION | STATION-LOCATION | STATION-LOCATION |
| 224+50 | 6140695 | 6140695 | 6140695 | 6140695 | 6140695 | 6140695 | 6140695 | 6140695 | 6140695 | 6140695 | 6140695 |
| 228+40 | TEMPORARY | TEMPORARY | TEMPORARY | TEMPORARY | TEMPORARY | TEMPORARY | TEMPORARY | TEMPORARY | TEMPORARY | TEMPORARY | TEMPORARY |
| TOTAL = 2 | (EACH) | (EACH) | (EACH) | (EACH) | (EACH) | (EACH) | (EACH) | (EACH) | (EACH) | (EACH) | (EACH) |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| | OM3-R (W03-58R) | OM3-R (W03-58R) | OM3-R (W03-58R) | OM3-R (W03-58R) | OM3-R (W03-58R) | OM3-R (W03-58R) | OM3-R (W03-58R) | OM3-R (W03-58R) | OM3-R (W03-58R) | OM3-R (W03-58R) | OM3-R (W03-58R) |
| | TL-3 | TL-3 | TL-3 | TL-3 | TL-3 | TL-3 | TL-3 | TL-3 | TL-3 | TL-3 | TL-3 |
| | CRASH TEST LEVEL | CRASH TEST LEVEL | CRASH TEST LEVEL | CRASH TEST LEVEL | CRASH TEST LEVEL | CRASH TEST LEVEL | CRASH TEST LEVEL | CRASH TEST LEVEL | CRASH TEST LEVEL | CRASH TEST LEVEL | CRASH TEST LEVEL |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | TOTAL = | TOTAL = | TOTAL = | TOTAL = | TOTAL = | TOTAL = | TOTAL = | TOTAL = | TOTAL = | TOTAL = | TOTAL = |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |

| MISCELLANEOUS QUANTITIES | | | | | | | | | | | | | |
|--------------------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|---------------|--|
| PROJECT NO: | 7620-00-70 | HWY: | STH 128 | COUNTY: | ST. CROIX | PROJECT NO: | 7620-00-70 | HWY: | STH 128 | COUNTY: | ST. CROIX | | |
| FILE NAME: | R:\PROJECTS\W1600\STH 128 CULVERT REPLACEMENT\ST CROIX\CO SHEETS\LANDDETAILS\W1600_MISC\MISCELLANEOUS QUANTITIES.DWG | FILE NAME: | R:\PROJECTS\W1600\STH 128 CULVERT REPLACEMENT\ST CROIX\CO SHEETS\LANDDETAILS\W1600_MISC\MISCELLANEOUS QUANTITIES.DWG | FILE NAME: | R:\PROJECTS\W1600\STH 128 CULVERT REPLACEMENT\ST CROIX\CO SHEETS\LANDDETAILS\W1600_MISC\MISCELLANEOUS QUANTITIES.DWG | FILE NAME: | R:\PROJECTS\W1600\STH 128 CULVERT REPLACEMENT\ST CROIX\CO SHEETS\LANDDETAILS\W1600_MISC\MISCELLANEOUS QUANTITIES.DWG | FILE NAME: | R:\PROJECTS\W1600\STH 128 CULVERT REPLACEMENT\ST CROIX\CO SHEETS\LANDDETAILS\W1600_MISC\MISCELLANEOUS QUANTITIES.DWG | FILE NAME: | R:\PROJECTS\W1600\STH 128 CULVERT REPLACEMENT\ST CROIX\CO SHEETS\LANDDETAILS\W1600_MISC\MISCELLANEOUS QUANTITIES.DWG | FILE NAME: | R:\PROJECTS\W1600\STH 128 CULVERT REPLACEMENT\ST CROIX\CO SHEETS\LANDDETAILS\W1600_MISC\MISCELLANEOUS QUANTITIES.DWG |
| LAAYOUT NAME: | 2 | LAAYOUT NAME: | 2 | LAAYOUT NAME: | 2 | LAAYOUT NAME: | 2 | LAAYOUT NAME: | 2 | LAAYOUT NAME: | 2 | LAAYOUT NAME: | |
| DATE: | 2/9/2023 2:06 PM | DATE: | 2/9/2023 2:06 PM | DATE: | 2/9/2023 2:06 PM | DATE: | 2/9/2023 2:06 PM | DATE: | 2/9/2023 2:06 PM | DATE: | 2/9/2023 2:06 PM | DATE: | |
| DESIGNER: | KARTER ZANICK | DESIGNER: | KARTER ZANICK | DESIGNER: | KARTER ZANICK | DESIGNER: | KARTER ZANICK | DESIGNER: | KARTER ZANICK | DESIGNER: | KARTER ZANICK | DESIGNER: | |
| CHECKER: | | CHECKER: | | CHECKER: | | CHECKER: | | CHECKER: | | CHECKER: | | CHECKER: | |
| DATE: | | DATE: | | DATE: | | DATE: | | DATE: | | DATE: | | DATE: | |
| PROJECT NO: | 7620-00-70 | PROJECT NO: | 7620-00-70 | PROJECT NO: | 7620-00-70 | PROJECT NO: | 7620-00-70 | PROJECT NO: | 7620-00-70 | PROJECT NO: | 7620-00-70 | PROJECT NO: | |
| SHEET: | 50 | SHEET: | 50 | SHEET: | 50 | SHEET: | 50 | SHEET: | 50 | SHEET: | 50 | SHEET: | |



Proposal Schedule of Items

Proposal ID: 20230214045 Project(s): 7620-00-70

Federal ID(s): N/A

SECTION: 0001

Contract Items

Alt Set ID:

Alt Mbr ID:

| Proposal Line Number | Item ID Description | Approximate Quantity and Units | Unit Price | Bid Amount |
|----------------------|---|--------------------------------|------------|------------|
| 0062 | 511.1100 Temporary Shoring | 845.000 SF | _____. | _____. |
| 0064 | 520.1024 Apron Endwalls for Culvert Pipe 24-Inch | 8.000 EACH | _____. | _____. |
| 0066 | 520.1030 Apron Endwalls for Culvert Pipe 30-Inch | 2.000 EACH | _____. | _____. |
| 0068 | 520.1036 Apron Endwalls for Culvert Pipe 36-Inch | 2.000 EACH | _____. | _____. |
| 0070 | 520.3324 Culvert Pipe Class III-A 24-Inch | 340.000 LF | _____. | _____. |
| 0072 | 520.3330 Culvert Pipe Class III-A 30-Inch | 132.000 LF | _____. | _____. |
| 0074 | 520.3336 Culvert Pipe Class III-A 36-Inch | 86.000 LF | _____. | _____. |
| 0076 | 520.8700 Cleaning Culvert Pipes | 4.000 EACH | _____. | _____. |
| 0078 | 520.9700.S Culvert Pipe Liners (size) 01. 24-Inch | 156.000 LF | _____. | _____. |
| 0080 | 520.9700.S Culvert Pipe Liners (size) 02. 36-Inch | 242.000 LF | _____. | _____. |
| 0082 | 520.9750.S Cleaning Culvert Pipes for Liner Verification | 3.000 EACH | _____. | _____. |
| 0084 | 603.8000 Concrete Barrier Temporary Precast Delivered | 550.000 LF | _____. | _____. |
| 0086 | 603.8125 Concrete Barrier Temporary Precast Installed | 1,100.000 LF | _____. | _____. |
| 0088 | 606.0200 Riprap Medium | 24.000 CY | _____. | _____. |
| 0090 | 606.0300 Riprap Heavy | 70.000 CY | _____. | _____. |
| 0092 | 614.0905 Crash Cushions Temporary | 2.000 EACH | _____. | _____. |

