

# HIGHWAY WORK PROPOSAL

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

Proposal Number: **019**

<u>COUNTY</u>	<u>STATE PROJECT</u>	<u>FEDERAL</u>	<u>PROJECT DESCRIPTION</u>	<u>HIGHWAY</u>
Douglas	1195-00-66	N/A	Solon Springs - Superior; Bayfield Road To Sth 13	USH 002

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: \$40,000.00 Payable to: Wisconsin Department of Transportation	Attach Proposal Guaranty on back of this PAGE.
Bid Submittal Date: September 12, 2023 Time (Local Time): 11:00 am	Firm Name, Address, City, State, Zip Code  <div style="text-align: center;"><b>SAMPLE NOT FOR BIDDING PURPOSES</b></div>
Contract Completion Time June 21, 2024	
Assigned Disadvantaged Business Enterprise Goal <b>0%</b>	
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

<b>Type of Work:</b> Grading, Base, Asphalt Pavement, Fencing, Culvert Pipe Liners	<b>For Department Use Only</b>
Notice of Award Dated	Date Guaranty Returned

**PLEASE ATTACH  
PROPOSAL GUARANTY HERE**

## PROPOSAL REQUIREMENTS AND CONDITIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

## BID PREPARATION

### Preparing the Proposal Schedule of Items

#### A. General

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

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

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

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

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

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

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

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

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

## B. Submitting Electronic Bids

### B.1 On the Internet

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

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

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

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

**Bidder Name**

**BN00**

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

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

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

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

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

**PROPOSAL BID BOND**

DT1303 1/2006

Wisconsin Department of Transportation

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

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

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

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

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

**PRINCIPAL**

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

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

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

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

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

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

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

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

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

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

**NOTARY FOR PRINCIPAL**

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

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

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

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

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

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

**Notary Seal**

**NOTARY FOR SURETY**

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

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

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

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

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

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

**Notary Seal**

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



# CERTIFICATE OF ANNUAL BID BOND

DT1305 8/2003

Wisconsin Department of Transportation

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

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

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

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

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

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



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

### Instructions for Certification

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

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

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

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

## Special Provisions

### Table of Contents

<b>Article</b>	<b>Description</b>	<b>Page #</b>
1.	General.....	2
2.	Scope of Work.....	2
3.	Prosecution and Progress.....	2
4.	Traffic.....	4
5.	Holiday and Special Event Work Restrictions.....	5
6.	Utilities.....	5
7.	Information to Bidders, U.S. Army Corps of Engineers Section 404 Permit.....	5
8.	Environmental Protection, Aquatic Exotic Species Control.....	5
9.	Backfill Controlled Low Strength, Item 209.0200.S.....	6
10.	Cleaning Culvert Pipes for Liner Verification, Item 520.9750.S.....	7
11.	Culvert Grouting, Item SPV.0035.01.....	8
12.	Subsurface Exploration, Item SPV.0060.01.....	9
13.	Culvert Pipe Liner, 72-Inch, Item SPV.0090.01.....	10
14.	UV GRP CIPP 72-Inch, Item SPV.0090.03.....	12
15.	Select Crushed Material for Stream Bed, Item SPV.0195.01.....	20

## STSP'S Revised January 13, 2023

### SPECIAL PROVISIONS

#### 1. General.

Perform the work under this construction contract for Project 1195-00-66, Solon Springs - Superior, Bayfield Road to STH 13, USH 2, Douglas 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 (20230113)

#### 2. Scope of Work.

The work under this contract shall consist of grading, riprap, culvert pipe lining, erosion control, traffic control, restoration, 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 start date to the engineer in writing within 14 calendar days after executing the contract but at least 7 calendar days before the preconstruction conference. Upon approval, the engineer will issue the notice to proceed within 10 calendar days before the approved start date.

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

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

The project will be broken into two stages:

##### Stage 1:

Install 72-inch liner culvert at Station 401+56 and other improvements. Install shoulder and other corrective action at Station 368+21 except the liner.

##### Stage 2:

Install 72-Inch liner culvert at Station 368+21.

#### **Interim Completion and Liquidated Damages – USH 2: November 10, 2023**

Complete construction operations on USH 2 to the stage necessary to reopen it to through traffic by November 10, 2023. Do not reopen until all work is completed at both pipe lining locations except the installation of the UV GRP CIPP 72-Inch

If the contractor fails to complete the work necessary to reopen USH 2 to traffic by November 10, 2023, the department will assess the contractor \$1045 in interim liquidated damages for each calendar day the contract work remains incomplete beyond 12:01 AM on November 11, 2023. An entire calendar day will be charged for any period of time within a calendar day that the road remains closed beyond 12:01 AM.

If contract time expires prior to completing all work specified in the contract, additional liquidated damages will be affixed according to standard spec 108.11.

## **Winter Shutdown**

Winter shutdown will commence with the November 10, 2023 interim completion date. Do not resume work in 2024 when the 72-inch liner can be installed. Provide a start date in writing at least 14 days prior to the planned recommencement of work in 2024. Upon approval the engineer will issue the notice to proceed within 10 days of the approved start date.

## **Migratory Birds**

No evidence of swallow or other migratory bird nests have been observed on or under the following structures(s) during the preconstruction inspection. However, if nesting is later observed prior to or during construction, the contractor shall implement avoidance/deterrent measures or obtain a depredation permit. All active nests (when eggs or young are present) of migratory birds are protected under the federal Migratory Bird Treaty Act. The nesting season for swallows and other birds is from May 1 to August 31.

- Station 401+39 Westbound

## **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. Tree clearing areas specified in plans are not considered suitable summer habitat for NLEB and no tree clearing restrictions apply to those locations. 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.

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

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.

## **Oak Wilt**

Pruning or cutting of oaks should occur prior to April 1 or after September 30. If pruning or cutting of healthy oaks is necessary from April 1 through September 30 immediately paint, with asphalt base tree paint, all cut surfaces, abrasions and damaged areas on healthy oak trees and saplings. Cut surfaces on the stumps of all healthy oak trees and saplings, regardless of whether the stumps are to remain in place or are to be grubbed. Paint with asphalt base tree paint. Contact the county forester before clearing, cutting, or pruning any oak tree that appears to be wilting or under stress.

## Inadvertent Discovery

In the event an Inadvertent Discovery (ID) occurs at any phase of a project or undertaking as defined, and human remains, or archaeological materials are exposed as a result of project activities, cease work immediately. Contact the FCPC Tribe and SHPO in any consultation regarding treatment and disposition of the find.

## In-Water Disturbance

There shall be no instream disturbance of Morrison Creek and the tributary to the Amnicon River as a result of construction activity under or for this contract, from March 1 to June 15, both dates inclusive, in order to avoid adverse impacts.

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.

## 4. Traffic.

Keep one lane of USH 2/USH 53 westbound open at all times. The other westbound lane may be closed for construction.

## Wisconsin Lane Closure System Advance Notification

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

**TABLE 108-1 CLOSURE TYPE AND REQUIRED MINIMUM ADVANCE NOTIFICATION**

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

## Temporary Regulatory Speed Limit Reduction

During engineer-approved regulatory speed limit reductions, install temporary speed limit signs on the inside and outside shoulders of divided roadways to enhance visibility. On two-lane, two-way roadways, install temporary speed limit signs on shoulders. When construction activities impede the location of a post-mounted regulatory speed limit sign, relocate the sign for maximum visibility to motorists. If work lasts less than seven days, mount the regulatory speed limit sign on a portable sign support.

Post temporary regulatory speed limit signs in work zone only during continuous worker activity. During periods of no work activity or when the traffic controls are removed from the roadway, cover or remove the temporary speed limit signs.



## 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 USH 2 traffic, and entirely clear the traveled way and shoulders of such portions of the highway of equipment, barricades, signs, lights, and any other material that might impede the free flow of traffic during the following holiday and special event periods:

- From noon Friday, May 24, 2024 to 6:00 AM Tuesday, May 28, 2024 for Memorial Day.

stp-107-005 (20210113)

## 6. **Utilities.**

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

stp-107-065 (20080501)

There are no utility facilities in the project limits.

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

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

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

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

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

## 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. Backfill Controlled Low Strength, Item 209.0200.S.

### A Description

This special provision describes furnishing and placing a controlled low strength material designed for use as backfill in trenches for culverts, sewers, utilities, or similar structures, as backfill behind bridges abutments, or as fill for the abandonment of culverts, pipes, or tanks.

### B Materials

Provide controlled low strength backfill that consists of a designed cementitious mixture of natural or processed materials. Allowable materials include natural sand, natural gravel, produced sand, foundry sand, produced gravel, fly ash, Portland cement, and other broken or fragmented mineral materials. The designed mixture shall be self-leveling and shall be free of shrinkage after hardening. Design the mixture to reach a state of hardening such that it can support foot traffic in no more than 24 hours. Provide a mixture that also meets the following requirements.

TEST	METHOD	VALUE
Flow (inch)	ASTM D-6103	9 min
Compressive	ASTM D-6024	20-40 @ 14 days
Strength (psi)		40-80 @ 28 days 80-120 @ 90 days

Chemical admixtures to control air content and setting time are allowable. Ten days before placement, furnish the engineer with a design mix detailing all components and their proportions in the mix.

### C Construction

Place controlled low strength backfill at the locations and to the lines and grades as shown on the plan. Proportion and mix materials to produce a product of consistent texture and flow characteristics. The engineer may reject any materials exhibiting a substantial change in properties, appearance, or composition.

If the official Weather Bureau forecast for the construction site predicts temperatures at or below freezing within the next 24 hours after placement of controlled low strength backfill, protect the placed materials from freezing during that time period. If the temperature is not forecast to rise above 40° F for 72 hours after placement, the engineer may require protection from freezing for up to 72 hours.

No controlled low strength backfill shall be allowed to enter any stream, lake, or sewer system. The contractor shall be responsible for any clean up or remediation costs resulting from such occurrences.

## D Measurement

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

## E Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
209.0200.S	Backfill Controlled Low Strength	CY

Payment is full compensation for designing the mix; supplying all materials; preparing the proportioned mix; hauling it to the construction site; placing the material; and protecting it from freezing.

stp-209-010 (20191121)

## 10. Cleaning Culvert Pipes for Liner Verification, Item 520.9750.S.

### A Description

This special provision describes cleaning culvert pipes for culvert pipe liners for circular culverts.

### B (Vacant)

### 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.

### D Measurement

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
520.9750.S	Cleaning Culvert Pipes for Liner Verification	EACH

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.

## 11. Culvert Grouting, Item SPV.0035.01.

### A Description

This special provision describes preparing the existing culvert at Station 368+21 westbound for lining including wholly or partially removing damaged portions of the culvert, grouting the culvert floor to facilitate lining, and disposing of the resulting materials.

### B Materials

#### B.1 General

Provide written plans and/or drawings depicting the intended work at the preconstruction conference. Coordinate with the engineer before commencing culvert lining preparation. Include a list of intended materials with appropriate submittals as applicable.

Bypass pumping or flow diversion is the responsibility of the contractor. If dewatering/bypass operations are required from one pipe structure to another pipe structure or from the upstream to downstream end of a culvert and the bypass flow is not transporting sediments (sand, silt, and clay particles) from a tributary work site area, bypass pumping operations will be allowed provided that the department has been made aware of and approves operation. When pumping bypass flows, the discharge location will need to be stable and not produce any erosion from the discharge velocity that would cause release of sediment downstream. If dewatering operations require pumping of water containing sediments (sand, silt, and clay particles), the discharge will not be allowed to leave the work site or discharge to a storm water conveyance system without sediment removal treatment. Refer to WDNR Technical Standards for Dewatering as applicable. [https://dnr.wisconsin.gov/topic/Stormwater/standards/const\\_standards.html](https://dnr.wisconsin.gov/topic/Stormwater/standards/const_standards.html)

#### B.2 Grout

Provide grout consisting of the following:

##### B.2.1 Cement

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

##### B.2.2 Fly Ash

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

##### B.2.3 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.2.4 Water

Provide water meeting the requirements of standard spec 501.2.6.

##### B.2.5 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 the engineer with a design mix detailing all components and their proportions in the mix.

##### B.2.6 Fluidity

The engineer will visually monitor fluidity. Provide sufficient fluidity to completely fill the space and produce a level surface without manipulation after discharge.

## **C Construction**

### **C.1 General**

Remove those parts of the existing culvert that interfere with lining or may damage, deform, or puncture the liner during lining or grouting operations. Do not use equipment, facilities, or methods that might damage members, portions of the structure to be preserved, or adjacent construction. Before starting new work, complete operations that might endanger the new work. Remove interfering materials in a way that leaves the remainder of the structure undamaged. Repair damage to unlined portions of the culvert done during breaking down and removal as the engineer directs.

### **C.2 Grouting**

Fill voids in the culvert with grout and shape to match interior pipe wall. Proportion and mix materials to produce a product of consistent texture and flow characteristics. The engineer may reject any materials exhibiting a substantial change in properties, appearance, or composition. If the official Weather Bureau forecast for the construction site predicts temperatures at or below freezing within the next 24 hours after placement of grout, protect the placed materials from freezing during that time period. If the temperature is not forecast to rise above 40° F for 72 hours after placement, the engineer may require protection from freezing for up to 72 hours. No grout shall be allowed to enter any stream, lake, or sewer system. The contractor shall be responsible for any clean up or remediation costs resulting from such occurrences.

### **D Measurement**

The department will measure culvert grouting by the cubic yard of material, placed and accepted.

### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0035.01	Culvert Grouting	CY

Payment is full compensation for wholly or partially removing damaged portions of the culvert; for designing the mix; supplying all materials; preparing the proportioned mix; hauling it to the construction site; placing the material; and protecting it from freezing; and disposing of the resulting waste materials.

## **12. Subsurface Exploration, Item SPV.0060.01.**

### **A Description**

This special provision describes the excavation to find the void in the shoulder and reconstruction of the median shoulder at 368+21 westbound.

### **B (Vacant)**

### **C Construction**

Excavate the area as specified by the engineer to a depth of 18 inches to expose any possible voids in the shoulder and shoulder fore slope. Excavation may include base aggregate and asphaltic shoulder material. If voids are found backfill with 209.0200.S Backfill Controlled Low Strength until void is filled to bottom of excavation. Shape shoulder to match existing grades.

### **D Measurement**

The department will measure Subsurface Exploration as each location, acceptably completed.

### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.01	Subsurface Exploration	EACH

Payment for the Subsurface Exploration bid item is full compensation for any hauling; excavation; restoring the grade and disposing of waste materials.

The department will pay separately for base aggregate the contract or engineer requires under the Base Aggregate bid items.

The department will pay separately for asphaltic surface the contract or engineer requires under the Asphaltic Surface bid item.

The department will pay separately for sawing asphalt the contract or engineer requires under the Sawing Asphalt bid item.

**13. Culvert Pipe Liner, 72-Inch, Item SPV.0090.01.**

**A Description**

This special provision describes providing, verifying, and pressure grouting a minimum 60” inside diameter liner for an existing 72” reinforced concrete culvert pipe.

**B Materials**

**B.1 General**

Provide a liner with a minimum 60” inside diameter.

**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/AASHTO Designation	ASTM D3350 Resin
<b>High Density Polyethylene (HDPE)</b>		
Profile Wall Pipe	ASTM F894	345463C
Solid Wall Pipe	ASTM F714	345463C
<b>Polyvinylchloride (PVC)</b>	ASTM F949	---
<b>Steel Reinforced Polyethylene (SRPE)</b>	ASTM F2562 AASHTO M335 (12- to 60-in. Dia.) AASHTO MP40 (66- to 120-in. Dia.)	345463C

**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 specs 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 72-Inch 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 72-Inch Culvert Pipe Liners bid items by the linear foot measured in place for each culvert location, acceptably completed.

### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.01	Culvert Pipe Liner 72-Inch	LF

Payment 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.

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.

## **14. UV GRP CIPP 72-Inch, Item SPV.0090.03.**

### **A Description**

This special provision describes furnishing, preparing, installing, and verifying ultraviolet (UV) glass reinforced plastic (GRP) cured-in-place-pipe (CIPP) liners for storm sewer or culvert pipe that when cured provides a structurally sound, smooth, joint less and watertight pipe.



## **A.1 Referenced Documents**

The following documents form a part of this specification to the extent stated herein:

- ASTM F2019 Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Pulled in Place Installation of Glass Reinforced Plastic (GRP) Cured-in-Place Resin Pipe (CIPP)
- ASTM F1216 Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin-Impregnated Tube
- ASTM F1743 Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Pull In and Inflate and Curing of a Resin-Impregnated Tube
- ASTM D543 Test Method for Resistance of Plastics to Chemical Reagents
- ASTM D578 Standard Specification Glass Fiber Strands
- ASTM D638 Standard Test Method for Tensile Properties of Plastics
- ASTM D790 Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials
- ASTM D2122 Standard 1 Test Method for Determining Dimensions of Thermoplastic Pipe and Fittings
- ASTM D3567 Standard Practice for Determining Dimensions of “Fiberglass” (Glass- Fiber Reinforced Thermosetting Resin) Pipe and Fittings
- ASTM D5813 Standard Specification for Cured-in Place Thermosetting Resin Sewer Pipe

## **B Materials**

### **B.1 General**

Provide a UV cured GRP system adhering to ASTM F2019 that has a minimum 500,000 linear feet or 1000 lined sections of successful installations in the United States and that has been continuously available and in service for a minimum of 5 years.

Allow the engineer to inspect all liner to be installed under this work at the manufacturer’s plant(s) and wet-out facility for compliance with these specifications if requested. Require the wet-out facility's cooperation in these inspections.

### **B.2 Glass Fiber Tube**

Furnish a flexible fiber glass tube meeting the requirements of ASTM F2019 as appropriate that when installed, will tightly fit the internal circumference and length of the original pipe. Provide a glass fiber tube that is homogeneous throughout, uniform in color, free of cracks, holes, foreign materials, blisters, and deleterious faults. Inspect glass fiber tube for defects at time of manufacturer and prior to installation.

Fabricate any seams in the tube stronger than the unseamed material. Do not utilize overlapped layers of the tube in longitudinal seams that cause lumps in the final product. Do not form joints perpendicular to the long axis. The tube shall be homogeneous across the entire wall thickness containing no intermediate or encapsulated elastomeric layers. No material included in the tube may cause delamination in the cured CIPP.

Utilize an outer and inner film to ensure that the liner remains intact during the insertion process and to protect the resin at all times during the installation and curing process from water and debris contamination, and resin migration. Provide film materials that are both impervious to airborne styrene, with the outer material also having UV blocking characteristics.

Conduct tube wet out in an indoor environmentally controlled manufacturing setting with a quality management system registered according to and conforming with the current ISO 9001 standard or having implemented a quality system similar to that in the ISO 9001 requirements. Ensure that proper materials and amounts are used in the resin saturation process and in liner shipping and storage.

No onsite wet out will be allowed. The engineer may inspect the wet out facility at the manufacturer's plant(s) for compliance with these specifications. Fully impregnate the glass fiber tube with the appropriate resin using system under manufacturer quality controlled. Minimize air entrapment to the lowest possible amount. No dry or unsaturated layers shall be evident.

Provide a wet out tube that when compressed at installation pressures will meet or exceed the design thickness. Construct the tube to withstand installation pressures and curing temperatures, have sufficient strength to bridge missing pipe, stretch to fit irregular pipe sections, and invert smoothly around bends.

Mark the tube for distance at regular intervals along its entire length, not to exceed 5 feet. Include the manufacturers name or identifying symbol.

The liner should be seamless in its cured state to ensure homogenous physical properties around the circumference of the cured liner. The wall color of the interior pipe surface of CIPP after installation shall be a light reflective color so that a clear detailed examination with closed circuit television inspection equipment may be made.

Obtain compound samples and prepare test specimens according to the latest applicable ASTM standards from the manufacturer if directed by the engineer.

**B.3 Resin**

Furnish a corrosion resistant polyester, vinyl ester, or orthothalic (either ppg or npg grade) and catalyst resin system, compatible with the installation process, that when properly cured within the tube creates a composite that meets the requirements of ASTM F1216, ASTM D5813, and ASTM F2019, the physical properties in Table 1, and those requirements which are to be utilized in the structural design of the CIPP for this project. Resins created from recycled materials are not allowed.

**Table 1 CIPP Minimum Physical Properties**

Flexural Modulus (minimum)	725,000 psi
Flexural Strength (minimum)	15,000 psi
Long term E-modulus	675,000 psi
Long term tensile bending strength	13,500 psi

Use resin requiring a UV light to cure the liner. A photo-initiator system must be added to the resin prior to the impregnation. The photo-initiator system shall be tuned to the UV-curing equipment used or vice-versa. The liquid UV resin shall saturate the tube and produce a properly cured liner, which is resistant to abrasion due to solids, grit, and sand.

**B.4 Structural Requirements**

A minimum of 14 days prior to delivery of the liner materials, submit design calculations prepared by an engineer licensed in the State of Wisconsin that meet the requirements of the manufacturer and that are designed as suggested by ASTM F2019, Appendix X1. The designer may use ASTM F1216, Appendix XI as modified in ASTM F2019 X1.1.2 for each pipe segment with less than 10% ovality. If the ovality is 10% or greater, use either the ASCE or the WRc Sewerage Rehabilitation Manual, Type II Design, Section 5.3.2.iii for non-round pipe. Assume the fully deteriorated condition and assume no bonding to the original pipe wall for the CIPP design. Verify the Long-Term Flexural Modulus used in design by independent testing and provide documentation to the department per Section B.5.1. Do not exceed 50% of the short-term values for the Long-Term Modulus in design. CIPP thickness shall not be less than that which is computed from the design requirements in the table below, for resin systems with physical properties shown.

**Table 2 - CIPP Design Criteria**

<b>Design Variable</b>	<b>Value</b>
Culvert Inside Diameter	72 Inches
Soil Density: w	120 pcf
Live Load: Ws	Follow AASHTO LRFD Bridge Design Specifications (AASHTO, 2012) Article 3.6.1.2.6
Minimum Height of Water above Culvert Crown: Hw	72 Inches
Height of Soil above Culvert Crown: H	11.25 feet
Culvert Deflection/Ovality:	2% minimum. To be verified by liner designer.
Modulus of Soil Reaction E's	Follow AASHTO LRFD Bridge Design Specifications (AASHTO, 2012) Article 12.12.3.5.1
Long-term Modulus of Elasticity of CIPP Liner: E <sub>L</sub>	362,500 psi minimum, 50% of initial value in ASTM F2019. Actual value per the manufacturer can be used. Provide supporting data verified by independent testing.
Factor of Safety: N	2
Flexural Stress	15,000 psi  Actual value per the manufacturer can be used. Provide supporting data verified by independent testing

**B.5 Experience and Quality Control**

**B.5.1 Experience**

Demonstrate a minimum of five5 years' experience in the installation of cured in place liners by the installation contractor with at least five projects in that time totaling over 50,000 feet of installed liner. The installing contractor must be trained and certified by the UV GRP manufacturer and have documented experience with a fiberglass UV cured liner.

Provide an experienced inspector or supervisor to oversee the installation of the CIPP liner, who completed the NASSCO cured-in-place-pipe inspector training class or equivalent and has at least 3 years' experience with cured in place pipe liner installation having previously supervised a minimum of 50,000 linear feet of CIPP lining using a similar resin and flexible tube and using the specific method of installation and curing proposed.

If the contractor does not have 50,000 linear feet of CIPP lining experience with the UV curing system being used, then a manufacturer's onsite representative must be present during installations of the CIPP system until such time the department is confident in the contractor's ability. The contractor is to provide the engineer with the manufacturer representative's work experience for approval. Do not begin prior to the engineer's approval of the manufacturer's onsite representative.

Provide five references of completed projects of similar installations by the contractor.

### B.5.2 Installation and Quality Control Plan

Furnish a detailed installation and quality control plan, to be discussed at the preconstruction meeting outlining measures to assure the quality requirements of the contract are met including but not limited to:

- A summary table of CIPP material properties, including short-term flexural modulus of elasticity, 50-year flexural modulus of elasticity, short-term flexural strength (bending stress), 50-year flexural strength (bending stress), and chemical resistance.
- Manufacturer's product certifications and available standard written warranty for materials used in the liner system including documentation of testing to confirm a minimum 50-year design life for the liner, adherence to applicable ASTM standards and safety data sheets.
- Manufacturer's product literature, and application and installation requirements for materials used in the liner including
  - Liner and resin/catalyst type including, manufacturer, product names and mixing ratios, the location of the facility where each was manufactured, and a list of appurtenant materials and accessories to be furnished.
  - Maximum, minimum and ideal installation temperatures.
  - Minimum pressure required to hold tube tight to the host conduit and maximum pressure so not damage the tube.
  - Curing times.
  - Maximum pulling forces as applicable.
- Independent third-party certified laboratory test reports demonstrating that the exact resin/liner combination to be used for this project meets the requirements for initial structural properties and chemical resistance (performed according to ASTM F1216).

Independent third-party certified laboratory test reports demonstrating that the exact resin and liner to be used for this project has been tested for long-term flexural modulus of elasticity and long-term flexural strength (i.e., 10,000 hour creep testing performed according to ASTM 2990 or DIN 761 for design conditions applicable to this project). When filled resins are proposed, complementary data of the same data for unfilled resin shall also be provided. If the data submitted is not for the exact liner to be used on this project, submit a detailed description of the physical properties of both the liner used in the test and the liner to be used for this project to demonstrate that the two liners are comparable in terms of physical properties.

Perform testing for 10,000 hours under test conditions and loadings described below. The data points from 1,000 hours to 10,000 hours, or such other time period as determined by the engineer based on the curve or slope of the plotted data, of the long-term flexural modulus shall be extrapolated using a log-log scale linear regression analysis to determine the minimum service life performance of the resin-tube.

Testing shall be conducted at:

- Temperature 21°C to 25°C
  - Relative humidity: 50% minimum
  - Load: Load shall be calculated at 0.25% of the short-term E-modulus as tested per ASTM D790 or ISO 178, or as approved by engineer.
- Wet out quality management ensuring that proper materials and amounts are used in the resin saturation process and in liner shipping and storage. At a minimum, the quality control documentation shall include resin lot numbers, volumes of resin, catalyst, enhancers, date of wet-out, storage / transportation controls, and quality assurance procedures.
  - Method of installation.
  - Proposed quality controls checks that will be performed and in place by the contractor during installation.

- Method of curing and monitoring including:
  - Curing speed
  - Light source size and wattage
  - Inner air pressure
  - Curing temperatures

These parameters are to be controlled and documented during installation and curing and provided to the engineer including date and time and length of installed liner.

- Product sampling, liner thickness compliance, and notification/resolution of observed liner defects and/or wrinkling observed by the contractor during post lining televising operations.
- Defined responsibilities, as assigned to specific contractor's personnel, for assuring that all the quality assurances are met.
- An outline of specific repair or replacement procedures for potential defects that may occur in the installed CIPP. Provide recommended repair/replacement procedures per the CIPP system manufacturer.
- Bypass flow plan if required.
- An odor control plan that will show project specific odors will be minimized at the project site and surrounding area.

## **B.6 Quality and Inspection Report**

Submit a report of the inspection and quality activities performed during and after lining. Inspect pipes with a color pan and tilt, 360° rotating head camera specifically designed and constructed for sewer inspection. Provide pre and post lining video inspection files upon completion of the lining. Format files for viewing on a standard PC without additional media software. Perform video work according to NASSCO PACP standards or engineer approved equal.

## **B.7 Cured Liner Properties**

### **B.7.1 Color**

Provide a tube where the cured interior pipe surface after installation is a light reflective color so that a clear, detailed examination with closed circuit television inspection can be made.

### **B.7.2 Chemical Resistance**

Provide a chemically resistance tube. Evaluate the inner surface of the cured resin/fiberglass liner matrix in a laminate for qualification testing of long term chemical exposure to a variety of chemical effluents in a manner consistent with 6.4.1 and 6.4.2 of ASTM D5813.

Provide samples of tube and resin similar to that proposed for actual construction. It is required that CIPP samples with and without plastic coating meets these chemical testing requirements.

### **B.7.3 Hydraulic Capacity**

Maintain the overall hydraulic profile as large as possible with the CIPP having a minimum of the full flow capacity of the original pipe before rehabilitation. Calculated capacities may be derived using a commonly accepted roughness coefficient for the existing pipe material taking into consideration its age and condition.

## **C Construction**

### **C.1 General**

No change of material, design values, or procedures as developed before bidding the contract may be made during the course of the work without the prior written approval of the engineer.

Coordinate with the engineer to field verify pipe lining locations and lengths before beginning work. The department will locate and designate all right-of-way areas open and accessible for the work and provide rights of access to these points. If a shoulder must be closed to traffic because of the work, institute the actions necessary to do this upon concurrence of the department for the mutually agreed time period.

Bypass pumping or flow division is the responsibility of the contractor. If dewatering/bypass operations are required from one pipe structure to another pipe structure or from the upstream to downstream end of a culvert and the bypass flow is not transporting sediments (sand, silt, and clay particles) from a tributary work site area, bypass pumping operations will be allowed provided that the department has been made aware of and approves operation. When pumping bypass flows, the discharge location will need to be stable and not produce any erosion from the discharge velocity that would cause release of sediment downstream. If dewatering operations require pumping of water containing sediments (sand, silt, and clay particles), the discharge will not be allowed to leave the work site or discharge to a storm water conveyance system without sediment removal treatment. Refer to WDNR Technical Standards for Dewatering as applicable:

[https://dnr.wisconsin.gov/topic/Stormwater/standards/const\\_standards.html](https://dnr.wisconsin.gov/topic/Stormwater/standards/const_standards.html)

## **C.2 Handling and Storage**

Take care in shipping, handling and storage to avoid damaging the liner. Store liner as recommended by manufacturer and as approved by the engineer. Avoid exposure to light prior to installation. Any liner damaged in shipment, storage, or installation shall be replaced as directed by the engineer at no additional cost.

## **C.3 Accessibility of Water**

This site is rural and without access to public waters systems. Supply water for cleaning the host pipe or other processes.

## **C.4 Cleaning Existing Conduits**

Remove internal debris from the existing pipeline including any roots and protruding connections. Clean the pipes with hydraulically powered equipment, high-velocity jet cleaners, or mechanically powered equipment capable of sufficiently cleaning and clearing the existing pipe. Use precautions during the cleaning operations to prevent additional damage to the existing pipe. Properly dispose of all sediment removed from the cleaning process.

## **C.5 Inspection of Pipeline**

Inspect the interior of the pipeline carefully to determine the location of any conditions which may prevent proper installation of CIPP into the pipelines, note these so that these conditions can be corrected. Keep a digital video and suitable log for later reference by the department.

## **C.6 Repair Techniques and Material Installation**

Fill any voids in the host pipe that cannot be bridged prior to the installation of the CIPP liner. Small gaps and offsets in the pipe culvert joints can be bridged by the CIPP liner. Repair significant gaps and offsets and stop water infiltration that may impact CIPP curing.

## **C.7 Installation**

### **C.7.1 Installation of Glass Fiber Tubing**

Use a constant tension winch, as specified by the liner manufacturer, to pull the glass fiber liner into position in the pipe. Provide a longitudinal fiberglass reinforcement band which runs the entire length of the liner ensuring that the pulling force is transferred to the band and not the fiberglass liner. Pull the liner keeping the force below the system recommendation for the tubing installed. Provide end plugs to cap each end of the glass fiber liner to prepare for pressurizing the liner. Secure the end caps to prevent them from being expelled due to pressure. Use liner restraints in manholes.

Use a slip sheet/gliding foil on the bottom one third to one half of the pipe prior to liner insertion (if it is not already part of the manufactured outer film of the liner), for the purpose of protecting the liner during insertion and reduce the drag, or as recommend by the liner manufacturer.

### **C.7.2 Curing Liner**

Cure the glass fiber liner with UV light sources at a constant inner pressure. Hold the liner tight to the host pipe per the manufacturer's recommended equipment and methods. Do not release liner inner pressure until liner reaches curing parameters specified by the manufacturer.

Assemble the UV light sources according to the manufacturer's specifications for the liner diameter. Draw a multi-lamp ultraviolet light curing assembly fitted with CCTV equipment through the pipe while the tube is expanded under pressure. Verify that the liner is properly fitted to the host pipe without any wrinkles or fins that should be avoidable given the current cross-sectional configuration (geometry) of the host pipe.

Correct defects before proceeding on to the UV-light curing process. Take care not to damage the liner or inner film material when inserting the curing equipment.

Use curing speeds as recommended by the manufacturer and determined by contractor based on various site-specific field conditions. The optimal curing speed, or travel speed of the energized UV light sources, is determined for each length of liner based on liner diameter, liner thickness, and exothermic reaction temperature. Use infrared sensors during the curing process to record curing data that will be submitted to the engineer with a post CCTV inspection. Monitor and control the parameters stated in the quality control plan, giving the engineer a record of the curing parameters over every segment of the entire length of the liner.

Remove the inner film material if the liner is manufactured with a removable inner film as recommended by the manufacturer after curing and discard.

Once cured, the cured-in-place pipe should be continuous and tight fitting. Cut the pipe liner neatly and smoothly at each end of the host pipe to prevent snagging and collection of debris. Pipe liner material to be contained, vacuumed and disposed of at a landfill that is certified to accept the liner material. Rinse UV liner after installation and curing. Contain any residual chemicals during rinsing and while stream is diverted. Dispose of rinsed water to an engineer approved treatment facility certified to treat wastewater.

### **C.8 Quality Control and Testing**

Prepare cured liner samples and test physical properties according to ASTM F2019, Section 7. Test for conformance with the manufacturer's final CIPP design values and the CIPP Design Criteria requirement of this special provision including flexural properties listed.

Provide documentation of quality checks performed according to this part and as described in the project quality control plan.

### **C.9 Workmanship and Inspection**

Perform an initial visual and final television inspection to document the as-built condition after the completion of the liner installation. Inspect the CIPP according to ASTM F2019, Section 7.3 and this part. Provide copies of as-built inspection documentation to the engineer in digital format that can be read without specialized software.

Provide a finished liner that is continuous over the entire length of the conduit section and that tightly conforms to the walls of the existing (host) conduit pipe that is homogeneous throughout and free of any dry spots, lifts, delaminations, wrinkles, protrusions, holes, cracks, foreign material, blisters, or other deleterious faults or defects, which in the opinion of the engineer, will affect the liner's structural integrity, hydraulic performance, future maintenance access, and overall liner performance. Provide a finished liner with no visible gaps or annular space between the finished liner and the existing (host) pipe at the manhole, sewer service connection, or other exposed points within the finished lined section. Where the CIPP does not meet the requirements of Section 7 of ASTM F2019 or this specification, the affected portions of the CIPP shall be removed and replaced with an acceptable repair as specified in 6.2 of ATSM Specification D5813 as approved by the engineer. Any excavation or restoration necessary is incidental with no additional payment.

Upon acceptance of the installation work and testing, restore the project area affected by the operations to its original condition.

### **D Measurement**

The department will pay for UV GRP CIPP 72-Inch by the linear foot, acceptably completed.

### **E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0090.03	UV GRP CIPP 72-Inch	LF

Payment is full compensation for furnishing, materials, testing, reports and incidentals, including any required bypass pumping or flow diversion, cleaning of the host pipe, gap, void and offset repair in the host pipe, and disposal of wastes including curing or cleaning water necessary to complete the contract work according to the above stated specifications.

**15. Select Crushed Material for Stream Bed, Item SPV.0195.01.**

**A Description**

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

**B Materials**

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

**C Construction**

Place the material after the heavy riprap has been completed. Place material such that voids in the finished surface are 3 inches or less in any dimension.

**D Measurement**

The department will measure Select Crushed Material for Stream Bed by the ton, acceptably completed.

**E Payment**

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0195.01	Select Crushed Material for Stream Bed	TON

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



## **ADDITIONAL SPECIAL PROVISION 4**

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

### **Payment to First-Tier Subcontractors**

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

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

### **Payment to Lower-Tier Subcontractors**

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

### **Acceptance and Final Payment**

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

**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<sup>[1]</sup>..... AASHTO M140
    - Cationic emulsified asphalts<sup>[1]</sup> ..... AASHTO M208
    - Polymer-modified cationic emulsified asphalts ..... AASHTO M316
- <sup>[1]</sup> 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 <sup>[1]</sup>	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) <sup>[2]</sup>	97.5% min	97.5% min

<sup>[1]</sup> Paddle Viscosity (AASHTO T 382) may be run in lieu of Saybolt Viscosity (AASHTO T 59).  
<sup>[2]</sup> 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)
$\geq 95$ to 100	$(0.1 \times \text{PWL}) - 9.5$
$\geq 85$ to $< 95$	0
$\geq 30$ 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)
$\geq 95$ to 100	$(0.2 \times \text{PWL}) - 19$
$\geq 85$ to $< 95$	0
$\geq 50$ 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)
$\geq 99$ to 100	10
$\geq 90$ to $< 99$	0
$\geq 50$ 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 1<sup>st</sup> Tier and DBE Payments During Construction

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

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

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

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

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

## **ADDITIONAL SPECIAL PROVISION 9**

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

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

## NON-DISCRIMINATION PROVISIONS

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

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

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

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

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

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

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

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

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

**Pertinent Non-Discrimination Authorities:**

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



## BUY AMERICA PROVISION

Buy America (as documented in 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://wisconsin.gov/rdwy/cmm/cm-02-28.pdf>

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

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

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



Proposal Schedule of Items

Proposal ID: 20230912019 Project(s): 1195-00-66

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	1.000 STA	_____.	_____.
0004	201.0205 Grubbing	1.000 STA	_____.	_____.
0006	204.0170 Removing Fence	60.000 LF	_____.	_____.
0008	208.1100 Select Borrow	113.000 CY	_____.	_____.
0010	209.0200.S Backfill Controlled Low Strength	12.000 CY	_____.	_____.
0012	213.0100 Finishing Roadway (project) 01. 1195-00-66	1.000 EACH	_____.	_____.
0014	305.0110 Base Aggregate Dense 3/4-Inch	5.000 TON	_____.	_____.
0016	312.0110 Select Crushed Material	31.000 TON	_____.	_____.
0018	465.0105 Asphaltic Surface	5.000 TON	_____.	_____.
0020	520.8000 Concrete Collars for Pipe	1.000 EACH	_____.	_____.
0022	520.9750.S Cleaning Culvert Pipes for Liner Verification	2.000 EACH	_____.	_____.
0024	524.0672 Apron Endwalls for Culvert Pipe Salvaged 72-Inch	1.000 EACH	_____.	_____.
0026	606.0300 Riprap Heavy	32.000 CY	_____.	_____.
0028	616.0100 Fence Woven Wire (height) 01. 4.5-Ft	60.000 LF	_____.	_____.
0030	618.0100 Maintenance And Repair of Haul Roads (project) 01. 1195-00-66	1.000 EACH	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20230912019 Project(s): 1195-00-66

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	619.1000 Mobilization	1.000 EACH	_____.	_____.
0034	625.0100 Topsoil	780.000 SY	_____.	_____.
0036	628.1504 Silt Fence	551.000 LF	_____.	_____.
0038	628.1520 Silt Fence Maintenance	551.000 LF	_____.	_____.
0040	628.1905 Mobilizations Erosion Control	2.000 EACH	_____.	_____.
0042	628.1910 Mobilizations Emergency Erosion Control	1.000 EACH	_____.	_____.
0044	628.2008 Erosion Mat Urban Class I Type B	930.000 SY	_____.	_____.
0046	628.7555 Culvert Pipe Checks	20.000 EACH	_____.	_____.
0048	629.0210 Fertilizer Type B	0.590 CWT	_____.	_____.
0050	630.0130 Seeding Mixture No. 30	16.000 LB	_____.	_____.
0052	630.0200 Seeding Temporary	23.000 LB	_____.	_____.
0054	630.0500 Seed Water	8.800 MGAL	_____.	_____.
0056	643.0300 Traffic Control Drums	2,375.000 DAY	_____.	_____.
0058	643.0420 Traffic Control Barricades Type III	114.000 DAY	_____.	_____.
0060	643.0705 Traffic Control Warning Lights Type A	228.000 DAY	_____.	_____.
0062	643.0715 Traffic Control Warning Lights Type C	114.000 DAY	_____.	_____.



Proposal Schedule of Items

Proposal ID: 20230912019 Project(s): 1195-00-66

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
0064	643.0800 Traffic Control Arrow Boards	38.000 DAY	_____.	_____.
0066	643.0900 Traffic Control Signs	380.000 DAY	_____.	_____.
0068	643.1050 Traffic Control Signs PCMS	20.000 DAY	_____.	_____.
0070	643.3150 Temporary Marking Line Removable Tape 4-Inch	750.000 LF	_____.	_____.
0072	643.3250 Temporary Marking Line Removable Tape 8-Inch	500.000 LF	_____.	_____.
0074	643.3970 Temporary Marking Removable Mask Out Tape 10-Inch	1,200.000 LF	_____.	_____.
0076	643.5000 Traffic Control	1.000 EACH	_____.	_____.
0078	645.0120 Geotextile Type HR	90.000 SY	_____.	_____.
0080	690.0150 Sawing Asphalt	6.000 LF	_____.	_____.
0082	SPV.0035 Special 01. Culvert Grouting	5.000 CY	_____.	_____.
0084	SPV.0060 Special 01. Subsurface Exploration	1.000 EACH	_____.	_____.
0086	SPV.0090 Special 01. Culvert Pipe Liner, 72-Inch	123.000 LF	_____.	_____.
0088	SPV.0090 Special 03. Uv Grp Cipp 72-Inch	139.000 LF	_____.	_____.
0090	SPV.0195 Special 01. Select Crushed Material for Stream Bed	10.000 TON	_____.	_____.
<b>Section: 0001</b>			<b>Total:</b>	_____.

**Total Bid:** \_\_\_\_\_.

**PLEASE ATTACH ADDENDA HERE**