## HIGHWAY WORK PROPOSAL

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

Proposal Number: 019

COUNTY	STATE PROJECT	<u>FEDERAL</u>	PROJECT DESCRIPTION	<u>HIGHWAY</u>
Columbia	1014-00-69	N/A	Wisconsin Dells - Portage; Baraboo River Brgs B-11-0137,-0138	IH 090
Columbia	6130-02-60	N/A	Wisconsin Dells - Adams; Wisconsin River Strucs B-11-001/104	STH 013

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

Proposal Guaranty Required: \$75,000.00
Payable to: Wisconsin Department of Transportation

Bid Submittal
Date: June 14, 2022
Time (Local Time): 11:00 am

Contract Completion Time
December 01, 2022

Assigned Disadvantaged Business Enterprise Goal 0%

Notice of Award Dated

Attach Proposal Guaranty on back of this PAGE.

Firm Name, Address, City, State, Zip Code

## SAMPLE NOT FOR BIDDING PURPOSES

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.

scribed 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	
pe of Work: For Department Us	se Only

**Date Guaranty Returned** 

# PLEASE ATTACH PROPOSAL GUARANTY HERE

## **Effective with November 2007 Letting**

## 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.

## **Effective with August 2015 Letting**

# 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 theinternet.
  - 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: <a href="https://wisconsindot.gov/Pages/doing-bus/contractors/hcci/bid-let.aspx">https://wisconsindot.gov/Pages/doing-bus/contractors/hcci/bid-let.aspx</a>

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<sup>TM</sup> on-line bidding exchange at <a href="http://www.bidx.com/">http://www.bidx.com/</a> 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<sup>TM</sup> on-line bidding exchange by following the instructions provided at the www.bidx.com web site or by contacting:

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

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

  <a href="https://wisconsindot.gov/Pages/doing-bus/contractors/hcci/bid-let.aspx">https://wisconsindot.gov/Pages/doing-bus/contractors/hcci/bid-let.aspx</a>

or by calling the department at (608) 266-1631. Addenda can ONLY be obtained from the departments web site listed above or by picking up the addenda at the Bureau of Highway Construction, 4<sup>th</sup> 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:
  - 1. Have a properly executed annual bid bond on file with the department.

- 2. 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 TM web site.
  - 2. Use Expedite TM software to enter a unit price for every item in the schedule of items.
  - 3. Submit the bid according to the requirements of Expedite<sup>TM</sup> software and the Bid Express<sup>TM</sup> 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.
  - 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<sup>TM</sup> web site reflecting the latest addenda posted on the department's web site at:

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

Use Expedite TM 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<sup>TM</sup> generated schedule of items to the other proposal documents submitted to the department as a part of the bidder's sealed bid. As a separate submittal, not in the sealed bid envelop but due at the same time and place as the sealed bid, also provide the Expedite<sup>TM</sup> 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<sup>TM</sup> 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 TM 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.

#### C 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 Co	orporate Seal)		
(Signature and Title)	•		
(Company Name)			
(Signature and Title)			
(Company Name)	<u> </u>		
(Signature and Title)		(Name of Surety) (Affix Seal)	
(Company Name)		(Signature of Attorney-in-Fact)	
(Signature and Title)			
NOTA	RY FOR PRINCIPAL	NOTARY FOR	SURETY
	(Date)	(Date	s)
State of Wisconsin	)	State of Wisconsin	)
	) ss. County )		) ss. County )
On the above date, this instrument was acknowledged before me by the named person(s).		On the above date, this instrument wa named person(s).	s acknowledged before me by the
(Signature, Nota	ary Public, State of Wisconsin)	(Signature, Notary Public	, State of Wisconsin)
(Print or Type Name, Notary Public, State of Wisconsin)		(Print or Type Name, Notary Public, State of Wisconsin)	
(Date Commission Expires)		(Date Commission Expires)	

Notary Seal Notary Seal

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

## **CERTIFICATE OF ANNUAL BID BOND**

DT1305 8/2003

Wisconsin Department of Transportation

(Date)

Time Period Valid (	From/To)
Name of Surety	
Name of Contracto	r
Certificate Holder	Wisconsin Department of Transportation
	y that an annual bid bond issued by the above-named Surety is currently on file with the partment of Transportation.
	is issued as a matter of information and conveys no rights upon the certificate holder mend, 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)

#### March 2010

## LIST OF SUBCONTRACTORS

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

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

Name of Subcontractor	Class of Work	Estimated Value	
			_
			_
			_

#### **DECEMBER 2000**

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

## **Instructions for Certification**

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

modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.

- 8. The contractor may rely upon a certification of a prospective subcontractor/materials supplier that it is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A contractor may decide the method and frequency by which it determines the eligibility of its principals. Each contractor may, but is not required to, check the Disapproval List (telephone # 608/266/1631).
- 9. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a contractor is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- 10. Except for transactions authorized under paragraph 6 of these instructions, if a contractor in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department may terminate this transaction for cause or default.

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

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

## **Special Provisions**

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# STSP'S Revised January 7, 2022 SPECIAL PROVISIONS

#### 1. General.

Perform the work under this construction contract for Project 1014-00-69, Wisconsin Dells – Portage, Baraboo River Bridges B-11-0137 & B-11-0138, IH 90, Columbia County, Wisconsin; and for Project 6130-02-60, Wisconsin Dells – Adams, Wisconsin River Structures B-11-001 & B-11-104, STH 13, Columbia 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, 2022 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 (20220107)

## 2. Scope of Work.

The work under this contract shall consist of excavation for structures, scour repair geotextile bags, flowable concrete fill, riprap, 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 a month after executing the contract but at least 14 calendar days before the preconstruction conference. Upon approval, the engineer will issue the notice to proceed within 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.

Do not begin any work before September 6, 2022.

Do not close STH 13 or IH 90 traffic lanes (including ramps) outside the allowed time periods specified in the Traffic article. If the contractor closes lanes prior to the specified timeframe or fails to open the lanes within the specified timeframe, the department will assess lane rental charges as shown in the Lane Rental Fee Assessment article.

To avoid impacts to the wood turtle, complete in-stream activities in the Baraboo River prior to November 1, 2022.

## Interim Completion and Liquidated Damages - Project 1014-00-69: October 31, 2022

Complete all work for project 1014-00-69 by October 31, 2022.

If the contractor fails to complete all work for project 1014-00-69 by October 31, 2022, the department will assess the contractor \$1,110 in interim liquidated damages for each calendar day that the work remains incomplete after 12:01 AM, November 1, 2022. An entire calendar day will be charged for any period of time within a calendar day that the project is not complete 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.

1014-00-69, 6130-02-60 2 of 3

#### 4. Lane Rental Fee Assessment.

#### A General

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

The allowable lane closure times are shown in the Traffic article.

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

#### **B** Lane Rental Fee Assessment

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

- \$4000 per lane of IH 90, per direction of travel, per hour broken into 15-minute increments from Monday through Thursday.
- \$8000 per lane of IH 90, per direction of travel, per hour broken into 15-minute increments from Friday through Sunday.
- \$600 per lane of STH 13, per direction of travel, per hour broken into 15-minute increments.

The Lane Rental Fee Assessment represents a portion of the cost of the interference and inconvenience to the road users for each closure. All lane, roadway, or ramp closure event increments 15 minutes and less will be assessed as a 15-minute increment.

The engineer, or designated representative, will be the sole authority in determining time period length for the Lane Rental Fee Assessment.

Lane Rental Fee Assessments will not be assessed for closures due to crashes, accidents, or emergencies not initiated by the contractor.

The department will assess Lane Rental Fee Assessment by the dollar under the administrative item Failing to Open Road to Traffic. The total dollar amount of Lane Rental Fee Assessment will be computed by multiplying the Lane Rental Assessment Rate by the number of 15-minute increments of each lane closure event as described above.

Lane Rental Fee Assessment will be in effect from the time of the Notice to Proceed until the department issues final acceptance. If interim completion time or contract time expires before the completion of specified work in the contract, additional liquidated damages will be assessed as specified in standard spec 108.11 or as specified within this contract.

stp-108-065 (20161130)

#### 5. Traffic.

#### Project 1014-00-69:

Maintain all lanes of traffic in each direction on IH 90 (plus ramps where present) except as allowed under Lane/Ramp Closures.

Maintain minimum 16 feet clear width on IH 90 for oversize / overweight (OSOW) vehicles when work restricts through traffic to single lane operations unless alternate OSOW accommodations are approved by the engineer.

Request approval from the engineer for all lane closures at least three working days in advance of requested closure. A request does not constitute approval. Failure to obtain approval or reopen closed lanes at the required time will be subject to lane rental charges specified in the Lane Rental Fee Assessment article.

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## Lane/Ramp Closures

Close STH 33 to IH90 EB on ramp only when necessary to complete the work. Detour traffic for ramp closure as shown on the plans. Install required traffic control and detour signs as shown on the plans prior to ramp closure. Use portable changeable message signs 7 days in advance of the ramp closure and detour. Coordinate the locations of the portable changeable message signs with the engineer.

No lane or shoulder closures will be permitted during Special Events listed below or over holiday weekends listed under the Holiday Work Restrictions article. All lane and shoulder closures shall be removed when work is not in progress.

No closures will be allowed on IH 90 during the following times:

Time Period	Single Lane Closures
Monday through Thursday	7:00 AM to 7:00 PM
Friday	7:00 AM to 10:00 PM
Saturday and Sunday	7:00 AM to 8:00 PM

## Project 6130-02-60:

Maintain all lanes of traffic in each direction on STH 13 except for material delivery and equipment staging. A continuous lane closure on STH 13 will not be allowed.

No closures for material delivery and equipment staging will be allowed on STH 13 during the following times:

Time Period	Single Lane Closures
Monday	12:01 AM to 6:00 AM
Monday through Thursday	3:00 PM to 6:00 PM
Friday	12:01 PM to 11:59 PM
Saturday and Sunday	All Day

#### **Wisconsin Lane Closure System Advance Notification**

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

TABLE 108-1 CLOSURE TYPE AND REQUIRED MINIMUM ADVANCE NOTIFICATION

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

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

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## 6. Holiday and Special Event Work Restrictions.

Do not perform work on, nor haul materials of any kind along or across any portion of the highway carrying IH 90 and STH 13 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, September 2, 2022 to 6:00 AM Tuesday, September 6, 2022 for Labor Day;
- From noon Wednesday, November 23, 2022 to 6:00 AM Monday, November 28, 2022 for Thanksgiving.

stp-107-005 (20210113)

## 7. Utilities.

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

stp-107-065 (20080501)

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

#### 1014-00-69

AT&T Legacy – communications

ATC Management, Inc - electricity transmission

Alliant Energy - electricity

Alliant Energy - gas

Northern Natural Gas - gas/petroleum

#### 6130-02-60

ATC Management, Inc – electricity transmission

Alliant Energy - electricity

Alliant Energy - gas

City of Wisconsin Dells - electricity

City of Wisconsin Dells - sewer

City of Wisconsin Dells - water

Frontier Communications of WI - communications

Rogers Telecom - communications

Windstream KDL - communications

## 8. Environmental.

In the Wisconsin River, if any live mussels are encountered during the project, the contractor must move them upstream away from the project area.

A number of threatened and endangered species exist within the project. An incidental take authorization will be obtained by the department prior to construction.

Within 21 days prior to construction of the access road, installation of timber pads/silt fence or performing grading, contact:

Mr. Bill Poole

Stantec

209 Commerce Parkway

Cottage Grove, Wisconsin 53527-8955

Office: (608) 839-1998 Cell: (608) 712-9586

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Stantec will observe and document the presence or absence of the species of concern.

If additional construction activities beyond what was originally specified are required to complete the work, approval from the engineer, following coordination with WisDOT REC, is required prior to initiating these activities.

## 9. 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)

## 10. Construction Over or Adjacent to Navigable Waters.

The Baraboo River is classified as a state navigable waterway under standard spec 107.19. The Wisconsin River is classified as a federal navigable waterway under standard spec 107.19.

stp-107-060 (20171130)

These reaches of the Baraboo River and Wisconsin River are used by recreational watercraft. It will be necessary to place navigational aids around the construction area during construction. A Waterway Marker Application and Permit is required for both types of navigational markers (informational vs. control/restrictive) prior to construction. A local ordinance will also be required for buoys that control or restrict navigation. Adequate time should be allowed for the passage of an ordinance with the local municipality. A local ordinance is required for informational navigational aids (a waterway marker permit is

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required). DNR will determine which type of navigational aids are needed according to the project design and methods used during construction. The general steps for submission of a Waterway Marker Application and Permit are as follows:

- 1. Please fill out the Waterway Marker Application and Permit form: <a href="http://dnr.wi.gov/files/PDF/forms/8700/8700-058.pdf">http://dnr.wi.gov/files/PDF/forms/8700/8700-058.pdf</a>
- 2. The Wisconsin Department of Transportation should be listed as the applicant.
- 3. Be sure to include an aerial map-diagram or engineered-diagram of the work location and the placement of the waterway markers (buoys). If proposed GPS coordinates for each buoy are not provided, then markers placed on the diagram must show distance (in feet) from each marker location and from one permanent fixture as a benchmark.
- 4. Provide the completed application/permit to the local municipality having jurisdictional authority over the area in which the waterway markers will be placed. If an ordinance is required, consult with the local municipality regarding their ordinance process.
- 5. Forward the signed application/permit to:

Eric Heggelund

Environmental Analysis & Review Specialist

Wisconsin Dept. of Natural Resources

101 S. Webster Street

P.O. Box 7921

Madison, WI 53707-7921

Penny Kanable

**Boating Program Specialist** 

Wisconsin Dept. of Natural Resources

101 S. Webster Street - LE/8

Madison, WI 53703

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

Permanent Navigation Aids: The process outlined above will also apply to the placement of permanent navigational aids. This includes modifications, additions or temporary relocations of existing navigational aids. The locations of existing buoys (or other navigational aids) must be included in the permit application.

#### 11. Erosion Control Structures.

Within three calendar days after completing the excavation for a substructure unit, place riprap or other permanent erosion control items required by the contract or deemed necessary by the engineer around the unit at a minimum to a height equivalent to the calculated water elevation resulting from a storm that occurs on the average of once every two years (Q2) as shown on the plan, or as the engineer directs.

In the event that construction activity does not disturb the existing ground below the Q2 elevation, the above timing requirements for permanent erosion control shall be waived.

stp-107-070 (20191121)

## 12. Notice to Contractor, Asbestos Containing Materials on Structure.

Nathan Braun, License Number All-206950, inspected Structure B-11-001 for asbestos on June 19, 2015. Regulated Asbestos Containing Material (RACM) was found on this structure in the following locations and quantities: the caulk located under the railing attachment plates tested positive with non-friable ACM.

A copy of the inspection report is available from: Steve Porter at 608-243-3366. Locations of asbestos containing material are noted on the plan set. Do not disturb any asbestos containing material. Should asbestos containing material be disturbed, stop work immediately, notify the engineer, and the engineer will notify the department's Bureau of Technical Services at (608) 266-1476 for an emergency response as specified in standard spec 107.24. Keep material wet until it is abated.

stp-107-120 (20120615)

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## 13. Underwater Substructure Inspection B-11-0001, Item 502.9000.S.01; Underwater Substructure Inspection. B-11-137/138, Item 502.9000.S.02.

## A Description

This special provision describes providing underwater inspections of the substructure seal(s), footing(s) or shaft(s).

## B (Vacant)

#### **C** Construction

After placement of structural grout or scour repair grout for the substructure and as soon as practicable after removal of the forms, provide a diver who, under the direction of the engineer, will report the characteristics and quality of the grout placed below water level to ensure that the grout has been properly formed and placed.

Provide a video monitor and video camera, along with two-way audio communications with the diver during the inspection and record the video and audio.

Correct all deficiencies in the grout and repeat the inspections until all deficiencies are corrected.

#### **D** Measurement

The department will measure Underwater Substructure Inspection B-11-0001 & B-11-137/138 once for each individual unit, acceptably completed. The entire pier or abutment substructure location is considered a unit. Multiple underwater inspections at the same substructure location to correct grout deficiencies will not be measured.

## **E** Payment

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

•	• • • • • • • • • • • • • • • • • • • •	<u> </u>
ITEM NUMBER	DESCRIPTION	UNIT
502.9000.S.01	Underwater Substructure Inspection B-11-0001	EACH
502.9000.S.02	Underwater Substructure Inspection B-11-137/138	EACH

Payment is full compensation for all diving inspections and reporting; and for supplying video and twoway audio communications equipment and recorded electronic video and audio files. Payment for correcting deficiencies in the placed grout will be included at no extra cost to the project.

## 14. Scour Repair - General.

#### A Description

The work consists of repairing voids due to scour and installing scour countermeasures around substructure units shown on the plans. The work will be done underwater.

#### B (Vacant)

## **C** Construction

## **C.1 Construction Methods**

For each substructure unit to be repaired, perform an initial dive to verify current conditions of streambed/substructure unit and report findings to the engineer. Modifications to the proposed plans may be necessary using the project bid items based on the findings and the modifications shall be mutually agreed upon by the contractor and the engineer prior to starting repair work.

Information regarding general Baraboo River conditions can be obtained by viewing USGS streamflow gage records for Gage 05405000 at the link below. The gage is located in Baraboo, approximately 10 miles upstream from the project site.

https://nwis.waterdata.usgs.gov/nwis/inventory/?site no=05405000

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## C.2 References and Experience Qualification Record of Underwater Scour Repairs

Submit a reference listing to the department three weeks prior to the preconstruction meeting. The reference listing shall contain a minimum of five successful bridge or dam projects in which similar work was applied in Wisconsin or nearby state within the last three years. Include contact names of responsible persons for the facility owner, their current phone numbers and e-mail addresses, and a brief description of the projects.

## **C.3 Inspection**

Supplement standard spec 105.9 as follows: furnish and provide access to the pier sites, provide time in the work schedule for the department's inspector, which may include independent underwater dive inspections, to inspect the prepared concrete surfaces and/or repaired areas. Provide adequate notice to schedule these inspections.

## 15. Scour Repair Grout - Item SPV.0035.01.

## **A** Description

This work consists of providing all labor, materials and equipment necessary for the installation of grout for scour repair as shown on the plan, given in these special provisions and as directed by the engineer.

#### **B** Materials

The grout shall consist of a mixture of portland cement, air entrainment admixture, mortar sand aggregate, additives, and water proportioned to provide a pumpable mixture. The contractor shall submit the mix design and laboratory test results under standard spec 710.4 to the engineer for approval prior to proceeding with the work.

Material Conformance Standards

> Portland cement: WisDOT standard spec 501.2.4.1

> Air Entrainment Admixture: WisDOT standard spec 501.2.5.2

> Anti-washout admixture: ASTM C494 Type S

> Aggregate: WisDOT standard spec 501.2.7

> Water: WisDOT standard spec 501.2.6

## Materials Testing

> Structural Grout -

One sample per batch or lift for:

- 28-day Compressive strength: 3500psi per ASTM C109

- Air Content: Minimum 6% +/- 1% per ASTM C231

### **C** Construction

Scour repair areas to be filled with grout shall be thoroughly cleaned of lose material before grout placement. The cleaning method shall meet the approval of the engineer. The grout shall be placed as shown on the plan and as directed by the engineer. When grout bags are used to seal off a void, the contractor shall install 4-inch minimum diameter vent pipes at 4 feet maximum spacing to allow trapped water in the void to escape while grout is being pumped. Measures shall be taken to filter sediment from water escaping the voided area. The concrete/grout tube delivering the mix to the void shall be inserted so the mix does not free fall. The void shall be filled by the tremie method. The pipes shall be removed or cut off flush with the bags when complete.

#### **D** Measurement

The department will measure Scour Repair Grout by the cubic yard of grout placed, acceptably completed.

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#### 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

Scour Repair Grout

CY

Payment is full compensation for grout, vent tubes, excavation, hauling, and disposal.

## 16. Scour Repair Grout Bags - Item SPV.0035.02.

## **A** Description

This work consists of providing all labor, materials, and equipment necessary for the installation of grout filled bags for scour protection as shown on the plan, given in these special provisions and as directed by the engineer.

#### **B** Materials

The grout shall consist of a mixture of portland cement, air entrainment admixture, mortar sand aggregate, additives, and water proportioned to provide a pumpable mixture. The contractor shall submit the mix design and laboratory test results under standard spec 710.4 to the engineer for approval prior to proceeding with the work.

Material Conformance Standards

> Portland cement: WisDOT standard spec 501.2.4.1

> Air Entrainment Admixture: WisDOT standard spec 501.2.5.2

Anti-washout admixture: ASTM C494 Type SAggregate: WisDOT standard spec 501.2.7

> Water: WisDOT standard spec 501.2.6

Materials Testing

> Structural Grout -

One sample per batch or lift for:

- 28-day Compressive strength: 3500psi per ASTM C109

- Air Content: Minimum 6% +/- 1% per ASTM C231

Grout bags shall be made of high strength water permeable fabric of nylon and/or polyester. Each bag shall be provided with a self-closing inlet value to accommodate insertion of the grout pumping hose. Seams shall be folded and double stitched. Grout bags shall have length, width, and thickness as defined on the plans. Alternate sizes require approval of the engineer.

Grout bag fabric shall meet or exceed the following properties:

Property	Test Method	Units	Specified Minimum
Wide-Width Strip Tensile Strength			
- Machine Direction (MD)	ASTM D 4595	lbf/in	190
- Cross Machine Direction (CD)	ASTM D 4595	lbf/in	140
Trapezoidal Tear Strength –			
- Machine Direction (MD)	ASTM D 4533	lbf	100
- Cross Machine Direction (CD)	ASTM D 4533	lbf	115

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Fabric porosity and limited cement lost through fabric is essential to the successful execution of this work. Suitability of fabric and grout design shall be demonstrated by injecting the proposed grout mix into three 24-inch long by approximately 6-inch diameter fabric sleeves under a pressure of not more than 15 psi which shall be maintained for not more than 10 minutes. A 12-inch long test cylinder shall be cut from the middle of each cured test specimen and tested according to ASTM C39. The average seven-day compressive strength of the grout within the fabric shall be at least equal to that of standard companion test cylinders made according to ASTM C31. In lieu of the above testing requirements the contractor may submit test results from past successful projects and manufacturers test results to the engineer for approval prior to proceeding with the work.

#### **C** Construction

Scour repair areas to be filled with grout bags shall be thoroughly cleaned of lose material before grout bag placement. The cleaning method shall meet the approval of the engineer. The grout bags shall be placed as shown on the plan and as directed by the engineer. The bags shall be positioned and filled so that they abut tightly to each other and to the substructure units. Contractor shall make appropriate allowance for contraction of fabric bag resulting from grout injection. Joints between bags in successive rows and tiers shall be staggered. Contractor may use temporary or permanent rods, fencing, forms, etc. to hold the bags in place and to maintain the desired final shape. Temporary materials shall be removed after grout has reached self-supporting strength.

#### **D** Measurement

The department will measure Scour Repair Grout Bags by cubic yard of grout placed in bags acceptably completed.

## E Payment

The department will pay for measured quantities at the contract unit price under the following bid item: ITEM NUMBER DESCRIPTION UNIT SPV.0035.02 Scour Repair Grout Bags CY

Payment is full compensation for grout and grout bags, excavation, obstruction removal, hauling, and disposal.

## 17. Scour Repair Grout Mats 4-Inch, Item SPV.0035.03.

#### **A** Description

This work consists of providing all labor, materials, and equipment necessary for the installation of grout filled mats for scour protection as shown on the plan, given in these special provisions and as directed by the engineer.

#### **B** Materials

The grout shall consist of a mixture of portland cement, air entrainment admixture, mortar sand aggregate, additives, and water proportioned to provide a pumpable mixture. The contractor shall submit the mix design and laboratory test results under standard spec 710.4 to the engineer for approval prior to proceeding with the work.

Material Conformance Standards

> Portland cement: WisDOT standard spec 501.2.4.1

> Air Entrainment Admixture: WisDOT standard spec 501.2.5.2

> Anti-washout admixture: ASTM C494 Type S

> Aggregate: WisDOT standard spec 501.2.7

> Water: WisDOT standard spec 501.2.6

#### Materials Testing

> Structural Grout -

One sample per batch or lift for:

- 28-day Compressive strength: 3500psi per ASTM C109

- Air Content: Minimum 6% +/- 1% per ASTM C231

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Grout mats shall be made of high strength water permeable fabric of nylon and/or polyester sewn into a series of pillow-shaped compartments that are connected intermittently by ducts. Mats shall have a nominal thickness when filled with grout of the size specified. Each mat shall be provided with a self-closing inlet value to accommodate insertion of the grout pumping hose. Grout mat shall have cables laced through the grout ducts of each mat pillow in each direction creating an interlocking grid. Cables shall be installed prior to filling with grout. Where necessary, cables shall be joined by means of copper connectors providing a minimum of 80% of the breaking strength of the cable. Aluminum connectors in direct contact with grout will not be permitted. Cables shall be low elongation continuous filament polyester fiber, with a core contained within an outer jacket. The core should be between 65 and 75 % of the total weight of the cable. The cables shall meet or exceed the following properties for the mat thickness specified:

Property	Units	Mat Thickness		
		4"	6"	8"
Cable Nominal Diameter	Inches	1/4	11/32	5/16
Cable Average Breaking Strength	lbf	3700	4500	5200

Grout mat fabric shall meet or exceed the following properties:

Property	Test Method	Units	Specified Minimum
Wide-Width Strip Tensile Strength			
– Machine Direction (MD)	ASTM D 4595	lbf/in	140
- Cross Machine Direction (CD)	ASTM D 4595	lbf/in	110
Trapezoidal Tear Strength –			
– Machine Direction (MD)	ASTM D 4533	lbf	125
- Cross Machine Direction (CD)	ASTM D 4533	lbf	100

Fabric porosity and limited cement lost through fabric is essential to the successful execution of this work. Suitability of fabric and grout design shall be demonstrated by injecting the proposed grout mix into three 24-inch long by approximately 6-inch diameter fabric sleeves under a pressure of not more than 15 psi which shall be maintained for not more than 10 minutes. A 12-inch long test cylinder shall be cut from the middle of each cured test specimen and tested according to ASTM C39. The average seven-day compressive strength of the grout within the fabric shall be at least equal to that of standard companion test cylinders made according to ASTM C31. In lieu of the above testing requirements the contractor may submit test results from past successful projects and manufacturers test results to the engineer for approval prior to proceeding with the work.

## **C** Construction

Scour repair areas to be covered with grout mat shall be thoroughly cleaned of lose material before grout mat placement. The cleaning method shall meet the approval of the engineer. The grout mat shall be placed as shown on the plan and as directed by the engineer. Contractor shall make appropriate allowance for contraction of fabric mat resulting from grout injection. Mats shall be placed underwater, cables and mats interconnected, and grout placed first at the toe of the slope or lowest elevation of the mat. Contractor may use temporary or permanent rods or other devices to hold the mats in place and to maintain the desired final shape. Temporary materials shall be removed after grout has reached self-supporting strength.

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#### **D** Measurement

The department will measure Scour repair Grout Mats grout placed in mats, acceptably completed.

### **E** Payment

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

ITEM NUMBER

DESCRIPTION

UNIT

SPV.0035.03

Scour Repair Grout Mats 4-Inch

CY

Payment is full compensation for grout mat, excavation, obstruction removal, hauling, and disposal.

## 18. Structural Grout, Item SPV.0035.04.

## **A Description**

This special provision describes the placement of grout for the encasement of the existing southernmost B-11-138 pile encased pier.

#### **B** Materials

Furnish non-shrink grout proportioned to provide a pumpable mixture, consisting of 846 lb/yd3 of Type II.

Portland Cement, minimum 6 percent air entrainment by volume, fine aggregate, water and an anti-washout admixture (AWA). The AWA shall be added to the grout at the manufacturer's recommended dosage rate.

Material Conformance Standards:

- Portland cement: WisDOT standard spec 501.2.4.1
- Air Entrainment Admixture: WisDOT standard spec 501.2.5.2
- Anti-washout admixture: ASTM C494 Type S
- Aggregate: WisDOT standard spec 501.2.7
- Water: WisDOT standard spec 501.2.6

Submit to the department a structural grout proportioning mix design for review according to standard spec 710.4, except that material conformance standards and proportioning requirements shall be as above.

Submit to the department product data documentation with the mix design showing conformance of the selected component materials to the above standards.

As work progresses, report any modification to the component materials prior to use, to the engineer for approval.

14 days prior to beginning the work, submit to the engineer for approval a grouting plan, including the following elements:

- Grout/vent port location and spacing.
- Number of lifts and timing, pumping sequence, and range of operational pressure.
- Location of witness tubes to ensure filling of voids.

## Materials Testing:

- Structural Grout: One sample is required per batch or lift for:
  - o 28-day Compressive strength: 3500 psi per ASTM C109
  - o Air Content: Minimum 6% +/- 1.5% per ASTM C231

#### **C** Construction

Place the grout underwater as shown on the plan and as directed by the engineer. The grout collar formwork shall be fully enclosed and sealed against the entire circumference of the pier shaft. Stay-in-place formwork is not permitted. Place the grout carefully in its final position using a pump and grout tube. Accomplish this by either placing the grout layers deep enough to accommodate satisfactory grout tube operation, while ensuring that the previous layer does not take initial set by pouring at a rate sufficient to

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raise the grout level between  $1 \frac{1}{2}$  to 2 feet per hour; or by placing the grout full depth in one continuous operation and completing the work to grade progressively from one end of the enclosure to the other.

Ensure a continuous uninterrupted flow until the work is complete. Exercise special care not to disturb grout deposited underwater and to maintain still water at the deposit point.

#### **D** Measurement

The department will measure Structural Grout by the cubic yard, batched and acceptably placed and completed within the forms. No allowance for waste will be measured for payment.

## E Payment

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

ITEM NUMBERDESCRIPTIONUNITSPV.0035.04Structural GroutCY

Payment is full compensation for furnishing and preparing all materials, for pumping and placing the structural grout in the forms, for removal of formwork.

## 19. Scour Repair Geotextile Bags, Item SPV.0035.05.

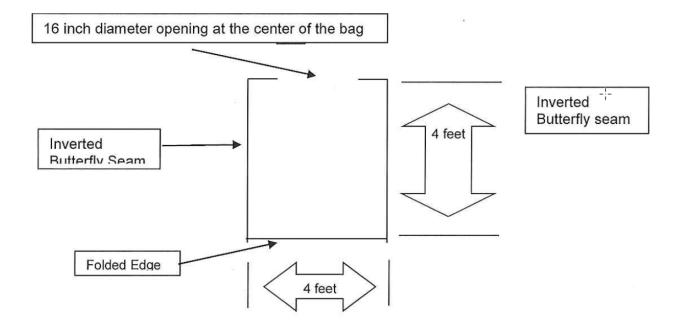
## **A Description**

This work consists of providing all labor, materials and equipment necessary for the installation of aggregate filled geotextile bags (geobags) for scour repair as shown on the plan, given in this special provision and as directed by the engineer.

#### **B** Materials

Geobags to be 4' wide x 4' long x 2' thick, filled 1'-0" full with coarse aggregate conforming to standard spec 301 (or similar material pending engineer approval).

Furnish geotextile with seams sewn using a Union Special 8000 series double needle sewing machine utilizing a 401 "lock" stitch. (Double needle sewing means two rows of stitching unless otherwise specified). Thread utilized shall be polyester. Seam type should be double-stitch inverted Butterfly (see diagram below). No cross seams allowed. Sewn seam will exhibit between 3.5 and 5 stitches per inch.



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Geotextile shall have the minimum required strength values in the weakest primary direction. Use geotextile conforming to the following physical properties:

Test	Method	Value <sup>[1]</sup>
Minimum grab tensile strength	ASTM D4632	425 lb
Minimum puncture strength	ASTM D6241	1200 lb
Minimum tensile elongation	ASTM D4632	50%
Maximum apparent opening size	ASTM D4751	No. 100 sieve
Minimum permittivity	ASTM D4491	0.7 s <sup>-1</sup>
Seam breaking strength	ASTM D4632	180 lb

<sup>[1]</sup> All numerical values represent minimum/maximum average roll values. Average test results from all rolls in a lot must conform to the tabulated values.

#### **C** Construction

Geobags shall be placed as shown on the plan and as directed by the engineer. Each Geotextile Container weighs approximately 1900 lbs. Form Geotextile Containers as follows, or as approved by the engineer:

- 1. Fold over geotextile filter material, sew along two sides to form an open "bag". Fold over the top and sew the top side leaving about 1/3 of the topside open. Seam strength must meet requirement as shown above.
- 2. Fill bag with coarse aggregate approximately 50% so the filled bag dimensions of each container are approximately 4 feet wide by 4 feet long by 1 foot thick. Do not fill the bag completely, the bag should be flexible to allow it to conform to the river bottom.
- 3. Staple the remaining opening on the top seam with an industrial fabric stapler, such as a Bostich Fabric Industrial Stapler or equivalent. Ensure that none of the coarse aggregate material is able to escape from the bag.

The schedule for placement of the Geotextile Containers shall be coordinated with the bridge contractor. Place Geotextile Containers using a backhoe with grapple attachment or similar to be able to position and release the Geotextile Containers to the extents as shown in the plans, or as approved by the engineer. Do not place geotextile containers that break during filling, sewing or release.

Illustrations and additional information on the Geobag container construction and placement techniques are available in Design Guideline 11 in HEC-23. This report is available online at:

http://www.fhwa.dot.gov/engineering/hydraulics/pubs/09111/09112.pdf

Additional technical expertise is available from the Bureau of Structures Hydraulics unit.

Quality Assurance Requirements:

The contractor is required to verify the placement of Geotextile Container filter prior to placement of the riprap on top of the filter layer. Any gaps between the containers shall be filled with coarse aggregate prior to placing the riprap.

The bags shall be positioned such that they abut tightly to the substructure units. Place geobags closest to substructure unit first, overlapping subsequent bags a minimum 1'-0". Riverbed must be scanned before and after placement.

#### **D** Measurement

The department will measure the Scour Repair Geotextile Bag bid item per bag, acceptably completed.

#### **E** Payment

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

 ITEM NUMBER
 DESCRIPTION
 UNIT

 SPV.0035.05
 Scour Repair Geotextile Bags
 EACH

Payment is full compensation for furnishing, preparing and installing scour repair geotextile bags, including geotextile filter and coarse aggregate

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## 20. River Bottom Scanning Survey Structure B-11-1/104, Item SPV.0060.01.

## **A** Description

This special provision describes providing scanning surveys of the river bottom in areas of scour repair below and adjacent to Structures B-11-001 and B-11-104.

#### B (Vacant)

#### **C** Construction

Use an underwater scanning device capable of identifying, locating, providing coordinates for, and providing a visual image (pdf and CAD files) of streambed elevations and any steel, concrete, and other construction debris larger than 5 inches in any dimension. Use a Humminbird Helix device with mega-plus, side-imaging, and GPS capabilities (or approved equal). Mount this device on a boat that provides consistent speed when traversing the river. Conform to the device manufacturer's instructions. Provide personnel experienced in the operation of the equipment and interpreting and providing explanation of the survey results.

Conduct pre-construction river bottom surveys not more than 3 months before starting scour repair. Conduct an additional river bottom survey after placement of geotextile bags and prior to riprap placement to ensure proper deployment of geotextile bags. Department approval of geotextile bag placement is required prior to beginning riprap placement. Conduct a final river bottom survey after placement of riprap is complete to ensure proper placement of riprap.

Conduct surveys in a systematic manner to completely scan the bottom of the river in the work zone.

Provide images of these scans and maps defining the locations of the scan images to the engineer for review. Provide this information to the engineer as pdf and CAD files or in another non-proprietary file format approved by the engineer. If the submitted information is not complete and accurate, recreate the files or rescan the river to create new files. Do not proceed with placement of geotextile bags until the engineer has reviewed the pre-construction survey results and provided final geotextile bag quantities and extents. Do not proceed with placement of riprap until the engineer has reviewed the post-geotextile bag installation survey and approved of the final geotextile bag placement. If scour repair materials (geotextile bags, riprap) extend outside of the area (vertically and horizontally) specified on the plan or as specified by the engineer, remove the excess material, conduct follow up scans, and submit to the engineer for review and approval.

#### **D** Measurement

The department will measure River Bottom Scanning Survey Structure B-11-1/104 by each substructure work zone, regardless of how many scans may be required to successfully perform the work 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

River Bottom Scanning Survey Structure B- 11-1/104

EACH

Payment is full compensation for providing pre-construction, during construction and post-construction field surveys; for interpreting and discussing the survey results with the department; and for providing follow up scans as needed.

# 21. Underwater Excavation for Structures B-11-1/104, Item SPV.0060.02; Underwater Excavation for Structures B-11-137/138, Item SPV.0060.03.

## **A** Description

This special provision describes removing and disposing of underwater materials and any other debris that conflicts with or could damage the installation of items necessary for repair, as shown on the plans, as specified and as directed by the engineer. Notify the engineer at least 7 business days prior to starting excavation.

#### B (Vacant)

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#### **C** Construction

For each substructure unit, perform initial underwater dive as outlined in article "Scour Repair – General".

Excavate material of whatever nature encountered as directed by the engineer. Remove logs, stumps and other materials and obstructions necessary under and around structure that conflicts with or could damage the placement of specified materials.

Dispose of stones, broken rock and boulders as specified in standard spec 205.3.11. Dispose of surplus or unsuitable material as specified in standard spec 205.3.12. No underwater disposal is allowed.

#### **D** Measurement

The department will measure Underwater Excavation for Structures, (B-11-1/104 & B-11-137/138) as a single unit of each per substructure work zone, acceptably completed.

## **E** Payment

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

ITEM NUMBER	DESCRIPTION	UNIT
SPV.0060.02	Underwater Excavation for Structures B-11-1/104	EACH
SPV.0060.03	Underwater Excavation for Structures B-11-137/138	EACH

Payment is full compensation for removing and disposing of all excavation, including removal of loose materials and materials that conflict with or could damage items used in repairs.

## 22. Temporary Access Project 1014-00-69, Item SPV.0060.04.

#### **A Description**

This special provision describes designing, furnishing, installation, removal and restoration for temporary access off the side of the roadway onto existing Wisconsin Department of Transportation right-of-way.

#### **B** Materials

The contractor will use geotextile fabric and base aggregate dense 1 ¼-inch to construct the temporary ramp. Beyond the temporary ramp, the contractor will use crane mats to minimize impact to the existing ground to access the Baraboo River shoreline.

#### **C** Construction

Construct temporary access as shown in the details of the plan. Obtain approval from the engineer on location prior to placement.

Address temporary erosion control in the erosion control implementation plan.

When removing the temporary access, restore the surface as closely as possible to its natural state. Thoroughly remove all temporary access materials from the disturbed area.

#### **D** Measurement

The department will measure Temporary Access Project 1014-00-69 by each project, acceptably completed.

#### E Payment

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

ITEM NUMBERDESCRIPTIONUNITSPV.0060.04Temporary Access Project 1014-00-69EACH

Payment is full compensation for any additional agency coordination and/or permitting; for furnishing all materials; for constructing and maintaining the temporary access; for erosion control; for the removal of all temporary access materials; and for restoration of the site after removal of the temporary access.

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## 23. Preparation of Pier Surfaces, Item SPV.0165.01.

## **A** Description

This special provision describes preparing the pier surfaces by removing the loose concrete, preparing and cleaning the existing underwater concrete pier surfaces, and preparing and cleaning existing pier reinforcing.

#### B (Vacant)

#### **C** Construction

Work shall be done underwater. Submit details to the department showing the methods of preparation and cleaning to be used. Remove loose or deteriorated concrete within the limits of grout placement as shown on the plans. Saw cuts will not be required. Use equipment designed for underwater use. For removal of deteriorated concrete, use chipping hammers that weigh no more than 20 pounds and are equipped with flat, chisel-type points with a cutting edge not less than  $\frac{3}{4}$  inch or greater that 3 inches wide. Water jetting to a maximum 3,200 psi will be allowed. Notify the engineer if concrete removals appear excessive. Remove and dispose of loose concrete pieces.

Preserve and utilize the existing reinforcing steel, clean, realign, and retie, as the engineer considers necessary. If section loss to existing reinforcing steel is determined to be greater than 50% of the bar cross sectional area, place and install new reinforcing steel as directed by the engineer. New reinforcing steel will be paid for under a separate contract bid item.

Provide the department five working days' notice of the anticipated completion of the preparation work at each pier in order to schedule an independent underwater inspection. If the inspection reveals additional preparation work is required, complete the work, and an additional underwater inspection may be scheduled.

#### **D** Measurement

The department will measure Preparation of Pier Surfaces by the square foot, acceptably completed.

## E Payment

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

ITEM NUMBER

DESCRIPTION

UNIT

SPV.0165.01

Preparation of Pier Surfaces

SF

Payment is full compensation for removing loose concrete; for collecting and properly disposing of removed concrete pieces; for preparing and cleaning concrete surfaces; and for furnishing all underwater equipment.

## 24. Welded Wire Fabric 6x6 D4/D4 (Grade 60), Item SPV.0165.02.

#### **A Description**

This special provision describes furnishing and placing welded wire fabric according to the pertinent requirements of standard spec standard spec 505 and as hereinafter provided.

#### **B** Materials

Furnish welded wire fabric 6x6 D4/D4 (Grade 60) conforming to standard spec 505.2.5.

#### **C** Construction

Conform to standard spec 505.3.

## **D** Measurement

The department will measure Welded Wire Fabric 6x6 D4/D4 (Grade 60) by the square foot, acceptably completed.

## **E** Payment

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

ITEM NUMBER DESCRIPTION UNIT SPV.0165.02 Welded Wire Fabric 6x6 D4/D4 (Grade 60) SF

Payment is full compensation for providing, transporting, and placing fabric including supports.

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## 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.

# Additional Special Provision 6 ASP 6 - Modifications to the standard specifications

Make the following revisions to the standard specifications:

#### 415.3.16 Tolerance in Pavement Thickness

Replace the entire text with the following effective with the November 2021 letting:

#### 415.3.16.1 General

(1) Construct the plan thickness or thicker. The department will accept pavement thickness based on the results of department-performed acceptance testing conforming to:

Magnetic Pulse Induction	CMM 870: ASTM E3209 WTM
Probing	CMM 870: WTP C-002
Preplacement Measurement	CMM 870: WTP C-003

## 415.3.16.2 Pavement Units

#### 415.3.16.2.1 Basic Units

(1) Basic unit is defined as a slip formed, single lane, with a minimum lane width of 10 feet, measured, from the pavement edge to the adjacent longitudinal joint; from one longitudinal joint to the next; or between pavement edges if there is no longitudinal joint.

#### 415.3.16.2.2 Special Units

(2) Establish special units for areas of fillets, intersections, gaps, gores, shoulders, ramps, pavement lanes less than 10 feet wide and other areas not included in basic units.

#### 415.3.16.3 Test Plate Locations

(1) Place department-furnished test plates. Within 5 business days after paving, enter the sequential number and associated position data into MRS available at:

#### http://www.atwoodsystems.com/

(2) Contractor will maintain plate location markings for 10 business days after paving.

#### 415.3.16.4 Acceptance Testing

#### 415.3.16.4.1 Basic Units

### 415.3.16.4.1.2 Magnetic Pulse Induction

- (1) The department will measure thickness within 10 business days of paving. Upon completion of the project thickness testing, the department will provide the test results to the contractor within 5 business days.
- (2) Department will establish a project reference plate at the start of each paving stage. Project reference plate will be measured before each day of testing. Department will notify the contractor of project reference plate locations before testing.
- (3) If the random plate test result falls within 80 to 50 percent pay range specified in 415.5.2, the department will measure the second plate in that unit. The department will notify the contractor immediately if the average of the 6 readings falls within the 80 to 50 percent pay range.
- (4) If an individual random plate test result is more than 1 inch thinner than contract plan thickness, the pavement is unacceptable. Department will determine limits of unacceptable pavement by performing the following:
  - The engineer will test each consecutive plate stationed ahead and behind until the thickness test result is plan thickness or greater.
  - The engineer will direct the contractor to core the hardened concrete to determine the extent of the unacceptable area. In each direction, the contractor shall take cores at points approximately 20 feet from the furthest out of specification plate towards the plate that is plan thickness of greater. Once a core is within 80 to 100 percent pay range, the coring is complete and the limits of unacceptable pavement extend from the stationing between the core test results of 80 to 100 percent payment, inclusive of all unacceptable core and plate test results.
  - The contractor shall perform coring according to AASHTO T24. The department will evaluate the results according to AASHTO T148
  - The contractor shall fill core holes with concrete or mortar.

## 415.3.16.4.2 Special Units

## 415.3.16.4.2.1 Magnetic Pulse Induction

- (1) The department will measure thickness within 10 business days of paving. Upon completion of the project thickness testing, the department will provide the test results to the contractor within 5 business days.
- (2) Department will establish a project reference plate at the start of each paving stage. Project reference plate will be measured before each day of testing. Department will notify the contractor of project reference plate locations before testing.
- (3) If the random plate test result falls within 80 to 50 percent pay range specified in 415.5.2, the department will measure the second plate in that unit. The department will notify the contractor immediately if the average of the 6 readings falls within the 80 to 50 percent pay range.
- (4) If an individual random plate test result is more than 1 inch thinner than contract plan thickness, the department will measure the second plate in that unit. If both plates are required to be measured, then all six thickness measurements will be averaged for that unit. If the average of the six measurements is more than 1 inch thinner than contract plan thickness, the payement is unacceptable.

## 415.3.16.4.2.2 Probing

- (1) The department will measure slip form special units during concrete placement. Upon completion of the project thickness testing, the department will provide the test results to the contractor within 5 business days.
- (2) Department will probe 2 random locations within the special unit. The average of the two readings will be the reported measurement for the special unit.

## 415.3.16.4.2.3 Preplacement Measurement

- (1) The department will measure non-slip form special units before concrete placement.
- (2) Thickness corrections will be made to a conforming thickness by reshaping the base aggregate before the pavement is placed.

## 415.5.2 Adjusting Pay for Thickness

Replace the entire text with the following effective with the November 2021 letting:

(1) The department will adjust pay for pavement thickness under the Nonconforming Thickness Concrete Pavement administrative item as follows:

FOR PAVEMENT	PERCENT OF THE
THINNER THAN PLAN THICKNESS BY:	CONTRACT UNIT PRICE
> 1/4 inch but <= 1/2 inch	80
> 1/2 inch but <= 3/4 inch	60
> 3/4 inch but <= 1 inch	50

- (2) When pavement of unacceptable final thickness is determined, as specified in 415.3.16.4, the department will direct the contractor to either:
  - 1. Remove and replace unacceptable concrete pavement to the nearest joint with new concrete pavement of conforming thickness. The department will pay once for the area at the full contract price.
  - 2. If the unacceptable pavement is less than 100 LF, the department may allow the concrete to remain in place without payment for the unacceptable area.

#### 460.2.6 Recovered Asphaltic Binders

Replace paragraph two with the following effective with the November 2021 letting:

- (2) The contractor may replace virgin binder with recovered binder up to the maximum percentage allowed under 460.2.5 without further testing. When the design percent asphalt binder replaced exceeds the allowable limits in 460.2.5, the contractor must:
  - Document adjustments made to the mix design in the mix design submittal.
  - Submit test results that indicate the mixture's asphaltic binder meets or exceeds the upper and lower temperature grade requirements the bid item designates.
    - If only one recycled asphaltic material source is used, furnish one of the following:
      - Test results from extracted and recovered binder from the resultant mixture.
      - Blending charts that indicate the resultant mixture's high and low temperature PG as an interpolation of the percent binder replaced between the virgin binder's and the recycled asphaltic material source binder's high and low temperature PG.
    - If two or more recycled asphaltic material sources are used, furnish test results from extracted and

recovered binder from the resultant mixture.

#### 501.2.6 Water

Retitle with the following effective with the November 2021 letting:

## 501.2.6 Mixing Water

#### 501.2.6.2 Requirements

Replace paragraph two with the following effective with the November 2021 letting:

(2) Water from other sources must comply with the following:

1,7	
Acidity, maximum of 0.1N NaOH to neutralize 200 mL of water; CMM 870: WTP C-001	2 mL
Alkalinity, maximum of 0.1N HCL to neutralize 200 mL of water; CMM 870: WTP C-001	15 mL
Maximum sulphate (S0 <sub>4</sub> ); CMM 870: WTP C-001	0.05 percent
Maximum chloride; CMM 870: WTP C-001	0.10 percent
Maximum total solids; CMM 870: WTP C-001	
Organic	0.04 percent
Inorganic	0.15 percent

#### 501.3.2.2.2 Supplementary Cementitious Material

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

- (1) Replace 15 to 30 percent by weight of the total cementitious material content with approved SCMs for class I concrete as specified in 715.
- (2) Replace a maximum of 30 percent by weight of the total cementitious material content with approved SCMs for class II and class III concrete as specified in 716.
- (3) Limit Class F fly ash sources not on the APL to maximum 15 percent.
- (4) Minimum SCM content may be waived by the engineer.

#### 501.3.2.4.2 Air Entrainment

Replace paragraph two with the following effective with the November 2021 letting:

(2) Test fresh concrete air content according to AASHTO T152 or AASHTO TP118 at the contract-required frequency and as the engineer directs. Test concrete placed by pumping or belting at the point of discharge from the pump line or belt.

#### 501.3.7.1 Slump

Replace paragraph one with the following effective with the November 2021 letting:

- (1) Use a 1-inch to 4-inch slump for concrete used in structures or placed in forms, except as follows:
  - Do not exceed a slump of 2 inches for grade E concrete.
  - Increase slump as specified in 502.3.5.3 for concrete placed underwater.
  - If BTS approves a concrete mixture using a superplasticizer, the contractor may increase slump for that mixture to a maximum of 9 inches without exceeding the maximum mix water allowed for that grade.

### 531.5 Payment

Replace paragraph two with the following effective with the November 2021 letting:

(2) Payment for Concrete Masonry Ancillary Structures Type NS is full compensation for providing concrete for non-standard sign structure foundations; and for anchor rod assemblies. The department will pay separately for excavating and backfilling drilled shafts under the Drilling Shafts bid items.

#### Replace paragraph five with the following effective with the November 2021 letting:

(5) Payment for the Foundation bid items is full compensation for providing concrete foundations; for anchor rod assemblies; for reinforcing steel; and for embedded conduit and electrical components. The department will pay separately for excavating and backfilling drilled shafts under the Drilling Shafts bid items.

#### 642.2.2.1 General

Replace paragraph one with the following effective with the November 2021 letting:

(1) Provide each field office with two rooms, separated by an interior door with a padlock. Ensure that each room has a separate exterior door and its own air conditioner. Locate the office where a quality internet connection can be achieved. Ensure quality cell phone reception is achievable inside the field office.

701.3.1 General

Replace table 701-1 with the following effective with the November 2021 letting:

**TABLE 701-1 TESTING AND CERTIFICATION STANDARDS** 

TEST STANDARD  TEST STANDARD  TEST STANDARD  Transportation Materials Sampling Technician (TMS) TMS Assistant Certified Technician (ACT-TMS) Aggregate Technician I (AGGTEC-I) AGGTEC-I Assistant Certified Technician (ACT-AGG) PCC Technician I (PCCTEC-I) PCCTEC-I Assistant Certified Technician (ACT-AGG) PCC Technician I (GRADINGTEC-I) Grading Technician (ACT-PCC) Grading Technician I (GRADINGTEC-I) Grading Technician (ACT-AGG) TMS, ACT-TMS, AGGTECT-1, ACT-AGG  TMS, ACT-TMS, AGGTECT-1, ACT-AGG  AGGTEC-I, ACT-AGG  AGGTEC-	TABLE 701-1 TESTING AND CERTIFICATION STANDARDS				
Random Sampling  CMM 830.9.2  Random Sampling  CMM 830.9.2  CMGTC-I Assistant Certified Technician (ACT-CST)  CMCTEC-I  ACT-PCC  CMCTEC-I  ACT-PCC  ACT-PCC  ACT-PCC  ACT-PCC  ACT-PCC  CMCTEC-I  ACT-PC	TEST	TEST	MINIMUM REQUIRED CERTIFICATION		
Random Sampling  CMM 830.9.2  CMASHTO T2! <sup>(1)(4)</sup> CASHTO T2! <sup>(1)(4)</sup> CASHTO T10.1  CONCRETE SUMP  CASHTO T19.18.6  CONCRETE CHIPPER ASHTO T23  CONCRETE CONCRETE SPECIMENS  AASHTO T23  CONCRETE CHIPPER ASHTO T24  CONCRETE CHIPPER ASHTO T24  CONCRETE CHIPPER ASHTO T24  CONCRETE CHIPPER ASHTO T24  CONCRETE CHIPPER ASHTO T25  CONCRETE CHIPPER ASHTO T25  CONCRETE STRENGTH TESTER (CST)  CONCRETE SUMPASHTO T25  CONCRETE STRENGTH TESTER (CST)  CONCRETE STRENGTH TESTER (CST)  CONCRETE STRENGTH TESTER (CST)  CST Assistant Certified Technician (ACT-CST)  CONCRETE STRENGTH TESTER (CST)  CST Assistant Certified Technician (ACT-CST)		STANDARD	` ,		
Random Sampling  CMM 830.9.2  CMASHTO T11 <sup>[4]</sup> CMASHTO T19 <sup>[4]</sup>					
Random Sampling  CMM 830.9.2  CMM 830.9.2  CMM 830.9.2  AGGTEC-I Assistant Certified Technician (ACT-AGG) PCC Technician I (PCCTEC-I) PCCTEC-I Assistant Certified Technician (ACT-PCC) Grading Technician I (GRADINGTEC-I) Grading Assistant Certified Technician (ACT-PCC) Grading Assistant Certified Technician (ACT-GRADING)  Sampling Aggregates  AASHTO T2 <sup>[1]</sup> (ASSISTANT Certified Technician (ACT-PCC) Grading Assistant Certified Technician (ACT-PCC) Grading Technician I (PCCTEC-I) Grading Technician I (PCCTEC-I) Grading Technician I (PCCTEC-I) Grading Technician I (PCCTEC-I) TMS.4CT-PMS AGGTECT-1, ACT-AGG  TMS, ACT-TMS, AGGTECT-1, ACT-AGG  TMS, ACT-AGG  AGGTEC-I Assistant Certified Technician (ACT-PCC) Frading Technician I (PCCTEC-I) ACT-AGG  TMS, ACT-TMS, AGGTECT-1, ACT-AGG  TMS, ACT-AGG  AGGTEC-I Assistant Certified Technician (ACT-CST)  AGGTEC-I Assistant Certified Technician (ACT-CST)  AGGTEC-I Assistant Certified Technician (ACT-AGG)  TMS, ACT-TMS, AGGTECT-1, ACT-AGG  TMS, ACT-TMS, AGGTECT-1, ACT-AGG  TMS, ACT-TMS, AGGTECT-1, ACT-AGG  TMS, ACT-TMS, AGGTECT-1, ACT-AGG  AGGTEC-I, ACT-AGG  AGGTEC-I ASSISTANT CERTIFIED AGGING  TMS, ACT-TMS, AGGTECT-1, ACT-AGG  AGGTEC-I ASSISTANT CERTIFIED AGGING  TMS, ACT-TMS, AGGTECT-1, ACT-AGG  AGGTEC-I, ACT-AGG  AGGTEC-I ASSISTANT CERTIFIED AGGING  TMS, ACT-TMS, AGGTECT-1, ACT-AGG  TMS, ACT-TMS, AGGTECT-			\ ` ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '		
Random Sampling  CMM 830.9.2  PCC Technician I (PCCTEC-I) PCCTEC-I Assistant Certified Technician (ACT-PCC) Grading Technician I (GRADINGTEC-I) Grading Assistant Certified Technician (ACT-GRADING)  Percent passing the No. 200 sieve Percent passing the No. 200 sieve AASHTO T11 <sup>[1]</sup> Aggregate moisture content AASHTO T25 <sup>[1]</sup> AASHTO T255 <sup>[1]</sup> AASHTO T255 <sup>[1]</sup> AASHTO T89 Plasticity index AASHTO T90 <sup>[3]</sup> AASHTO T90 <sup>[3]</sup> Air content of fresh concrete AASHTO T1118 <sup>[5]</sup> Air void system of fresh concrete AASHTO T1118 <sup>[5]</sup> Concrete slump AASHTO T1118 <sup>[5]</sup> Concrete temperature AASHTO T119 <sup>[2]</sup> AASHTO T119 <sup>[2]</sup> AASHTO T23 Moist curing for concrete specimens AASHTO T22 Concrete flexural strength AASHTO T358 Voids in aggregate  AASHTO T1358  PCC Technician I (PCCTEC-I) PCCTEC-I Assistant Certified Technician (ACT-PCC) Grading Technician I (GRADINGTEC-I) Grading Technician I (PCCTEC-I) PCCTEC-I, ACT-AGG  AGGTEC-I, ACT-AGG  AGABINGTEC-I, or ACT-GRADING  BRADINGTEC-I, or ACT-GRADING  AGABINGTEC-I, or ACT-GRADING  AGABINGTEC-I, or ACT-GRADING  CRADINGTEC-I, or ACT-GRADING  ACT-PCC  COTECE-1  ACT-PCC  Concrete slump  Concrete specimens AASHTO T119 <sup>[2]</sup> AASHTO T22 Concrete flexural strength AASHTO T22 Concrete flexural strength AASHTO T358  Voids in aggregate AASHTO T19 PCCTEC-II					
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Grading Technician I (GRADINGTEC-I) Grading Assistant Certified Technician (ACT- GRADING)  Sampling Aggregates  AASHTO T2 <sup>[17]4]</sup> Percent passing the No. 200 sieve  AASHTO T11 <sup>[17]</sup> Fine & coarse aggregate gradation  AASHTO T27 <sup>[17]</sup> Aggregate moisture content  Fractured faces  ASTM D5821 <sup>[17]</sup> Liquid limit  AASHTO T89 Plasticity index  AASHTO T90 <sup>[3]</sup> AASHTO T90 <sup>[3]</sup> AASHTO T918 <sup>[6]</sup> Air content of fresh concrete  AASHTO T152 <sup>[7]</sup> AASHTO T152 <sup>[7]</sup> AASHTO T118 <sup>[6]</sup> Air void system of fresh concrete  AASHTO T118 <sup>[6]</sup> Concrete slump  Concrete temperature  ASTM C1064 Making and curing concrete specimens  AASHTO T23 Moist curing for concrete specimens  AASHTO T22 Concrete flexural strength  AASHTO T358 Voids in aggregate  AASHTO T19  Grading Assistant Certified Technician (ACT-CST)  TMS, ACT-TMS, AGGTECT-1, ACT-AGG  TMS, ACT-AGG  AGGTEC-I, A	Random Sampling	CMM 830.9.2			
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Aggregate moisture content  Fractured faces  ASTM D5821 <sup>[7]</sup> Liquid limit  AASHTO T90 <sup>[3]</sup> Plasticity index  AASHTO T90 <sup>[3]</sup> Air content of fresh concrete  AIF Concrete slump  Concrete temperature  Making and curing concrete specimens  Concrete compressive strength  Concrete surface resistivity <sup>[2]</sup> Concrete surface resistivity <sup>[2]</sup> AASHTO T358  AGGTEC-I, ACT-AGG  AGSTEC-I, ACT-AGG  AGGTEC-I, ACT-AGG  AGT-AGT  AGGTEC-I, ACT-AGG  AGGTEC-I, ACT-AGG  AGGTEC-I, ACT-AGG  AGGTEC-I, ACT-AGG  AGGTEC-I	·				
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Moist curing for concrete specimens  Concrete compressive strength  Concrete flexural strength  Concrete surface resistivity <sup>[2]</sup> Voids in aggregate  AASHTO M201  AASHTO T22  Concrete Strength Tester (CST)  CST Assistant Certified Technician (ACT-CST)  PCCTEC-II	Concrete temperature	ASTM C1064			
Concrete compressive strength Concrete flexural strength Concrete surface resistivity <sup>[2]</sup> Voids in aggregate  AASHTO T22  Concrete Strength Tester (CST) CST Assistant Certified Technician (ACT-CST)  PCCTEC-II	Making and curing concrete specimens	AASHTO T23			
Concrete flexural strength Concrete surface resistivity <sup>[2]</sup> Voids in aggregate  AASHTO T97  Concrete Strength Tester (CST) CST Assistant Certified Technician (ACT-CST)  PCCTEC-II	Moist curing for concrete specimens	AASHTO M201			
Concrete surface resistivity <sup>[2]</sup> Voids in aggregate  AASHTO T97  CST Assistant Certified Technician (ACT-CST)  PCCTEC-II	Concrete compressive strength	AASHTO T22			
Voids in aggregate  AASHTO T358  AASHTO T19  PCCTEC-II	Concrete flexural strength	AASHTO T97			
	Concrete surface resistivity <sup>[2]</sup>	AASHTO T358	CST Assistant Certified Technician (ACT-CST)		
Profiling PROFILER	Voids in aggregate	AASHTO T19	PCCTEC-II		
	Profiling		PROFILER		

<sup>[1]</sup> As modified in CMM 860.

#### 710.2 Small Quantities

Replace the entire text with the following effective with the November 2021 letting:

- (1) The department defines small quantities as follows:
  - As specified in 715.1.1.2 for class I concrete.
  - Less than 50 cubic yards of class II ancillary concrete placed under a single bid item.
- (2) For contracts with only small quantities of material subject to testing, modify the requirements of 710 as follows:

<sup>[2]</sup> As modified in CMM 870.

<sup>[3]</sup> A plasticity check, if required under individual QMP specifications, may be performed by an AGGTEC-I in addition to the certifications listed for liquid limit and plasticity index tests.

<sup>[4]</sup> Plant personnel may operate equipment to obtain samples under the direct observation of a TMS or higher.

<sup>[5]</sup> Consolidate by rodding.

- 1. The contractor may submit an abbreviated quality control plan as allowed in 701.1.2.3.
- 2. Provide one of the following for aggregate process control:
  - Documented previous testing dated within 120 calendar days. Provide gradation test results to the engineer before placing material.
  - Non-random start-up gradation testing.

## 710.4 Concrete Mixes

## Replace paragraph two with the following effective with the November 2021 letting:

- (2) At least 7 business days before producing concrete, document that materials conform to 501 unless the engineer allows or individual QMP specifications provide otherwise. Include the following:
  - 1. For mixes: quantities per cubic yard expressed as SSD weights and net water, water to cementitious material ratio, air content, and SAM number.
  - 2. For cementitious materials and admixtures: type, brand, and source.
  - 3. For aggregates: absorption, SSD bulk specific gravity, wear, soundness, freeze thaw test results if required, and air correction factor. Also include aggregate production records dated within 2 years if using those results in the design. Submit component aggregate gradations, aggregate proportions, and target combined blended aggregate gradations using the following:
    - DT2220 for combined aggregate gradations.
    - DT2221 for optimized aggregate gradations.
  - 4. For optimized concrete mixtures:
    - Complete the worksheets within DT2221 according to the directions.
    - Ensure the optimized aggregate gradations and the optimized mix design conform to WisDOT specifications and pass the built-in tests within DT2221.
    - Verify slip-form mixture workability according to AASHTO TP137 and conformance to specifications through required trial batching.
    - Submit the completed DT2221 to the engineer electronically. Include the trial batch test results with the mix design submittal.

## Replace paragraph four with the following effective with the November 2021 letting:

- (4) Prepare and submit modifications to a concrete mix to the engineer for approval 3 business days before using that modified mix. Modifications requiring the engineer's approval include changes in:
  - 1. Source of any material. For paving and barrier mixes, a source change for fly ash of the same class does not constitute a mix design change.
  - 2. Quantities of cementitious materials.
  - 3. Addition or deletion of admixtures. Minor admixture dosage adjustments required to maintain air content or slump do not require engineer review or approval.

### 710.5.5 Strength

# Replace paragraph one with the following effective with the November 2021 letting:

(1) Cast all 6" x 12" cylinders or all 6" x 6" x 21" beams in a set from the same sample. Do not cast more than one set of specimens from a single truckload of concrete. Mark each specimen to identify the lot and sublot or location on the project it represents.

# 710.5.6 Aggregate Testing

Retitle and replace the entire text with the following effective with the November 2021 letting:

#### 710.5.6 Aggregate Testing During Concrete Production

# 710.5.6.1 General

- (1) The department will accept gradation based on the results of department-performed acceptance testing.
- (2) The department and contractor will obtain samples using the same method. When belt sampling, contractor personnel shall obtain samples for the department under the direct observation of the department personnel. Contractor will define sampling method in the QMP or abbreviated QMP.

#### 710.5.6.2 Contractor Control Charts

## 710.5.6.2.1 General

(1) Test aggregate gradations during concrete production except as allowed for small quantities under 710.2. Required contractor testing will be performed using non-random samples.

- (2) Sample aggregates from either the conveyor belt or from the working face of the stockpiles.
- (3) Sample aggregates within 2 business days before placement for each mix design. Include this gradation on the control charts.
- (4) Report gradation test results and provide control charts to the engineer within 1 business day of obtaining the sample. Submit results to the engineer and electronically into MRS as specified in 701.1.2.7.
- (5) Conduct aggregate testing at the minimum frequency shown based on the anticipated daily cumulative plant production for each mix design. The contractor's concrete production tests can be used for the same mix design on multiple contracts.

#### TABLE 710-1 CONTRACTOR GRADATION TESTING FREQUENCY - CLASS I

DAILY PLANT PRODUCTION RATE FOR WisDOT WORK	MINIMUM FREQUENCY	
Gradation Report Before Placement		
1000 cubic yards or less	one test per day	
more than 1000 cubic yards	two tests per day	

#### TABLE 710-2 CONTRACTOR GRADATION TESTING FREQUENCY - CLASS II

I	MINIMUM FREQUENCY
	Gradation Report Before Placement
I	One test per calendar week of production

#### 710.5.6.2.2 Optimized Aggregate Gradation Control Charts

- (1) Determine the complete gradation using a washed analysis for both fine and coarse aggregates. Report results for the following:
  - 1 1/2", 1", 3/4", 1/2", 3/8", #4, #8, #16, #30, #50, #100, and #200 sieves.
  - Sum of volumetric percentages retained on No. 8, No. 16, and No. 30 sieves.
  - Sum of volumetric percentages retained on No. 30, No. 50, No. 100, and No. 200 sieves.
- (2) Calculate blended aggregate gradations using the mix design batch percentages for the component aggregates. Ensure the blended aggregate gradation conforms to the volumetric percent retained of the optimized aggregate gradation limits specified in table 501-4.
- (3) Throughout the contract, construct a 4-point running average of the volumetric percent retained for each sieve to determine if the blended aggregate gradation is within the tarantula curve limits specified in table 501-4.

#### 710.5.6.2.3 Combined Aggregate Gradation Control Charts

- (1) Determine the complete gradation using a washed analysis for both fine and coarse aggregates. Report results for the 1 1/2", 1", 3/4", 1/2", 3/8", #4, #8, #16, #30, #50, #100, and #200 sieves.
- (2) Calculate blended aggregate gradations using the mix design batch percentages for the component aggregates. Ensure the blended aggregate gradation conforms to the percent passing by weight requirements of the combined aggregate gradation limits specified in table 501-4.
- (3) Throughout the contract, construct a 4-point running average of the percent passing by weight for each sieve to determine if the blended aggregate gradation is within the combined aggregate gradation limits specified in table 501-4.

# 710.5.6.3 Department Acceptance Testing

- (1) Department testing frequency is based on the quantity of each mix design placed under each individual WisDOT contract.
- (2) The department will split each sample, test for acceptance, and retain the remainder for a minimum of 10 calendar days.
- (3) The department will obtain the sample and deliver to regional testing lab in the same day. Department will report gradation test results to the contractor within 1 business day of being delivered to the lab. Department and contractor can agree to an alternative test result reporting timeframe; alternative timeframe is required to be documented in the QMP.
- (4) Additional samples may be taken at the engineer's discretion due to change in condition.

CONCRETE CLASSIFICATION	MINIMUM DEPARTMENT FREQUENCY	
Class I: Pavement	1 test per placement day for first 5 days of placement. If all samples are passing, reduced frequency is applied.	
Class I. Faverneill	Reduced frequency: 1 test per calendar week of placement	
Class I: Structures	test per 250 CY placed     Minimum of 1 test per substructure     Minimum of 1 test per superstructure	
Class I: Cast-in-Place Barrier	1 test per 500 CY placed	
Class II	No minimum testing	

#### 710.5.7 Corrective Action

Replace the entire text with the following effective with the November 2021 letting:

# 710.5.7.1 Optimized Aggregate Gradations

- (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, do the following:
  - 1. Notify the other party immediately.
  - 2. Perform corrective action documented in the QC plan or as the engineer approves.
  - 3. Document and provide corrective action results to the engineer as soon as they are available.
  - 4. Department will conduct two tests within the next business day after corrective action is complete.
  - 5. If blended aggregate gradations are within the tarantula curve limits by the second department test:
    - Continue with concrete production.
    - Contractor will include a break in the 4-point running average.
    - For Class I: Pavements, department will discontinue reduced frequency testing and will test at a frequency of 1 test per placement day. Once 5 consecutive samples are passing at the 1 test per placement day frequency, the reduced frequency testing will be reapplied.
  - 6. If blended aggregate gradations are not within the tarantula curve limits by the second department test:
    - Provide a new mix design with an increased cementitious content.
    - If the mix design already has a cementitious content of 565 or more pounds per cubic yard, provide a new mix design.
    - If the contract requires optimized aggregate gradations under 501.2.7.4.2.1(2), stop concrete production and submit a new mix design.
- (2) If the contractor's 4-point running average or a department test result of the volumetric percent retained exceeds the tarantula curve limits by more than 1.0 percent on one or more sieves, stop concrete production and submit a new mix design.
- (3) Department and contractor will sample and test aggregate of the new mix design at the frequency defined in 710.5.6.1.

# 710.5.7.2 Combined Aggregate Gradations

- (1) If the contractor's 4-point running average or a department test result of the percent passing by weight exceeds the combined aggregate gradation limits by less than or equal to 1.0 percent on a single sieve size, do the following:
  - 1. Notify the other party immediately.
  - 2. Perform corrective action documented in the QC plan or as the engineer approves.
  - 3. Document and provide corrective action results to the engineer as soon as they are available.
  - 4. Department will conduct two tests within the next business day after corrective action is complete.
  - 5. If blended aggregate gradations are within the combined aggregate gradation limits by the second department test:
    - Continue with concrete production.
    - Contractor will include a break in the 4-point running average.

- For Class I: Pavements, department will discontinue reduced frequency testing and will test at a frequency of 1 test per placement day. Once 5 consecutive samples are passing at the 1 test per placement day frequency, the reduced frequency testing will be reapplied.
- 6. If blended aggregate gradations are not within the combined aggregate gradation limits by the second department test, stop concrete production and submit a new mix design.
- (2) If the contractor's 4-point running average or a department test result of the percent passing by weight exceeds the combined aggregate gradation limits by more than 1.0 percent on one or more sieves, stop concrete production and submit a new mix design.
- (3) Department and contractor will sample and test aggregate of the new mix design at the frequency defined in 710.5.6.1.

#### 715.3.1.1 General

Replace paragraphs three and four with the following effective with the November 2021 letting:

- (3) Cast a set of 3 additional 6"x12" cylinders and test the concrete surface resistivity according to AASHTO T358. Perform this testing at least once per lot if total contract quantities are greater than or equal to the following:
  - 20,000 square yards for pavements.
  - 5,000 linear feet for barriers.
  - 500 cubic yards for structure concrete.

Submit the resistivity to the nearest tenth into MRS for information only. Resistivity testing is not required for the following:

- Lot with less than 3 sublots.
- Concrete items classified as ancillary.
- Concrete placed under the following bid items:
  - Concrete Pavement Approach Slab
  - Concrete Masonry Culverts
  - Concrete Masonry Retaining Walls
- (4) Test the air void system at least once per lot and enter the SAM number in MRS for information only. SAM testing is not required for the following:
  - For lots with less than 3 sublots.
  - High early strength (HES) concrete.
  - Special high early strength (SHES) concrete.
  - Concrete placed under the following bid items:
    - Concrete Pavement Approach Slab
    - Concrete Masonry Culverts
    - Concrete Masonry Retaining Walls
    - Steel Grid Floor Concrete Filled
    - Crash Cushions Permanent
    - Crash Cushions Permanent Low Maintenance
    - Crash Cushions Temporary

## 715.3.1.2.3 Lots by Cubic Yard

Replace the entire text with the following effective with the November 2021 letting:

(1) Define standard lots and sublots conforming to the following:

### TABLE 715-1 CLASS I - LOT AND SUBLOT SIZES

CONCRETE CLASSIFICATION	LOT SIZE	SUBLOT SIZE	NUMBER OF SUBLOTS PER LOT
Class I: Pavement	1250 cubic yards	250 cubic yards	5
Class I: Structures	250 cubic yards	50 cubic yards	5
Class I: Cast-in-Place Barrier	500 cubic yards	100 cubic yards	5

- (2) The contractor may include sublots less than or equal to 25 percent of the standard volume in the previous sublot. For partial sublots exceeding 25 percent of the standard volume, notify the engineer who will direct additional testing to represent that partial sublot.
- (3) An undersized lot is eligible for incentive payment under 715.5 if the lot has 3 or more sublots for that lot.

## 715.3.2 Strength Evaluation

Replace the entire text with the following effective with the November 2021 letting:

#### 715.3.2.1 General

- (1) The department will make pay adjustments for strength on a lot-by-lot basis using the compressive strength of contractor QC cylinders or the flexural strength of contractor QC beams.
- (2) Randomly select 2 QC specimens to test at 28 days for percent within limits (PWL). Compare the strengths of the 2 randomly selected QC specimens and determine the 28-day sublot average strength as follows:
  - If the lower strength divided by the higher strength is 0.9 or more, average the 2 QC specimens.
  - If the lower strength divided by the higher strength is less than 0.9, break one additional specimen and average the 2 higher strength specimens.

## 715.3.2.2 Removal and Replacement

#### 715.3.2.2.1 Pavement

- (1) If a sublot strength is less than 2500 psi in compressive strength or 500 psi in flexural strength, the department may direct the contractor to core that sublot to determine its structural adequacy and whether to direct removal.
- (2) If the engineer directs coring, obtain three cores from the sublot in question. Have an HTCP-certified PCC technician I perform or observe core sampling according to AASHTO T24.
- (3) Have an independent consultant test cores according to AASHTO T24.
- (4) The department will assess concrete for removal and replacement based on a sublot-by-sublot analysis of core strength. Perform coring and testing, fill core holes with an engineer-approved non-shrink grout or concrete, and provide traffic control during coring.
- (5) The sublot pavement is conforming if the compressive strengths of all cores from the sublot are 2500 psi or greater.
- (6) The sublot pavement is nonconforming if the compressive strengths of any core from the sublot is less than 2500 psi. The department may direct removal and replacement or otherwise determine the final disposition of nonconforming material as specified in 106.5.

#### 715.3.2.2.2 Structures and Cast-in-Place Barrier

- (1) The department will evaluate the sublot for possible removal and replacement if the 28-day sublot average compressive strength is lower than f'c minus 500 psi. The value of f'c is the design stress the plans show. The department may assess further strength price reductions or require removal and replacement only after coring the sublot.
- (2) The engineer may initially evaluate the sublot strength using a non-destructive method. Based on the results of non-destructive testing, the department may accept the sublot at the previously determined pay for the lot, or direct the contractor to core the sublot.
- (3) If the engineer directs coring, obtain three cores from the sublot in question. Have an HTCP-certified PCC technician I perform or observe core sampling according to AASHTO T24. Determine core locations, subject to the engineer's approval, that do not interfere with structural steel.
- (4) Have an independent consultant test cores according to AASHTO T24.
- (5) The department will assess concrete for removal and replacement based on a sublot-by-sublot analysis of core strength. Perform coring and testing, fill core holes with an engineer-approved non-shrink grout or concrete, and provide traffic control during coring.
- (6) If the 3-core average is greater than or equal to 85 percent of f'c, and no individual core is less than 75 percent of f'c, the engineer will accept the sublot at the previously determined pay for the lot. If the 3-core average is less than 85 percent of f'c, or an individual core is less than 75 percent of f'c, the engineer may require the contractor to remove and replace the sublot. The department may direct removal and replacement or otherwise determine the final disposition of nonconforming material as specified in 106.5.

### 715.3.3 Aggregate

Replace the entire text with the following effective with the November 2021 letting:

#### 715.3.3.1 General

(1) Except as allowed for small quantities in 710.2, test aggregate conforming to 710.5.6.

# **715.3.3.2 Structures**

- (1) In addition to the aggregate testing required under 710.5.6, determine the fine and coarse aggregate moisture content for each sample.
- (2) Calculate target batch weights for each mix when production of that mix begins. Whenever the moisture content of the fine or coarse aggregate changes by more than 0.5 percent, adjust the batch weights to maintain the design w/cm ratio.

#### 716.2.1 Class II Concrete

Replace paragraph two with the following effective with the May 2022 letting:

- (2) Perform random QC testing at the following frequencies:
  - 1. Test air content, temperature, and slump a minimum of once per 100 cubic yards for each mix design and placement method.
  - 2. Cast one set of 2 cylinders per 200 cubic yards for each mix design and placement method. Cast a minimum of one set of 2 cylinders per contract for each mix design and placement method. Random 28-day compressive strength cylinders are not required for HES or SHES concrete.
  - 3. For deck overlays, perform tests and cast cylinders once per 50 cubic yards of grade E concrete placed.
  - 4. For concrete base, one set of tests and one set of cylinders per 250 cubic yards.

The department will allow concrete startup test results for quantities under 50 cubic yards. Cast one set of 2 cylinders if using startup testing for acceptance.

## **ERRATA**

# 460.2.2.3 Aggregate Gradation Master Range

Correct errata by adding US Standard equivalent sieve sizes.

(1) Ensure that the aggregate blend, including recycled material and mineral filler, conforms to the gradation requirements in table 460-1. The values listed are design limits; production values may exceed those limits.

TABLE 460-1 AGGREGATE GRADATION MASTER RANGE AND VMA REQUIREMENTS

	PERCENT PASSING DESIGNATED SIEVES							
	NOMINAL SIZE							
SIEVE	No. 1 (37.5 mm) (1 1/2 inch)	No. 2 (25.0 mm) (1 inch)	No.3 (19.0 mm) (3/4 inch)	No. 4 (12.5 mm) (1/2 inch)	No. 5 (9.5 mm) (3/8 inch)	No. 6 (4.75 mm) (3/16 inch)	SMA No. 4 (12.5 mm) (1/2 inch)	SMA No. 5 (9.5 mm) (3/8 inch)
50.0-mm (2-inch)	100							
37.5-mm (1 1/2-inch)	90 - 100	100						
25.0-mm (1-inch)	90 max	90 - 100	100					
19.0-mm (3/4-inch)		90 max	90 - 100	100			100	
12.5-mm (1/2-inch)			90 max	90 - 100	100		90 - 97	100
9.5-mm (3/8-inch)		_		90 max	90 - 100	100	58 - 80	90 - 100
4.75-mm (No. 4)					90 max	90 - 100	25 - 35	35 - 45
2.36-mm (No. 8)	15 - 41	19 - 45	23 - 49	28 - 58	32 - 67	90 max	15 - 25	18 - 28
1.18-mm (No. 16)			_			30 - 55		
0.60-mm (No. 30)							18 max	18 max
0.075-mm (No. 200)	0 - 6.0	1.0 - 7.0	2.0 - 8.0	2.0 - 10.0	2.0 - 10.0	6.0 - 13.0	8.0 - 11.0	8.0 - 12.0
% VMA	11.0 min	12.0 min	13.0 min	14.0 min <sup>[1]</sup>	15.0 min <sup>[2]</sup>	16.0 - 17.5	16.0 min	17.0 min

<sup>[1] 14.5</sup> for LT and MT mixes.

#### 715.5.1 General

Correct the bid item number for Incentive Compressive Strength Concrete Pavement.

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

ITEM NUMBER	<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

<sup>[2] 15.5</sup> for LT and MT mixes.

# **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 <a href="mailto:paul.ndon@dot.wi.gov">paul.ndon@dot.wi.gov</a> 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 <a href="mailto:paul.ndon@dot.wi.gov">paul.ndon@dot.wi.gov</a>. 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).

# **Effective November 2020 letting**

#### **BUY AMERICA PROVISION**

All steel and iron materials permanently incorporated in this project shall be domestic products and all manufacturing and coating processes for these materials 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 this 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. The contractor shall take actions and provide documentation conforming to CMM 2-28.5 to ensure compliance with this "Buy America" provision.

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

Upon completion of the project certify to the engineer, in writing using department form DT4567, that all steel, iron, and coating processes for steel or iron incorporated into the contract work conform to these "Buy America" provisions. Attach a list of exemptions and their associated costs to the certification form. Department form DT4567 is available at:

https://wisconsindot.gov/Documents/formdocs/dt4567.docx

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# Proposal Schedule of Items

Page 1 of 3

Federal ID(s): N/A, 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	213.0100 Finishing Roadway (project) 01. 1014- 00-69	1.000 EACH	·	
0004	213.0100 Finishing Roadway (project) 02. 6130- 02-60	1.000 EACH		
0006	502.4204 Adhesive Anchors No. 4 Bar	60.000 EACH	<u>-</u>	
0008	502.4205 Adhesive Anchors No. 5 Bar	8.000 EACH	·	
0010	502.9000.S Underwater Substructure Inspection (Structure) 01. B-11-0001	1.000 EACH	·	
0012	502.9000.S Underwater Substructure Inspection (Structure) 02. B-11-137/138	1.000 EACH		
0014	505.0400 Bar Steel Reinforcement HS Structures	140.000 LB		
0016	606.0400 Riprap Extra-Heavy	180.000 CY		
0018	618.0100 Maintenance And Repair of Haul Roads (project) 01. 1014-00-69	1.000 EACH	·	
0020	618.0100 Maintenance And Repair of Haul Roads (project) 02. 6130-02-60	1.000 EACH		
0022	619.1000 Mobilization	1.000 EACH		
0024	643.0300 Traffic Control Drums	2,085.000 DAY	·	
0026	643.0420 Traffic Control Barricades Type III	305.000 DAY		
0028	643.0705 Traffic Control Warning Lights Type A	610.000 DAY		
0030	643.0715 Traffic Control Warning Lights Type C	675.000 DAY		



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# Proposal Schedule of Items

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Federal ID(s): N/A, 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	643.0800 Traffic Control Arrow Boards	105.000 DAY		
0034	643.0900 Traffic Control Signs	3,075.000 DAY		
0036	643.0920 Traffic Control Covering Signs Type II	12.000 EACH		
0038	643.1050 Traffic Control Signs PCMS	21.000 DAY		
0040	643.5000 Traffic Control	1.000 EACH		
0042	645.0120 Geotextile Type HR	53.000 SY		
0044	SPV.0035 Special 01. Scour Repair, Grout	2.000 CY		
0046	SPV.0035 Special 02. Scour Repair, Grout Bags	68.000 CY		
0048	SPV.0035 Special 03. Scour Repair, Grout Mats 4-Inch	28.000 CY		·
0050	SPV.0035 Special 04. Structural Grout	3.500 CY		
0052	SPV.0035 Special 05. Scour Repair Geotextile Bags	80.000 CY	·	·
0054	SPV.0060 Special 01. River Bottom Scanning Survey Structure B-11-1/104	3.000 EACH	·	
0056	SPV.0060 Special 02. Underwater Excavation For Structures B-11-1/104	2.000 EACH		·
0058	SPV.0060 Special 03. Underwater Excavation For Structures B-11-137/138	4.000 EACH		
0060	SPV.0060 Special 04. Temporary Access Project 1014-00-69	1.000 EACH		



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# Proposal Schedule of Items

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Federal ID(s): N/A, N/A

SECTION: 0001 Contract Items

Alt Set ID: Alt Mbr ID:

Proposal Line Number	Item ID  Description	Approximate Quantity and Units	Unit Price	Bid Amount
0062	SPV.0165 Special 01. Preparation Of Pier Surfaces	290.000 SF		
0064	SPV.0165 Special 02. Welded Wire Fabric 6x6 D4/D4 (Grade 60)	240.000 SF		·
	Section: 00	01	Total:	
			Total Bid:	

# PLEASE ATTACH ADDENDA HERE